eRAD RIS

# COMBINED CUSTOMER RELEASE NOTES

for all legacy versions of RIS
from Build 0.03
through Version 3.2017.6.14

UPDATED MARCH 9, 2022

# SUMMARY

This document re-publishes the previously released Customer Release Notes for all legacy eRAD RIS versions from Build 0.03 through Version 3.2017.6.14 as a single document.

The following documents have been merged:

1. eRAD RIS Customer Release Notes 0.03.pdf
2. eRAD RIS Customer Release Notes 0.04.pdf
3. eRAD RIS Customer Release Notes 0.05.pdf
4. eRAD RIS Customer Release Notes 0.06.pdf
5. eRAD RIS Customer Release Notes 0.07.pdf
6. eRAD RIS Customer Release Notes 0.08.pdf
7. eRAD RIS Customer Release Notes 0.09.pdf
8. eRAD RIS Customer Release Notes 0.10.pdf
9. eRAD RIS Customer Release Notes 0.11.pdf
10. eRAD RIS Customer Release Notes 0.12.pdf
11. eRAD RIS Customer Release Notes 0.13 & 0.14.pdf
12. eRAD RIS Customer Release Notes 0.15.pdf
13. eRAD RIS Customer Release Notes 0.16.pdf
14. eRAD RIS Customer Release Notes 0.17.pdf
15. eRAD RIS Customer Release Notes 0.18.pdf
16. eRAD RIS Customer Release Notes 0.19.pdf
17. eRAD RIS Customer Release Notes 0.20.pdf
18. eRAD RIS Customer Release Notes 0.21.pdf
19. eRAD RIS Customer Release Notes 0.22.pdf
20. eRAD RIS Customer Release Notes 0.23.pdf
21. eRAD RIS Customer Release Notes 1.00.pdf
22. eRAD RIS Customer Release Notes 1.26.pdf
23. eRAD RIS Customer Release Notes 1.27.pdf
24. eRAD RIS Customer Release Notes 1.28.pdf
25. eRAD RIS Customer Release Notes 1.29.pdf
26. eRAD RIS Customer Release Notes 1.30.pdf
27. eRAD RIS Customer Release Notes 1.31.pdf
28. eRAD RIS Customer Release Notes 1.32.pdf
29. eRAD RIS Customer Release Notes 1.33.pdf
30. eRAD RIS Customer Release Notes 1.34.pdf
31. eRAD RIS Customer Release Notes 1.35.0.pdf
32. eRAD RIS Customer Release Notes 1.35.1.pdf
33. eRAD RIS Customer Release Notes 1.35.2.pdf
34. eRAD RIS Customer Release Notes 1.35.3.pdf
35. eRAD RIS Customer Release Notes 1.35.4.pdf
36. eRAD RIS Customer Release Notes 1.35.5.pdf
37. eRAD RIS Customer Release Notes 1.35.6.pdf
38. eRAD RIS Customer Release Notes 1.35.7.pdf
39. eRAD RIS Customer Release Notes 1.35.9.pdf
40. eRAD RIS Customer Release Notes 1.36.0.pdf
41. eRAD RIS Customer Release Notes 1.36.1.pdf
42. eRAD RIS Customer Release Notes 1.36.2.pdf
43. eRAD RIS Customer Release Notes 1.36.3.pdf
44. eRAD RIS Customer Release Notes 1.36.5.pdf
45. eRAD RIS Customer Release Notes 1.37.0.pdf
46. eRAD RIS Customer Release Notes 1.37.01.pdf
47. eRAD RIS Customer Release Notes 1.37.02.pdf
48. eRAD RIS Customer Release Notes 1.37.03.pdf
49. eRAD RIS Customer Release Notes 1.37.04.pdf
50. eRAD RIS Customer Release Notes 1.37.05.pdf
51. eRAD RIS Customer Release Notes 1.37.06.pdf
52. eRAD RIS Customer Release Notes 1.37.07.pdf
53. eRAD RIS Customer Release Notes 1.37.08.pdf

No part of this material may be published, reproduced, stored in a retrieval system,
or transmitted in any form or by any means without the prior written permission of eRAD.

54. eRAD RIS Customer Release Notes 1.37.09.pdf
55. eRAD RIS Customer Release Notes 1.37.10.pdf
56. eRAD RIS Customer Release Notes 1.37.11.pdf
57. eRAD RIS Customer Release Notes 1.37.12.pdf
58. eRAD RIS Customer Release Notes 1.37.13.pdf
59. eRAD RIS Customer Release Notes 1.38.0.pdf
60. eRAD RIS Customer Release Notes 1.38.1.pdf
61. eRAD RIS Customer Release Notes 1.38.2.pdf
62. eRAD RIS Customer Release Notes 1.38.3.pdf
63. eRAD RIS Customer Release Notes 1.38.4.pdf
64. eRAD RIS Customer Release Notes 1.38.5.pdf
65. eRAD RIS Customer Release Notes 1.38.6.pdf
66. eRAD RIS Customer Release Notes 1.38.7.pdf
67. eRAD RIS Customer Release Notes 1.39.0.pdf
68. eRAD RIS Customer Release Notes 1.39.1.pdf
69. eRAD RIS Customer Release Notes 1.40.0.pdf
70. eRAD RIS Customer Release Notes 1.40.01.pdf
71. eRAD RIS Customer Release Notes 1.40.02.pdf
72. eRAD RIS Customer Release Notes 1.40.03.pdf
73. eRAD RIS Customer Release Notes 1.40.04.pdf
74. eRAD RIS Customer Release Notes 1.40.05.pdf
75. eRAD RIS Customer Release Notes 1.40.06.pdf
76. eRAD RIS Customer Release Notes 1.40.07.pdf
77. eRAD RIS Customer Release Notes 1.40.08.pdf
78. eRAD RIS Customer Release Notes 1.40.09.pdf
79. eRAD RIS Customer Release Notes 1.40.10.pdf
80. eRAD RIS Customer Release Notes 1.40.11.pdf
81. eRAD RIS Customer Release Notes 1.40.12.pdf
82. eRAD RIS Customer Release Notes 1.40.13.pdf
83. eRAD RIS Customer Release Notes 1.40.14.0.pdf
84. eRAD RIS Customer Release Notes 1.40.14.1.pdf
85. eRAD RIS Customer Release Notes 1.40.15.pdf
86. eRAD RIS Customer Release Notes 1.40.16.0.pdf
87. eRAD RIS Customer Release Notes 1.40.16.1.pdf
88. eRAD RIS Customer Release Notes 1.40.17.pdf
89. eRAD RIS Customer Release Notes 1.40.18.pdf
90. eRAD RIS Customer Release Notes 1.40.19.pdf
91. eRAD RIS Customer Release Notes 1.40.20.pdf
92. eRAD RIS Customer Release Notes 1.40.21.pdf
93. eRAD RIS Customer Release Notes 1.40.22.0.pdf
94. eRAD RIS Customer Release Notes 1.40.22.1.pdf
95. eRAD RIS Customer Release Notes 1.40.24.pdf
96. eRAD RIS Customer Release Notes 1.41.0.pdf
97. eRAD RIS Customer Release Notes 1.41.1.0.pdf
98. eRAD RIS Customer Release Notes 1.41.1.1.pdf
99. eRAD RIS Customer Release Notes 1.41.1.2.pdf
100. eRAD RIS Customer Release Notes 1.41.1.3.pdf
101. eRAD RIS Customer Release Notes 1.41.1.4.pdf
102. eRAD RIS Customer Release Notes 1.41.1_5_.pdf
103. eRAD RIS Customer Release Notes 1.41.2.0.pdf
104. eRAD RIS Customer Release Notes 1.41.2.1.pdf
105. eRAD RIS Customer Release Notes 1.41.2.ScanFix.pdf
106. eRAD RIS Customer Release Notes 1.41.3.pdf
107. eRAD RIS Customer Release Notes 1.41.4.pdf
108. eRAD RIS Customer Release Notes 1.41.5.pdf
109. eRAD RIS Customer Release Notes 1.41.6.pdf
110. eRAD RIS Customer Release Notes 1.41.7.pdf
111. eRAD RIS Customer Release Notes 2.42.0.0.pdf
112. eRAD RIS Customer Release Notes 2.42.0.1.pdf
113. eRAD RIS Customer Release Notes 2.42.0.10.0.pdf
114. eRAD RIS Customer Release Notes 2.42.0.10.1.pdf
115. eRAD RIS Customer Release Notes 2.42.0.11.pdf

No part of this material may be published, reproduced, stored in a retrieval system,
or transmitted in any form or by any means without the prior written permission of eRAD.

116. eRAD RIS Customer Release Notes 2.42.0.12.pdf
117. eRAD RIS Customer Release Notes 2.42.0.2.pdf
118. eRAD RIS Customer Release Notes 2.42.0.3.pdf
119. eRAD RIS Customer Release Notes 2.42.0.4.pdf
120. eRAD RIS Customer Release Notes 2.42.0.5.pdf
121. eRAD RIS Customer Release Notes 2.42.0.6.pdf
122. eRAD RIS Customer Release Notes 2.42.0.7.pdf
123. eRAD RIS Customer Release Notes 2.42.0.8.pdf
124. eRAD RIS Customer Release Notes 2.42.0.9.0.pdf
125. eRAD RIS Customer Release Notes 2.42.0.9.1.pdf
126. eRAD RIS Customer Release Notes 2.42.1.0.pdf
127. eRAD RIS Customer Release Notes 2.42.1.1.pdf
128. eRAD RIS Customer Release Notes 2.42.1.2.pdf
129. eRAD RIS Customer Release Notes 2.42.1.3.pdf
130. eRAD RIS Customer Release Notes 2.42.1.4.pdf
131. eRAD RIS Customer Release Notes 2.42.1.5.pdf
132. eRAD RIS Customer Release Notes 2.42.pdf
133. eRAD RIS Customer Release Notes 2.43.0.0.pdf
134. eRAD RIS Customer Release Notes 2.43.0.1.pdf
135. eRAD RIS Customer Release Notes 2.43.0.10.pdf
136. eRAD RIS Customer Release Notes 2.43.0.11.pdf
137. eRAD RIS Customer Release Notes 2.43.0.12.pdf
138. eRAD RIS Customer Release Notes 2.43.0.13.pdf
139. eRAD RIS Customer Release Notes 2.43.0.14.pdf
140. eRAD RIS Customer Release Notes 2.43.0.2.pdf
141. eRAD RIS Customer Release Notes 2.43.0.3.0.pdf
142. eRAD RIS Customer Release Notes 2.43.0.3.1.pdf
143. eRAD RIS Customer Release Notes 2.43.0.3.2.pdf
144. eRAD RIS Customer Release Notes 2.43.0.4.pdf
145. eRAD RIS Customer Release Notes 2.43.0.5.pdf
146. eRAD RIS Customer Release Notes 2.43.0.6.0.pdf
147. eRAD RIS Customer Release Notes 2.43.0.6.1.pdf
148. eRAD RIS Customer Release Notes 2.43.0.6.2.pdf
149. eRAD RIS Customer Release Notes 2.43.0.7.pdf
150. eRAD RIS Customer Release Notes 2.43.0.8.pdf
151. eRAD RIS Customer Release Notes 2.43.0.9.pdf
152. eRAD RIS Customer Release Notes 2.43.1.pdf
153. eRAD RIS Customer Release Notes 2.43.2.pdf
154. eRAD RIS Customer Release Notes 2.43.pdf
155. eRAD RIS Customer Release Notes 2.44.0.0.pdf
156. eRAD RIS Customer Release Notes 2.44.1.0.pdf
157. eRAD RIS Customer Release Notes 2.44.1.1.pdf
158. eRAD RIS Customer Release Notes 2.44.1.pdf
159. eRAD RIS Customer Release Notes 2.44.2.0.pdf
160. eRAD RIS Customer Release Notes 2.44.2.1.pdf
161. eRAD RIS Customer Release Notes 2.44.2.2.pdf
162. eRAD RIS Customer Release Notes 2.44.2.pdf
163. eRAD RIS Customer Release Notes 2.44.3.0.pdf
164. eRAD RIS Customer Release Notes 2.44.3.1.pdf
165. eRAD RIS Customer Release Notes 2.44.3.pdf
166. eRAD RIS Customer Release Notes 2.44.4.0.pdf
167. eRAD RIS Customer Release Notes 2.44.4.1.pdf
168. eRAD RIS Customer Release Notes 2.44.4.2.pdf
169. eRAD RIS Customer Release Notes 2.44.4.3.pdf
170. eRAD RIS Customer Release Notes 2.44.4.999(SA).pdf
171. eRAD RIS Customer Release Notes 2.44.4.pdf
172. eRAD RIS Customer Release Notes 2.44.5.0.pdf
173. eRAD RIS Customer Release Notes 2.44.5.1.pdf
174. eRAD RIS Customer Release Notes 2.44.5.2.pdf
175. eRAD RIS Customer Release Notes 2.44.6.pdf
176. eRAD RIS Customer Release Notes 2.44.7.0.pdf
177. eRAD RIS Customer Release Notes 2.44.7.1.pdf

No part of this material may be published, reproduced, stored in a retrieval system,
or transmitted in any form or by any means without the prior written permission of eRAD.

178. eRAD RIS Customer Release Notes 2.44.7.2.pdf
179. eRAD RIS Customer Release Notes 2.44.7.3.pdf
180. eRAD RIS Customer Release Notes 2.44.7.4.pdf
181. eRAD RIS Customer Release Notes 2.45.0.pdf
182. eRAD RIS Customer Release Notes 2.45.1.0.pdf
183. eRAD RIS Customer Release Notes 2.45.1.1.pdf
184. eRAD RIS Customer Release Notes 2.45.1.3.pdf
185. eRAD RIS Customer Release Notes 2.45.1.8.pdf
186. eRAD RIS Customer Release Notes 2.45.1.9.pdf
187. eRAD RIS Customer Release Notes 3.2017.6.0.pdf
188. eRAD RIS Customer Release Notes 3.2017.6.1.pdf
189. eRAD RIS Customer Release Notes 3.2017.6.10.pdf
190. eRAD RIS Customer Release Notes 3.2017.6.11.1.pdf
191. eRAD RIS Customer Release Notes 3.2017.6.11.pdf
192. eRAD RIS Customer Release Notes 3.2017.6.12.pdf
193. eRAD RIS Customer Release Notes 3.2017.6.13.pdf
194. eRAD RIS Customer Release Notes 3.2017.6.14.pdf
195. eRAD RIS Customer Release Notes 3.2017.6.2.pdf
196. eRAD RIS Customer Release Notes 3.2017.6.3.pdf
197. eRAD RIS Customer Release Notes 3.2017.6.4.pdf
198. eRAD RIS Customer Release Notes 3.2017.6.5.pdf
199. eRAD RIS Customer Release Notes 3.2017.6.6.pdf
200. eRAD RIS Customer Release Notes 3.2017.6.7.pdf
201. eRAD RIS Customer Release Notes 3.2017.6.8.pdf
202. eRAD RIS Customer Release Notes 3.2017.6.9.pdf
203. eRAD RIS Customer Release Notes 2.2016.1.0.1.pdf
204. eRAD RIS Customer Release Notes 2.2016.1.0.2.pdf
205. eRAD RIS Customer Release Notes 2.2016.1.0.3.pdf
206. eRAD RIS Customer Release Notes 2.2016.1.0.4.pdf
207. eRAD RIS Customer Release Notes 2.2016.1.1.pdf
208. eRAD RIS Customer Release Notes 2.2016.1.pdf
209. eRAD RIS Customer Release Notes 2.2016.2.1.pdf
210. eRAD RIS Customer Release Notes 2.2016.2.2.pdf
211. eRAD RIS Customer Release Notes 2.2016.2.pdf
212. eRAD RIS Customer Release Notes 2.2016.3.1.pdf
213. eRAD RIS Customer Release Notes 2.2016.3.2.pdf
214. eRAD RIS Customer Release Notes 2.2016.3.pdf
215. eRAD RIS Customer Release Notes 2.2016.4.1.pdf
216. eRAD RIS Customer Release Notes 2.2016.4.2.pdf
217. eRAD RIS Customer Release Notes 2.2016.4.3.pdf
218. eRAD RIS Customer Release Notes 2.2016.4.4.pdf
219. eRAD RIS Customer Release Notes 2.2016.4.5.pdf
220. eRAD RIS Customer Release Notes 2.2016.4.6.pdf
221. eRAD RIS Customer Release Notes 2.2016.4.pdf
222. eRAD RIS Customer Release Notes 2.2016.5.pdf
223. eRAD RIS Customer Release Notes 2.2016.6 through 2016.7.pdf
224. eRAD RIS Utilization Management 2.2016.7.pdf
225. eRAD RIS Customer Release Notes 2.2016.7.1.pdf
226. eRAD RIS Customer Release Notes 2.2016.7.10.pdf
227. eRAD RIS Customer Release Notes 2.2016.7.11.pdf
228. eRAD RIS Customer Release Notes 2.2016.7.12.pdf
229. eRAD RIS Customer Release Notes 2.2016.7.13.pdf
230. eRAD RIS Customer Release Notes 2.2016.7.14.pdf
231. eRAD RIS Customer Release Notes 2.2016.7.2.pdf
232. eRAD RIS Customer Release Notes 2.2016.7.3.pdf
233. eRAD RIS Customer Release Notes 2.2016.7.4.pdf
234. eRAD RIS Customer Release Notes 2.2016.7.5.pdf
235. eRAD RIS Customer Release Notes 2.2016.7.6.pdf
236. eRAD RIS Customer Release Notes 2.2016.7.7.pdf
237. eRAD RIS Customer Release Notes 2.2016.7.8.pdf
238. eRAD RIS Customer Release Notes 2.2016.7.9.pdf
239. eRAD RIS Customer Release Notes 2.2017.1.0.pdf

No part of this material may be published, reproduced, stored in a retrieval system,
or transmitted in any form or by any means without the prior written permission of eRAD.

240. eRAD RIS Customer Release Notes 2.2017.1.1.pdf
241. eRAD RIS Customer Release Notes 2.2017.1.10.pdf
242. eRAD RIS Customer Release Notes 2.2017.1.2.pdf
243. eRAD RIS Customer Release Notes 2.2017.1.3.pdf
244. eRAD RIS Customer Release Notes 2.2017.1.4.pdf
245. eRAD RIS Customer Release Notes 2.2017.1.6.pdf
246. eRAD RIS Customer Release Notes 2.2017.1.7.pdf
247. eRAD RIS Customer Release Notes 2.2017.1.8.pdf
248. eRAD RIS Customer Release Notes 2.2017.1.9.pdf
249. eRAD RIS Customer Release Notes 2.2017.1.pdf
250. eRAD RIS Customer Release Notes 2.2017.3.0.pdf
251. eRAD RIS Customer Release Notes 2.2017.3.1.pdf
252. eRAD RIS Customer Release Notes 2.2017.3.10.pdf
253. eRAD RIS Customer Release Notes 2.2017.3.2.2.pdf
254. eRAD RIS Customer Release Notes 2.2017.3.2.pdf
255. eRAD RIS Customer Release Notes 2.2017.3.3.pdf
256. eRAD RIS Customer Release Notes 2.2017.3.4.pdf
257. eRAD RIS Customer Release Notes 2.2017.3.5.pdf
258. eRAD RIS Customer Release Notes 2.2017.3.6.pdf
259. eRAD RIS Customer Release Notes 2.2017.3.7.pdf
260. eRAD RIS Customer Release Notes 2.2017.3.8.pdf
261. eRAD RIS Customer Release Notes 2.2017.3.9.pdf
262. eRAD RIS Customer Release Notes 2.2017.3.pdf

No part of this material may be published, reproduced, stored in a retrieval system,
or transmitted in any form or by any means without the prior written permission of eRAD.

# User Pre-Release Notes

for RADNET rRIS
Build 1.03

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Purpose ..... 3
2. Intended Audience ..... 3
3. Installing/Accessing the Application ..... 3
4. New Features and Enhancements ..... 4
   Login Screen ..... 4
   GUI Framework ..... 5
   Worklist Framework ..... 6
   Patient Search ..... 7
   Custom Area Framework ..... 10
   Adding a Patient ..... 13
   Lookup Table Editor ..... 15
5. Known Limitations ..... 16

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 1. Purpose

This document describes some of the new features and changes implemented in rRIS as of the end of Sprint 3. This pre-release version of rRIS is referred to as Build 1.03.

Only features which can be visually demonstrated to the user will be outlined in this document.

# 2. Intended Audience

This document is created by the rRIS Development team for the RADNET RIS management team.

# 3. Installing/Accessing the Application

The client installer for rRIS is still in the early development stages. For now, users can access the system by remoting to the rRIS test server in Baltimore as follows:

1. Start Remote Desktop Connection and specify IP 10.120.0.152
2. Username: TestRIS
3. Password: rRIS1234
4. Double click the rRIS icon on the desktop or go to Start→All Programs→rRIS
5. Login User: terry
6. Login Password: ris

If you experience difficulties accessing the application, please do not hesitate to contact Spencer MacDougall with the PEI RIS Development Team.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 4. New Features and Enhancements

## Login Screen

There has been a basic login screen developed which accepts a username and password. The system can be configured to validate the user with Windows Authentication or simply use the user credentials stored in the rRIS database.

**Figure 4.1 – Login Screen**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## GUI Framework

MainShell is the visual hub display of the GUI. It consists of an application menu, menu bar, toolbar, status bar, and tab control.

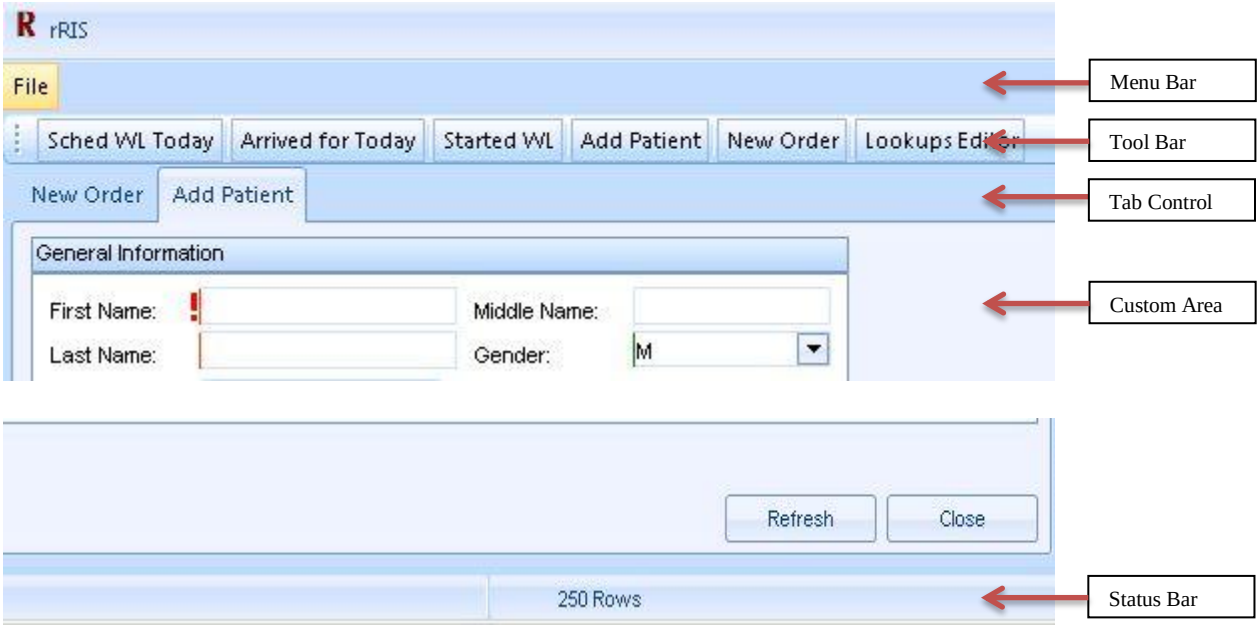



**Figure 4.2 – GUI Framework**

The user has the ability to navigate the application by clicking on the buttons in the menu bar such as “Add Patient”, “New Order”, or “Started Worklist”. The application has the can open multiple copies of content area forms such as “Edit Patient” but is configured to only open one copy of each worklist.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Worklist Framework

A framework has been developed that will allow the creation of worklists specifying status, double-click action, columns to display, and filter criteria. For example, clicking on the "Started Worklist" button in the Tool Bar will open up a worklist where the Status Code is equal to Started. This status is specified during the creation of the worklist. In the next build, this framework will be enhanced to accept one or more statuses.

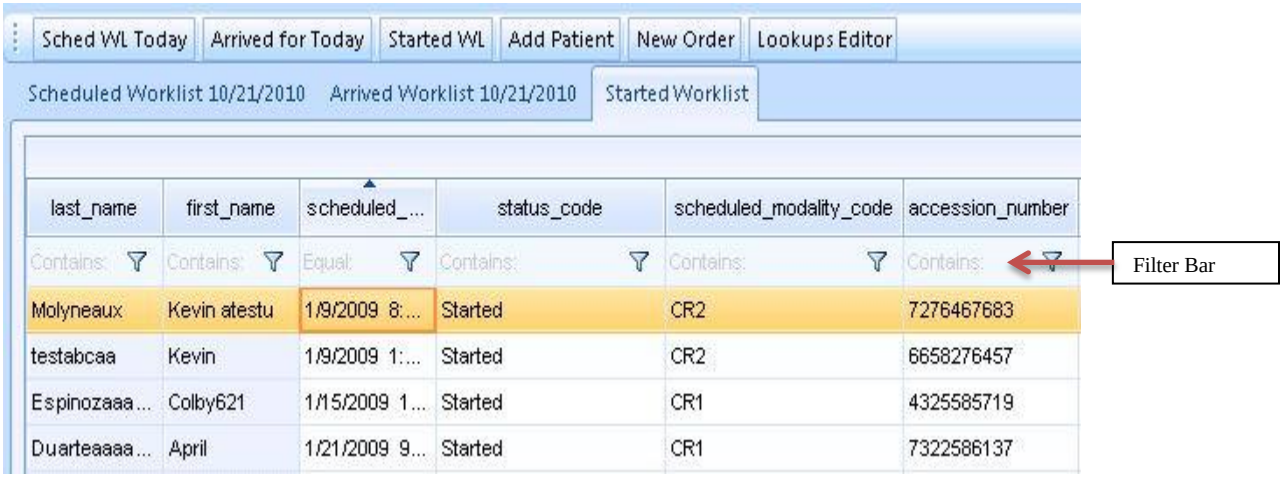



**Figure 4.3 – Started Worklist**

The user has the ability to specify filter criteria to quickly query the worklist. For example, with minimal clicks the "Started Worklist" can be filtered to show only studies for the CR1 modality, with the scheduled start date greater than 10/12/2010, and sorted by the scheduled start date.

| last_name | first_name | scheduled_start_date | status_code | scheduled_modality_code | accession_number |
|---|---|---|---|---|---|
| Contains: | Contains: | GreaterThan: 10/21/2010 12:00:00 AM | Contains: | Equal: CR1 | Contains: |
| Guzman | Christi | 10/23/2010 10:08:22 AM | Started | CR1 | 6116282588 |
| Hart | Lori79 | 10/26/2010 12:18:26 AM | Started | CR1 | 1425336486 |
| Blanchard | Eugene7 | 10/31/2010 10:14:30 AM | Started | CR1 | 3125671336 |
| Owen | Bill831 | 11/11/2010 8:00:26 PM | Started | CR1 | 7624311434 |
| Galloway | Kenneth471 | 11/21/2010 6:42:34 PM | Started | CR1 | 9251618925 |
| Barrett | Clayton | 12/7/2010 9:46:43 AM | Started | CR1 | 9966568277 |
| Pierce | Sheryl97 | 12/9/2010 11:13:41 PM | Started | CR1 | 1437815542 |
| Wilcox | | 12/23/2010 12:57:58 AM | Started | CR1 | 3383715377 |
| Mcgrath | Tonia9 | 12/26/2010 8:15:09 PM | Started | CR1 | 7738279825 |
| Monroe | Brian414 | 12/29/2010 3:04:49 AM | Started | CR1 | 1772475528 |

**Figure 4.4 – Started Worklist with filter criteria**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

In future builds, the user and RIS administrators will have the ability to save and reuse these filters at a worklist level.

## Patient Search

The application has a patient search screen, which can be launched by clicking on the search button. If there is search criteria in the search criteria text box (at the top of the screen) the parameters are parsed intelligently and placed in the appropriate sections on the patient search screen which is displayed and the search is automatically executed.

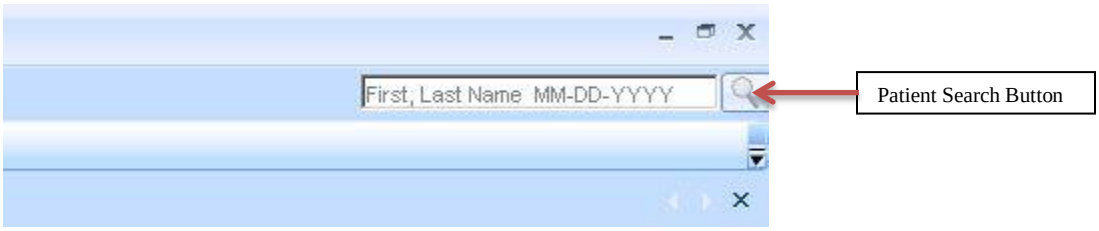



**Figure 4.5 – Patient Search button on Menu Bar**

Using the patient search on the menu bar, the user can quickly search for a patient by specifying a first and last names followed by a date of birth. In the future, this quick search will be configurable to specify other criteria like MRN.

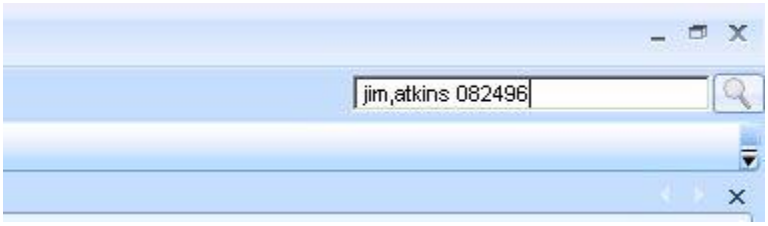



**Figure 4.6 – Patient Search with search criteria**

By selecting the search button, the user will be brought to the search screen and shown the returned results.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

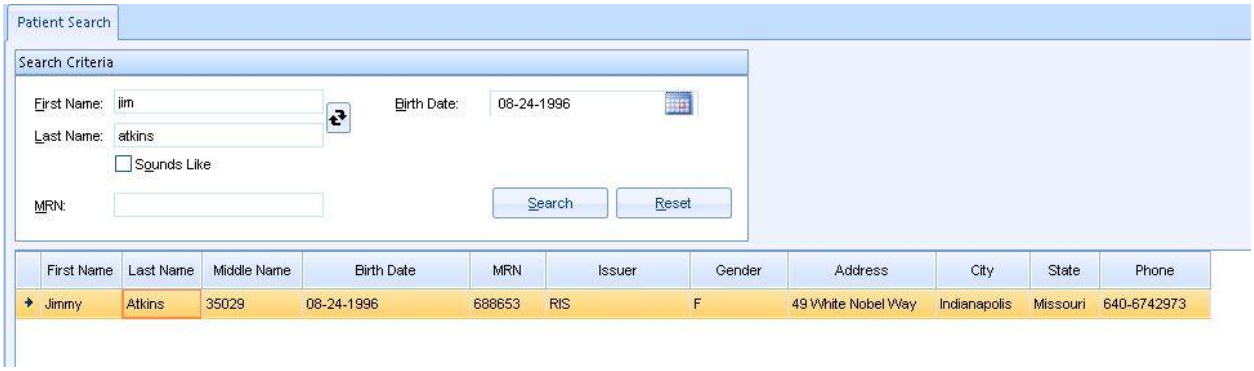
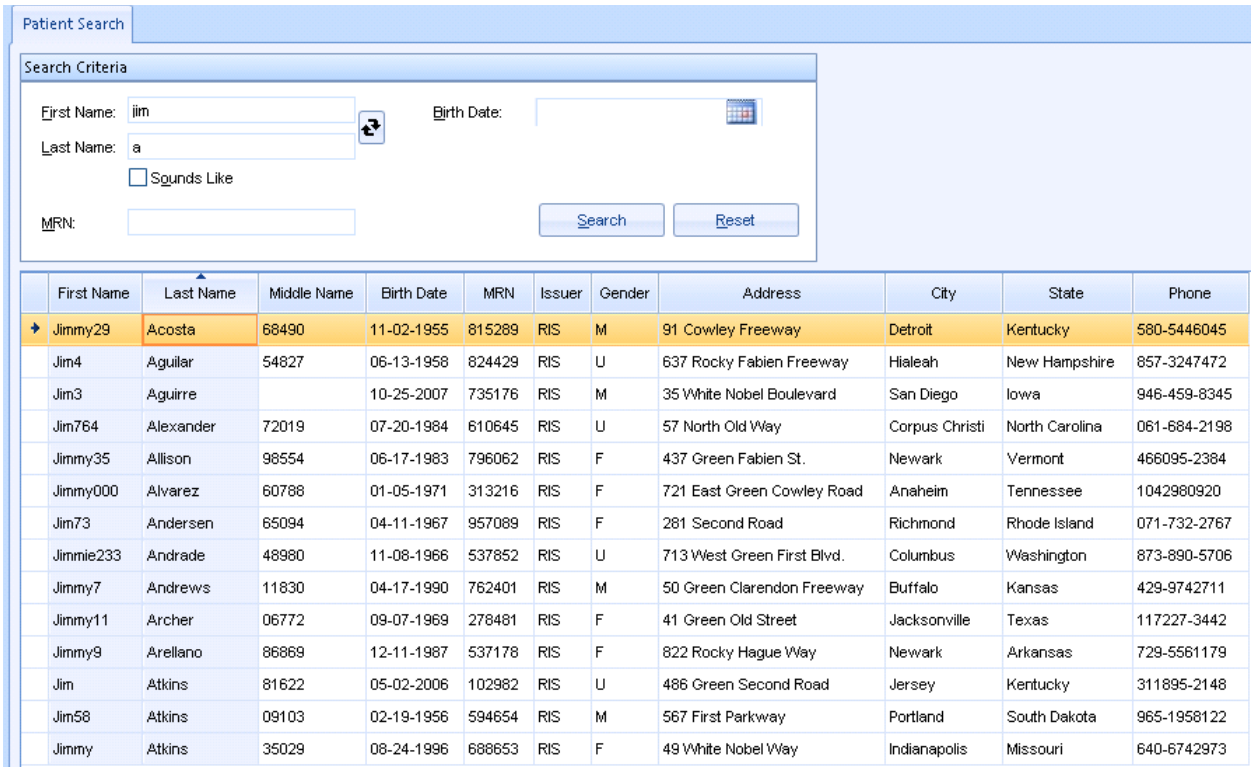



**Figure 4.7 – Patient Search Screen displaying search results**

The Patient Search screen will allow the user to specify First Name, Last Name, Birth Date, and/or MRN as criteria. When querying the patient data table, the system will use a "Starts With" approach. For example, searching for First Name equals "jim" and last name equals "a" will return the following list of patients:

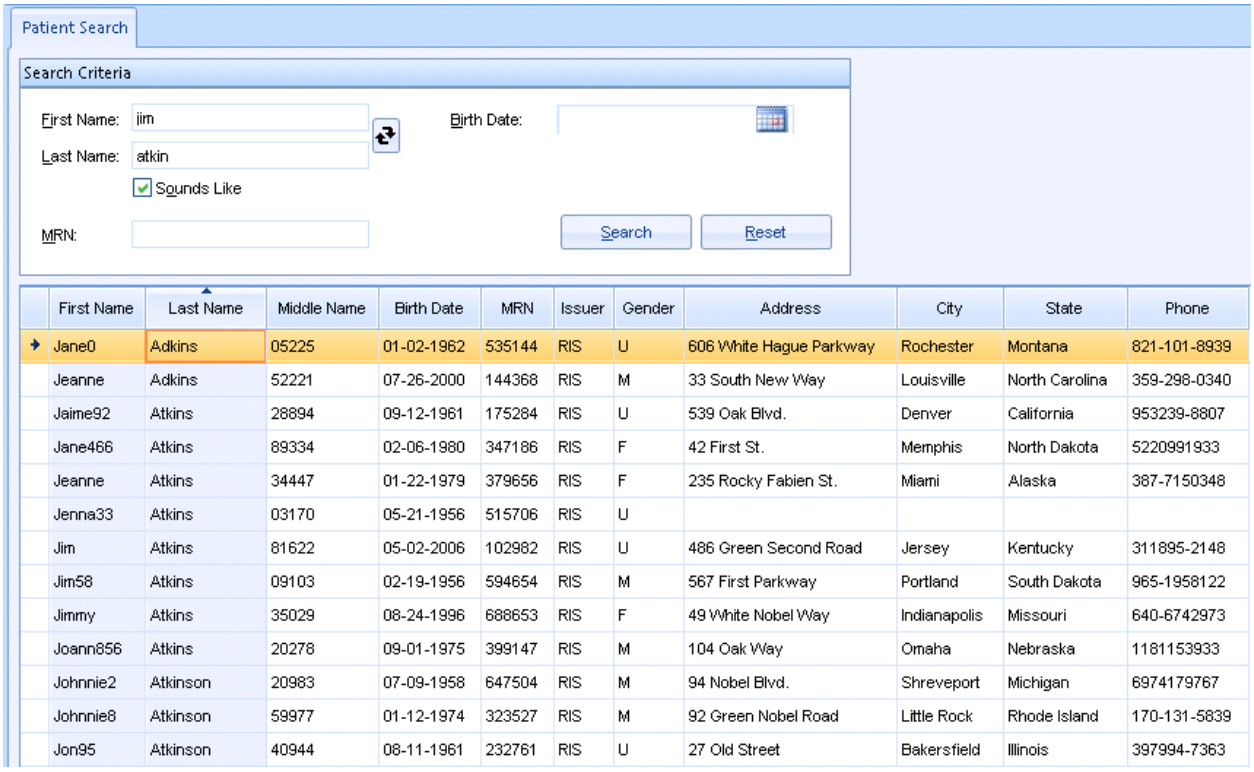



| First Name | Last Name | Middle Name | Birth Date | MRN | Issuer | Gender | Address | City | State | Phone |
|---|---|---|---|---|---|---|---|---|---|---|
| Jimmy29 | Acosta | 68490 | 11-02-1955 | 815289 | RIS | M | 91 Cowley Freeway | Detroit | Kentucky | 580-5446045 |
| Jim4 | Aguilar | 54827 | 06-13-1958 | 824429 | RIS | U | 637 Rocky Fabien Freeway | Hialeah | New Hampshire | 857-3247472 |
| Jim3 | Aguirre | | 10-25-2007 | 735176 | RIS | M | 35 White Nobel Boulevard | San Diego | Iowa | 946-459-8345 |
| Jim764 | Alexander | 72019 | 07-20-1984 | 610645 | RIS | U | 57 North Old Way | Corpus Christi | North Carolina | 061-684-2198 |
| Jimmy35 | Allison | 98554 | 06-17-1983 | 796062 | RIS | F | 437 Green Fabien St. | Newark | Vermont | 466095-2384 |
| Jimmy000 | Alvarez | 60788 | 01-05-1971 | 313216 | RIS | F | 721 East Green Cowley Road | Anaheim | Tennessee | 1042980920 |
| Jim73 | Andersen | 65094 | 04-11-1967 | 957089 | RIS | F | 281 Second Road | Richmond | Rhode Island | 071-732-2767 |
| Jimmie233 | Andrade | 48980 | 11-08-1966 | 537852 | RIS | U | 713 West Green First Blvd. | Columbus | Washington | 873-890-5706 |
| Jimmy7 | Andrews | 11830 | 04-17-1990 | 762401 | RIS | M | 50 Green Clarendon Freeway | Buffalo | Kansas | 429-9742711 |
| Jimmy11 | Archer | 06772 | 09-07-1969 | 278481 | RIS | F | 41 Green Old Street | Jacksonville | Texas | 117227-3442 |
| Jimmy9 | Arellano | 86869 | 12-11-1987 | 537178 | RIS | F | 822 Rocky Hague Way | Newark | Arkansas | 729-5561179 |
| Jim | Atkins | 81622 | 05-02-2006 | 102982 | RIS | U | 486 Green Second Road | Jersey | Kentucky | 311895-2148 |
| Jim58 | Atkins | 09103 | 02-19-1956 | 594654 | RIS | M | 567 First Parkway | Portland | South Dakota | 965-1958122 |
| Jimmy | Atkins | 35029 | 08-24-1996 | 688653 | RIS | F | 49 White Nobel Way | Indianapolis | Missouri | 640-6742973 |

**Figure 4.8 – Specifying Search Criteria**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

Patient Search supports a "Sounds Like" function. This is especially helpful if the user is having difficulties with the spelling of the patient's name. For example, searching for First Name equals "jim" and last name equals "atkin" with the Sounds Like feature enabled will return the following list of patients:




| First Name | Last Name | Middle Name | Birth Date | MRN | Issuer | Gender | Address | City | State | Phone |
|---|---|---|---|---|---|---|---|---|---|---|
| Jane0 | Adkins | 05225 | 01-02-1962 | 535144 | RIS | U | 606 White Hague Parkway | Rochester | Montana | 821-101-8939 |
| Jeanne | Adkins | 52221 | 07-26-2000 | 144368 | RIS | M | 33 South New Way | Louisville | North Carolina | 359-298-0340 |
| Jaime92 | Atkins | 28894 | 09-12-1961 | 175284 | RIS | U | 539 Oak Blvd. | Denver | California | 953239-8807 |
| Jane466 | Atkins | 89334 | 02-06-1980 | 347186 | RIS | F | 42 First St. | Memphis | North Dakota | 5220991933 |
| Jeanne | Atkins | 34447 | 01-22-1979 | 379656 | RIS | F | 235 Rocky Fabien St. | Miami | Alaska | 387-7150348 |
| Jenna33 | Atkins | 03170 | 05-21-1956 | 515706 | RIS | U | | | | |
| Jim | Atkins | 81622 | 05-02-2006 | 102982 | RIS | U | 486 Green Second Road | Jersey | Kentucky | 311895-2148 |
| Jim58 | Atkins | 09103 | 02-19-1956 | 594654 | RIS | M | 567 First Parkway | Portland | South Dakota | 965-1958122 |
| Jimmy | Atkins | 35029 | 08-24-1996 | 688653 | RIS | F | 49 White Nobel Way | Indianapolis | Missouri | 640-6742973 |
| Joann856 | Atkins | 20278 | 09-01-1975 | 399147 | RIS | M | 104 Oak Way | Omaha | Nebraska | 1181153933 |
| Johnnie2 | Atkinson | 20983 | 07-09-1958 | 647504 | RIS | M | 94 Nobel Blvd. | Shreveport | Michigan | 6974179767 |
| Johnnie8 | Atkinson | 59977 | 01-12-1974 | 323527 | RIS | M | 92 Green Nobel Road | Little Rock | Rhode Island | 170-131-5839 |
| Jon95 | Atkinson | 40944 | 08-11-1961 | 232761 | RIS | U | 27 Old Street | Bakersfield | Illinois | 397994-7363 |

**Figure 4.9 – Specifying Search Criteria using Sounds Like**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Custom Area Framework

There is a need for the ris system administrators to respond to the changing needs of the business and to make modifications to enhance operations. This level of customization will be accomplished through two editors:

1. The Data Model Editor, which will define which fields, their type, if they are required, validation rules, calculated fields in the model and default values.
2. The User View, which will define which control displays a piece of data and how it will look on the screen.

The Custom Area can be accessed by right-clicking on a custom form and selecting "Edit View".

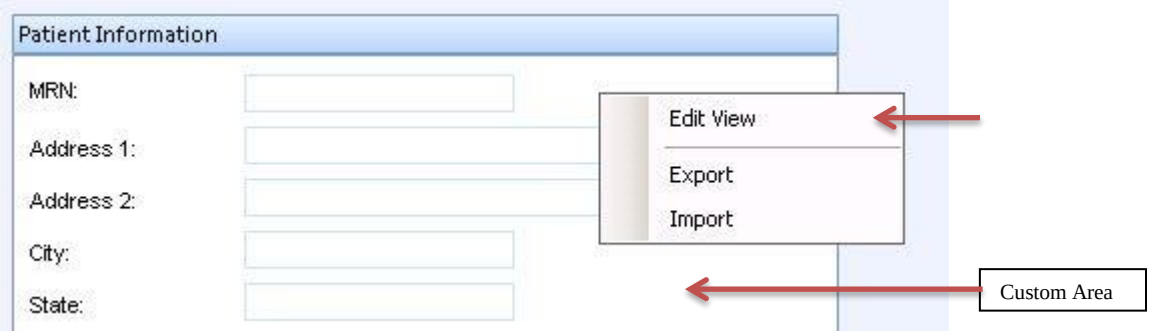



**Figure 4.10 – Editing Custom Area**

Editing a custom area will be based on the permission of the user and is typically a function of the RIS Administrator. The User View or Dynamic Form Editor allows the administrator to make modifications to the user screens of the application without having to affect the product source code. Here are some of the typical functions that will be performed with this editor:

1. Change the layout of the form such as tab order, field size, font size and color.
2. Add new controls such as Text Boxes and Check Boxes and map them accordingly to the proper field in the dataset.
3. Apply permissions to selected controls.
4. Apply business logic via default values, calculated fields, and specifying required fields.

An example could include a request to add an email field to the Patient Information custom area. Currently, the user must assume there is already a field in the ris database that will store an email at the patient level. In future releases, the ability to add custom fields separate from the ris core data model will exist. The following screen shots will illustrate adding a new Text Box and mapping it to the Patient table.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

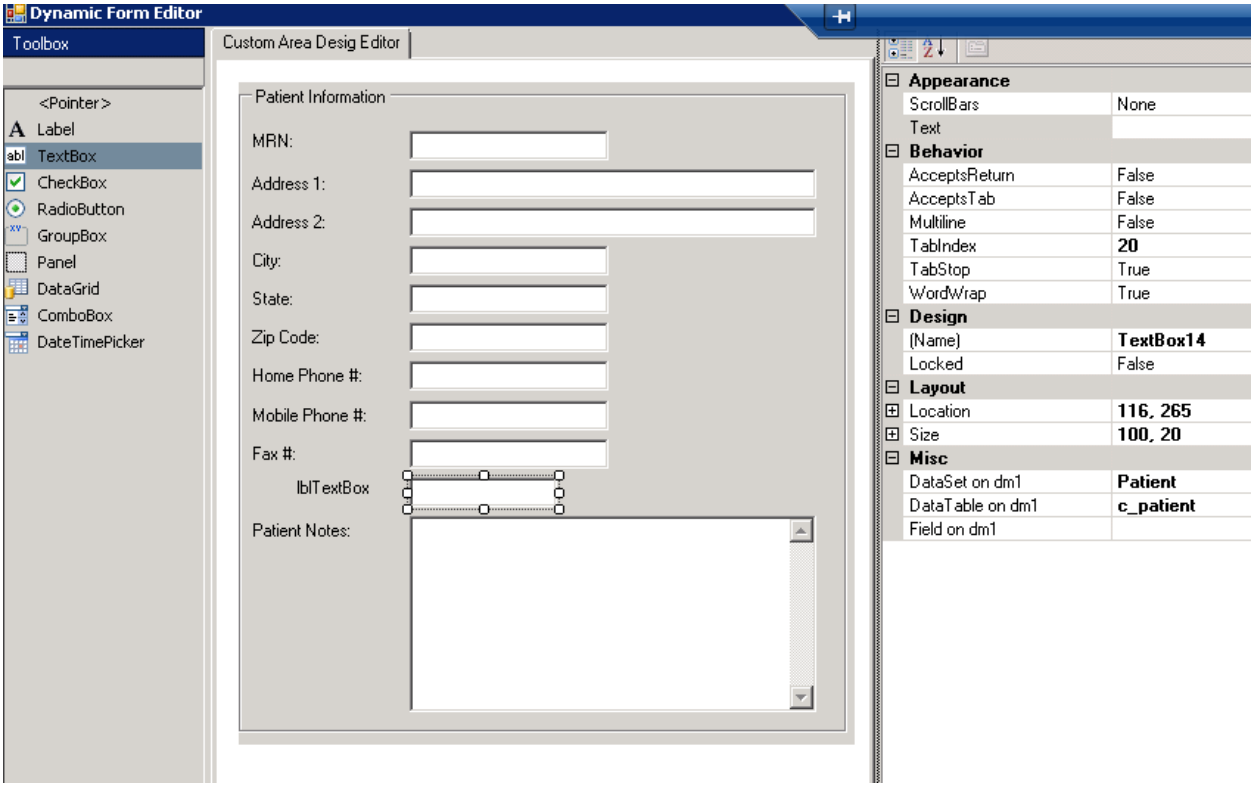



**Figure 4.11 – Adding a Text Box to a Custom Area**

By simply dragging a TextBox control from the Toolbox and placing it in the desired location on the custom area, the ris creates a new control with a corresponding label in the editor screen. To complete the control's configuration the user will complete the following:

1. Map the DataSet to Patient
2. Map the DataTable to c_patient
3. Map the Field to primary email address
4. Size the Text Box accordingly
5. Change the text of the label and align it
6. Adjust the TabIndex property
7. Save the changes

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

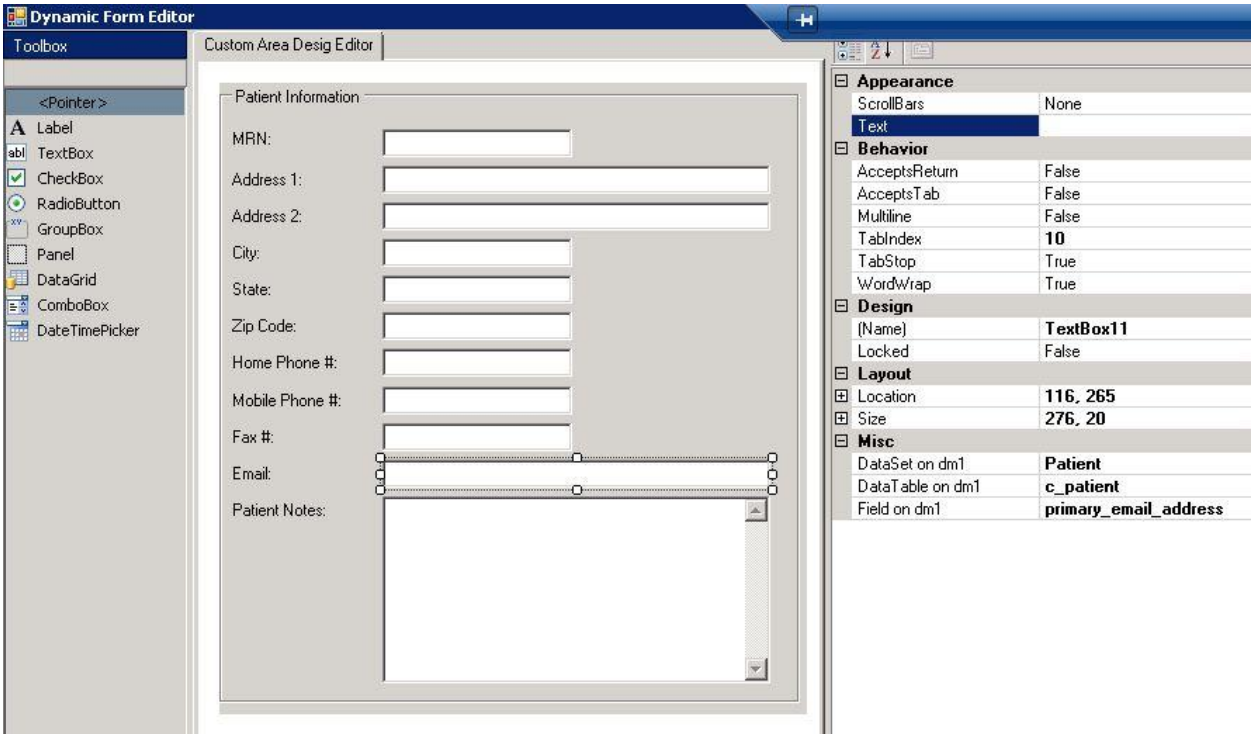



**Figure 4.11 – Configuring a Text Box**

Once the user has saved changes to the custom area, the system will display these changes in a preview mode so they can first be tested. Once validated, the user has the ability to publish the changes to the database so they are distributed to all ris users. The user also has the option to revert the changes.

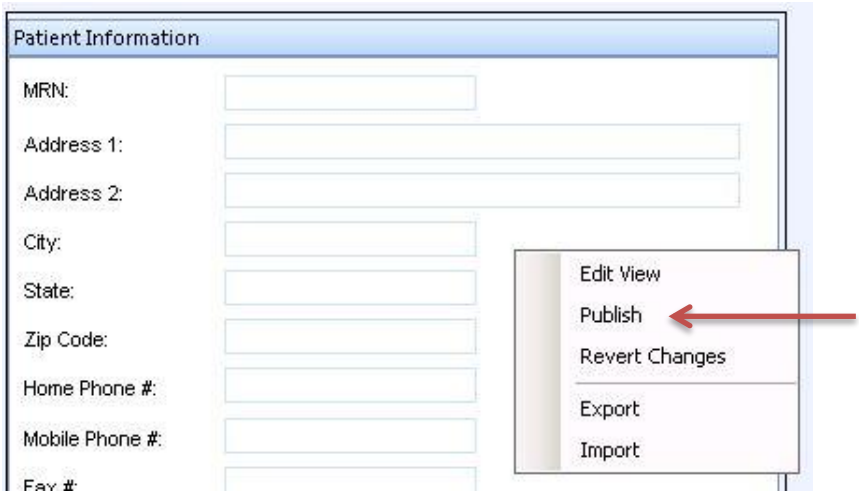



**Figure 4.11 – Publishing Custom Area modifications**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Adding a Patient

There is a framework in place for adding patients. Keep in mind that this is still in the early stages of development. By clicking on the "Add Patient" button, the user is presented with the Add Patient content area which as discussed previously is customizable. When adding the patient, the user can easily identify any required fields by the red line and exclamation mark on the left of the control. The system will prevent the user from committing the data until all required fields are filled in.

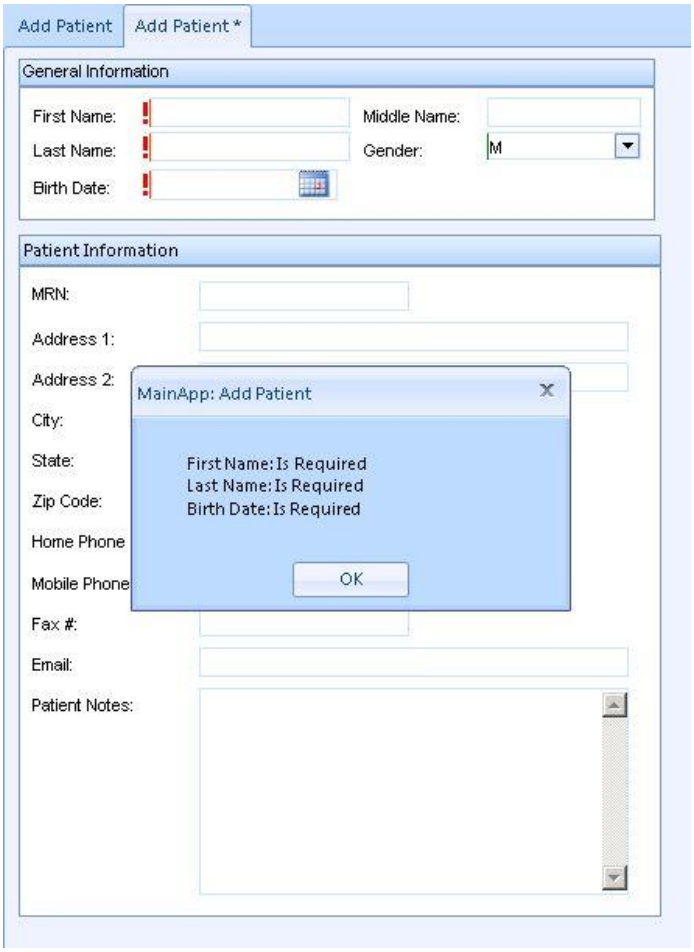



**Figure 4.12 – Required Fields**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

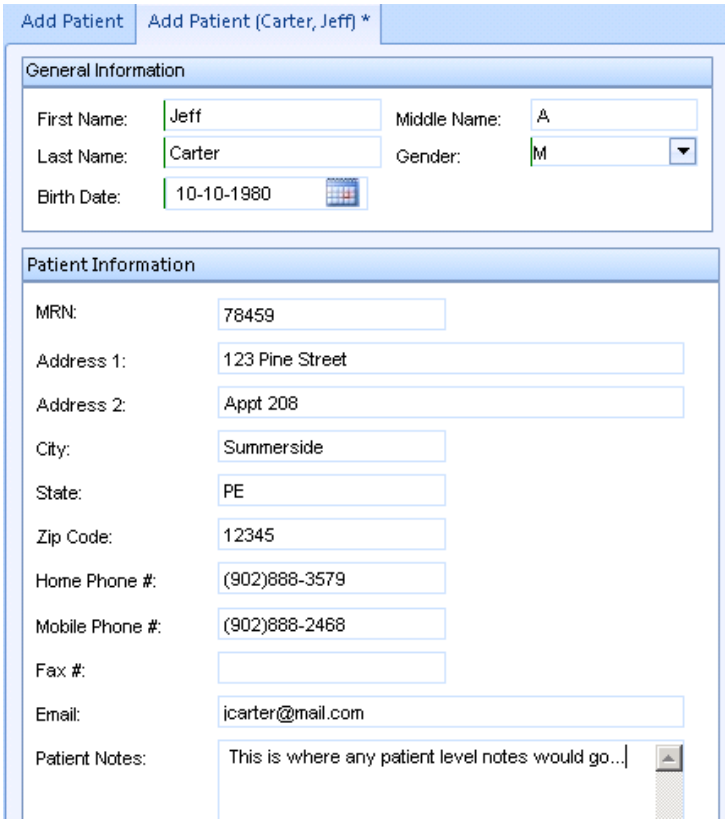



**Figure 4.13 – Add Patient Form**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Lookup Table Editor

The Generic Lookup Table Editor allows the user to edit cached lookup tables. It presents a list of lookups taken from the database. The user can edit a lookup by choosing an entry in the list and either double-clicking or pressing enter. The framework has been built in such a way that specialized editors can be added and launched on double-click instead of the standard grid, in this way the user will always visit the same place in the application to edit lookups, and there will be more consistency of look and feel.

The editor can be accessed by clicking on the "Lookups Editor" button on the application's Tool Bar. Here, the user is presented with the current list of lookup tables. This list will grow as the product matures. If for example the application requires a new status, it can be added here in the lookup table editor and then submitted to the database. The example below illustrates adding a "Confirmed" status to the status lookup table.

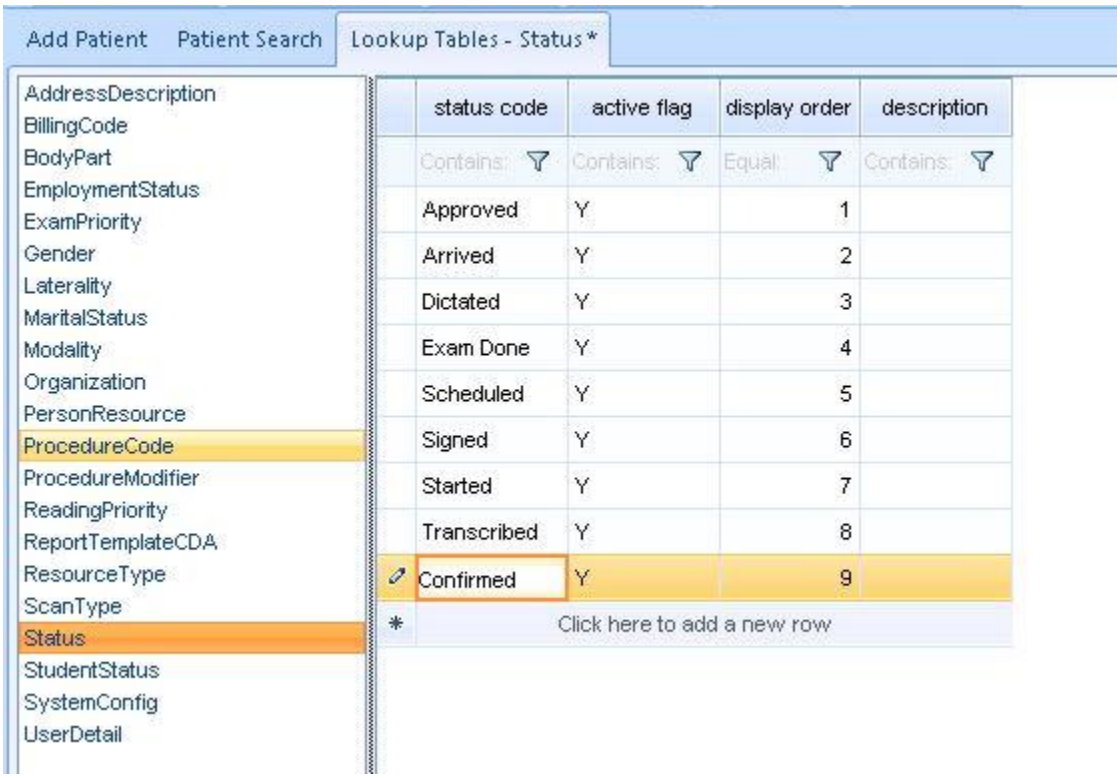


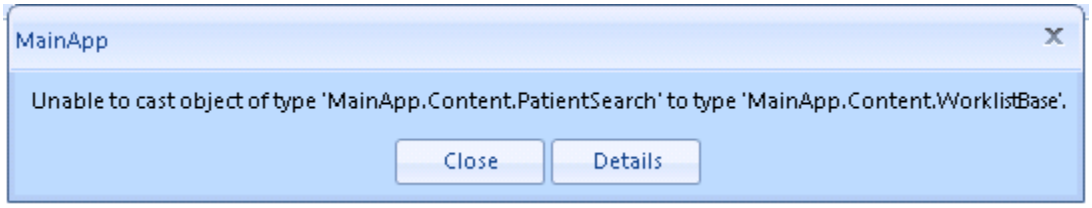

**Figure 4.14 – Add a new row to the Status lookup table**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 5. Known Limitations

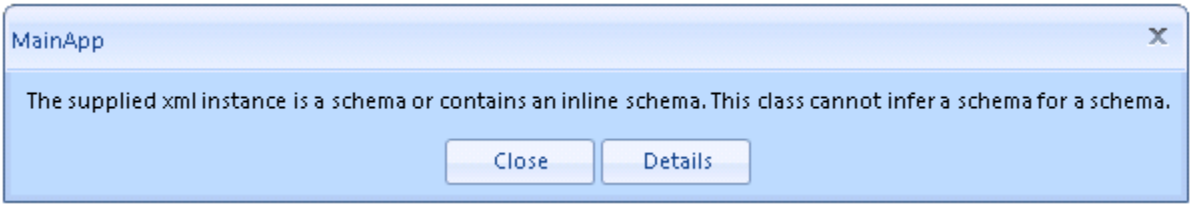
As rRIS is in the early development stages, there will be some known limitations to consider with pre-releases. Build 1.03 has the following limitations:

1. The user will receive an error if he or she performs a quick patient search while the main patient search screen is open.




   This issue has been noted and resolved in Sprint 4. The user can simply select "Close" and proceed to use the application.

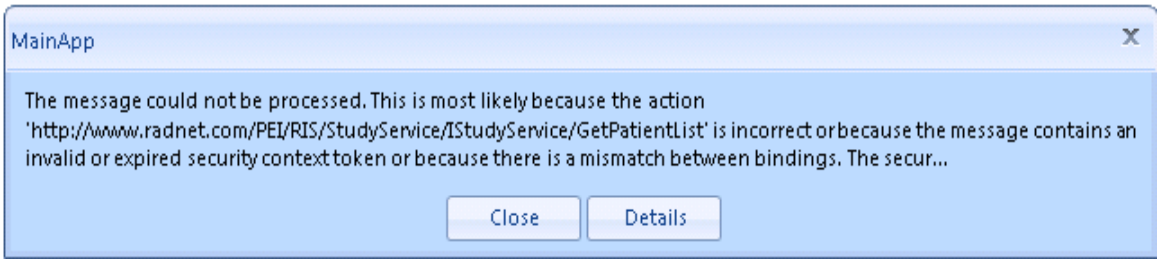
2. Cannot double-click on a selected row on the patient search results grid. This should bring up the Edit Patient screen but instead the following error occurs:




   This issue has also been noted and resolved in Sprint 4. The user can simply select "Close" and will be prompted to restart the application.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

3. There is an error that occurs on the Baltimore ris server that the development team does not experience in-house. If the user tries to use the ris after an extended time of inactivity, he or she may receive the following error:




This issue has been logged and is currently being reviewed by the development team.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# User Pre-Release Notes

for RADNET rRIS
Build 1.04

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Purpose ..... 3
2. Intended Audience ..... 3
3. Installing/Accessing the Application ..... 3
4. New Features and Enhancements ..... 4
   Worklists ..... 4
      Custom Toolbars per Worklist ..... 4
      Pass Context of Selected Worklist Row ..... 5
      Support Multiple Filter Criteria per Worklist ..... 6
      Support Multiple Statuses per Worklist ..... 6
      Patient Driven Worklist ..... 6
   Establish Core Screen Elements ..... 7
   Permissions Framework ..... 8
   Locking Framework ..... 9
   User Management Screen ..... 10
5. Known Limitations ..... 11

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 1. Purpose

This document describes some of the new features and changes implemented in rRIS as of the end of Sprint 4. This pre-release version of rRIS is referred to as Build 1.04.

Only features which can be visually demonstrated to the user will be outlined in this document.

# 2. Intended Audience

This document is created by the rRIS Development team for the RADNET RIS management team.

# 3. Installing/Accessing the Application

The client installer for rRIS is still in the early development stages. For now, users can access the system by remoting to the rRIS test server in Baltimore as follows:

1. Start Remote Desktop Connection and specify IP 10.120.0.152
2. Username: Radnet domain account
3. Password: Radnet domain password
4. Double click the rRIS icon on the desktop or go to Start→All Programs→rRIS
5. Login User: terry
6. Login Password: ris

If you experience difficulties accessing the application, please do not hesitate to contact Spencer MacDougall with the PEI RIS Development Team.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 4. New Features and Enhancements

## Worklists

During this sprint, there has been considerable effort spent on building upon the existing worklist framework as it is a key area of the application. Some of the features areas which will be described in more detail below include:

- Custom toolbars per worklist
- Pass context of selected worklist row
- Support multiple filter criteria per worklist
- Support multiple statuses per worklist
- Patient driven worklist

### Custom Toolbars per Worklist

rRIS now has the ability to dynamically build what buttons are available for each worklist. For example, it makes sense to have the "Edit Order" button available for the Ordered Worklist but not for the Radiologist Worklist. When the Ordered Worklist is created, it can now be configured with what buttons should be available to the user.

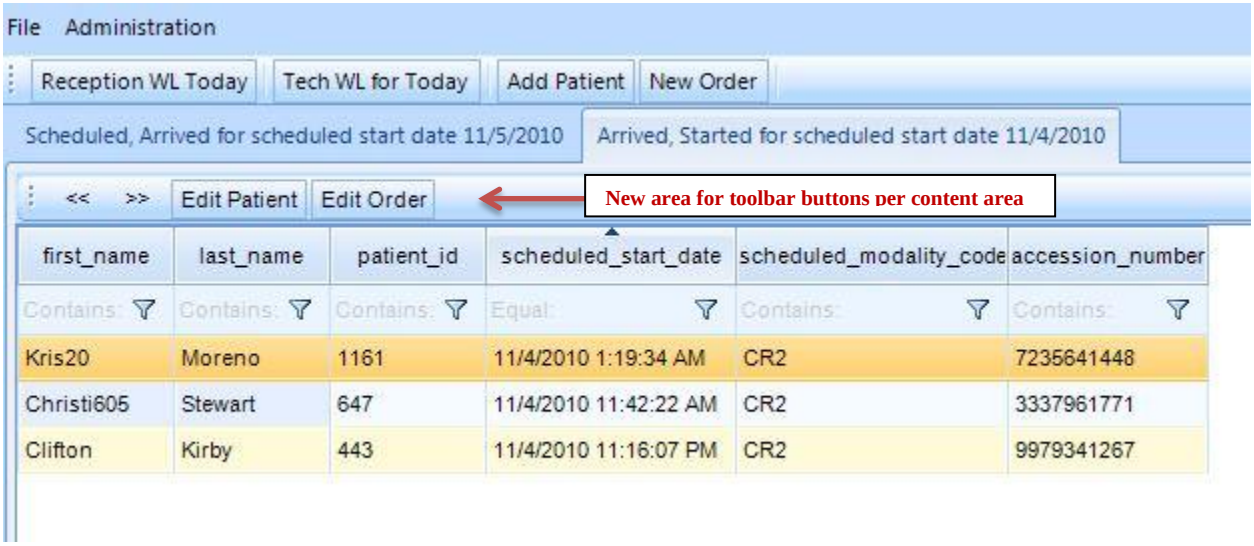



**Figure 4.1 – Worklist Custom Toolbar Buttons**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

**Pass Context of Selected Worklist Row**

The application now has the ability to pass the context of the selected row to a screen. For example, selecting the "Edit Order" button from the worklist will open the Edit Order screen and load the dataset for the selected order. The ability to pass context from the worklist row is available from both a worklist button click and the worklist selected row double-click action.

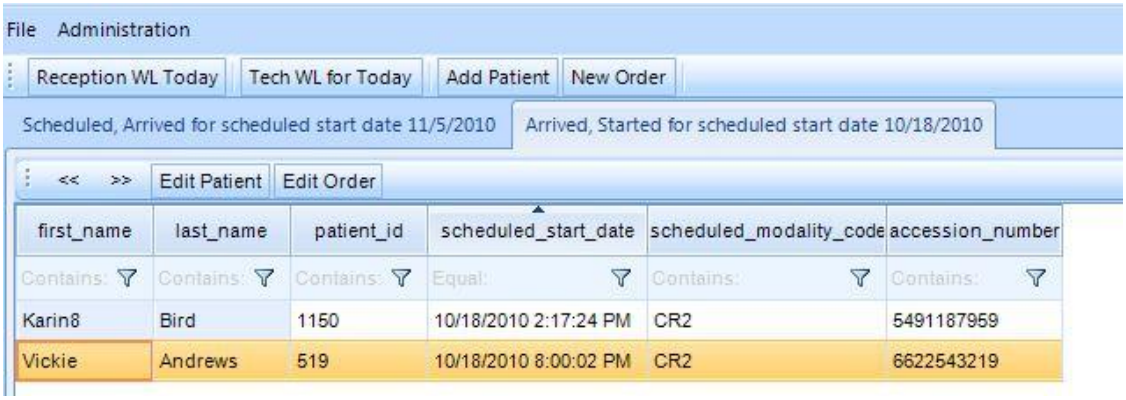



**Figure 4.2 – Arrived Worklist with Edit Order Button**

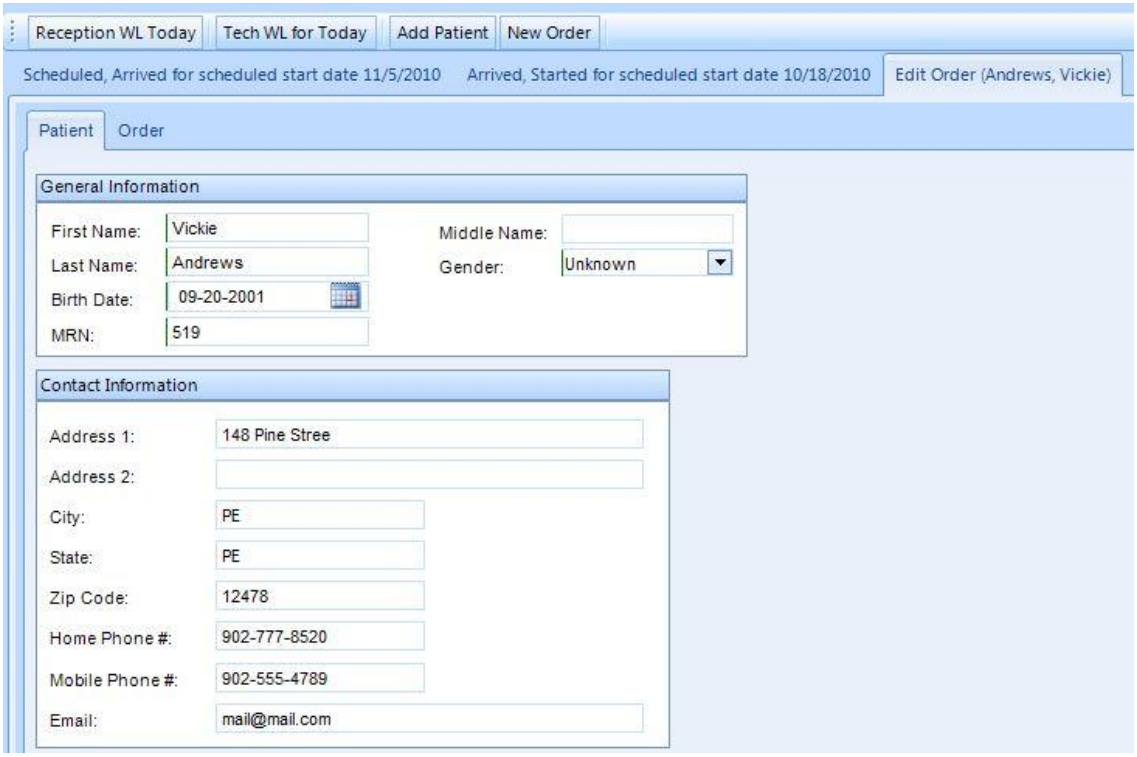



**Figure 4.3 – Edit Order Content Area with Patient and Order Context**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

**Support Multiple Filter Criteria per Worklist**
This relates to the actual creation of the worklist. In the previous build worklists were limited to one filter (ex: Exam Priority = Stat). Now multiple criteria can be defined such as Modality Type = CT and Exam Priority = Normal as an example.

**Support Multiple Statuses per Worklist**
Currently, the following statuses have been defined in rRIS:

- OrderRequested
- OrderSigned
- OrderCancelled
- Scheduled
- Cancelled
- Arrived
- Started
- Discontinued
- ExamDone
- Dictated
- Transcribed
- Signed1
- Billed
- Approved

When worklists are defined, multiple statuses can be included in the worklist. For example, the Technologist worklist can be created to include Arrived, Started, and Discontinued statuses.

**Patient Driven Worklist**
Methods have been put in place that will allow the creation of a Patient Worklist. This method returns all patient exams regardless of study status or where the studies were performed.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Establish Core Screen Elements

In the previous build, all content areas were accessible and customizable by an administrative user at runtime. There is a requirement to lock down certain areas of these screens and establish these areas as the "Core" rRIS screens. For example, certain fields like a patient's name and gender will be required at all Radnet sites and will be locked down or coded into the content area screens. However, there will still be a customizable area on the content areas to allow for the unique needs across the Radnet organization. Below is an image of the Patient content area identifying both the core and customizable areas. Keep in mind that there is considerable effort remaining in the actual design of the screen.

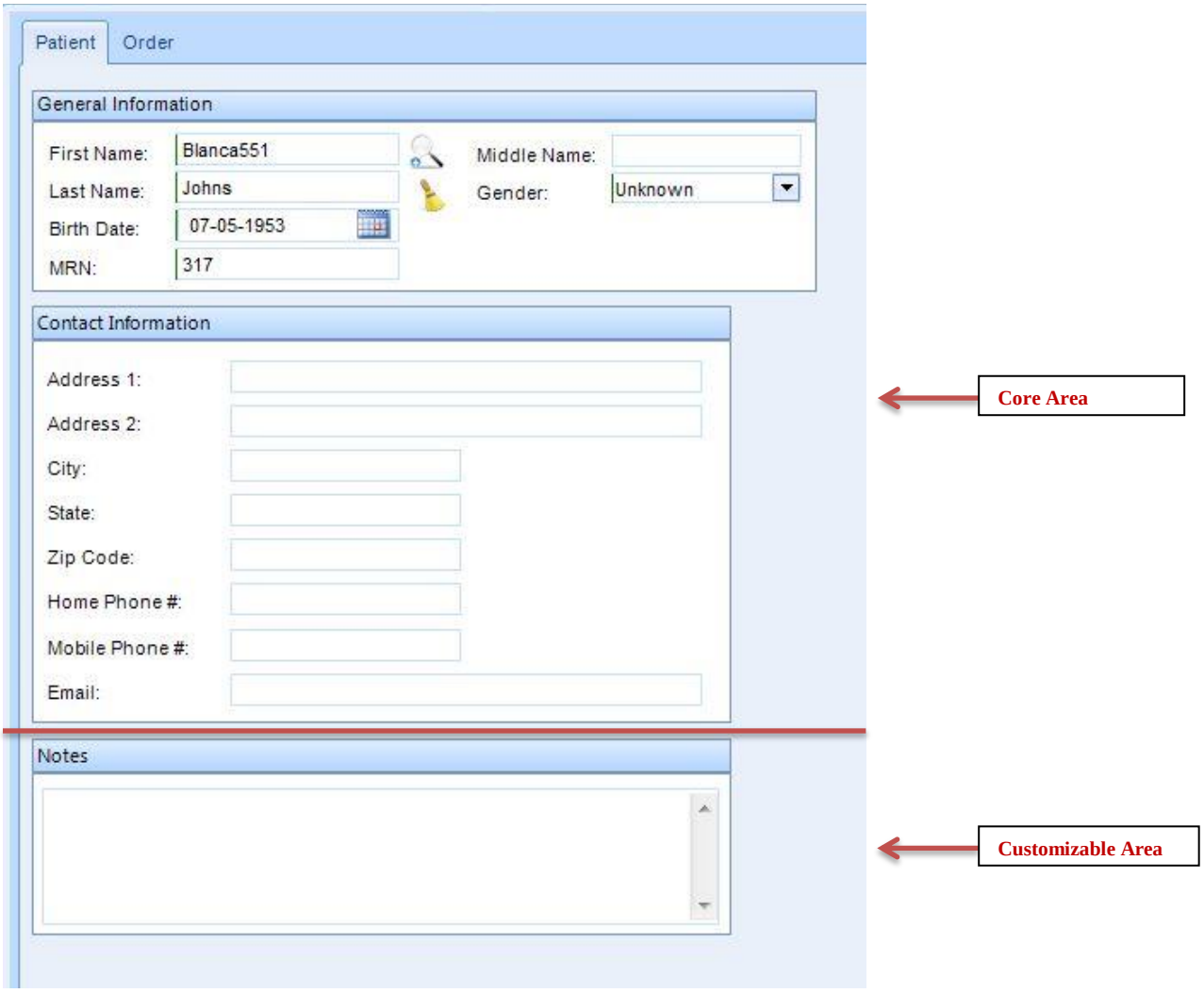



**Figure 4.4 – Patient Screen Showing Core and Customizable Areas**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Permissions Framework

A permissions framework has been created in this build that has been designed to accomplish the following:

- Establish permission levels (None, Full, and ReadOnly)
- The ability for developers to apply permission levels to rRIS controls suchs as screens, buttons, worklists, lookup tables, fields, etc.
- Apply permissions to user groups. A user can belong to one or more user group. If the user belongs to multiple groups then the user will have the highest level access to the item over all of the groups. So that if their 1st user group has Level.None and their second user group has Level.Full they will receive Level.Full access.
- Apply permissions to individual users. If the user doesn't belong to any groups or if the access_string hasn't been assigned to that group then the user will receive the default access level code as described in the l_access_string table for that access string.
- A lookup table (l_access_string) to store permission strings

For this build, any changes made to the AccessString lookup table will be applied to all users until the ability to apply permissions to users and user groups has been completed. For example, setting the "Clinical.NewOrder" string to None, will take hide the New Order button from the user.

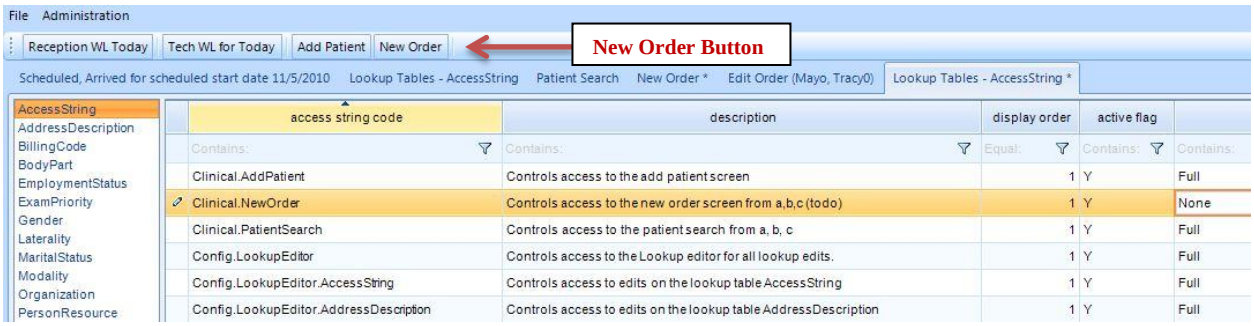



**Figure 4.5 – Disabling the New Order Screen Permission**

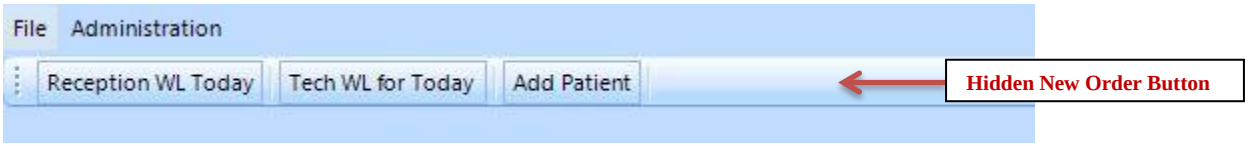



**Figure 4.6 – Hiding the New Order Button**

The permission framework can also grant read-only access to rRIS screens and fields. This is very useful for example if the radiologists group would like to have the ability to view the order or patient screens but administrators do not want them to have the ability to edit the data.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Locking Framework

rRIS requires a locking framework to prevent two users from editing the same study or order at the same time. The framework supports locking with automatic lock refreshes, releasing a lock when it is no longer required, and overriding the lock of another user. Additionally, the web services must throw an exception if a user tries to update data without the required lock.

The application will not retrieve the study data when a failure to obtain a requested lock occurs. The returned lock result will indicate the failure and the user_ID/workstation information for the current lock holder.

The GUI presents a message to the user indicating that a lock could not be obtained and prompts the user to specify whether they wish to view a readonly copy of the data, break the lock, or cancel. If the user clicks "Cancel" the form (e.g. EditOrder) will close. If the user chooses "ReadOnly", Edit Order will open a readonly copy of the data. If the user wishes to override the lock, the GUI will make an OverRideLock call using the LockItemCode and WorkstationID of the LockResult that was returned when the lock failed. After overriding the lock, the GUI will then make the initial GetStudyData call over again, and display the data as before.

**Figure 4.7 – Attempting to Obtain Lock Message**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## User Management Screen

A user management framework and a basic screen to manage users have been developed. The ability to add and configure users with this screen will be introduced in the next build.

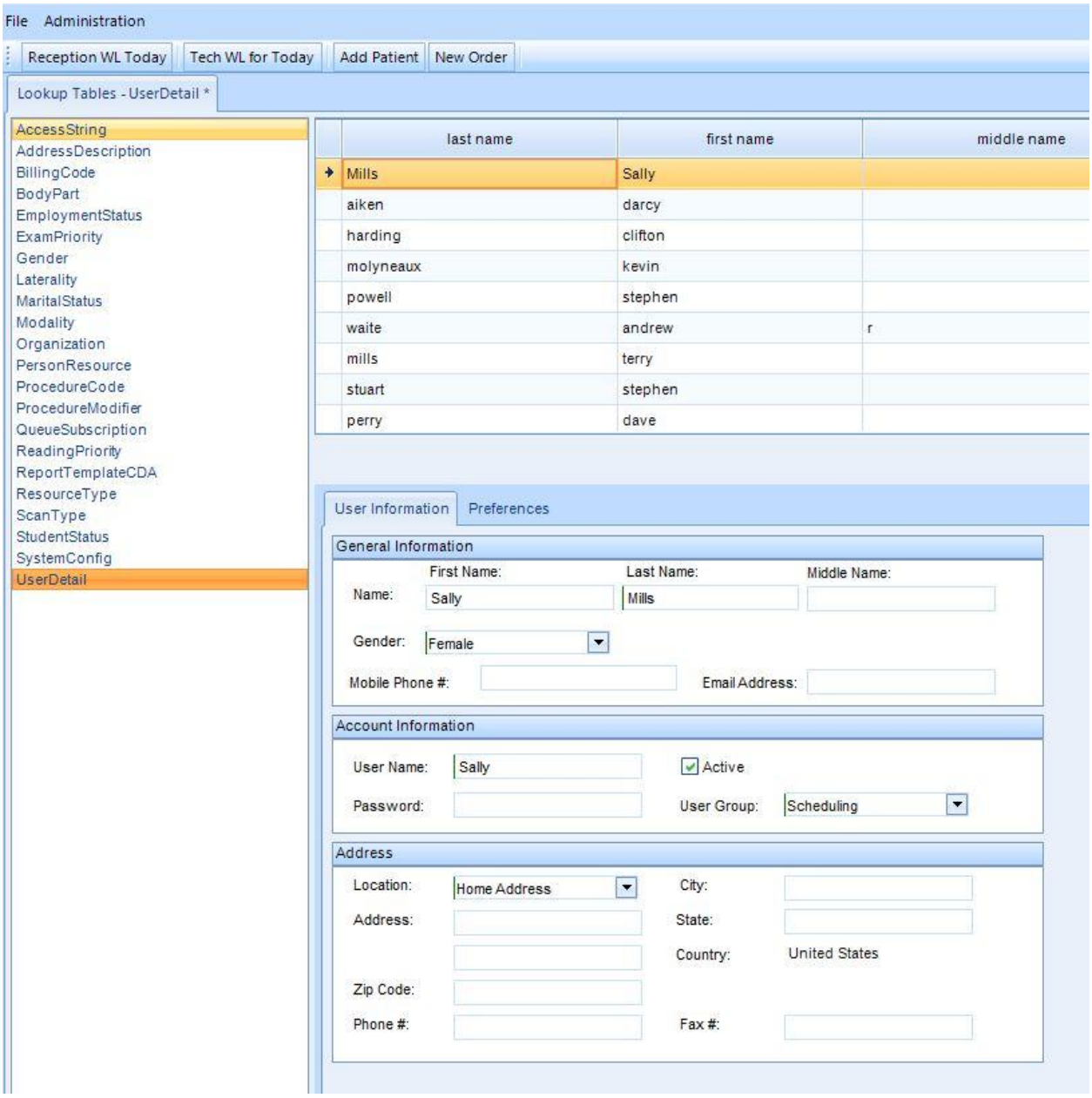



**Figure 4.8 – User Management Screen**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 5. Known Limitations

Bugs, Suggested Features, and Support Issues are now tracked in a web based system called Redmine. The following is a snapshot of the issues list as of the end of Sprint 5.

| # | Status | Tracker | Priority | Subject | Assigned to | Category | Version |
|---|---|---|---|---|---|---|---|
| 13 | Resolved | Bug | Normal | Content Areas with missing required fields are getting marked as dirty | Kevin Molyneaux | Thick Client GUI | 1.04 |
| 12 | New | Bug | Normal | Modifying exisiting or adding a new user causes exception | Andrew Waite | Admin Tools | 1.04 |
| 11 | Resolved | Bug | Low | Selecting "Cancel" when trying to obtain a lock results in constant hour glass | Darcy Aiken | Thick Client GUI | 1.04 |
| 10 | Resolved | Bug | Normal | Clinical.PatientSearch permission is not functioning | Kevin Molyneaux | Thick Client GUI | 1.04 |
| 9 | Resolved | Bug | Normal | Closing Login Screen using "X" on the Control Box results in error | Darcy Aiken | Thick Client GUI | 1.04 |
| 8 | Resolved | Bug | High | Non-nullable fields are not being enforced by the GUI Custom Areas | Kevin Molyneaux | Thick Client GUI | 1.04 |
| 7 | Resolved | Bug | Normal | Prompted for required fields right away when adding a new user | Andrew Waite | Admin Tools | 1.04 |
| 6 | Resolved | Bug | High | Keep getting prompted to save Custom Area changes | Kevin Molyneaux | Thick Client GUI | 1.04 |
| 5 | New | Bug | Low | Calendar control is unuseable when running the application remotely | Stephen Powell | Thick Client GUI | 1.03 |
| 4 | Resolved | Feature | Normal | Patient Quick Search should be synchronized with Patient Search Screen | Kevin Molyneaux | Thick Client GUI | 1.03 |
| 3 | Resolved | Bug | Normal | Patient Quick Search needs to be configurable | Kevin Molyneaux | Thick Client GUI | 1.03 |
| 2 | Resolved | Bug | Normal | When WCF is down, require better message to user | Darcy Aiken | Web Services/DB | 1.03 |
| 1 | Resolved | Bug | High | Invalid or expired security token error | Darcy Aiken | Web Services/DB | 1.03 |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# User Pre-Release Notes

for RADNET rRIS
Build 1.05

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Purpose ..... 3
2. Intended Audience ..... 3
3. Installing/Accessing the Application ..... 3
4. New Features and Enhancements ..... 4
   Enhancements to Lookup Table Editor ..... 4
   User Manager ..... 6
   User Groups and User Group Permissions ..... 9
   Logging Framework ..... 10
   Close Tab Button ..... 11
   Procedure Picker ..... 11
   Auditing Framework ..... 14
   Password Encryption ..... 14
   Worklist Context Menus ..... 15
   Worklist Views ..... 15
5. Known Limitations ..... 19

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 1. Purpose

This document describes some of the new features and changes implemented in rRIS as of the end of Sprint 5. This pre-release version of rRIS is referred to as Build 1.05.

Only features which can be visually demonstrated to the user will be outlined in this document.

# 2. Intended Audience

This document is created by the rRIS Development team for the RadNet RIS management team.

# 3. Installing/Accessing the Application

The client installer for rRIS is still in the early development stages. For now, users can access the system by remoting to the rRIS test server in Baltimore as follows:

1. Start Remote Desktop Connection and specify IP 10.120.0.152
2. Username: Radnet domain account
3. Password: Radnet domain password
4. Double click the rRIS icon on the desktop or go to Start→All Programs→rRIS
5. Login User: terry
6. Login Password: ris

If you experience difficulties accessing the application, please do not hesitate to contact Spencer MacDougall with the PEI RIS Development Team.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 4. New Features and Enhancements

## Enhancements to Lookup Table Editor

The Lookup Table Editor has been expanded in Sprint 5 to account for the following improvements. Please note that these changes have been implemented in the UserGroup lookup table only for Sprint 5. Remaining tables will follow suit in future builds.

1. Validate the data so the user cannot save invalid data such as a duplicate name. The error is shown in the status bar and the user simply clicks on it and is taken to the row with the failed validation.

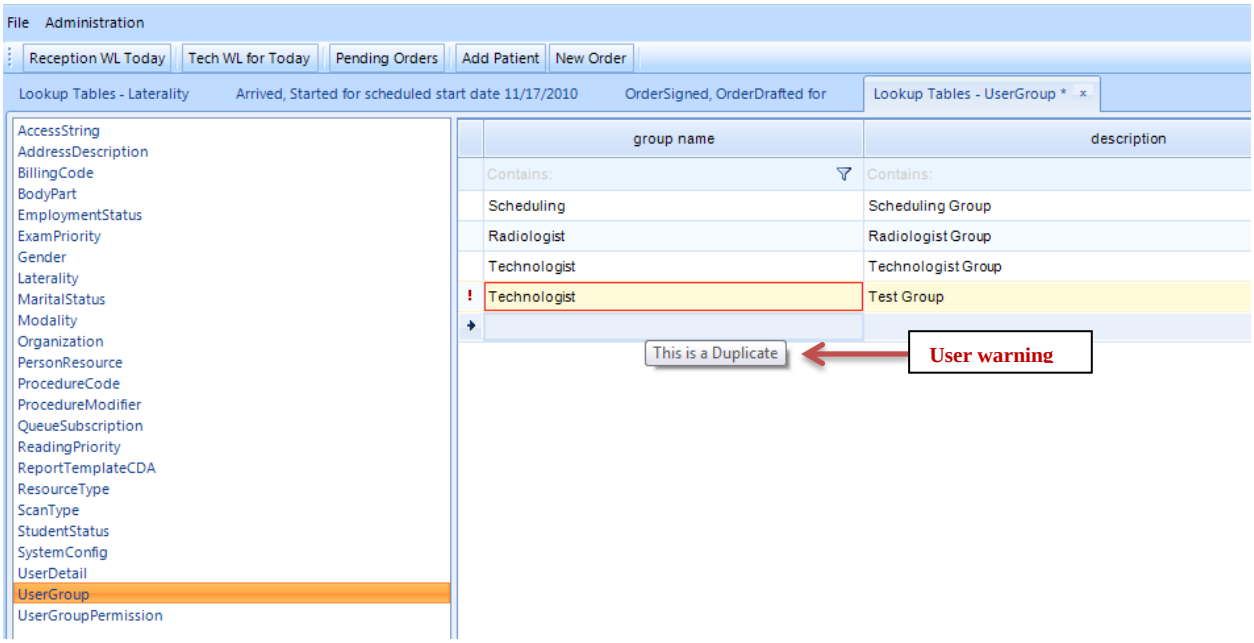



**Figure 4.1 – UserGroup Lookup Showing Duplicate Name Warning**

2. Default values have been applied to new rows so a field like Active can automatically be set to "Y" by default, saving the user from having to set it manually for every new row.

3. User is prompted when trying to save any rows with missing required fields.

4. When a user clicks on a new row by mistake, the system will not prompt the user to save changes if no changes have been made to the new row.

5. If a user attempts to filter the lookup and add a new row, the default value is based on the filter criteria.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

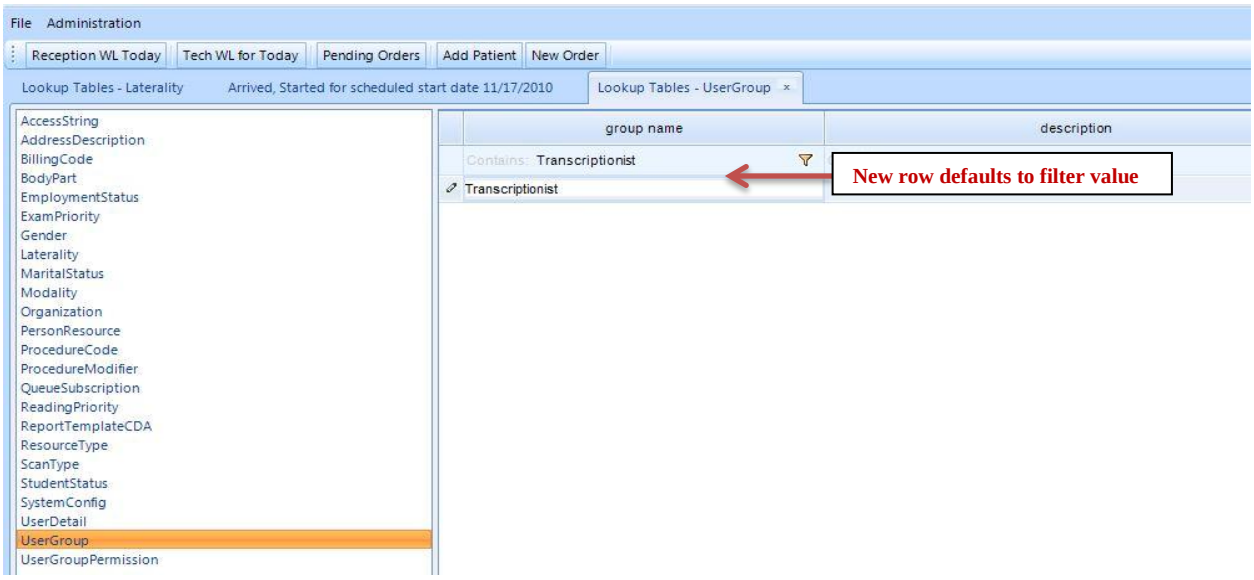



**Figure 4.2 – UserGroup Lookup Showing New Row Based on Filter Criteria**

6. User is prevented and displayed a message when trying to delete a lookup table row with entries that are referenced in the database.

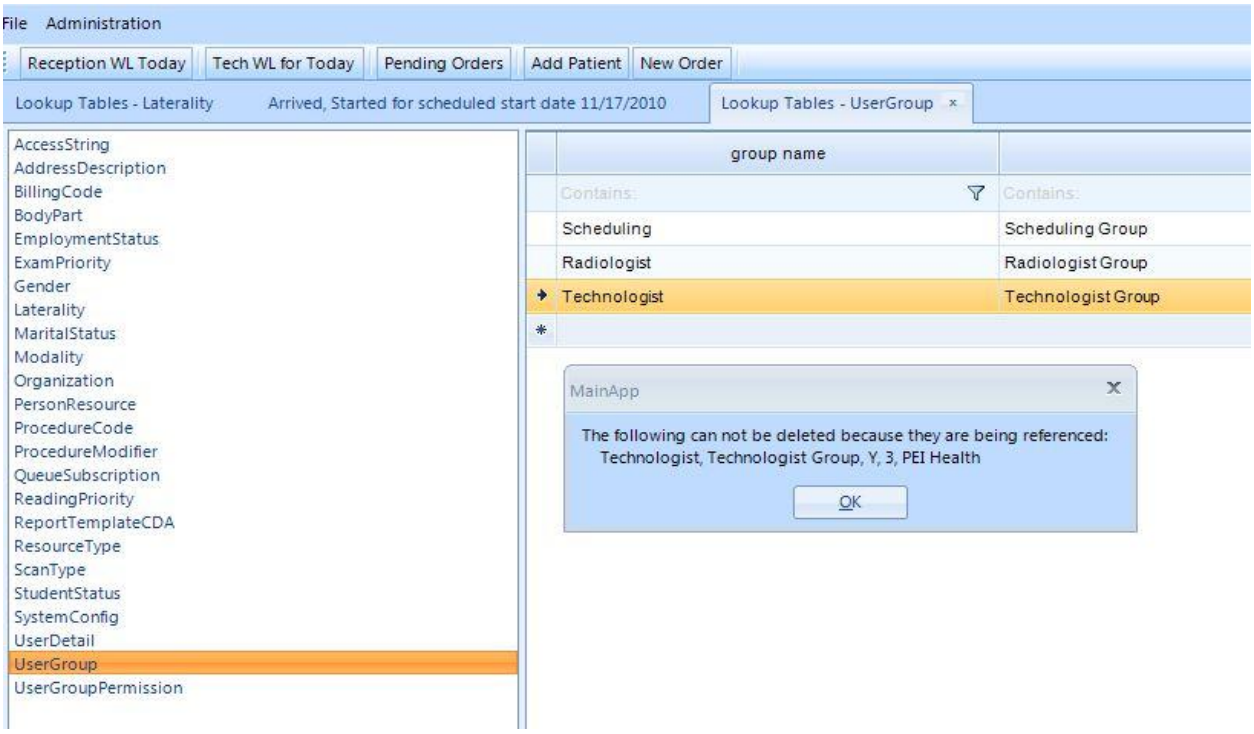



**Figure 4.3 – UserGroup Lookup Showing Referenced Row Message**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## User Manager

The UserDetail screen in rRIS is where the system administrator will add, modify, or mark users as inactive. In the rRIS data model there are Persons, Resources, and Users. A Person can be a User, Resource, or both. Examples of Resources are technologists, transcriptionists, or referring physicians. The UserDetail screen is limited to Users only and does not include Resources unless the Person is both a User and a Resource.

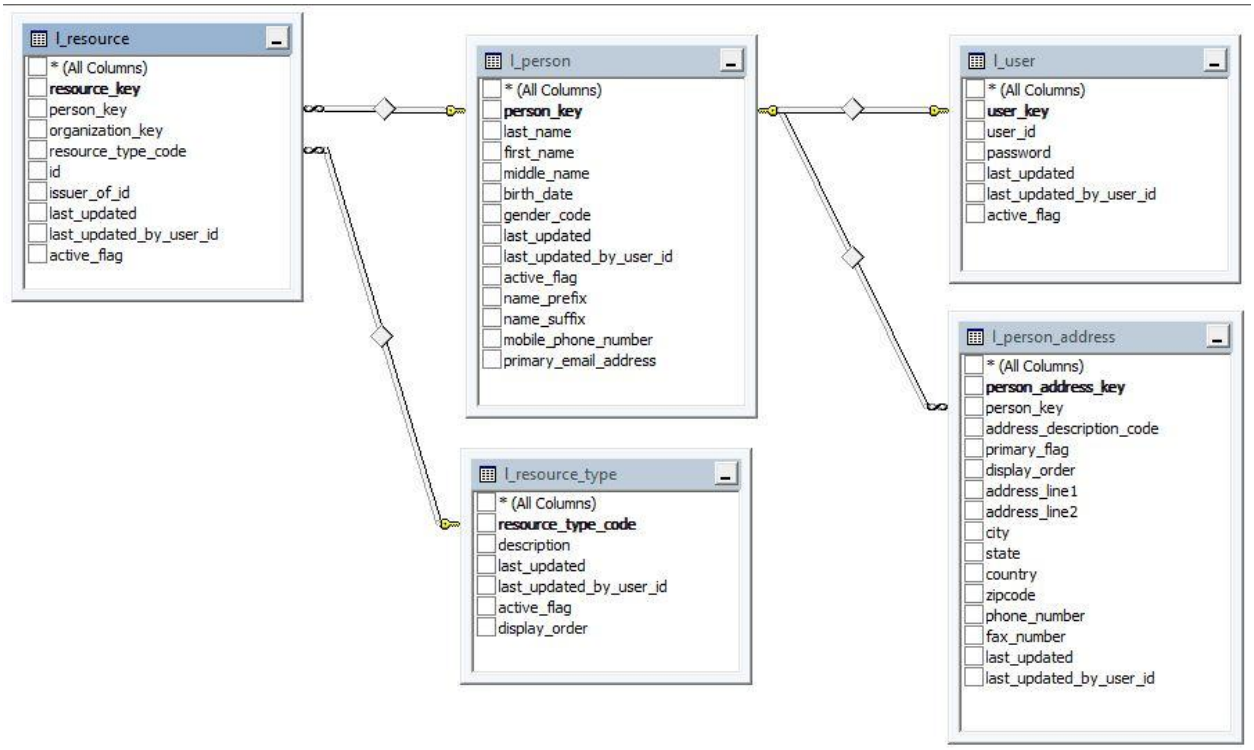



**Figure 4.4 – User Data Model**

Adding a new user can be accomplished by simply clicking the "New User" button on the UserDetail screen. The application will prompt the user to first search for the new user to see if he or she already exists in the system as a Person/Resource. For example when adding "Jim Smith" as a new user, the search will return Jim Smith as he is already set up as a referring doctor. Simply clicking "Add User" will populate the user screen with Jim Smith's information. Once required fields like User Name, User Group, and Password are completed Jim Smith is saved as a user and may begin using the application. The system can be configured to validate a user against Windows Active Directory or utilize the username and password stored in the rRIS database.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

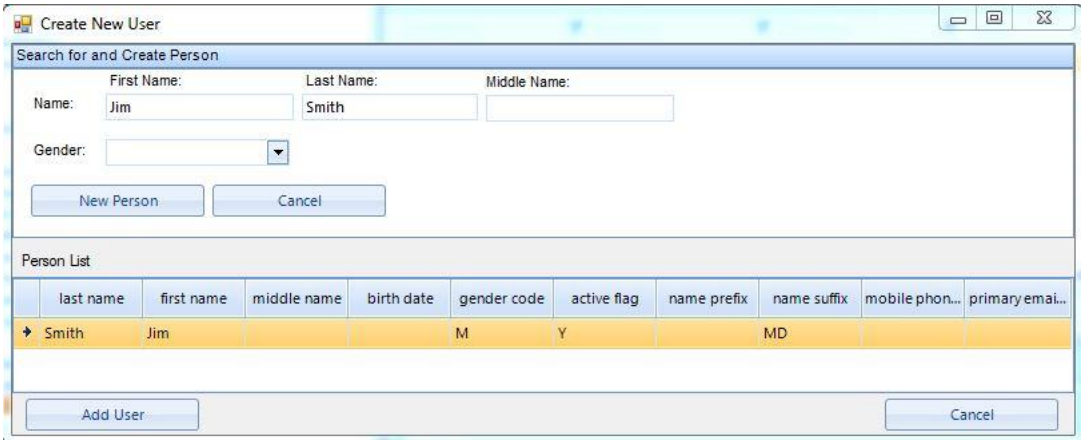



**Figure 4.5 – New User Person Search**

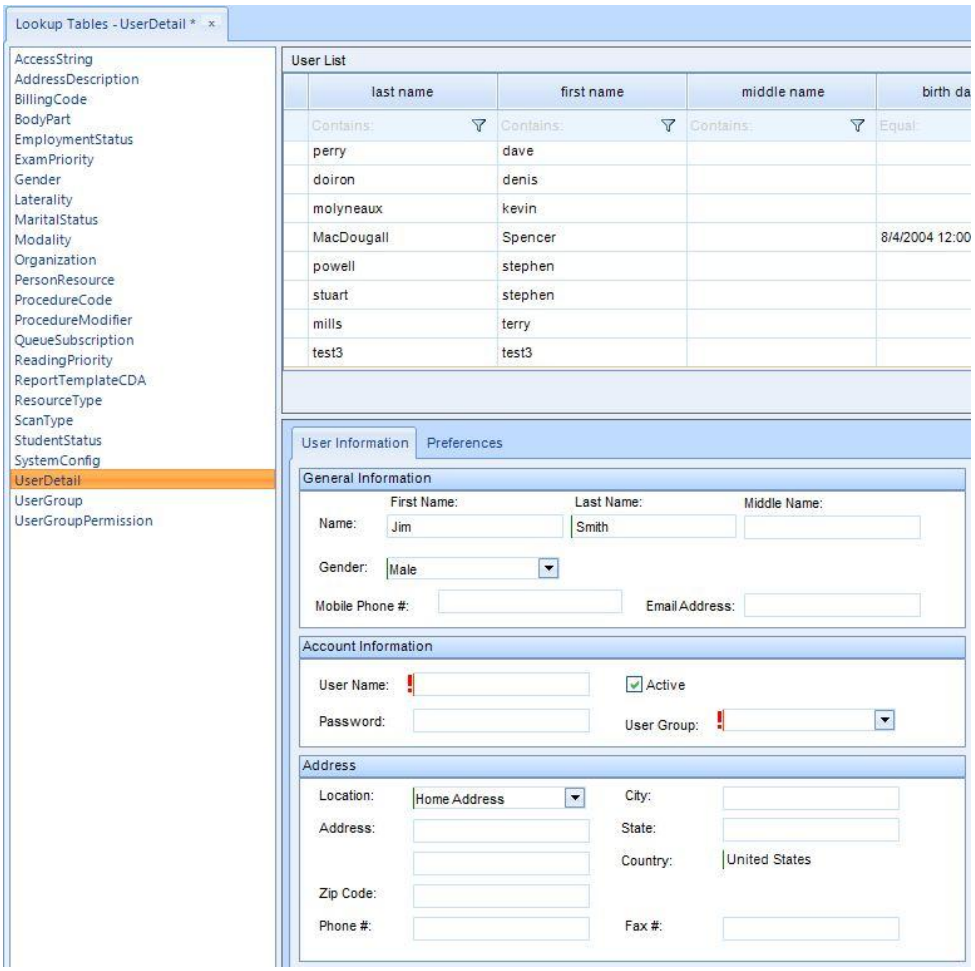



**Figure 4.6 – New User Details if Person Already Exists**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

If the Person Search does not return the person that needs to be setup as a user, simply clicking "New Person" will allow the setup of a new person and user details simultaneously.

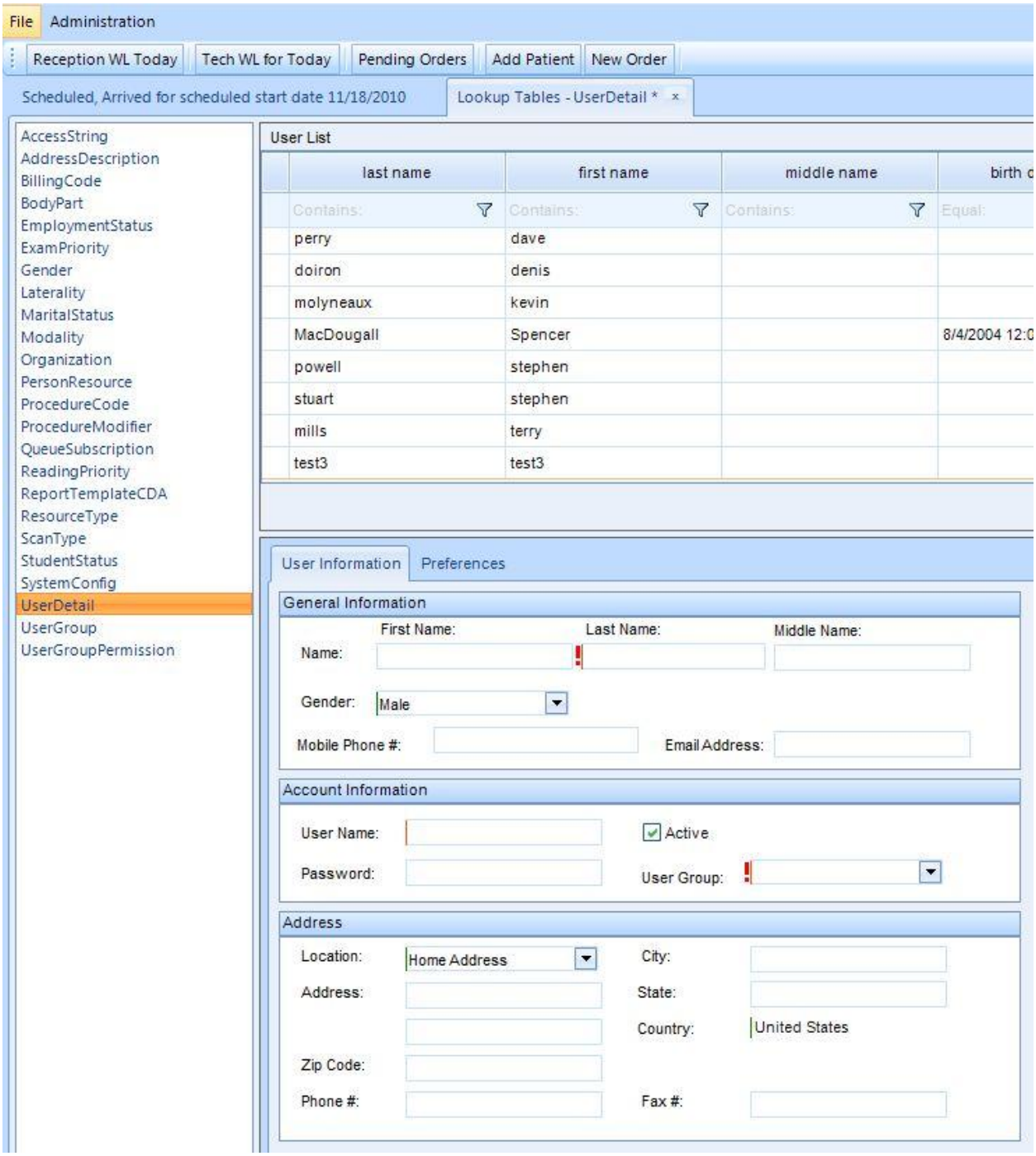



**Figure 4.7 – New User Details if Person Does Not Exist**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## User Groups and User Group Permissions

User Groups have been introduced in this release. Currently, a user can only belong to one user group set in the UserDetail screen. In a future release, this will be expanded so a user may belong to one or more user groups.

Permission overrides can be set at the User Group level using the UserGroupPermission lookup table. For example, if technologists are not permitted to create or edit orders then the appropriate access string codes can be set to "None" to hide the order functionality.

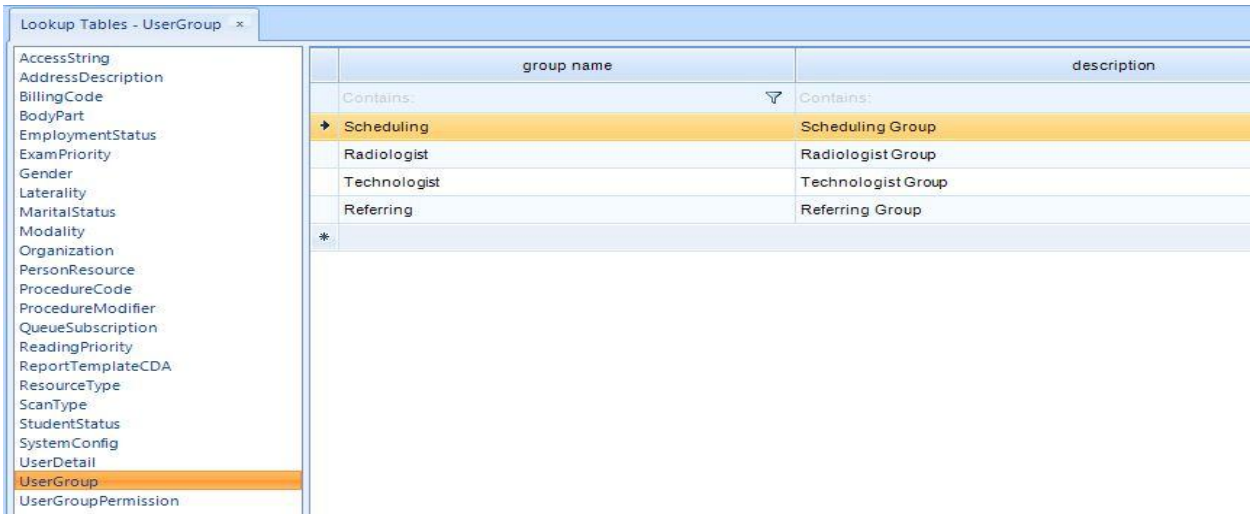



**Figure 4.8 – UserGroup Lookup Table**

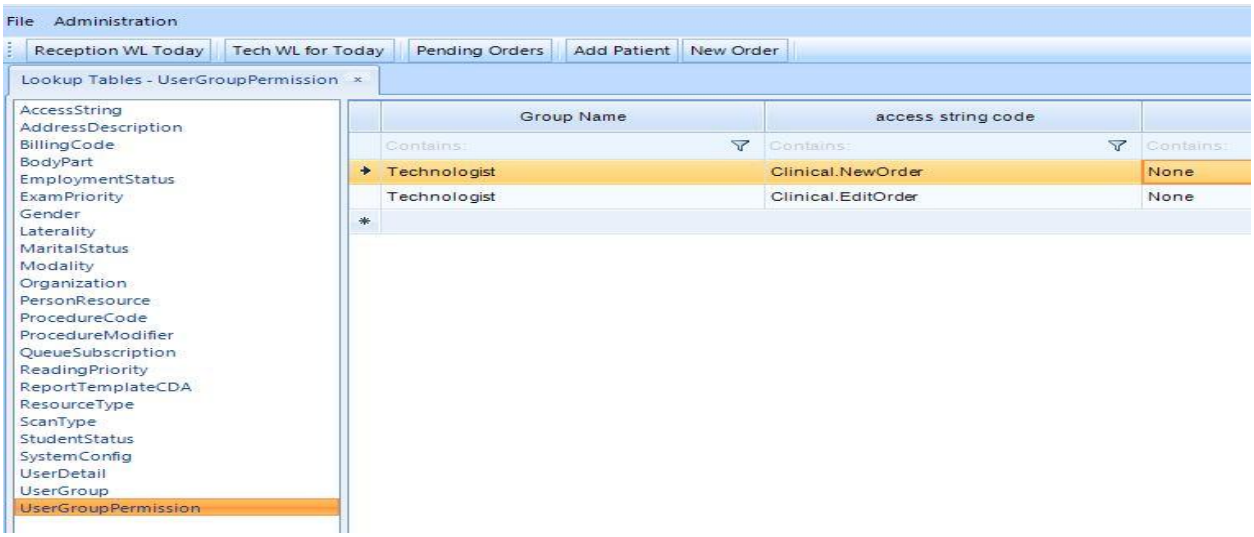
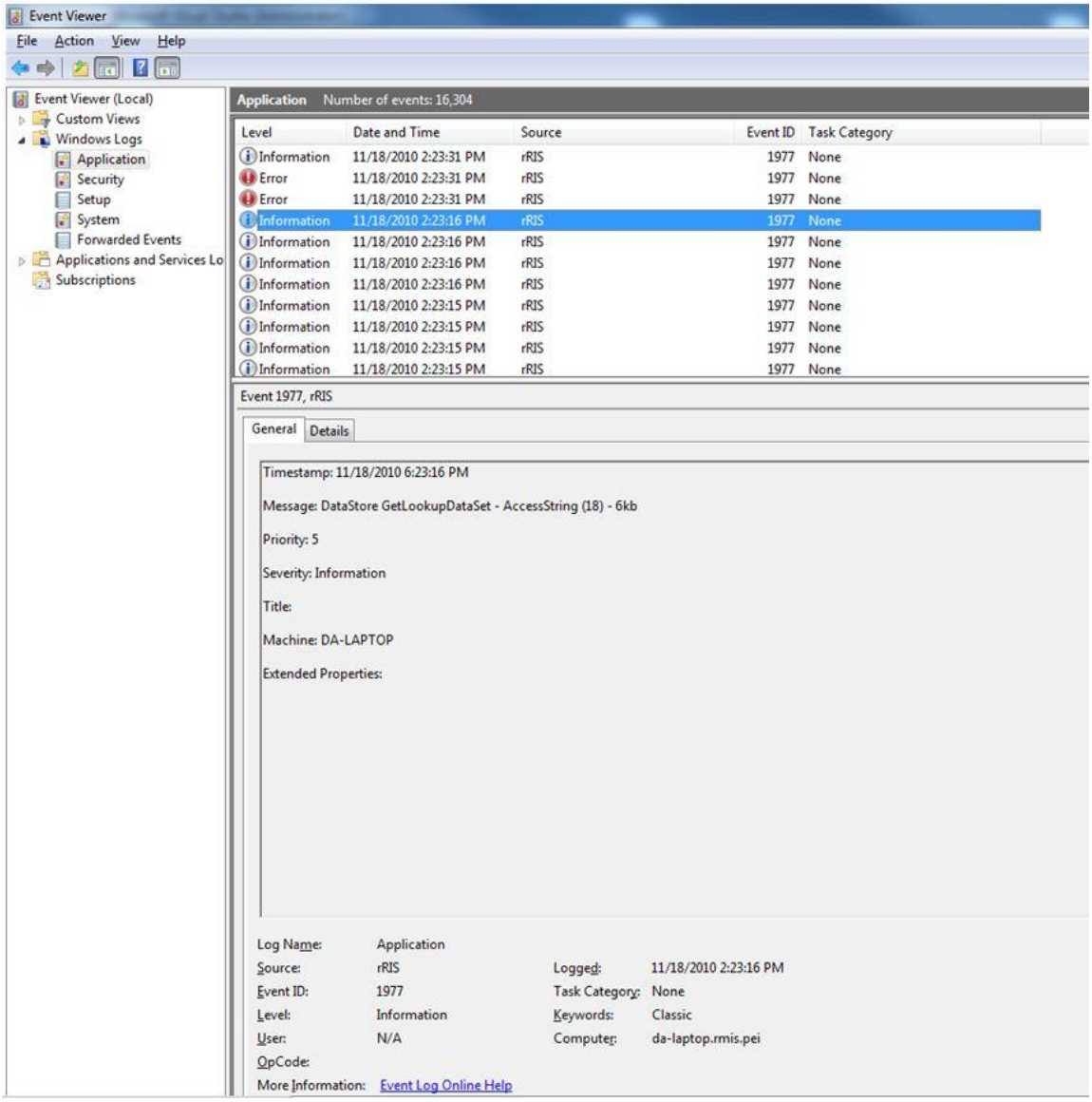



**Figure 4.9 – UserGroupPermission Lookup Table**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Logging Framework

rRIS requires a logging framework to help administrators and the development team to troubleshoot the application. The client and the server will both utilize the logging framework to persist logging messages to the Windows Event Viewer. The development team have been coding the application with logging in mind to properly capture critical errors, warnings, relevant information, etc. Through configuration settings, logging can be disabled, the logging level can be set, or the destination of the log files (flat file, xml file, event viewer, database, etc.) can be set.




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

**Figure 4.10 – Event Viewer Showing rRIS Logging Information**

## Close Tab Button

Tabs now have a close button which will only show on the active tab or when the user hovers the mouse pointer over the tab. The tab is closed when the "x" button is pressed.

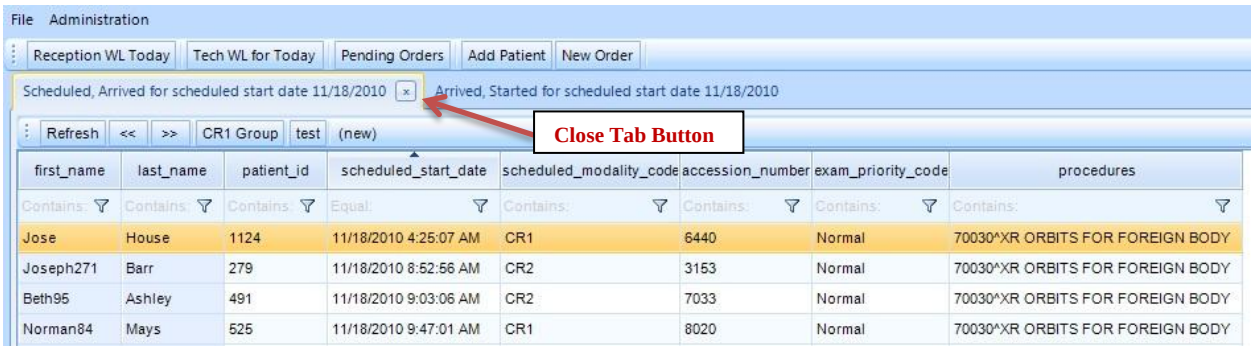



**Figure 4.11 – Close Tab Button on Scheduled Worklist**

## Procedure Picker

rRIS requires the ability to pick several procedure codes when placing an order or scheduling and for each procedure code to specify a laterality and/or body part. Some procedures will require the user to specify a laterality or body part as defined in the lookup table Procedure Codes. Also, some procedures will have a default laterality and or body part as described in the Procedure Codes table.

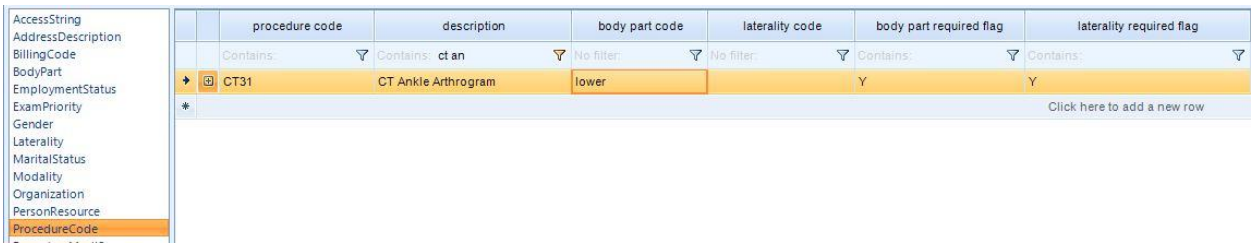



**Figure 4.12 – ProcedureCode Lookup with Body Part and Laterality Required**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

The control "MultiTypeAhead" was used in the orders screen such that the user can add procedures by typing in the name of the procedure. As the user types the possible matches are presented and can be selected from a dropdown. Selection can be made by:

- Tabbing away from the control
- Selecting the enter key
- Selecting the space bar
- Selecting the comma key

If the user has a selection made, it will appear in a square area with an 'x' on the end. Clicking on the 'x' at the end or pressing the "backspace" key will delete the existing procedure codes.

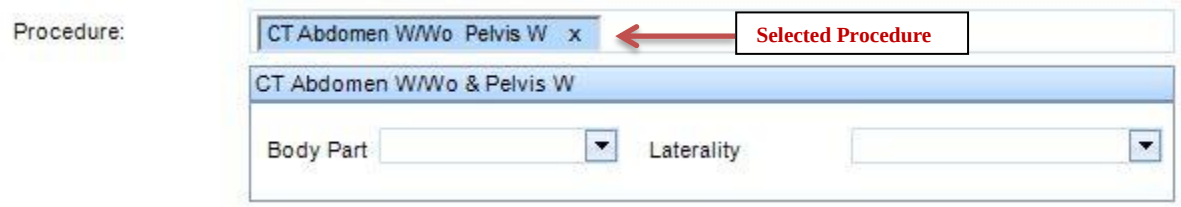



**Figure 4.13 – Procedure Picker with CT Abdomen Selected**

The user can also use the arrow keys to change the selected procedure code. When the selected procedure is changed the area below will show the laterality and body parts selected for that procedure and if any validation errors exist they will display and the user will be unable to move to another procedure till those validation errors are resolved. If there are any defaults specified for body part and laterality per procedure code, they will automatically display when that procedure code is selected.

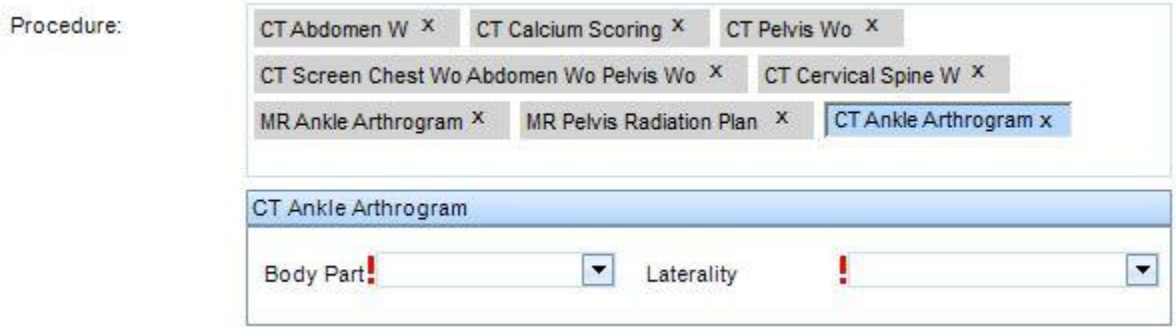



**Figure 4.14 – Procedure Picker with Body Part and Laterality Required**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

As the user adds additional values to the procedure code area the text entry box will grow and move other items on the screen down as needed.

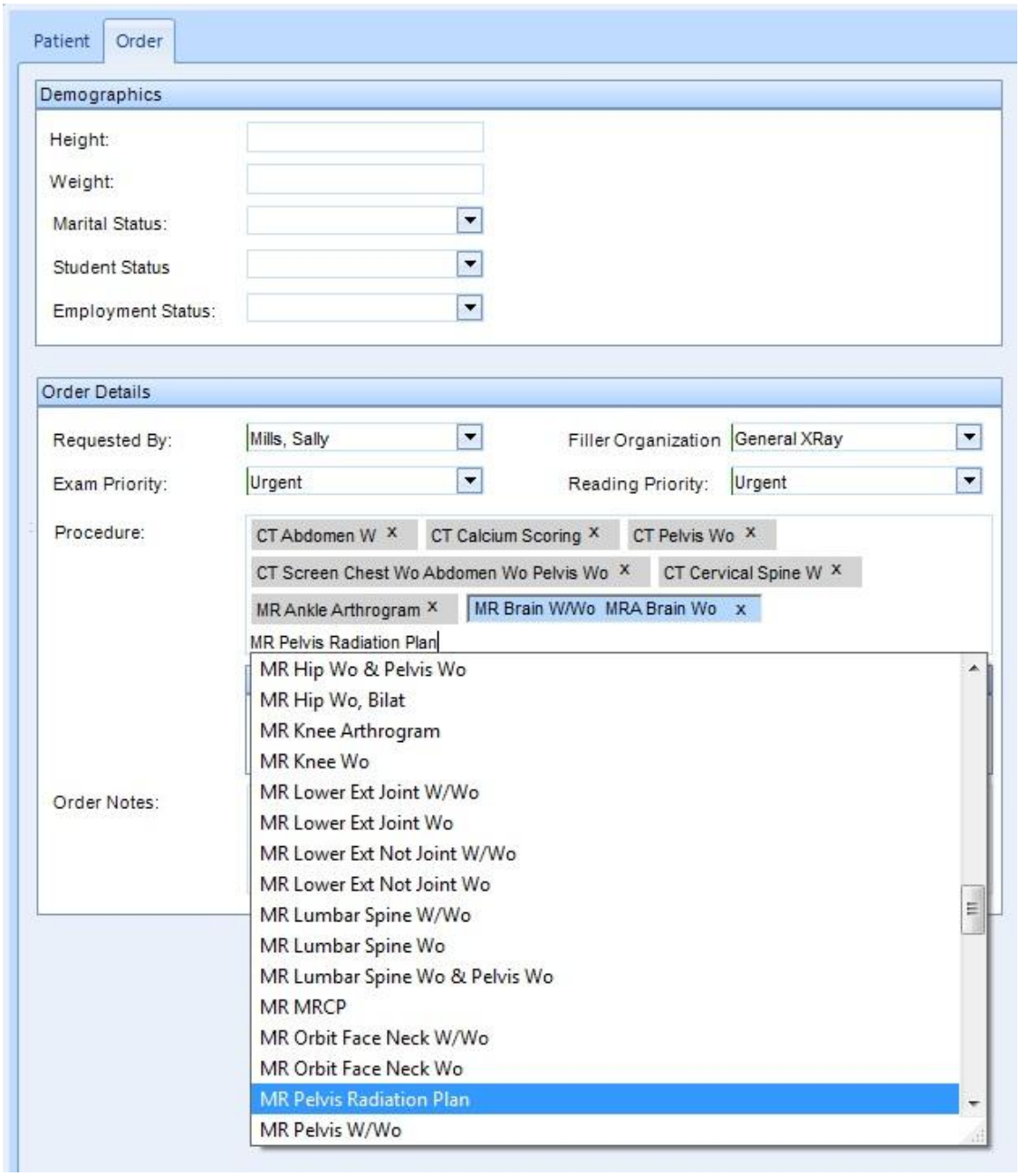



**Figure 4.15 – Procedure Picker with Multiple Procedures Selected**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Auditing Framework

An auditing framework has been developed to log all server retrievals and updates of patient, order, and study related data. A GUI screen is available for the user to view the audit log. This is accessible by right-clicking a worklist row and selecting "Audit History" (assuming the user has the necessary permissions).

User has the ability to view an audit trail based on patient, order, and study levels. In the details section of the audit history viewer there is a description showing what fields or statuses were changed by the user.

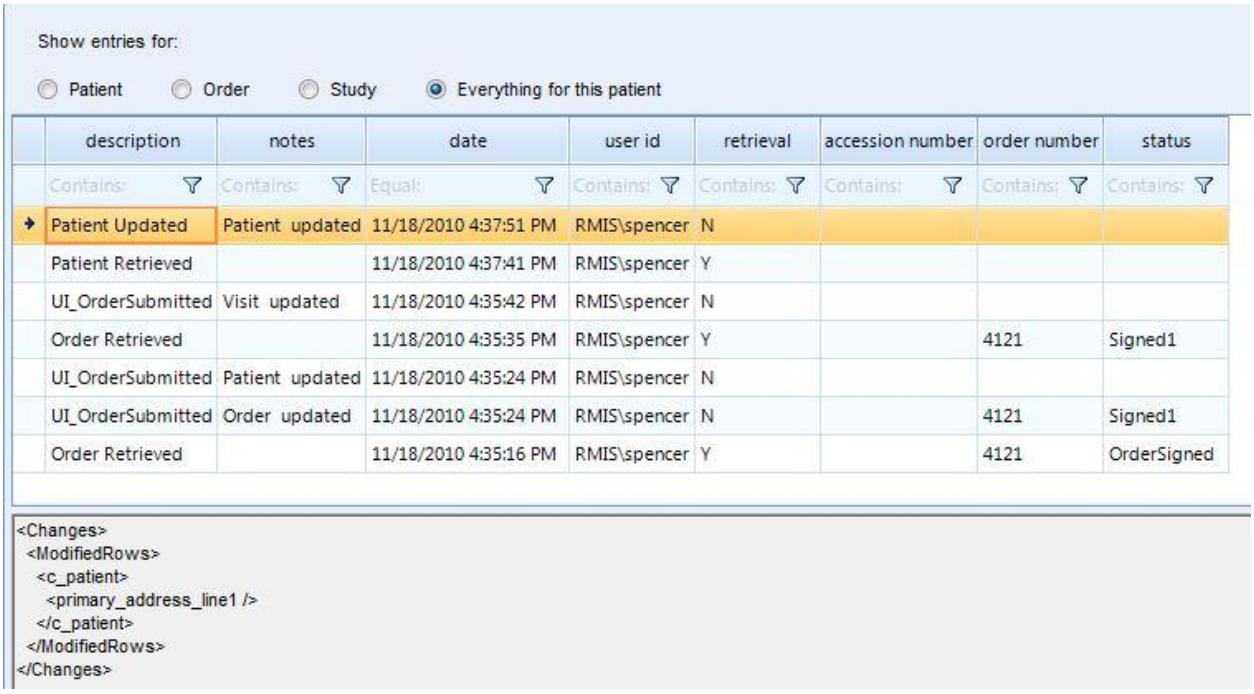



**Figure 4.16 – Audit Trail showing update to Patient Address**

## Password Encryption

Various password encryptions methods such as Triple DES, AES, SHA-1, SHA-2, and MD5 were researched during Sprint 5. SHA-1 and SHA-2 are secure hash algorithms required by law for use in certain U.S. Government applications. Recently, it has been identified that federal agencies should not use SHA-1 and should be upgraded to SHA-2.

SHA-2 has not been identified as having the same mathematical weakness as SHA-1 and therefore has been utilized in rRIS.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Worklist Context Menus

The rRIS worklist now has a right-click context menu feature which is configurable (through code) and fully supports user permissions.

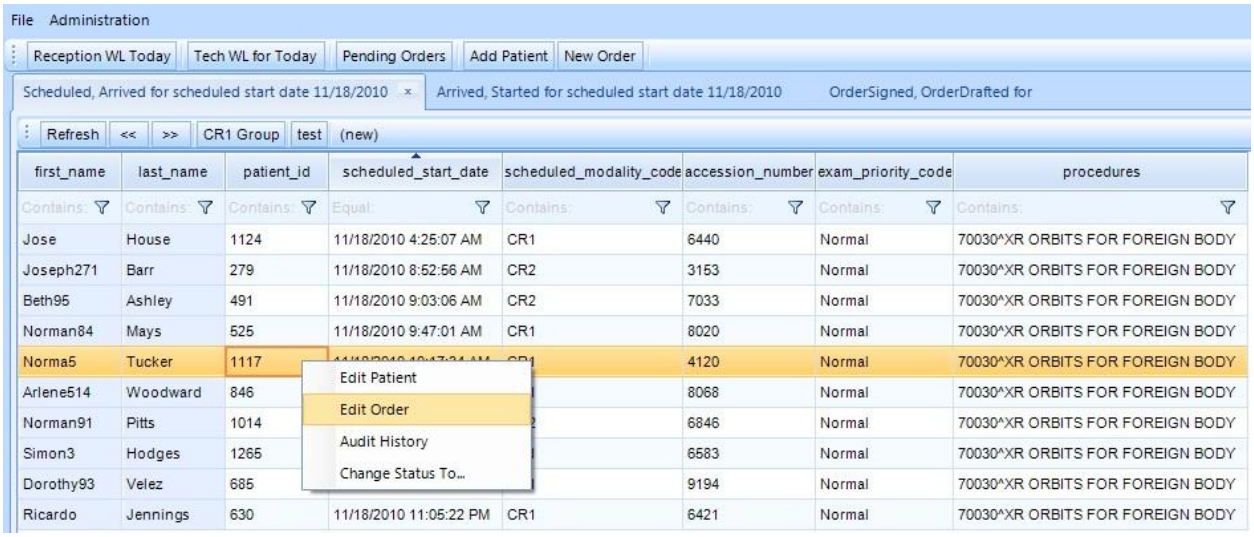



**Figure 4.17 – Reception Worklist showing Context Menu**

## Worklist Views

Worklist Views are buttons that reside at the top of a worklist and provide a convienent way of reusing saved filters. Here are some key features that have been implemented with rRIS worklist views:

- System has the ability to classify worklist views as:
  - Core Views – These are system views that will be released with and coded into the application.
  - Group Views – These are views that can be shared amongst a user group such as a group of schedulers or technologists.
  - Personal Views – These views are saved per user and may only be viewed by the user that owns them.
- Views are saved to the database and will be retrieved when the user logs on, therefore following the user no matter where he or she accesses the application.
- A different set of views can be maintained per worklist as they are based on worklist name.
- Views can be deleted by right-clicking the name of the view.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

This robust feature is still in the early stages of development. In future release, enhancements like permissions on creating views, renaming views, and better visual indicators will be introduced.

Accessing worklist views is as simple as clicking them on the worklist button bar. The example below illustrates a personal view called "Sorted by Name" where the patient's last name and first name are sorted ascending and saved as a view.

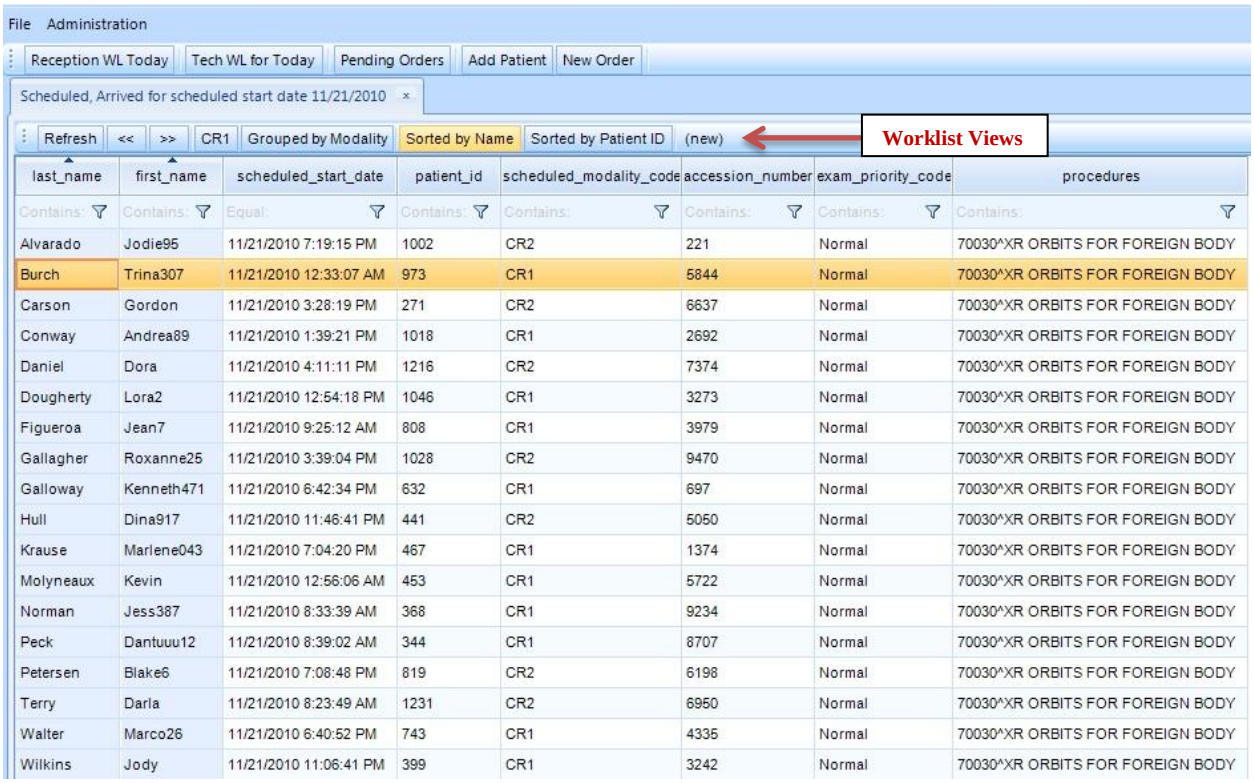



**Figure 4.18 – Reception Worklist showing Worklist Views**

To create a worklist view, the user should first filter the worklist to meet his or her needs and then select the "(new)" button. The user is then prompted to provide a name for the view and specify if it is a personal or group view.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

For example, a user that belongs to the Scheduling group filters the reception worklist based on a specified modality type and decides to save this view and share it with other schedulers. In this case the group worklist view is called "CR2". Once the view is saved, it will become accessible by other users belonging to the Scheduling group.

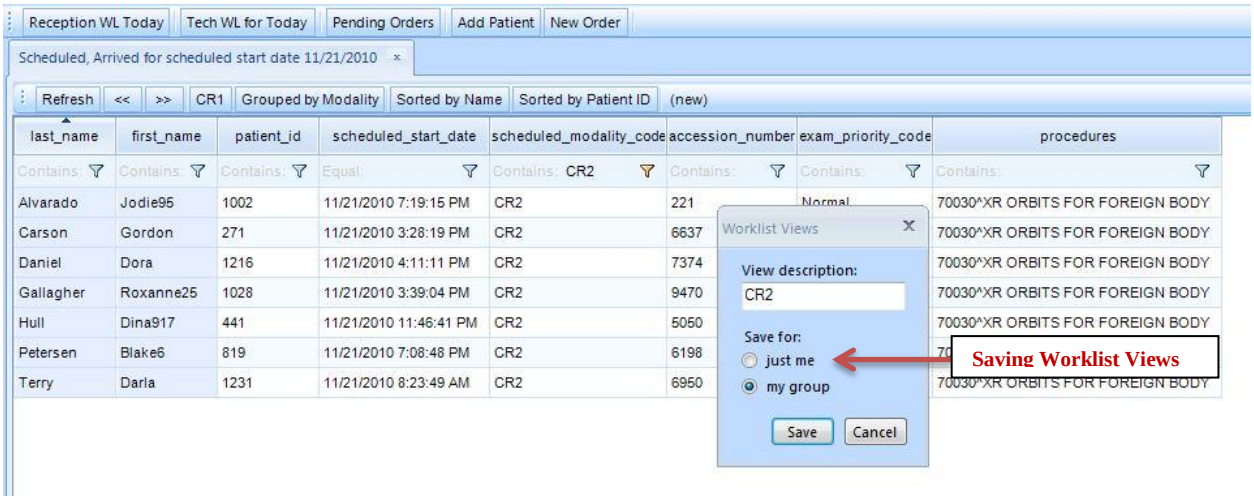



**Figure 4.18 – Creating a Worklist Group View**

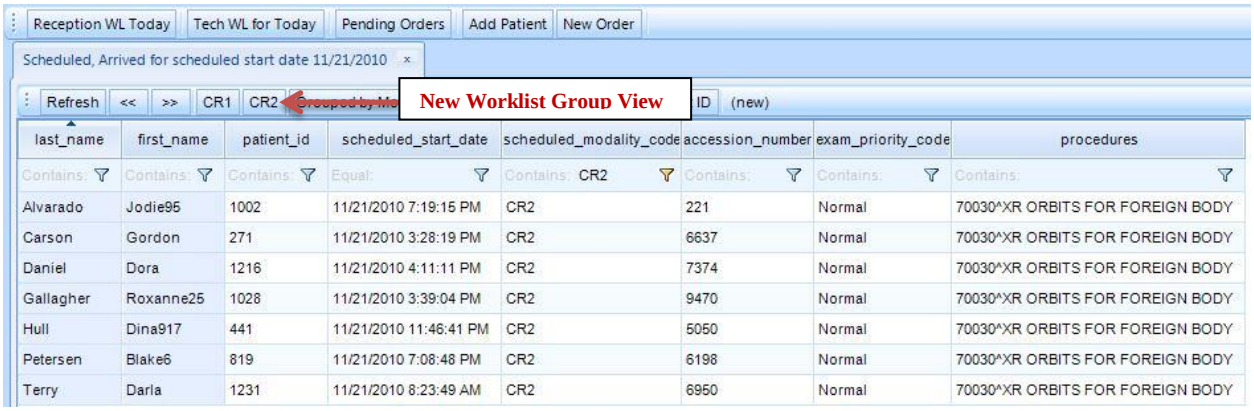
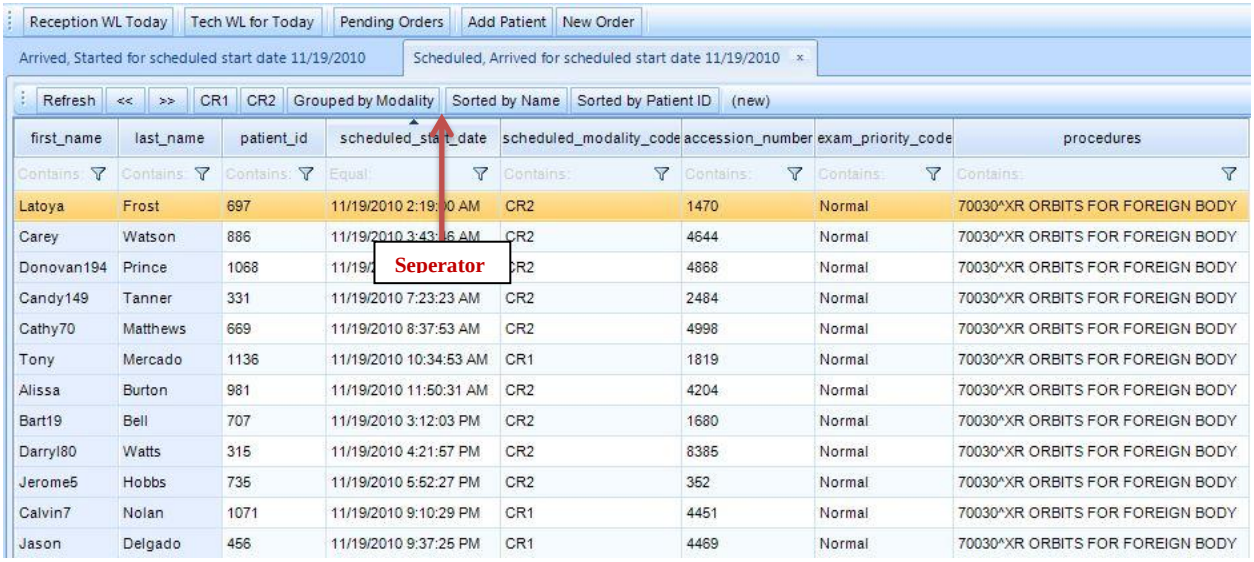



**Figure 4.19 – New Worklist Group View Displaying on Button Bar**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

If the user does not want the worklist view to be accessed by other user than he or she can simply select the "just me" radio button when saving the view. Group views and personal view will both exist on the worklist and are distinguished by a separator.




| first_name | last_name | patient_id | scheduled_start_date | scheduled_modality_code | accession_number | exam_priority_code | procedures |
|---|---|---|---|---|---|---|---|
| Latoya | Frost | 697 | 11/19/2010 2:19:00 AM | CR2 | 1470 | Normal | 70030^XR ORBITS FOR FOREIGN BODY |
| Carey | Watson | 886 | 11/19/2010 3:43:16 AM | CR2 | 4644 | Normal | 70030^XR ORBITS FOR FOREIGN BODY |
| Donovan194 | Prince | 1068 | 11/19/ | CR2 | 4868 | Normal | 70030^XR ORBITS FOR FOREIGN BODY |
| Candy149 | Tanner | 331 | 11/19/2010 7:23:23 AM | CR2 | 2484 | Normal | 70030^XR ORBITS FOR FOREIGN BODY |
| Cathy70 | Matthews | 669 | 11/19/2010 8:37:53 AM | CR2 | 4998 | Normal | 70030^XR ORBITS FOR FOREIGN BODY |
| Tony | Mercado | 1136 | 11/19/2010 10:34:53 AM | CR1 | 1819 | Normal | 70030^XR ORBITS FOR FOREIGN BODY |
| Alissa | Burton | 981 | 11/19/2010 11:50:31 AM | CR2 | 4204 | Normal | 70030^XR ORBITS FOR FOREIGN BODY |
| Bart19 | Bell | 707 | 11/19/2010 3:12:03 PM | CR2 | 1680 | Normal | 70030^XR ORBITS FOR FOREIGN BODY |
| Darryl80 | Watts | 315 | 11/19/2010 4:21:57 PM | CR2 | 8385 | Normal | 70030^XR ORBITS FOR FOREIGN BODY |
| Jerome5 | Hobbs | 735 | 11/19/2010 5:52:27 PM | CR2 | 352 | Normal | 70030^XR ORBITS FOR FOREIGN BODY |
| Calvin7 | Nolan | 1071 | 11/19/2010 9:10:29 PM | CR1 | 4451 | Normal | 70030^XR ORBITS FOR FOREIGN BODY |
| Jason | Delgado | 456 | 11/19/2010 9:37:25 PM | CR1 | 4469 | Normal | 70030^XR ORBITS FOR FOREIGN BODY |

**Figure 4.20 – Scheduled Worklist with Group and Personal Views**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 5. Known Limitations

Bugs, Suggested Features, and Support Issues are now tracked in a web based system called Redmine. The following is a snapshot of the issues found in Build 1.05 as of the end of Sprint 6. Note that the majority if these issues will be resolved in Build 1.06.

| # | Status | Subject | Category | Found | % Done | Resolved |
|---|---|---|---|---|---|---|
| 15 | Resolved | Opening a lookup table that is already open causes strange behaviour | Admin Tools | 1.05 | 100 | 1.06 |
| 16 | Closed | Adding a blank row to a lookup causes exception | Admin Tools | 1.05 | 100 | 1.05 |
| 17 | Closed | Issues with PersonResource and UserDetail lookups | Admin Tools | 1.05 | 100 | 1.05 |
| 18 | New | Rows in UserDetail are getting marked as dirty without any updates | Admin Tools | 1.05 | 0 | |
| 19 | Resolved | Problems adding a new user that is not a person resource | Admin Tools | 1.05 | 100 | 1.06 |
| 20 | New | Updates to PersonResource are reflected in database but not GUI | Admin Tools | 1.05 | 0 | |
| 21 | Resolved | Setting UserGroupPermission access level to None does not function properly | Admin Tools | 1.05 | 100 | 1.06 |
| 22 | Closed | Requested By: is misconfigured on the core Order screen | Thick Client GUI | 1.05 | 100 | 1.05 |
| 23 | New | Procedure Codes that are marked as Inactive are still included in the Procedure Picker | Thick Client GUI | 1.05 | 0 | |
| 24 | Resolved | Procedure Picker will not enforce Laterality and Body Part when multiple procedures are specified | Thick Client GUI | 1.05 | 100 | 1.06 |
| 25 | Resolved | Procedure Picker does not refresh screen when removing procedures with required fields | Thick Client GUI | 1.05 | 100 | 1.06 |
| 26 | Resolved | Procedure Picker should also be able to filter by Procedure Code | Thick Client GUI | 1.05 | 100 | 1.06 |
| 27 | Resolved | Changing patients does not re-validate required fields | Thick Client GUI | 1.05 | 100 | 1.06 |
| 28 | Resolved | Order Status when editing an order goes directly to Signed 1 | Web Services/DB | 1.05 | 100 | 1.06 |
| 29 | Resolved | Order Status does not update when scheduling an order | Web Services/DB | 1.05 | 100 | 1.06 |
| 30 | New | Issue with filtered worklists and launching screens with context | Thick Client GUI | 1.05 | 0 | |
| 31 | Resolved | Deleting rows from Audit History in GUI causes exception | Thick Client GUI | 1.05 | 100 | 1.06 |
| 32 | New | Some worklist slowness and flashing when updating status in RIS | Thick Client GUI | 1.05 | 0 | |
| 33 | Resolved | Context Menu on Pending Orders worklist | Thick Client GUI | 1.05 | 100 | 1.06 |
| 34 | New | Parent items in worklist context menus should be hidden if they have no child items | Thick Client GUI | 1.05 | 0 | |
| 35 | Resolved | Exception when saving group worklist view with name that already exists | Thick Client GUI | 1.05 | 100 | 1.06 |
| 36 | New | Exception when occurs when worklist views exceed the size of the tool bar | Thick Client GUI | 1.05 | 0 | |
| 37 | Resolved | The Code column in the SystemConfig lookup table allows duplicate values | Web Services/DB | 1.05 | 100 | 1.06 |
| 39 | Resolved | Loosing changes on lookup table if I try to reopen the same lookup table | Admin Tools | 1.05 | 100 | 1.06 |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# User Pre-Release Notes

for RADNET rRIS
Build 1.06

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Purpose ..... 3
2. Intended Audience ..... 3
3. Installing/Accessing the Application ..... 3
4. New Features and Enhancements ..... 4
   Support Multiple Addresses in User Manager ..... 4
   Support Multiple User Groups in User Manager ..... 5
   rRIS Client Installer ..... 6
   Shortcut Keys ..... 8
   Additional Worklist View Features ..... 9
   Worklist Calculated Columns ..... 11
5. Known Limitations ..... 12

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 1. Purpose

This document describes some of the new features and changes implemented in rRIS as of the end of Sprint 6. This pre-release version of rRIS is referred to as Build 1.06.

Only features which can be visually demonstrated to the user will be outlined in this document.

# 2. Intended Audience

This document is created by the rRIS Development team for the RadNet RIS management team.

# 3. Installing/Accessing the Application

The client installer for rRIS is still in the early development stages. For now, users can access the system by remoting to the rRIS test server in Baltimore as follows:

1. Start Remote Desktop Connection and specify IP 10.120.0.152
2. Username: Radnet domain account
3. Password: Radnet domain password
4. Double click the rRIS icon on the desktop or go to Start→All Programs→rRIS
5. Login User: terry
6. Login Password: ris

If you experience difficulties accessing the application, please do not hesitate to contact Spencer MacDougall with the PEI RIS Development Team.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 4. New Features and Enhancements

## Support Multiple Addresses in User Manager

The User Manager screen has been expanded in Sprint 6 to include a data grid to support one or more addresses per user. This pattern is required to support not only internal users but also referring doctors who quite often will have more than one office location resulting in multiple possibilities for report delivery.

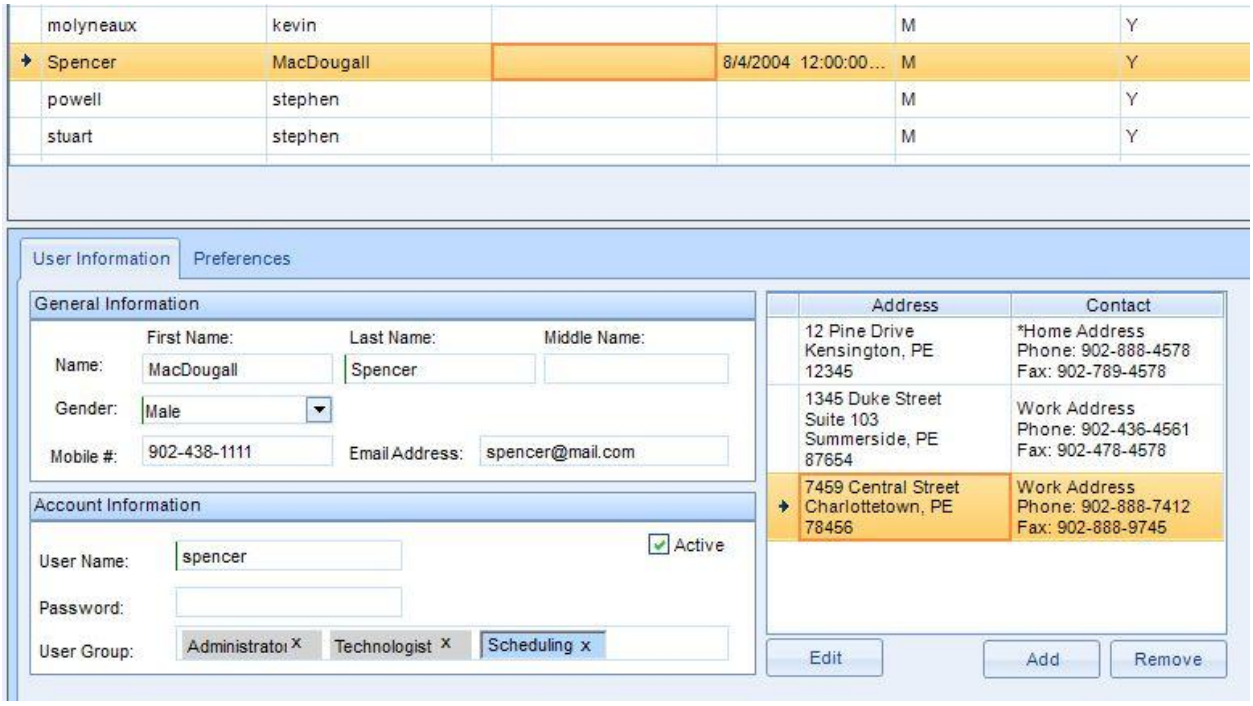



**Figure 4.1 – User Manager Screen with Address Grid**

The address grid will allow the user to see three to four addresses at a time without having to scroll. When editing or adding an address a modal popup window is displayed on top of the current screen so again no scrolling is required.

Each user can only have one primary address. In the above example, the Home Address is marked as primary and is visually identified with a "*". Required fields can also be enforced in the in the address grid. In the example, address type is required and the user is forced to complete it before he or she can save the entry.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

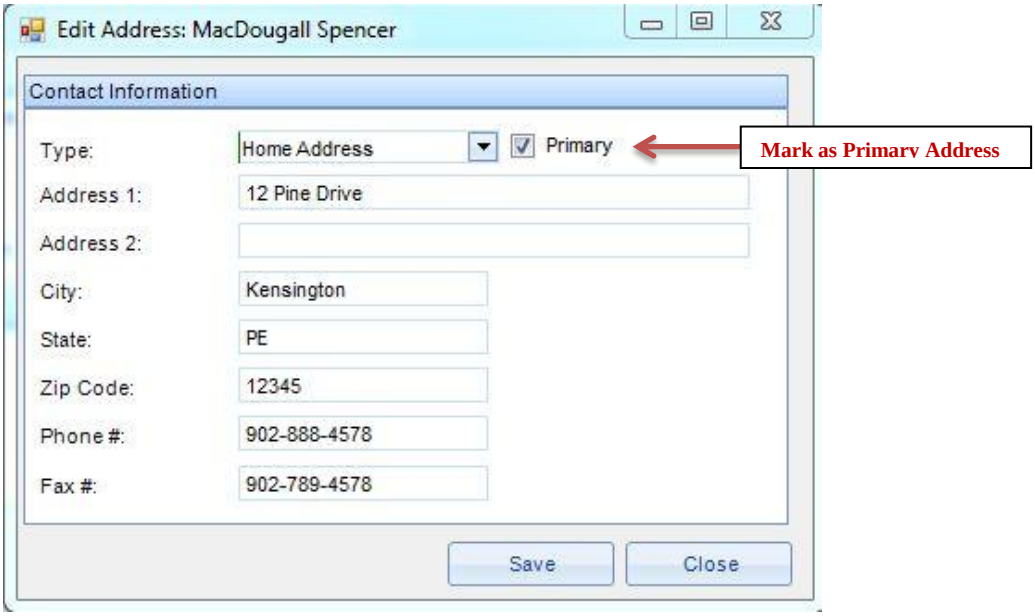



**Figure 4.2 – Modal Window to Add/Edit an Address in User Manager**

## Support Multiple User Groups in User Manager

Similar to addresses, there is also a requirement for a user to belong to one or more user group. This can now be defined in the User Manager screen. Many of the permissions in the application will be driven from user groups. Functionality that is available to a radiologist should not be accessible by a scheduler and vice versa. However, there will often be times where a user's job responsibility will span more than one group. For example, User A both schedules and arrives patients and therefore is required to belong to both the Scheduling and Registration user groups.

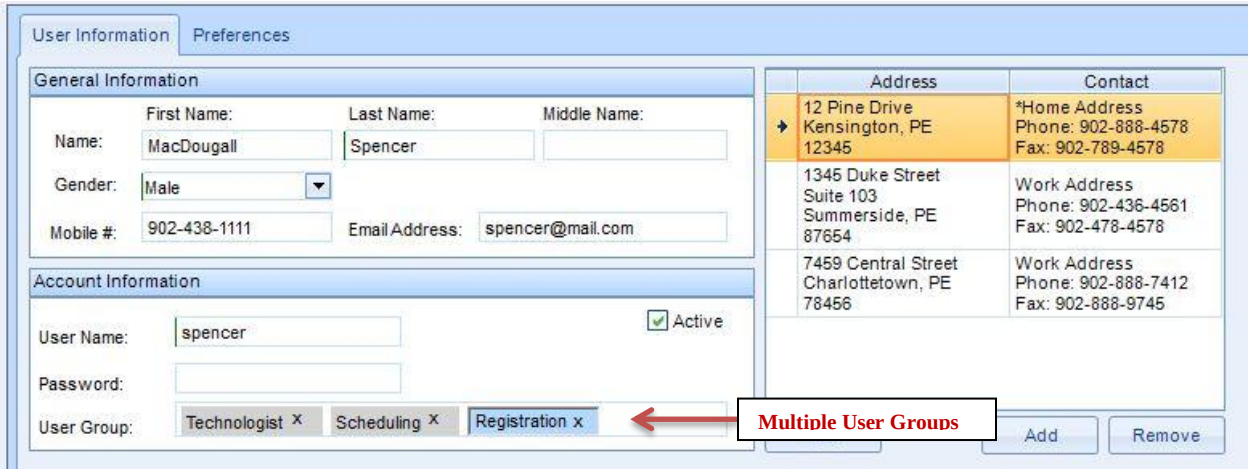



**Figure 4.3 – Multiple User Groups Applied to User**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## rRIS Client Installer

During both Sprint 5 and 6 there has been much effort invested in the development of the client installer. The installer functions under the assumption that there is a common shared network drive that is accessible by site users. The ris development team uses G:\RISDeployment as the shared drive but the location is configurable.

There are two main components to installing the application:

1. Core Install
2. Build Updates

The core install will require administrative rights and would typically need to be installed on each client pc before go-live. To install the core application, the user would simply run the Install.bat file located in the G:\RISDeployment\Core directory. By running the batch file all previous versions of rRIS are uninstalled and the new one is installed. This is all performed silently, without any required user interaction.

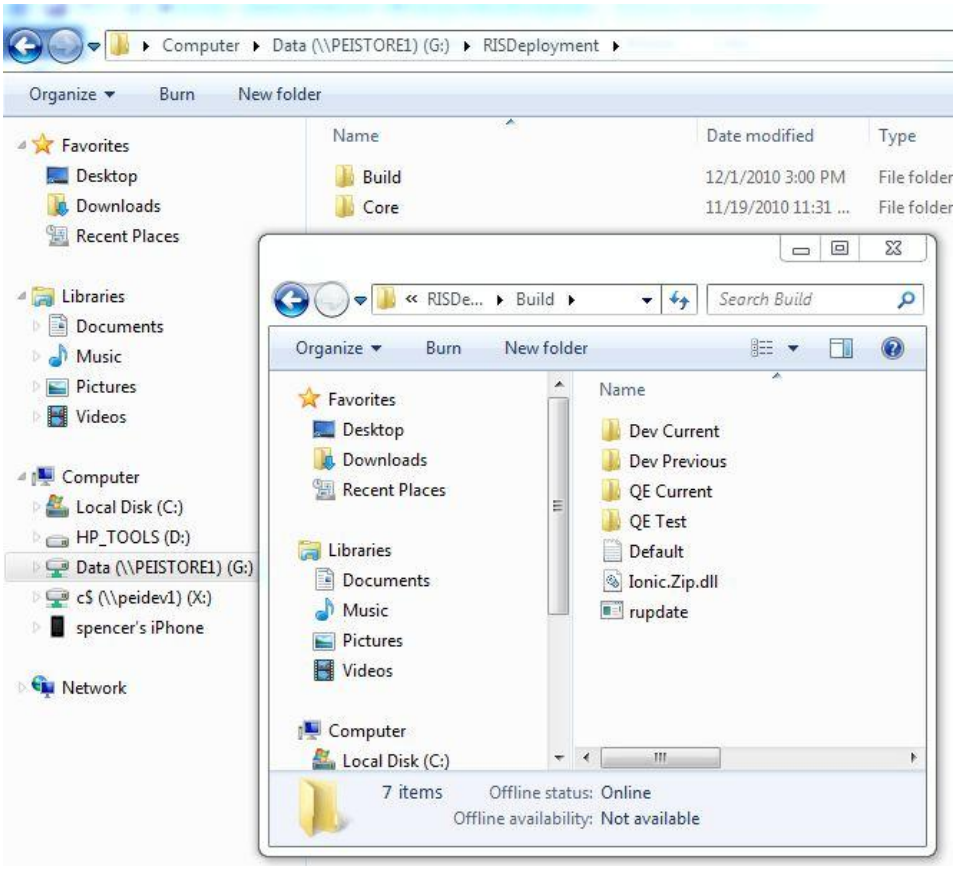



**Figure 4.4 – Installer Shared Drive**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

The Build directory will contain one or more builds available to the users. Consider the following requirements that have been satisfied with this approach:

1. This will allow a site to maintain multiple schemas, like one for production, training, and testing.

2. A default build can be specified. The login screen will automatically select the default build. Typically this will be the production build.

3. Users can be blocked from accessing builds by simply not granting permission to the subdirectories. If a site does not want users accessing the testing build, simply do not grant access to the testing directory. Testing will not show up on the System dropdown menu.

4. A user (with proper permission) is able to switch between different versions of the application with minimal effort required.

5. Current version number is displayed on the Login screen.

6. The ris administrator can easily push builds out to the users by simply overwriting the production files with the new release. The users will automatically install the new release on the next login.

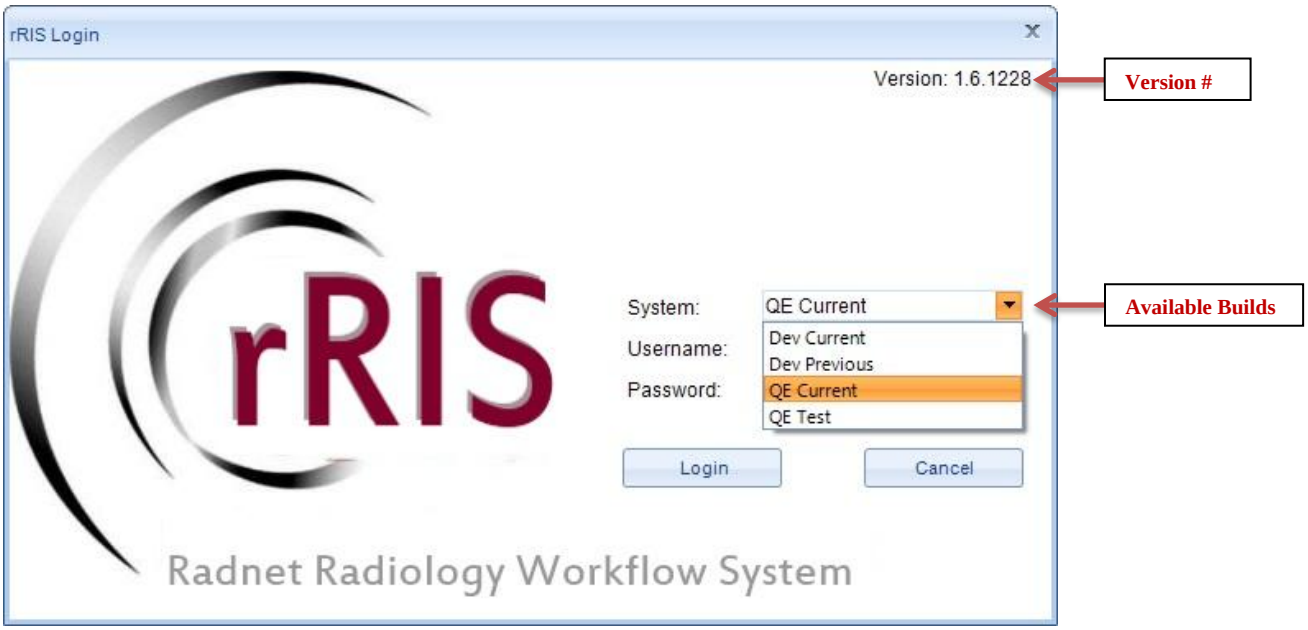



**Figure 4.5 – Login Screen showing Version and Available Builds**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Shortcut Keys

The development team has been ensuring that the application is keyboard friendly. The following is a list of shortcut keys that are currently supported:

**Typical Screens:**

| | |
|---|---|
| Ctrl+**W** | Close a Screen |
| Ctrl+**S** | Save and Close a Screen |
| Ctrl+**F** | Focus Patient Search Textbox |
| F4 | In a dropdown box, opens and closes the list<br>In a date input, opens the calendar selection popup<br>In a multi type ahead opens the type-ahead suggestions |
| Alt+**F4** | Closes the RIS Program |
| Alt+**Tab** | Standard Windows Keys to cycle though active windows programs |
| Ctrl+**Tab** | Cycles though active RIS Screens (such as Add Patient, WLs, etc.) |
| Ctrl+(↑ or↓) | Cycles though current RIS Screen's tabs |
| Ctrl+Shift+(↑ or↓) | Moves the selection up or down, in a screen's DataGrid (re: User Manager) |
| ESC | Closes a popup window (as a cancel) |
| O | Closes a popup window with OK |
| C | Closes a popup window with Cancel (similar for Y, N, etc). |
| Ctrl+**A** | Selects all text in a textbox |
| Ctrl+**C** | Copy selected text |
| Ctrl+**V** | Paste Selected text |
| Ctrl+**X** | Copy and delete selected text |
| Ctrl+N+… | Opens a data screen for a **N**ew item such as: |
| Ctrl+N+**P** | **N**ew **P**atient |
| Ctrl+N+**O** | **N**ew **O**rder |
| Ctrl+E+… | Opens a data **E**dit screen for an item such as: |
| Ctrl+E+**P** | **E**dit **P**atient |
| Ctrl+E+**O** | **E**dit **O**rder |
| Ctrl+**L**+… | Opens a Worklist screen such as: |
| Ctrl+L+**A** | Arrived Worklist (aka Reception WL) |
| Ctrl+L+**T** | Tech WL |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

| | |
|---|---|
| Ctrl+L+**O** | Orders WL |
| Ctrl+L+**S** | Scheduled WL |

**In a Worklist screen:**

| | |
|---|---|
| F5 | Refresh Worklist |
| Ctrl+← | Previous day in dated Worklists |
| Ctrl+→ | Next day in dated Worklists |
| Enter | TBD |

**In the Patient Search Screen:**

| | |
|---|---|
| ALT+**S** | Perform Search |
| ALT+**R** | Perform Reset |
| ALT+**L** | Goto Last Name |
| ALT+**F** | Goto First Name |
| ALT+**B** | Goto Birth Date |
| ALT+**M** | Goto MRN |
| ALT+**o** | Check Sounds Like |
| CTRL+**T** | Toggle/Swap First & Last Name |

## Additional Worklist View Features

The Worklist View framework has the following list of enhancements included in Build 1.06:

1. The ability to rename a view or change its type from a person to a group view or vice versa.

2. The ability to delete a view.

3. The ability to overwrite or update the filter criteria for the selected view.

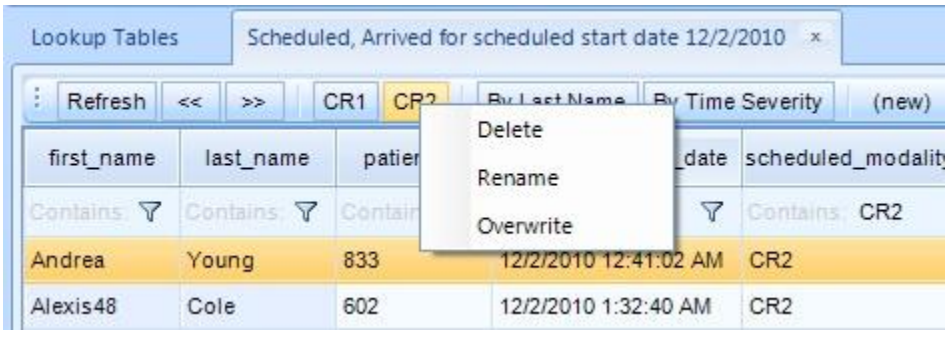



**Figure 4.6 – Worklist View Context Menu**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

4. Added permissions to access the editing features of both personal and group views. Permission can be enabled so only system administrators can update group views.

| Group Name | access string code | |
|---|---|---|
| Contains: | NotContain: Clinical.EditOrder | Contains: |
| Administrator | WorklistViews.Group.Edit | Full |
| Administrator | WorklistViews.User.Edit | Full |
| Scheduling | WorklistViews.User.Edit | Full |
| Technologist | WorklistViews.User.Edit | Full |

**Figure 4.7 – Worklist View Permissions**

5. The ability to load views from multiple user groups on the same worklist.

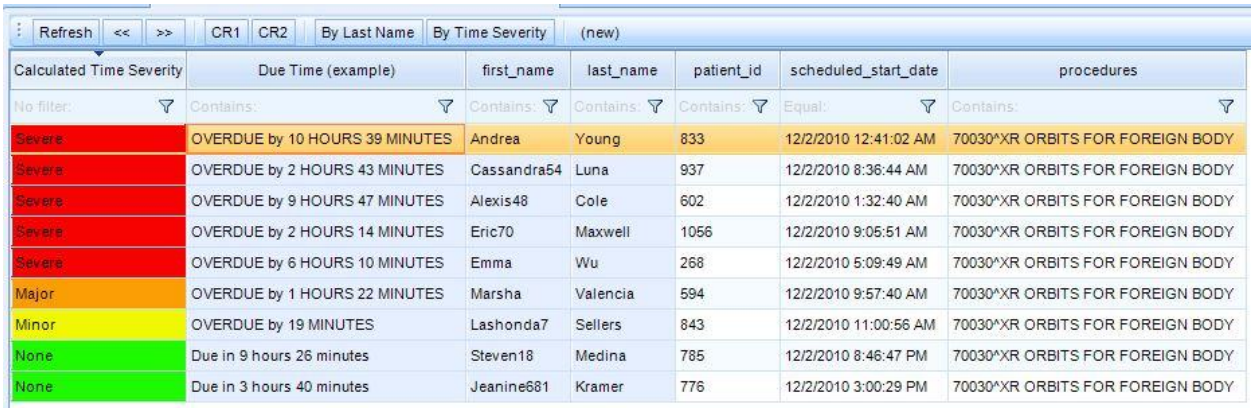
6. The ability to save views to a specific group if the user happens to belong to more than one user group.

**Figure 4.9 – Popup to Save Worklist Views**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Worklist Calculated Columns

There is a requirement to support columns to be calculated by the client workstation at runtime. For Build 1.06, a column which calculates patient Due Time has been added to the Scheduled/Arrived worklist. The calculation displays the difference in hours between the current time and the scheduled time. Another calculated column called Calculated Time Severity has been added which will classify the Due Time based on a set range.




| Calculated Time Severity | Due Time (example) | first_name | last_name | patient_id | scheduled_start_date | procedures |
|---|---|---|---|---|---|---|
| No filter: | Contains: | Contains: | Contains: | Contains: | Equal: | Contains: |
| Severe | OVERDUE by 10 HOURS 39 MINUTES | Andrea | Young | 833 | 12/2/2010 12:41:02 AM | 70030^XR ORBITS FOR FOREIGN BODY |
| Severe | OVERDUE by 2 HOURS 43 MINUTES | Cassandra54 | Luna | 937 | 12/2/2010 8:36:44 AM | 70030^XR ORBITS FOR FOREIGN BODY |
| Severe | OVERDUE by 9 HOURS 47 MINUTES | Alexis48 | Cole | 602 | 12/2/2010 1:32:40 AM | 70030^XR ORBITS FOR FOREIGN BODY |
| Severe | OVERDUE by 2 HOURS 14 MINUTES | Eric70 | Maxwell | 1056 | 12/2/2010 9:05:51 AM | 70030^XR ORBITS FOR FOREIGN BODY |
| Severe | OVERDUE by 6 HOURS 10 MINUTES | Emma | Wu | 268 | 12/2/2010 5:09:49 AM | 70030^XR ORBITS FOR FOREIGN BODY |
| Major | OVERDUE by 1 HOURS 22 MINUTES | Marsha | Valencia | 594 | 12/2/2010 9:57:40 AM | 70030^XR ORBITS FOR FOREIGN BODY |
| Minor | OVERDUE by 19 MINUTES | Lashonda7 | Sellers | 843 | 12/2/2010 11:00:56 AM | 70030^XR ORBITS FOR FOREIGN BODY |
| None | Due in 9 hours 26 minutes | Steven18 | Medina | 785 | 12/2/2010 8:46:47 PM | 70030^XR ORBITS FOR FOREIGN BODY |
| None | Due in 3 hours 40 minutes | Jeanine681 | Kramer | 776 | 12/2/2010 3:00:29 PM | 70030^XR ORBITS FOR FOREIGN BODY |

**Figure 4.10 – Worklist showing Calculated Column for Due Time and Severity**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 5. Known Limitations

Bugs, Suggested Features, and Support Issues are now tracked in a web based system called Redmine. The following is a snapshot of the issues found in Build 1.06 as of the end of Sprint 7. Note that the majority if these issues will be resolved in Build 1.07.

| # | Status | Subject | Category | Found | % Done | Resolved |
|---|---|---|---|---|---|---|
| 38 | Closed | Lookup table editor - clicking close and they clikcing save causes an error on UserDetail | Admin Tools | 1.06 | 100 | 1.06 |
| 40 | Resolved | updating lookup table - delete row, re-add row can cause a duplicate constraint error | Web Services/DB | 1.06 | 100 | 1.07 |
| 41 | Closed | patient_class_code error on new order save | Web Services/DB | 1.06 | 100 | 1.06 |
| 42 | Resolved | Error accessing PatientClass lookup | Web Services/DB | 1.06 | 100 | 1.07 |
| 43 | Resolved | Stat checkboxes are required on core order details screen | Thick Client GUI | 1.06 | 100 | 1.07 |
| 44 | Resolved | Issue with combo-boxes and required fields | Thick Client GUI | 1.06 | 100 | 1.07 |
| 46 | Resolved | Should be a reference warning when trying to modify a lookup code that is referenced | Admin Tools | 1.06 | 100 | 1.07 |
| 47 | New | Concurrency violations when using more than one instance on the Lookup Table editor | Admin Tools | 1.06 | 0 | |
| 48 | Resolved | Primary or related keys not found when adding a new patient | Web Services/DB | 1.06 | 100 | 1.07 |
| 49 | Resolved | Improvements for "breaking lock" workflow | Thick Client GUI | 1.06 | 100 | 1.07 |
| 50 | Resolved | Exception creating new user - Column 'user_key' is read only | Admin Tools | 1.06 | 100 | 1.06 |
| 51 | New | Takes 2 clicks to Edit, Add, or Remove row from Address grid | Admin Tools | 1.06 | 0 | |
| 52 | Resolved | Users not marked as Active can still login to the application | Admin Tools | 1.06 | 100 | 1.07 |
| 53 | Resolved | Exception when reapplying user to user group | Admin Tools | 1.06 | 100 | 1.07 |
| 54 | Resolved | Exception when trying to access AvailabilityTemplate screen | Admin Tools | 1.06 | 100 | 1.07 |
| 55 | New | Overwriting a Group Worklist View saves it as a Person Worklist View | Thick Client GUI | 1.06 | 0 | |
| 56 | New | When Renaming a WorklistView, popup should default to current values | Thick Client GUI | 1.06 | 0 | |
| 57 | New | Edit Patient shortcut keys not functioning | Thick Client GUI | 1.06 | 0 | |
| 58 | Resolved | Column sizing issue with child tables in Lookup Table Editor | Admin Tools | 1.06 | 100 | 1.07 |
| 59 | Resolved | Installer - Issue with access to Build directory | Thick Client GUI | 1.06 | 100 | 1.07 |
| 60 | Resolved | Installer - No indication of what System user is logging into if RISDeployment directory is not available | Thick Client GUI | 1.06 | 100 | 1.07 |
| 61 | Resolved | Delete should be disabled on Custom Area Designer when no controls are present | Admin Tools | 1.06 | 100 | 1.07 |
| 62 | New | No visual indicator of what worklist view is selected | Thick Client GUI | 1.06 | 0 | |
| 63 | New | Hard to filter lookup table columns that reference related lookup tables | Admin Tools | 1.06 | 0 | |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# User Pre-Release Notes

for RADNET rRIS
Build 1.07

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Purpose ..... 3
2. Intended Audience ..... 3
3. Installing/Accessing the Application ..... 3
4. New Features and Enhancements ..... 4
   Database Change Management ..... 4
   Modality Closure ..... 4
   Procedure Modality Mapping ..... 5
   User Schedule Group ..... 8
   Procedure Plan ..... 9
   Patient Merge ..... 9
   Display "Locked By" on the Worklist ..... 11
   Improvements to Broken Lock Workflow ..... 11
   Worklist Multi-Select ..... 12
   Patient Search Wild Card Support with Sounds Like ..... 13
5. Known Limitations ..... 14

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 1. Purpose

This document describes some of the new features and changes implemented in rRIS as of the end of Sprint 7. This pre-release version of rRIS is referred to as Build 1.07.

Only features which can be visually demonstrated to the user will be outlined in this document.

# 2. Intended Audience

This document is created by the rRIS Development team for the RadNet RIS management team.

# 3. Installing/Accessing the Application

The client installer for rRIS is still in the early development stages. For now, users can access the system by remoting to the rRIS test server in Baltimore as follows:

1. Start Remote Desktop Connection and specify IP 10.120.0.152
2. Username: Radnet domain account
3. Password: Radnet domain password
4. Double click the rRIS icon on the desktop or go to Start→All Programs→rRIS
5. Login User: terry
6. Login Password: ris

If you experience difficulties accessing the application, please do not hesitate to contact Spencer MacDougall with the PEI RIS Development Team.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 4. New Features and Enhancements

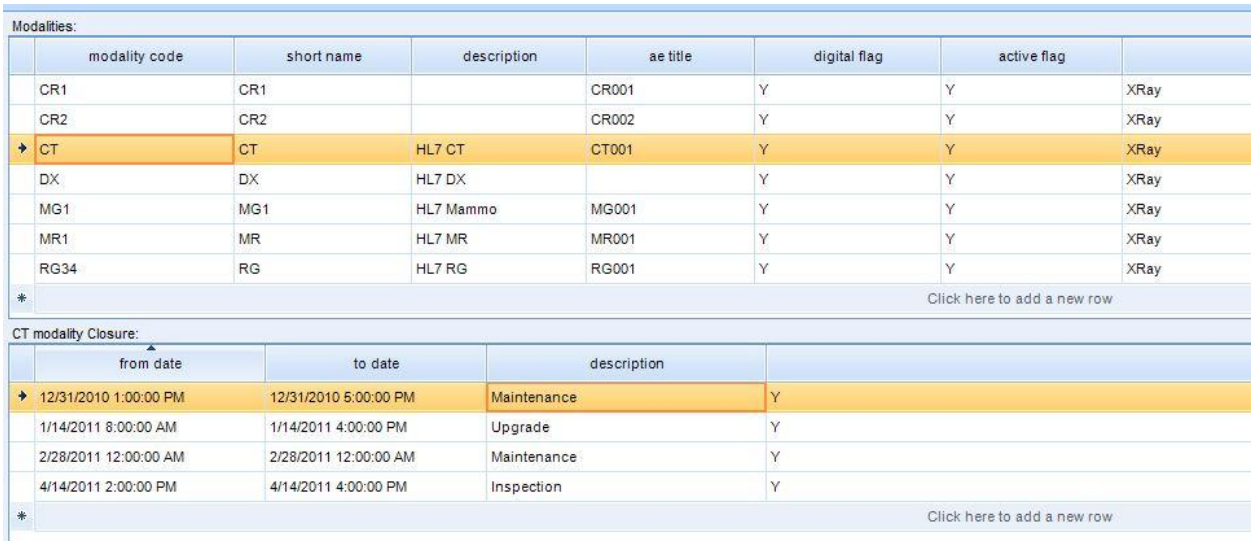
## Database Change Management

As the database for rRIS continues to develop and mature, there is a need to seamlessly upgrade it with each new release of the application. The DBGhost DB Change Management Process has been implemented to satisfy this requirement. The DBGhost solution will automatically generate a SQL file that will account for new and modified core database objects such as tables, views, stored procedures, and user defined functions. "Core" is what the rRIS R&D team refers to as critical components produced and maintained exclusively by the R&D team.

## Modality Closure

The modality maintenance screen has been expanded to include a section for modality closures. Modality maintenance is where all the scanners or rooms will be setup and maintained by the RIS system administrator. By filtering and clicking on the modality to be closed, the user can create a date range to define when the modality will not be available.

When scheduling, the list of available timeslots will not include any modalities that have been closed for the specified time period.


Modalities:

| | modality code | short name | description | ae title | digital flag | active flag | |
|---|---|---|---|---|---|---|---|
| | CR1 | CR1 | | CR001 | Y | Y | XRay |
| | CR2 | CR2 | | CR002 | Y | Y | XRay |
| ➔ | CT | CT | HL7 CT | CT001 | Y | Y | XRay |
| | DX | DX | HL7 DX | | Y | Y | XRay |
| | MG1 | MG1 | HL7 Mammo | MG001 | Y | Y | XRay |
| | MR1 | MR | HL7 MR | MR001 | Y | Y | XRay |
| | RG34 | RG | HL7 RG | RG001 | Y | Y | XRay |
| * | Click here to add a new row | | | | | | |

CT modality Closure:

| | from date | to date | description | |
|---|---|---|---|---|
| ➔ | 12/31/2010 1:00:00 PM | 12/31/2010 5:00:00 PM | Maintenance | Y |
| | 1/14/2011 8:00:00 AM | 1/14/2011 4:00:00 PM | Upgrade | Y |
| | 2/28/2011 12:00:00 AM | 2/28/2011 12:00:00 AM | Maintenance | Y |
| | 4/14/2011 2:00:00 PM | 4/14/2011 4:00:00 PM | Inspection | Y |
| * | Click here to add a new row | | | |

**Figure 4.1 – Modality Maintenance Screen showing Modality Closure**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Procedure Modality Mapping

rRIS has the ability through configuration screens to define Procedure Codes, Modalities, and Modality Availability Templates. The purpose of the Procedure Modality Mapping screen is to tie all three together when determining scheduling solutions. This screen will define which procedures can be performed on each modality and what availability template the modality should utilize.

In rRIS, these procedures to modality mappings are referred to as scheduling groups. To create a new Schedule Group, the user opens the ScheduleGroup screen in the lookup table editor and selects the "Add" button.

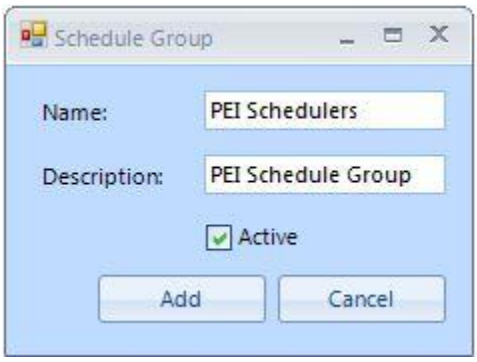



**Figure 4.2 – Popup to define new Schedule Group**

Once a new schedule group has been defined, the user can proceed to select procedures, modalities, and availability templates.

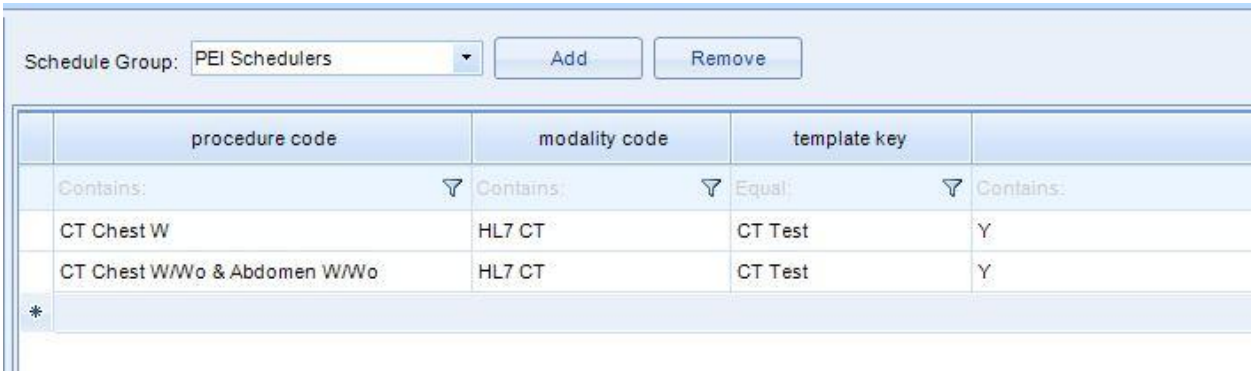



**Figure 4.3 – Schedule Group Configuration Screen**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

The administrator can select the "Add Multiple" button to easily add multiple procedures to a schedule group. This prevents the user from having to do this one row at a time.

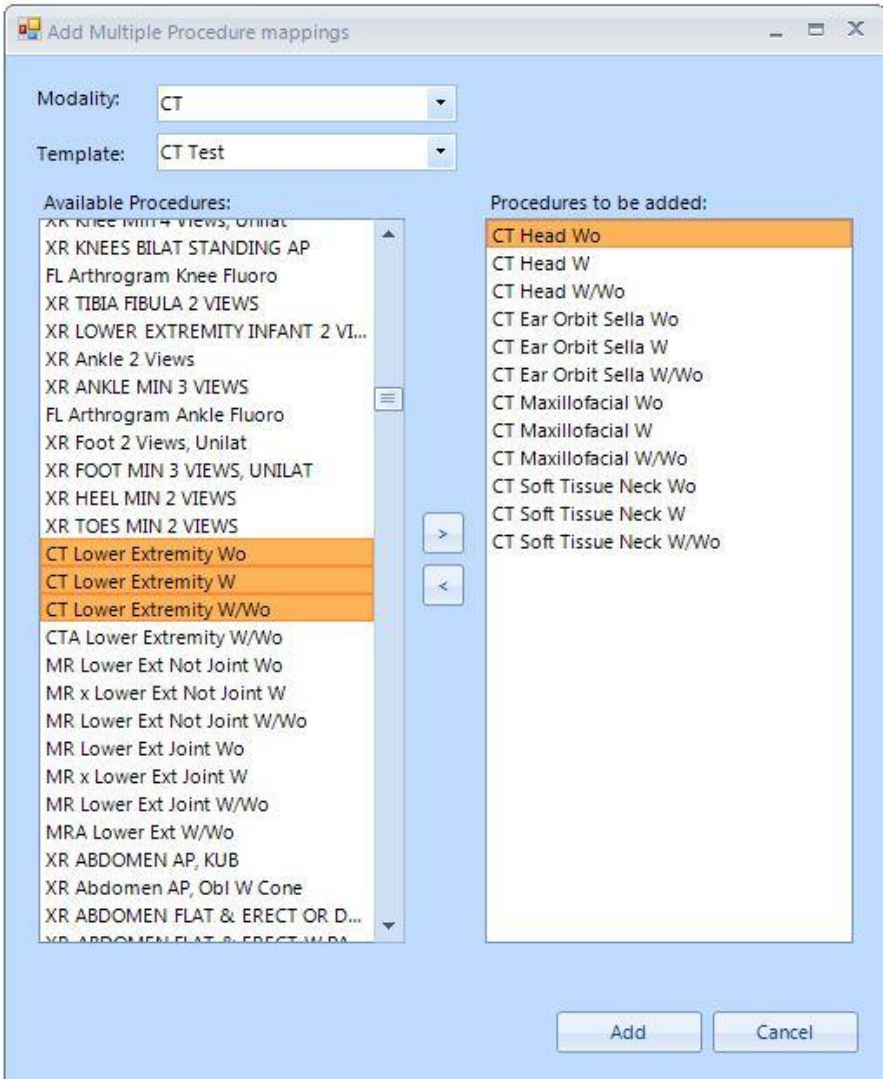



**Figure 4.4 – Adding Multiple Procedures to Schedule Group**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

Schedule Group: PEI Schedulers Add Remove

| procedure code | modality code | template key | |
|---|---|---|---|
| Contains: | Contains: | Equal: | Contains: |
| CT Chest W | HL7 CT | CT Test | Y |
| CT Chest W/Wo & Abdomen W/Wo | HL7 CT | CT Test | Y |
| CT Head Wo | HL7 CT | CT Test | Y |
| CT Head W | HL7 CT | CT Test | Y |
| CT Head W/Wo | HL7 CT | CT Test | Y |
| CT Ear Orbit Sella Wo | HL7 CT | CT Test | Y |
| CT Ear Orbit Sella W | HL7 CT | CT Test | Y |
| CT Ear Orbit Sella W/Wo | HL7 CT | CT Test | Y |
| CT Maxillofacial Wo | HL7 CT | CT Test | Y |
| CT Maxillofacial W | HL7 CT | CT Test | Y |
| CT Maxillofacial W/Wo | HL7 CT | CT Test | Y |
| CT Soft Tissue Neck Wo | HL7 CT | CT Test | Y |
| CT Soft Tissue Neck W | HL7 CT | CT Test | Y |
| CT Soft Tissue Neck W/Wo | HL7 CT | CT Test | Y |
| CT Lower Extremity Wo | HL7 CT | CT Test | Y |
| CT Lower Extremity W | HL7 CT | CT Test | Y |
| CT Lower Extremity W/Wo | HL7 CT | CT Test | Y |
| MR Cervical Spine Wo | HL7 MR | MR Test | Y |
| MR x Cervical Spine W | HL7 MR | MR Test | Y |
| MR Thoracic Spine Wo | HL7 MR | MR Test | Y |
| MR x Thoracic Spine W | HL7 MR | MR Test | Y |
| MR Lumbar Spine Wo | HL7 MR | MR Test | Y |
| MR x Lumbar Spine W | HL7 MR | MR Test | Y |
| MR Cervical Spine W/Wo | HL7 MR | MR Test | Y |
| MR Thoracic Spine W/Wo | HL7 MR | MR Test | Y |
| MR Lumbar Spine W/Wo | HL7 MR | MR Test | Y |
| MR Hip Wo & Pelvis Wo | HL7 MR | MR Test | Y |
| MR Ankle Arthrogram | HL7 MR | MR Test | Y |
| MR Elbow Arthrogram | HL7 MR | MR Test | Y |
| MR Hip Arthrogram | HL7 MR | MR Test | Y |

**Figure 4.5 – Sample Schedule Group Configuration**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## User Schedule Group

Once a schedule group has been defined, the rRIS system administrator has the ability to map users to it. This will limit a scheduling user to only have access to procedures, modalities, and templates that have been defined in the applied schedule group.

Schedule groups are set in the User Maintenance screen and are one per user. If a user does not require the ability to schedule, this value can be left blank.

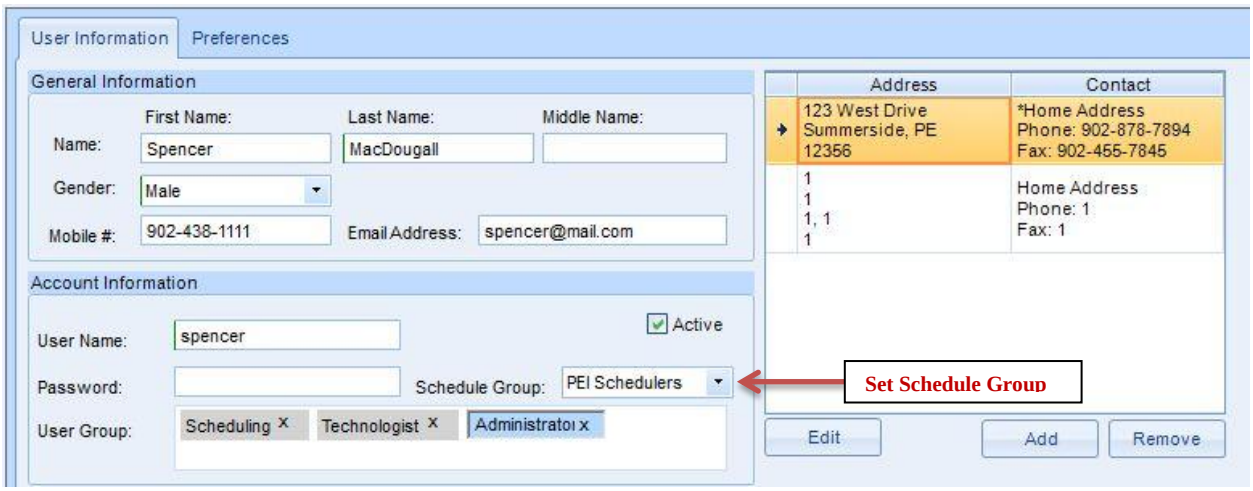



**Figure 4.6 – Setting Schedule Group in User Maintenance Screen**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Procedure Plan

Procedure plans are also referred to as series or composite codes. They are basically two or more procedure codes that can be saved in a predetermined sequence with a set wait time between each procedure. Procedure plans are added via the ProcedurePlan screen found in the Lookup Table Editor.

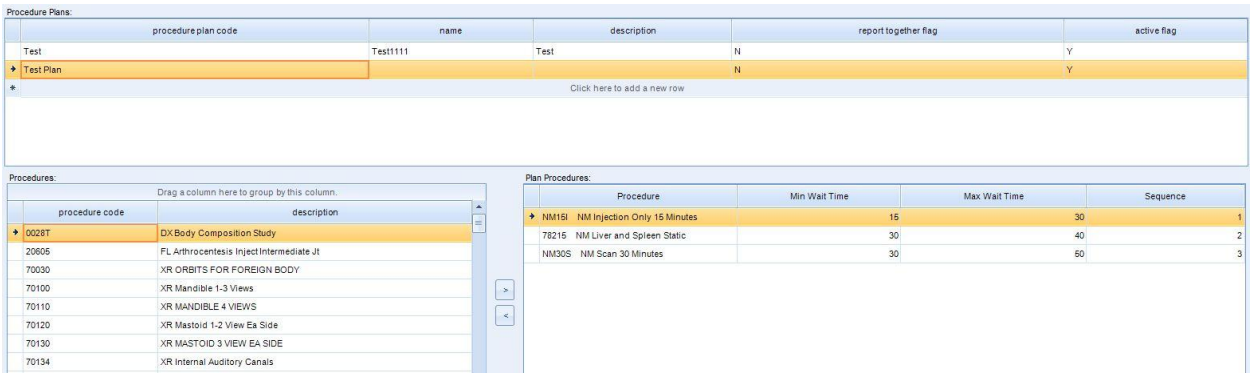



**Figure 4.7 – Sample Procedure Plan Configuration**

## Patient Merge

In rRIS, the user now has the ability to select an existing patient (source patient) and merge them into another patient record (destination patient).

The patient merge feature can be accessed if the user has permission by selecting File and Patient Merge from the menu bar. If the user opens patient merge from a worklist, the source patient will default to the patient that is selected. By using the "Patient Search" buttons within the source and destination patient group boxes, the user can add or change the patient selection. There is also a "< >" toggle button in the case where a user happens to get the source and destination patients entered in the wrong order. The toggle button switches the source and destination quickly so they don't have to re-search or re-enter data.

The data in the Patient Merge screen is read-only. Some basic information about the patient is displayed along with the patient worklist data, which summaries the clinical data that will be transferred to the destination patient's medical record. If the source and/or the destination isn't selected attempting a merge will display appropriate messages telling the user what is required. If the source and destination patients are the same an error message will also display when the user attempts a merge. Although the save button for this states "Merge" instead of the standard "Save", using the quick key "Ctrl+S" will perform the merge.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

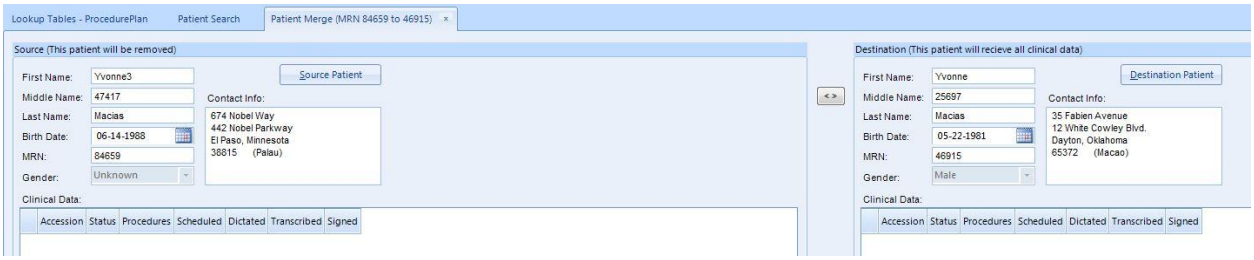



**Figure 4.8 – Patient Merge Screen showing Source and Destination Patient**

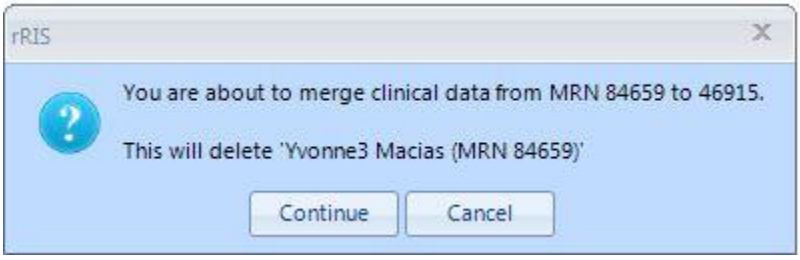



**Figure 4.9 – Patient Merge Warning Message**

**Figure 4.10 – Audit History with Patient Merge Entry**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Display "Locked By" on the Worklist

The worklist framework has been expanded to now include a "Locked By" column. This column will display the User ID of the user that has a lock on the study on the worklist.

| first_name | last_name | patient_id | locked_by | scheduled_modality_code | accession_number |
|---|---|---|---|---|---|
| Contains: | Contains: | Contains: | Contains: | Contains: | Contains: |
| Angelina | Sexton | 876 | | CR2 | 262 |
| Loren11 | Molinaaaa | 1015 | | CR1 | 263 |
| Tania953 | Welch | 459 | RMIS\spencer | CR2 | 264 |
| Vicky917 | Vega | 975 | | CR1 | 265 |
| Shana768 | Nielson | 869 | | CR1 | 266 |

**Figure 4.11 – Worklist Displaying Locked Study**

## Improvements to Broken Lock Workflow

There have been some significant improvements made to the broken lock workflow pertaining to the messages that are displayed to the user that is breaking the lock or having their lock broken. The phone number is now presented to allow the user to contact the person that is holding the lock.

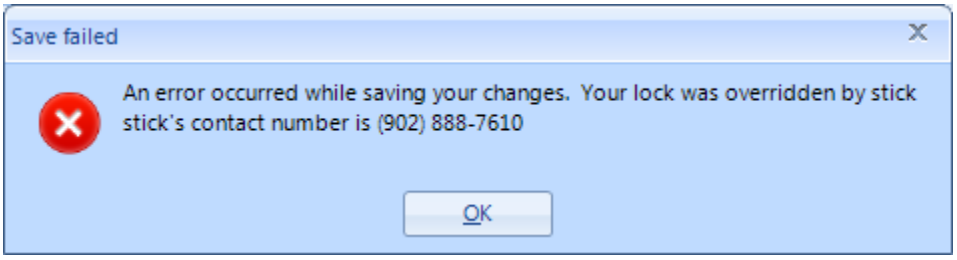



**Figure 4.12 – Error Message when Saving a Broken Lock**

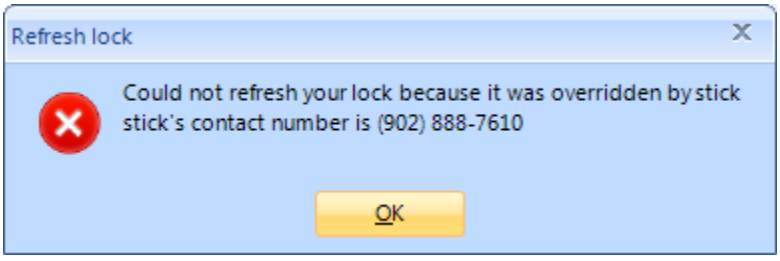



**Figure 4.13 – Error Message when Refreshing a Broken Lock**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

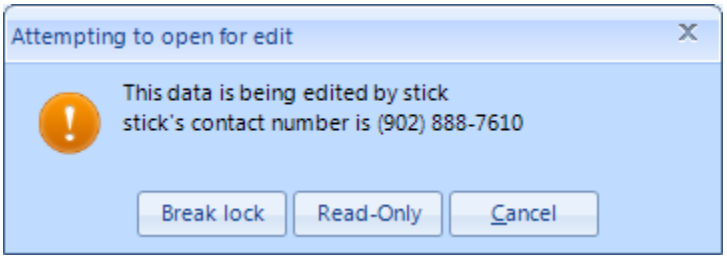
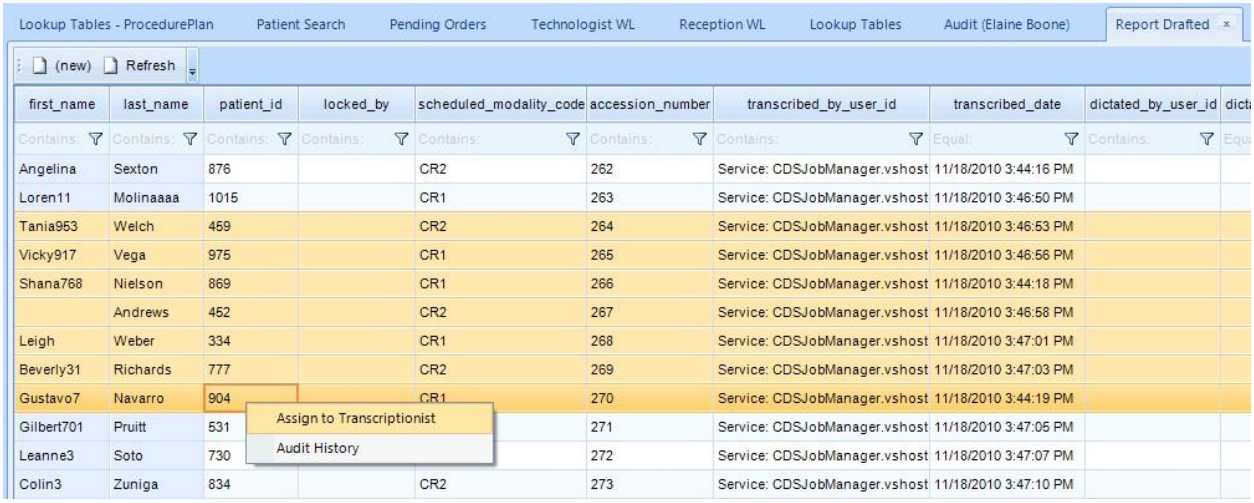



**Figure 4.14 – Error Message when Opening Locked Data**

## Worklist Multi-Select

The ability to select multiple rows on a worklist and perform an action for each selected row has been implemented in this release. Only certain actions support this feature. For example, edit order is limited to only one selected row. The user will be prompted that this feature does not support multi-select from the worklist. However, selecting Assign to Transcriptionist from the Report Drafted worklist does support this feature as demonstrated below.




| first_name | last_name | patient_id | locked_by | scheduled_modality_code | accession_number | transcribed_by_user_id | transcribed_date | dictated_by_user_id |
|---|---|---|---|---|---|---|---|---|
| Angelina | Sexton | 876 | | CR2 | 262 | Service: CDSJobManager.vshost | 11/18/2010 3:44:16 PM | |
| Loren11 | Molinaaaa | 1015 | | CR1 | 263 | Service: CDSJobManager.vshost | 11/18/2010 3:46:50 PM | |
| Tania953 | Welch | 459 | | CR2 | 264 | Service: CDSJobManager.vshost | 11/18/2010 3:46:53 PM | |
| Vicky917 | Vega | 975 | | CR1 | 265 | Service: CDSJobManager.vshost | 11/18/2010 3:46:56 PM | |
| Shana768 | Nielson | 869 | | CR1 | 266 | Service: CDSJobManager.vshost | 11/18/2010 3:44:18 PM | |
| | Andrews | 452 | | CR2 | 267 | Service: CDSJobManager.vshost | 11/18/2010 3:46:58 PM | |
| Leigh | Weber | 334 | | CR1 | 268 | Service: CDSJobManager.vshost | 11/18/2010 3:47:01 PM | |
| Beverly31 | Richards | 777 | | CR2 | 269 | Service: CDSJobManager.vshost | 11/18/2010 3:47:03 PM | |
| Gustavo7 | Navarro | 904 | | CR1 | 270 | Service: CDSJobManager.vshost | 11/18/2010 3:44:19 PM | |
| Gilbert701 | Pruitt | 531 | | | 271 | Service: CDSJobManager.vshost | 11/18/2010 3:47:05 PM | |
| Leanne3 | Soto | 730 | | | 272 | Service: CDSJobManager.vshost | 11/18/2010 3:47:07 PM | |
| Colin3 | Zuniga | 834 | | CR2 | 273 | Service: CDSJobManager.vshost | 11/18/2010 3:47:10 PM | |

**Figure 4.15 – Worklist Multi-Select Assign to Transcriptionist**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Patient Search Wild Card Support with Sounds Like

rRIS utilizes the "%" character for wild card support. This can now be used in conjunction with the "Sounds Like" feature to return search results. For example searching for First Name = a% and Last Name = smythe with Sounds Like enabled will look for patients where first name like "A%" (starts with A) and last name like "Smythe".

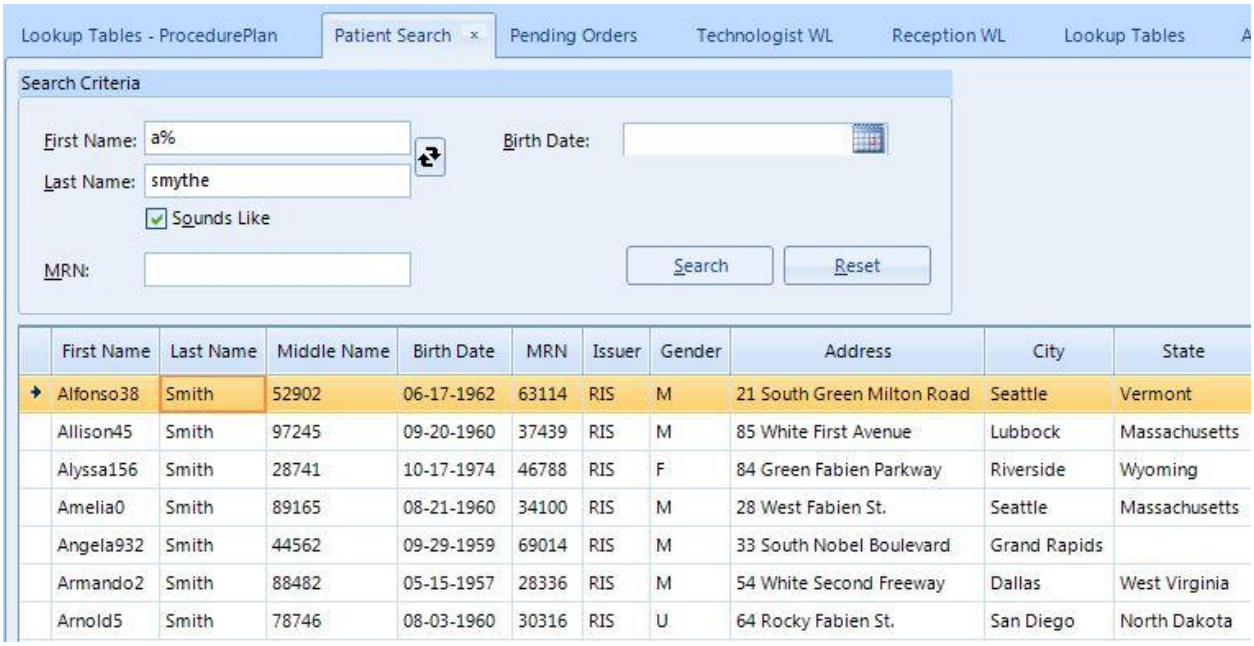



**Figure 4.16 – Patient Search Results Utilizing Wild Card and Sounds Like**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 5. Known Limitations

Bugs, Suggested Features, and Support Issues are now tracked in a web based system called Redmine. The following is a snapshot of the issues found in Build 1.07 as of the end of Sprint 8. Note that the majority if these issues will be resolved in Build 1.08.

| # | Status | Subject | Category | Found | %Done | Resolved |
|---|---|---|---|---|---|---|
| 45 | Closed | Updates to Pending Order worklist are taking a long time | Thick Client GUI | 1.07 | 100 | 1.07 |
| 64 | Resolved | When removing an availability template, dropdown is not refreshing | Admin Tools | 1.07 | 100 | 1.08 |
| 65 | Resolved | Exception when removing an Availability Template | Admin Tools | 1.07 | 100 | 1.08 |
| 66 | Resolved | When saving a new Availability Template, focus is lost | Admin Tools | 1.07 | 100 | 1.08 |
| 67 | Resolved | When entering time ranges on templates, user can specify a start time later than an end time | Admin Tools | 1.07 | 100 | 1.08 |
| 68 | Resolved | When editing an availability template time range, values should default accordingly | Admin Tools | 1.07 | 100 | 1.08 |
| 69 | Resolved | When adding a date range to an availability template, button text should read Add instead of Edit | Admin Tools | 1.07 | 100 | 1.08 |
| 70 | Resolved | When adding a time range to an availability template, the day of week scrolls out of view | Admin Tools | 1.07 | 100 | 1.08 |
| 71 | New | Worklist filter description is no longer showing on tab | Thick Client GUI | 1.07 | 0 | |
| 72 | New | Shortcut keys to navigate a date worklist do not reference focused worklist | Thick Client GUI | 1.07 | 0 | |
| 73 | Resolved | Selecting Patient Merge on a worklist with no records result in exception | Thick Client GUI | 1.07 | 100 | 1.08 |
| 74 | New | Patients with deleted_flag = 'Y' are still showing up on worklists | Thick Client GUI | 1.07 | 0 | |
| 75 | Resolved | DateTime Exception when adding a User | Admin Tools | 1.07 | 100 | 1.08 |
| 76 | Resolved | There are columns on both PersonResource and UserDetail that are not editable | Admin Tools | 1.07 | 100 | 1.08 |
| 77 | Resolved | User is allowed to enter duplicate resource row in PersonResource causing exception | Admin Tools | 1.07 | 100 | 1.08 |
| 78 | Resolved | PersonResource - need validation on id field | Admin Tools | 1.07 | 100 | 1.08 |
| 79 | Resolved | PersonResource - Need max length set for both ID and Issuer of ID fields | Admin Tools | 1.07 | 100 | 1.08 |
| 80 | Resolved | When entering a new user or resource, gender defaults to Male for new persons | Admin Tools | 1.07 | 100 | 1.08 |
| 81 | Resolved | Adding a ScheduleGroup and removing it results in exception on save | Admin Tools | 1.07 | 100 | 1.08 |
| 82 | Resolved | ScheduleGroup Name is not being validated | Admin Tools | 1.07 | 100 | 1.08 |
| 83 | New | ScheduleGroups that are marked as inactive as still available under UserDetail | Admin Tools | 1.07 | 0 | |
| 84 | Resolved | ProcedurePlan - report together flag should be limited to Y or N value | Admin Tools | 1.07 | 100 | 1.08 |
| 85 | Resolved | ProcedurePlan - max length issue with grid | Admin Tools | 1.07 | 100 | 1.08 |
| 86 | Resolved | ProcedurePlan - Duplicate sequence error | Admin Tools | 1.07 | 100 | 1.08 |
| 87 | Resolved | UserDetail - Getting prompted to save without making any changes | Admin Tools | 1.07 | 100 | 1.08 |
| 88 | Resolved | Modality Closure - Warning appear to be referencing deleted rows. | Admin Tools | 1.07 | 100 | 1.08 |
| 89 | New | Need to standardize popup forms | Admin Tools | 1.07 | 0 | |
| 90 | Resolved | Lookup Editor - When rows are being validated, user loses changes. | Admin Tools | 1.07 | 100 | 1.08 |
| 91 | New | Worklist multi-select and Enter key | Thick Client GUI | 1.07 | 0 | |
| 92 | Resolved | Patient ID should be system generated only | Thick Client GUI | 1.07 | 100 | 1.08 |
| 95 | New | Worklist - User is able to select 2 rows and launch non-multiselect actions | Thick Client GUI | 1.07 | 0 | |
| 96 | Resolved | ProcedurePlan - user is able to enter null values in required fields | Admin Tools | 1.07 | 100 | 1.08 |
| 97 | Resolved | ProcedurePlan - Min and Max Wait Times allow negative values | Admin Tools | 1.07 | 100 | 1.08 |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

| | | | | | | |
|---|---|---|---|---|---|---|
| 98 | New | ModalityClosure - Requires additional date/time validation | Admin Tools | 1.07 | 0 | |
| 99 | Resolved | UserDetail - Exception when filtering grid and creating new user | Admin Tools | 1.07 | 100 | 1.08 |
| 100 | Resolved | UserDetail - Issue when trying to add a user that is already a user | Admin Tools | 1.07 | 100 | 1.08 |
| 101 | Resolved | Modality - exception when editing a Modality Code | Admin Tools | 1.07 | 100 | 1.08 |
| 102 | New | ProcedureCode - Issues changing non referenced procedure codes | Admin Tools | 1.07 | 0 | |
| 103 | Resolved | ProcedurePlan - renaming procedure plan code results in exception | Admin Tools | 1.07 | 100 | 1.08 |
| 104 | New | Issue with retry when web service drops | Web Services/DB | 1.07 | 0 | |
| 105 | New | Worklist - Issue with large worklist and title bar | Thick Client GUI | 1.07 | 0 | |
| 106 | New | Worklist - Issue with refreshing when web services are down | Thick Client GUI | 1.07 | 0 | |
| 107 | New | Worklist - Issue with sorting columns that are numeric but stored as varchar | Thick Client GUI | 1.07 | 0 | |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# User Pre-Release Notes

for RADNET rRIS
Build 1.08

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Purpose ..... 3
2. Intended Audience ..... 3
3. Installing/Accessing the Application ..... 3
4. New Features and Enhancements ..... 4
   Organization Editor ..... 4
   Personnel Editor ..... 6
   Modality Duration Override ..... 9
   Worklist Icons ..... 10
   Scheduling Procedure Picker ..... 11
5. Known Limitations ..... 12

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 1. Purpose

This document describes some of the new features and changes implemented in rRIS as of the end of Sprint 8. This pre-release version of rRIS is referred to as Build 1.08.

Only features which can be visually demonstrated to the user will be outlined in this document.

# 2. Intended Audience

This document is created by the rRIS Development team for the RadNet RIS management team.

# 3. Installing/Accessing the Application

This build will not be available for remote access. The Baltimore server will be upgraded directly to Build 1.09

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 4. New Features and Enhancements

## Organization Editor

There is now an editor to accommodate the setup of the organization structure. It utilizes regions, practices, and sites. A region such as the East Coast can have multiple practices such as Advanced Radiology associated to it. A practice such as Advanced Radiology can have multiple sites such as St. Joseph Breast Center and St. Joseph Medical Center. A site can have multiple modalities or rooms associated to it. For example, here is the proposed hierarchy for a scanner located at St. Joseph Breast Center.

**Region:** East Coast (EAST)
**Practice:** Advanced Radiology (ADV)
**Site Group:** North Service Area
**Site:** St. Joseph Breast Center (SB)
**Modality:** Mammo Room 1 (MA1SB)

Please note that "Site Group" has not been included in this release and will be developed in a future sprint.

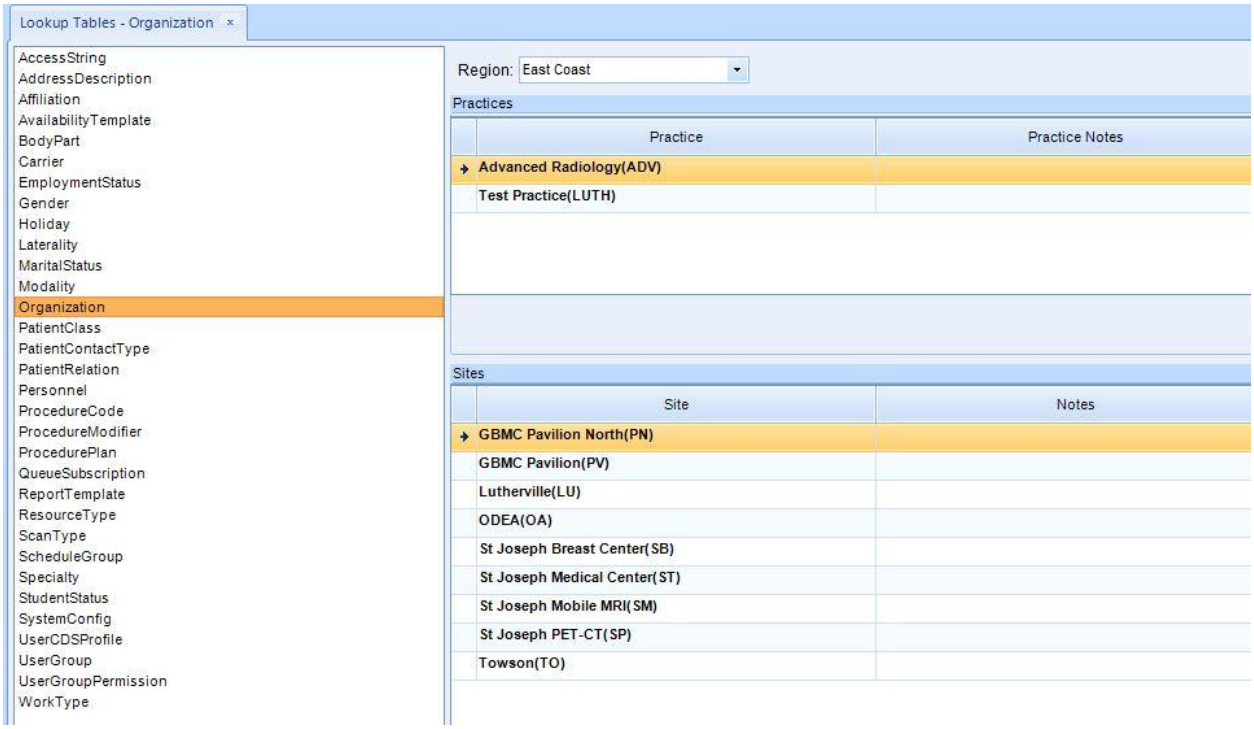



**Figure 4.1 – Organization Maintenance Screen**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

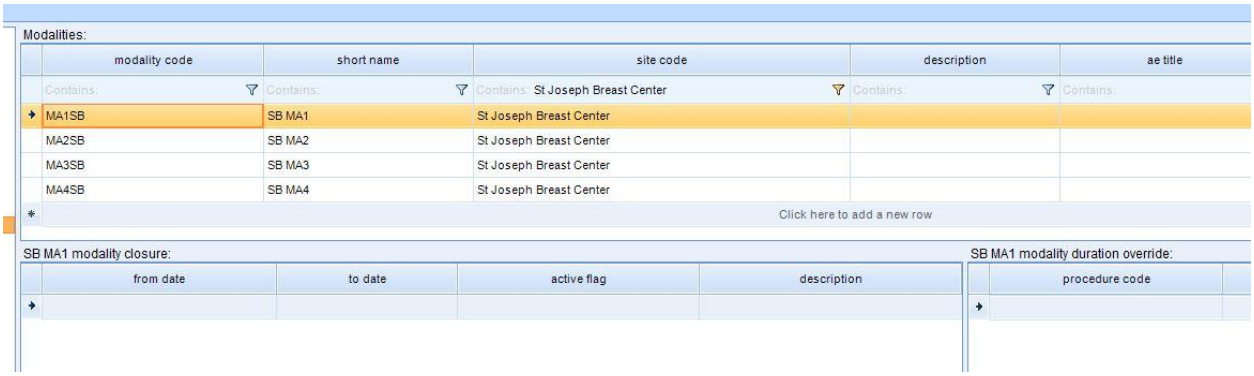



**Figure 4.2 – Modality Maintenance Screen Illustrating Site Mapping**

A system administrator can add or edit a region by simply right-clicking the Region dropdown. Given the fact that more detail is required at the Practice and Site level, data grids and popup forms have been utilized.

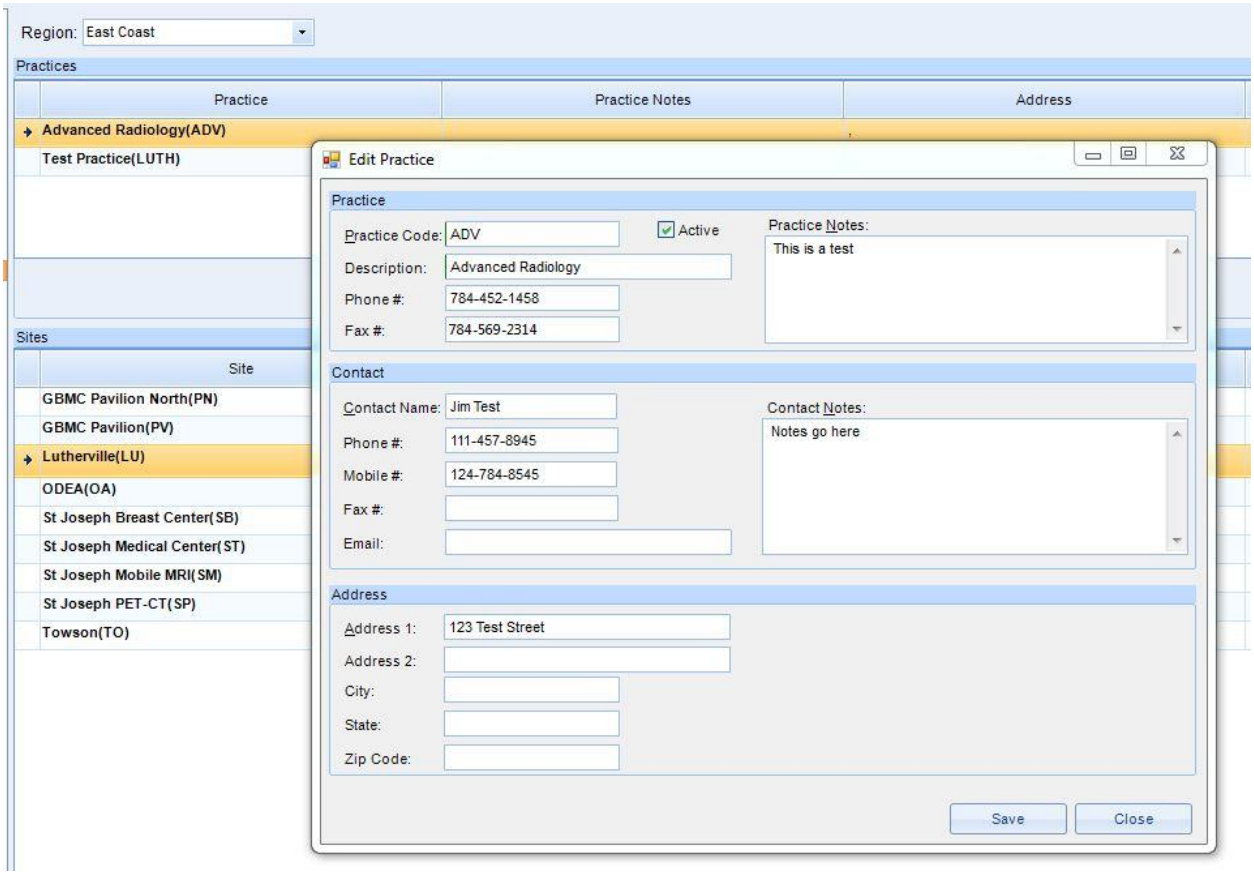



**Figure 4.3 – Editing a Practice**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Personnel Editor

The UserDetail and PersonResource editors have now been combined into one management screen called Personnel. The Personnel screen will be used by the system administrator to manage users and resources. A person may exist in the system as a resource such as a Referring Physician but not necessarily be a user.

Here is the current list of features implemented in the Personnel Editor:

1. The ability to add Persons (not patients) to the system. A Person can be a RIS User and/or a Resource.
2. Associate contact information and one or more addresses to a Person.
3. Associate one or more Resource Types to a Person. Current types supported are Referring Physician, Transcriptionist, Radiologist, and Technologist. This list will grow as more features are implemented.
4. Assign Resource Information such as NPI and Specialties.
5. Assign a User Name and Password to a Person.
6. The ability to deactivate a User.
7. Assign a Schedule Group to a User. A Schedule Group will define what sites and procedures a user can schedule against.
8. Assign one or more User Groups to a User. User Groups mainly dictate user permissions.
9. The ability to specify if User Account supports Voice Recognition.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

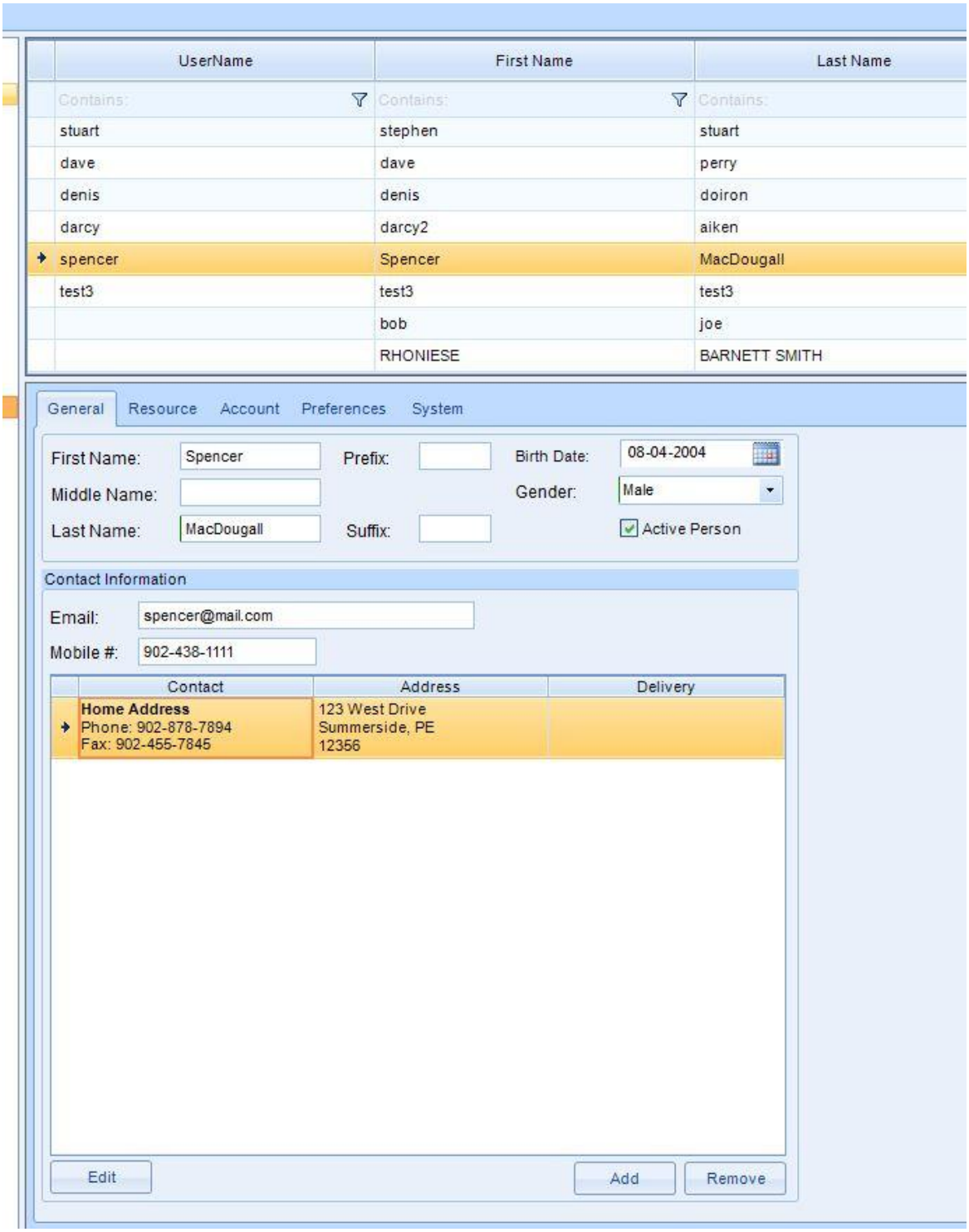



**Figure 4.4 – Personnel Editor showing General Tab**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

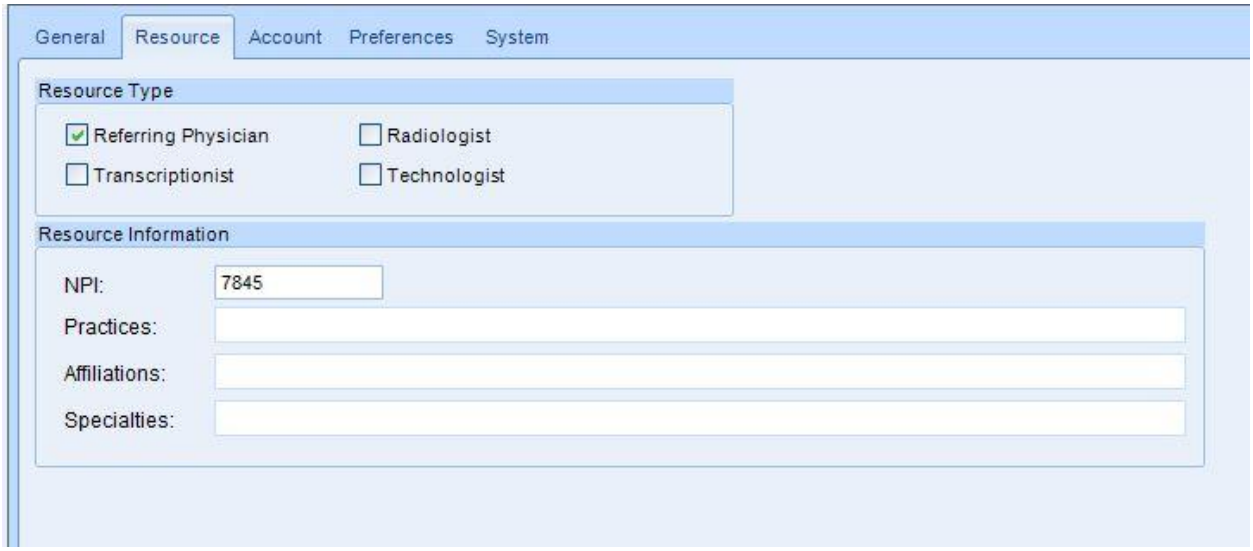



**Figure 4.5 – Personnel Editor showing Resource Tab**

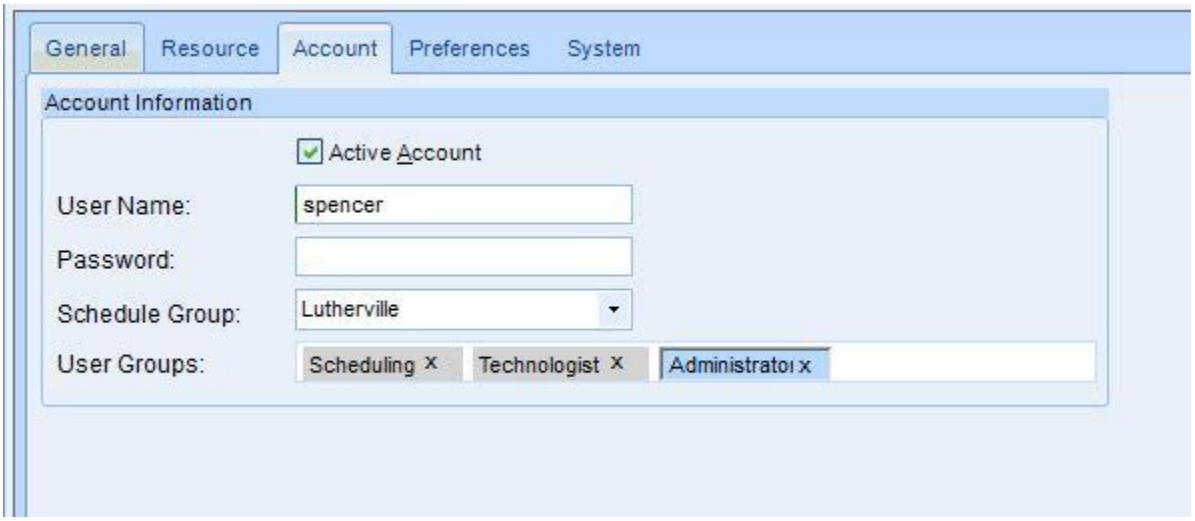



**Figure 4.6 – Personnel Editor showing Account Tab**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Modality Duration Override

In this release, the Modality management screen has been enhanced to include a section to account for duration overrides for scanners that are on average faster or slower than the standard procedure duration.

Default procedure durations are set at the Procedure Code level. To specify a duration override, the user simply specifies the modality, procedure code, and revised duration. In the sample below, an ultrasound scanner (US1LU) at the Lutherville site has a duration override set at 40 minutes for the US Chest procedure. The default duration for the US Chest procedure is 30 minutes. When scheduling a US Chest in room US1LU at Lutherville, the duration will now be 40 minutes.

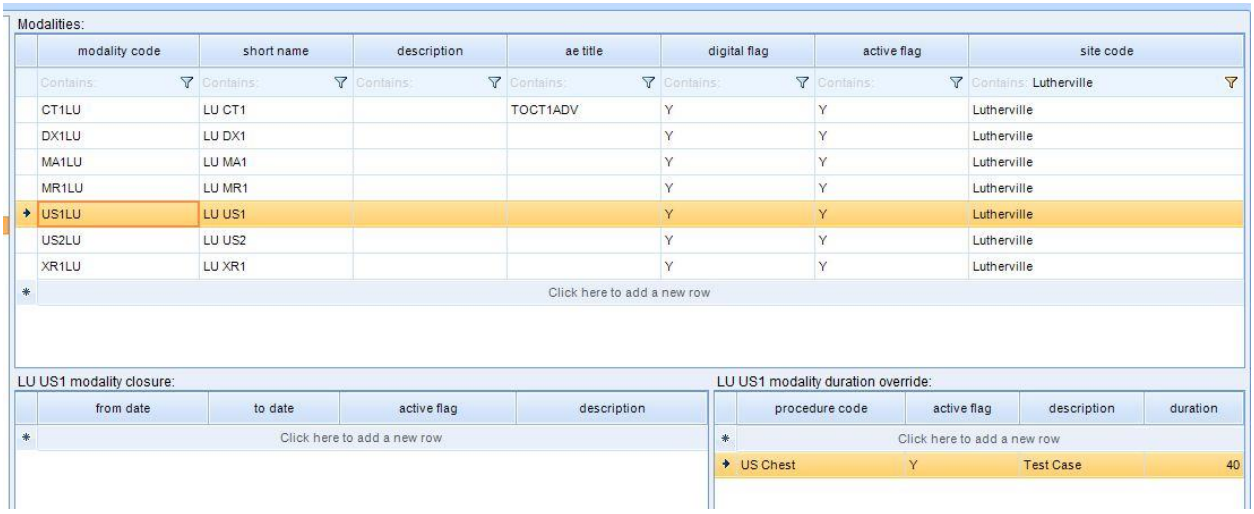



**Figure 4.7 – Modality Editor showing Duration Override**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Worklist Icons

In this release, steps have been taken to make the application more visually appealing to the user. For example, icons can now be associated to a worklist.

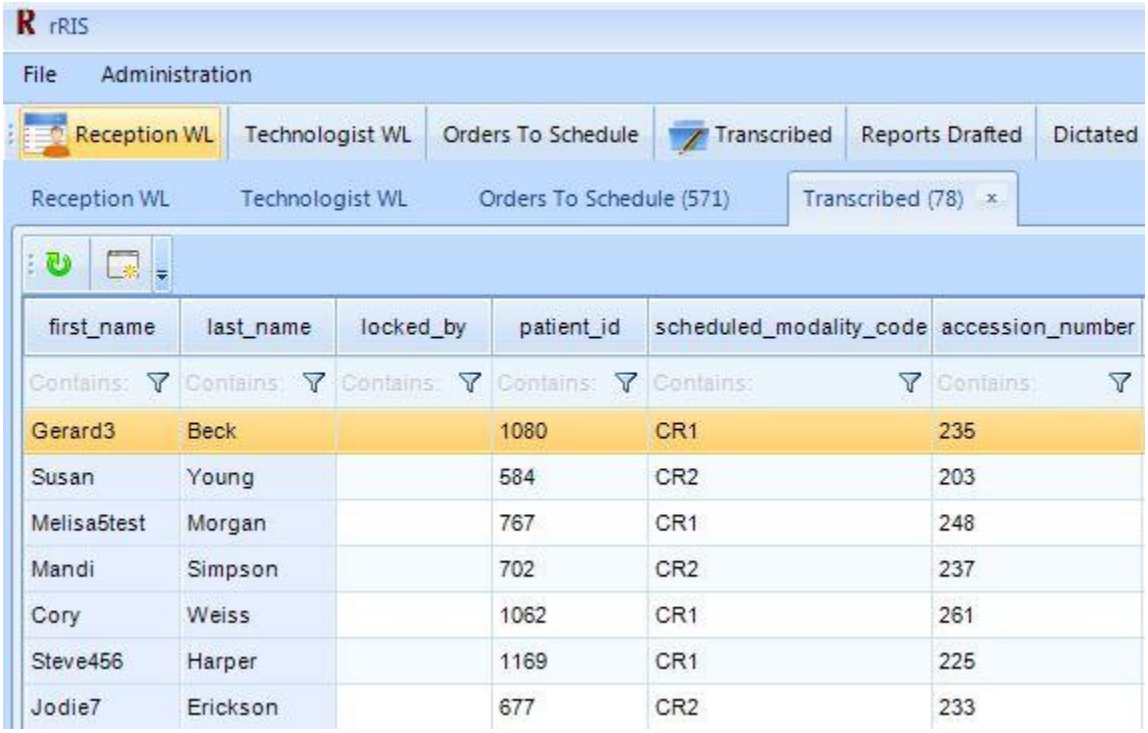



**Figure 4.8 – Reception and Transcribed Worklists with Icons**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Scheduling Procedure Picker

There is a great deal of configuration involved with scheduling. In previous releases, the management screens to configure scheduling solutions have been incorporated. These include Modality, AvailabilityTemplate, Organization, ProcedurePlan, ScheduleGroup, and Personnel. In this build, the system is starting to utilize these configurations in the scheduling workflow.

I release 1.09, there will be a great deal more to show regarding scheduling as this release concentrated a great deal on architecture. A scheduling screen has been constructed with a procedure picker to select procedures to schedule for a study. If a procedure or procedures have been specified at the order level, the procedure picker at the study level will default accordingly.

**Figure 4.9 – Scheduling Screen Illustrating Procedure Picker**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 5. Known Limitations

Bugs, Suggested Features, and Support Issues are now tracked in a web based system called Redmine. The following is a snapshot of the issues found in Build 1.08 as of the end of Sprint 9. Note that the majority if these issues will be resolved in Build 1.09.

| # | Status | Subject | Category | Found | %Done | Resolved |
|---|---|---|---|---|---|---|
| 56 | Resolved | When Renaming a WorklistView, popup should default to current values | Thick Client GUI | 1.08 | 100 | 1.09 |
| 108 | Resolved | Organization - Inconsistent design with similiar admin screens | Admin Tools | 1.08 | 100 | 1.09 |
| 109 | Resolved | Organization - l_practice.contact_email_address field size needs to be increased | Web Services/DB | 1.08 | 100 | 1.09 |
| 110 | Resolved | Modality - Screen freezes after removing a modality | Admin Tools | 1.08 | 100 | 1.09.1 |
| 111 | Resolved | Random exception with DropDown controls | Admin Tools | 1.08 | 100 | 1.09 |
| 112 | Resolved | Order Screen - Site dropdown is not filtering by selected Practice | Thick Client GUI | 1.08 | 100 | 1.09 |
| 113 | Resolved | Scheduling - User can schedule procedures at a practice that is marked as inactive | Thick Client GUI | 1.08 | 100 | |
| 114 | Resolved | User is able to push tool bar out of view | Thick Client GUI | 1.08 | 100 | 1.09 |
| 115 | In Progress | Look and Feel - Pop up forms are inconsistent across application | Thick Client GUI | 1.08 | 90 | 1.09 |
| 116 | New | ScheduleGroup - new templates will not show up without app restart | Admin Tools | 1.08 | 0 | |
| 117 | Resolved | ScheduleGroup - Grid shows modality description while popup shows modality code | Admin Tools | 1.08 | 100 | 1.09.1 |
| 118 | Resolved | Organization - Issue with context menu on record selector | Admin Tools | 1.08 | 100 | 1.09 |
| 119 | Resolved | Personnel - Exception when adding a new user | Admin Tools | 1.08 | 100 | 1.09 |
| 120 | Resolved | ScheduleGroup - When adding multiples, the list box should be sortable | Admin Tools | 1.08 | 100 | 1.09.1 |
| 121 | Resolved | ScheduleGroup - Exception when adding multiple procedures | Admin Tools | 1.08 | 100 | 1.09.1 |
| 122 | Resolved | Personnel - Application crashes when adding address to existing user | Admin Tools | 1.08 | 100 | 1.09 |
| 123 | Resolved | Modality - Short name is not enough characters to support existing configurations | Web Services/DB | 1.08 | 100 | 1.09 |
| 124 | Resolved | Personnel - Resource type required in grid | Admin Tools | 1.08 | 100 | 1.09 |
| 125 | Resolved | Personnel - First Name should be a required field | Admin Tools | 1.08 | 100 | 1.09 |
| 126 | Resolved | Personnel - Exception when making an exisitng person a user | Admin Tools | 1.08 | 100 | 1.09 |
| 127 | New | Modality - Duration is not a required field in duration override | Admin Tools | 1.08 | 0 | |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

| | | | | | | |
|---|---|---|---|---|---|---|
| 128 | New | Modality - Duration override procedures are not filtered by selected modality | Admin Tools | 1.08 | 0 | |
| 129 | New | ScheduleGroup - No validation for duplicate entries | Admin Tools | 1.08 | 0 | |
| 130 | New | Modality - No duration override default value | Admin Tools | 1.08 | 0 | |
| 131 | Resolved | Modality - duration grid AddNewRowPosition property | Admin Tools | 1.08 | 100 | 1.09 |
| 132 | New | Modality - modalities should be grouped by Modality Type | Admin Tools | 1.08 | 0 | |
| 133 | New | Modality - "To Date" should be defaulted when specifying closure | Admin Tools | 1.08 | 0 | |
| 134 | Resolved | Flag columns should be defaulting to "N" | Web Services/DB | 1.08 | 100 | 1.09 |
| 135 | New | GUI - Label sizing issue with patient search | Thick Client GUI | 1.08 | 0 | |
| 136 | New | GUI - Sizing issue with Edit Patient | Thick Client GUI | 1.08 | 0 | |
| 137 | New | Body Part and Laterality should only be enabled if required | Thick Client GUI | 1.08 | 0 | |
| 138 | Resolved | Personnel - When creating a new user, should default to first required field | Admin Tools | 1.08 | 100 | 1.09 |
| 139 | New | ProcedurePlan - When saving plan, focus moves to top of grid | Admin Tools | 1.08 | 0 | |
| 140 | In Progress | commandBarStripElement issue | Thick Client GUI | 1.08 | 0 | |
| 141 | New | Worklist - "Group By" should include record counts | Thick Client GUI | 1.08 | 0 | |
| 142 | Resolved | Worklist - User is able to save a worklist view without a valid name | Thick Client GUI | 1.08 | 100 | |
| 143 | Resolved | Procedure Picker - Procedure code instead of description shows on form load | Thick Client GUI | 1.08 | 100 | 1.09 |
| 144 | Resolved | Scheduling - Body Part and Laterality are not being carried forward from order item | Thick Client GUI | 1.08 | 100 | 1.09.1 |
| 145 | Resolved | Scheduling - Procedure picker is not expanding to show multiple procedures | Thick Client GUI | 1.08 | 100 | 1.09.1 |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# User Pre-Release Notes

for RADNET rRIS
Build 1.09

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Purpose ..... 3
2. Intended Audience ..... 3
3. Installing/Accessing the Application ..... 3
4. New Features and Enhancements ..... 4
   Filter Sites by Practice when Creating Orders ..... 4
   Procedure Selector Enforces Body Part and Laterality ..... 5
   Region/Practice/Site Picker ..... 6
   Scheduling Search ..... 7
   Registration Workflow ..... 10
5. Known Limitations ..... 14

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 1. Purpose

This document describes some of the new features and changes implemented in rRIS as of the end of Sprint 9. This pre-release version of rRIS is referred to as Build 1.09.

Only features which can be visually demonstrated to the user will be outlined in this document.

# 2. Intended Audience

This document is created by the rRIS Development team for the RadNet RIS management team.

# 3. Installing/Accessing the Application

The client installer for rRIS is still in the early development stages. For now, users can access the system by remoting to the rRIS test server in Baltimore as follows:

1. Start Remote Desktop Connection and specify IP 10.120.0.152
2. Username: Radnet domain account
3. Password: Radnet domain password
4. Double click the rRIS icon on the desktop or go to Start→All Programs→rRIS
5. Login User: terry
6. Login Password: ris

If you experience difficulties accessing the application, please do not hesitate to contact Spencer MacDougall with the PEI RIS Development Team.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 4. New Features and Enhancements

## Filter Sites by Practice when Creating Orders

When placing an order in rRIS, the user has the ability to assign the order to a practice. The order placer can go one organization level further and place the order for a site within the selected practice. Once the practice is selected, the list of available sites is then filtered accordingly. When the order is scheduled, the modality search will default to available rooms at the site specified on the order.

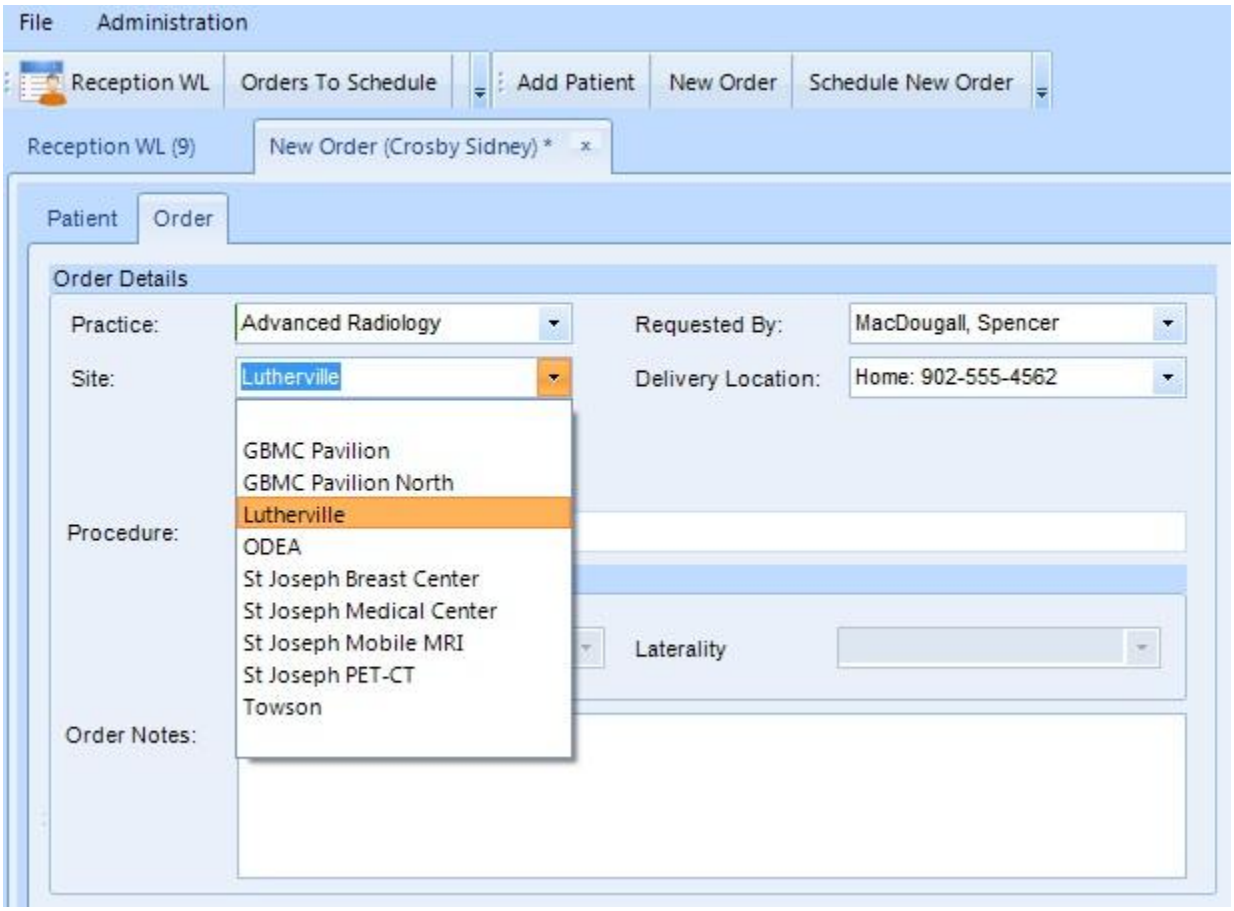



**Figure 4.1 – Filter Site Dropdown by Selected Practice**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Procedure Selector Enforces Body Part and Laterality

When placing or scheduling an order, the procedure selector will now enforce both Body Part and Laterality if it is specified as required at the Procedure Code level. If these values are not required for the selected procedure, then the dropdowns will be disabled. The example below illustrates an order for a CT Ankle Arthrogram where Laterality is required for the procedure.

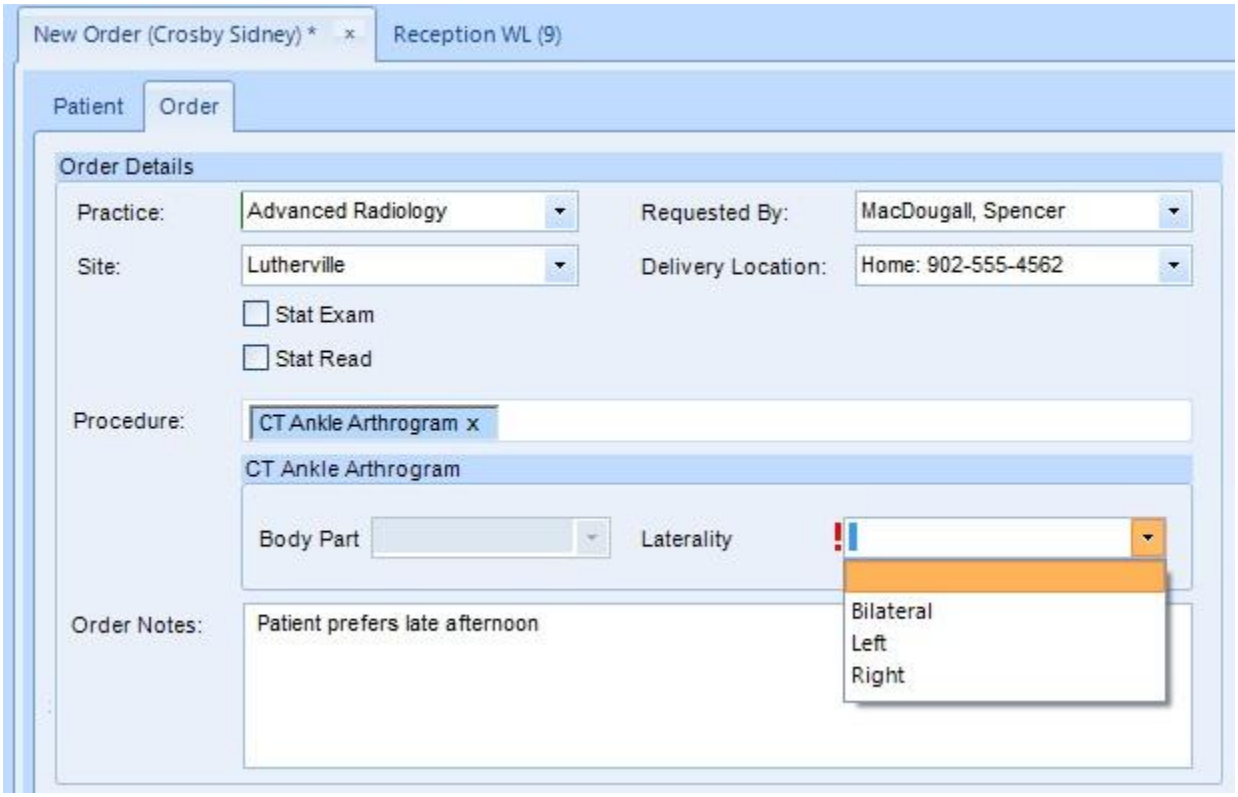



**Figure 4.2 – Ordered Procedure with Laterality Required**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Region/Practice/Site Picker

In Build 1.08, the Organization administration screen was introduced. Here the organizational structure of the site is configured to include regions, practices, and sites.

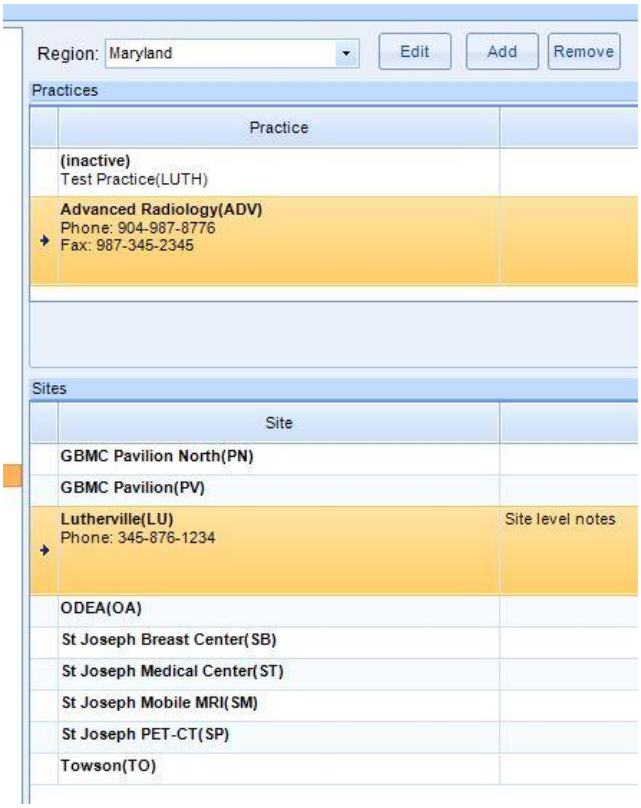



**Figure 4.3 – Sample Site Configuration**

When scheduling an order, the system utilizes the defined organizational structure in combination with the Schedule Group of the user to determine a possible room/scanner solution.

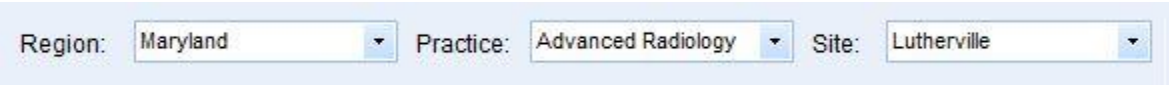



**Figure 4.4 – Scheduling Site Picker**

In the above example, there are multiple sites that belong to the Advanced Radiology practice but the user that is scheduling the procedure belongs to the Lutherville Schedule Group. Therefore, the user is only permitted to schedule procedures in rooms that belong to the Lutherville site. If the user is required to also schedule outside of Lutherville, then the Schedule Group can be adjusted to include other sites as well.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Scheduling Search

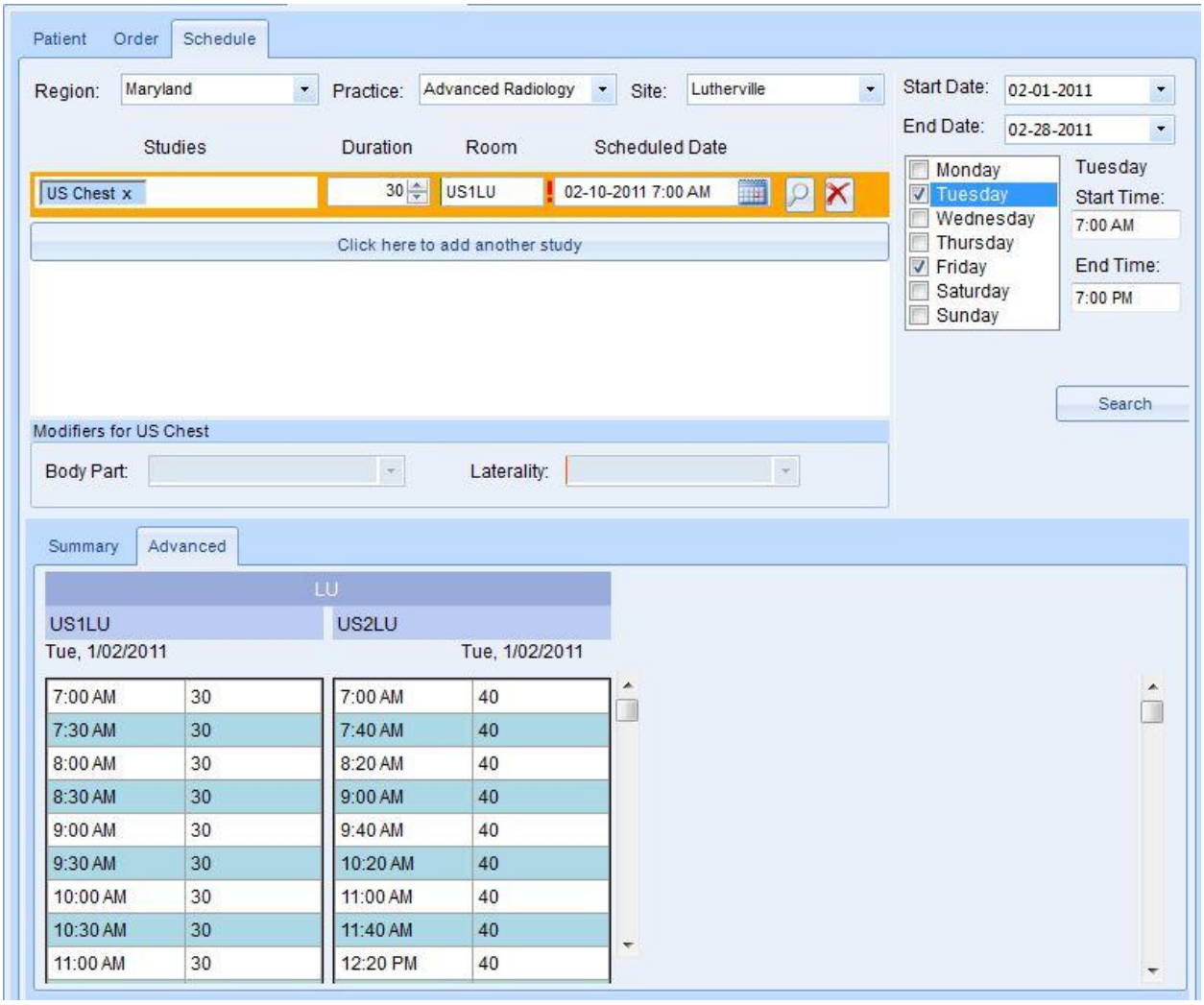



**Figure 4.5 – Scheduling Search**

In Build 1.09, Scheduling users now have the ability to search for scheduling solutions based on a specified site, procedure code, start date, end date, day of week, start time, and end time. Or the user can simply specify ALL to receive scheduling solutions from all sites in his or her Schedule Group.

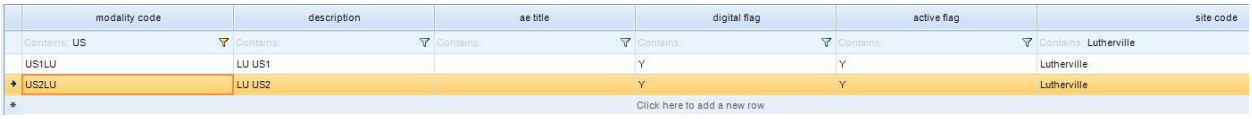
The above scenario is offering a solution for a patient requiring a US Chest procedure at the Lutherville site. The patient would like this procedure anytime in the month of February but is only available on Tuesday and Friday.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

The system shows that two rooms (US1LU and US2LU) are capable of performing this procedure at Lutherville. It also shows that 7:00AM on February 1st is available in both rooms. However, the US Chest takes 30 minutes in US1LU and 40 minutes in US2LU.

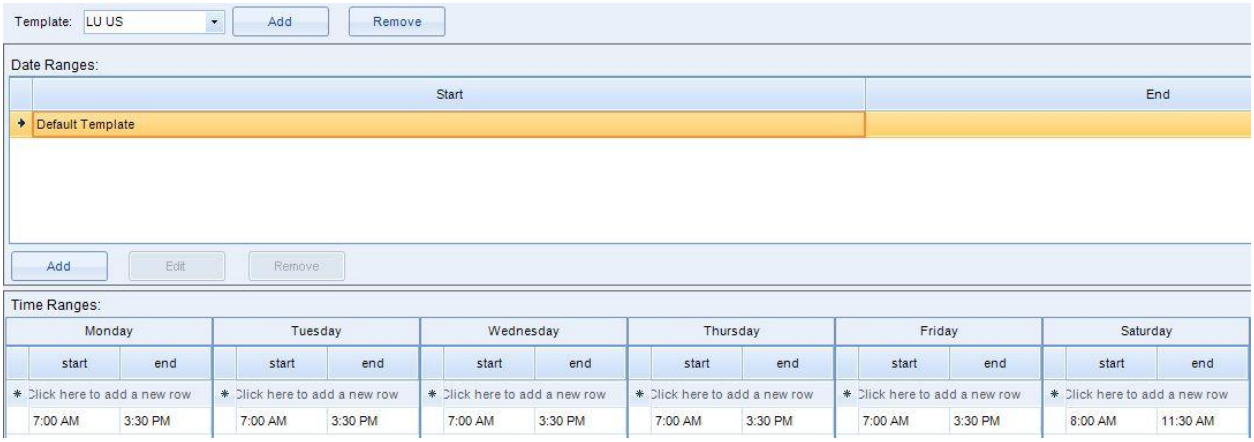
Example of configuration involved in the above scenario:

1. Modalities US1LU and US2LU created and assigned to Lutherville site.



| modality code | description | ae title | digital flag | active flag | site code |
|---|---|---|---|---|---|
| Contains: US | Contains: | Contains: | Contains: | Contains: | Contains: Lutherville |
| US1LU | LU US1 | | Y | Y | Lutherville |
| US2LU | LU US2 | | Y | Y | Lutherville |
| * | Click here to add a new row | | | | |

2. Availability Template (LU US) created stating that the rooms are available weekdays from 7:00AM to 3:30PM and Saturday from 8:00AM to 11:30AM.



Template: LU US | Add | Remove

Date Ranges:

| Start | End |
|---|---|
| Default Template | |

Add | Edit | Remove

Time Ranges:

| Monday | | Tuesday | | Wednesday | | Thursday | | Friday | | Saturday | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| start | end | start | end | start | end | start | end | start | end | start | end |
| * Click here to add a new row | | * Click here to add a new row | | * Click here to add a new row | | * Click here to add a new row | | * Click here to add a new row | | * Click here to add a new row | |
| 7:00 AM | 3:30 PM | 7:00 AM | 3:30 PM | 7:00 AM | 3:30 PM | 7:00 AM | 3:30 PM | 7:00 AM | 3:30 PM | 8:00 AM | 11:30 AM |

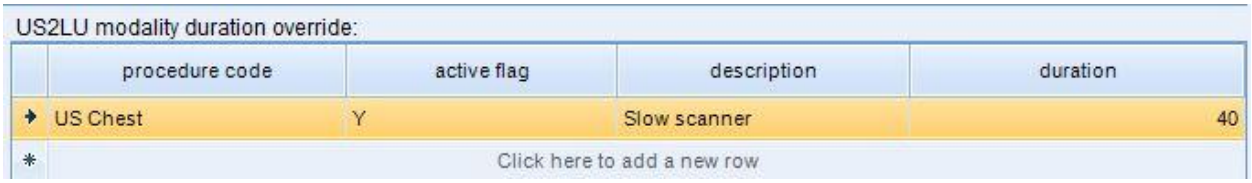
3. Schedule Group for Lutherville is created outlining that rooms US1LU and US2LU are both capable of performing an US Chest utilizing the LU US template.

Schedule Group: Lutherville | Add | Remove

| procedure code | modality code | template key |
|---|---|---|
| Contains: US Chest | Contains: | Equal: |
| US Chest | LU US1 | LU US |
| US Chest | LU US2 | LU US |
| * | Click here to add a new row | |

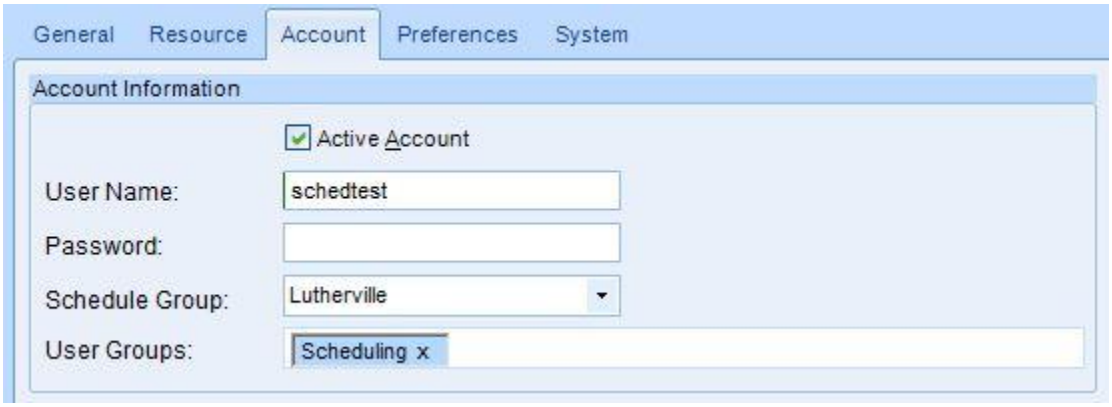
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

4. A modality duration override of 40 minutes is applied to US2LU for the US Chest procedure. The default duration for the procedure is 30 minutes.


US2LU modality duration override:

| | procedure code | active flag | description | duration |
|---|---|---|---|---|
| ➔ | US Chest | Y | Slow scanner | 40 |
| * | Click here to add a new row | | | |

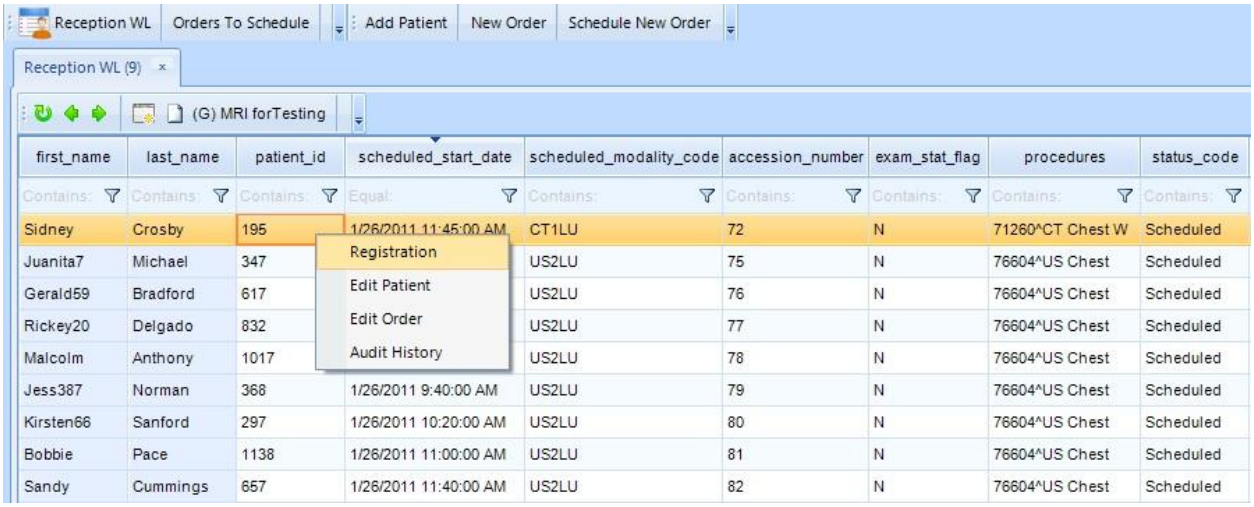
5. The Lutherville Schedule Group is applied to the scheduling user so he or she is permitted to schedule for the site.




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Registration Workflow

In Build 1.09, reception users now have the ability to register a patient. The Reception is a date driven worklist that shows a listing of studies that are scheduled for the selected date. From here, the reception user can launch the registration screen and perform basic level workflow.




| first_name | last_name | patient_id | scheduled_start_date | scheduled_modality_code | accession_number | exam_stat_flag | procedures | status_code |
|---|---|---|---|---|---|---|---|---|
| Contains: | Contains: | Contains: | Equal: | Contains: | Contains: | Contains: | Contains: | Contains: |
| Sidney | Crosby | 195 | 1/26/2011 11:45:00 AM | CT1LU | 72 | N | 71260^CT Chest W | Scheduled |
| Juanita7 | Michael | 347 | | US2LU | 75 | N | 76604^US Chest | Scheduled |
| Gerald59 | Bradford | 617 | | US2LU | 76 | N | 76604^US Chest | Scheduled |
| Rickey20 | Delgado | 832 | | US2LU | 77 | N | 76604^US Chest | Scheduled |
| Malcolm | Anthony | 1017 | | US2LU | 78 | N | 76604^US Chest | Scheduled |
| Jess387 | Norman | 368 | 1/26/2011 9:40:00 AM | US2LU | 79 | N | 76604^US Chest | Scheduled |
| Kirsten66 | Sanford | 297 | 1/26/2011 10:20:00 AM | US2LU | 80 | N | 76604^US Chest | Scheduled |
| Bobbie | Pace | 1138 | 1/26/2011 11:00:00 AM | US2LU | 81 | N | 76604^US Chest | Scheduled |
| Sandy | Cummings | 657 | 1/26/2011 11:40:00 AM | US2LU | 82 | N | 76604^US Chest | Scheduled |

**Figure 4.6 – Reception Worklist showing Context Menu**

At this point, the registration screen is made up of Patient, Patient Contacts, Insurance, Exam, and Workers Compensation tabs. The Patient tab consists of patient level data and is common throughout other areas of the application. The Patient Contacts tab will be used to store responsible party and emergency contact information at the visit level. Most registration data elements are saved at the visit level as they can vary from one visit to the next.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

**Figure 4.7 – Registration Screen showing Patient Contacts**

On the Insurance tab, the reception user can enter insurance policy information and payments related to the selected visit. Insurance carriers are maintained in the Carrier lookup table.

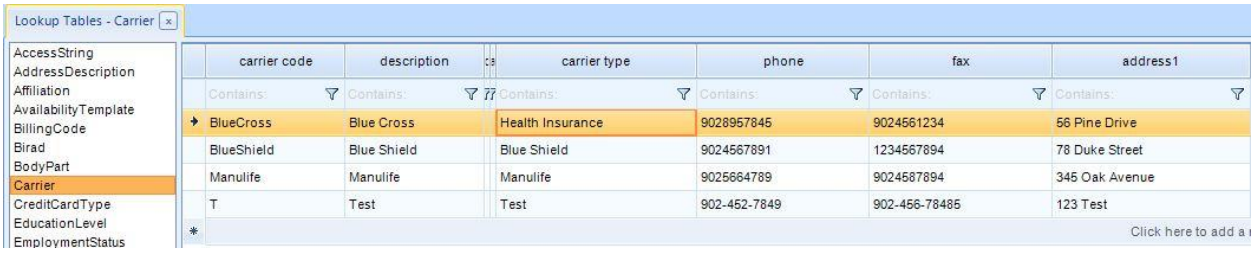



**Figure 4.8 – Carrier Lookup Table**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

When adding one or more insurance policies to the selected visit, it is important to note that the reception user can easily access a patient's insurance data from previous visits and reuse it if the policies have not changed. Policies can also be marked as expired if they are no longer relevant.

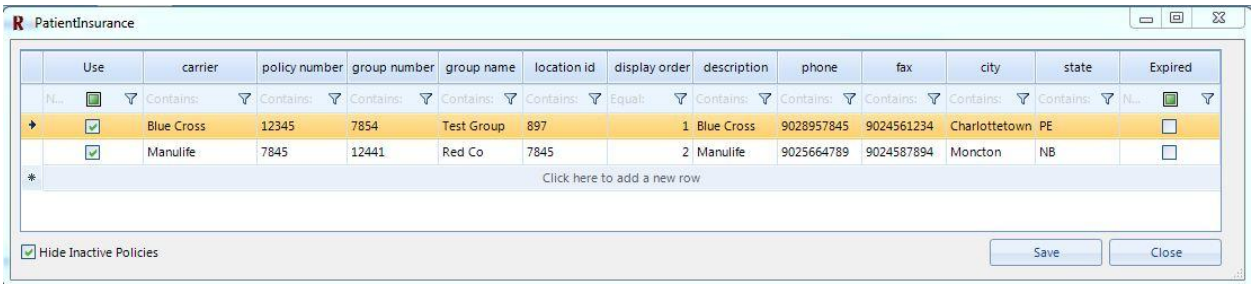



**Figure 4.9 – Popup to Use Insurance Patient's Insurance from Previous Visit**

From the registration screen, the user can add one or more payments that the patient has made on the selected visit. By selecting the Add Payment or Edit Payment buttons, the Front Desk Payment popup form will allow the user to add payments via Cash, Credit Card, or Check.

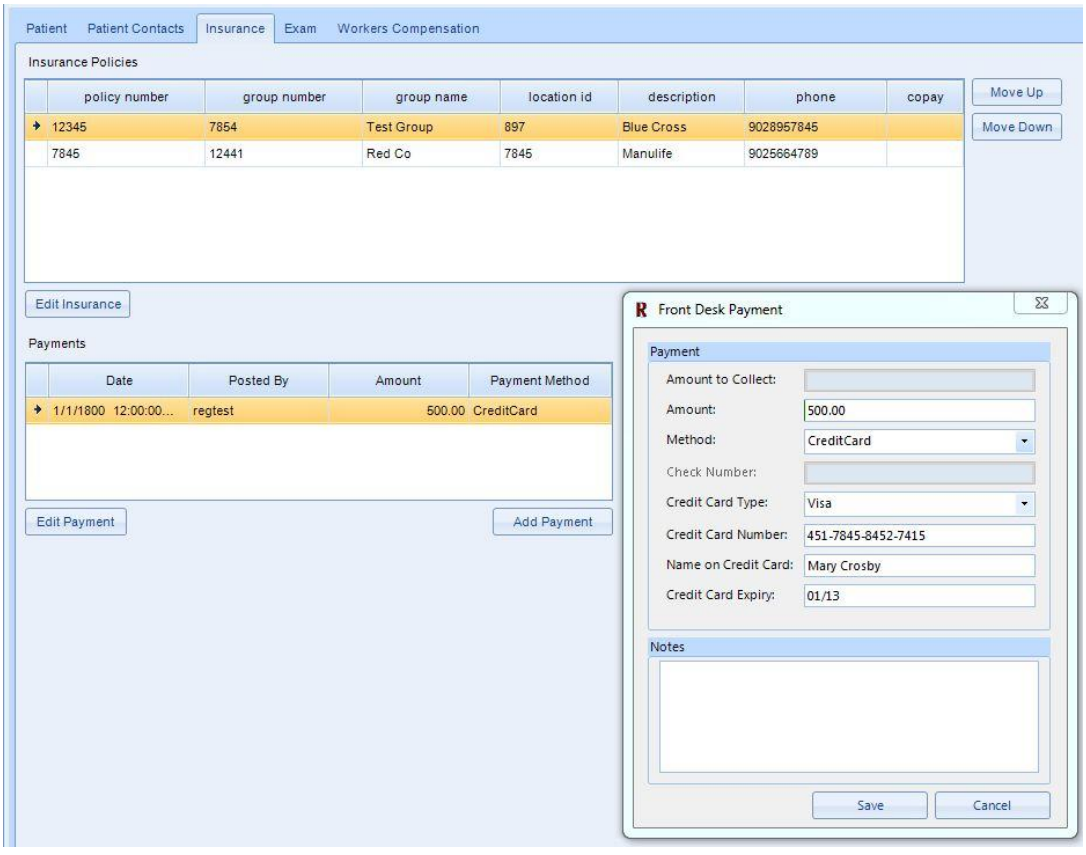



**Figure 4.10 – Registration Screen showing Insurance and Payment Entries**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

The Workers Compensation tab on the registration screen allows the user to enter injury related data required for a workers compensation claim.

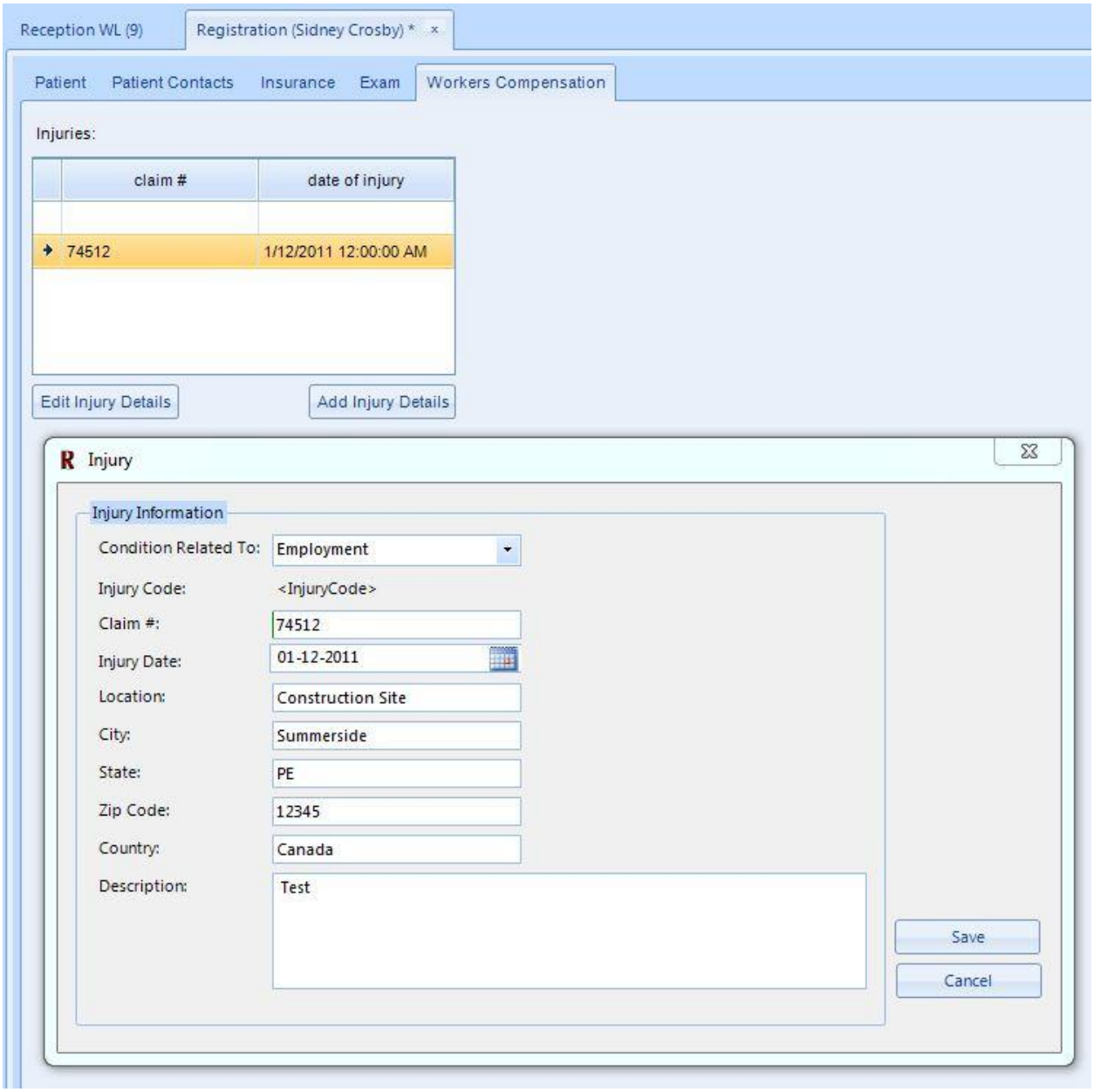



**Figure 4.11 – Registration Screen showing Workers Compensation entry**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 5. Known Limitations

Bugs, Suggested Features, and Support Issues are now tracked in a web based system called Redmine. The following is a snapshot of the issues found in Build 1.09 as of the end of Sprint 10. Note that the majority of these issues will be resolved in Build 1.10.

| # | Status | Subject | Category | Found | %Done | Resolved |
|---|---|---|---|---|---|---|
| 185 | New | Registration - Missing field for Injury Code | Thick Client GUI | 1.09 | 0 | |
| 184 | New | Registration - Multiple payments should be in a calculated field | Thick Client GUI | 1.09 | 0 | |
| 183 | New | Organization - Region context menu | Admin Tools | 1.09 | 0 | |
| 182 | Resolved | Scheduling - Day label is showing up twice on the Advanced layout | Thick Client GUI | 1.09 | 100 | 1.10 |
| 181 | Resolved | Scheduling - Room text box on the study grid | Thick Client GUI | 1.09 | 100 | 1.10 |
| 180 | New | Registration - Exception when removing an Insurance policy | Thick Client GUI | 1.09 | 0 | |
| 179 | New | Registration - Time is showing on the Payments grid | Thick Client GUI | 1.09 | 0 | |
| 178 | New | Login - Issue when trying to lauch the app when it is already running | Thick Client GUI | 1.09 | 0 | |
| 177 | New | Worklist - No framework present to specify a default worklist | Thick Client GUI | 1.09 | 0 | |
| 176 | New | Worklist - Group does not default properly when renaming a group worklist view | Thick Client GUI | 1.09 | 0 | |
| 175 | New | Registration - Exception with sequence buttons on insurance grid | Thick Client GUI | 1.09 | 0 | |
| 174 | Resolved | Body Part and Laterality are not being enforced on Edit Order | Thick Client GUI | 1.09 | 100 | 1.10 |
| 173 | Resolved | Registration - Exception when registering a patient with no scheduled procedure | Thick Client GUI | 1.09 | 100 | 1.10 |
| 172 | New | Scheduling - Procedure code needs to be a required field | Thick Client GUI | 1.09 | 0 | |
| 171 | Resolved | Worklist - Orders are falling off the "Orders To Schedule" worklist without being scheduled | Thick Client GUI | 1.09 | 0 | |
| 170 | New | Worklist - Sorting issues on keys and dates | Thick Client GUI | 1.09 | 0 | |
| 169 | New | Permissions - Missing lookup table permissions | Admin Tools | 1.09 | 0 | |
| 168 | New | Permissions - Issue with lookup table permissions | Admin Tools | 1.09 | 0 | |
| 167 | New | Permissions - Missing permission on Administration menu item | Thick Client GUI | 1.09 | 0 | |
| 166 | Resolved | Scheduling - Issue applying availability templates to search results | Thick Client GUI | 1.09 | 100 | 1.10 |
| 165 | Resolved | Scheduling - Exception when using mouse scroll wheel to find time slot | Thick Client GUI | 1.09 | 100 | 1.10 |
| 164 | New | Scheduling - Exception when searching rooms for a study with multiple procedures | Thick Client GUI | 1.09 | 0 | |
| 163 | New | Scheduling - Issue when scheduling more than one study per order | Thick Client GUI | 1.09 | 0 | |
| 162 | Resolved | Worklist - Issue with permissions on worklist buttons | Thick Client GUI | 1.09 | 100 | 1.10 |
| 161 | Resolved | Scheduling - Exception when scheduling using search icon | Thick Client GUI | 1.09 | 100 | 1.10 |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

| | | | | | | |
|---|---|---|---|---|---|---|
| 160 | New | ScheduleGroup - Exception when adding multiple procedures | Admin Tools | 1.09 | 0 | |
| 159 | Resolved | ScheduleGroup - Exception when adding new schedule group | Admin Tools | 1.09 | 100 | 1.10 |
| 158 | Resolved | Registration - Missing permission is causing exception | Thick Client GUI | 1.09 | 100 | 1.10 |
| 156 | New | Worklist Views - Multi-select should be disabled | Thick Client GUI | 1.09 | 0 | |
| 155 | New | UserGroupPermission - Difficult assigning multiple access strings to a user group | Admin Tools | 1.09 | 0 | |
| 154 | Resolved | UserGroupPermission - missing access level dropdown | Admin Tools | 1.09 | 100 | 1.10 |
| 153 | New | ComboBoxes - Allow null selection on required fields | Thick Client GUI | 1.09 | 0 | |
| 152 | Resolved | Personnel - No error handling on duplicate User Names | Admin Tools | 1.09 | 100 | 1.10 |
| 151 | Resolved | Personnel - Exception when password is not specified | Admin Tools | 1.09 | 100 | 1.10 |
| 150 | New | Scheduling - Issue loading patient context on Schedule New Order | Thick Client GUI | 1.09 | 0 | |
| 149 | New | Registration - Exception when no relation is specified | Thick Client GUI | 1.09 | 0 | |
| 148 | New | Registration - MRN is editable | Thick Client GUI | 1.09 | 0 | |
| 147 | New | ScheduleGroup - Conflicting right-click events | Admin Tools | 1.09 | 0 | |
| 146 | Resolved | ScheduleGroup - Exception after marking a schedule group as inactive | Admin Tools | 1.09 | 100 | 1.10 |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# User Pre-Release Notes

for RADNET rRIS
Build 1.10

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Purpose ..... 3
2. Intended Audience ..... 3
3. Installing/Accessing the Application ..... 3
4. New Features and Enhancements ..... 4
   Calculated Fields ..... 4
   Multi Type Ahead Enhancements ..... 5
   Prep Instructions ..... 6
   Modality Type ..... 9
   ID Verification at Registration ..... 10
   Scheduling Composite Procedure Codes ..... 11
   Management Report Framework ..... 13
5. Known Limitations ..... 15

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 1. Purpose

This document describes some of the new features and changes implemented in rRIS as of the end of Sprint 10. This pre-release version of rRIS is referred to as Build 1.10.

Only features which can be visually demonstrated to the user will be outlined in this document.

# 2. Intended Audience

This document is created by the rRIS Development team for the RadNet RIS management team.

# 3. Installing/Accessing the Application

The client installer for rRIS is still in the early development stages. For now, users can access the system by remoting to the rRIS test server in Baltimore as follows:

1. Start Remote Desktop Connection and specify IP 10.120.0.152
2. Username: Radnet domain account
3. Password: Radnet domain password
4. Double click the rRIS icon on the desktop or go to Start→All Programs→rRIS
5. Login User: terry
6. Login Password: ris

If you experience difficulties accessing the application, please do not hesitate to contact Spencer MacDougall with the PEI RIS Development Team.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 4. New Features and Enhancements

## Calculated Fields

In Build 1.10 a framework for supporting calculated fields has been introduced. Calculated fields are mapped to clinical data and behave in such a way that when the underlying data changes, they are updated and display the new information. The example below illustrates a calculated field called "Age" which reflects the age of the patient in years and months. If the patient is an infant less than one year old then the age will be displayed in months and days.

**Figure 4.1 – Age Calculated Field**

**Figure 4.2 – Age Calculated Field for Infant**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Multi Type Ahead Enhancements

The searching abilities for dropdowns have been enhanced so the user can easily navigate to the desired value. For example, in the procedure picker the user can now type "X" to quickly get a list of all XR procedures or by typing "X fin" the user will get a list of all XR Finger procedures. The parts matching in the type ahead are represented in the results by bolding the characters.

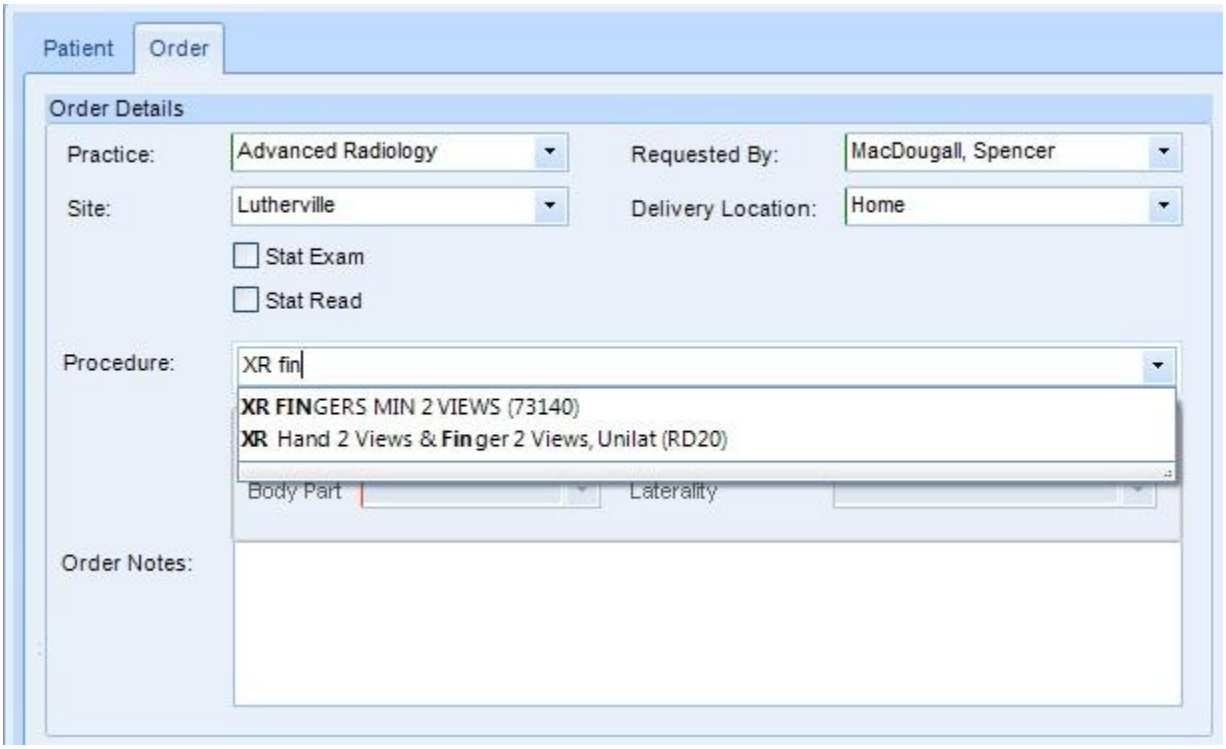



**Figure 4.3 – Type Ahead Results for Procedure like "XR fin"**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Prep Instructions

Prep Instructions are maintained in the PrepInstruction lookup table. From the lookup table, the user can simply right-click and select Edit to view/modify the selected prep instruction. This launches a multi-line popup window containing the prep instruction structured text.

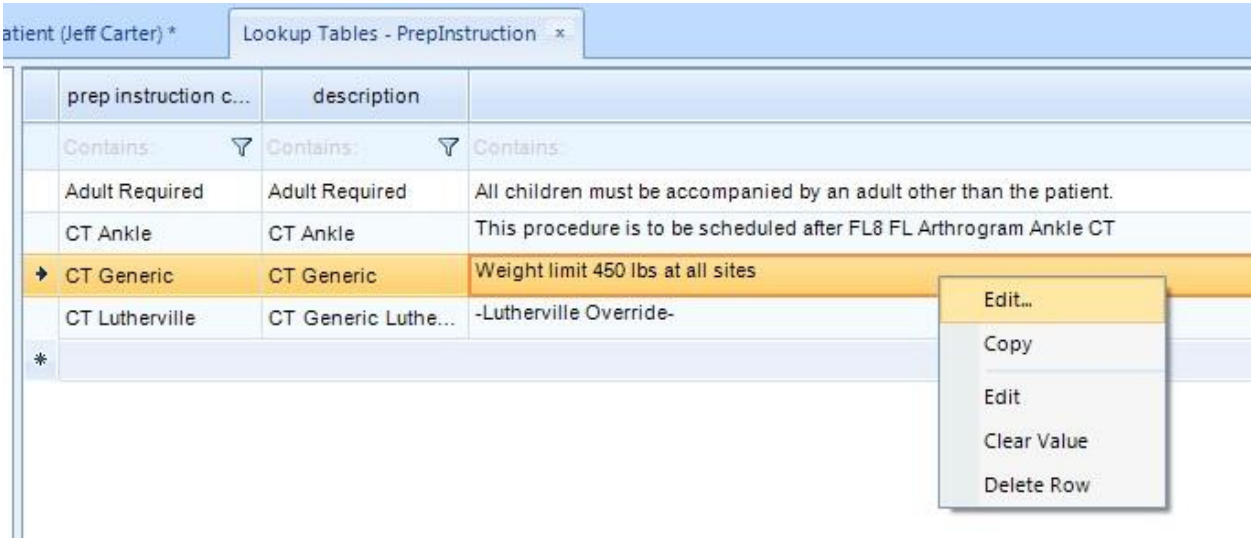



**Figure 4.4 – PrepInstruction Lookup Table**

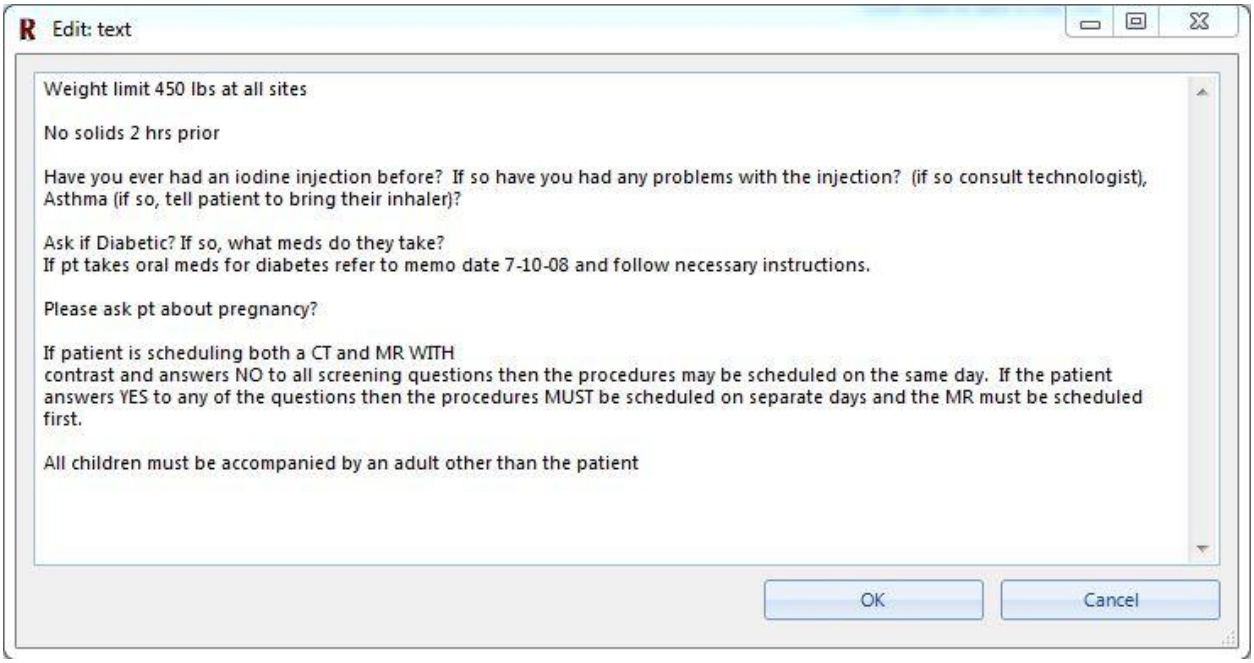
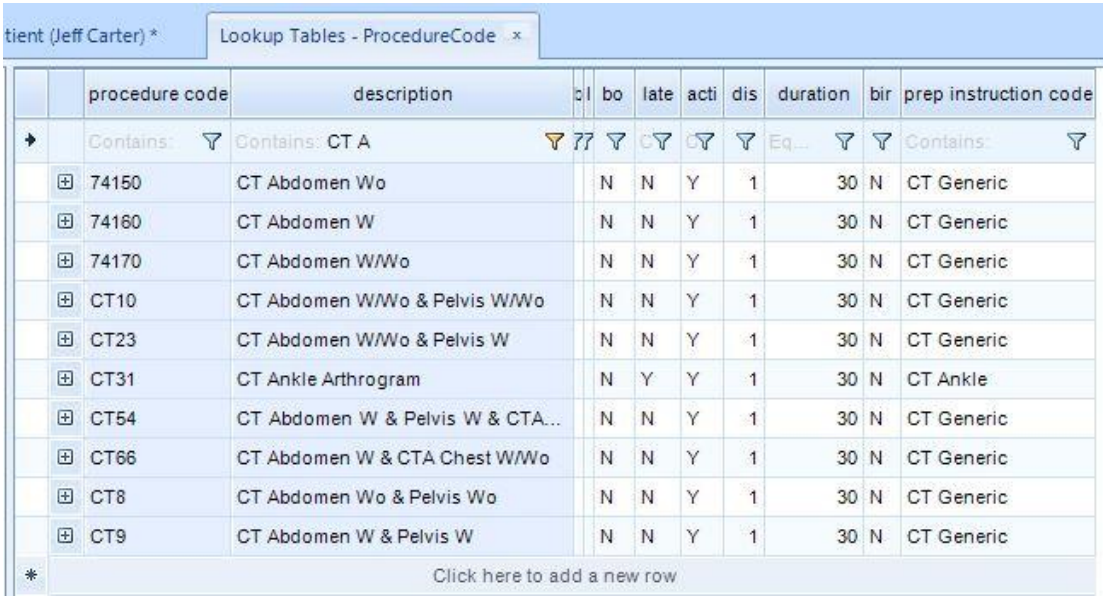



**Figure 4.5 – Text Entry Form for CT Generic Prep Instruction**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

Prep Instructions are applied to procedure codes. This allows the system to use one prep instruction code against many procedure codes instead of having to maintain common instructions separately.

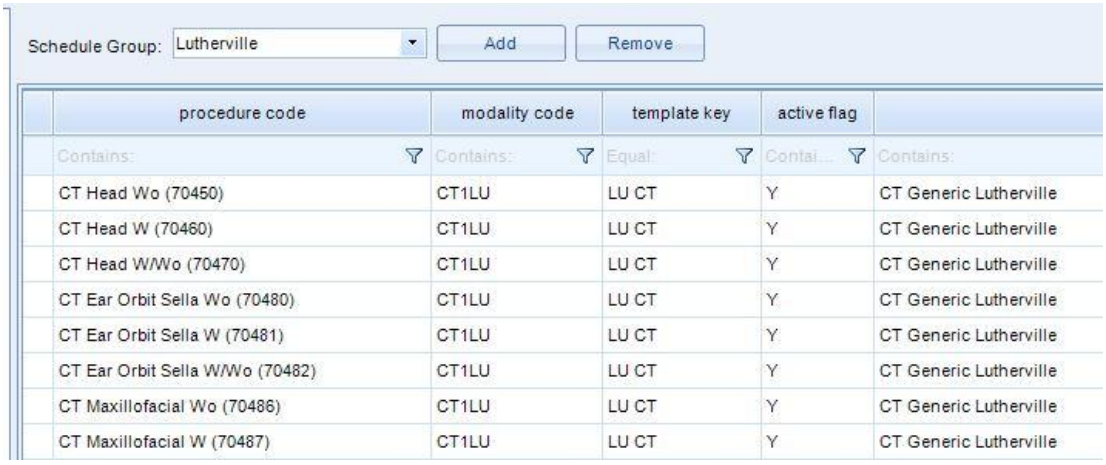


tient (Jeff Carter) * | Lookup Tables - ProcedureCode ×

| procedure code | description | bo | late | acti | dis | duration | bir | prep instruction code |
|---|---|---|---|---|---|---|---|---|
| Contains: | Contains: CT A | | | | | | | Contains: |
| 74150 | CT Abdomen Wo | N | N | Y | 1 | 30 | N | CT Generic |
| 74160 | CT Abdomen W | N | N | Y | 1 | 30 | N | CT Generic |
| 74170 | CT Abdomen W/Wo | N | N | Y | 1 | 30 | N | CT Generic |
| CT10 | CT Abdomen W/Wo & Pelvis W/Wo | N | N | Y | 1 | 30 | N | CT Generic |
| CT23 | CT Abdomen W/Wo & Pelvis W | N | N | Y | 1 | 30 | N | CT Generic |
| CT31 | CT Ankle Arthrogram | N | Y | Y | 1 | 30 | N | CT Ankle |
| CT54 | CT Abdomen W & Pelvis W & CTA... | N | N | Y | 1 | 30 | N | CT Generic |
| CT66 | CT Abdomen W & CTA Chest W/Wo | N | N | Y | 1 | 30 | N | CT Generic |
| CT8 | CT Abdomen Wo & Pelvis Wo | N | N | Y | 1 | 30 | N | CT Generic |
| CT9 | CT Abdomen W & Pelvis W | N | N | Y | 1 | 30 | N | CT Generic |
| Click here to add a new row | | | | | | | | |

**Figure 4.6 – CT Procedure Codes with Applied Prep Instruction**

Because of the unique needs and/or regulations at each site, rRIS supports the ability to override the default prep instructions for a procedure code. This override exists by modifying the prep instruction for a particular procedure code at the Schedule Group level. For example, the Lutherville site may have a different set of prep instructions for CT's compared to the rest of the organization.



Schedule Group: Lutherville | Add | Remove

| procedure code | modality code | template key | active flag | |
|---|---|---|---|---|
| Contains: | Contains: | Equal: | Contai... | Contains: |
| CT Head Wo (70450) | CT1LU | LU CT | Y | CT Generic Lutherville |
| CT Head W (70460) | CT1LU | LU CT | Y | CT Generic Lutherville |
| CT Head W/Wo (70470) | CT1LU | LU CT | Y | CT Generic Lutherville |
| CT Ear Orbit Sella Wo (70480) | CT1LU | LU CT | Y | CT Generic Lutherville |
| CT Ear Orbit Sella W (70481) | CT1LU | LU CT | Y | CT Generic Lutherville |
| CT Ear Orbit Sella W/Wo (70482) | CT1LU | LU CT | Y | CT Generic Lutherville |
| CT Maxillofacial Wo (70486) | CT1LU | LU CT | Y | CT Generic Lutherville |
| CT Maxillofacial W (70487) | CT1LU | LU CT | Y | CT Generic Lutherville |

**Figure 4.7 – CT Generic Prep Instructions Applied to Lutherville Schedule Group**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

Below is an example of how the prep instructions will be displayed to the user at the time of scheduling and registration.

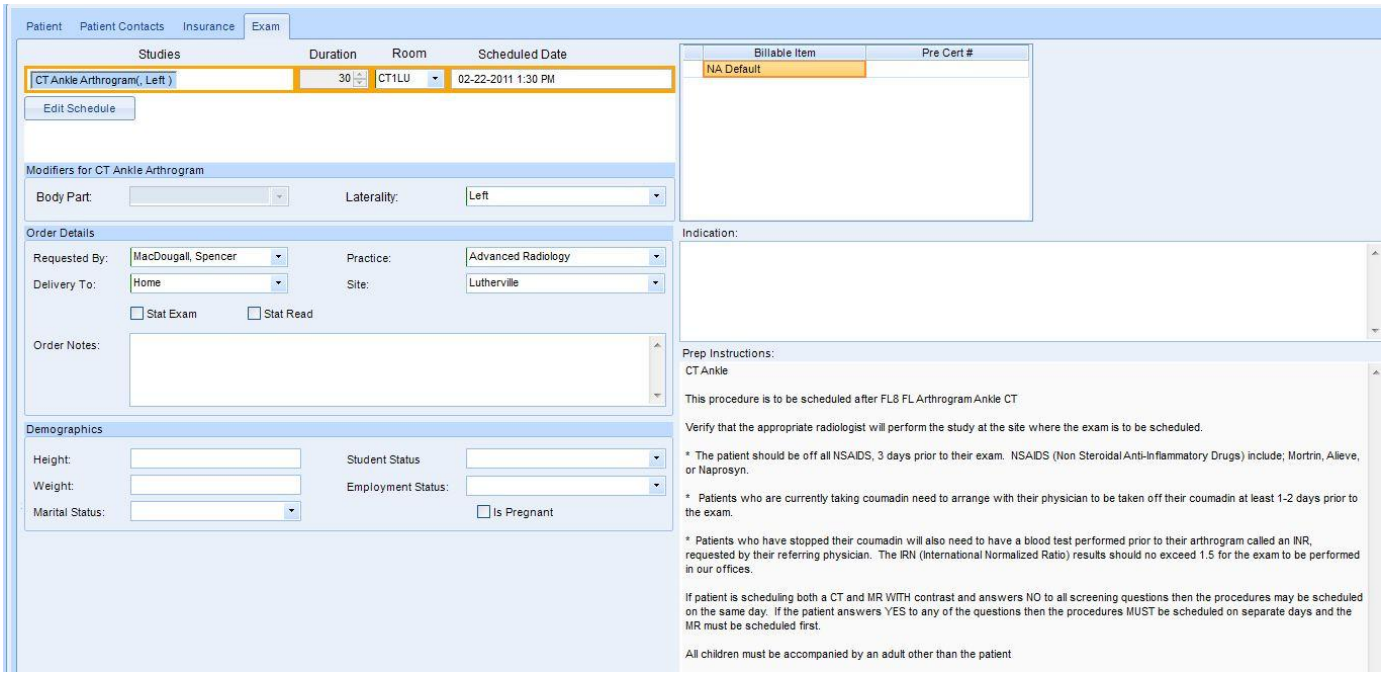
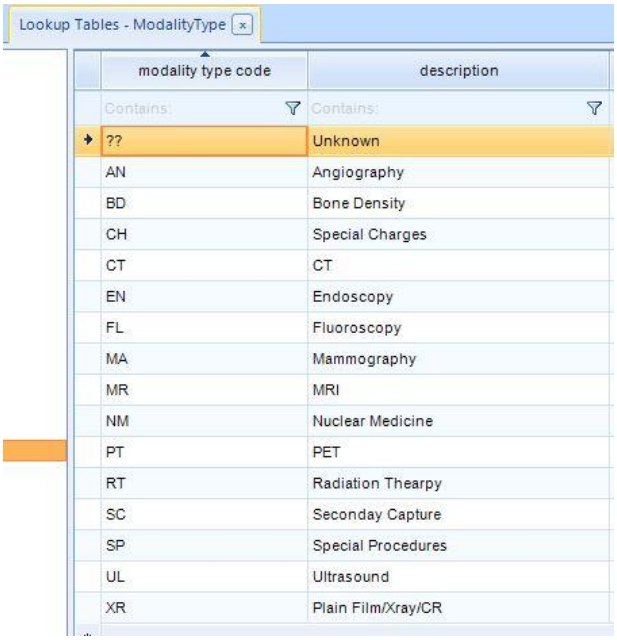



**Figure 4.8 – Registration Screen Illustrating Prep Instructions for CT Ankle**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

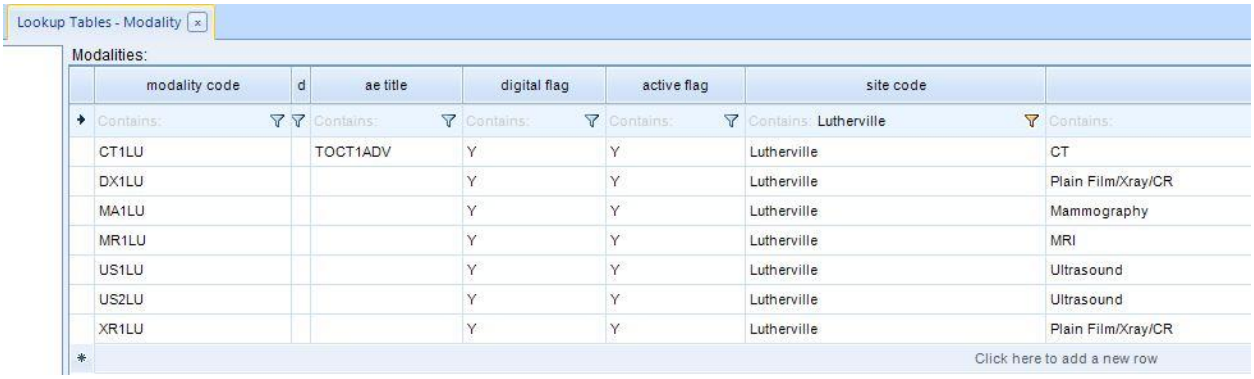
## Modality Type

In release 1.10 modality type has been added to allow for the categorization of modalities/rooms/scanners for management reports, worklists, etc.




| modality type code | description |
|---|---|
| Contains: | Contains: |
| ?? | Unknown |
| AN | Angiography |
| BD | Bone Density |
| CH | Special Charges |
| CT | CT |
| EN | Endoscopy |
| FL | Fluoroscopy |
| MA | Mammography |
| MR | MRI |
| NM | Nuclear Medicine |
| PT | PET |
| RT | Radiation Thearpy |
| SC | Seconday Capture |
| SP | Special Procedures |
| UL | Ultrasound |
| XR | Plain Film/Xray/CR |

**Figure 4.9 – Modality Type Lookup Table Values**




| modality code | d | ae title | digital flag | active flag | site code | |
|---|---|---|---|---|---|---|
| Contains: | | Contains: | Contains: | Contains: | Contains: Lutherville | Contains: |
| CT1LU | | TOCT1ADV | Y | Y | Lutherville | CT |
| DX1LU | | | Y | Y | Lutherville | Plain Film/Xray/CR |
| MA1LU | | | Y | Y | Lutherville | Mammography |
| MR1LU | | | Y | Y | Lutherville | MRI |
| US1LU | | | Y | Y | Lutherville | Ultrasound |
| US2LU | | | Y | Y | Lutherville | Ultrasound |
| XR1LU | | | Y | Y | Lutherville | Plain Film/Xray/CR |
| * | | | | | | Click here to add a new row |

**Figure 4.10 – Modalities with Applied Modality Type**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## ID Verification at Registration

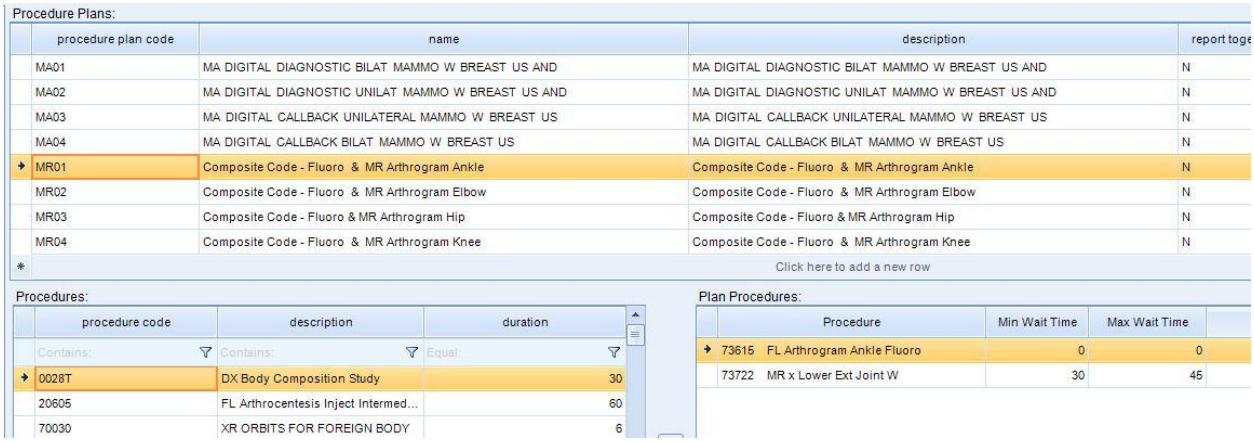
rRIS now has the ability to remind or alert the user. A good example of this is during the registration workflow where the user is prompted to verify the ID of the patient. Also, the user is prompted if the patient is marked as Arrived without any insurance policies applied.

**Figure 4.11 – Warning that Patient has not been verified during Registration**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Scheduling Composite Procedure Codes

Composite Codes/Series/Procedure Plans are configured in the ProcedurePlan lookup table. They consist of 2 or more procedure codes in a specified sequence with a defined minimum and maximum wait time between procedures.



Procedure Plans:

| procedure plan code | name | description | report toge |
|---|---|---|---|
| MA01 | MA DIGITAL DIAGNOSTIC BILAT MAMMO W BREAST US AND | MA DIGITAL DIAGNOSTIC BILAT MAMMO W BREAST US AND | N |
| MA02 | MA DIGITAL DIAGNOSTIC UNILAT MAMMO W BREAST US AND | MA DIGITAL DIAGNOSTIC UNILAT MAMMO W BREAST US AND | N |
| MA03 | MA DIGITAL CALLBACK UNILATERAL MAMMO W BREAST US | MA DIGITAL CALLBACK UNILATERAL MAMMO W BREAST US | N |
| MA04 | MA DIGITAL CALLBACK BILAT MAMMO W BREAST US | MA DIGITAL CALLBACK BILAT MAMMO W BREAST US | N |
| MR01 | Composite Code - Fluoro & MR Arthrogram Ankle | Composite Code - Fluoro & MR Arthrogram Ankle | N |
| MR02 | Composite Code - Fluoro & MR Arthrogram Elbow | Composite Code - Fluoro & MR Arthrogram Elbow | N |
| MR03 | Composite Code - Fluoro & MR Arthrogram Hip | Composite Code - Fluoro & MR Arthrogram Hip | N |
| MR04 | Composite Code - Fluoro & MR Arthrogram Knee | Composite Code - Fluoro & MR Arthrogram Knee | N |
| | Click here to add a new row | | |

Procedures:

| procedure code | description | duration |
|---|---|---|
| Contains: | Contains: | Equal: |
| 0028T | DX Body Composition Study | 30 |
| 20605 | FL Arthrocentesis Inject Intermed... | 60 |
| 70030 | XR ORBITS FOR FOREIGN BODY | 6 |

Plan Procedures:

| Procedure | Min Wait Time | Max Wait Time |
|---|---|---|
| 73615 FL Arthrogram Ankle Fluoro | 0 | 0 |
| 73722 MR x Lower Ext Joint W | 30 | 45 |

**Figure 4.12 – Sample Composite Code Configuration – Fluoro & MR Arthrogram Ankle**

In the above example, the MR01 Composite Code - Fluoro & MR Arthrogram Ankle consists of a 73615 FL Arthrogram Ankle Fluoro followed by a 73722 MR x Lower Ext Joint W. A minimum wait time of 30 minutes and a maximum wait time of 45 minutes are required between the two procedures.

When scheduling an MR01 Composite Code, the application will display the individual procedures that make up the code. Based on the user's Schedule Group combined with Availability Templates, the system will then create a scheduling solution across the defined modalities. The minimum wait time is also taken into consideration when presenting time slots.

In the screenshot below, the 73615 FL Arthrogram Ankle Fluoro (60 minutes) and 73722 MR x Lower Ext Joint W (30 minutes) are presented with timeslots in the XR1LU and MR1LU rooms with a wait time of 30 minutes for a total duration of 120 minutes.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

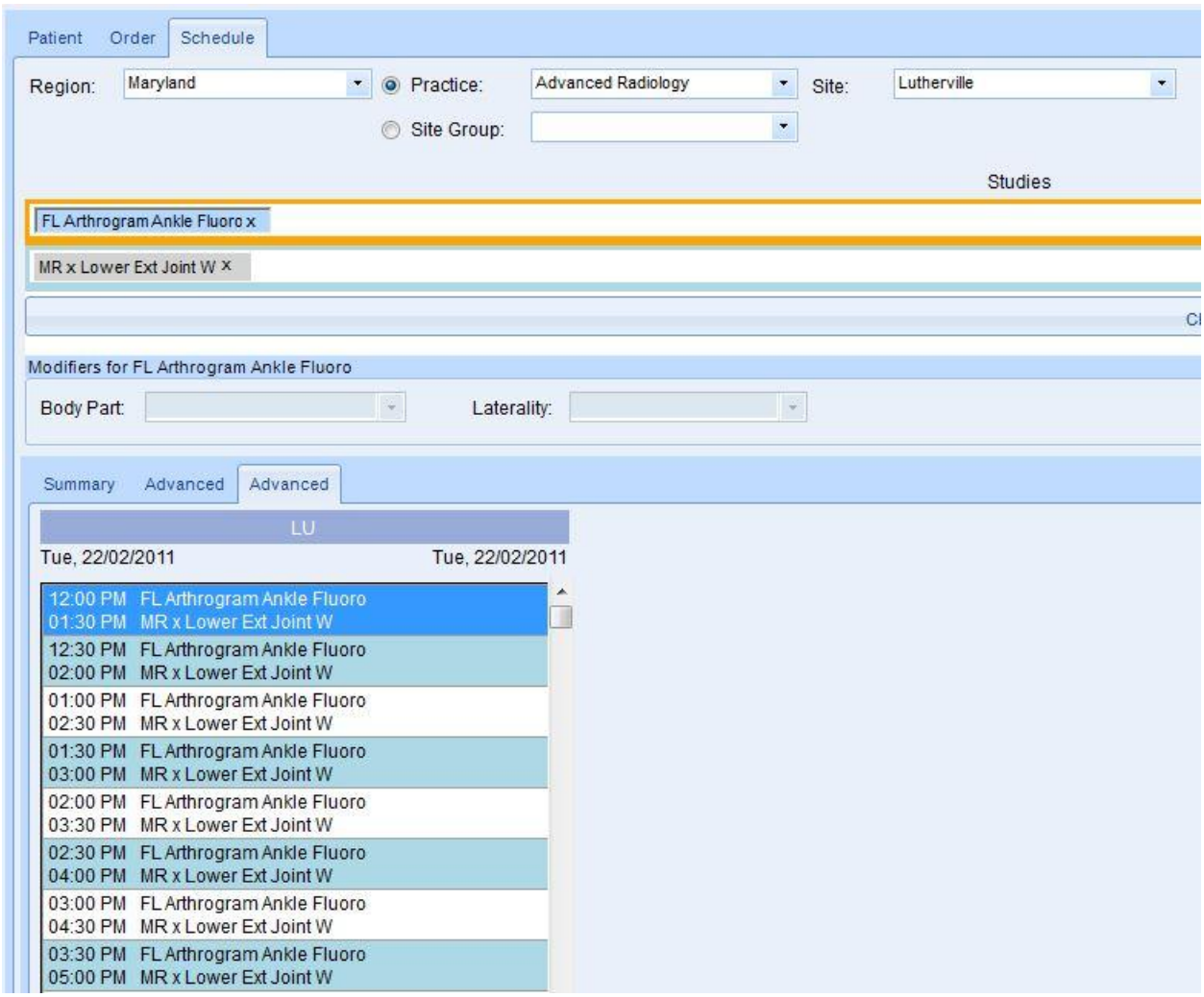



**Figure 4.13 – Scheduling Search Results for Composite Code**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Management Report Framework

rRIS utilizes Microsoft SQL Server Reporting Services to effectively communicate ris data to the organization at all levels. Some listed features of using this architecture include:

- **Managed Reporting.** Also often referred to as enterprise reporting - supports the creation of reports that span all aspects of the business and delivers them across the enterprise to provide every employee real time access to information relevant for their business area and enable better decision making
- **Ad-Hoc Reporting.** Enables users to create their own reports on an ad-hoc basis and provides them with the flexibility to quickly get the information that they need, in the format that they need it without submitting a request and waiting for a report developer to create the report for them.
- **Embedded Reporting.** Enables organizations to embed reports directly into business applications and web portals, enabling users to consume reports within the context of their business process. Deep integration with Microsoft Office SharePoint Server 2007 also enables organizations to deliver reports through a central report library or to use new web parts for thin rendering of reports directly within SharePoint enabling easy creation of dashboards. In this way organizations are able to bring all business critical data, structured as well as unstructured, from across the company together in one central location providing one common experience for information access so that users can see key business performance information at a glance.

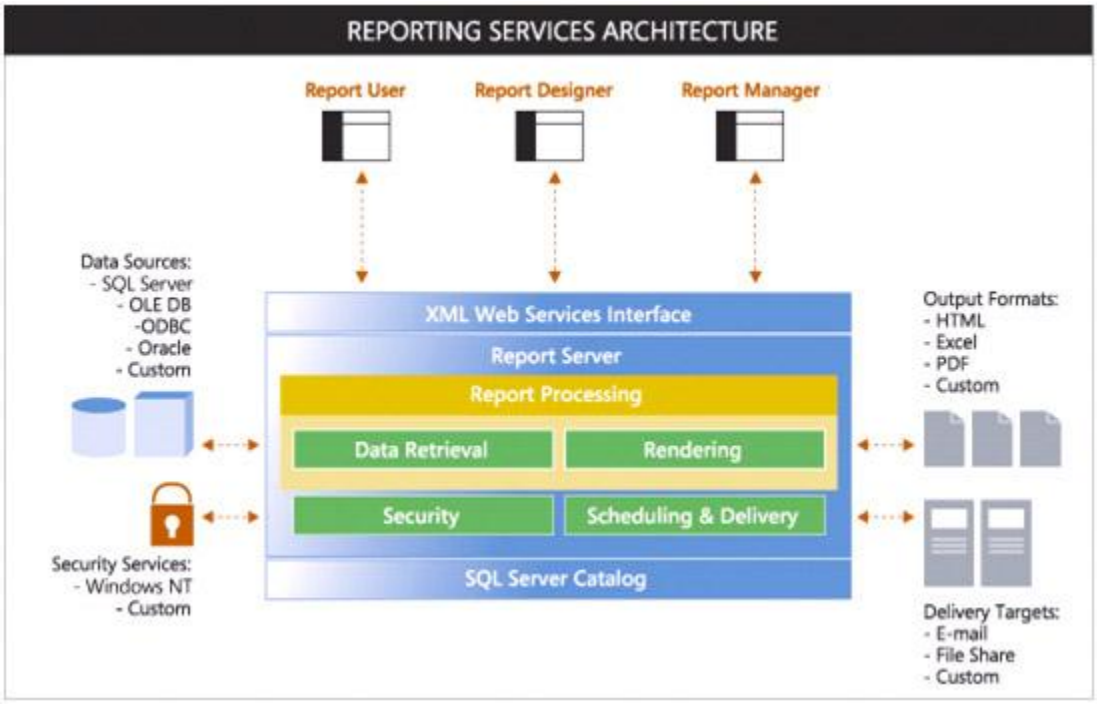



**Figure 4.14 – Diagram of Microsoft Reporting Services Architecture**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

In Build 1.10 the Microsoft Report Viewer has been introduced to allow users to view Management Reports in rRIS. Based on permissions and folder structure, users are presented with a list of published reports from the Report Server. By selecting the report and specifying the parameters, the report is rendered and displayed in the application.

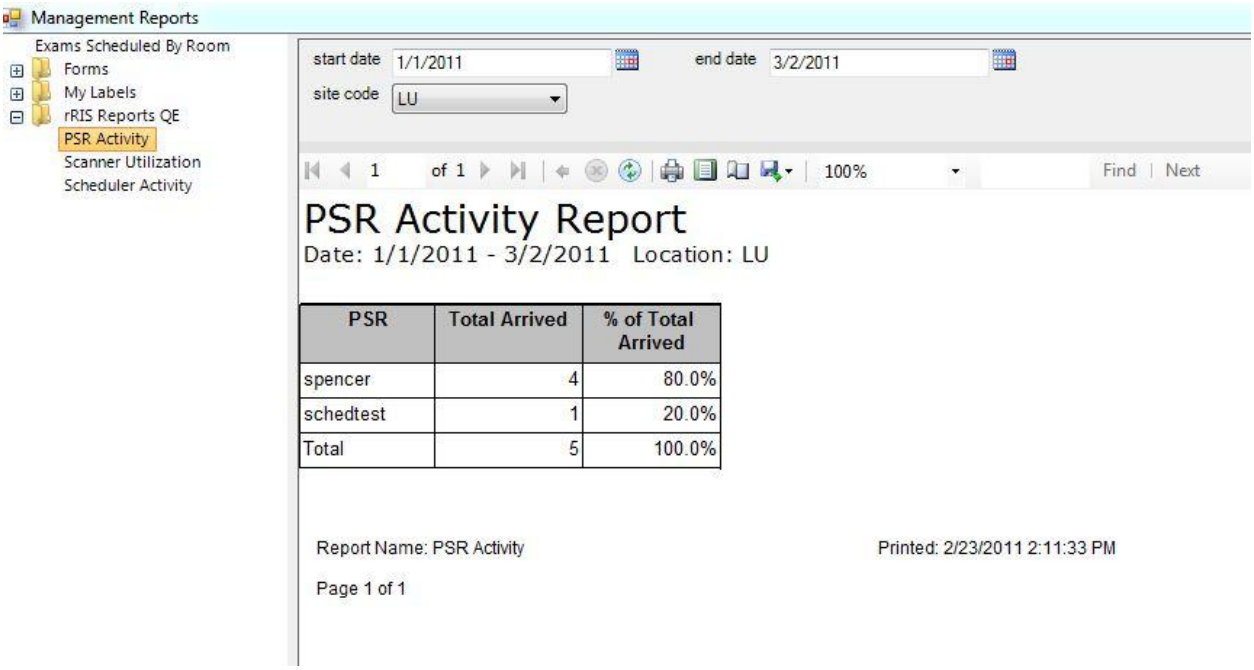



**Figure 4.15 – Sample Management Report available in rRIS**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 5. Known Limitations

Bugs, Suggested Features, and Support Issues are now tracked in a web based system called Redmine. The following is a snapshot of the issues found in Build 1.10 as of the end of Sprint 11. Note that the majority of these issues will be resolved in Build 1.11.

| # | Status | Subject | Category | Found | %Done | Resolved |
|---|---|---|---|---|---|---|
| 221 | Resolved | ScheduleGroup - No means to multi-select and apply prep instuctions | Admin Tools | 1.10 | 100 | 1.11 |
| 219 | Resolved | Lookups - Issue removing child rows | Admin Tools | 1.10 | 100 | 1.11 |
| 218 | New | Lookups - Issue adding new child row | Admin Tools | 1.10 | 0 | |
| 217 | Resolved | Scheduling - Exceptions around removing study rows | Thick Client GUI | 1.10 | 100 | 1.11 |
| 216 | Resolved | Scheduling - When adding a new study row, room value is lost from previous study | Thick Client GUI | 1.10 | 100 | 1.11 |
| 215 | Resolved | Scheduling - Exception when scheduling more than one study | Web Services/DB | 1.10 | 100 | 1.11 |
| 214 | Resolved | Scheduling - Exception when scheduling a composite and a standard procedure code | Web Services/DB | 1.10 | 0 | 1.11 |
| 213 | Resolved | Scheduling - Issue when removing study rows | Thick Client GUI | 1.10 | 100 | 1.11 |
| 212 | Resolved | Scheduling - Composite codes are not scheduling across modalities | Thick Client GUI | 1.10 | 100 | 1.11 |
| 211 | Resolved | Scheduling - Procedure picker is not including composite code description | Thick Client GUI | 1.10 | 100 | 1.11 |
| 210 | New | Order - Procedure picker does not include Composite Codes | Thick Client GUI | 1.10 | 0 | |
| 209 | Resolved | ScheduleGroup - Need to be able to filter by procedure code | Admin Tools | 1.10 | 100 | 1.11 |
| 208 | New | Personnel - No means of identifying a default report delivery location | Admin Tools | 1.10 | 0 | |
| 207 | New | Order - Need to track the referring office the order was referred from | Thick Client GUI | 1.10 | 0 | |
| 206 | New | Reception Workflow - Additional status is required | Thick Client GUI | 1.10 | 0 | |
| 205 | Resolved | MRN - System allows duplicate Patient ID's | Web Services/DB | 1.10 | 0 | |
| 204 | Resolved | Patient Search - Issue when searching by MRN | Thick Client GUI | 1.10 | 100 | 1.11 |
| 203 | New | Registration - Exception with Manage Policies | Thick Client GUI | 1.10 | 0 | |
| 202 | Resolved | GUI - Broom icon on Patient tab | Thick Client GUI | 1.10 | 100 | 1.11 |
| 201 | New | GUI - Inability to share tabs across similar forms??? | Thick Client GUI | 1.10 | 0 | |
| 200 | Resolved | Order - Inconsistency on Patient tabs in New Order and New Order Schedule | Thick Client GUI | 1.10 | 100 | 1.11 |
| 199 | Resolved | Lookups - Display order is not reflected in the GUI | Admin Tools | 1.10 | 100 | 1.11 |
| 198 | Resolved | ModalityType - Display order does not default | Admin Tools | 1.10 | 100 | 1.11 |
| 197 | Resolved | PrepInstruction - Exception when adding instuctions | Admin Tools | 1.10 | 100 | 1.11 |
| 196 | Resolved | Edit and Add Patient - Age calculated field | Thick Client GUI | 1.10 | 100 | 1.11 |
| 195 | Resolved | Scheduling - Time slots are out of sync | Thick Client GUI | 1.10 | 100 | 1.11 |
| 194 | Resolved | ScheduleGroup - Exception when adding procedure codes to schedule group | Admin Tools | 1.10 | 100 | 1.11 |
| 193 | Resolved | UserGroupPermission - Exception when removing group permissions | Admin Tools | 1.10 | 100 | 1.11 |
| 192 | Resolved | AvailabilityTemplate - Can not change to another template after selecting save | Admin Tools | 1.10 | 100 | 1.11 |
| 191 | Resolved | Scheduling - Issue when Laterality is required | Thick Client GUI | 1.10 | 100 | 1.11 |
| 190 | Resolved | Scheduling - rRIS crashes when scheduling without a procedure | Thick Client GUI | 1.10 | 100 | 1.11 |
| 189 | Resolved | Personnel - Sizing issue with Contact Information | Admin Tools | 1.10 | 100 | 1.11 |
| 188 | Resolved | Personnel - Exception when creating new user | Admin Tools | 1.10 | 100 | 1.11 |
| 187 | Resolved | Personnel - Exception when opening screen and/or accessing user information | Admin Tools | 1.10 | 100 | 1.11 |
| 186 | New | ScheduleGroup - Refresh issue after editing a schedule group | Admin Tools | 1.10 | 0 | |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# User Pre-Release Notes

for RADNET rRIS
Build 1.11

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Purpose ..... 3
2. Intended Audience ..... 3
3. Installing/Accessing the Application ..... 3
4. New Features and Enhancements ..... 4
   Unknown Referring Workflow ..... 4
   Phone Mask ..... 5
   Calendar on Date Worklists ..... 6
   Applying Time of Day to Procedure Duration ..... 7
   Appointment Time Locking ..... 7
   Scheduling Procedure Plans ..... 8
   Patient Folder ..... 9
   Insurance Tab in Scheduling Screen ..... 10
5. Known Limitations ..... 11

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 1. Purpose

This document describes some of the new features and changes implemented in rRIS as of the end of Sprint 11. This pre-release version of rRIS is referred to as Build 1.11.

Only features which can be visually demonstrated to the user will be outlined in this document.

# 2. Intended Audience

This document is created by the rRIS Development team for the RadNet RIS management team.

# 3. Installing/Accessing the Application

The client installer for rRIS is still in the early development stages. For now, users can access the system by remoting to the rRIS test server in Baltimore as follows:

1. Start Remote Desktop Connection and specify IP 10.120.0.152
2. Username: Radnet domain account
3. Password: Radnet domain password
4. Double click the rRIS icon on the desktop or go to Start→All Programs→rRIS
5. Login User: terry
6. Login Password: ris

If you experience difficulties accessing the application, please do not hesitate to contact Spencer MacDougall with the PEI RIS Development Team.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 4. New Features and Enhancements

## Unknown Referring Workflow

In Build 1.11 a workflow has been implemented that allows orders to be accepted by the system where the requesting referring physician is unknown. The user simply selects "Unknown, Unknown" from the Requesting dropdown. This will enable the Unknown Referring Info editable area where the user can fill in any details regarding the physician.

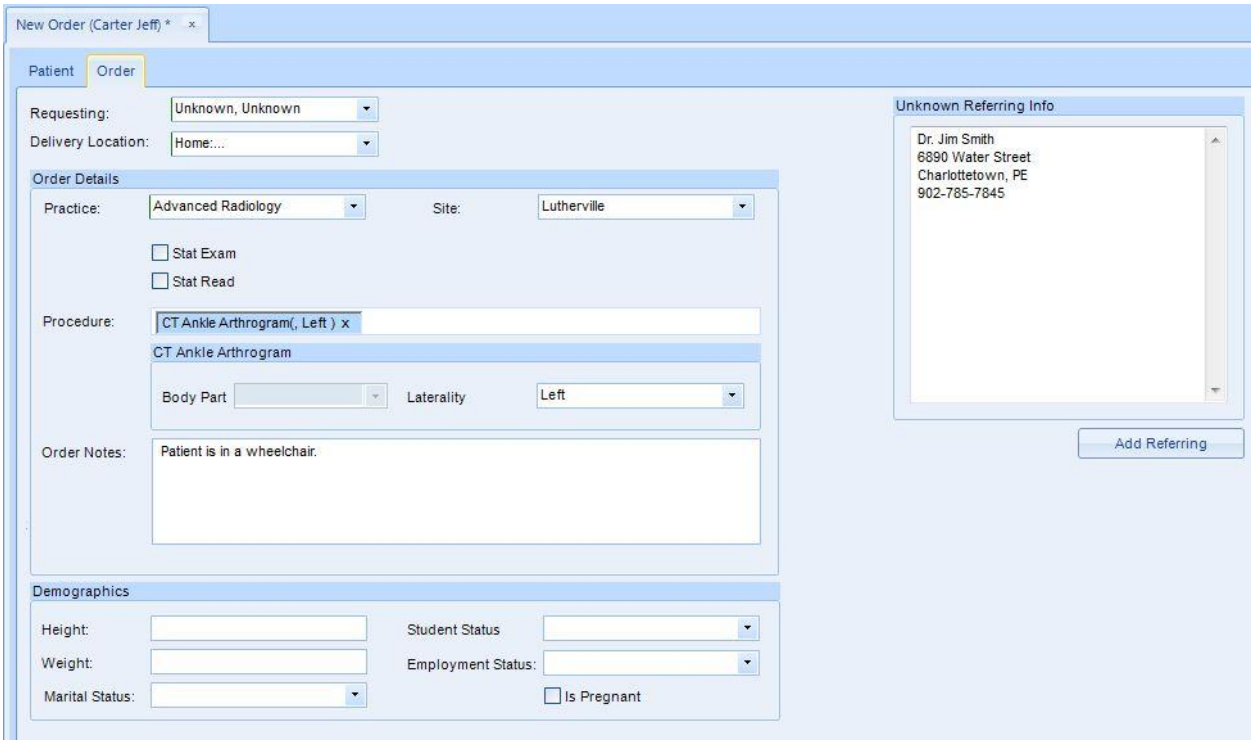



**Figure 4.1 – New Order with Unknown Referring as Requesting Physician**

If the user who placed the order has the proper permission, he or she can select the "Add Referring" button and access the Personnel screen which will allow the entry of the new physician directly into the application.

Typically, an administrative type user will manage the reconciliation of unknown referrings. Once orders are placed with a specified unknown referring doctor, they will be placed on the Unknown Referring WL regardless of status. From here, the administrator can add the new physician and correct the order. Once the order is adjusted, it will fall off the Unknown Referring WL.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

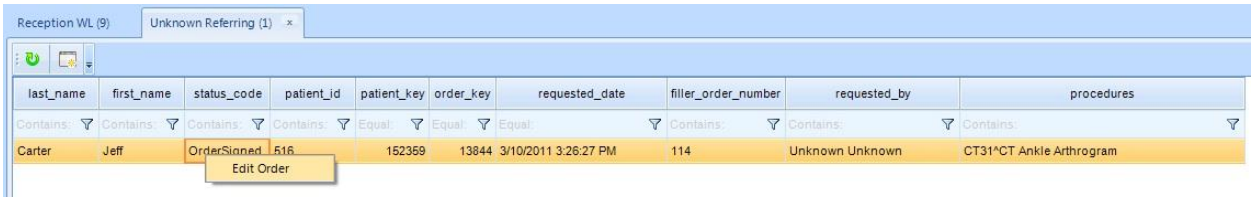



**Figure 4.2 – Unknown Referring Worklist**

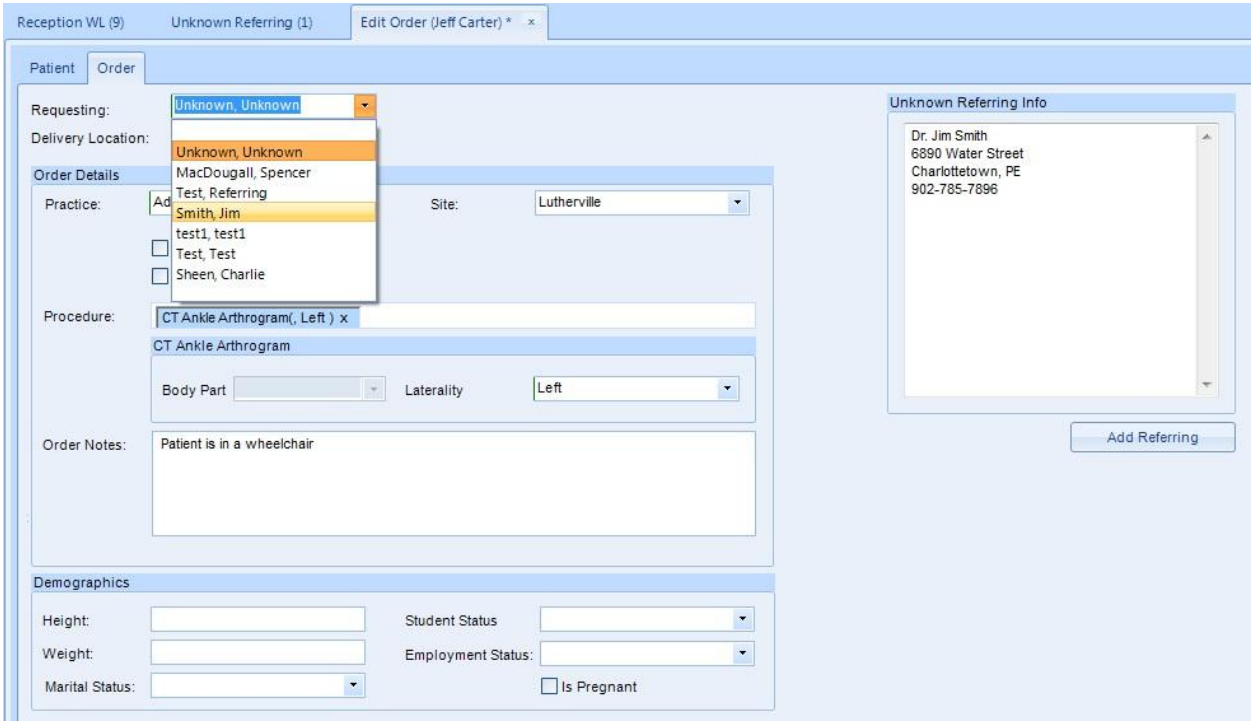



**Figure 4.3 – Updating Order with Proper Referring Physician**

## Phone Mask

Phone numbers follow a predefined pattern and therefore a mask such as (xxx) yyy-zzzz is enforced. If additional numbers are keyed in, such as an extension, then the mask will expand to accommodate it - (902) 436-8220 1234. If an international format is required, keying in a plus + at the start of the number will put the user in international phone number mode - +01 902 4368220.

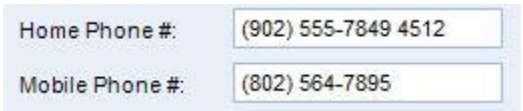



**Figure 4.4 – Patient Phone Numbers with Mask**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Calendar on Date Worklists

In Build 1.11 a calendar control has been added to date driven worklists to aid with filtering and navigation. The user can easily select a different date by using the arrow buttons or by clicking the calendar button and specifying the date. Date worklists will load with today's date as the default.

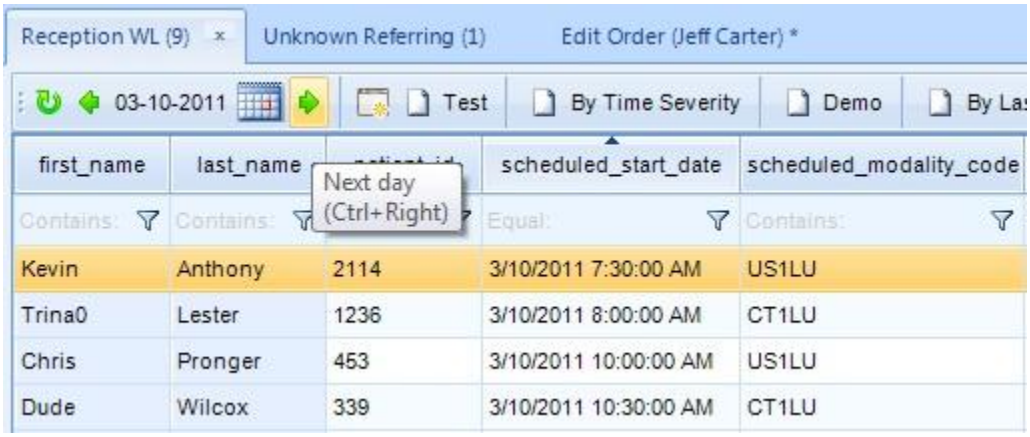



**Figure 4.5 – Navigating Reception WL using Next Day Button**

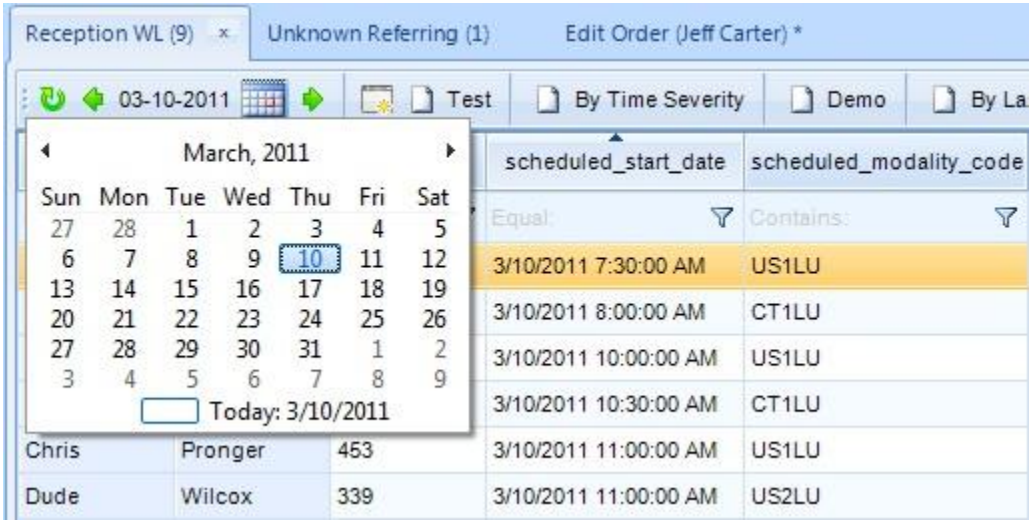



**Figure 4.6 – Navigating Reception WL using Calendar Control**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Applying Time of Day to Procedure Duration

There is a requirement for rRIS to account for varying procedure durations based on a specific or group of scanners and time of day. Availability Templates have been adjusted to accommodate this. For example, the standard duration for an ultrasound procedure is 30 minutes at site A however in the afternoon there is a shortage of staff resulting in an additional 10 minutes per procedure. This is accounted for in the availability template for the scanner and is reflected in the results when searching for a scheduling solution.

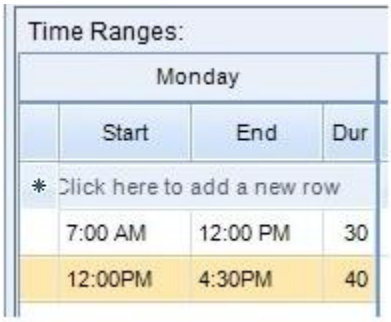



**Figure 4.7 – Applying Procedure Duration to Time of Day**

## Appointment Time Locking

rRIS now has the ability to lock a time block when scheduling a procedure. This will prevent multiple users from attempting to schedule against the same scanner and time. For example if User A has 9:00am on scanner US1LU selected and it is not locked by another user, a lock icon will appear showing that User A now has a lock on the time block. If User B attempts to select the same time block, he or she will be presented with an open lock icon. If User B tries to schedule the study without getting a lock on the time slot, a warning message appears which will force the user to cancel or select another time block.

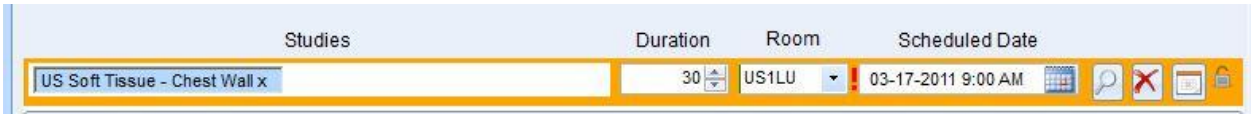



**Figure 4.8 – Study showing 9:00am Time Block as Unlocked**

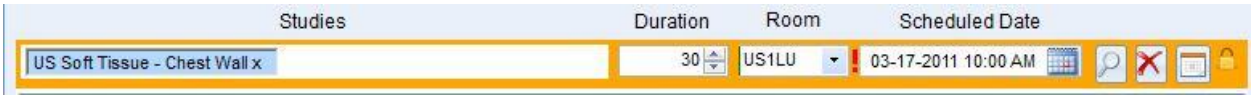



**Figure 4.9 – Study showing 10:00am Time Block as Locked**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Scheduling Procedure Plans

When scheduling a Procedure Plan (Composite Code) in rRIS, the system will maintain the sequence and wait times of the procedures and enforce these when searching for a scheduling solution. The user is also able to schedule studies before or after the Procedure Plan.

For example, the screen shot below shows a user scheduling an MR01 - Composite Code - Fluoro & MR Arthrogram Ankle which is 73615 - FL Arthrogram Ankle Fluoro and 73722 - MR x Lower Ext Joint W with a 30 minute minimum wait time. The user is also adding a 71550 – MR Chest Wo.

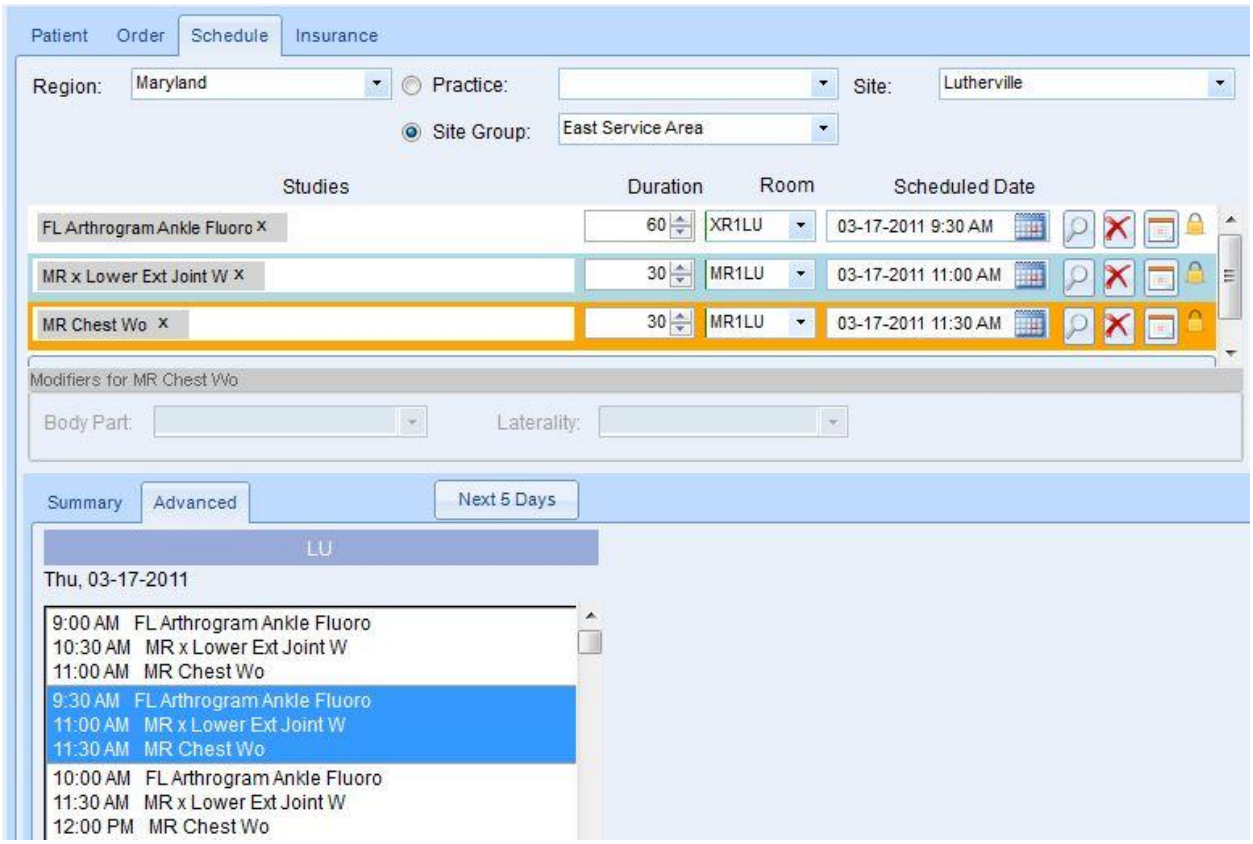



**Figure 4.10 – Scheduliing Procedure Plan followed by Procedure Code**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Patient Folder

Patient Folder or Patient Mode is a worklist that shows all activity for a selected patient. The Patient Folder worklist is accessible by double-clicking on a patient search results entry or in most other worklists by right-clicking on a patient record and choosing "Patient Folder" from the context menu. As in other worklists, the actions available to the user are dependent on the status of the selected row.

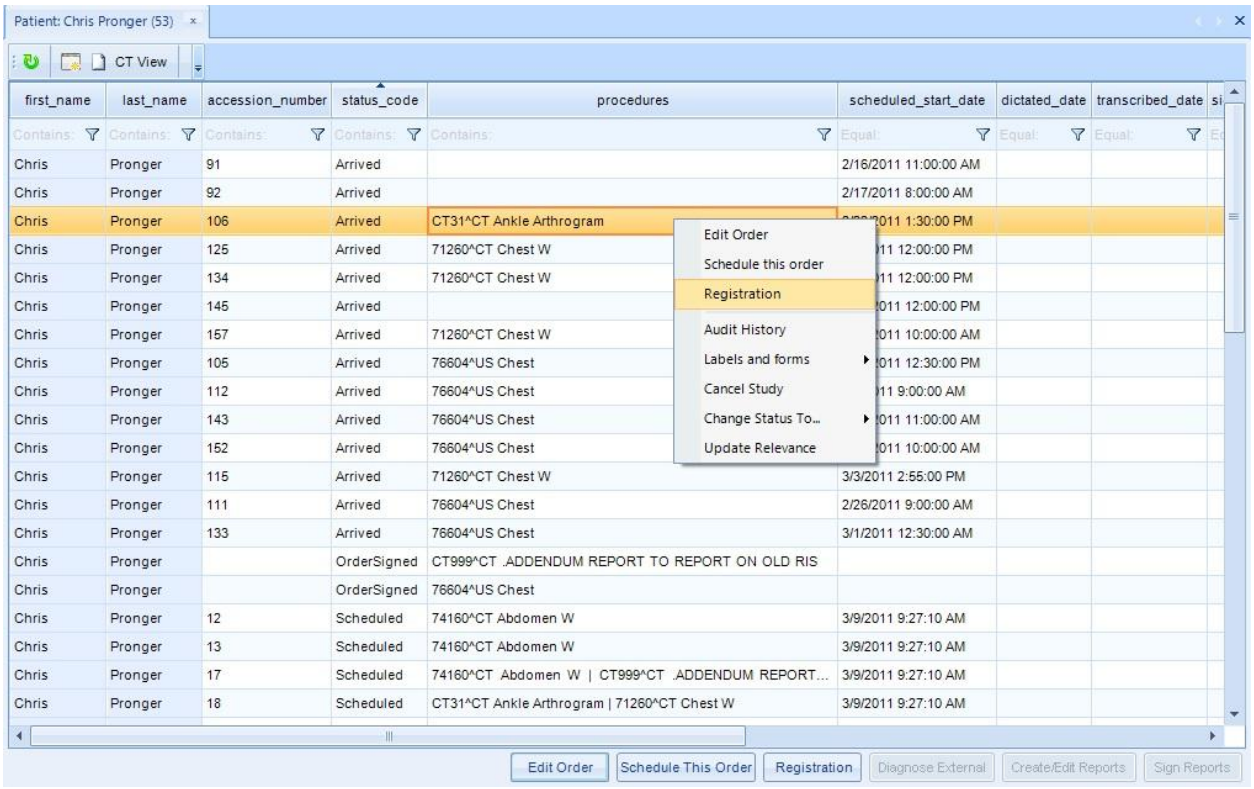



**Figure 4.11 – Patient Folder with Selected Row in Arrived Status**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Insurance Tab in Scheduling Screen

To provide rapid scheduling support for walk-ins, the Insurance tab has been added to the Schedule New Order screen. This will allow the user to select a new or existing patient, place a new order, schedule the order, collect insurance/payment information, and arrive the patient all in one step from the same screen.

The Insurance Policies will default to the previous visit if the patient has been to the site before.

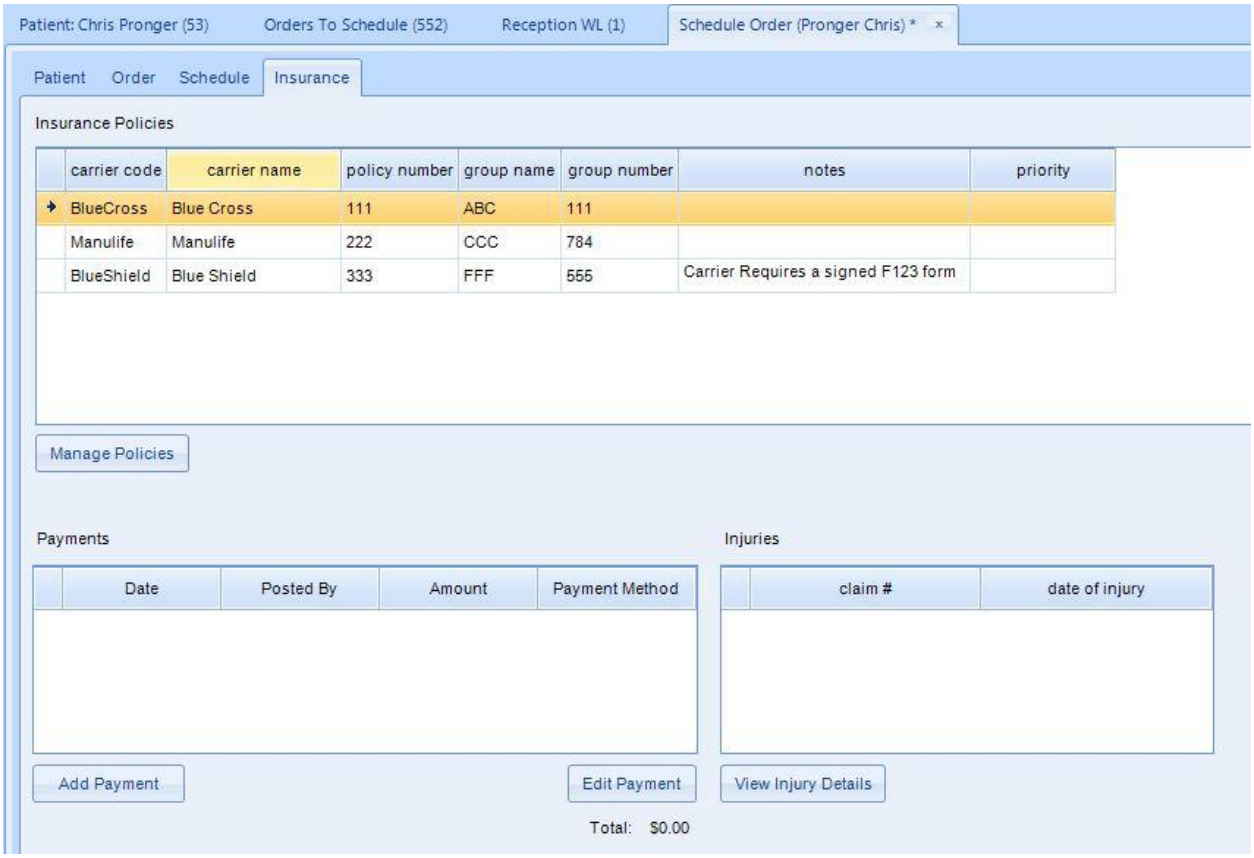



**Figure 4.12 – New Order Schedule with Insurance Tab**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 5. Known Limitations

Bugs, Suggested Features, and Support Issues are now tracked in a web based system called Redmine. The following is a snapshot of the issues found in Build 1.11 as of the end of Sprint 12. Note that the majority of these issues will be resolved in Build 1.12.

| # | Status | Subject | Category | Found | %Done | Resolved |
|---|---|---|---|---|---|---|
| 270 | New | Scheduling - Exception when scheduling Procedure Plan | Thick Client GUI | 1.11 | 0 | |
| 269 | New | Locking - Application crash when opening a locked order | Thick Client GUI | 1.11 | 0 | |
| 268 | New | Scheduling - Better message required for locked time slot | Thick Client GUI | 1.11 | 0 | |
| 267 | New | AvailabilityTemplate - Adding time ranges should be top down | Admin Tools | 1.11 | 0 | |
| 266 | Resolved | Lookups - Using the "Edit..." popup does not consider field length | Admin Tools | 1.11 | 100 | 1.12 |
| 265 | New | Scheduling - Removing study disables Save button | Thick Client GUI | 1.11 | 0 | |
| 264 | Resolved | Scheduling - When Laterality is required, warning states Body Part | Thick Client GUI | 1.11 | 100 | 1.12 |
| 263 | New | Scheduling - Workflow allows scheduling an order without a procedure | Thick Client GUI | 1.11 | 0 | |
| 262 | Resolved | Worklist - Sorting on large worklist (>500 rows) crashes application | Thick Client GUI | 1.11 | 100 | 1.12 |
| 261 | New | Scheduling - Adding more than one procedure to a study results in exception | Thick Client GUI | 1.11 | 0 | |
| 260 | New | Site Picker - Allows null selection resulting in exception | Thick Client GUI | 1.11 | 0 | |
| 259 | New | null reference error when re-ordering insurances with the priority column sorted | Thick Client GUI | 1.11 | 0 | |
| 258 | Resolved | Registration - Exception when presented with locked record | Thick Client GUI | 1.11 | 100 | 1.12 |
| 257 | Resolved | Scheduling - Two users scheduling the same order crashes RIS | Thick Client GUI | 1.11 | 100 | 1.12 |
| 255 | New | Scheduling - Site picker is not properly justified | Thick Client GUI | 1.11 | 0 | |
| 254 | New | Worklist - Add or Remove Buttons is enabled | Thick Client GUI | 1.11 | 0 | |
| 253 | New | ScheduleGroup - Wrong group loads after Edit | Admin Tools | 1.11 | 0 | |
| 252 | New | ScheduleGroup - Slowness when saving lookup | Web Services/DB | 1.11 | 0 | |
| 251 | New | Unknown Referring - Editing more than one Personnel screen causes exception | Admin Tools | 1.11 | 0 | |
| 250 | New | Unknown Referring - Add Referring button launches multiple instances. | Thick Client GUI | 1.11 | 0 | |
| 249 | New | Unknown Referring - Saving unknown referring info causing exception | Thick Client GUI | 1.11 | 0 | |
| 248 | Resolved | Personnel - After saving new resource, form is still marked as dirty | Admin Tools | 1.11 | 100 | 1.12 |
| 247 | New | Unknown Referring - Notes are not easily accessible when adding new doc | Admin Tools | 1.11 | 0 | |
| 246 | Resolved | Registration - Name should be required when relationship is specified | Thick Client GUI | 1.11 | 100 | 1.12 |
| 245 | Resolved | Registration - User can enter a new policy without selecting a Carrier | Thick Client GUI | 1.11 | 100 | 1.12 |
| 244 | Resolved | Registration - Patient info should auto-populate when relation is set to "Self" | Thick Client GUI | 1.11 | 100 | 1.12 |
| 243 | Resolved | Registration - No logic behind priority of insurance policies | Thick Client GUI | 1.11 | 100 | 1.12 |
| 242 | New | Registration - Specifying dates is inconsistent with rest of app | Thick Client GUI | 1.11 | 0 | |
| 241 | New | Registration - No means to remove insurance row accidentally added | Thick Client GUI | 1.11 | 0 | |
| 240 | New | AvailabilityTemplate - Cannot add multiple time ranges per day | Admin Tools | 1.11 | 0 | |
| 239 | New | Scheduling - Duration reduces when moving composite codes | Thick Client GUI | 1.11 | 0 | |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

| | | | | | | |
|---|---|---|---|---|---|---|
| 238 | Resolved | Scheduling - Search solutions spanning multiple rooms are incorrect | Thick Client GUI | 1.11 | 100 | 1.12 |
| 237 | New | Scheduling - Templates are not being represented correctly in the GUI | Thick Client GUI | 1.11 | 0 | |
| 236 | New | Scheduling - Issue with procedure plans, prompted that Schedule Date is required | Thick Client GUI | 1.11 | 0 | |
| 235 | Resolved | Registration - Form gets marked as dirty when clicking on the Exam tab | Thick Client GUI | 1.11 | 100 | 1.12 |
| 234 | New | Scheduling - Rooms are not being filtered on orders with a specified procedure | Thick Client GUI | 1.11 | 0 | |
| 233 | New | Scheduling - System allows over booking of time slots | Thick Client GUI | 1.11 | 0 | |
| 232 | Resolved | Worklist - Requested_date in Ordered WL is showing UTC time | Thick Client GUI | 1.11 | 100 | 1.12 |
| 231 | New | Scheduling - User is able to override schedule group and availability templates | Thick Client GUI | 1.11 | 0 | |
| 230 | Resolved | Registration - trying to save text in the copay or payment fields hangs app | Thick Client GUI | 1.11 | 100 | 1.12 |
| 229 | New | Order - Cannot change patient on Edit Order in OrderSigned status | Thick Client GUI | 1.11 | 0 | |
| 228 | New | Patient Search - No means to apply search criteria to patient form | Thick Client GUI | 1.11 | 0 | |
| 227 | New | Scheduling - Calendar view exception - Incorrect syntax near ')'. (WCFClient) | Thick Client GUI | 1.11 | 0 | |
| 226 | Resolved | Scheduling - Error with "Previous 5 Days" button | Thick Client GUI | 1.11 | 100 | 1.12 |
| 225 | Resolved | Scheduling - Modalities are not being returned from search | Thick Client GUI | 1.11 | 100 | 1.12 |
| 224 | New | Order - Exception when scheduling a modified order | Thick Client GUI | 1.11 | 0 | |
| 223 | Resolved | Registration - Issue with validation on Relation dropdown | Thick Client GUI | 1.11 | 100 | 1.12 |
| 222 | Resolved | Order - Delivery Location is not being displayed on Edit Order | Thick Client GUI | 1.11 | 100 | 1.12 |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# User Pre-Release Notes

for RADNET rRIS
Build 1.12

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Purpose ..... 3
2. Intended Audience ..... 3
3. Installing/Accessing the Application ..... 3
4. New Features and Enhancements ..... 4
   Automatic Form and Label Generation ..... 4
   Referring Physician Location ..... 8
   CC Physicians ..... 9
   Patient Search without Birth Year ..... 10
   Additional Search Providers ..... 10
   Filter Body Part Based on Procedure ..... 13
   Cloning Rooms, Availability Templates, and Schedule Groups ..... 14
   No Show Workflow ..... 15
   Advanced Scheduling Search – Next # of Days ..... 16
   Appointments Booked ..... 17
5. Known Limitations ..... 19

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 1. Purpose

This document describes some of the new features and changes implemented in rRIS as of the end of Sprint 12. This pre-release version of rRIS is referred to as Build 1.12.

Only features which can be visually demonstrated to the user will be outlined in this document.

# 2. Intended Audience

This document is created by the rRIS Development team for the RadNet RIS management team.

# 3. Installing/Accessing the Application

The installation instructions for the rRIS client have been posted to the RadNet Wiki page at http://mdbal01rdtweb/Wiki/

Under the RIS menu, click on the rRIS page. The credentials to access the page are:
Username: rRIS
Password: Summerside

If you experience difficulties accessing the application, please do not hesitate to contact Spencer MacDougall with the PEI RIS Development Team.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 4. New Features and Enhancements

## Automatic Form and Label Generation

In Build 1.12, the application now supports the ability to automatically generate labels and forms based on the following criteria:

- A specified RIS Action
  - Patient Created
  - Patient Updated
  - Patient Arrived
  - Order Created
  - Order Updated
  - Study Cancelled
  - Study Scheduled
  - Study Completed
  - Study Updated
  - Report Signed
  - Report Approved
- The Gender Code of the patient
- The Carrier Code of the patient's insurance carrier
- One or more Procedure Codes

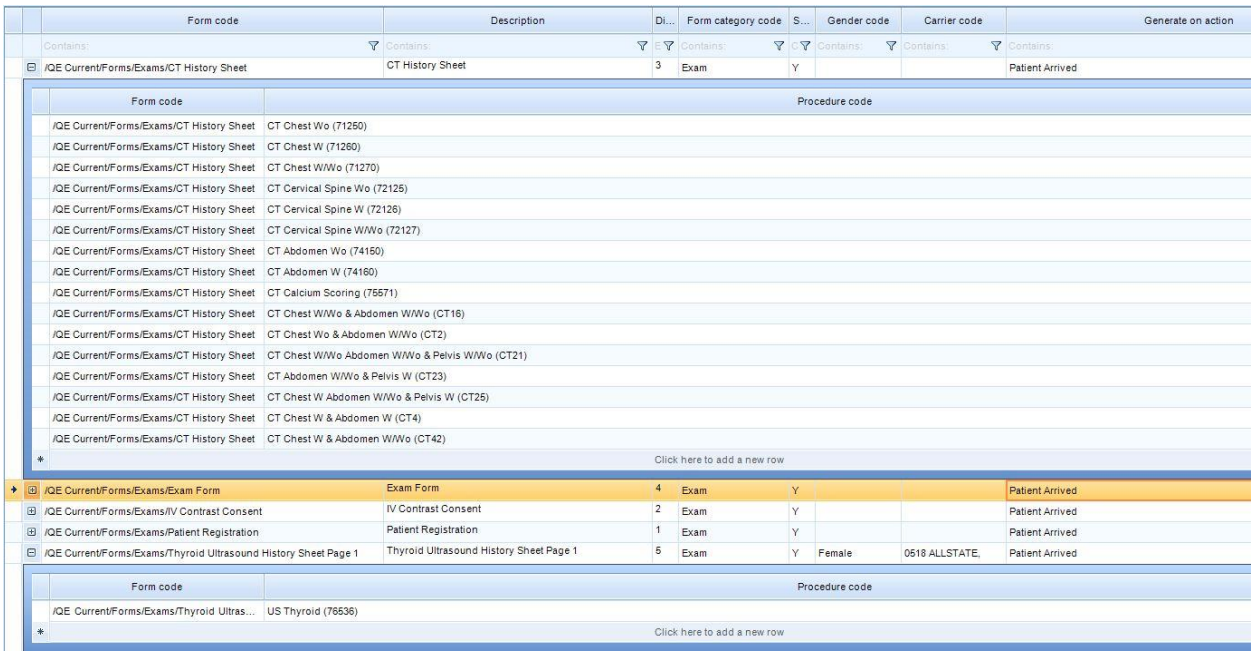



**Figure 4.1 – Example of Mapping Labels and Forms**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

In the example above, the following Forms and conditions have been implemented for testing:

- CT History Sheet – Configured to print when the patient arrives for CT procedures
- Exam Form - Configured to print when the patient arrives
- IV Contrast Consent - Configured to print when the patient arrives. Could easily be expanded to only print for procedures that require contrast
- Patient Registration - Configured to print when the patient arrives
- Thyroid Ultrasound History Sheet Page 1 – Configured to print when the patient arrives, when the procedure is a US Thyroid, when the Gender Code is female, and when the Insurance Carrier is Allstate.

Form: /QE Current/Forms/Exams/Exam Form

1 of 2 100% Find | Next

| | |
|---|---|
| Towson | |
| Name: CARTER, JEFF | Sex: M |
| MRN: 516 | DOS: 4/18/2011 |
| JOHN AARON MD | DOB: 10/10/1980 |

Name: CARTER, JEFF
MRN: 516
Encounter ID: 18031

| Patient Demographics | | | Scheduler: spencer | Date/ Time Scheduled: 4/18/2011 2:00 PM |
|---|---|---|---|---|
| SSN | Home Phone | Work Phone | Other Phone | Referral Source |
| | (902) 888-4579 | | | |
| Patient Notes | | | Patient Alerts | |
| Patient prefers early morning | | | | |

Exam Information

| Barcode Accession # | Procedure ID/ Description | Exam Time | Body Part / Laterality | Modifier | Pre-Cert# |
|---|---|---|---|---|---|
| 1000693 | 71260^CT Chest W | 2:00 PM | | | |

| Chief Complaint | Patient History (Duration, Trauma, Surgery) |
|---|---|
| | |
| Tech Notes | Primary Tech |
| | |
| | Secondary Tech |

Referring Information:

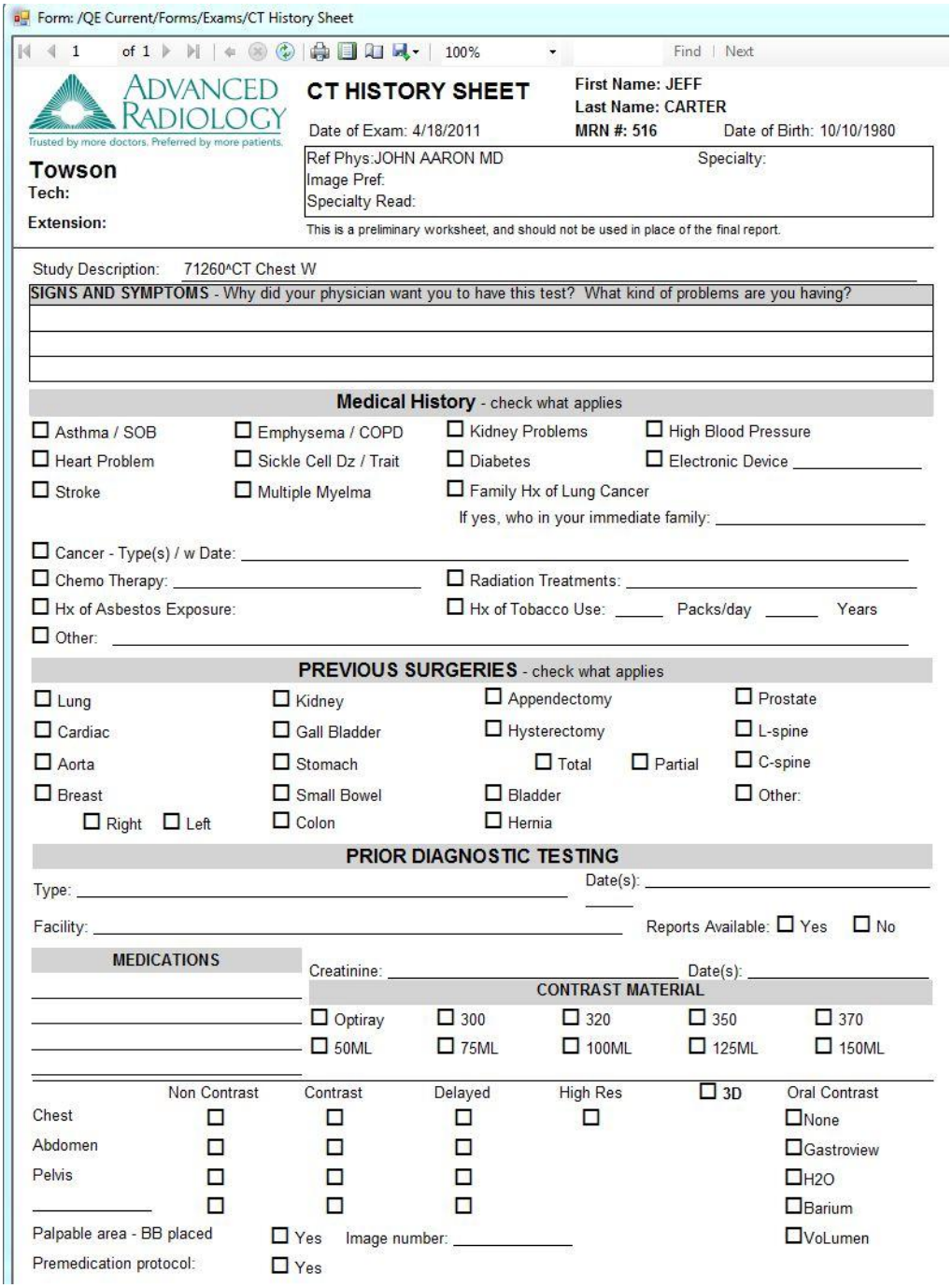
| Referring Physician: | Phone: | Fax: | Address: |
|---|---|---|---|
| JOHN AARON MD | 6108699330 | 6108690660 | 6108699330 |

| CC Physician: | Phone: | Fax: | Address: |
|---|---|---|---|
| JARED ABAY PAC | 4105500939 | 4105503077 | |

| Procedure Performed: | DOS | Location |
|---|---|---|
| 76604^US Chest | 4/7/2011 | |
| 70030^XR ORBITS FOR FOREIGN BODY | 10/25/2010 | |
| 70030^XR ORBITS FOR FOREIGN BODY | 2/26/2010 | |
| 70030^XR ORBITS FOR FOREIGN BODY | 1/5/2010 | |
| 70030^XR ORBITS FOR FOREIGN BODY | 12/18/2009 | |

**Figure 4.2 – Example of an Exam Form generated when Patient Arrived**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.



Form: /QE Current/Forms/Exams/CT History Sheet

1 of 1 100% Find | Next

ADVANCED RADIOLOGY
Trusted by more doctors. Preferred by more patients.

**CT HISTORY SHEET**

**First Name: JEFF**
**Last Name: CARTER**
Date of Exam: 4/18/2011 **MRN #: 516** Date of Birth: 10/10/1980

**Towson**
**Tech:**
**Extension:**

Ref Phys:JOHN AARON MD Specialty:
Image Pref:
Specialty Read:

This is a preliminary worksheet, and should not be used in place of the final report.

Study Description: 71260^CT Chest W

**SIGNS AND SYMPTOMS** - Why did your physician want you to have this test? What kind of problems are you having?

**Medical History** - check what applies

☐ Asthma / SOB ☐ Emphysema / COPD ☐ Kidney Problems ☐ High Blood Pressure
☐ Heart Problem ☐ Sickle Cell Dz / Trait ☐ Diabetes ☐ Electronic Device _____
☐ Stroke ☐ Multiple Myelma ☐ Family Hx of Lung Cancer
If yes, who in your immediate family: _____
☐ Cancer - Type(s) / w Date: _____
☐ Chemo Therapy: _____ ☐ Radiation Treatments: _____
☐ Hx of Asbestos Exposure: ☐ Hx of Tobacco Use: _____ Packs/day _____ Years
☐ Other: _____

**PREVIOUS SURGERIES** - check what applies

☐ Lung ☐ Kidney ☐ Appendectomy ☐ Prostate
☐ Cardiac ☐ Gall Bladder ☐ Hysterectomy ☐ L-spine
☐ Aorta ☐ Stomach ☐ Total ☐ Partial ☐ C-spine
☐ Breast ☐ Small Bowel ☐ Bladder ☐ Other:
☐ Right ☐ Left ☐ Colon ☐ Hernia

**PRIOR DIAGNOSTIC TESTING**

Type: _____ Date(s): _____
Facility: _____ Reports Available: ☐ Yes ☐ No

**MEDICATIONS**

_____
_____
_____
_____

Creatinine: _____ Date(s): _____

**CONTRAST MATERIAL**

☐ Optiray ☐ 300 ☐ 320 ☐ 350 ☐ 370
☐ 50ML ☐ 75ML ☐ 100ML ☐ 125ML ☐ 150ML

| | Non Contrast | Contrast | Delayed | High Res | ☐ 3D | Oral Contrast |
|---|---|---|---|---|---|---|
| Chest | ☐ | ☐ | ☐ | ☐ | | ☐ None |
| Abdomen | ☐ | ☐ | ☐ | | | ☐ Gastroview |
| Pelvis | ☐ | ☐ | ☐ | | | ☐ H2O |
| _____ | ☐ | ☐ | ☐ | | | ☐ Barium |

Palpable area - BB placed ☐ Yes Image number: _____ ☐ VoLumen
Premedication protocol: ☐ Yes

**Figure 4.3 – Example of a CT Work Sheet generated when Patient Arrived**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

rRIS utilizes Microsoft Reporting Services to generate Labels/Forms and Management Reports. Below is a screenshot of Microsoft's Report Builder 3.0 showing the Patient Registration in design mode. The form is assigned a Data Source which points to the database schema. The form is built on a dataset which in this case is using a database view. The parameter being passed to the form from rRIS is study_key.

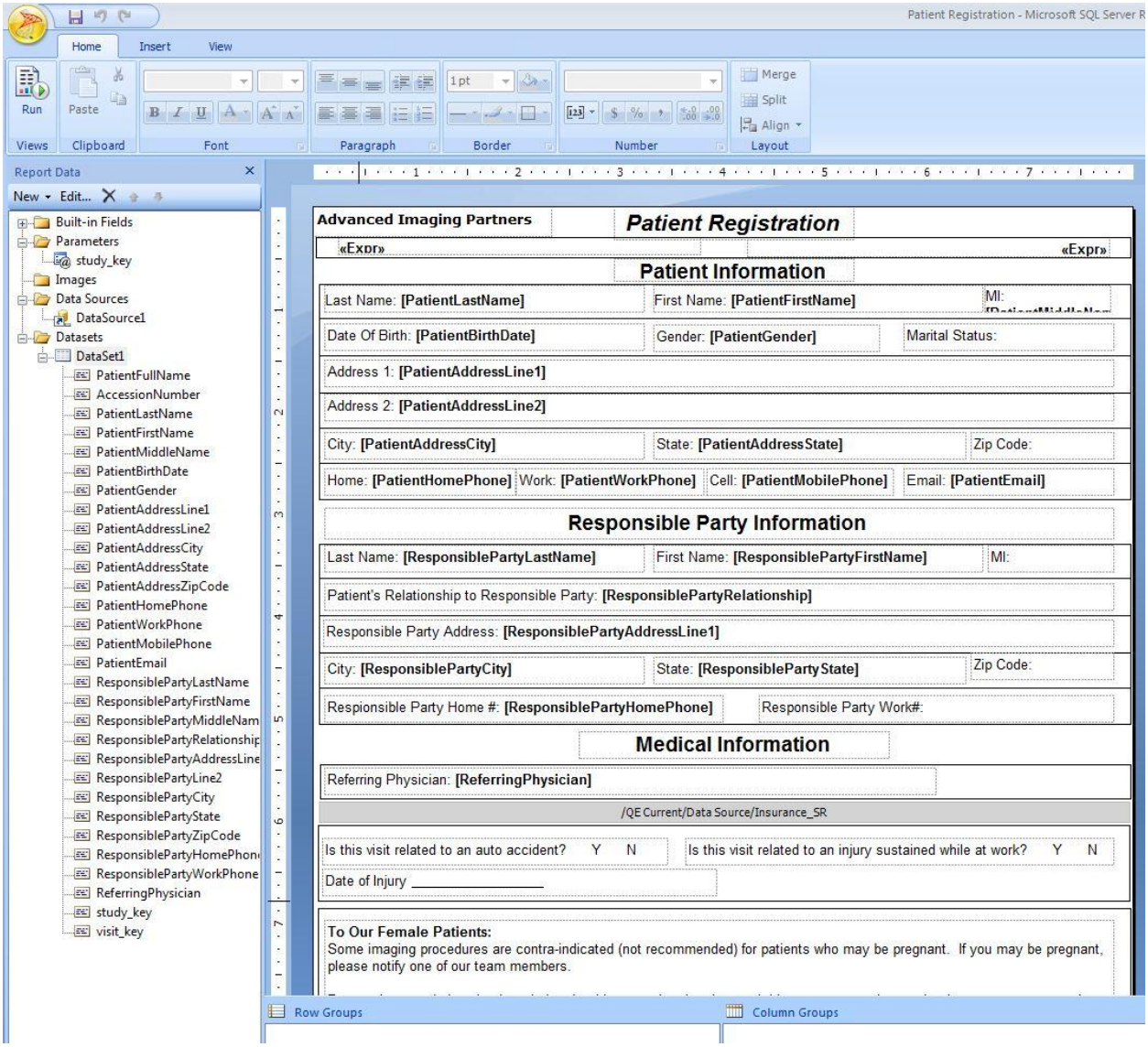



**Figure 4.4 – Editing Patient Registration Form in Report Builder**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Referring Physician Location

At the order level, rRIS will now capture where the patient visited the referring physician at. This will be utilized if the referring doctor has more than one office location. If the referring is setup in the system with only one address, then the field will default accordingly. In the example below, Dr. Joshua Aaron has four different office locations. The patient visited at 201 Milford Road but Dr. Aaron would like the report faxed to 410-296-5535.

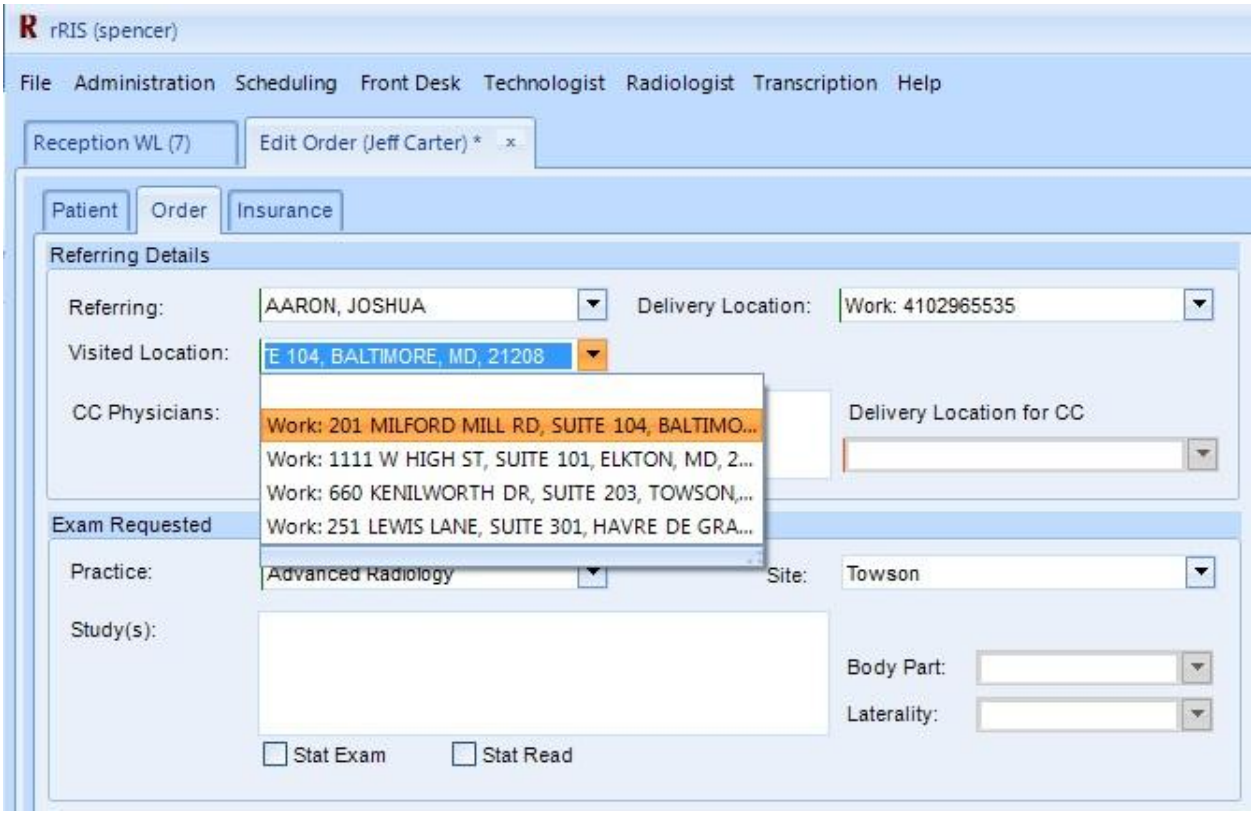



**Figure 4.5 – Edit Order showing Delivery and Visited Locations**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## CC Physicians

rRIS will support an unlimited number of CC Physicians specified at the order level. The CC Physician picker behaves similar to other pickers in the application. As each doctor is selected via a type ahead search, a report delivery location is specified or defaulted if there is only one.

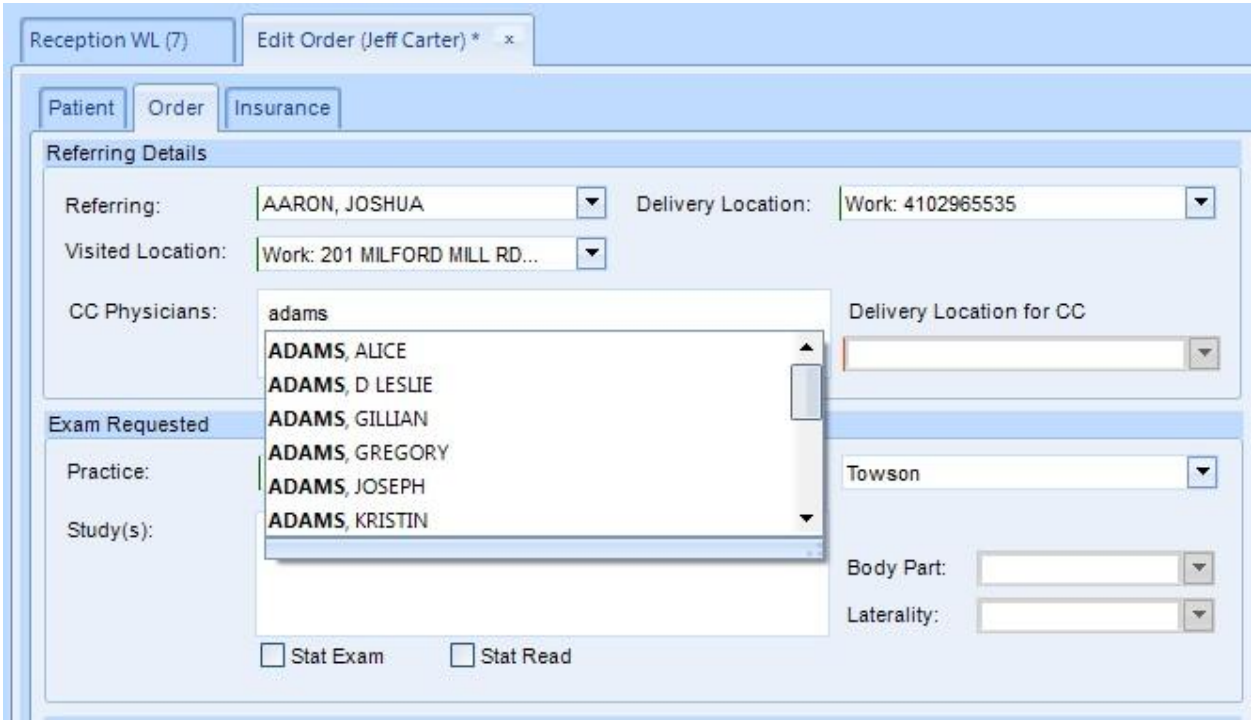



**Figure 4.6 – Edit Order showing CC Physician Dropdown**

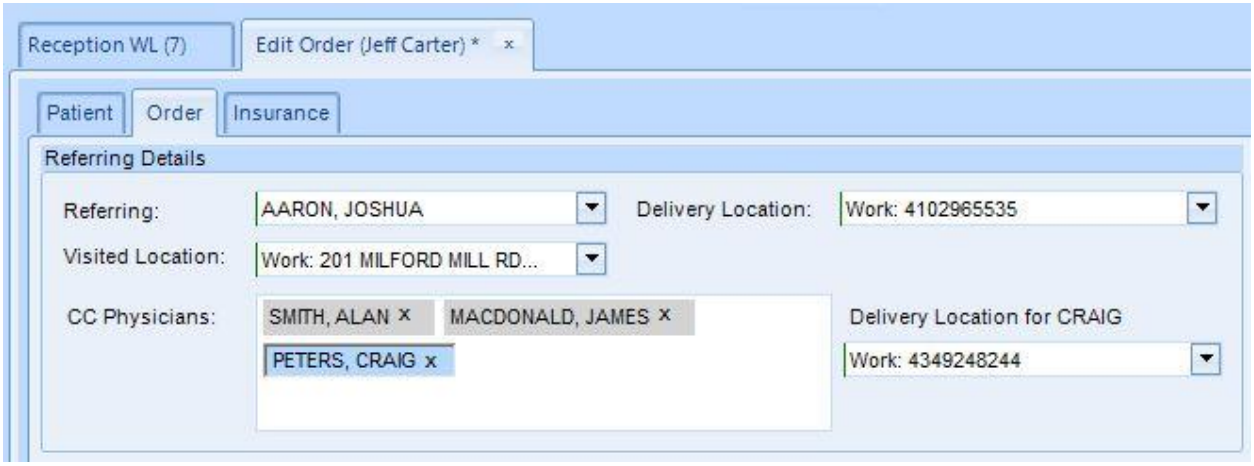
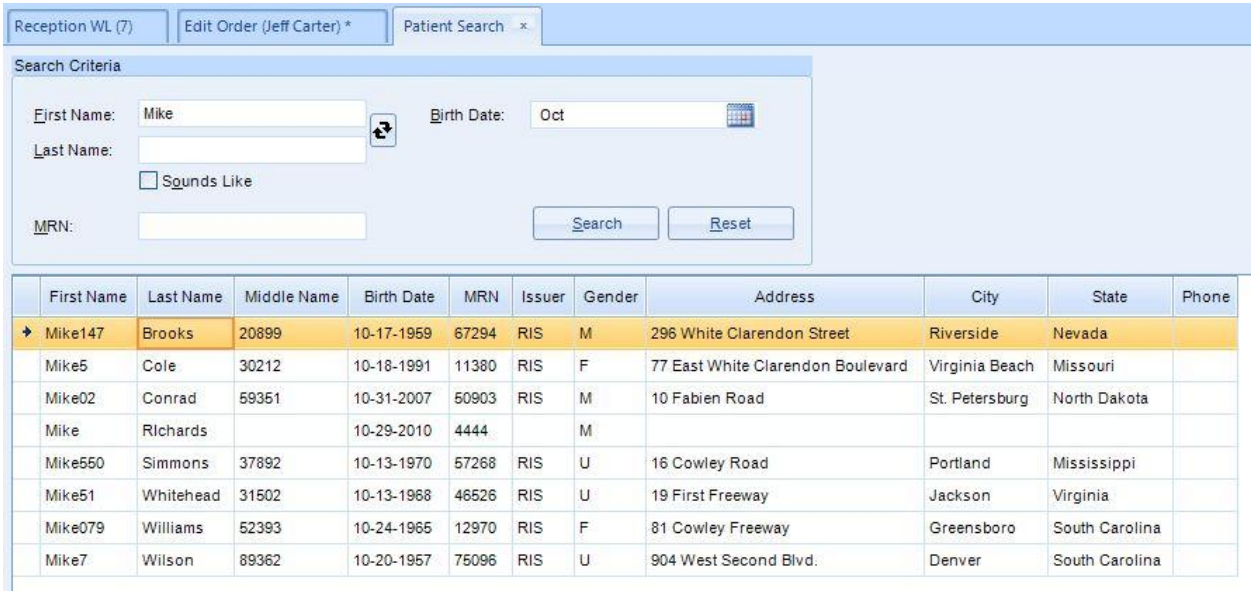



**Figure 4.7 – Edit Order showing multiple CC Physicians with Report Delivery Locations**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Patient Search without Birth Year

Patient Search has been enhanced to allow the user to search for a patient with birth day and/or birth month without having to specify a birth year. In the example below, the user is searching for all patients with a first name of Mike that were born in the month of October.




| First Name | Last Name | Middle Name | Birth Date | MRN | Issuer | Gender | Address | City | State | Phone |
|---|---|---|---|---|---|---|---|---|---|---|
| Mike147 | Brooks | 20899 | 10-17-1959 | 67294 | RIS | M | 296 White Clarendon Street | Riverside | Nevada | |
| Mike5 | Cole | 30212 | 10-18-1991 | 11380 | RIS | F | 77 East White Clarendon Boulevard | Virginia Beach | Missouri | |
| Mike02 | Conrad | 59351 | 10-31-2007 | 50903 | RIS | M | 10 Fabien Road | St. Petersburg | North Dakota | |
| Mike | RIchards | | 10-29-2010 | 4444 | | M | | | | |
| Mike550 | Simmons | 37892 | 10-13-1970 | 57268 | RIS | U | 16 Cowley Road | Portland | Mississippi | |
| Mike51 | Whitehead | 31502 | 10-13-1968 | 46526 | RIS | U | 19 First Freeway | Jackson | Virginia | |
| Mike079 | Williams | 52393 | 10-24-1965 | 12970 | RIS | F | 81 Cowley Freeway | Greensboro | South Carolina | |
| Mike7 | Wilson | 89362 | 10-20-1957 | 75096 | RIS | U | 904 West Second Blvd. | Denver | South Carolina | |

**Figure 4.8 – Patient Search with a Partial Birth Date**

## Additional Search Providers

The search framework in rRIS has been expanded to include more than just patients. Users (with the proper permissions granted) now have the ability to search for staff, sites, and utilize Google. All search providers have been implemented with associated permissions.

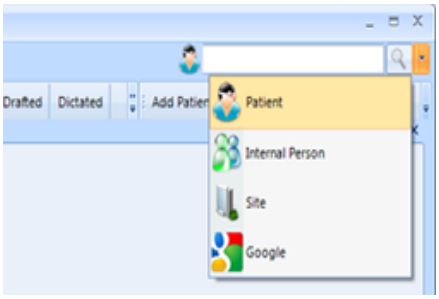



**Figure 4.9 – Internal Person, Site, and Google Quick Search**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

The internal person search is a great utility to quickly find resources such as referring doctors, technologist, radiologists, etc. in the application. In the example below, a scheduling user needs to contact Dr. David Powers regarding a patient. The user simply types "power" with Internal Person selected. The system acts as a rolodex and quickly returns all resources in the system with a last name like Power. The user has the ability to modify the internal person if he or she has the proper permission granted.

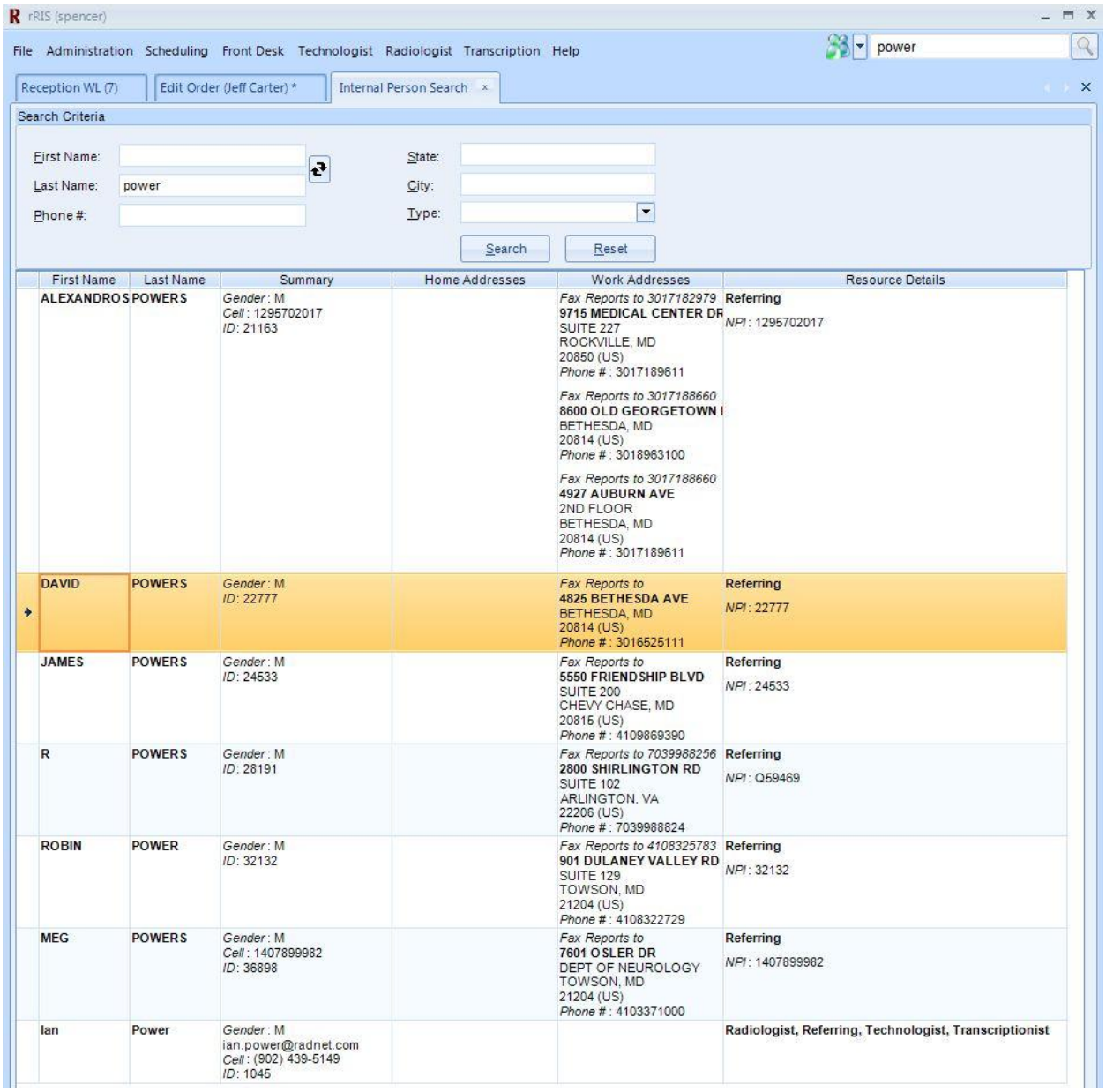



**Figure 4.10 – Internal Person Search on Last Name**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

The site search allows the user to lookup contact information for other sites within the organization. For example if a user needs the fax number for the Lutherville site, he or she can simply use "Luth" as search criteria with the Site search option selected to get a list of matching sites. Users can also use state, city, manager, and phone number as search criteria.

**Figure 4.11 – Site Search on Site Name**

Search engines like Google are used often throughout the workday for finding necessary information. In rRIS, the user can click on the Google search button to quickly launch their default web browser and navigate to the Google search page.

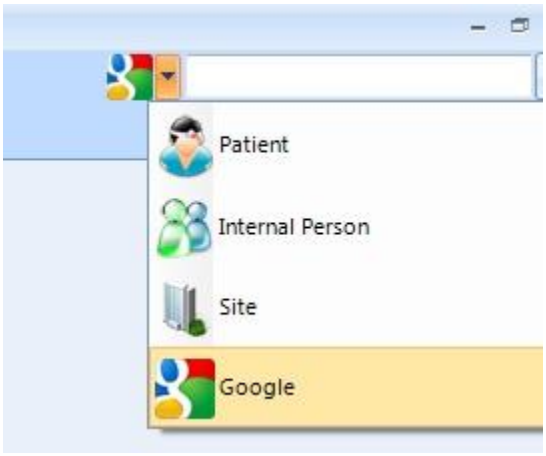



**Figure 4.12 – Shortcut to Google Search**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Filter Body Part Based on Procedure

There is a requirement to filter the list of applicable body parts based on the procedure code. This is useful if the procedure code is generic like a CT Lower Extremity W (73701). For a CT Lower, it does not make sense to present the user with a list of body parts like arm or shoulder that are not considered lower. In the example below the list of available body parts for a CT Lower include Hip Joint, Ankle Joint, Knee, Leg, Foot, and Pelvis. A default can still be specified from this list.

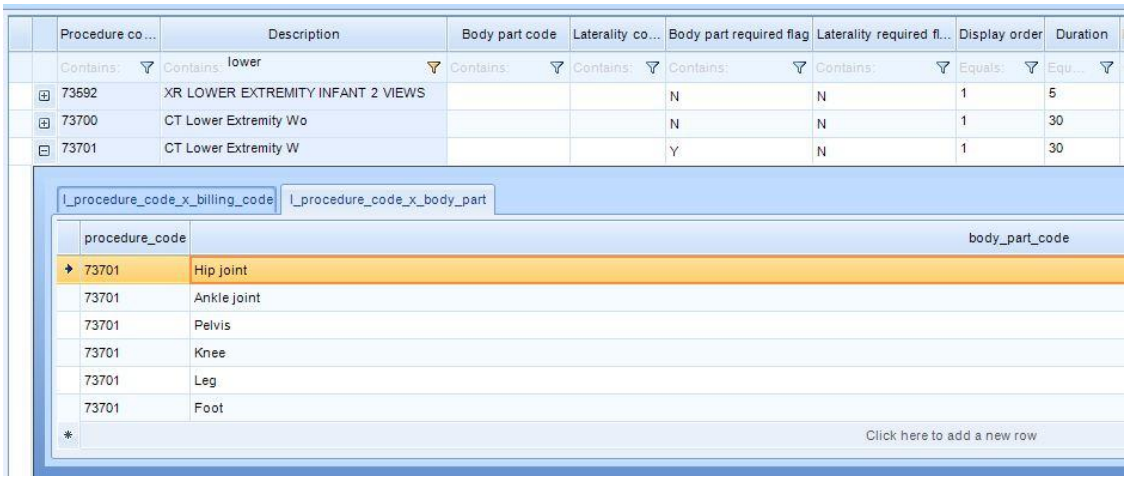



**Figure 4.12 – Available Body Parts for Procedure CT Lower Extremity W**

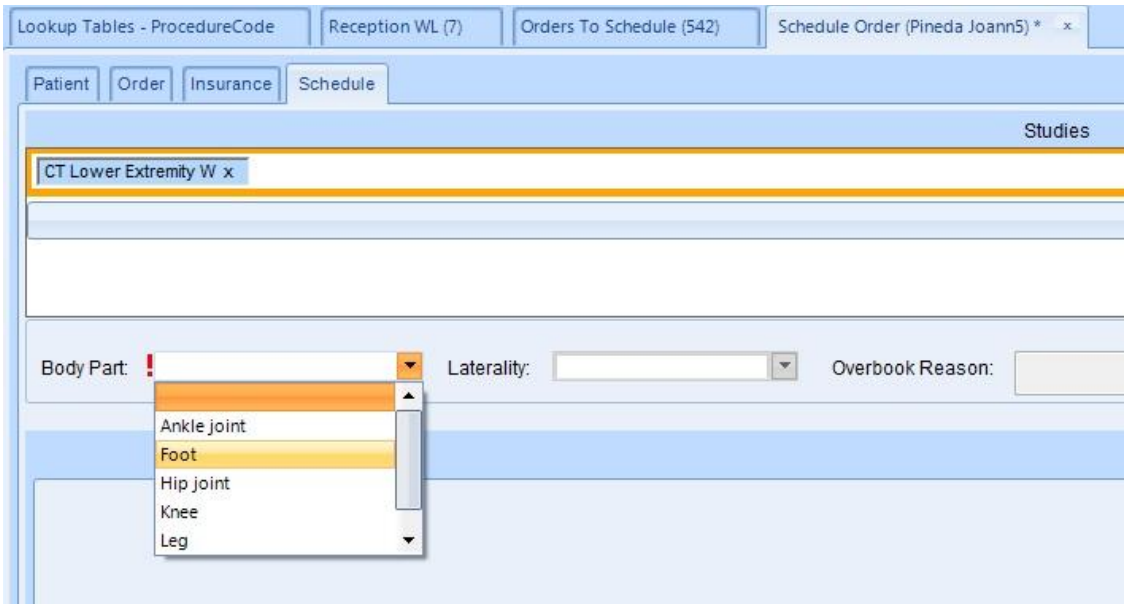



**Figure 4.13 – Filtered Body Parts during Scheduling**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Cloning Rooms, Availability Templates, and Schedule Groups

A large amount of administrative time can be spent on creating and editing rooms, availability templates, and schedule groups. rRIS allows the administrative user to clone these areas to save valuable time. For example, a user is setting up a CT room at the Townson site and it operates on the same or similar working hours to the CT room at the Lutherville site. The use simply highlights the Lutherville CT template, clicks the Clone button, and enters a new name. Now a new template has been created that is already configured and ready to be applied to a Schedule Group.

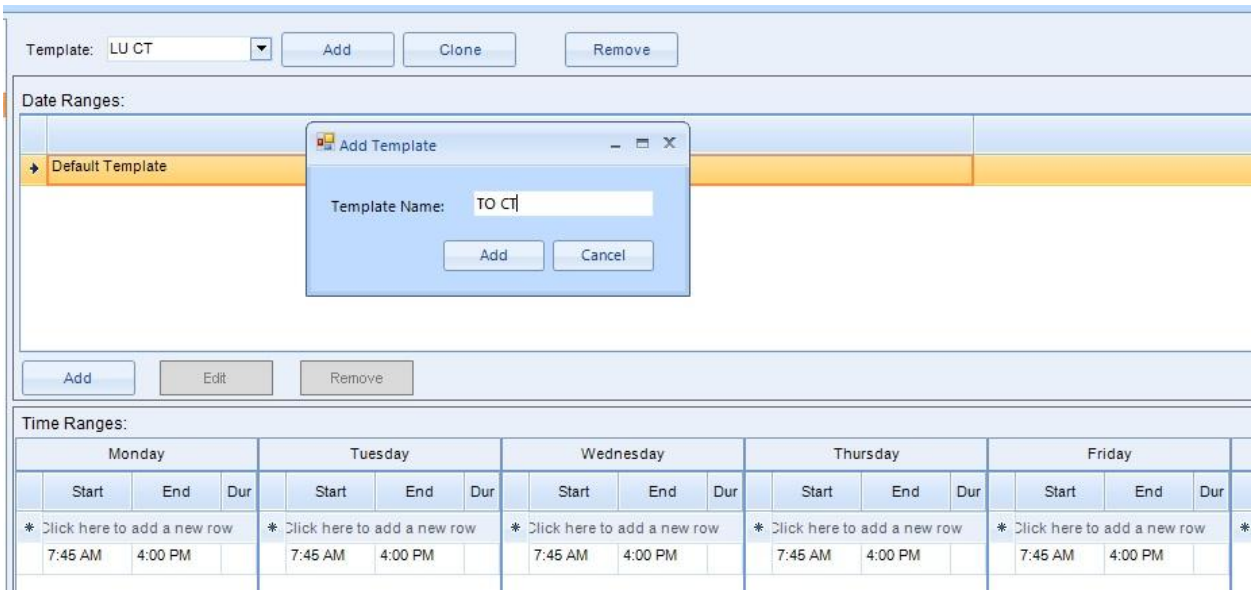
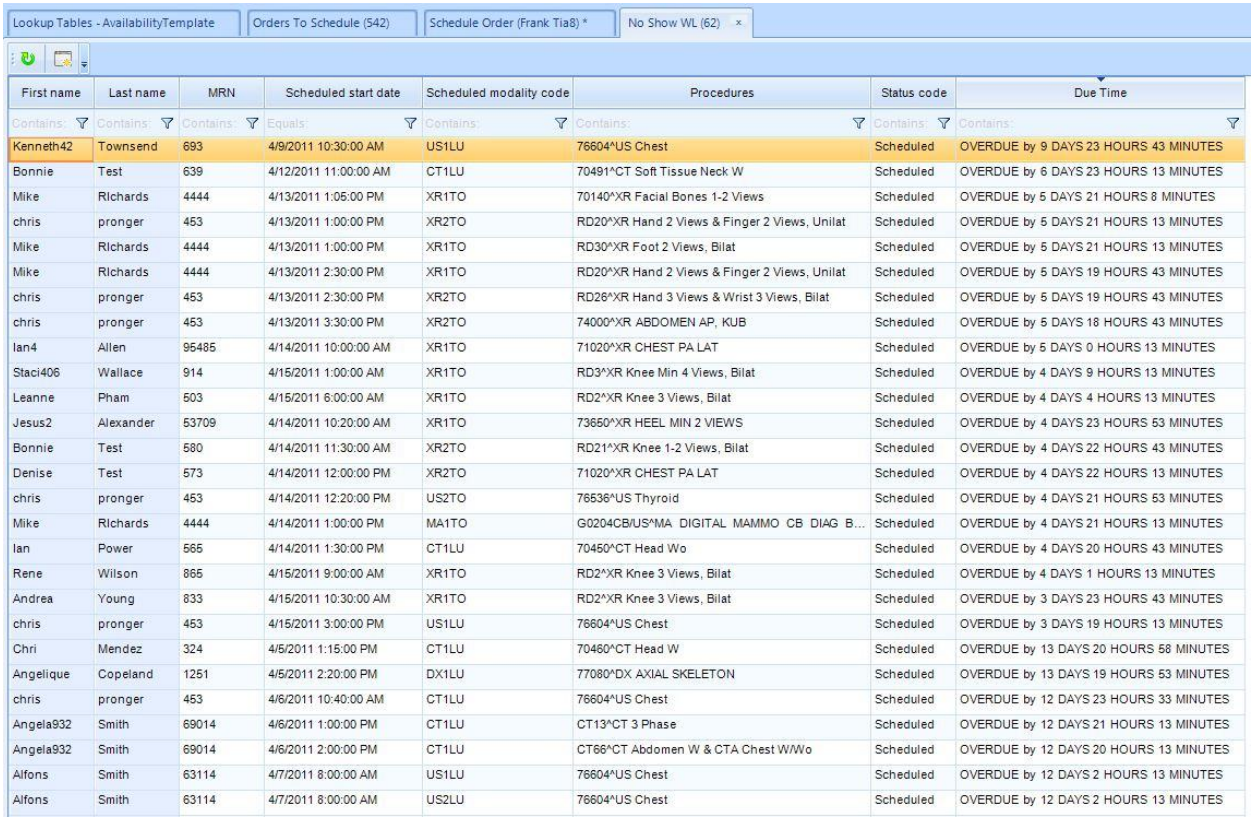



**Figure 4.14 – Cloning an Availability Template**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## No Show Workflow

In Build 1.12, a No Show worklist has been added to the application. The purpose of this worklist is to track all overdue patients. This worklist has been configured to include all studies that are still in a scheduled status and were scheduled between yesterday and fourteen days prior. From the worklist, a scheduling user can track No Show patients and easily contact them to reschedule or cancel the appointment.




| First name | Last name | MRN | Scheduled start date | Scheduled modality code | Procedures | Status code | Due Time |
|---|---|---|---|---|---|---|---|
| Kenneth42 | Townsend | 693 | 4/9/2011 10:30:00 AM | US1LU | 76604^US Chest | Scheduled | OVERDUE by 9 DAYS 23 HOURS 43 MINUTES |
| Bonnie | Test | 639 | 4/12/2011 11:00:00 AM | CT1LU | 70491^CT Soft Tissue Neck W | Scheduled | OVERDUE by 6 DAYS 23 HOURS 13 MINUTES |
| Mike | RIchards | 4444 | 4/13/2011 1:05:00 PM | XR1TO | 70140^XR Facial Bones 1-2 Views | Scheduled | OVERDUE by 5 DAYS 21 HOURS 8 MINUTES |
| chris | pronger | 453 | 4/13/2011 1:00:00 PM | XR2TO | RD20^XR Hand 2 Views & Finger 2 Views, Unilat | Scheduled | OVERDUE by 5 DAYS 21 HOURS 13 MINUTES |
| Mike | RIchards | 4444 | 4/13/2011 1:00:00 PM | XR1TO | RD30^XR Foot 2 Views, Bilat | Scheduled | OVERDUE by 5 DAYS 21 HOURS 13 MINUTES |
| Mike | RIchards | 4444 | 4/13/2011 2:30:00 PM | XR1TO | RD20^XR Hand 2 Views & Finger 2 Views, Unilat | Scheduled | OVERDUE by 5 DAYS 19 HOURS 43 MINUTES |
| chris | pronger | 453 | 4/13/2011 2:30:00 PM | XR2TO | RD26^XR Hand 3 Views & Wrist 3 Views, Bilat | Scheduled | OVERDUE by 5 DAYS 19 HOURS 43 MINUTES |
| chris | pronger | 453 | 4/13/2011 3:30:00 PM | XR2TO | 74000^XR ABDOMEN AP, KUB | Scheduled | OVERDUE by 5 DAYS 18 HOURS 43 MINUTES |
| Ian4 | Allen | 95485 | 4/14/2011 10:00:00 AM | XR1TO | 71020^XR CHEST PA LAT | Scheduled | OVERDUE by 5 DAYS 0 HOURS 13 MINUTES |
| Staci406 | Wallace | 914 | 4/15/2011 1:00:00 AM | XR1TO | RD3^XR Knee Min 4 Views, Bilat | Scheduled | OVERDUE by 4 DAYS 9 HOURS 13 MINUTES |
| Leanne | Pham | 503 | 4/15/2011 6:00:00 AM | XR1TO | RD2^XR Knee 3 Views, Bilat | Scheduled | OVERDUE by 4 DAYS 4 HOURS 13 MINUTES |
| Jesus2 | Alexander | 53709 | 4/14/2011 10:20:00 AM | XR1TO | 73650^XR HEEL MIN 2 VIEWS | Scheduled | OVERDUE by 4 DAYS 23 HOURS 53 MINUTES |
| Bonnie | Test | 580 | 4/14/2011 11:30:00 AM | XR2TO | RD21^XR Knee 1-2 Views, Bilat | Scheduled | OVERDUE by 4 DAYS 22 HOURS 43 MINUTES |
| Denise | Test | 573 | 4/14/2011 12:00:00 PM | XR2TO | 71020^XR CHEST PA LAT | Scheduled | OVERDUE by 4 DAYS 22 HOURS 13 MINUTES |
| chris | pronger | 453 | 4/14/2011 12:20:00 PM | US2TO | 76536^US Thyroid | Scheduled | OVERDUE by 4 DAYS 21 HOURS 53 MINUTES |
| Mike | RIchards | 4444 | 4/14/2011 1:00:00 PM | MA1TO | G0204CB/US^MA DIGITAL MAMMO CB DIAG B... | Scheduled | OVERDUE by 4 DAYS 21 HOURS 13 MINUTES |
| Ian | Power | 565 | 4/14/2011 1:30:00 PM | CT1LU | 70450^CT Head Wo | Scheduled | OVERDUE by 4 DAYS 20 HOURS 43 MINUTES |
| Rene | Wilson | 865 | 4/15/2011 9:00:00 AM | XR1TO | RD2^XR Knee 3 Views, Bilat | Scheduled | OVERDUE by 4 DAYS 1 HOURS 13 MINUTES |
| Andrea | Young | 833 | 4/15/2011 10:30:00 AM | XR1TO | RD2^XR Knee 3 Views, Bilat | Scheduled | OVERDUE by 3 DAYS 23 HOURS 43 MINUTES |
| chris | pronger | 453 | 4/15/2011 3:00:00 PM | US1LU | 76604^US Chest | Scheduled | OVERDUE by 3 DAYS 19 HOURS 13 MINUTES |
| Chri | Mendez | 324 | 4/5/2011 1:15:00 PM | CT1LU | 70460^CT Head W | Scheduled | OVERDUE by 13 DAYS 20 HOURS 58 MINUTES |
| Angelique | Copeland | 1251 | 4/5/2011 2:20:00 PM | DX1LU | 77080^DX AXIAL SKELETON | Scheduled | OVERDUE by 13 DAYS 19 HOURS 53 MINUTES |
| chris | pronger | 453 | 4/6/2011 10:40:00 AM | CT1LU | 76604^US Chest | Scheduled | OVERDUE by 12 DAYS 23 HOURS 33 MINUTES |
| Angela932 | Smith | 69014 | 4/6/2011 1:00:00 PM | CT1LU | CT13^CT 3 Phase | Scheduled | OVERDUE by 12 DAYS 21 HOURS 13 MINUTES |
| Angela932 | Smith | 69014 | 4/6/2011 2:00:00 PM | CT1LU | CT66^CT Abdomen W & CTA Chest W/Wo | Scheduled | OVERDUE by 12 DAYS 20 HOURS 13 MINUTES |
| Alfons | Smith | 63114 | 4/7/2011 8:00:00 AM | US1LU | 76604^US Chest | Scheduled | OVERDUE by 12 DAYS 2 HOURS 13 MINUTES |
| Alfons | Smith | 63114 | 4/7/2011 8:00:00 AM | US2LU | 76604^US Chest | Scheduled | OVERDUE by 12 DAYS 2 HOURS 13 MINUTES |

**Figure 4.15 – No Show Worklist**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Advanced Scheduling Search – Next # of Days

The Advanced Search Criteria screen used when searching for scheduling solutions has been enhanced to include Next and Previous buttons represented below by green arrows. If the user has a defined date range set at 7 days, simply clicking the Next Arrow will automatically advance the search by the next 7 days. The Previous Arrow will search the previous 7 days.

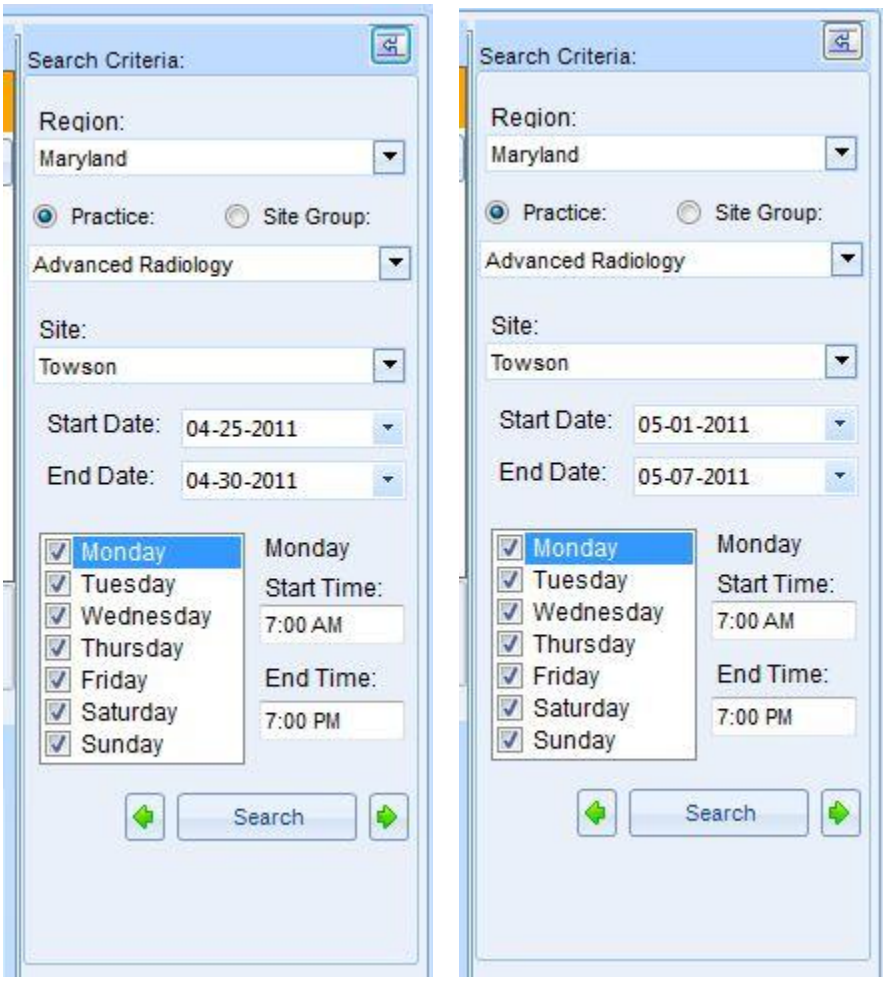



**Figure 4.15 – Advanced Search Criteria showing Next and Previous Days**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Appointments Booked

The Appointments Booked screen is a visual representation of schedule activity for scanners/rooms. The user has the ability to filter by:

- Region
- Practice
- Site Group
- Site
- Modality Type
- Room
- Schedule Date

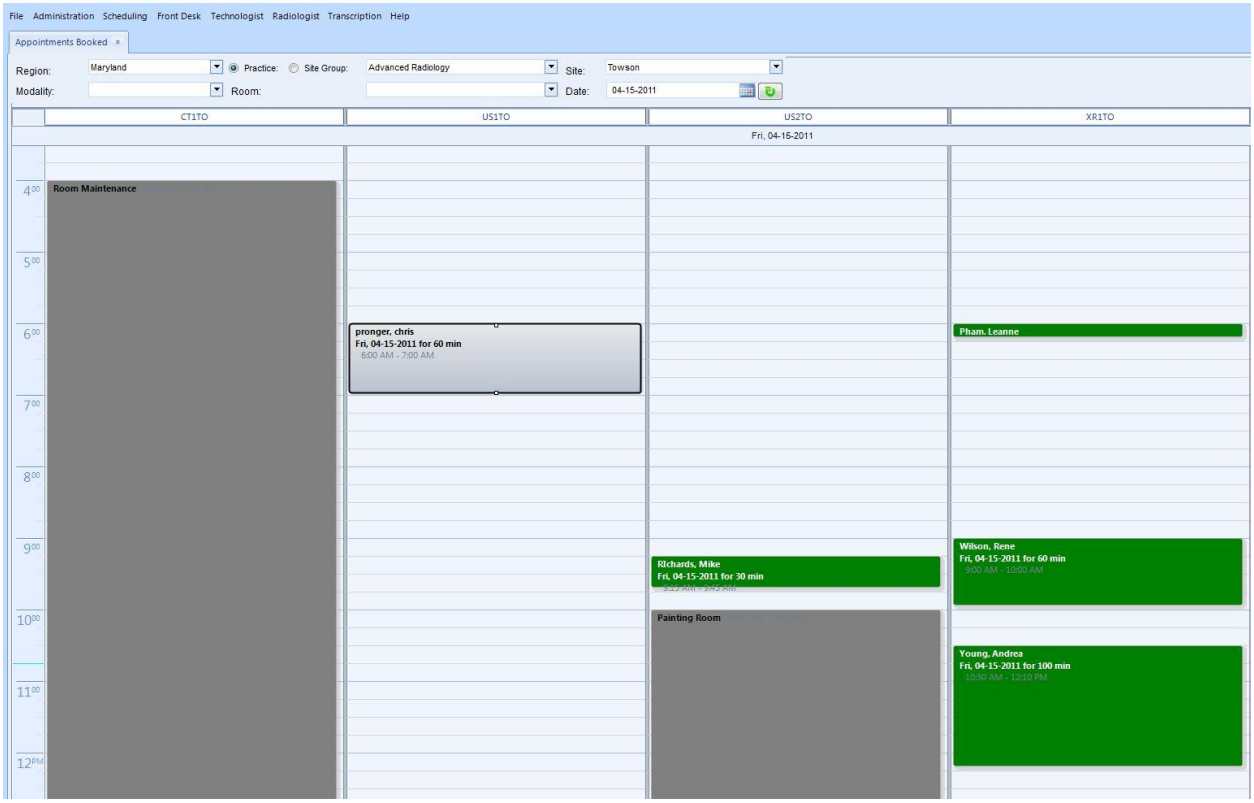



**Figure 4.16 – Appointments Booked Screen filtered by Site and Date**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

With the proper permissions granted, users have the ability to create new or edit existing scheduled studies simply by clicking on the desired timeslot. Room Closures and the Availability Template are reflected in the layout.

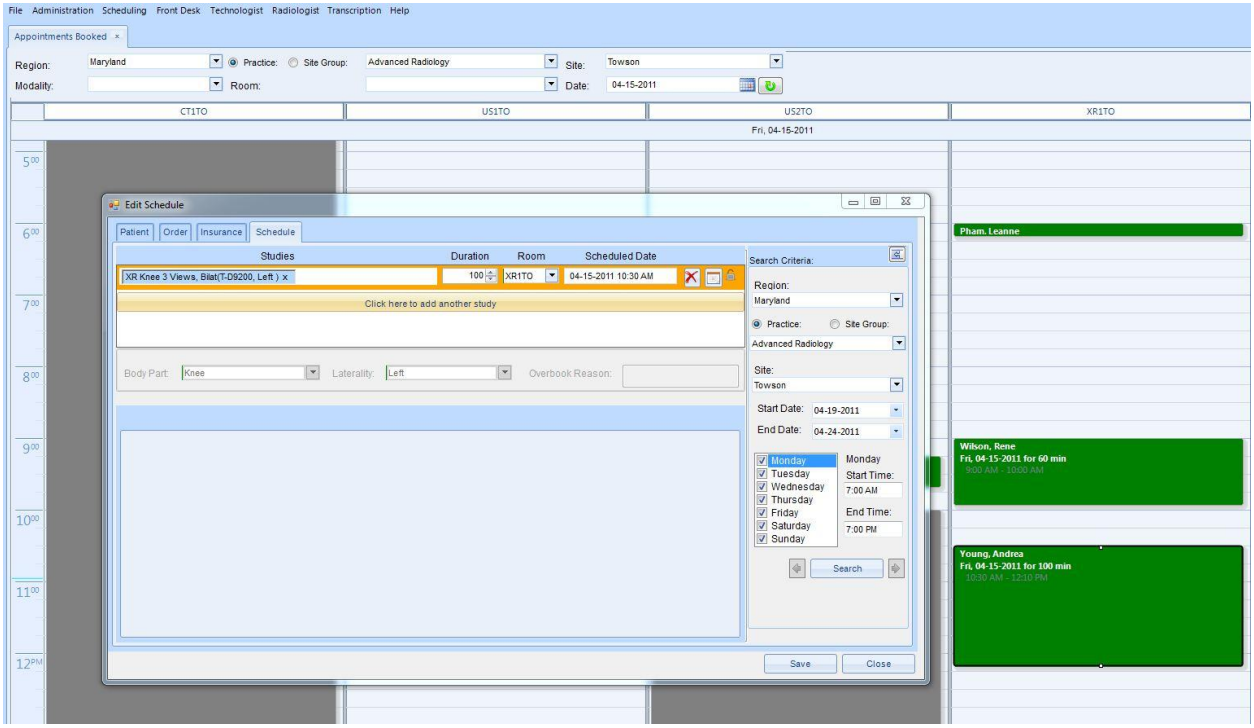



**Figure 4.17 – Edit Appointment via Appointments Booked Screen**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 5. Known Limitations

Bugs, Suggested Features, and Support Issues are now tracked in a web based system called Redmine. The following is a snapshot of the issues found in Build 1.12 as of the end of Sprint 13. Note that the majority of these issues will be resolved in Build 1.13.

| # | Status | Subject | Category | Found | %Done | Resolved |
|---|---|---|---|---|---|---|
| 343 | New | Idle Time Error - Error Creating Window Handle | Thick Client GUI | 1.12 | 0 | |
| 342 | New | Modality Closure - Inactive closures are still reflected in search results | Admin Tools | 1.12 | 0 | |
| 341 | New | Worklist - Issue with multi-select and Enter key | Thick Client GUI | 1.12 | 0 | |
| 339 | New | Scheduling - User can launch appointment book without room selected | Thick Client GUI | 1.12 | 0 | |
| 338 | New | Scheduling - Modalities marked as Inactive are shown in search results | Thick Client GUI | 1.12 | 0 | |
| 337 | Closed | Scheduling - Defaulting Room | Thick Client GUI | 1.12 | 100 | 1.13 |
| 336 | Resolved | Required Fields - Validation is not refreshing on scheduling screen | Thick Client GUI | 1.12 | 100 | 1.13 |
| 335 | Resolved | Scheduling - Exception when scrolling search results | Thick Client GUI | 1.12 | 100 | 1.13 |
| 334 | New | Scheduling - Insurance tab | Thick Client GUI | 1.12 | 0 | |
| 333 | New | Lookups Editor - Forms and Labels to Procedure mappings | Thick Client GUI | 1.12 | 0 | |
| 332 | New | Scheduling - Room closures are not being reflected in the GUI timeslots | Thick Client GUI | 1.12 | 0 | |
| 331 | New | Scheduling - Issue with procedures with less than 30 minute duration | Thick Client GUI | 1.12 | 0 | |
| 330 | New | Scheduling - Issue when searching over multiple days | Thick Client GUI | 1.12 | 0 | |
| 329 | New | Scheduling - Issue with times in search criteria | Thick Client GUI | 1.12 | 0 | |
| 328 | New | Scheduling - Edit Schedule | Thick Client GUI | 1.12 | 0 | |
| 327 | Resolved | Scheduling - Templates are not being stored as default | Admin Tools | 1.12 | 100 | 1.13 |
| 326 | Resolved | AvailabilityTemplate - Issue adding date ranges | Admin Tools | 1.12 | 100 | 1.13 |
| 325 | New | No Show - Workflow issues/suggestions | Thick Client GUI | 1.12 | 0 | |
| 324 | New | Insurance - No consideration for field length when entering policies | Thick Client GUI | 1.12 | 0 | |
| 323 | New | Search Providers - Missing Access String for Google Search | Thick Client GUI | 1.12 | 0 | |
| 322 | New | Search Providers - Missing Access Strings after upgrade | Admin Tools | 1.12 | 0 | |
| 321 | New | DataSet Visualizer - Does not show for Studys and CC Physician | Thick Client GUI | 1.12 | 0 | |
| 320 | New | Internal Person Search - Ignores permissions | Thick Client GUI | 1.12 | 0 | |
| 319 | Closed | Labels and Forms - Require ability to specify full path to forms | Admin Tools | 1.12 | 100 | 1.12 |
| 318 | New | Data Visualizers - Periodically the data visualizers on one tab carry over to another tab | Thick Client GUI | 1.12 | 0 | |
| 317 | New | Scheduling - Search results don't seem to be returning all timeslots comapred to Appointment Book | Thick Client GUI | 1.12 | 0 | |
| 316 | Closed | Appointment Book - Issue with new appointment on empty timeslot | Thick Client GUI | 1.12 | 0 | |
| 315 | New | Scheduling - Registration - Patient Contacts Arrival issue | Thick Client GUI | 1.12 | 0 | |
| 314 | New | DataSet Visualizer - Should be Read Only | Thick Client GUI | 1.12 | 0 | |
| 313 | New | Appointment Book - Out of memory exception | Thick Client GUI | 1.12 | 0 | |
| 312 | Closed | Scheduling - Filling up room schedules | Thick Client GUI | 1.12 | 100 | 1.12 |
| 311 | Resolved | Appointment Book - Issue converting timeslots to local time | Thick Client GUI | 1.12 | 100 | 1.13 |
| 310 | Resolved | Appointment Book - Needs to default to a configurable start of day | Thick Client GUI | 1.12 | 100 | 1.13 |
| 309 | New | Scheduling - Availbility not reflected per template | Thick Client GUI | 1.12 | 0 | |
| 308 | Resolved | Scan Error - Patient Key does not allow nulls | Thick Client GUI | 1.12 | 100 | 1.13 |
| 307 | New | Order - dropdowns do not limit user to listed values | Thick Client GUI | 1.12 | 0 | |
| 306 | Resolved | Modalities - Unable to copy mappings | Admin Tools | 1.12 | 100 | 1.13 |
| 305 | Resolved | Scheduling - Advance Search | Thick Client GUI | 1.12 | 100 | 1.13 |
| 304 | New | Scheduling - Schedule New Order | Thick Client GUI | 1.12 | 0 | |
| 303 | Closed | Scheduling - Composite Codes - changing from single procedure to composite | Thick Client GUI | 1.12 | 100 | 1.13 |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

| | | | | | | |
|---|---|---|---|---|---|---|
| 302 | New | Insurance - buttons are enabled when row count is zero | Thick Client GUI | 1.12 | 0 | |
| 301 | Closed | Lookups - Issue with validation on ScanType | Admin Tools | 1.12 | 100 | 1.13 |
| 300 | Resolved | Scheduling - Refresh lock timer continues to fire | Thick Client GUI | 1.12 | 100 | 1.13 |
| 299 | Resolved | Lookups - Availability Template - data storing incorrectly | Thick Client GUI | 1.12 | 100 | 1.13 |
| 298 | Resolved | Lookups - Availability Template - Add button, incorrect focus | Thick Client GUI | 1.12 | 100 | 1.13 |
| 297 | New | Lookups - Concurrency violation - Delete from lookup | Web Services/DB | 1.12 | 0 | |
| 296 | New | Lookups - Personnel - Concurrency violation | Web Services/DB | 1.12 | 0 | |
| 295 | Closed | Scheduling - Composite Codes | Thick Client GUI | 1.12 | 100 | 1.13 |
| 294 | New | Registration - Insurance tab is not properly enforcing required fields | Thick Client GUI | 1.12 | 0 | |
| 293 | Resolved | Scheduling - Issue adding second study row | Thick Client GUI | 1.12 | 100 | 1.13 |
| 292 | Closed | Data Visualizers - Only showing Patient Data | Admin Tools | 1.12 | 0 | |
| 291 | Closed | Scheduling - Getting prompted that user does not have permission to schedule | Thick Client GUI | 1.12 | 100 | 1.13 |
| 290 | New | Scheduling - Study picker has issues with case | Thick Client GUI | 1.12 | 0 | |
| 289 | Closed | Scheduling - When adding new study, study picker should get focus | Thick Client GUI | 1.12 | 100 | 1.13 |
| 288 | Resolved | Order - Search criteria is not defaulting properly | Thick Client GUI | 1.12 | 100 | 1.13 |
| 287 | Resolved | Order - Issue with referring delivery method being null | Web Services/DB | 1.12 | 100 | 1.13 |
| 286 | New | Installer - No indication that the application installed successfully | Thick Client GUI | 1.12 | 0 | |
| 284 | New | Personnel - Performance issues on save | Admin Tools | 1.12 | 0 | |
| 283 | New | Personnel - No character validation with usernames | Admin Tools | 1.12 | 0 | |
| 282 | New | Worklist - No means to specify "And" or "Or" filter | Thick Client GUI | 1.12 | 0 | |
| 281 | New | Order - Performance issue with CC Physicans | Thick Client GUI | 1.12 | 0 | |
| 280 | New | Order - Require additional critera to filter referrings | Thick Client GUI | 1.12 | 0 | |
| 279 | New | Order - Perfomance issue with New Order screen | Thick Client GUI | 1.12 | 0 | |
| 278 | New | Carrier - No related table for Carrier Type | Admin Tools | 1.12 | 0 | |
| 277 | New | Registration - Issue presenting carrier notes to user | Thick Client GUI | 1.12 | 0 | |
| 276 | New | Carrier - Notes field requires more characters | Admin Tools | 1.12 | 0 | |
| 275 | New | Lookup - The carrier lookup is missing a filter bar | Admin Tools | 1.12 | 0 | |
| 274 | New | Authorization - InsuranceVerificationRequired is not consistent with other lookups | Admin Tools | 1.12 | 0 | |
| 273 | New | Lookup - Exception when removing referenced carrier | Admin Tools | 1.12 | 0 | |
| 196 | In Progress | Edit and Add Patient - Age calculated field | Thick Client GUI | 1.12 | 100 | |
| 181 | Closed | Scheduling - Room text box on the study grid | Thick Client GUI | 1.12 | 100 | 1.13 |
| 167 | In Progress | Permissions - Missing permission on Administration menu item | Thick Client GUI | 1.12 | 100 | |
| 106 | Progress | Worklist - Issue with refreshing when web services are down | Thick Client GUI | 1.12 | 100 | |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# User Pre-Release Notes

for RADNET rRIS
Build 1.13 & 1.14

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Purpose ..... 3
2. Intended Audience ..... 3
3. Installing/Accessing the Application ..... 3
4. New Features and Enhancements ..... 4
   Export to Microsoft Excel for Worklist Printing ..... 4
   Read-Only Notes Field ..... 5
   Availability Templates on the Schedule Calendar ..... 6
   Patient History Control ..... 7
   Scanning Control ..... 7
   Associating Scanned Documents ..... 13
   Bulk Printing of Forms ..... 16
   Mapping Forms and Labels ..... 18
   Data Nuggets ..... 19
   IVT Workflow ..... 20
   Technologist Workflow ..... 25
5. Known Limitations ..... 29

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 1. Purpose

This document describes some of the new features and changes implemented in rRIS as of the end of Sprints 13 and 14. This pre-release version of rRIS is referred to as Build 1.14.

Only features which can be visually demonstrated to the user will be outlined in this document.

# 2. Intended Audience

This document is created by the rRIS Development team for the RadNet RIS management team.

# 3. Installing/Accessing the Application

The installation instructions for the rRIS client have been posted to the RadNet Wiki page at http://mdbal01rdtweb/Wiki/

Under the RIS menu, click on the rRIS page. The credentials to access the page are:
Username: rRIS
Password: Summerside

Build 1.14 is considered a new core release of the application and will require a reinstallation of rRIS.

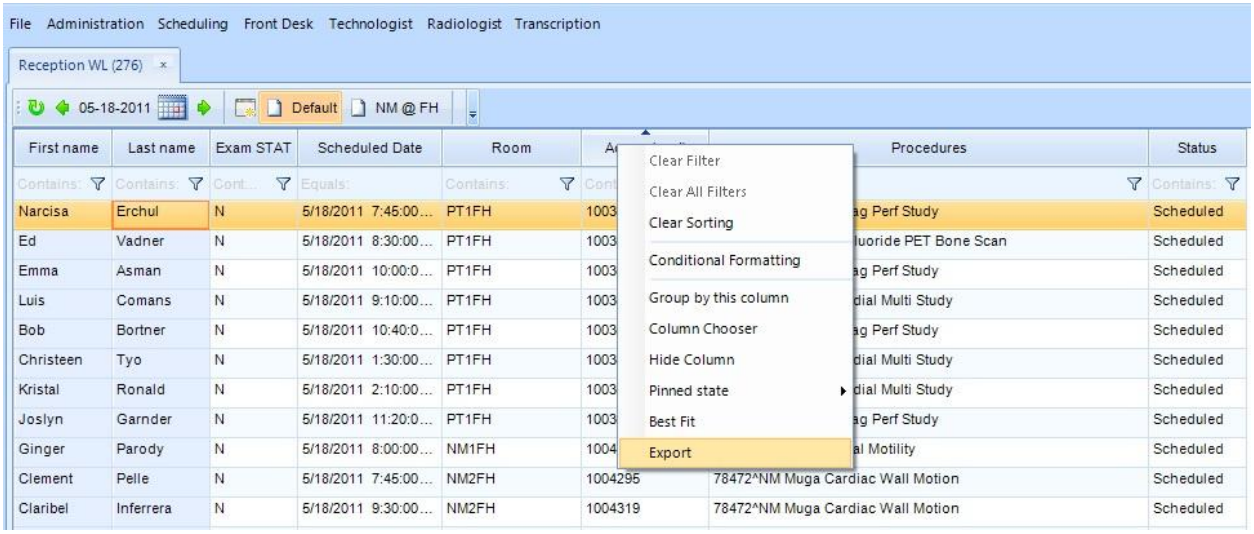
If you experience difficulties accessing the application, please do not hesitate to contact Spencer MacDougall with the PEI RIS Development Team.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 4. New Features and Enhancements

## Export to Microsoft Excel for Worklist Printing

In Build 1.14, users now have the ability to export worklists to Microsoft Excel. This is available through the right-click export option on the worklist. This feature allows the user to not only print the worklist via page setup in Excel, but also perform analysis on the data.




| First name | Last name | Exam STAT | Scheduled Date | Room | Procedures | Status |
|---|---|---|---|---|---|---|
| Narcisa | Erchul | N | 5/18/2011 7:45:00... | PT1FH | ag Perf Study | Scheduled |
| Ed | Vadner | N | 5/18/2011 8:30:00... | PT1FH | luoride PET Bone Scan | Scheduled |
| Emma | Asman | N | 5/18/2011 10:00:0... | PT1FH | ag Perf Study | Scheduled |
| Luis | Comans | N | 5/18/2011 9:10:00... | PT1FH | dial Multi Study | Scheduled |
| Bob | Bortner | N | 5/18/2011 10:40:0... | PT1FH | ag Perf Study | Scheduled |
| Christeen | Tyo | N | 5/18/2011 1:30:00... | PT1FH | dial Multi Study | Scheduled |
| Kristal | Ronald | N | 5/18/2011 2:10:00... | PT1FH | dial Multi Study | Scheduled |
| Joslyn | Garnder | N | 5/18/2011 11:20:0... | PT1FH | ag Perf Study | Scheduled |
| Ginger | Parody | N | 5/18/2011 8:00:00... | NM1FH | al Motility | Scheduled |
| Clement | Pelle | N | 5/18/2011 7:45:00... | NM2FH | 78472^NM Muga Cardiac Wall Motion | Scheduled |
| Claribel | Inferrera | N | 5/18/2011 9:30:00... | NM2FH | 78472^NM Muga Cardiac Wall Motion | Scheduled |

**Figure 4.1 – Worklist Export Option**

| | A | B | C | D | E | F | G | H |
|---|---|---|---|---|---|---|---|---|
| 1 | **Reception WL (276)** | | | | | | | |
| 2 | 05-18-2011 11:34 AM | | | | | | | |
| 3 | **First name** | **Last name** | **Exam STAT** | **Scheduled Date** | **Room** | **Accession #** | **Procedures** | **Status** |
| 4 | Narcisa | Erchul | N | 5/18/2011 7:45 | PT1FH | 1003313 | 78459^PT/CT Myo Imag Perf Study | Scheduled |
| 5 | Ed | Vadner | N | 5/18/2011 8:30 | PT1FH | 1003315 | PT4^PT/CT Sodium Fluoride PET Bone Scan | Scheduled |
| 6 | Emma | Asman | N | 5/18/2011 10:00 | PT1FH | 1003318 | 78459^PT/CT Myo Imag Perf Study | Scheduled |
| 7 | Luis | Comans | N | 5/18/2011 9:10 | PT1FH | 1003320 | 78492^PT/CT Myocardial Multi Study | Scheduled |
| 8 | Bob | Bortner | N | 5/18/2011 10:40 | PT1FH | 1003324 | 78459^PT/CT Myo Imag Perf Study | Scheduled |
| 9 | Christeen | Tyo | N | 5/18/2011 13:30 | PT1FH | 1003328 | 78492^PT/CT Myocardial Multi Study | Scheduled |
| 10 | Kristal | Ronald | N | 5/18/2011 14:10 | PT1FH | 1003336 | 78492^PT/CT Myocardial Multi Study | Scheduled |
| 11 | Joslyn | Garnder | N | 5/18/2011 11:20 | PT1FH | 1003357 | 78459^PT/CT Myo Imag Perf Study | Scheduled |
| 12 | Ginger | Parody | N | 5/18/2011 8:00 | NM1FH | 1004289 | 78258^NM Esophageal Motility | Scheduled |
| 13 | Clement | Pelle | N | 5/18/2011 7:45 | NM2FH | 1004295 | 78472^NM Muga Cardiac Wall Motion | Scheduled |
| 14 | Claribel | Inferrera | N | 5/18/2011 9:30 | NM2FH | 1004319 | 78472^NM Muga Cardiac Wall Motion | Scheduled |
| 15 | Mandie | Mimes | N | 5/18/2011 10:00 | NM1FH | 1004341 | NM9^NM EKG Tracing CARDIOLOGIST | Scheduled |
| 16 | Cleveland | Megill | N | 5/18/2011 13:00 | NM1FH | 1004408 | NM9^NM EKG Tracing CARDIOLOGIST | Scheduled |
| 17 | Corie | Kurokawa | N | 5/18/2011 13:00 | NM2FH | 1004413 | 78464^NM Myocard Imag W Spec Sngl | Scheduled |
| 18 | Kalyn | Galston | N | 5/18/2011 15:00 | US1EL | 1005099 | 93978^US Iliac Artery Duplex Comp | Scheduled |
| 19 | Linnea | Mormile | N | 5/18/2011 8:30 | US1EL | 1005104 | US61^US OB Follow Up 1 Fetus 1st Tri & OB TV | Scheduled |
| 20 | Tonda | Cutia | N | 5/18/2011 9:00 | US1EL | 1005105 | 76942^US Fine Needle Aspiration | Scheduled |
| 21 | Timothy | Alcantas | N | 5/18/2011 13:00 | US1EL | 1005110 | 76880^US Extrem Non Vascular | Scheduled |
| 22 | Terrilyn | Hefferman | N | 5/18/2011 7:45 | US1EL | 1005112 | 93976^US Duplex Abd Pel Retro Lmt | Scheduled |

**Figure 4.2 – Worklist shown in Microsoft Excel**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Read-Only Notes Field

A common problem with the current RadNet RIS applications is having notes on the order and patient totally editable. Notes from past edits can be modified and removed as the order progresses through the system making it impossible to understand what happened to the patient and upsets users as notes they added are getting removed.

In Build 1.14 a new notes control has been introduced which allows any user to add notes in the top area of the control and everyone can see the past notes as read-only. Each log entry is prefixed with the date followed by the user's initials. Super users will have the ability to edit the notes so invalid data can be cleaned up.

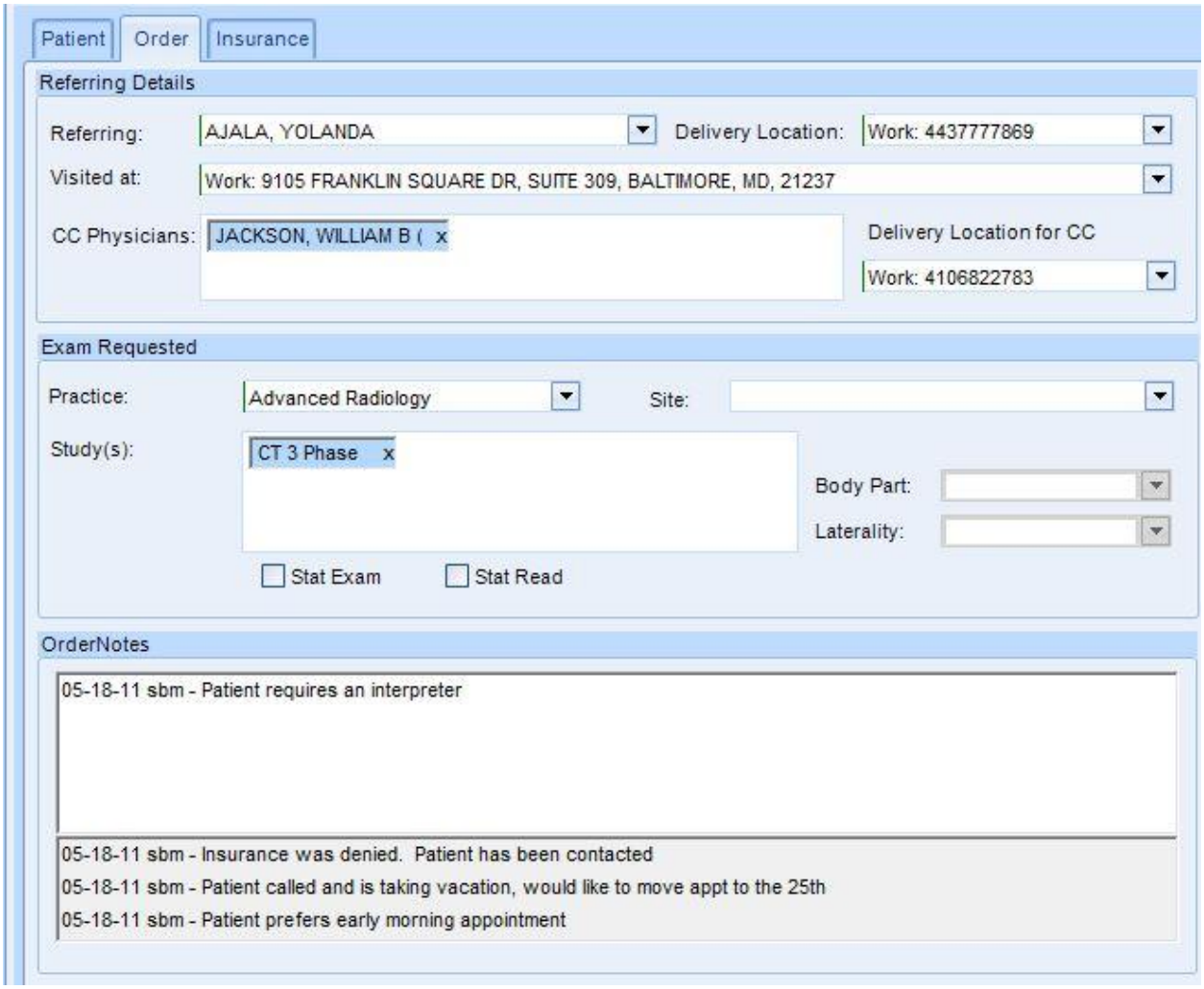



**Figure 4.3 – Read-Only Past Notes**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Availability Templates on the Schedule Calendar

The availability template that is mapped to a scanner/room is now reflected in the calendar view when scheduling procedures. Available timeslots are shown in white while unavailable are represented by blue. In the example below, the ultrasound rooms are open at 7:45am.

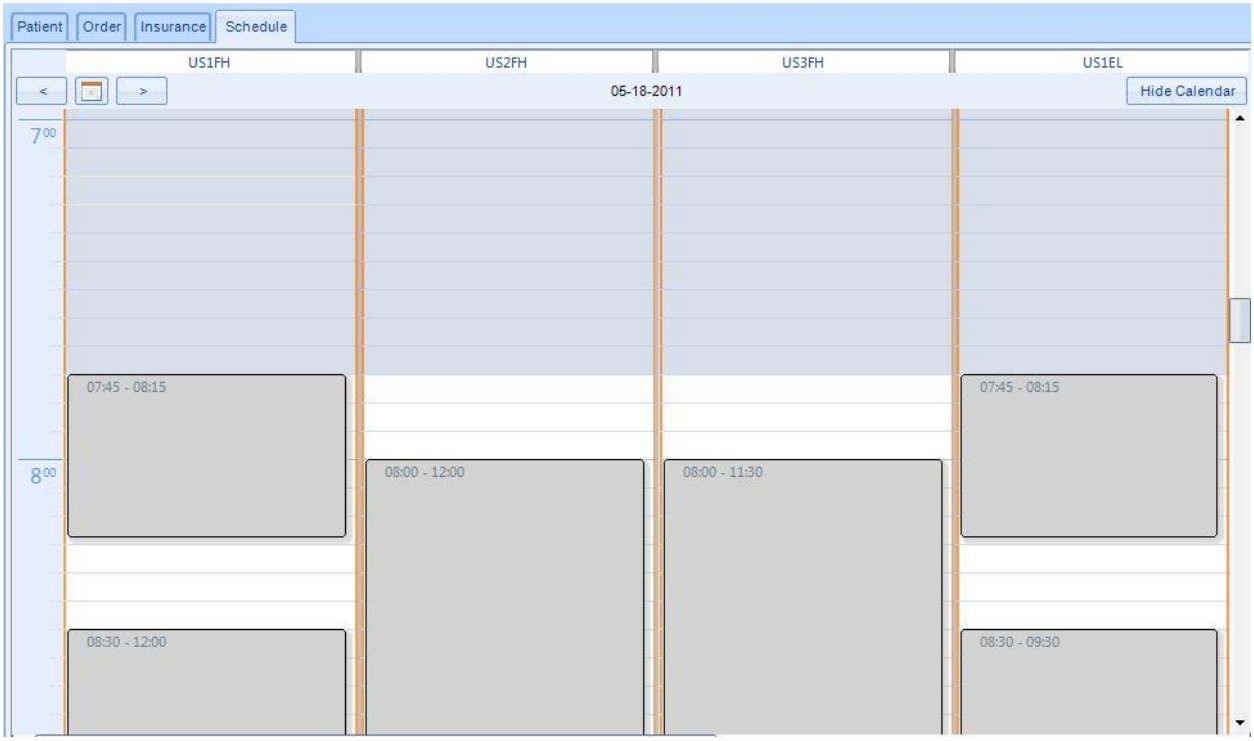
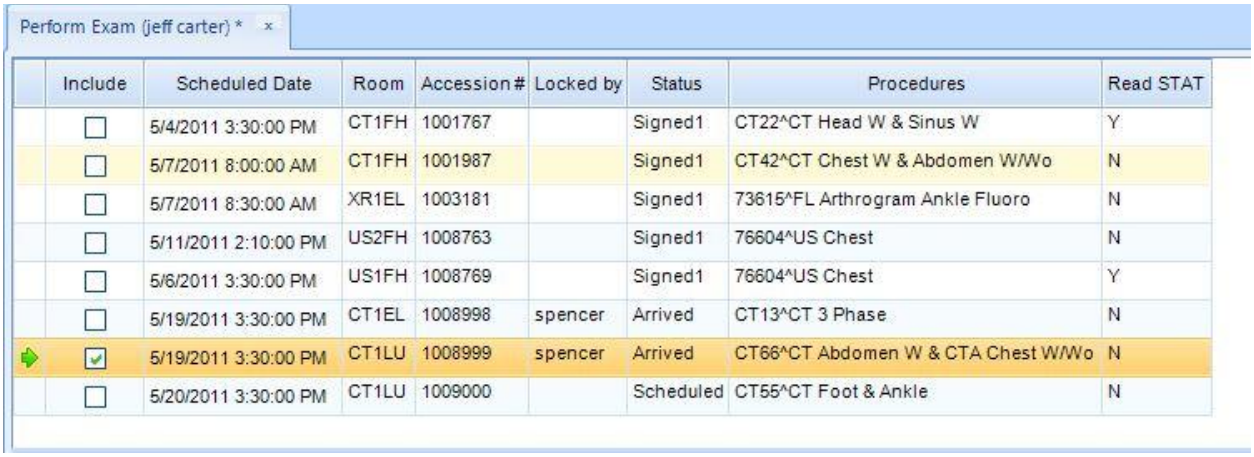



**Figure 4.4 – Availability Template reflected in Scheduling Calendar View**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Patient History Control

There is now a patient context aware history control that can be placed on user forms. Users like technologists and radiologists will have easy access to a patient's prior exams with the embedded patient history control.




| Include | Scheduled Date | Room | Accession # | Locked by | Status | Procedures | Read STAT |
|---|---|---|---|---|---|---|---|
| ☐ | 5/4/2011 3:30:00 PM | CT1FH | 1001767 | | Signed1 | CT22^CT Head W & Sinus W | Y |
| ☐ | 5/7/2011 8:00:00 AM | CT1FH | 1001987 | | Signed1 | CT42^CT Chest W & Abdomen W/Wo | N |
| ☐ | 5/7/2011 8:30:00 AM | XR1EL | 1003181 | | Signed1 | 73615^FL Arthrogram Ankle Fluoro | N |
| ☐ | 5/11/2011 2:10:00 PM | US2FH | 1008763 | | Signed1 | 76604^US Chest | N |
| ☐ | 5/6/2011 3:30:00 PM | US1FH | 1008769 | | Signed1 | 76604^US Chest | Y |
| ☐ | 5/19/2011 3:30:00 PM | CT1EL | 1008998 | spencer | Arrived | CT13^CT 3 Phase | N |
| ☑ | 5/19/2011 3:30:00 PM | CT1LU | 1008999 | spencer | Arrived | CT66^CT Abdomen W & CTA Chest W/Wo | N |
| ☐ | 5/20/2011 3:30:00 PM | CT1LU | 1009000 | | Scheduled | CT55^CT Foot & Ankle | N |

**Figure 4.5 – Patient History Control shown on Technologist Screen**

## Scanning Control

A scanning control has been implemented to give rRIS users the ability to scan and view scanned documents. The scan control depends on pre-defined scan document types. A scan document type has the following properties:

| **Property** | **Description** |
|---|---|
| Width | The width in inches of the document. |
| Height | The height in inches of the document. |
| Resolution | The resolution to scan the document at. |
| Colour | Whether colour should be capture in the scan document or use gray scale. |
| Duplex | Whether the scanner or the scanner control should scan both sides of the document. |
| Document association type | PatientLevel or ExamLevel. If PatientLevel, then this scanned document will be pinned to the patient. If ExamLevel, then this scanned document will be pinned to the patient and the exam. |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

A Scan control has been implemented as a user control. The screen shot below shows the scan control embedded in the registration screen.

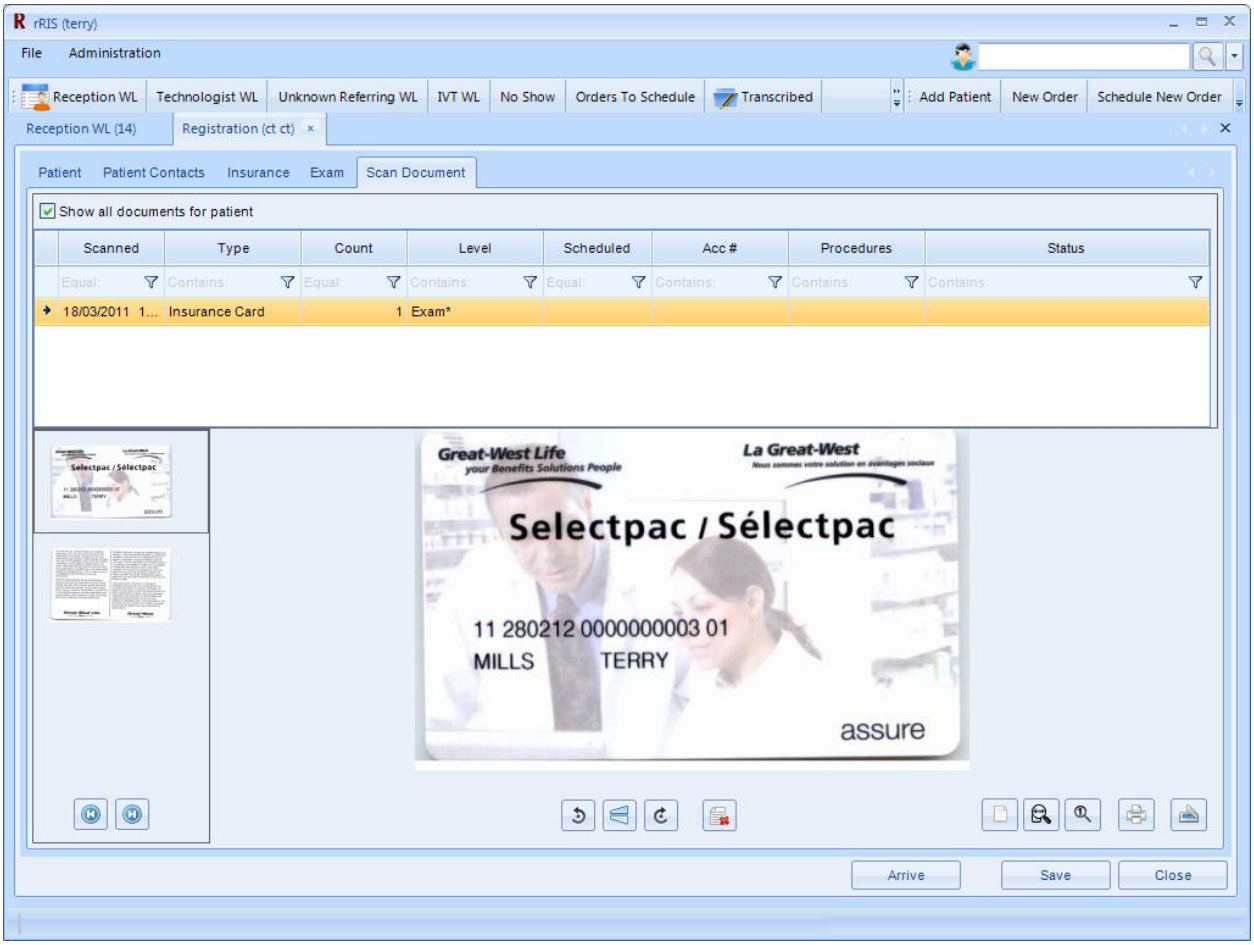



**Figure 4.6 – Scan Control on Registration Screen**

Screen Geography:

- The top of the control contains a grid of the scan documents for the patient and/or exam. If the scan control is instantiated at the exam level, then by default the list will include scan documents for the exam and scan documents for the patient that are not associated to other scanned documents (i.e. patient level scan documents)
- There is a "Show all documents for patient" check box at the top of the control. When checked, this will show all scan documents for the patient, including scanned documents from other exams. When not checked, it will show exam documents for this exam only plus patient level scan documents.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

- The bottom 2/3 of the control contains the thumbnail strip and the image.
- The thumbnail strip is only visible when the scan document has more than one image, for example a front and back, multiple pages or combinations of both.

**Figure 4.7 – Scan Control Thumbnail Strip**

- At the bottom of the thumbnail strip contains some navigation buttons that allow the user to move up and down the thumbnail list.
- A user can also click the thumbnail image to change the displayed image.
- At the bottom of the scan control contains image controls.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

| | |
|---|---|
| | Rotate the image 90 degrees to the right. This will always be enabled for newly acquired images to allow the user to correctly orient the image. However, it depends on permission if the button will be enabled for previously scanned documents. |
| | Flip the image on the horizontal axis (same as rotating it 180 degrees). This will always be enabled for newly acquired images to allow the user to correctly orient the image. However, it depends on permission if the button will be enabled for previously scanned documents. |
| | Rotate the image 90 degrees to the left. This will always be enabled for newly acquired images to allow the user to correctly orient the image. However, it depends on permission if the button will be enabled for previously scanned documents. |
| | Delete the image. This will always be enabled for newly acquired images to allow the user to remove unwanted images. However, it depends on permission if the button will be enabled for previously scanned documents. |
| | Zoom out to fit the full image within the control |
| | Zoom out or in to fit the page width within the control (i.e. no horizontal scroll bars, but may include a vertical scroll bar) |
| | Show the original image size. |
| | Print the scan document. |
| | Scan or import new documents. This button is enabled based on a permission. |

When the user acquires new scan documents, the following screen appears.

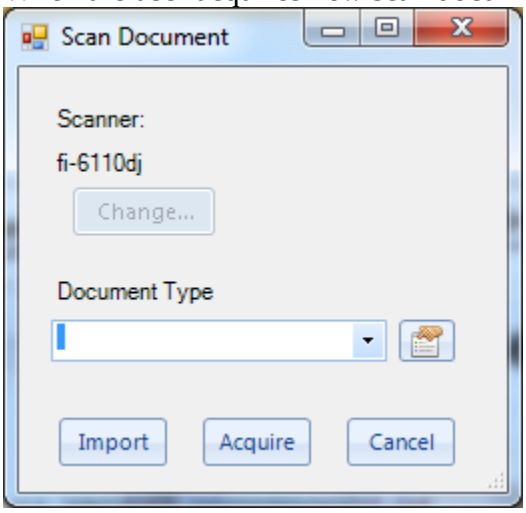



**Figure 4.8 – New Scan Document Form**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

The "Change" allows the user to switch to a different scanner. If there is zero or only one scanner connected to the computer then the button is disabled. If there is only one scanner connected then the control will default to use that scanner. If there is more than one scanner, the button is enabled and there is no scanner selected by default. The document type combo is use to identify the type of document to be scanned or imported. The properties button is used to allow the user to see the document type properties and change them if necessary. This button is only enabled if the user has permission. When pressed, the screen changes to the following:

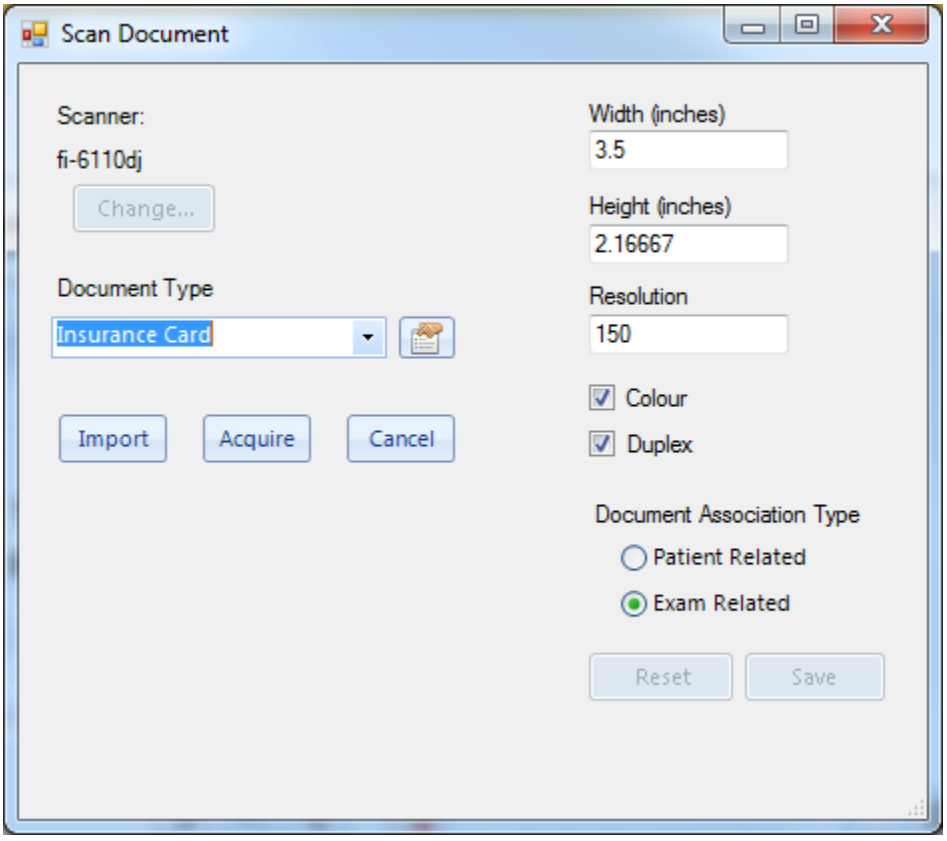



**Figure 4.9 – Scan Document Properties Screen**

The user now has the ability to change the scan document properties and save them back to the database. The scan document properties are discussed below:

- The "Import" button is used to import an image from the file system.
- The "Acquire" button initiates the scanner to scan a document.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

If the scanner has an auto sheet feeder, the scanner will continue until all pages are scanned. When finished the "Scan Document" window will close and return to the scan control. If the scanner is a flatbed scanner then each document will have to be scanned separately. If the scanner is a flatbed scanner and the document t type is duplex, the user will be prompted to flip the page.

The image area of the control has the following context menu:

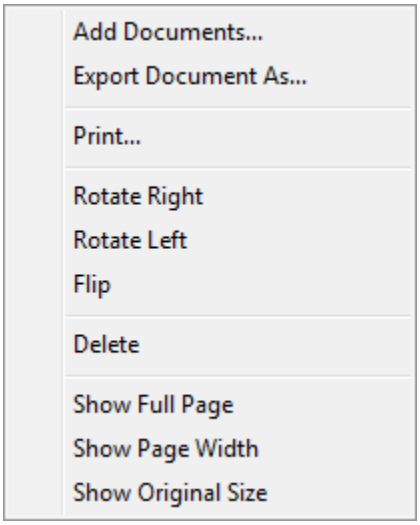
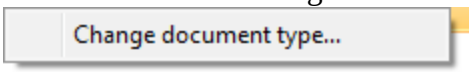



**Figure 4.10 – Scan Document Context Menu**

Most of the items on the menu match a button on the control. Like the buttons on the scan control these menu items will be visible, invisible, enabled and/or disabled based on permissions. The only feature on the context menu not included via a button is the "Export document as…" item. This item is also permission based. When clicked, the user is prompted with the file save dialog and asked to choose a path and file to save the current image to.

The scan document list grid also has a context menu.




This allows the user to change the document type of a newly acquired or existing document. This is also enabled/ disabled based on permission.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Associating Scanned Documents

There are two ways to associate a scanned document to more than one exam:

1. During acquisition
2. Post-acquisition in the scan document list

### During Acquisition

The acquire scan screen was modified to include the patient jacket.

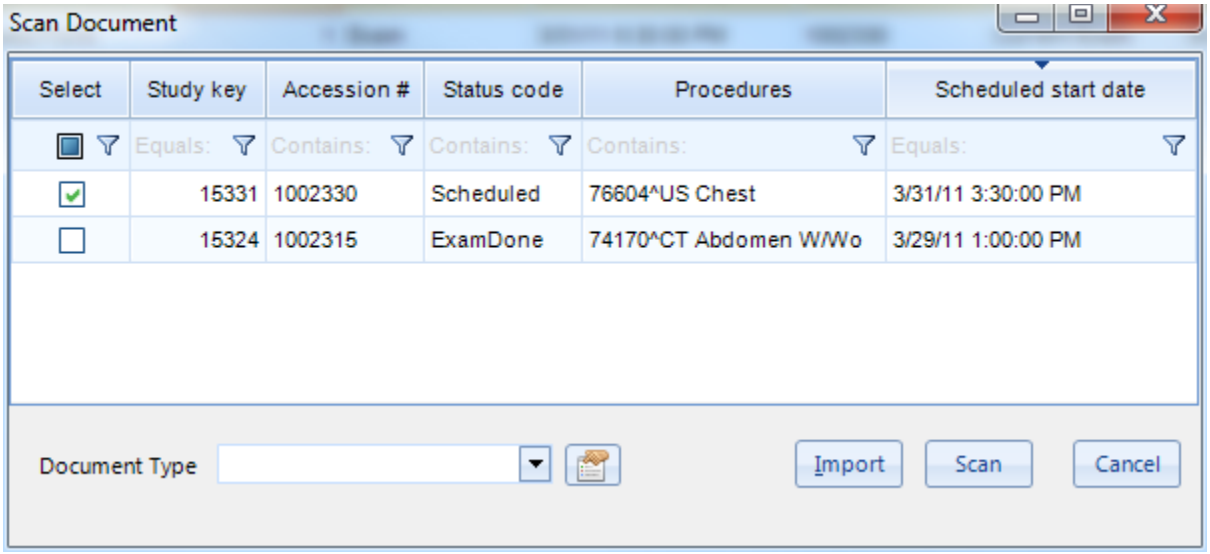



**Figure 4.11 – Associating a Scanned Document to a Study during Acquisition**

The patient jacket contains a complete list of the patient exams. A check box was added for each row. The current exam is always checked and cannot be unchecked. The user can check other exams. The newly acquired or imported image will be linked to every exam "checked" in the patient jacket. However, there is one exception. If the scan document acquired or imported is at the patient level, then the "checked" exams will be ignored as the scanned document will be related to all of the patient exams.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

### Post-Acquisition in the Scan Document List

If the user wants to "link" a scan document to other exams they can use the right click "Edit links…" menu items. Also available is the "Move to patient level" and "Move to exam level".

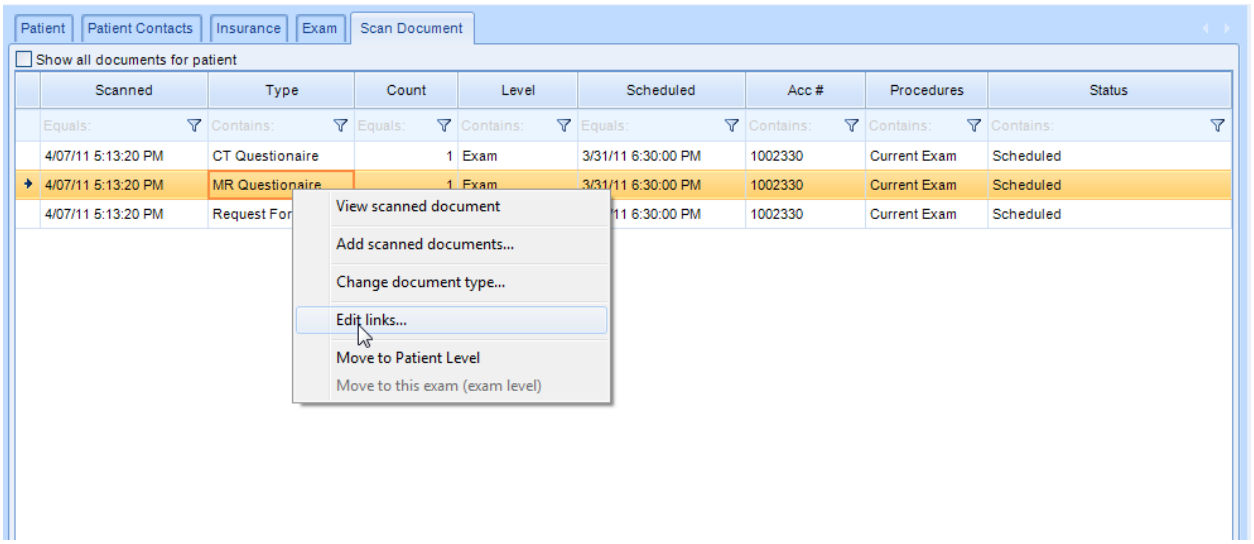



**Figure 4.12 – Scan Document Context Menu**

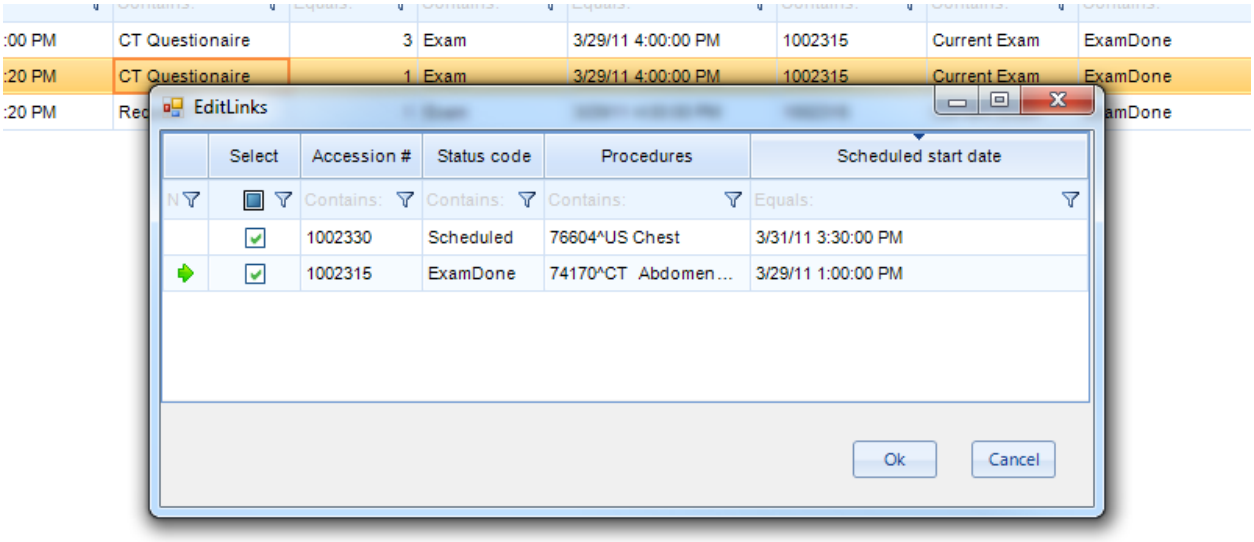



**Figure 4.13 – Associating a Scanned Document to a Study after Acquisition**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

Below is a detailed explanation of the menu items available on the scan document context menu.

| Function | Description |
|---|---|
| Edit Links… | This menu option is only enabled when the user has the "Clinical.ScanDocs.AllowModifyScanDocuments" permission.<br><br>This menu option is only enabled for exam level scan documents.<br><br>The Edit Links feature will allow the user to link this scan document to one or more exams. It is very similar to the control on the "Acquire Documents" screen. The user must have one exam selected before pressing the "Ok" button. |
| Move to patient level | This menu option is only enabled when the user has the "Clinical.ScanDocs.AllowModifyScanDocuments" permission.<br><br>This menu option is only enabled for exam level scan documents.<br><br>The "move to patient level" will promote the scan document to the patient level and therefore will be shown in the scan document list for all of the patient exams.<br><br>There is no undo function once the user promotes to the patient level. The user will need to "move to exam level" and then pin to each individual exam. However, the user can choose to close the form and not save changes, but this will also ignore any and all changes in the form. |
| Move to exam level | This menu option is only enabled when the user has the "Clinical.ScanDocs.AllowModifyScanDocuments" permission.<br><br>This menu option is only enabled for patient level scan documents.<br><br>The "move to exam level" will demote the scan document to the current exam. |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Bulk Printing of Forms

Build 1.14 supports the ability to select multiple rows in a worklist and print a form or label for each row. Instead of generating many instances of the same form, the application will generate one form with many pages.

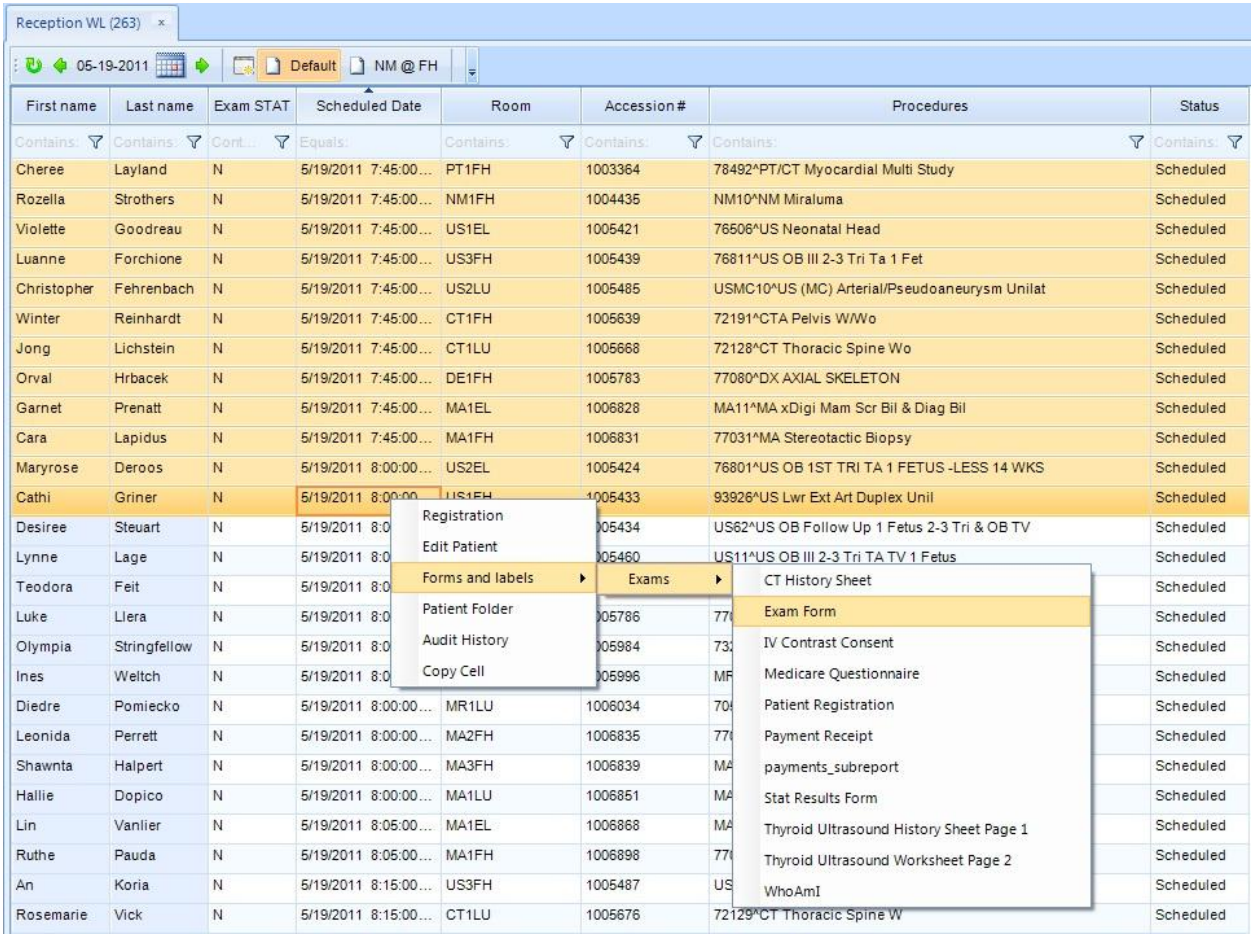
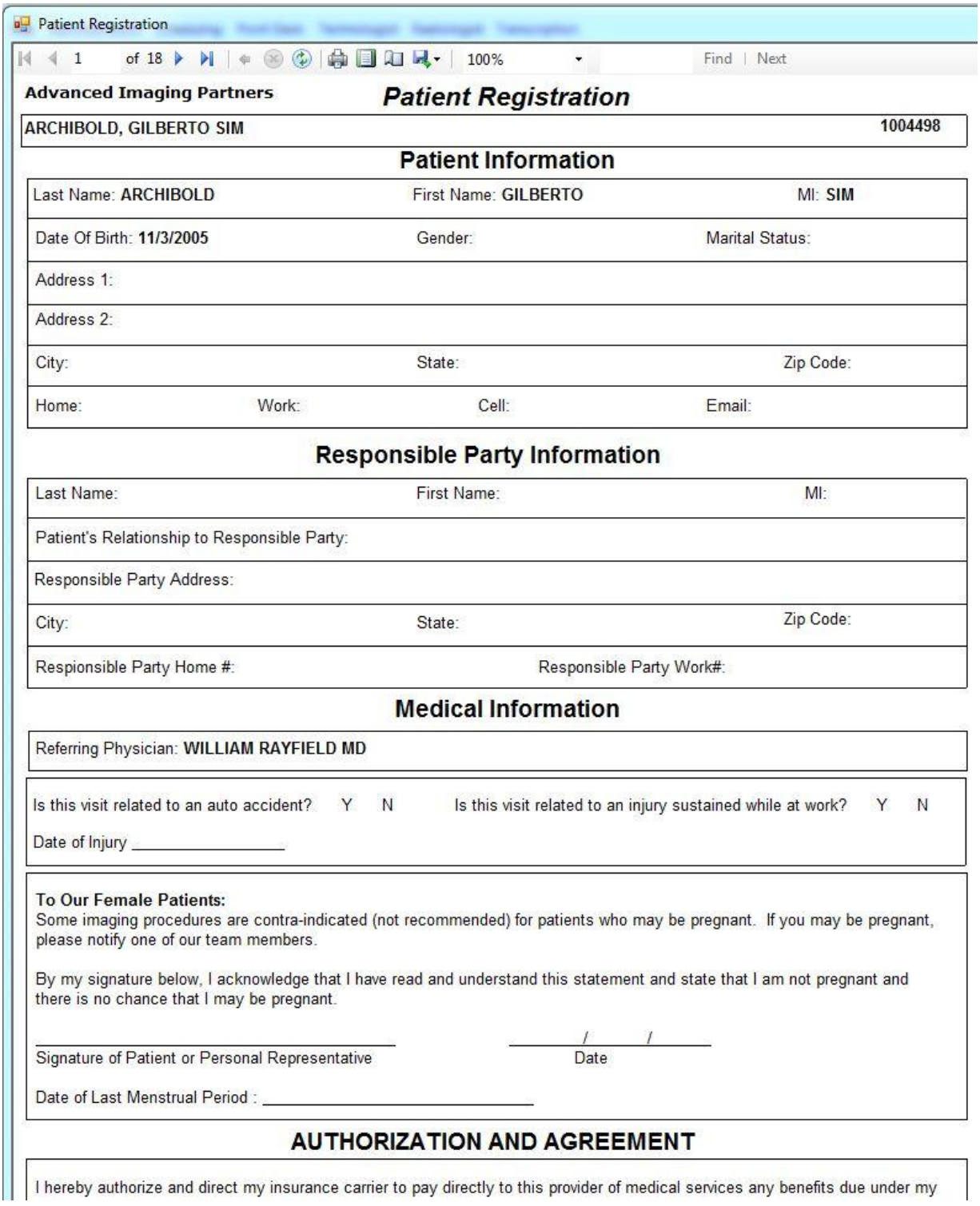



**Figure 4.14 – Dynamic Worklist Context Menu showing Forms and Labels**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.



Patient Registration

1 of 18 100% Find | Next

**Advanced Imaging Partners**

## *Patient Registration*

ARCHIBOLD, GILBERTO SIM 1004498

### Patient Information

| | | |
|---|---|---|
| Last Name: **ARCHIBOLD** | First Name: **GILBERTO** | MI: **SIM** |
| Date Of Birth: **11/3/2005** | Gender: | Marital Status: |
| Address 1: | | |
| Address 2: | | |
| City: | State: | Zip Code: |
| Home: Work: | Cell: | Email: |

### Responsible Party Information

| | | |
|---|---|---|
| Last Name: | First Name: | MI: |
| Patient's Relationship to Responsible Party: | | |
| Responsible Party Address: | | |
| City: | State: | Zip Code: |
| Respionsible Party Home #: | Responsible Party Work#: | |

### Medical Information

Referring Physician: **WILLIAM RAYFIELD MD**

Is this visit related to an auto accident? Y N Is this visit related to an injury sustained while at work? Y N

Date of Injury _____

**To Our Female Patients:**
Some imaging procedures are contra-indicated (not recommended) for patients who may be pregnant. If you may be pregnant, please notify one of our team members.

By my signature below, I acknowledge that I have read and understand this statement and state that I am not pregnant and there is no chance that I may be pregnant.

_____ _____/_____/_____
Signature of Patient or Personal Representative Date

Date of Last Menstrual Period : _____

### AUTHORIZATION AND AGREEMENT

I hereby authorize and direct my insurance carrier to pay directly to this provider of medical services any benefits due under my

**Figure 4.15 – Patient Registration Form with One Page per Worklist Row**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Mapping Forms and Labels

Below is a screen show of the configuration screen for specifying form criteria and mapping to procedure codes.

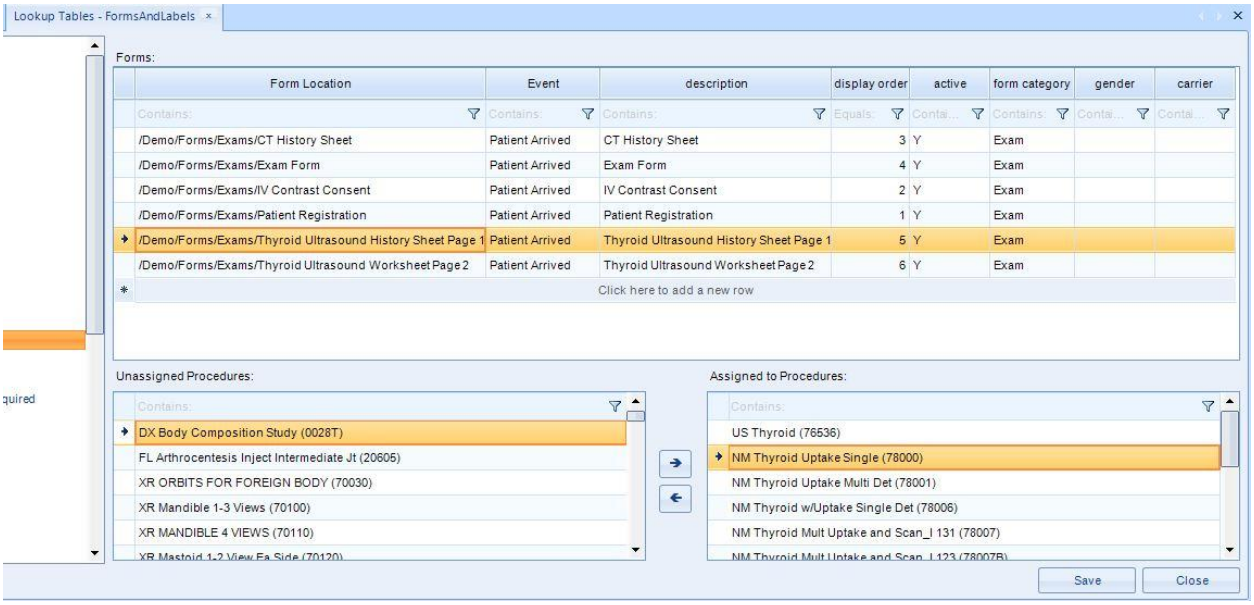



**Figure 4.16 – Mapping Thyroid History Sheet to Procedures**

The upper grid displays a list of all of the forms that are available for On Demand printing from a Content Window (e.g. registration) or event driven forms generation. The form location field uniquely identifies the form. The entries in this column are a drop down list of forms that have been published to the report server. The event column has a dropdown list of events that are eligible for automatic form generation (e.g. OrderCreated, PatientArrived, etc). The description column is for freeform text to add additional descriptive information to a form. Form category is used to help classify a form that may be useful for filtering to find the appropriate form. There is a form category lookup table that an administrator can use to specify additional values for the categories.

Gender and Carrier are fields that are used to help determine when a form should be generated. For example, an administrator may choose to configure the system to generate a specific form whenever a female patient is arrived. For an event of "PatientArrived", the system will generate a form for all patients as they are arrived if no gender filter is specified. If a gender filter is specified, the system will look for the PatientArrived event AND a patient matching the specified gender.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

With the insurance carrier dropdown, the system can apply an additional criteria (again using AND logic). The system can be configured to generate a certain form on Patient Arrived when the patient is a female and the patient has a specific insurance carrier.

The last criteria that can be applied is on procedure code. The system can be configured to generate forms only for particular procedures (for a given event, gender, and/or carrier). The assigned procedure and existing procedure lists are used to associate forms with procedures. If no procedures are specifically assigned to a form, the form is considered to be general purpose and is eligible to be generated whenever any type of exam is used.

## Data Nuggets

Data Nuggets are buttons which are enabled on the worklist that show a small summary amount of clinical data for each worklist row. The data will pop-up in a window, which the user can move around and dock. The windows can be moved and closed though the standard windows actions; however, the user can also single click and drag a data nugget to open it in an alternate position and if he or she clicks on the button for a data nugget a second time the popup closes.

In addition the data nuggets for a particular worklist row will show as highlighted in a particular color when activated, which will match the outline of the popup window.

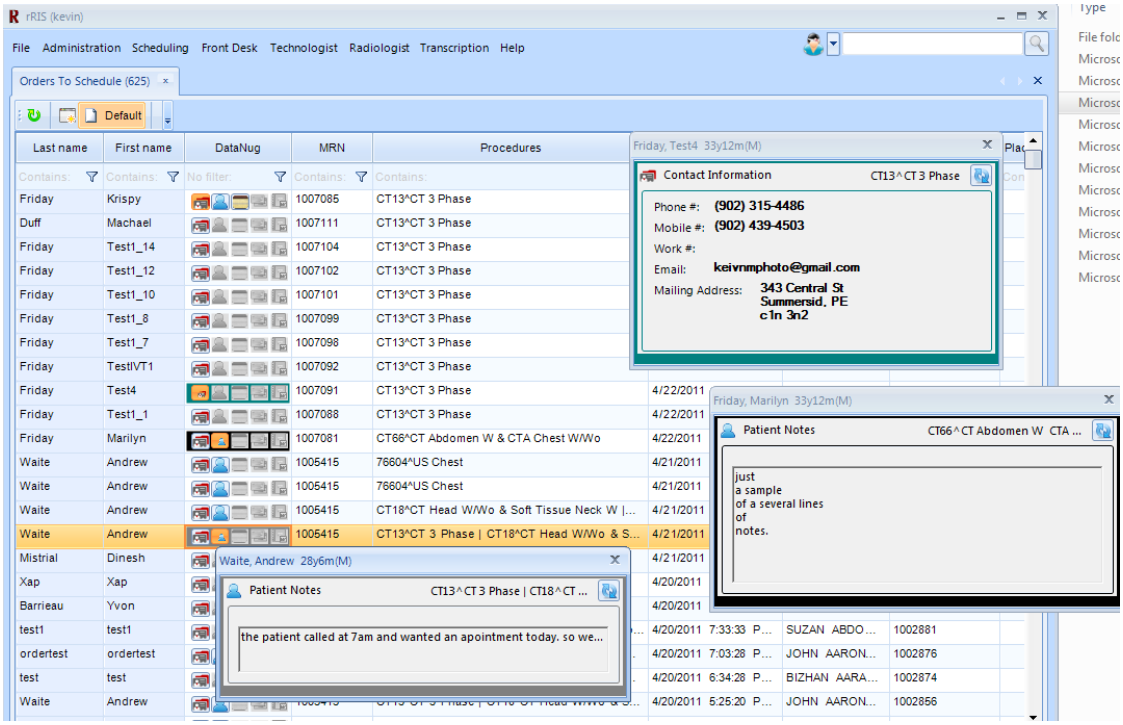



**Figure 4.17 – Data Nuggets on the Orders To Schedule Worklist**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## IVT Workflow

There are two separate but combinable workflows to consider in IVT. The first is insurance verification (IV). The second is pre-certification (authorization) (PC).

**IV (Insurance Verification)** is based on an insurance carrier, along with a modality type. If a procedure is ordered or scheduled and it meets the carrier to modality type rule, then it will be flagged for IV. This flagging must occur if the order is a single study, multiple studies, or composite code of studies. The flagging of these orders will be done completely by the RIS, transparent to the scheduler/order taker. It will immediately appear on the screen, so that the scheduler will know if IV is required before the screen is even saved. On save, the order will appear on the IVT worklist. A worklist will be created that contains these orders (IVT Worklist), and a data collection screen will be created where the IVT person will see sufficient information to be able to contact the insurance company and determine if the patient has insurance.

The data collection screen is where the IVT specialist can enter notes, and have a checkbox where they can indicate when the IV is complete. If necessary, insurances can be added/changed/deleted while that screen is open, and the system will immediately show if IV is required for the newly entered insurance. If insurance is ultimately denied, the order will likely be manually cancelled, which will remove it from the worklist. The worklist can be filtered by practice.

Whether or not an order requires and/or meets IV is stored at the Visit level, which for Radnet is perceived at the order level, since typically there is a 1-1 relationship of visit to order.

The three "statues" for IV are **Not Required**, **Required**, and **Done**. The system sets **Required** and **Not Required** automatically, and the user sets the status to **Done** by selecting the Verification Complete checkbox. Note that these statuses are completely distinct from study statuses, and the order can be in any status while going through the IV workflow simultaneously. There are no rules to stop workflow based on the lack of IV.

**Pre-cert (PC)** is the collection of a pre-cert (also called authorization) number from the insurance company. Whether or not a study requires PC is based on rules configured in the insurance table. The relationship is Insurance Carrier to (Modality Type(s) and/or CPT code(s)) and Practice.

Whether or not a CPT code requires pre-cert will be determined automatically by rRIS, but unlike IV, it does not need to be immediately presented on the scheduler's screen. It will be determined as the order is saved or scheduled, and sent to the IVT worklist. It is determined and stored at the CPT code level. Note that an order can have multiple procedure codes, and each procedure code can have one or more CPT codes, any of which could require pre-cert based on

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

the rules above and each pre-cert needs to be stored at that same (CPT) code level. To avoid overload on the worklists however, an order that contains multiple required PC's should appear on the worklist only once per order, but within the order all required PC's should be clear.

It is also a requirement that the system be able to collect PC when the study is in any status. The way that rRIS stores the order before it is scheduled adds internal complexity, however this is in no way visible to the user.

It is also a requirement that during the initial stages of the workflow (ordering, checking in, tech workflow) that studies and/or insurances may be altered. This may invalidate PC numbers and must be able to automatically send these orders back to the IVT worklist without losing any data that was already collected. Note that these rules apply to single studies, multiple studies, and composite codes. For example, if a study is removed from an order and a new series added instead, the pre-cert (if captured) for the original study pre-cert number must be maintained by the system, but (if necessary) the newly added studies may require pre-cert numbers of their own.

A configuration screen called Insurance Verification Required allows the administrator to correlate an insurance carrier and a modality type.

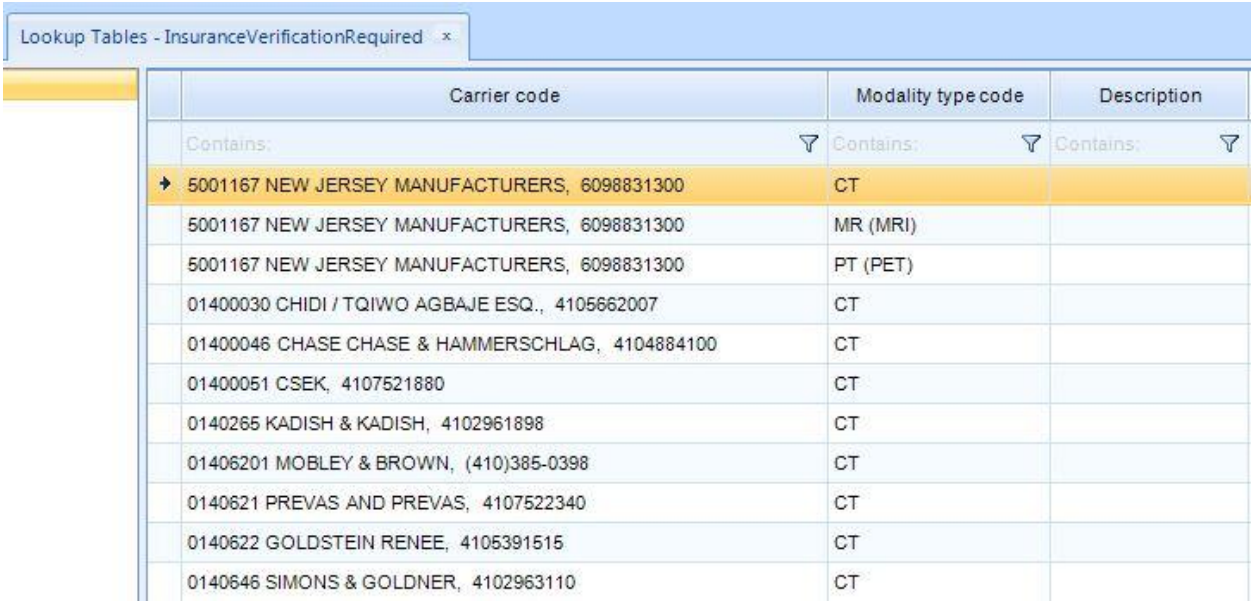



**Figure 4.18 – Insurance Verification Required matching Carrier to Modality Type**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

A new admin screen was also built to configure the rules under which a study may require a pre-cert. The relationship is Insurance carrier to Modality type (or CPT code) and practice. This is found in Configuration – Carrier. The user selects a carrier then right-clicks and selects "Pre-Cert Rules".

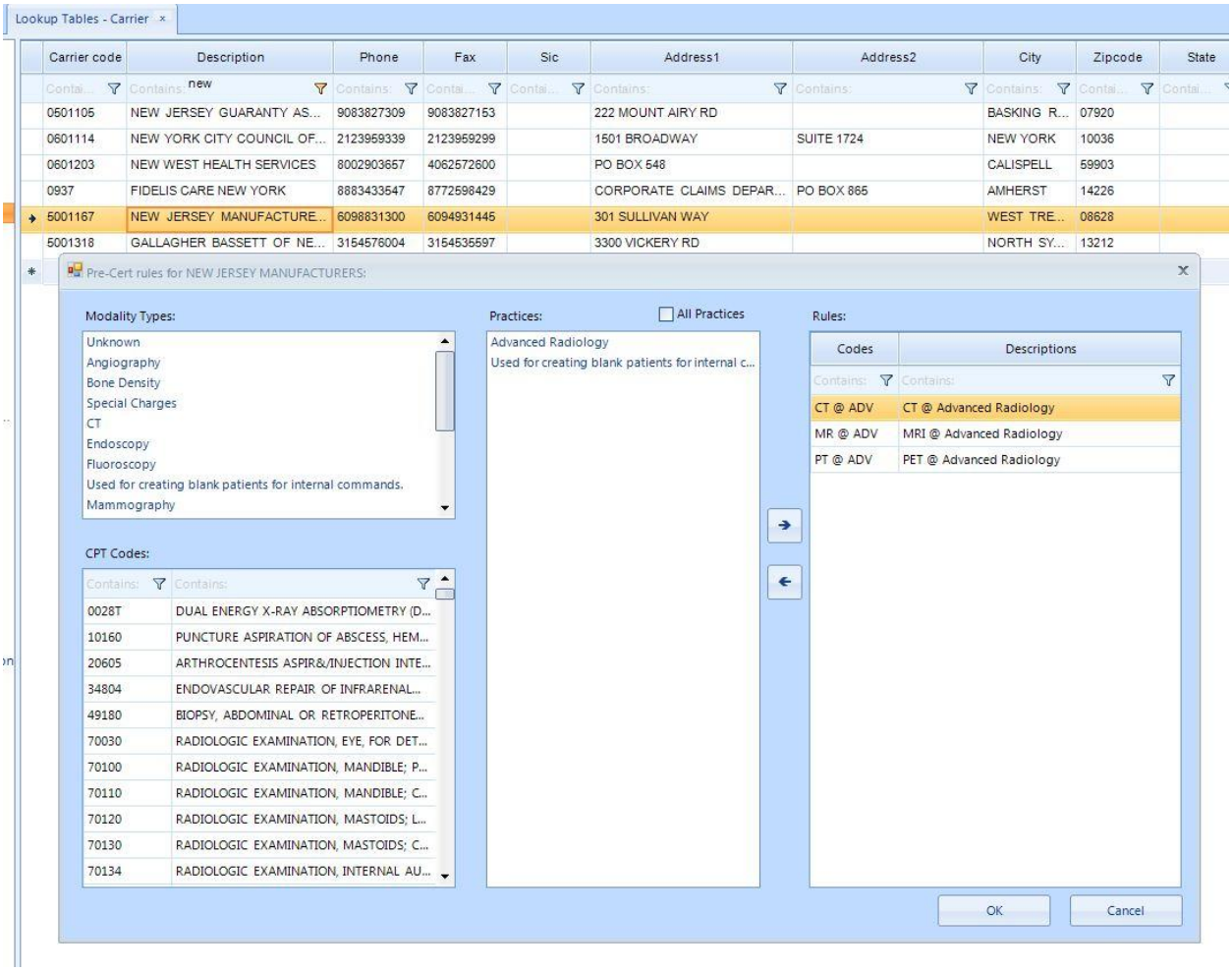
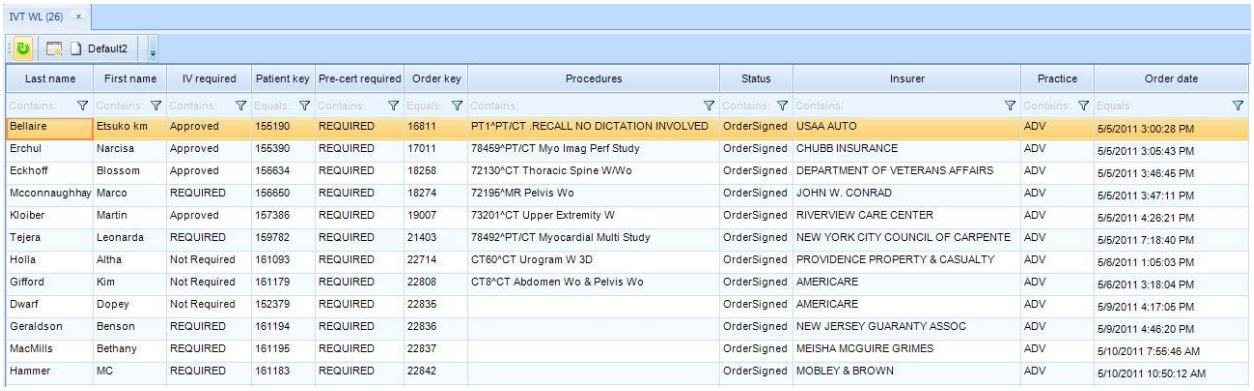



**Figure 4.19 – Defining Pre Cert Rules at an Insurance Carrier Level**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

The IVT worklist contains columns for Patient name, Practice, Procedure(s), Insurance Carrier, Pre-cert Status, Insurance Verified Status , Requested Date, and Study Status. Items appear on this worklist by having a pre-cert status of anything other than Done, or a Verify Insurance status of Pending Confirmation.


IVT WL (26)

Default2

| Last name | First name | IV required | Patient key | Pre-cert required | Order key | Procedures | Status | Insurer | Practice | Order date |
|---|---|---|---|---|---|---|---|---|---|---|
| Contains: | Contains: | Contains: | Equals: | Contains: | Equals: | Contains: | Contains: | Contains: | Contains: | Equals: |
| Bellaire | Etsuko km | Approved | 155190 | REQUIRED | 16811 | PT1^PT/CT .RECALL NO DICTATION INVOLVED | OrderSigned | USAA AUTO | ADV | 5/5/2011 3:00:28 PM |
| Erchul | Narcisa | Approved | 155390 | REQUIRED | 17011 | 78459^PT/CT Myo Imag Perf Study | OrderSigned | CHUBB INSURANCE | ADV | 5/5/2011 3:05:43 PM |
| Eckhoff | Blossom | Approved | 156634 | REQUIRED | 18258 | 72130^CT Thoracic Spine W/Wo | OrderSigned | DEPARTMENT OF VETERANS AFFAIRS | ADV | 5/5/2011 3:46:45 PM |
| Mcconnaughhay | Marco | REQUIRED | 156650 | REQUIRED | 18274 | 72195^MR Pelvis Wo | OrderSigned | JOHN W. CONRAD | ADV | 5/5/2011 3:47:11 PM |
| Kloiber | Martin | Approved | 157386 | REQUIRED | 19007 | 73201^CT Upper Extremity W | OrderSigned | RIVERVIEW CARE CENTER | ADV | 5/5/2011 4:26:21 PM |
| Tejera | Leonarda | REQUIRED | 159782 | REQUIRED | 21403 | 78492^PT/CT Myocardial Multi Study | OrderSigned | NEW YORK CITY COUNCIL OF CARPENTE | ADV | 5/5/2011 7:18:40 PM |
| Holla | Altha | Not Required | 161093 | REQUIRED | 22714 | CT60^CT Urogram W 3D | OrderSigned | PROVIDENCE PROPERTY & CASUALTY | ADV | 5/6/2011 1:05:03 PM |
| Gifford | Kim | Not Required | 161179 | REQUIRED | 22808 | CT8^CT Abdomen Wo & Pelvis Wo | OrderSigned | AMERICARE | ADV | 5/6/2011 3:18:04 PM |
| Dwarf | Dopey | Not Required | 152379 | REQUIRED | 22835 | | OrderSigned | AMERICARE | ADV | 5/9/2011 4:17:05 PM |
| Geraldson | Benson | REQUIRED | 161194 | REQUIRED | 22836 | | OrderSigned | NEW JERSEY GUARANTY ASSOC | ADV | 5/9/2011 4:46:20 PM |
| MacMills | Bethany | REQUIRED | 161195 | REQUIRED | 22837 | | OrderSigned | MEISHA MCGUIRE GRIMES | ADV | 5/10/2011 7:55:46 AM |
| Hammer | MC | REQUIRED | 161183 | REQUIRED | 22842 | | OrderSigned | MOBLEY & BROWN | ADV | 5/10/2011 10:50:12 AM |

**Figure 4.20 – IVT Worklist showing Insurance Verification Required**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

The IVT screen uses a patient tab and an IVT tab. On the IVT tab there is a grid of insurances for the selected order. One column of this grid is "Insurance verification required", which will show the Y/N based on the Insurance Carrier and Modality Type. There is a text box for IVT notes where the user can enter any notes and checkbox to indicate that the verification is complete. Once the user enters that verification complete and the study is saved, this item will fall off the IVT worklist. If the screen is later re-opened, the IV checkbox will be greyed out so that it cannot be un-checked. There should never be a reason on un-set IV.

The CPT codes are listed in the grid named "Billing Code Information". This will show all CPT codes for the selected order. Each grid row has a data collection field for the pre-cert number. It also has a pre-cert status, which is a drop down list box which contains the statuses "REQUIRED", "Approved", "Denied", and "Pending response". It is the job of the user to collect the pre-cert number per CPT code, and change the status as appropriate. Only when the status is Approved or Denied does this item fall off the IVT worklist. There is a checkbox below this grid "Show inactive CPT codes". If a CPT code was pre-certed and then the study was later changed, rRIS must maintain the original pre-cert codes but also allow the new codes to be pre-certed. Setting this checkbox on will show the other CPT codes and their pre-cert statuses.

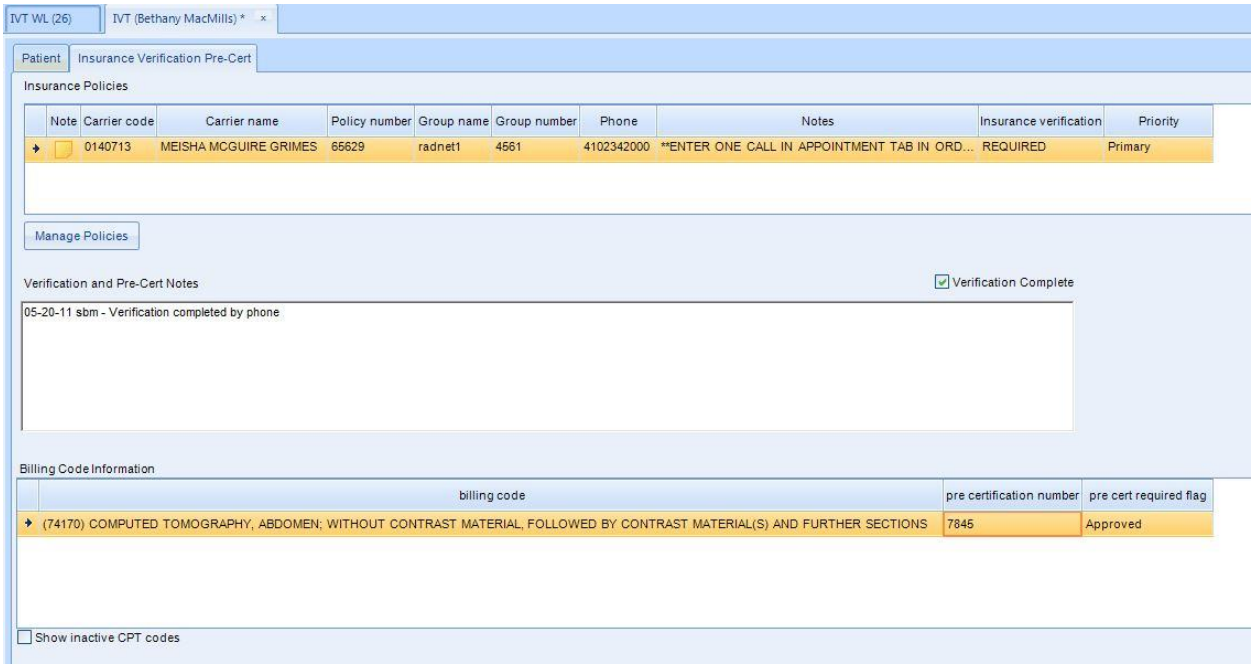



**Figure 4.21 – Updating IVT with Verification Notes and Authorization Number**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Technologist Workflow

A technologist workflow has been introduced in Build 1.14. The Technologist Worklist is a date-driven worklist that shows patients that are marked as Arrived, Started, Suspended, and Discontinued for the day. The Perform Exam screen is the main data form for the technologist. It consists of an embedded Patient History Worklist at the top of the screen, Patient tab, Documentation tab, Billing Codes tab, Scan Documents tab, and Notes/Exam Times tab.

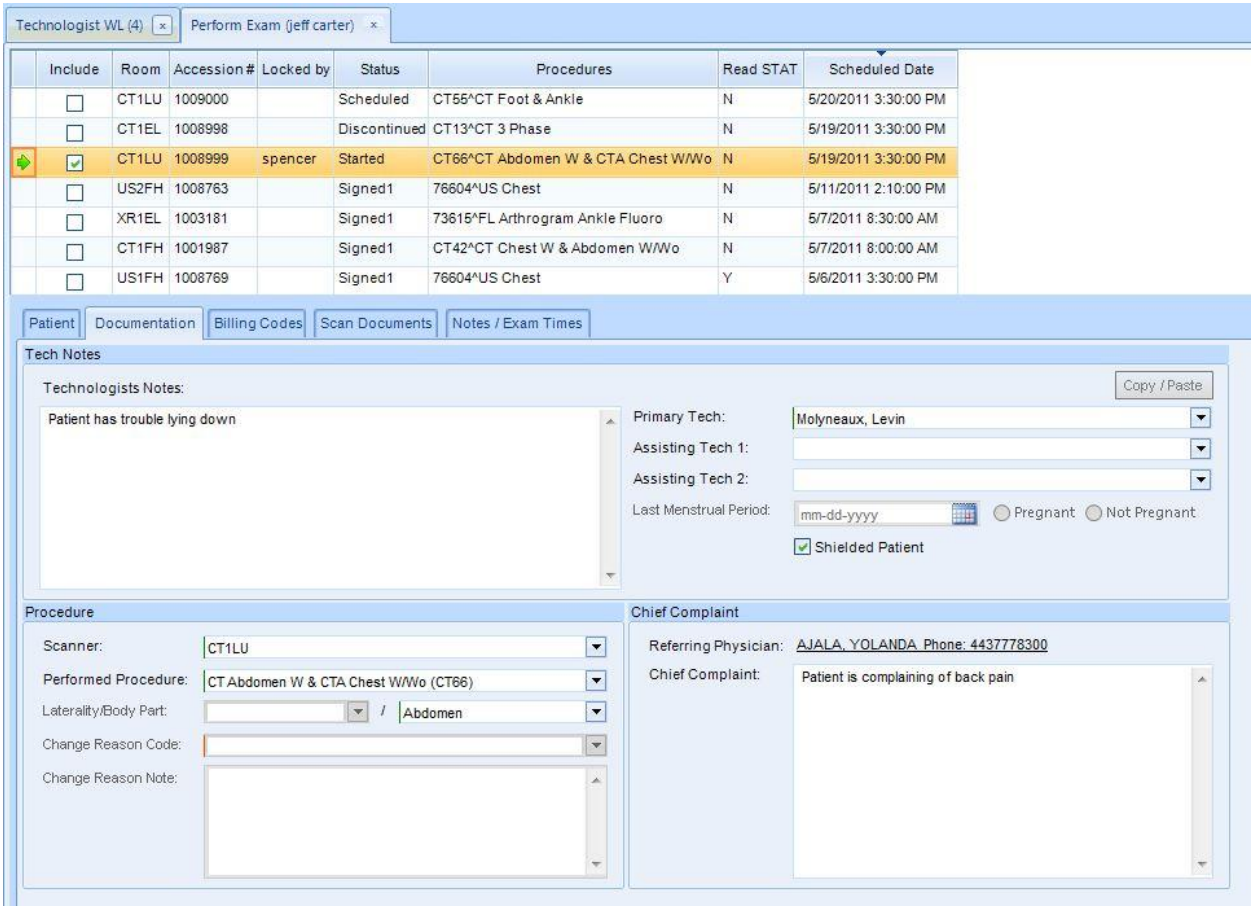



**Figure 4.22 – Technologist Perform Exam Screen – Documentation Tab**

**The Technologist Notes** text box is a simple mapping to a tech notes field that allows the technologist to enter notes.

The **Primary Tech**, assisting tech 1, and assisting tech 2 are study level attributes. They are filtered to include all Techs in the Practice in which the study was scheduled. The Primary Tech field is mandatory if the status is Started.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

**Last Menstrual Period** – this field is disabled if the gender is "Male". There is a configuration value that indicates which gender represents Male.

**Pregnancy** – these are represented as radiobuttons so the application can force the tech to answer the question before advancing the study to started.

**Shielded Patient** – a yes/no flag that indicates whether the tech shielded the patient. This is not a required field.

**Scanner** – defaults to the scheduled modality. The list is filtered to all modalities of a particular type for a particular site. E.g. if the study is scheduled on a CT in the Summerside clinic, the tech cannot choose either an MRI in Summerside or a CT in Charlottetown. Scanner is a required field.

**Performed Procedure** – defaults to the scheduled procedure. The list is filtered to show only procedures that can be performed on the modality that was specified when the exam was scheduled. If the Performed Procedure changes, the change reason code dropdown box becomes enabled. This will also restart the Insurance Verification Process.

**Change Reason Code –** required, but only enabled if the procedure changes.

**Change Reason Note –** freeform text that only becomes enabled if the procedure changes.

**Referring Physician (hyperlink) –** show the name and phone number of the referring physician for the current order. The link performs a personnel search so that the user sees more contact detail for the physician

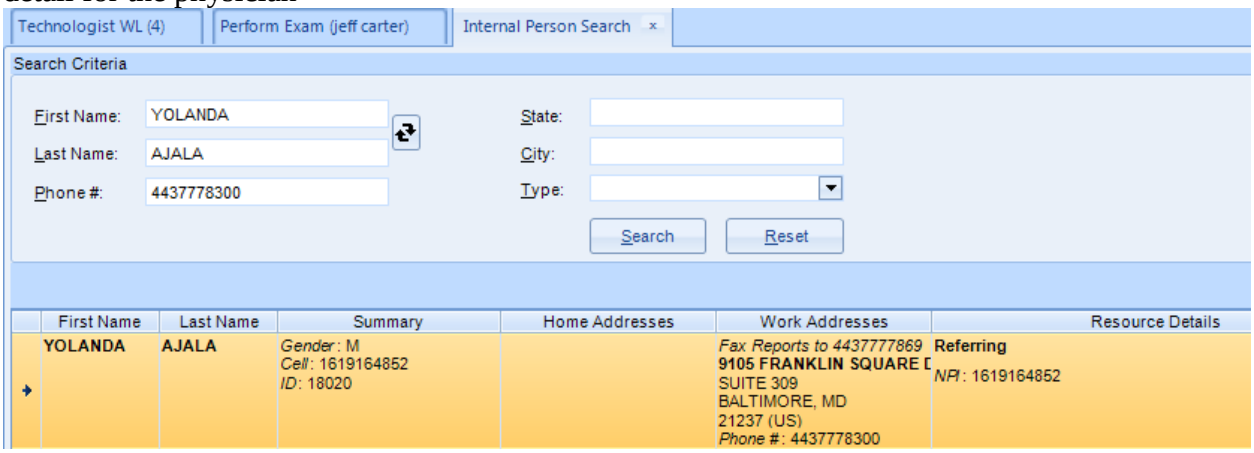



**Figure 4.23 – Referring Physician Search**

**Chief Complaint –** this is mapped to Order Indication.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

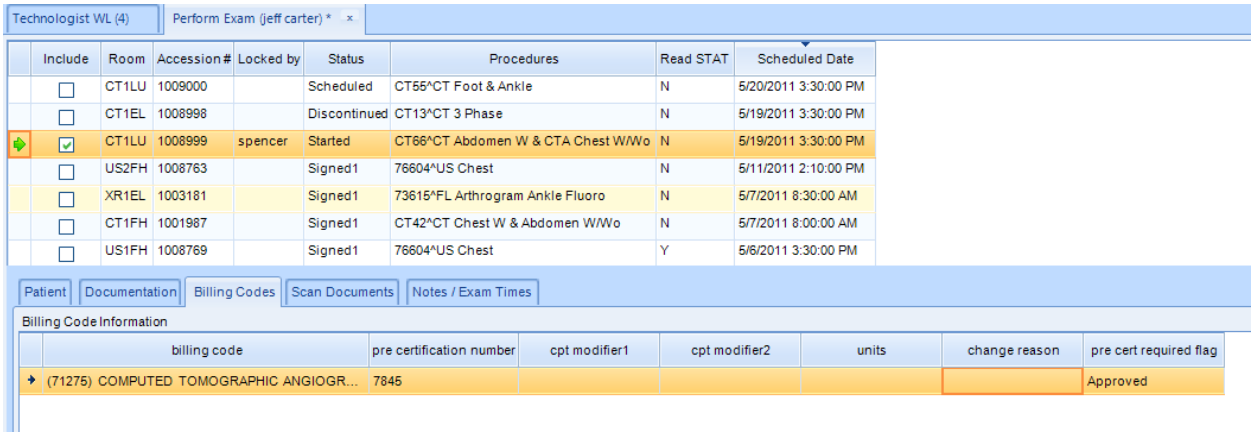



**Figure 4.24 – Technologist Perform Exam Screen – Billing Codes Tab**

This grid will show all active billing/CPT codes for the studies that the tech is currently documenting. In the event that the tech is working on two studies at once, CPT codes from both will be displayed – the tech does not need to switch rows on the patient history grid to see the different bill codes.

**Billing Code** – billing codes relate to procedures, the tech screen does not directly add new rows to this grid, but does call out to other IVT code libraries when the procedure changes.

**Precert #/ precert required flag.** – Shows the pre-cert status of the study.

**CPT Modifiers** – Factors that could affect the cost of the procedure (extra surgeons required, etc).

**Units –** the number of units of contrast used.

**Change reason** – a hard coded list that explains the reason for the CPT modifiers. This will be lookup table driven later.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

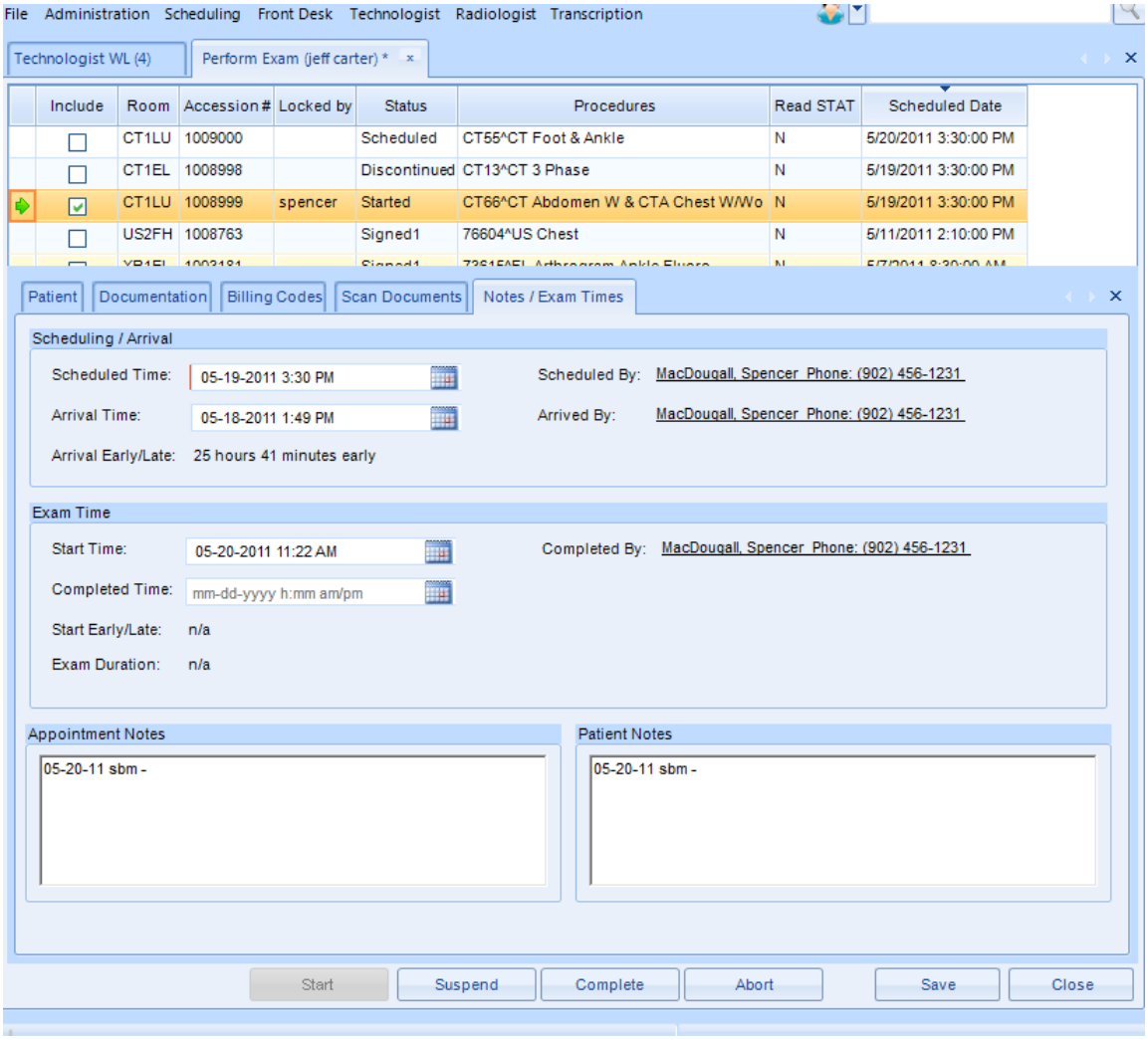



**Figure 4.25 – Technologist Perform Exam Screen – Notes/Exam Times Tab**

This tab shows the Scheduled Time, Arrival Time, Start Time and completed time for the study. It also shows a hyperlink for the user that scheduled, arrived, or performed the exam (the behaviour matches the behaviour for the referring physician hyperlink). There are some calculated fields that show whether the patient arrived early or late, whether the exam was started early or late, and whether the exam duration was greater than or less than the duration indicated for that procedure. The appointment notes and patient notes are mapped to notes columns at the visit and patient level respectively.

The status buttons available to the tech at the bottom of the screen are conditionally enabled based on the current status of the study. For example, the tech cannot Start an exam after it has already been set to Discontinued.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 5. Known Limitations

Bugs, Suggested Features, and Support Issues are now tracked in a web based system called Redmine. The following is a snapshot of the issues found in Build 1.13 and 1.14. A number of issues had been found and immediately resolved as part of the clean-up process in preparation for the demos during the week of May 9th.

| # | Status | Subject | Category | Found | %Done | Resolved |
|---|---|---|---|---|---|---|
| 368 | New | Tech - Patient History should be scrollable | Thick Client GUI | 1.14 | 0 | |
| 367 | New | Scan Document - Form does not cascade properly | Thick Client GUI | 1.14 | 0 | |
| 366 | New | Scan Document - Missing scroll bar on patient history grid | Thick Client GUI | 1.14 | 0 | |
| 365 | New | ProcedureCode - Procedure group code should be a required field | Admin Tools | 1.14 | 0 | |
| 364 | New | Insurance - Prompted for Claim Number when not using carrier | Thick Client GUI | 1.14 | 0 | |
| 363 | Resolved | Order DW - Patient Height | Thick Client GUI | 1.13 | 100 | 1.15 |
| 362 | Resolved | When cancelling a study it does not free up the booked time in the booking summary | Web Services/DB | 1.13 | 100 | 1.15 |
| 361 | In Progress | changing a scheduled procedure causes multiple rows in c_study_item and the gui and service does not know which code is active | Web Services/DB | 1.13 | 0 | |
| 357 | Resolved | Lookup table filters with dropdown datatype don't work | | 1.13 | 100 | 1.14 |
| 356 | Closed | Edit Order - Same user can Edit and Schedule the same order causing exception | Thick Client GUI | 1.13 | 0 | |
| 355 | Resolved | Edit Order - Does not retrieve or save CC Physicians | Thick Client GUI | 1.13 | 100 | 1.14 |
| 354 | New | Context Menus ignore access strings | Thick Client GUI | 1.13 | 0 | |
| 353 | New | Labels and Forms - System does not check to see if parameter is available | Thick Client GUI | 1.13 | 0 | |
| 352 | Resolved | Registration - User can Arrive patient again late in the workflow | Thick Client GUI | 1.13 | 100 | 1.14 |
| 351 | Resolved | Technologist Workflow - Scanner not displaying for Exam | Thick Client GUI | 1.13 | 100 | 1.14 |
| 350 | Resolved | Scan Error - Move to Patient Level | Thick Client GUI | 1.13 | 100 | 1.14 |
| 349 | Resolved | Scanning - Technologist WL | Thick Client GUI | 1.13 | 100 | 1.14 |
| 348 | Resolved | Scanning - Click Patient Folder Error | Thick Client GUI | 1.13 | 100 | 1.14 |
| 347 | Resolved | Scheduling - ReadOnly Notes strategy | Thick Client GUI | 1.13 | 100 | 1.14 |
| 346 | Resolved | Roles should not display if there are no child items | Thick Client GUI | 1.13 | 100 | 1.14 |
| 345 | Resolved | Exam Done WL - Export to Excel | Thick Client GUI | 1.13 | 100 | 1.14 |
| 344 | Resolved | Order - CC Physicians show key values on refresh | Thick Client GUI | 1.13 | 100 | 1.14 |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# User Pre-Release Notes

for RADNET rRIS
Build 1.15

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Purpose ..... 3
2. Intended Audience ..... 3
3. Installing/Accessing the Application ..... 3
4. New Features and Enhancements ..... 4
   Enhancements to Audit Log ..... 4
   Insurance Verification at the Practice Level ..... 5
   Prep Notes Available on the Schedule Screen ..... 6
   Ability to Add/Edit Procedures from the Registration Screen ..... 7
   Appointment Details on Schedule Calendar ..... 8
   Enhancements to Label and Form Printing ..... 9
   "Checking-In" Status ..... 11
   Receipt Printing ..... 12
   Flags Framework ..... 14
   Storing Time Zone at the Practice Level ..... 15
5. Known Limitations ..... 17

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 1. Purpose

This document describes some of the new features and changes implemented in rRIS as of the end of Sprint 15. This pre-release version of rRIS is referred to as Build 1.15.

Only features which can be visually demonstrated to the user will be outlined in this document.

# 2. Intended Audience

This document is created by the rRIS Development team for the RadNet RIS management team.

# 3. Installing/Accessing the Application

The installation instructions for the rRIS client have been posted to the RadNet Wiki page at http://mdbal01rdtweb/Wiki/

Under the RIS menu, click on the rRIS page. The credentials to access the page are:
Username: rRIS
Password: Summerside

*Please note that Build 1.15 is considered a new core release of the application and will require a reinstallation of rRIS. This is accomplished by navigating to the rRIS shared installation drive and running the CoreInstall.bat file (ex: I:\RISDeployment\CoreInstall.bat)*

If you experience difficulties accessing the application, please do not hesitate to contact Spencer MacDougall with the PEI RIS Development Team.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 4. New Features and Enhancements

## Enhancements to Audit Log

The rRIS Audit History has been enhanced to show a before and after version of modified columns. In the example below, a correction was made to the name of a patient. The patient was listed in the system as Tommy Smith but his name is actually Timmy Smith. The Audit Trail now shows that first_name was changed to "Timmy" from "Tommy" as well as the date and user that performed the modification.

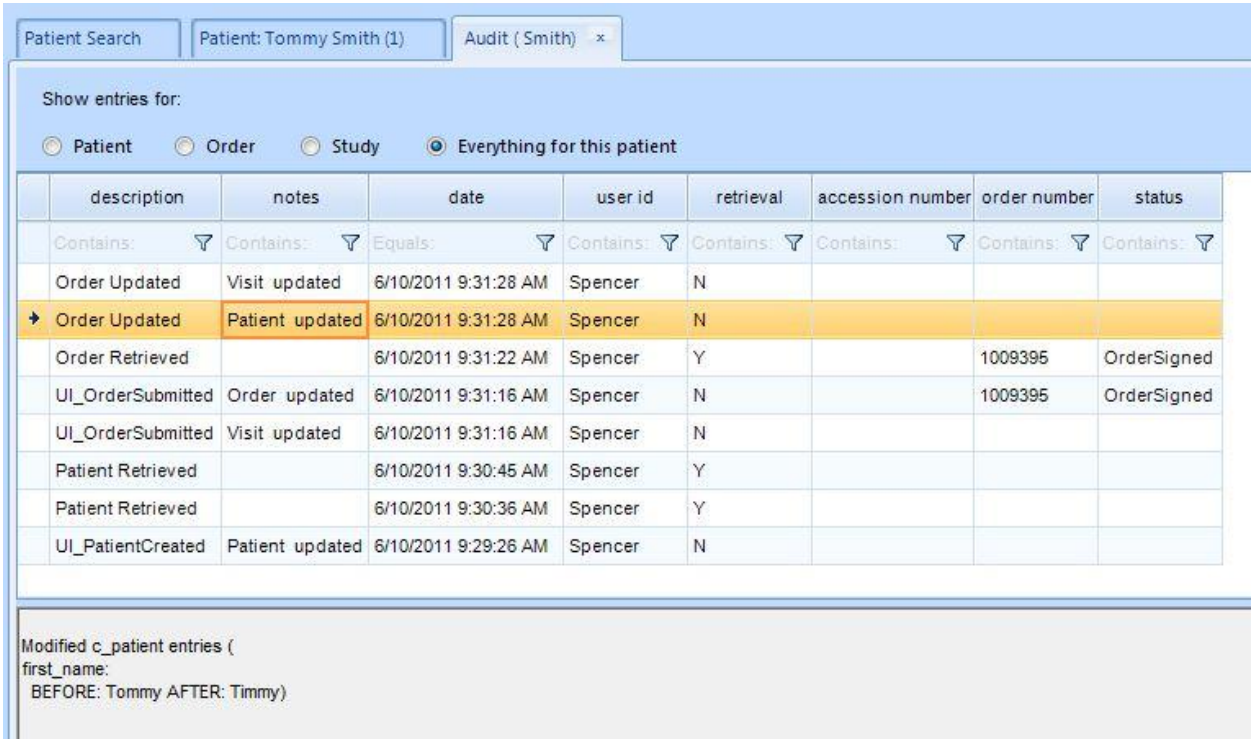



**Figure 4.1 – Audit History showing Before and After Changes**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Insurance Verification at the Practice Level

Whether or not Insurance Verification is required is now determined by the combination of Modality Type and Practice. This had been set at the Insurance Carrier level but has been adjusted after feedback. The configuration screen below illustrates that both CT and US procedure types require insurance to be verified at the Advanced Radiology practice.

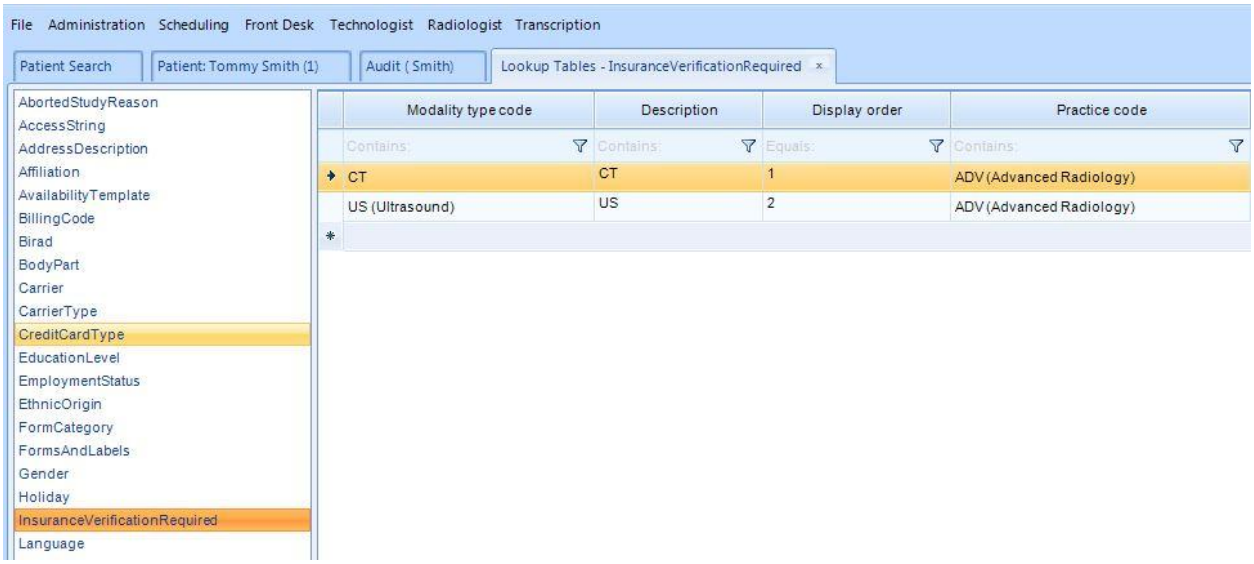



**Figure 4.2 – Insurance Verification set at Practice and Modality Type**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Prep Notes Available on the Schedule Screen

A "Review" tab has been added to the Schedule screen. This will display one or more prep instructions to the scheduler that can easily be communicated to the patient. In the example below, the patient is scheduled for both a CT and XR procedure. As a result, the Review tab displays both sets of prep instructions.

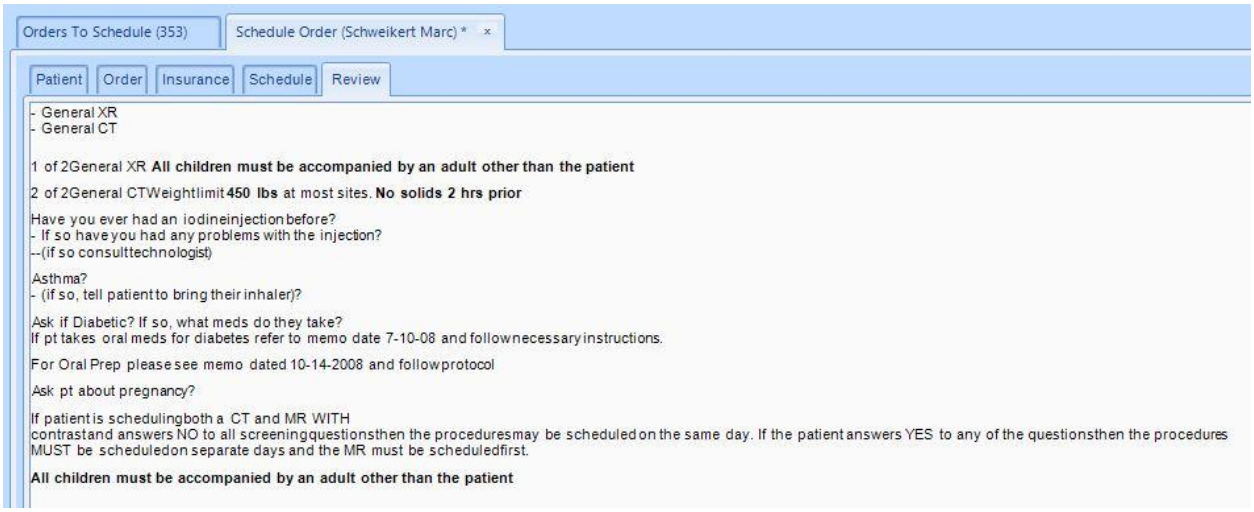



**Figure 4.3 – Multiple Prep Instructions available on the Schedule Screen**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Ability to Add/Edit Procedures from the Registration Screen

The front desk now has the ability to add or modify scheduled procedures without having to navigate to the Edit Schedule screen. This functionality has been added to the Registration screen. In the following example, the patient has arrived for a CT Chest but has an additional order request for an XR as well. The registration user can add the XR Chest to the same visit/encounter and select a scanner and timeslot.

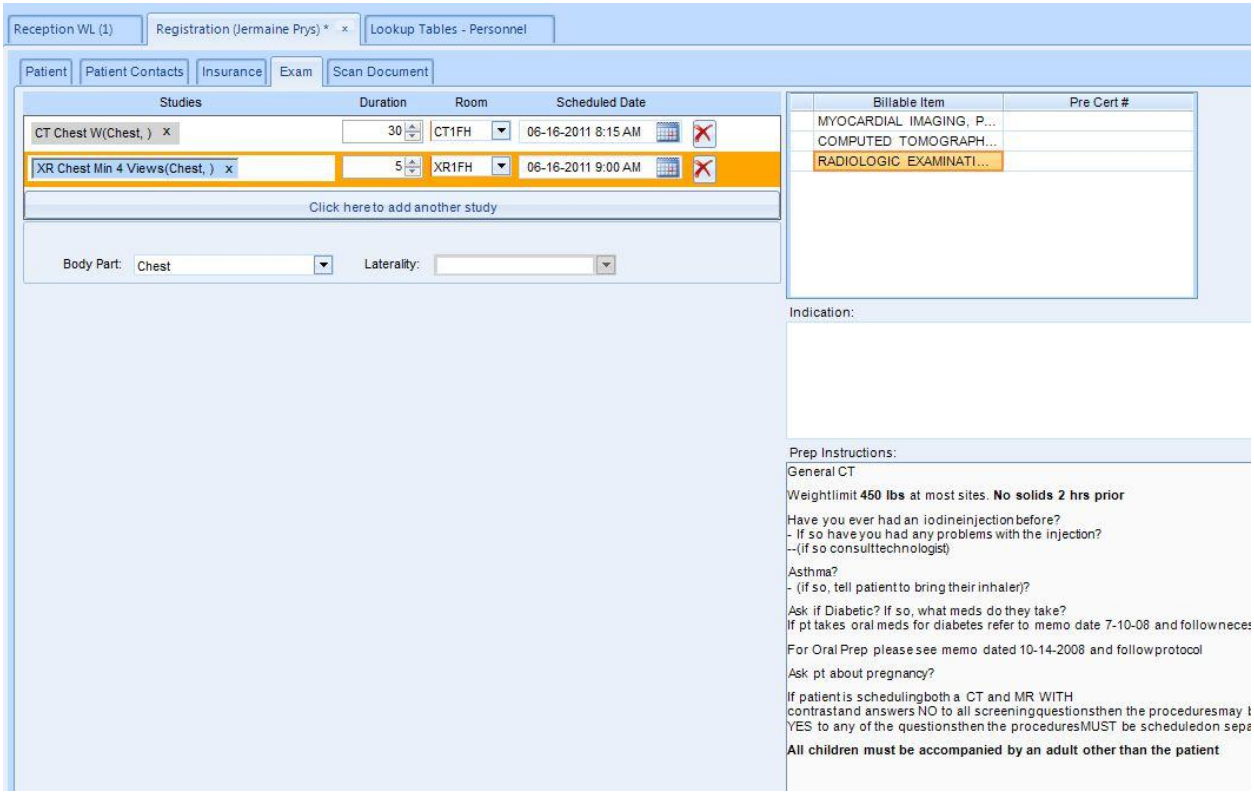



**Figure 4.4 – Adding an additional scheduled procedure from the Registration Screen**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Appointment Details on Schedule Calendar

When scheduling, the calendar view has been enhanced to show additional study information. By clicking on the "Show Details" checkbox the patient name, procedure code, study status, and scheduled time will appear in the study's timeslot.

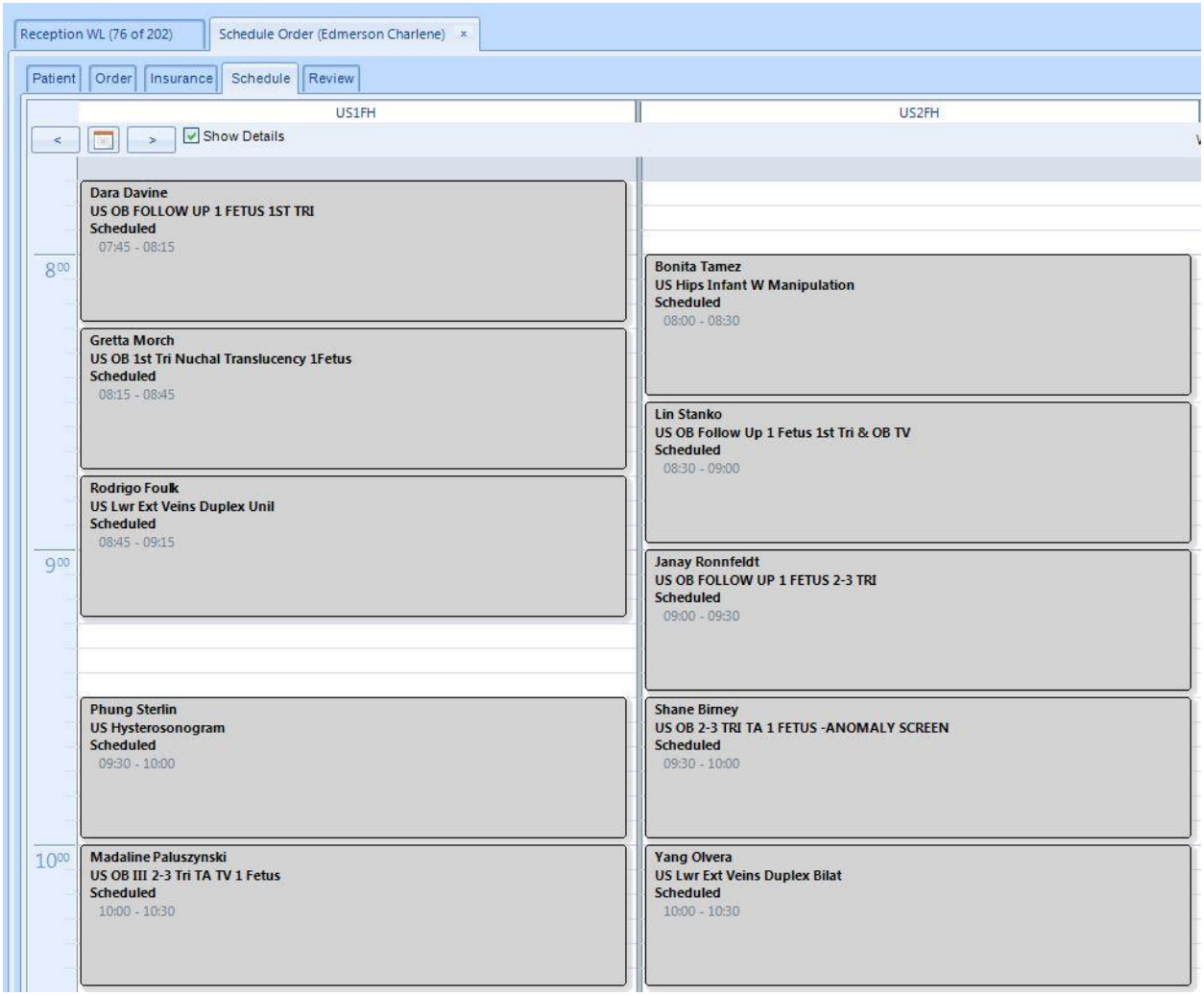



**Figure 4.5 – Calendar View showing Appointment Details**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Enhancements to Label and Form Printing

The application has been modified to allow front desk users to print all associated forms simultaneously instead of one at a time. In the example below, the user is arriving (changing to arrived status) a patient for an US Thyroid procedure. The system is configured to generate an exam form, history sheet, and worksheet on patient arrival. Therefore once the patient is marked as arrived, the user is prompted to print or preview one or more of the mapped forms.

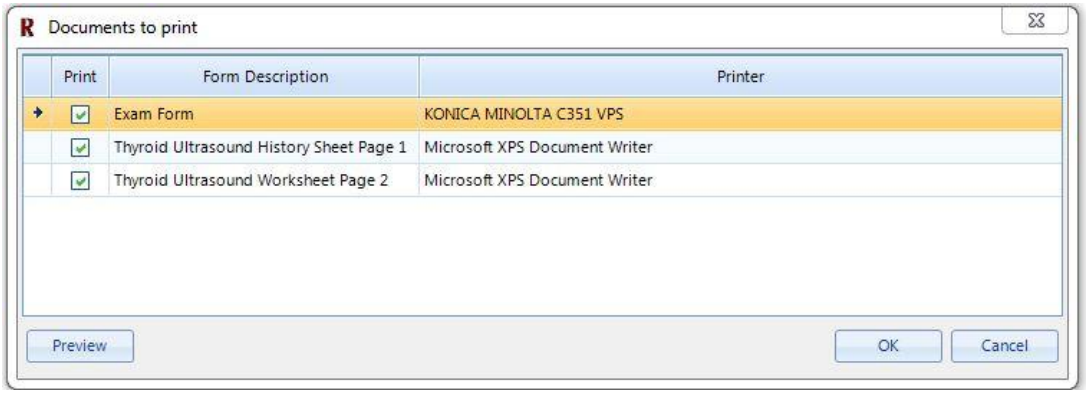



**Figure 4.6 – Popup with Mapped Forms to be Printed**

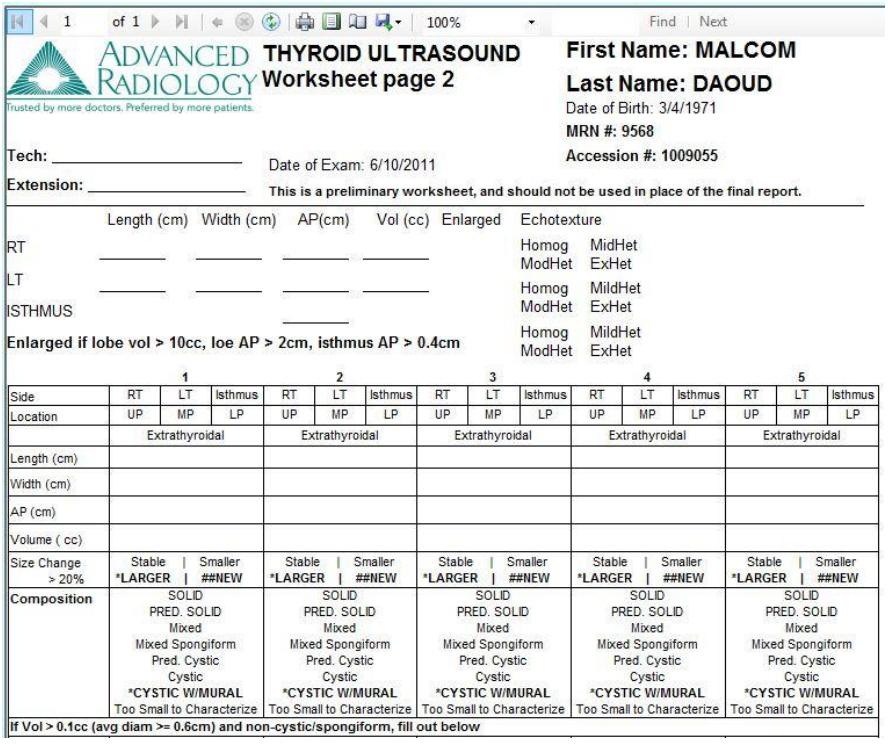



**Figure 4.7 – Example of a Thyroid Worksheet**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

The printer can be different for each form listed in the grid. The application will default to the default printer for the workstation, and if the user chooses a different printer for a particular form, rRIS will persist that preference to the workstation's disk cache and use that as the default printer for that form in the future.

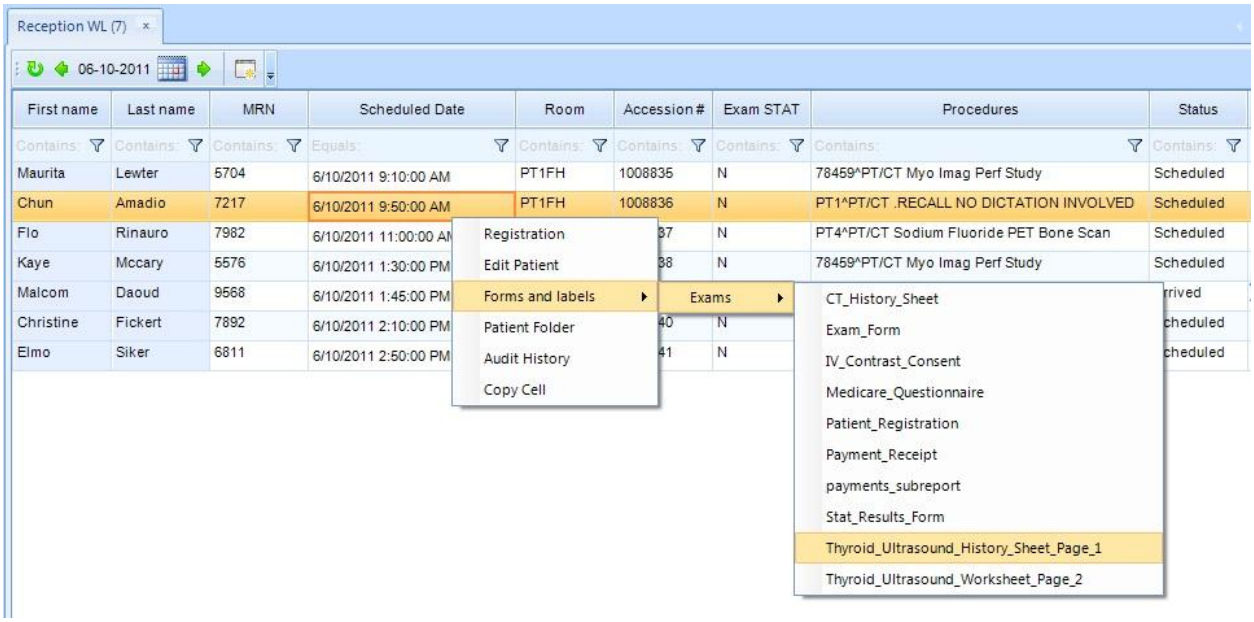



**Figure 4.8 – Print Forms directly from the Worklist**

If the user chooses to print a form directly from the worklist, they will be presented with a similar dialog box.

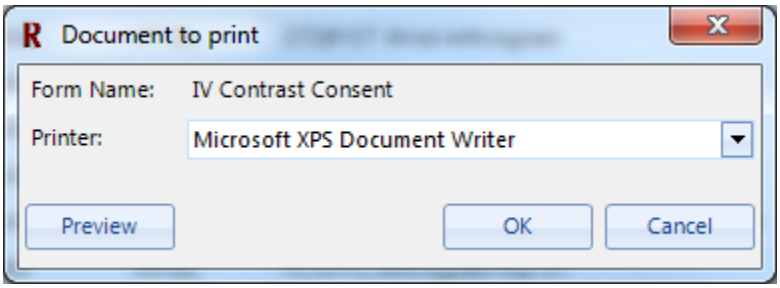



**Figure 4.9 – Popup to specify Form Printer**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## "Checking-In" Status

An additional status is required between Scheduled and Arrived. Checking-In was added to allow the registration user to mark a patient as checking-in while he or she is filling in the required paperwork. Once all documentation has been completed, the registration user can mark the patient as arrived so the technologist will know to come and receive the patient. The Checking-In status will also be used for Management Reporting to determine wait room turnover.

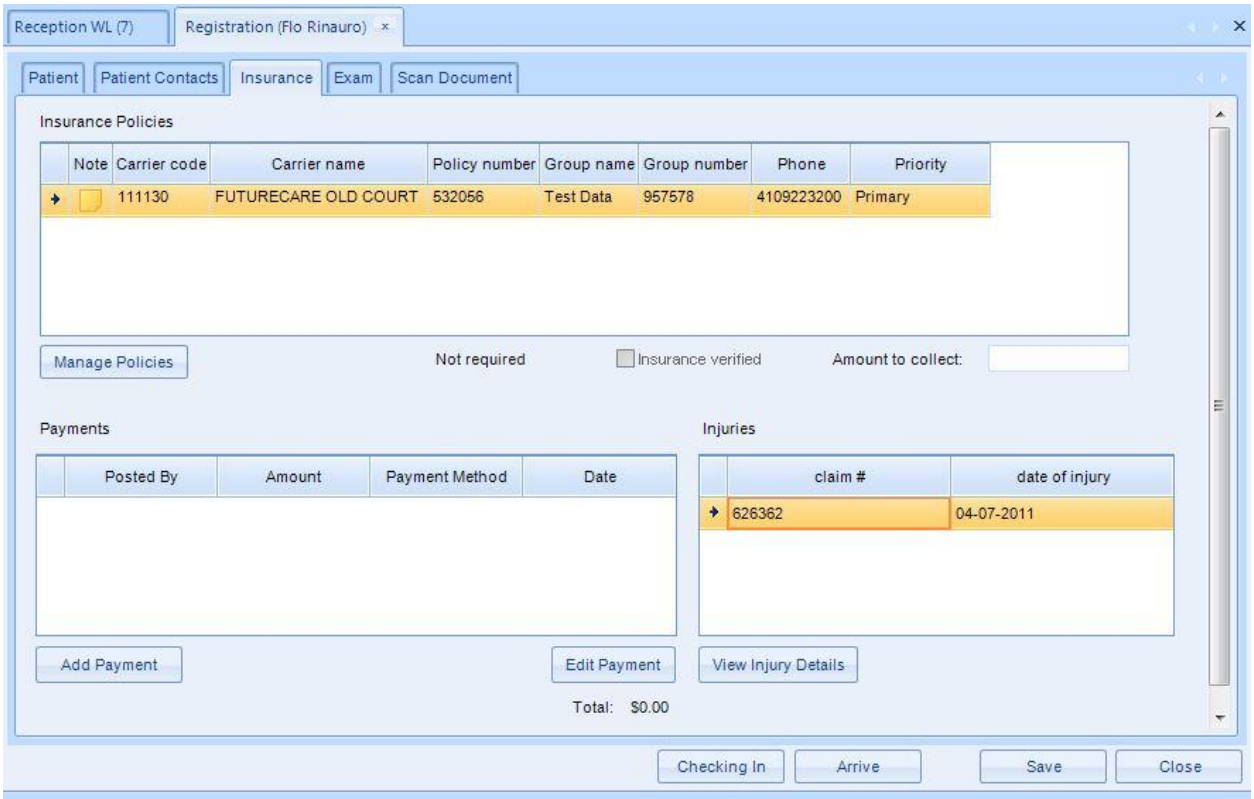



**Figure 4.10 – Registration Screen with Checking In Button**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Receipt Printing

Build 1.15 allows registration users to print receipts and void payments. The system will detect if a payment has been made and prompt the user to print or preview the receipt.

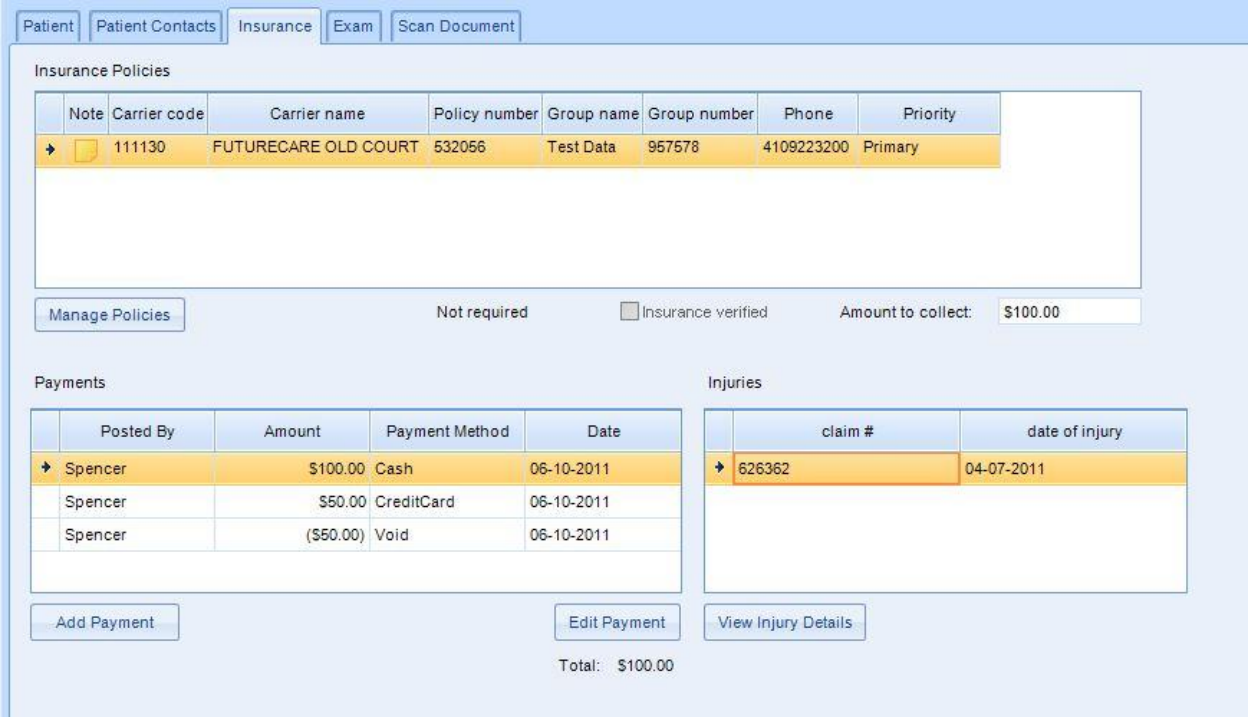



**Figure 4.11 – Registration Screen with Multiple Payment Entries**

In the example above, the patient has paid a $100 co-pay amount. Two payments have been recorded, but the $50 credit card payment has been voided. Once the form is saved and the patient is arrived, the user is prompted to print the receipt.

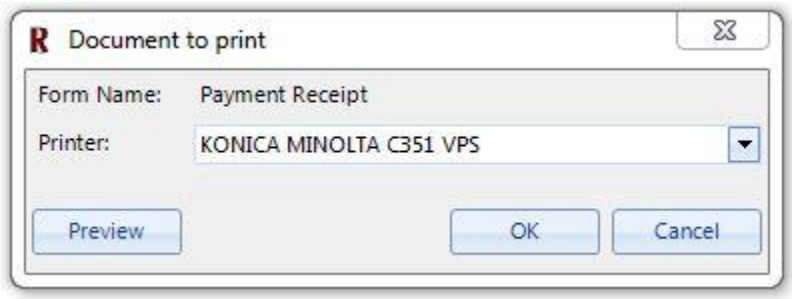



**Figure 4.12 – Popup Prompting User to Print Receipt**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

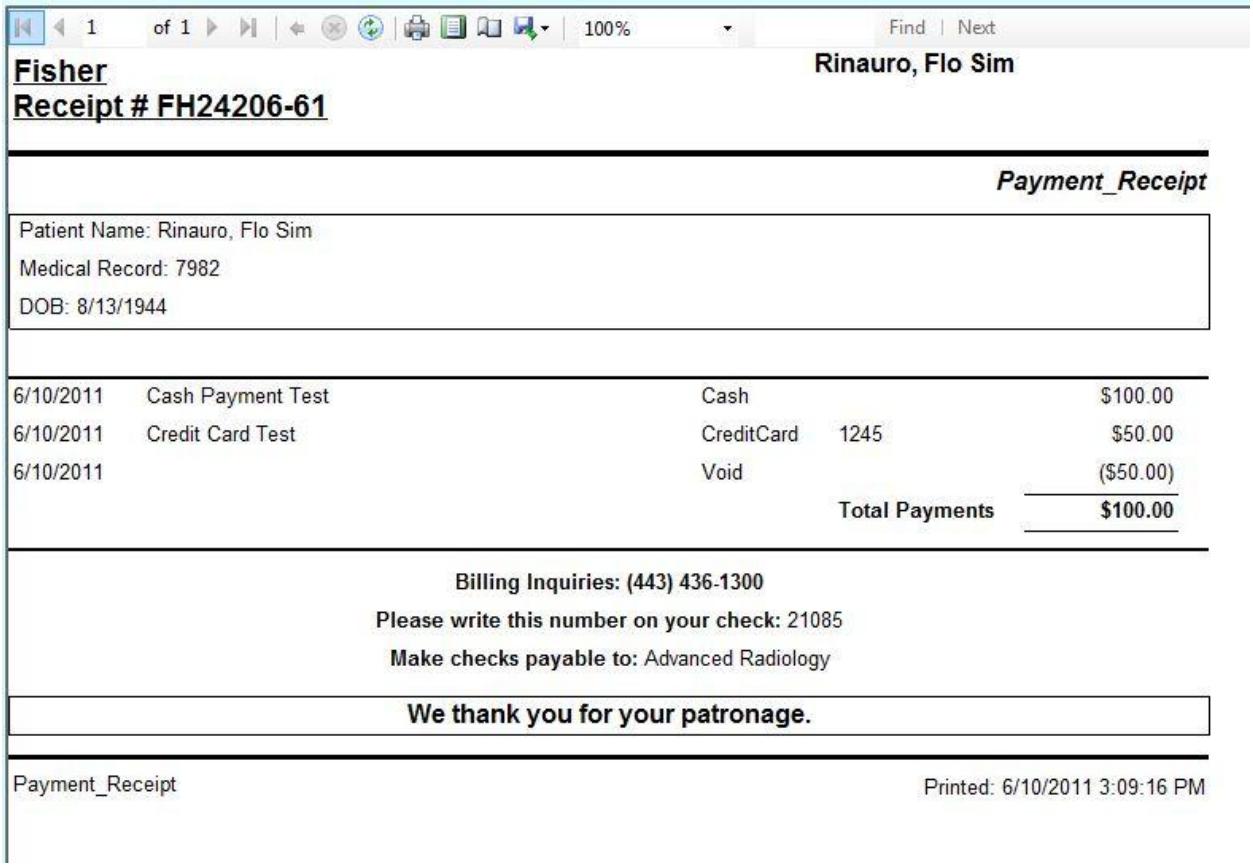



**Figure 4.13 – Example of a Receipt Preview**

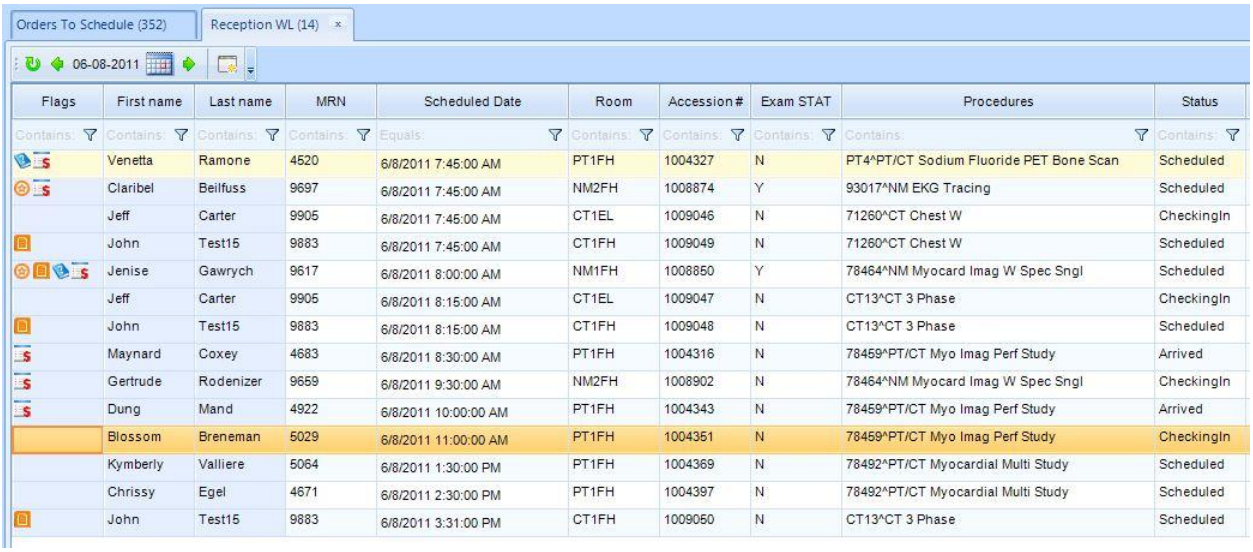
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Flags Framework

A Flags column has been added to the worklist framework for Build 1.15. Flags are a quick visual indication of relevant data. Four flags have been added to the system:

1. IVT Required
2. Stat Exam
3. Stat Read
4. Special Accommodations

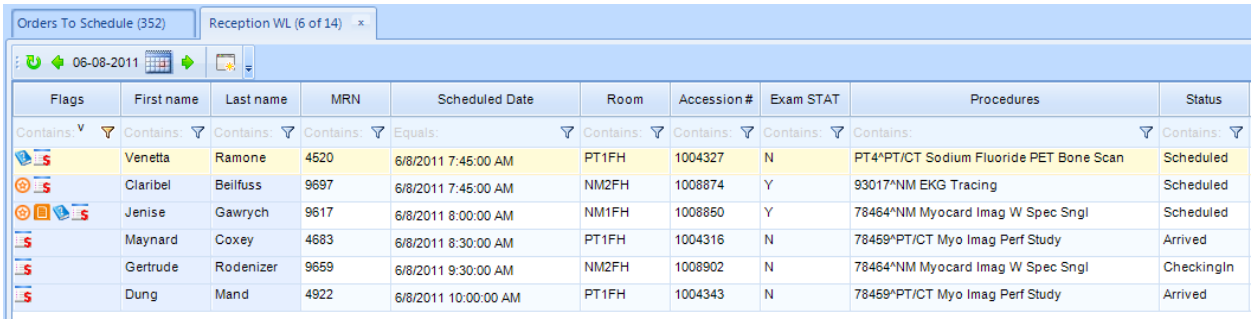
So basically if an order is marked as Stat, the row in the worklist will show the Stat Exam flag. Since flags are sortable and filterable, the user could easily sort his or her worklist so that all Stat cases are at the top. The user could also create a filtered worklist based on a flag. If the user's function was to verify insurance, he or she could filter the worklist to only show studies where the IVT Required flag is enabled.




| Flags | First name | Last name | MRN | Scheduled Date | Room | Accession # | Exam STAT | Procedures | Status |
|---|---|---|---|---|---|---|---|---|---|
| Contains: | Contains: | Contains: | Contains: | Equals: | Contains: | Contains: | Contains: | Contains: | Contains: |
| | Venetta | Ramone | 4520 | 6/8/2011 7:45:00 AM | PT1FH | 1004327 | N | PT4^PT/CT Sodium Fluoride PET Bone Scan | Scheduled |
| | Claribel | Beilfuss | 9697 | 6/8/2011 7:45:00 AM | NM2FH | 1008874 | Y | 93017^NM EKG Tracing | Scheduled |
| | Jeff | Carter | 9905 | 6/8/2011 7:45:00 AM | CT1EL | 1009046 | N | 71260^CT Chest W | CheckingIn |
| | John | Test15 | 9883 | 6/8/2011 7:45:00 AM | CT1FH | 1009049 | N | 71260^CT Chest W | Scheduled |
| | Jenise | Gawrych | 9617 | 6/8/2011 8:00:00 AM | NM1FH | 1008850 | Y | 78464^NM Myocard Imag W Spec Sngl | Scheduled |
| | Jeff | Carter | 9905 | 6/8/2011 8:15:00 AM | CT1EL | 1009047 | N | CT13^CT 3 Phase | CheckingIn |
| | John | Test15 | 9883 | 6/8/2011 8:15:00 AM | CT1FH | 1009048 | N | CT13^CT 3 Phase | Scheduled |
| | Maynard | Coxey | 4683 | 6/8/2011 8:30:00 AM | PT1FH | 1004316 | N | 78459^PT/CT Myo Imag Perf Study | Arrived |
| | Gertrude | Rodenizer | 9659 | 6/8/2011 9:30:00 AM | NM2FH | 1008902 | N | 78464^NM Myocard Imag W Spec Sngl | CheckingIn |
| | Dung | Mand | 4922 | 6/8/2011 10:00:00 AM | PT1FH | 1004343 | N | 78459^PT/CT Myo Imag Perf Study | Arrived |
| | Blossom | Breneman | 5029 | 6/8/2011 11:00:00 AM | PT1FH | 1004351 | N | 78459^PT/CT Myo Imag Perf Study | CheckingIn |
| | Kymberly | Valliere | 5064 | 6/8/2011 1:30:00 PM | PT1FH | 1004369 | N | 78492^PT/CT Myocardial Multi Study | Scheduled |
| | Chrissy | Egel | 4671 | 6/8/2011 2:30:00 PM | PT1FH | 1004397 | N | 78492^PT/CT Myocardial Multi Study | Scheduled |
| | John | Test15 | 9883 | 6/8/2011 3:31:00 PM | CT1FH | 1009050 | N | CT13^CT 3 Phase | Scheduled |

**Figure 4.14 – Reception Worklist with Flags**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.




| Flags | First name | Last name | MRN | Scheduled Date | Room | Accession # | Exam STAT | Procedures | Status |
|---|---|---|---|---|---|---|---|---|---|
| Contains: | Contains: | Contains: | Contains: | Equals: | Contains: | Contains: | Contains: | Contains: | Contains: |
| | Venetta | Ramone | 4520 | 6/8/2011 7:45:00 AM | PT1FH | 1004327 | N | PT4^PT/CT Sodium Fluoride PET Bone Scan | Scheduled |
| | Claribel | Beilfuss | 9697 | 6/8/2011 7:45:00 AM | NM2FH | 1008874 | Y | 93017^NM EKG Tracing | Scheduled |
| | Jenise | Gawrych | 9617 | 6/8/2011 8:00:00 AM | NM1FH | 1008850 | Y | 78464^NM Myocard Imag W Spec Sngl | Scheduled |
| | Maynard | Coxey | 4683 | 6/8/2011 8:30:00 AM | PT1FH | 1004316 | N | 78459^PT/CT Myo Imag Perf Study | Arrived |
| | Gertrude | Rodenizer | 9659 | 6/8/2011 9:30:00 AM | NM2FH | 1008902 | N | 78464^NM Myocard Imag W Spec Sngl | CheckingIn |
| | Dung | Mand | 4922 | 6/8/2011 10:00:00 AM | PT1FH | 1004343 | N | 78459^PT/CT Myo Imag Perf Study | Arrived |

**Figure 4.14 – Reception Worklist Filtered to only show IVT Required Flag**

## Storing Time Zone at the Practice Level

One instance of rRIS is required to span across more than one time zone. Because of this, many dates like order date and schedule date are stored in the database in UTC (Coordinated Universal Time) format with an offset in hours. This can allow a group of schedulers or transcriptionists to work in the system from another time zone without having to adjust their local computer's time zone to match the server's.

When setting up Practices in rRIS, the user is now able to specify what time zone the practice exists in. This is how the offset to UTC is determined.

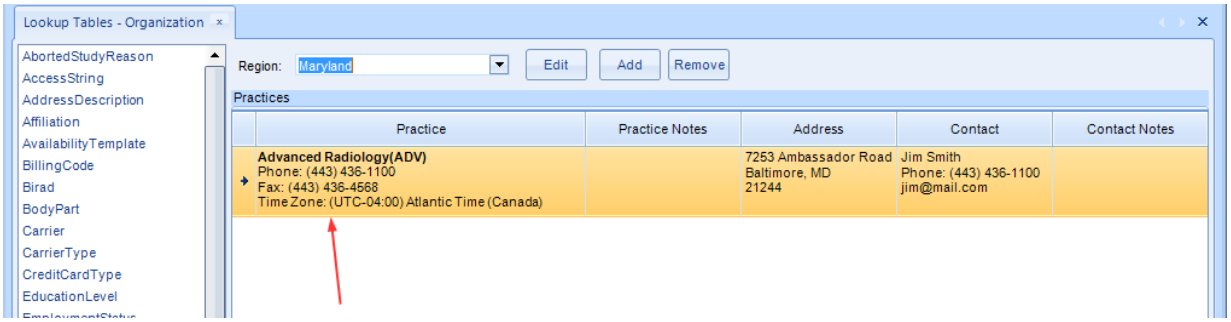



**Figure 4.15 – Organization Editor showing Time Zone of Practice**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

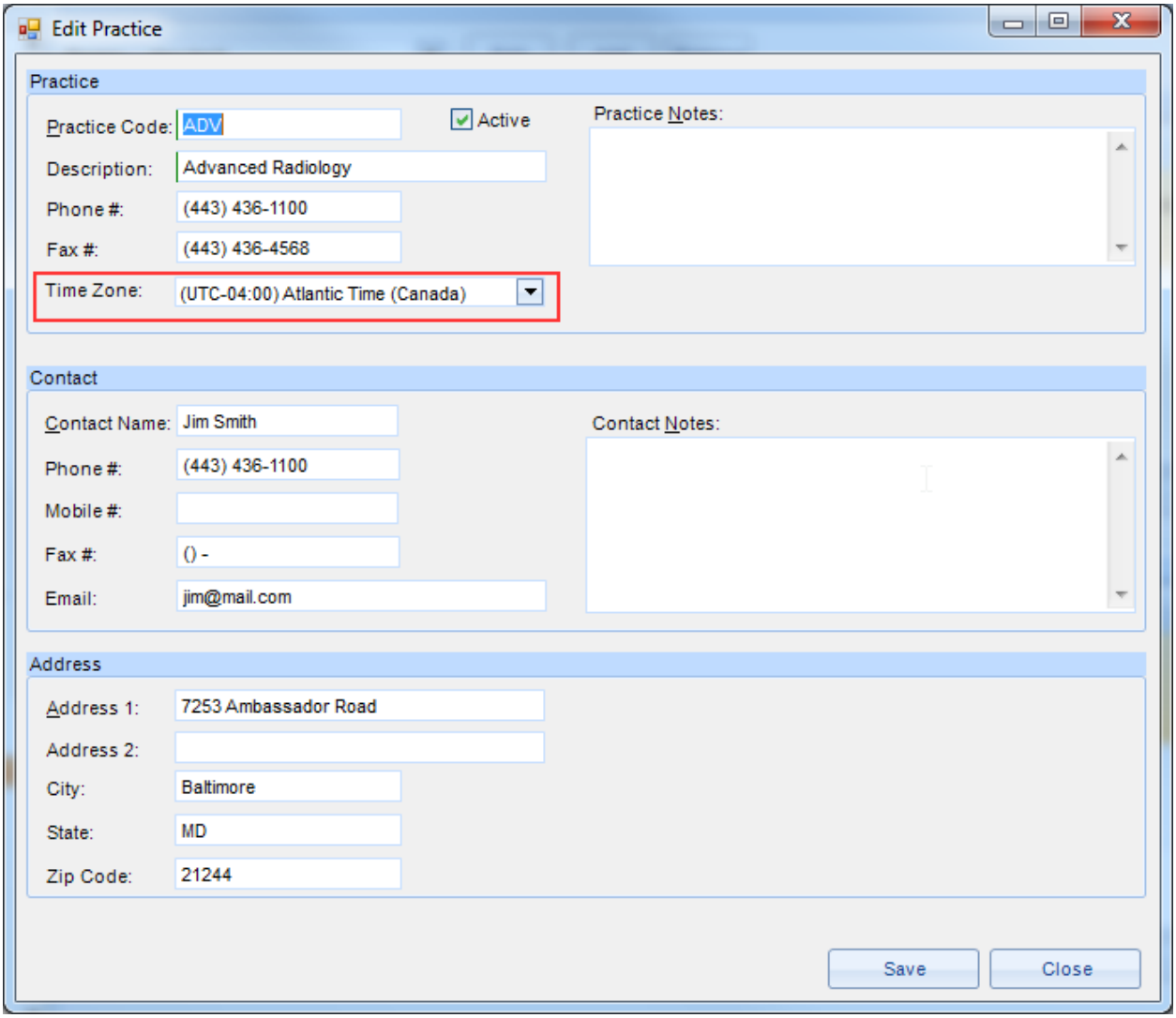



**Figure 4.16 – Specifying Time Zone at the Practice Level**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 5. Known Limitations

Bugs, Suggested Features, and Support Issues are now tracked in a web based system called Redmine. The following is a snapshot of the issues found in Build 1.15.

| # | Status | Subject | Category | Found | %Done | Resolved |
|---|---|---|---|---|---|---|
| 416 | New | Flags - exception loading flags | Thick Client GUI | 1.15 | 0 | |
| 415 | Resolved | Edit Schedule - Remove study row exception | Thick Client GUI | 1.15 | 100 | 1.16 |
| 414 | New | Scheduling - Exception when removing and adding study row | Thick Client GUI | 1.15 | 0 | |
| 413 | New | Review Tab - Shouldn't show if it is null | Thick Client GUI | 1.15 | 0 | |
| 412 | New | Labels and Forms - Performance issues sending directly to printer | Thick Client GUI | 1.15 | 0 | |
| 411 | Resolved | Appointment Book - A few differences between calendar view and appointment book | Thick Client GUI | 1.15 | 100 | 1.16 |
| 410 | Resolved | Scheduling - Issue with changing procedure code | Thick Client GUI | 1.15 | 100 | 1.16 |
| 409 | New | IVT Worklist - status column is order status | Thick Client GUI | 1.15 | 0 | |
| 408 | New | Checking In - Missing time stamp in database | Thick Client GUI | 1.15 | 0 | |
| 406 | New | New Appointment - Unhandled WCF exception | Web Services/DB | 1.15 | 0 | |
| 405 | New | Registration - Issue removing policy from study | Thick Client GUI | 1.15 | 0 | |
| 404 | New | Insurance Verification Required - Exception with lookup table | Admin Tools | 1.15 | 0 | |
| 403 | Resolved | Locking - Cancelling a lock causes exception | Thick Client GUI | 1.15 | 100 | 1.16 |
| 402 | New | Registration Workflow - Locking Issues | Thick Client GUI | 1.15 | 0 | |
| 401 | New | Reception WL - No ability to change status | Thick Client GUI | 1.15 | 0 | |
| 400 | New | Checking In - Not consistent with Perform Exam screen | Thick Client GUI | 1.15 | 0 | |
| 399 | New | Audit History - Issue with tab name when opened from Patient History | Thick Client GUI | 1.15 | 0 | |
| 398 | New | Audit Log - rRISServices entries | Thick Client GUI | 1.15 | 0 | |
| 397 | New | Forms and Labels - Lookup missing splitter | Admin Tools | 1.15 | 0 | |
| 396 | New | Audit Log - System related updates should be excluded | Thick Client GUI | 1.15 | 0 | |
| 395 | Resolved | Registration - Exception adding blank study row | Thick Client GUI | 1.15 | 100 | 1.16 |
| 394 | Resolved | Login - Issue with Version name | Thick Client GUI | 1.15 | 100 | 1.16 |
| 393 | New | Login - System will not detect disconnected state | Thick Client GUI | 1.15 | 0 | |
| 392 | Resolved | Dropdowns - Still showing as required when completed | Thick Client GUI | 1.15 | 100 | 1.16 |
| 391 | New | Forms - Reverse Tab Order | Thick Client GUI | 1.15 | 0 | |
| 390 | Resolved | Lookup - InsuranceVerificationRequired does not check for duplicate entries | Admin Tools | 1.15 | 100 | 1.16 |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# User Pre-Release Notes

for RADNET rRIS
Build 1.16

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Purpose ..... 3
2. Intended Audience ..... 3
3. Installing/Accessing the Application ..... 3
4. New Features and Enhancements ..... 4
   Patient Search on Previous MRN, First Name, and Last Name ..... 4
   Patient Search on Phone Number ..... 4
   Patient Name Prefix and Suffix ..... 5
   Smoking Status ..... 6
   Open Versus Closed Enclosure Modalities ..... 6
   Additional Details on the Appointment Book ..... 8
   Study Suspended Flag ..... 9
   Enhanced Form Generation Criteria ..... 10
   Foot Pedal Support and Configuration ..... 12
   SpeechMike Configurable Buttons ..... 13
   Optimizing Dictation Playback ..... 13
   Playback Speed per Radiologist ..... 15
   Show Paragraph Line Breaks in the Report Editor ..... 15
5. Known Limitations ..... 17

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 1. Purpose

This document describes some of the new features and changes implemented in rRIS as of the end of Sprint 16. This pre-release version of rRIS is referred to as Build 1.16.

Only features which can be visually demonstrated to the user will be outlined in this document.

# 2. Intended Audience

This document is created by the rRIS Development team for the RadNet RIS management team.

# 3. Installing/Accessing the Application

The installation instructions for the rRIS client have been posted to the RadNet Wiki page at http://mdbal01rdtweb/Wiki/

Under the RIS menu, click on the rRIS page. The credentials to access the page are:
Username: rRIS
Password: Summerside

*Please note that Build 1.16 is considered a new core release of the application and will require a reinstallation of rRIS. This is accomplished by navigating to the rRIS shared installation drive and running the CoreInstall.bat file (ex: I:\RISDeployment\CoreInstall.bat)*

If you experience difficulties accessing the application, please do not hesitate to contact Spencer MacDougall with the PEI RIS Development Team.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 4. New Features and Enhancements

## Patient Search on Previous MRN, First Name, and Last Name

Build 1.16 supports the ability for a user to perform a search on the patient's previous MRN and/or name. For example, Jennifer Anthony (95079) has been merged into Jennifer Griffin (95576). Jennifer had been married and a new MRN had been improperly added for her and the merge had to take place. The user is still able to search for "Jennifer Anthony" or "95079" and Jennifer Griffin will be returned in the search results. The Previous MRN is also included in the search results.

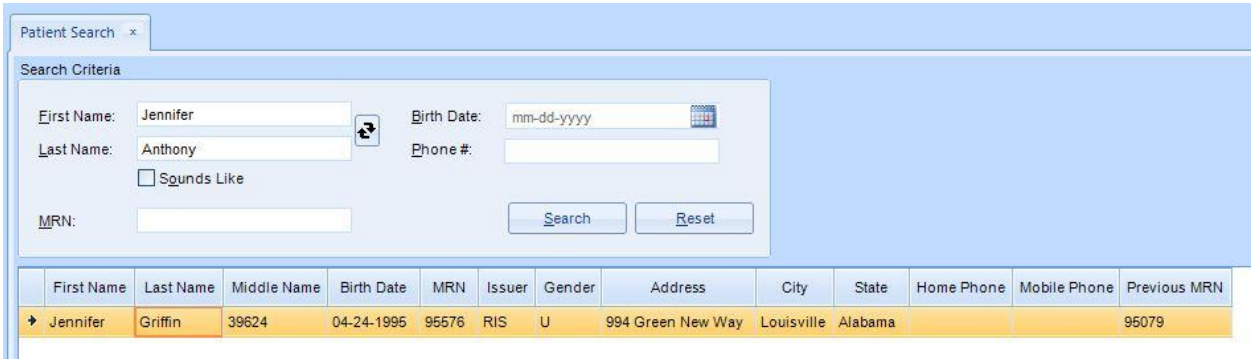



**Figure 4.1 – Patient Search on Previous Name**

## Patient Search on Phone Number

The application now supports the ability to search for a patient using phone number as search criteria. In a future release rRIS will support a partial phone number search (ex: the last 4 numbers) but currently the user will be required to enter all 10 digits.

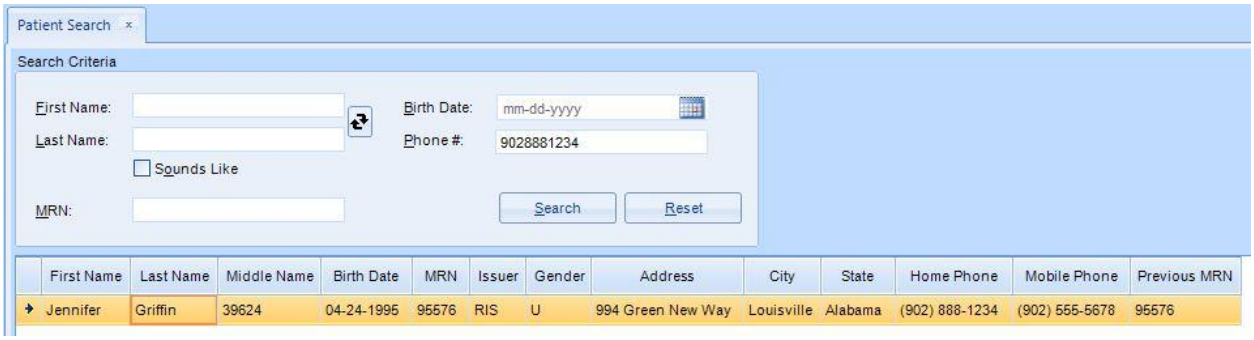



**Figure 4.2 – Patient Search on Phone Number**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Patient Name Prefix and Suffix

rRIS is required to support the storing of the patient's prefix and/or suffix. The patient tab has been updated with dropdowns for both prefix and suffix to accommodate this feature. Lookup tables have been added for both PatientPrefix and PatientSuffix, making the lists configurable.

**Figure 4.3 – Patient Tab showing Prefix and Suffix Dropdowns**

**Figure 4.4 – Patient Prefix Lookup**

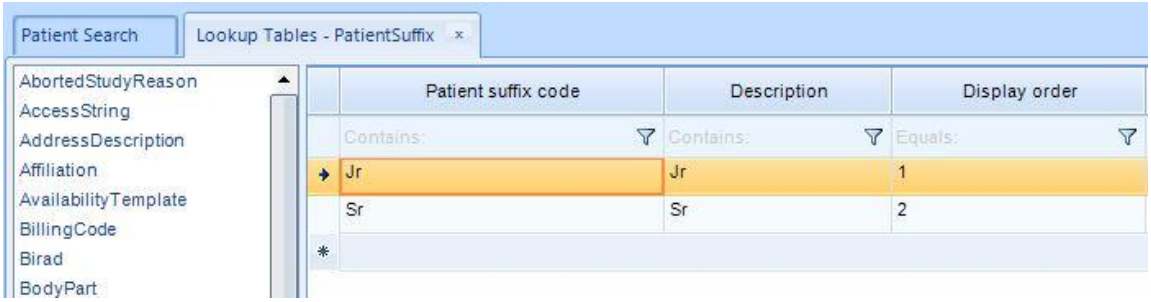



**Figure 4.5 – Patient Suffix Lookup**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Smoking Status

rRIS is required to meet all Meaningful Use Requirements. One requirement is tracking smoking status for 50% of patients that are thirteen years old and older. A Smoking Status lookup has been added to the system and will eventually be reflected on the Patient Tab via a dropdown selection. Storing this data will allow administrators to run the required statistics to meet Meaningful Use Certification criteria.

| Smoking status code | Display order | Description |
|---|---|---|
| Contains: | Equals: | Contains: |
| ED | 1 | Current Every Day Smoker |
| FS | 3 | Former Smoker |
| NS | 4 | Never Smoked |
| SD | 2 | Current Some Day Smoker |
| SM | 5 | Smoker |
| SU | 6 | Current Status Unknown |
| UN | 7 | Unknown if Ever Smoked |

**Figure 4.6 – SmokingStatus Lookup**

## Open Versus Closed Enclosure Modalities

When a patient is claustrophobic, it is important to distinguish between open modalities and closed modalities (confined space) when scheduling. rRIS now supports this with data flags at both the Modality and Visit level. When configuring rooms, the Confined Space Flag need to be set to "Y" to specify it as a closed modality.

Modalities:

| Modality code | Description | AE title | Dig... | Site code | Modality type code | Weight | Confined space flag |
|---|---|---|---|---|---|---|---|
| Contains: | Cont... | Contains: | C | Contains: | Contains: | Equ... | Contains: |
| MA2FH | MA2FH | MA2FH | N | FH (Fisher) | MA (Mammography) | | |
| MA2LU | MA2LU | MA2LU | N | LU (Lutherville) | MA (Mammography) | | Y |
| MA3FH | MA3FH | MA3FH | N | FH (Fisher) | MA (Mammography) | | |
| MR1EL | MR1EL | MR1EL | N | EL (Eldersburg) | MR (MRI) | | |
| MR1FH | MR1FH | MR1FH | N | FH (Fisher) | MR (MRI) | | Y |
| MR1LU | MR1LU | MR1LU | N | LU (Lutherville) | MR (MRI) | | Y |

**Figure 4.7 – Modality Configuration showing Confined Space Flag**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

There is now a Claustrophobic checkbox available on the Patient tab. When this is specified, the system will know to describe the rooms as open or closed modalities.

**Figure 4.8 – Patient Tab showing Claustrophobic Checkbox**

In the example below, the scheduling user is attempting to schedule a MR Chest for a Claustrophobic patient. The system will present three rooms as a scheduling solution, but two of the rooms will be listed as "Confined Space".

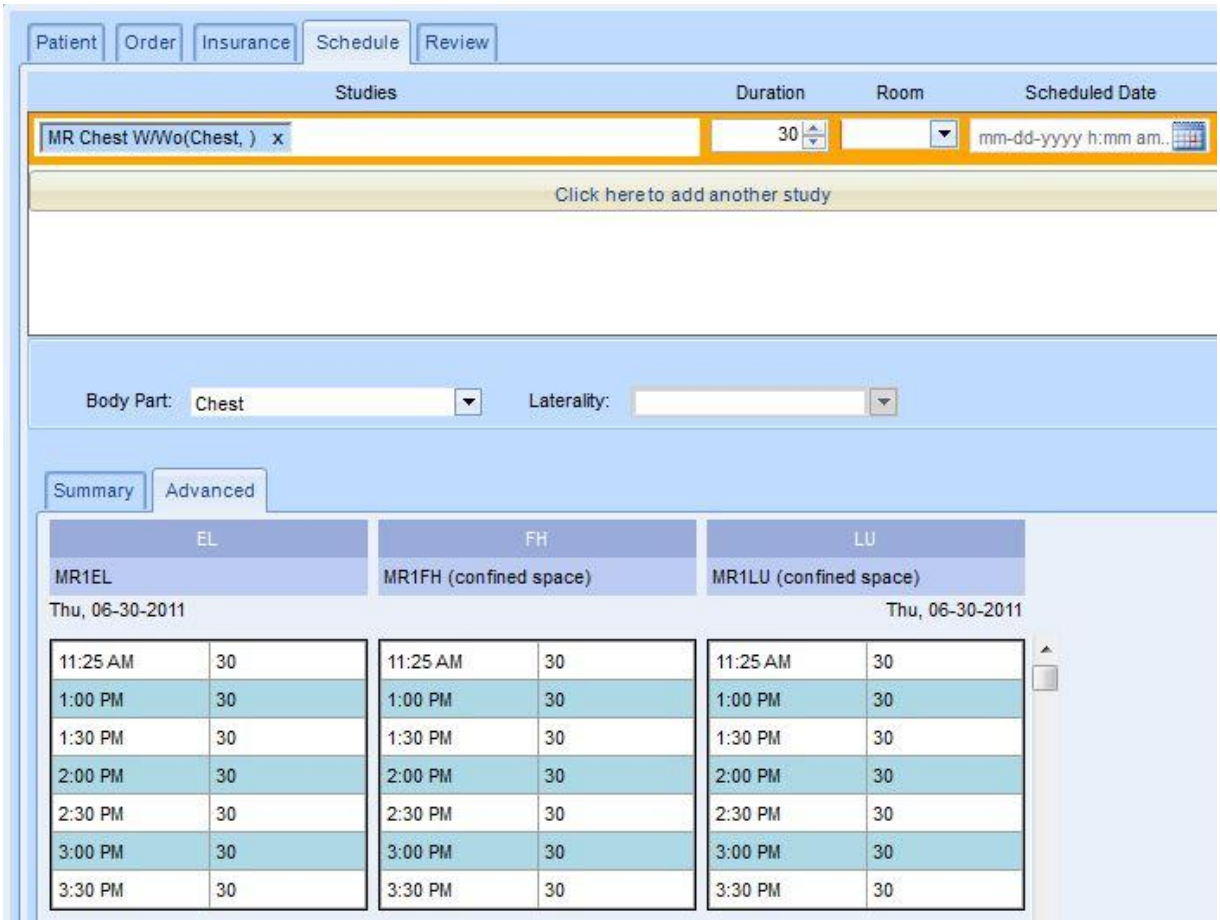



**Figure 4.9 – Scheduling Solution showing Rooms Flagged as Confined Space**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Additional Details on the Appointment Book

The Appointment Book has been enhanced to also show the referring physician with the patient name, procedure, status, and time.

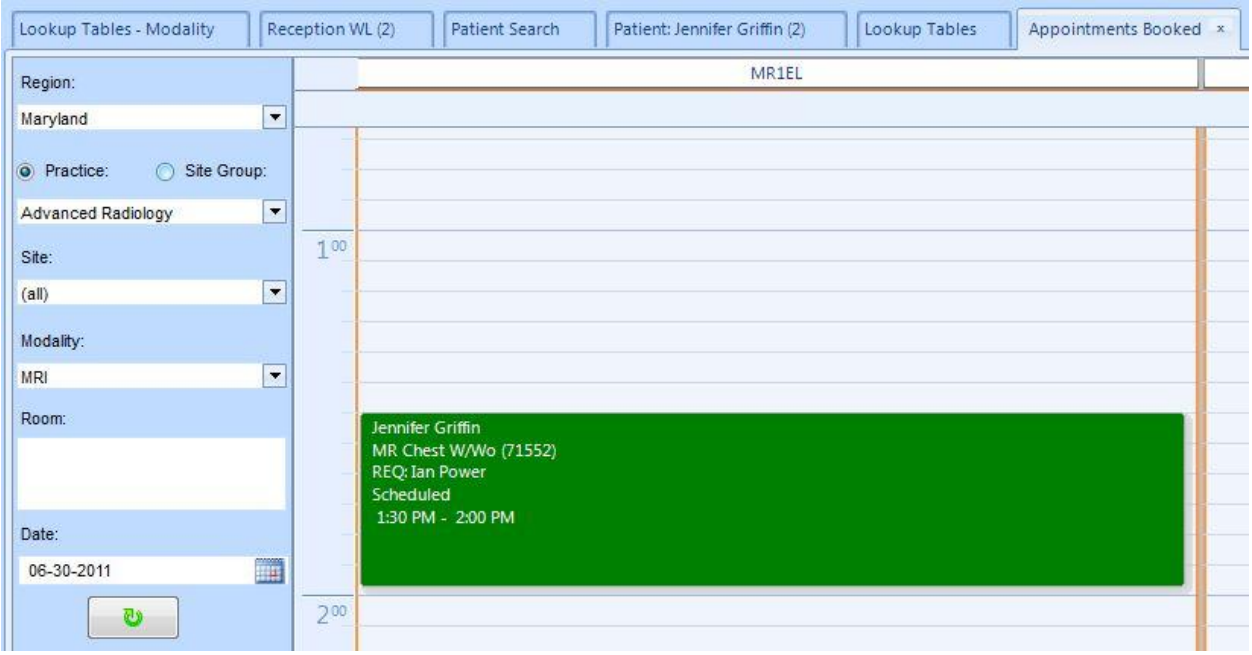



**Figure 4.10 – Appointment Book showing Referring Doctor in Appointment Details**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Study Suspended Flag

In the previous release when the technologist suspended a study, the study's status would change to Suspended. It has been determined that Suspended is better suited as a Flag and not a Status. In the example below, the technologist has Started the procedure and then Suspended it. The procedure remains in the Started status, with the Suspended flag enabled on the worklist. Once the technologist clicks the Resume button, the Suspended flag will be removed.

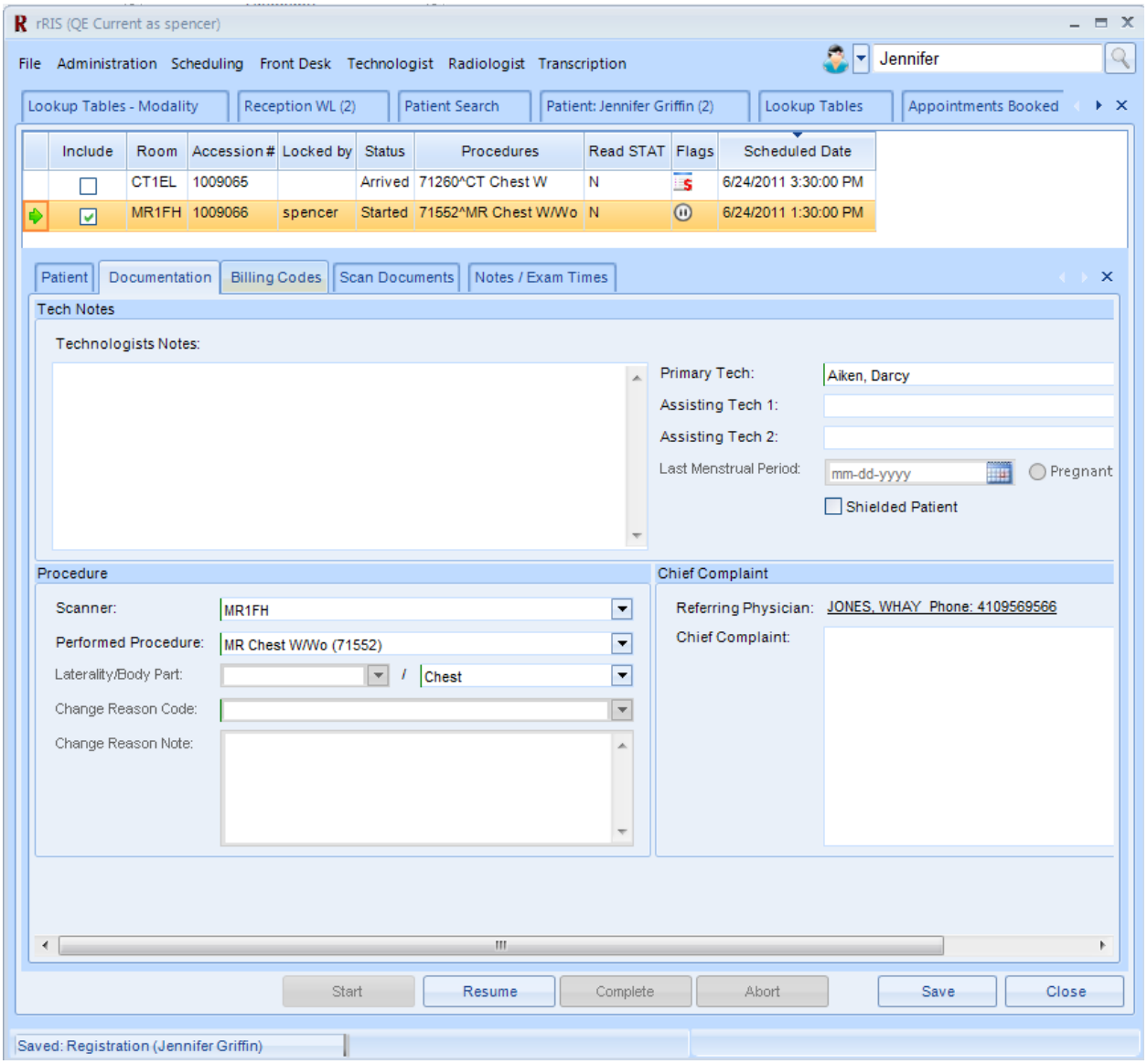



**Figure 4.11 – Study Started but Flagged as Suspended**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Enhanced Form Generation Criteria

Additional criteria were identified as requirements for Label and Form generation. Forms can now be associated with one or more of each of the following:

- Actions - Patient Arrived, Order Created, Study Completed, etc.
- Carrier(s) – The insurance carrier of the patient
- Carrier Type(s) – The type of insurance carrier such as Blue Cross, Tricare, etc.
- Modality Type(s) – The modality type of the scheduled procedure such as MR, CT, etc.
- Procedure(s) – The actual procedure code such as 76536 – US Thyroid
- Gender(s) - The gender of the patient

With the additional criteria stated above, rRIS can be configured to take much of the guess-work out of labels and forms and greatly reduce the chances of user error. This will also reduce the amount of wasted paper as only the required forms will be generated.

Consider the following test case. A Medicare Questionnaire should only be generated if:

- The patient is being checked in
- The carrier type is Medicare
- All modality types and procedure codes
- All genders

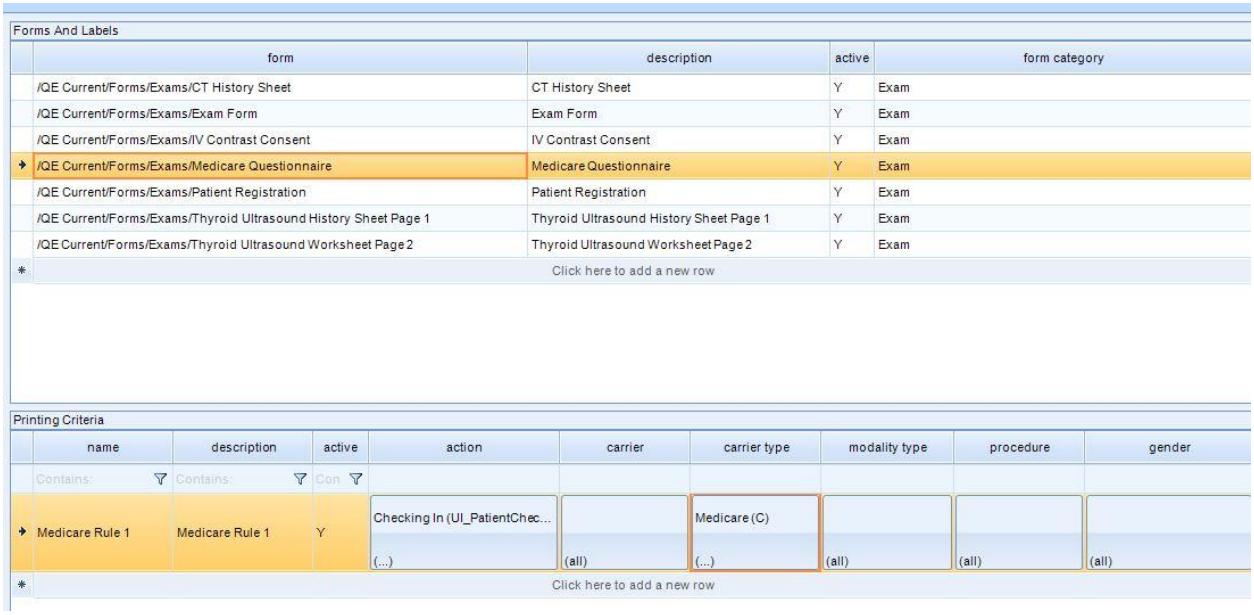



**Figure 4.12 – Configuring Rule to Generate Medicare Questionnaire**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

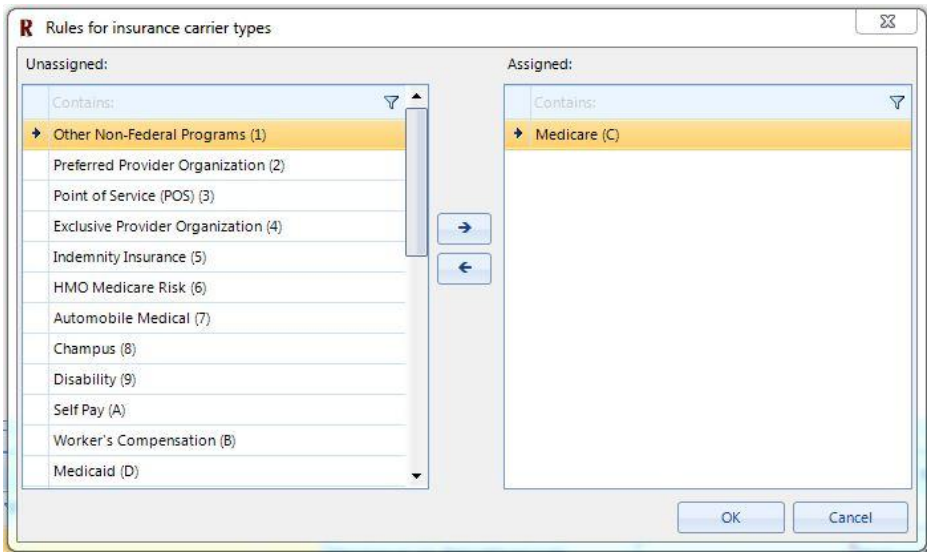



**Figure 4.13 – Assigning an Insurance Type to the Medicare Form Rule**

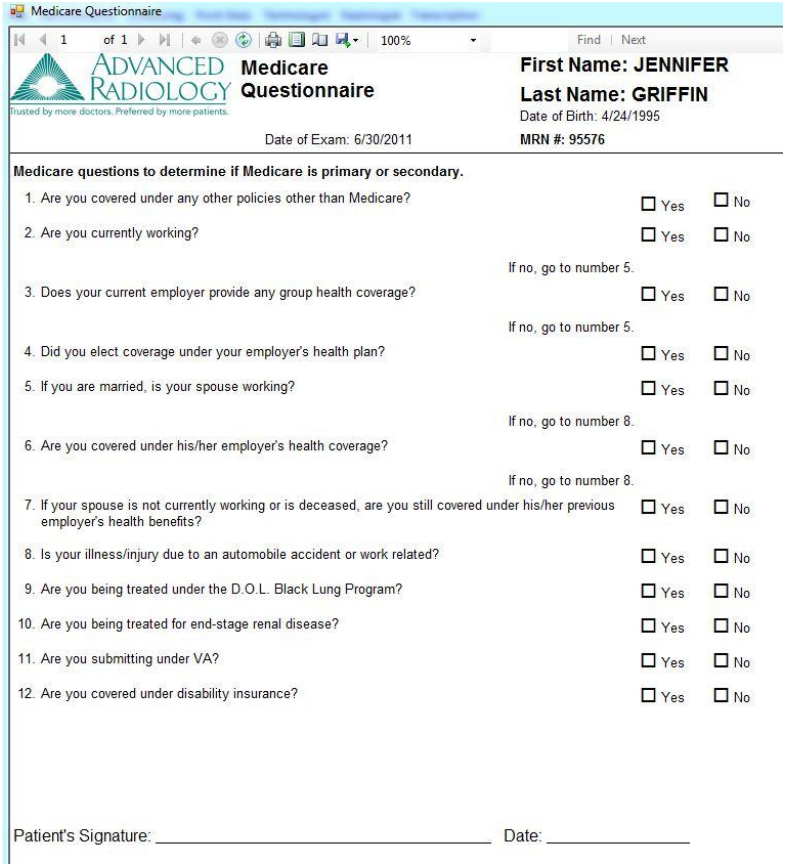



**Figure 4.14 – Medicare Questionnaire Automatically Generated**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Foot Pedal Support and Configuration

rRIS supports the use of foot pedals to playback and navigate dictations. It also allows the configuration of the foot pedals at a user level. For example, a transcription user may want Pedal 1 to be Fast Rewind, Pedal 2 to be Play, and Pedal 3 to be Fast Forward.

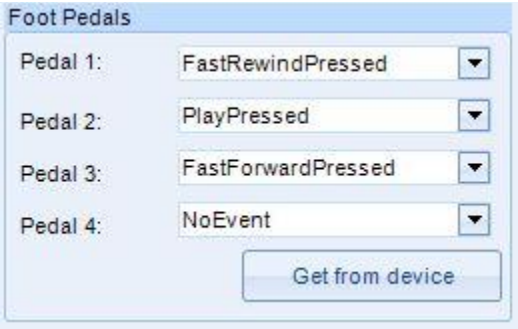



**Figure 4.15 – Foot Pedal User Configuration**

To help the ris administrator configure the foot pedals, the rRIS user preference screen will indicate which pedal is being pushed by highlighting the event in green.

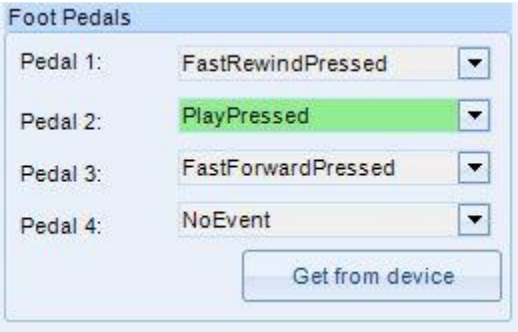



**Figure 4.16 – User Selecting Pedal 2**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## SpeechMike Configurable Buttons

Similar to foot pedals, rRIS also supports the configuration of the Philips SpeechMike buttons at a user level.

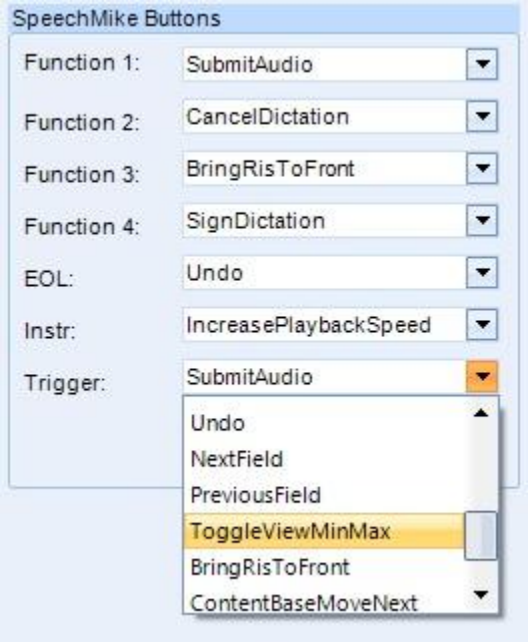



**Figure 4.17 – Sample SpeechMike Configuration**

## Optimizing Dictation Playback

When a radiologist is dictating sometimes they have long pauses between words which create "dead" space in the dictation. This dead space is useless and time consuming to the transcription user. rRIS has the ability to skip this dead space in the dictation during editing and playback for transcriptionists.

On the reporting control there is an Optimize Playback toggle button . When this button is enabled, rRIS will skip any dead space in the report/dictation. The button state is stored at the user level so the application will remember the setting when the next report is loaded.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

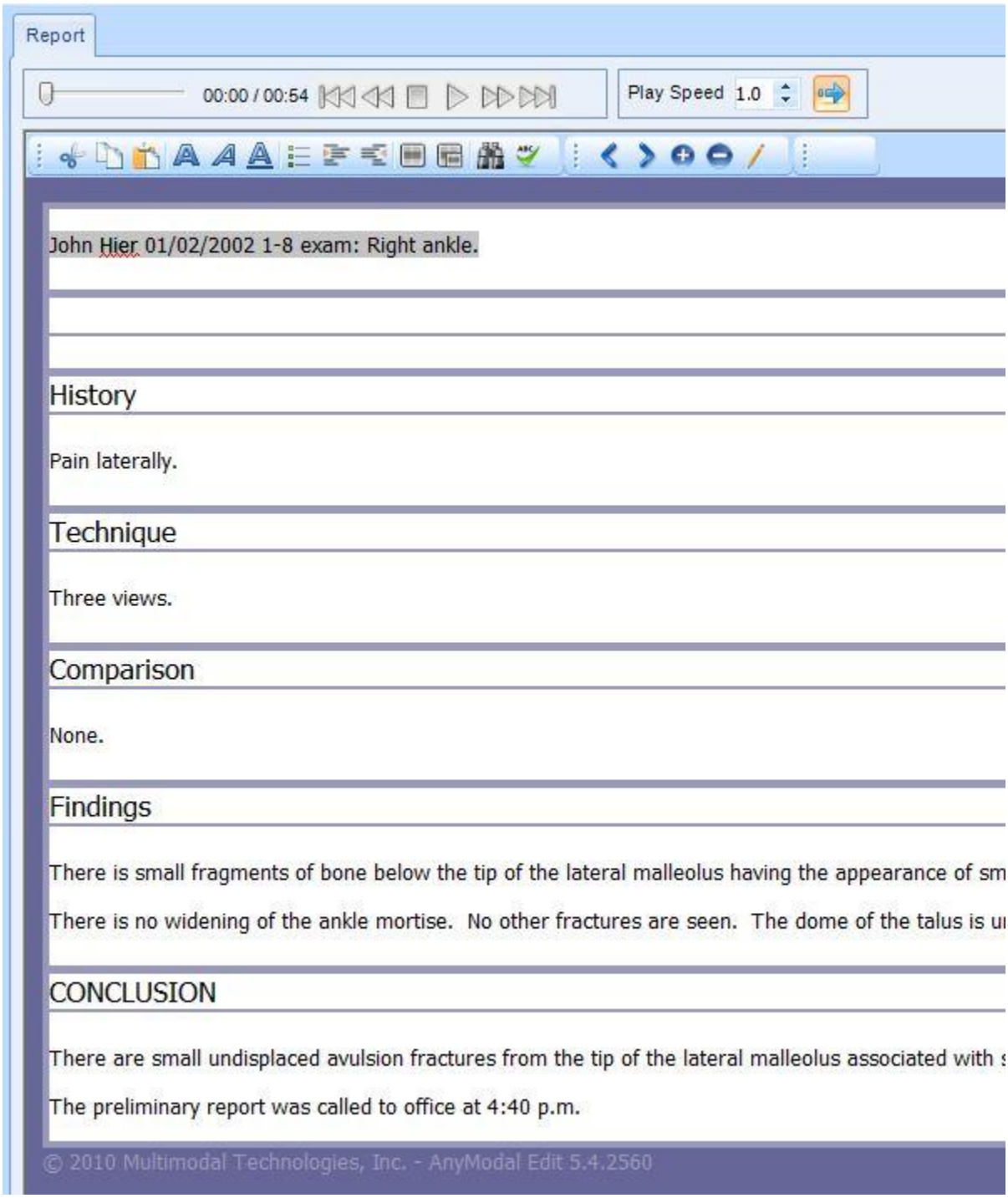



**Figure 4.18 – Drafted Report with Optimize Playback Button Enabled**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Playback Speed per Radiologist

Each radiologist talks at a different speed while dictating. Some very fast and others too slow. The transcription user will need to adjust the playback speeds to optimize editing performance in rRIS. This setting is stored per author. A transcriptionist can have a playback speed of 1.5 for radiologist A and a separate speed of 1.7 for radiologist B. The system will recognize the author and automatically playback at the specified speed saving the transcriptionist from having to change the playback with each dictation.

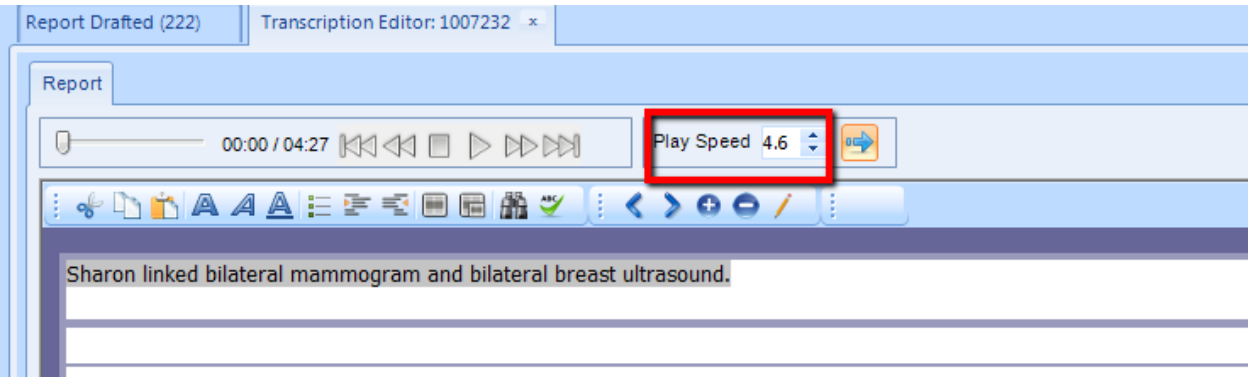



**Figure 4.19 – Drafted Report showing Playback Speed Control**

## Show Paragraph Line Breaks in the Report Editor

In Build 1.16, a user preference for showing paragraphs in the report editor has been added to the application. This is stored at a user level and is disabled by default.

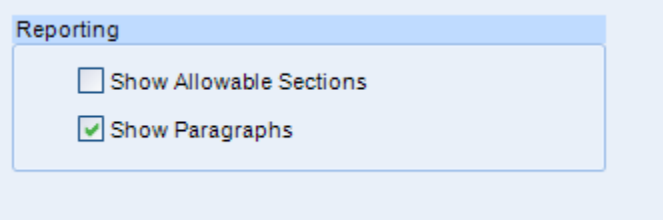



**Figure 4.20 – Show Paragraphs User Preference**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

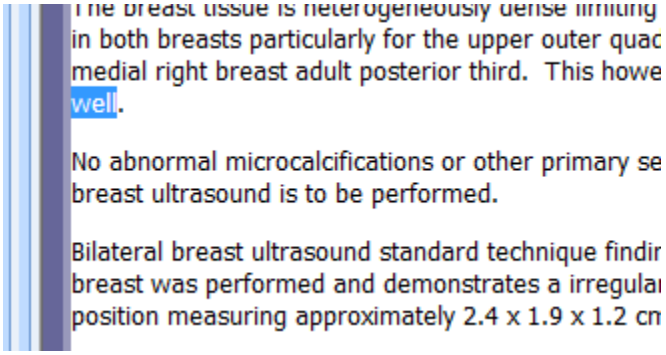



**Figure 4.21 – Show Paragraphs Enabled**

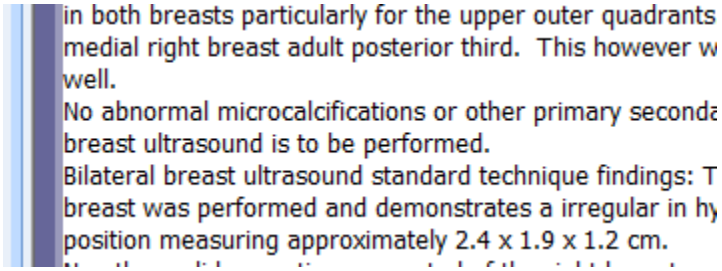



**Figure 4.22 – Show Paragraphs Disabled**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 5. Known Limitations

Bugs, Suggested Features, and Support Issues are now tracked in a web based system called Redmine. The following is a snapshot of the issues found in Build 1.15.

| # | Status | Subject | Category | Found | %Done | Resolved |
|---|---|---|---|---|---|---|
| 441 | New | Add Patient - Age calculation | Thick Client GUI | 1.16 | 0 | |
| 440 | New | Forms and Labels - Exception adding printing criteria | Admin Tools | 1.16 | 0 | |
| 439 | New | User Preferences - Foot pedal config modification requires application restart | Admin Tools | 1.16 | 0 | |
| 438 | New | User Preferences - Should enable or disable speech preferences based on resource type | Admin Tools | 1.16 | 0 | |
| 437 | Resolved | Personnel - Search Issues when searching by "Type" only | Admin Tools | 1.16 | 100 | 1.17 |
| 436 | Resolved | Personnel - Exception when adding multiple addresses | Admin Tools | 1.16 | 100 | 1.17 |
| 435 | Resolved | Personnel - Exception when searching with no criteria specified | Admin Tools | 1.16 | 100 | 1.17 |
| 434 | Resolved | Personnel - Exception when searching | Admin Tools | 1.16 | 100 | 1.17 |
| 433 | New | Appointment Book - Exception when leaving appointment book open | Thick Client GUI | 1.16 | 0 | |
| 432 | New | Modality Lookup - Exception when filtering by Modality Type Code | Admin Tools | 1.16 | 0 | |
| 431 | New | Lookups Tables - Lookups are being painted poorly when loading | Admin Tools | 1.16 | 0 | |
| 429 | New | Patient Search - Issue displaying previous MRN(s) | Thick Client GUI | 1.16 | 0 | |
| 428 | New | Insurance - Claim Number is showing as required | Thick Client GUI | 1.16 | 0 | |
| 427 | Resolved | Management Reports - Report Turnaround threshold | Mgt Reports | 1.16 | 100 | 1.17 |
| 426 | Resolved | Management Reports - Daily Schedule additional information required | Mgt Reports | 1.16 | 100 | 1.17 |
| 425 | New | Add Patient - Gender is defaulting to Male | Thick Client GUI | 1.16 | 0 | |
| 424 | Resolved | Management Reports - Technologist Activity Report needs procedure category breakdown | Mgt Reports | 1.16 | 100 | 1.17 |
| 423 | New | IVT Worklist - Issue with Pre-cert required status | Thick Client GUI | 1.16 | 0 | |
| 422 | Resolved | Installer - Issue upgrading from B1.15 to B1.16 | Thick Client GUI | 1.16 | 100 | 1.17 |
| 421 | New | Exam Done - Diagnose | Thick Client GUI | 1.16 | 0 | |
| 420 | New | Scheduling - Manage policies - claim number | Thick Client GUI | 1.16 | 0 | |
| 419 | New | Scheduling - Manage policies | Thick Client GUI | 1.16 | 0 | |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# User Pre-Release Notes

for RADNET rRIS
Build 1.17

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Purpose ..... 3
2. Intended Audience ..... 3
3. Installing/Accessing the Application ..... 3
4. New Features and Enhancements ..... 4
Arbitration Signed ..... 4
Consecutive Receipt Numbers ..... 4
Dataset Visualizer Change ..... 5
Delete Dictation/Report and Reset Status ..... 6
Dictation Purge ..... 7
Change Status to ReportDrafted ..... 8
Forms and Labels Context Menu Refactor ..... 9
Insurance Policy Mask ..... 10
Log Payments to Audit Trail ..... 11
Categorize the Lookup Editor ..... 11
Meaningful Use – Record Patient Demographics ..... 12
Meaningful Use – Record Vital Statistics ..... 12
SpeechMike Bar Code Support ..... 13
Inbound TCP Reporting ..... 14
Launch rRIS to System Tray ..... 14
Report on Accession Number ..... 16
Small and Medium Sized Dictation Control ..... 17
No Report Required Workflow ..... 19
Tech Notes Required ..... 20
Closed Modality Worklist ..... 21
Database Cleanup Procedures ..... 22
Interval Change for Appointment Book ..... 22
LMP for Females Age 12-55 ..... 23
Weight Mask and Restriction ..... 24
Void Payments Permission ..... 25
ZIP Code to City and State ..... 25
Personnel Improvements ..... 26
Scanning – Auto Deskew and Auto Enhance ..... 28
5. Known Limitations ..... 31

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 1. Purpose

This document describes some of the new features and changes implemented in rRIS as of the end of Sprint 17. This pre-release version of rRIS is referred to as Build 1.17.

Only features which can be visually demonstrated to the user will be outlined in this document.

# 2. Intended Audience

This document is created by the rRIS Development team for the RadNet RIS management team.

# 3. Installing/Accessing the Application

The installation instructions for the rRIS client have been posted to the RadNet Wiki page at http://mdbal01rdtweb/Wiki/

Under the RIS menu, click on the rRIS page. The credentials to access the page are:
Username: rRIS
Password: Summerside

*Please note that Build 1.17 is considered a new core release of the application and will require a reinstallation of rRIS. This is accomplished by navigating to the rRIS shared installation drive and running the CoreInstall.bat file (ex: I:\RISDeployment\CoreInstall.bat)*

If you experience difficulties accessing the application, please do not hesitate to contact Spencer MacDougall with the PEI RIS Development Team.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 4. New Features and Enhancements

## Arbitration Signed

In Build 1.17 an Arbitration Signed Checkbox has been added to the patient form for study level data. The checkbox will not be visible if there is no associated study data.

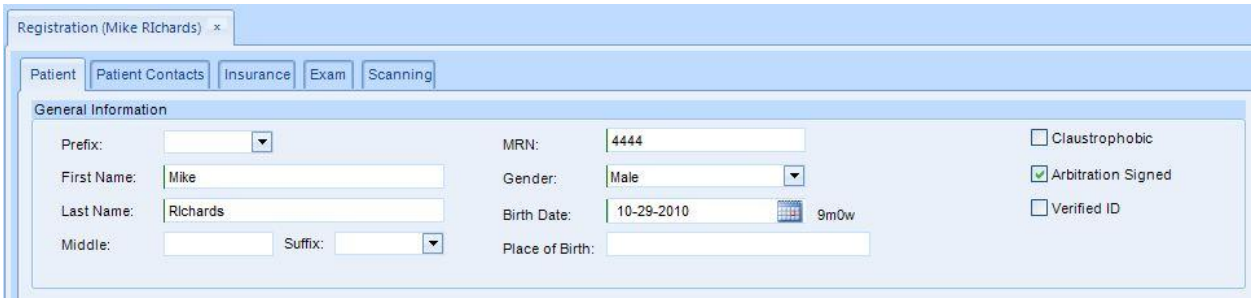



**Figure 4.1 – Arbitration Signed Checkbox on the Registration Screen**

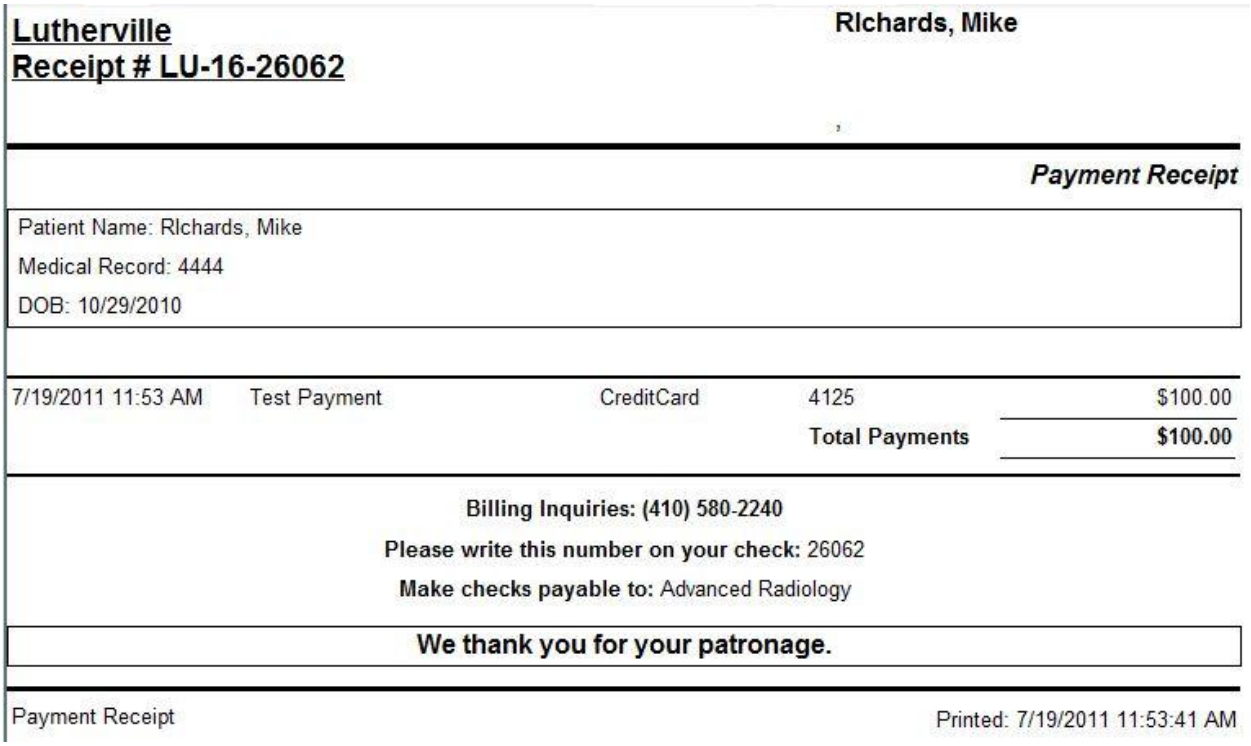
## Consecutive Receipt Numbers

Receipt Numbers are now generated based on the following criteria:

1. Payment Receipts have unique receipt numbers that are consecutive per site.
2. Receipts are generated when a payment is saved.
3. If a single payment is saved by itself, the system will assign it a unique receipt number.
4. If multiple payments are saved at once, they are assigned the same unique receipt number.
5. The same receipt number cannot be assigned to multiple visits.

The example on the next page will show a consecutive receipt number based on the concatenation of Site Code, Payment Number, and Visit Key.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.



**Lutherville**
**Receipt # LU-16-26062**

**RIchards, Mike**

***Payment Receipt***

Patient Name: RIchards, Mike
Medical Record: 4444
DOB: 10/29/2010

| | | | | |
|---|---|---|---|---|
| 7/19/2011 11:53 AM | Test Payment | CreditCard | 4125 | $100.00 |
| | | | **Total Payments** | **$100.00** |

**Billing Inquiries: (410) 580-2240**
**Please write this number on your check:** 26062
**Make checks payable to:** Advanced Radiology

**We thank you for your patronage.**

Payment Receipt — Printed: 7/19/2011 11:53:41 AM

**Figure 4.2 – Receipt Showing Consecutive Number Per Site "LU-16-26062"**

## Dataset Visualizer Change

The Dataset Visualizer is a tool that has been developed to aid support personnel in the field. It is automatically available to Super Users or can be added with an additional permission (Config.DataSetVisualizer). It basically allows the user to see the underlying datasets that belong to the current screen and is available by clicking Administration and DataSet Visualizer.

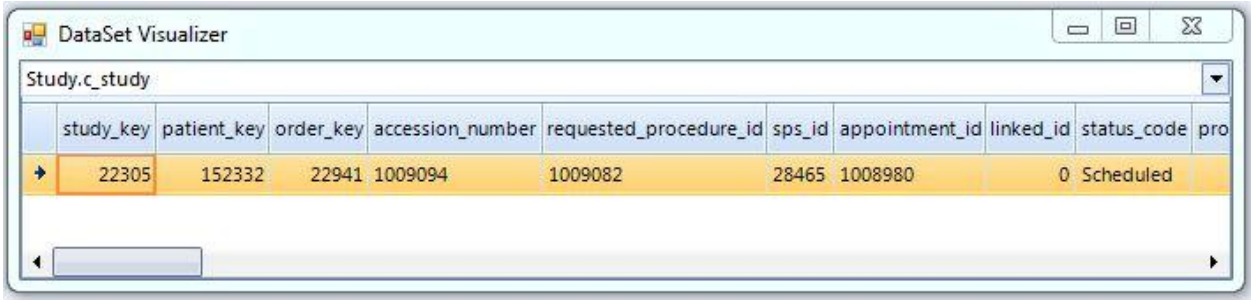



**Figure 4.3 – Dataset Visualizer Showing Study Data**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Delete Dictation/Report and Reset Status

If a dictation has been submitted in error, the user requires the ability to delete the dictation and set the status of the exam back to either Signed or Exam Done status depending on the last known good state of the diagnostic report.

In Build 1.17 there is a context menu option on the Report Drafted, Dictated, and Patient Folder worklists that will allow a user to right-click on the selected exam and perform the delete dictation/report and reset status.

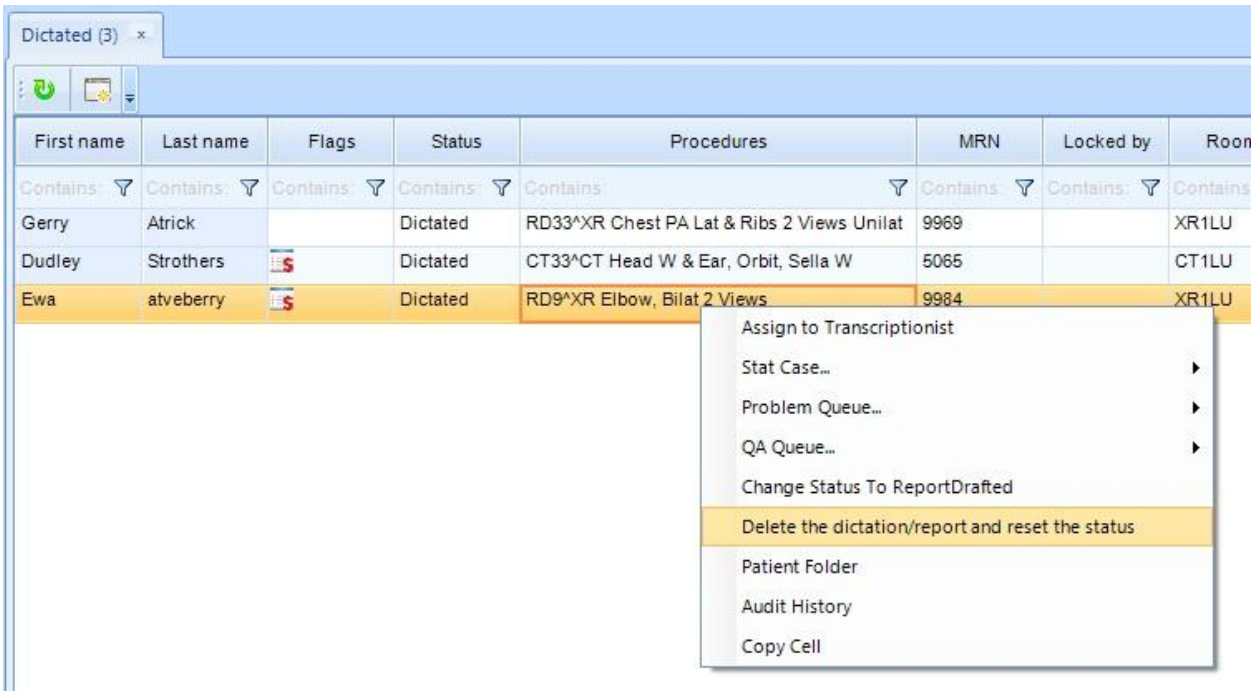



**Figure 4.4 – Context Menu for Deleting a Dictation**

When the delete dictation/report happens the system will remove the current dictation and set the status back to exam done with the exception of an addendum. If the dictation is for an addendum then the application will reset the status back to Signed where it can be dictated on once again if needed.

A dictation deletion can only be performed when the study is in Dictated, ReportDrafted or Transcribed status. There is a permission called "Clinical.DeleteDictationReportAndReset" with the default access level is set to "None". Currently this permission is only enabled for Super User and Transcription Admin user groups.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

When trying to delete a dictation, the system will prompt the user before completion. This action cannot be reversed and once the dictation and report are deleted there is no turning back.

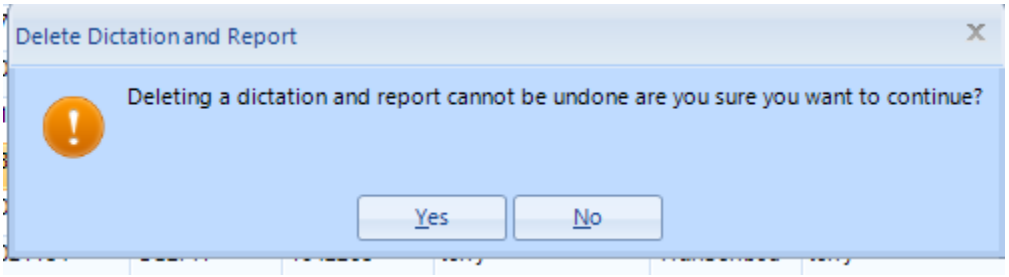



**Figure 4.5 – User Prompt when Deleting a Dictation**

## Dictation Purge

There is a requirement for rRIS to have the ability to clean up dictations in the database based on a configurable number of days. The DaysToKeepDictation system configuration value is currently set at seven days. Dictations are deleted only for the exams that are signed.

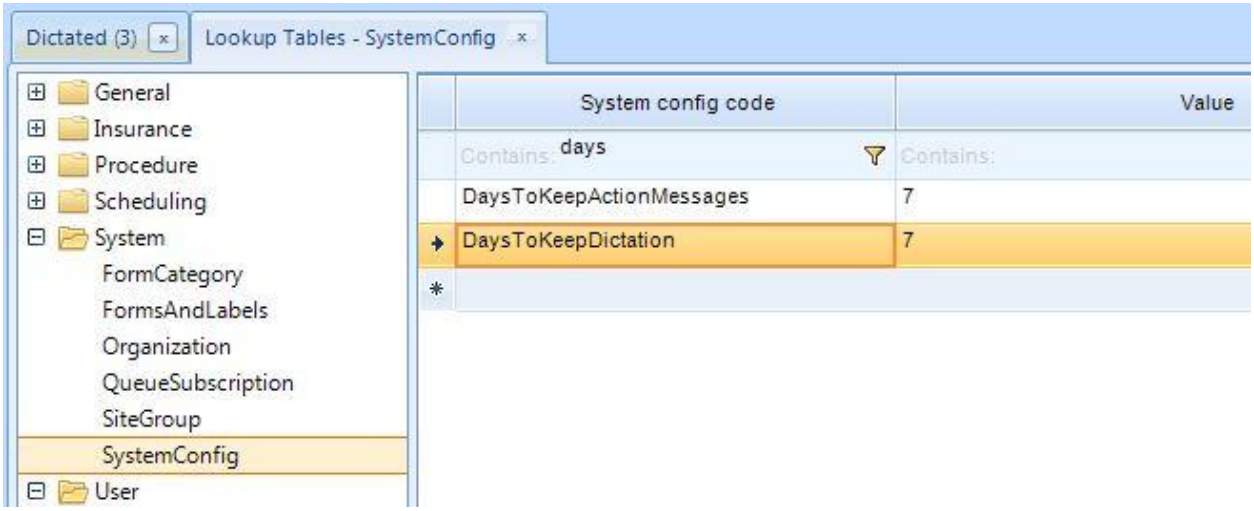



**Figure 4.6 – System Config Value for the Number of Days to Keep Dictations**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

A user is still able to review a signed diagnostic report even if the dictation has been removed. The user is simply presented with a "No Audio Available" message.

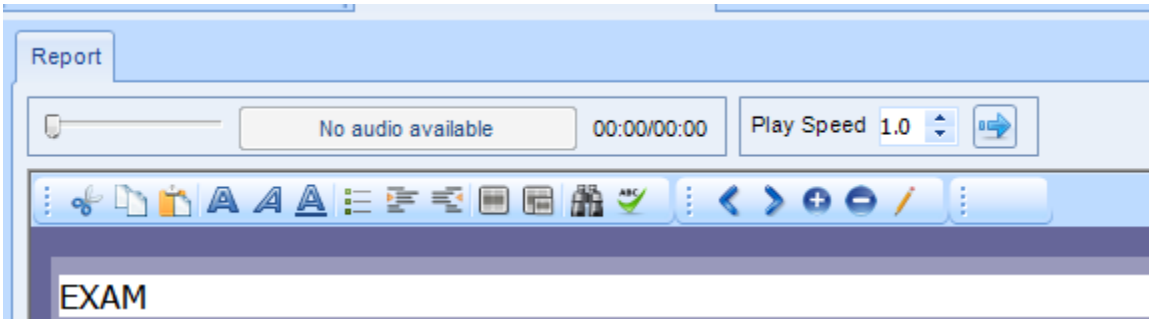



**Figure 4.7 – Diagnostic Report Preview Indicating that No Audio is Available**

## Change Status to ReportDrafted

If a study happens to get hung or stuck in Dictated status, it may be necessary for the system administrator to advance it to the ReportDrafted status. He or she may only move the study to ReportDrafted from Dictated, Suspended, or Transcribed statuses.

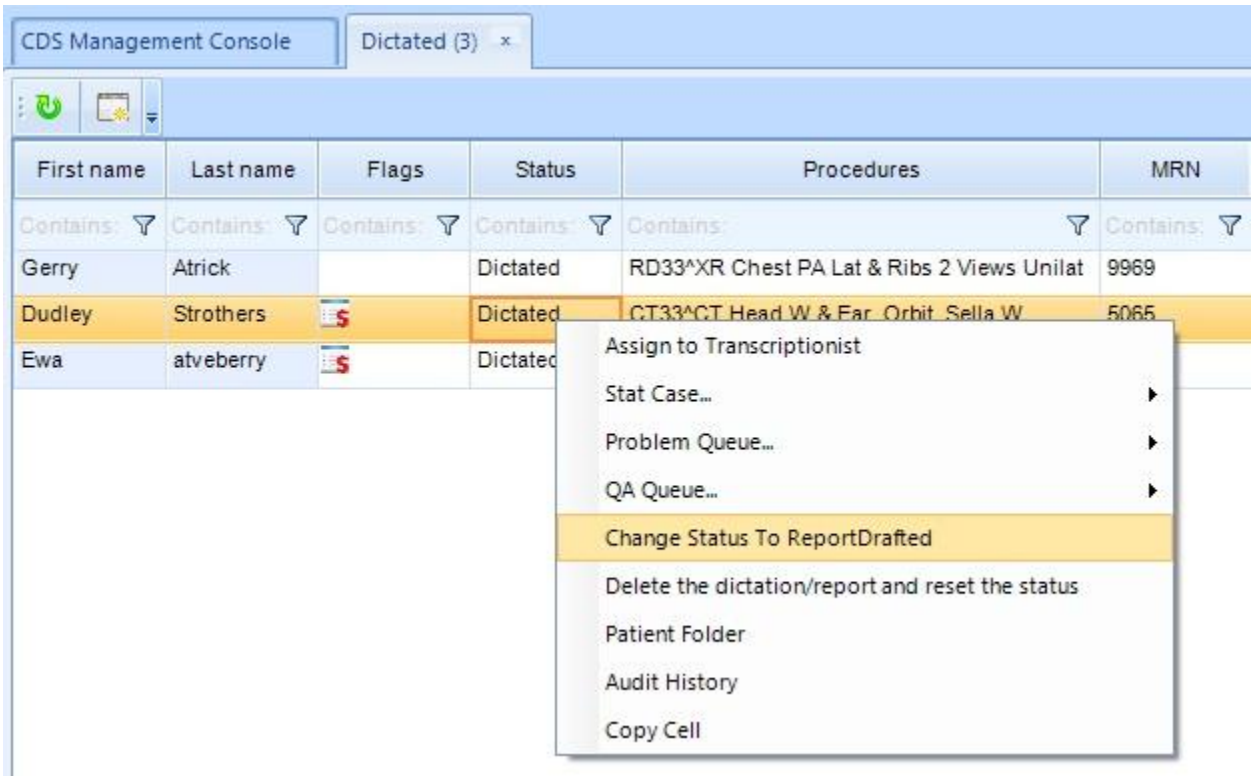



**Figure 4.8 – Manually Advancing Study from Dictated to ReportDrafted Status**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Forms and Labels Context Menu Refactor

In previous releases of rRIS, the Forms and Labels context menu was presenting a complete list to the user. In this release, the list is filtered by procedure code and modality type so only the appropriately mapped forms and labels will be presented to the user.

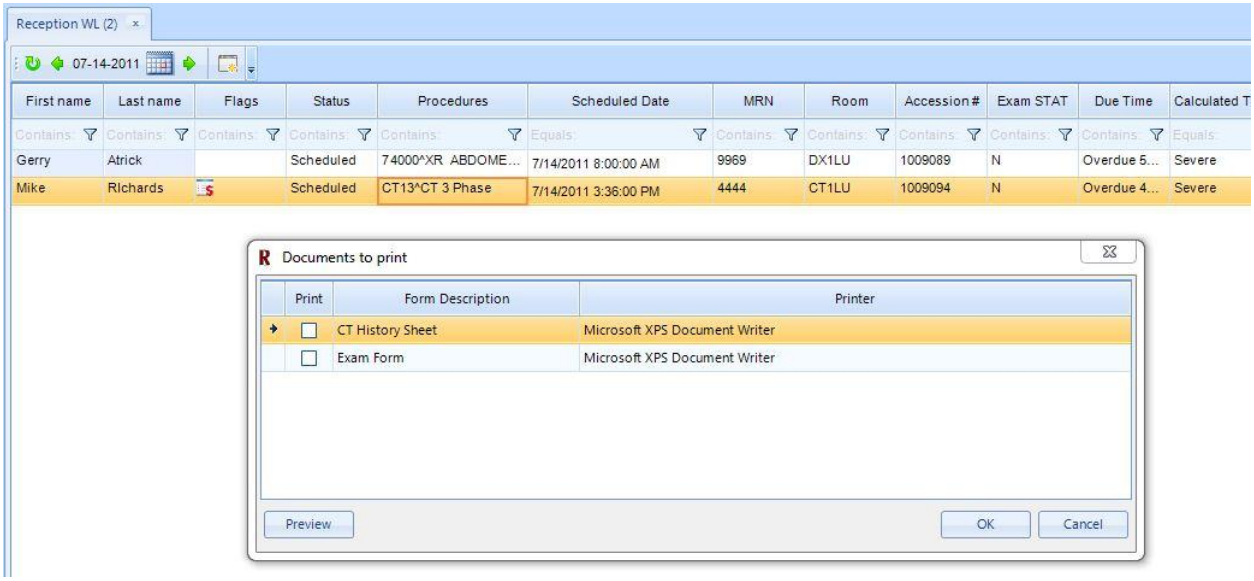



**Figure 4.9 – Labels and Forms Selection Mapped to CT 3 Phase**

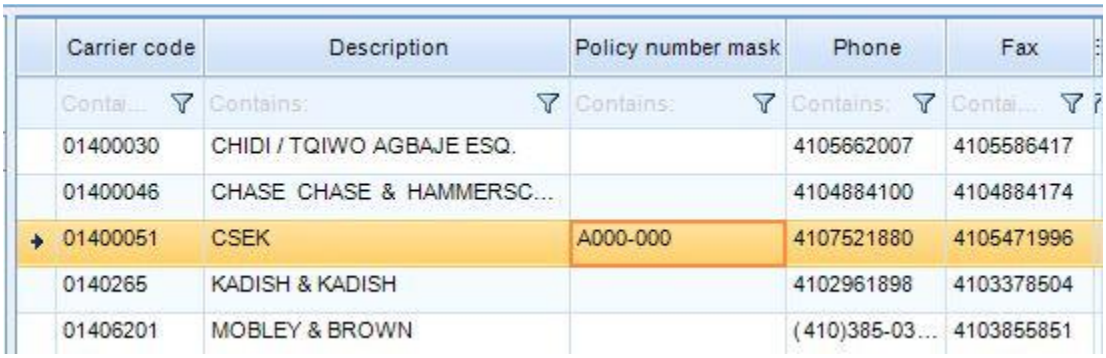
If there are no modality type filters, the form will match any modality; otherwise it will only match the types on the list. Similarly, if there are no procedure code filters, the form will match any procedure; otherwise it will only match the procedure codes on the list. The application caches these modalities and procedures in hash tables the first time they are processed to improve performance.

If multiple rows are selected, the application will find the list of forms that match at least one row on the list. A form will only be printed for the selected rows that match the procedure and/or modality type criteria.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Insurance Policy Mask

Some insurance carriers have a policy that must conform to a known mask; the user should not be allowed to add a policy without specifying a valid policy number for these carriers that conforms to the mask.



| Carrier code | Description | Policy number mask | Phone | Fax |
|---|---|---|---|---|
| Contai... | Contains: | Contains: | Contains: | Contai... |
| 01400030 | CHIDI / TQIWO AGBAJE ESQ. | | 4105662007 | 4105586417 |
| 01400046 | CHASE CHASE & HAMMERSC... | | 4104884100 | 4104884174 |
| 01400051 | CSEK | A000-000 | 4107521880 | 4105471996 |
| 0140265 | KADISH & KADISH | | 4102961898 | 4103378504 |
| 01406201 | MOBLEY & BROWN | | (410)385-03... | 4103855851 |

**Figure 4.10 – Policy Mask set at Carrier Level**

Masks can be created based on the following criteria:

- A – any letter/character is required
- 0 – any number/digit is required
- Any Character(ex: -) – a matching character is required

In the example above, A000-000 would match a policy of Z123-456 but not A123-45.

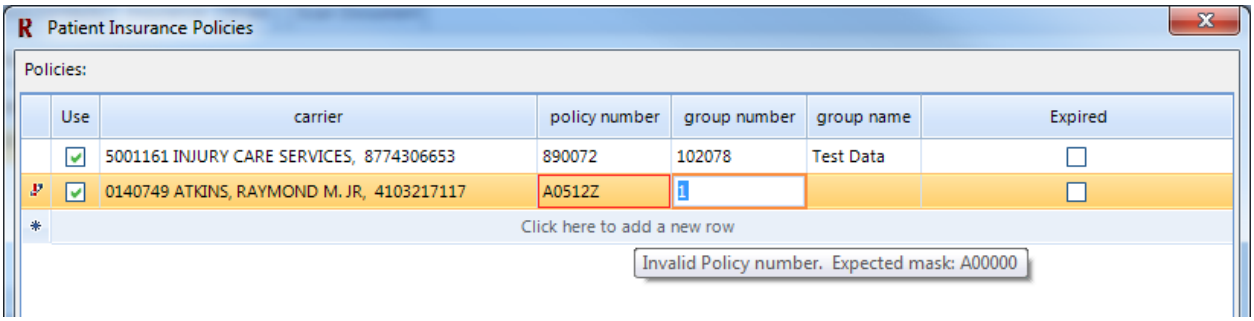


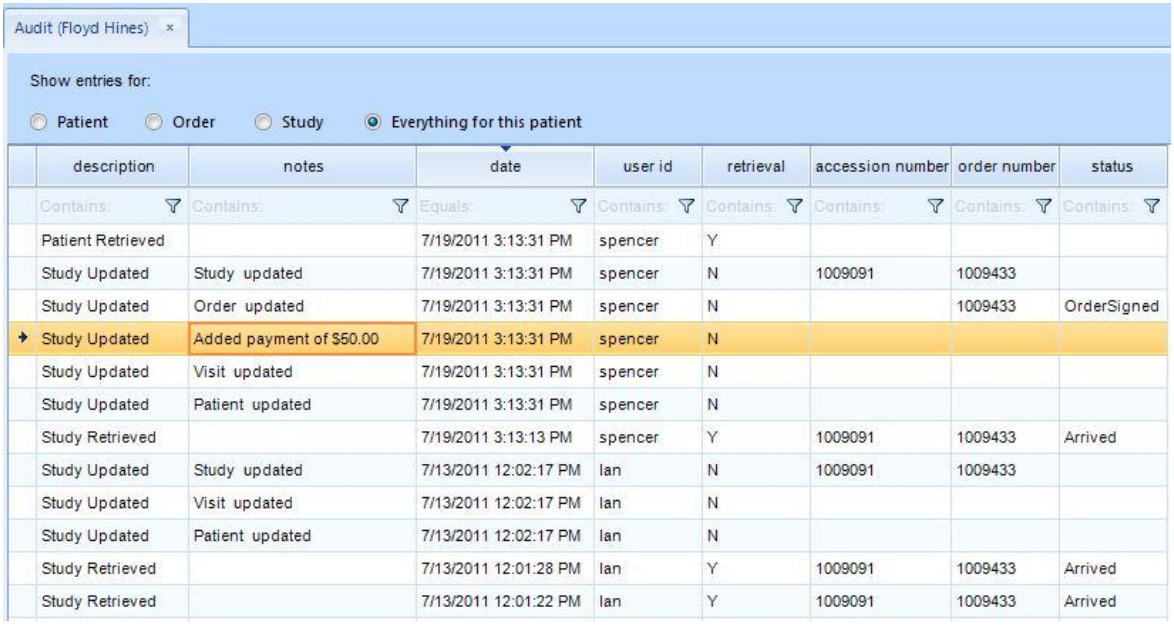

**Figure 4.11 – Message Presented to User when Mask does not Pass Validation**

In the event that the mask is wrong and has not yet been updated by an administrator, the policy number can be prefixed with a "+" to bypass the mask validation.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Log Payments to Audit Trail

rRIS will now add payments to the audit log whenever a payment is posted or voided. The payment is visible in the Audit History viewer in the GUI under "Patient" or "Everything for this patient".




| description | notes | date | user id | retrieval | accession number | order number | status |
|---|---|---|---|---|---|---|---|
| Patient Retrieved | | 7/19/2011 3:13:31 PM | spencer | Y | | | |
| Study Updated | Study updated | 7/19/2011 3:13:31 PM | spencer | N | 1009091 | 1009433 | |
| Study Updated | Order updated | 7/19/2011 3:13:31 PM | spencer | N | | 1009433 | OrderSigned |
| Study Updated | Added payment of $50.00 | 7/19/2011 3:13:31 PM | spencer | N | | | |
| Study Updated | Visit updated | 7/19/2011 3:13:31 PM | spencer | N | | | |
| Study Updated | Patient updated | 7/19/2011 3:13:31 PM | spencer | N | | | |
| Study Retrieved | | 7/19/2011 3:13:13 PM | spencer | Y | 1009091 | 1009433 | Arrived |
| Study Updated | Study updated | 7/13/2011 12:02:17 PM | lan | N | 1009091 | 1009433 | |
| Study Updated | Visit updated | 7/13/2011 12:02:17 PM | lan | N | | | |
| Study Updated | Patient updated | 7/13/2011 12:02:17 PM | lan | N | | | |
| Study Retrieved | | 7/13/2011 12:01:28 PM | lan | Y | 1009091 | 1009433 | Arrived |
| Study Retrieved | | 7/13/2011 12:01:22 PM | lan | Y | 1009091 | 1009433 | Arrived |

**Figure 4.12 – Audit Trail showing Payment of $50.00**

## Categorize the Lookup Editor

The Lookup Table Editor has been simplified by adding categories which will make navigation easier for the administrative user.

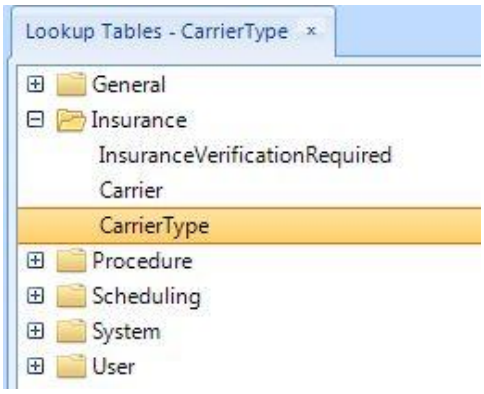



**Figure 4.13 – Lookup Table Editor with Categories**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Meaningful Use – Record Patient Demographics

This feature is to comply with Meaningful Use requirement 107.304.c for Patient Demographics. The system must allow a user to electronically record, modify, and retrieve patient demographic data including preferred language, gender, race, ethnicity, and date of birth for 50% of recorded patients. The race and ethnicity is to be recorded in accordance with the standard specified at §170.207(f).

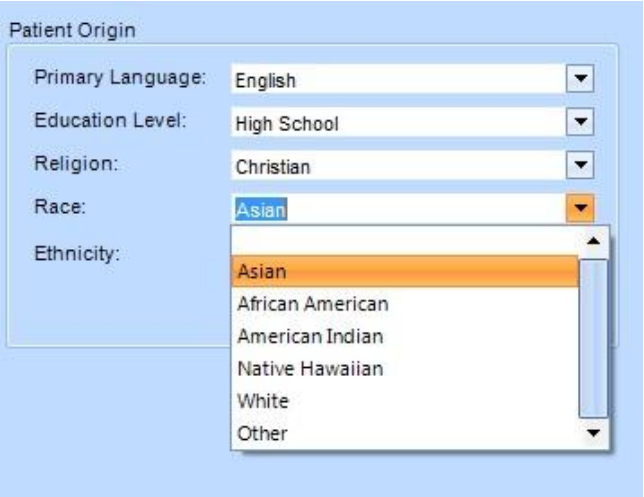



**Figure 4.14 – Patient Tab Showing Race Dropdown**

## Meaningful Use – Record Vital Statistics

Meaningful use requirement for vital signs is for a user to electronically record, modify, and retrieve a patient's vital signs including, at a minimum, the height, weight, and blood pressure (170.302.f.1_vitalsigns_v1.0.pdf). The system also needs to calculate body mass index automatically and display body mass index (BMI) based on a patient's height and weight (170.302.f.2_BMI_v1.0.pdf). The system will need to supply the means to plot and display growth charts for children 2-20 years, including BMI.

**Figure 4.15 – Order Tab Showing Vital Signs and Calculated BMI**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## SpeechMike Bar Code Support

Build 1.17 has support for the SpeechMike Barcode scanner to perform specified actions in the application. The system supports two modes for barcode input:

1. Simple text entry - Takes the scanned barcode and essentially keyboards it into whatever field is active. This is the standard barcode implementation.
2. Trigger event action - This will cause the Barcode to trigger a configurable event to be fired in rRis and a corresponding action will be taken.

To configure this functionality the user will navigate to user preferences. There are two settings that they can change. One determines the mode the application will run in (keyboard text or event action). The other will determine which action will be triggered if event action mode is selected.

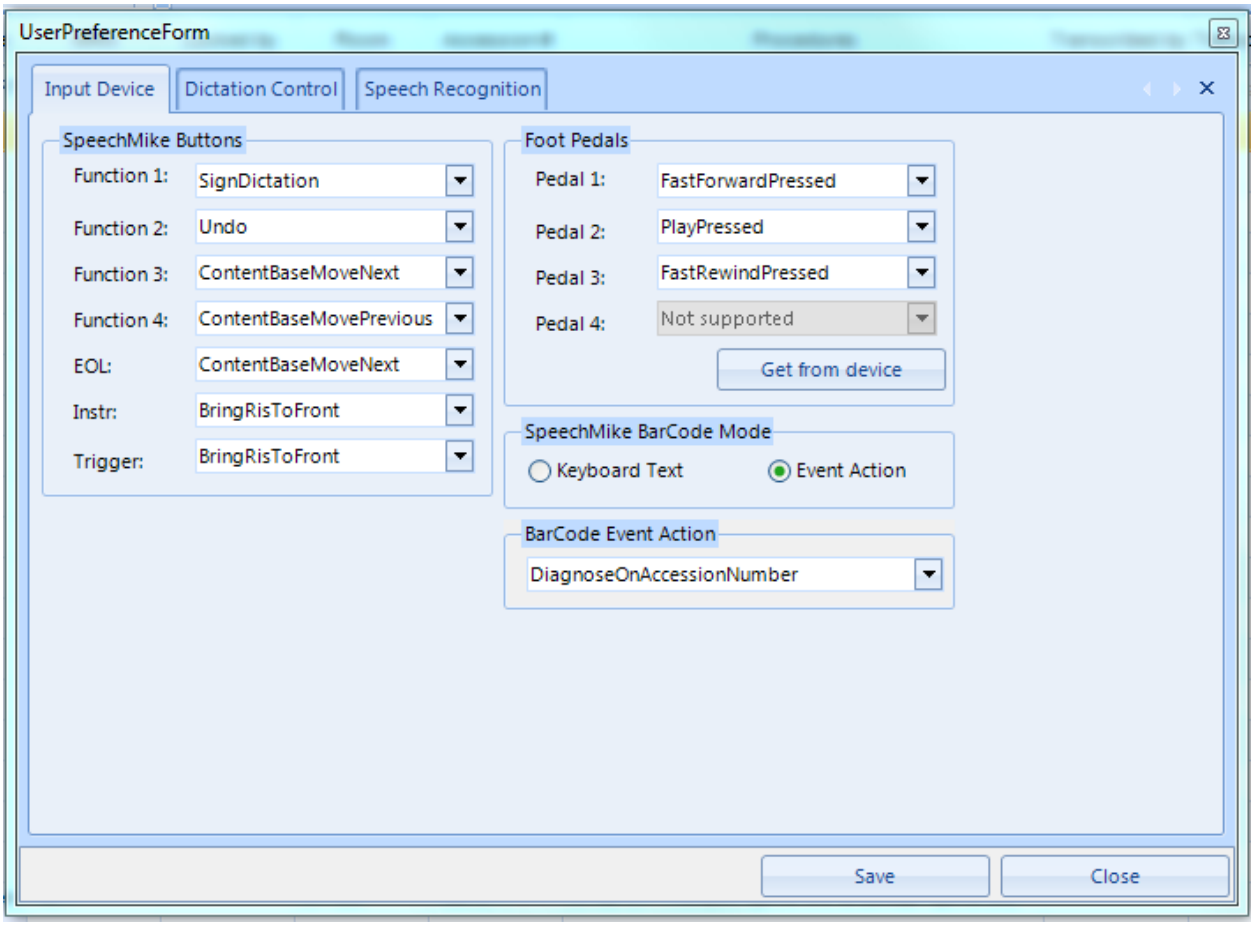



**Figure 4.16 – User Preference Form Showing SpeechMike BarCode Mode**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Inbound TCP Reporting

Build 1.17 now supports Inbound Transmission Control Protocol (TCP) Accession Numbers for Diagnostic Reporting. This will enable rRIS to accept an Accession Number from an external system (ex: PACS or HIS) and enable Reporting workflow.

## Launch rRIS to System Tray

To support Radiologist workflow, there is a requirement that rRIS may have to run as a slave system to another system like the PACS. In order to satisfy this requirement, rRIS needs to be able to be configured to launch to the system tray.

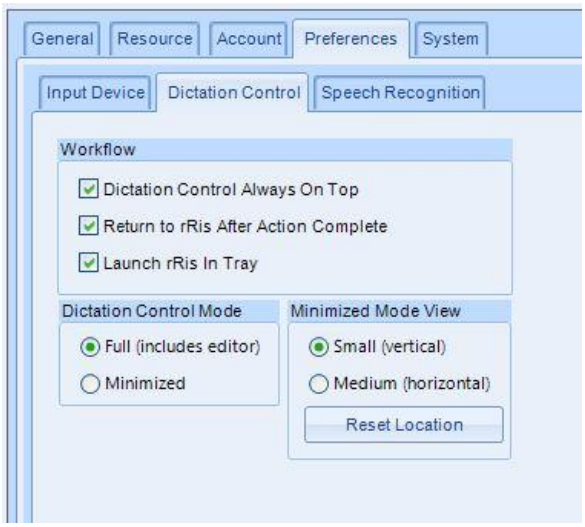



**Figure 4.17 – "Launch rRIS In Tray" User Preference Enabled**

If rRIS is configured to launch in tray, immediately after loging in the application will not show on the screen as usual but appear in the system tray as a small "R" icon.

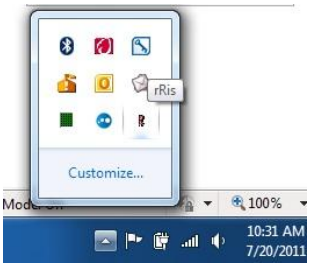



**Figure 4.18 – rRIS Running on Windows System Tray**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

In this mode, the application can be brought on the screen by double clicking the tray icon or by using the icon's right-click context menu.

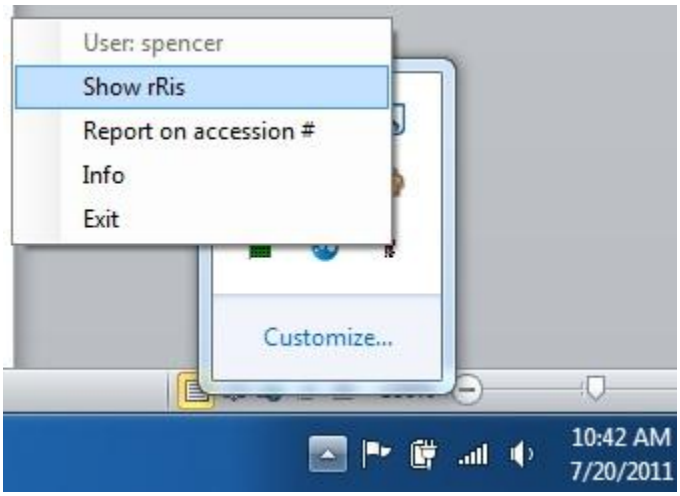



**Figure 4.19 – rRIS System Tray Context Menu**

Using the tray icon's context menu the user can use the following items:

- **User id** - identifies currently logged in user
- **Show rRis** - Will bring rRis on the screen, same as double clicking
- **Report on accession #** - Prompt user for the accession number
- **Info** - Will display information about rRis such as version
- **Exit** - Will exit rRis completely

When rRis is shown and this mode is configured, minimizing or closing rRis using the icons at the top right of the application window will simply return rRis to the tray icon. To actually exit rRis the user needs to select File -> Exit from the file menu when rRis is onscreen, or using the tray icons context menu -> Exit.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Report on Accession Number

This feature will allow the user to open the Diagnose screen on a study based on a specified accession number. This provides the user with the ability to bypass the worklist type workflow and run rRis in a "slave" type mode. The input of this accession number can come in different forms as tcp listener, file watcher, etc. These are all used as methods to drive workflow from another system such as a PACS system.

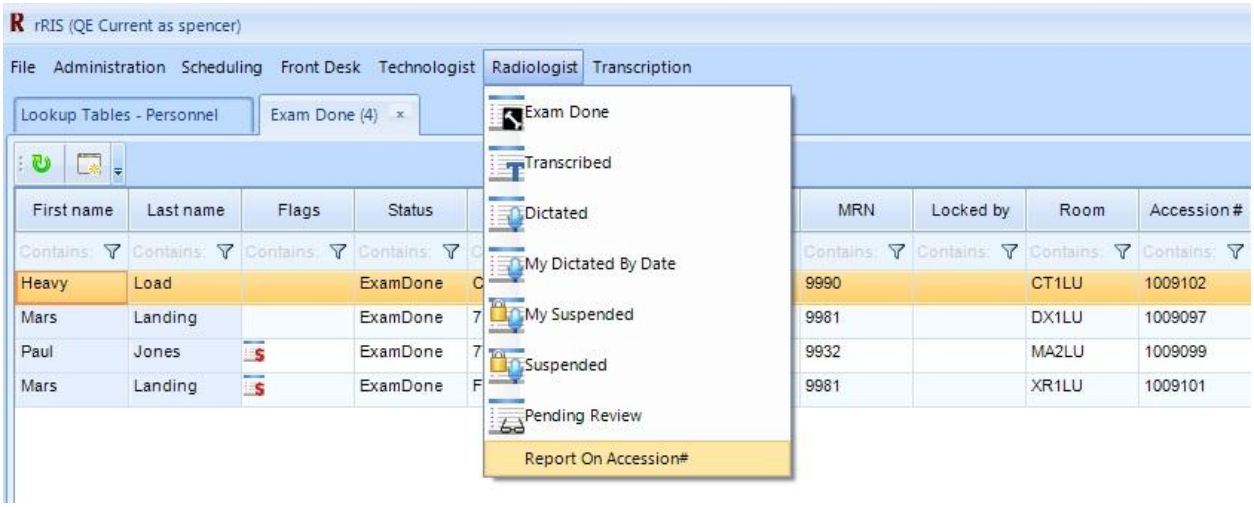



**Figure 4.20 – Report On Accession# Menu Option in rRIS**

The user also has the ability to manually enter an Accession Number and let rRIS search for it. This can be done by using the menu option or the right-click context menu on the system tray icon. If the Accession Number is not found, the user is prompted accordingly.

**Figure 4.21 – Report on Accession Number Prompt and Accession Not Found Popup**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Small and Medium Sized Dictation Control

Build 1.17 provides the radiologist user both small and medium dictation controls as a user preference for dictating on Accession Numbers outside of rRIS.

Two different dictation control layouts have been implemented; a vertical (small) and a horizontal (medium). These controls exist outside of the rRis GUI. They have the ability to float on the screen and can be place where they interfere the least with the radiologist's existing RIS/PACS workstation.

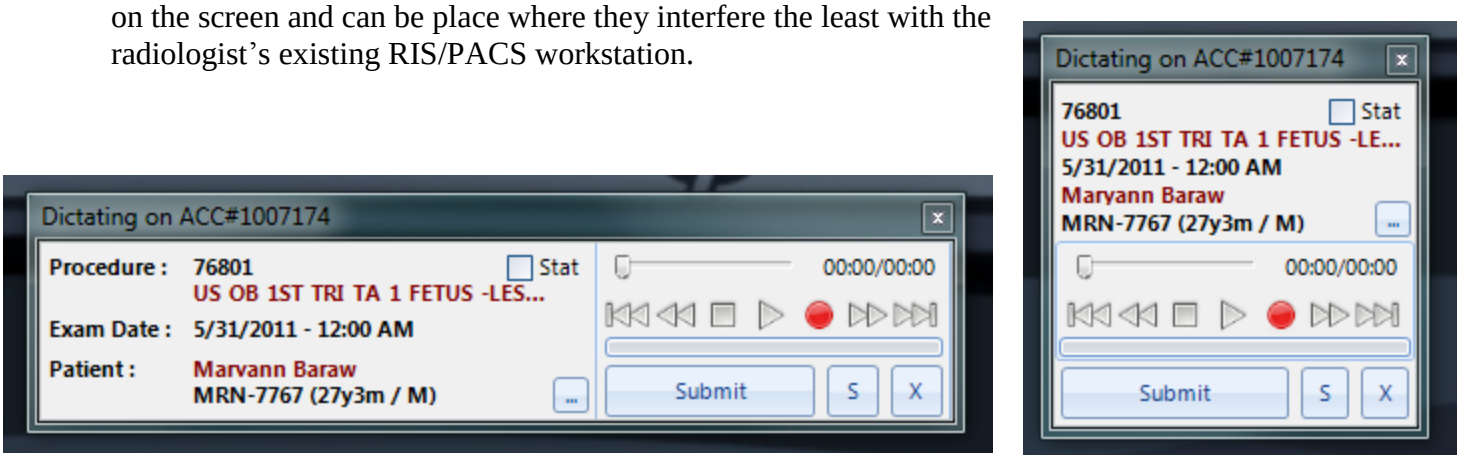



**Figure 4.22 – Dictation Control Layouts**

The radiologist has the option to use any of these two controls and he or she also has the option of using the full reporting screen. This is configured using the user preferences. There are two available options:

1. Dictation control mode (full or minimized)
2. Minimized Mode View (small or medium)

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

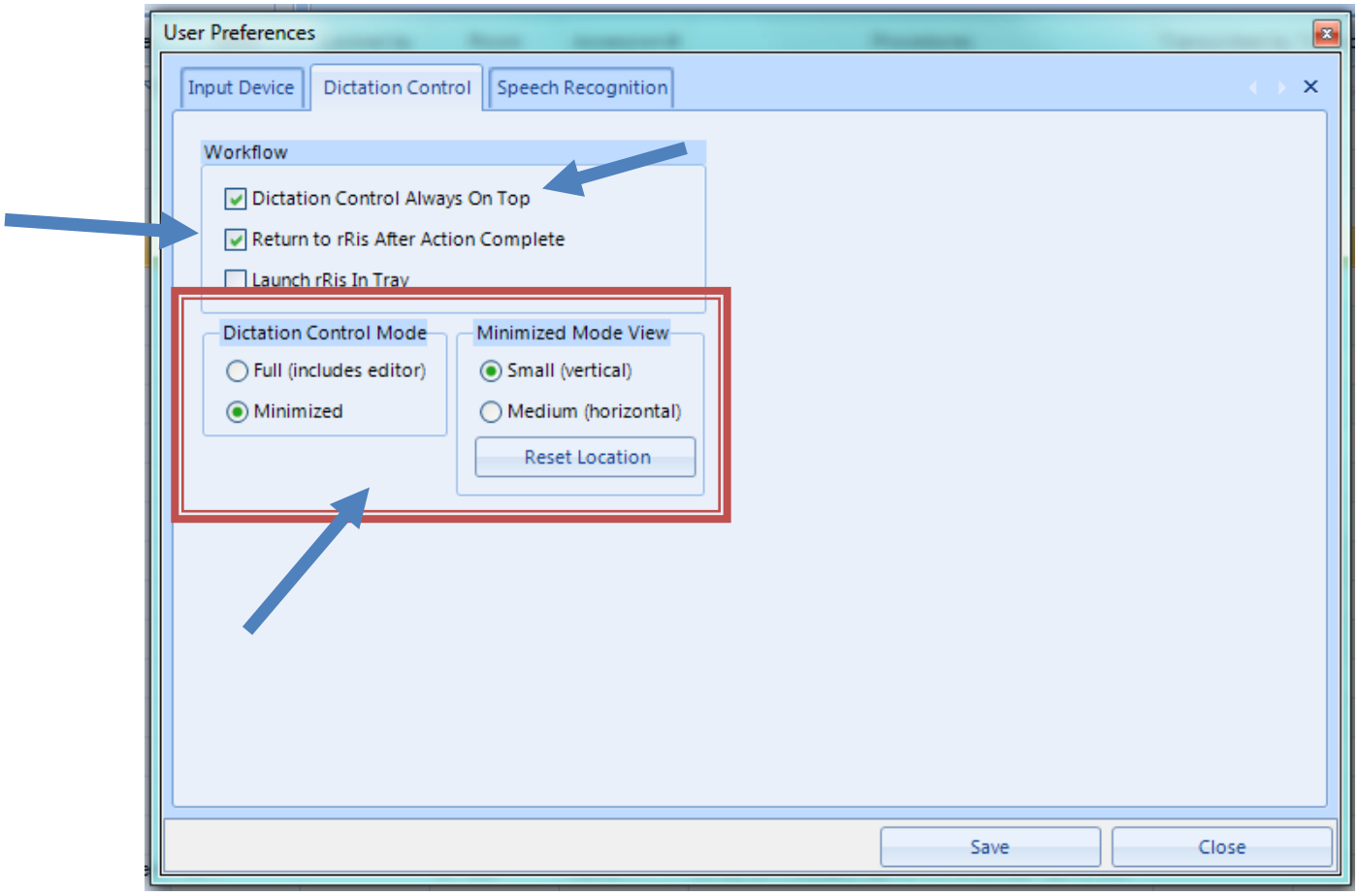



**Figure 4.23 – Dictation Control User Preference**

The minimized views can be placed anywhere on the screen and their location will be remembered forever. In the unlikely event that the location was saved to make them appear in an area which is not visible, in the user preferences the user can select "Reset Location" which will reset the control's location to position 0,0 (top left of screen 1).

The "Dictation Control Always On Top" when turned on will force the control to remain on top of other windows even if the other window has focus.

When the radiologist has rRis open and diagnoses a study, if he or she is using the minimized mode, rRis will minimize and the dictation control will appear.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## No Report Required Workflow

There are certain exams in rRIS that the radiologist will not be required to dictate on. These exams may need to be reported on in another system like a DEXA or not at all. There has been a new column added to the Procedure Code lookup table called No Report Required. When this column is set to "Y", the system will not allow the radiologist to open the exam for dictation.

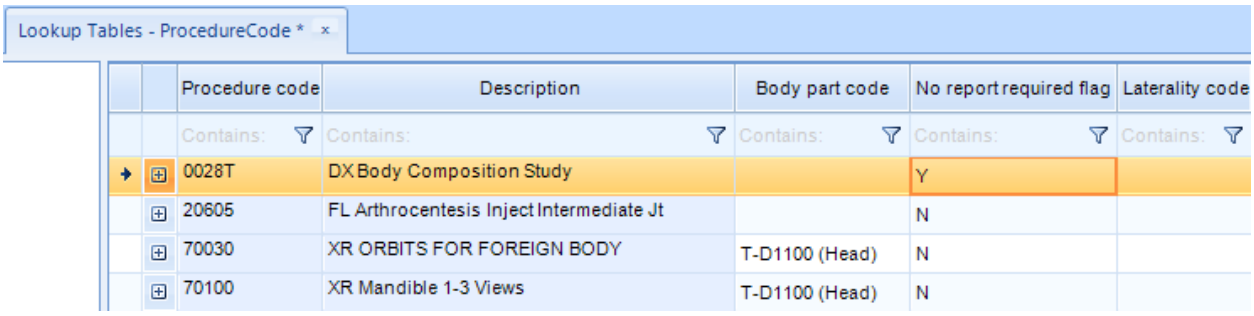



**Figure 4.24 – No Report Required Specified at the Procedure Code Level**

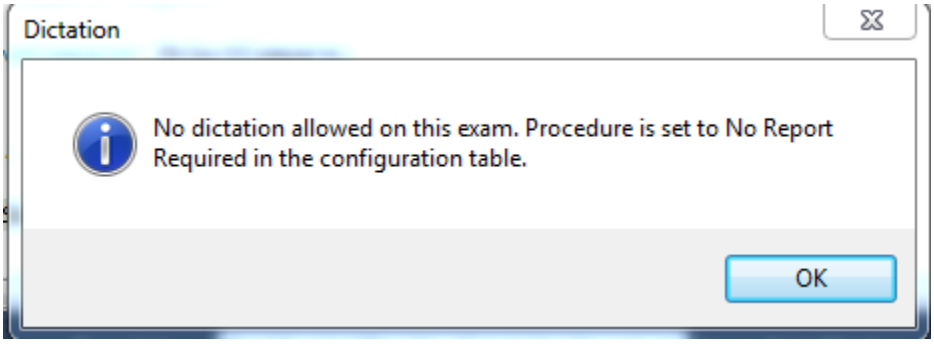



**Figure 4.25 – Radiologist Prompt when No Report Required**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Tech Notes Required

In Build 1.17, the "Technologists Notes" field is now required to be filled in before the technologist can make the procedure as Complete.

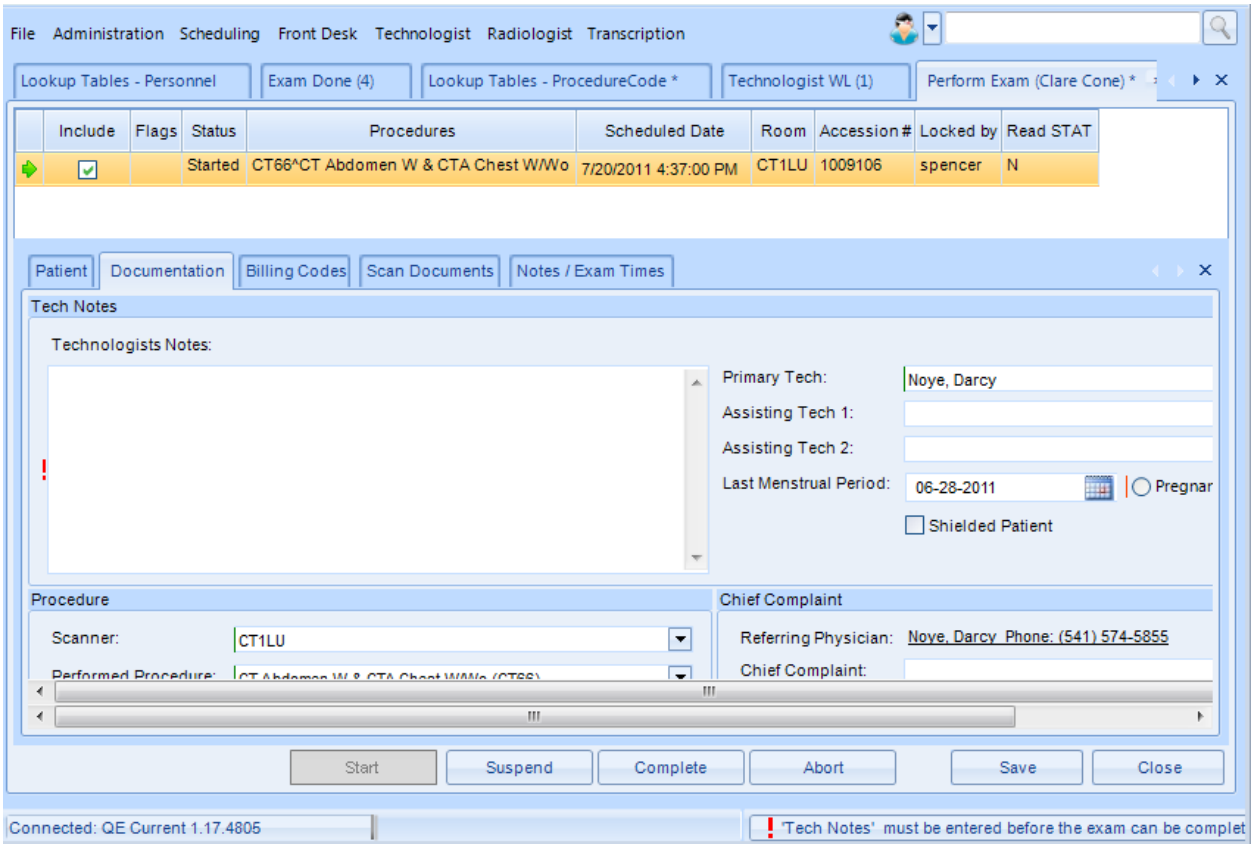



**Figure 4.26 – Technologists Notes as a Required Field**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Closed Modality Worklist

There is a requirement for rRIS to support the ability to notify administrators and schedulers of any studies that are affected by room closures. A new Closed Rooms Reschedule worklist has been added to the application. When a room is closed for a time period and there are procedures scheduled for time slots in the closed time frame, the affected studies will appear on the Closed Rooms Reschedule worklist. This will allow the user to easily identify the affected studies and reschedule them.

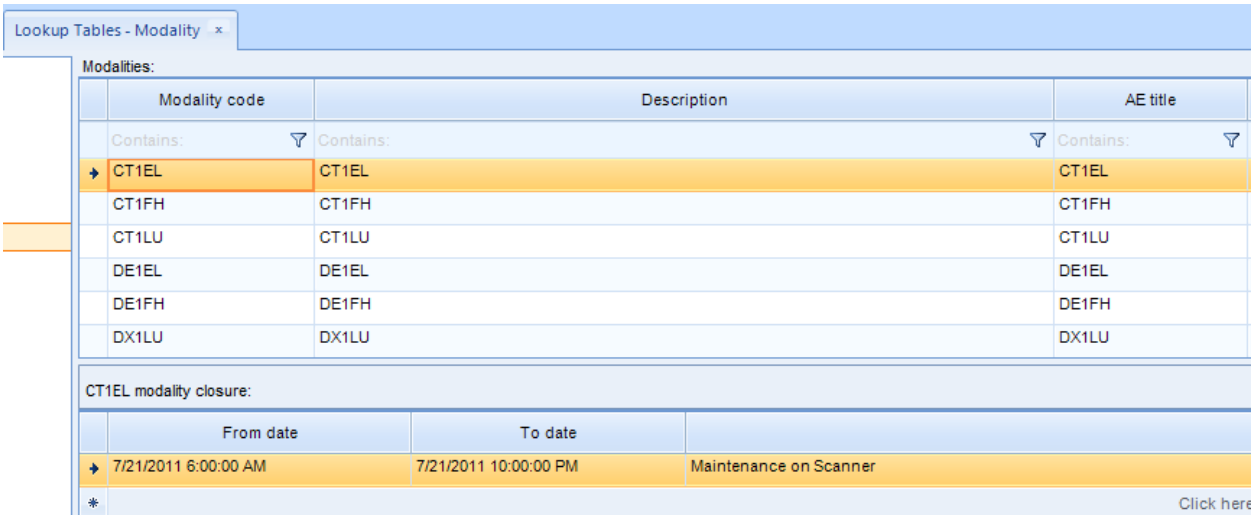



**Figure 4.27 – Room CT1EL Closed for Maintenance**

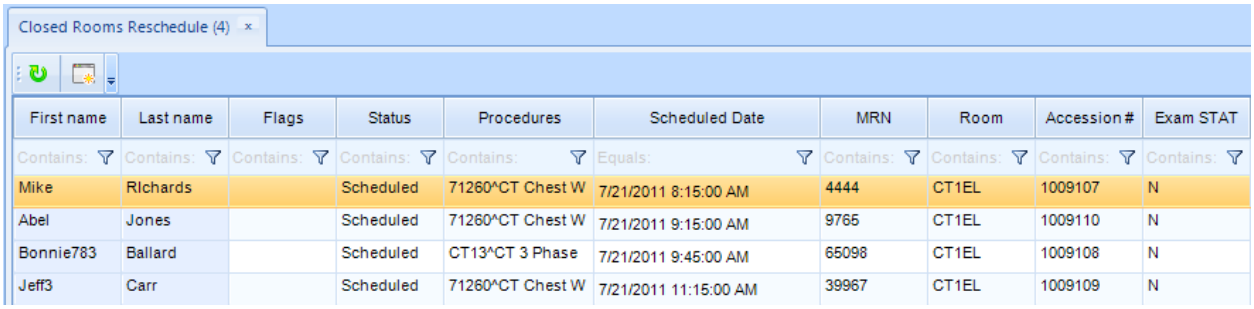



**Figure 4.28 – Studies from Room CT1EL that Require Reschedule**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Database Cleanup Procedures

A procedure is required to clean up old unwanted data from the rRIS database. The 2 areas to date that have been identified requiring data cleaning are:

1. Audio dictations –The audio dictation is no longer needed when a report is "signed" or "action completed". After a configurable retention period the audio should be purged.

2. Action Messages – Used by the application's external interfaces, they should be purged when the messages are no longer referenced by a queue. Purging should happen after a configurable retention period.

To fulfil this requirement two new stored procedures have been added the database. CleanupSignedDictations will delete the dictation rows for all studies that are signed and have been signed for a configurable amount of days. CleanupActionMessages will delete the action rows for all messages that are no longer referenced in the message queue and are older than a configurable amount of days.

Both of these stored procedures can be scheduled to run by the database server.

## Interval Change for Appointment Book

The Appointment Book in Build 1.17 now supports the ability to alter the size of the intervals between time slots so more hours can be displayed on the screen.

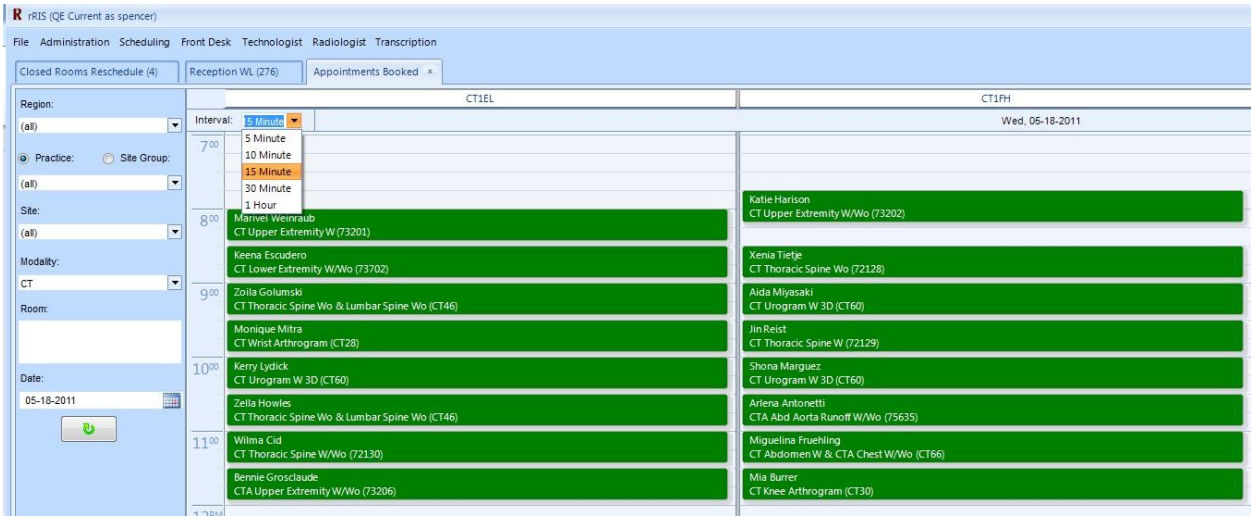



**Figure 4.29 – Appointment Book showing Time Slot Intervals**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## LMP for Females Age 12-55

The technologist screen in this release of rRIS will now only force LMP (Last Menstrual Period) to be required for females age 12 to 55 years. In the example below, the technologist is documenting a procedure for a female patient age 21 years. The system will not allow the user to save changes until LMP has been specified.

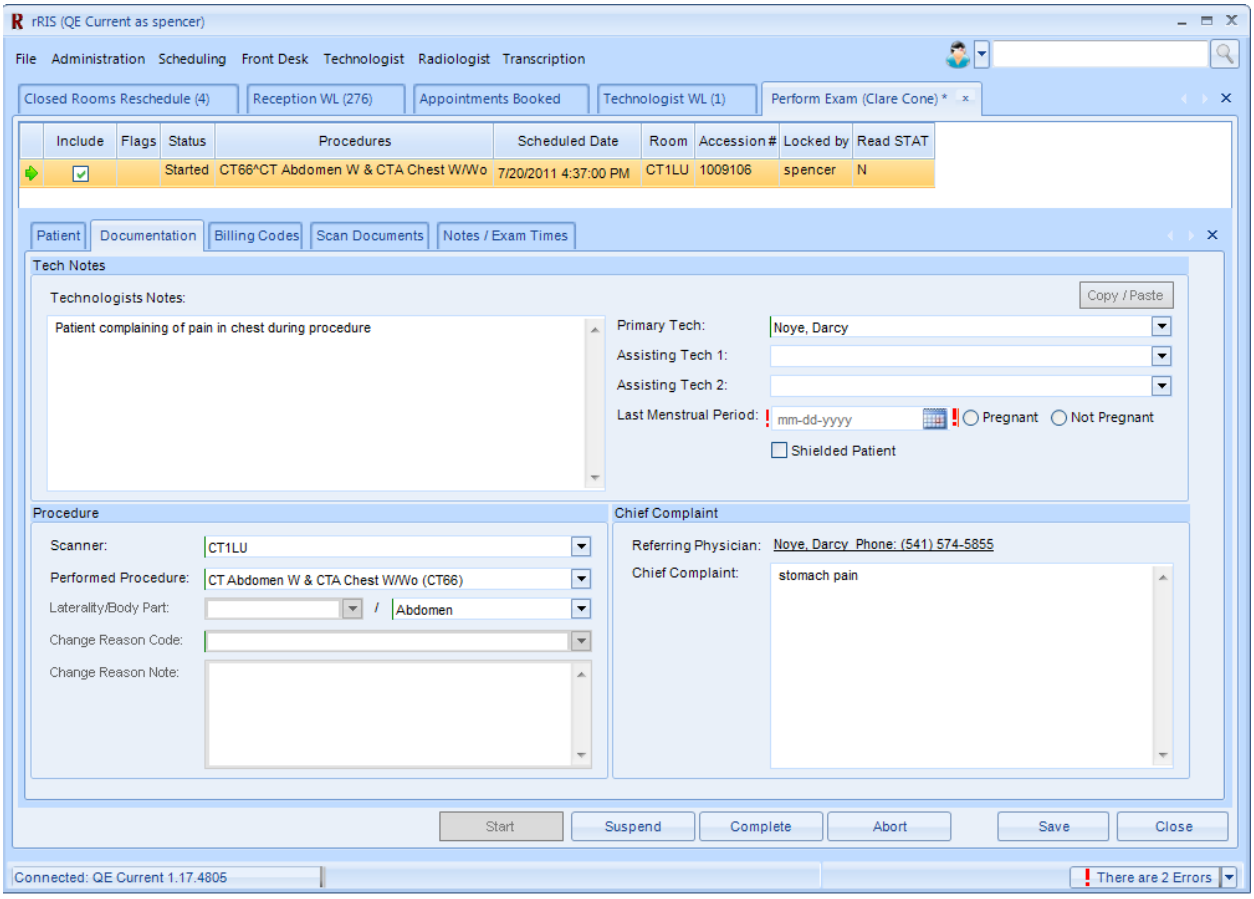



**Figure 4.30 – Technologist Screen showing LMP as Required for 21 Year Old Female**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Weight Mask and Restriction

Because certain modalities have weight restrictions, the system will now prompt the user when scheduling a procedure in a room that has a weight restriction that the patient's weight is violating. A Weight field has been added to the Modality lookup to support this.

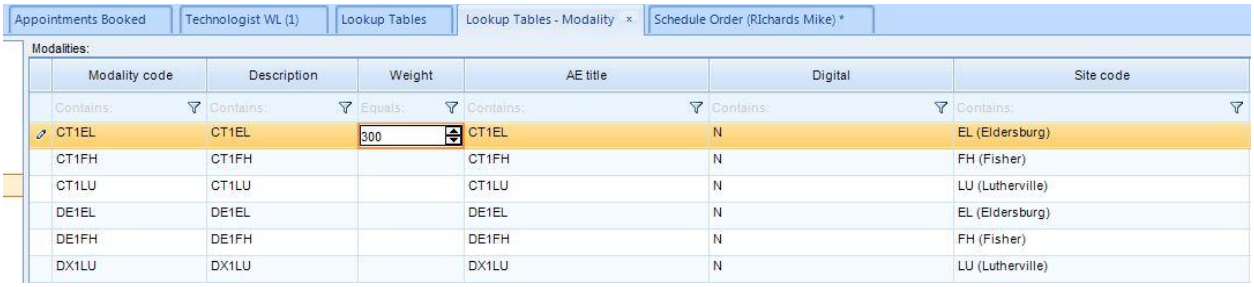



**Figure 4.31 – Weight Limit of 300 Pounds set on Room CT1EL**

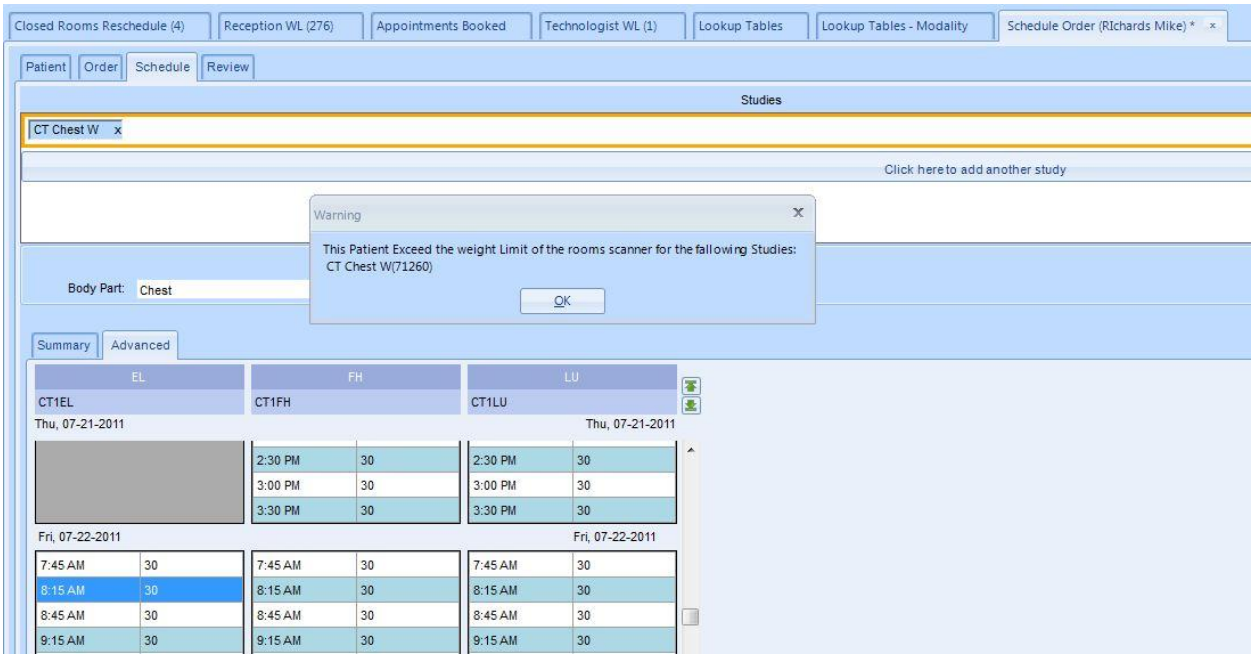



**Figure 4.32 – Scheduler Prompted that the Patient Exceeds the Weight Limit of the Room**

**Figure 4.33 – Patient Weight at the Time of the Order/Request**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Void Payments Permission

In Build 1.17 a new permission has been added to the application so not just any user can void a payment. The new permission is called Clinical.VoidPayment. If the user does not have this permission granted, then the Void Payment option will not be enabled on the payment context menu.

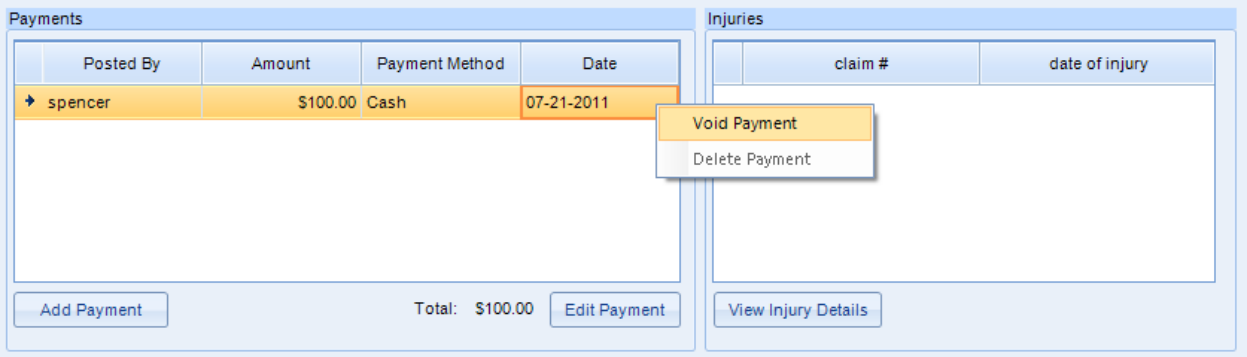



**Figure 4.34 – Void Payment Option on Registration Screen**

## ZIP Code to City and State

When a ZIP Code is entered for a new or existing patient, the system will now automatically populate the patient's city, state, and country. The complete list of ZIP Codes is supplied to rRIS by a third party and will be updated periodically as new ZIP Codes are added.

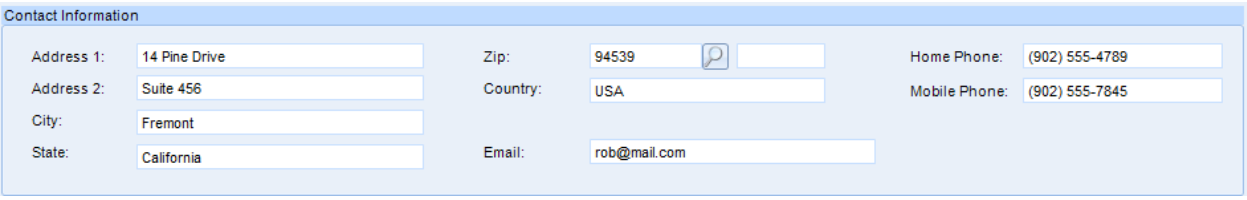



**Figure 4.35 – Patient Contact Information with ZIP Code Lookup**

In the example above, the user entered "94539" into the Zip field and clicked the Search button or pressed the Enter key. The City, State, and Country automatically populated for the user.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Personnel Improvements

The Personnel/User Management screen has been refactored to improve performance. Because of the potential large number of referring doctors and system users that will live in the system, it made more sense to force the user to search first rather than loading all user information into memory. In the screenshot below the system administrator is returning a list of all Referring doctors with Last Name starting with "w".

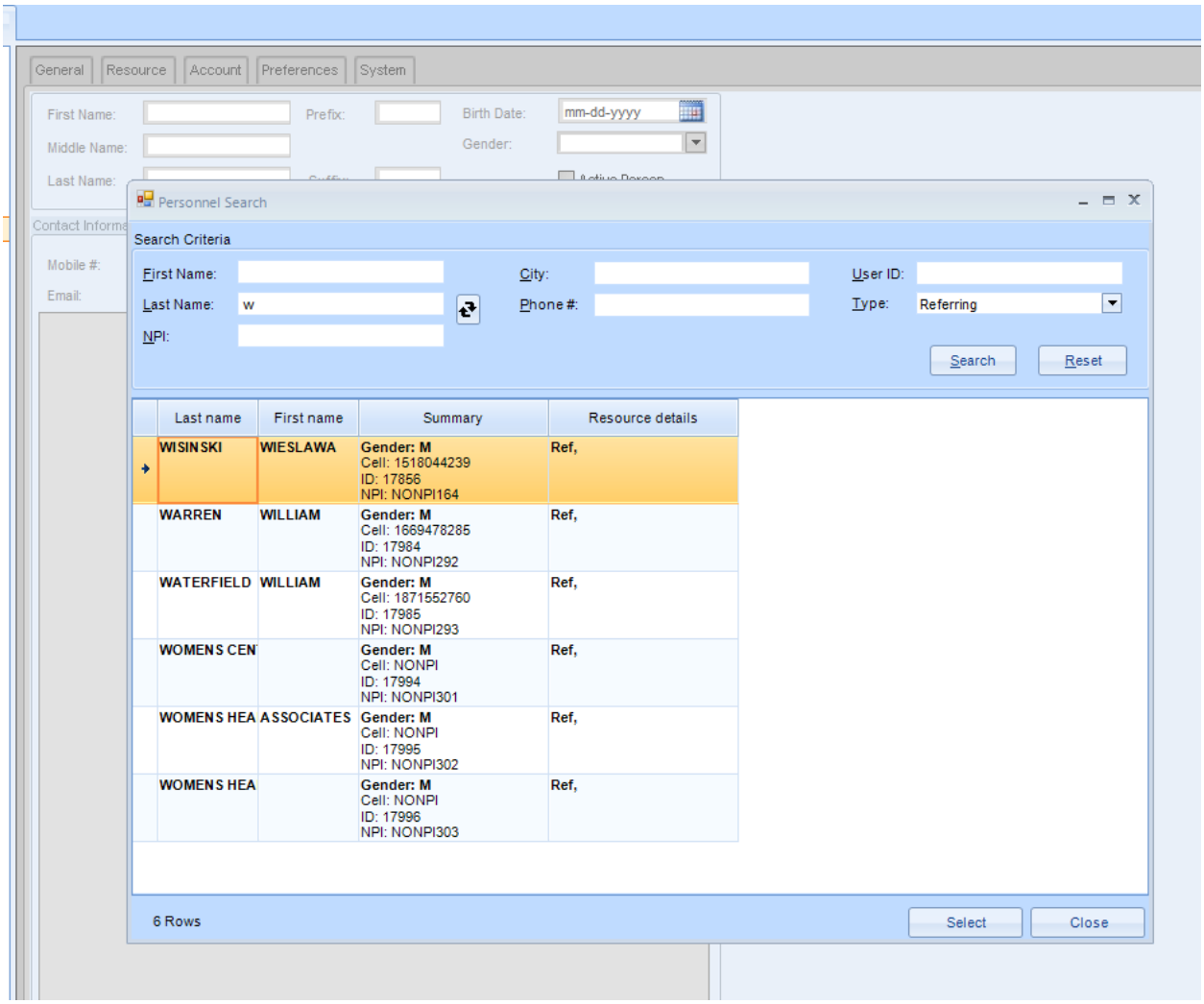



**Figure 4.36 – Personnel Search Screen**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

Once the search results are returned, the administrator can select one of the returned rows or add a new user.

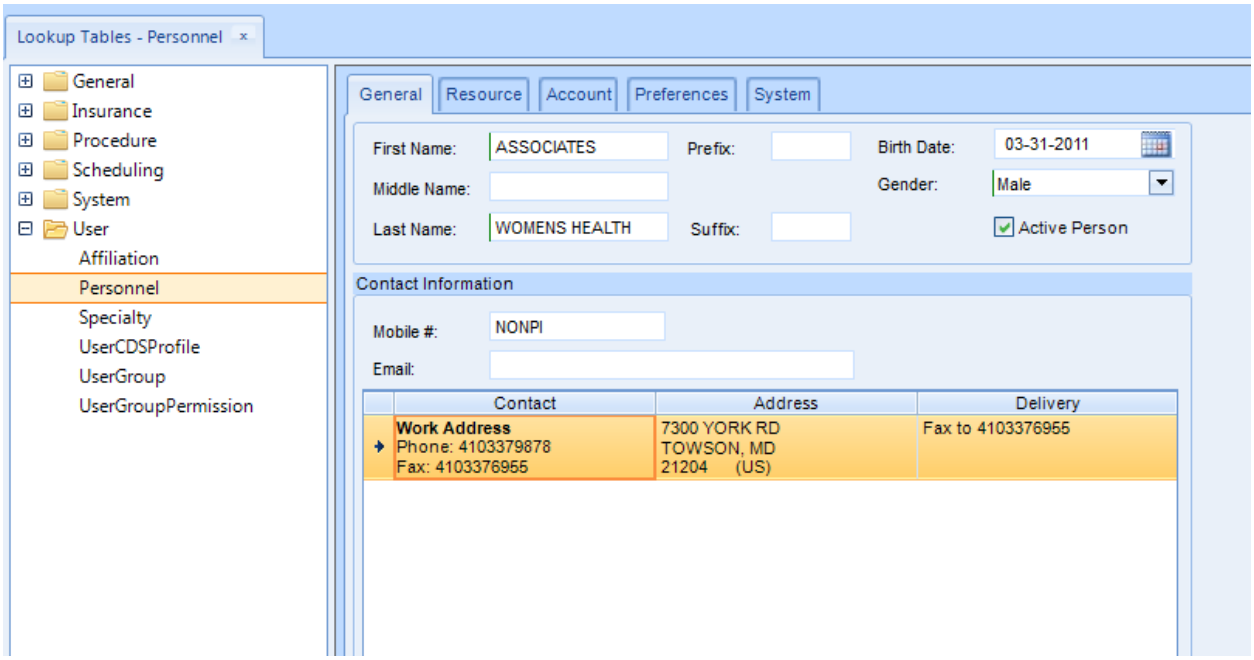



**Figure 4.37 – Personnel Screen Showing Selected Referring User**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Scanning – Auto Deskew and Auto Enhance

Auto Deskew - The scan control has been enhanced to automatically detect if the scanned document/image is smaller than the scan surface and if so crop, rotate (if needed), and then crop again so that the final image fits better on the screen and less wasted area is captured and saved. The purpose of this feature is so users will be able to scan batches of documents and categorize them later.

Auto Enhance - Several image processing algorithms where introduced. Mainly some scanners such as flatbed scanners introduce a lot of noise into the image such that dust or a hair could be detected as document content and affect the crop and rotation logic. For this reason a medium filter is applied to a copy of the image, which removes random and dust noise, then the crop and rotation calculations are based on that temporary (less noisy) version of the image.

The first of the following screen shots shows a document scanned directly into Photoshop without any enhancements, while the second shows the same document exported from an rRIS Scan. The histogram in the right of each of these images shows the stretching that has occurred in the data. This enhancement is dynamic based on the first occurrences of black and white in the image and has a major improvement on readability and the quality of re-prints.

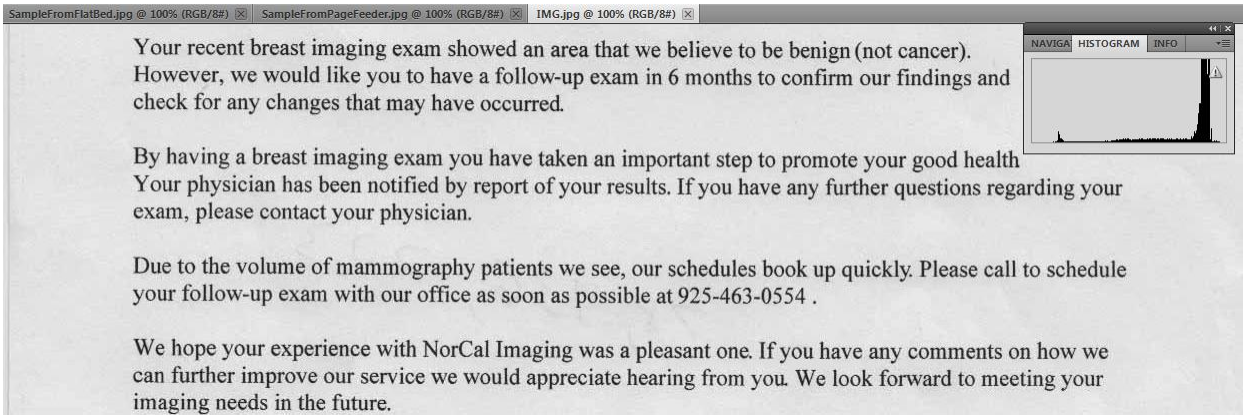



**Figure 4.38 – Scanned Image with AutoEnhance Disabled**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

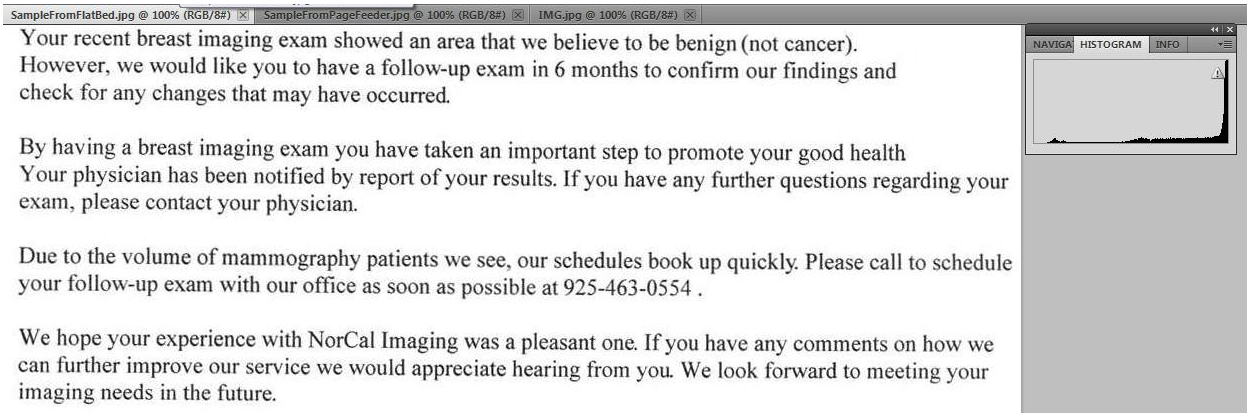



**Figure 4.39 – Scanned Image with Auto Enhance Enabled**

These two new options are configurable by document type and can be turned on or off at the time of scanning as shown in the following acquire scan dialog:

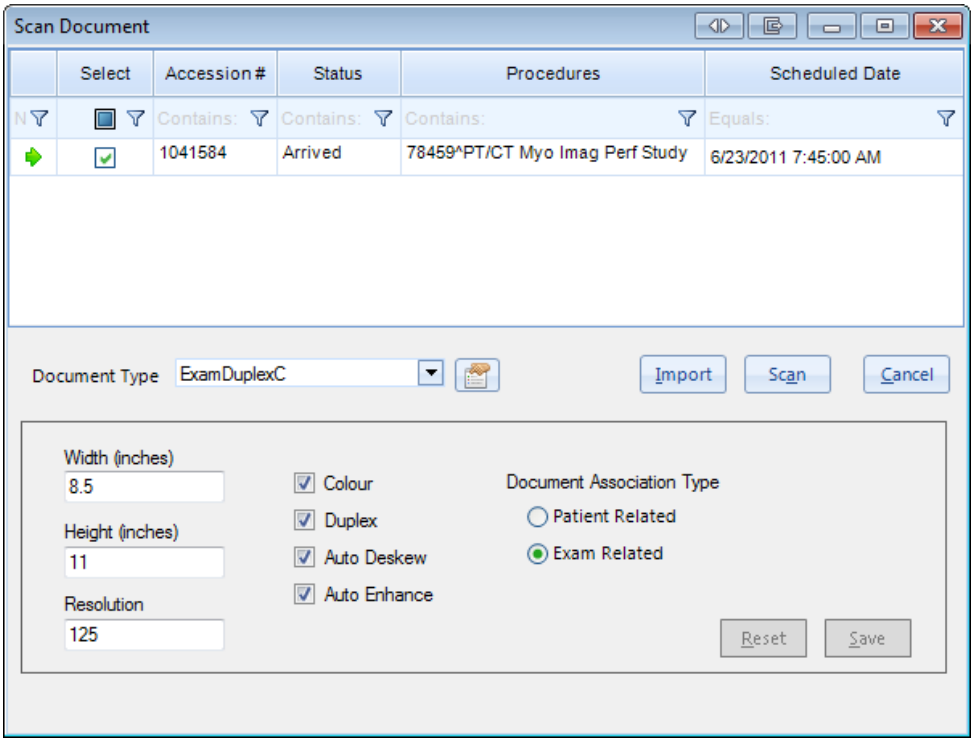



**Figure 4.40 – Scanned Document Type with Auto Deskew and Auto Enhance Specified**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

Also to improve fixing rotations after a batch scan, keyboarding shortcuts such where tweaked to include tool tips such as <Page Down> for previous image, <Page Up> for next image, <R> for rotate right, <Shift>+<R> for rotate left, <F> for flip and <Enter> to accept the changes and close the window. In addition, the space bar will change the view type between "Fit To Screen", "Fit To Width" and "Original". The up and down arrows will also flip between pages; however, if the scroll bar is shown the up and down arrows will move you up and down though the document (same as mouse wheel).

Print "ALL" was introduced as a standard option in the print dialog box so that "Selection" is now the default and will only print the image the user has selected, while the "All" option, which previously didn't function will print all the images.

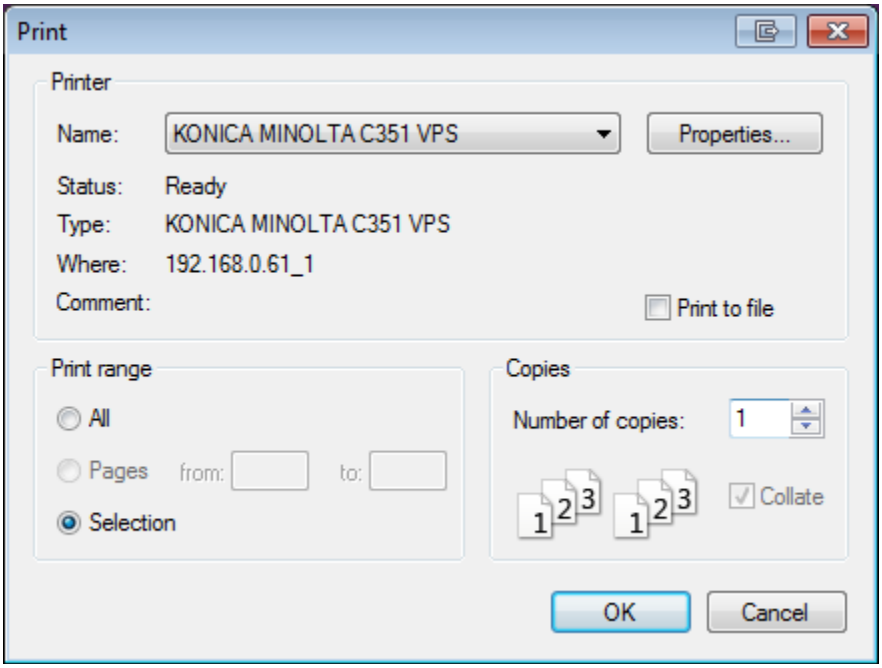



**Figure 4.41 – Printing Scans Dialog Box**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 5. Known Limitations

Bugs, Suggested Features, and Support Issues are now tracked in a web based system called Redmine. The following is a snapshot of the issues found in Build 1.17.

| # | Status | Subject | Category | Found | %Done | Resolved |
|---|---|---|---|---|---|---|
| 463 | New | Concurrency error on scheduling | Web Services/DB | 1.17 | 0 | |
| 462 | New | Error attempting to save an edited scheduled exam from Appoointment Book | Thick Client GUI | 1.17 | 0 | |
| 461 | New | Editing Order Notes | Thick Client GUI | 1.17 | 0 | |
| 460 | New | Order / Scheduling > Schedule This Order button is active on scheduled exam in Patient mode | Thick Client GUI | 1.17 | 0 | |
| 459 | New | Admin tools > cannot view entire tool tip | Admin Tools | 1.17 | 0 | |
| 458 | New | Add payment error - WCFClient Receipt_number error | Thick Client GUI | 1.17 | 0 | |
| 457 | New | Edit User - Account > Account Information > User Groups > not all user groups are displayed when more than one line of user groups assigned. | Thick Client GUI | 1.17 | 0 | |
| 456 | New | GUI dictation control visualization | Thick Client GUI | 1.17 | 0 | |
| 455 | New | Report history button is active when there is no report history | Thick Client GUI | 1.17 | 0 | |
| 454 | New | Add / edit user - Contact information edit button active when no enteries to edit! | Admin Tools | 1.17 | 0 | |
| 452 | New | Add / edit user - Contact information - problem with phone/fax number field | Admin Tools | 1.17 | 0 | |
| 451 | Resolved | Data Nuggets - Can cause multiple instances or rRIS | Thick Client GUI | 1.17 | 100 | 1.18 |
| 450 | Resolved | Data Nugget - Exception loading report | Thick Client GUI | 1.17 | 100 | 1.18 |
| 449 | New | Reporting - Exception deleting dictation | Thick Client GUI | 1.17 | 0 | |
| 448 | New | Receipt - Registration screen should stay in foreground when prompted for receipt | Thick Client GUI | 1.17 | 0 | |
| 447 | New | Dictation - User is able to start dictating with SpeechMike when it is not the recording device | Thick Client GUI | 1.17 | 0 | |
| 446 | New | Receipt - No means to reprint a receipt | Thick Client GUI | 1.17 | 0 | |
| 445 | New | Checkbox - When selecting, forms do not get marked as dirty | Thick Client GUI | 1.17 | 0 | |
| 444 | New | Worklist - Issue with dates when adjusting row height | Thick Client GUI | 1.17 | 0 | |
| 443 | Closed | Save As Order - Exception on Save | Thick Client GUI | 1.17 | 100 | 1.17 |
| 442 | New | Edit Order - Payments will not save to database | Thick Client GUI | 1.17 | 0 | |
| 430 | Resolved | Patient Search - Issue when searching by phone number | Thick Client GUI | 1.17 | 100 | 1.18 |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# User Pre-Release Notes

for RADNET rRIS
Build 1.18

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Purpose ..... 3
2. Intended Audience ..... 3
3. Installing/Accessing the Application ..... 3
4. New Features and Enhancements ..... 4
Aborted Study Workflow ..... 4
Ability to add Assigned, Performing and Assisting Radiologists ..... 4
Capture Injury / Adjustor Info ..... 6
Unknown Claim Number Flag ..... 6
Carrier Information on Registration Work List ..... 7
Insurance Policy Carrier notes popup ..... 7
Clone Personnel ..... 8
Document Distribution Management ..... 10
NPI Required for Radiologists and Referring Physicians ..... 11
Assign to Radiologist ..... 14
Audible Sound on Record Dictation Start ..... 15
Organization Picker ..... 16
Sedation Type Added to Work list ..... 16
Delivery Location vs Visited Location Cleanup ..... 17
Book X Continued – Arrive Multiple same day orders for patient, ..... 18
Preview for Diagnostic Report ..... 19
Study Confirmation Work List. ..... 20
Ability to Create Unknown Referring Physician ..... 22
Scanning Documents on Scheduling Screens ..... 23
5. Known Limitations ..... 25

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 1. Purpose

This document describes some of the new features and changes implemented in rRIS as of the end of Sprint 18. This pre-release version of rRIS is referred to as Build 1.18.

Only features which can be visually demonstrated to the user will be outlined in this document.

# 2. Intended Audience

This document is created by the rRIS Development team for the RadNet RIS management team.

# 3. Installing/Accessing the Application

The installation instructions for the rRIS client have been posted to the RadNet Wiki page at http://mdbal01rdtweb/Wiki/

Under the RIS menu, click on the rRIS page. The credentials to access the page are:
Username: rRIS
Password: Summerside

*Please note that Build 1.18 is considered a new core release of the application and will require a reinstallation of rRIS. This is accomplished by navigating to the rRIS shared installation drive and running the CoreInstall.bat file (ex: I:\RISDeployment\CoreInstall.bat)*

If you experience difficulties accessing the application, please do not hesitate to contact Spencer MacDougall with the PEI RIS Development Team.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 4. New Features and Enhancements

## Aborted Study Workflow

In previous versions we could abort a study and reschedule but if the user chose not to reschedule, the study was left in aborted status. In build 1.18 we have taken it a step further. Instead of leaving the study in aborted status we now make a copy of the visit and order and mark them as new, resulting in the study being moved back to the Orders to Schedule work list. A pop up in the Perform Exam screen informs the user that the order has been returned to pending orders work list.

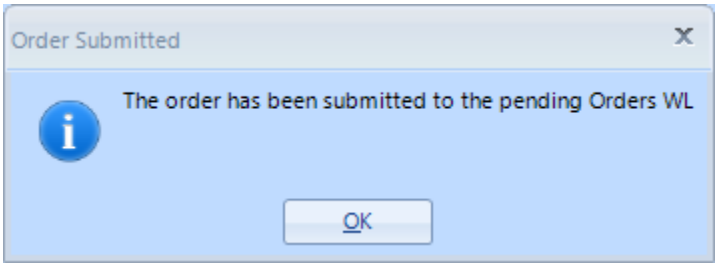



**Figure 4.1 – Aborted Study Confirmation box.**

## Ability to add Assigned, Performing and Assisting Radiologists

In build 1.18 three new list boxes were added to the Perform Exam allowing the Technologist to capture the Assigned Radiologist, Performing Radiologist and Assisting Radiologist.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

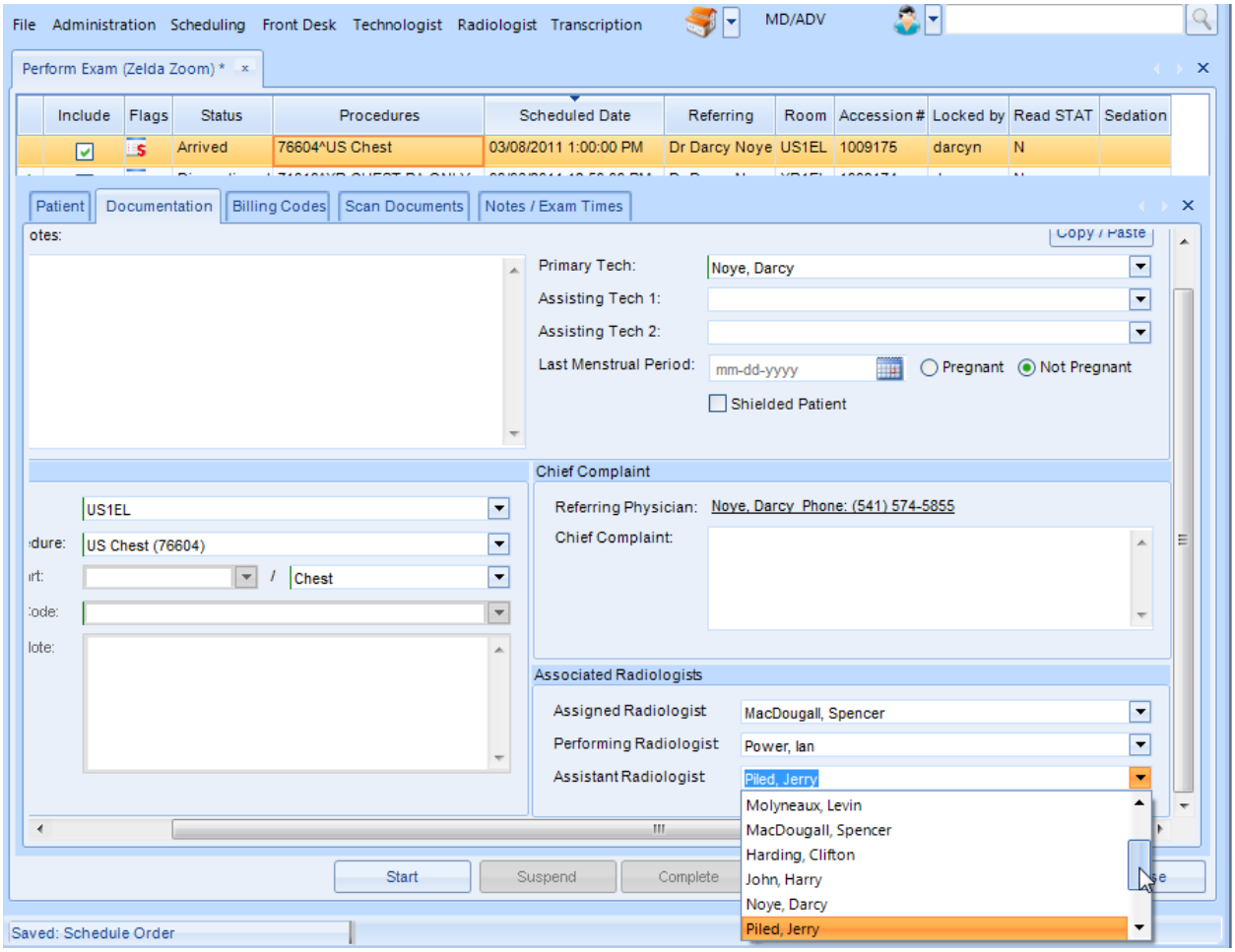



**Figure 4.2 – Associated Radiologists list boxes**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Capture Injury / Adjustor Info

In build 1.18 the Adjustor's first and last names and also adjustor's phone number can be captured in the Manage Policies / Patient Insurance Policies window.

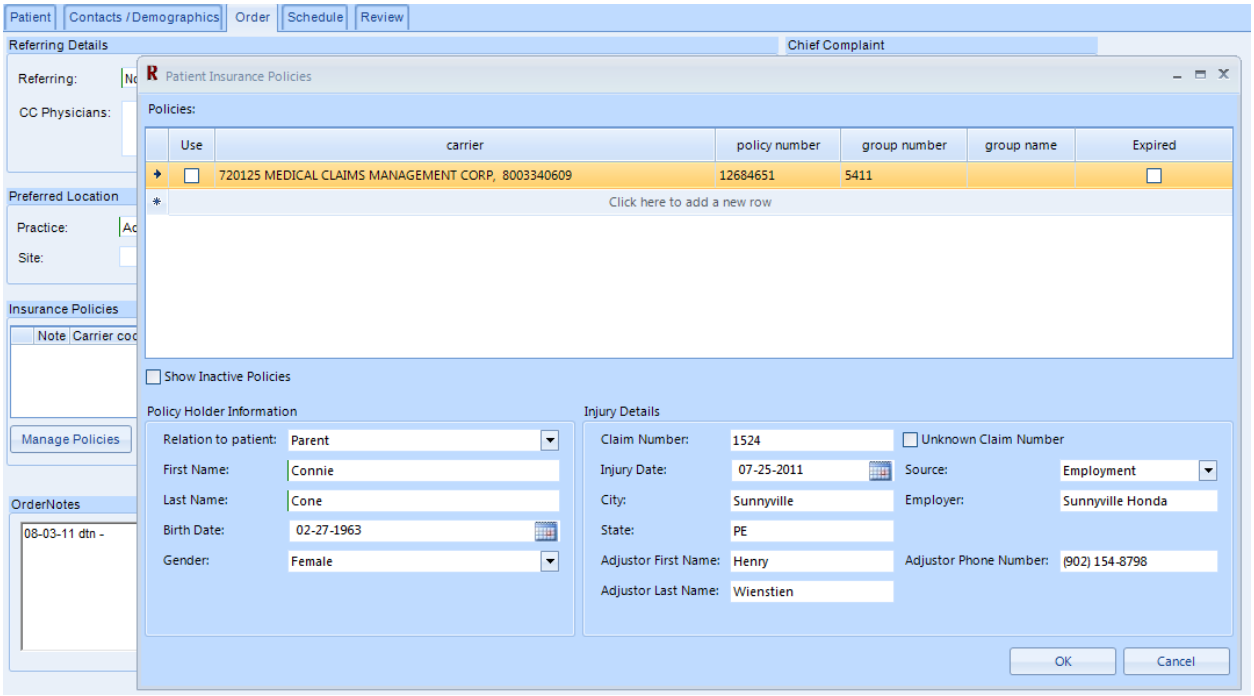



**Figure 4.3 – Manage Policies – Injury details with new fields to capture Adjustor info and Unknown Claim Number.**

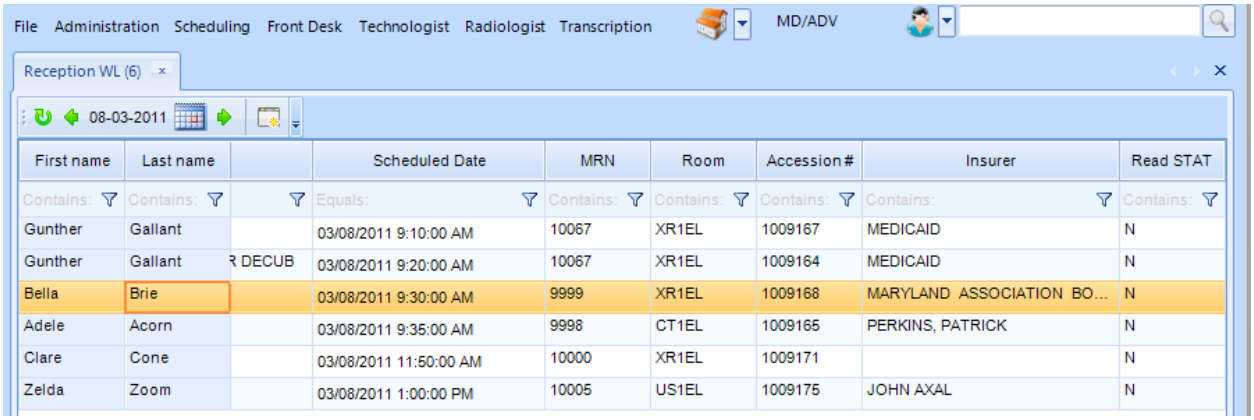
## Unknown Claim Number Flag

Some carriers require that a claim number be captured. If the claim number is not known at the time of entering insurance information, the user had no way to proceed. In build 1.18 we have added a check box "Unknown Claim Number" so the work flow can proceed (see Figure 4.3 of this document). Other injury information can be captured, and selecting Unknown Claim Number will allow the user to save Policy and Injury details.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Carrier Information on Registration Work List

Build 1.18 the carrier name will be displayed on the Reception work list listed in a new column for each patient. If the patient does not have carrier information, the column is left blank. If the patient has more than one carrier policy, only the primary carrier will be displayed.




| First name | Last name | | Scheduled Date | MRN | Room | Accession # | Insurer | Read STAT |
|---|---|---|---|---|---|---|---|---|
| Contains: | Contains: | | Equals: | Contains: | Contains: | Contains: | Contains: | Contains: |
| Gunther | Gallant | | 03/08/2011 9:10:00 AM | 10067 | XR1EL | 1009167 | MEDICAID | N |
| Gunther | Gallant | R DECUB | 03/08/2011 9:20:00 AM | 10067 | XR1EL | 1009164 | MEDICAID | N |
| Bella | Brie | | 03/08/2011 9:30:00 AM | 9999 | XR1EL | 1009168 | MARYLAND ASSOCIATION BO... | N |
| Adele | Acorn | | 03/08/2011 9:35:00 AM | 9998 | CT1EL | 1009165 | PERKINS, PATRICK | N |
| Clare | Cone | | 03/08/2011 11:50:00 AM | 10000 | XR1EL | 1009171 | | N |
| Zelda | Zoom | | 03/08/2011 1:00:00 PM | 10005 | US1EL | 1009175 | JOHN AXAL | N |

**Figure 4.4 – Carrier Information displayed on Reception work list.**

## Insurance Policy Carrier notes popup

Previous to build 1.18 the user had to double click on the carrier to see the Insurance Carrier Notes. New in this build when Insurance Carrier information is added or edited we will now automatically display in a popup message displaying the Carrier notes when one of the following conditions are met.

1. The Carrier has associated notes configured
2. The "Use" check box is selected for that Carrier.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

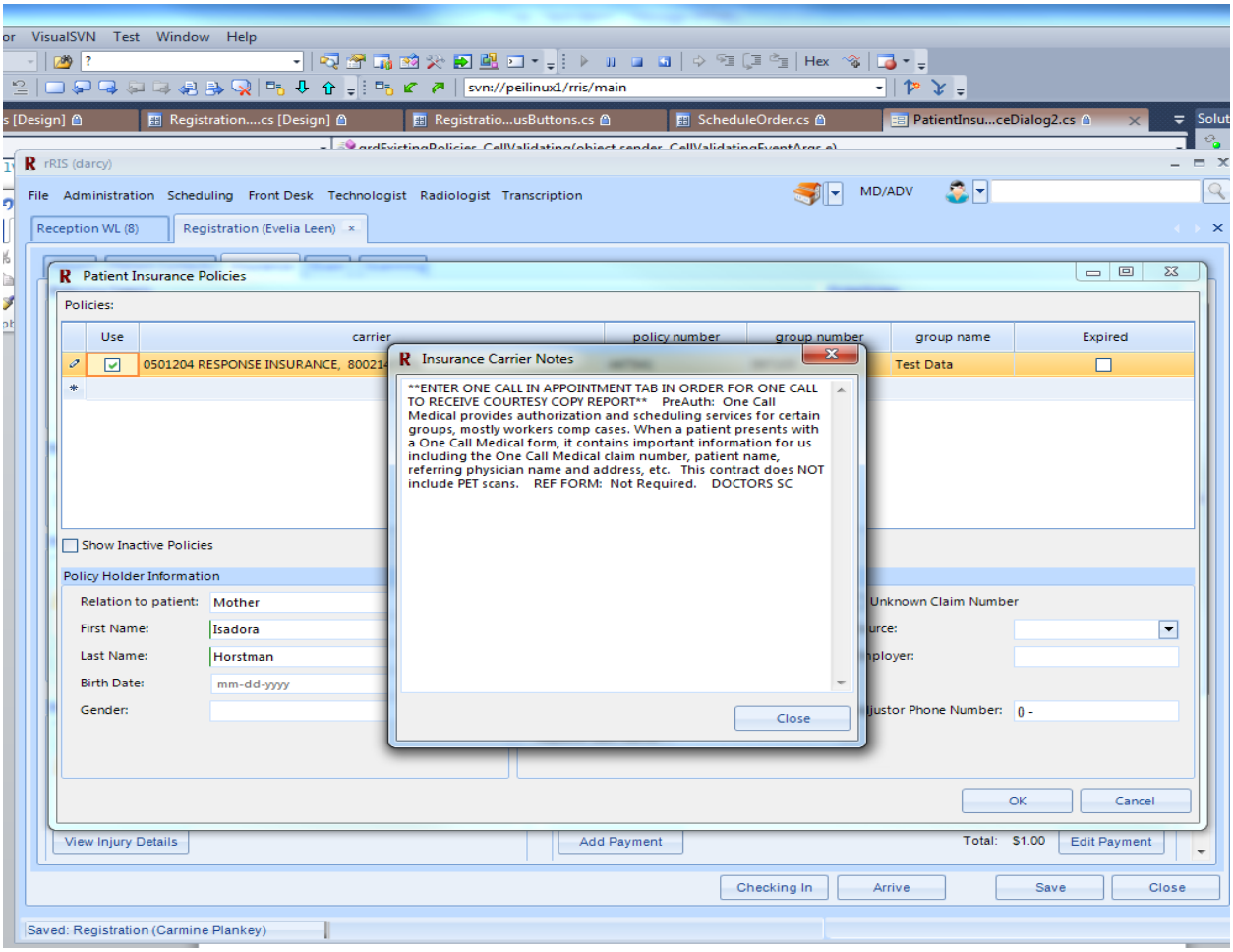



**Figure 4.5 – Carrier Notes Popup displays when adding or editing Carrier information**

## Clone Personnel

Build 1.18 has the added ability to clone personnel allowing an Administrator to copy the settings of an existing user. A drop down list box has been added under the Create New button (see figure 4.6).

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

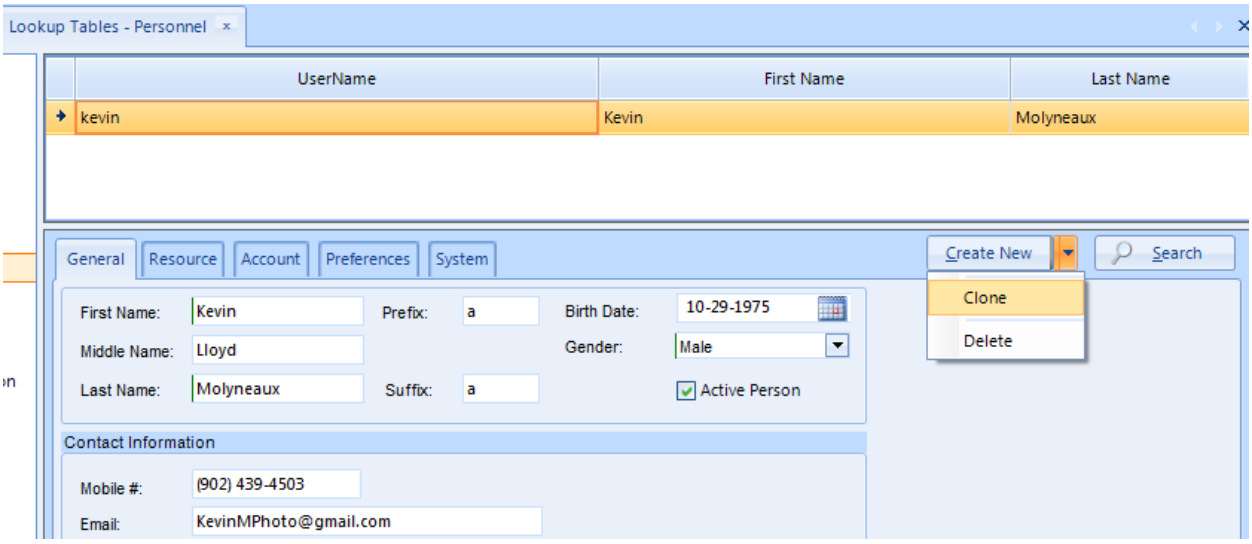



**Figure 4.6 – Create New Clone option**

Selecting Clone will open a new window where the user can then choose which options they would like to have pre-configured for the new user.

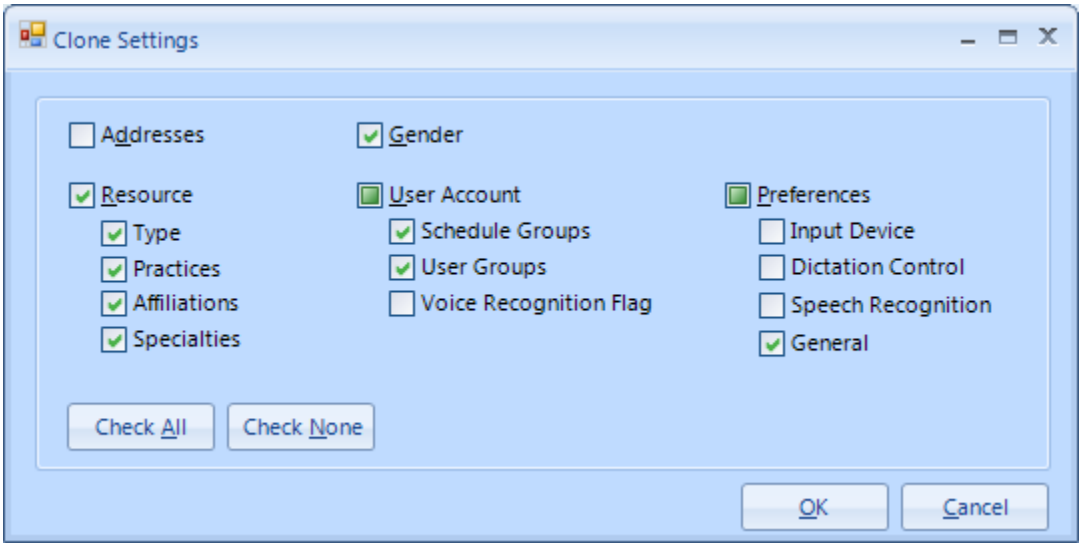


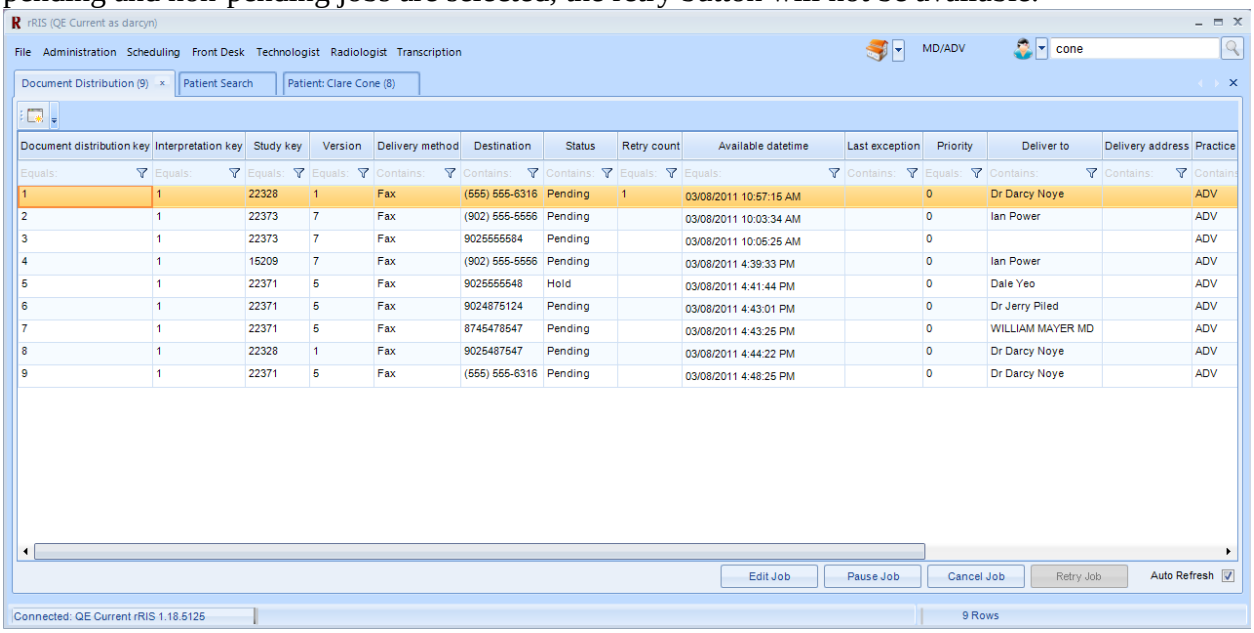

**Figure 4.7 – New Clone setting window.**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Document Distribution Management

The ability to view and manage document distribution was added to the application in build 1.18. Accessed from the Administration menu - Document Distribution Manager, a new work list will show all documents in an "active" status (jobs that are cancelled or completed will not show in this work list).

The WL is auto refreshed. Buttons to edit, pause and cancel are available for all jobs listed in work list. The retry button is only enabled for jobs **not** in pending status. If a combination of pending and non-pending jobs are selected, the retry button will not be available.




| Document distribution key | Interpretation key | Study key | Version | Delivery method | Destination | Status | Retry count | Available datetime | Last exception | Priority | Deliver to | Delivery address | Practice |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1 | 22328 | 1 | Fax | (555) 555-6316 | Pending | 1 | 03/08/2011 10:57:15 AM | | 0 | Dr Darcy Noye | | ADV |
| 2 | 1 | 22373 | 7 | Fax | (902) 555-5556 | Pending | | 03/08/2011 10:03:34 AM | | 0 | Ian Power | | ADV |
| 3 | 1 | 22373 | 7 | Fax | 9025555584 | Pending | | 03/08/2011 10:05:25 AM | | 0 | | | ADV |
| 4 | 1 | 15209 | 7 | Fax | (902) 555-5556 | Pending | | 03/08/2011 4:39:33 PM | | 0 | Ian Power | | ADV |
| 5 | 1 | 22371 | 5 | Fax | 9025555548 | Hold | | 03/08/2011 4:41:44 PM | | 0 | Dale Yeo | | ADV |
| 6 | 1 | 22371 | 5 | Fax | 9024875124 | Pending | | 03/08/2011 4:43:01 PM | | 0 | Dr Jerry Piled | | ADV |
| 7 | 1 | 22371 | 5 | Fax | 8745478547 | Pending | | 03/08/2011 4:43:25 PM | | 0 | WILLIAM MAYER MD | | ADV |
| 8 | 1 | 22328 | 1 | Fax | 9025487547 | Pending | | 03/08/2011 4:44:22 PM | | 0 | Dr Darcy Noye | | ADV |
| 9 | 1 | 22371 | 5 | Fax | (555) 555-6316 | Pending | | 03/08/2011 4:48:25 PM | | 0 | Dr Darcy Noye | | ADV |

**Figure 4.8 – Document Distribution Work List**

The work list allows for multi selection, enabling the user to select a range of jobs for a specific action button. Cancelling jobs will move the jobs status to Cancelled and remove the job from the work list.

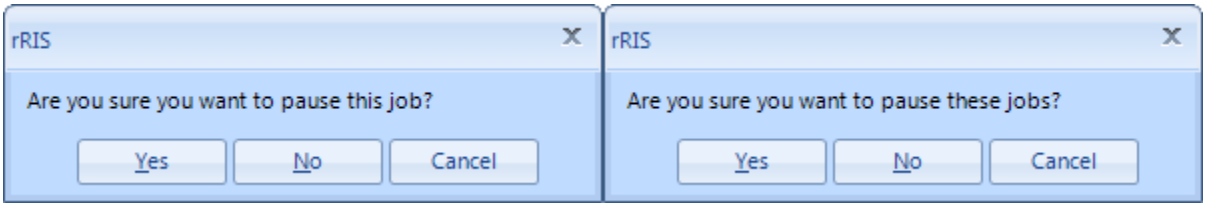



**Figure 4.9 – Confirmation message on left for single job. Confirmation message on right for multiple jobs.**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

The edit job button opens another dialog form with the fields for Recipient, Location and Delivery Method disabled. If the user wants to modify these values they will have to cancel this job and create a new one with the desired Recipients information. The Destination and Priority fields are editable. If multiple jobs are selected that belong to the same recipient, the Destination field will be enabled, otherwise the Destination field will not be editable.

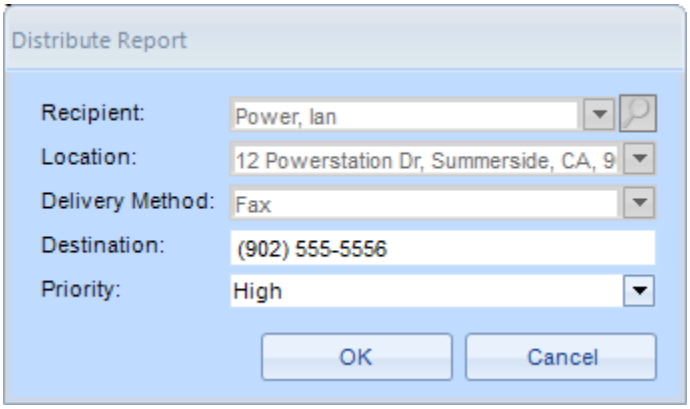



**Figure 4.10 – Edit Job popup dialog**

In Figure 4.10 you can see that a Location was chosen. This auto-populates the delivery and destination values. If job that has a Location value is edited and the Destination value is changed, the user will be prompted asking if they would like to update fax delivery for this address.

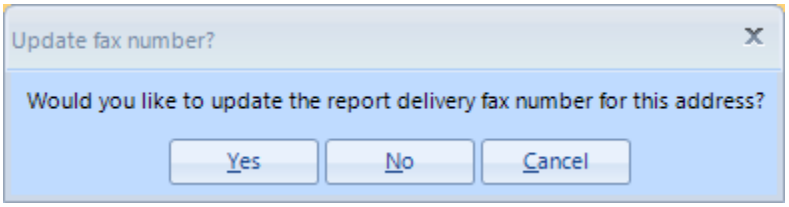



**Figure 4.11 – Edit destination information on job that has Location key value.**

## NPI Required for Radiologists and Referring Physicians.

In build 1.18 the NPI number will now be required for any users created that have Resource Type of Referring Physician or Radiologist checked under the Resource tab. The Resource

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

Information section of this tab is where you will find the NPI field that is now required.

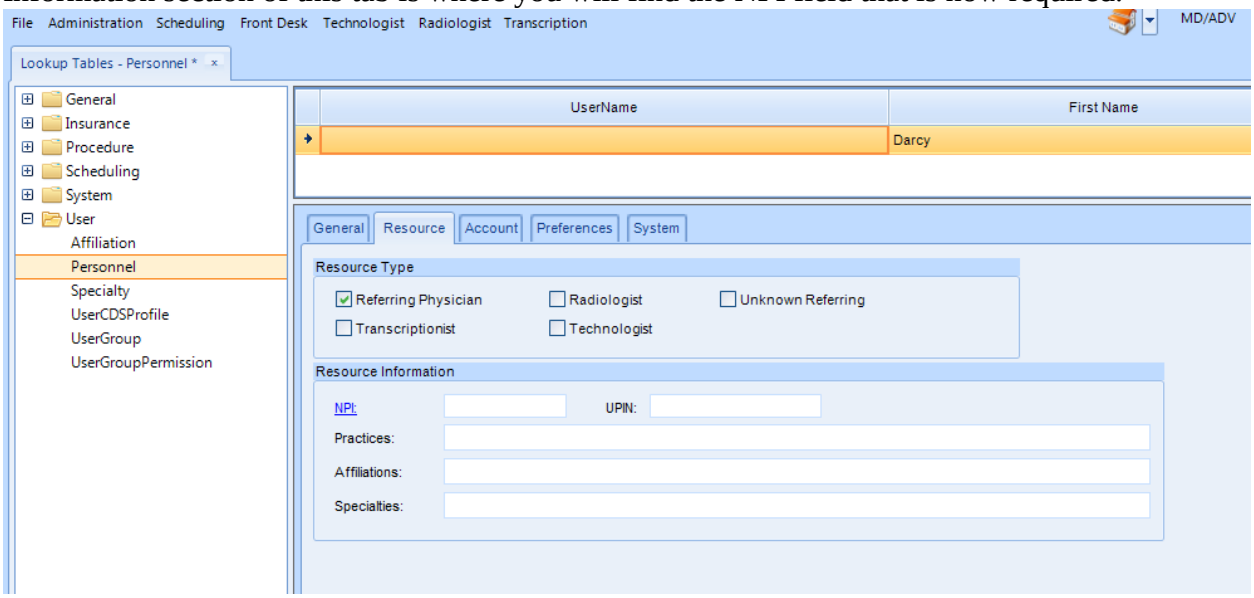



**Figure 4.12 – NPI required and NPI hyperlink**

For convenience the NPI: label is hyperlinked to the NPI registry. The First and Last name fields are passed to the NPI site opening a new window with the available results from the criteria searched.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

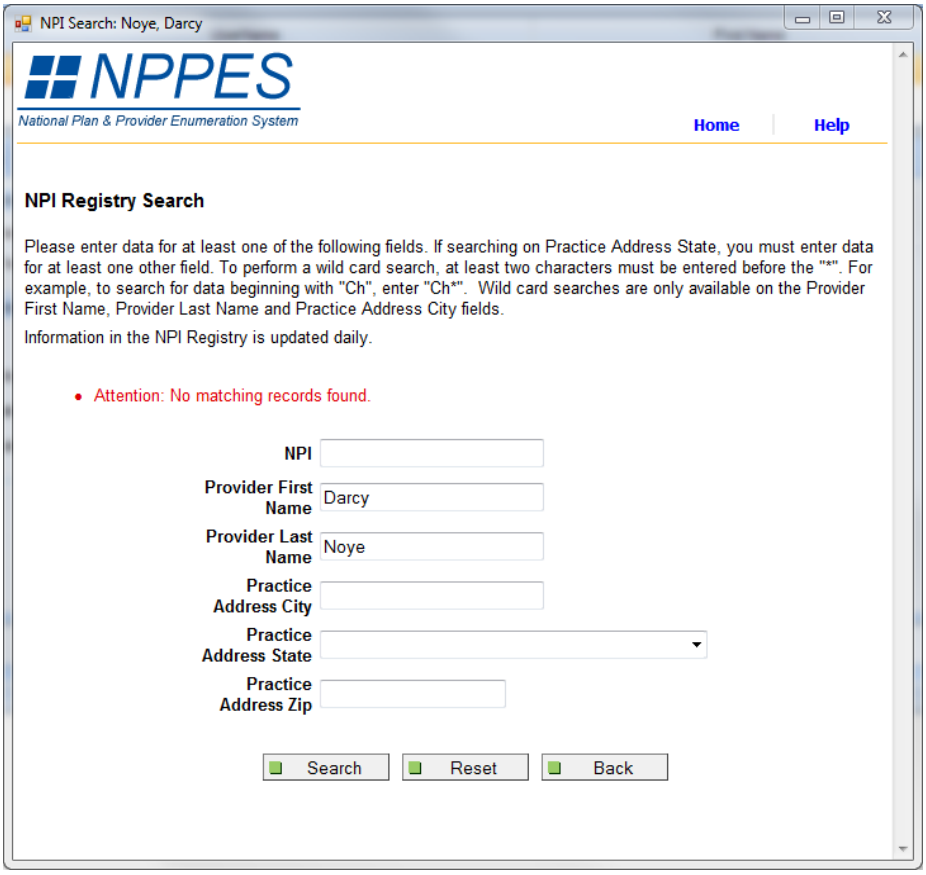



**Figure 4.13 – Search window opened from hyperlink**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Assign to Radiologist

Build 1.18 has the ability to assign Radiologist to a study. This is achieved by selecting a row or a range of rows from the Exam Done work list and from the right click short cut menu selecting Assign to Radiologist.

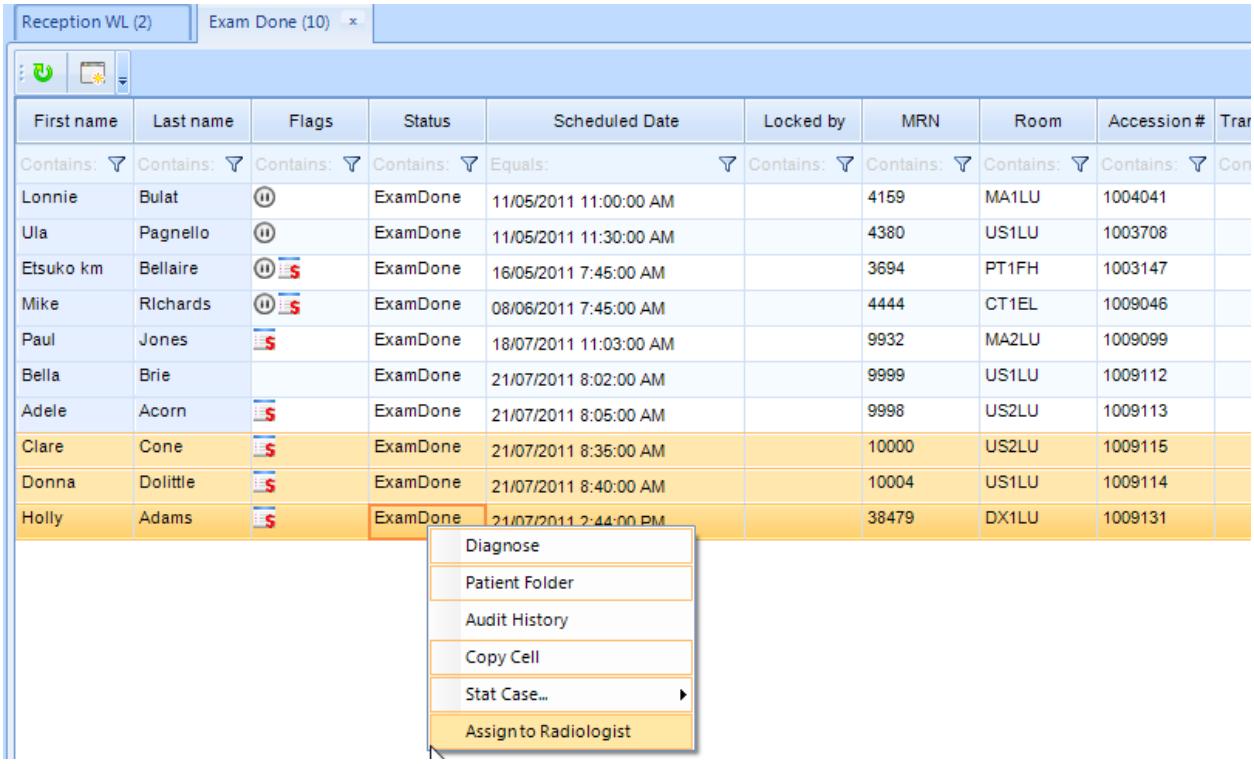



**Figure 4.14 – Assign to Radiologist from right click on Exam done work list.**

Selecting Assign to Radiologist will spawn a new window displaying the available Radiologists.

Note: The list of Radiologists displayed will be filtered by Practice based on the exam selected.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

**Figure 4.15 – Assign to Radiologist**

## Audible Sound on Record Dictation Start

A user preference called Beep when ready was added to the Dictation Control tab. This feature will play and audible sound to alert the user as to when the control is ready for recording.

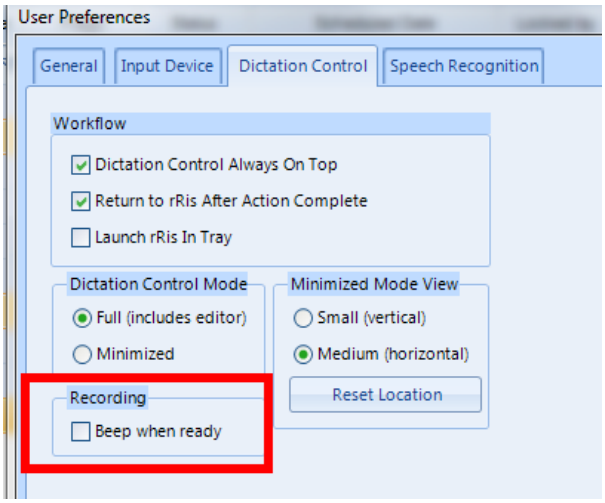



**Figure 4.16 – Patient Tab Showing Race Dropdown**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Organization Picker

The ability to change between organizations has been built into the application in Build 1.18. A new ICON (looks like an office building) was added to the menu bar. Selecting the arrow next to the ICON will expand to a drop down list enabling the user to change from current site. Expanding the list will display all the Orgs and Sites the current logged in user is configured for. When the selected Org or site changes, work lists will refresh as will the label next to the ICON. The org and site codes of your currently selected Organization and site are displayed to the right of the ICON.

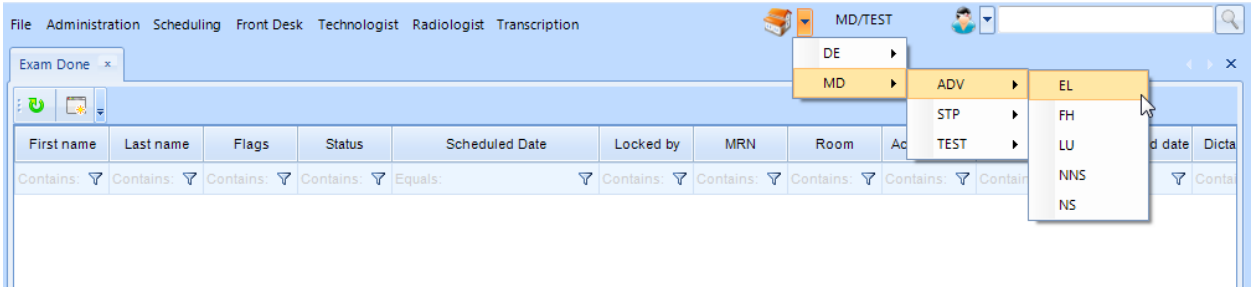



**Figure 4.17 – New Organization Picker ICON and visual representation of you current organization.**

## Sedation Type Added to Work list

Build 1.18 has a column called Sedation added to the Technologist work list. The sedation type will be captured at Reception. The code for Sedation type will be displayed in this column.

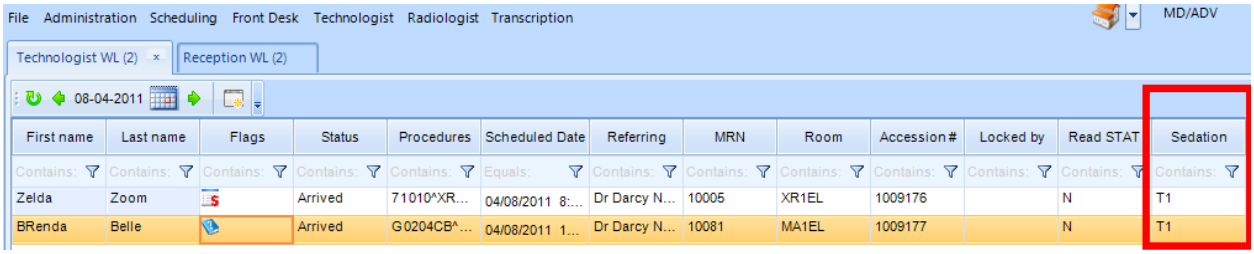



**Figure 4.18 – Sedation column added to Technologist work list.**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Delivery Location vs Visited Location Cleanup

A change was made for configuring the delivery location of where the report should be sent. Now the user can be configured to have a different "Delivery To" location than the address or fax number listed for contact information. As you can see in the figure 4.19 below the Delivery information can be completely different and separate from the contact information. The delivery information can be specified for each address added for the user.

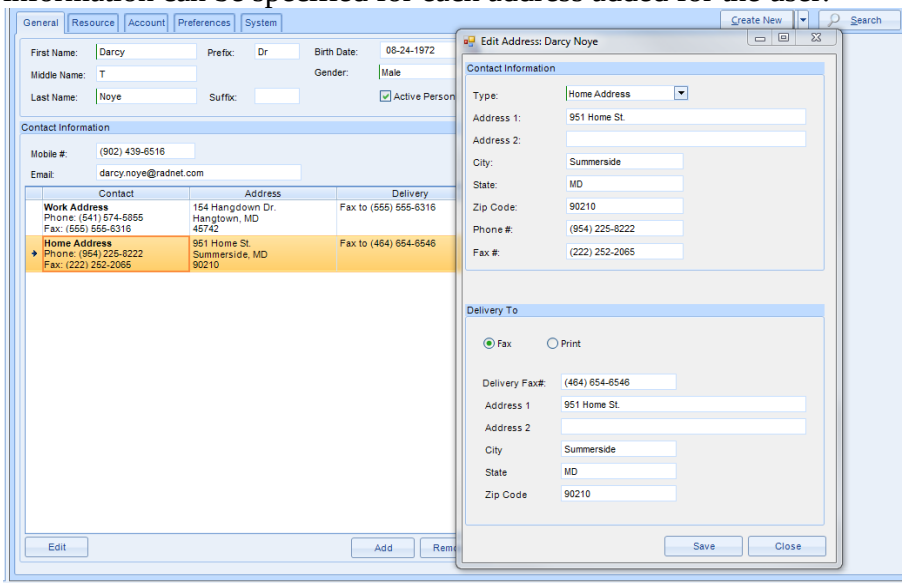



**Figure 4.19 – "Delivery To" changes in Add/Edit Address**

This is carried over to the Orders tab. The drop down list for Delivery location was removed from this tab. The address selected for "Visited at" will use the Delivery To method configured for that contact information.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

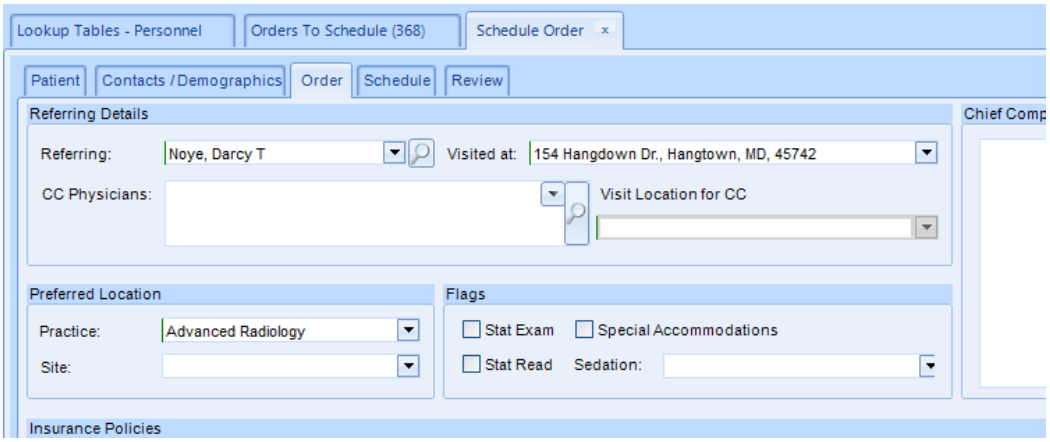



**Figure 4.20 – Reorganized order tab**

## Book X Continued – Arrive Multiple same day orders for patient,

Reception will be prompted with the window displayed below if the patient they selected for registration has multiple orders scheduled for that day within the user's organization. The window displayed in Figure 4.21 shows all the exams scheduled for Sally Mills for today. The user can select which scheduled orders they would like to arrive with the current one or they can cancel and only arrive the current scheduled order. All orders are selected by default.

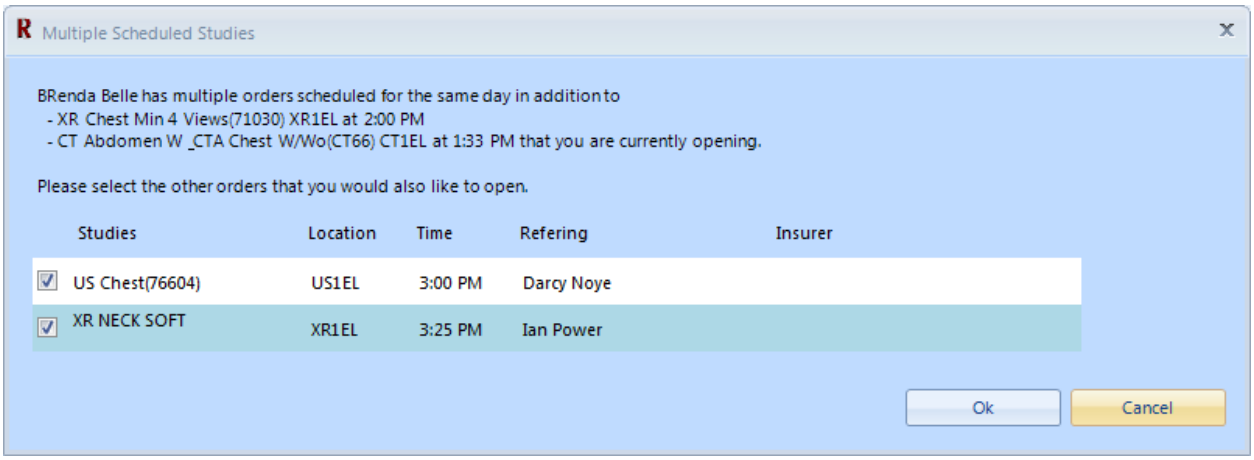



**Figure 4.21 – Arriving a patient with multiple scheduled orders will prompt user.**

If the user chooses to Arrive more than one, the registration window will open an order tab for each scheduled order.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

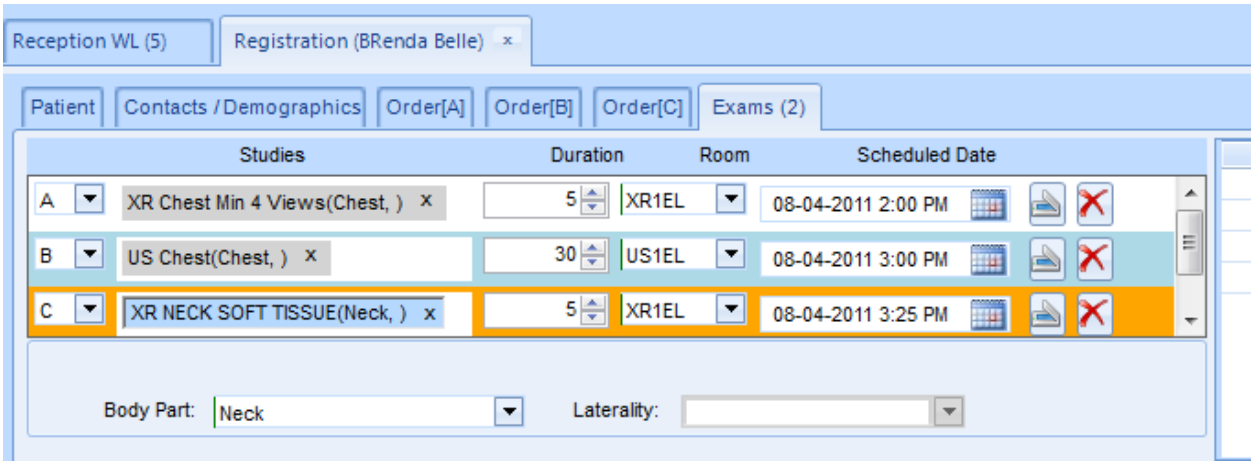



**Figure 4.22 – Arriving multiple scheduled orders**

## Preview for Diagnostic Report

Build 1.18 provides the radiologist and the technologist the ability to preview diagnostic reports. From within the diagnose or create reports windows a new button "Preview" will display a print layout view of the report even when the interpretation is not saved to the DB.

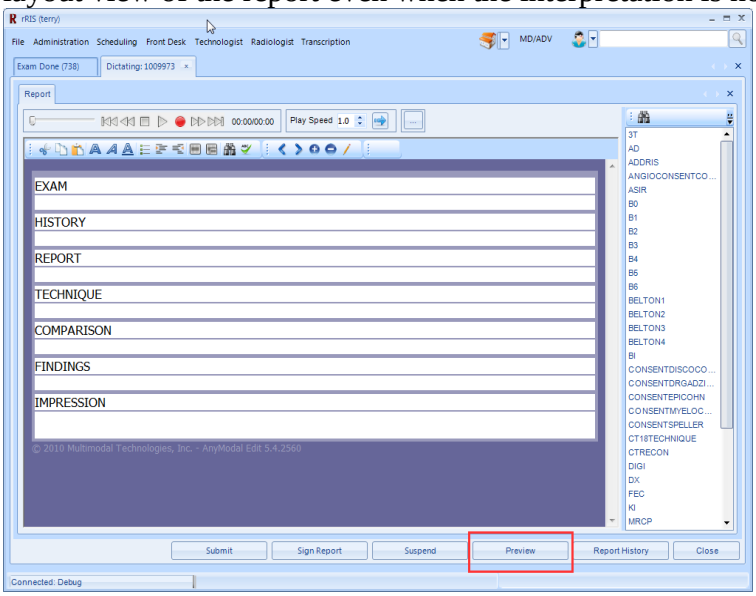



**Figure 4.23 – Preview button**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

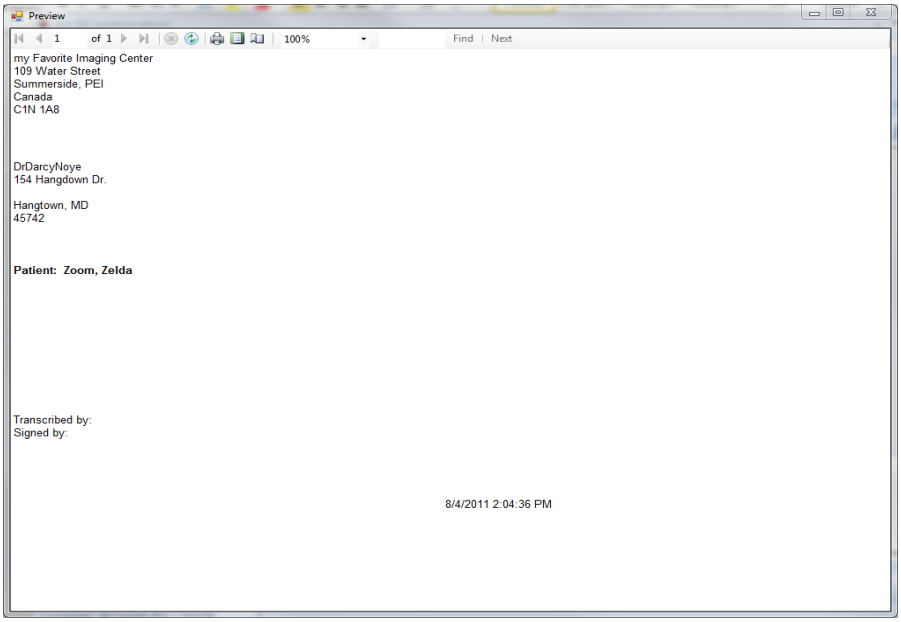
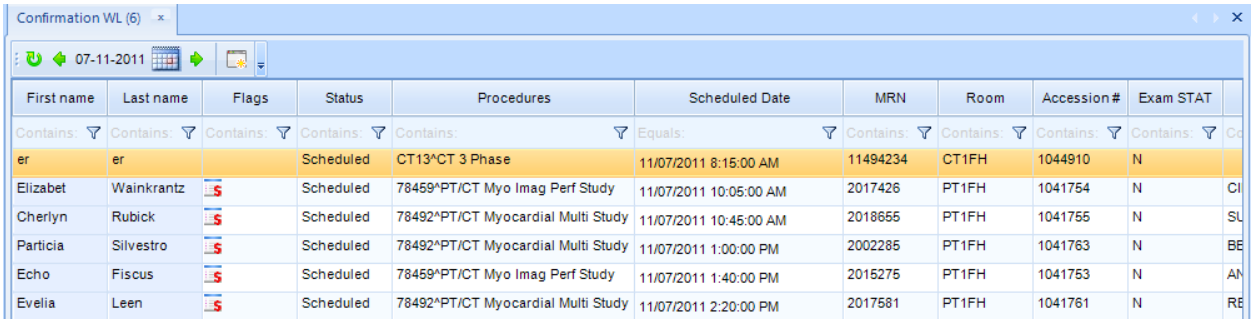



**Figure 4.23 – Preview of report**

## Study Confirmation Work List.

A new work list has been added to verify the currently selected day's exams have been confirmed. The new work list is opened from under the Scheduling menu.




| First name | Last name | Flags | Status | Procedures | Scheduled Date | MRN | Room | Accession # | Exam STAT |
|---|---|---|---|---|---|---|---|---|---|
| Contains: | Contains: | Contains: | Contains: | Contains: | Equals: | Contains: | Contains: | Contains: | Contains: |
| er | er | | Scheduled | CT13^CT 3 Phase | 11/07/2011 8:15:00 AM | 11494234 | CT1FH | 1044910 | N |
| Elizabet | Wainkrantz | S | Scheduled | 78459^PT/CT Myo Imag Perf Study | 11/07/2011 10:05:00 AM | 2017426 | PT1FH | 1041754 | N |
| Cherlyn | Rubick | S | Scheduled | 78492^PT/CT Myocardial Multi Study | 11/07/2011 10:45:00 AM | 2018655 | PT1FH | 1041755 | N |
| Particia | Silvestro | S | Scheduled | 78492^PT/CT Myocardial Multi Study | 11/07/2011 1:00:00 PM | 2002285 | PT1FH | 1041763 | N |
| Echo | Fiscus | S | Scheduled | 78459^PT/CT Myo Imag Perf Study | 11/07/2011 1:40:00 PM | 2015275 | PT1FH | 1041753 | N |
| Evelia | Leen | S | Scheduled | 78492^PT/CT Myocardial Multi Study | 11/07/2011 2:20:00 PM | 2017581 | PT1FH | 1041761 | N |

**Figure 4.24 – Confirmation Work List.**

Selecting a study and hitting the Confirm button will check to see if the patient has multiple studies scheduled for that day. If multiple studies are found, a prompt will display asking which studies are to be confirmed.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

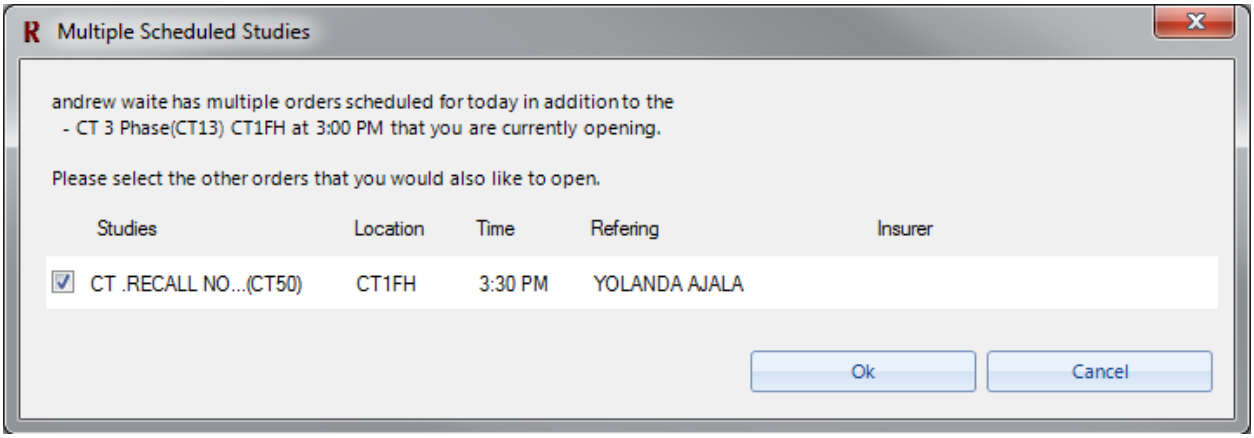



**Figure 4.25 – Multiple Scheduled Studies found for today.**

Choosing all or none of the extra exams, the user selects Ok on the prompt displayed in Figure 4.25, which will then open the confirmation window. The Confirm window is open to allowing exam or patient data changes. Once the study is confirmed it is removed from the Confirmation work list, but remains in the Reception work list.

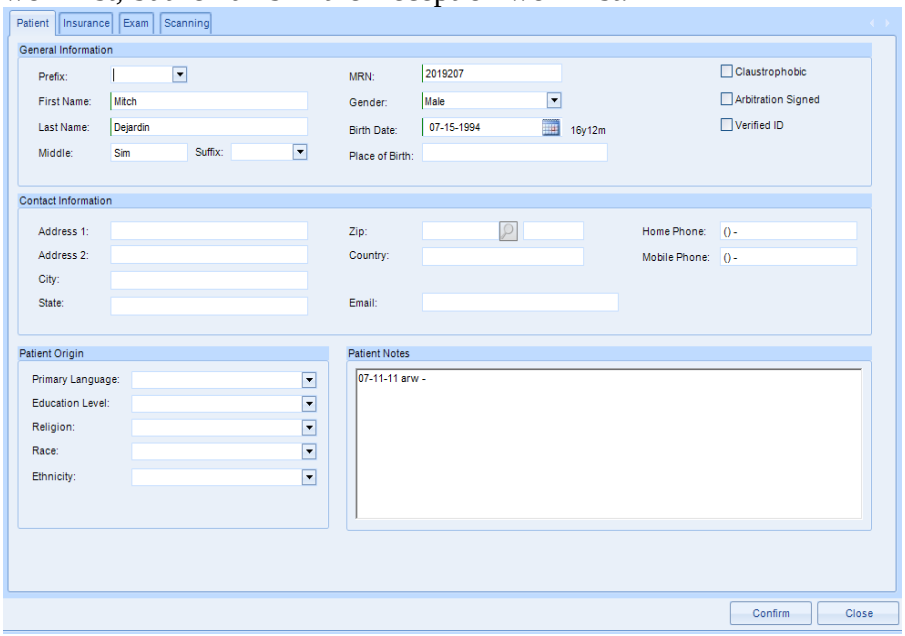



**Figure 4.26 – Confirmation window**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Ability to Create Unknown Referring Physician

In Build 1.18 a scheduler will have the ability to create an Unknown Referring Physician if their search for a referring physician comes up empty. From within the search window selecting the Create New button will open a scaled back version (by permissions) of the personnel editor. The flag for Unknown Referring is defaulted and cannot be changed at this point. If the visit information is required on Orders tab, the creator of the unknown referring physician will have to make sure this information is added at this time. Upon completion of create the unknown Referrer, the order screen is populated with the new data. The referring name will be appended with (unknown)

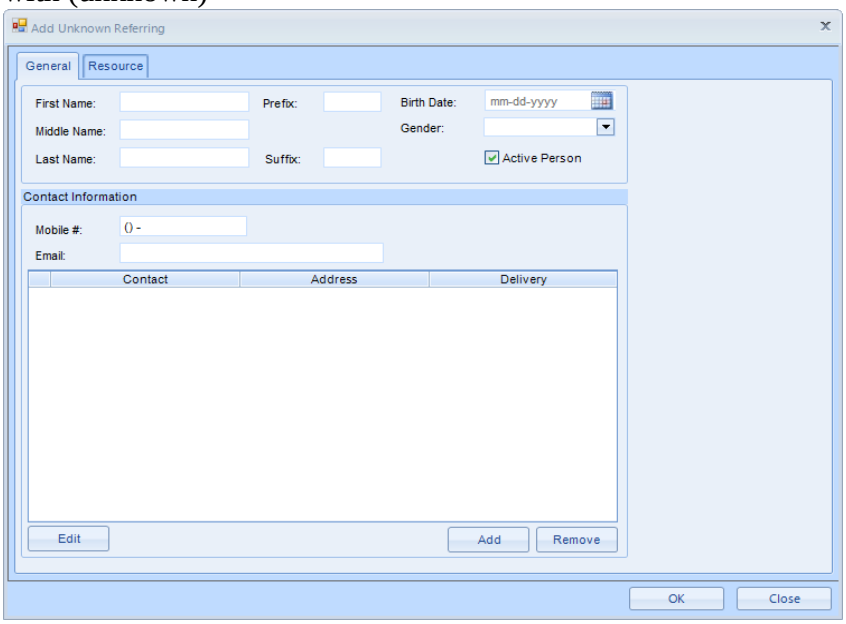



**Figure 4.27 – Add Unknown Referring Physician**

An administrator has access to an Unknown Physician work list. This work list will contain the orders that currently have referrers flagged as unknown. The action from this work list is to edit the orders that have unknown referrers. The administrator can right-click on the physician in the order tab, and can select a new context menu items called “Reconcile Unknown Referring”. A new screen will launch that displays the existing unknown referring data, and has a referring search control built in.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

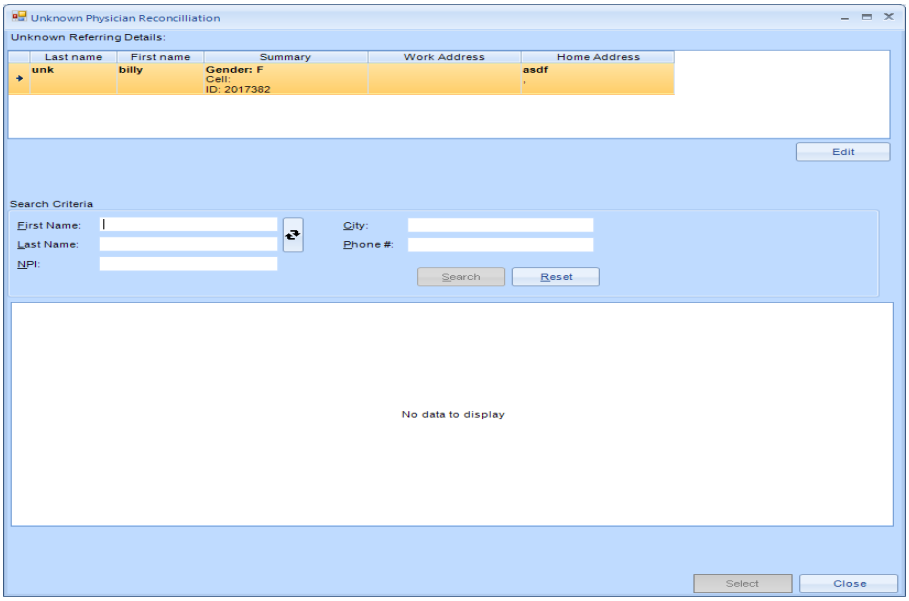



**Figure 4.28 – Unknown Physician Reconciliation window.**

The administrator can search for a referring. If they find and select one and close the screen, the new physician will replace the original unknown referring, and the unknown referring will be deleted.
If the administrator cannot find a suitable match, they can select an Edit button beside the unknown referring's information. This will launch the personnel editor, and will allow the admin to update this physician to a known physician (by changing the flag) , and can add or edit any other data about the referring.

## Scanning Documents on Scheduling Screens

Scanning documents for orders, scheduled exams or arriving patients will be controlled via a scan button located in the procedure picker's window study row. Selecting this button will open the Scan Document Viewer window, and then also launch the Scan Document window. At this point the user can choose to scan or import a document. Selecting Cancel on Scan Document window will take the user back to the Scan Document Viewer window where the user can view already scanned documents for this order or select check box to show all documents for patient.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

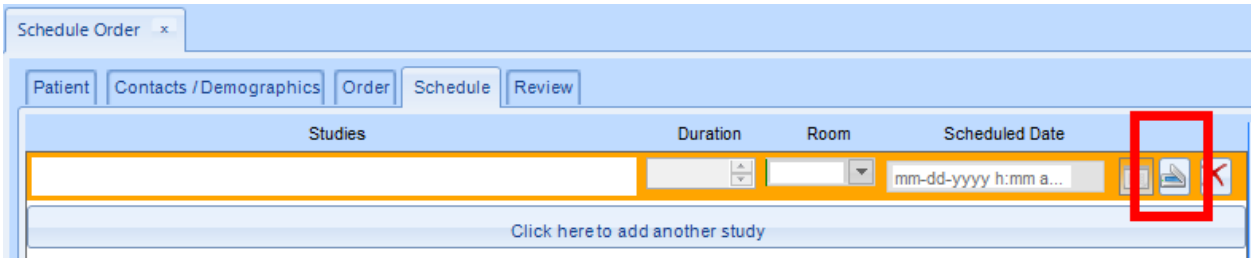



**Figure 4.29 – Scan ICON on Schedule tab**

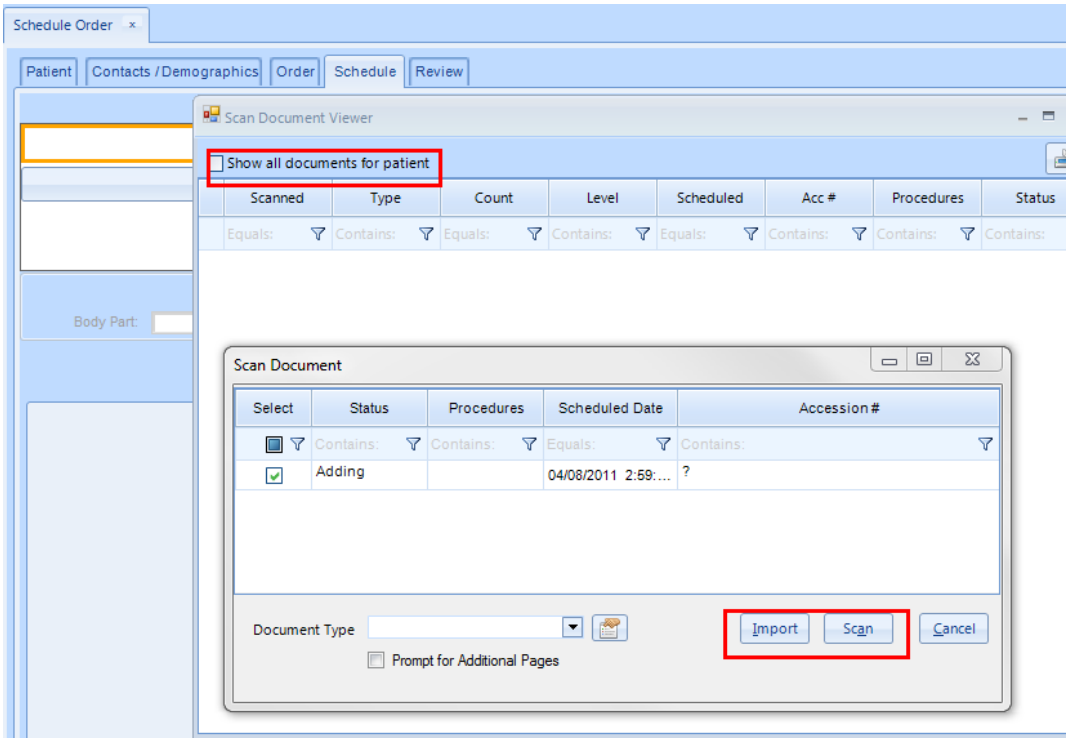



**Figure 4.30 – Scan Document View and Scan Document windows.**

Note: possible future change. Upon selecting the Scan Document ICON on the schedule tab it opens the Scan Document Viewer window only with focus put on the Scan ICON in this window. This way if the user only wants to view scan documents they are not required to always close the Scan document window. With the focus put on the Scan ICON in the Scan Document Viewer, the user can select Enter on keyboard to launch the Scan Document window to complete or import scans.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 5. Known Limitations

Bugs, Suggested Features, and Support Issues are now tracked in a web based system called Redmine. The following is a snapshot of the issues found in Build 1.18.

| # | Status | Subject | Category | Target version | % Done | Resolved Version |
|---|---|---|---|---|---|---|
| 483 | New | Distribute document - error is returned if recepient does not have fax number | Thick Client GUI | 1.18 | 0 | |
| 482 | New | Enhancements for scanning work flow | Thick Client GUI | 1.18 | 0 | |
| 481 | New | Carrier notes pop up is displayed when Carrier does not have any notes associated | Thick Client GUI | 1.18 | 0 | |
| 480 | Resolved | Edit schedule, the room is not retained | Thick Client GUI | 1.18 | 100 | 1.19 |
| 479 | Resolved | Scheduling double order will give error from Calendar | Thick Client GUI | 1.18 | 100 | 1.19 |
| 478 | Resolved | Scan document work list. | Thick Client GUI | 1.18 | 100 | 1.19 |
| 477 | Resolved | Removing Scan doc returns error on save of Perform Exam window | Thick Client GUI | 1.18 | 100 | 1.19 |
| 476 | New | Receipt error after abort study by tech and do not want to reschedule | Thick Client GUI | 1.18 | 0 | |
| 457 | Resolved | user groups are displayed when more than one line of user groups assigned. | Thick Client GUI | 1.18 | 100 | 1.19 |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# User Pre-Release Notes

for RADNET rRIS
Build 1.19

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Purpose ..... 3
2. Intended Audience ..... 3
3. Installing/Accessing the Application ..... 3
4. New Features and Enhancements ..... 4
Document Distribution History Screen ..... 4
Duplicate Patient Safety Net ..... 5
Enhance Special Accommodations ..... 6
Indication Code Search Provider ..... 7
Inpatient Workflow ..... 8
Medical Record Access ..... 10
No Alternate Phone Flag ..... 11
PreCert Expiration Date. ..... 12
Reschedule Studies ..... 12
Review Scheduled Information ..... 14
Scanned By Displayed in Scanning Grid ..... 15
Schedule Walk In ..... 15
Restricted Modality Times (Soft Block) ..... 16
Stat Precertification Flag ..... 19
Diagnostic Reporting Text Expander ..... 19
Report Utility ..... 22
Reporting Screen Refactor (Configurability) ..... 23
Letter of Intent Added to Precert Status ..... 26
Stat Prelim Form ..... 27
Referring Physician Notification Management Report ..... 29
5. Known Limitations ..... 30

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 1. Purpose

This document describes some of the new features and changes implemented in rRIS as of the end of Sprint 19. This pre-release version of rRIS is referred to as Build 1.19.

Only features which can be visually demonstrated to the user will be outlined in this document.

# 2. Intended Audience

This document is created by the rRIS Development team for the RadNet RIS management team.

# 3. Installing/Accessing the Application

The installation instructions for the rRIS client have been posted to the RadNet Wiki page at http://mdbal01rdtweb/Wiki/

Under the RIS menu, click on the rRIS page. The credentials to access the page are:
Username: rRIS
Password: Summerside

*Please note that Build 1.19 is considered a new core release of the application and will require a reinstallation of rRIS. This is accomplished by navigating to the rRIS shared installation drive and running the CoreInstall.bat file (ex: I:\RISDeployment\CoreInstall.bat)*

If you experience difficulties accessing the application, please do not hesitate to contact Spencer MacDougall with the PEI RIS Development Team.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 4. New Features and Enhancements

## Document Distribution History Screen

The document distribution history screen is a new work list that displays the list of all distributed jobs for a particular study. The work list is accessed via a context menu (right click on mouse) from the Patient Mode work list.

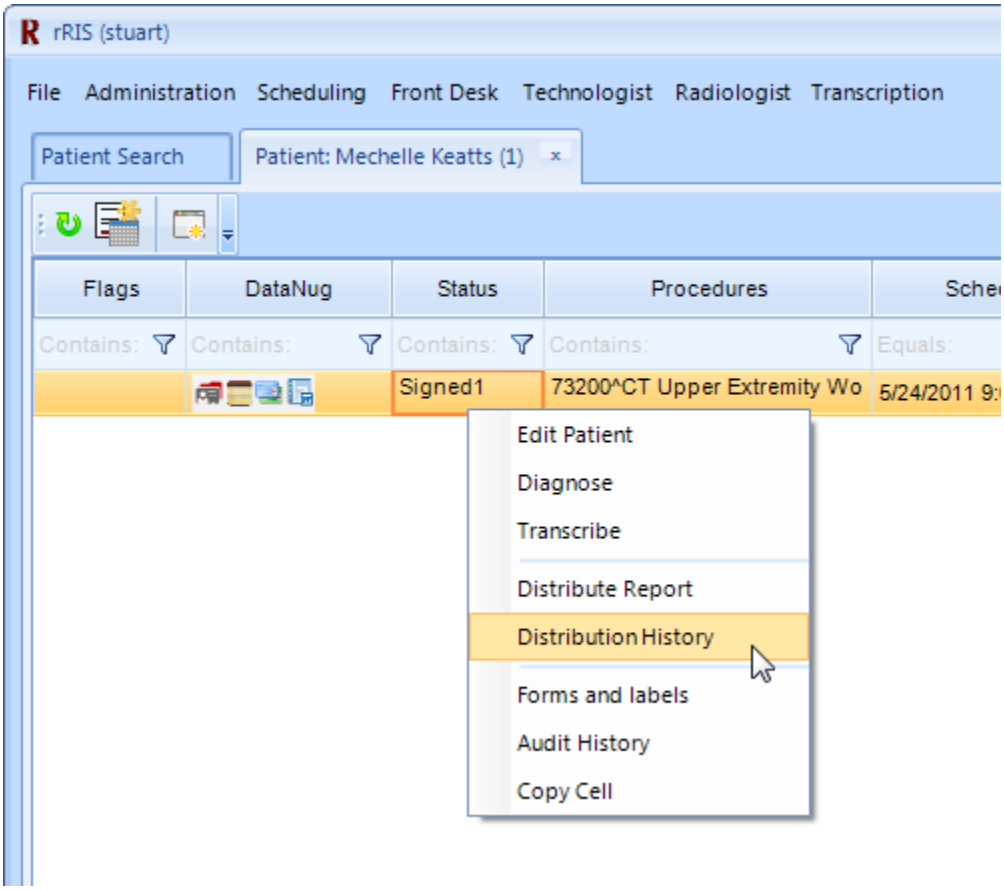



**Figure 4.1 – Accessing Distribution History work list from context menu**

This new work list will allow the user to not only view jobs for a particular study but the user also has the ability to edit, pause, retry, cancel and create new jobs. Jobs in cancelled or completed status can be retried, but the original job stays in the work list as part of its history. If a job is in Pending or In Progress, the retry button is not an option.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

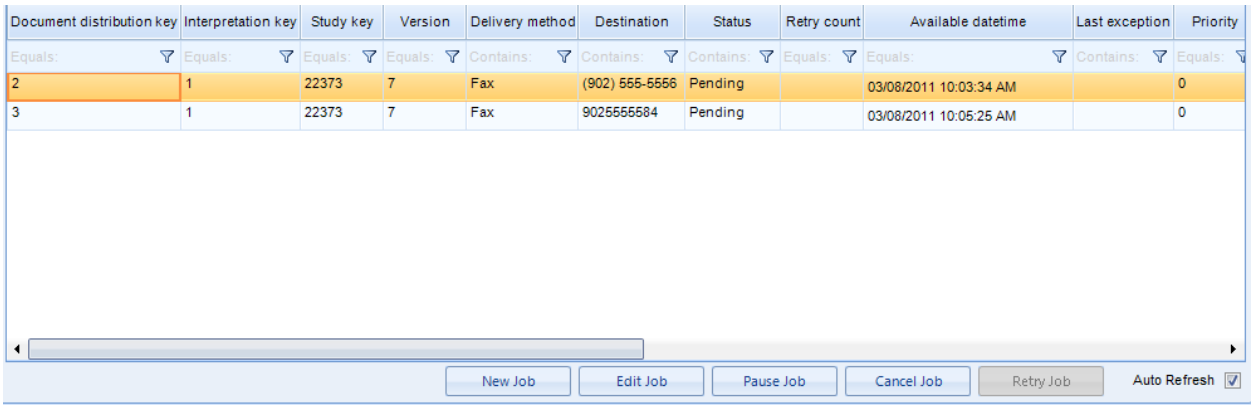



**Figure 4.2 – Document Distribution History Work List**

Creating a new job will open the Distribute Report window with all fields blank. Search option is available for locating a recipient. Selecting an address will populate the users default delivery information into the remaining fields.

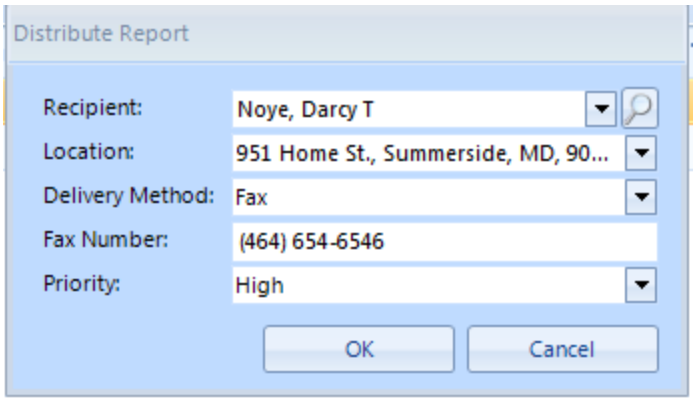



**Figure 4.3 – Distribute Report**

## Duplicate Patient Safety Net

To reduce the risk of creating a duplicate patient, patient search has been modified to increase a user's chances of finding an existing patient. A background search will be completed for the patient once 3 key fields of *first name, last name, and birthdate* are populated. The results window will popup if there are close matches found. If there are no close matches, the search result window will not be displayed.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

Patient search will now also support searching on other variations of name and birthdate. When the *Search Other Variations (keyboard shortcut = Alt + O)* is checked the following name and birthdate characteristics will also be searched.

1. Starts with search is performed
2. Then a sounds like search (name is Stuart, but user entered Stewart)
3. Then a sounds like and a transposed birthdate (DOB entered 12-01-1970, but patients actual DOB is 01-12-1970)
4. If a name component entered is only one character it will perform a starts with instead of a sounds like. (EX: . firstname sounds like s, lastname sounds like smith will be converted to firstname starts with s, lastname sounds like smith)

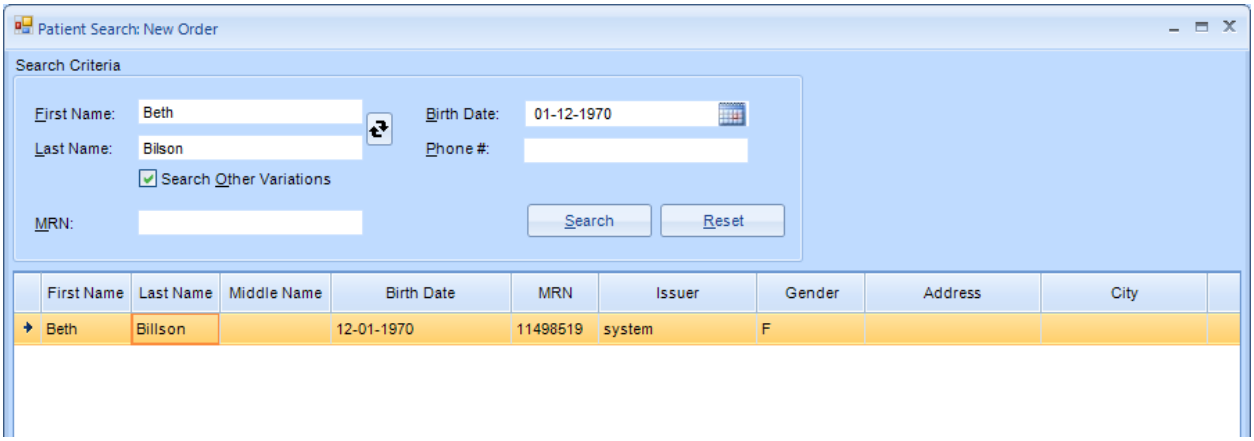



**Figure 4.4 – Patient Search window with "Search other variations" checked. In this example it matched on approximate last name and transposed birthdate.**

## Enhance Special Accommodations

A check box for Special Accommodations has been added to the order tab. When the box is checked a drop down list box and free text field becomes enabled. The list box has Yes/No values, and the text box allows for a maximum of 100 characters. A flag is added under the Flags column on main work lists, and also in patient history on Perform Exam data window.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

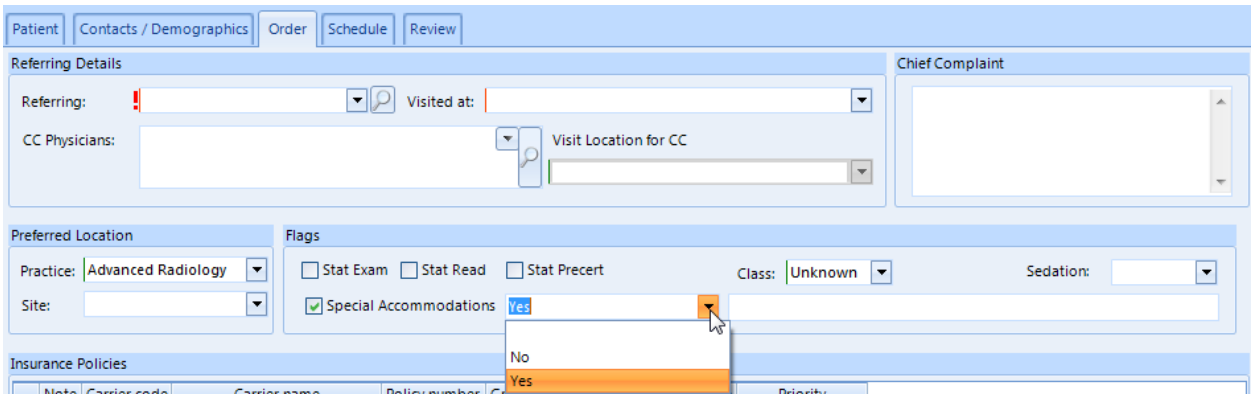



**Figure 4.5 – Special Accommodations.**

## Indication Code Search Provider

An easy way to search indication codes was required for the user. In Build 1.19 a menu item was added to the provider list.

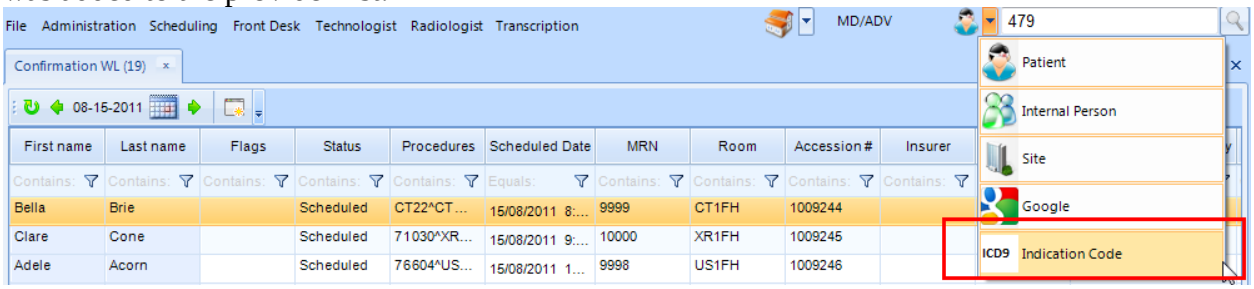



**Figure 4.6 – Ability to search for Indication Code.**

Selecting Indication Code from search list will open a new window. The user can search by code and full or partial description.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

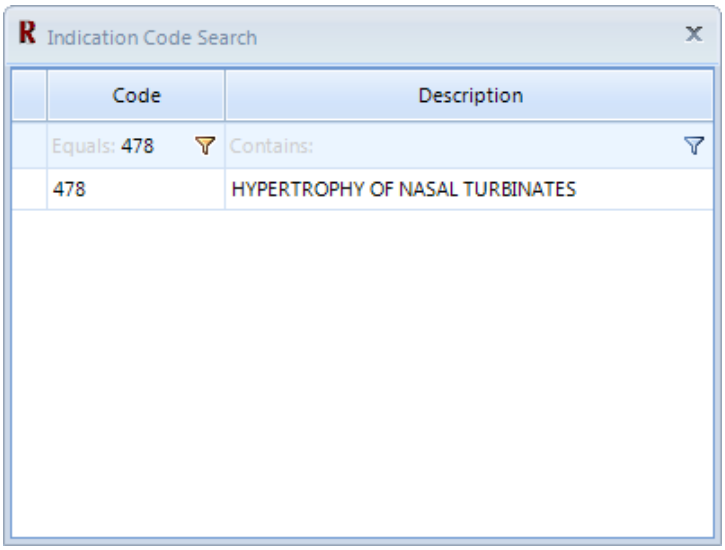



**Figure 4.7 - Indication Code Search window**

## Inpatient Workflow

Patients can be identified at the visit level as to whether they are outpatients, inpatients, emergency, etc. A new combo list box was added to the order tab for the scheduler, registration and technologists. This is a mandatory field.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

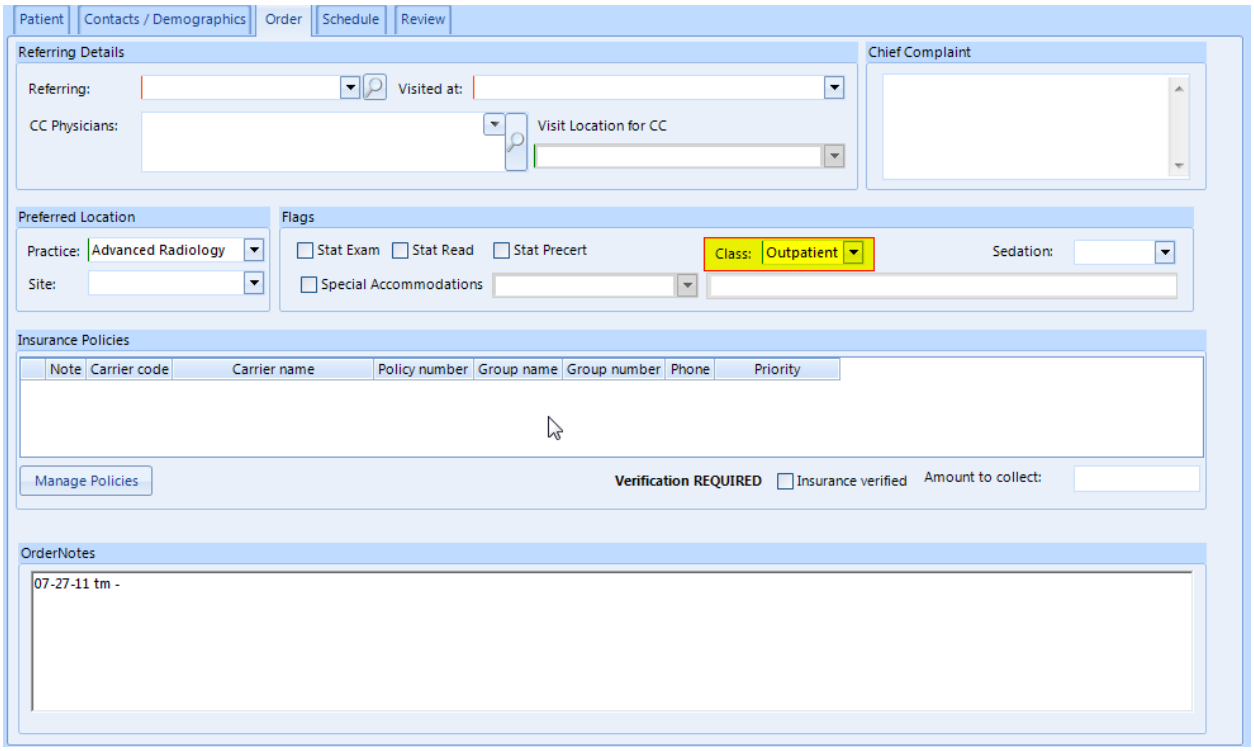
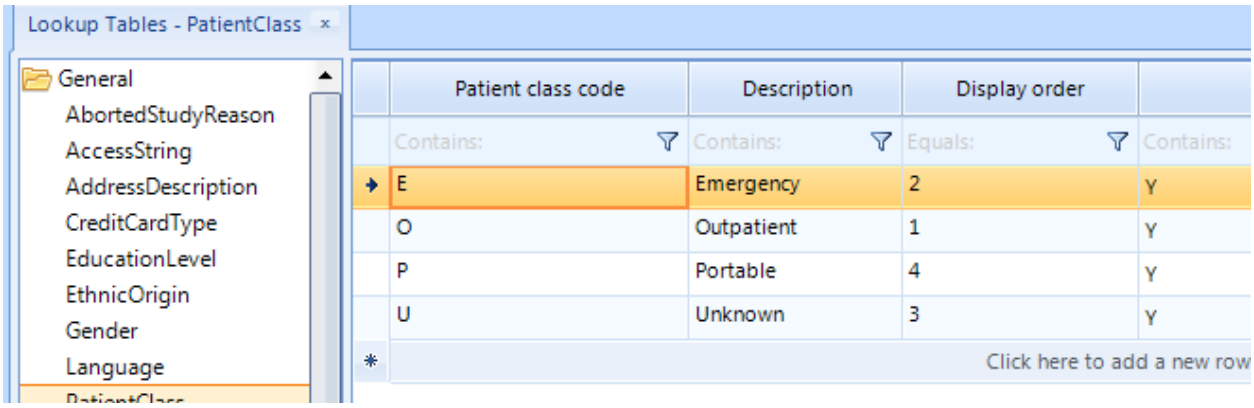



**Figure 4.8 – Patient Class**

A new system configuration setting "PatientClassDefaultCode" has been added to default the value in the Class list box field on the order tab. The value can be any active Patient Class Code from the PatientClass lookup table. In figure 4.9 below shows the PatientClass lookup table codes and descriptions as well as the new systemconfig setting with the patient class code value for Outpatient making it the default value for the Class field on Order tab as displayed in Figure 4.8.




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

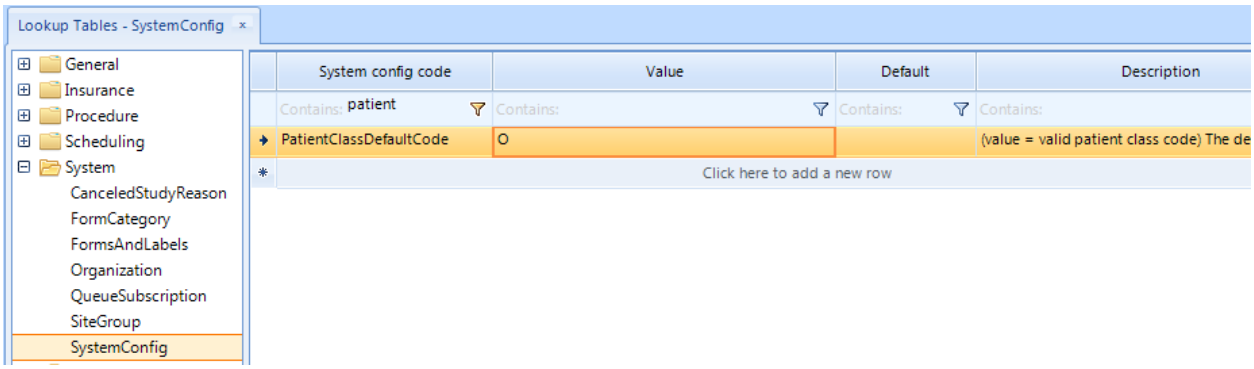



**Figure 4.9 – PatientClass lookup and SystemConfig setting for defaulting Class field.**

## Medical Record Access

The ability to capture who has access to a patient's medical records, and the duration the persons access is valid has been added. Located on the Contacts / Demographics tab the user will have the option to Add, Edit, and Remove access. The previous button will display expired medical record access for this patient. If a patient is merged, medical record access entries are carried over to the "new" patient's demographics.

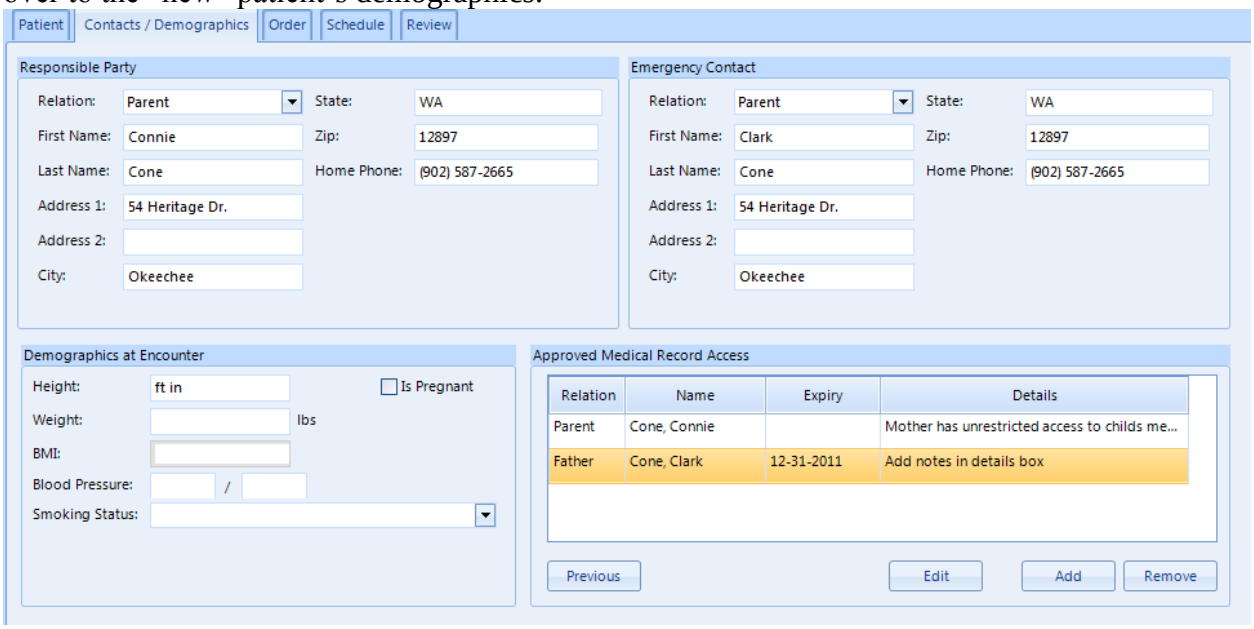



**Figure 4.10 – Approved Medical Record Access data pane**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

The Add (or edit) Medical Record Access window captures the approved parties demographic details, relationship to patient, expiration of access, and details text box to capture notes. If an expiration date is not selected, that person's access will not expire.

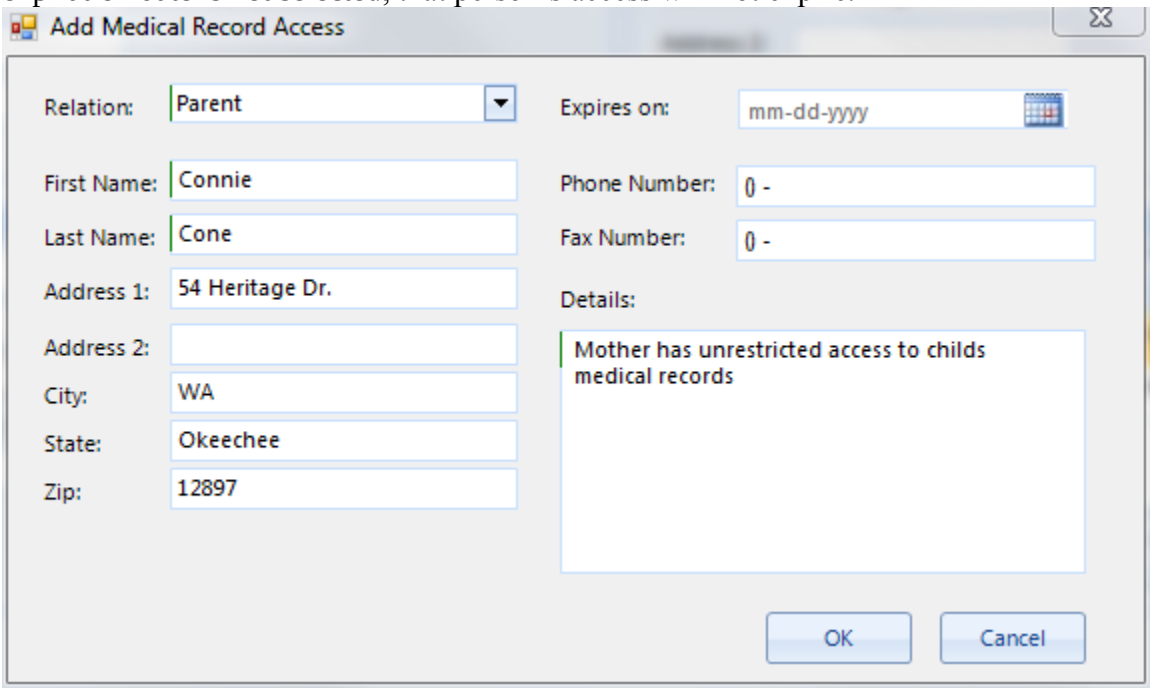



**Figure 4.11 – Medical Record Access window.**

## No Alternate Phone Flag

Users needed the ability to capture if the patient has an alternate phone number, and if no alternate phone number is available mark the patient as such. A new check box "No Alternate Phone" was added. When this checked box is selected the Work Phone and Other Phone fields are disabled. In Figure 4.12 the Other Phone Alternate number was entered before the check was added to "No Alternate Phone" box. As you can see the phone number is retained just in case the check box is selected by accident there is no risk of lost data.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

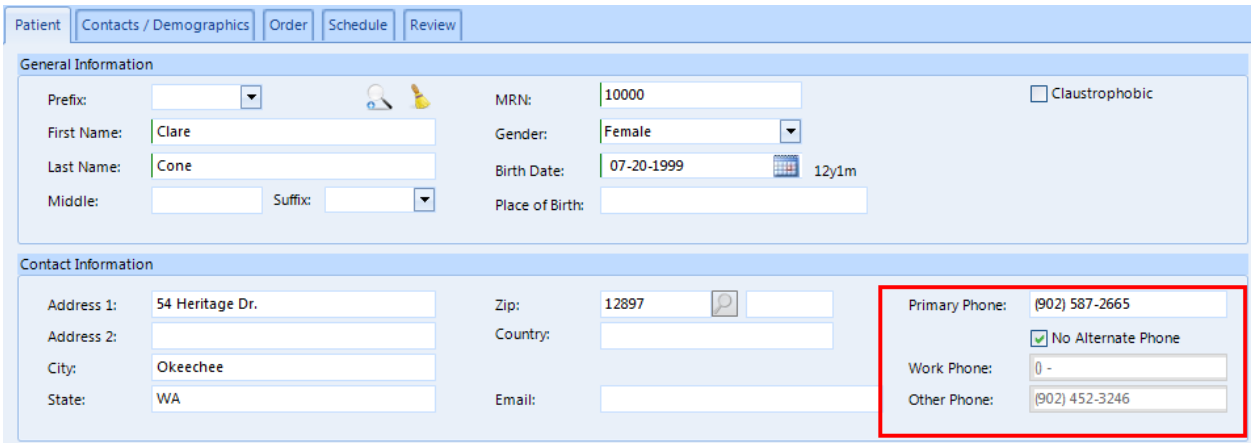



**Figure 4.12 – No Alternate Phone check box**

## PreCert Expiration Date.

In some cases Precertification numbers have expiration dates. In build 1.19 the IVT, Confirmation, Registration, and Perform Exam data windows, the user now has the ability to add or edit the PreCert expiration date.

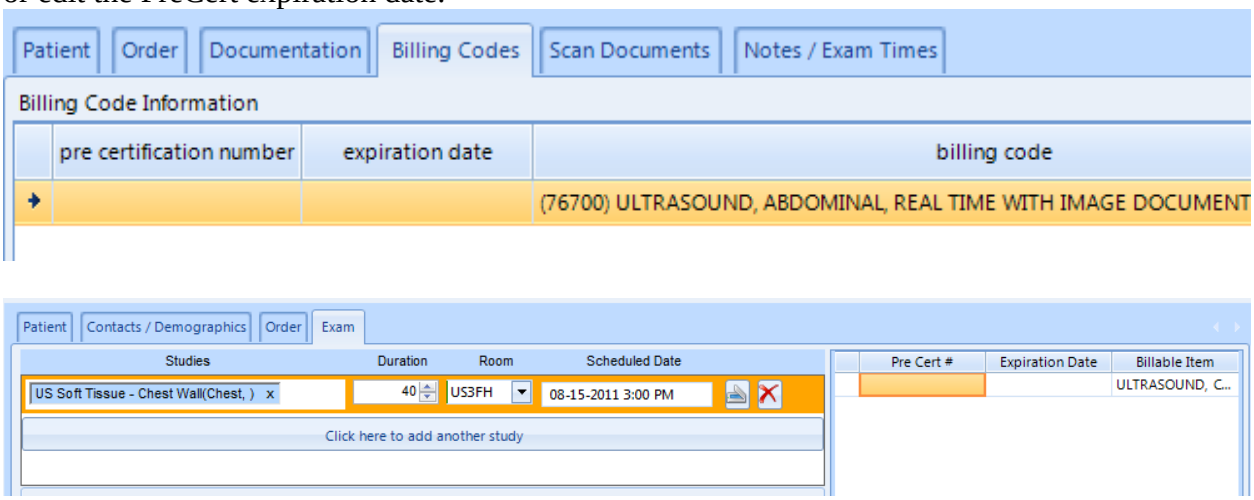



**Figure 4.13 – Perform Exam and Registration windows with Pre Cert Expiration added.**

## Reschedule Studies

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

When rescheduling a study the user will now be prompted with a popup window and have to provide a reason from a pre-configured list to enable the OK button to continue with rescheduling. If the patient has multiple studies scheduled for that day, the user will have the option to select which studies are to be rescheduled. The study that was selected from the work list is selected by default. If cancel is selected the user is returned to work list and no action is taken on any of the studies.

If the patient has a scheduled series, each study of the series will be listed with series named displayed. They may choose to select all or only some of the studies that belong to the series. If they choose to only select some of the studies, the series rules will be broken and will now follow normal scheduling procedures.

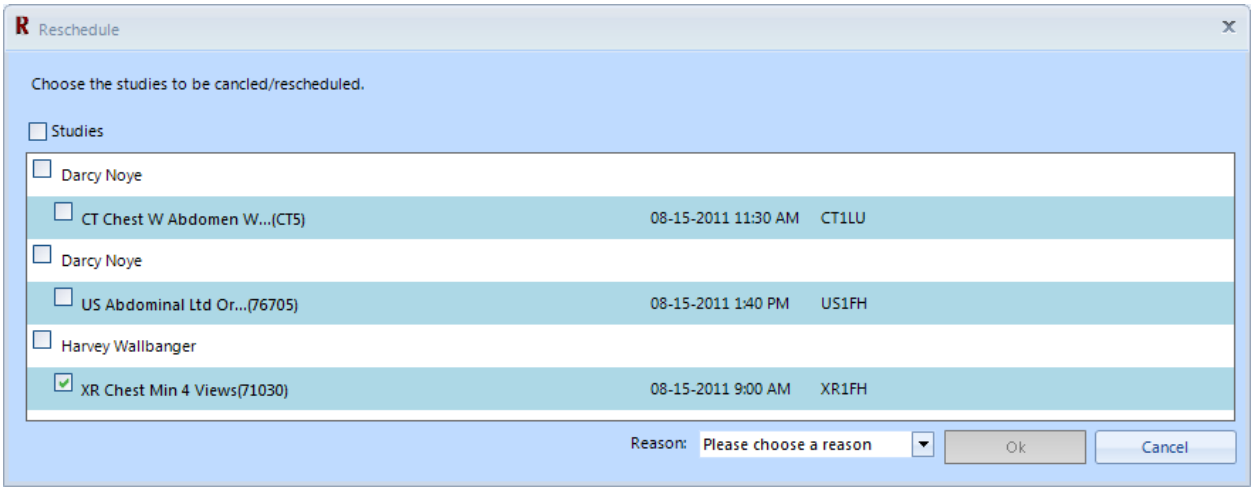



**Figure 4.14 – Rescheduling studies for patient with multiple studies in one day.**

Selecting the Studies check box will select all studies listed. Selecting Referrer (in Figure 4.14 the referrers are Darcy Noye and Harvey Wallbanger) will auto select all studies listed directly for that order. If 2 separate orders were scheduled from the same referrer, the second scheduled orders studies will not be selected. If more than one study is selected to be rescheduled, each study will have its own order tab, and multiple procedure rows will be displayed on the exam tab.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

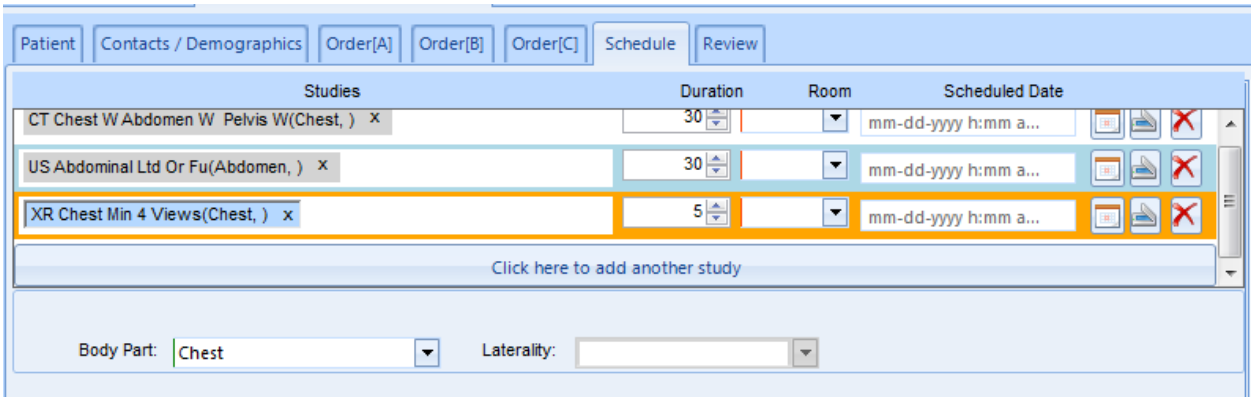



**Figure 4.15 – Multiple studies selected for reschedule from different referrers but originally scheduled for same day.**

## Review Scheduled Information

The review tab will display a summary of information for the study(s) to be scheduled, or that has already been scheduled. Captured in this new text area is the scheduled procedure name, date and time of the schedule, study duration, site name, CPT code and description for each study. Also the address for the site is also displayed.

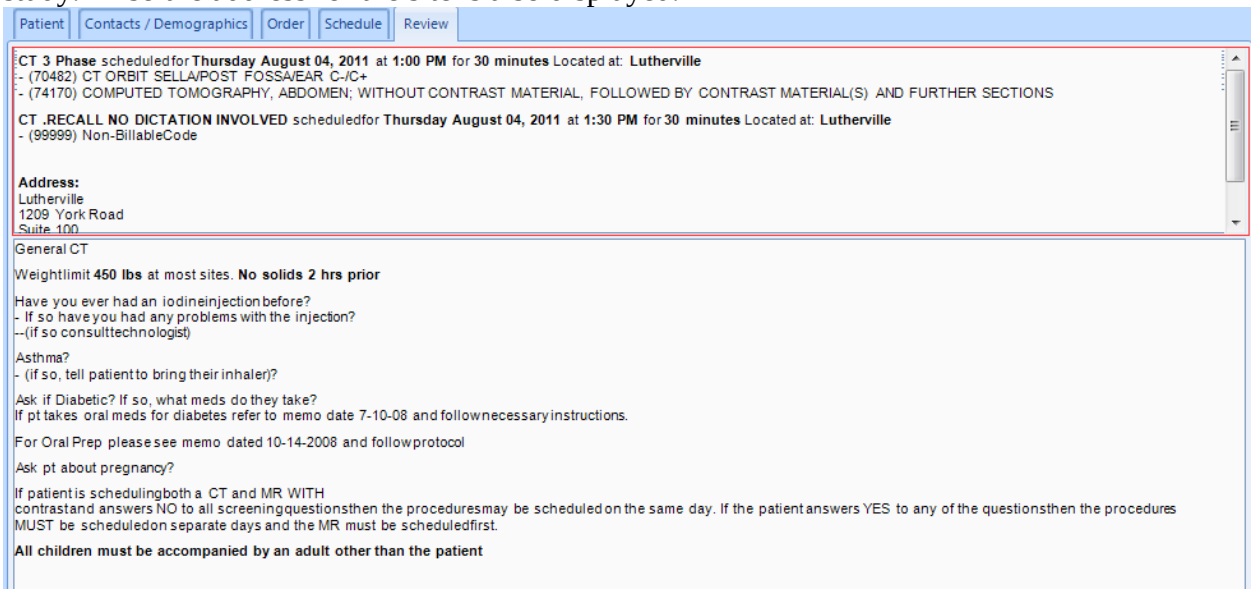



**Figure 4.16 – Review tab**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Scanned By Displayed in Scanning Grid

After a document is scanned, the user that scanned the document in now displayed under a new column in the work list called “Scanned By”.

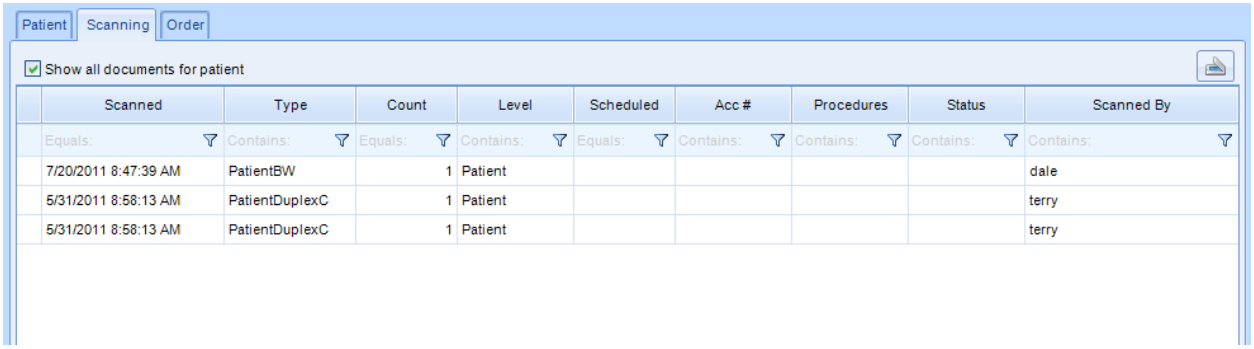



**Figure 4.17 – Scanning tab grid.**

## Schedule Walk In

A new menu option called Walk-in located under the Front Desk menu added.

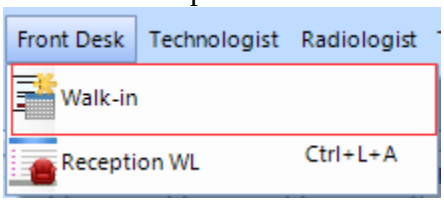



**Figure 4.18 – New Walk-in menu option**

The window that opens is the Registration window without any patient data. This gives the user the ability to create order, schedule, and arrive or check-in patient without selecting a pre-existing scheduled study from the work list. A new MRN is defaulted for creation of a new patient. If an existing patient is used, the MRN will change to that of the patient selected.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

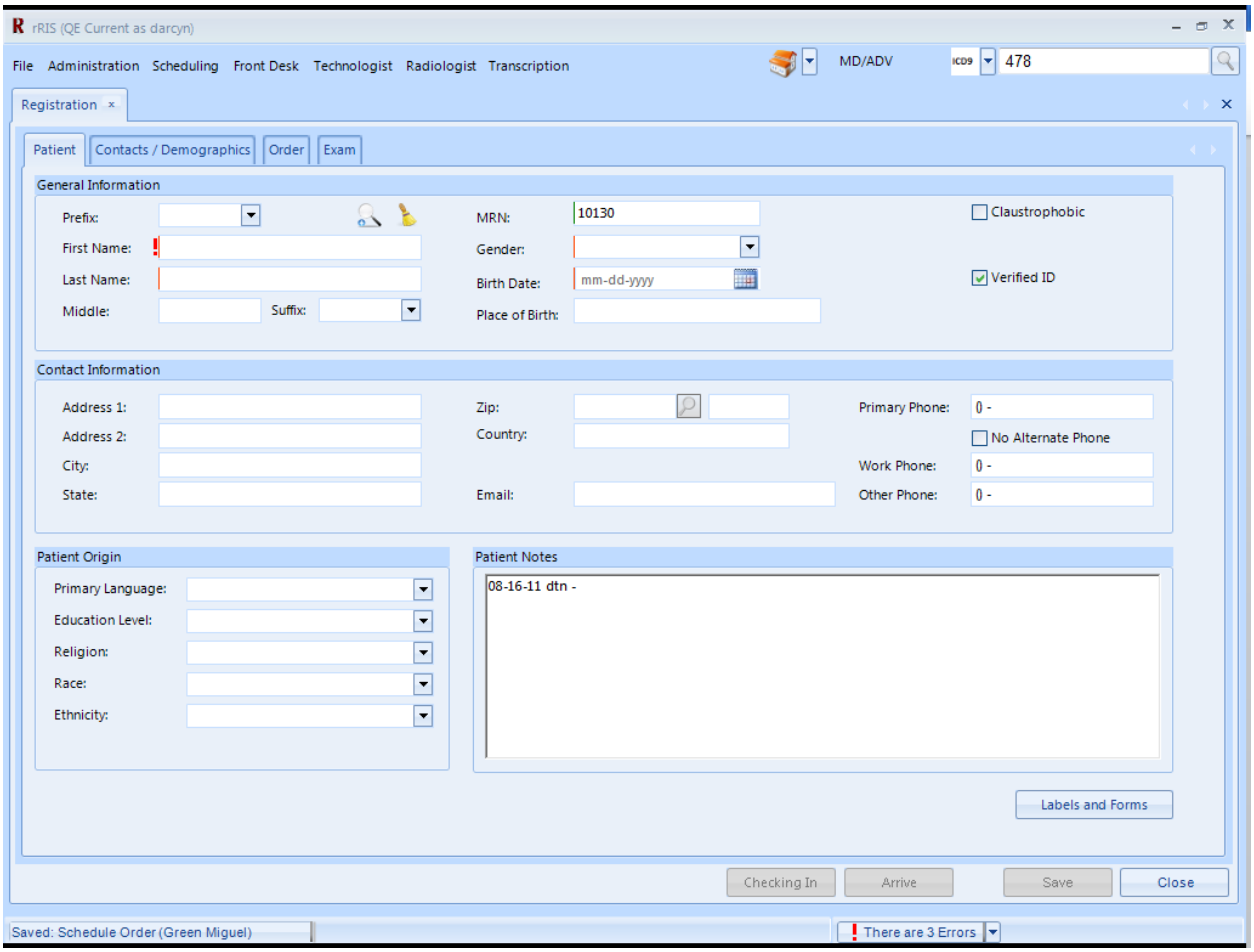



**Figure 4.19 – Walk-in data window**

## Restricted Modality Times (Soft Block)

A new method of marking a modality as unavailable had been introduced in build 1.19. This "soft block" will inform a user that a modality may not be available, or may have restrictions for specified period of time. Figure 4.20 displays where the block is configured. Selecting the modality, and a new data pain on the bottom right will allow the user to configure a specified time (From date → To date and time of day is captured). The description entered is what the user will see when scheduling.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

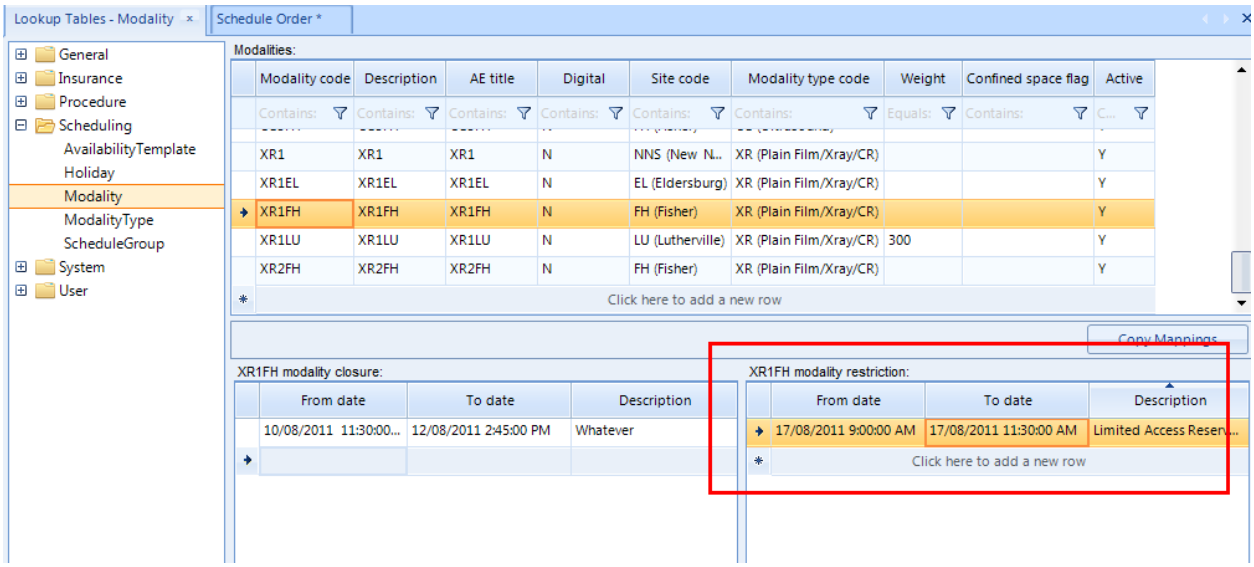



**Figure 4.20 – Add or Edit Restricted Modality Times**

When scheduling you perform an appointment search. The time results returned that fall in the time frame specified for modality restriction will have a red colored background. Hover the mouse pointer over the red colored time slot will display the description entered for the Modality restriction.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

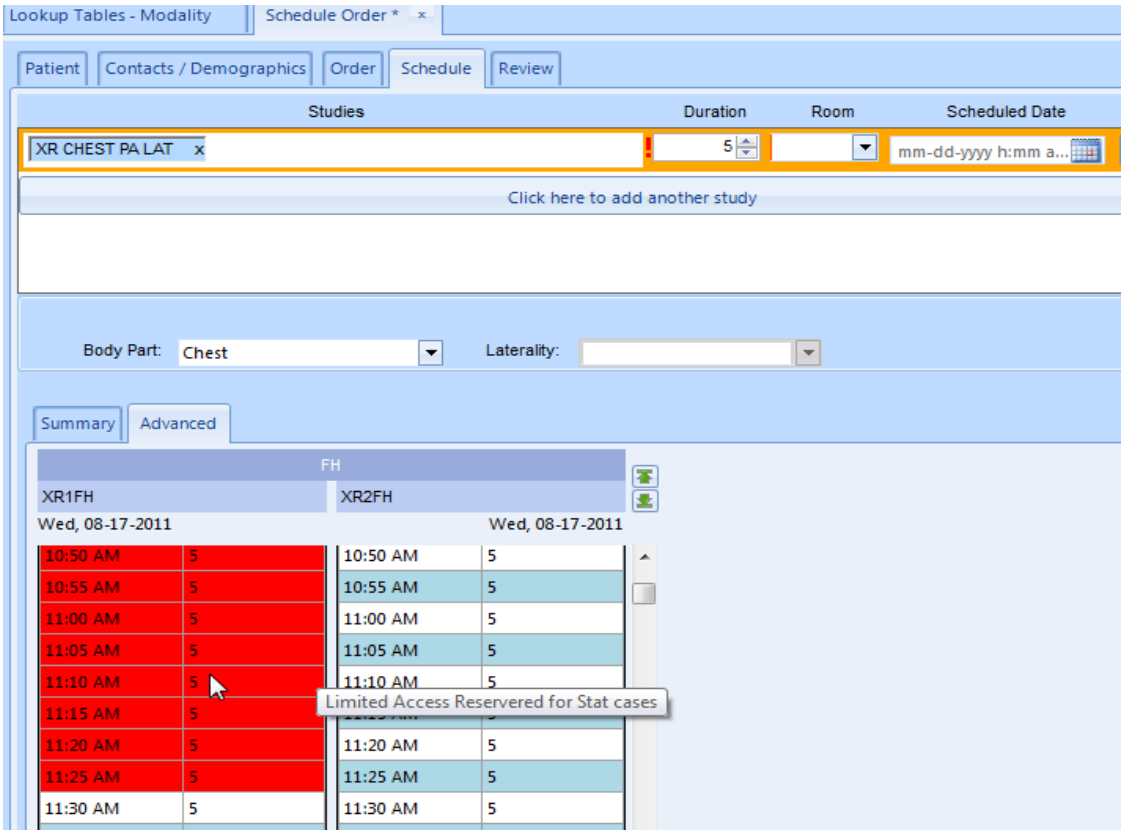
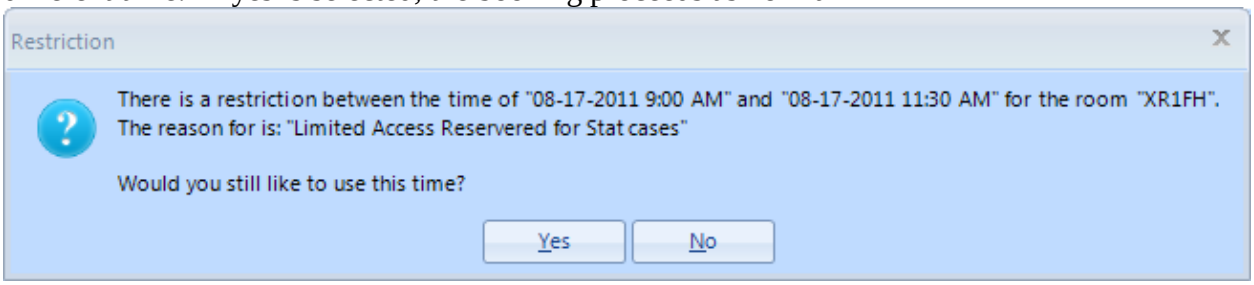



**Figure 4.21 – Restricted time in search with description**

Selecting a restricted time slot will prompt the user informing that this time is restricted giving the user the option of proceeding in selecting the current time slot, or cancelling and selecting a different time. If yes is selected, the booking proceeds as normal




**4.22 – Message prompt informing user that restricted time was selected.**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Stat Precertification Flag

A new check box "Stat Precert" has been added to the order tab so the user may flag studies that require pre-certification ASAP are first to be processed. The default sort order for the IVT work list has been configured so precert stat items show at the top. A new flag for precert stat items will now also display in the flag column.

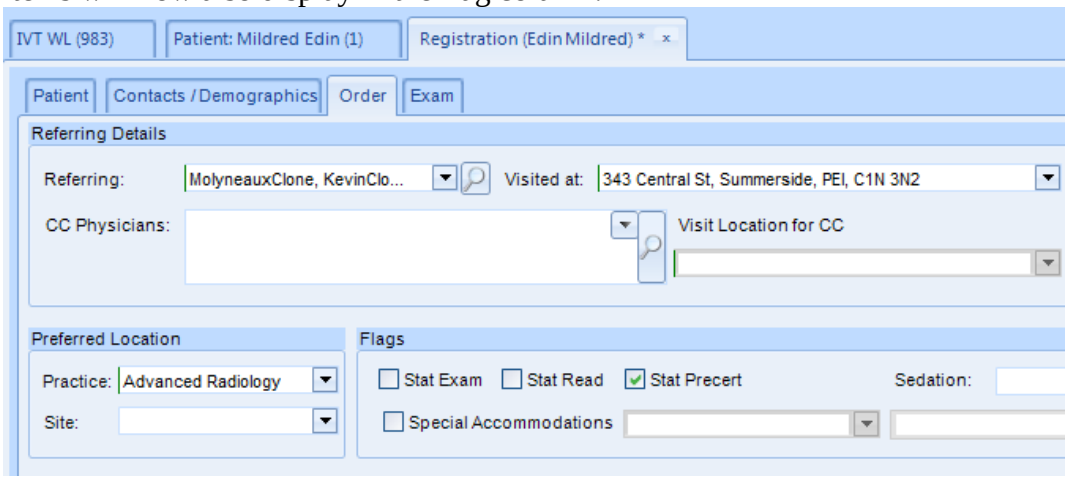



**Figure 4.23 – Stat Precert flag check box.**

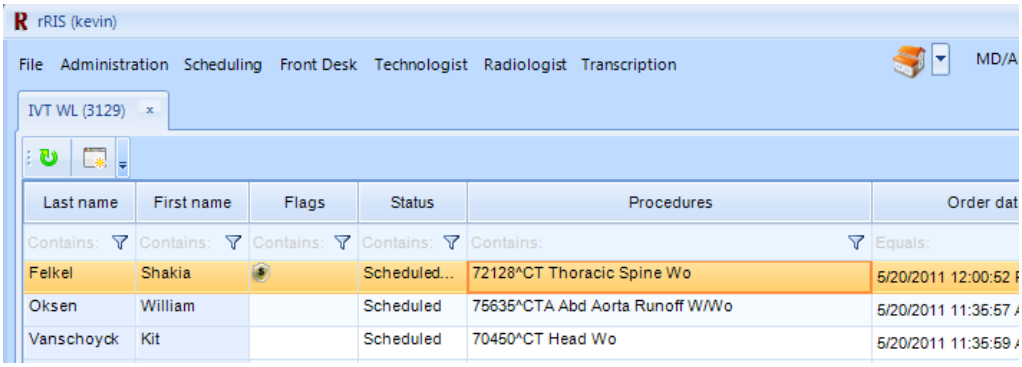



**Figure 4.24 – IVT worklist Stat Precert flag**

## Diagnostic Reporting Text Expander

To enhance and improve productivity a Text Expander is available for diagnostic reporting. This feature can be turned on / off with a user preference. If the user has this option on, a base file is downloaded from the database at first time use. They can add and remove text stored in their

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

file. When changes are made, it is saved back to the database. The client machine will be updated if the stored copy is newer than the local copy. The text expander can be edited by selecting the option from a context menu (right click) within the report.

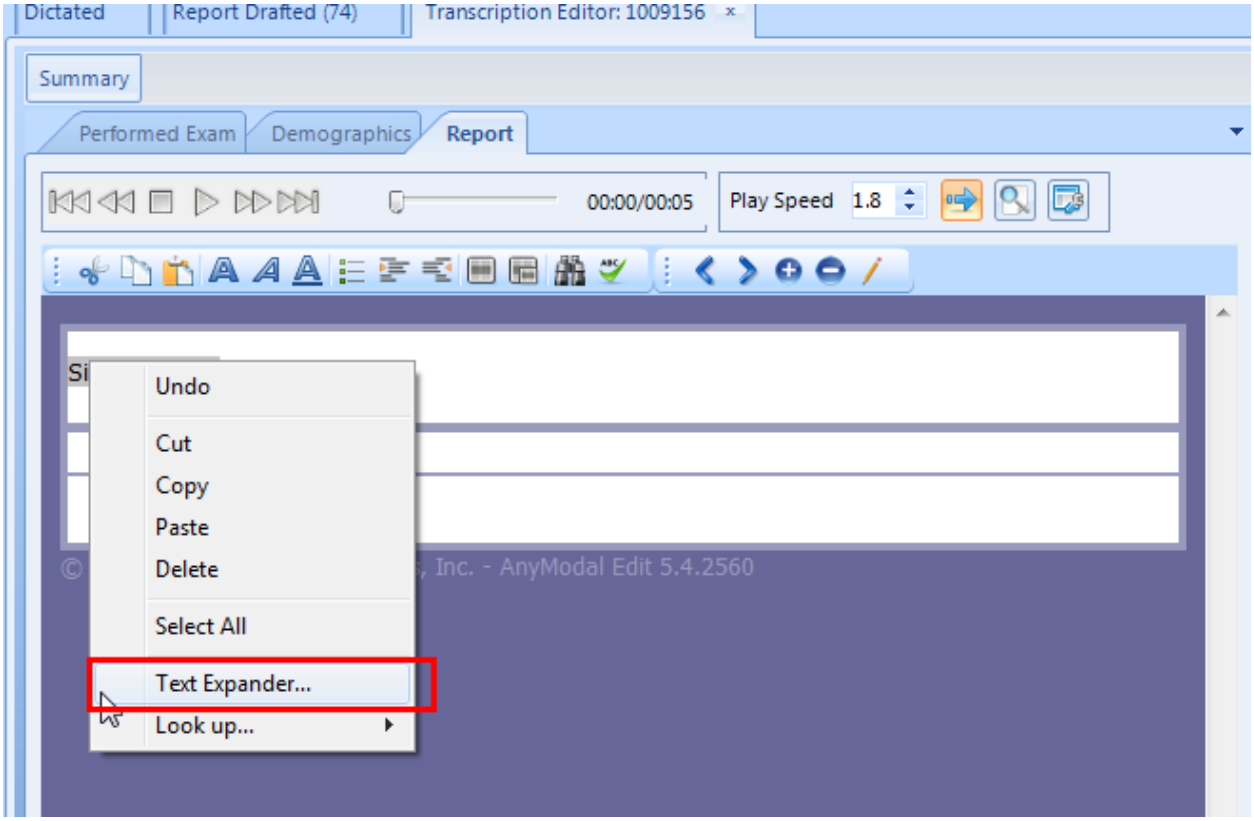



**Figure 4.25 – Accessing Text Expander**

The dialog box will open displaying a pre-defined list from the base file. The user can add additional text and save for future entries. The next time the user enters text that matches with text in the "Replace" column, it will recognize that the text entered is to be replaced with the expanded or corrected text specified.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

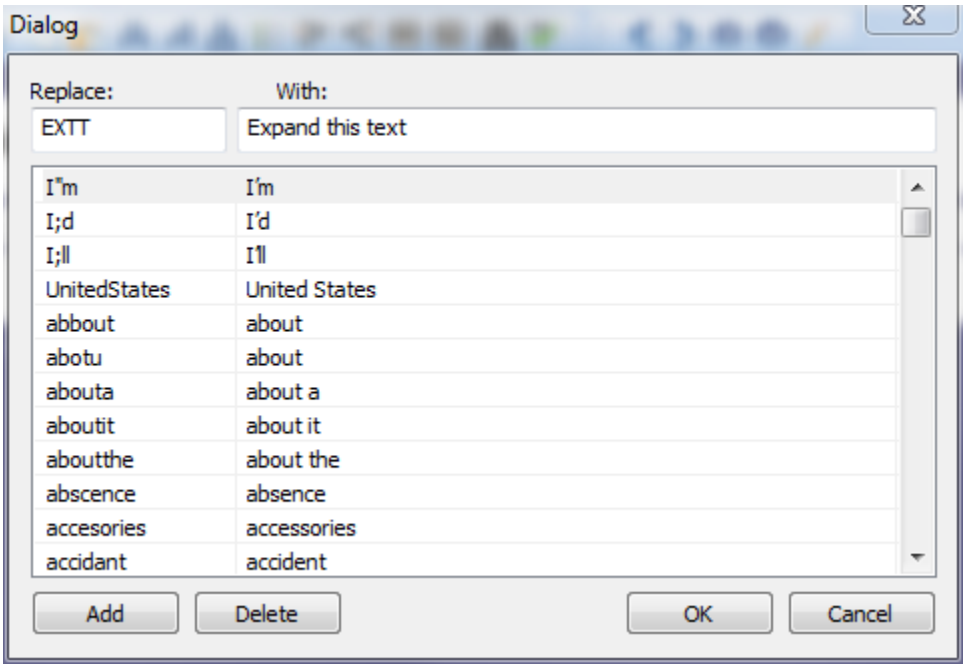



**Figure 4.26 – Text Expander Dialog window**

The following is additional information from MModal help file:

> *"AME comes with a builtin text expander. This expander is disabled by default to prevent conflict with 3rd party text expanders used by the MT (like for example InstantText, Shorthand, Shortcut, ...). To enabled it call ICdsEditorCtrl.SetProperty("TextExpanderEnabled", "true"). If the MT has a version of MS Word installed on their machine then AME will import the MT's Word AutoCorrect text mappings the first time TextExpanderEnabled is set to true. After setting TextExpanderEnabled the MT can right click a word in AME and click "Text Expander..." to edit text mappings: the MT can delete mappings, add new mappings, and replace existing mappings. AME will replace text whenever the user types one of her abbreviations followed by a spacebar press or punctuation symbol keystroke (period, comma, colon).*
>
> *The text expander functionality somewhat overlaps with AME's context-dependent Auto Completion. MTs have to decide on their own in which situations they want to use which technology: the text expander make sense for the most frequent and longer phrases consisting of multiple words - like for example mapping "tpi" to "the patient is", whereas auto-complete makes sense for long but less frequent individual words."*

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Report Utility

In build 1.19 a Report Utility has been added for use by Radiologists and Transcription so they may see the history of the report, what was changed, and who changed it. Figure 4.27 shows the ICON to open the utility.

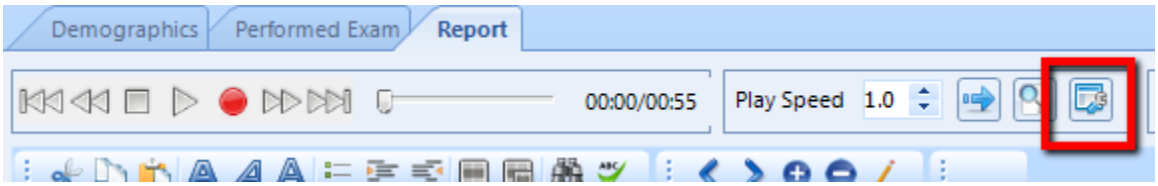



**Figure 4.27 – Report Editor Control**

Upon load, a tree view will display the history of the report. The user can select which version they would like to view as well as play back the dictation for that interpretation. The user may also enter another accession number to view the report and play back the dictation. The study info panel displays information about the patient and specific history of the study.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

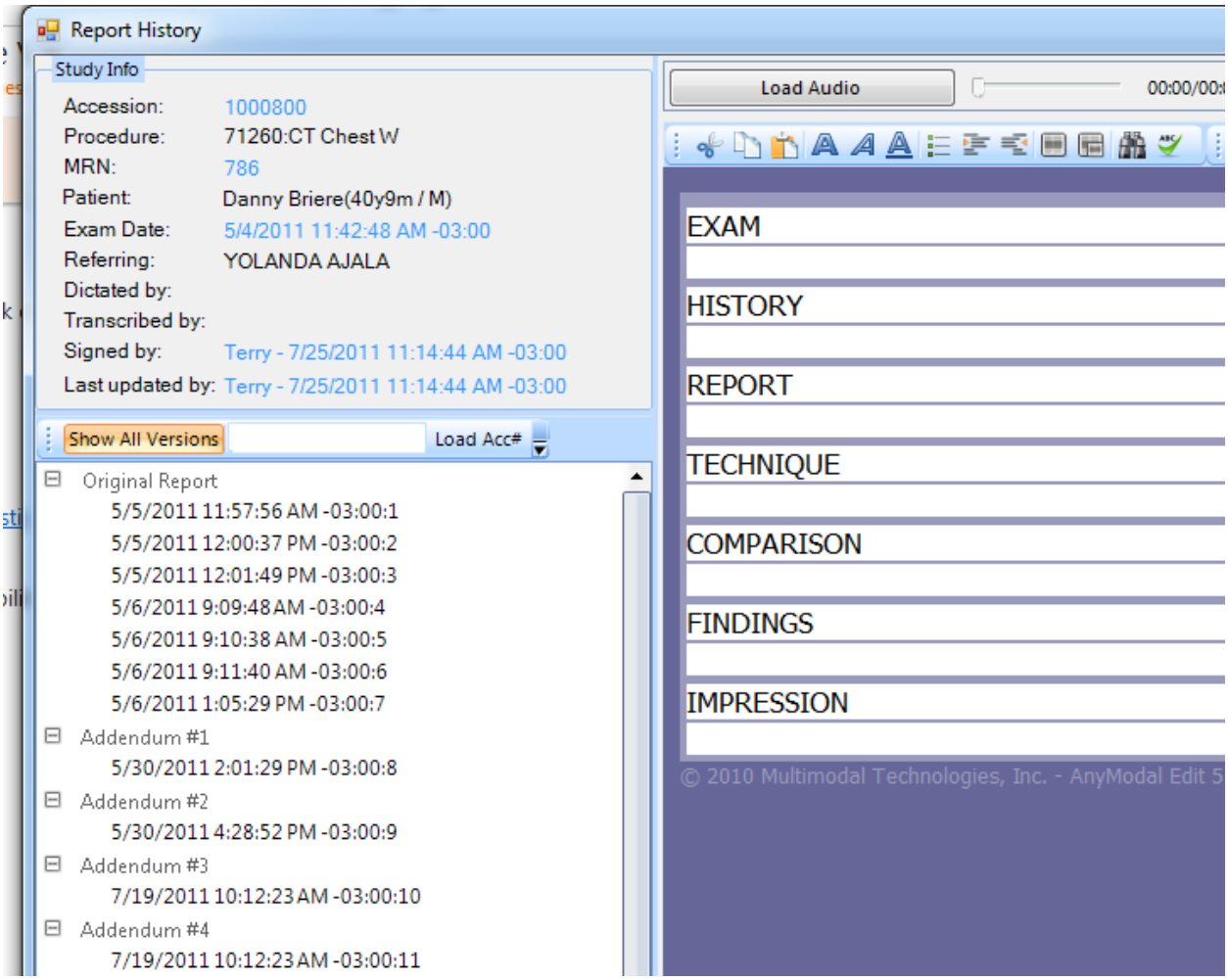



**Figure 4.28 – Report History**

## Reporting Screen Refactor (Configurability)

In build 1.19 comes with a redesigned reporting screen. The users may customize the reporting screen to fit their individual needs and preferences.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

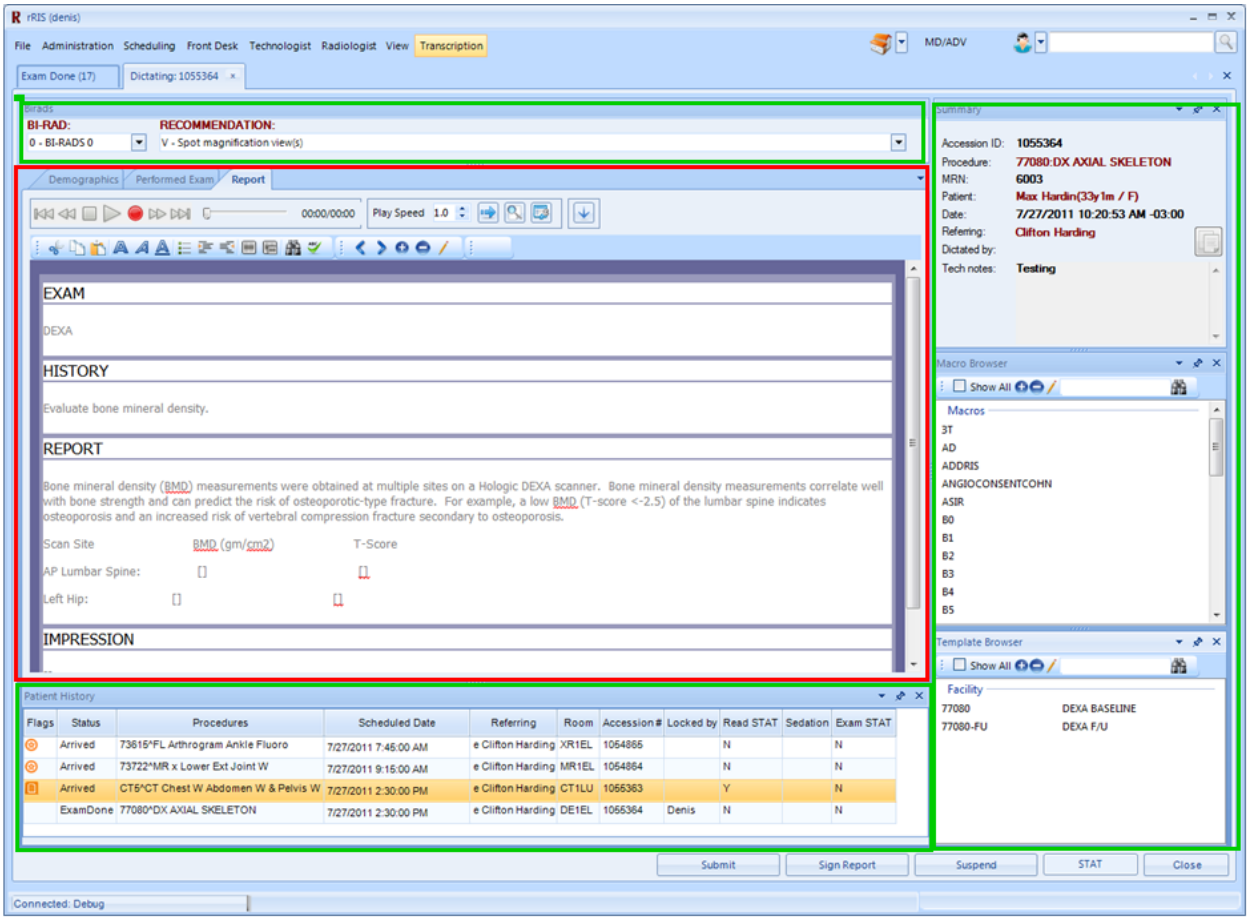



**Figure 4.29 – Reporting window**

**Document Window: (red outline figure 4.29)**
This is the main part of the screen, the report and the data panes. These controls have limited flexibility, they can be moved around and docked in different ways, but they cannot be floated or closed. They can also only be tabbed documents within the main document area (red). They cannot be docked on the perimeter with the tool windows (green).

**Tool Window: (green outline figure 4.29)**
These controls are much more flexible, they can be docked anywhere in the bounds of the reporting screen, they can be displayed as a tabbed document window next to the document window as if it was one. It can be floating above the rRIS, or on another screen. They can be pinned so that they stay visible or they can be unpinned so that they auto hide to a small tab.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

One exception is the BIRAD control, when it is required for the study it cannot be hidden or auto hidden.

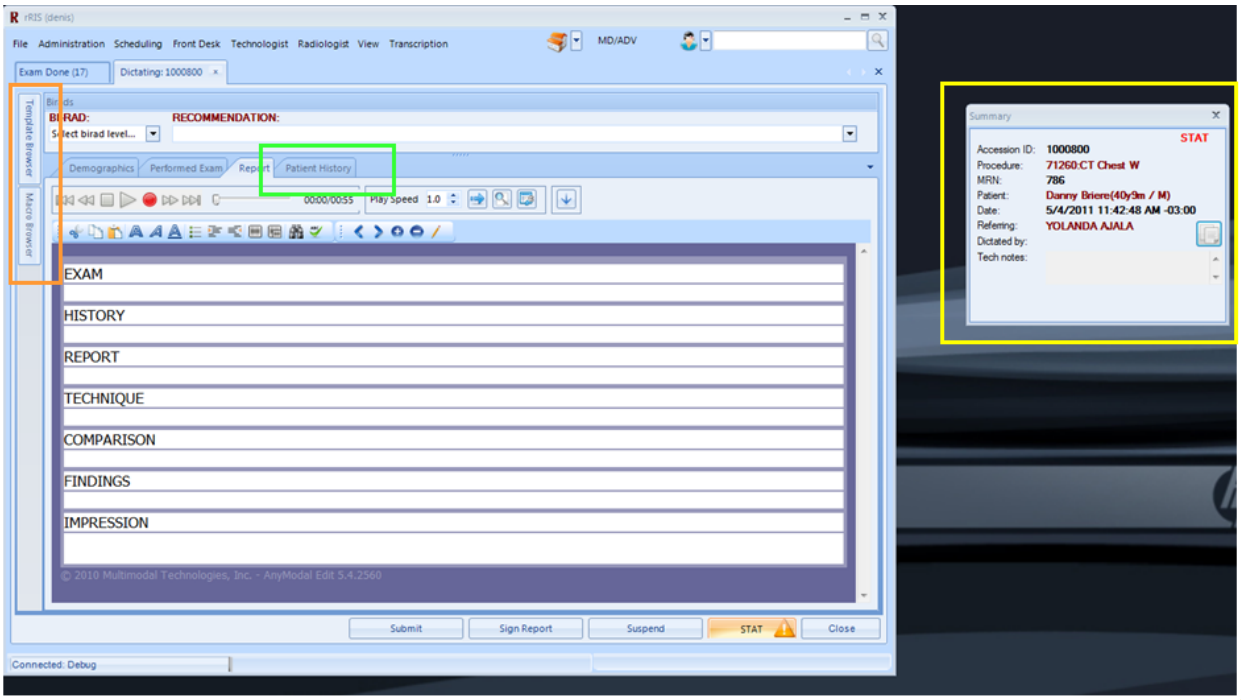



**Figure 4.30 – Various configurations of reporting screen.**

In Figure 4.30 we have the summary screen that is floating on the desktop on the right of the rRIS. Patient history is a tab next to the report tab (sequence of tabs can be re-arranged), and the macro and template browser are unpinned to make them auto hide on the left side of the window. Hover the mouse over the unpinned data panes (template browser and macro browser) will expand that data pane into view.

In Figure 4.31 you will see a new "View" menu. This menu is present in the dictate and reporting windows. Expanding the menu allows the user to select which data panes they wish to view. If one of the data panes is accidently closed, it can be re-opened from this menu. You will also notice that you can "Save Layout" changes and "Reset Layout" changes. Adjusting the layout during the session doesn't automatically save the layout on exit of the window. If the user adjusts the layout to their liking, select Save Layout will retain the layout for all future sessions. Reset layout will remove any changes made and revert back to the default layout.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

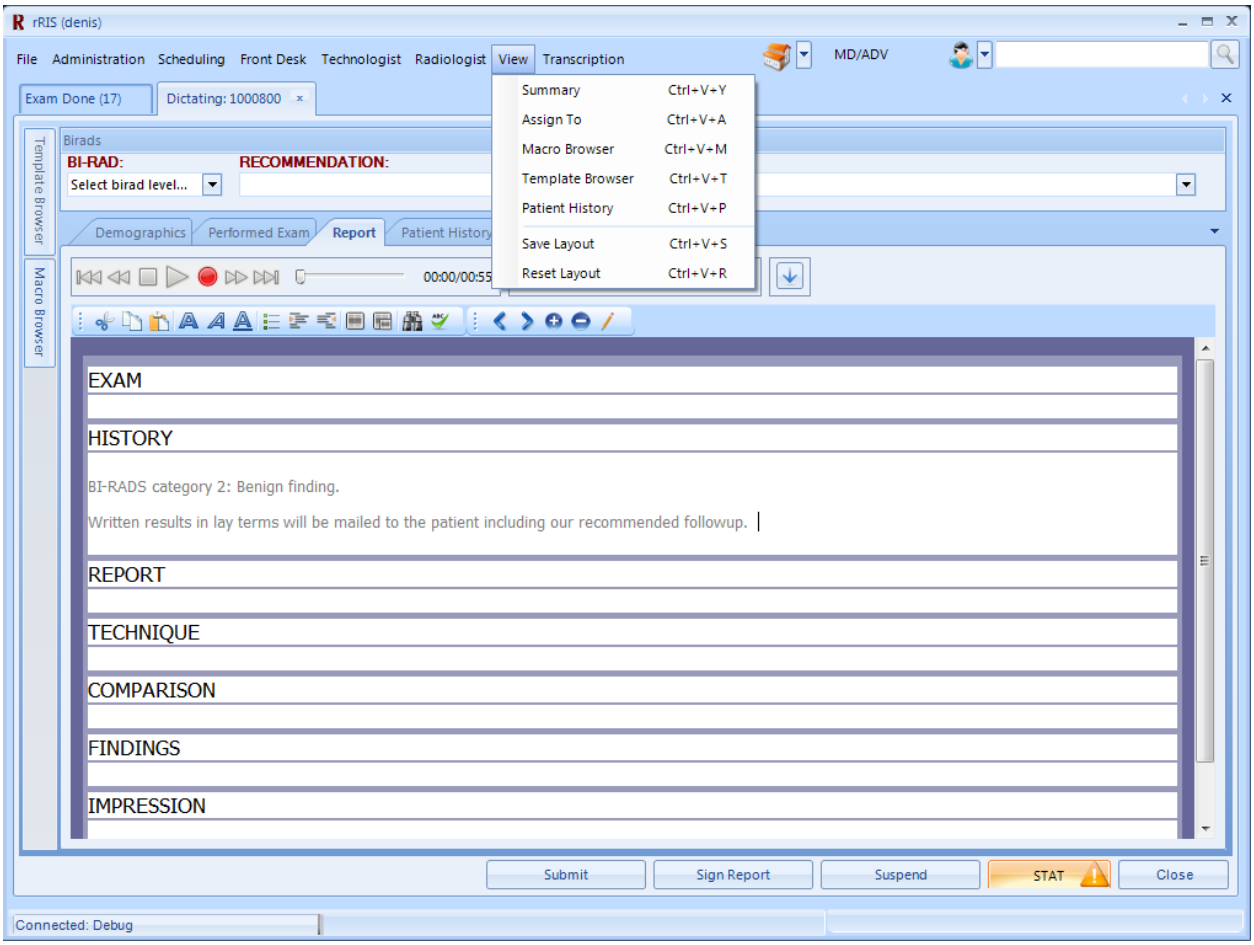



**Figure 4.31 – View menu**

## Letter of Intent Added to Precert Status

Letter of Intent was added as a Precert status with the item still being considered at "required". Figure 4.32 displays the new addition to the Precert status flag list.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

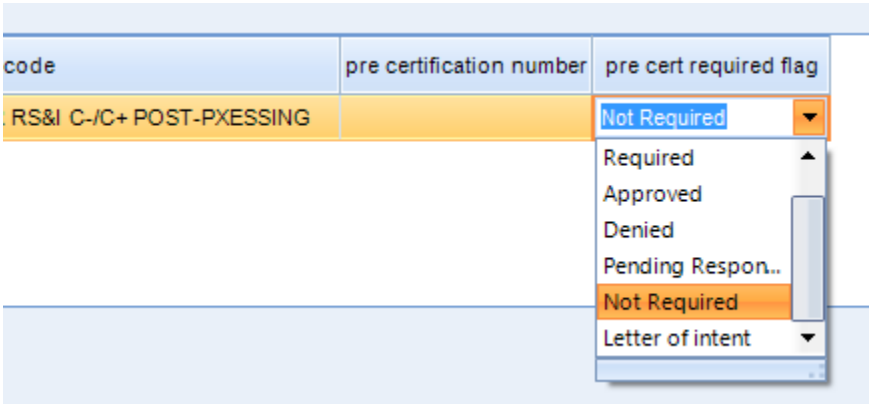
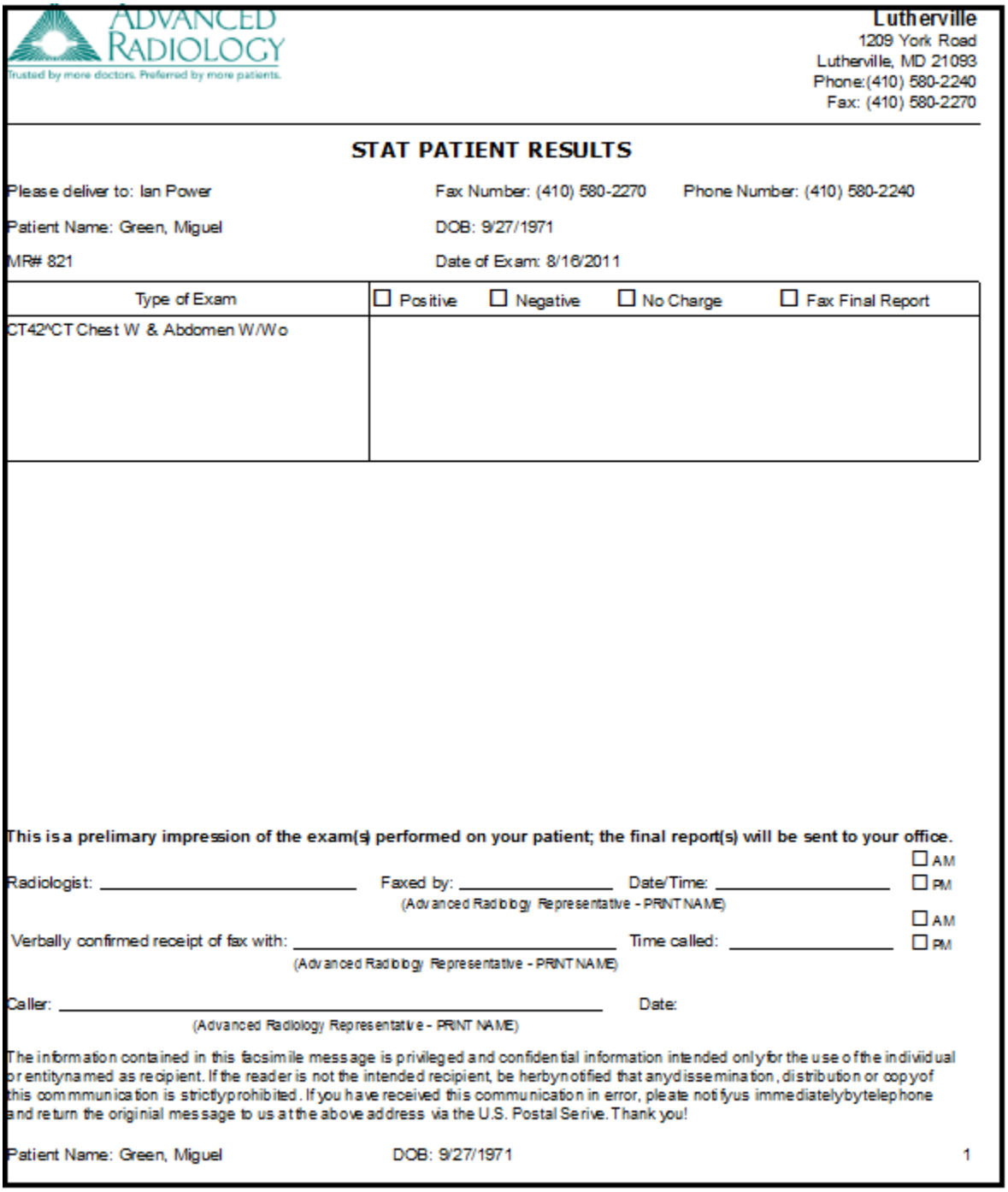



**Figure 4.32 – Pre Cert Required Flag addition (letter of intent)**

## Stat Prelim Form

A new form was added in Build 1.19. A study is flagged as a stat exam the Stat Prelim Form will be an option to select to print. Figure 4.33 shows an example of the form.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.



ADVANCED RADIOLOGY
Trusted by more doctors. Preferred by more patients.

Lutherville
1209 York Road
Lutherville, MD 21093
Phone:(410) 580-2240
Fax: (410) 580-2270

**STAT PATIENT RESULTS**

Please deliver to: Ian Power  Fax Number: (410) 580-2270  Phone Number: (410) 580-2240

Patient Name: Green, Miguel  DOB: 9/27/1971

MR# 821  Date of Exam: 8/16/2011

| Type of Exam | ☐ Positive ☐ Negative ☐ No Charge ☐ Fax Final Report |
|---|---|
| CT42^CT Chest W & Abdomen W/Wo | |

**This is a prelimary impression of the exam(s) performed on your patient; the final report(s) will be sent to your office.**

Radiologist: _____ Faxed by: _____ Date/Time: _____ ☐ AM ☐ PM
(Advanced Radiology Representative - PRINT NAME)

Verbally confirmed receipt of fax with: _____ Time called: _____ ☐ AM ☐ PM
(Advanced Radiology Representative - PRINT NAME)

Caller: _____ Date:
(Advanced Radiology Representative - PRINT NAME)

The information contained in this facsimile message is privileged and confidential information intended only for the use of the individual or entity named as recipient. If the reader is not the intended recipient, be herby notified that any dissemination, distribution or copy of this communication is strictly prohibited. If you have received this communication in error, pleate notify us immediately by telephone and return the originial message to us at the above address via the U.S. Postal Serive. Thank you!

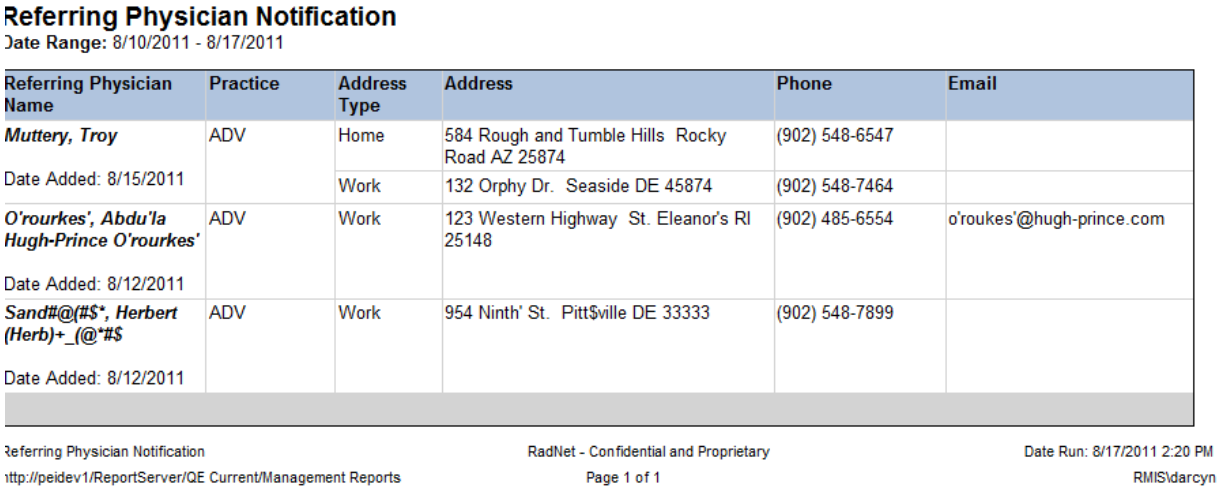
Patient Name: Green, Miguel  DOB: 9/27/1971  1

**Figure 4.33 – Stat Prelim Form**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Referring Physician Notification Management Report

When a new user is added to the system and flagged as a referring physician or when a user is modified and the original referring physician flag was set to NO and changed to YES, this report will capture this activity to assist in tracking new referrers added.



**Referring Physician Notification**
**Date Range:** 8/10/2011 - 8/17/2011

| Referring Physician Name | Practice | Address Type | Address | Phone | Email |
|---|---|---|---|---|---|
| ***Muttery, Troy*** Date Added: 8/15/2011 | ADV | Home | 584 Rough and Tumble Hills Rocky Road AZ 25874 | (902) 548-6547 | |
| | | Work | 132 Orphy Dr. Seaside DE 45874 | (902) 548-7464 | |
| ***O'rourkes', Abdu'la Hugh-Prince O'rourkes'*** Date Added: 8/12/2011 | ADV | Work | 123 Western Highway St. Eleanor's RI 25148 | (902) 485-6554 | o'roukes'@hugh-prince.com |
| ***Sand#@(#$*, Herbert (Herb)+_(@*#$*** Date Added: 8/12/2011 | ADV | Work | 954 Ninth' St. Pitt$ville DE 33333 | (902) 548-7899 | |

Referring Physician Notification — RadNet - Confidential and Proprietary — Date Run: 8/17/2011 2:20 PM
http://peidev1/ReportServer/QE Current/Management Reports — Page 1 of 1 — RMIS\darcyn

**Figure 4.34 – Referring Physician Management Report**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 5. Known Limitations

Bugs, Suggested Features, and Support Issues are now tracked in a web based system called Redmine. The following is a snapshot of the issues found in Build 1.19.

| # | Status | Subject | Category | Target version | % Done | Resolved Version |
|---|---|---|---|---|---|---|
| 490 | New | Edit order - Cannot change procedure | Thick Client GUI | 1.19 | 0 | |
| 491 | New | IVT procedure column does not update | Thick Client GUI | 1.19 | 0 | |
| 492 | New | Cannot cancel an order | Thick Client GUI | 1.19 | 0 | |
| 494 | New | Aborted exams not retaining studies when returned to pending orders | Thick Client GUI | 1.19 | 0 | |
| 495 | New | Refresh issue with scrolling available time slots for scheduling. | Thick Client GUI | 1.19 | 0 | |
| 498 | New | Unknown Referring - Exception thrown trying to edit order | Thick Client GUI | 1.19 | 0 | |
| 488 | Resolved | Review Scheduled Info tab data missing on Reschedule. | Thick Client GUI | 1.19 | 100 | 1.20 |
| 489 | Resolved | Remove cancelled room info will cause an exception | Admin Tools | 1.19 | 100 | 1.20 |
| 496 | Resolved | Error on room / time availability | Thick Client GUI | 1.19 | 100 | 1.20 |
| 497 | Resolved | Appointment screen (work list) room field returns procedures. | Thick Client GUI | 1.19 | 100 | 1.20 |
| 499 | Resolved | Patient Search - Search other variations not complete | Thick Client GUI | 1.19 | 100 | 1.19 |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# User Pre-Release Notes

for RADNET rRIS
Build 1.20

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Purpose ..... 3
2. Intended Audience ..... 3
3. Installing/Accessing the Application ..... 3
4. New Features and Enhancements ..... 4
   Checklist for Scheduling ..... 4
   Credential Switch ..... 5
   Direct Referral Program ..... 8
   Pre-Auth Program ..... 10
   Report Delivery Options ..... 11
   Scanned Document Notes ..... 11
   Transportation Required ..... 13
   Site Logos ..... 14
   Expiring Time Block Exceptions ..... 15
   Pre_Auth Referring Physician Management Report ..... 17
   Composite Code Min – Max Site Override ..... 18
5. Known Limitations ..... 20

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 1. Purpose

This document describes some of the new features and changes implemented in rRIS as of the end of Sprint 20. This pre-release version of rRIS is referred to as Build 1.20.

Only features which can be visually demonstrated to the user will be outlined in this document.

# 2. Intended Audience

This document is created by the rRIS Development team for the RadNet RIS management team.

# 3. Installing/Accessing the Application

The installation instructions for the rRIS client have been posted to the RadNet Wiki page at http://mdbal01rdtweb/Wiki/

Under the RIS menu, click on the rRIS page. The credentials to access the page are:
Username: rRIS
Password: Summerside

*Please note that Build 1.20 is considered a new core release of the application and will require a reinstallation of rRIS. This is accomplished by navigating to the rRIS shared installation drive and running the CoreInstall.bat file (ex: I:\RISDeployment\CoreInstall.bat)*

If you experience difficulties accessing the application, please do not hesitate to contact Spencer MacDougall with the PEI RIS Development Team.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 4. New Features and Enhancements

## Checklist for Scheduling

A new check box, “Prep Instructions Reviewed”, has been added to the Review tab for orders and the Exam tab for scheduled studies data windows. The check box provides a visual confirmation that the Prep Instructions have been read. The new flag is added at the order level. If a new procedure is added to the order / exam, the flag is removed, as this will often require an additional review of the prep instructions.

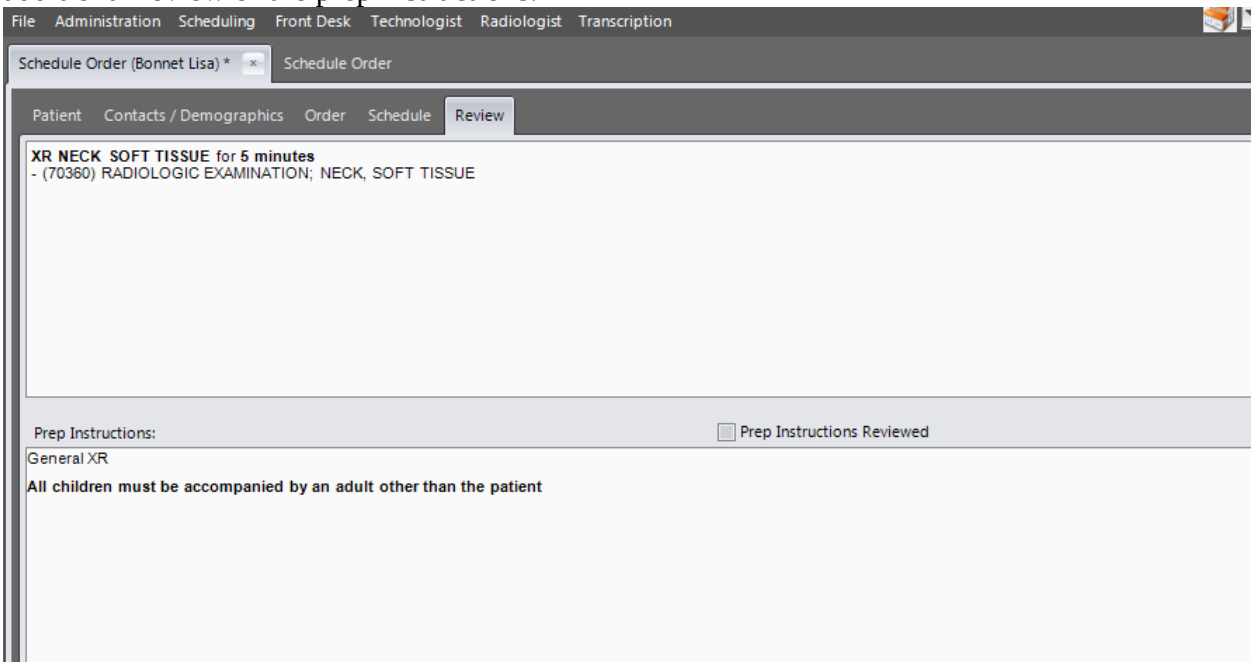



**Figure 4.1 – Prep Instructions Reviewed check box location on Schedule Order.**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

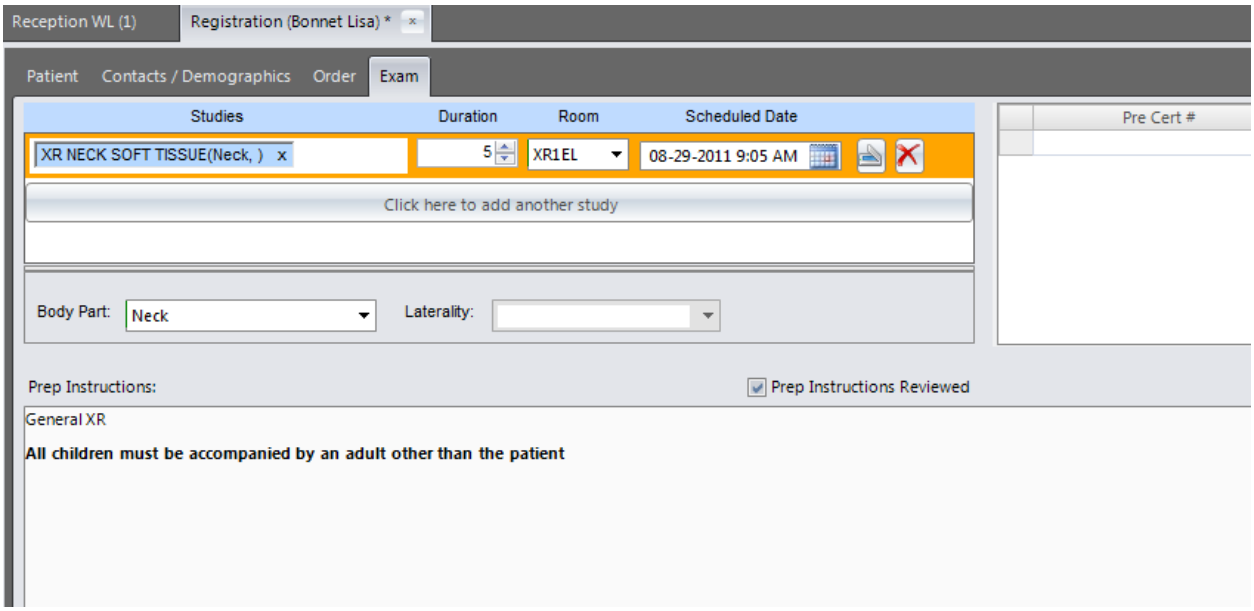



**Figure 4.2 – Prep Instructions Reviewed check box location Registration.**

## Credential Switch

To assist in auditing in shared workstation environments where a common login may be used, Credential Switch has been added in build 1.20. The Credential Switch flag is added at the personnel level.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

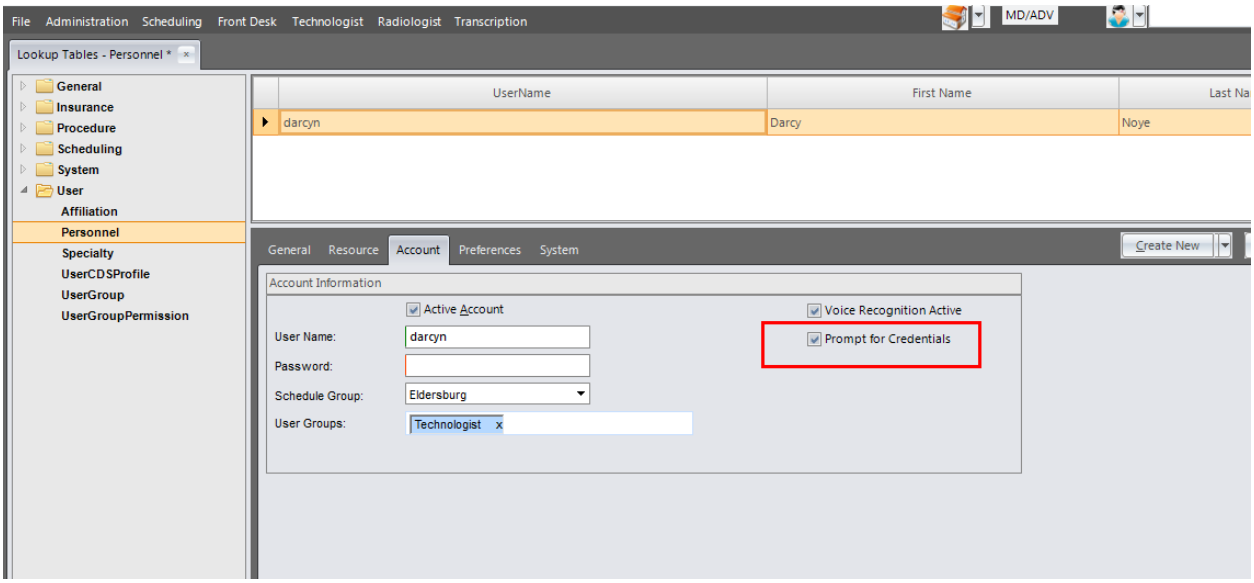



**Figure 4.3 – Prompt for Credentials flag**

If the users account has this flag checked, they will receive prompt. Build 1.20 will prompt users who are attempting Perform Exam or Edit Patient. If valid credentials are entered the user will be permitted to continue workflow.

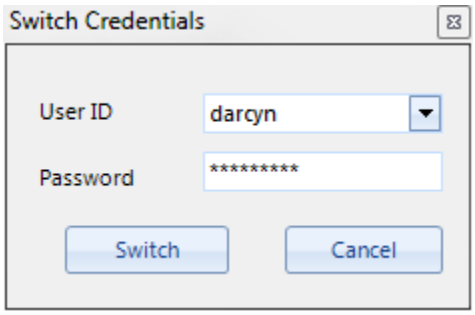



**Figure 4.4 – Prompt for Credentials dialogue box**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

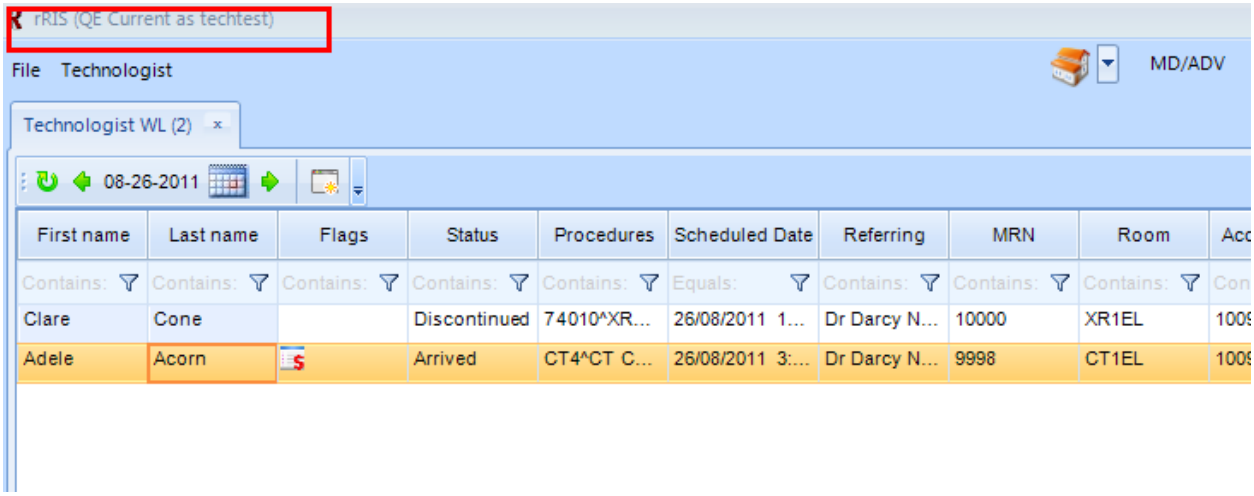



**Figure 4.5 – Prompt for Credentials dialogue box**

Figure 4.5 shows a common login (techtest). Performing exam on the highlighted row will prompt user with dialogue box in Figure 4.4. If valid credentials are entered, the Perform Exam data window will open with the title bar displaying the user logged into this Data window. Toggling back to the Technologist work list will show the title bar once again as the "common logged in user" as shown in figure 4.6
The same is true for Edit Patient.

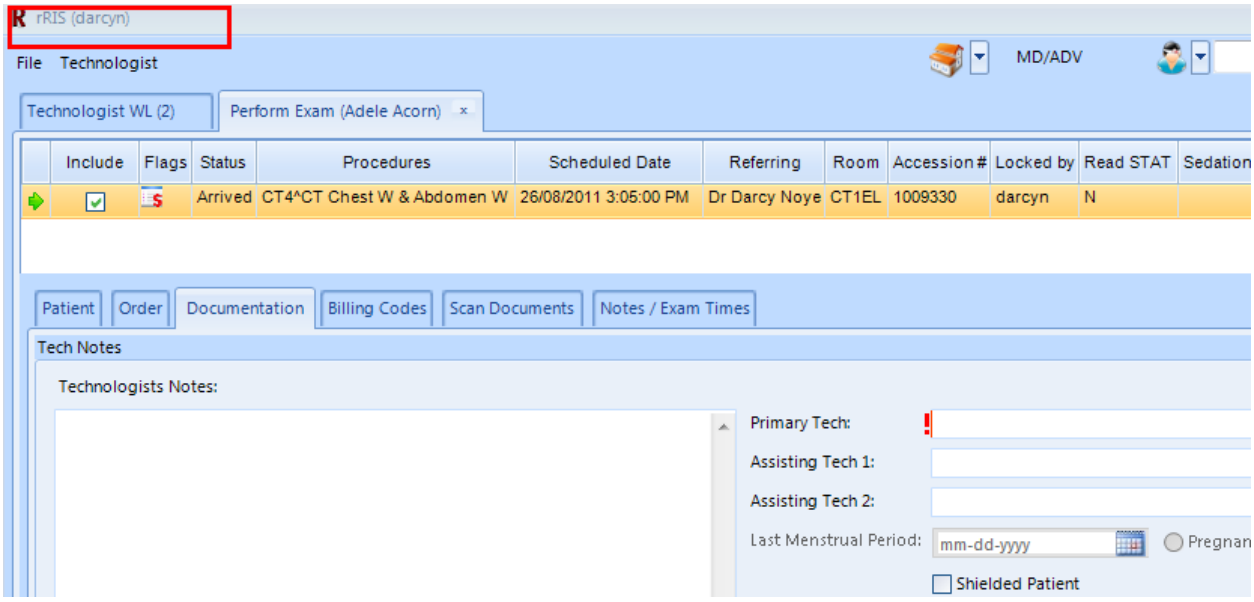



**Figure 4.6 – Prompt for Credentials dialogue box**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

The user will be prompted every time either of these Data Windows is accessed, even when the user may currently have a data window open where credentials have been passed. If a second user clicks on the first user's tab, rRIS will allow them to see the tab, without being prompted for credentials again. In this manner, it is possible for the second user to save the data of the first user, and it will be saved under the credentials of the first user. This was preferred to having the system prompt yet again for credentials. When the user leaves the Perform Exam or the Edit Patient, the credentials will be set back to the generic user account

The dialogue box will keep a history of User ID's enter as long as the current rRIS session is active.

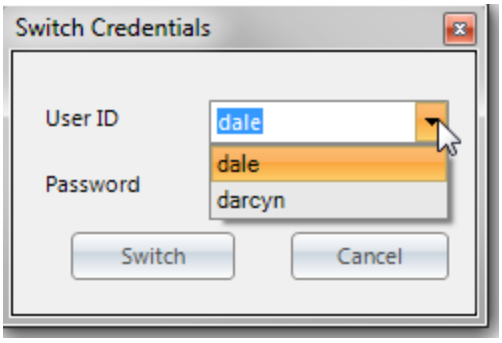



**Figure 4.7 – Switch Credentials dialogue box user history.**

## Direct Referral Program

A flag has been added at the personnel level for Referring Physicians. If this user's account has the Resource Type of Referring Physician, the flag for Direct Referral Program will become active.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

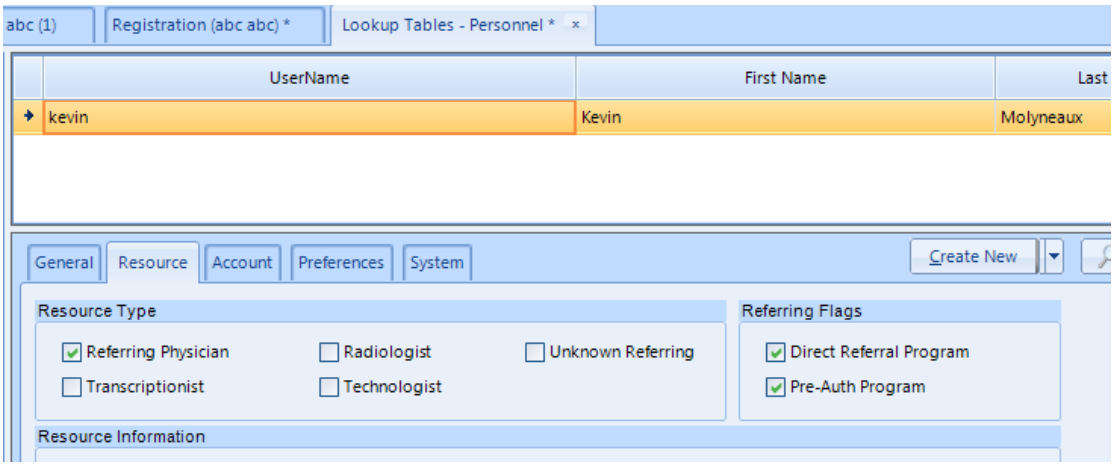



**Figure 4.8 – Direct Referral Flag at personnel level.**

When a Referring Physician has this flag, an additional check box is added to the New Appointment / Schedule Order data windows when this referrer is selected.

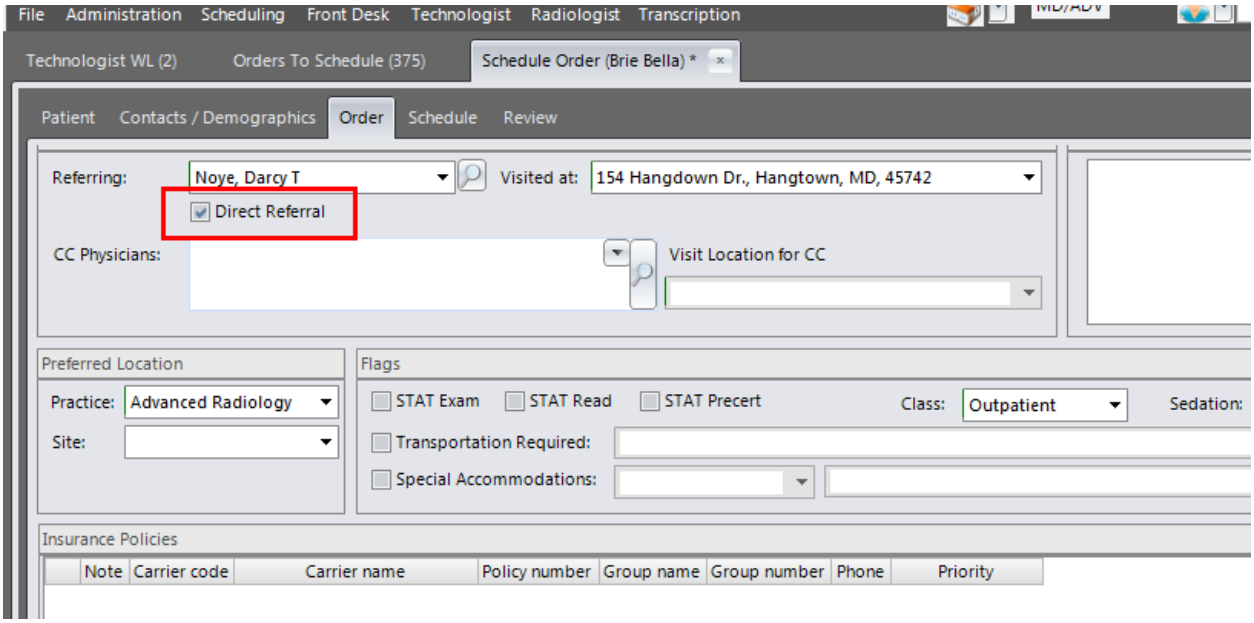



**Figure 4.9 – Direct Referral Flag at order level.**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Pre-Auth Program

Similar to the Direct Referral Program flag, the Pre-Auth Program is a new flag added to Personnel that becomes active when the resource type Referring Physician flag checked.

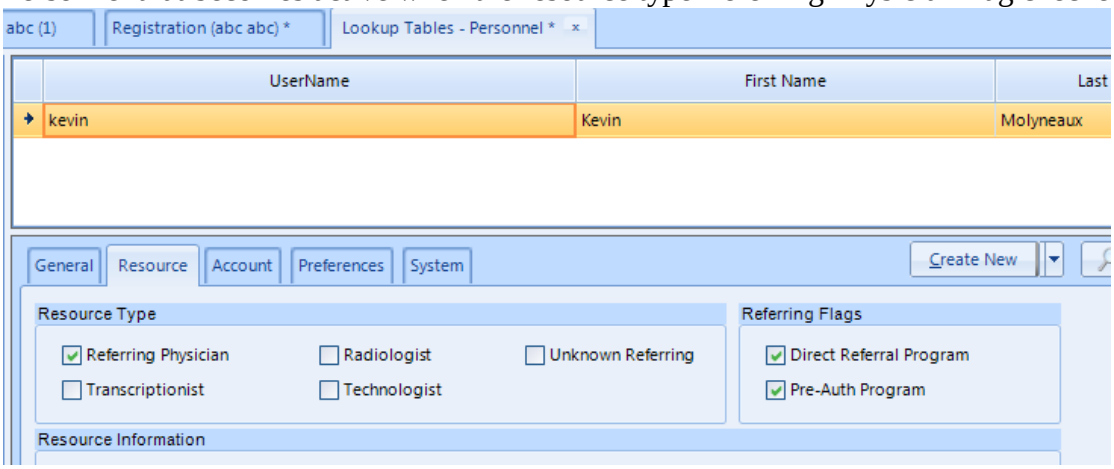



**Figure 4.10 – Pre-Auth Program check box.**

If the ordering referring physician selected has the Pre-Auth Program flag, it will display directly under the Referring box on the order tab. The Referrer may or may not have the Direct Referral flag.

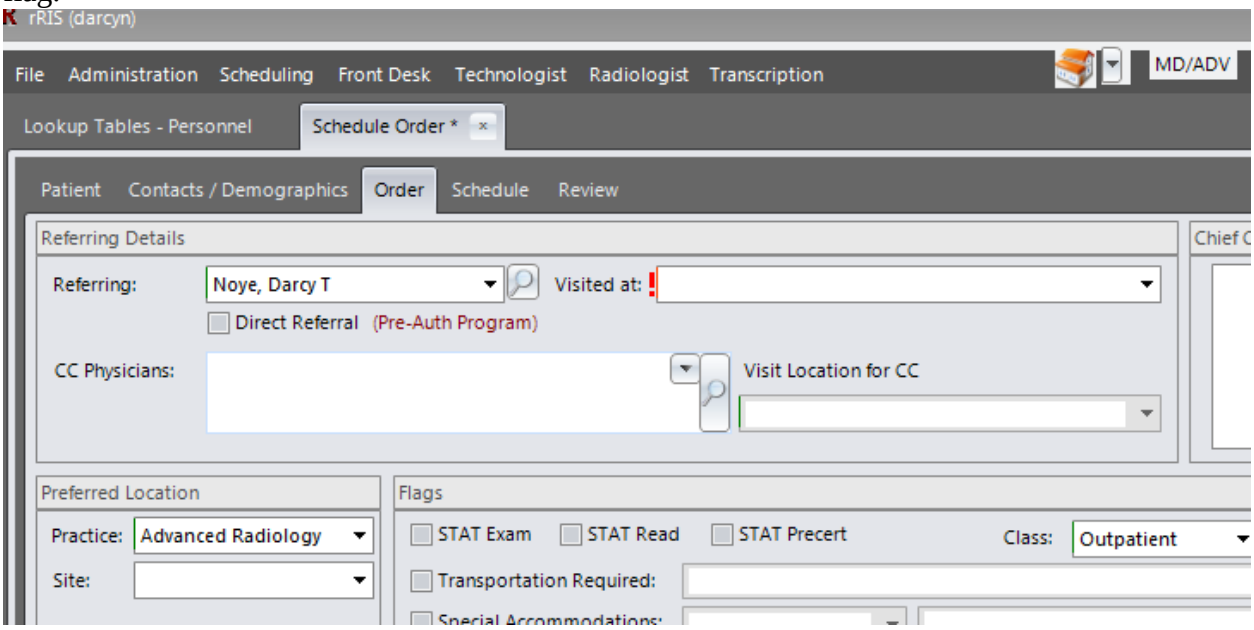



**Figure 4.11 – Pre-Auth Program displayed on order. (In this example the Referrer also has the Direct Referral flag)**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Report Delivery Options

It is now possible for a user to have delivery methods of print and fax selected for a particular "Type" address. Previous to build 1.20 the "Delivery To" was a list box with only one selection possible. Check boxes are now used in place of the list box.

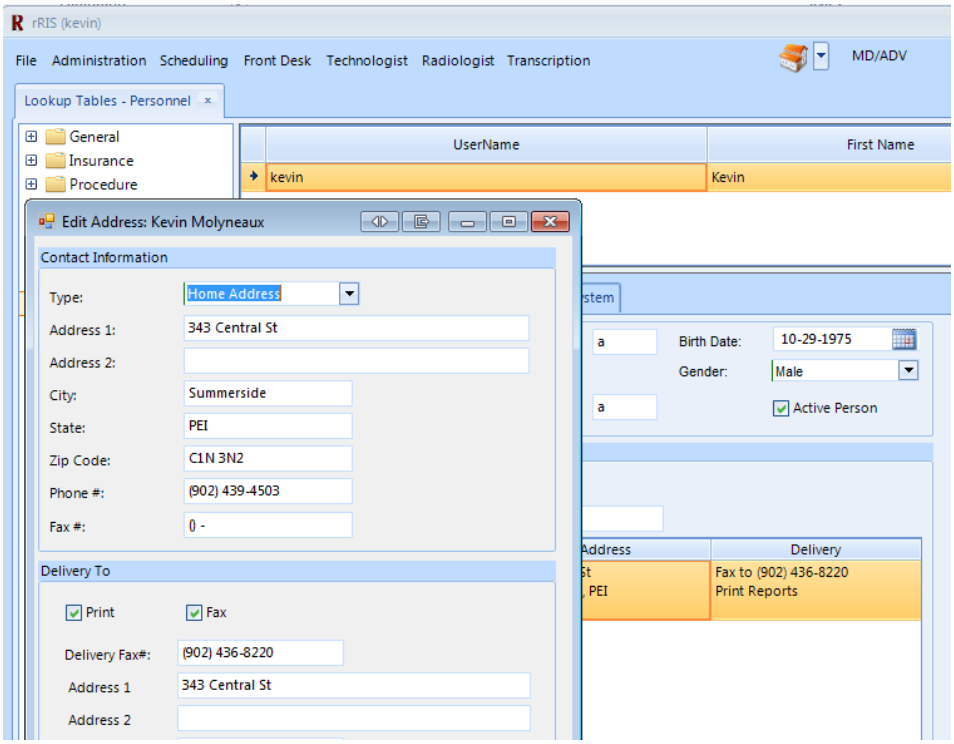



**Figure 4.12 – Personnel contact information – Delivery To**

## Scanned Document Notes

The ability to attach notes to a scanned document has been introduced in build 1.20.

After scanning a document the Scan Document Viewer Control opens to view the completed scan. A new ICON displayed in Figure 4.13 has been added. Selecting this ICON will open the Scan Document Notes window. See Figure 4.14

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

**Figure 4.13 – Notes ICON in Scan Document Viewer Control.**

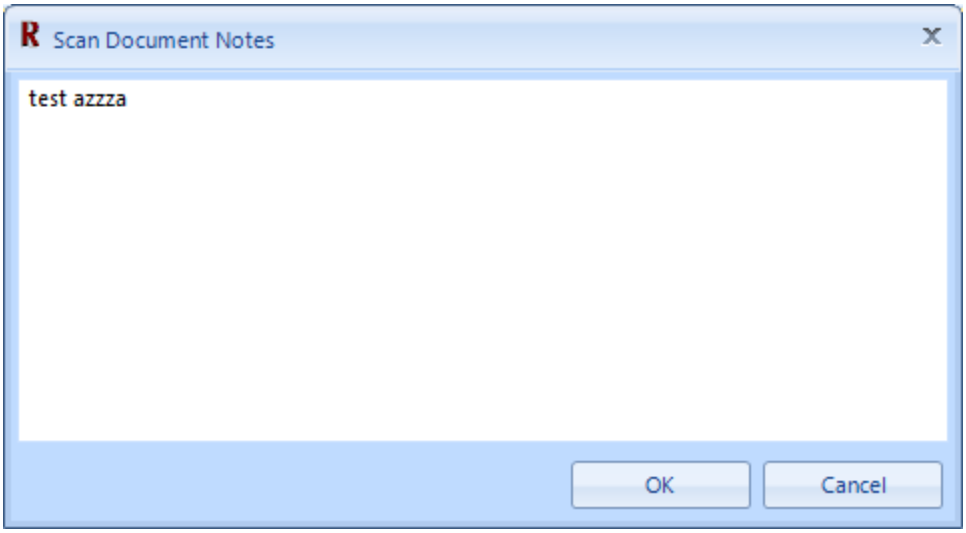



**Figure 4.14 – Scan Document Notes window.**

Entering notes in the above window, selecting OK will attach the note to scanned document. The note ICON will display in a new column titled “notes” on the Scan Document Viewer work list.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

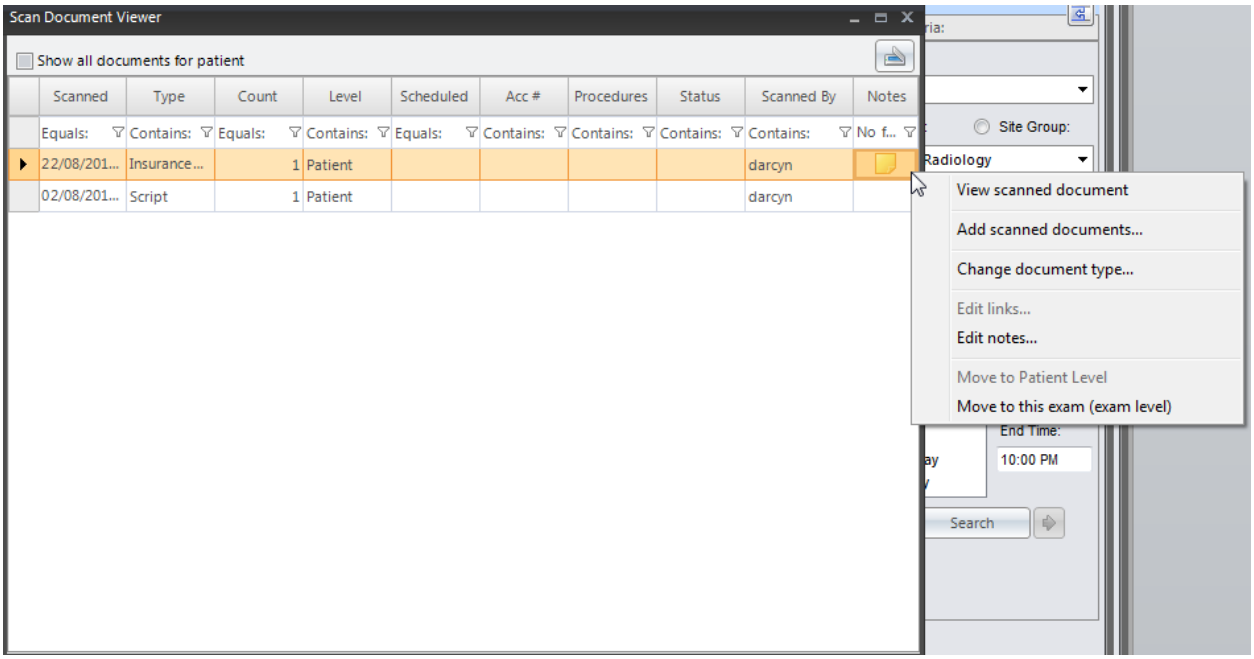



**Figure 4.15 – Notes column added to Scan Document Viewer work list**

The scan document notes can be edited from the work list via a right click menu from the notes ICON.

## Transportation Required

A flag was added to document if transportation is required. This is something that practices may offer as a service to patient's that don't have reliable means of transportation.
The field for transportation is a yes or no field and if yes, it will require the user to fill out the patient address and phone numbers at the time of scheduling. The text box is enabled when the flag is added

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

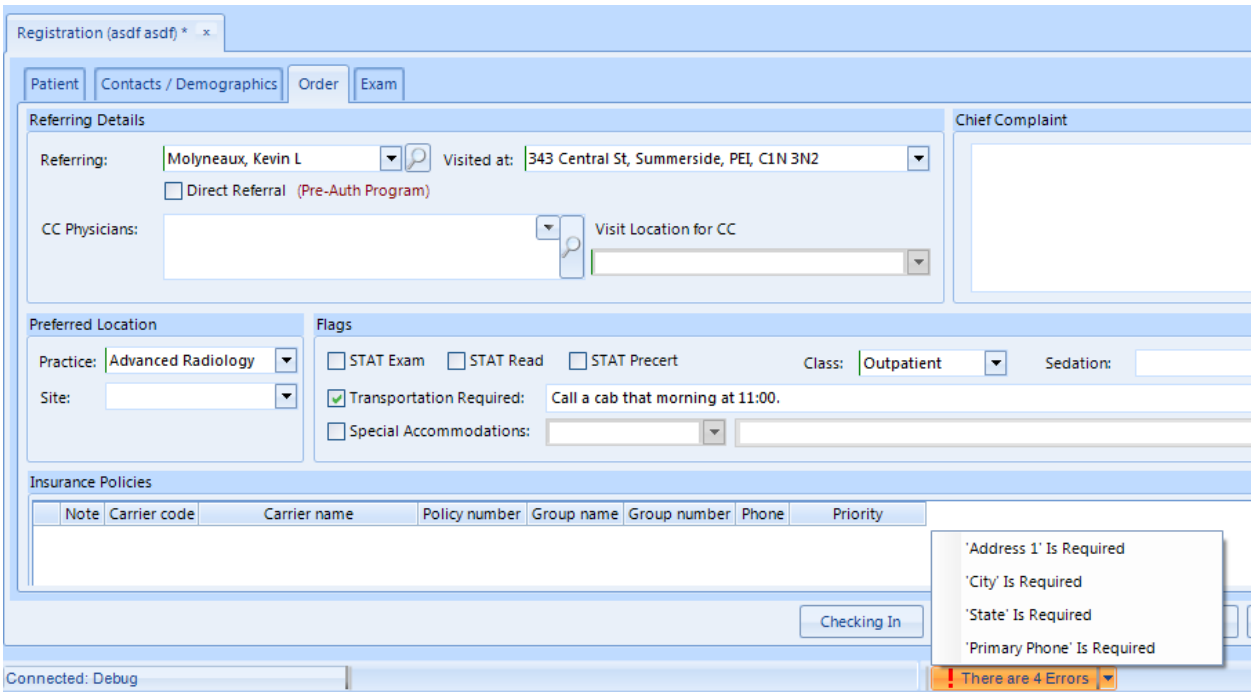



**Figure 4.16 – Transportation required flag and text box.**

## Site Logos

The ability to add a logo to the practice and /or the site has been added in build 1.20. The logo can be added, edited or removed via the configure Organization – Edit practice or edit site windows. The user will only be able to load picture format logos. For example the user would not be able to load a .pdf file.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

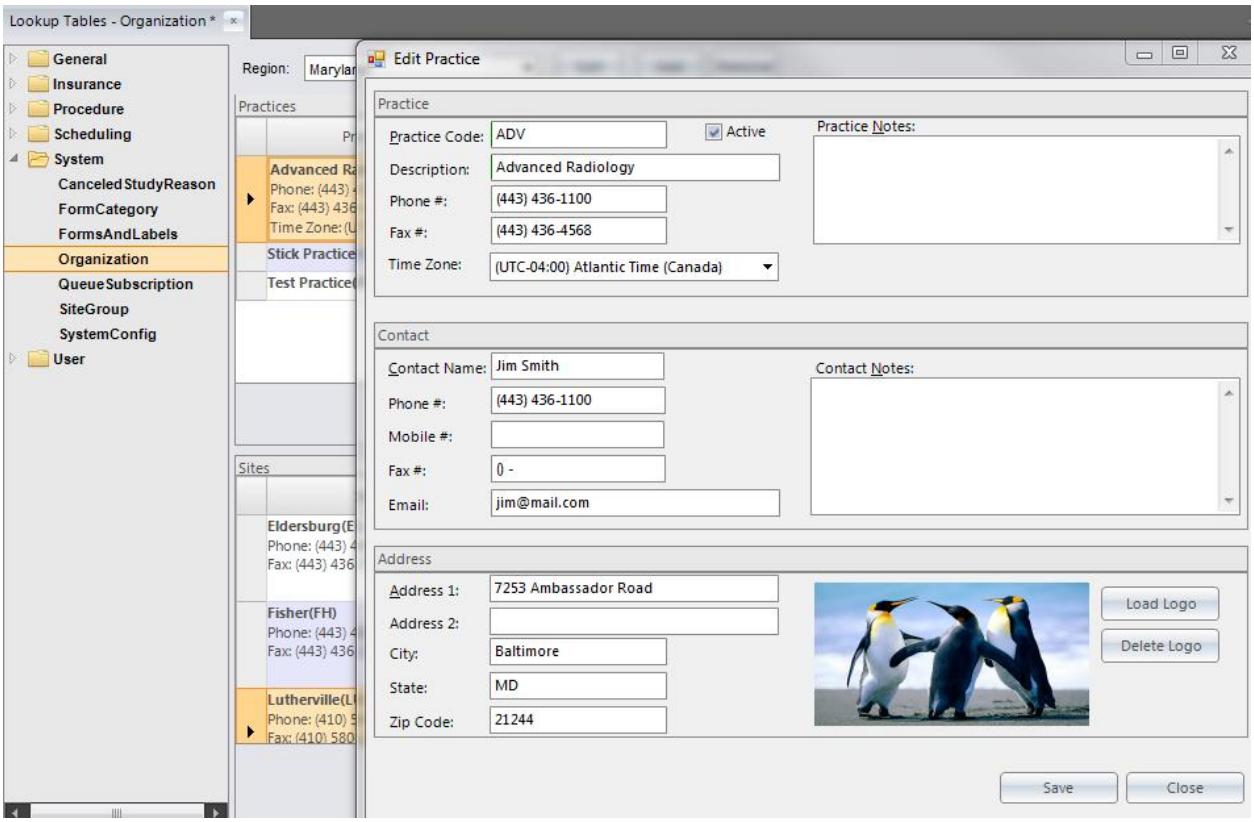



**Figure 4.17 – Adding logo to practice and / or site.**

## Expiring Time Block Exceptions

The expiring time block indicators will allow the administrator to ability to hide specific time periods from scheduling search until a pre-determined time. The time is calculated in days, so the earliest a time block would display would be 24 hours before that block would be available. The time block is setup from the Availability template window. Select the template, and to add a time block select the Exception button. See figure 4.18

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

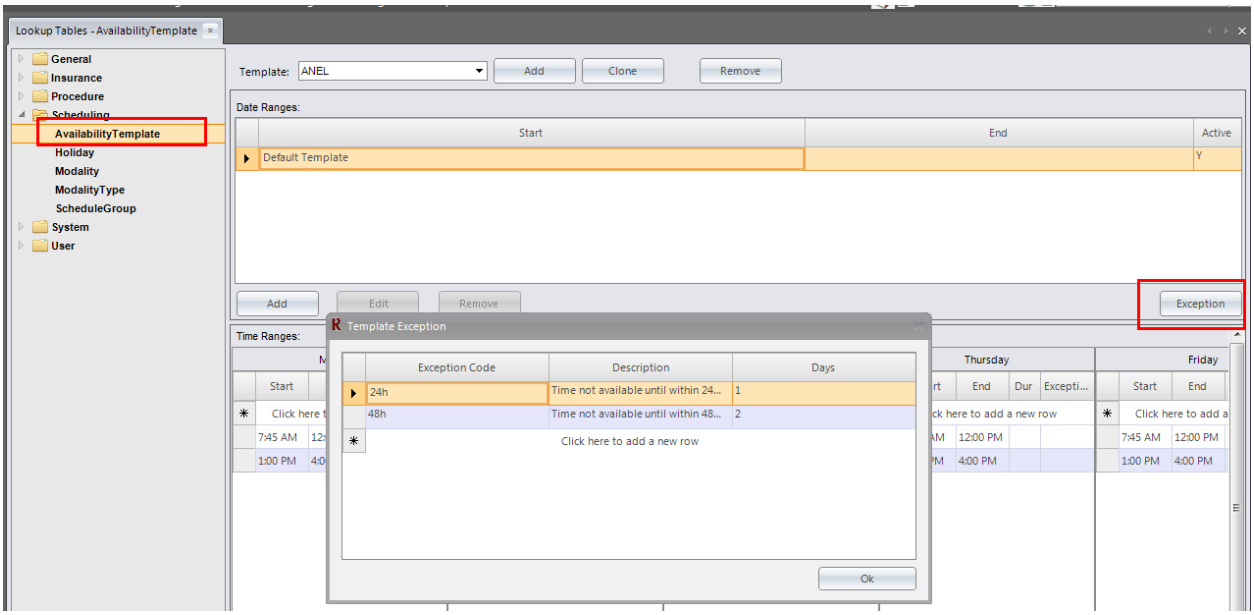



**Figure 4.18 – Time Block Exception setup.**

Once the exception has been defined, the time range(s) must be edited to indicate what exception is to be used. Under the Time Ranges section of this window, a new "exception" column has been added to this window that requires the Exception Code configured in the Template Exception window. In the example displayed in Figure 4.19 the time range of 6-9 on Monday will be available for schedule at any given time. The same time range for Tuesday and Wednesday would not be available via scheduling search until 24 hours before, and Thursdays time range of 7:10-9 is available 48 hours before.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

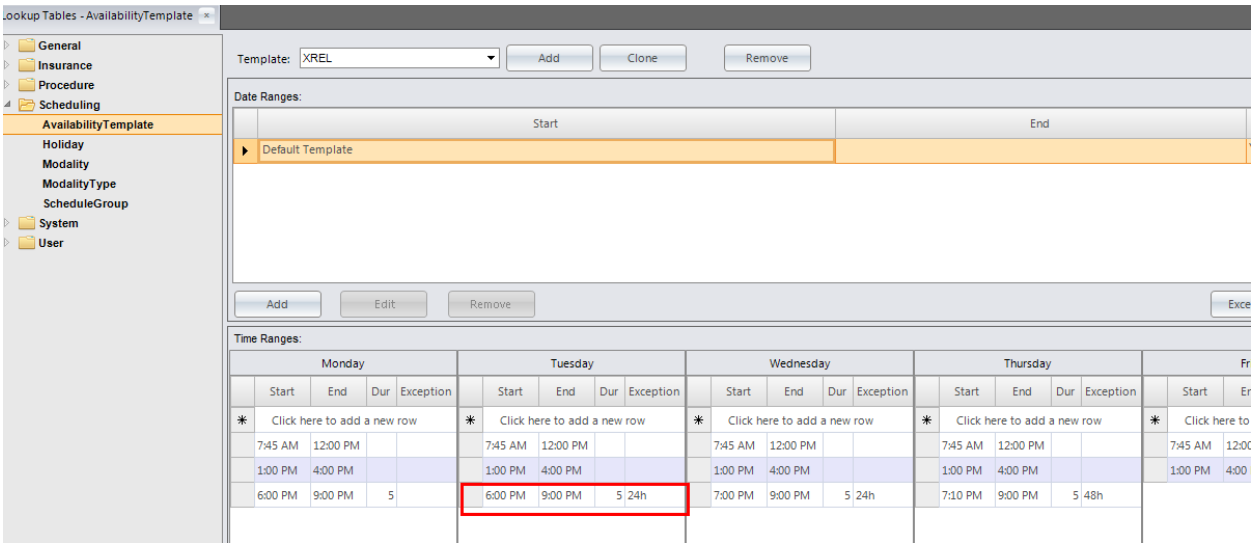
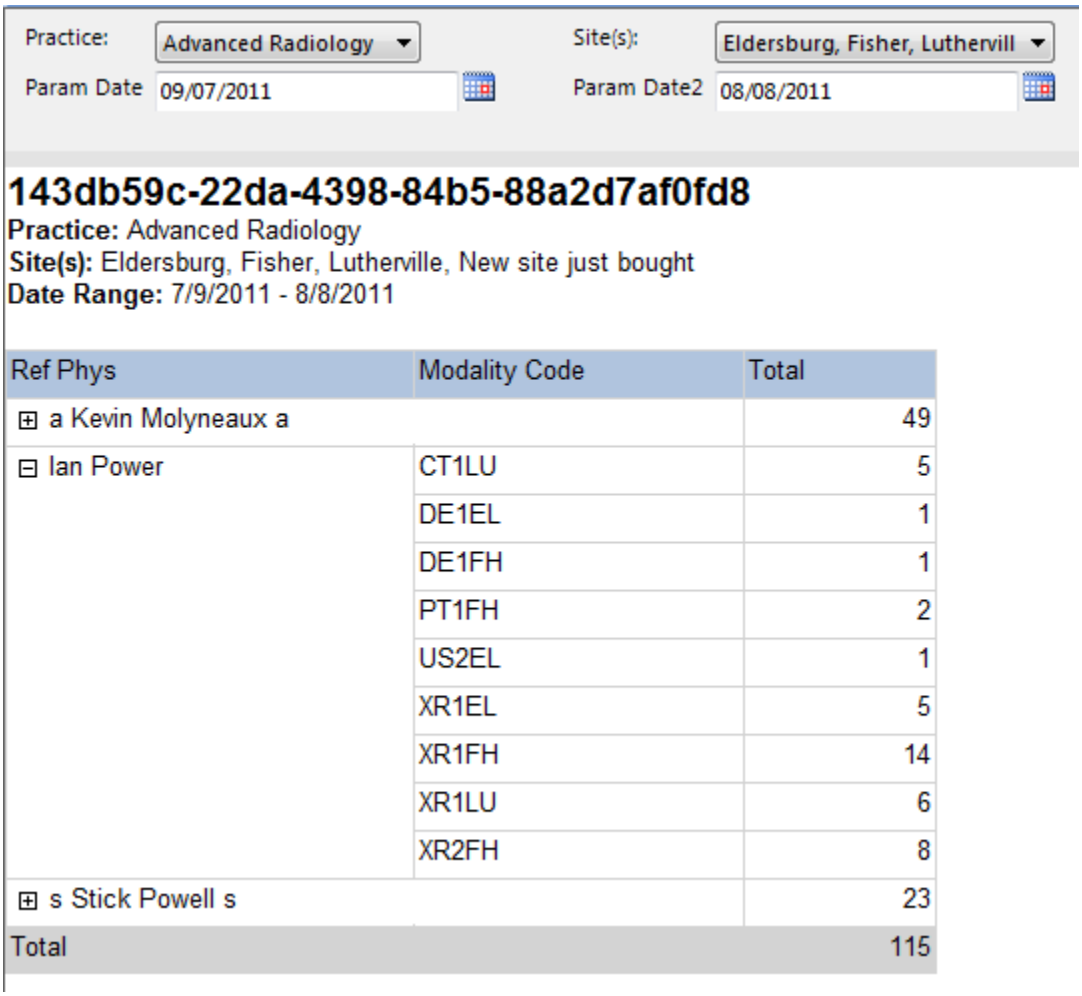



**Figure 4.19 – Specifying time range exceptions**

## Pre_Auth Referring Physician Management Report

A new management report is available with build 1.20. The report is accessed via the Administration – Management Reports menu and displays the modality counts for Pre-Auth Referring Physicians.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.




| Ref Phys | Modality Code | Total |
|---|---|---|
| ⊞ a Kevin Molyneaux a | | 49 |
| ⊟ Ian Power | CT1LU | 5 |
| | DE1EL | 1 |
| | DE1FH | 1 |
| | PT1FH | 2 |
| | US2EL | 1 |
| | XR1EL | 5 |
| | XR1FH | 14 |
| | XR1LU | 6 |
| | XR2FH | 8 |
| ⊞ s Stick Powell s | | 23 |
| Total | | 115 |

**Figure 4.20 – Pre-Auth Referring Physician Report**

## Composite Code Min – Max Site Override

In build 1.20 procedure plans may be overridden for specified site(s). The Procedure Plan window has been modified by adding an ICON in the lower right corner of the window.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

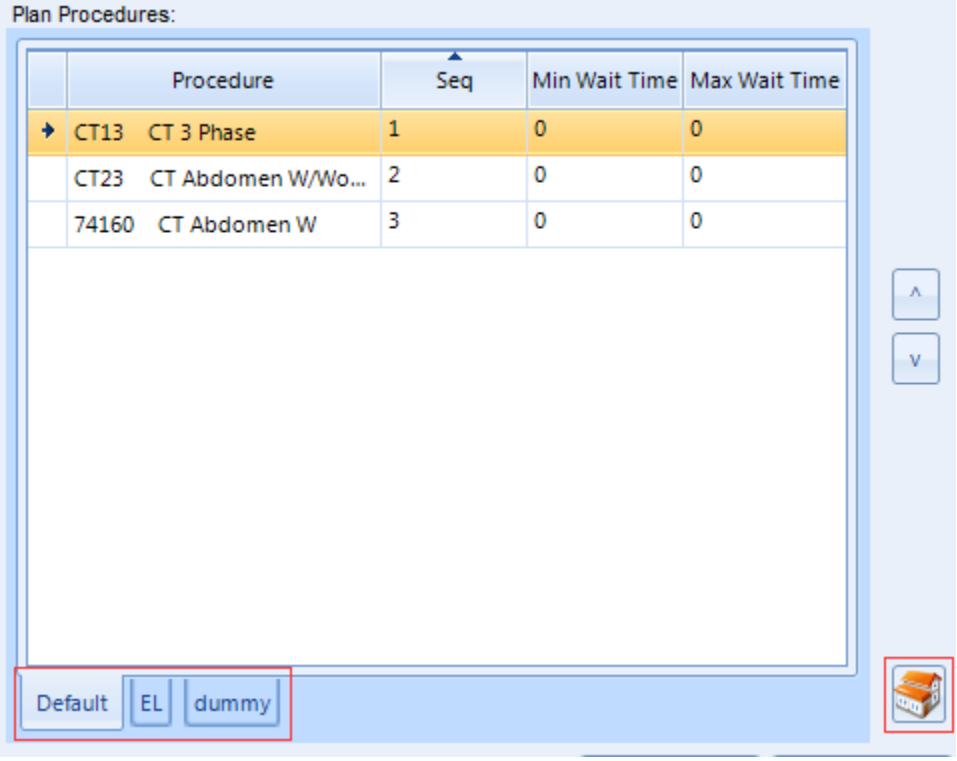



**Figure 4.21 – ICON to add, edit, or remove sites to be exempt from a procedure plan.**

Selecting this ICON will spawn a new window where the user may select the site(s) that are to override this procedure plan**.**

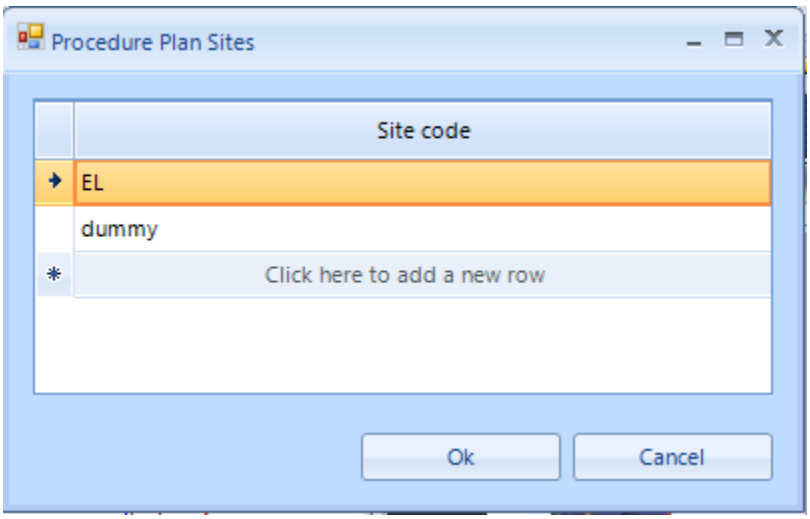



**Figure 4.22 – Add, edit and delete sites to override procedure plan**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 5. Known Limitations

Bugs, Suggested Features, and Support Issues are now tracked in a web based system called Redmine. The following is a snapshot of the issues found in Build 1.20.

| # | Status | Subject | Category | Target version | % Done | Resolved Version |
|---|---|---|---|---|---|---|
| 522 | New | Search for available times incomplete based on criteria | Thick Client GUI | 1.20 | 0 | |
| 521 | New | Exception thrown at login if user is not associated to a practice | Admin Tools | 1.20 | 0 | |
| 520 | Resolved | Scheduler gets exception when selecting procedure | Thick Client GUI | 1.20 | 100 | 1.21 |
| 519 | New | Scheduling Planned Procedures does not adhere to min/max times | Thick Client GUI | 1.20 | 0 | |
| 518 | New | Config - User groups added don't have "x" to remove | Admin Tools | 1.20 | 0 | |
| 516 | New | Exception on reschedule | Thick Client | 1.20 | 0 | |
| 515 | New | Exception on closing edit patient window | Thick Client | 1.20 | 0 | |
| 514 | New | Refresh issue on save personnel | Admin Tools | 1.20 | 0 | |
| 512 | Resolved | Incorrec button labels on popups for adding printing criteria | Admin Tools | 1.20 | 100 | 1.21 |
| 511 | Resolved | Error saving AvailabilityTemplate | Admin Tools | 1.20 | 100 | 1.21 |
| 509 | New | Credential switch lock overridden by unknown user | Thick Client GUI | 1.20 | 0 | |
| 508 | New | IVT worklist is blank for sites | Thick Client | 1.20 | 0 | |
| 507 | New | Credential Switch - Exception thrown on save edit user. | Thick Client GUI | 1.20 | 0 | |
| 506 | New | Scanning document with notes, first notes ICON does not display | Thick Client GUI | 1.20 | 0 | |
| 505 | New | Exception thrown scanning document | Thick Client | 1.20 | 0 | |
| 504 | New | Scan Doc notes | Thick Client | 1.20 | 0 | |
| 503 | Resolved | Report Delivery Options Sprint 1.20 | Web | 1.20 | 100 | 1.21 |
| 502 | Resolved | Document Distribution - ok / cancel buttons missing | Thick Client GUI | 1.20 | 100 | 1.21 |
| 501 | Resolved | Report delivery - print selected does not require address | Thick Client GUI | 1.20 | 100 | 1.21 |
| 500 | Resolved | Reschedule double study has incorrect study selected. | Thick Client GUI | 1.20 | 100 | 1.21 |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# User Pre-Release Notes

for RADNET rRIS
Build 1.21

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Purpose ..... 3
2. Intended Audience ..... 3
3. Installing/Accessing the Application ..... 3
4. New Features and Enhancements ..... 4
   Apply Document Type after Scanning ..... 4
   Assign Affiliation at Referring Address ..... 6
   Modality Procedure Duration Override ..... 7
   Outside Reads (Tech Only and Professional Only) ..... 9
   Preferred Reader ..... 15
   Scanned Documents at the Referring level ..... 16
   Separate Permissions for Editing Users vs. Referrers ..... 18
   Verbal Order Work Flow ..... 19
5. Known Limitations ..... 23

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 1. Purpose

This document describes some of the new features and changes implemented in rRIS as of the end of Sprint 21. This pre-release version of rRIS is referred to as Build 1.21.

Only features which can be visually demonstrated to the user will be outlined in this document.

# 2. Intended Audience

This document is created by the rRIS Development team for the RadNet RIS management team.

# 3. Installing/Accessing the Application

The installation instructions for the rRIS client have been posted to the RadNet Wiki page at http://mdbal01rdtweb/Wiki/

Under the RIS menu, click on the rRIS page. The credentials to access the page are:
Username: rRIS
Password: Summerside

*Please note that Build 1.21 is considered a new core release of the application and will require a reinstallation of rRIS. This is accomplished by navigating to the rRIS shared installation drive and running the CoreInstall.bat file (ex: I:\RISDeployment\CoreInstall.bat)*

If you experience difficulties accessing the application, please do not hesitate to contact Darcy Noye with the PEI RIS Development Team.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 4. New Features and Enhancements

## Apply Document Type after Scanning

Build 1.21 gives the user the ability to assign or change the document type after the document has been scanned. Additionally the user has the option to change the type of the document selected and also the documents that follow the currently selected document.

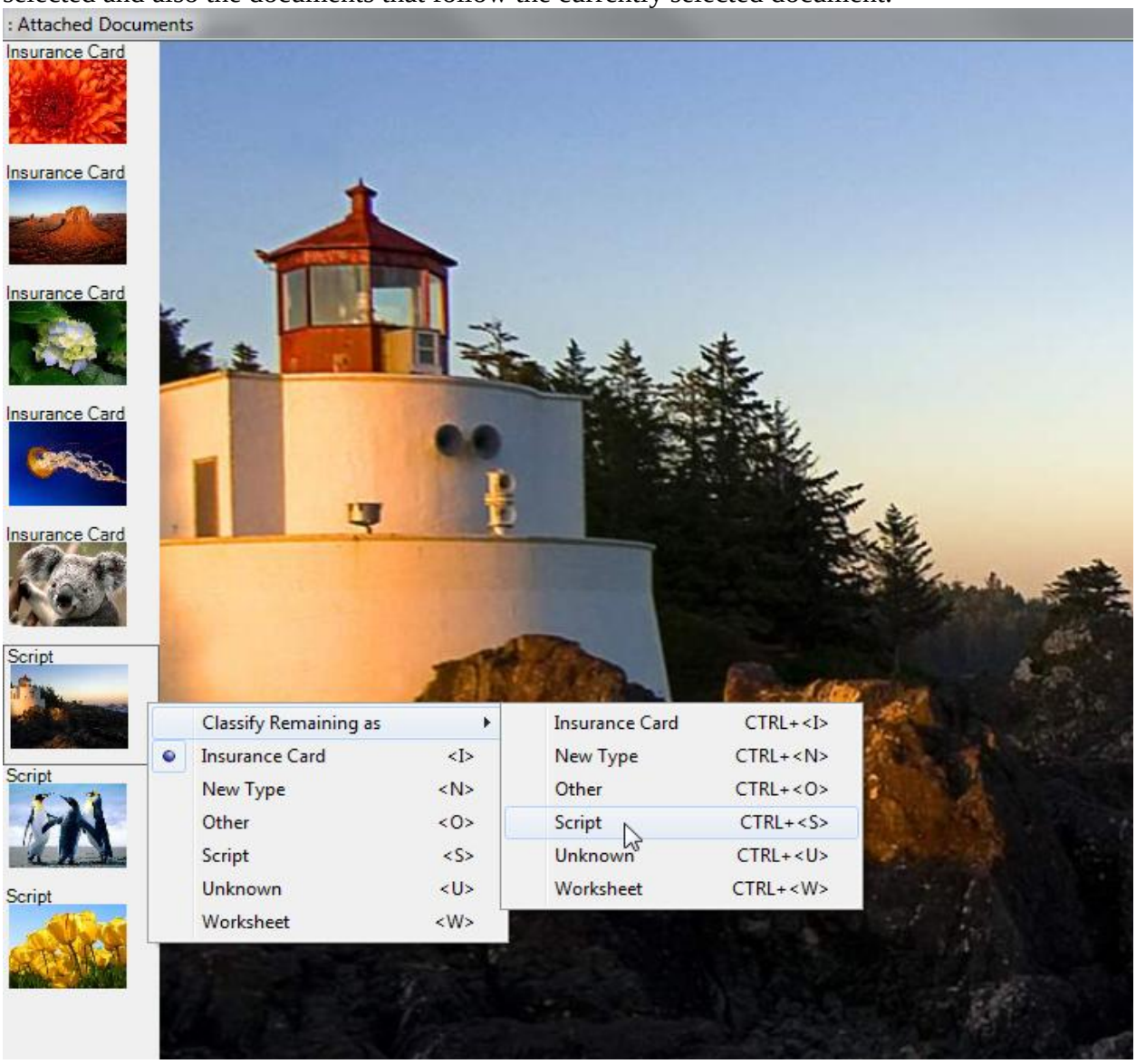



**Figure 4.1 –Attached document selection type.**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

In the view attachment window, thumbnails are displayed on the left side. A right click on a thumbnail will open the list displayed in Figure 4.1. The first menu item "Classify Remaining as" expands the menu to show the available document types. The user can change the currently selected document as well as the all of the documents that follow the document in thumbnail view below it.
The document types available from this context menu are only those of the same document type of the scanned or imported image. For example, if the document scanned has a document type that is at the Patient Level, the context menu will only show active document types at Patient Level.

Changing the document type as shown in Figure 4.1 a new record is created and a new row will display in the Attachment Viewer. The original attachment "Insurance Card" has 8 pages. Three of those pages are changed to Type "script", creating a new row for "script" document with 3 pages and "Insurance Card" has the remaining

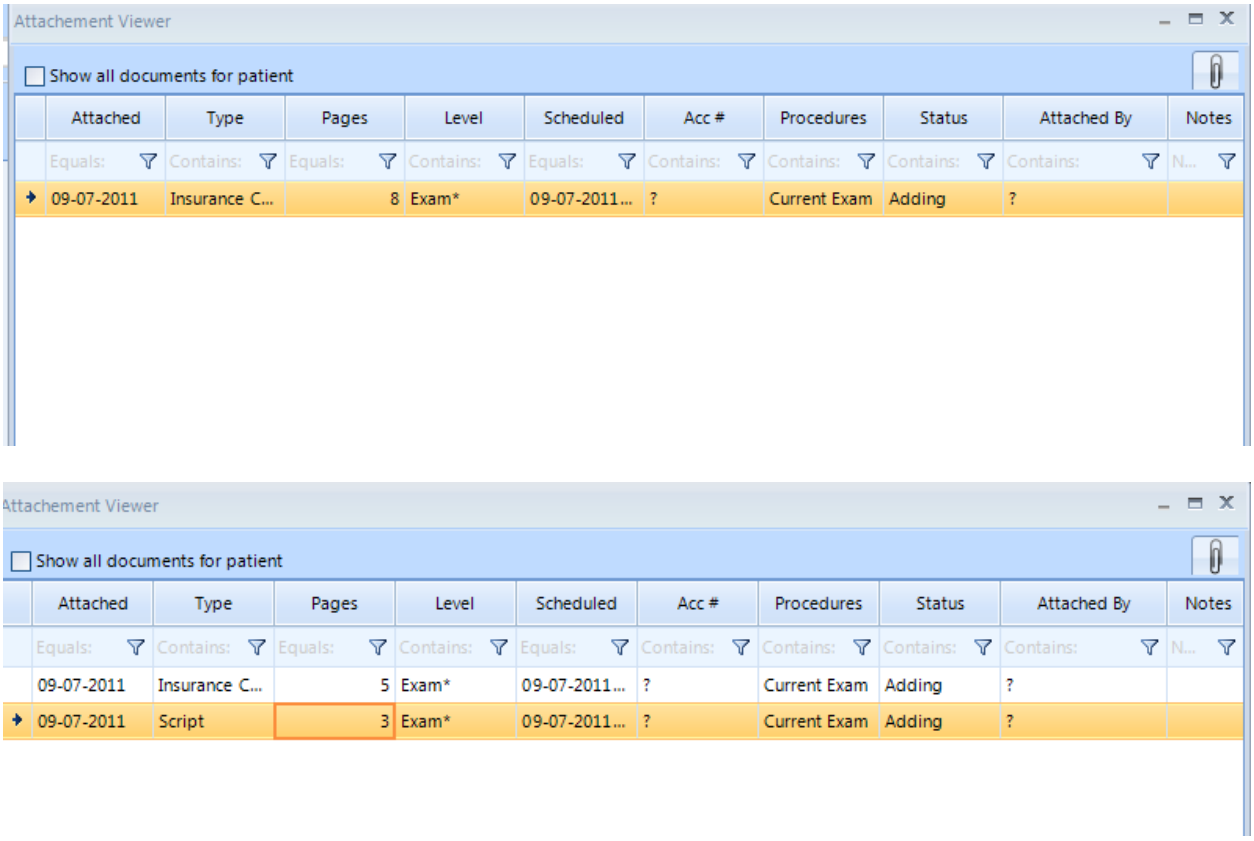



**Figure 4.2 – Before and after changing document type for multiple documents**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

Also from Figure 4.1 you will notice that the document types may have shortcut keys assigned. To change the document type for a single document, you only need to select the shortcut key itself. For example, to change the document type to Unclassified, highlight the thumbnail and select **U** on the keyboard. To change the document type for the currently selected thumbnail and the documents below it, you must also select <Ctrl> in addition to the shortcut key.

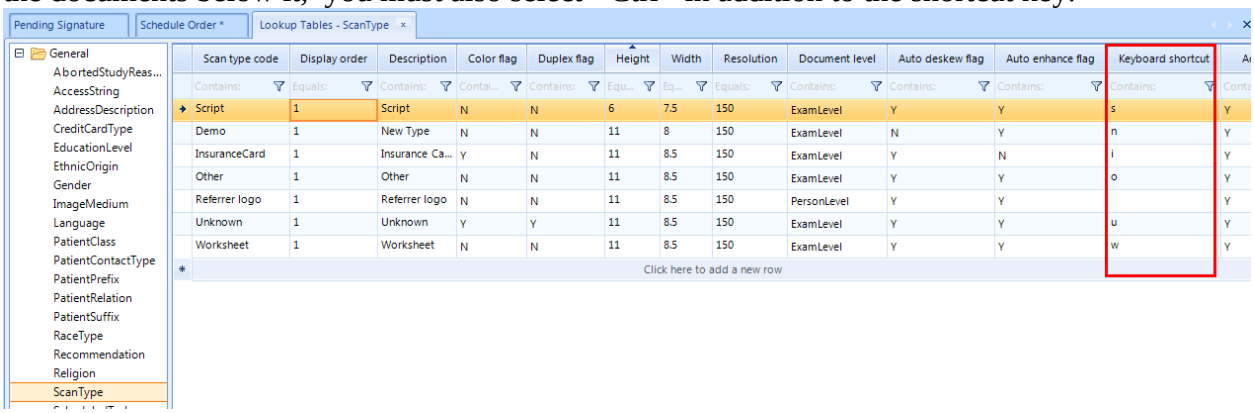



**Figure 4.3 – Lookup table ScanType. Keyboard shortcut column added**

## Assign Affiliation at Referring Address

Affiliation to a referring was already an option in rRIS. In this build it has been moved to be associated at the referrers address level. Users may be configured with multiple addresses. Each address may have different and multiple affiliations.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

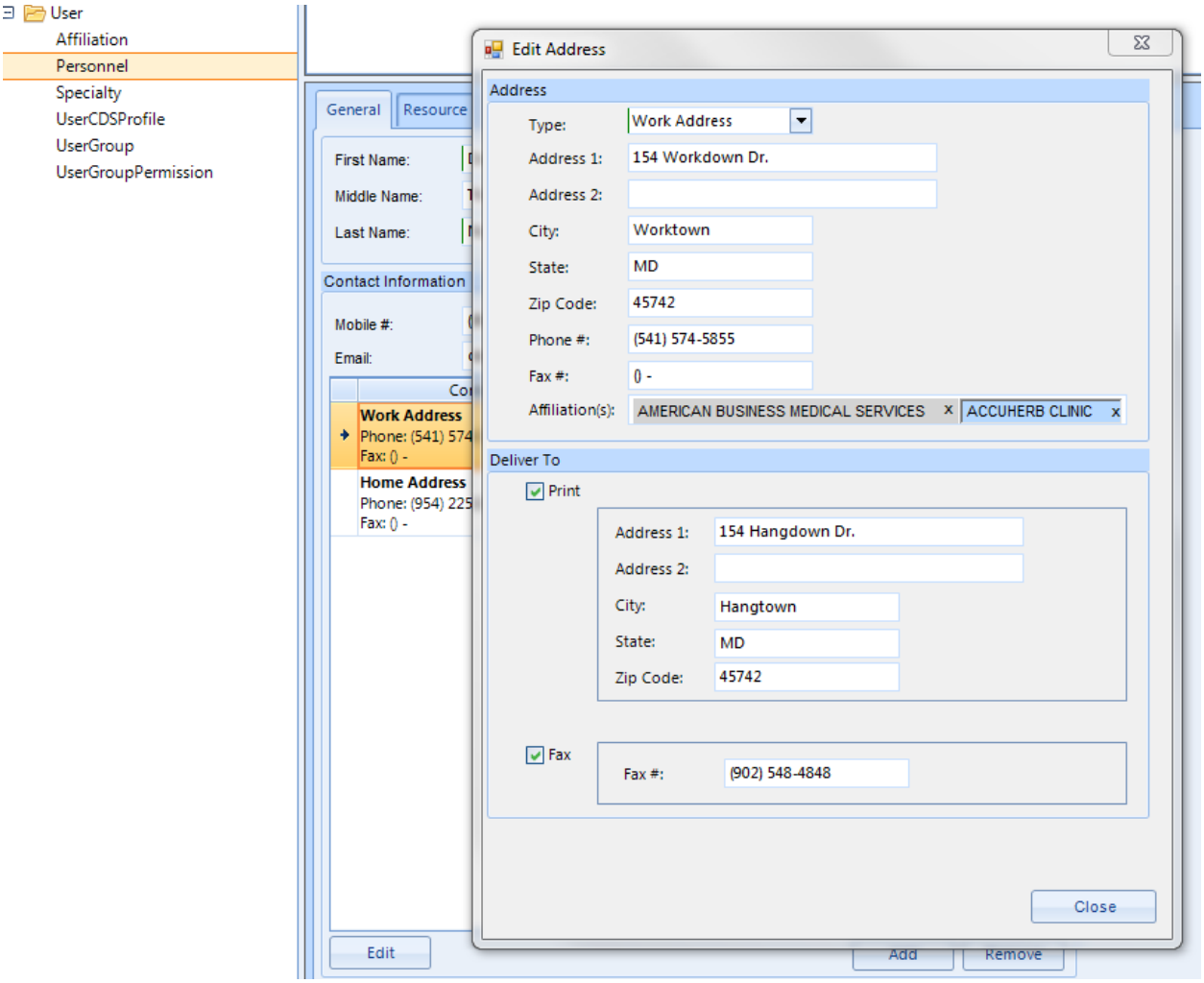



**Figure 4.4 – Affiliation moved to Address level**

## Modality Procedure Duration Override

In build 1.21 the ability to add study duration has been added to the modality level. In previous builds each procedure was assigned a default duration time. In addition to the procedure level, the duration could also be set for specific time blocks in the Availability Template.

The Duration Override is configured via the Modality lookup table. Choosing a modality code, then selecting this new button will spawn a new window. In this window the user may choose a

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

procedure and enter in the duration override to be used for this procedure in this specific modality.

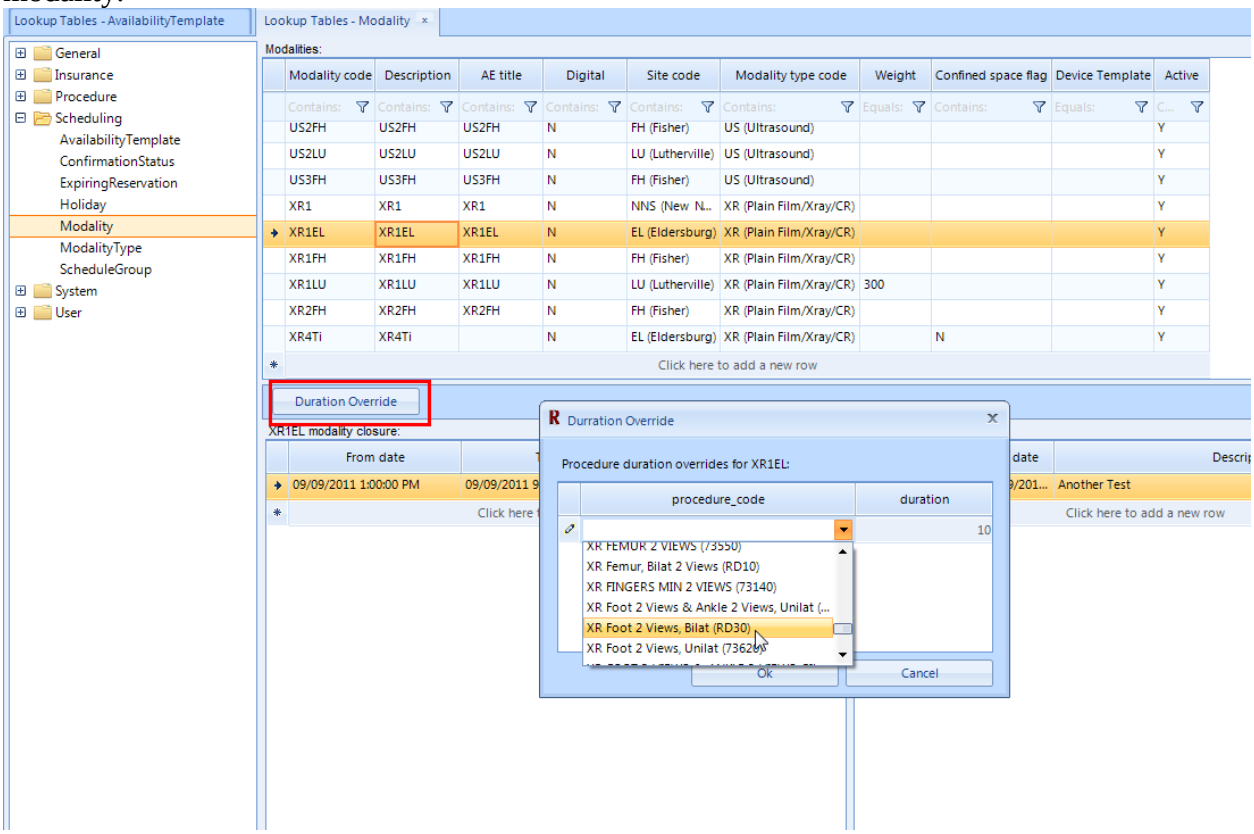



**Figure 4.5 – Duration Override at modality level**

With the duration override configured, procedure XR Foot 2 Views, BILAT (RD30) in modality XR1EL will be 10 minutes, overriding the procedures default duration of 5 minutes.

The order of process for procedure duration is as follows.

1. The procedure default duration is checked first
2. If a modality duration override is present it takes precedence over procedure level
3. The availability template may have a duration configured for a particular time block(s). The duration set here will take precedence over modality and procedure levels.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

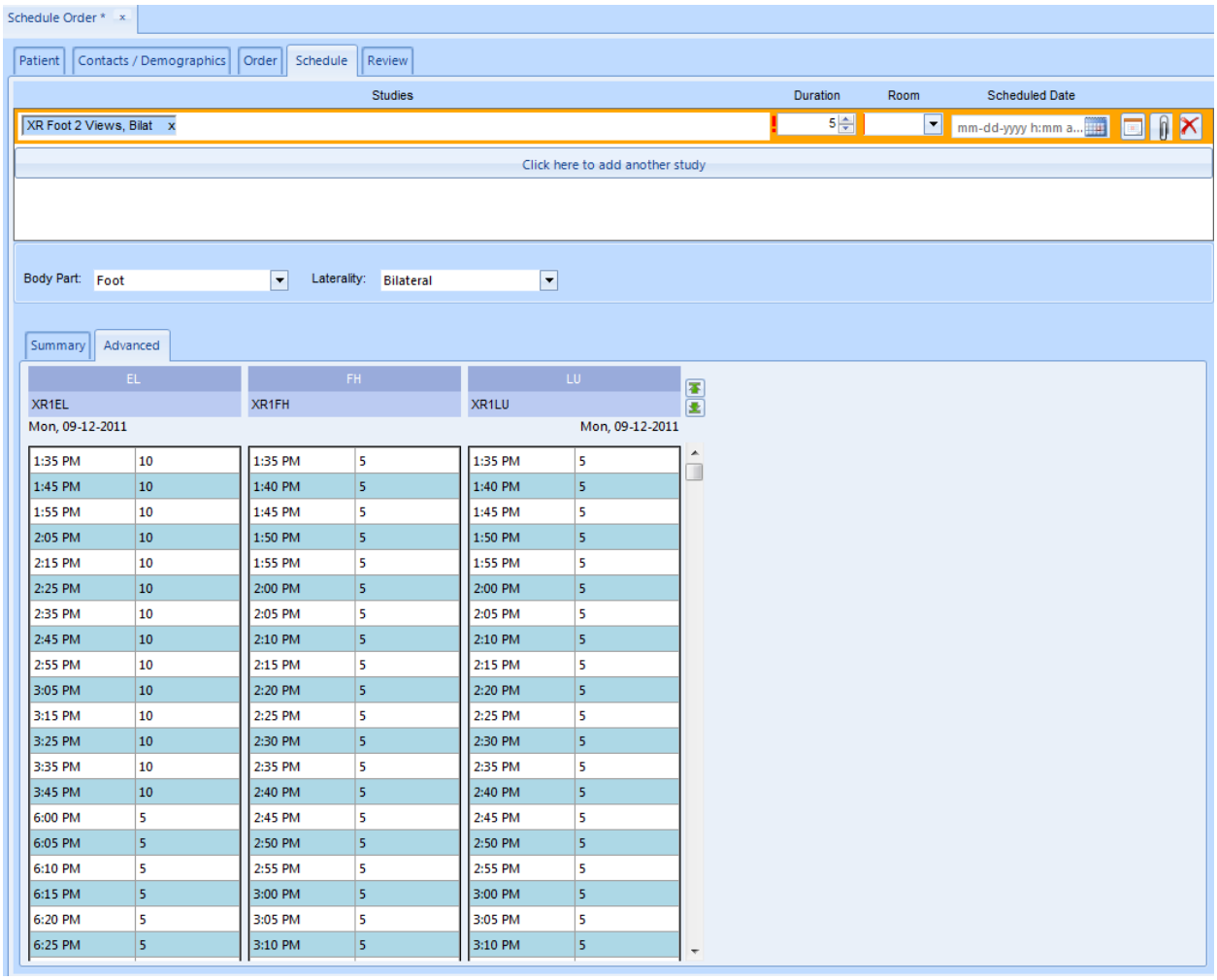



**Figure 4.6 – Scheduling window displaying duration override for XR1EL modality**

## Outside Reads (Tech Only and Professional Only)

Tech Only work flow. The tech will have the ability to mark a study as "No Report / Tech Only". . When a check is added the user will be prompted with confirmation message and the label "No Report / Tech Only" will be bolded red. Selecting "Yes" to confirm will add flag. Once the study is flagged and saved, it will move from the Technologist work list and flagged to skip professional services part of the workflow.

NOTE: currently this study will be sent to exam done work list and is not marked as a "no report" study. In next build the exam status will be informative (Ex: exam done / No Report)

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

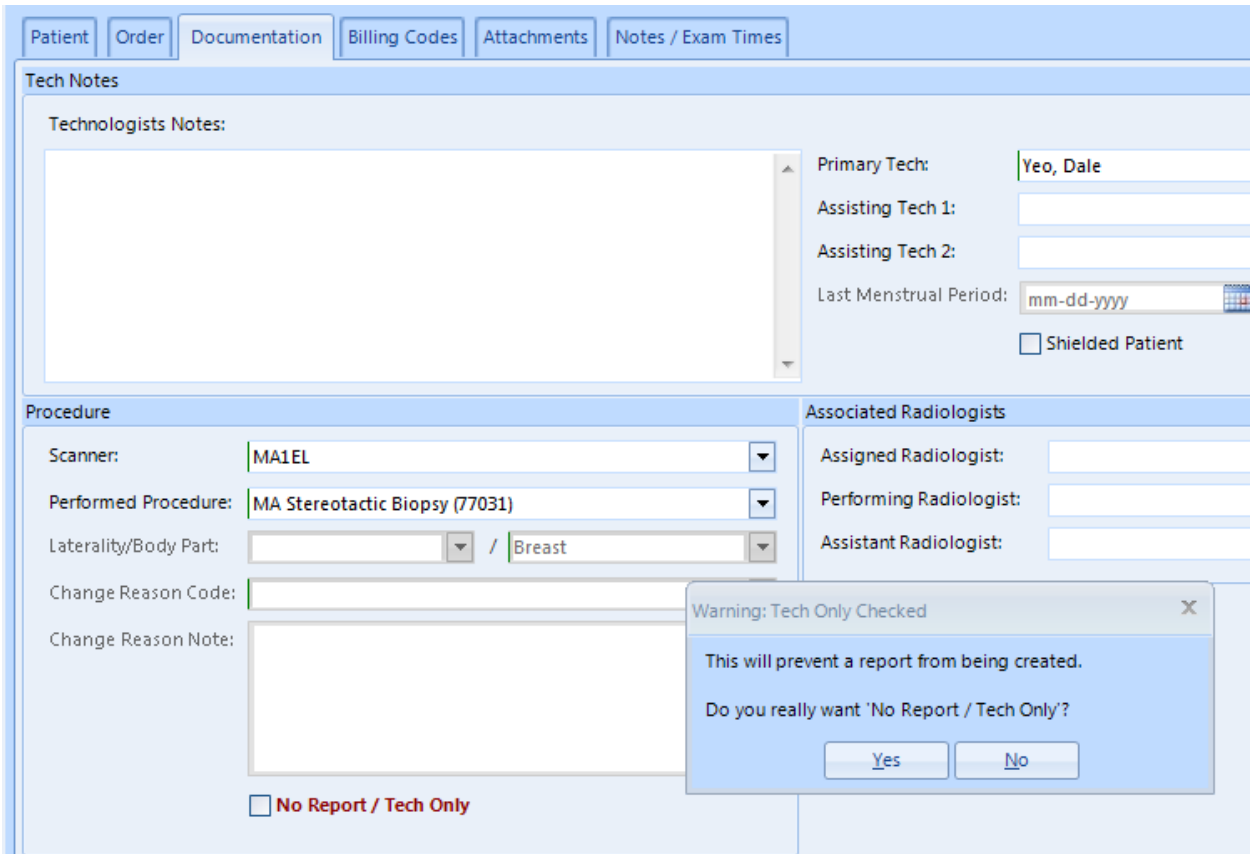



**Figure 4.7 – Tech Only work flow**

Procedures may also be pre-configured as No report required flag from the Procedure Code lookup table.

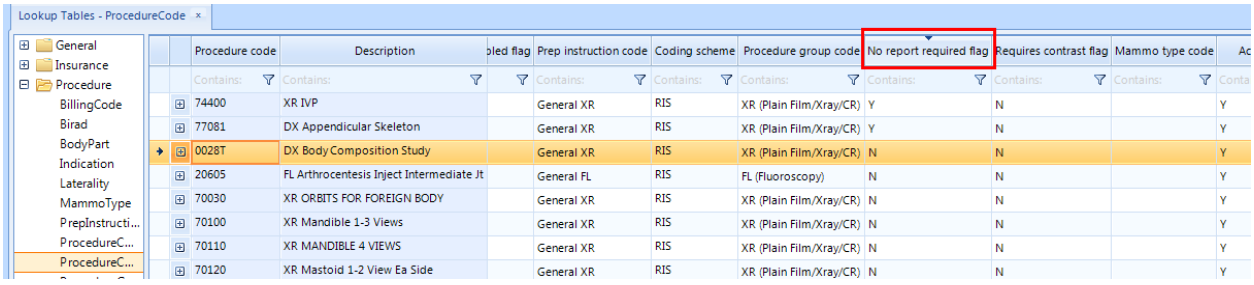



**Figure 4.8 – Procedure codes with No report required flag.**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

Tech performing exam on a procedure that has the No report required flag pre-configured will automatically have the Check box for No Report / Tech Only pre-selected, and disabled so the user cannot remove flag as displayed in Figure 4.9.

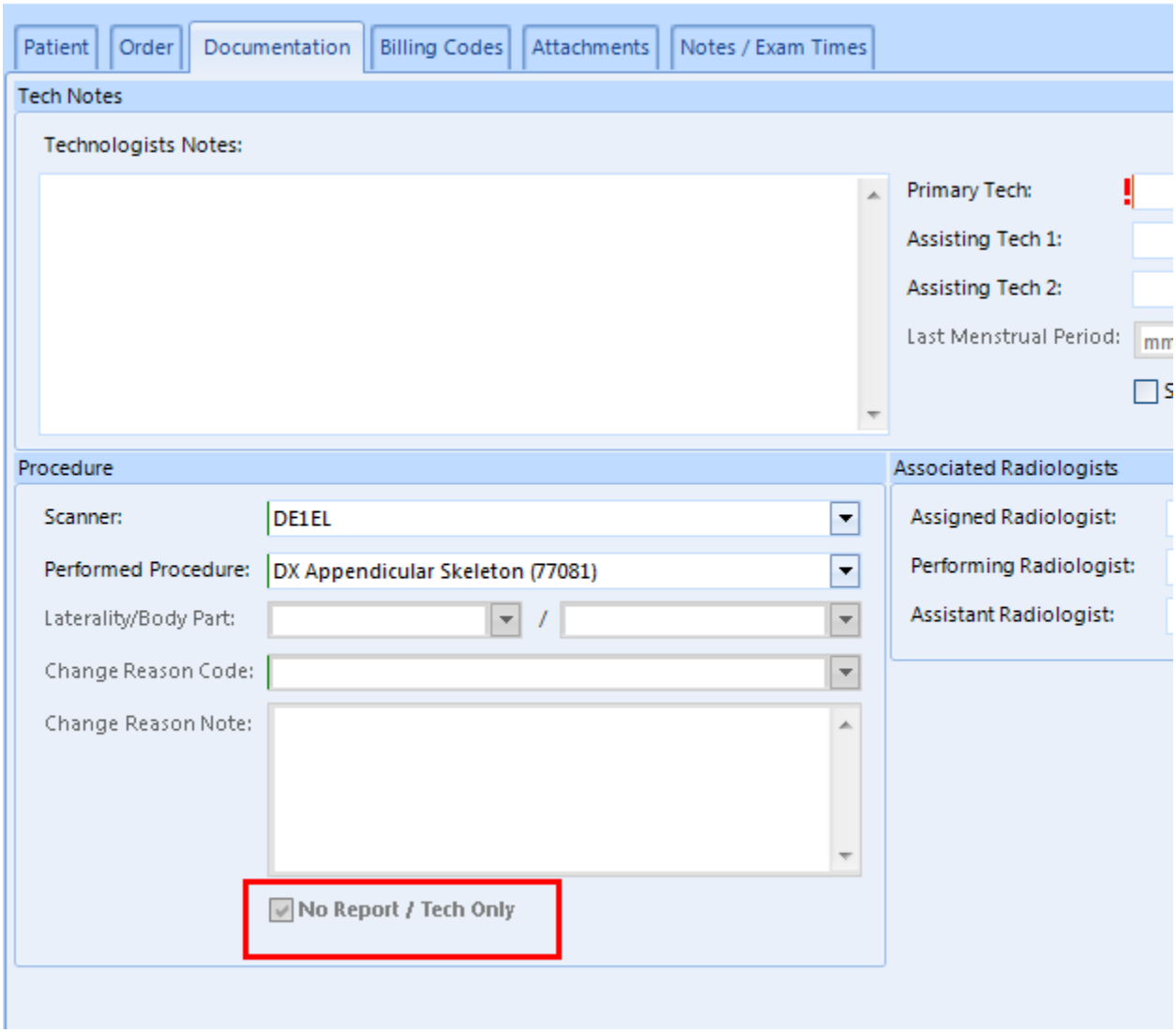



**Figure 4.9 – Procedure defaulted for no report**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

Professional Only workflow outside reads – a new data window was added under the Administration menu.

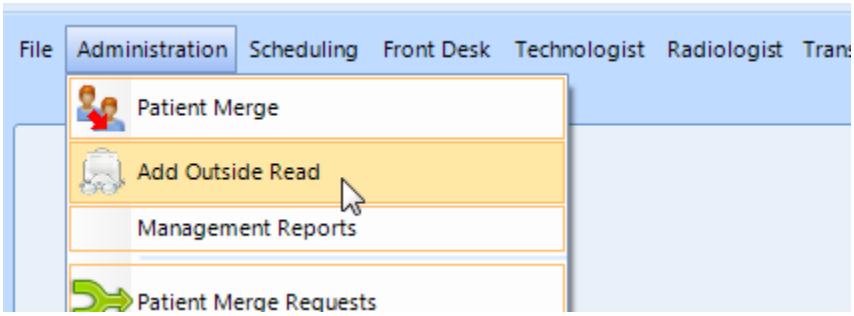



**Figure 4.10 – Add Outside Read**

"Add Outside Read" will open a new window that will allow the user to:

- Search or add a new patient.
- Data entry for exam date, order notes, stats, indications, referring, practice, etc.
- Entry for the exam location using the site field (required).
- Enter a list of studies for the order.
- Scan Documents for each study.

Once the information for the Outside Read has been added to the data window, the study will be moved directly to Exam Done status and are ready for dictation, transcription and signing.
NOTE: currently have outstanding issue of tech workflow fields required data at time of dictation.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

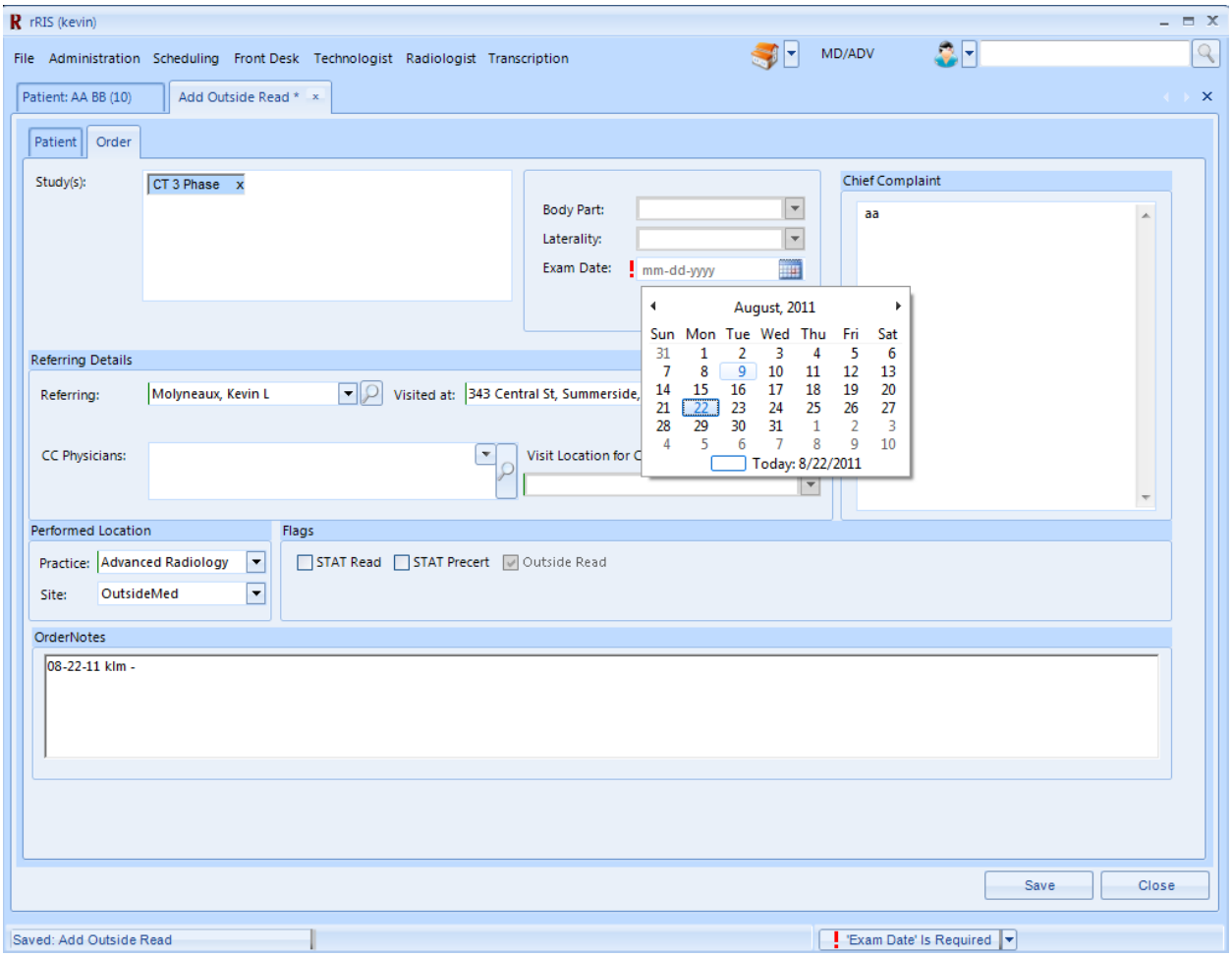



**Figure 4.11 – Outside read data window**

Administrators will need to create one modality for each modality type. These modalities created do not have to be assigned to scheduling groups (sites) also the Outside Read Modalities can marked as inactive. If the modality does not exist a message will inform the user with a list of modalities the administrator will need to create.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

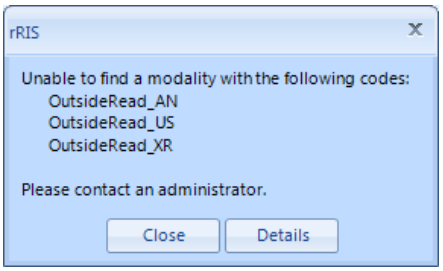



**Figure 4.12 – Informative message instructing Modalities to be created**

In the organization screen for site, the field "outside_read_location_flag" has been added. When this flag is set those sites will not show up in the other Scheduling screen's schedule/reschedule inputs for site. And on the "New Outside Read" only the sites for outside reads will be displayed

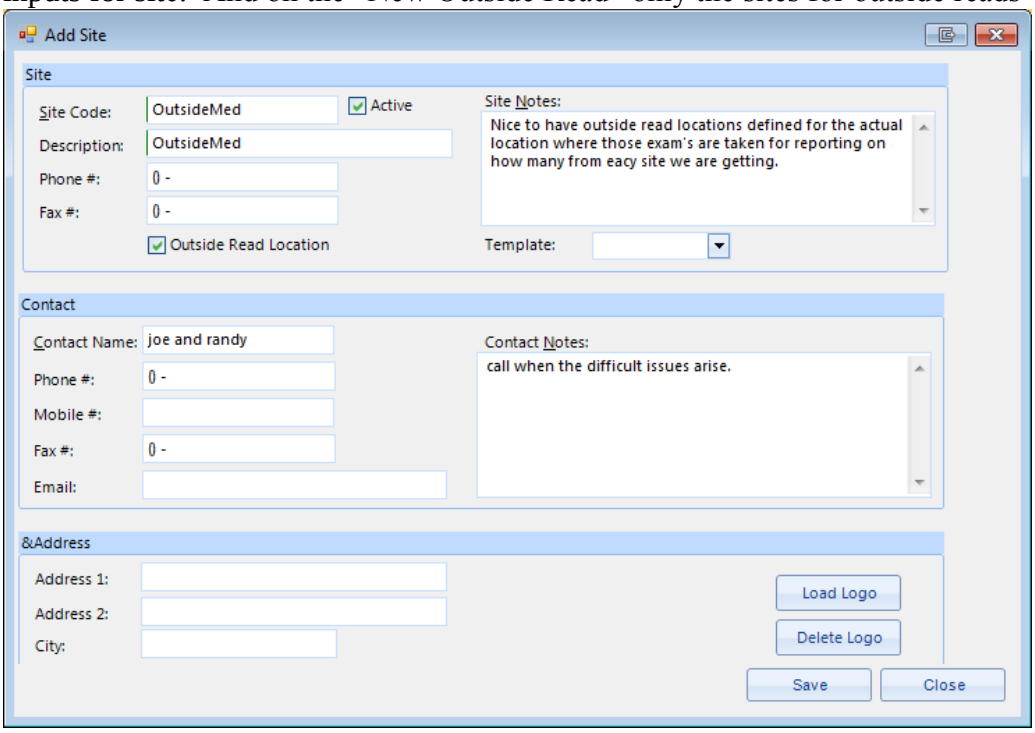



**Figure 4.13 – Add site Outside Read Location Flag**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Preferred Reader

In build 1.21 a radiologist can be assigned as a preferred reader. Referring physicians may have one or more preferred radiologists to read a specific modality type or specific procedure.

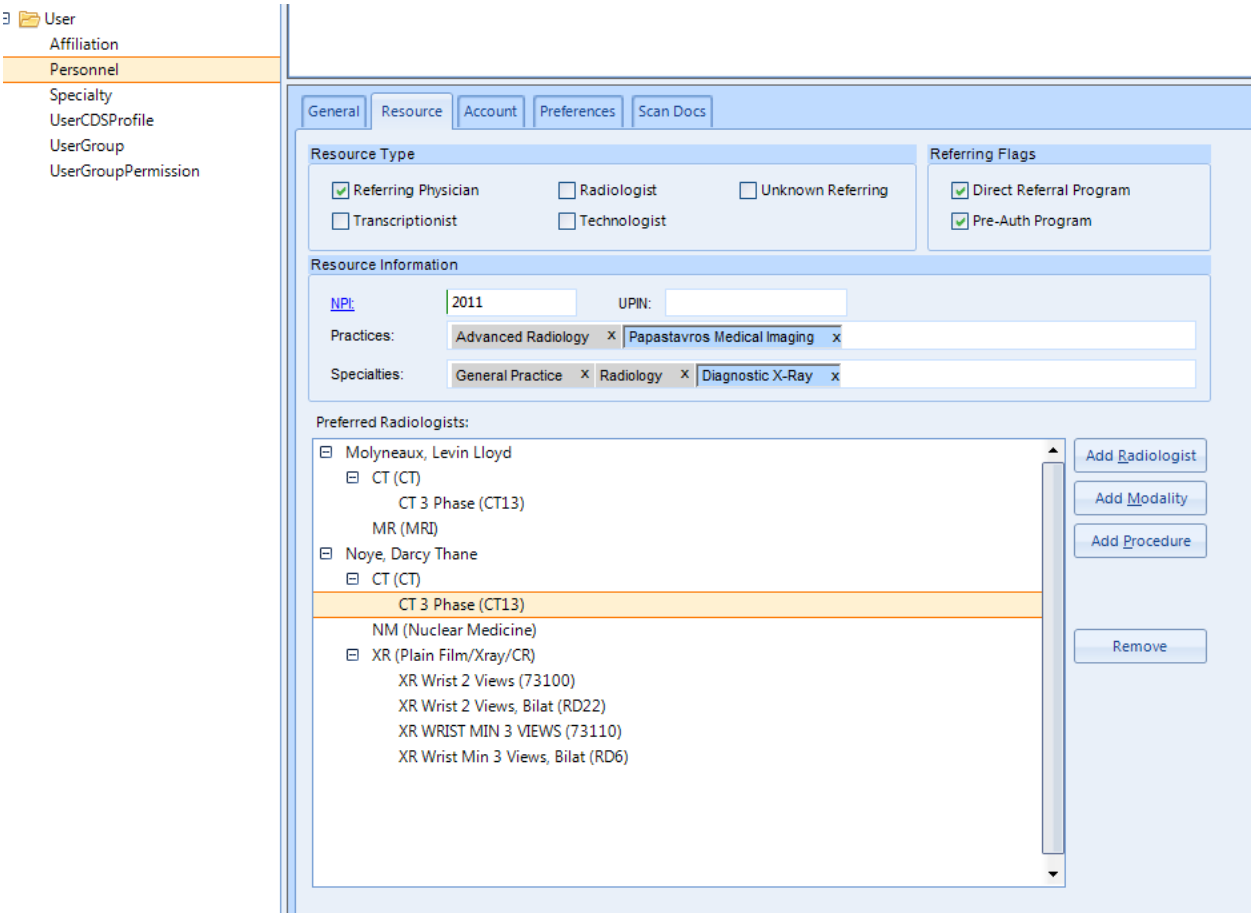



**Figure 4.14 – Preferred reader(s) added to referrers Personnel profile**

In the example above for this particular referrer, Molyneaux is the preferred reader for all MR (MRI) and CT 3 Phase (CT13). Noye is also a preferred reader CT 3 Phase (CT13), as well as all NM (Nuclear Medicine) and XR Wrist 2 views, XR Wrist 2 views, Bilat, XR Wrist min 3 views and XR Wrist Min 3 Views, Bilat.

When this referrer is selected for an order and the exam to be completed is of the Modality MR, Molyneaux will be defaulted as the Assigned Radiologist for the Technologist performing the exam.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

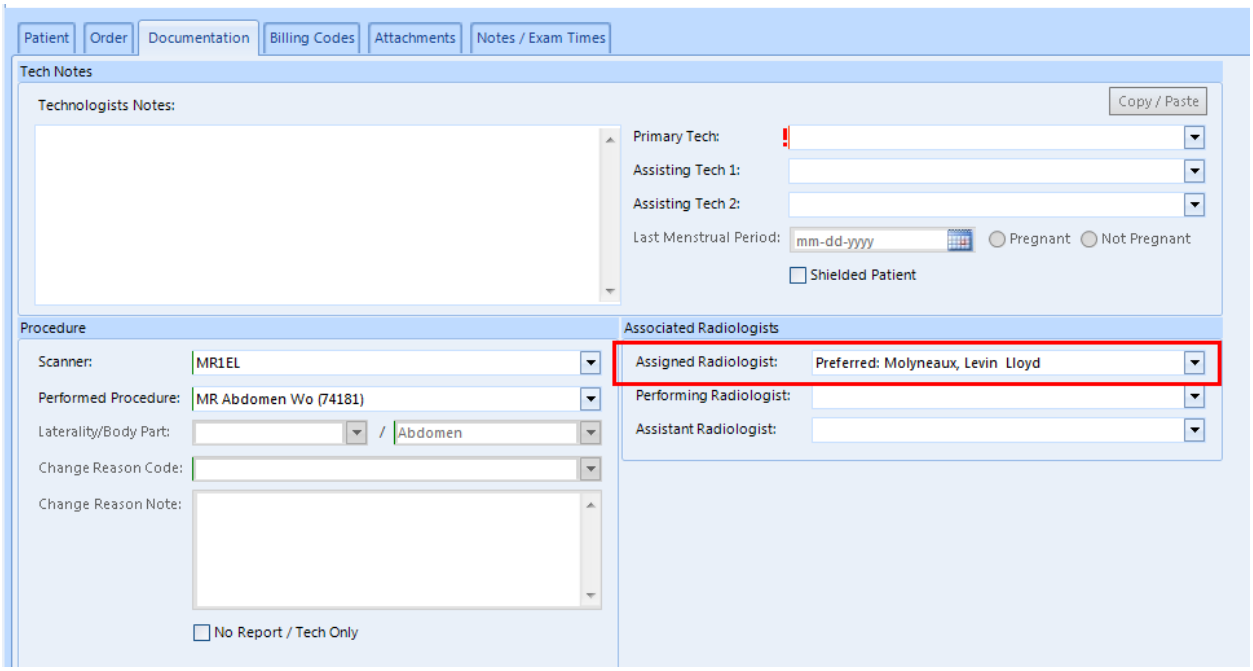



**Figure 4.15 – Preform exam with preferred reader defaulted**

In a case where there is more than one preferred reader, the Assigned Radiologist field will not have a default value, but is marked with **!** indicating that a preferred radiologist is configured and may be selected. The preferred radiologists will be prefixed with Preferred: as displayed in Figure 4.15

## Scanned Documents at the Referring level

Storing scan documents for a referring doctor at the Personnel level has been implemented in build 1.21. A new document type of person level was added to scan types and will be the only available option for attachments within the Personnel Editor.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

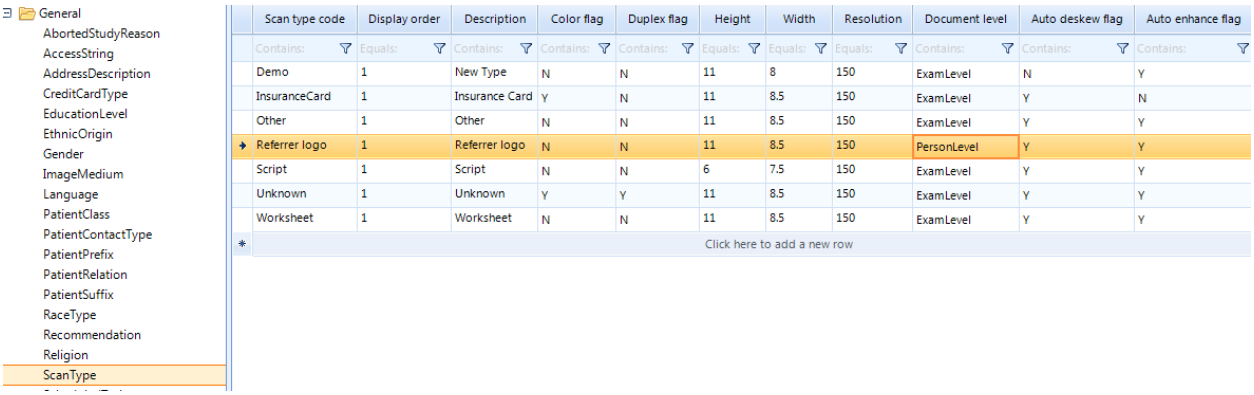



**Figure 4.16 – Scan type at PersonLevel.**

A new tab has been added to the personnel editor window conveniently labeled “Scan Docs”. Attachments are saved when you the person’s profile you are editing. The list of scanned attachments is downloaded to the person’s profile only when the scan docs tab is selected and the attachment itself is downloaded on a double click of the document row. Attachments can be scanned in or imported from file

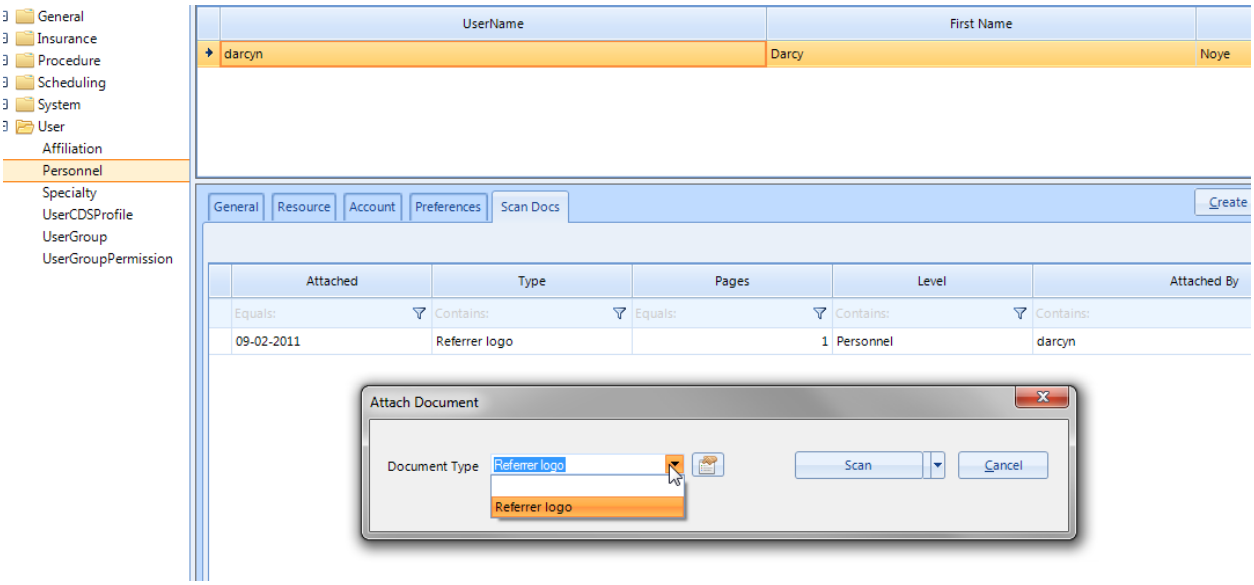



**Figure 4.17 – Scan Docs tab in Personnel Editor**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Separate Permissions for Editing Users vs. Referrers

The ability for non admins to add / edit referring physicians has been added in build 1.21. The access string "Config.LookupEditor.PersonnelReferring" controls this ability. A look at the access string lookup table displays the new access string code Config.LookupEditor.PersonnelReferring with default access level to full as well as access to the Personnel Editor Config.LookupEditor.Personnel default access level to full. This currently gives all users access.

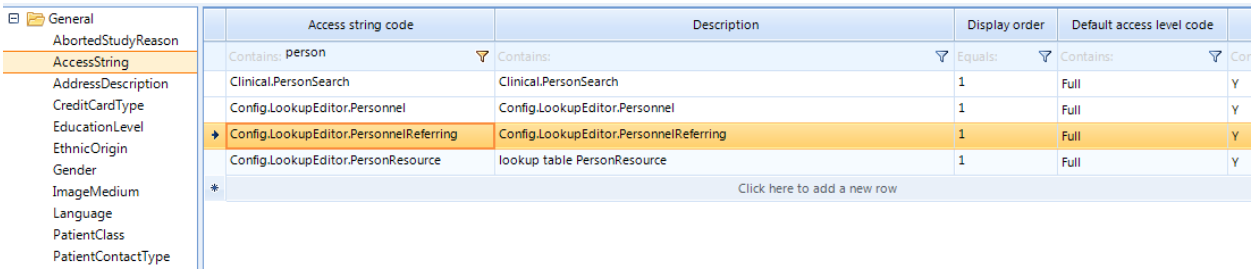



**Figure 4.18 – Access String lookup table highlighting new access string code**

If we look at the lookup table for User Group Permission we see the User Group "Scheduling" is permitted access to edit Referrers, but will not be able to search for users that are not of the referring group.

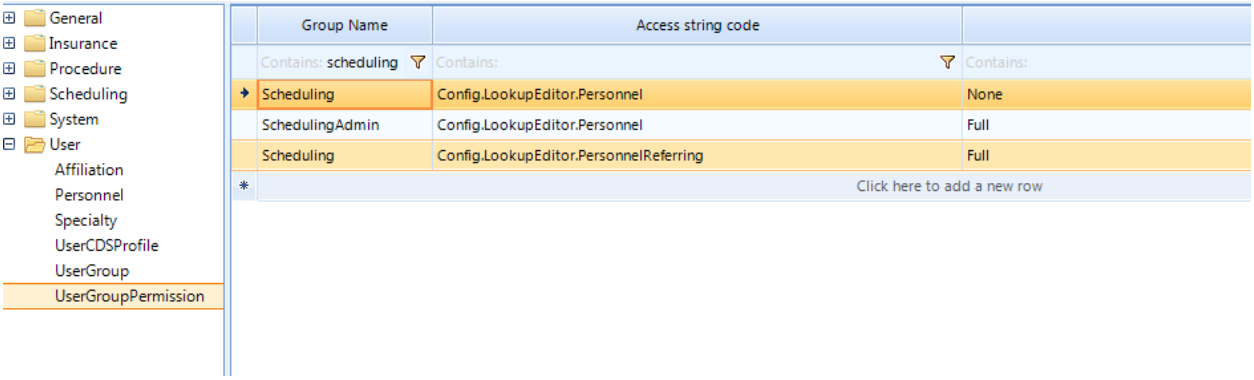



**Figure 4.19 – User Group Permission for Scheduling only has access to edit Referrers in Personnel editor.**

Logged in as a user of the Scheduling user group, you can see from Figure 4.20 that they do not have access to the Personnel Editor, but they can perform an Internal Person search for referrers. The user will only have the ability to change data on the General, Resource (resource type will be un-editable) and Scan Docs tabs. Fields on the Account and Preferences tabs are disabled to this user. If they search for a user that is not flagged as a referrer Resource type, the results will

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

be returned to the Internal Person search window, but they will not be permitted to view this user in the Personnel Editor.

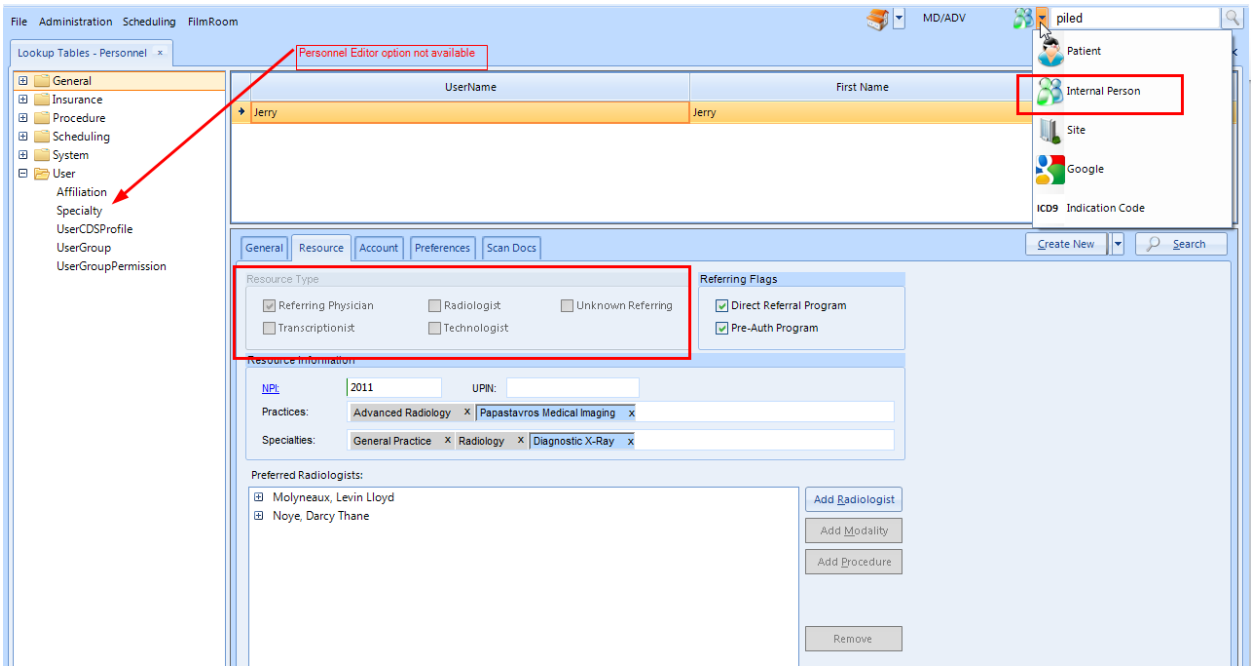



**Figure 4.20 – Locked down Personnel Editor for editing Referring Physician only**

## Verbal Order Work Flow

Patients may arrive at registration / walk-in without a written order from a referring physician, or perhaps the tech needs to change it. To add this work flow to rRIS, Verbal order work flow has been added to build 1.21. Since all downstream users may want or need to see the verbal order, it has been created as an attached document (scan doc).

A button called “Verbal Order” has been added to the Attach Document window as displayed in Figure 4.21. The button is accessed via the drop down button to the immediate right of the Scan button in the Attach Document window.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

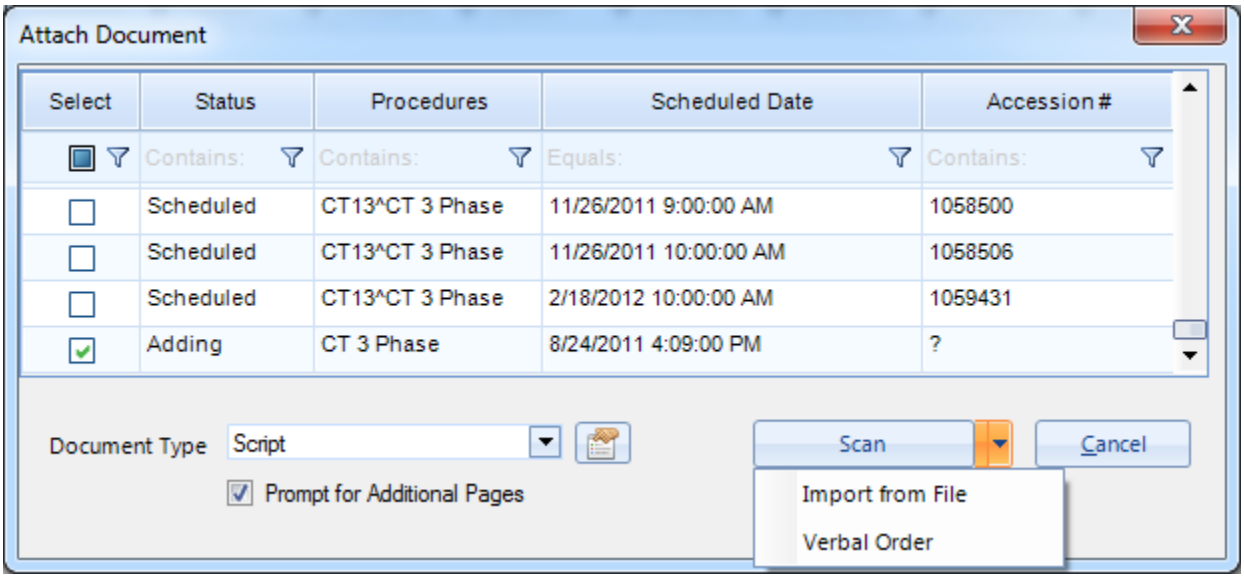



**Figure 4.21 – Verbal order.**

Selecting the Verbal Order button will open the Verbal Order window. Before the Verbal Order window opens, it checks for the patients data. If there is insufficient information a pop up window informs the user of the missing information.

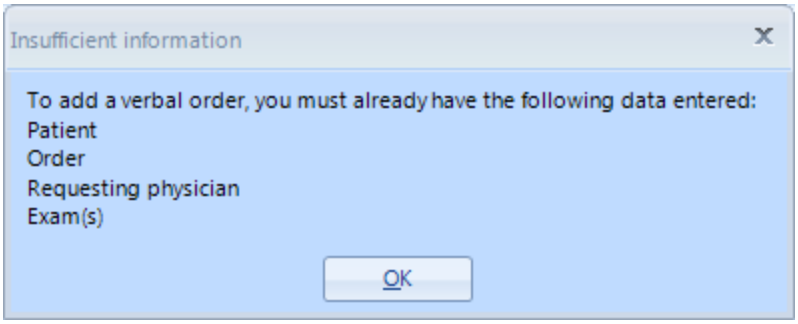



**Figure 4.22 – Verbal Order missing data**

Once sufficient information has been entered the user is prompted to complete information in the Verbal Order data window. The create order button is enabled when all of the fields have data and the check box is selected.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

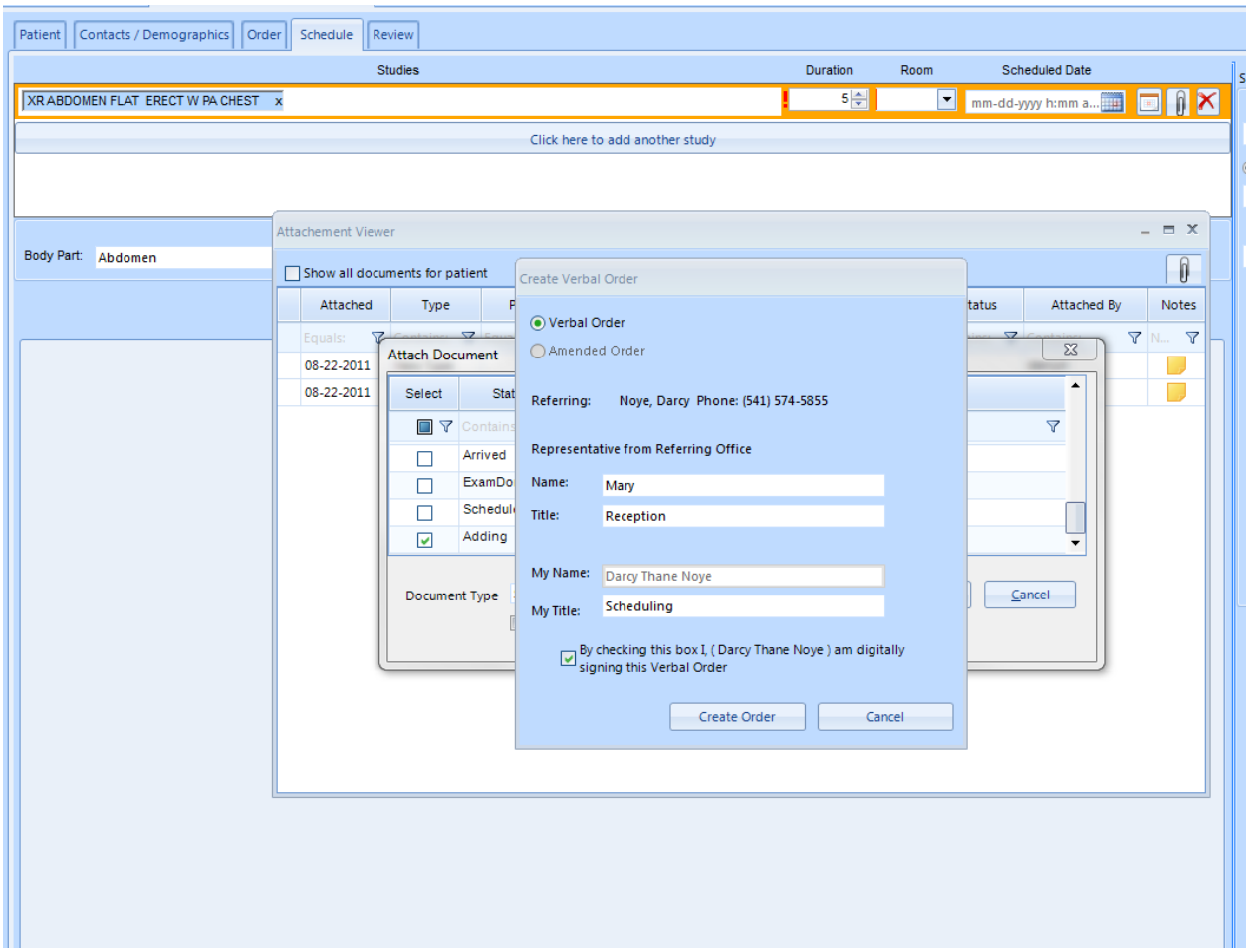



**Figure 4.23 – Creating Verbal order**

Selecting the Create Order button will render the data and saves it as a scanned document. The document is attached to the current order with a scan type of script. The regular attachment viewer will allow the order to be viewed

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

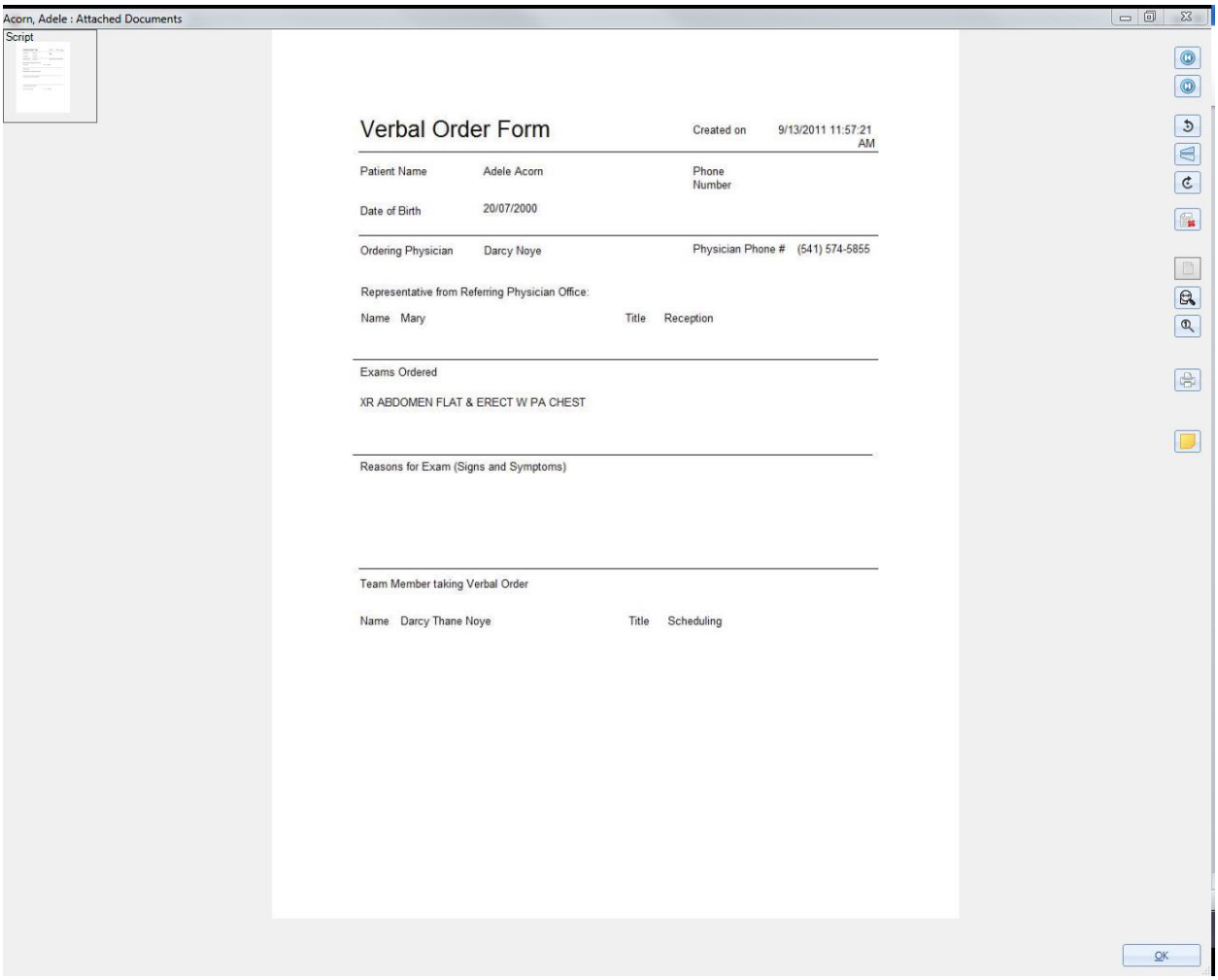



**Figure 4.24 – Verbal Order Form complete.**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 5. Known Limitations

Bugs, Suggested Features, and Support Issues are now tracked in a web based system called Redmine. The following is a snapshot of the issues found in Build 1.21.

| # | Status | Subject | Category | Target version | % Done | Resolved Version |
|---|---|---|---|---|---|---|
| 514 | Resolved | Refresh issue on save personnel | Admin Tools | 1.21 | 100 | 1.22 |
| 523 | New | Apply Document type after scanning only showing patient level document types | Thick Client GUI | 1.21 | 0 | |
| 524 | Resolved | Scan docs - Classify Remaining - Scan notes on incorrrect document | Thick Client GUI | 1.21 | 100 | 1.22 |
| 526 | New | Exception on diagnose / dictate | Thick Client GUI | 1.21 | 0 | |
| 528 | New | Create new report distribution job from Distribution History throws error | Thick Client GUI | 1.21 | 0 | |
| 529 | New | Reschedule study search returning incorrect times | Thick Client GUI | 1.21 | 0 | |
| 531 | Resolved | Availability template - adding time ranges start date not formatted | Admin Tools | 1.21 | 100 | 1.22 |
| 532 | Resolved | Time slot not released on reschedule | Thick Client GUI | 1.21 | 100 | 1.22 |
| 534 | New | Creating verbal order needs a user friendly message when missing DOB | Thick Client GUI | 1.21 | 0 | |
| 535 | New | Installer errors | Admin Tools | 1.21 | 0 | |
| 536 | New | Exception thrown for new user created | Thick Client GUI | 1.21 | 0 | |
| 537 | New | Preferred reader - cannot multi select when removing | Admin Tools | 1.21 | 0 | |
| 538 | New | Cannot edit modality code in modality lookup table | Admin Tools | 1.21 | 0 | |
| 539 | Resolved | Patient information - phone fields extention not retained | Thick Client GUI | 1.21 | 100 | 1.22 |
| 540 | New | Outside Read - Exception thrown on save | Thick Client GUI | 1.21 | 0 | |
| 541 | New | Error on perform exam when referrer has preferred reader assigned. | Thick Client GUI | 1.21 | 0 | |
| 542 | Resolved | Creating an Outside Read returns error | Thick Client GUI | 1.21 | 100 | 1.22 |
| 543 | New | Distribute report - can save distribute report | Thick Client GUI | 1.21 | 0 | |
| 544 | New | User with read only rights to Personnel cannot view their own account | Admin Tools | 1.21 | 0 | |
| 545 | New | User who has appropriate permissions cannot create unknown referring physician | Admin Tools | 1.21 | 0 | |
| 546 | New | Exception throw submitting appended dictation | Thick Client GUI | 1.21 | 0 | |
| 547 | Resolved | Diagnose window hides pop ups behind application | Thick Client GUI | 1.21 | 100 | |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

| | | | | | | |
|---|---|---|---|---|---|---|
| 548 | New | Error logging in with some of our test users | Thick Client GUI | 1.21 | 0 | |
| 549 | Resolved | Duration Override - procedures added are not displayed and other suggestions | Admin Tools | 1.21 | 100 | 1.22 |
| 550 | Resolved | Issues when viewing available times when duration override applied | Thick Client GUI | 1.21 | 100 | 1.22 |
| 551 | Resolved | Removing a procedure from procedure picker that has a modality duration override will thrown exception | Thick Client GUI | 1.21 | 100 | 1.22 |
| 552 | New | Issues will editing time ranges on AvailabilityTemplate lookup. | Admin Tools | 1.21 | 0 | |
| 553 | Resolved | Diagnose window opening with incorrect patient information. | Thick Client GUI | 1.21 | 100 | |
| 554 | Resolved | Procedure plan min/max values ingnored when duration override applied. | Thick Client GUI | 1.21 | 100 | 1.22 |
| 555 | Resolved | Procedure plan throwing an error on schedule | Thick Client GUI | 1.21 | 100 | 1.22 |
| 556 | New | Add Outside Read missing required fields from tech workflow | Thick Client GUI | 1.21 | 0 | |
| 557 | New | Preferred Reader - user is able to assign non radiologists as preferred reader. | Admin Tools | 1.21 | 0 | |
| 558 | New | Verbal Order form - patient phone number | Thick Client GUI | 1.21 | 0 | |
| 559 | New | Personnel - Add / Edit address - Scrolling needed | Thick Client GUI | 1.21 | 0 | |
| 560 | New | Column filter range of same day - no results returned | Thick Client GUI | 1.21 | 0 | |
| 561 | New | Exporting audit history throws exception | Thick Client GUI | 1.21 | 0 | |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# User Pre-Release Notes

for RADNET rRIS
Build 1.22

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Purpose ..... 3
2. Intended Audience ..... 3
3. Installing/Accessing the Application ..... 3
4. New Features and Enhancements ..... 4
   Patient Merge Request Work List ..... 4
   Patient Search for Outside Orders ..... 7
   Closing Pending Signature Option Removed ..... 11
   Emergency Access ..... 11
   External Reporting Flag ..... 13
   Document Distribution Enhancements ..... 14
   Unknown NPI Flag ..... 16
   Diagnostic Reporting Forms ..... 17
   Diagnostic – Note to Radiologist ..... 18
   Toggle States for Dictation Buttons ..... 19
   Film Image Request (preliminary) ..... 20
5. Known Limitations ..... 23

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 1. Purpose

This document describes some of the new features and changes implemented in rRIS as of the end of Sprint 22. This pre-release version of rRIS is referred to as Build 1.22.

Only features which can be visually demonstrated to the user will be outlined in this document.

# 2. Intended Audience

This document is created by the rRIS Development team for the RadNet RIS management team.

# 3. Installing/Accessing the Application

The installation instructions for the rRIS client have been posted to the RadNet Wiki page at http://mdbal01rdtweb/Wiki/

Under the RIS menu, click on the rRIS page. The credentials to access the page are:
Username: rRIS
Password: Summerside

*Please note that Build 1.22 is considered a new core release of the application and will require a reinstallation of rRIS. This is accomplished by navigating to the rRIS shared installation drive and running the CoreInstall.bat file (ex: I:\RISDeployment\CoreInstall.bat)*

If you experience difficulties accessing the application, please do not hesitate to contact Darcy Noye with the PEI RIS Development Team.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

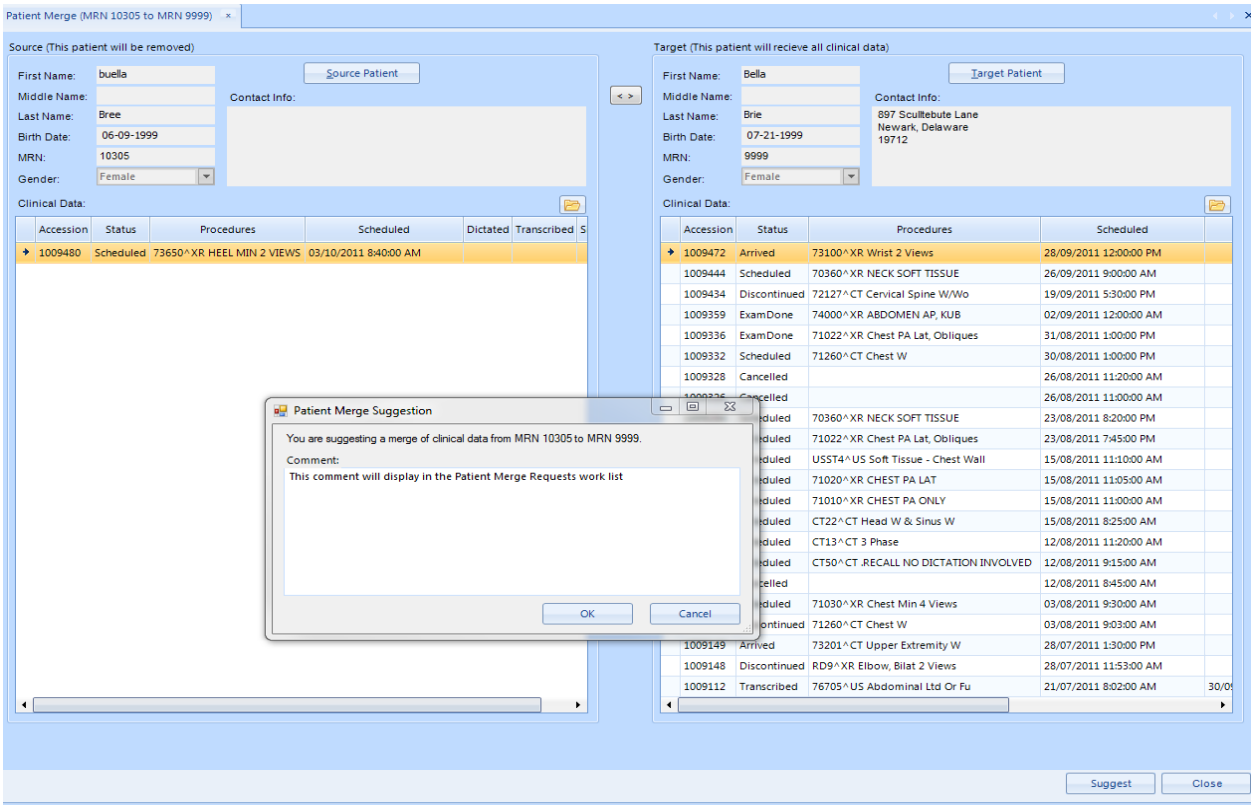
# 4. New Features and Enhancements

## Patient Merge Request Work List

Patient Merge has been enhanced in this build, to make it more accessible to all users. Not all users will have the ability to complete a patient merge. Who can perform a patient merge and who may only be able to suggest a patient merge will be controlled by the following access strings:

- Clinical.PatientMerge - All users should have this access string set to full. This will give them access to the patient merge screen but only for "Suggesting" merges, not submitting them.
- Clinical.PatientMergeAdmin – given to a specific admin type. Permits users to complete patient merge, or reject the suggestion
- WL.PatientMergeRequest – allows access to the patient merge request work list

The system allows users to recommend multiple or duplicate merge requests since the reason for a second request might include a different or additional comment.




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

**Figure 4.1 – Patient merge data window for non admin users. Permitted to "Suggest" merge only.**
**Clinical.PatientMerge = full.**

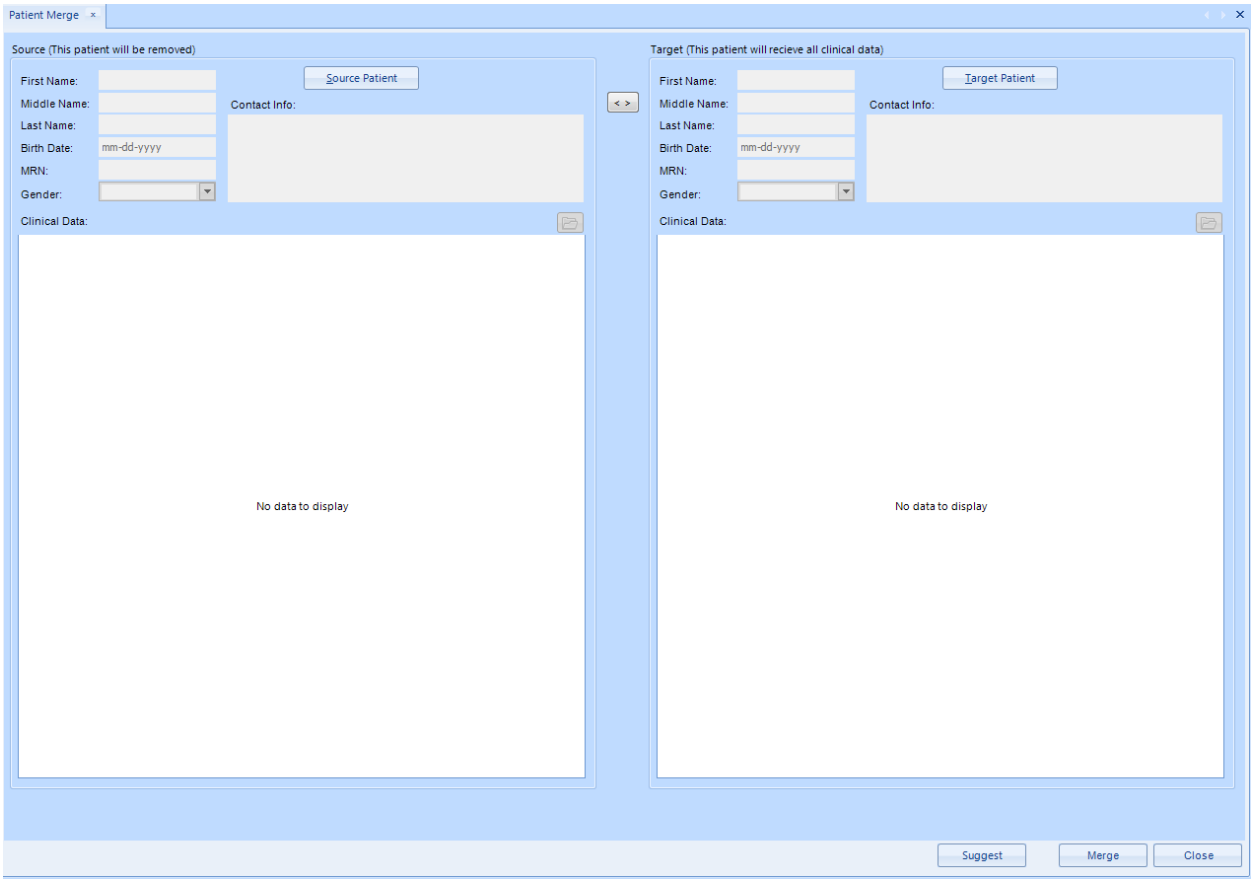



**Figure 4.2 – Patient Merge data window for an Admin user that has Clinical.PatientMergeAdmin = full. Permitted to Merge as well as Suggest.**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

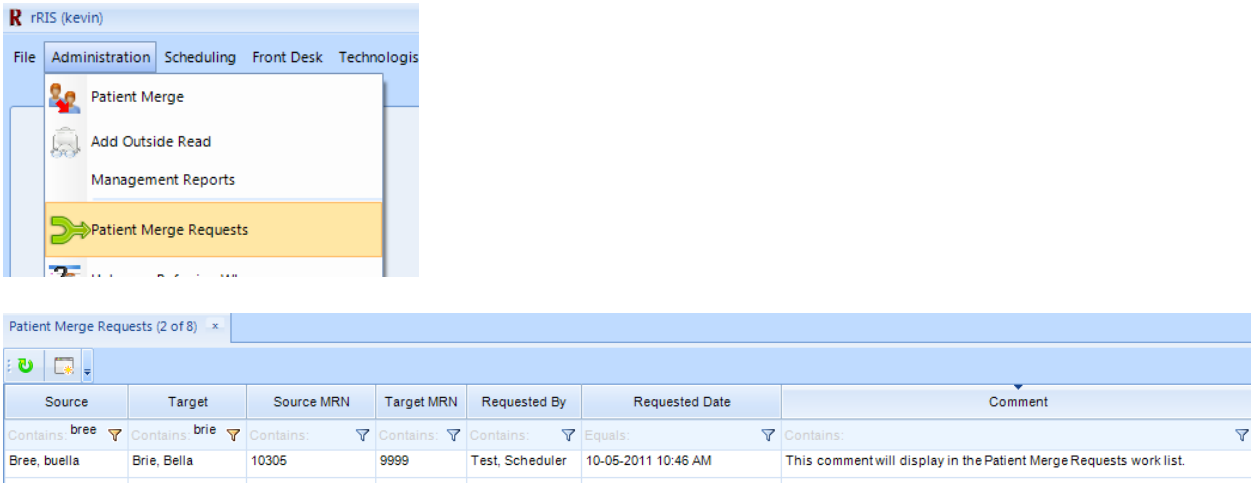



**Figure 4.3 – Patient Merge access and work list.**

Figure 4.3 above shows how to access the Patient Merge Requests work list. It is recommended that all users that have access to suggest patient merges as well as complete a merge have access to this work list. Figure 4.4 displays that Patient Merge data window for an admin user. The admin has the ability to "Reject" the suggestion, "Merge" the suggestion, or do additional searching, change source / target patient and complete merge or simply close the window.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

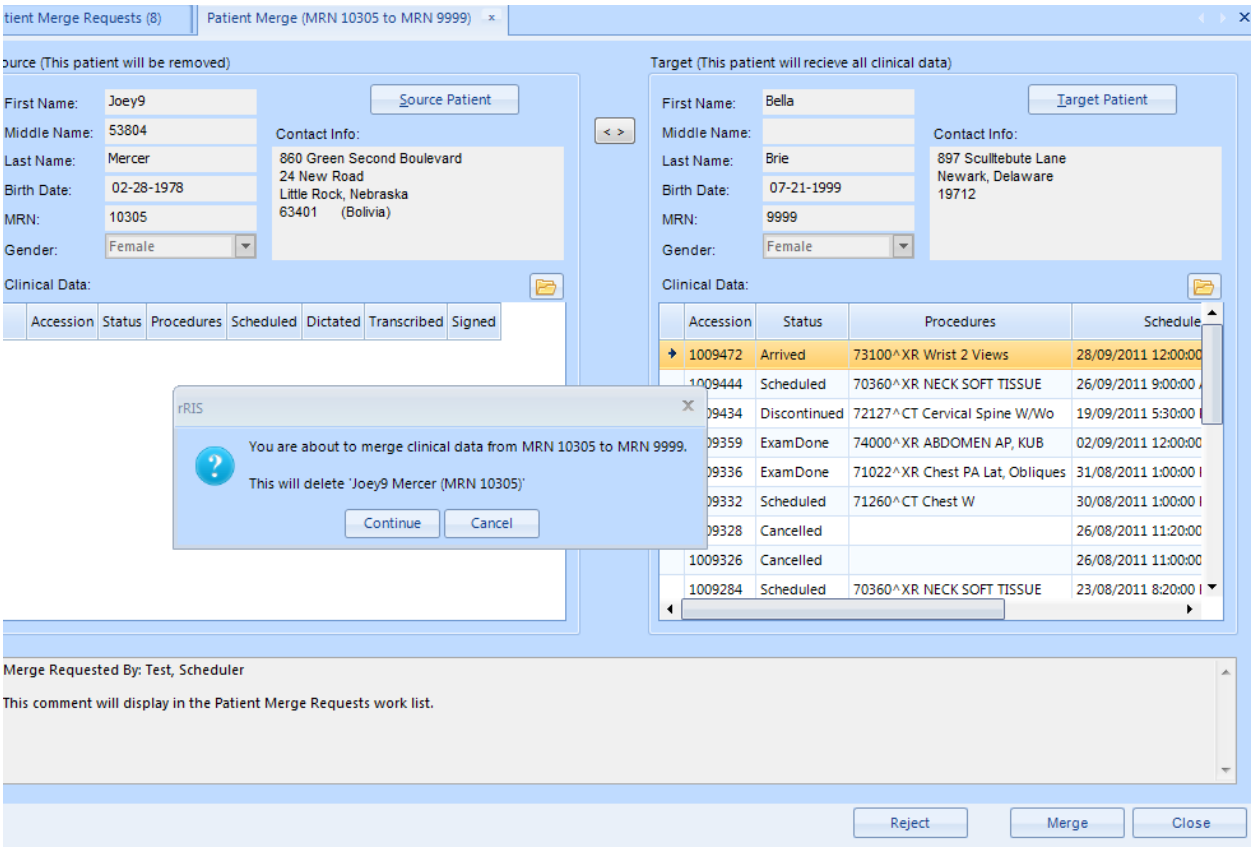



**Figure 4.4 – Data window opened from figure 4.2. This admin type user can complete merge, reject or complete their own search for source and target patient.**

If more than one merge request is created for a particular patient the admin must choose which one to select from the work list. If an admin completes a merge for the first request, the second request drops off the list.

## Patient Search for Outside Orders

In Build 1.22 the rRIS application will determine if the order to be scheduled was received from an external system. It will compare the "Issuer of ID" with our internal, configurable value.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

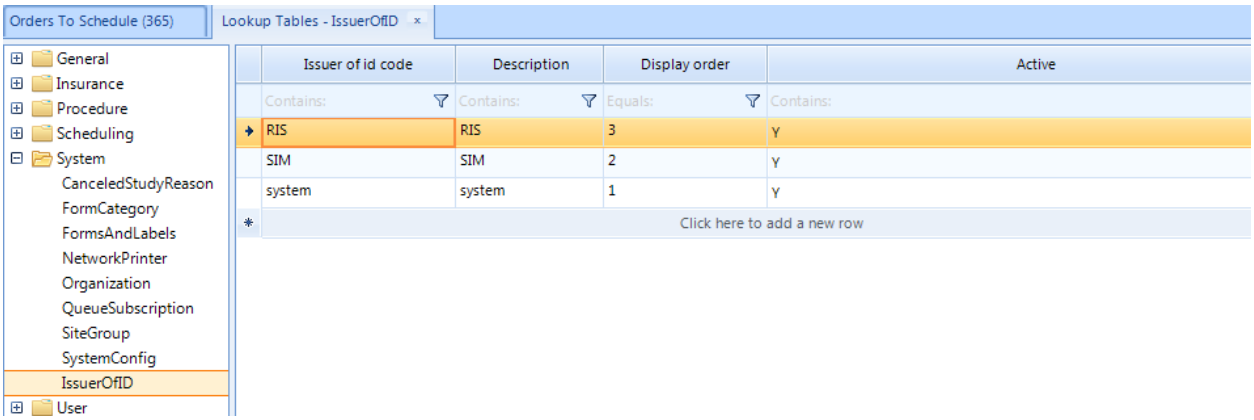



**Figure 4.5 - IssuerOfID lookup table**

If the "issuer of ID" does not match, the user is prompted with a message displayed in figure 4.6.

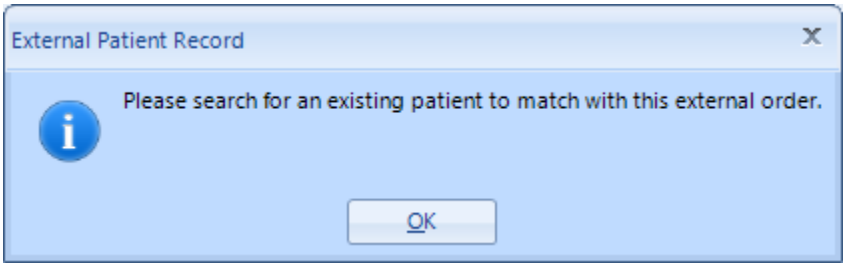



**Figure 4.6 – External Patient Record – user is informed that the order is from an external system**

Selecting OK will automatically open the patient search window displaying any matches and will also search for "Other Variations" of the name. As with the previous build, the user can try alternate search criteria (e.g. reversing the first and last name), if no patient matches are found the user may create a new patient from the "Patient Search New Order" window.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

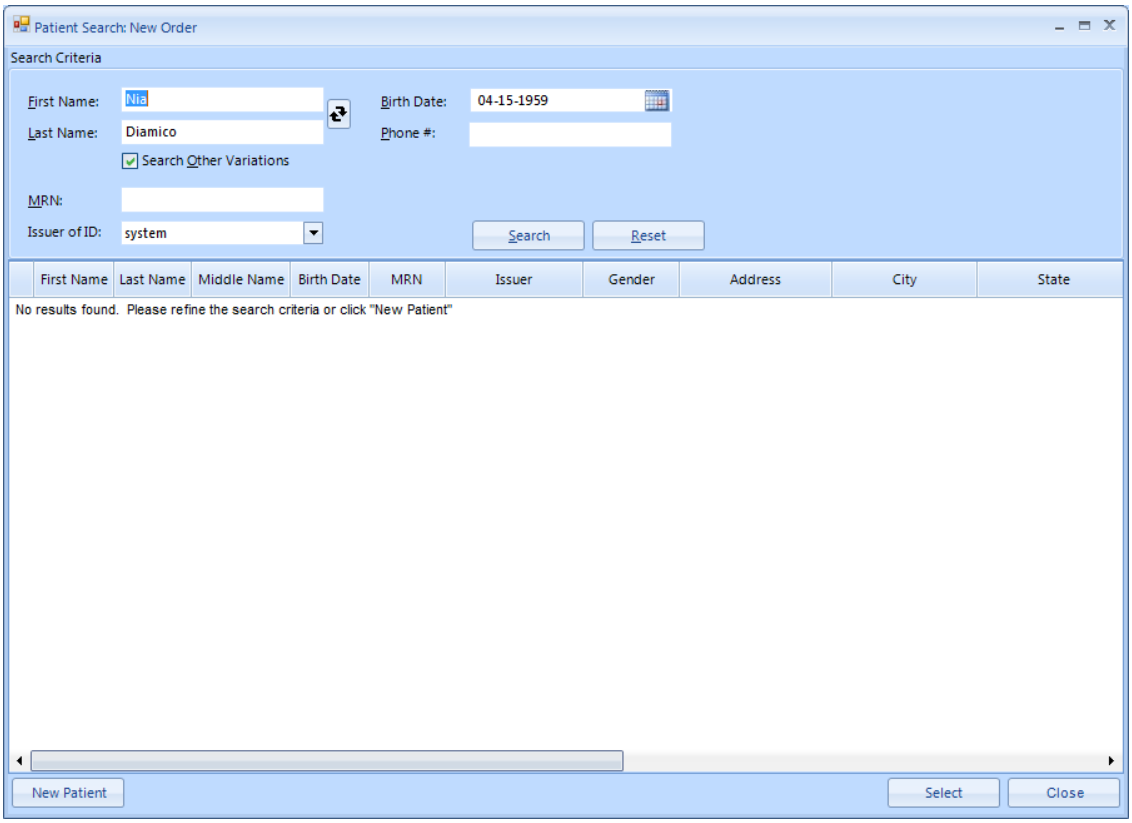



**Figure 4.7 – Patient Search New Order**

If the "New Patient" option is selected, the Schedule Order (patient name) will open. The user may proceed as if they were creating a new patient. This will issue an rRIS MRN for future orders. The patient record provided from the EMR is retained, and future messages coming in from the EMR will automatically reference the newly created internal patient. **Note**: if the user closes the search screen without selecting or creating a patient, the Schedule Order screen will close and the user will be returned to the "Orders to Schedule" work list.

If the Patient Search New Order does find a match to an existing patient record, the user must determine if they are indeed the same person.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

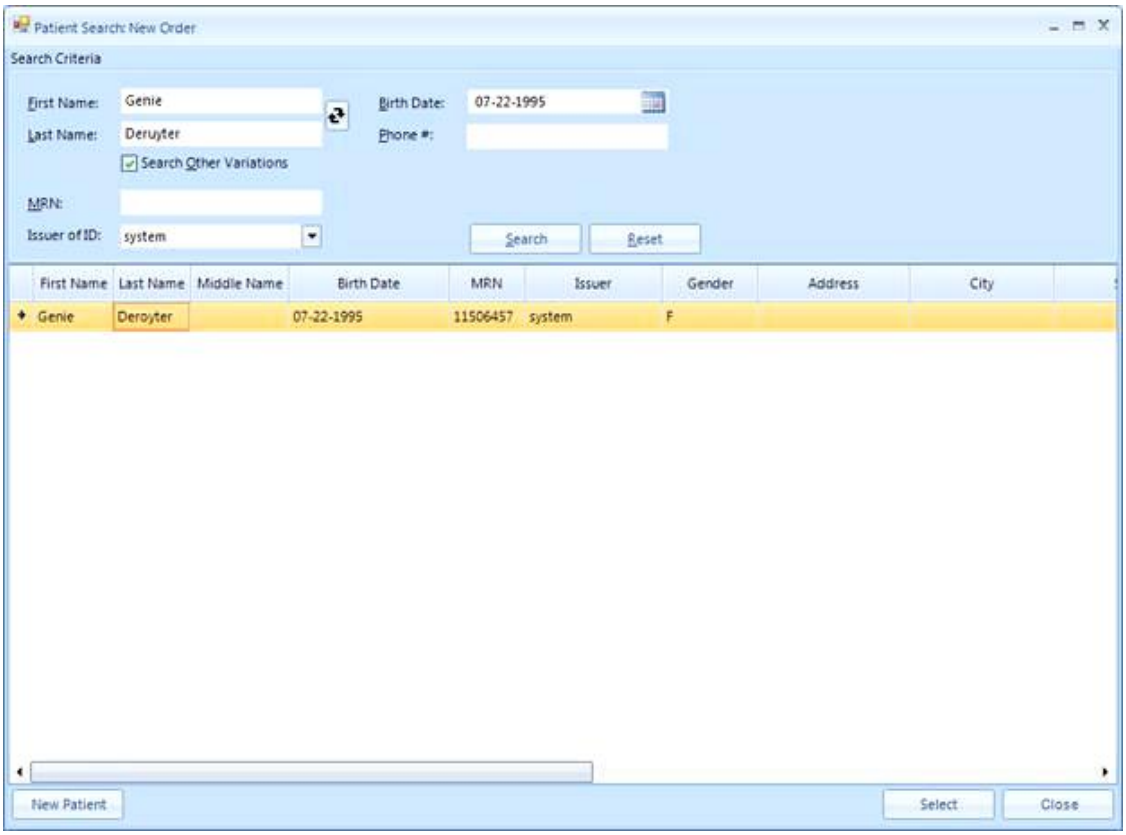



**Figure 4.8 – Patient Search New Order finding a matching external order patient with internal patient with a similar name.**

In this case, "Genie **Deruyter**" from the external system was a close match to internal patient "Genie **Deroyter**". The user can press select to associate the current order with our internal patient and establish a link between "Genie Deruyter" and "Genie Deroyter" (based on the patient ID sent in from the external system). If the user selects an existing patient record, they will be presented with the following prompt to confirm:

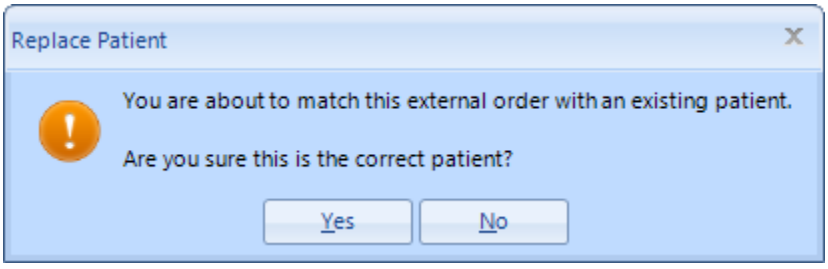



**Figure 4.9 – Confirmatory message**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Closing Pending Signature Option Removed

When a Radiologist logs into rRIS the Pending Signature window launches automatically displaying his/her list of exams to be signed off. In build 1.22 closing the Pending Signature window has been removed (except for one defect. See bug 565 in Section 5 of this document)

The X has been removed from the tab. The Pending Signature tab itself has had context menu items (right click on tab name) "Close" and Close All" removed. When "Closing All" or "Closing All But This" is initiated from another tab, it will not close the Pending Signature work list.

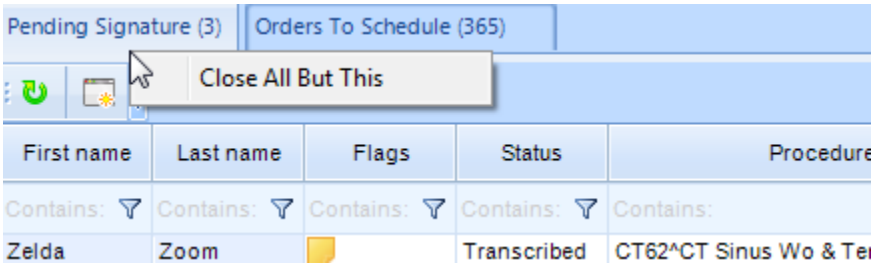



**Figure 4.10 – Context menu on Pending Signature tab**

## Emergency Access

Emergency access to authorized users has been implemented in build 1.22. A flag has been added at the Personnel level

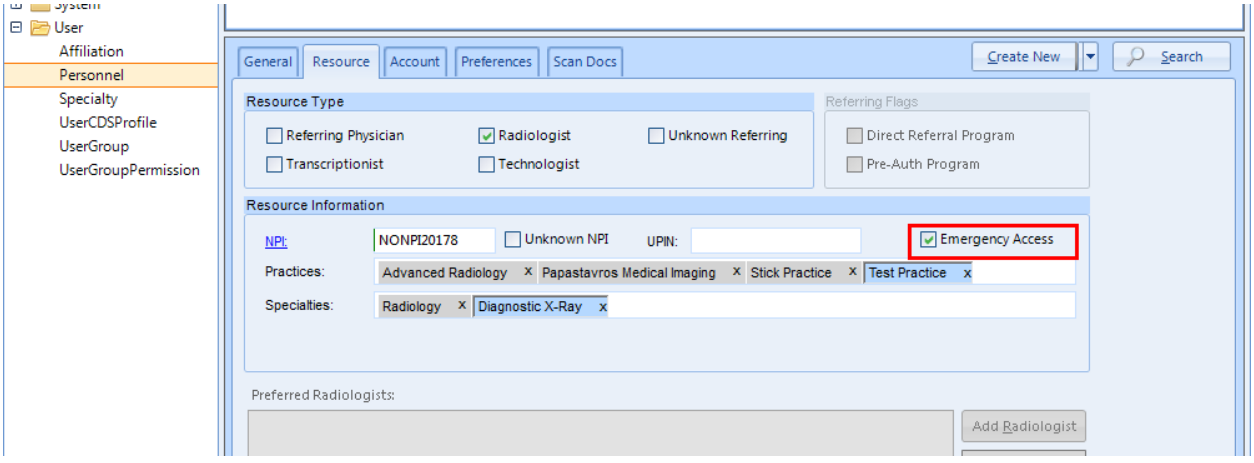



**Figure 4.11 – Emergency Access flag in Personnel editor**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

If the user has the Emergency Access flag, they will be permitted to override a lock to an exam and continue workflow. Figure 4.11 shows the Dictate window open by a user that has the Emergency Access flag. This exam is not owned by this particular user. Selecting the Emergency Access button will enable the "Submit, Sign, and Suspend" buttons, permitting the user to continue workflow for this exam.

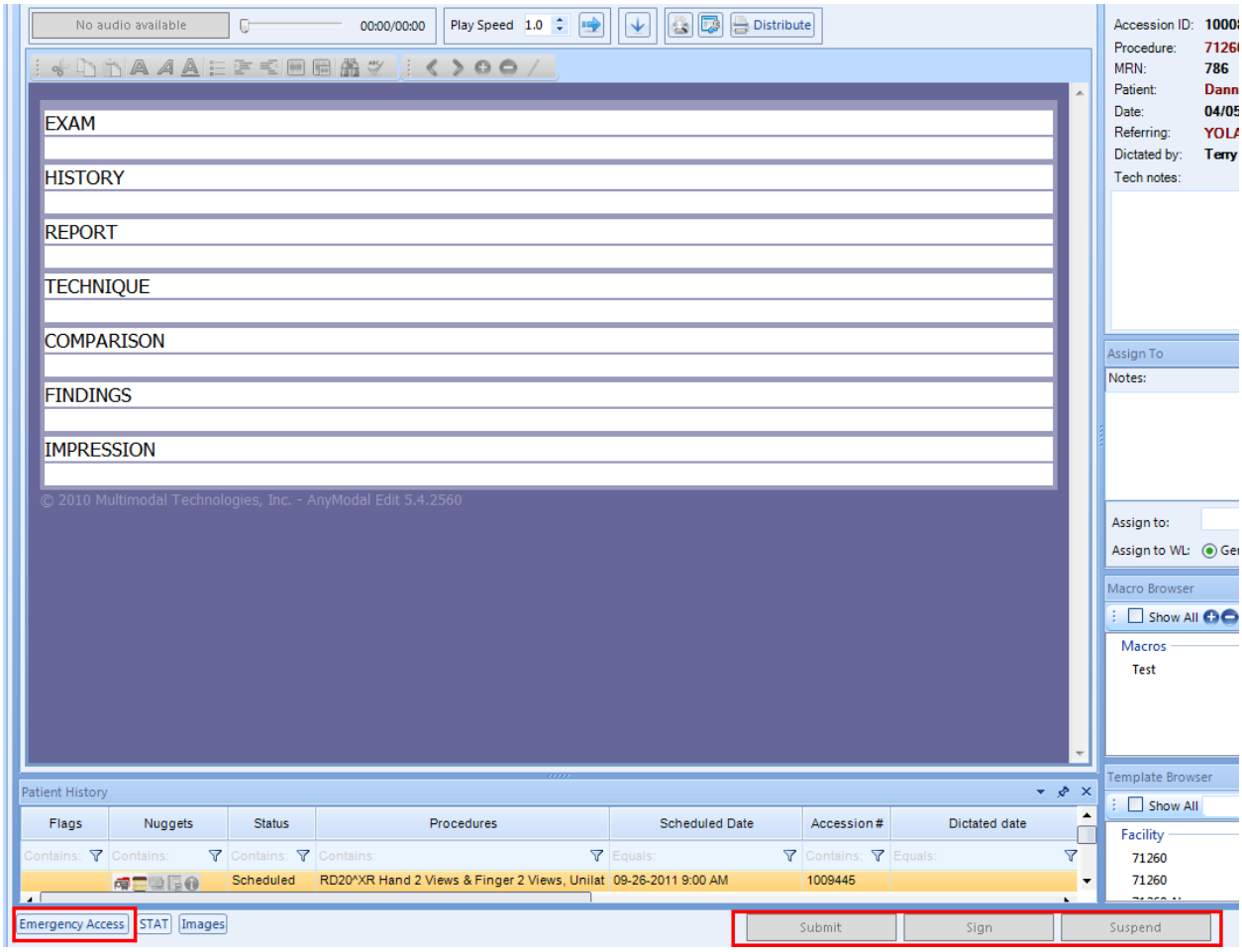



**Figure 4.12 – Example of exam that may require Emergency Access**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## External Reporting Flag

In build 1.22 further enhancements have been made to "Outside Read" workflow. In the last build Tech Only workflow was added. In addition we have added "Reporting External to rRIS". The tech data window Perform Exam will have checkboxes for

- No Report (Tech Only)
- Report External to rRIS

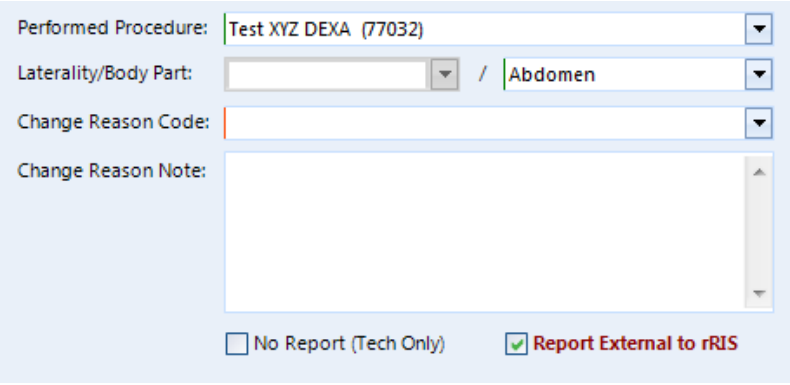



**Figure 4.13 – Report External to rRIS in Perform Exam data window**

If both of these check boxes are present when Performing Exam, only one will be permitted to be checked as they contradict one another. A warning message will be presented to the user when one of the checkboxes is selected.

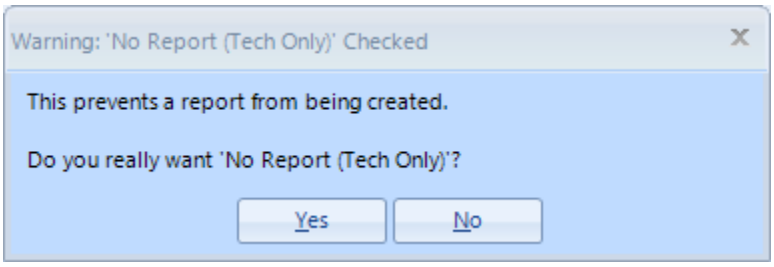



**Figure 4.14 – Selecting No Report (Tech Only) checkbox**

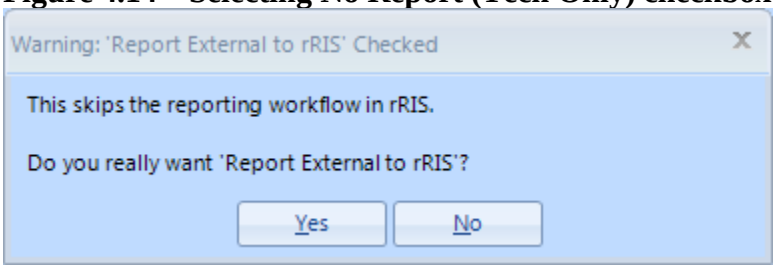



**Figure 4.15 – Selecting Report External to rRIS checkbox**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

The “Report External to rRIS” flag will only appear if the “ no_report_required_flag for the procedure is “Y”.

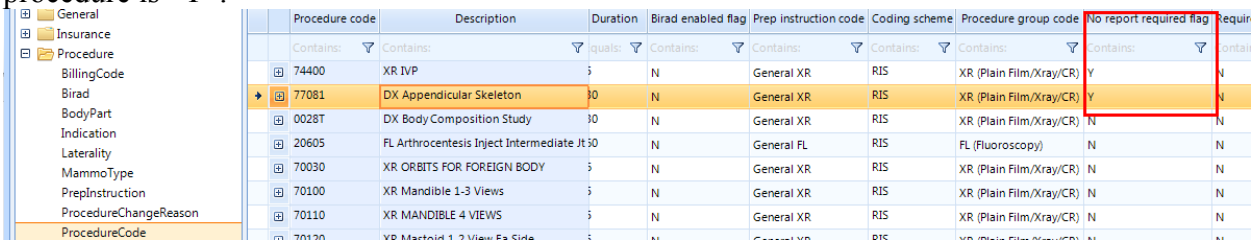



**Figure 4.16 – Flag “No Report required flag” flag added to procedure**

Completing an exam with either “No report (Tech Only)” or “Report External to rRIS” will send the exam to a status of “ExamDoneTechOnly” and will not be added to the Radiologists work list of Exam Done.

## Document Distribution Enhancements

Enhancements have been made for Distributing Reports and later editing Document Distribution. A lookup is still available for finding Referring personnel that already exist in the rRIS system. The “Other” text box is enabled by selecting the corresponding radio button. This is a free form text field allowing the user to enter the name of the recipient. The user is able to submit the job when the Destination / Fax field has a value.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

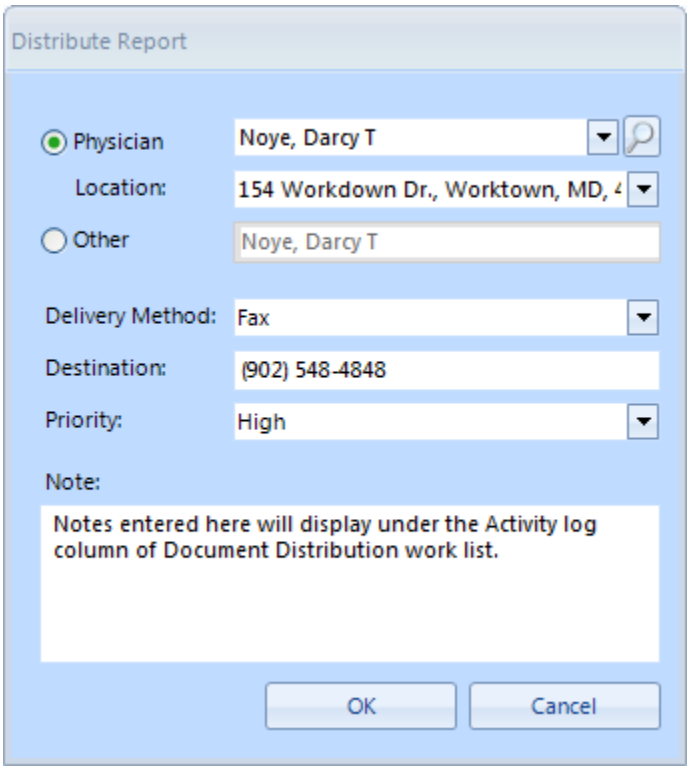



**Figure 4.17 – Distribute Report**

The Document Distribution work list displays all of the existing jobs that have not been completed or cancelled. A user may multi-select rows from this work list and change values that each job has in common. In the example in Figure 4.18, all three of the jobs presently selected have the same Physician, location and delivery method, all three of these jobs can have all of these fields edited at the same time. If two jobs exist for the same accession number and were sent to the same physician, but at different locations, then only the Priority and Note fields are enabled.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

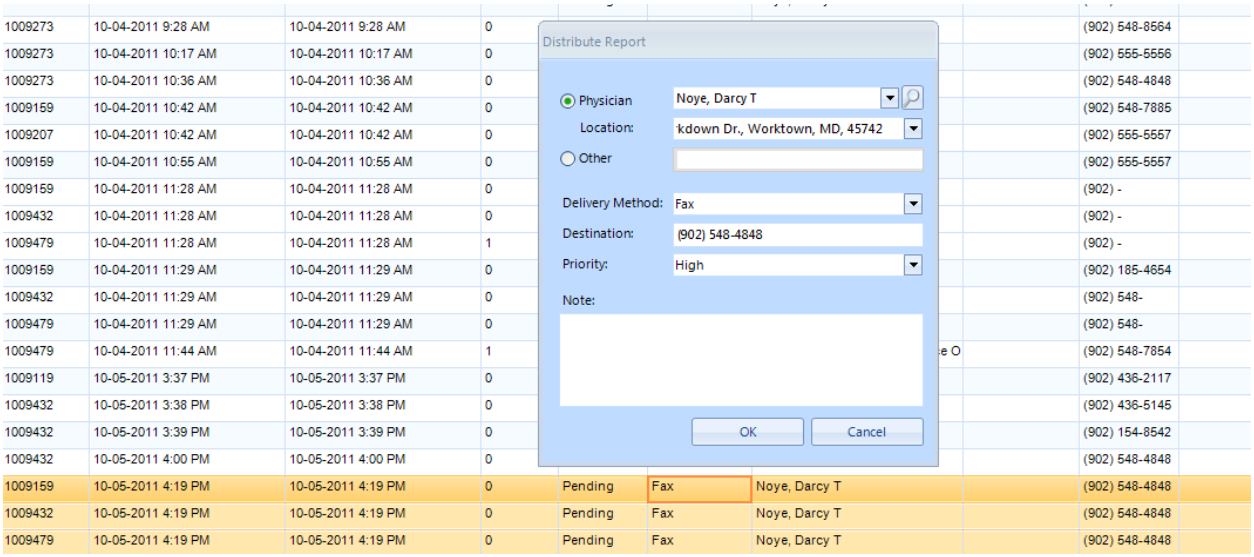



**Figure 4.18 – Document Distribution work list editing multiple jobs from for different reports but sent to the same Physician, location and fax number**

## Unknown NPI Flag

In recent builds users that had the resource type of Referring Physician or Radiologist were required to have NPI identifier complete. The user can select the NPI label on the Resource tab and it will complete a NPI Registry Search. It became apparent that in some cases, an NPI number may not be found. To assist the user in completing the task at hand of creating the user account we have added an additional check box "Unknown NPI". When this check box is selected the required NPI field may be by-passed and the user account may be created.

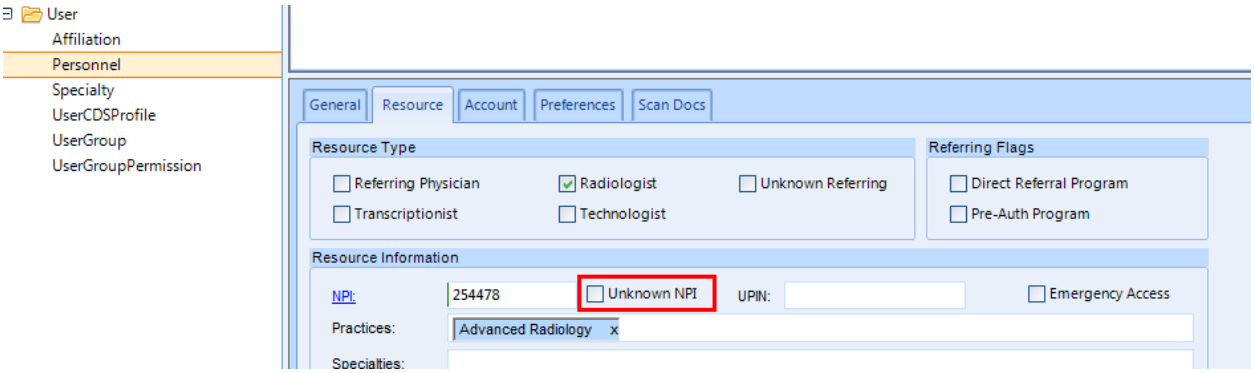



**Figure 4.19 – Unknown NPI flag**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Diagnostic Reporting Forms

Using the Forms and Label editor, Diagnostic report forms may be configured to be used with a particular practice, procedure, etc. If a report does not exist under Label and Forms, the default report template will be used from the system config value. When previewing the report from Diagnose / Create report data windows, the report form specified will be used.

First a form category must be created.

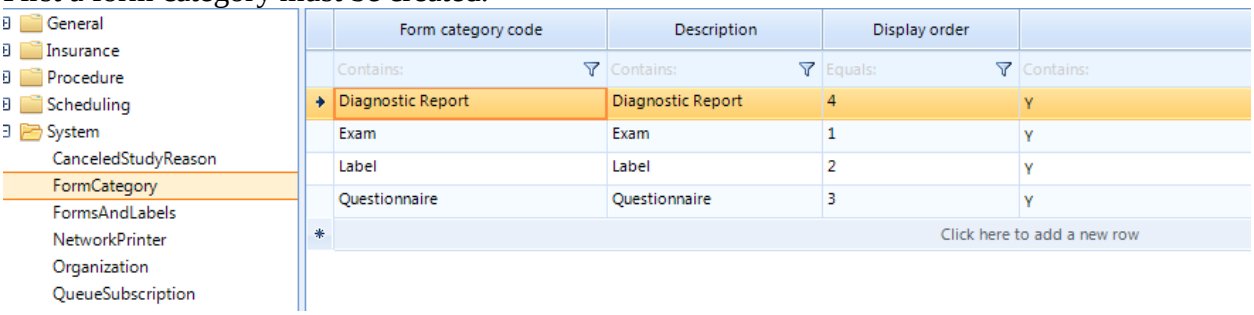



**Figure 4.20 – Creating Form Category**

Open the Forms and Label editor and add the form. The form must first exist on the report server

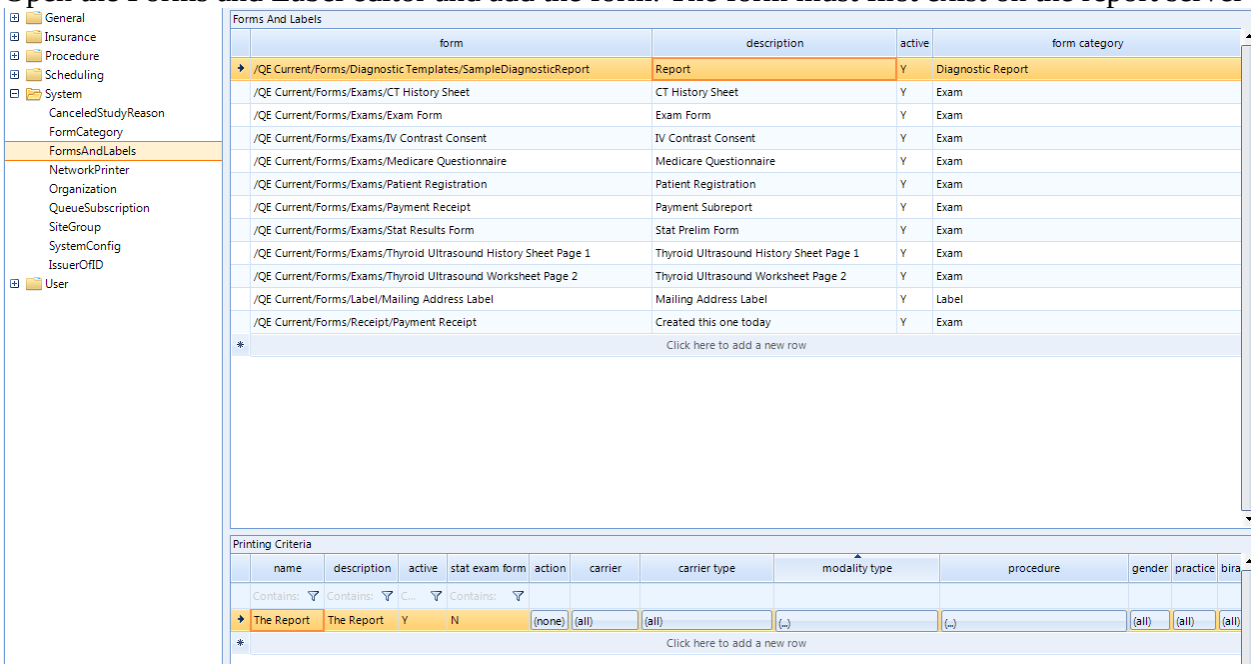



**Figure 4.21 – Creating Diagnostic Report Form**

NOTE: Although this functionality has been added QE has not been successful in getting the report form to be applied to only a particular Modality or Procedure. As a result when a report template exists and specified from Forms and Label lookup editor, all studies will use this report template. Defect 608 has been logged.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Diagnostic – Note to Radiologist

Note to Radiologist has been added in this build. Utilizing the pre-existing "Transcription Notes" data pane in the reporting data window, a checkbox was added. When checked it marks the notes are meant for the radiologist to review. Also when this checkbox is selected the "Assign to:" and Assign to WL:" are disabled.

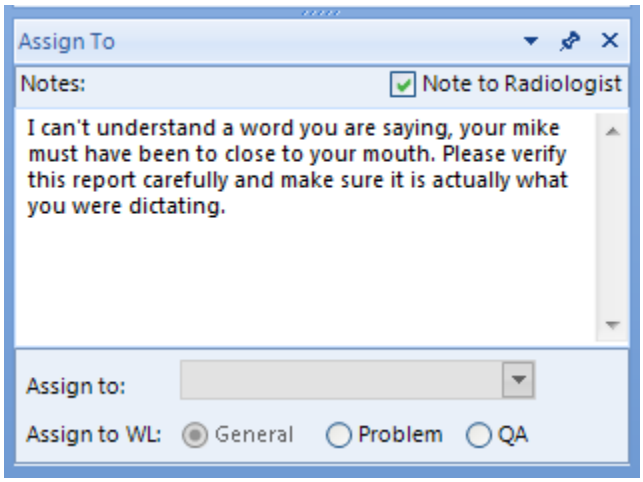



**Figure 4.22 – Note to Radiologist selecting, disabling Assign to and Assign to WL**

When the transcriptionist submits this study with "Note to Radiologist" checked, the Radiologist must acknowledge the note before the study can be signed off.

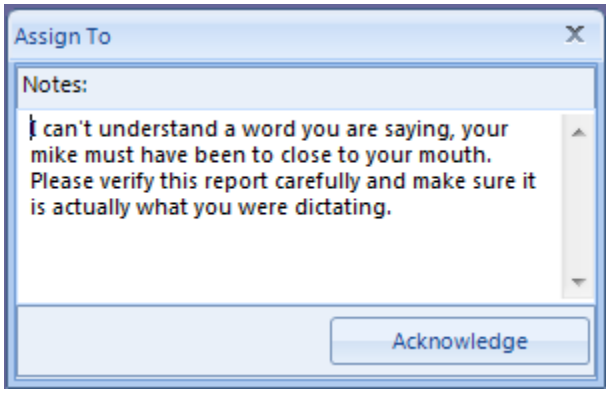



**Figure 4.23 – Note to Radiologist – Note to be acknowledged.**

The Radiologist can choose to re-dictate, edit report, or edit data window fields without having to acknowledge the "Note to Radiologist". If the exam is moved to a status of Dictated or Report Drafted, the flag for "Note to Radiologist" is retained. The radiologist still has to acknowledge

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

the note before it can be signed. If the exam status was changed to Report Drafted by a radiologist, the transcriptionist can remove the "Note to Radiologist" flag and the exam will no longer have to be acknowledged by the Radiologist.

If the Radiologist attempts to sign off a report that has not been acknowledged, they will be presented with a confirmatory message that provides the option to acknowledge and sign off, or select No and return to the data window.

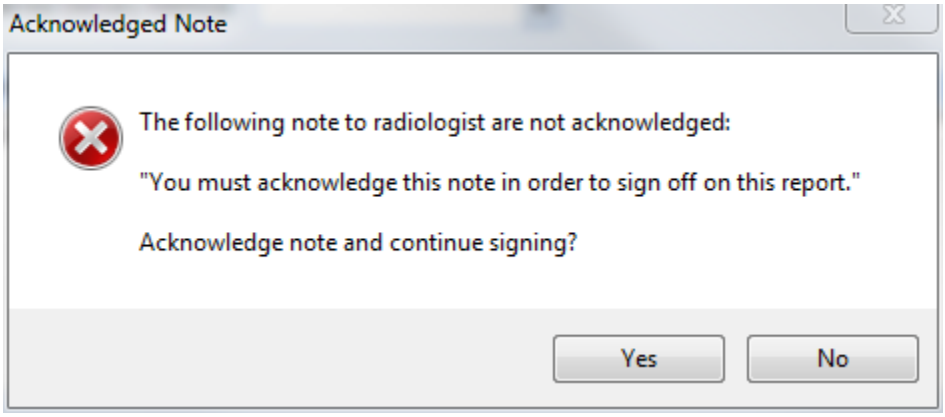



**Figure 4.24 – Confirmation of signing before acknowledging Note To Radiologist**

## Toggle States for Dictation Buttons

A new dictation control has been added to the Dictate and Create Report windows and along with the new control the buttons in use will be lit to easily identify the current state. The buttons will light up in a blue color, with the exception of the record button which will be red. When no buttons are selected from either the Speechmike, or the dictation control, the stop button will be lit blue.

**Figure 4.25 – Dictation control in a stopped state**

**Figure 4.26 – Dictation control in record state**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Film Image Request (preliminary)

In the last sprint, Film Image Request was started but only included a data window. In build 1.22 additional functions have been added. The feature is not complete and a few outstanding bugs have been logged against this feature during Sprint 22 and can be seen in Section 5 of this document.

The request for images screen now includes a study list and an image request history list. The study list includes all studies that this request is being generated for. A user can check or uncheck studies that they do not want to request copies of images for.
The image request history list shows a list of requests for the "selected" study in the study list. Note this is "selected" or the "highlighted" row and not necessarily the "checked" row. The user now has the ability to see if there is already an existing request before create a new request.

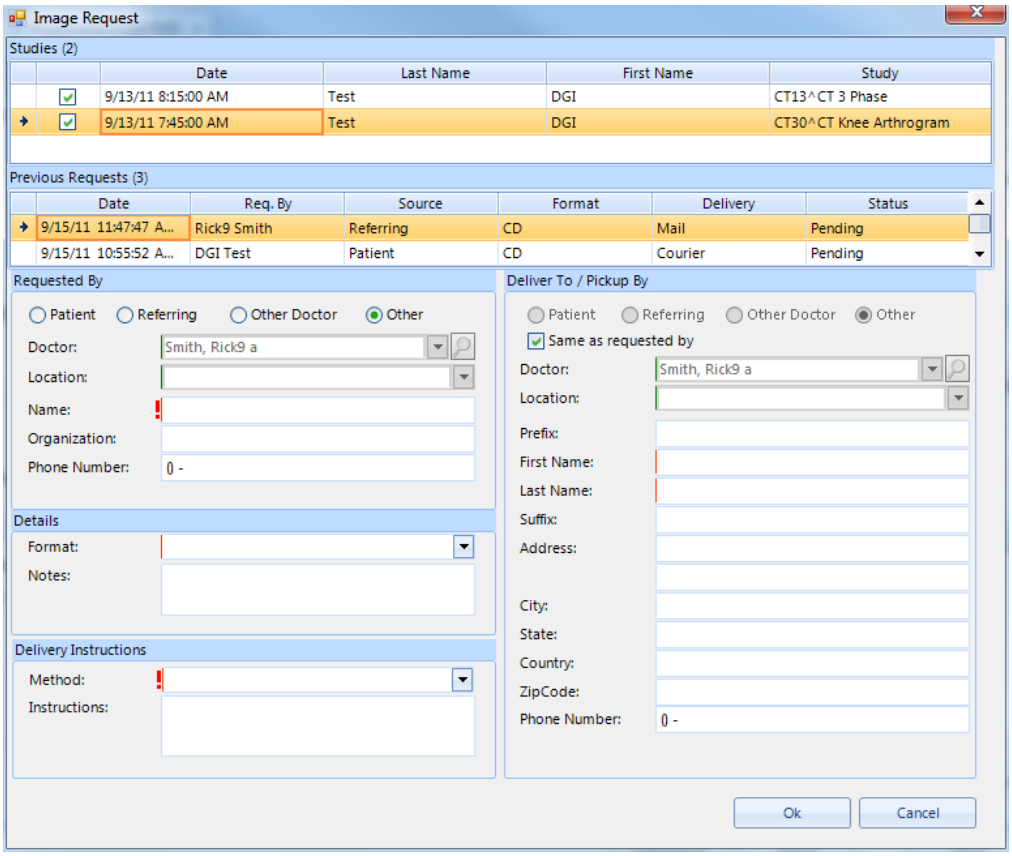



**Figure 4.27 – Image Request data window**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

Also, on this request form, a new radio button was added to allow the user to choose another doctor from the rRIS personnel database. This button behaves similarly to the "referring" radio button, but now the user can select another doctor instead of the referring.
This request form has the ability to have the requestor different from the delivery to. By default, the form behaves as if the delivery to is the same as the requestor. However, we can have the deliver to person different by un-checking the "Same as requested by" check box.
An "Image Request" tab page was added to the registration screen. This tab shows a list of image requests for the studies included in this registration process. From here, the user can choose to "Delete" image requests that are "New". They will not be able to delete image requests that have been saved to the db. This will have to be done via the Image Request Worklist – Edit Request function.

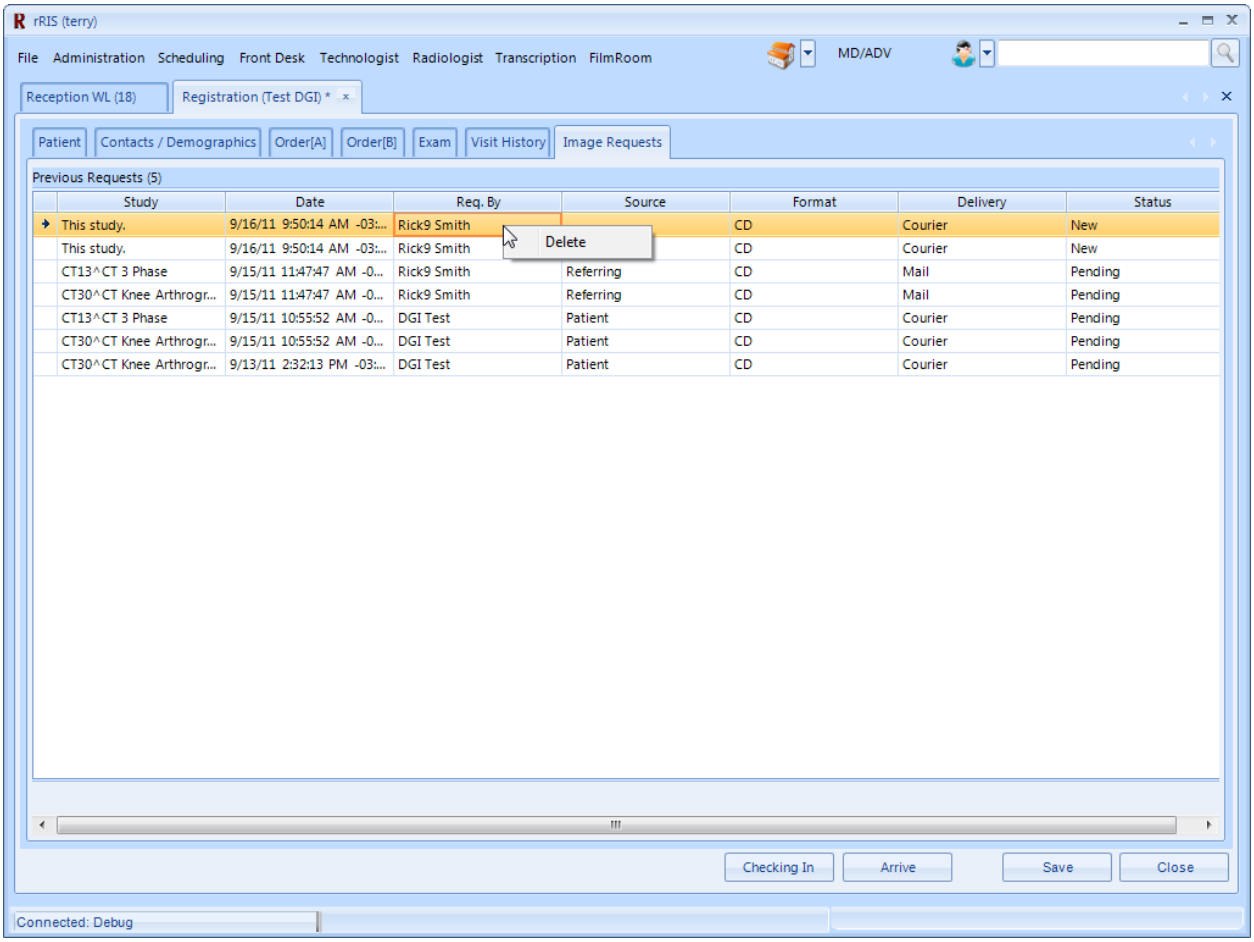



**Figure 4.28 – New tab "Image Request" for Registration**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

The film request worklist now contains all images requests where the examination status is not "Scheduled" and the image request status is not "Cancelled" or "Completed".
From the "Film Request" worklist, we can "Edit" an image request. This opens the "Request Copies" content form.

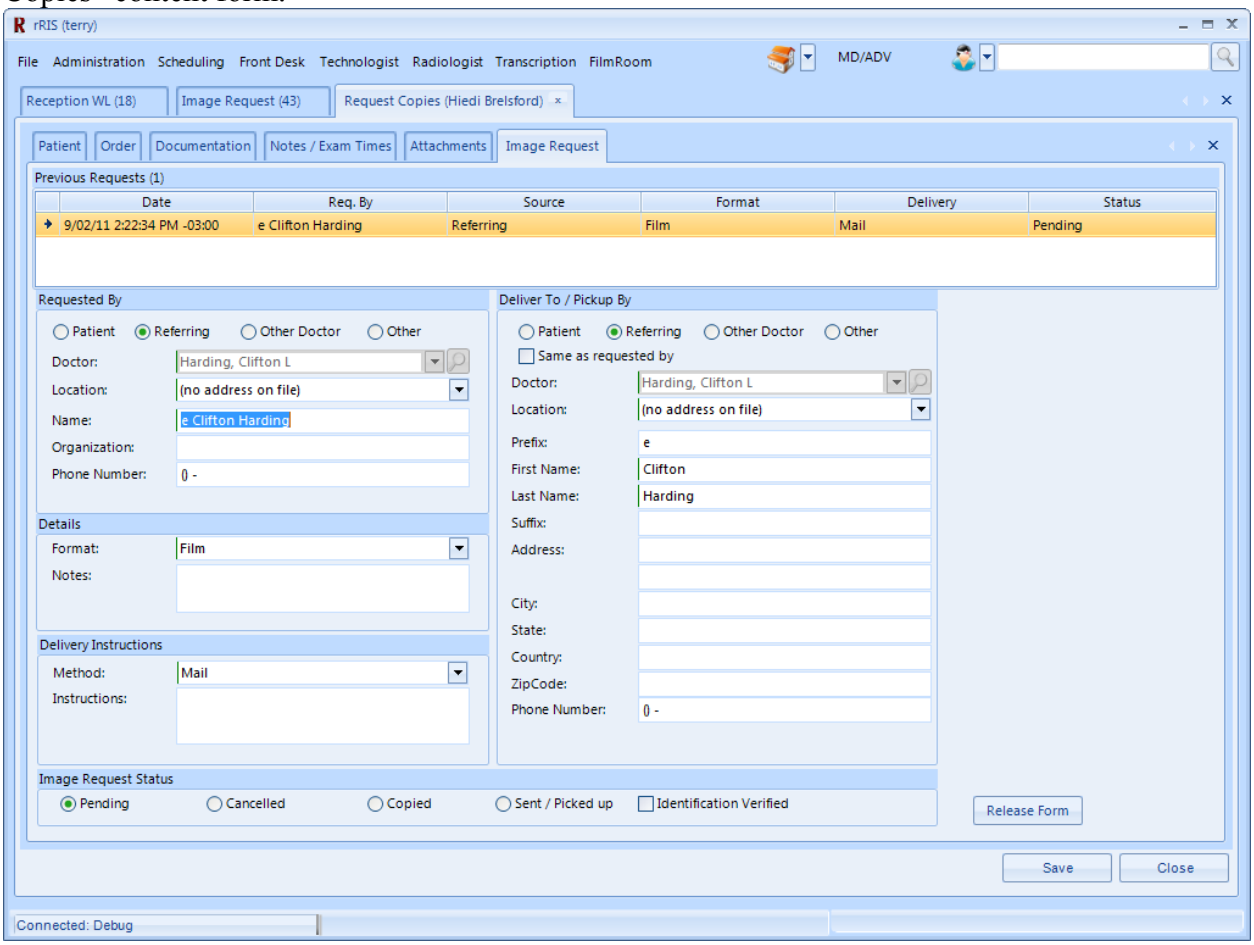



**Figure 4.29 – Edit Image Request**

Here the user can change any data element on the request and/or change it status. Changing the status to "Cancelled" or "Send / Picked up" will remove the item from the worklist.
This form also includes the request history for this study.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 5. Known Limitations

Bugs, Suggested Features, and Support Issues are tracked in a web based system called Redmine. The following is a snapshot of the issues found in Build 1.22.

| # | Status | Subject | Category | Target version |
|---|---|---|---|---|
| 607 | New | Disbritute report - OK button enable with incomplete fax field | Thick Client GUI | 1.22 |
| 606 | New | Distribute Report - Selecting "Other" radio button from Physician will copy the Physician name to other text box | Thick Client GUI | 1.22 |
| 605 | New | Cannot remove some practices in Personnel editor | Admin Tools | 1.22 |
| 604 | New | Confirmation message for rejecting patient merge | Thick Client GUI | 1.22 |
| 603 | New | Add patient > Search returns existing patient and throws error | Thick Client GUI | 1.22 |
| 602 | New | My Dictated By Date worklist has duplicate column | Thick Client GUI | 1.22 |
| 601 | New | Document Distribution > Destination does not change to Fax | Thick Client GUI | 1.22 |
| 600 | New | Error scheduling order merging on patient search from outside order | Web Services/DB | 1.22 |
| 599 | Resolved | Patient merge must consider "Issuer of ID" as MRN are only unique if Issuer is the same | Thick Client GUI | 1.22 |
| 598 | New | Configure > Report Template > Selecting practice that does not have "cds_object_id" returns error | Web Services/DB | 1.22 |
| 597 | New | rRIS google search not working | Thick Client GUI | 1.22 |
| 596 | New | Dictate > Template Browser list cannot be expanded to see complete template name | Thick Client GUI | 1.22 |
| 595 | New | Request Image - MainApp error returned requesting image from Report Drafted work list. | Thick Client GUI | 1.22 |
| 594 | New | Request images from IVT work list throws error | Thick Client GUI | 1.22 |
| 593 | New | Edit image request workflow issue | Thick Client GUI | 1.22 |
| 592 | Resolved | Error message pop up can be hidden behind application | Thick Client GUI | 1.22 |
| 591 | New | Error replacing exteranl order with existing patient | Thick Client GUI | 1.22 |
| 590 | Resolved | Attempt to edit an order that is locked for scheduling returns error | Thick Client GUI | 1.22 |
| 589 | Resolved | Creating outside read that has laterality is not carried to Exam done. | Thick Client GUI | 1.22 |
| 588 | New | User is able to request images on order. Message returned is not user friendly | Thick Client GUI | 1.22 |
| 587 | New | Resuming a suspended study does present message with options to continue | Thick Client GUI | 1.22 |
| 586 | New | Cannot access "CLosed Rooms Reschedule" work list if it has data. | Web Services/DB | 1.22 |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

| | | | | |
|---|---|---|---|---|
| 585 | Resolved | Exam done work list Changes sort order when refreshed | Thick Client GUI | 1.22 |
| 584 | New | Dictation is not selecting the next patient in the work list. | Thick Client GUI | 1.22 |
| 583 | New | Exception thrown trying to access Unknown Referring work list. | Web Services/DB | 1.22 |
| 582 | New | Error returned trying to reschedule from appointment book | Thick Client GUI | 1.22 |
| 581 | New | Dictate > Report history > Add remove buttons > Names to be changed | Thick Client GUI | 1.22 |
| 580 | Resolved | Edit patient > returns error(s) | Thin Client GUI | 1.22 |
| 579 | New | IVT PreCert column does not update | Thick Client GUI | 1.22 |
| 578 | Resolved | Cannot dictate / diagnose or create / edit reports | Thick Client GUI | 1.22 |
| 576 | Resolved | Personnel > Edit User > removing resource types, no users can log in. | Web Services/DB | 1.22 |
| 575 | Resolved | Modality duration override ignored if the duration override is less than procedures default time | Thick Client GUI | 1.22 |
| 574 | Resolved | Schedule order > Remove procedure will throw error. | Thick Client GUI | 1.22 |
| 573 | New | Order can be created without Laterality when it is required. | Thick Client GUI | 1.22 |
| 572 | Resolved | Exception on reschedule | Thick Client GUI | 1.22 |
| 571 | New | Occassionaly receive error attempting to perform exam | Thick Client GUI | 1.22 |
| 570 | New | Image Request | Thick Client GUI | 1.22 |
| 569 | Resolved | Cannot create new user in Personnel | Thick Client GUI | 1.22 |
| 568 | New | Cannot request copies of images from patient folder | Thick Client GUI | 1.22 |
| 567 | Resolved | User can check both Outside read flags | Thick Client GUI | 1.22 |
| 566 | Resolved | No Report Required flag | Thick Client GUI | 1.22 |
| 565 | New | DisAllow closing pending signature work list still has "X" on the tab page | Thick Client GUI | 1.22 |
| 608 | New | Diagnostic Reporting Forms - assign to modality, procedure, etc... not working | Admin Tools | 1.22 |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# User Pre-Release Notes

for RADNET rRIS
Build 1.23

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Purpose ..... 3
2. Intended Audience ..... 3
3. Installing/Accessing the Application ..... 3
4. New Features and Enhancements ..... 4
   Radiologist Menu Changes ..... 4
   Rad Drop Down Buttons with Ability to Assign Skip / Continue Session ..... 5
   Insurance Policy Mask ..... 7
   Multiple "Contains" Column Filter ..... 8
   Verbal Order Changes ..... 9
   Amended Order ..... 10
   Film-Image Request Work Flow. ..... 13
   Patient Relation Behavior Changes ..... 15
   Attachment / Scan Document Enhancements ..... 15
   Patient Growth Chart ..... 17
   Educational Resources ..... 19
   Prep Instructions Hyperlink ..... 19
   Proxy Signing User Preference ..... 21
5. Known Limitations ..... 23

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 1. Purpose

This document describes some of the new features and changes implemented in rRIS as of the end of Sprint 23. This pre-release version of rRIS is referred to as Build 1.23.

Only features which can be visually demonstrated to the user will be outlined in this document.

# 2. Intended Audience

This document is created by the rRIS Development team for the RadNet RIS management team.

# 3. Installing/Accessing the Application

The installation instructions for the rRIS client have been posted to the RadNet Wiki page at http://mdbal01rdtweb/Wiki/

Under the RIS menu, click on the rRIS page. The credentials to access the page are:
Username: rRIS
Password: Summerside

*Please note that Build 1.23 is considered a new core release of the application and will require a reinstallation of rRIS. This is accomplished by navigating to the rRIS shared installation drive and running the CoreInstall.bat file (ex: I:\RISDeployment\CoreInstall.bat)*

If you experience difficulties accessing the application, please do not hesitate to contact Darcy Noye with the PEI RIS Development Team.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 4. New Features and Enhancements

## Radiologist Menu Changes

The radiologist menu has seen some changes in Build 1.23. As displayed in Figure 4.1 the menu options have been updated. Before we had "Exam Done" we now have "Pending Dictation" and "Transcribed" is now "Pending Signature".

Also instead of prefixing user specific work list with "My xxx" work list we now simply state "xxx" work list To indicate a work list that is non-user specific we suffix the name with "(all)", which would likely be seen by admin type users. The user specific work list would usually be the norm, and always be visible. This has the effect of reducing visual clutter on the items most likely visible and used by the user.

The new Pending dictation work list will show all items in exam done that are assigned to the user or not assigned to anyone AND suspended by the user or not suspended by anyone.
In previous versions the current selected row was the starting point with the next exam in the work list loaded in Dictate window next. Now it will always start at the top available row, moving to the next available in the work list.

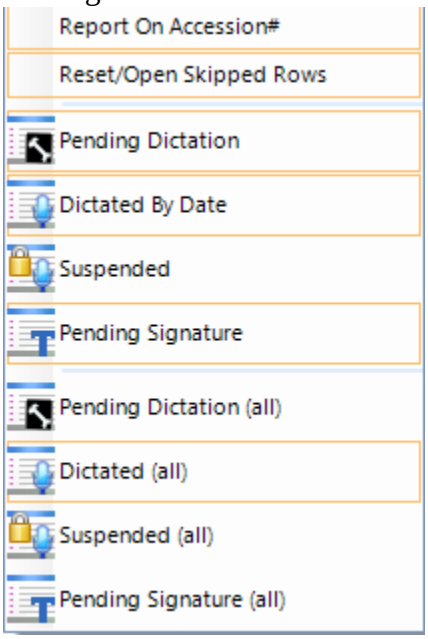



**Figure 4.1 – Radiologist menu**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Rad Drop Down Buttons with Ability to Assign Skip / Continue Session

New button controls have been added in Dictate and Sign Reports data windows for build 1.23. Next to the buttons is a downward arrow indicating that there is more than one potential action that can be completed on a particular button control. Figure 4.2 displays these buttons, with the Submit button menu expanded showing alternate actions. Hover the mouse pointer over the button will show its default value. Clicking directly on the button will perform the assigned default action.
You can see in Figure 4.2 that two option from this buttons drop down list have bypass VR. Selecting one of this menu options will submit the dictation skipping voice recognition.

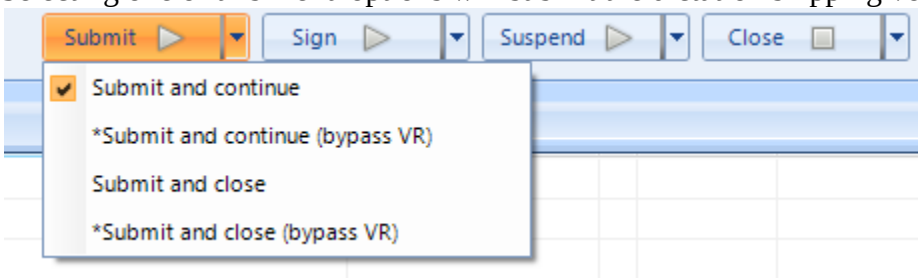



**Figure 4.2 – Radiologist drop down buttons**

To change the default action of the button, hold down the CTRL key on the keyboard and select the action from the drop down list. The option selected from the list will be performed as well as change the default setting for the button. When the default action is changed for a button, the text on the button will also change.

Some actions are preceded by an '*' (as displayed in figure 4.2), these are the actions that cannot be defaulted. If the user attempts to default that action a message box would be displayed.

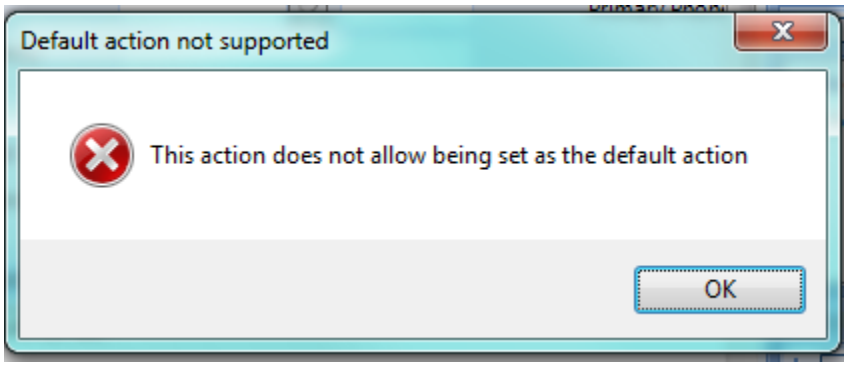



**Figure 4.3 – Message informing user the action cannot be defaulted to the button**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

Actions are defined as “button action” and continue or “button action” and close. Referring to Figure 4.4, you will notice ICONS on the buttons as play or stop . Assigning actions that are to continue to the next record on the work list display the play ICON, and actions that are to complete action and close data window to return to the work list will have the stop ICON.

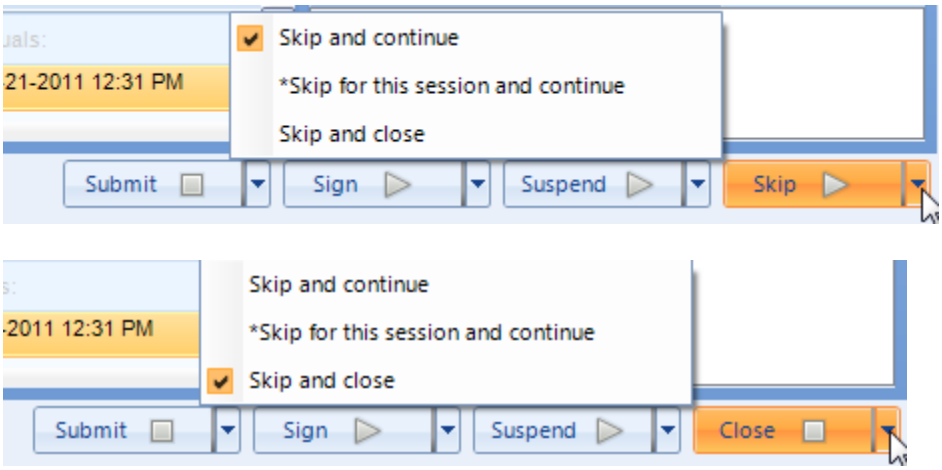



**Figure 4.4 – Default button changed. Default action checked in drop menu with text on button also changed.**

In figure 4.4 the menu options are to skip the current exam and a specified following action. In this example Skip and Close if defaulted with the action being to simply close the Dictate window.
Skip and continue will skip the item for the current workflow instance. To access this exam in the Dictate window again, it can be opened directly from the work list as normal, or if the user completes the entire work list, then the skipped rows are accessed next.
The final menu option of “*Skip for this session and continue” will mark this exam as such. Unlike “Skip and Continue” once the user completes the work list, exams flagged “*Skip for this session and continue” will not be accessed during the normal “next available exam” work flow. If the user so chooses, they can access the exam via the work list, or if the exam(s) are to be added back into the “next exam” work flow, the user does have the ability to manually add these skipped exams back into the workflow by resetting skipped rows via the Radiologist menu option displayed in Figure 4.5. Also in Figure 4.5 is the window that opens. The user can reset individual rows or all of the skipped rows in this list.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

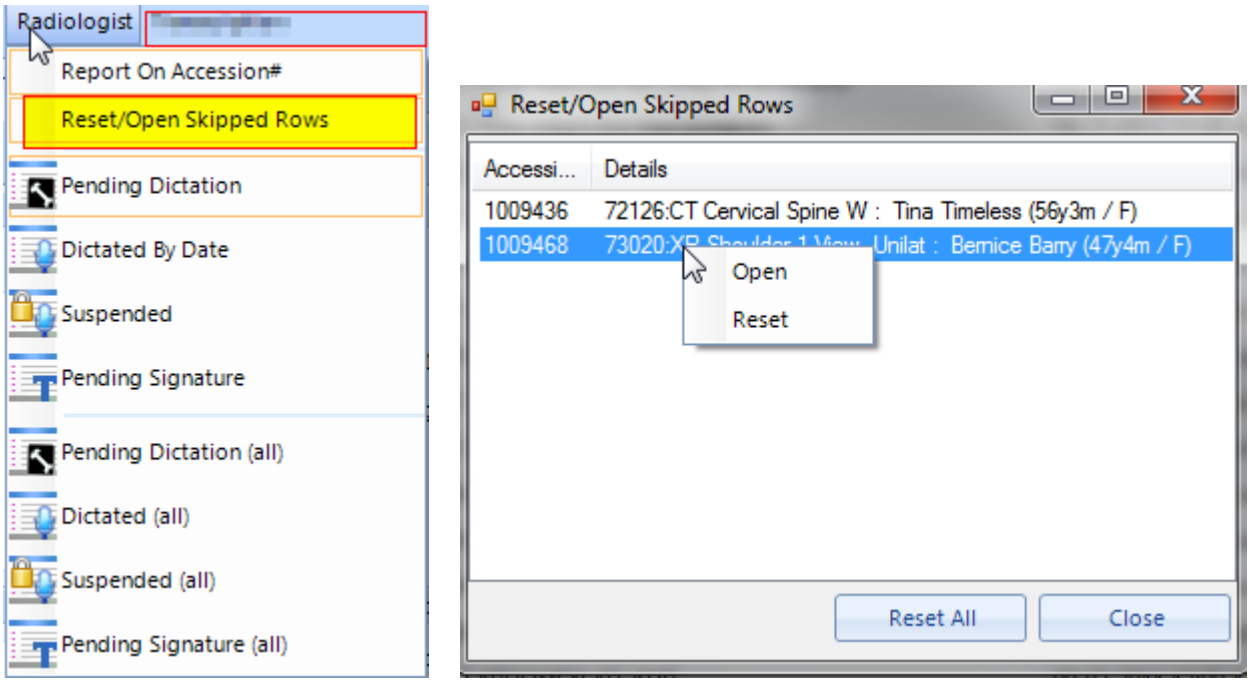



**Figure 4.5 – Reset/Open Skipped Rows menu option and Window**

## Insurance Policy Mask

In build 1.23, the insurance policy number mask has been changed. The "@" sign now represents any letter and the "#" sign now represents any number.
As before, in the event that the policy mask is wrong and the patient insurance policy does not fit the mask, the user can prefix the policy with a "+" character to bypass the policy mask. Any study with an insurance policy that begins with a "+" will be flagged as a billing exception and held until the "+" is removed

| Carrier code | Description | Phone | Fax | Address1 | Policy number mask |
|---|---|---|---|---|---|
| Contains: | Contains: | Contains: | Contains: | Contains: | Contains: |
| 01400030 | CHIDI / TQIWO AGBAJE ESQ. | 4105662007 | 4105586417 | 1724 WOODLAWN DRIVE | |
| 01400046 | CHASE CHASE & HAMMERSCHLAG | 4104884100 | 4104884174 | 1190 W. NORTHERN PARKWAY | |
| 01400051 | CSEK | 4107521880 | 4105471996 | 347 N. CHARLES ST | |
| 0140265 | KADISH & KADISH | 4102961898 | 4103378504 | 11 E LEXINGTON ST | @####### |
| 01406201 | MOBLEY & BROWN | (410)385-0398 | 4103855851 | 1 NORTH CHARLES ST | |
| 0140621 | PREVAS AND PREVAS | 4107522340 | 4103320474 | 231 E. BALTIMORE ST. | |

**Figure 4.6 – Insurance Policy Mask**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Multiple "Contains" Column Filter

A new work list filtering addition has been added in Build 1.23. The user can now filter a column within a work list by entering multiple search criteria. The separator "or" (case insensitive) or "|" (pipe) will separate multiple search criteria and apply a "contains". Note the search string '' (single quotes) will match empty entries or null. This can also apply to the "does not contain" filter if specified in the filtering list of options. This is achieved by selecting the filter ICON on the column header and selecting the "does not contain" option.

Orders To Schedule (19 of 361)

| Last name | First name | Status | Procedures | Order date | Re |
|---|---|---|---|---|---|
| Contains: | Contains: | Contains: | Contains: xr or ct 3 \| " | Equals: | Cont |
| Hughes | Stuart | OrderSigned | | 07-21-2011 3:25 PM | |
| Hughes | Stuart | OrderSigned | | 07-28-2011 10:46 AM | |
| Acorn | Adele | OrderSigned | | 08-03-2011 8:55 AM | |
| Knotter | Harry | OrderSigned | | 08-10-2011 9:11 AM | |
| Hill | Monica | OrderSigned | | 08-10-2011 4:41 PM | |
| Jones | Abel | OrderSigned | 70140^XR Facial Bones 1-2 Views | 06-15-2011 2:08 PM | |
| Test20 | John | OrderSigned | 71010^XR CHEST PA ONLY | 08-12-2011 3:04 PM | |
| Walsh | Brenda | OrderSigned | 72050^XR CERVICAL SPINE MIN 4 VIEWS | 10-19-2011 3:16 PM | |
| Xroller | Xena | OrderSigned | 72100^XR LUMBAR SPINE 2 OR 3 VIEWS | 10-19-2011 12:48 PM | |
| Cone | Clare | OrderSigned | 73500^XR Hip Unilateral AP \| CT29^CT Hip Art... | 08-03-2011 9:22 AM | |
| Smith | Kitt i o | OrderSigned | 74000^XR ABDOMEN AP, KUB | 07-19-2011 3:04 PM | |
| Barry | Mary7 | OrderSigned | 74020^XR ABDOMEN FLAT & ERECT OR DEC... | 05-25-2011 10:09 AM | |
| Dwarf | Grumpy | OrderSigned | CT13^CT 3 Phase | 05-10-2011 3:55 PM | |
| away | right | OrderSigned | CT13^CT 3 Phase | 05-12-2011 4:08 PM | |
| zxcvsdf | zsdzxdf | OrderSigned | CT13^CT 3 Phase | 05-12-2011 4:20 PM | |
| Jonah | Trudy | OrderSigned | CT13^CT 3 Phase | 06-06-2011 11:40 AM | |
| Load | Heavy | OrderSigned | CT13^CT 3 Phase | 07-19-2011 1:17 PM | |
| Mcwilliams | Carry | OrderSigned | RD9^XR Elbow, Bilat 2 Views | 05-06-2011 1:05 PM | |
| Houphmeyer | Artie | OrderSigned | RD19^XR Hand 2 Views & Wrist 2 Views, Unilat | 10-19-2011 8:27 AM | |

**Figure 4.7 – Multiple contains filter on procedure column. Notice "or" and "|" (pipe) is used.**

Also implemented in this build is the ability to specify filter values via a multi select window. Currently this has only been applied to the Modality type column as displayed in figure 4.8. To

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

access the Filter Values for Modality Type window double mouse click the area of the column where the filter value would be entered.

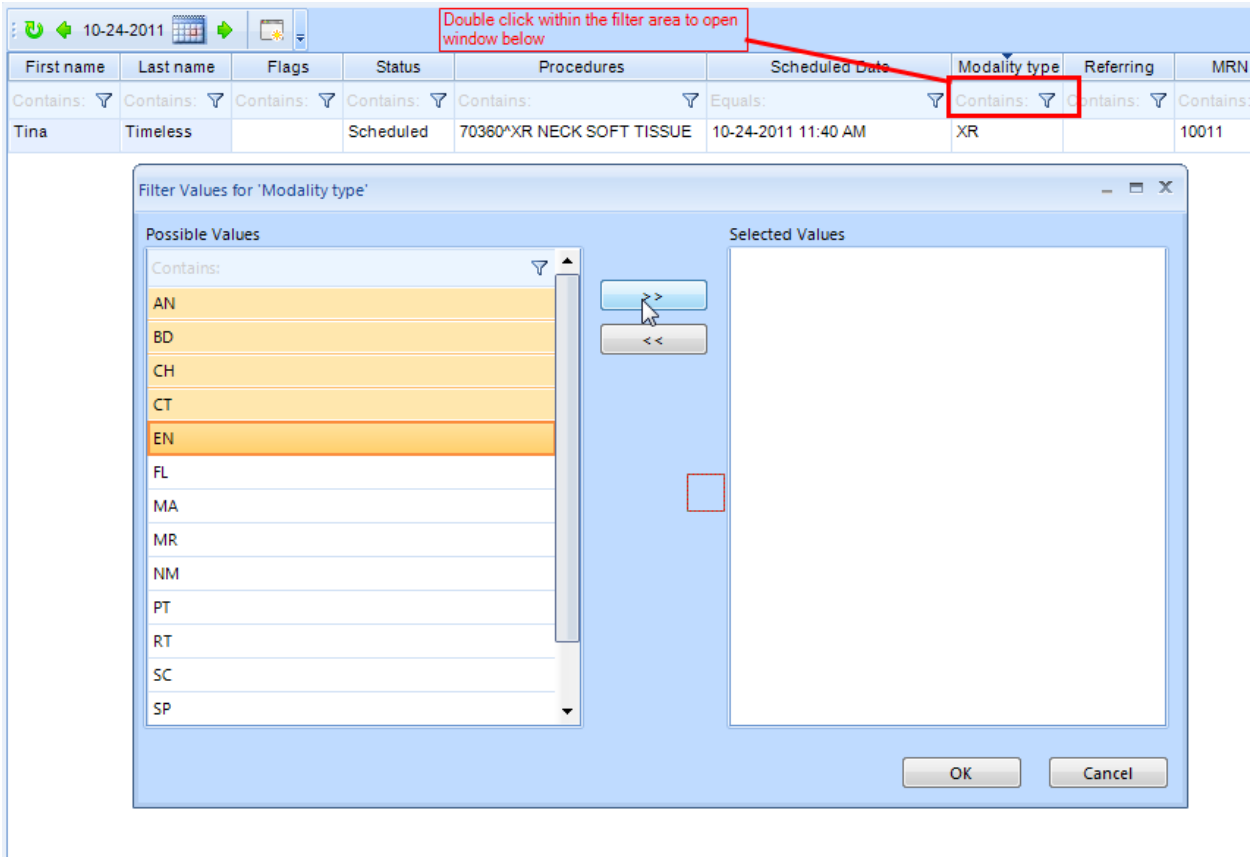



**Figure 4.8 – Adding multiple filter values.**

## Verbal Order Changes

Verbal order was added in build 1.21. This build introduces a few changes. A multi-type control was added and mapped to our list of procedures. A checkbox was also added that allows the user to manually type free-form text instead of using the multi-type ahead

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

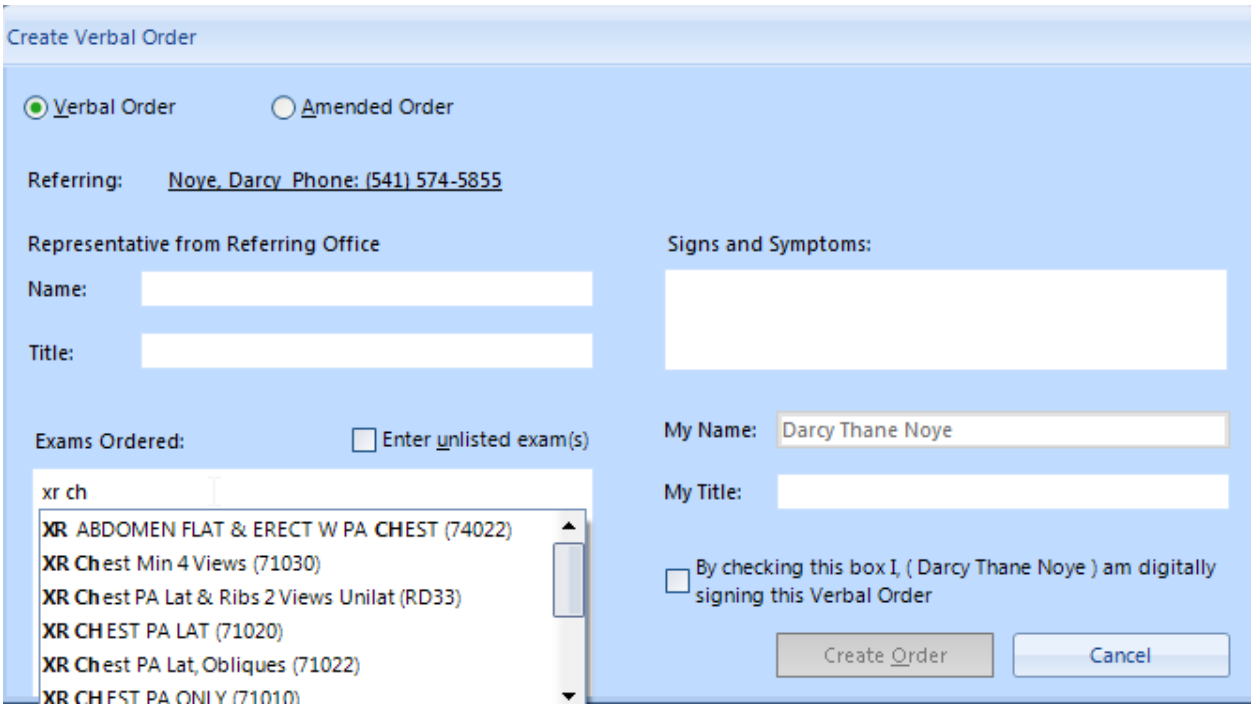



**Figure 4.9 – Create Verbal Order Exam selector. Adding check to "Enter unlisted exam(s)" allows for free form text.**

## Amended Order

Utilizing the Verbal Order feature, Amended Order will also have a fill-in form type of feature that is stored as a scanned document. A radio button will be added to the verbal order screen to allow it to be switched to an amended order. Upon selecting the Amended Order radio button the label for "Signs and Symptoms" (see figure 4.9 above) changes to "Comments" (See figure 4.10 below). The rest of the workflow is the same as Verbal Order. Of course the rendered document is altered to say "Amended order" at the top, and it also has the comments field, and does not have a signs and symptoms page

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

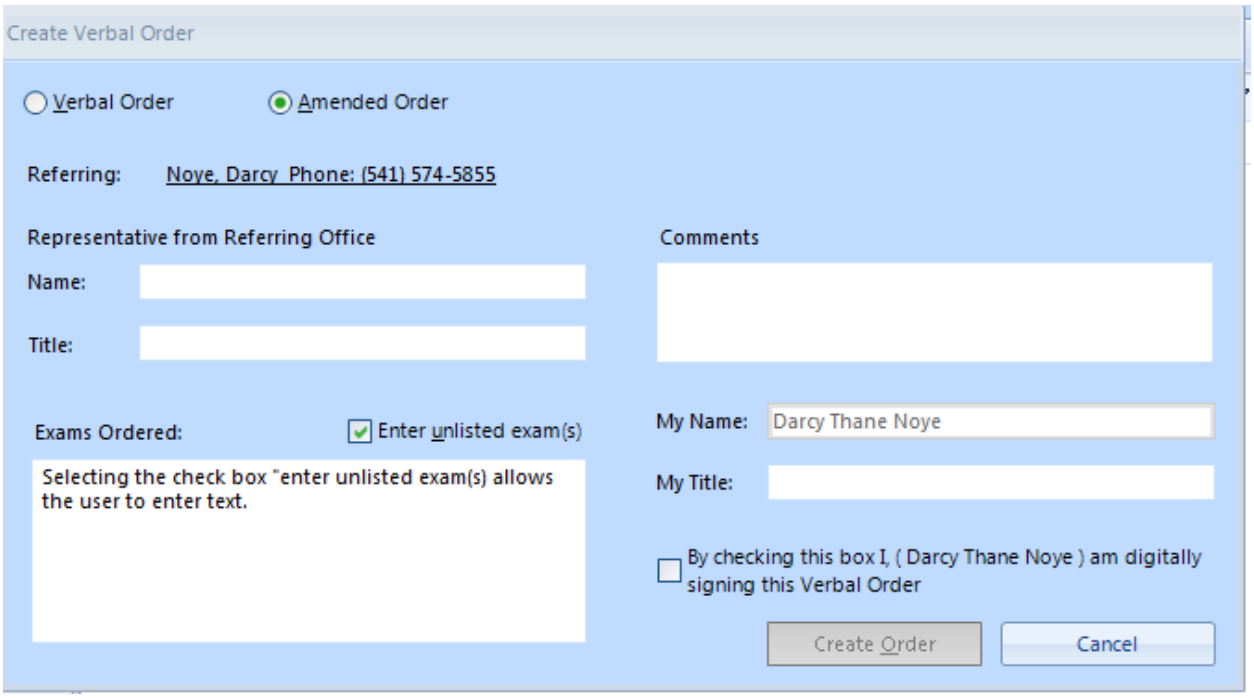
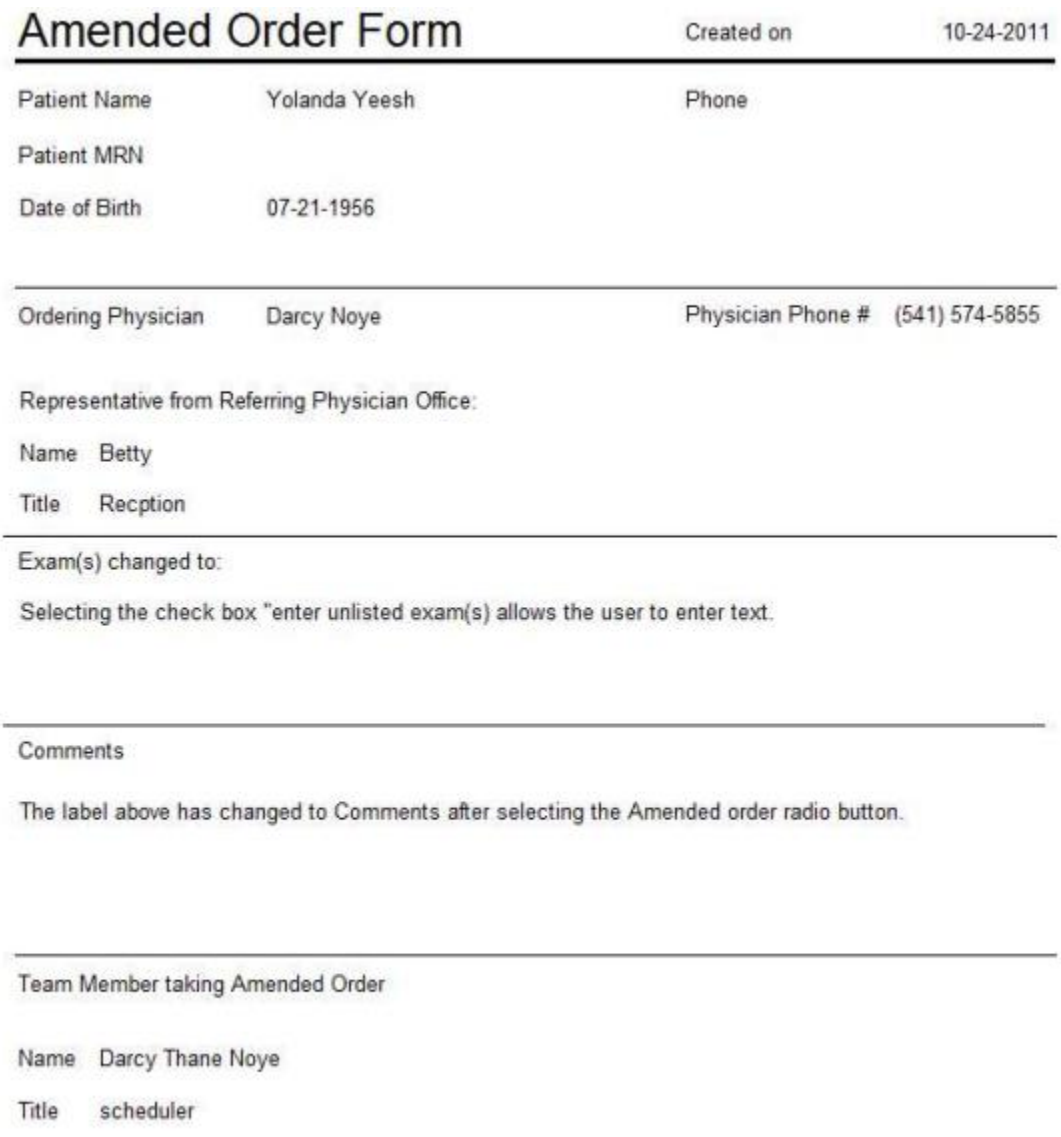



**Figure 4.10 – Report External to rRIS in Perform Exam data window**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.



Amended Order Form

Created on 10-24-2011

Patient Name Yolanda Yeesh

Phone

Patient MRN

Date of Birth 07-21-1956

Ordering Physician Darcy Noye

Physician Phone # (541) 574-5855

Representative from Referring Physician Office:

Name Betty

Title Recption

Exam(s) changed to:

Selecting the check box "enter unlisted exam(s) allows the user to enter text.

Comments

The label above has changed to Comments after selecting the Amended order radio button.

Team Member taking Amended Order

Name Darcy Thane Noye

Title scheduler

**Figure 4.11 – Amended Order**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Film-Image Request Work Flow.

Additional enhancements have been made to Film – Image Request work flow in build 1.23. When the user is completing the Image Request they will now have the ability to change its status when creating a request. This will allow a user create and complete the request in one step. The "complete" status has been split. . Now there are "Sent" and "Picked Up". This will allow the system to differentiate how a request was completed. Also, when a request is picked up, the "Identification Verified" check box is enabled and becomes required.

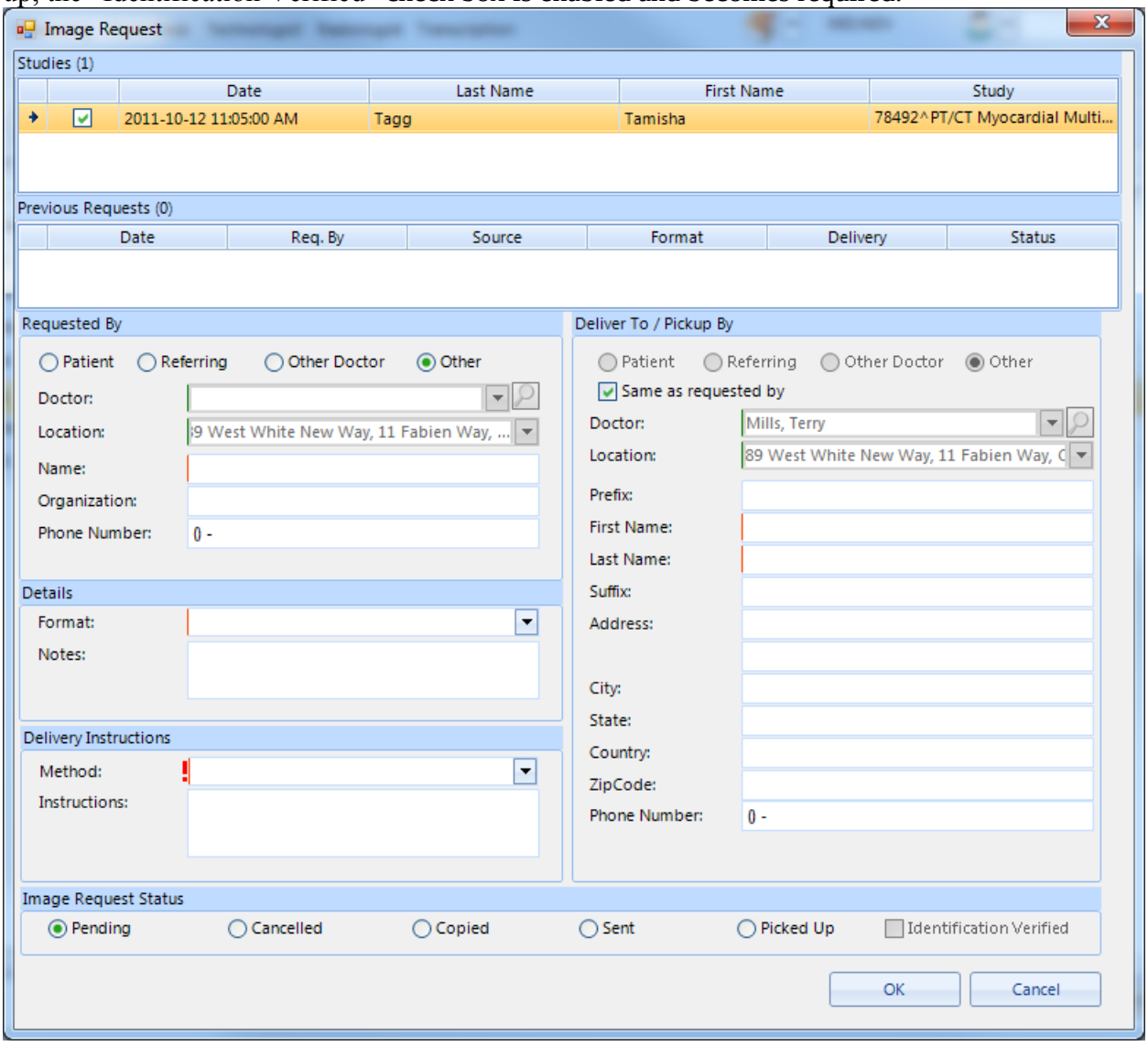



**Figure 4.12 – Image Request**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

A user can edit request for images from the scheduling, registration and technologist screens. A new tab called "Image Request" has been added to aforementioned user's windows. The tab will contain the number of image requests for the study. A study with no requests for images with show "Image Request (0)" in the tab page title.

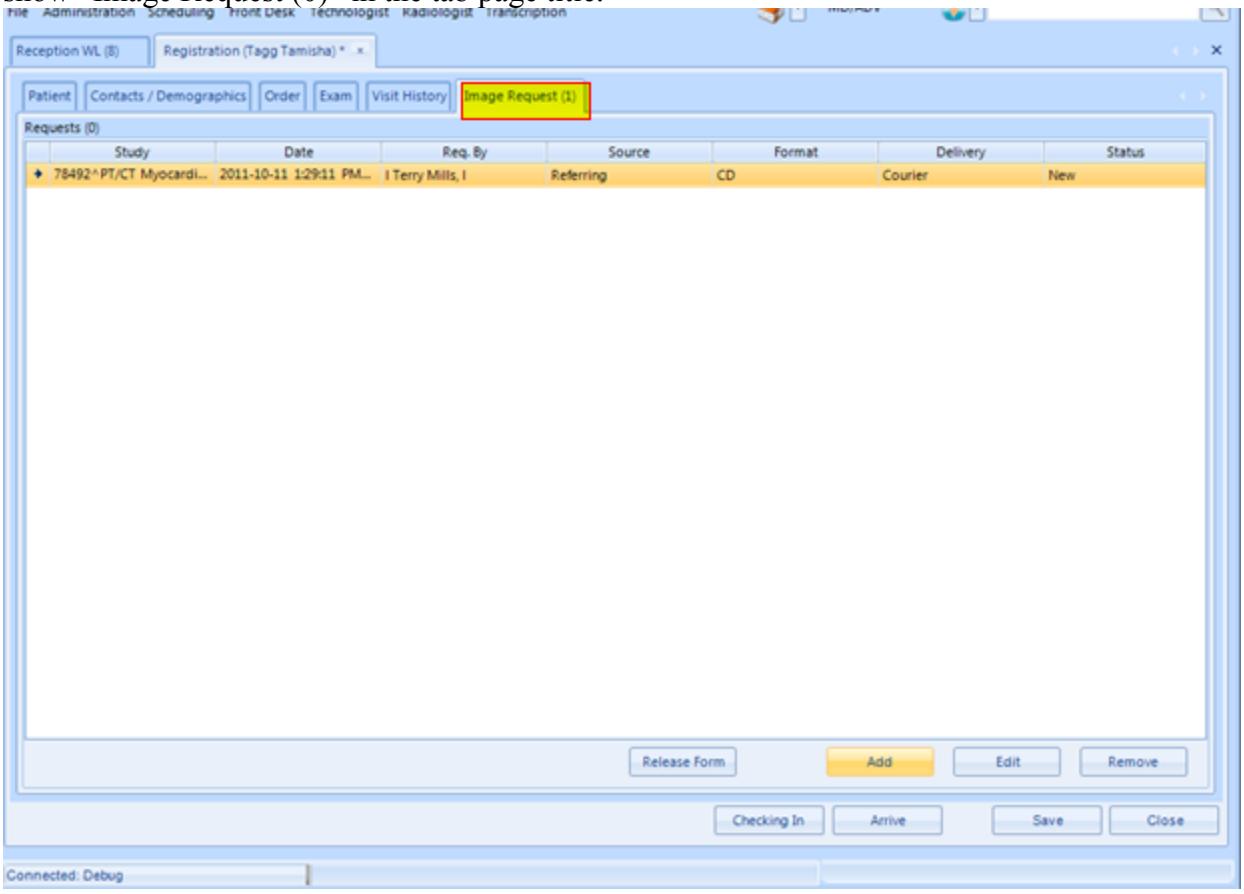



**Figure 4.13 – Image Request tab in Registration data window**

Only new requests can be removed (i.e. not save to the db). In order to "remove" other requests they have to be cancelled. This can be accomplished via the Image request tab or by editing the request from the Image Request work list.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Patient Relation Behavior Changes

When entering Insurance Policy Information, the Policy Holder Information fields must be completed. To help ease of use, when selecting "Self" from the list, all fields will be copied over from the patient record, provided the data exist.

If the user chooses "Spouse" or "Child", all fields except the first name will be pre-populated. Any other relation type selected will have the field left blank.

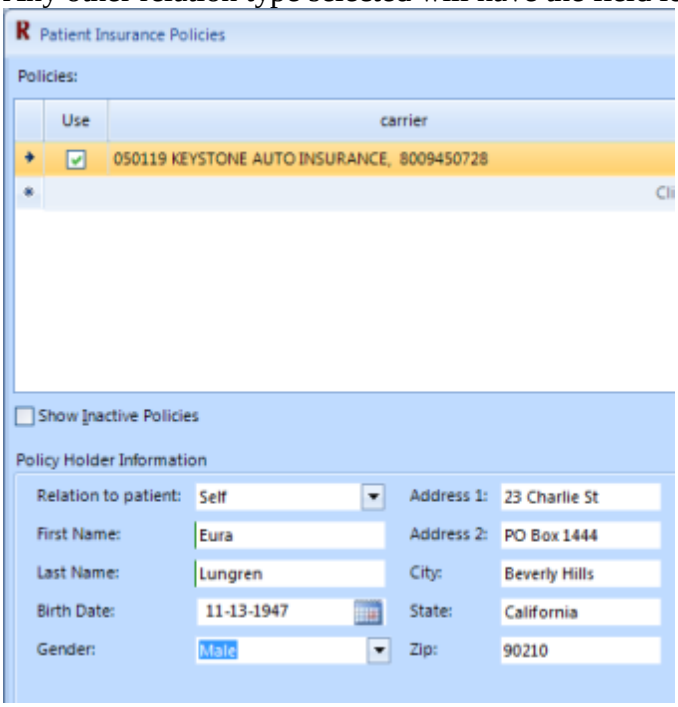



**Figure 4.14 – Insurance Policy Holder Information**

Two other areas of the application also currently use this feature. The Contacts/Demographics tab / Responsible Party section will utilize the same features. Also approved medical access will use this feature with the exception of Self which is not an option.

## Attachment / Scan Document Enhancements

In build 1.23 enhancements and clean up items were addressed for Attachment / Scan documents.
Clean up issues are:

- Re-classifying an attachment back to its original classification, it will join the attachment document entry for any other of that type that were scanned or attached at the same time.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

- Re-ordering can now be accomplished when viewing scans through dragging and dropping the thumbnails.
- Previously, the popup's for the scan document list only closed with the 'x' in the top right corner, now we also have an ok button at the bottom of the screen.
- Notes added to the attachment are displayed in the lower left when viewing the attachment.
- The Attachment viewer list now has buttons to scan, import, verbal order, and a button for advanced scanning options.

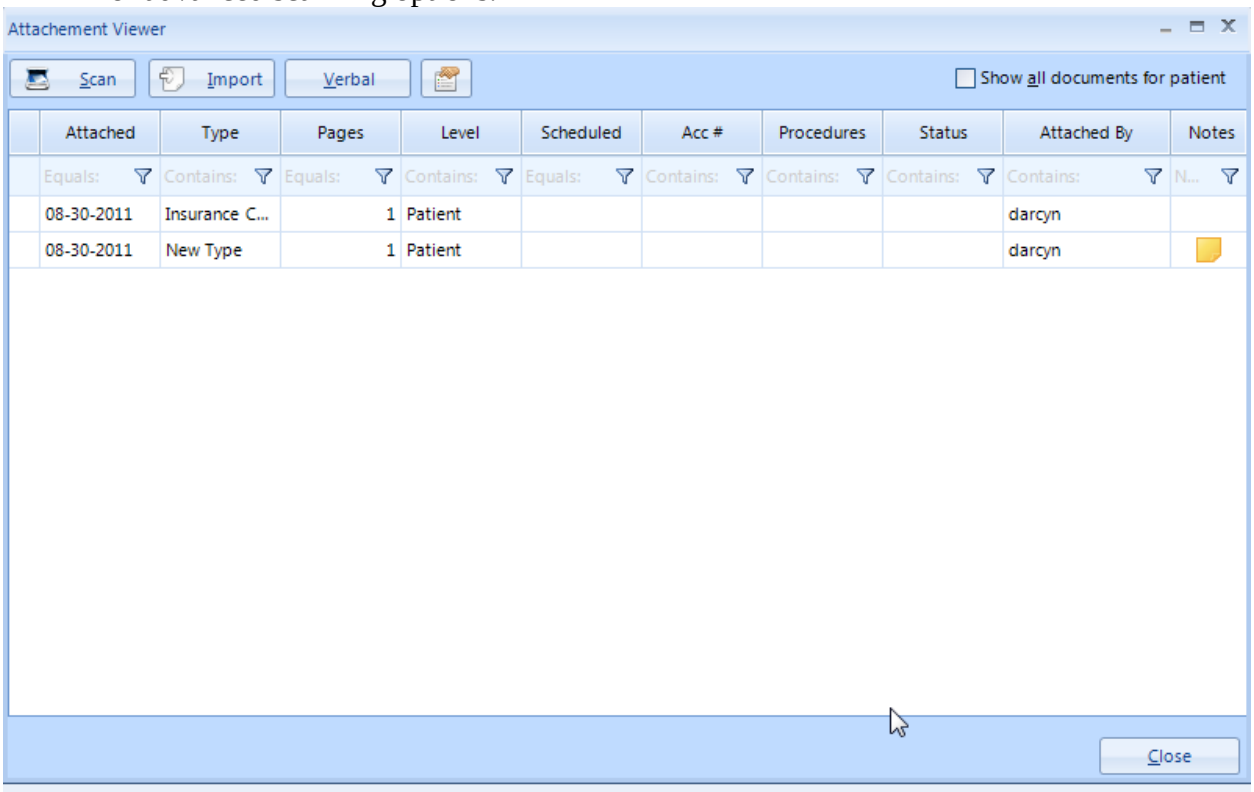



**Figure 4.15 – Attachment Viewer button changes**

Enhancements for Scanning / Attaching documents are:

- To **optimize the import workflow**, if the directory you are importing from contains in its name "**AutoDeleting**", then all the images in the directory will be auto selected when you open up the Import dialog and they will be deleted after the import.
- When viewing the scanned image or attachment the user can right click on an image and choose **Straighten**, next they are asked to underline a word in the image. The user has option to apply or cancel changes. When they choose Apply, the image will be rotated making the line they drew strait. An undo option is also available from context menu or keyboard shortcut <Ctrl>+ Z

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

- Also from the context menu an image cropping feature has been added. The user selects the menu option, click and drags the desired area, and select Apply or Cancel. Once applied the cropping can be reverted back by using the same Undo options for Straighten.

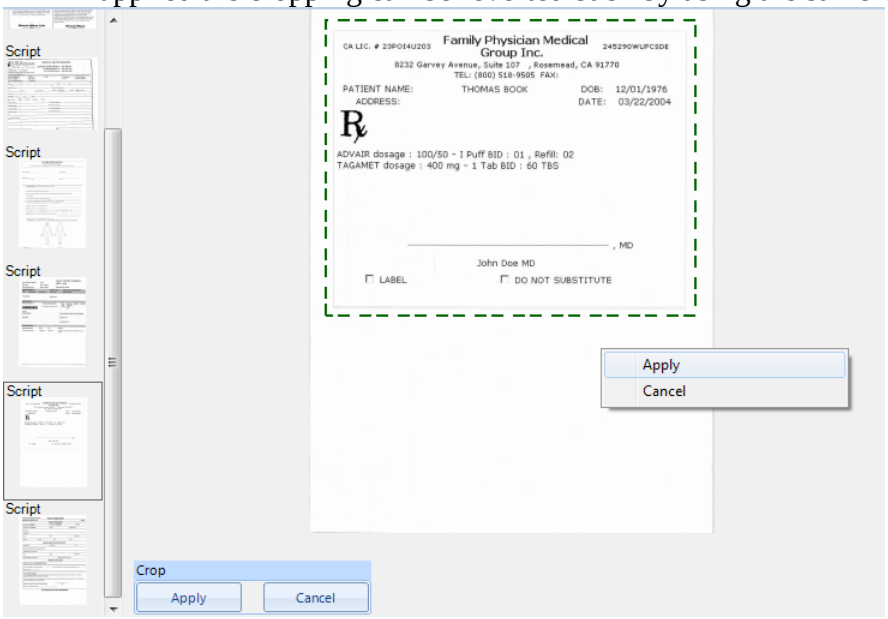


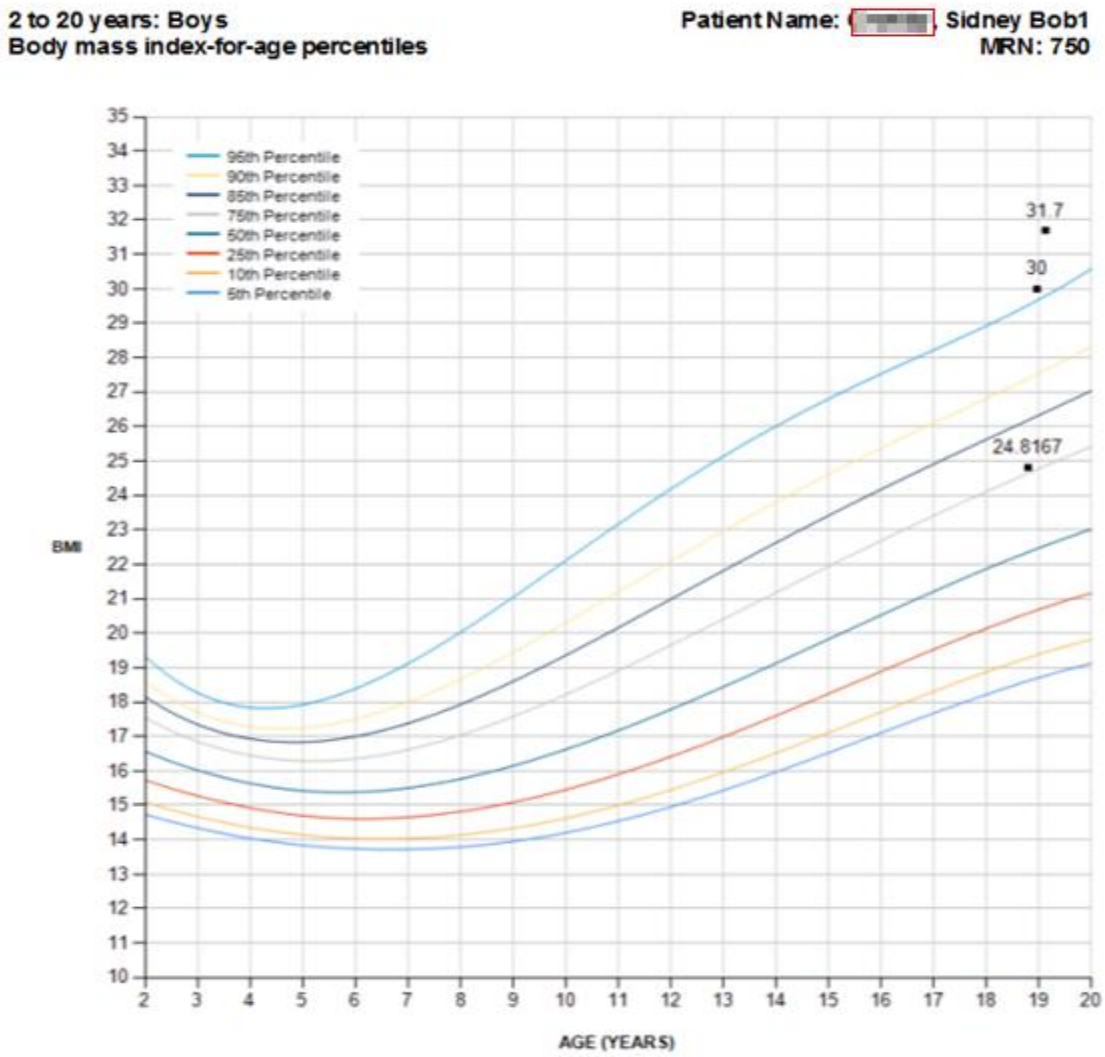

**Figure 4.16 – Displaying scanned document using cropping feature.**

## Patient Growth Chart

A part of the Meaning Use requirement 170.302 part of Vital Signs, the patient growth chart has been added in build 1.23. A new table called l_bmi_percentiles to hold the data table from the CDC in Atlanta, GA. This table provides the BMI to percentile values based on age and sex of the patient.

A management report has been created to first provide the standard values based on the patient sex. Applied plot marks to indicate the patient BMI on the grid against the CDC values as displayed in figure 4.17. If the patient has multiple visits and the age in months is the same then the calculation provides an average of those results for plotting to the chart.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.




| Exam Date | Age (years) | Age (Month) | Weight (lbs) | Height | BMI |
|---|---|---|---|---|---|
| 5/2/2011 1:02 PM | 19 | 225 | 180 | 5ft 4in | 30.9 |
| 5/3/2011 6:25 AM | 19 | 225 | 30 | 2ft 10in | 18.2 |
| 5/3/2011 10:44 AM | 19 | 225 | 70.4 | 4ft 3in | 19 |
| 5/3/2011 10:44 AM | 19 | 225 | 70.4 | 4ft 3in | 19 |
| 5/6/2011 11:14 AM | 19 | 225 | 165 | 5ft 1in | 31.2 |
| 5/30/2011 1:48 PM | 19 | 225 | 173 | 5ft 3in | 30.6 |
| 7/20/2011 2:19 PM | 19 | 227 | 180 | 5ft 5in | 30 |
| 9/16/2011 1:36 PM | 19 | 229 | 157 | 4ft 11in | 31.7 |

**Figure 4.17– Patient Growth Chart Management Report**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

Though not a requirement, the patient specific data in a table below the chart for data validation will also be displayed.

## Educational Resources

Part of the Meaningful Use requirement 170.302 (m) Patient Education, Educational Resources. Previous versions had Google search functionality. The search has been extended, becoming configurable supporting multiple search providers.

| Search providers code | Description | Display order | Url | Access string code | Launch external flag | Active |
|---|---|---|---|---|---|---|
| Contains: | Contains: | Equals: | Contains: | Contains: | Contains: | Contains: |
| google | Google | 1 | http://www.google.com/search?q={0} | | Y | Y |
| webmd | WebMD | 2 | http://www.webmd.com/search/search_results/default.aspx?query={0}&sourceType=undefined | | N | Y |
| Click here to add a new row | | | | | | |

**Figure 4.18 – Lookup table SearchProviders entries**

When adding a new search provider it is important to replace the search parameters with the placeholder {0} as this will be substituted for the text box on the main app when the search is called.

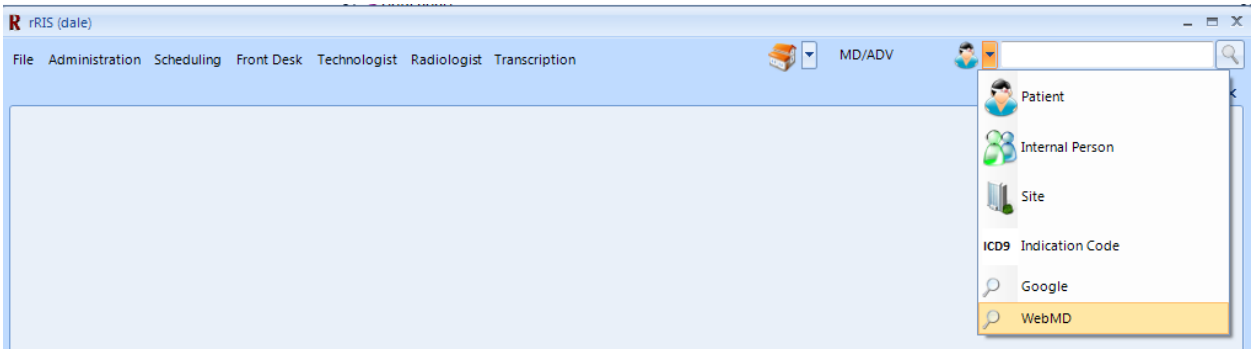



**Figure 4.19 – Displaying Search Provider options**

## Prep Instructions Hyperlink

A hyperlink has been added to the Prep Instructions sections of the scheduling, registration, technologist windows

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

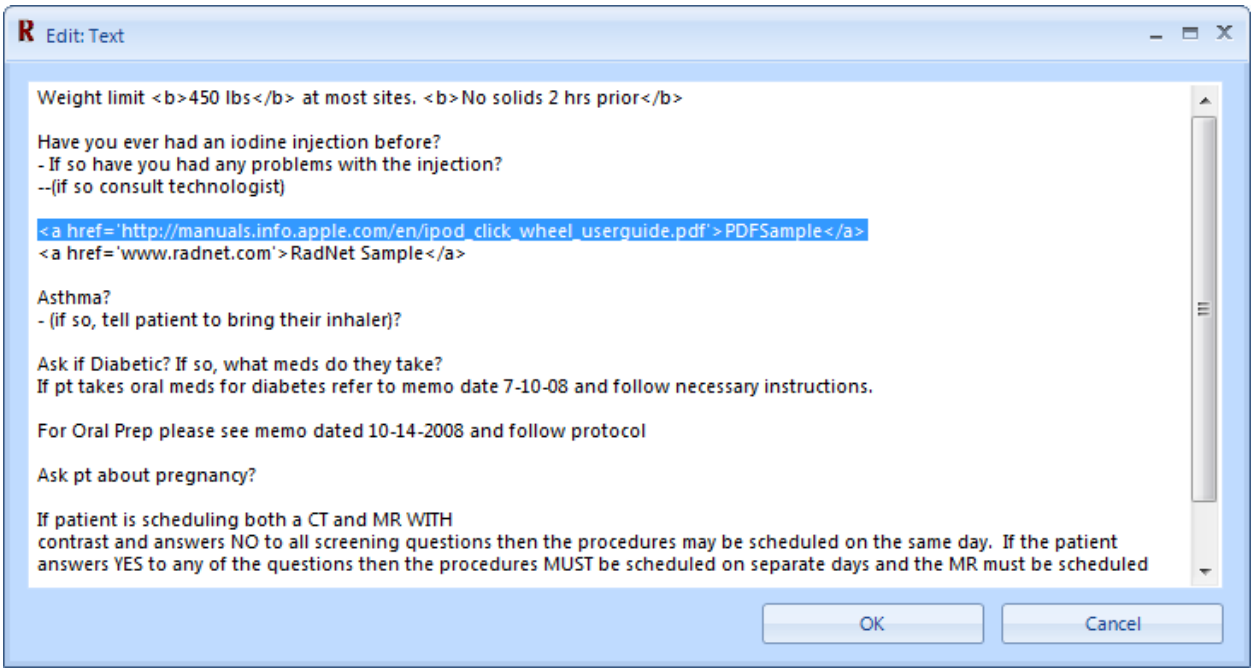



**Figure 4.20 – Adding hyperlink to prep instructions**

Hyperlinks are edited in the lookup editor for the prep instructions and are coded as shown above as standard a href (html) tags.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

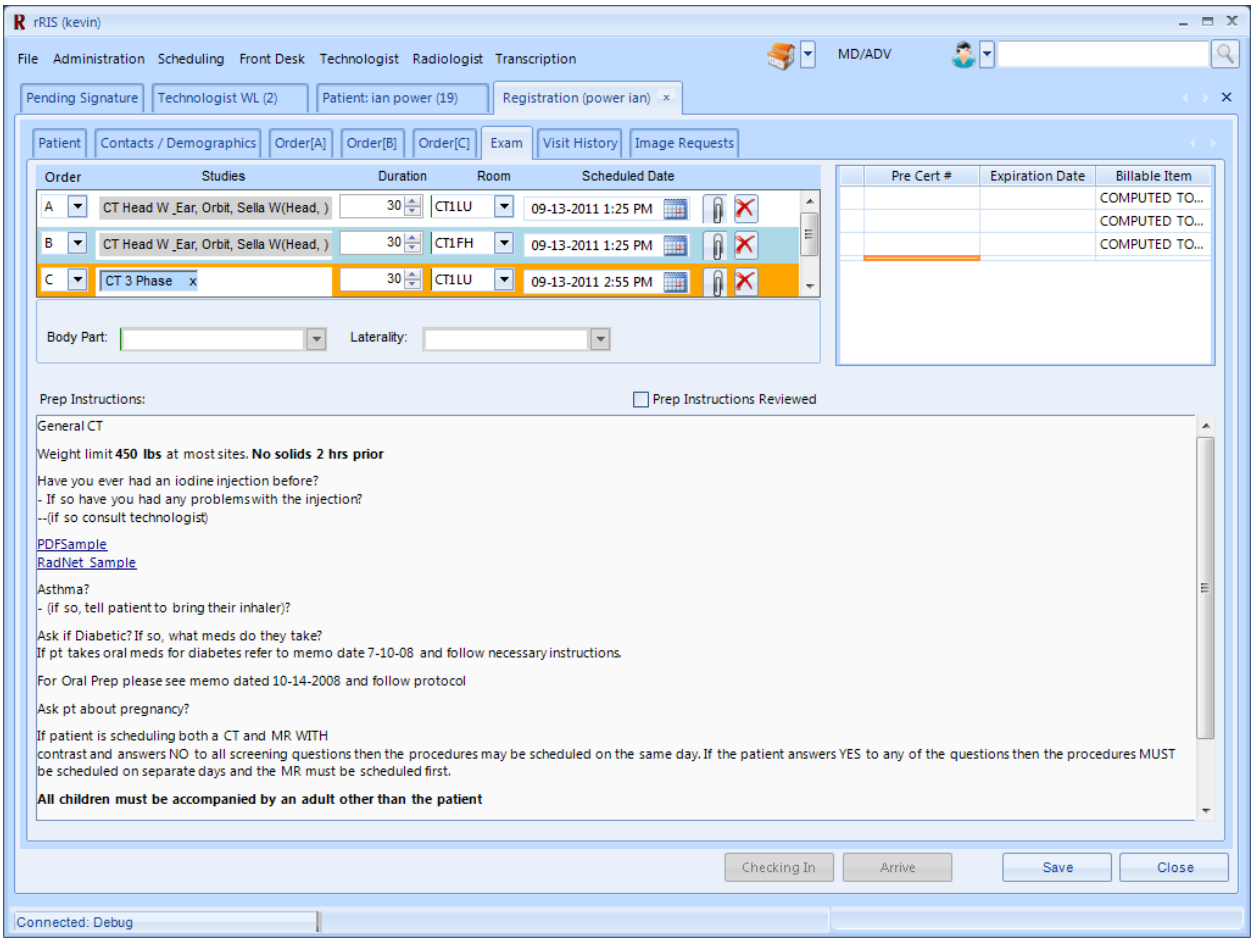



**Figure 4.21 – Sample displaying hyperlinks in Prep Instructions.**

## Proxy Signing User Preference

A new user preference "Proxy Signing" has been added. Users can specify who will be able to proxy sign on their behalf. Also as a display only, it will inform who you (the user preferences of the user logged in) that you may sign for.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

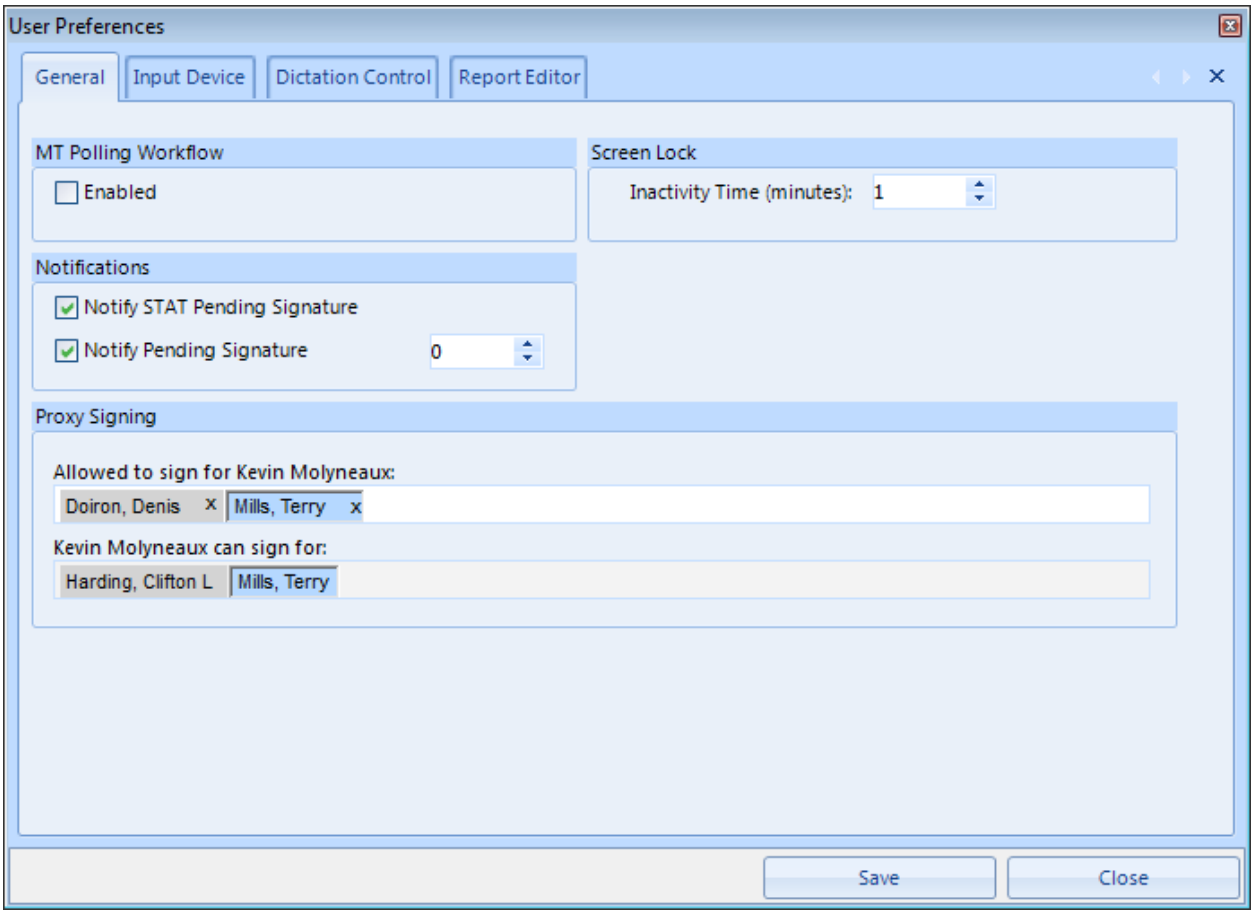



**Figure 4.22 – Displaying User Preferences, Proxy Signing. Notice that the "Can sign for" is read only.**

For admins, Proxy Signing can also be administered from the Personnel editor.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

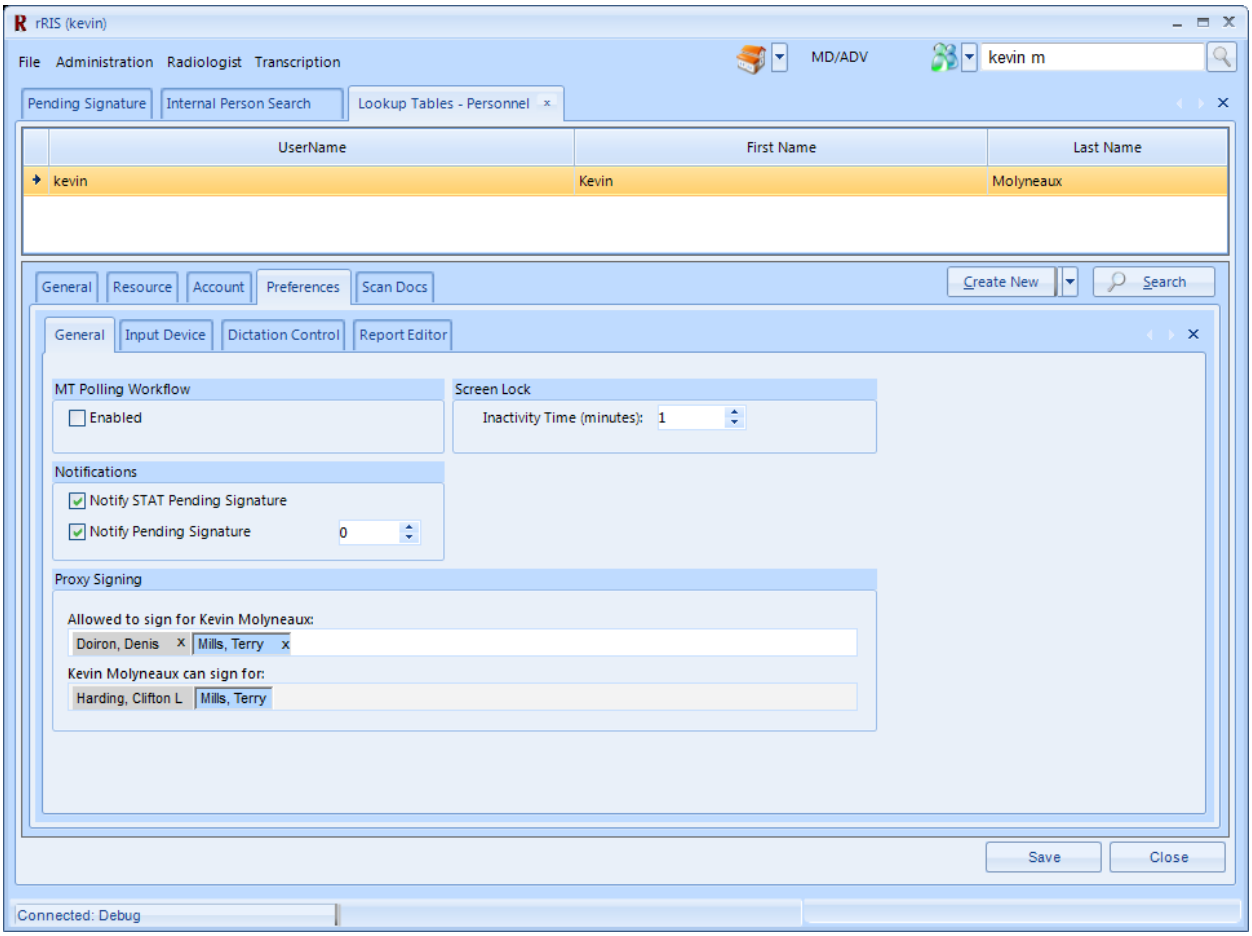



**Figure 4.23 – Personnel editor**

# 5. Known Limitations

Bugs, Suggested Features, and Support Issues are tracked in a web based system called Redmine. The following is a snapshot of the issues found in Build 1.23.

| # | Status | Subject | Category | Target version |
|---|---|---|---|---|
| 630 | New | Manage policies that have policy number that begins with + symbol are not added to Billing Exception work list | Thick Client GUI | 1.23 |
| 629 | Resolved | Manage Policies - Policy Holder information fields don't populate everytime | Thick Client GUI | 1.23 |
| 628 | Resolved | IVT - Selecting a carrier returns error | Web Services/DB | 1.23 |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

| | | | | |
|---|---|---|---|---|
| 626 | New | Removing procedure will delete all attachments associated with procedure stored at exam level | Thick Client GUI | 1.23 |
| 625 | Resolved | Changing order at the time of scheduling | Thick Client GUI | 1.23 |
| 624 | New | Schedule exam, selecting time from Advance tab can make available times "jump" | Thick Client GUI | 1.23 |
| 623 | Resolved | Edit order > Attachments > selecting Scan or Import prompts to select document type. | Thick Client GUI | 1.23 |
| 621 | New | Attempting to create an order with a newly created unknown referrer throws exception | Thick Client GUI | 1.23 |
| 619 | New | Orders to Schedule > Attempt to Schedule on locked order then cancel throws exception | Thick Client GUI | 1.23 |
| 618 | New | Orders to Schedule > Attempt to Mark Order on locked order then cancel returns error on getdata | Thick Client GUI | 1.23 |
| 617 | New | Registration / scheduling / edit order open in read only mode from orders to schedule prompts to save changes | Thick Client GUI | 1.23 |
| 616 | Resolved | Radiologist > Diagnose > Skip and continue | Thick Client GUI | 1.23 |
| 615 | Resolved | Reset/Open skipped rows | Thick Client GUI | 1.23 |
| 611 | Resolved | Personnel > Edit contact information > Edit address can go blank if user removes text | Admin Tools | 1.23 |
| 610 | Resolved | Personnel Editor - Exception thrown from closing without saving first | Admin Tools | 1.23 |
| 609 | Resolved | Closing Personnel Editor throws exception | Admin Tools | 1.23 |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# Release Notes for

# rRIS 1.0

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

Table of Contents

1. Purpose ..... 5
2. Intended Audience ..... 5
3. Work lists ..... 5
3.1 Application Work Lists ..... 5
3.2 Billing Exception work list ..... 9
3.3 Patient Merge work list ..... 10
3.3.1 Patient Merge ..... 10
3.4 Unknown Referring work list ..... 14
3.5 IVT work list ..... 15
3.6 IVT data windows ..... 16
3.6.1Patient tab ..... 16
3.6.2 Insurance Verification PreCert ..... 16
3.7 No Show work list ..... 18
3.8 Image Request work list ..... 19
3.8.1 Image Request Data Window ..... 19
3.9 Document Distribution work list ..... 21
3.10 Patient Folder ..... 22
3.10.1 Data Nuggets ..... 23
3.10.2 Audit History ..... 27
4. Attachments ..... 29
4.1 Change Document Type ..... 31
4.2 Attach Document Notes ..... 33
4.3 Straighten Tool ..... 34
4.4 Cropping Tool ..... 35
4.5 Verbal Order ..... 36
4.6 Amended Order ..... 39
5. Scheduling ..... 41
5.1 New Appointment ..... 41
5.1.1 Patient Tab ..... 41
5.1.2 Contacts/Demographics ..... 43
5.1.3 Order Tab ..... 45
5.1.4 Schedule Tab ..... 49
5.1.5 Image Request Tab ..... 50
5.1.6 Review Tab ..... 51
5.2 Orders to Schedule work list ..... 53
5.2.1 Schedule from Orders to Schedule ..... 54
5.2.2 Edit Order ..... 56
5.2.2.1 Patient Tab ..... 56

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

5.2.2.2 Attachments Tab ..... 56
5.2.2.3 Order tab ..... 57
5.2.3 Registration ..... 58
5.2.4 Mark Order ..... 58
5.2.5 Context Menu ..... 59
5.2.5.1 Cancel Order ..... 60
5.3 Appointment Book ..... 61
5.4 Add Patient ..... 62
5.5 Add Outside Read ..... 64
5.6 Confirmation work list ..... 68
5.6.1 Confirmation data window ..... 69
5.7 Closed Rooms Reschedule work list ..... 71
5.8 Cancelled Orders work list ..... 72
5.9 Reschedule ..... 73
6. 6. Front Desk ..... 74
6.1 Reception work list ..... 74
6.2 Registration ..... 75
6.2.1 Patient Tab ..... 75
6.2.2 Contacts / Demographics ..... 77
6.2.3 Order Tab ..... 78
6.2.3 Exam Tab ..... 80
6.2.4 Visit History ..... 81
6.2.5 Image Request ..... 82
6.3 Walk In Data Window ..... 85
7. Technologist ..... 86
7.1 Technologist work list ..... 86
7.2 Technologist Data Window ..... 87
7.2.1 Patient Tab ..... 87
7.2.2 Order Tab ..... 87
7.2.3 Documentation Tab ..... 88
7.2.4 Billing Codes ..... 91
7.2.5 Attachments Tab ..... 91
7.2.6 Notes / Exams Times ..... 91
7.2.7 Image Request ..... 92
7.2.8 Credential Switch ..... 92
8. Radiologist ..... 94
8.1 Pending Dictation ..... 94
8.2 Dictating Data Window ..... 97
8.2.1 Patient Tab ..... 102
8.2.2 Exam Tab ..... 102
8.2.3 Report Tab ..... 102

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

8.3 Dictated by Date ..... 112
8.4 Suspended work list ..... 114
8.5 Pending Signature work list ..... 116
8.5.1 Sign Reports Data window ..... 118
8.5.2 Amending Reports ..... 118
8.6 Report on Accession Number ..... 119
9. Transcription ..... 120
9.1 Report Drafted ..... 120
9.1.1 Reported Drafted Data Window ..... 123
9.1.2 Diagnostic – Note to Radiologist ..... 123
9.1.3 Optimizing Dictation Playback ..... 125
9.1.4 Playback Speed per Radiologist ..... 125
9.2 Pending Review ..... 126
10. CDS Job Manager ..... 128
11. Organization Picker ..... 130
12. Search Functionality ..... 131
12.1 Enhanced Patient Search ..... 132
13. User Preferences ..... 133
13.1 Font Size ..... 133
13.2 User Preferences ..... 134
13.2.1 General Tab ..... 134
13.2.2 Input Device Tab ..... 135
13.2.3 Dictation Control tab ..... 136
13.2.4 Report Editor tab ..... 139
14. Forms and Labels ..... 142
15. Help menu ..... 143
16. Shortcuts ..... 144
17. Known Limitations ..... 145

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 1. Purpose

This document developed as an overview of the work lists, data windows, features and user preferences available in rRIS.

# 2. Intended Audience

This document has unrestricted internal use and is intended for all users.

# 3. Work lists

The rRIS application has many work lists available for the multiple rolls within a Diagnostic Medical Imaging center. Below is a brief description of the work lists under the Administration menu. The columns available in work lists may be difficult to display. Because of this, some of the data in the screenshots may not be visible as I try to capture all columns for display in this document.

## 3.1 Application Work Lists

The application has work lists that can be of a daily view, patient view, or a view that contains all records that need to processed for a particular role. The columns may be sorted, filtered and arranged to the user's preference. Columns can be sorted by selecting the column header. Columns may be filtered by entering text in the columns filter header. Also the filtering criteria may be specified by selecting the Icon located at the top of each column in the filter row.

In Figure 3.1.1 below, selecting the Icon outlined in Red will open the Work list Views window. The user can sort, filter, arrange and / or hide the columns as they choose, then select this Icon, create a unique name and save the view. The view can be saved for the user only, or for the user group they belong to. The next time this work list is accessed, simply select the view to the right of the Work list Views Icon. The current selected view will be highlighted in blue.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

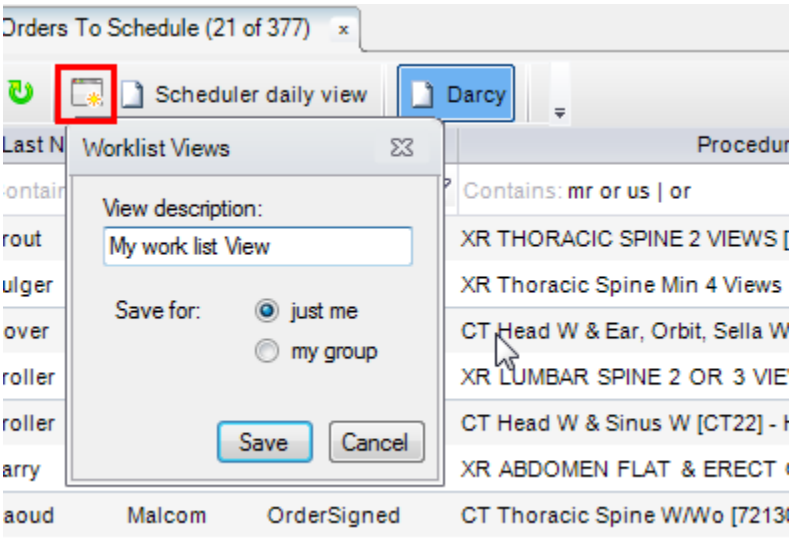



**Figure 3.1.1 – Creating Custom views**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

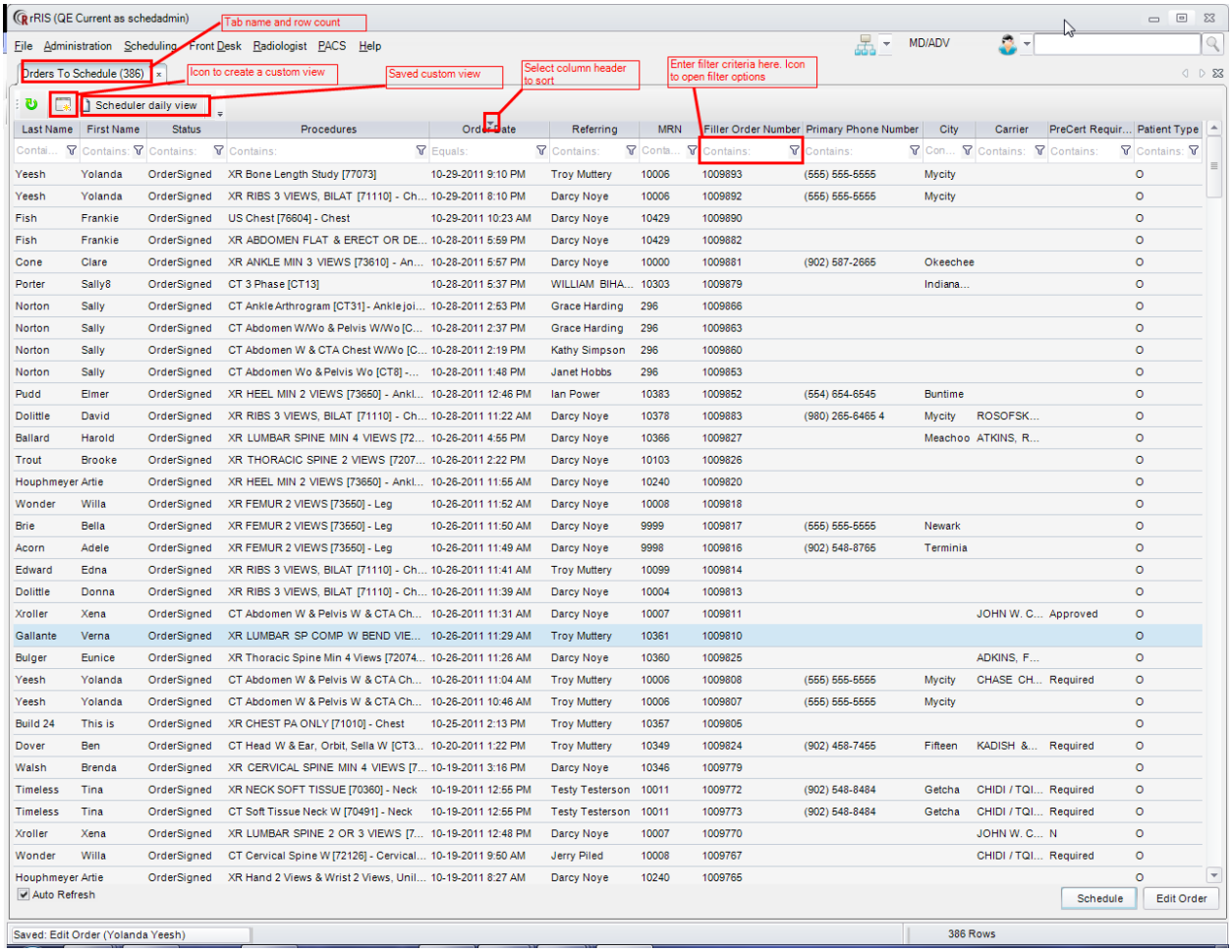
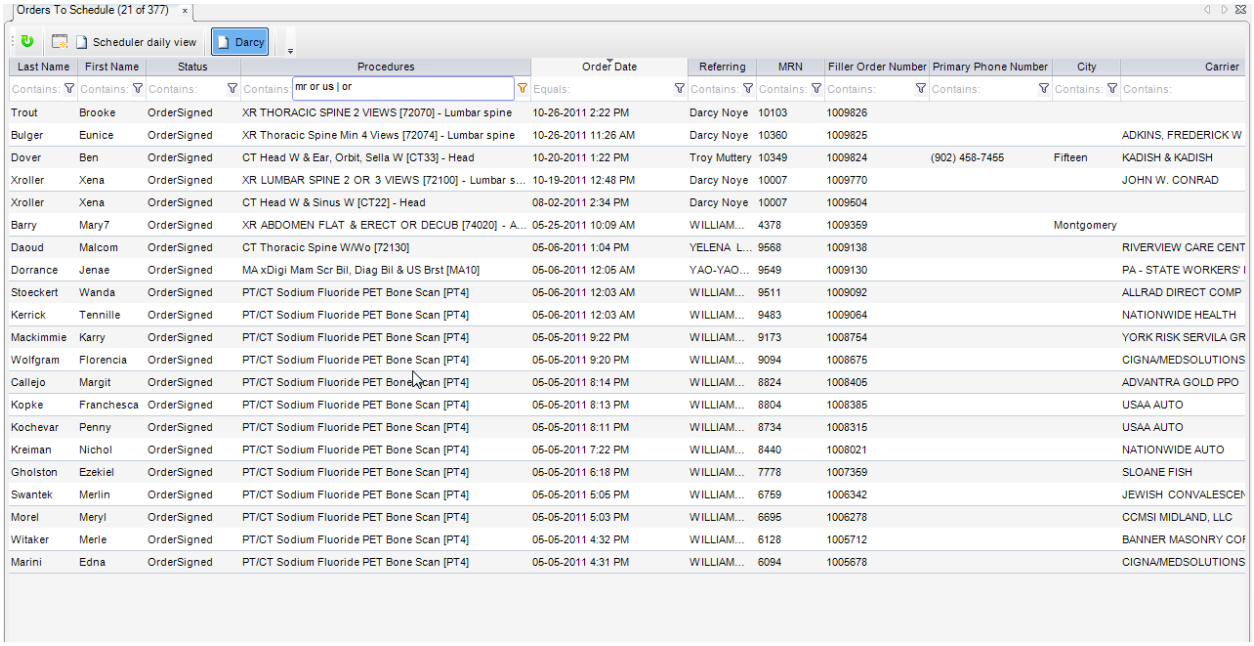



**Figure 3.1.1 – Work list features.**

Additional filtering options are to filter a column within a work list by entering multiple search criteria. The separator "or" (case insensitive) or "|" (pipe) will separate multiple search criteria and apply a "contains". Note the search string '' (single quotes) will match empty entries or null. This can also be applied to the "does not contain" filter if specified in the filtering list of options. This is achieved by selecting the filter ICON on the column header and selecting the "does not contain" option.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.




| Last Name | First Name | Status | Procedures | Order Date | Referring | MRN | Filler Order Number | Primary Phone Number | City | Carrier |
|---|---|---|---|---|---|---|---|---|---|---|
| Trout | Brooke | OrderSigned | XR THORACIC SPINE 2 VIEWS [72070] - Lumbar spine | 10-26-2011 2:22 PM | Darcy Noye | 10103 | 1009826 | | | |
| Bulger | Eunice | OrderSigned | XR Thoracic Spine Min 4 Views [72074] - Lumbar spine | 10-26-2011 11:26 AM | Darcy Noye | 10360 | 1009825 | | | ADKINS, FREDERICK W |
| Dover | Ben | OrderSigned | CT Head W & Ear, Orbit, Sella W [CT33] - Head | 10-20-2011 1:22 PM | Troy Muttery | 10349 | 1009824 | (902) 458-7455 | Fifteen | KADISH & KADISH |
| Xroller | Xena | OrderSigned | XR LUMBAR SPINE 2 OR 3 VIEWS [72100] - Lumbar s... | 10-19-2011 12:48 PM | Darcy Noye | 10007 | 1009770 | | | JOHN W. CONRAD |
| Xroller | Xena | OrderSigned | CT Head W & Sinus W [CT22] - Head | 08-02-2011 2:34 PM | Darcy Noye | 10007 | 1009504 | | | |
| Barry | Mary7 | OrderSigned | XR ABDOMEN FLAT & ERECT OR DECUB [74020] - A... | 05-25-2011 10:09 AM | WILLIAM... | 4378 | 1009359 | | Montgomery | |
| Daoud | Malcom | OrderSigned | CT Thoracic Spine W/Wo [72130] | 05-06-2011 1:04 PM | YELENA L... | 9568 | 1009138 | | | RIVERVIEW CARE CENT |
| Dorrance | Jenae | OrderSigned | MA xDigi Mam Scr Bil, Diag Bil & US Brst [MA10] | 05-06-2011 12:05 AM | YAO-YAO... | 9549 | 1009130 | | | PA - STATE WORKERS' I |
| Stoeckert | Wanda | OrderSigned | PT/CT Sodium Fluoride PET Bone Scan [PT4] | 05-06-2011 12:03 AM | WILLIAM... | 9511 | 1009092 | | | ALLRAD DIRECT COMP |
| Kerrick | Tennille | OrderSigned | PT/CT Sodium Fluoride PET Bone Scan [PT4] | 05-06-2011 12:03 AM | WILLIAM... | 9483 | 1009064 | | | NATIONWIDE HEALTH |
| Mackimmie | Karry | OrderSigned | PT/CT Sodium Fluoride PET Bone Scan [PT4] | 05-05-2011 9:22 PM | WILLIAM... | 9173 | 1008754 | | | YORK RISK SERVILA GR |
| Wolfgram | Florencia | OrderSigned | PT/CT Sodium Fluoride PET Bone Scan [PT4] | 05-05-2011 9:20 PM | WILLIAM... | 9094 | 1008675 | | | CIGNA/MEDSOLUTIONS |
| Callejo | Margit | OrderSigned | PT/CT Sodium Fluoride PET Bone Scan [PT4] | 05-05-2011 8:14 PM | WILLIAM... | 8824 | 1008405 | | | ADVANTRA GOLD PPO |
| Kopke | Franchesca | OrderSigned | PT/CT Sodium Fluoride PET Bone Scan [PT4] | 05-05-2011 8:13 PM | WILLIAM... | 8804 | 1008385 | | | USAA AUTO |
| Kochevar | Penny | OrderSigned | PT/CT Sodium Fluoride PET Bone Scan [PT4] | 05-05-2011 8:11 PM | WILLIAM... | 8734 | 1008315 | | | USAA AUTO |
| Kreiman | Nichol | OrderSigned | PT/CT Sodium Fluoride PET Bone Scan [PT4] | 05-05-2011 7:22 PM | WILLIAM... | 8440 | 1008021 | | | NATIONWIDE AUTO |
| Gholston | Ezekiel | OrderSigned | PT/CT Sodium Fluoride PET Bone Scan [PT4] | 05-05-2011 6:18 PM | WILLIAM... | 7778 | 1007359 | | | SLOANE FISH |
| Swantek | Merlin | OrderSigned | PT/CT Sodium Fluoride PET Bone Scan [PT4] | 05-05-2011 5:05 PM | WILLIAM... | 6759 | 1006342 | | | JEWISH CONVALESCEN |
| Morel | Meryl | OrderSigned | PT/CT Sodium Fluoride PET Bone Scan [PT4] | 05-05-2011 5:03 PM | WILLIAM... | 6695 | 1006278 | | | CCMSI MIDLAND, LLC |
| Witaker | Merle | OrderSigned | PT/CT Sodium Fluoride PET Bone Scan [PT4] | 05-05-2011 4:32 PM | WILLIAM... | 6128 | 1005712 | | | BANNER MASONRY COI |
| Marini | Edna | OrderSigned | PT/CT Sodium Fluoride PET Bone Scan [PT4] | 05-05-2011 4:31 PM | WILLIAM... | 6094 | 1005678 | | | CIGNA/MEDSOLUTIONS |

**Figure 3.1.2 – Column filtering on multiple criteria**

A right mouse click on a column header gives the user a context menu. The options include to Clear the filter of the column selected, clearing all filters applied to work list, conditional formatting, column chooser which allows the user to select from a defined list which columns they would to view on the work list. Hiding a column will add the column to the list window that is opened when selecting Column chooser. Pinned state allows the user to have the column displayed to the left, right or removing the pinned options. Lastly an option to export the work lists contents to an .xml file.

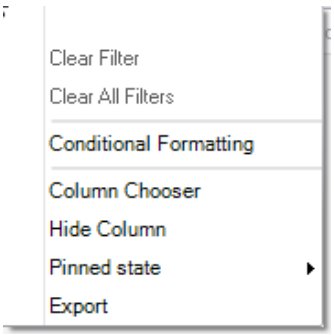



**Figure 3.1.3 – Context menu from column header**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## 3.2 Billing Exception work list

The billing exception work list contains all studies requiring action due to incorrect billing details. Only a single action can be completed from this work list which is Edit Billing. Selecting the Edit Billing button opens the data window. The user is able to correct any inaccuracies in the billing details as required.

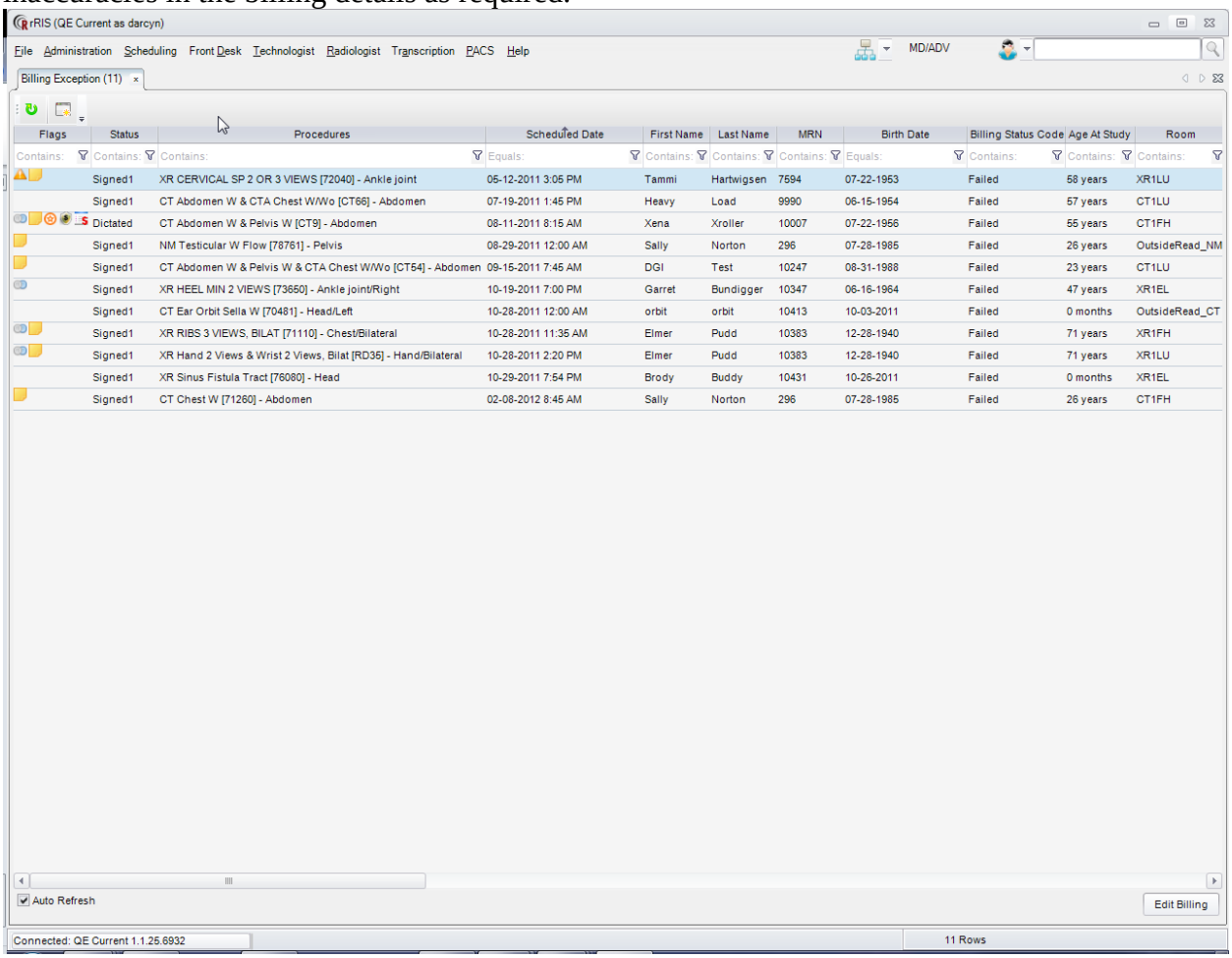



**Figure 3.2.1 – Billing Exception work list**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## 3.3 Patient Merge work list

Some application users may only have the option to suggest a merge and not have the ability to complete the merge process. Suggestions are placed in the Patient Merge work list for a user who has the ability "Merge" and take action on the request. The patient merge suggestion can be completed or rejected. Each of these actions will remove the record from this work list.

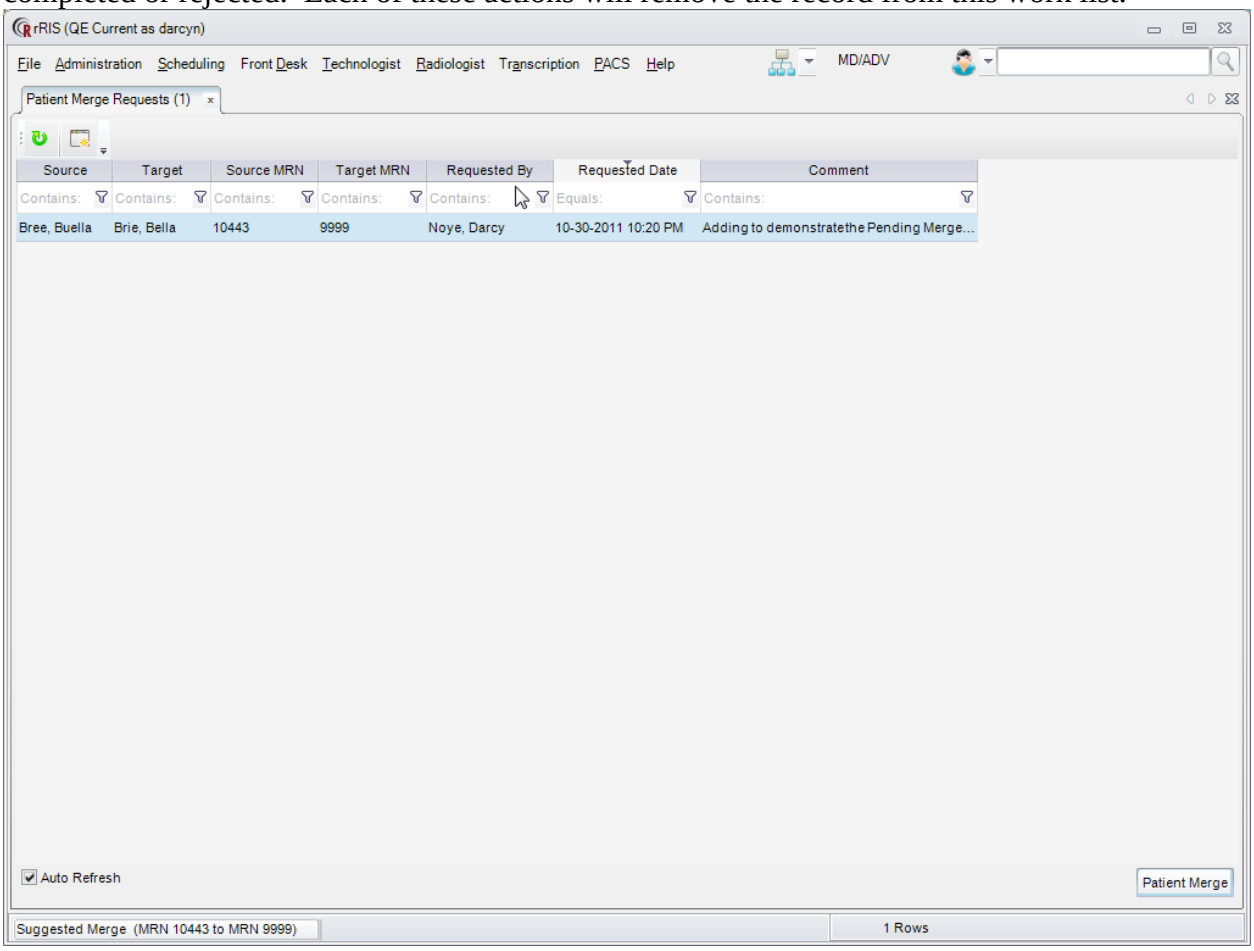



**Figure 3.3.1 – Patient Merge work list**

### 3.3.1 Patient Merge

The patient merge feature in rRIS allows users who have access to complete a "Merge" the ability to search for the Source Patient (to be merged) as well as search for the Target Patient (merging to). Once the patient search has been completed the Clinical Data section will display

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

the patient's history. Selecting the Folder Icon will open the patient's folder so the user may complete a more thorough investigation before the merge is completed.
Users who don't have access to complete a patient merge should be given the rights to "Suggest" a merge. Suggested merges are added to the Patient Merge work list for an admin type user to action the suggestion. The suggested merge can either be completed or rejected.

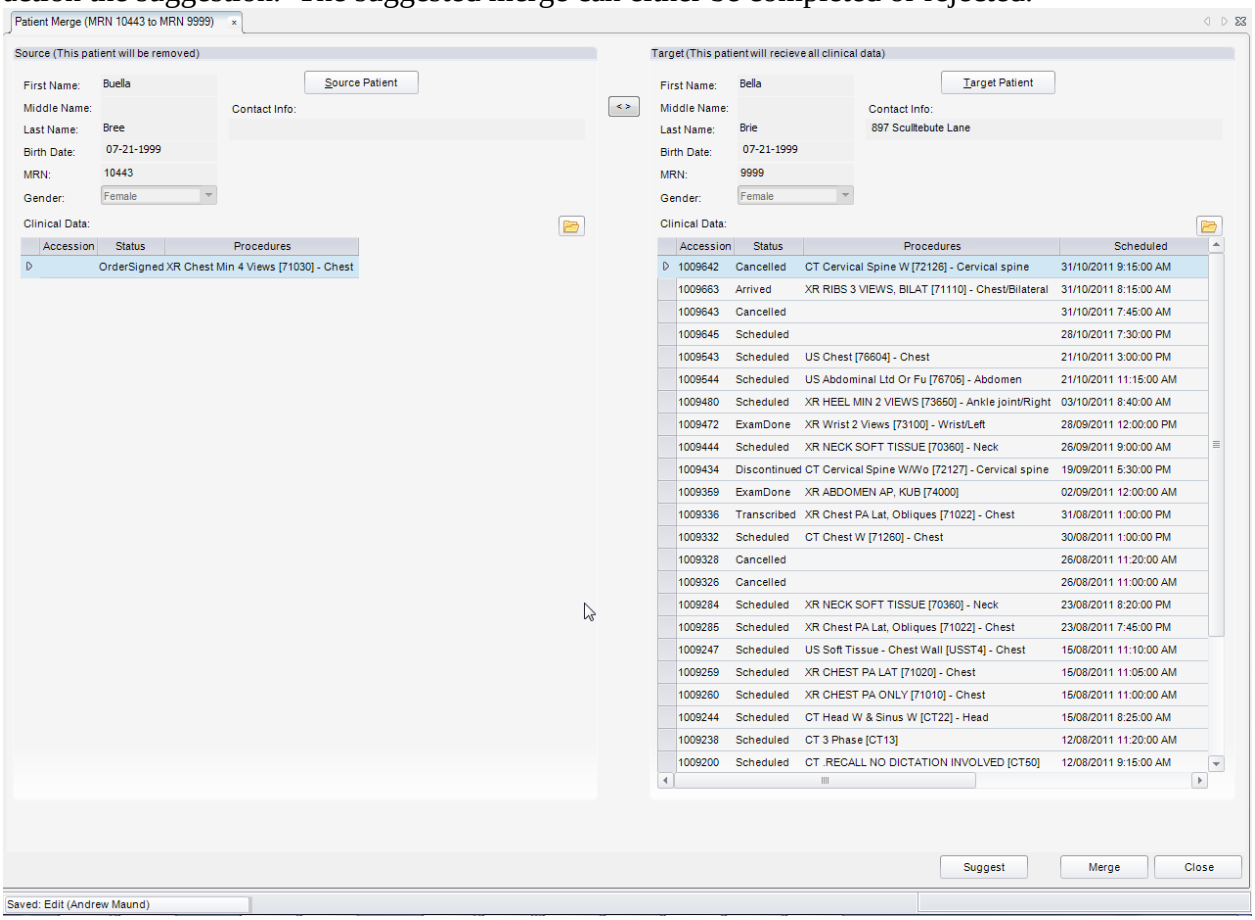



**Figure 3.3.1.1 – Patient Merge data window**

If the user suggests a patient merge a dialogue box will be displayed for the user to enter notes for the suggestion. The notes are captured in the comment column of the Patient Merge work list and will also display as a note at the bottom of the Patient Merge window once action is taken to complete or reject the merge.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

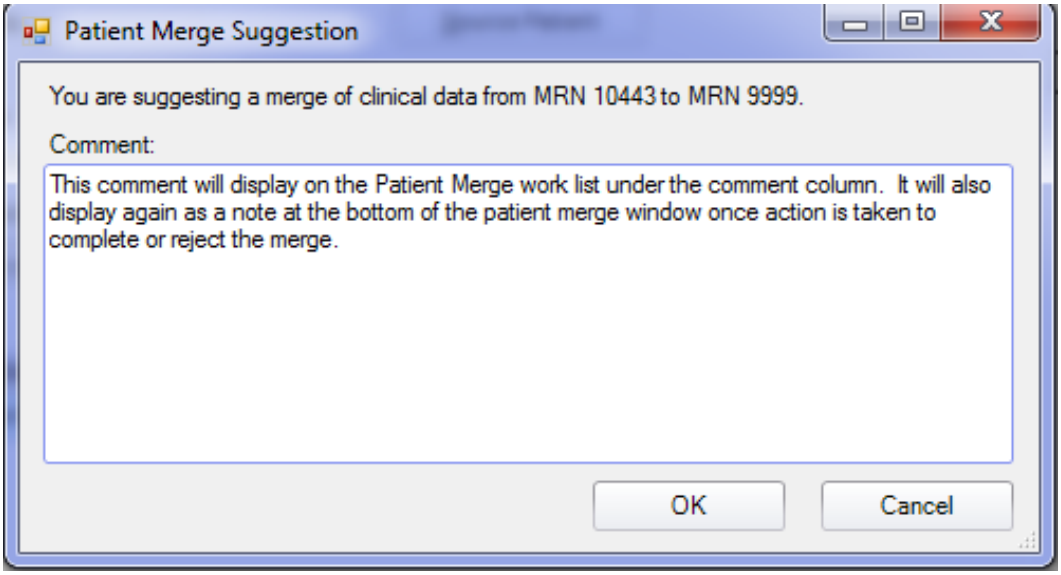



**Figure 3.3.1.2 – Patient Merge Suggestion**

Once the suggestion has been submitted it now appears on the Patient Merge work list. The admin type user who administers this task will open the suggestion in the Patient Merge window again. They will action the suggestion by completing the merge if they determine the suggestion to be accurate, or they will reject it. Both actions remove it from the Patient Merge work list.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

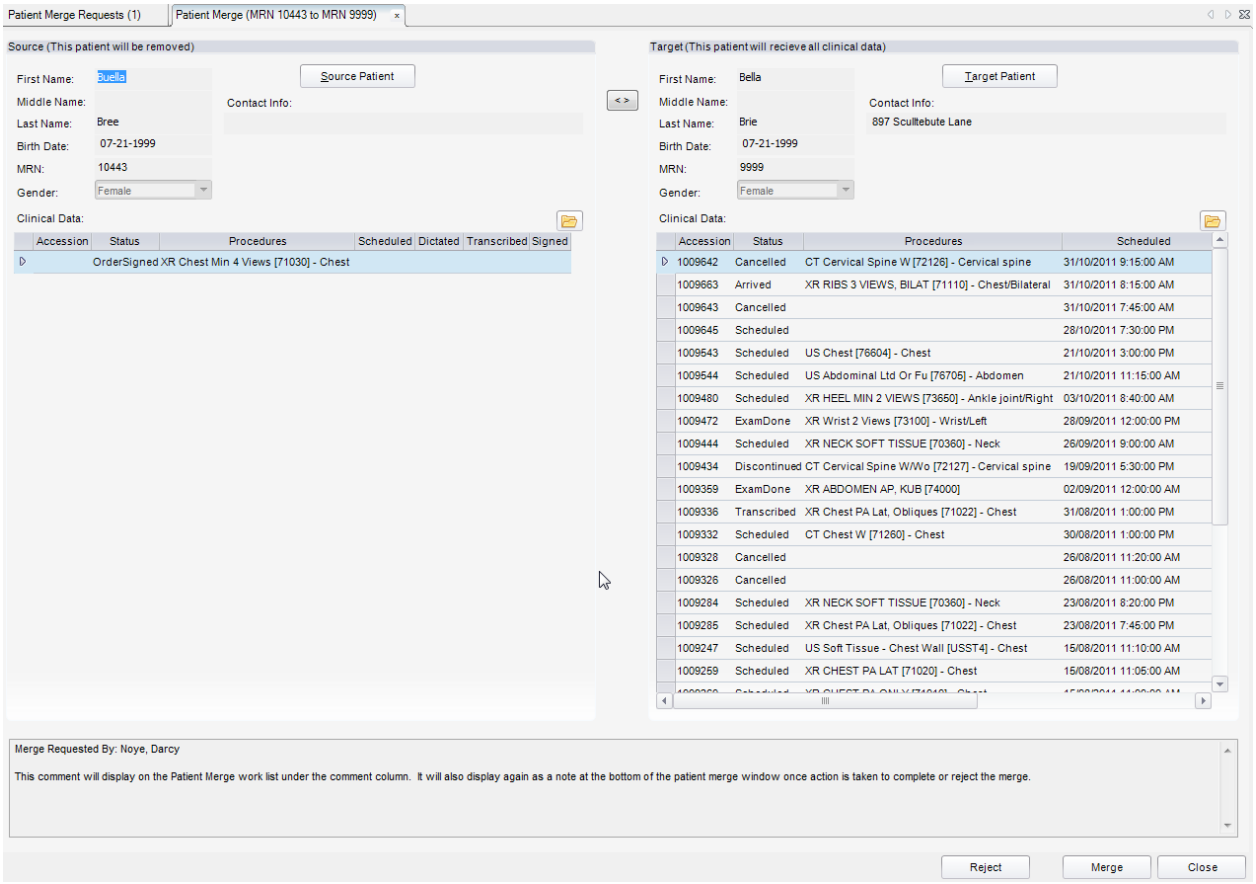



**Figure 3.3.1.3 – Admin user to complete action on Patient Merge suggestion.**

Selecting Reject, the user is returned to the Patient Merge Requests work list. Selecting Merge will display a confirmatory message.

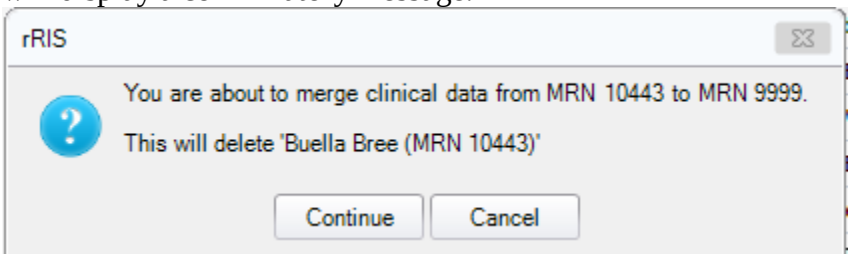



**Figure 3.3.1.4 – Merge action confirmatory message**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## 3.4 Unknown Referring work list

Orders created or scheduled with an Unknown Referring Physician will be placed in the work list. The order itself is not impeded from workflow. A user with proper rights can action the orders in this work list. Button action is edit order only. Context menu options are edit order, audit history and copy cell.

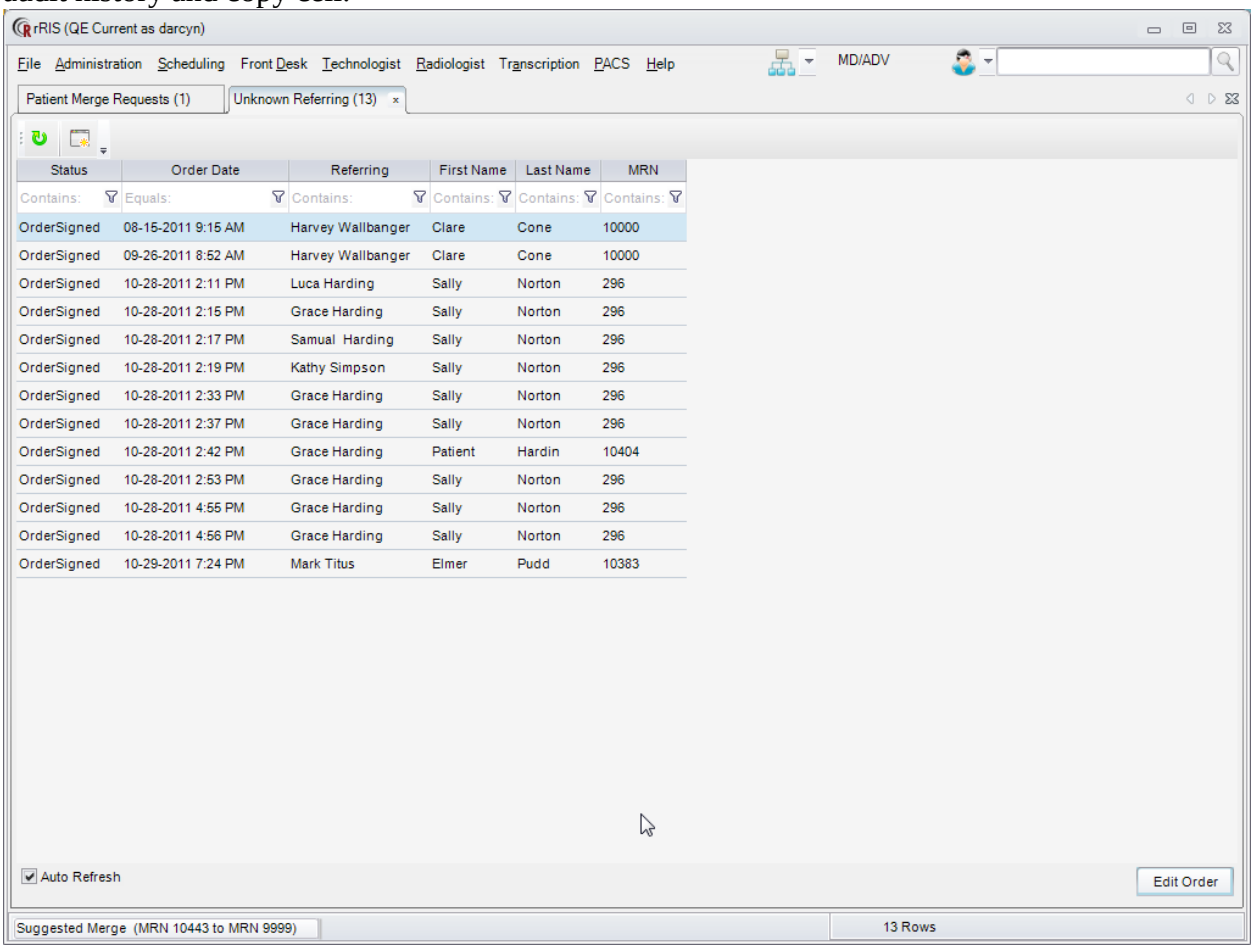



**Figure 3.4.1 – Unknown Referring work list**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## 3.5 IVT work list

Orders that require insurance verification are added to this work list. Button actions are insurance verification (IVT) and Schedule. The context menu also contains IVT and Schedule as well as Audit History and Copy Cell.

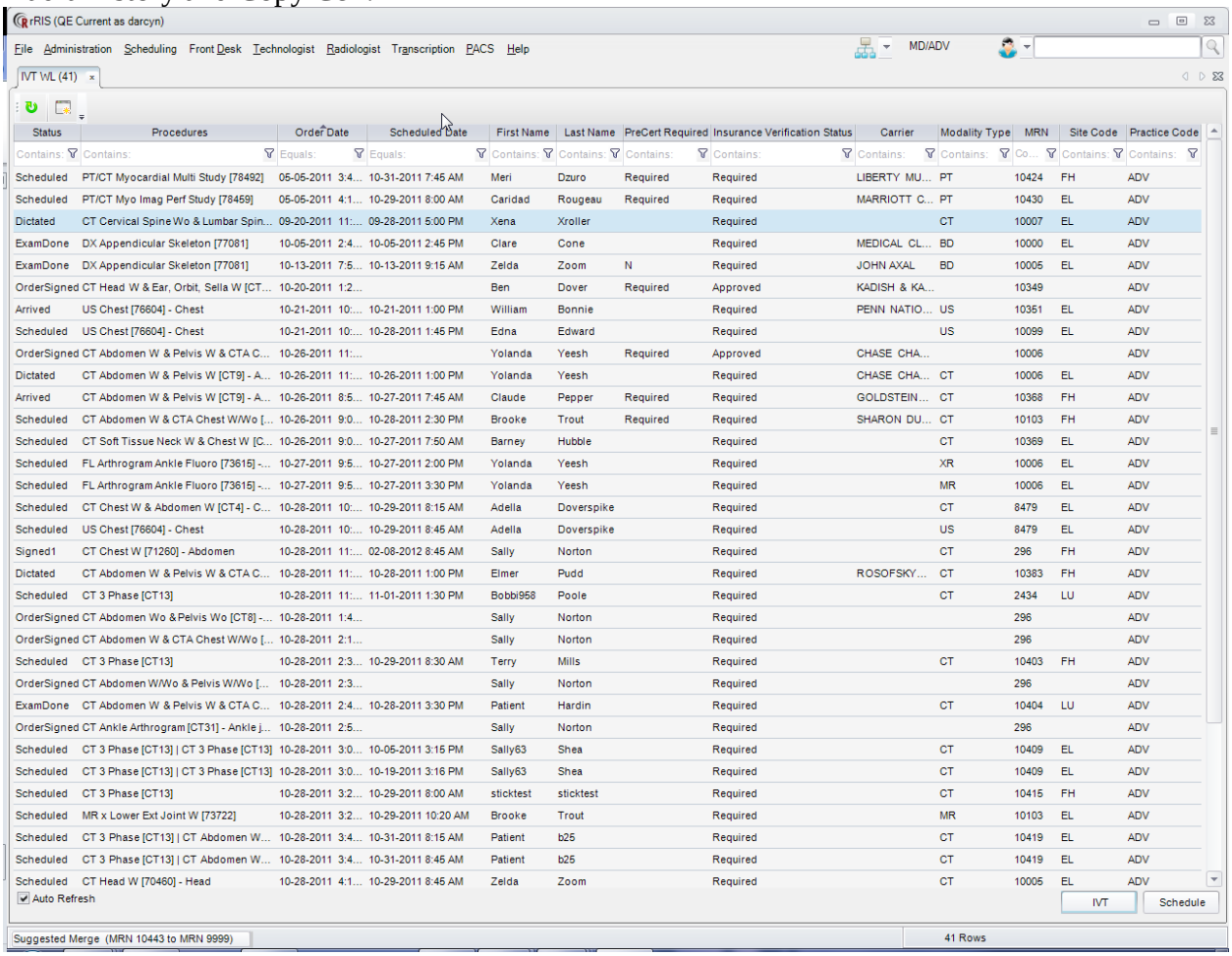



**Figure 3.5.1 – IVT work list**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## 3.6 IVT data windows

Below are examples of the IVT data window. Included are the patient and Insurance Verification Precert tabs. The attachments tab is a standard window used in other data windows and is covered in detail later in this document.

### 3.6.1Patient tab

The user has the ability to add or edit data on the Patient tab. This tab provides the user with general information about the patient.

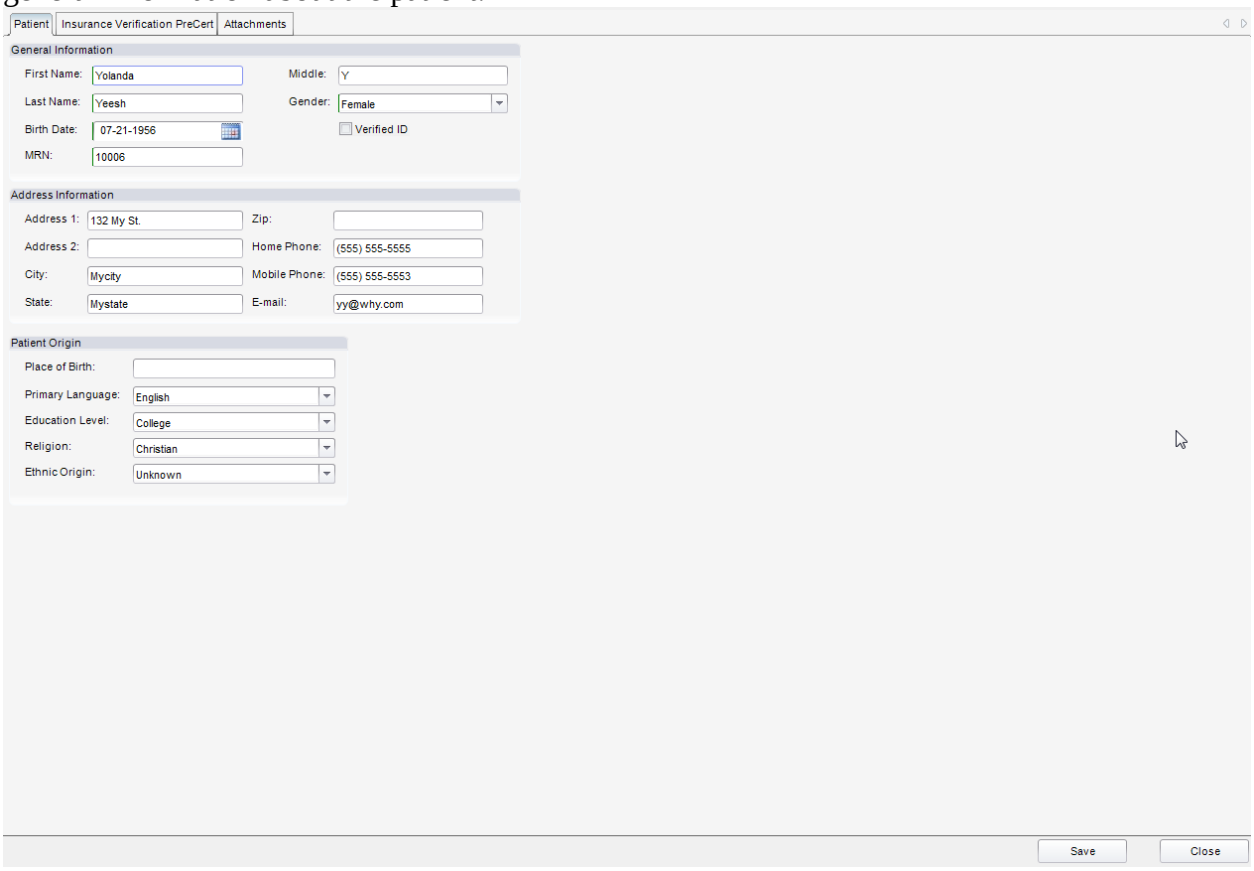



**Figure 3.6.1.1 – IVT Patient Tab**

### 3.6.2 Insurance Verification PreCert

On the Insurance Verification PreCert, the users have the ability update the insurance information and add / edit billing code information

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

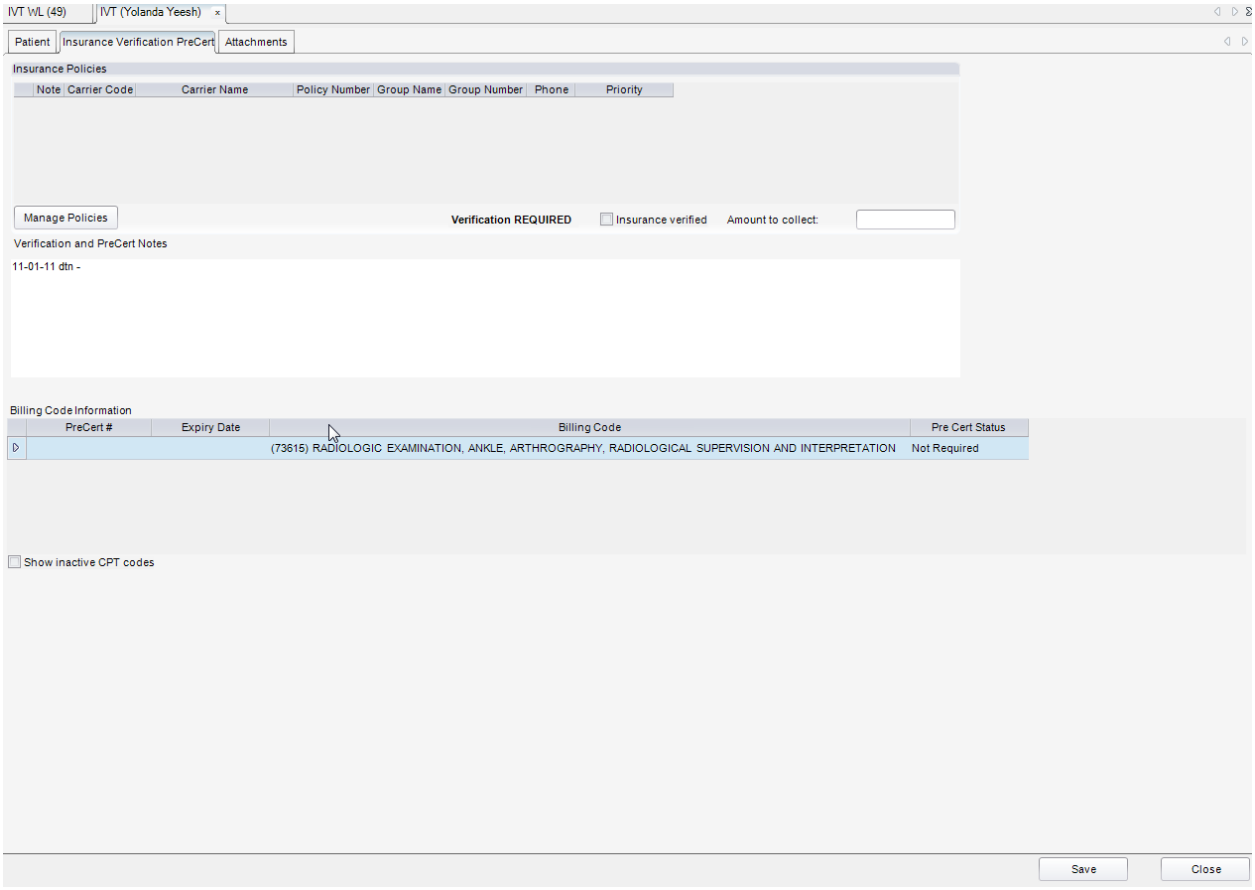



**Figure 3.6.2.1 – IVT Insurance Verification PreCert Tab**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## 3.7 No Show work list

The No Show work list contains the exams that have been flagged as no show at the time of cancelling the order or scheduled exam. Button actions that can be completed is Reschedule only. Context menu options are Audit History, Copy Cell, Reschedule, and Change Status which contains is own sub menu.

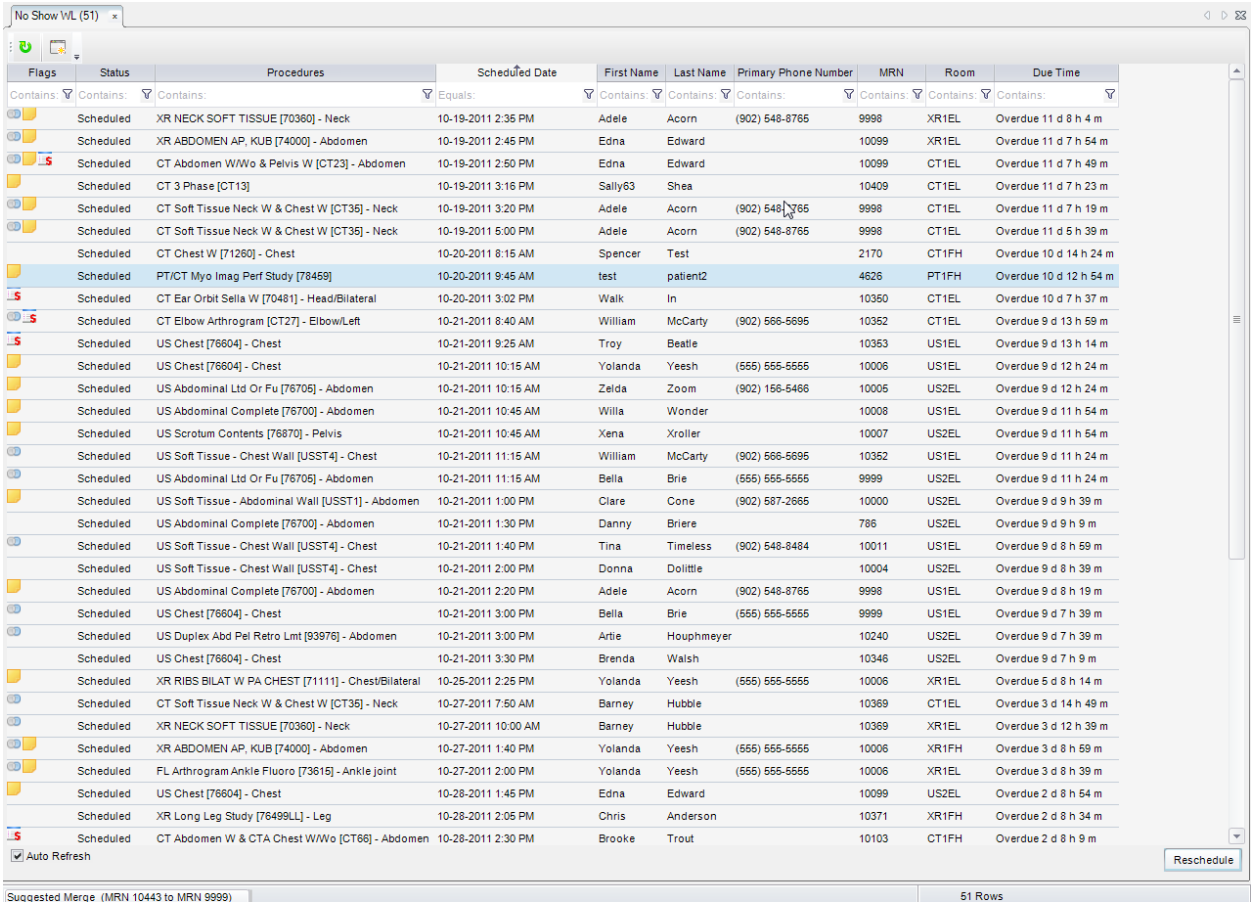
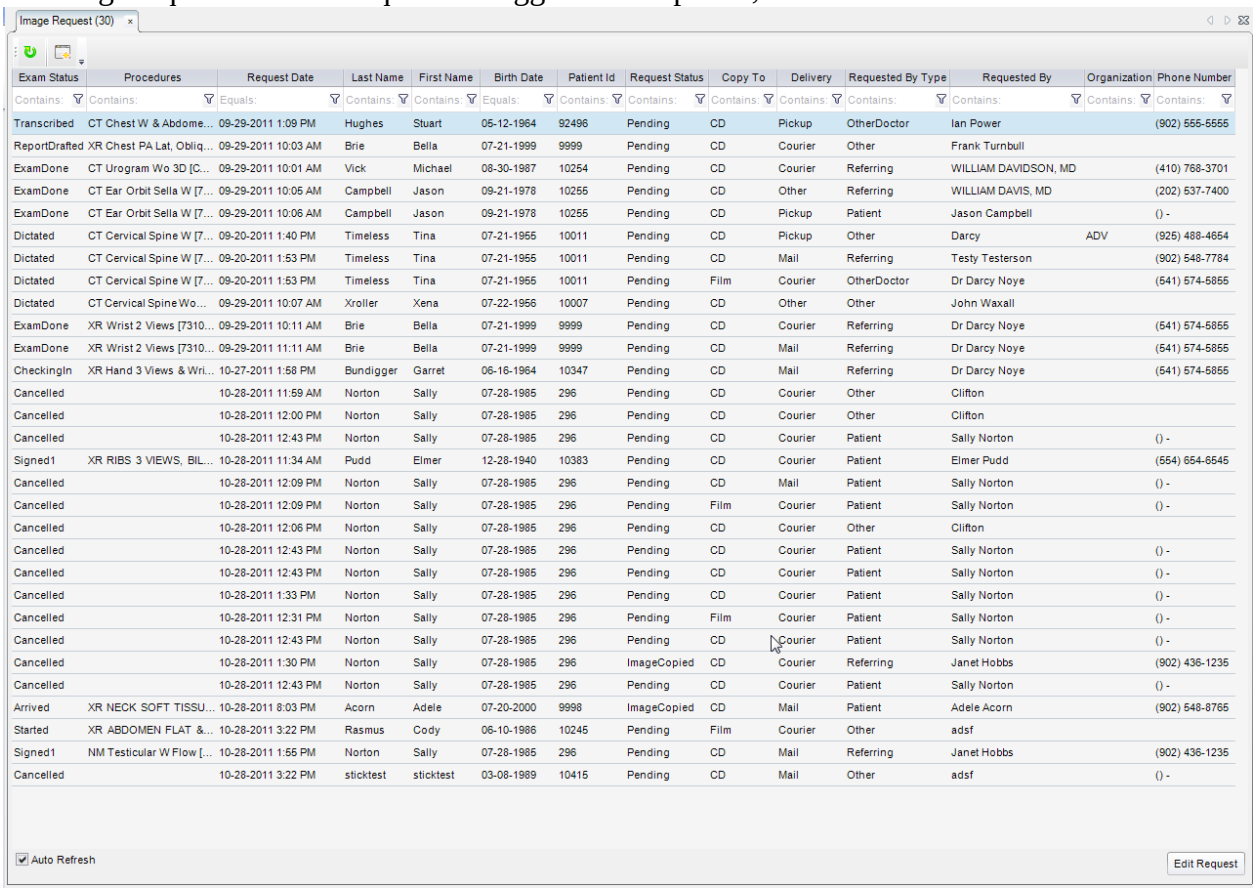



**Figure 3.7.1 – No Show work list**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## 3.8 Image Request work list

From other work lists user have the ability to enter request for images. Each request is added to the Image Request work list. The button and context menu actions from this work list are to edit the image request. Once a request is flagged as completed, it is removed from the work list.




| Exam Status | Procedures | Request Date | Last Name | First Name | Birth Date | Patient Id | Request Status | Copy To | Delivery | Requested By Type | Requested By | Organization | Phone Number |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Transcribed | CT Chest W & Abdome... | 09-29-2011 1:09 PM | Hughes | Stuart | 06-12-1964 | 92496 | Pending | CD | Pickup | OtherDoctor | Ian Power | | (902) 555-5555 |
| ReportDrafted | XR Chest PA Lat, Obliq... | 09-29-2011 10:03 AM | Brie | Bella | 07-21-1999 | 9999 | Pending | CD | Courier | Other | Frank Turnbull | | |
| ExamDone | CT Urogram Wo 3D [C... | 09-29-2011 10:01 AM | Vick | Michael | 08-30-1987 | 10254 | Pending | CD | Courier | Referring | WILLIAM DAVIDSON, MD | | (410) 768-3701 |
| ExamDone | CT Ear Orbit Sella W [7... | 09-29-2011 10:05 AM | Campbell | Jason | 09-21-1978 | 10255 | Pending | CD | Other | Referring | WILLIAM DAVIS, MD | | (202) 537-7400 |
| ExamDone | CT Ear Orbit Sella W [7... | 09-29-2011 10:06 AM | Campbell | Jason | 09-21-1978 | 10255 | Pending | CD | Pickup | Patient | Jason Campbell | | () - |
| Dictated | CT Cervical Spine W [7... | 09-20-2011 1:40 PM | Timeless | Tina | 07-21-1955 | 10011 | Pending | CD | Pickup | Other | Darcy | ADV | (925) 488-4654 |
| Dictated | CT Cervical Spine W [7... | 09-20-2011 1:53 PM | Timeless | Tina | 07-21-1955 | 10011 | Pending | CD | Mail | Referring | Testy Testerson | | (902) 548-7784 |
| Dictated | CT Cervical Spine W [7... | 09-20-2011 1:53 PM | Timeless | Tina | 07-21-1955 | 10011 | Pending | Film | Courier | OtherDoctor | Dr Darcy Noye | | (541) 574-5855 |
| Dictated | CT Cervical Spine Wo... | 09-29-2011 10:07 AM | Xroller | Xena | 07-22-1956 | 10007 | Pending | CD | Other | Other | John Waxall | | |
| ExamDone | XR Wrist 2 Views [7310... | 09-29-2011 10:11 AM | Brie | Bella | 07-21-1999 | 9999 | Pending | CD | Courier | Referring | Dr Darcy Noye | | (541) 574-5855 |
| ExamDone | XR Wrist 2 Views [7310... | 09-29-2011 11:11 AM | Brie | Bella | 07-21-1999 | 9999 | Pending | CD | Mail | Referring | Dr Darcy Noye | | (541) 574-5855 |
| CheckingIn | XR Hand 3 Views & Wri... | 10-27-2011 1:58 PM | Bundigger | Garret | 06-16-1964 | 10347 | Pending | CD | Mail | Referring | Dr Darcy Noye | | (541) 574-5855 |
| Cancelled | | 10-28-2011 11:59 AM | Norton | Sally | 07-28-1985 | 296 | Pending | CD | Courier | Other | Clifton | | |
| Cancelled | | 10-28-2011 12:00 PM | Norton | Sally | 07-28-1985 | 296 | Pending | CD | Courier | Other | Clifton | | |
| Cancelled | | 10-28-2011 12:43 PM | Norton | Sally | 07-28-1985 | 296 | Pending | CD | Courier | Patient | Sally Norton | | () - |
| Signed1 | XR RIBS 3 VIEWS, BIL... | 10-28-2011 11:34 AM | Pudd | Elmer | 12-28-1940 | 10383 | Pending | CD | Courier | Patient | Elmer Pudd | | (554) 654-6545 |
| Cancelled | | 10-28-2011 12:09 PM | Norton | Sally | 07-28-1985 | 296 | Pending | CD | Mail | Patient | Sally Norton | | () - |
| Cancelled | | 10-28-2011 12:09 PM | Norton | Sally | 07-28-1985 | 296 | Pending | Film | Courier | Patient | Sally Norton | | () - |
| Cancelled | | 10-28-2011 12:06 PM | Norton | Sally | 07-28-1985 | 296 | Pending | CD | Courier | Other | Clifton | | |
| Cancelled | | 10-28-2011 12:43 PM | Norton | Sally | 07-28-1985 | 296 | Pending | CD | Courier | Patient | Sally Norton | | () - |
| Cancelled | | 10-28-2011 12:43 PM | Norton | Sally | 07-28-1985 | 296 | Pending | CD | Courier | Patient | Sally Norton | | () - |
| Cancelled | | 10-28-2011 1:33 PM | Norton | Sally | 07-28-1985 | 296 | Pending | CD | Courier | Patient | Sally Norton | | () - |
| Cancelled | | 10-28-2011 12:31 PM | Norton | Sally | 07-28-1985 | 296 | Pending | Film | Courier | Patient | Sally Norton | | () - |
| Cancelled | | 10-28-2011 12:43 PM | Norton | Sally | 07-28-1985 | 296 | Pending | CD | Courier | Patient | Sally Norton | | () - |
| Cancelled | | 10-28-2011 1:30 PM | Norton | Sally | 07-28-1985 | 296 | ImageCopied | CD | Courier | Referring | Janet Hobbs | | (902) 436-1235 |
| Cancelled | | 10-28-2011 12:43 PM | Norton | Sally | 07-28-1985 | 296 | Pending | CD | Courier | Patient | Sally Norton | | () - |
| Arrived | XR NECK SOFT TISSU... | 10-28-2011 8:03 PM | Acorn | Adele | 07-20-2000 | 9998 | ImageCopied | CD | Mail | Patient | Adele Acorn | | (902) 548-8765 |
| Started | XR ABDOMEN FLAT &... | 10-28-2011 3:22 PM | Rasmus | Cody | 06-10-1986 | 10245 | Pending | Film | Courier | Other | adsf | | |
| Signed1 | NM Testicular W Flow [... | 10-28-2011 1:55 PM | Norton | Sally | 07-28-1985 | 296 | Pending | CD | Mail | Referring | Janet Hobbs | | (902) 436-1235 |
| Cancelled | | 10-28-2011 3:22 PM | sticktest | sticktest | 03-08-1989 | 10415 | Pending | CD | Mail | Other | adsf | | () - |

**Figure 3.8.1 – Image Request work list**

### 3.8.1 Image Request Data Window

If the image request needs to be updated after it has been requested, the user can complete the request from the exam itself on the Image Request data tab, or they can access the request from the Image Request work list, select the row and select the Edit Request button. The user has the ability to edit other data on the patient, but this main purpose of Edit Request from the Image Request work list is to update the status of the image request.

The user may also access and print the release form from with the data window.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

From the radio buttons displayed the user can specify who requested the images and where the images are to be delivered. Selecting patient will populate the name and address. The referring completes the same field. If there is more than one address on file for the referrer the user will need to select it from the list provided. Other required fields are the Format and Method of delivery. If the status Picked Up is selected, the Identification Verified check box becomes required.

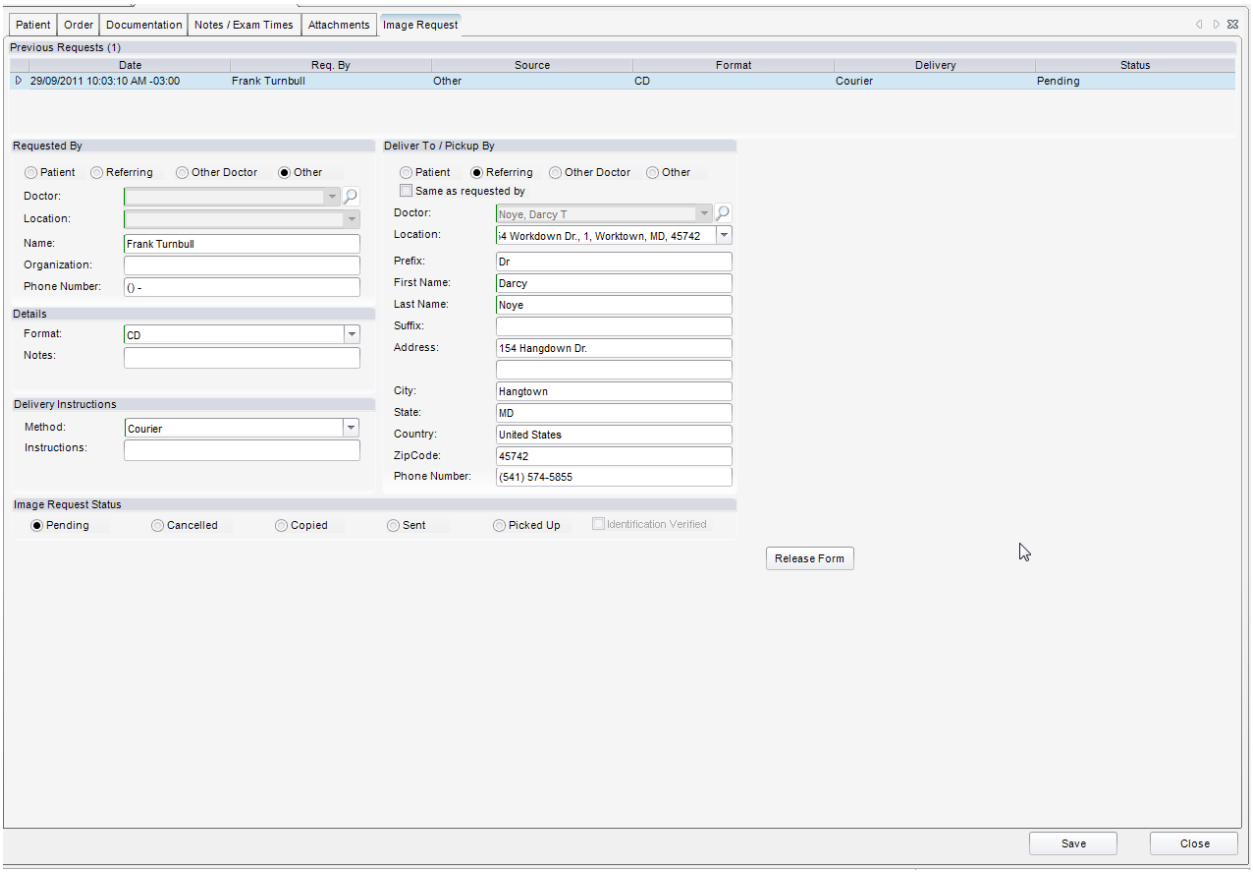



**Figure 3.8.1.1 – Image Request data window**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## 3.9 Document Distribution work list

Reports documents that have been marked for distribution are added to the Document Distribution work list. Button actions from this work list are to Edit, Pause, Cancel, and Retry jobs. There is no context menu from this work list.
The Retry button is only available if the status is not Pending. All other buttons are always available. Cancelling a job will set the status to Cancelled and the item will drop off the work list.
Pause, Cancel, and Retry all prompt for confirmation.
All buttons allow multi-select. If a combination of Pending and non-pending jobs are selected, the Retry button will be unavailable. The action will apply to all selected rows after confirmation at the prompt. The prompt will change to plural when multiple rows are selected

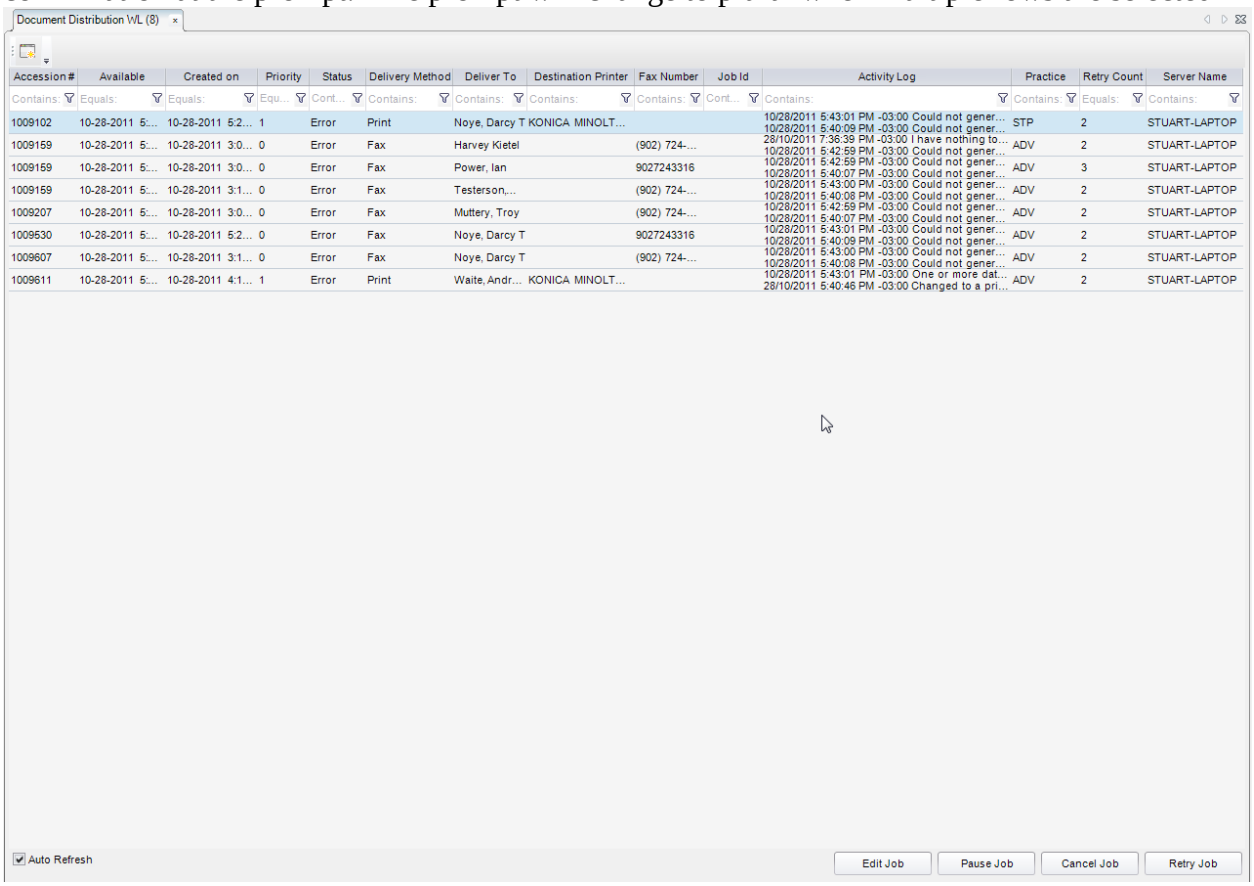
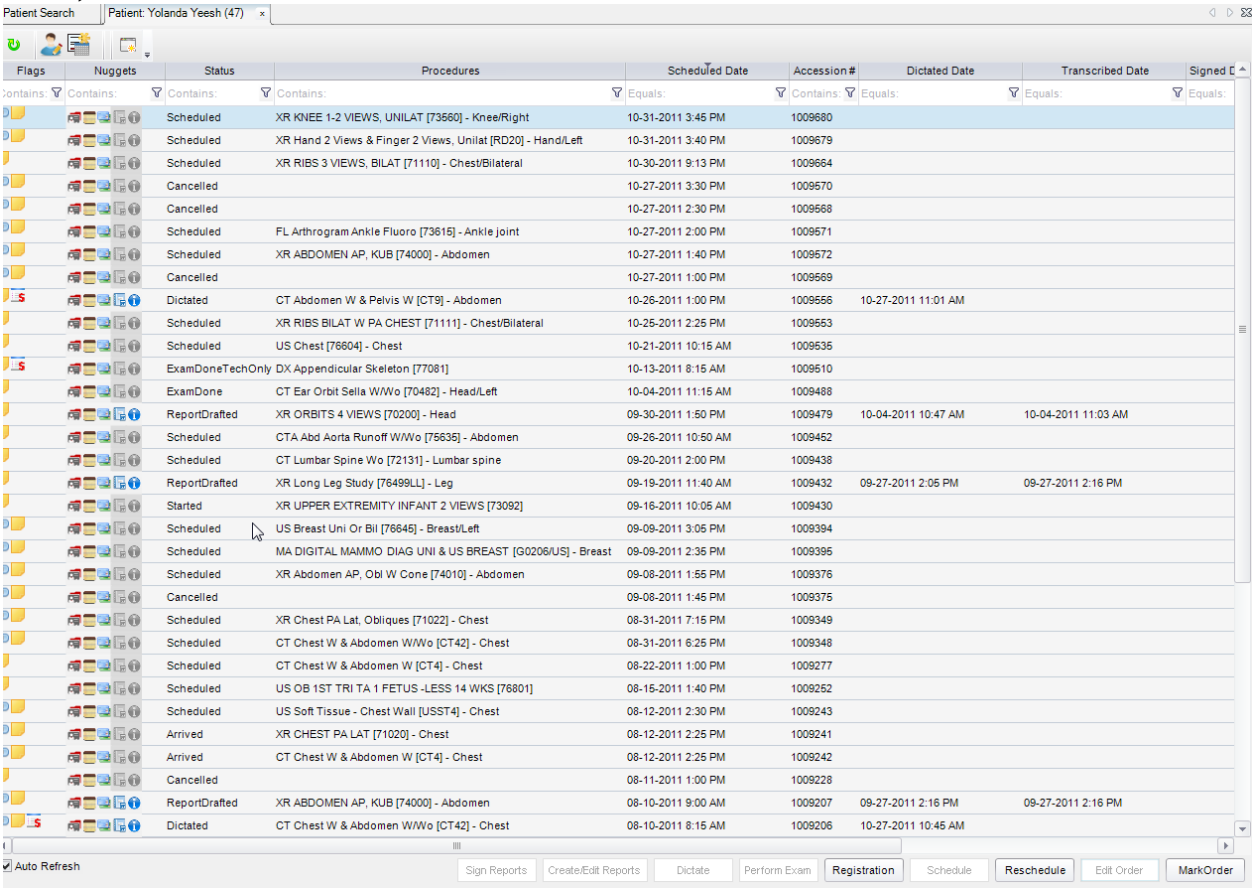



**Figure 3.9.1 – Document Distribution work list**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## 3.10 Patient Folder

The user has complete system functions on patient records (if they have permissions) from the patient folder.
Depending on the status of the exam will depend on what buttons become enabled at the bottom of the work list.
The button actions available from within this window are from left to right in figure below Sign Reports, Create/Edit Reports, Dictate, Perform Exam, Registration, Schedule, Reschedule, Edit Order, Mark Order.

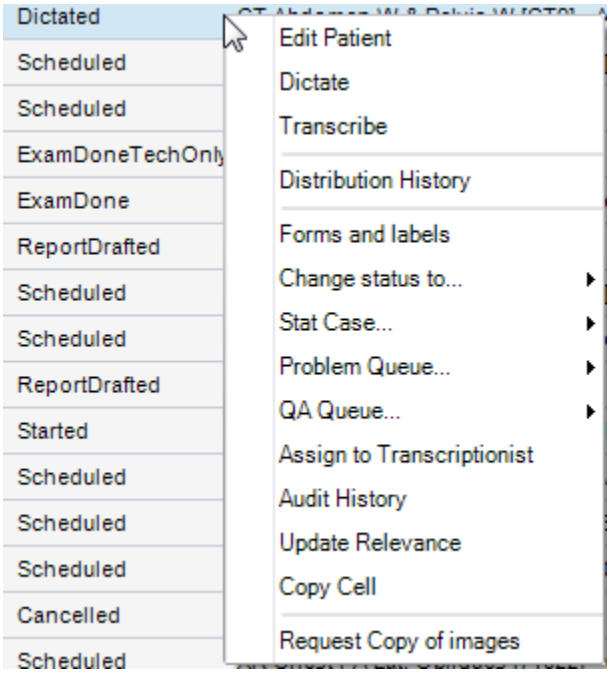



| Flags | Nuggets | Status | Procedures | Scheduled Date | Accession # | Dictated Date | Transcribed Date | Signed D |
|---|---|---|---|---|---|---|---|---|
| Contains: | Contains: | Contains: | Contains: | Equals: | Contains: | Equals: | Equals: | Equals: |
| | | Scheduled | XR KNEE 1-2 VIEWS, UNILAT [73560] - Knee/Right | 10-31-2011 3:45 PM | 1009680 | | | |
| | | Scheduled | XR Hand 2 Views & Finger 2 Views, Unilat [RD20] - Hand/Left | 10-31-2011 3:40 PM | 1009679 | | | |
| | | Scheduled | XR RIBS 3 VIEWS, BILAT [71110] - Chest/Bilateral | 10-30-2011 9:13 PM | 1009664 | | | |
| | | Cancelled | | 10-27-2011 3:30 PM | 1009570 | | | |
| | | Cancelled | | 10-27-2011 2:30 PM | 1009568 | | | |
| | | Scheduled | FL Arthrogram Ankle Fluoro [73615] - Ankle joint | 10-27-2011 2:00 PM | 1009571 | | | |
| | | Scheduled | XR ABDOMEN AP, KUB [74000] - Abdomen | 10-27-2011 1:40 PM | 1009672 | | | |
| | | Cancelled | | 10-27-2011 1:00 PM | 1009569 | | | |
| S | | Dictated | CT Abdomen W & Pelvis W [CT9] - Abdomen | 10-26-2011 1:00 PM | 1009556 | 10-27-2011 11:01 AM | | |
| | | Scheduled | XR RIBS BILAT W PA CHEST [71111] - Chest/Bilateral | 10-25-2011 2:25 PM | 1009553 | | | |
| | | Scheduled | US Chest [76604] - Chest | 10-21-2011 10:15 AM | 1009535 | | | |
| S | | ExamDoneTechOnly | DX Appendicular Skeleton [77081] | 10-13-2011 8:15 AM | 1009510 | | | |
| | | ExamDone | CT Ear Orbit Sella W/Wo [70482] - Head/Left | 10-04-2011 11:15 AM | 1009488 | | | |
| | | ReportDrafted | XR ORBITS 4 VIEWS [70200] - Head | 09-30-2011 1:50 PM | 1009479 | 10-04-2011 10:47 AM | 10-04-2011 11:03 AM | |
| | | Scheduled | CTA Abd Aorta Runoff W/Wo [75635] - Abdomen | 09-26-2011 10:50 AM | 1009452 | | | |
| | | Scheduled | CT Lumbar Spine Wo [72131] - Lumbar spine | 09-20-2011 2:00 PM | 1009438 | | | |
| | | ReportDrafted | XR Long Leg Study [76499LL] - Leg | 09-19-2011 11:40 AM | 1009432 | 09-27-2011 2:05 PM | 09-27-2011 2:16 PM | |
| | | Started | XR UPPER EXTREMITY INFANT 2 VIEWS [73092] | 09-16-2011 10:05 AM | 1009430 | | | |
| | | Scheduled | US Breast Uni Or Bil [76645] - Breast/Left | 09-09-2011 3:05 PM | 1009394 | | | |
| | | Scheduled | MA DIGITAL MAMMO DIAG UNI & US BREAST [G0206/US] - Breast | 09-09-2011 2:35 PM | 1009395 | | | |
| | | Scheduled | XR Abdomen AP, Obl W Cone [74010] - Abdomen | 09-08-2011 1:55 PM | 1009376 | | | |
| | | Cancelled | | 09-08-2011 1:45 PM | 1009375 | | | |
| | | Scheduled | XR Chest PA Lat, Obliques [71022] - Chest | 08-31-2011 7:15 PM | 1009349 | | | |
| | | Scheduled | CT Chest W & Abdomen W/Wo [CT42] - Chest | 08-31-2011 6:25 PM | 1009348 | | | |
| | | Scheduled | CT Chest W & Abdomen W [CT4] - Chest | 08-22-2011 1:00 PM | 1009277 | | | |
| | | Scheduled | US OB 1ST TRI TA 1 FETUS -LESS 14 WKS [76801] | 08-15-2011 1:40 PM | 1009252 | | | |
| | | Scheduled | US Soft Tissue - Chest Wall [USST4] - Chest | 08-12-2011 2:30 PM | 1009243 | | | |
| | | Arrived | XR CHEST PA LAT [71020] - Chest | 08-12-2011 2:25 PM | 1009241 | | | |
| | | Arrived | CT Chest W & Abdomen W [CT4] - Chest | 08-12-2011 2:25 PM | 1009242 | | | |
| | | Cancelled | | 08-11-2011 1:00 PM | 1009228 | | | |
| | | ReportDrafted | XR ABDOMEN AP, KUB [74000] - Abdomen | 08-10-2011 9:00 AM | 1009207 | 09-27-2011 2:16 PM | 09-27-2011 2:16 PM | |
| S | | Dictated | CT Chest W & Abdomen W/Wo [CT42] - Chest | 08-10-2011 8:15 AM | 1009206 | 10-27-2011 10:45 AM | | |

**Figure 3.10.1 – Patient Folder work list**

The context menu also has many options available. Below is an example screenshot of the context menu. Again depending on the status of the exam and allowable permissions to the user, will depend on what is available from the context menu.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.




**3.10.2 – Patient Folder context menu. In this example the exam status is dictated.**

### 3.10.1 Data Nuggets

Data nuggets are available only from the patient folder. If the patient record has a specific nugget available it will be in an enabled state, otherwise it will be disabled (grayed out). Each nugget has an assigned shortcut key, which is displayed when hoving the mouse pointer over the nugget in a tooltip. The nugget can be closed by selecting the same Icon from the Nuggets column again for that record, selecting the shortcut key for that nugget (provided focus is on that patient record row), or by pressing the X in the upper right corner of the nugget window. All of the Nuggets will have the patient name age and gender in the upper left, and procedure, procedure code and body part in the lower right corner of the nugget.

Summary – Selecting the Summary Data nugget will open the Summary view of the patient

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

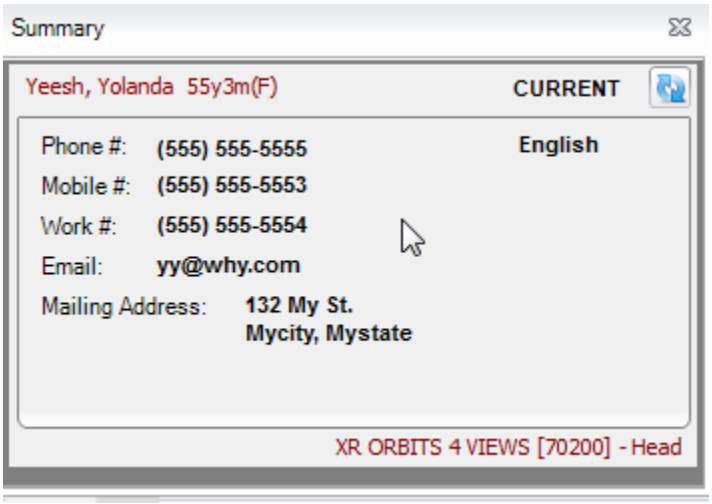



**Figure 3.10.1.1 – Summary Data Nugget**

Notes – displays the patient and study (order) notes

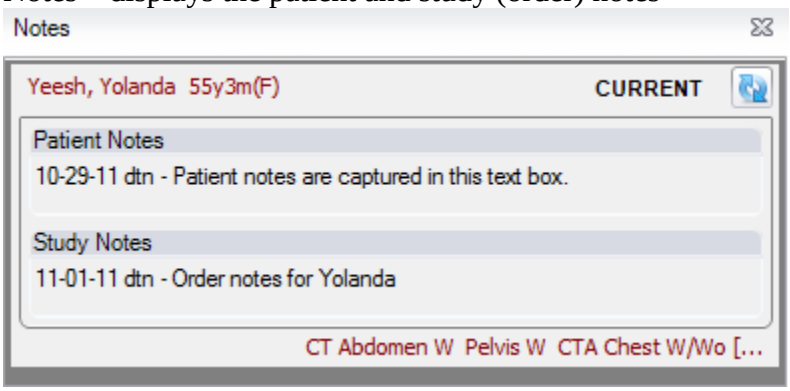



**Figure 3.10.1.2 – Notes Data Nugget**

Documents – Attached (scanned) documents. All documents scanned for the patient are in list box at top and can be viewed by selecting it from the list. Document notes can be viewed. Document type can be changed. Document can be printed.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

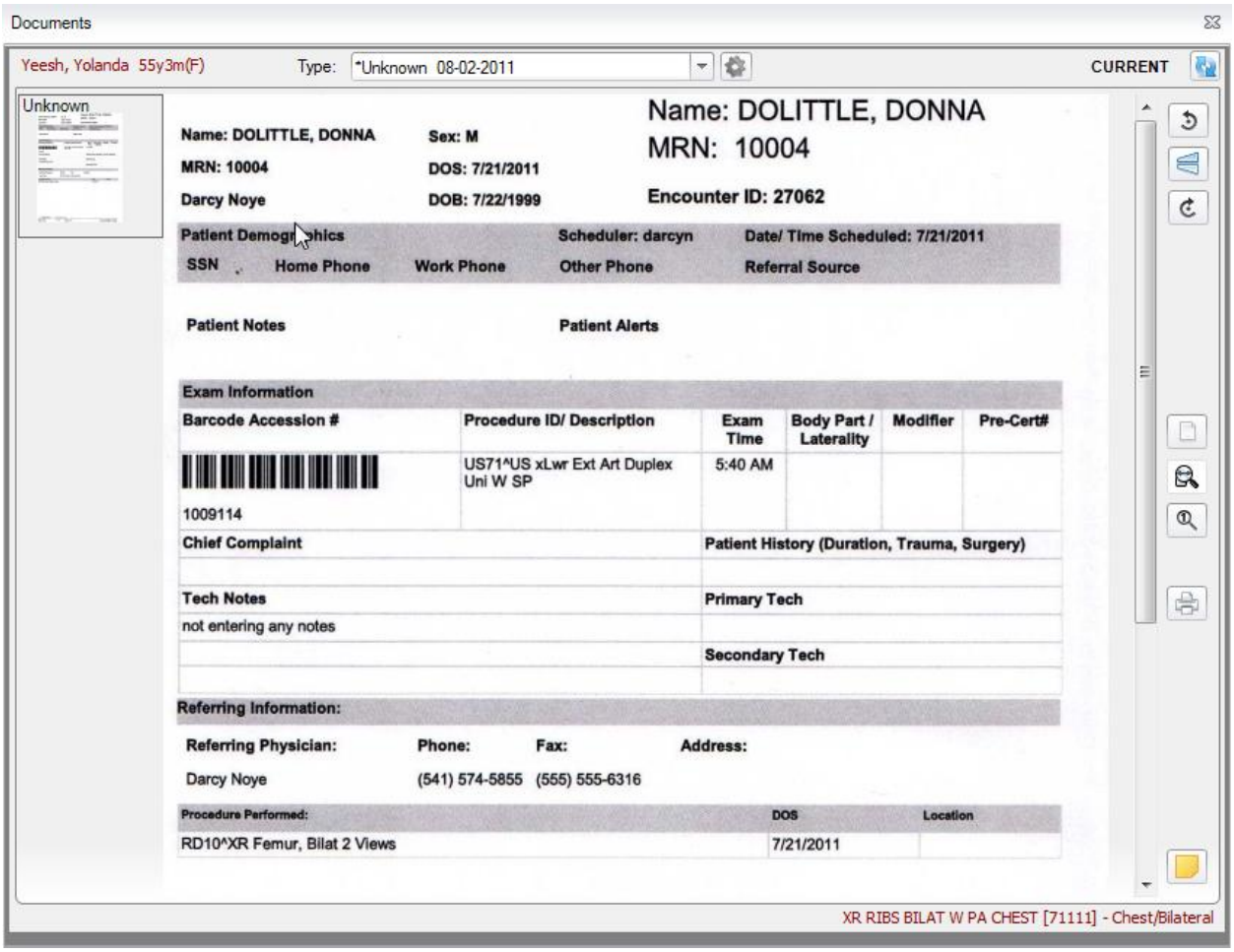



**Figure 3.10.1.3 – Document nugget (sample only)**

Report Nugget –Patients diagnostic report. User can load and play back audio, distribute the report, view report history and preview report

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

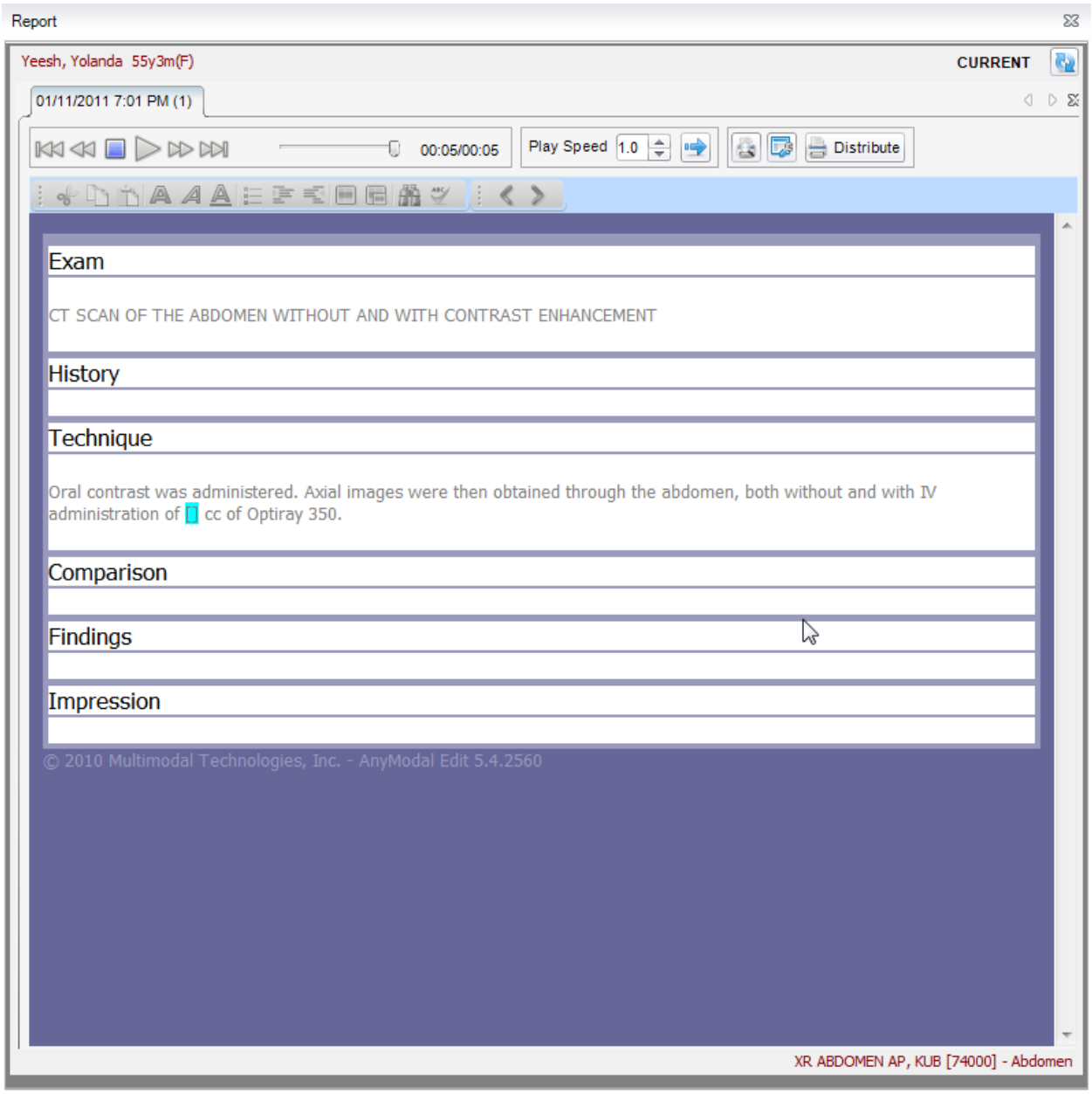



**Figure 3.10.1.4 – Report Nugget**

Interpretation – Open data nugget of the interpretation

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

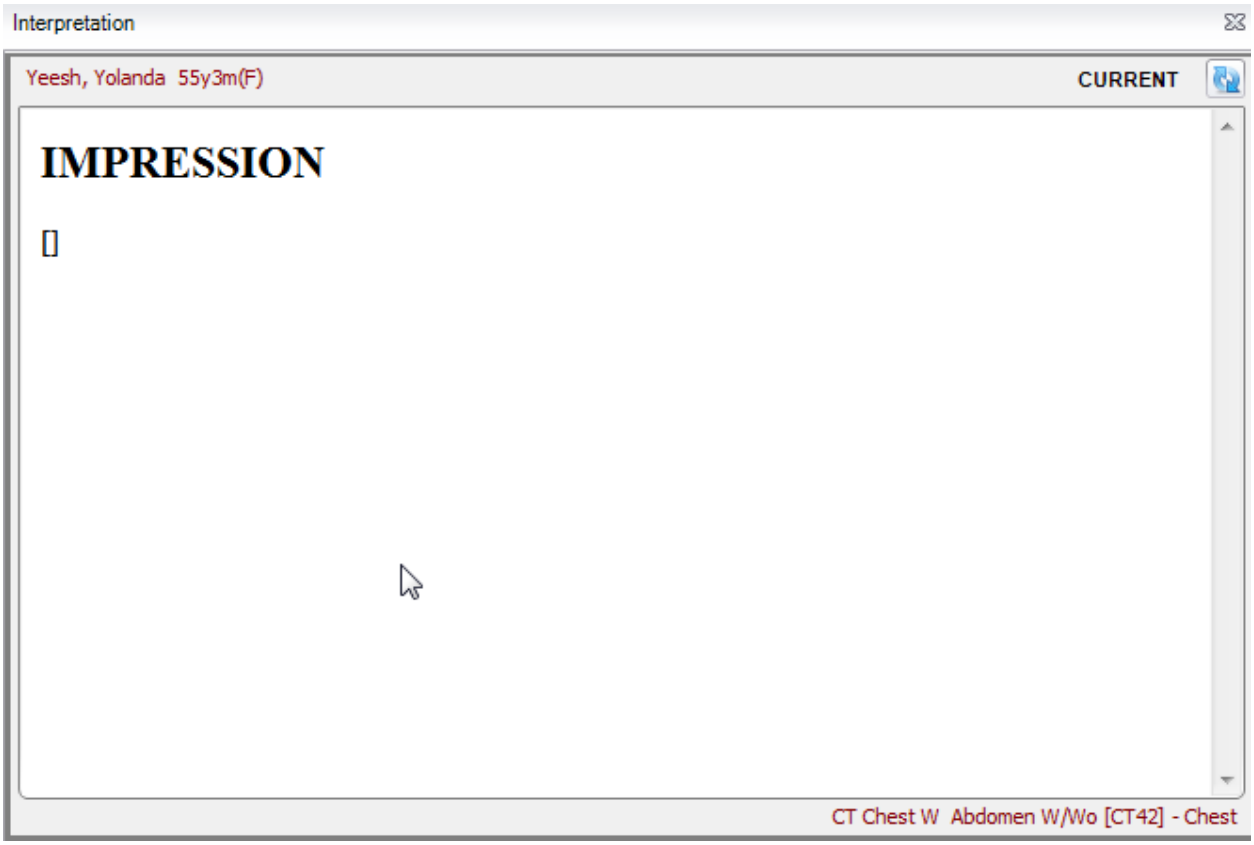



**Figure 3.10.1.5 – Interpretation Nugget**

### 3.10.2 Audit History

The audit history is available from the context menu of the patient folder. It is also available from the context menus of the following work lists. Unknown Referring, IVT, No Show, Orders to Schedule, Cancelled Orders, Confirmation, Closed Rooms Reschedule, Reception, Technologist, Pending Dictating, Dictated by Date, Suspended, Pending Signature, Reports Drafted, and Pending Review.

The audit history gives the user important information of the history of the patients procedure. Filters on Patients Order, and Study can be applied. The user can also include system retrievals.

Selecting a row will present the details in the form below.

The audit history list can be sorted and filtered. The standard system wide context menu from the column header is available.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

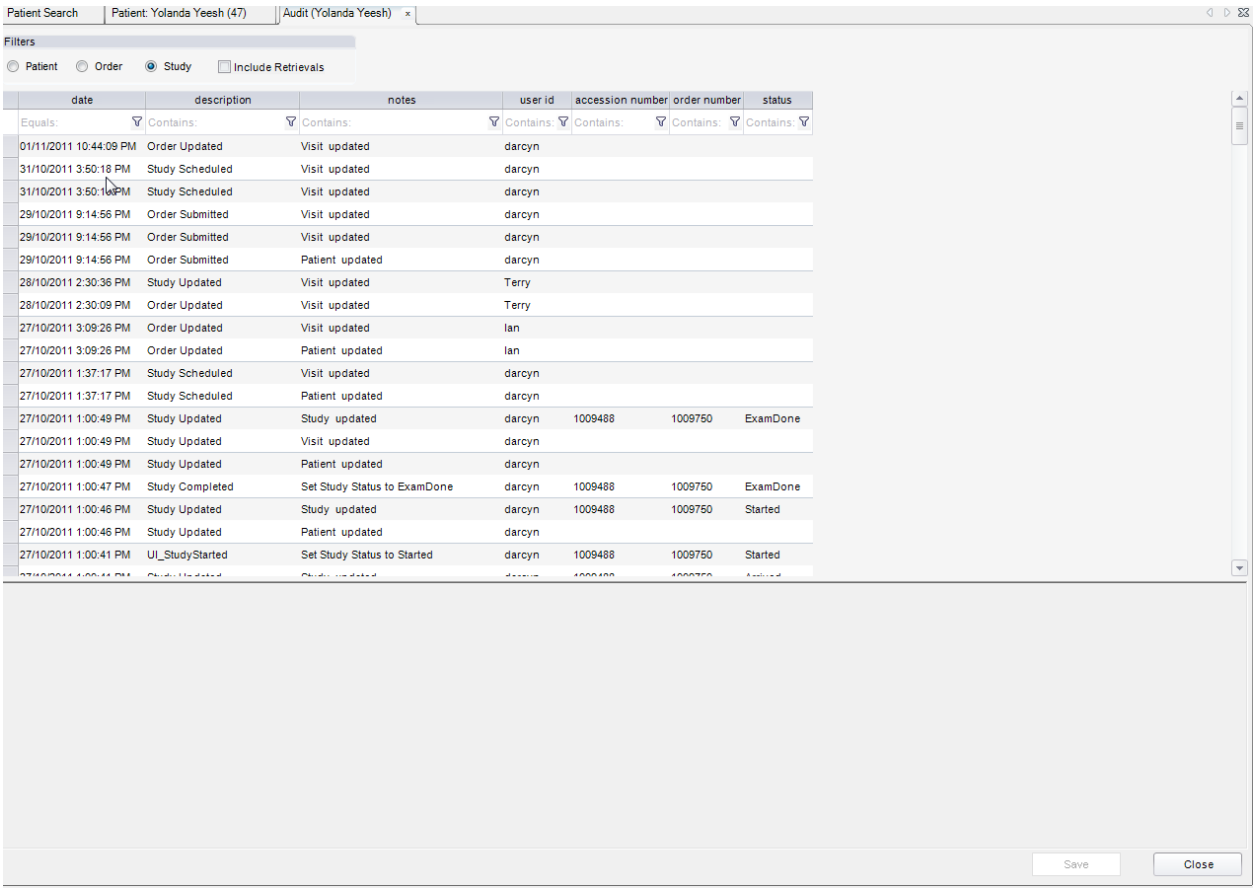



**Figure 3.10.2.1 – Audit History**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 4. Attachments

Attachments can be added to an order from different areas of the application. From New Appointment, Schedule Order and Registration data windows there is a paperclip Icon Located on the procedure picker row.

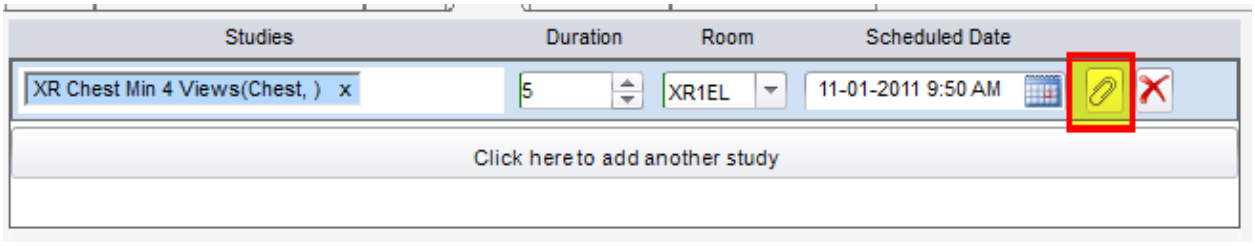



**Figure 4.1 – Displaying the location to access the attachment viewer work list**

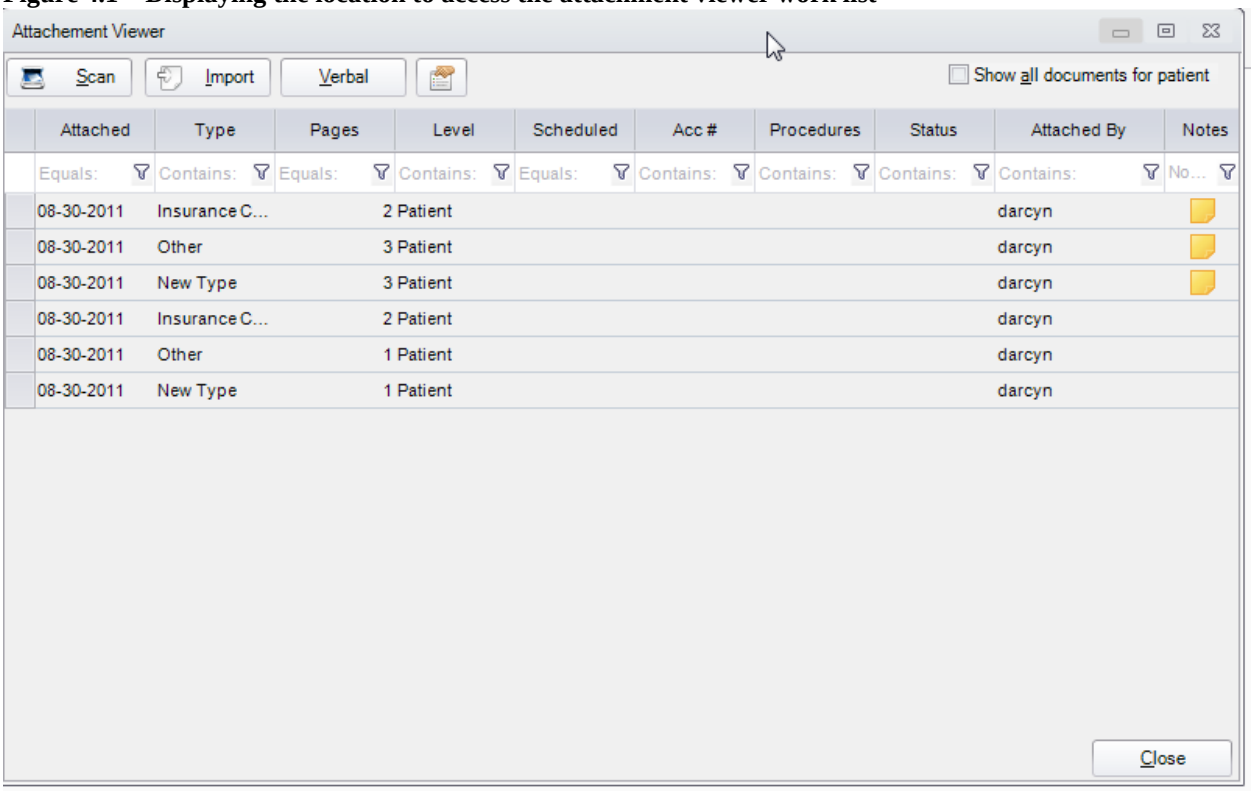



**Figure 4.2 – Attachment Viewer window**

The user can select the Scan button to scan and attach a new document or script. The Import button allows the user attach a pre-existing file saved on the local system or shard drive. The

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

Verbal button allows the user to create verbal or amended order document. The last Icon is to access the advanced properties for scanning.

When the scan or attachment is complete, the Attached Document window will automatically open. Also double clicking on a row in the attachment viewer will also open this window.

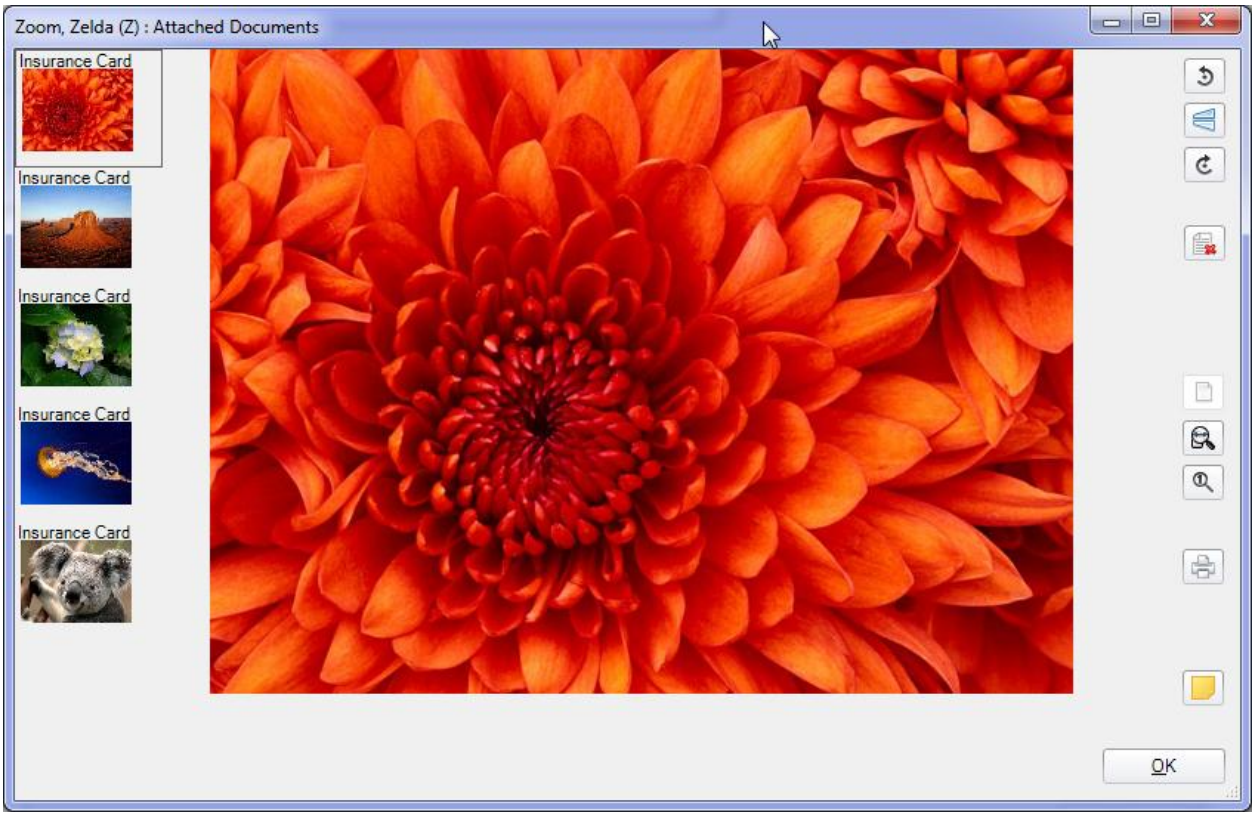



**Figure 4.3 – Attachment Documents window**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## 4.1 Change Document Type

In the example above the document type is insurance card. The user has the ability to assign or change the document type after the document has been scanned. Additionally the user has the option to change the type of the document selected and also the documents that follow the currently selected document.

In the view attachment window, thumbnails are displayed on the left side. A right click on a thumbnail will open the list displayed in Figure 4.4. The first menu item "Classify Remaining as" expands the menu to show the available document types. The user can change the currently selected document as well as the all of the documents that follow the document in thumbnail view below it.
The document types available from this context menu are only those of the same document type of the scanned or imported image. For example, if the document scanned has a document type that is at the Patient Level, the context menu will only show active document types at Patient Level.
The order of the thumbnails can be changed by dragging and dropping.

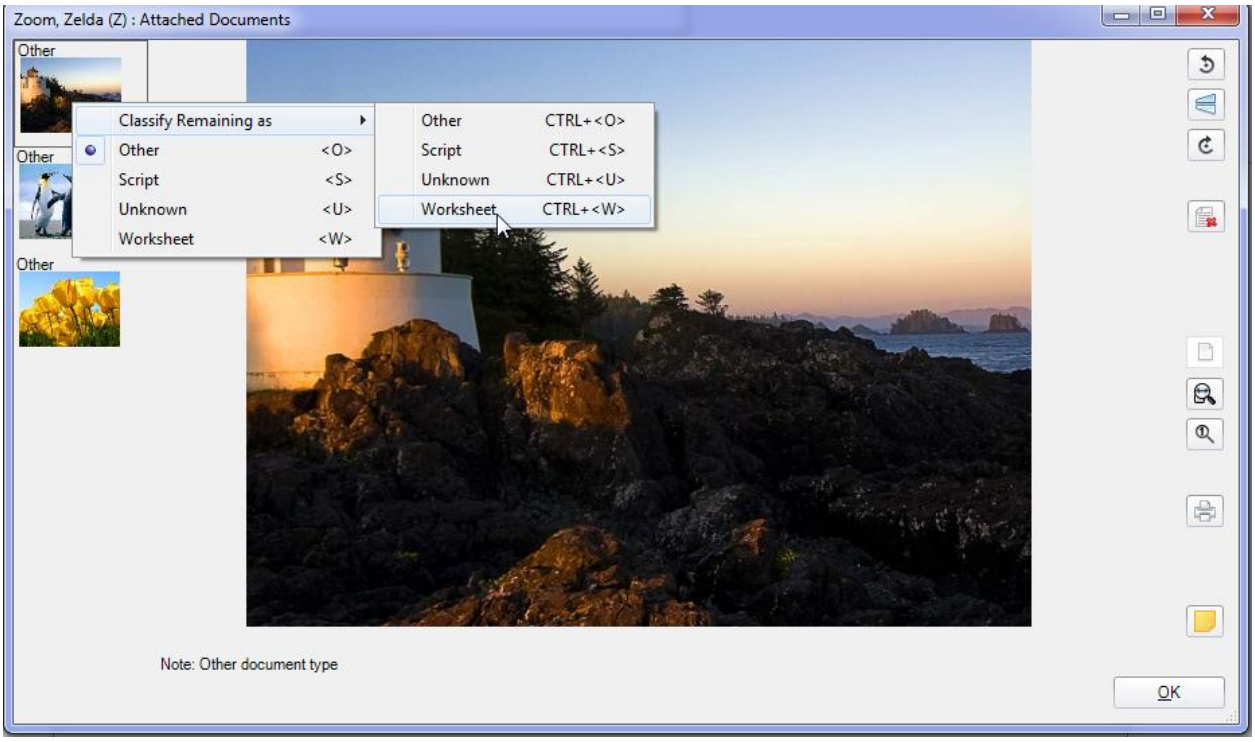



**Figure 4.4 – Attached Documents window showing context menu.**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

Changing the document type as shown in Figure 4.4 a new record is created and a new row will display in the Attachment Viewer. The original attachment "other" has 3 pages. One of those pages is changed to Type "worksheet", creating a new row for "worksheet" document with 1 page and "other" has the remaining.
Re-classifying an attachment back to its original classification, it will join the attachment document entry for any other of that type that were scanned or attached at the same time.

Also from Figure 4.4 you will notice that the document types may have shortcut keys assigned. To change the document type for a single document, you only need to select the shortcut key itself. For example, to change the document type to Unclassified, highlight the thumbnail and select **U** on the keyboard. To change the document type for the currently selected thumbnail and the documents below it, you must also select <Ctrl> in addition to the shortcut key.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## 4.2 Attach Document Notes

Looking at figure 4.2.1, you will notice a yellow “notebook” Icon in the lower right above the OK button. Selecting this Icon will open the Scan Document Notes window. Entering notes in the above window, selecting OK will save the note to the attachment and is displayed in the lower left when viewing the attachment. The note ICON will display in a new column titled “notes” on the Attachment Viewer work list (see figure 4.2). The scan document notes can be edited from the work list via a right click menu from the notes ICON.

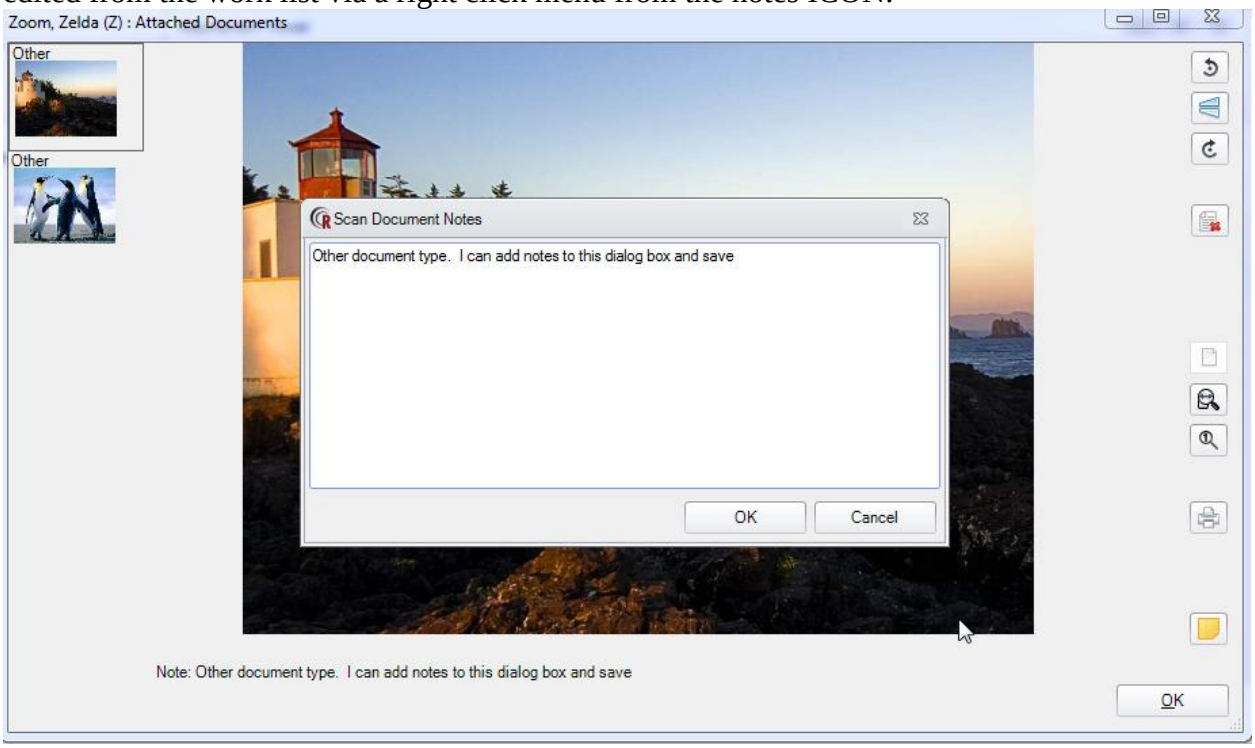



**Figure 4.2.1 – Adding document notes.**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## 4.3 Straighten Tool

When viewing the scanned image or attachment the user can right click on an image and choose **Straighten**, next they are asked to underline a word in the image. The user has option to apply or cancel changes. When they choose Apply, the image will be rotated making the line they drew strait. An undo option is also available from context menu or keyboard shortcut <Ctrl>+ Z.

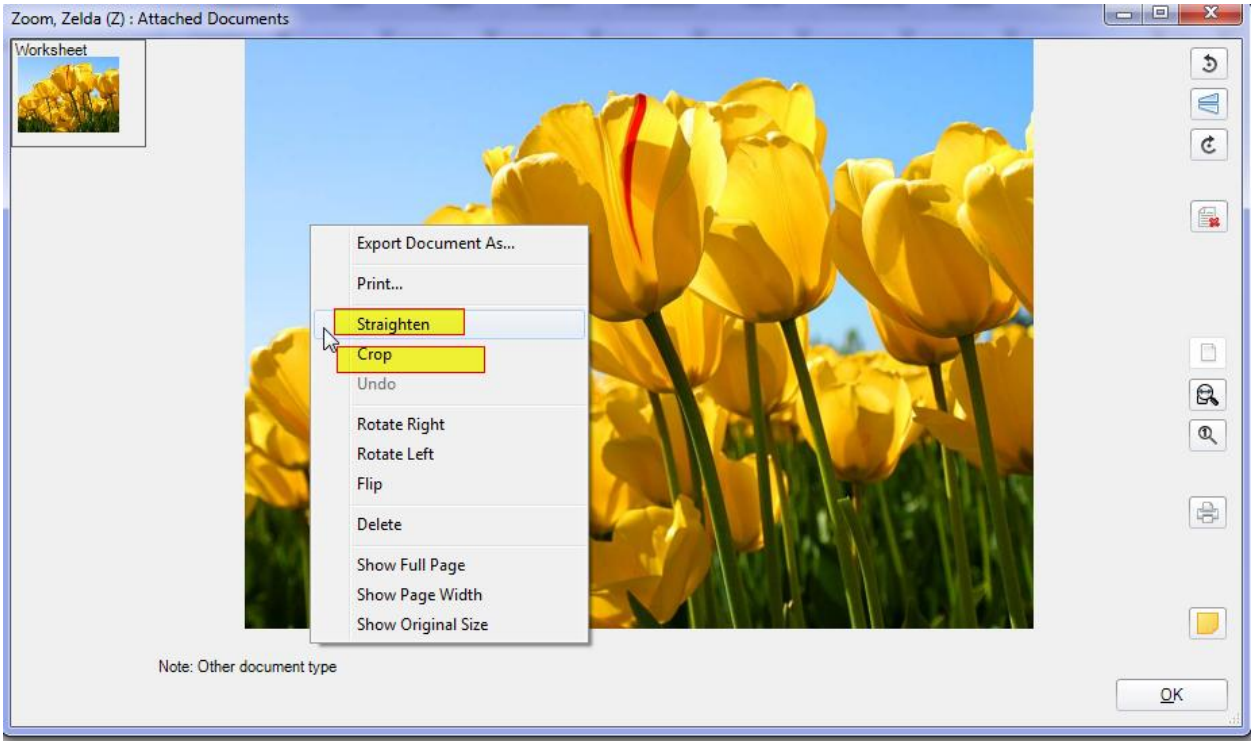



**Figure 4.3.1 – Context menu showing Straighten and Crop**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## 4.4 Cropping Tool

Also from the context menu an image cropping feature has been added. The user selects the context menu option, click and drags the desired area, and select Apply or Cancel. The cropping can be reverted back by using the same Undo options for Straighten.

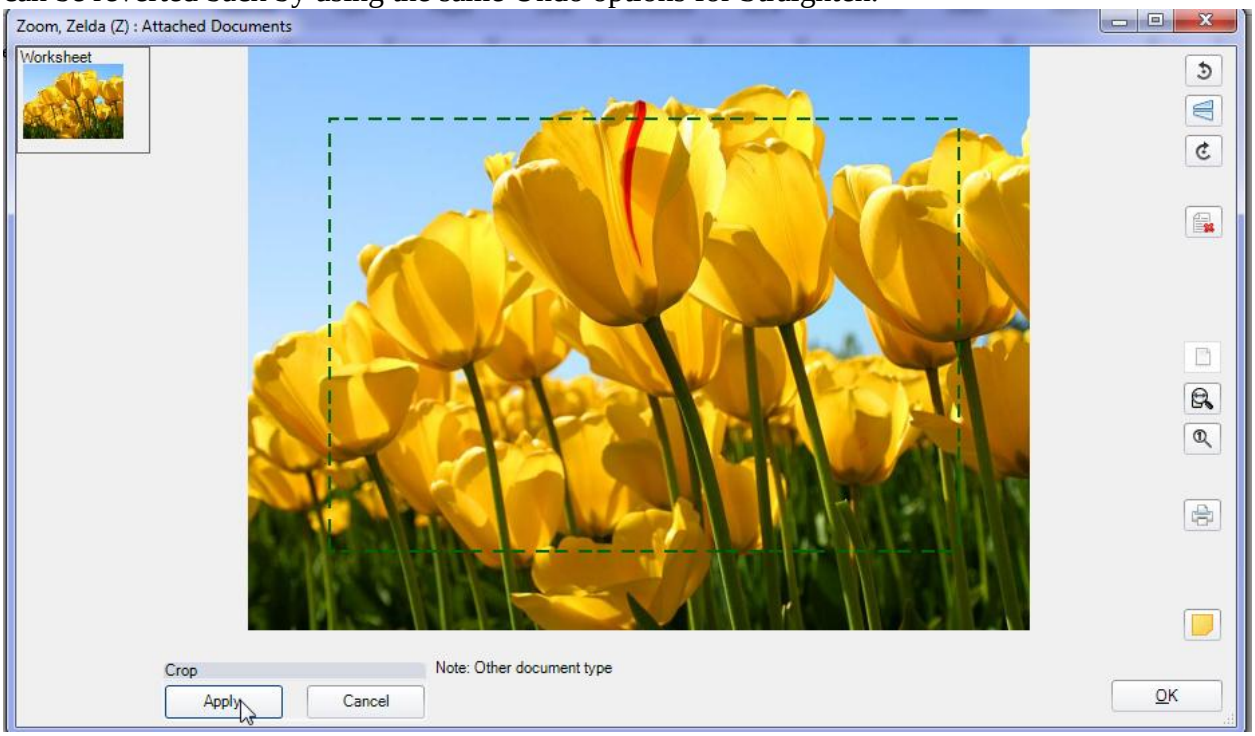



**Figure 4.4.1 – Cropping attachment**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## 4.5 Verbal Order

Patients may arrive at registration / walk-in without a written order from a referring physician, or perhaps the tech needs to change it. Since all downstream users may want or need to see the verbal order, it has been created as an attached document.

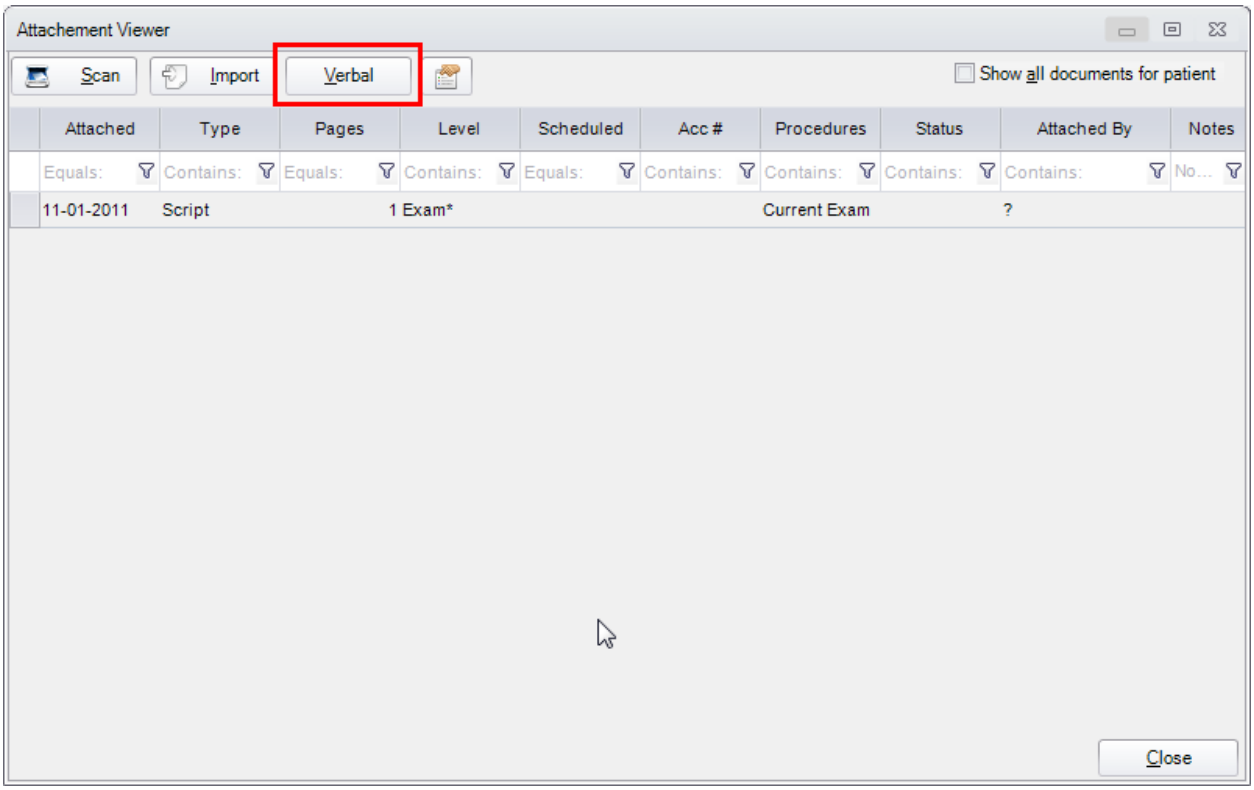



**Figure 4.5.1 – Access to Verbal Order window**

A Verbal Order is created by selecting the Verbal Order button from the attachment viewer. Selecting the Verbal Order button will open the Verbal Order window. Before the Verbal Order window opens, it checks for the patients data. If there is insufficient information a pop up window informs the user of the missing information.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

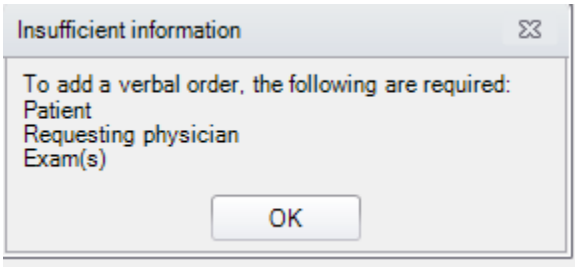



**Figure 4.5.2 – Insufficient Information for Verbal Order Dialog**

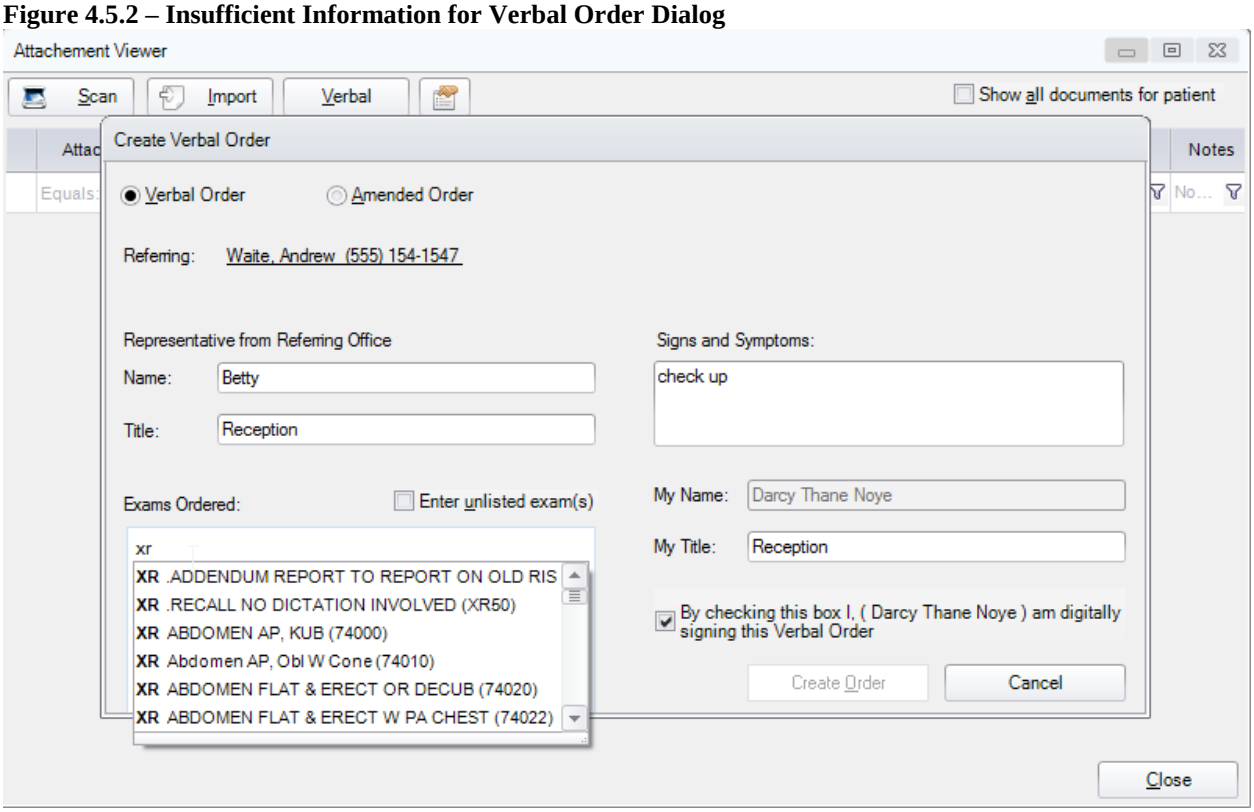



**Figure 4.5.3 Creating Verbal Order**

Selecting the Create Order button will render the data and save it as an attachment. The document is attached to the current order with a scan type of script. The regular attachment viewer will allow the order to be viewed.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

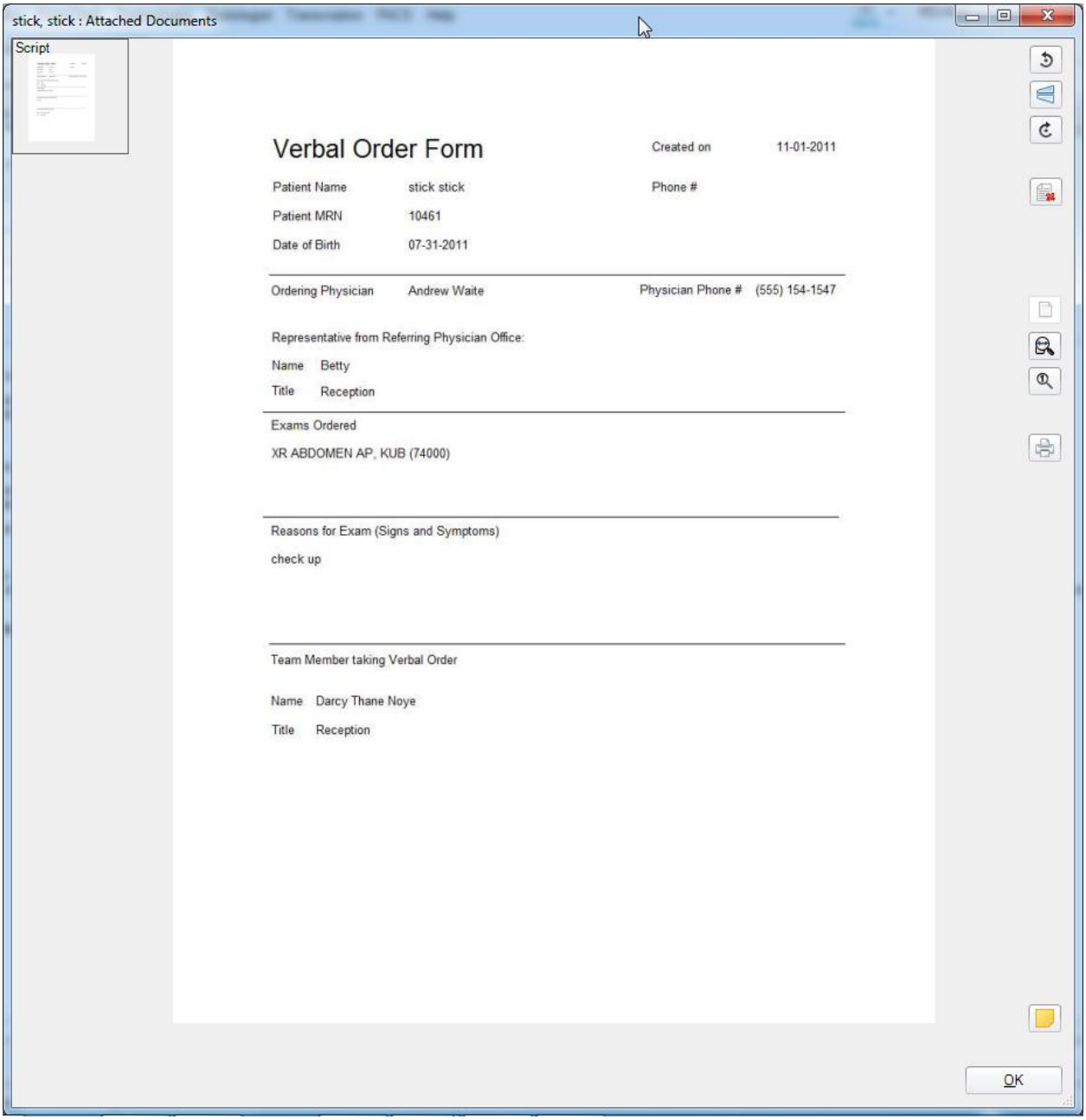



**Figure 4.5.2 – Verbal Order saved as attachment**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## 4.6 Amended Order

Utilizing the Verbal Order feature, Amended Order will also have a fill-in form type of feature that is stored as a scanned document. A radio button has been added to the verbal order screen to allow it to be switched to an amended order. Upon selecting the Amended Order radio button the label for "Signs and Symptoms" (see figure 4.5.3 above) changes to "Comments" (See figure 4.6.1 below). The rest of the workflow is the same as Verbal Order. Of course the rendered document is altered to say "Amended order" at the top, and it also has the comments field, and does not have a signs and symptoms page.

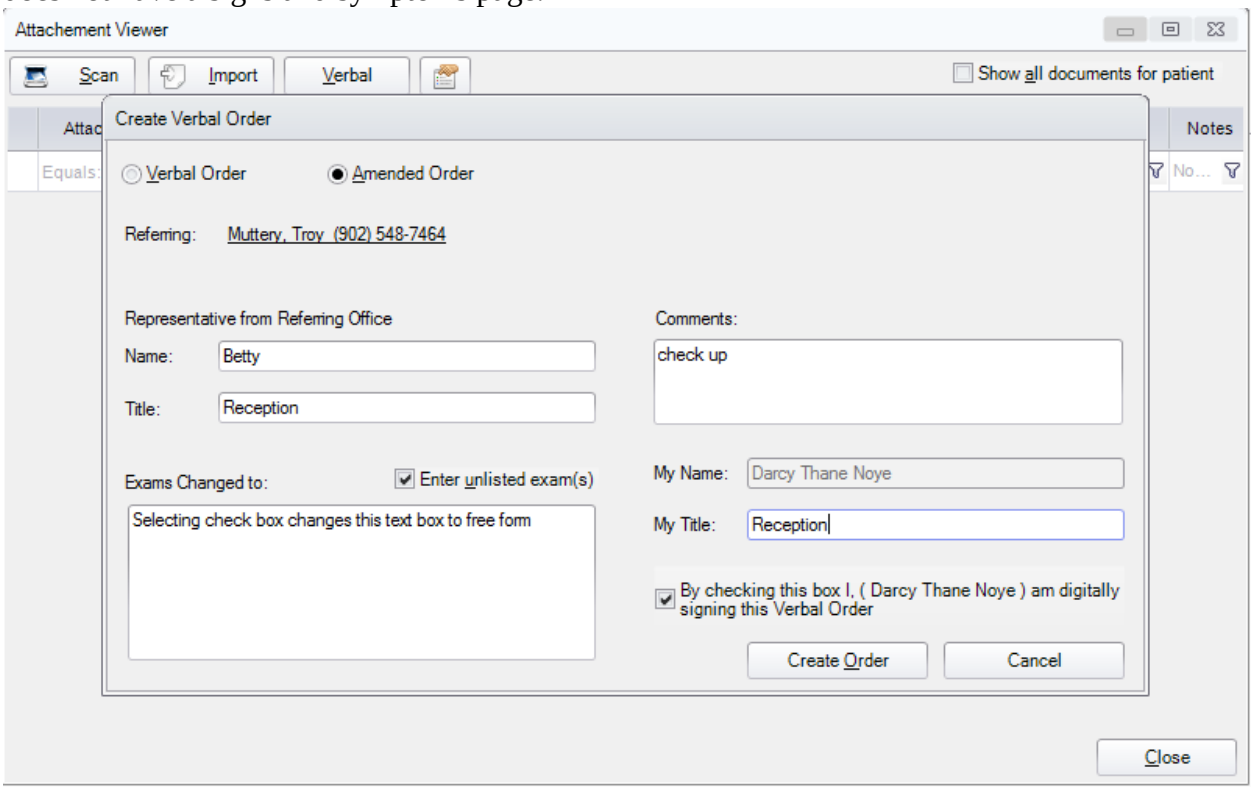



**Figure 4.6.1 – Creating Amended Order**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

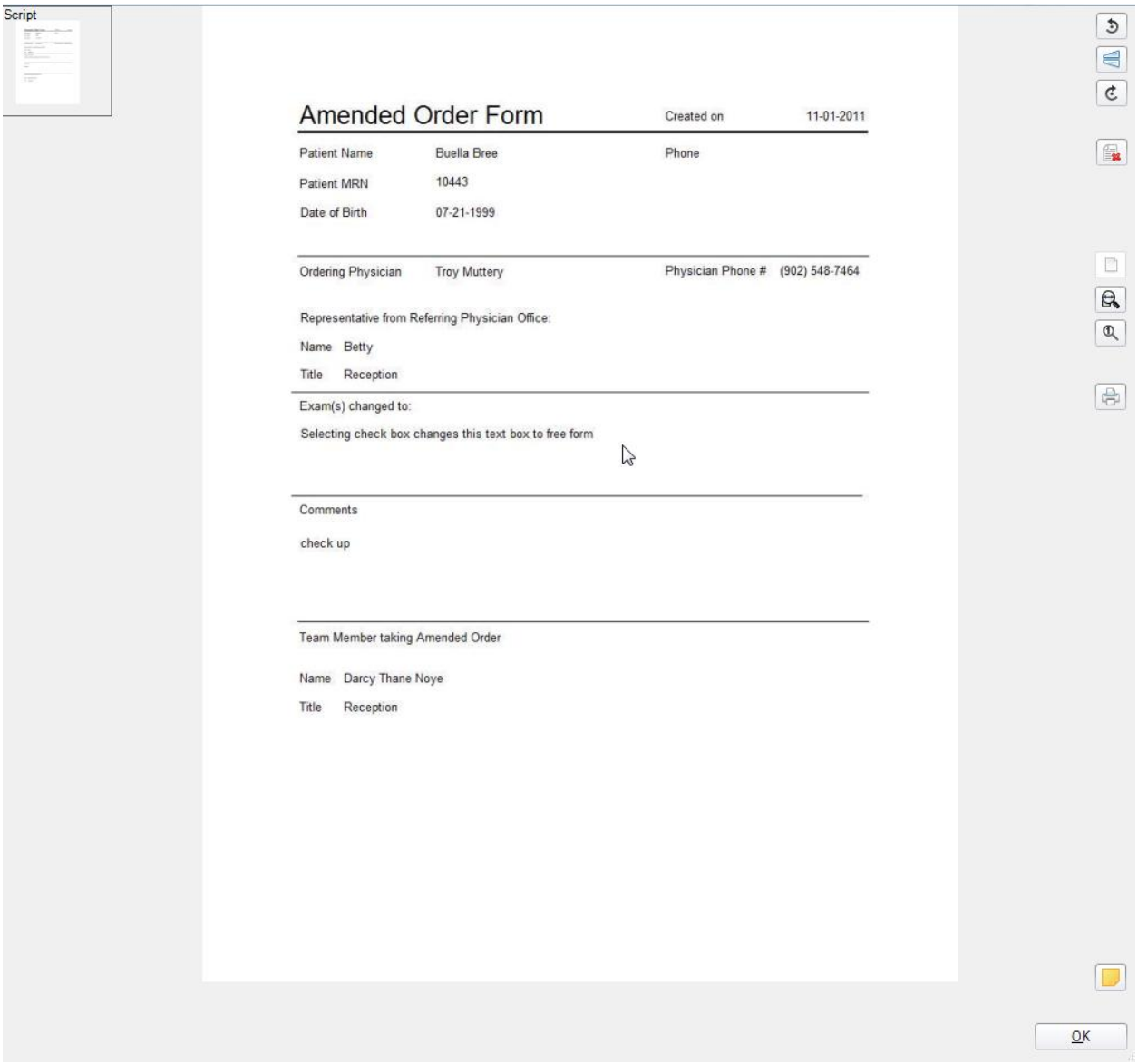



**Figure 4.6.2 – Amended Order saved as attachment**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 5. Scheduling

The scheduling role consists of numerous work lists and data windows. The following is a summary of each.

## 5.1 New Appointment

The New Appointment data window is accessed under the Scheduling menu.

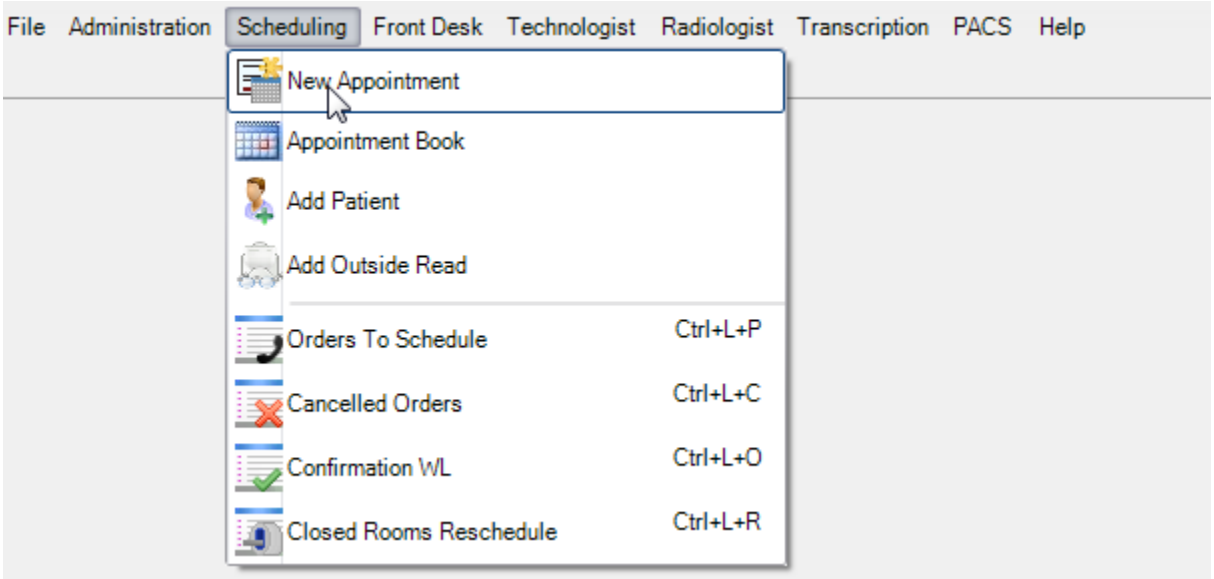



**Figure 5.1 – Accessing New Appointment**

The New Appointment data window is used to create new orders or scheduled appointments. Within the data window numerous pieces of information is captured about the patient, patient demographics, order details, procedure to be order/scheduled, scanned docs or attachments, image requests and also an overall review of the procedure details.

### 5.1.1 Patient Tab

New or pre-existing patients can be added. A search function can be used via the search Icon, or by entering patient details (first / last name or birth date) and with the focus in the last name field, hitting the enter key. Required fields on the tab are the patients first and last name, gender, and birth date. The patient MRN is a unique system generated ID.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

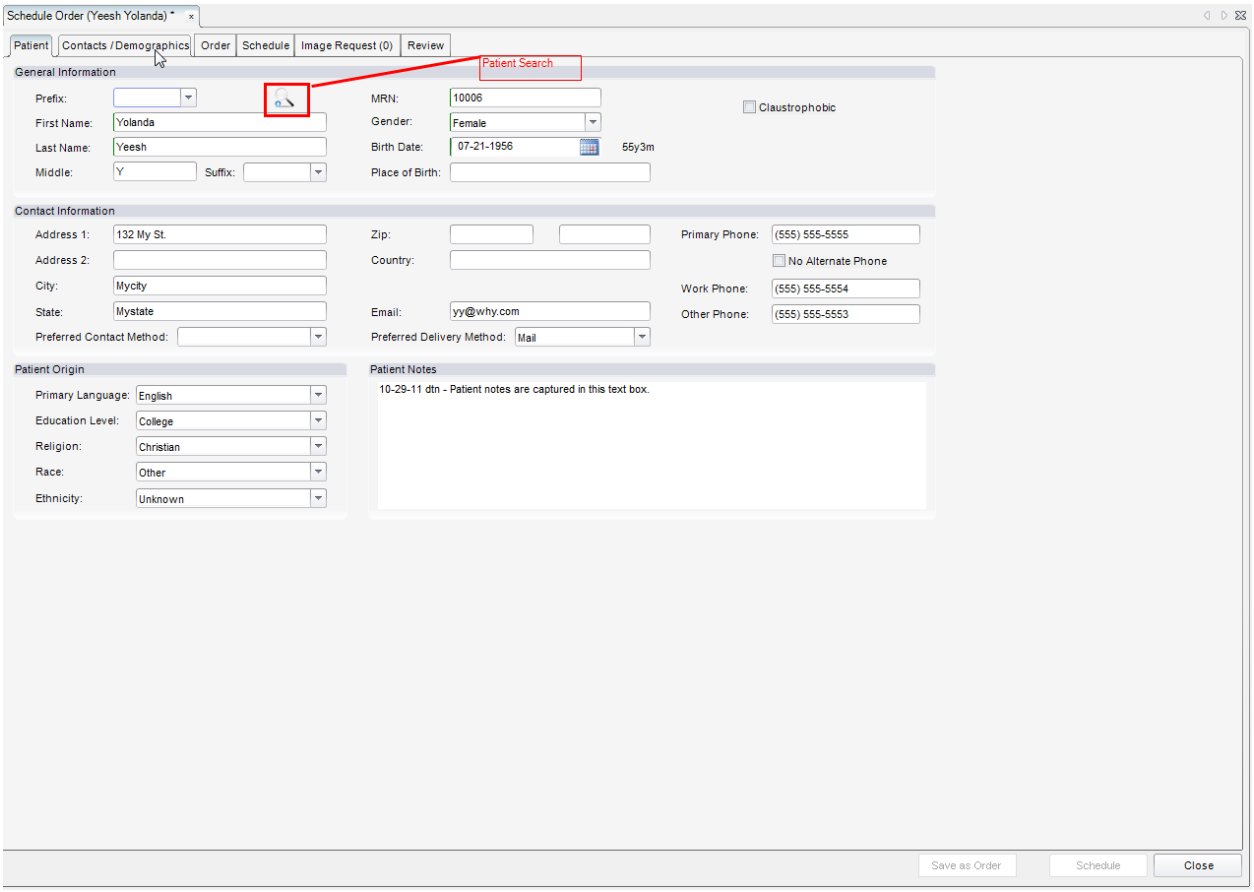



**Figure 5.1.1 – New Appointment – Patient tab**

## Patient Search

Selecting the patient search Icon spawns a new window. If data entered is the first name, last name or birth date fields, this data is passed to the patient search window and a list of patients matching the criteria entered will be displayed. The patient search window can be opened by selecting the Icon or entering a value and hitting the enter key while the focus is in the last name field. Select the check box "Search Other Variations" will complete a more extensive search. Patients name "starts with" Search first, then a "sounds like" search as well as search for birthdate variations ('12/01/1970', '01/12/1970')

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

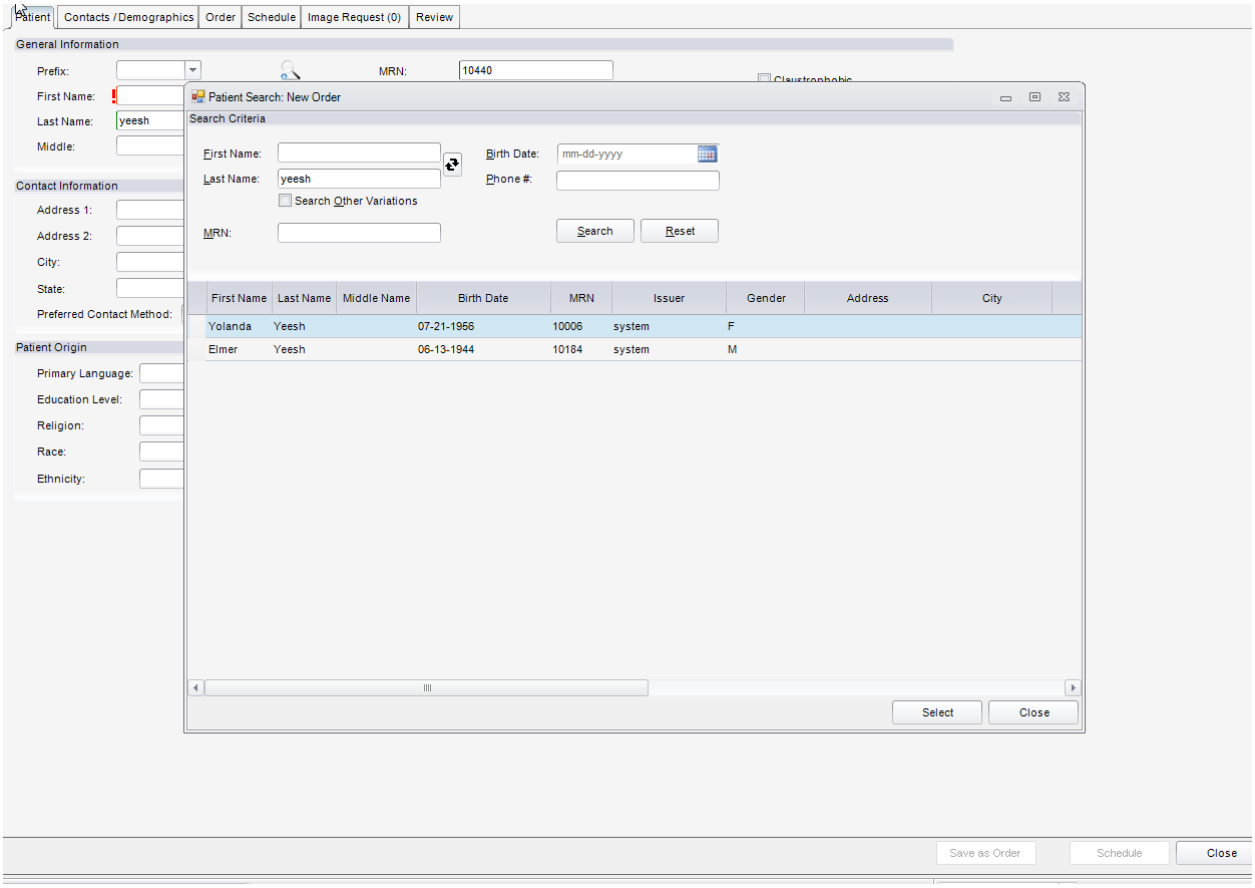



**Figure 5.1.2 – Patient Search**

### 5.1.2 Contacts/Demographics

This tab captures emergency contact information, patient demographics and people who are granted access for obtaining medical records on behalf of the patient. Starting with Responsible Party and Emergency Contact, the list box for relation contains a preconfigured list of possible relations for the responsible party. Selecting Self, will auto populate all the fields, provided the corresponding field on Patient Tab has the data completed. Spouse and child will complete all fields with the exception of First Name. The responsible part data is not required at this point, but will be required at the time of registration.

The next section on this tab called Demographics at Encounter captures patient's specifics such as height and weight. BMI is auto calculated based on the values entered for height and weight. The pregnant flag is active for female and unknown patients. Blood pressure, smoking status and if educational resources were requested / provided may also be captured.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

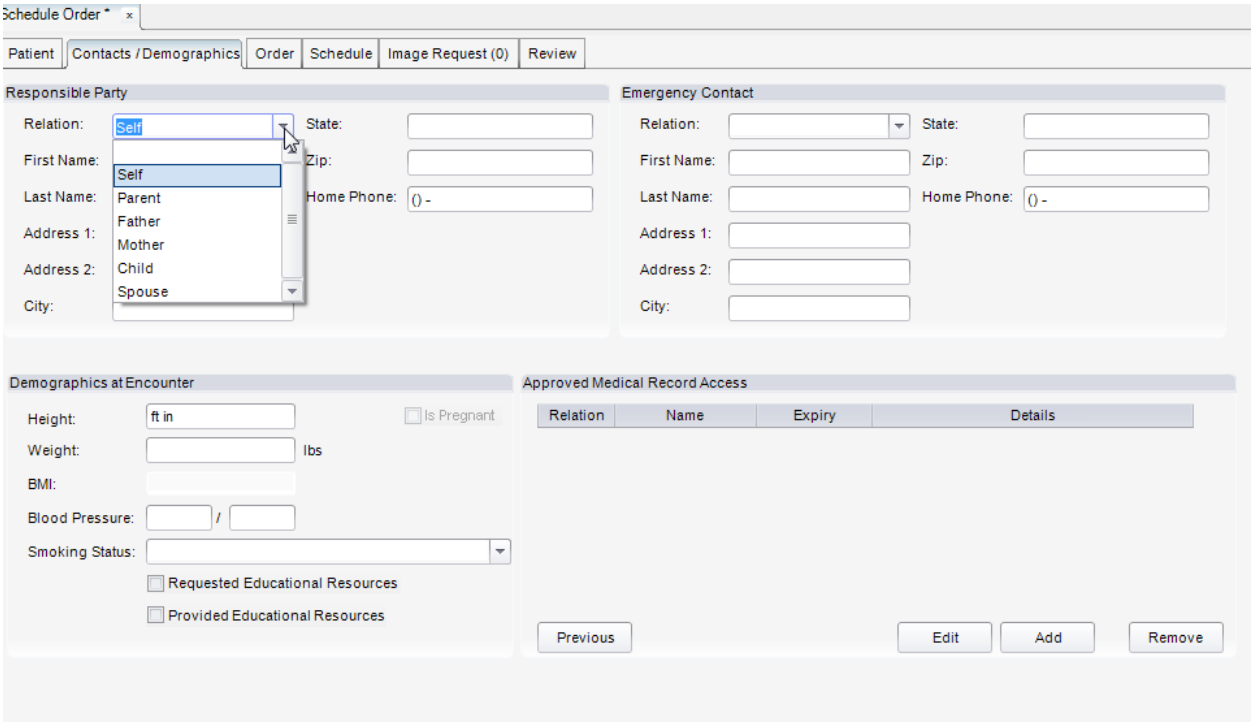



**Figure 5.1.2 - Contacts / Demographics tab**

Approved medical access is a visual confirmation for staff informing who has access to the patient's medical records. Those approved for a patient's medical access may be added, edited and removed from this list. The previous button will show those with expired access.
The relation to patient, first and last name, addresses / phone number, expiry date for access, and details are captured in this window. Again in the relation list box, selecting spouse or child will populate the last name and address / phone number fields. If the expiry date field is left blank, this person will remain on this approved list indefinitely.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

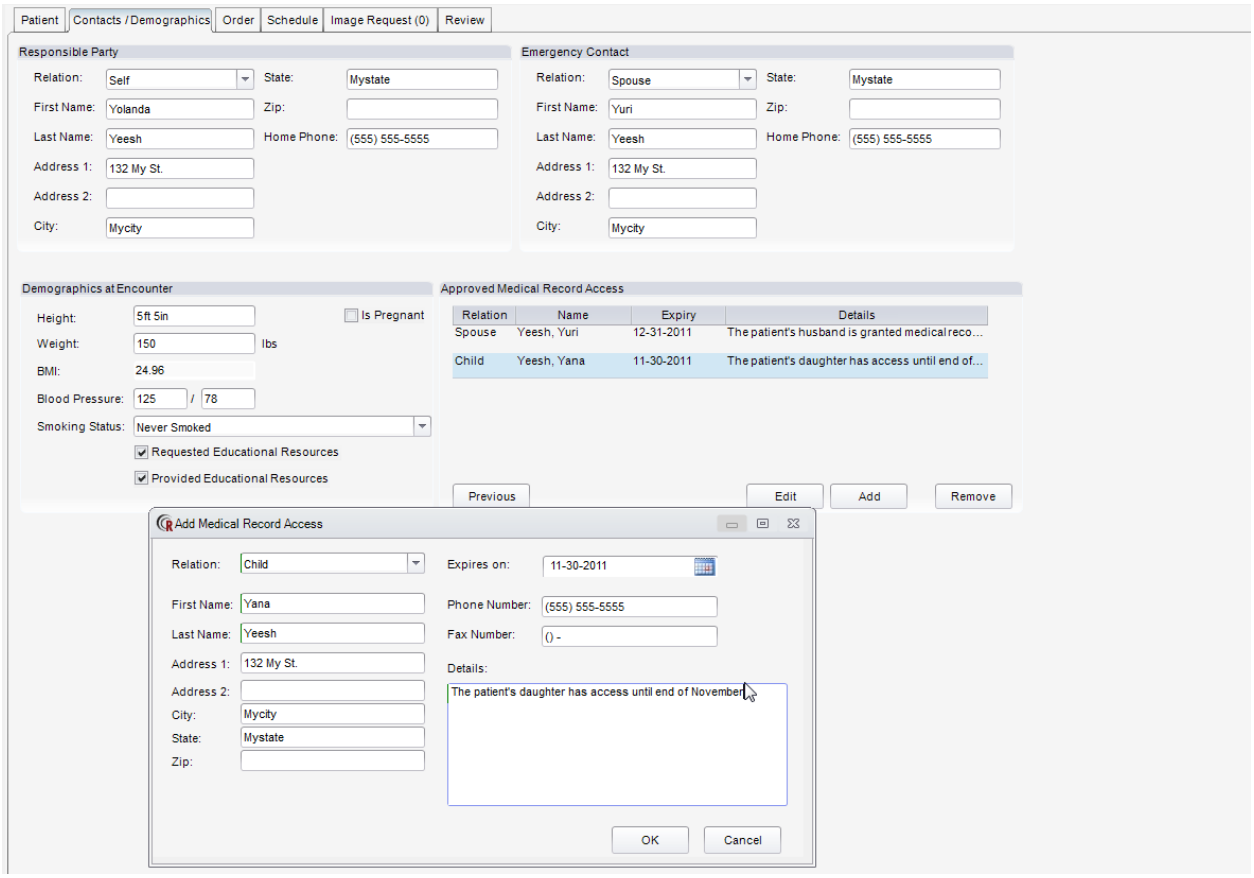



**Figure 5.1.3 – Add Medical Record Access**

### 5.1.3 Order Tab

The order tab captures Referring Details, Chief Complaint, Preferred Location, Order Flags, Insurance Policy Details, and Order Notes. The referring field keeps of history of all referrers captured in previous orders for this patient and will be available for selection from the down arrow on the referrer's field. If the referrer has one address associated, it will auto populate in the Visited At: field. If multiple addresses exist for the referrer selected, the user must select one of the possible values for that referrer. If the referrer of the Order has not been associated with this patient before, the user may search for the referrer.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

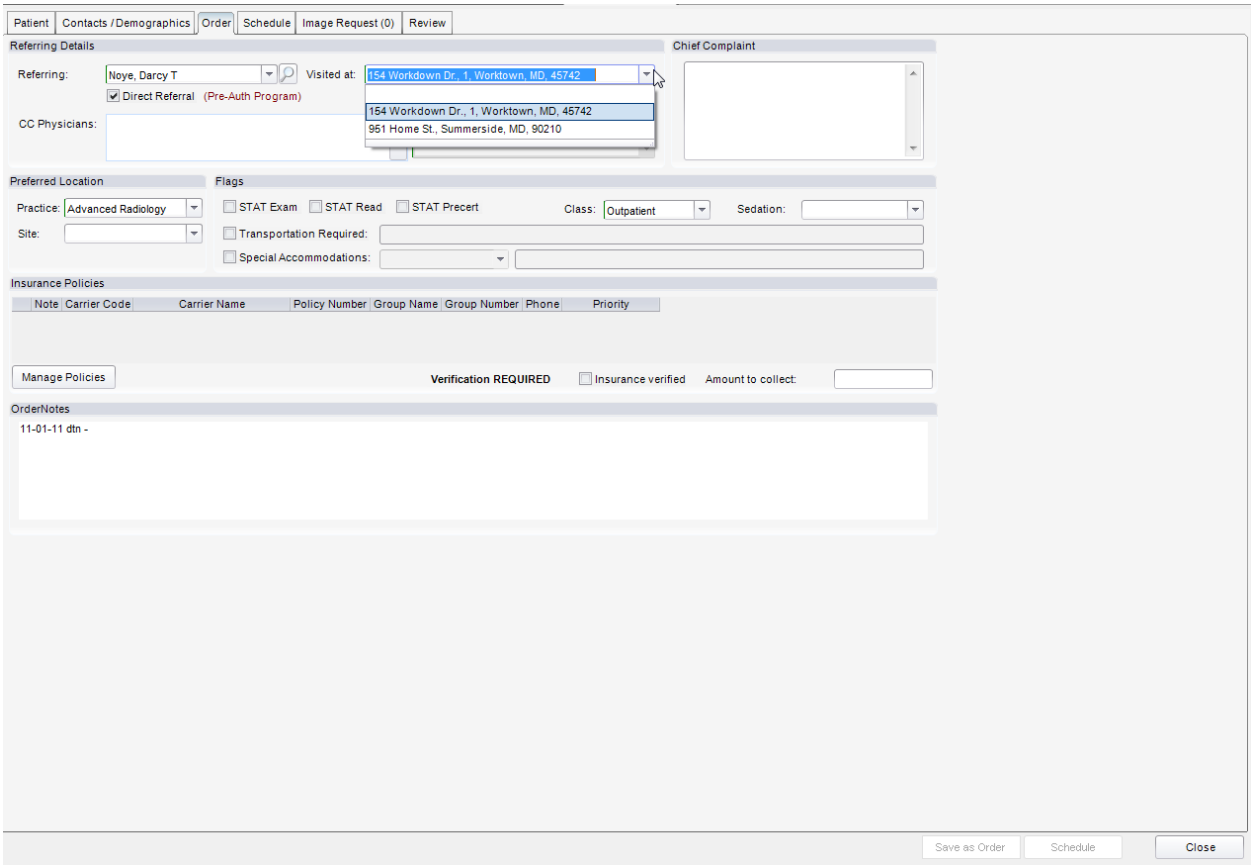



**Figure 5.1.3.1 – Order Tab**

The referring search window can be opened via the search Icon located to the right of the Referring field, or the name may be entered in the Referring text field and tabbing out will also open the Referring search window. If no match is found for the referrer a new "Unknown Referring Physician" can be created. Unknown referrers created are added to the Unknown Referring Work List, which is discussed later in this document. The CC Physicians and visit details work the same as the Referring Details and Visit.

You will notice below the Referring list box a check box for Direct Referral as well as (Pre-Auth Program). When a Referring Physician has this flag, the box is added to the New Appointment / Schedule Order data windows when this referrer is selected.

Similar to the Direct Referral Program flag, the Pre-Auth Program is a new flag added to Personnel that becomes active when the resource type Referring Physician flag is checked. If the ordering referring physician selected has the Pre-Auth Program flag, it will display directly under the Referring box on the order tab. The Referrer may or may not have the Direct Referral flag.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

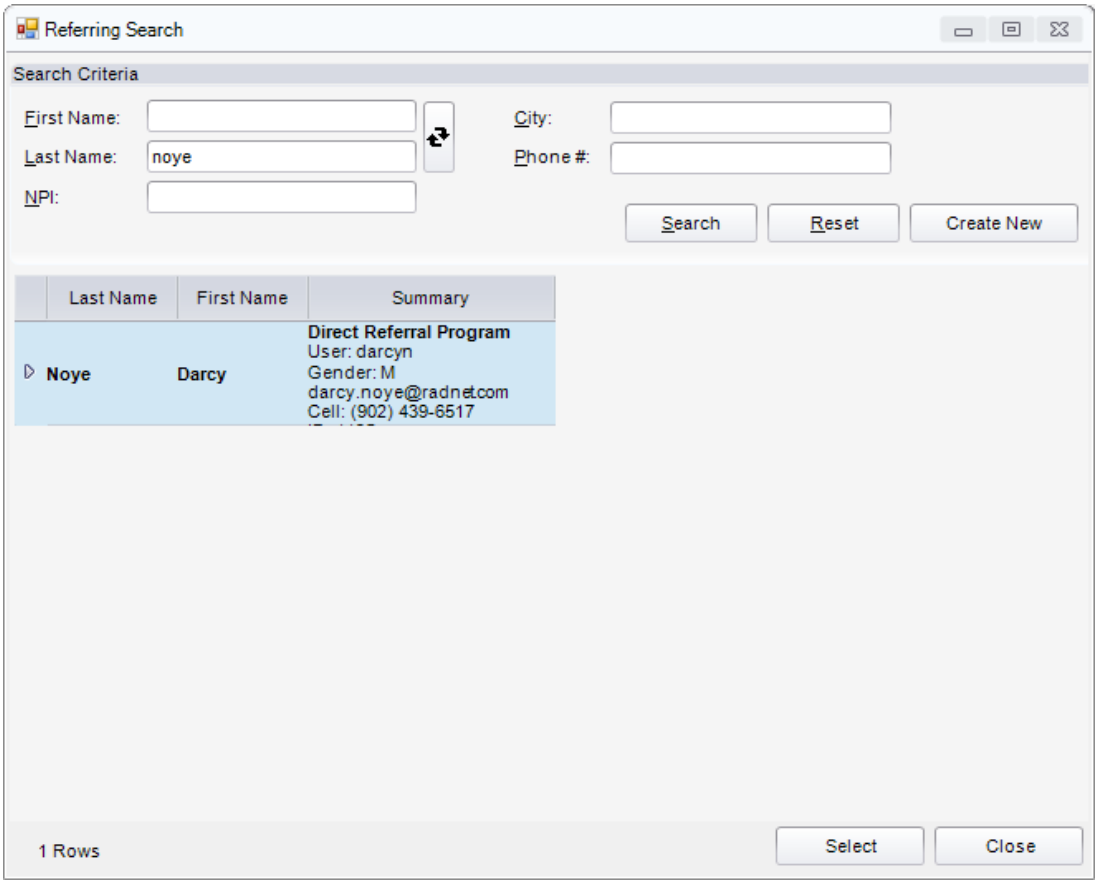



**Figure 5.1.3.2 – Referring Search accessed from Order tab of New Appointment window**

Next to the Referring Details is Chief Complaint. This is a free form text box.

Preferred location captures the Practice and Site requested.

Patient order flags that may be captured are STAT Exam, STAT Read, STAT Precert, Class of patient, Sedation type, Transportation Required and Special Accommodations. STAT Exam, Read and Precert are flags that will appear as an Icon in the flag columns of work lists.

Depending on the work list being viewed, there may also be a column. For example, the Reception work list has columns for Exam Stat and Read Stat. Patient Class code will appear in the Patient Type column of work lists. Sedation code will appear in the Sedation column of the Technologist work list. When the Transportation Required check box is selected the associated text box will become enabled. This is free form text box. If this flag is selected the patients address and primary phone number will become required fields. Selecting the Special Accommodations check box enables the associated list box and free form text box. A flag will appear in the Flags column.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

Insurance policies section will display the insurance policies selected for use with this order. Selecting the Manage Policies button will open the window in Figure below

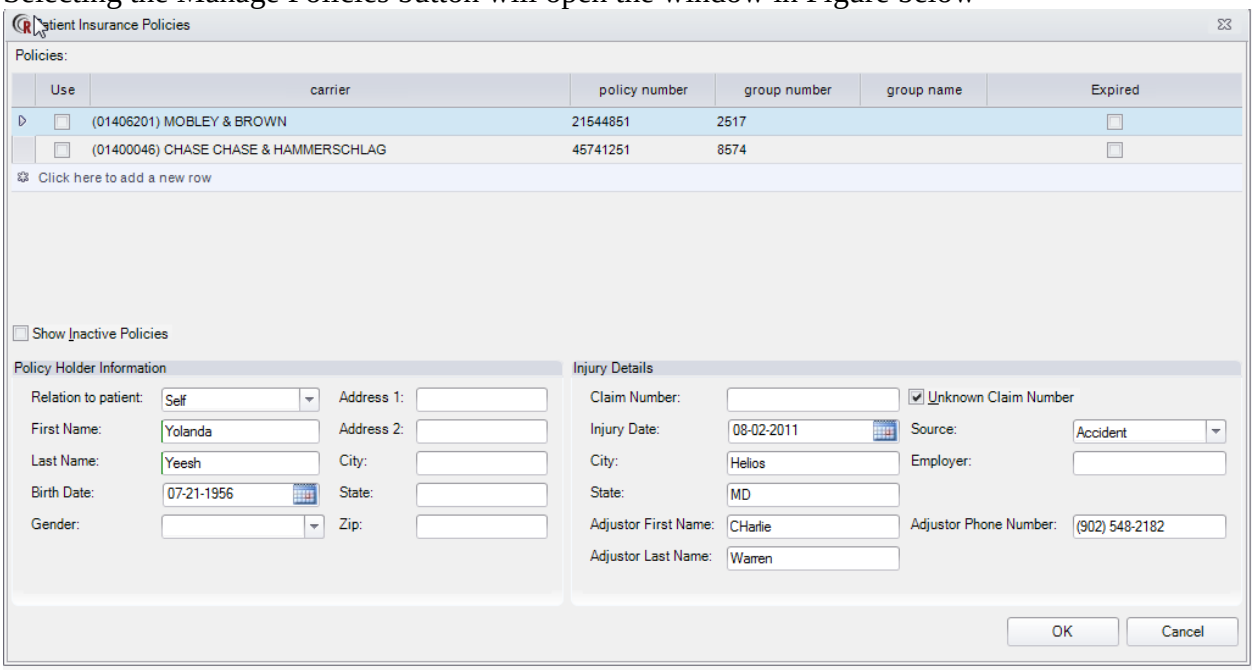



**Figure 5.1.3.3 – Patient Insurance Policies window**

Carriers can be entered manually or by using the search function. To enable the search Icon the user must first select a row under the Carrier column or entering a partial name and hitting the enter key will also open the search window. If the user knows the Carrier code or phone number, this also can be entered and upon hitting the Enter key, the Carrier name will populate the Carrier column. For each carrier selected for the patient a policy number must also be entered. The policy number mask may have a mandatory mask. In the event that the policy mask is wrong and the patient insurance policy does not fit the mask, the user can prefix the policy with a "+" character to bypass the policy mask. Any study with an insurance policy that begins with a "+" will be flagged as a billing exception and held until the "+" is removed.

For each carrier added the Policy Holder Information details are to be completed. The only required fields are the patients first and last name. As like other areas of the application the list box Relation to patient has values such as Self that will auto populate the remaining fields based on the data existing for the patient. Select spouse or child will complete all field with the exception of first name.

Some carriers will require that the Injury details are captured. If this is standard for the carrier, the Claim number is a must. If at the time the order is being placed the claim number is not known, the user may temporarily bypass it by selecting the Unknown Claim check box.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

The adjustors first and last name as well as phone number can also be captured in this section.

### 5.1.4 Schedule Tab

The schedule tab captures the order the procedure belongs to, the procedure to be completed , a daily calendar view which can be used to pick the time for the exam and Icon to open the attachment viewer. The information added can be saved as an order or as a scheduled exam. Depending on the procedure selected, the Laterality may be required. If the time(s) selected are available the scheduled date will have a green outline. If the time slot(s) are locked by another user on the system, the outline of the scheduled date will be red. Once the exam is scheduled the time will no longer display in the search.

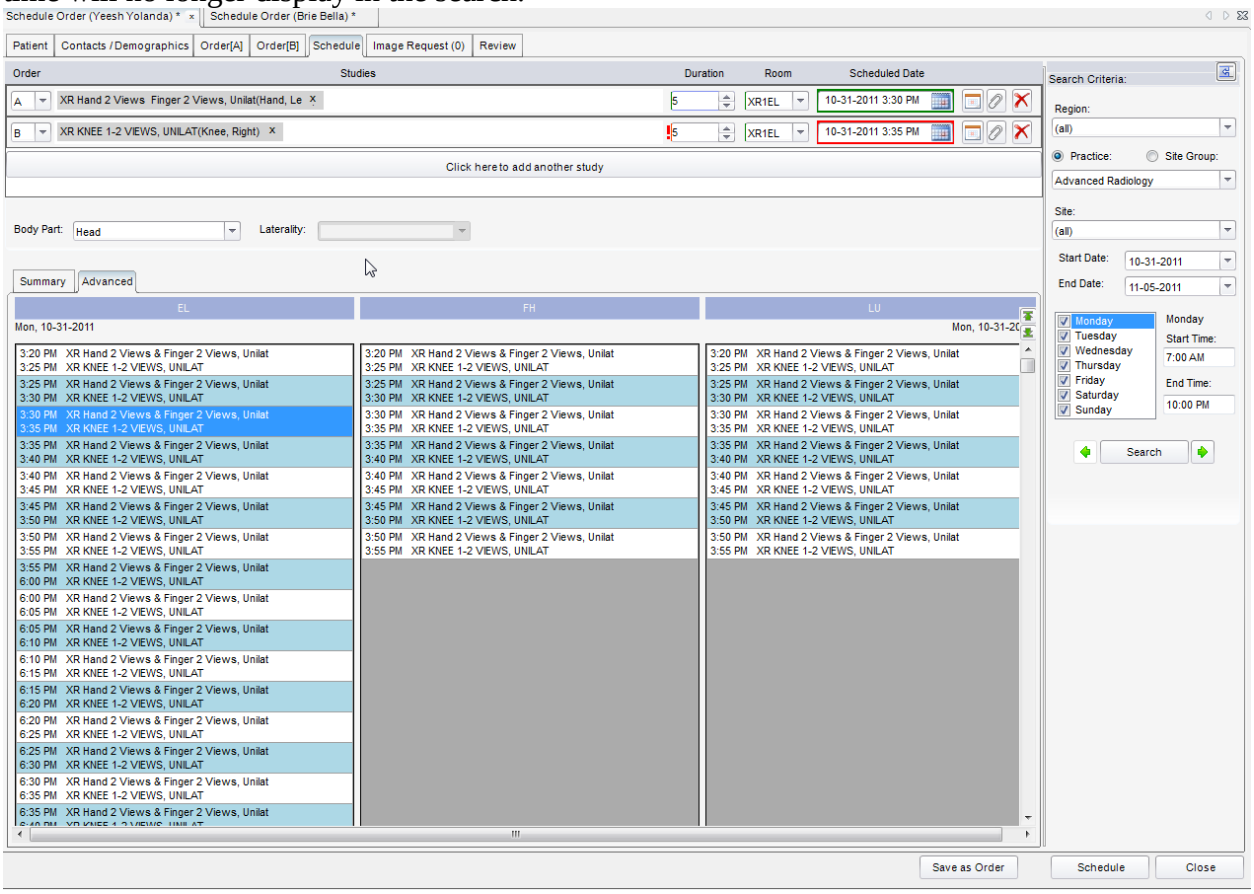



**Figure 5.1.4.1 – Schedule tab**

The user has the option to select the calendar view (calendar Icon next the scheduled date on procedure picker row) and select the date and time the exam is to be completed or they can use the advanced search criteria on the right of the data window. Selecting the search button will populate the rooms and time available on the advanced tab. The summary tab will give an overview of the times available based on morning, afternoon and evening.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

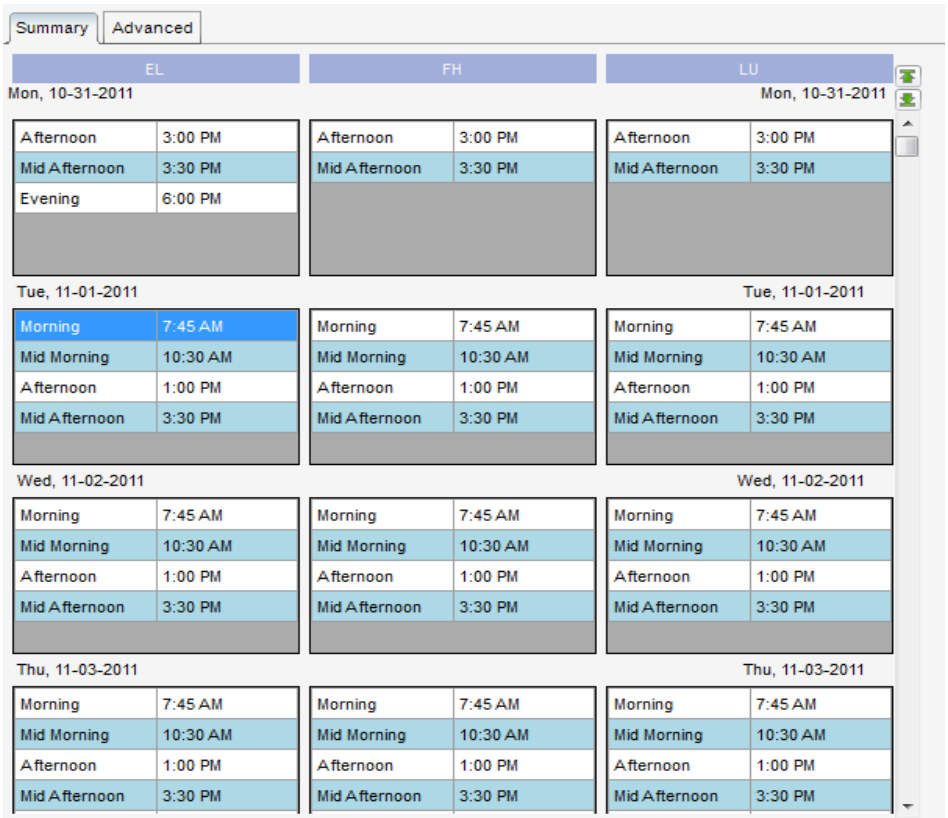



**Figure 5.1.4.2 – Summary tab of advanced search**

The paper clip Icon located on the procedure picker row will open the attachment view window. Attachments are covered in Section 4 of this document.

### 5.1.5 Image Request Tab

The Image Request tab is a work list view displaying the request for images for the current scheduled procedure. When creating a new appointment, the image requests will only be saved if the procedure is scheduled. If the procedure is saved as an order a message prompt will inform the user that if saved as order all image requests will be removed. From this tab the user may add, edit or remove edit requests. The user may also print the release form. Creating Image requests will be covered later in this document.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

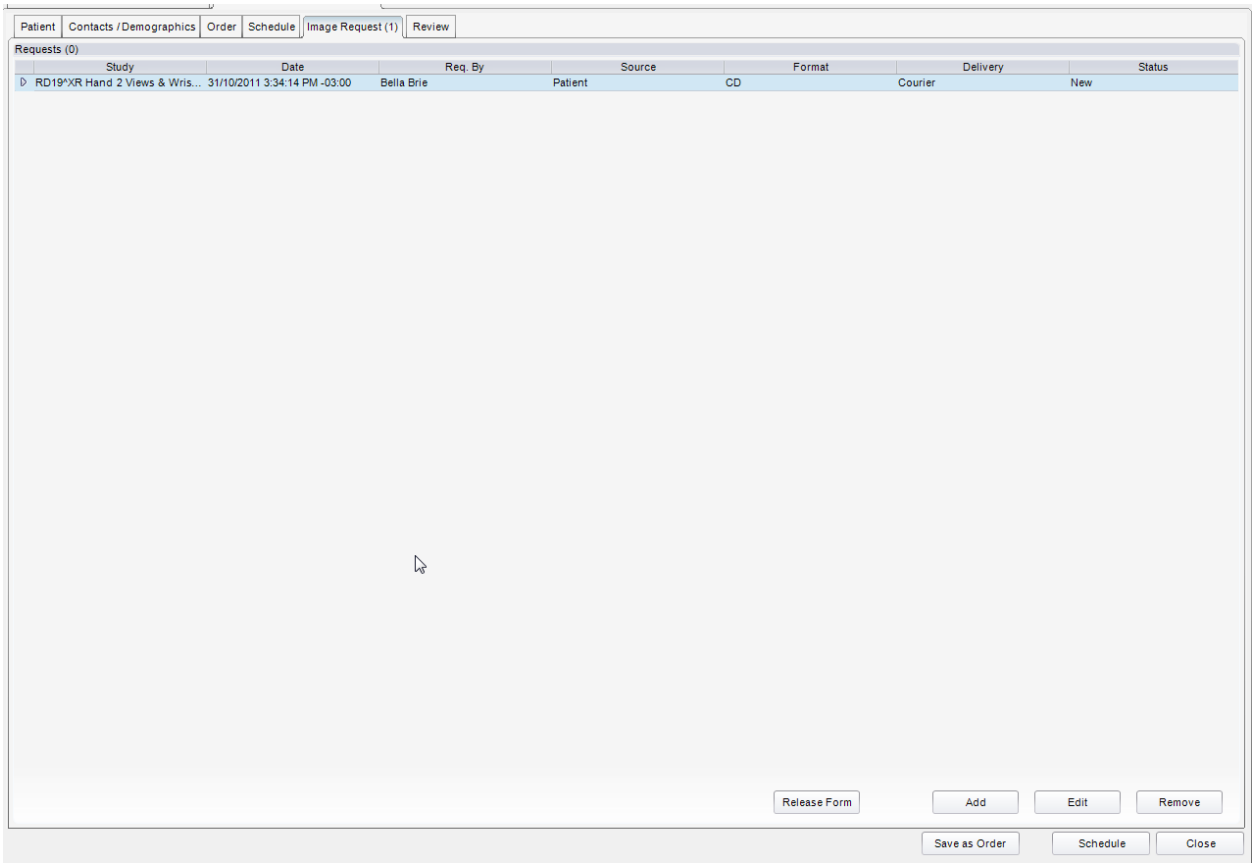



**Figure 5.1.5.1 – Image Request tab**

### 5.1.6 Review Tab

The review tab is a convenience tab that allows the user to get an overall view of the order that is to be placed. The patient name, procedures, procedure codes, the site address where the procedure is to take place, and the prep instructions.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

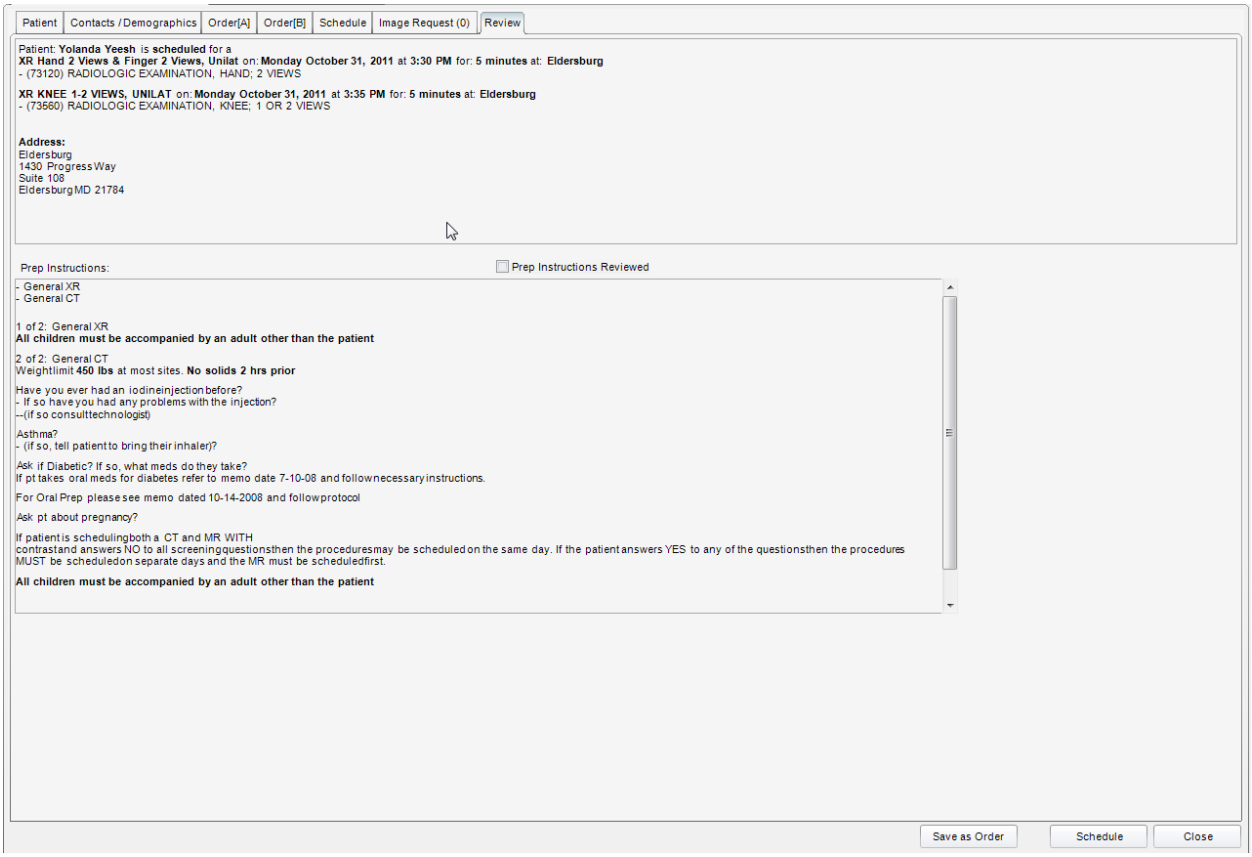



**Figure 5.1.6.1 – Review tab**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## 5.2 Orders to Schedule work list

Figure 5.2.1 shows the Orders to schedule work list. This work list contains a complete list of orders in the rRIS system to be processed to scheduled studies. Actions that may be completed from the buttons in lower right of this work list are to schedule the order, Registration to "check in" or "arrive" the patient, Edit Order and Mark Order. The context menu provides a few more options to the user. Schedule, Mark Order, Edit orders are also options as well as the ability to cancel the order, access patient folder, an audit history of the order, and copy the contents of a particular cell.

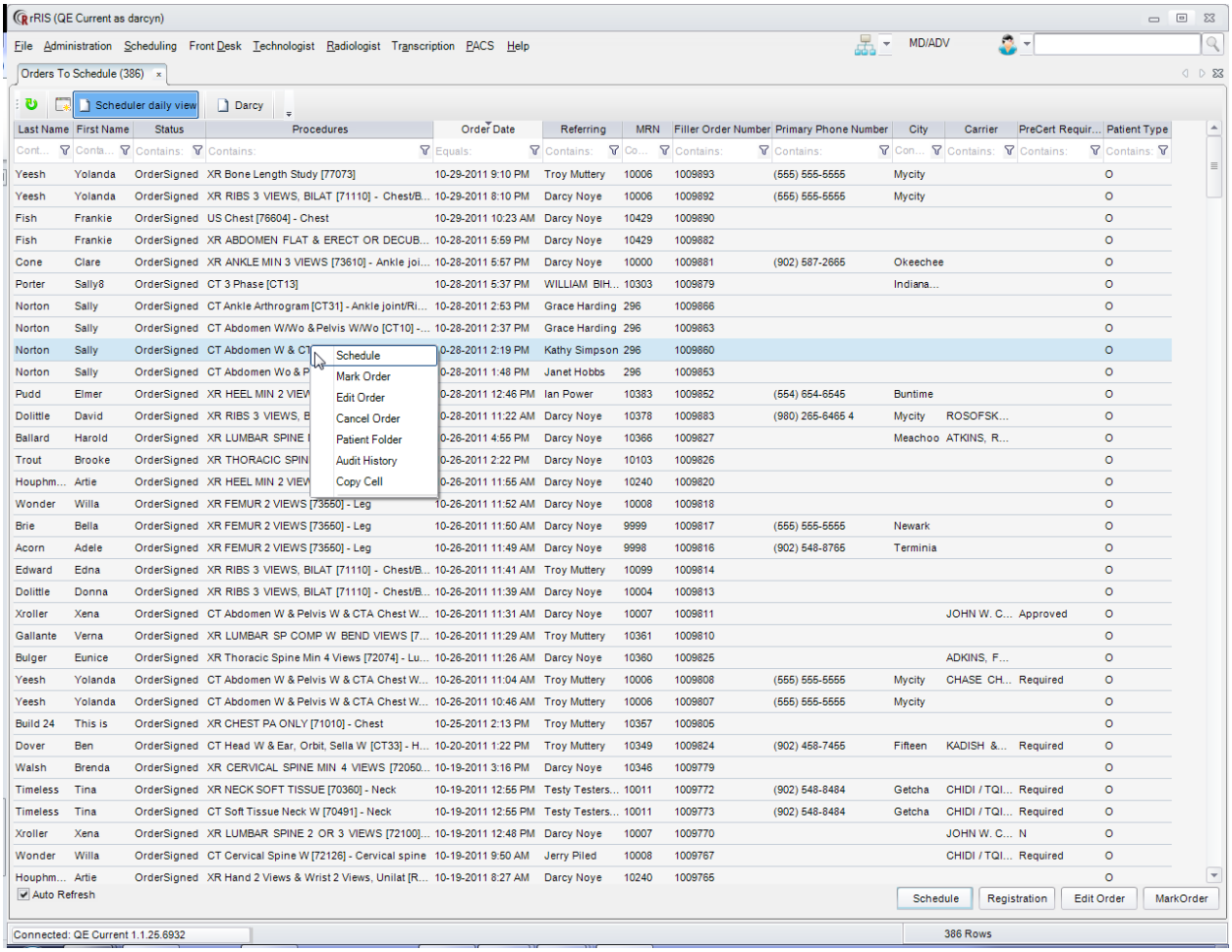



**Figure 5.2.1 – Orders to Schedule work list.**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

### 5.2.1 Schedule from Orders to Schedule

Selecting the schedule button from the Orders to Schedule work list will open the Schedule Order data window. The tabs and fields are the same as New Appointment with a few differences.

The first difference you will notice is the data window tab is appended with the patient's name. In figure 5.2.1.1 you will see the Schedule Order window open on a patient record from the Orders to Schedule work list. To compare I have opened New Appointment data window next to it. Notice the tab name is Schedule Order.

Another difference is button actions at the bottom of the data window. The Schedule Order (patient name) data window has the option to "Save" or "Cancel", where New Appointment they are "Save as Order", "Scheduled" and "Close"

The final difference you will notice is that the Schedule Order (patient name) already contains the data for patient, order, and the procedure selected.

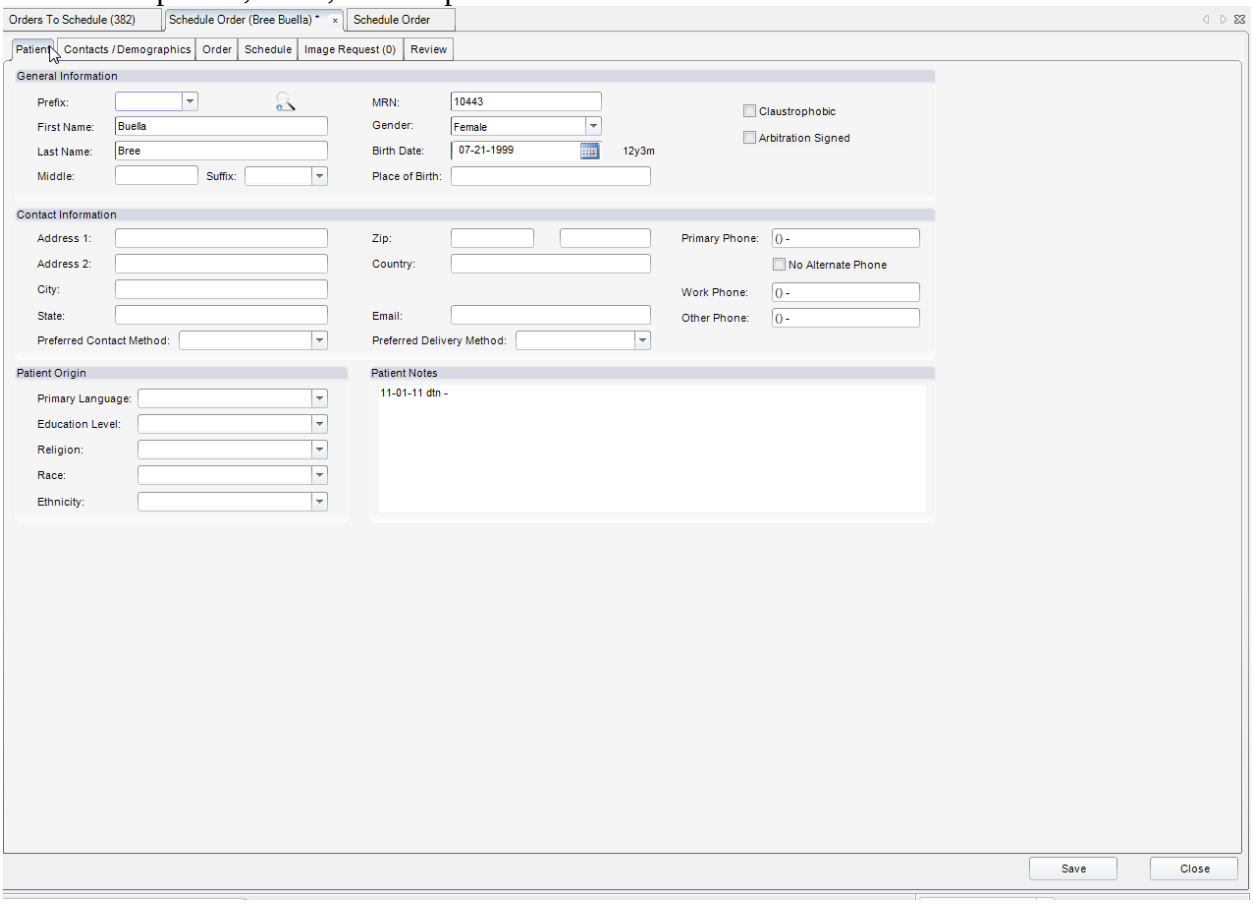



**Figure 5.2.1.1- Schedule Order data window from Orders to Schedule**

If the Order being scheduled is from an outside ordering system the application will determine if the order to be scheduled was received from an external system. It will compare the "Issuer of

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

ID" with our internal, configurable value. If the "issuer of ID" does not match, the user is prompted with a message

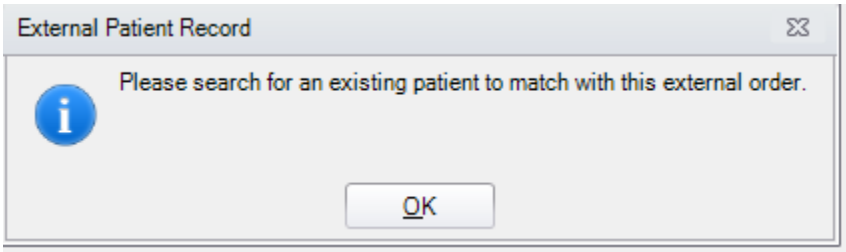



**Figure 5.2.1.2 – External Patient Record – User is informed the order is from an external system**

Selecting OK will automatically open the patient search window displaying any matches and will also search for "Other Variations" of the name. As with the previous build, the user can try alternate search criteria (e.g. reversing the first and last name), if no patient matches are found the user may create a new patient from the "Patient Search New Order" window.

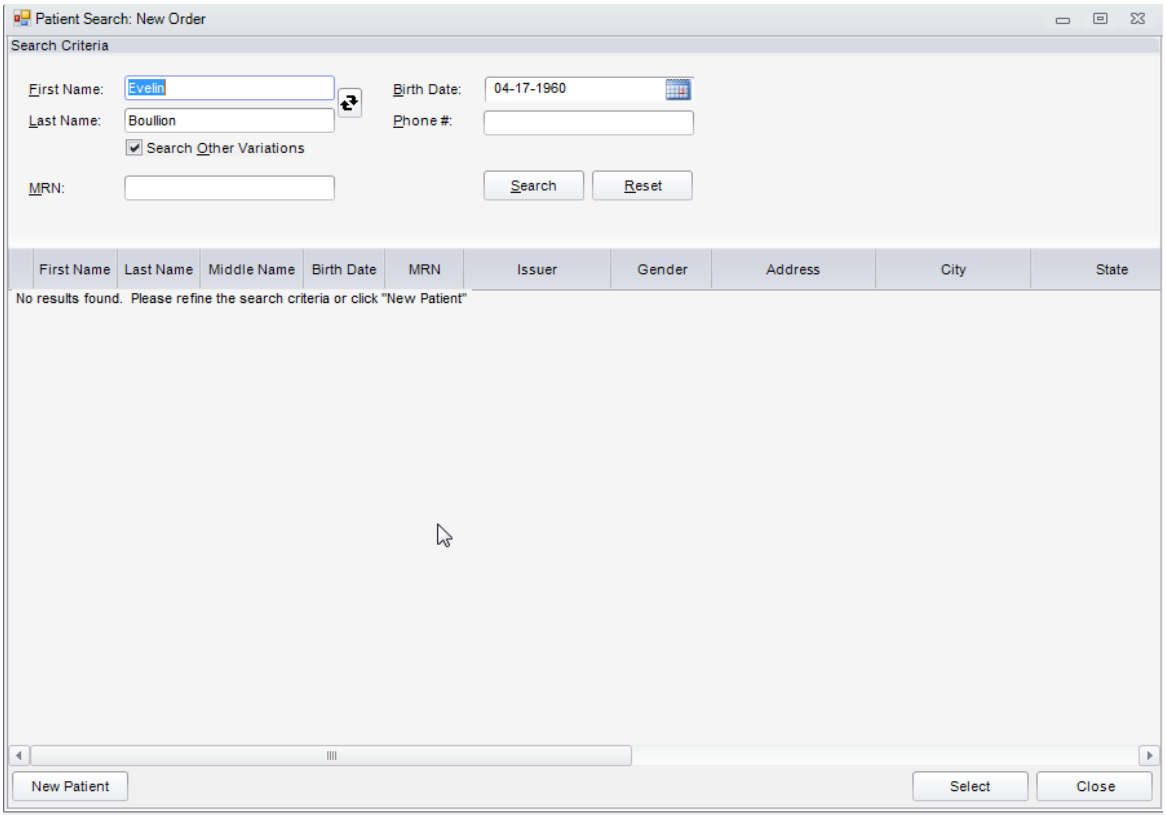



**Figure 5.2.1.3 – Patient Search New Order**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

If the "New Patient" button is selected, the Schedule Order (patient name) will open. The user may proceed as if they were creating a new patient. This will issue an rRIS MRN for future orders. The patient record provided from the EMR is retained, and future messages coming in from the EMR will automatically reference the newly created internal patient. **Note**: if the user closes the search screen without selecting or creating a patient, the Schedule Order screen will close and the user will be returned to the "Orders to Schedule" work list.

If the Patient Search New Order does find a match to an existing patient record, the user must determine if they are indeed the same person. If an internal match is found, it will appear in the search window. The user can press select to associate the current order with our internal patient and establish a link between them. If the user selects an existing patient record, they will be presented with be prompted to confirm.

### 5.2.2 Edit Order

The Edit Order action button opens the data window. Within this data window the user has the ability to view or edit the Patient tab information, Attachments (or scan docs), and the Order information.

#### 5.2.2.1 Patient Tab

The Patient tab is exactly the same as Schedule Order

#### 5.2.2.2 Attachments Tab

The Attachments tab is a work list view of the imported or scanned documents. The user can view the attachments for this order, or view all attachments for this patient by adding a check to the "Show all documents for patient". Actions from this tab are Scan, Import or access advance properties for attachments.

The work list view of the attachments informs the user of the date, type, number of pages, the level of the attachment (such as Patient level, Exam level), who attached the document, and notes associated with the attachment. This is indicated by a notepad Icon. A double mouse click on the Attachment row will open the attachment. The complete function and how to use Attachments is covered in Section 4 of this document.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

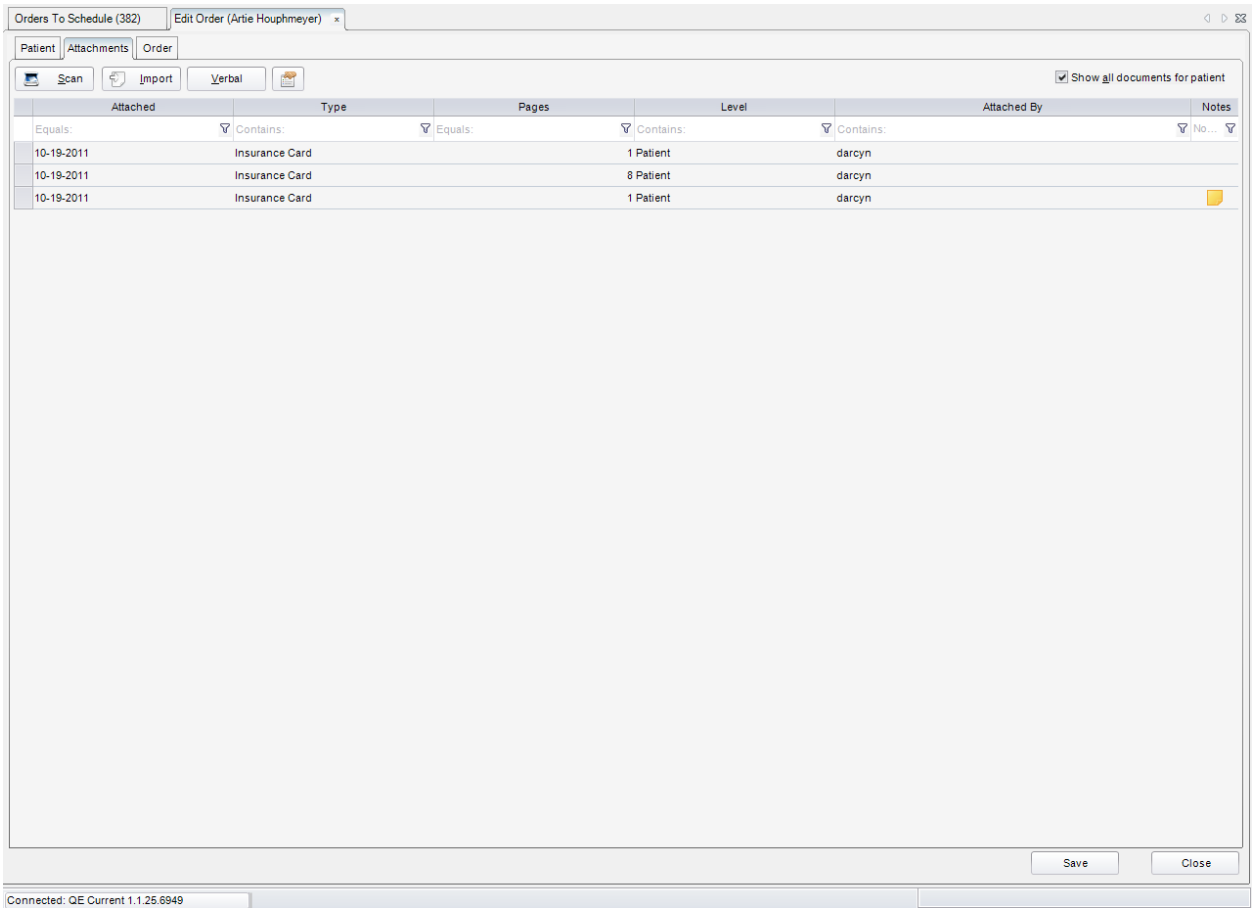



**Figure 5.2.2.2.1 – Edit Order - Attachments tab**

### 5.2.2.3 Order tab

The Order tab from Edit Order has the same fields as Schedule Order with the addition of the Exam Requested where studies may be added and removed, and Body Part and Laterality specified.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

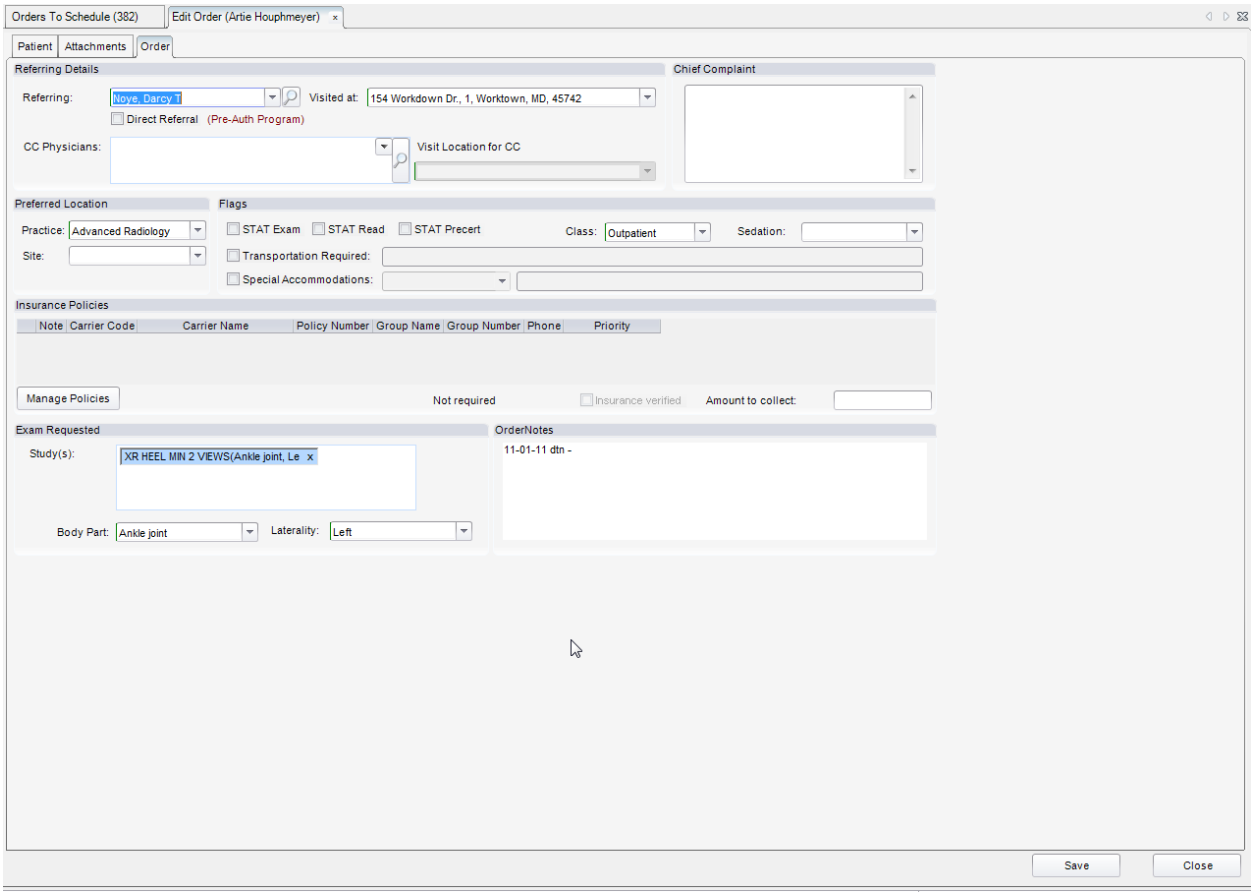



**Figure 5.2.2.3.1 – Order Tab from Edit Order**

### 5.2.3 Registration

The Registration data windows from Orders to Schedule are the same as Registration from the Reception work list. This is covered in section 5.3 of this document.

### 5.2.4 Mark Order

The Mark Order data window is a limited use data window designed for a few select sites that utilize this work flow. Most users will not have access to this work flow as it will be disabled. The actions from this data window are limited as what can be added / edited. Selecting the save button will schedule the Order with the current time and date.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

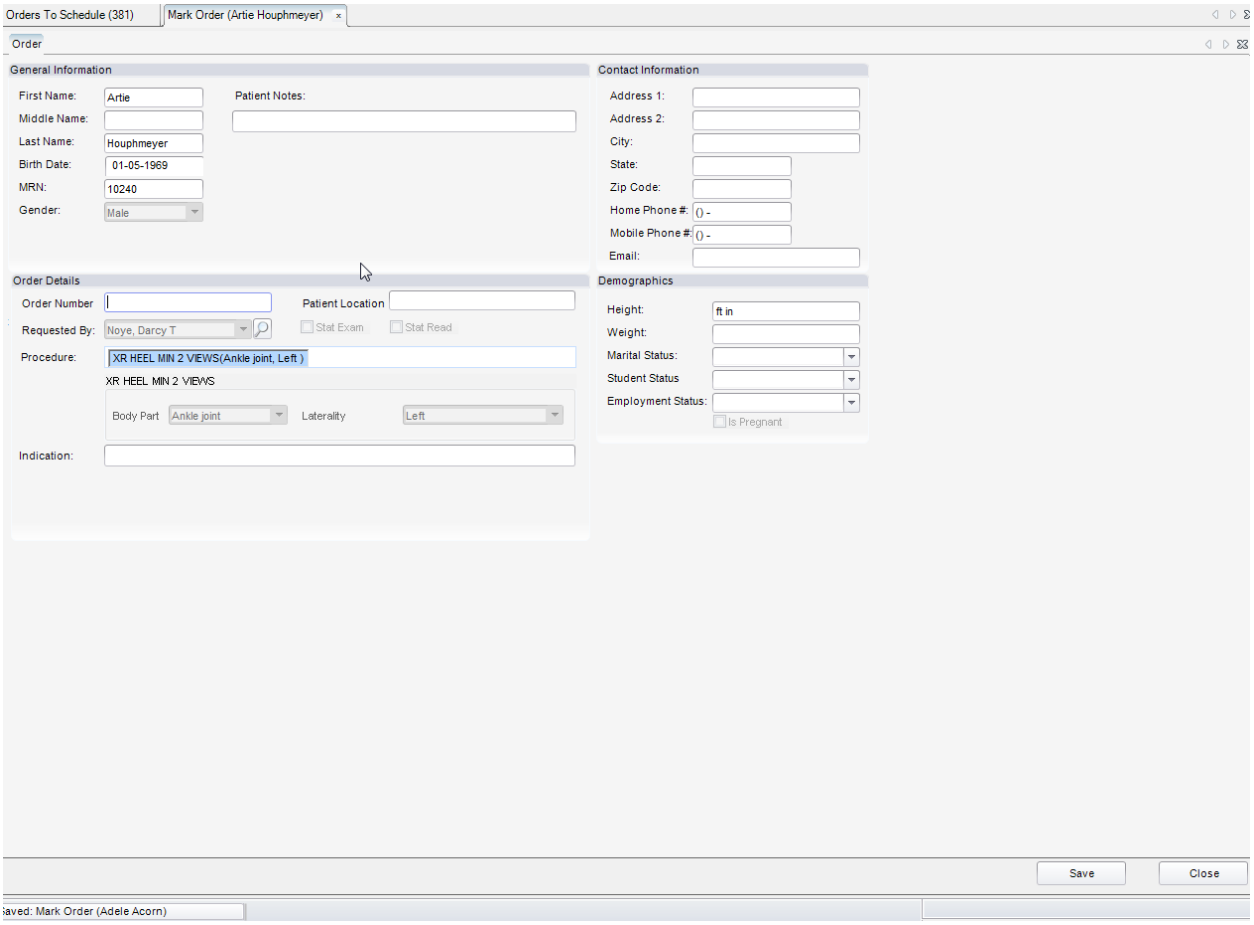



**Figure 5.2.4.1 – Mark Order**

## 5.2.5 Context Menu

The context menu offers the actions of the buttons discussed above, as well as the ability to Cancel Order, Patient Folder, Audit History, and Copy Cell. Schedule, Mark Order and Edit Order have already been discussed. Patient Folder and Audit History will be discussed later in this document.

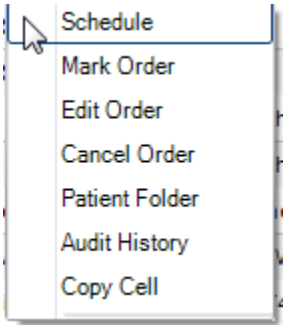



**Figure 5.2.5.1 – Orders to Schedule Context Menu**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

### 5.2.5.1 Cancel Order

Selecting Cancel Order from context menu will open the Cancel Order data window as shown in Figure 5.2.5.1.1. The message in the window displayed informs you of the patient and exam for the patient selected. A reason for cancelled the order must be chosen from the list provided to enable the OK button. Upon selecting OK this order will be removed and added to the Cancelled Orders work list.

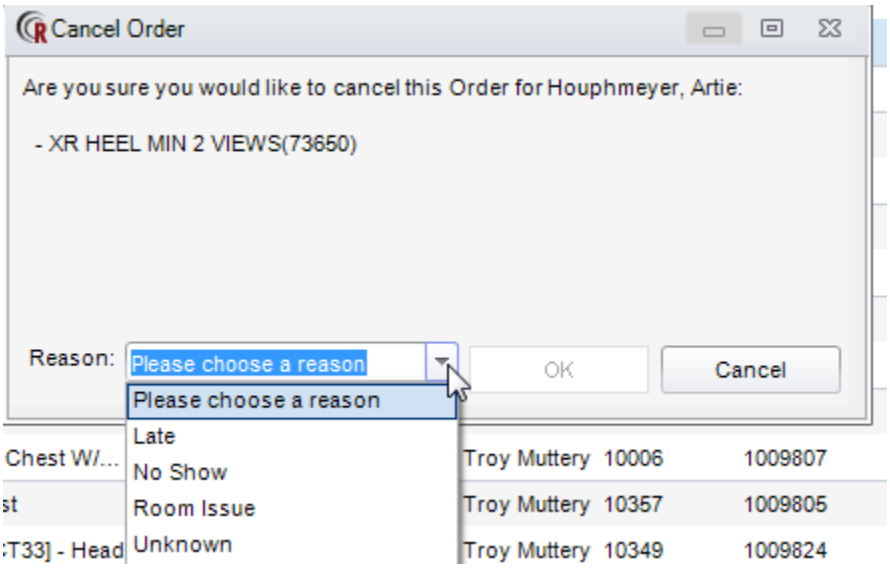



**Figure 5.2.5.1.1 – Cancel Order**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## 5.3 Appointment Book

The Appointment Book gives a view of the scheduled exams by day. The calendar view data window may be filtered by Region, Practice or Site Group, Site, Modality, Room and of course Date. The view of the calendar can be compressed using the Interval option. The exams in the view are color coded giving the user an easy reference of the status for each. A legend of the colors can be found on the bottom of the work list.

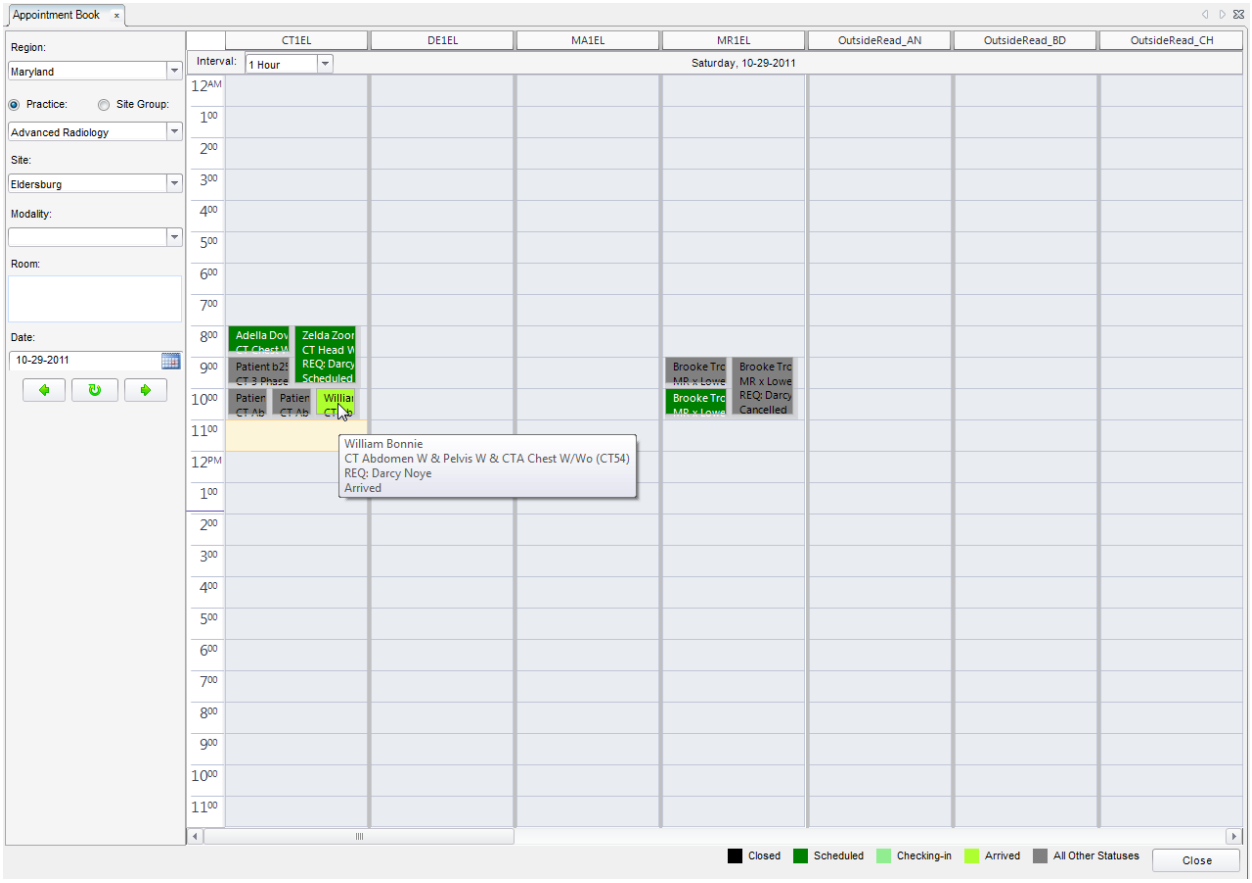



**Figure 5.3.1 – Appointment Book view**

If the time interval is increased it becomes difficult to read the entirity of the exam. Hovering the mouse over the exam will display a tool tip so the information may be read.

A user may schedule a new exam or reschedule an existing exam from this work list. A double mouse click on a blank time slot will open the Edit Schedule window and a new exam can be scheduled. Double mouse click on an already existing exam will also open the edit exam window. Changes can be made to the exam and saved as a new scheduled exam , save it as an order, or cancel.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## 5.4 Add Patient

Add patient is a simple data window that accepts user input, with no search functionality. The user will have to perform a patient search before taking the action to create a new patient. The MRN is a unique system generated ID.
The patient tab has 4 different sections capturing patient data.
The General Information section captures the patients name, gender and date of birth.
Contact Information section captures address, phone numbers, email address, and preferred methods of contact and delivery method.
Patient Origin section captures the patient's primary language, education, religion, race and ethnicity.
Lastly Patient Notes are captured in a free form text box.

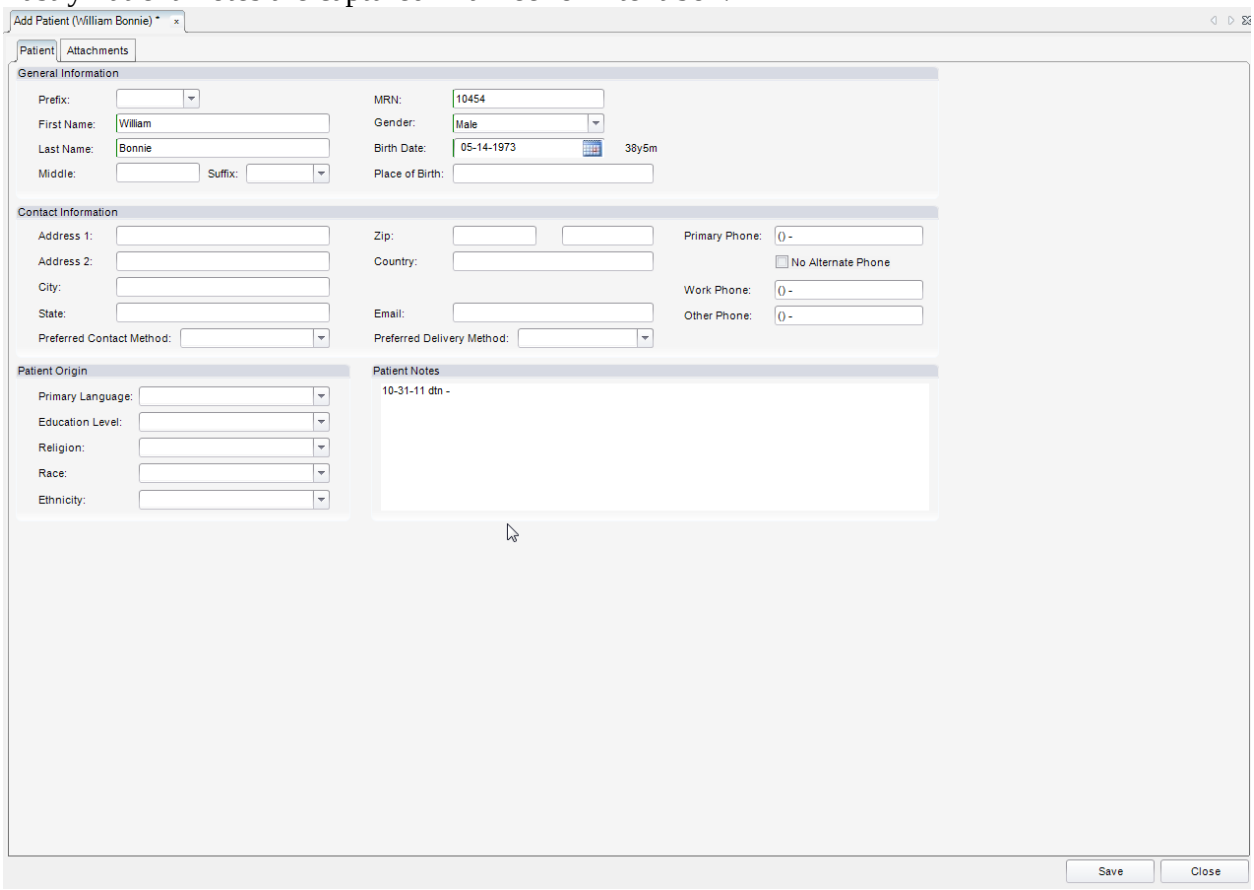



**Figure 5.4.1 – Add Patient data window displaying Patient tab**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

The attachments tab allows the user to scan or import any relevant documents. Each document attached to the patient will display in a work list fashion on this tab. The patient and Attachment tabs are very similar throughout the application.

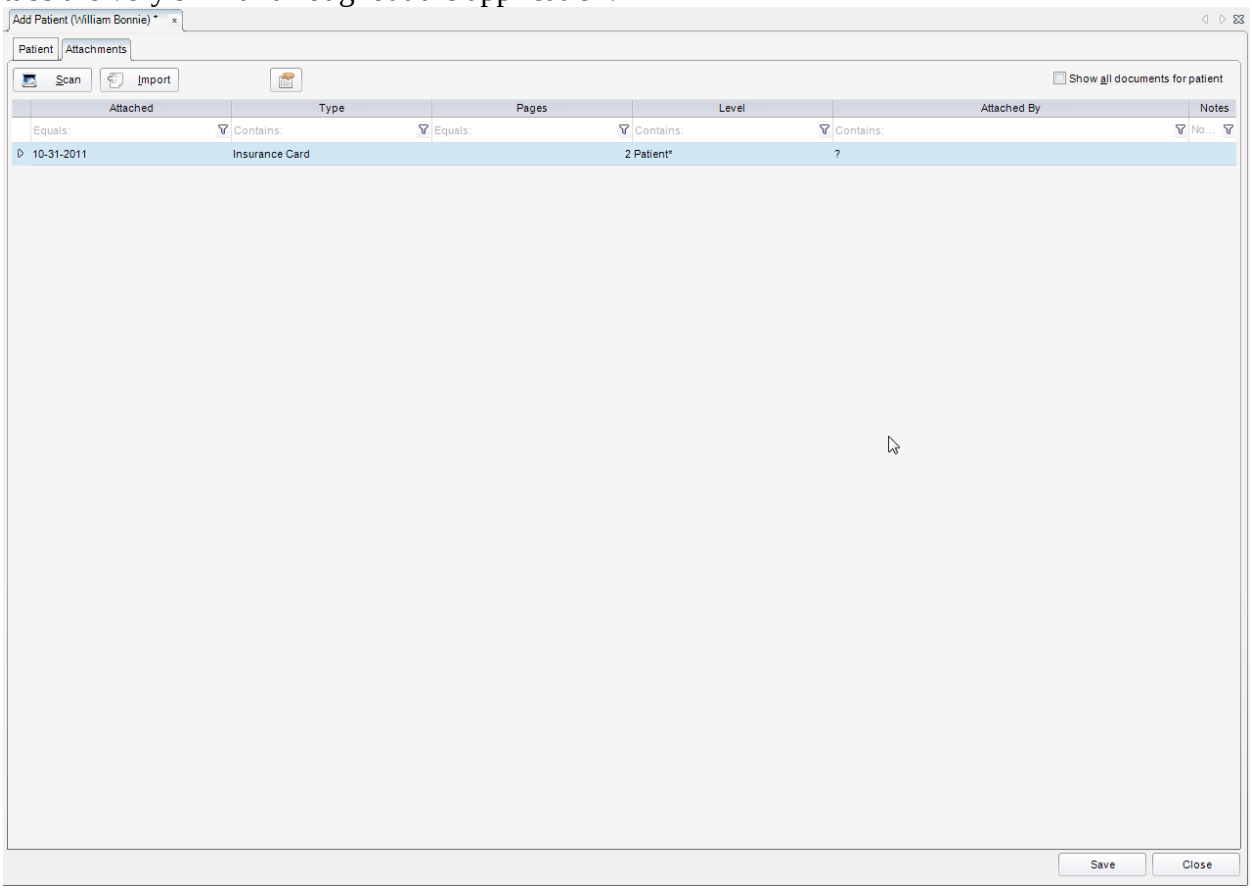



**Figure 5.4.2 Add Patient data window displaying Attachments tab**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## 5.5 Add Outside Read

Professional Only workflow outside reads – a new data window was added under the Scheduling menu.
"Add Outside Read" will open a new window that will allow the user to:

- Search or add a new patient.
- Data entry for exam date, order notes, stats, indications, referring, practice, etc.
- Entry for the exam location using the site field (required).
- Enter a list of studies for the order.
- Scan Documents for each study.

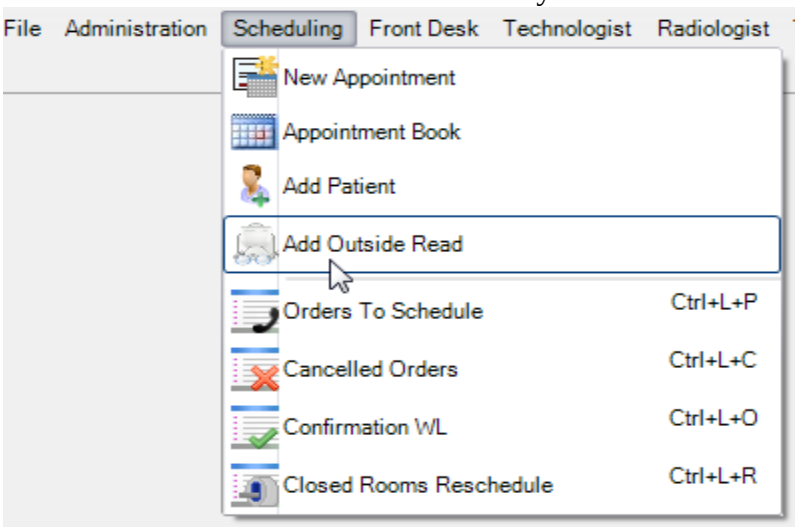



**Figure 5.5.1 – Add Outside Read menu option**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

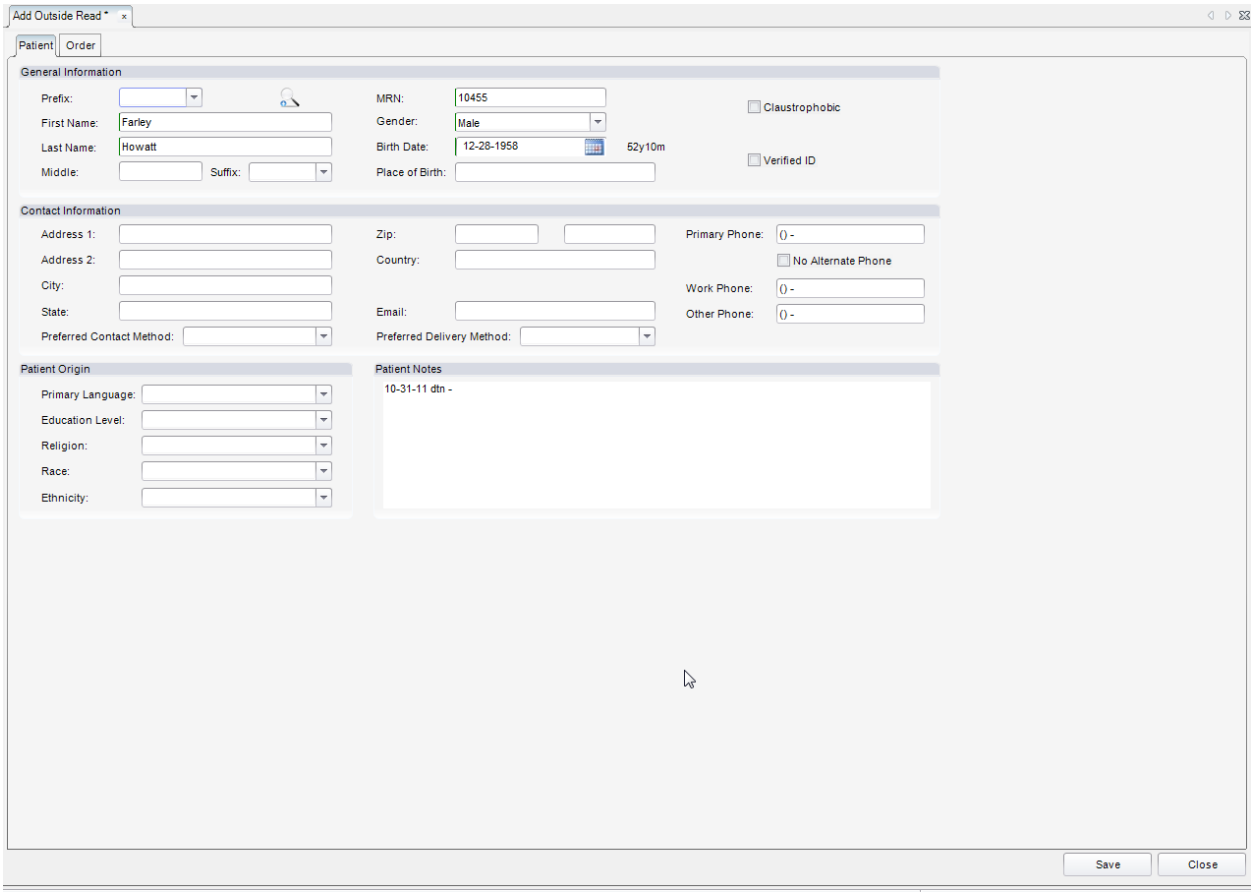



**Figure 5.5.2 – Patient tab of Add Outside Read data window**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

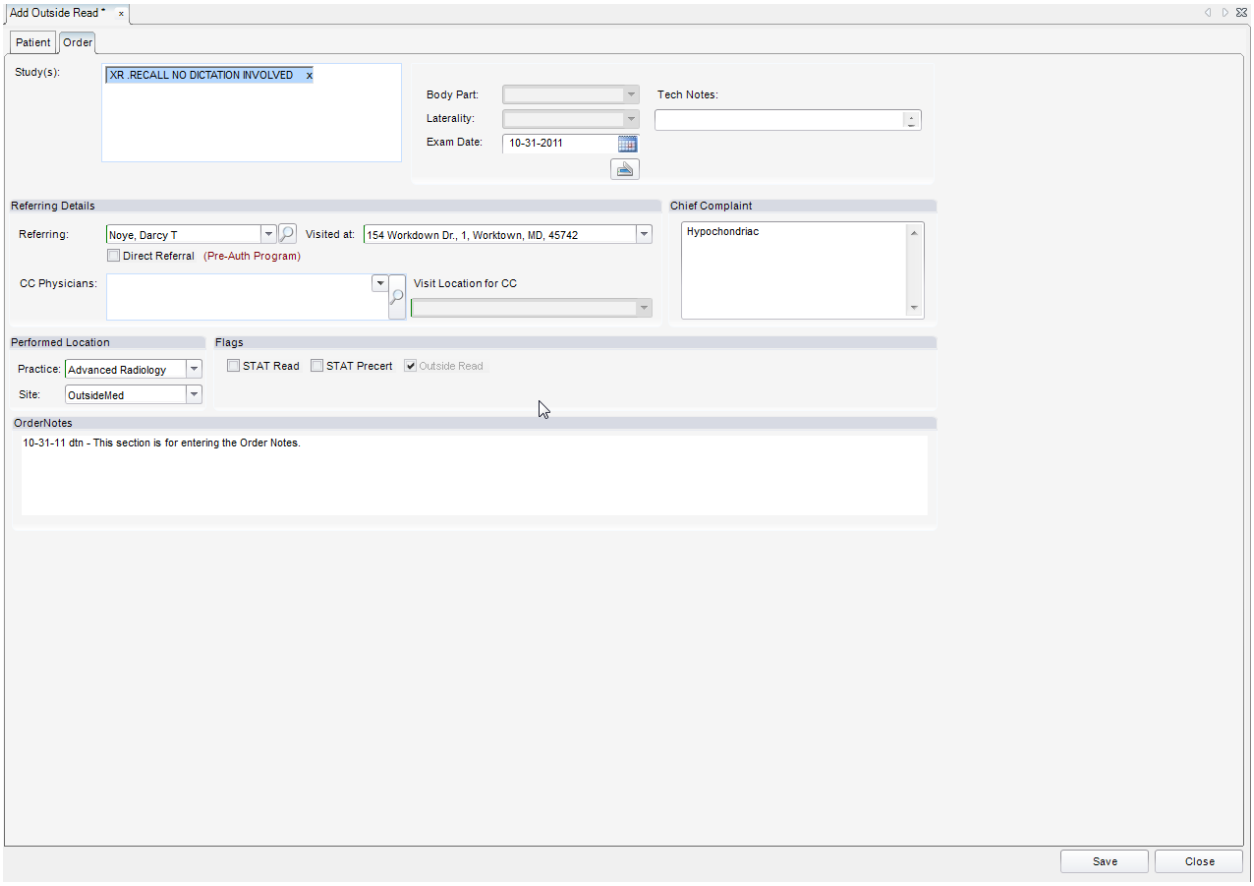



**Figure 5.5.3 – Order tab of Add Outside Read data window**

Once the information for the Outside Read has been added to the data window, the study will be moved directly to Exam Done status and are ready for dictation, transcription and signing.

Administrators will need to create one modality for each modality type. These modalities created do not have to be assigned to scheduling groups (sites) also the Outside Read Modalities can marked as inactive. If the modality does not exist a message will inform the user with a list of modalities the administrator will need to create.

In the organization screen for site, the field “outside_read_location_flag” has been added. When this flag is set those sites will not show up in the other Scheduling screen’s schedule/reschedule inputs for site. And on the “New Outside Read” only the sites for outside reads will be displayed.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

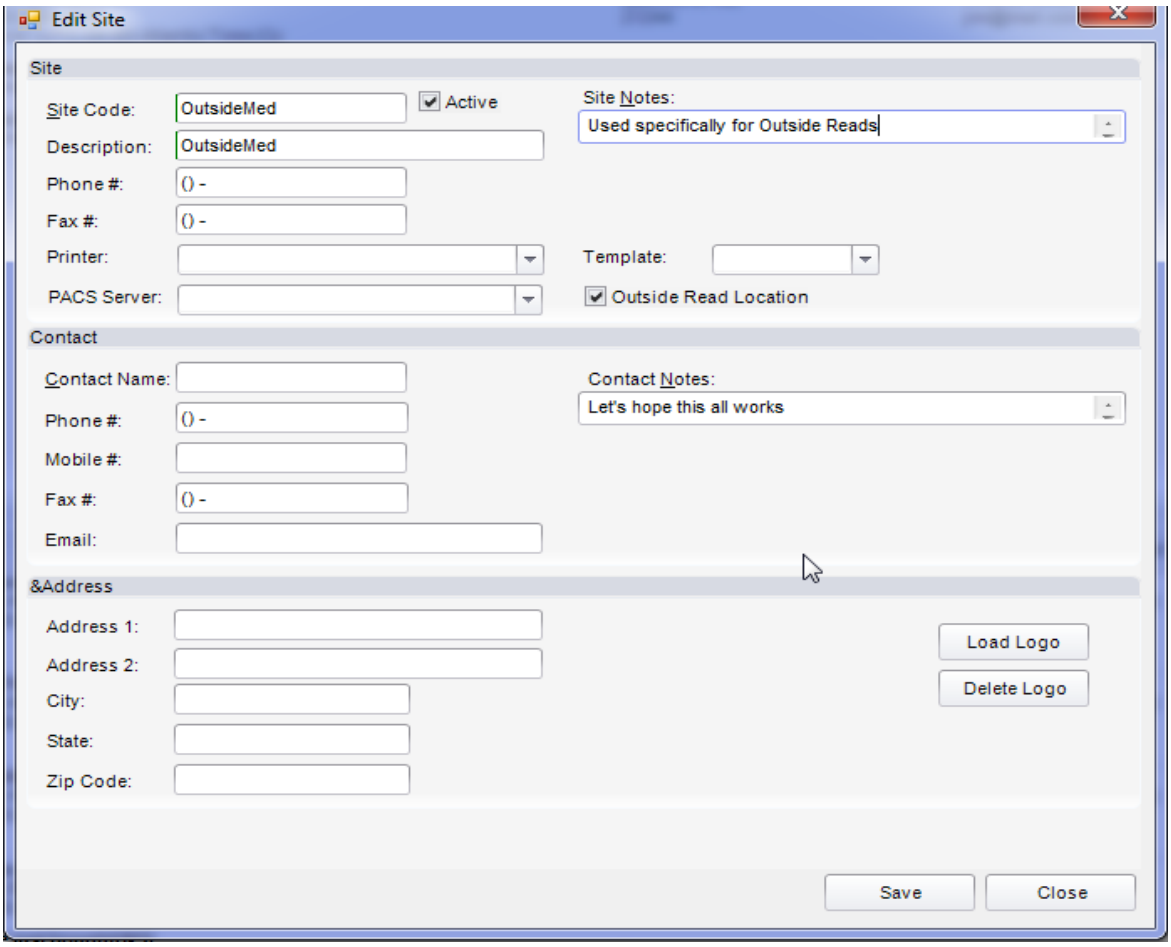



**Figure 5.5.4 – Outside Read Site needs to be created.**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## 5.6 Confirmation work list

The Confirmation work list is a daily view work list that displays the contents of the days scheduled procedures. As a patients is confirmed the record will be removed from the work list, but remains on the days Reception work list. The options from this work list are Confirmation and Reschedule using the buttons in the lower right of the work list. A context menu also gives the user options to edit patient, access forms and labels, access patient folder, audit history, and to copy the contents of a cell.

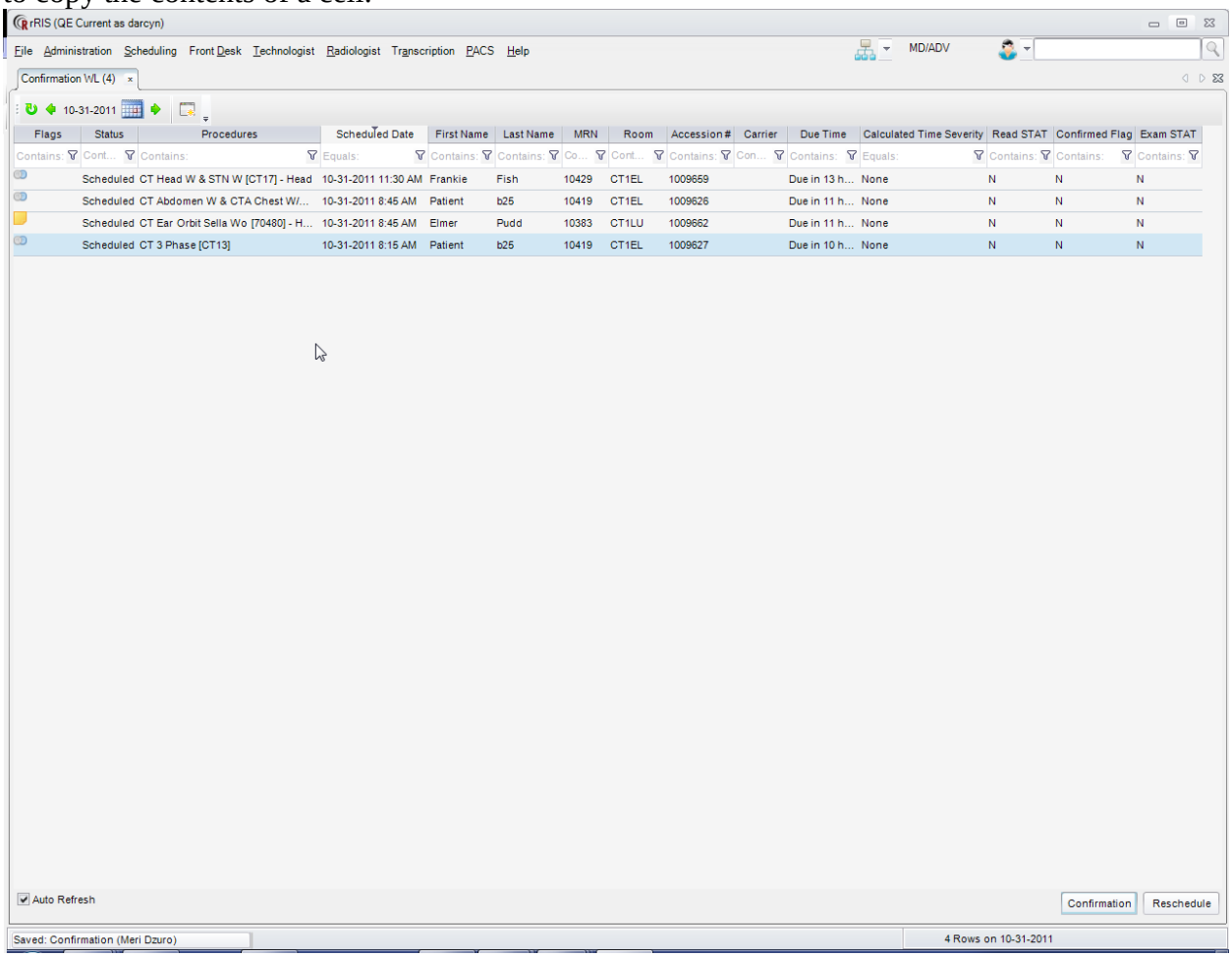



**Figure – 5.6.1 – Confirmation work list**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

### 5.6.1 Confirmation data window

Selecting the Confirmation button from the work list will open the Confirmation (patient name) data window. If patient has multiple exams scheduled for that day the user will be prompted with message asking if they would like open the other order along with the one you are currently opening.

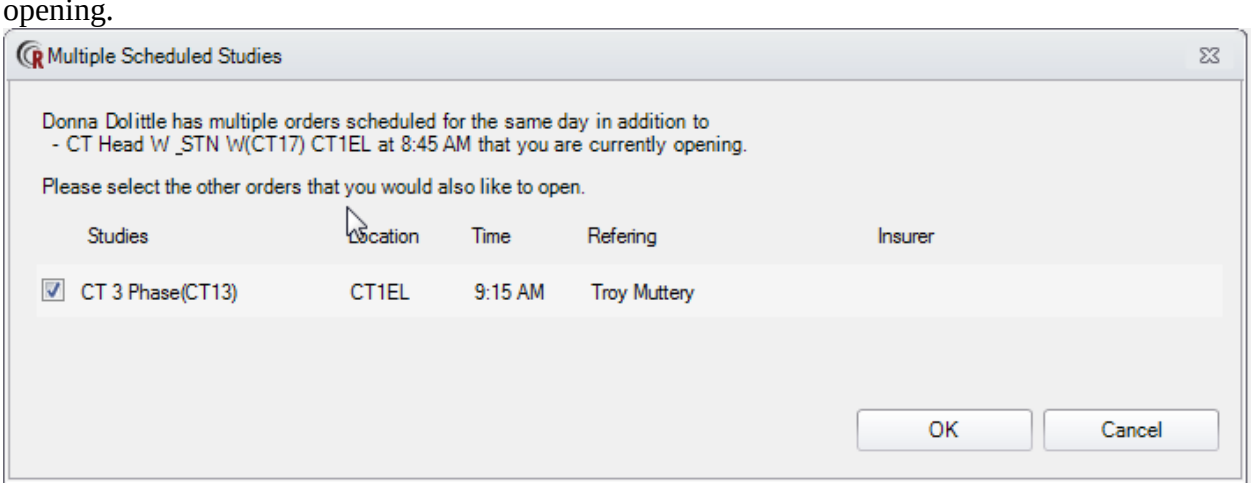



**Figure 5.6.1.1 – Confirmation – Multiple Scheduled Studies**

If the user chooses so they can open the other study(s) for confirmation. The data windows have the same fields as scheduled order, with the exception of the Exam tab which doesn't have the advance search options. Selecting the Confirmation button will remove this patient's study(s) form the Confirmation work list. The exams will remain on the Reception work list.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

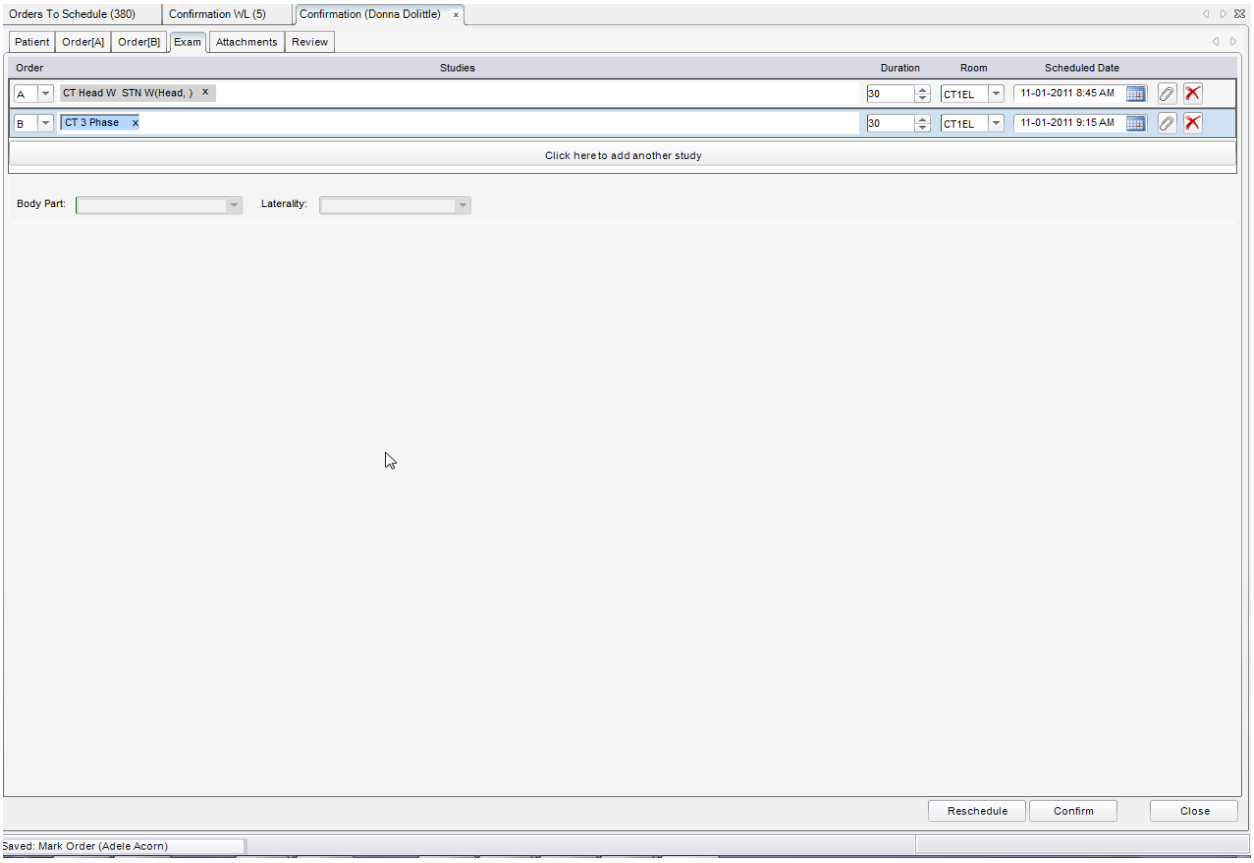



**Figure 5.6.1.2 – Confirmation Data Window**

The user also has the option to Reschedule, or to simply close the data window without saving any changes and the patient's study(s) will remain on the work list.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## 5.7 Closed Rooms Reschedule work list

The cancelled orders work list will contains all scheduled orders that are scheduled in a room that has been closed. The button options from this work list are to reschedule the order. The context menu also has the reschedule option as well as the option to change the status of the exam. The exams will drop off the work list as they are rescheduled or when the time of the original exam has passed.

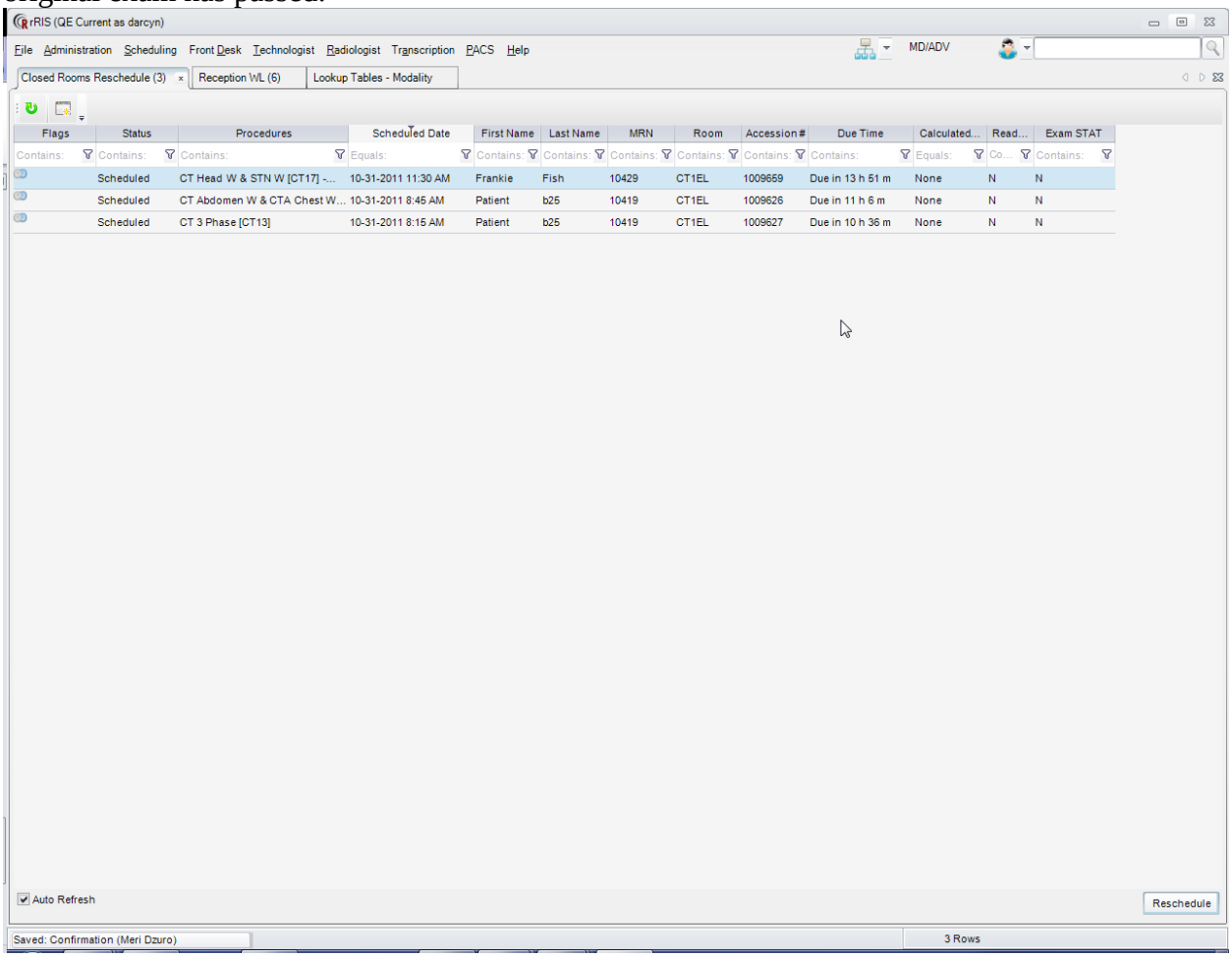



**Figure 5.7.1 – Closed Rooms work list**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## 5.8 Cancelled Orders work list

The Cancelled orders work list contains all of the orders that have been cancelled. As of right now, this work list is only a visual confirmation of what has been cancelled. At this time you cannot re-order or create a new order from this work list. The user can check the Audit History to see who and when the order was cancelled.

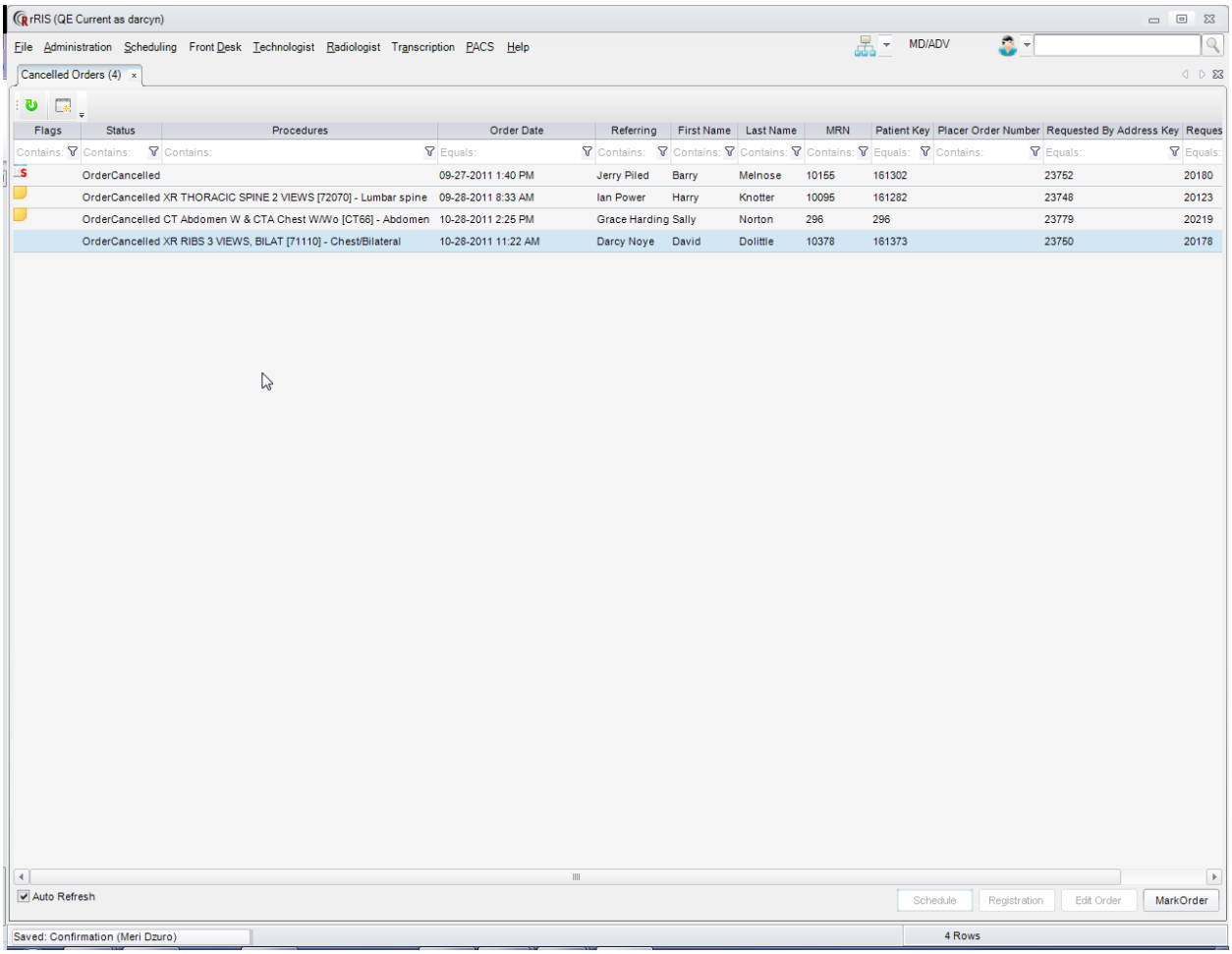



**Figure 5.8.1 – Closed Rooms work list**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## 5.9 Reschedule

Reschedule can take place from the Reception work list, Confirmation work list, Appointment Book, and the No Show work list. Upon select to Reschedule, the user will be prompted with the window displayed in figure below.

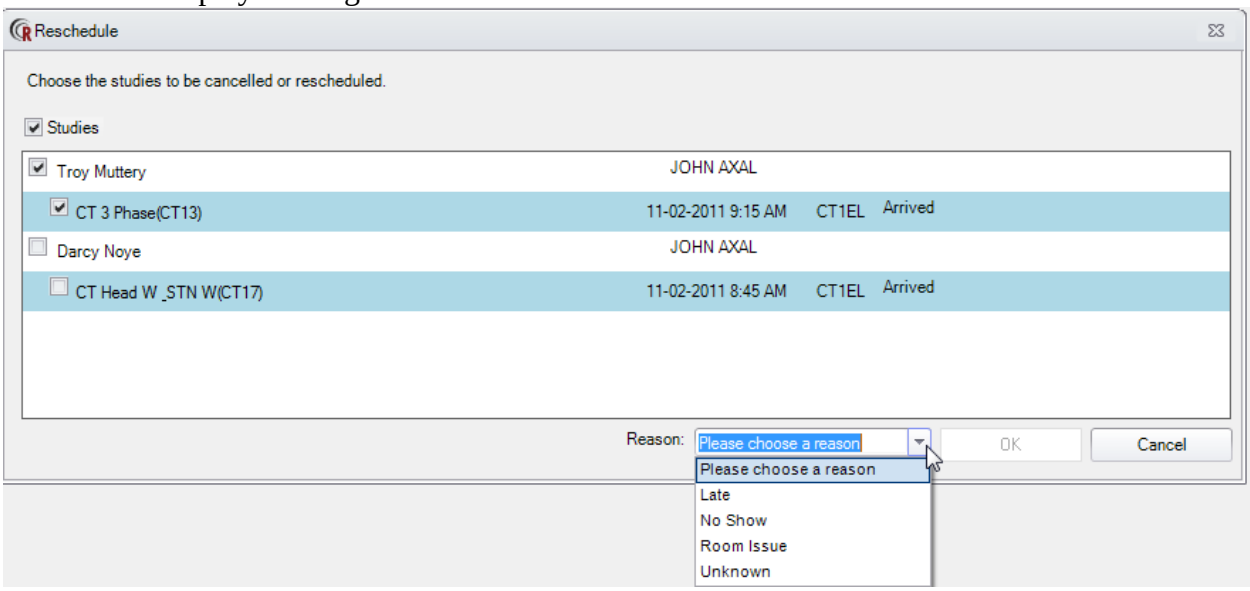



**Figure 5.9.1 – Reschedule**

If the patient has multiple scheduled exams for that day the user can choose to reschedule one or all. The exam selected from the work list is checked by default. The user must select a reason code for the reschedule to enable the OK button.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 6. 6. Front Desk

## 6.1 Reception work list

The Reception work list is a daily view of the exams scheduled. The calendar Icon allows the user chooses a different day, month, or year. The user can also navigate to other days using the left and right green arrows on either side of date and calendar control. Possible buttons actions are Registration, Reschedule, Edit Order and Mark Order. Context menu options are Registration, Reschedule, Edit Patient, Forms and Labels, Patient Folder, Audit History, Copy Cell, Change Status to…which contains is own sub-menu, and Request Copies of Images.

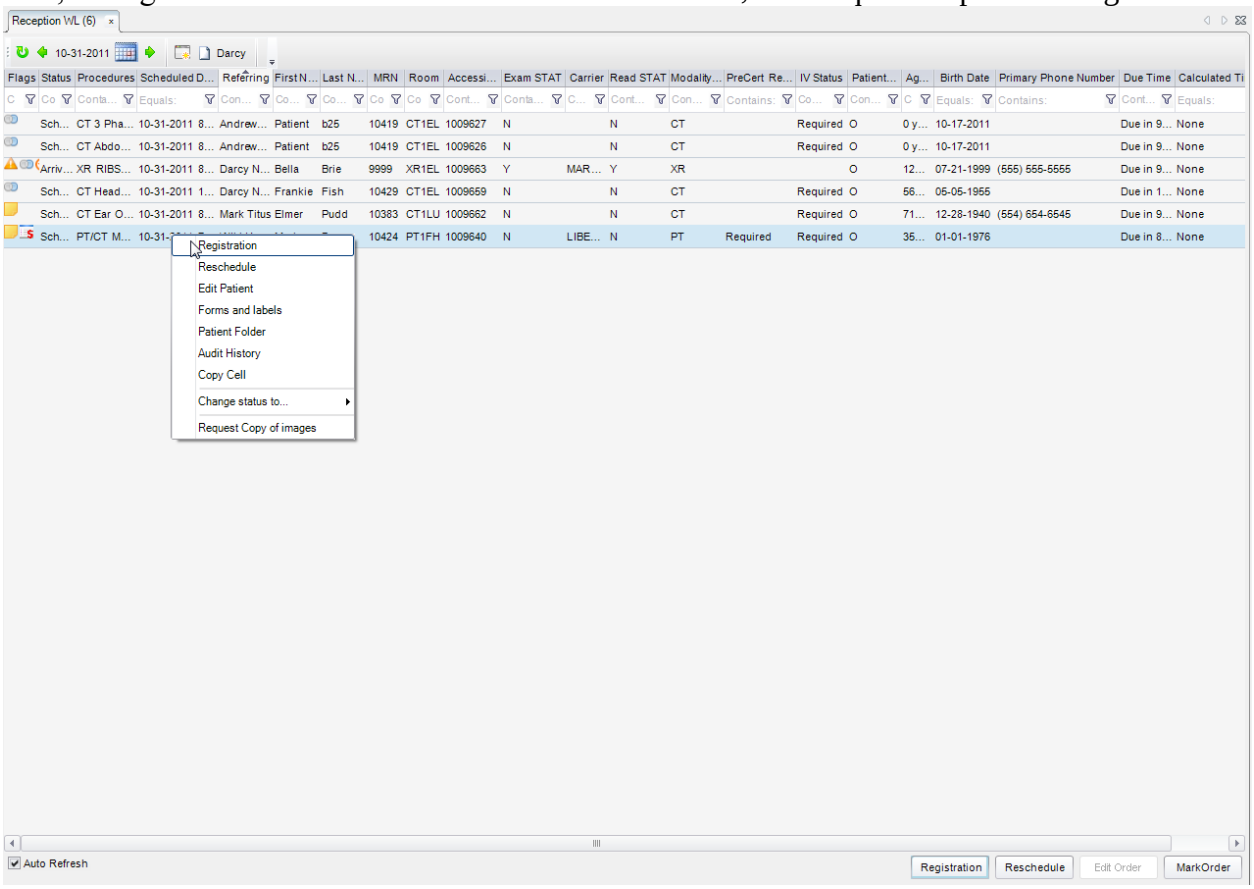



**Figure 6.1.1 – Reception work list with context menu displayed**

Registration is to be completed to get the patient status to checked in or arrived status.
Much of the registration data fields will already have been complete. Required fields at the time of Registration are the Verified ID flag, Responsible party, and the user will be prompted for policy information, which can be bypassed.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## 6.2 Registration

Registration is accessed from different places in the application. A user can complete Registration from Orders to Schedule work list, bypassing the schedule order stage. The Reception work list also has the ability to complete Registration. The actions from Registration are to Check In the patient Arrive the patient, save changes to the data window and leaving it in a state of scheduled if accessed from Reception work list, or advancing the order to scheduled status if registration was accessed from Orders to Schedule work list. The use can also close the Registration data window. If changes were made in the data window the user will be prompted to save changes.

### 6.2.1 Patient Tab

The patient tab is the same as new order with the exception of a Labels and Forms button giving the user the ability to print any label or form that may be associated with the procedure. Also there are two additional check boxes for Arbitration Signed and Verified ID, which is mentioned above as being a required field.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

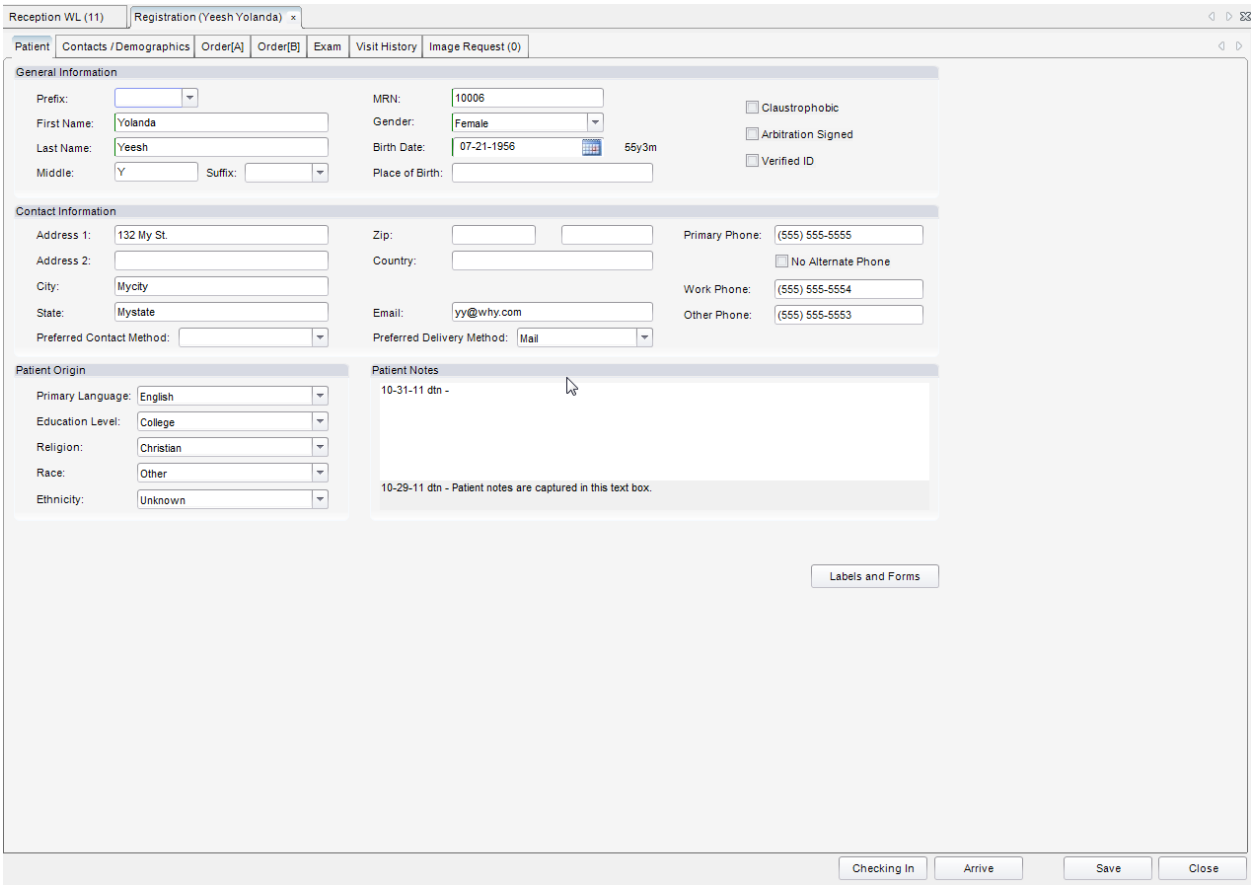



**Figure 6.2.1.1 – Patient tab at Registration**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

### 6.2.2 Contacts / Demographics

Again this tab is essentially the same as in new order with the exception of the Demographics at Encounter that is located on the Visit History tab for Registration. The Responsible Party is required.

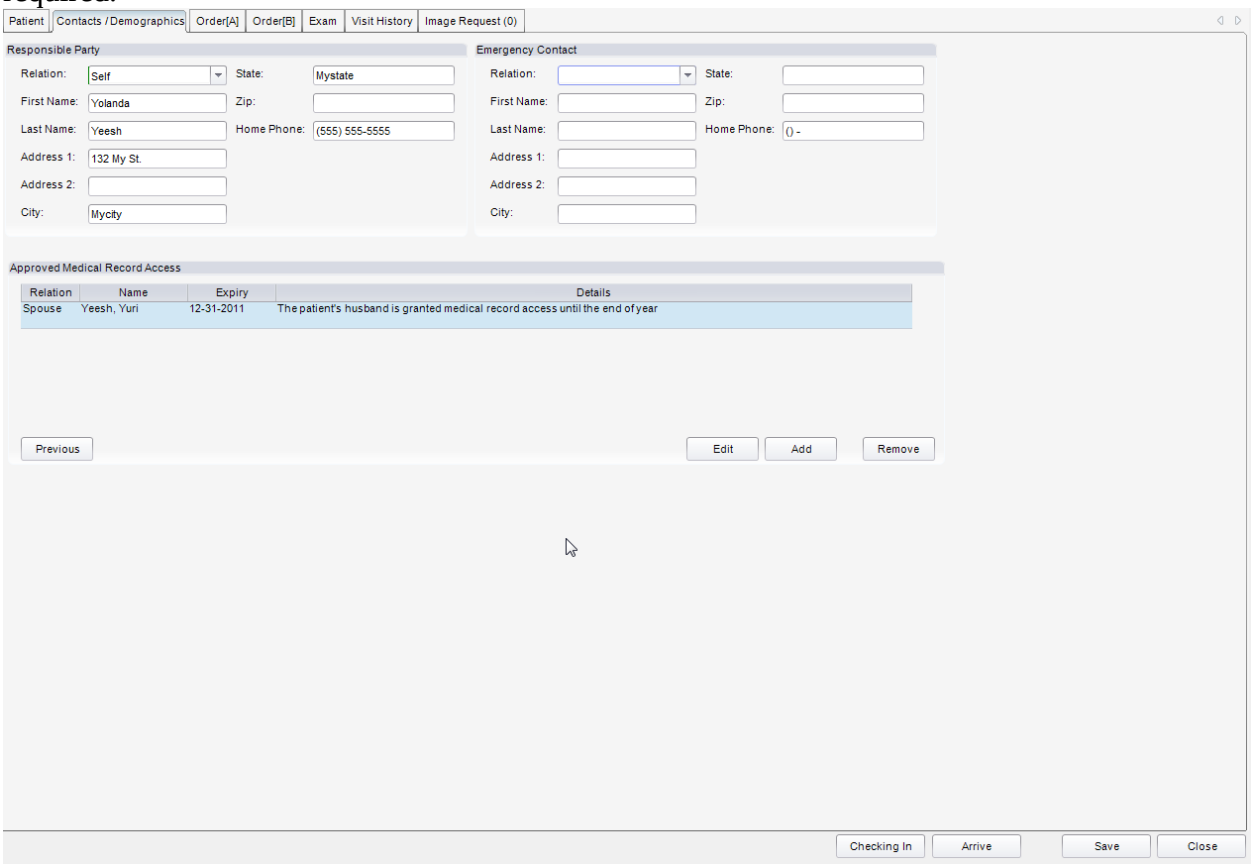



**Figure 6.2.2.1- Contacts/Demographis Tab**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

### 6.2.3 Order Tab

The order tab of the Registration data window has the same fields as Schedule Order with the addition of Payments.

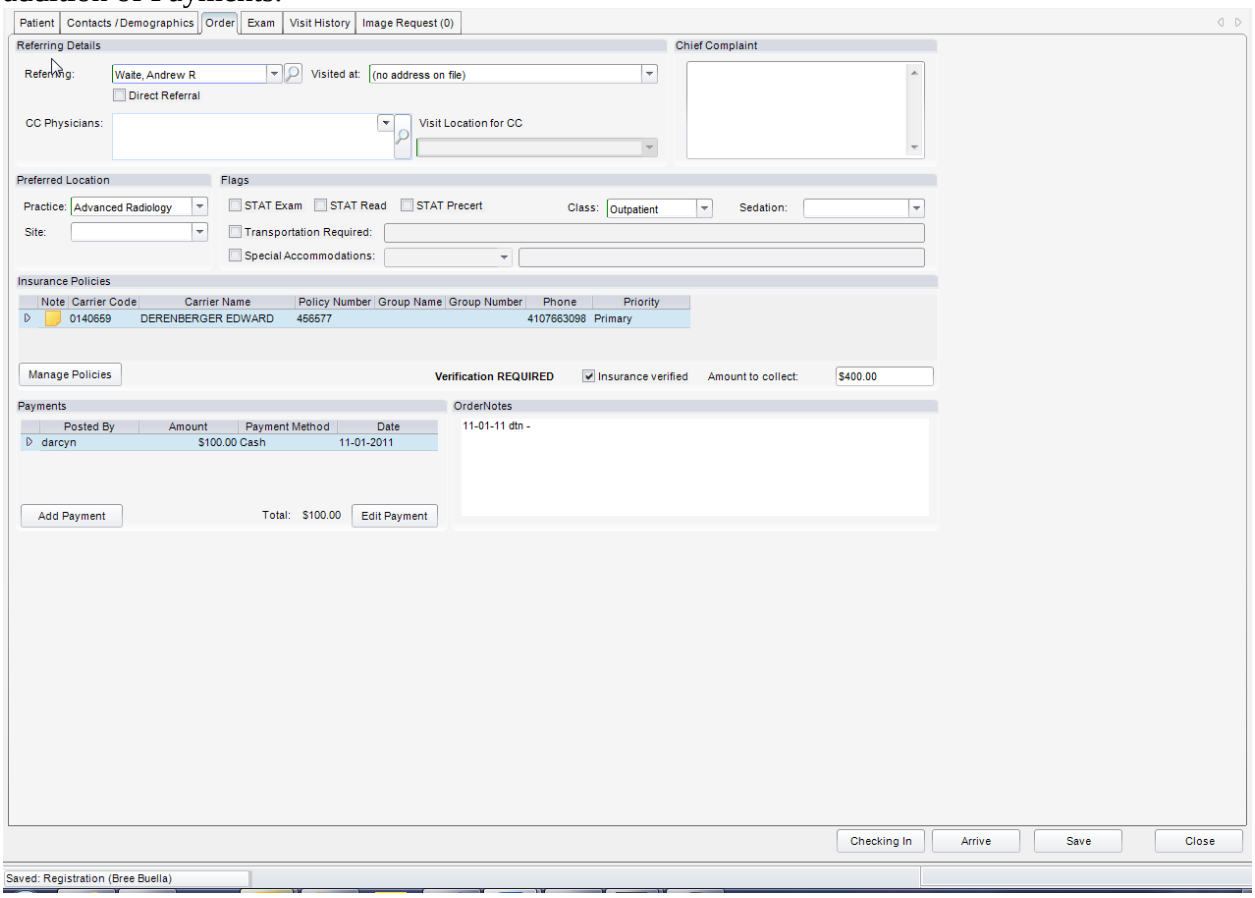
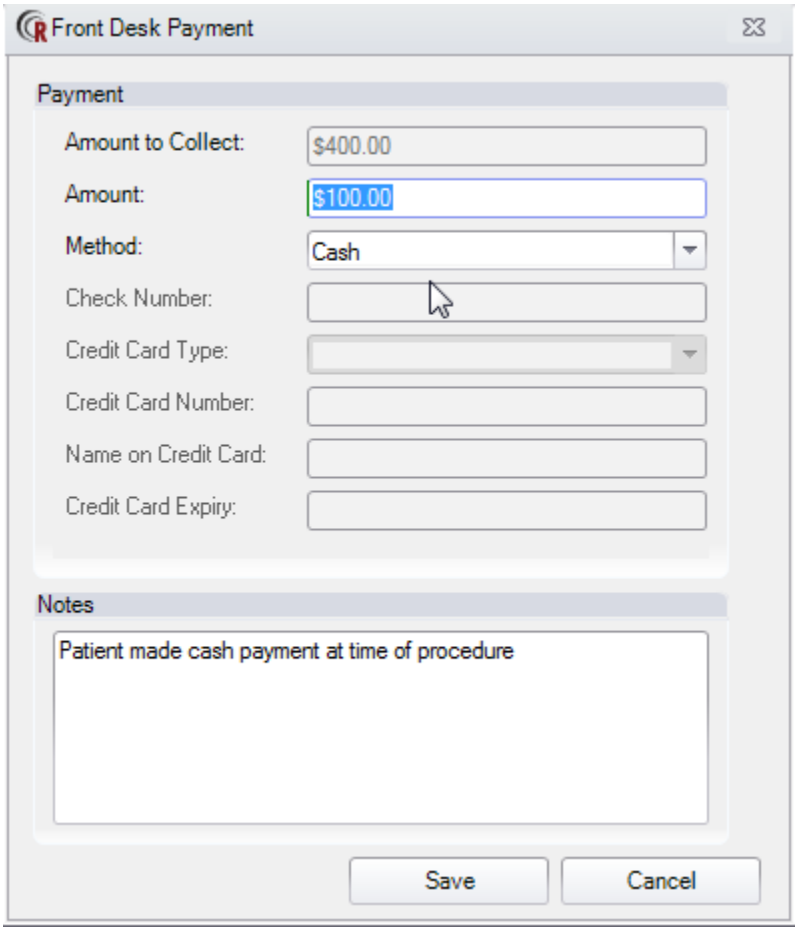



**Figure 6.2.3.1 – Registration Order tab**

Payments can be made and a history of who accepted the payment, the amount, method of payment, and the date the payment was entered. Payment details may be edited after being posted.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.




**6.2.3.2 – Payment window**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

### 6.2.3 Exam Tab

The exam tab displays the study(s) orders, duration, room and date of the procedure. Attachments may be accessed or added. You will remember in the Schedule Order window, this area was used to display the advanced scheduling availability. The prep instructions occupy this space in Registration. Also on this tab are the PreCer t#, Expiry Date, and Billable Item.

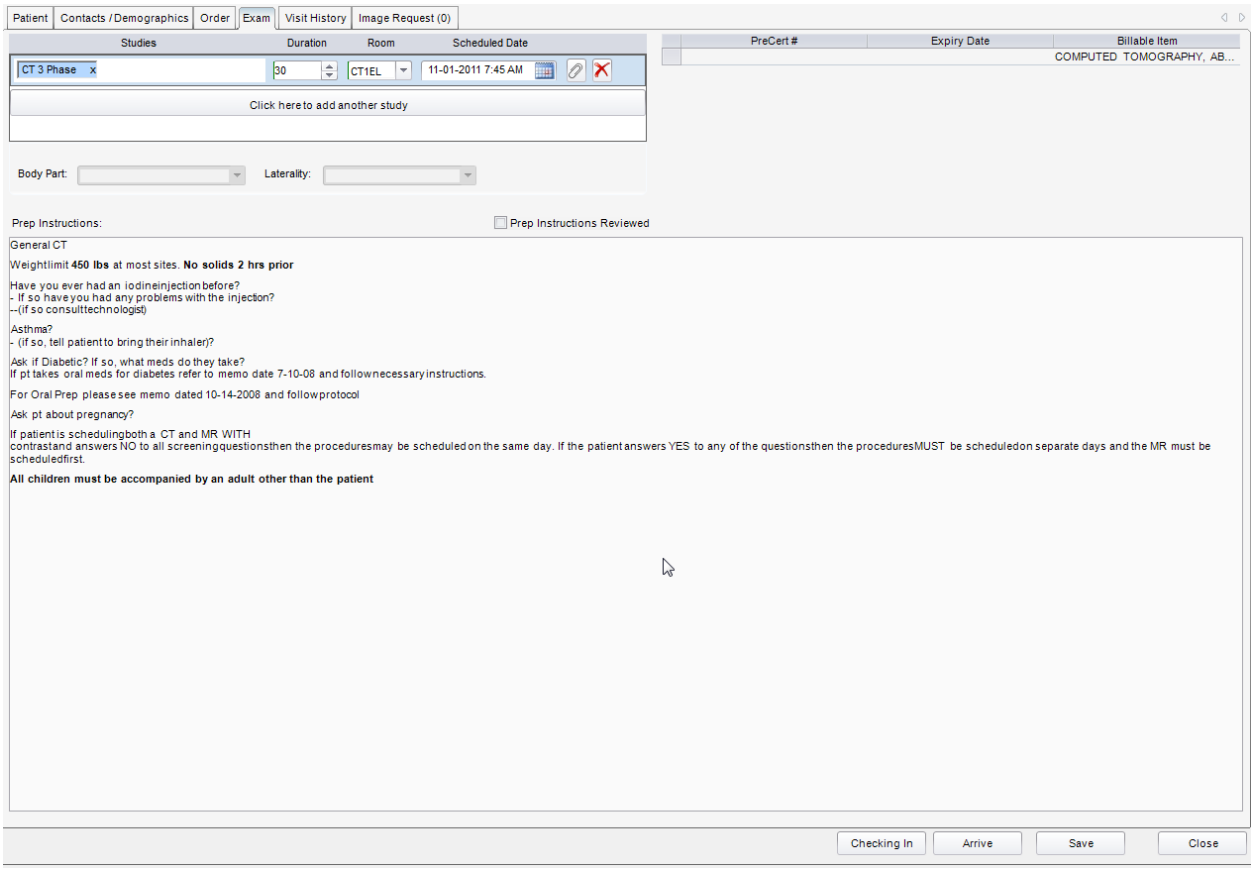



**Figure 6.2.3.1 – Registration Exam tab**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

### 6.2.4 Visit History

The Demographics at Encounter is located on the Visit History tab. Also included on this tab are the patient's drug allergies and Patient Immunizations with the ability to Export to HL7.

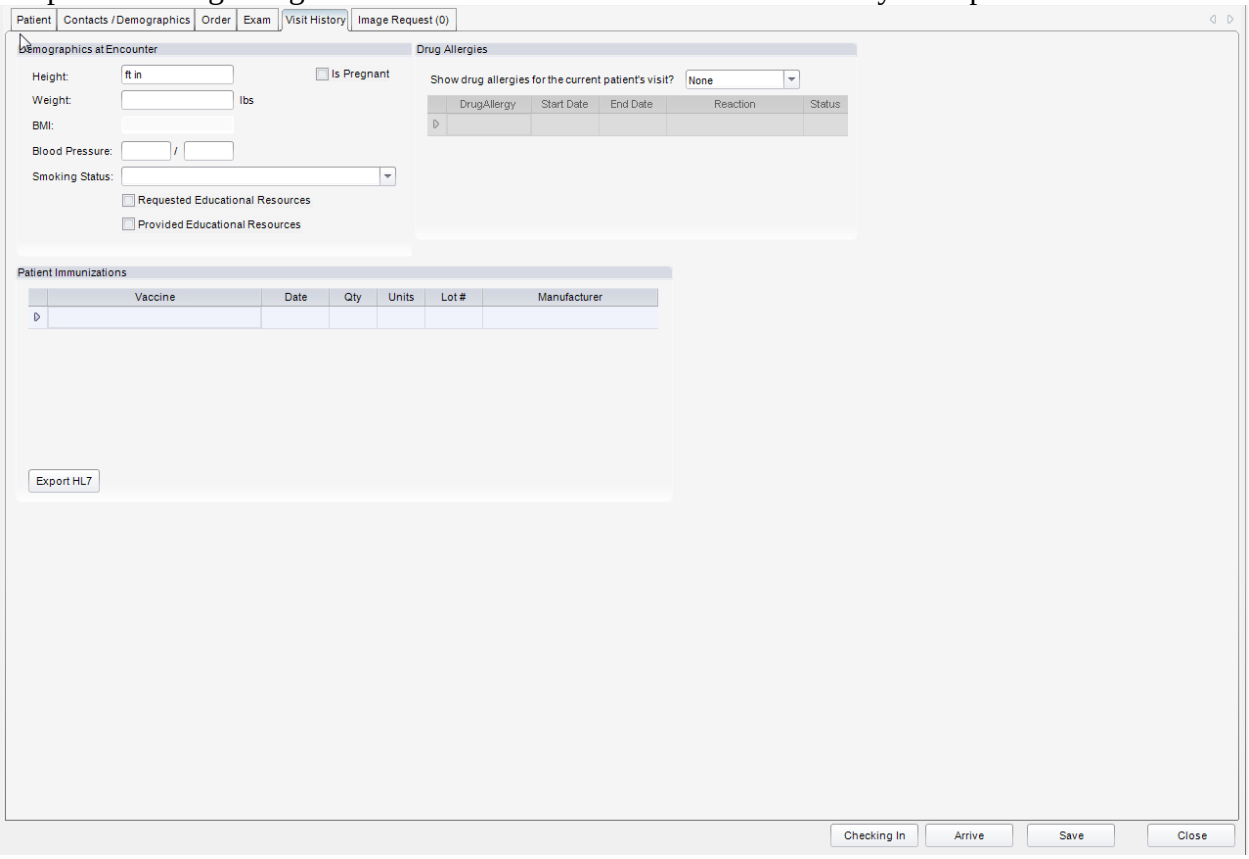



**Figure 6.2.4.1 – Visit History tab**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

### 6.2.5 Image Request

The Image Request tab is a work list view displaying the request for images for this scheduled procedure. From this tab the user may add, edit or remove edit requests. The user may also print the release form. Creating Image requests will be covered later in this document. The Image Request data window is present on the Schedule Order, Registration and Perform Exam data windows.

The Image request tab will contain the number of image requests for the study. A study with no requests for images with show "Image Request (0)" in the tab page title.

Only new requests can be removed (i.e. not save to the db). In order to "remove" other requests they have to be cancelled. This can be accomplished via the Image request tab or by editing the request from the Image Request work list.

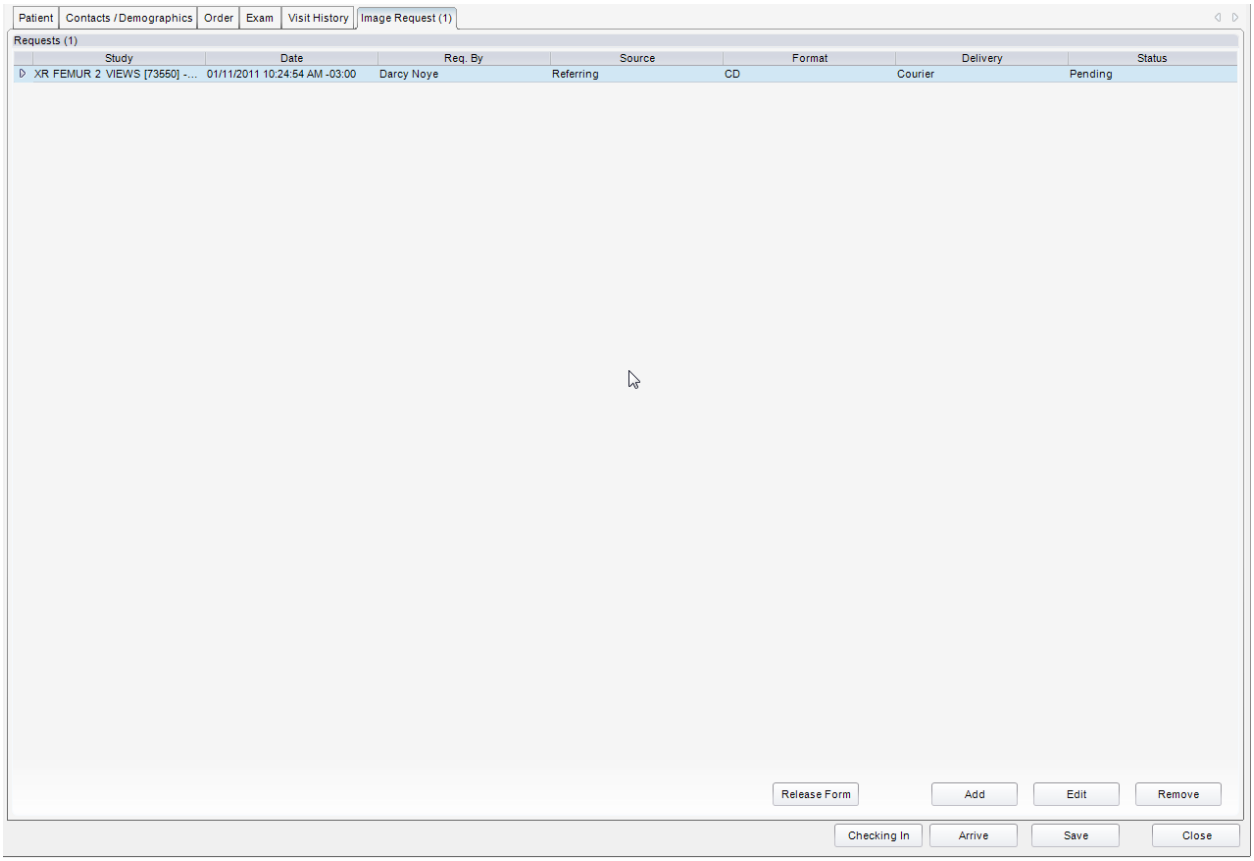



**Figure 6.2.5.1 – Image Request Tab**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

From the Image Request tab, a new request can be added, or a previous request edited. The remove button will only work for requests in a status of "New". In the example above the status is Pending. The request would have to be edited and cancelled.

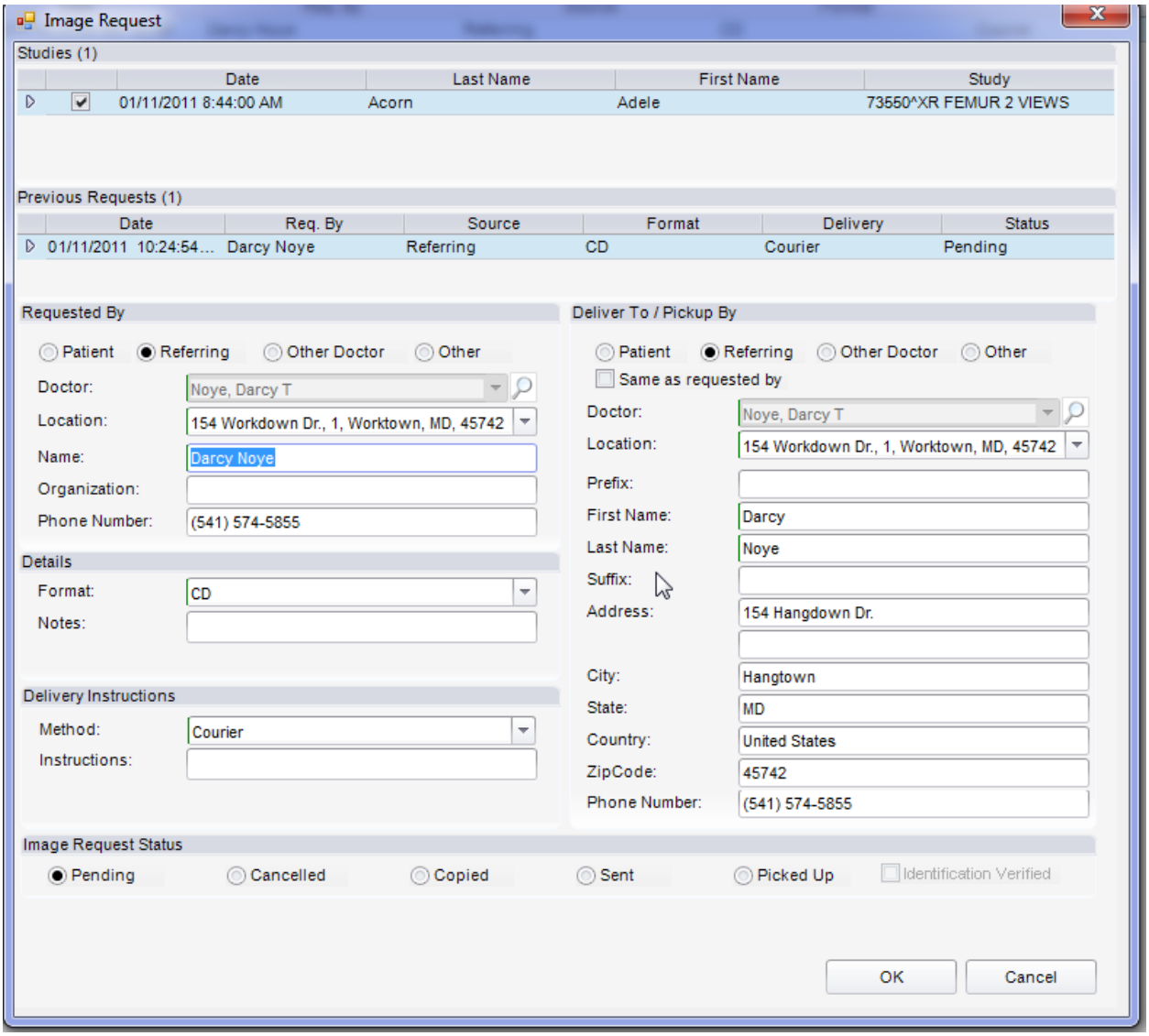



**Figure 6.2.5.2 – Image Request window**

Within the Image Request window the user will have the ability to change its status when creating a request. This will allow a user create and complete the request in one step. The "complete" status has been split. . Available statuses for the request are Pending, Cancelled, Copied, Sent and Picked Up. The statuses of Sent and Picked Up enable the system to

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

differentiate how a request was completed. Also, when a request is picked up, the "Identification Verified" check box is enabled and becomes required.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## 6.3 Walk In Data Window

The Walk In data window is essentially a mirror copy of the Registration data window with no data. This gives the user the ability to skip the New Appointment and / or Schedule Order process. The idea is a patient shows up with order in hand requesting a procedure. Please refer to screenshots in section 6.2

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 7. Technologist

## 7.1 Technologist work list

The Technologist work list is a daily view for the Technologist role. As exams are completed, the record will be removed from the work list. If the exam is completed, it will advance the status to exam done. Alternatively the exam may be aborted, and thus the exam will sent back to the pending orders work list if the user so chooses or can simply be discontinued. Discontinued exams remain on the Technologist work list.
Button actions are Perform Exam and Edit Patient. Context menu options are Perform Exam, Edit Patient, Forms and Labels, Change status to…(which has a sub menu), Patient Folder, Audit History, Copy Cell and Request Copy of Images.

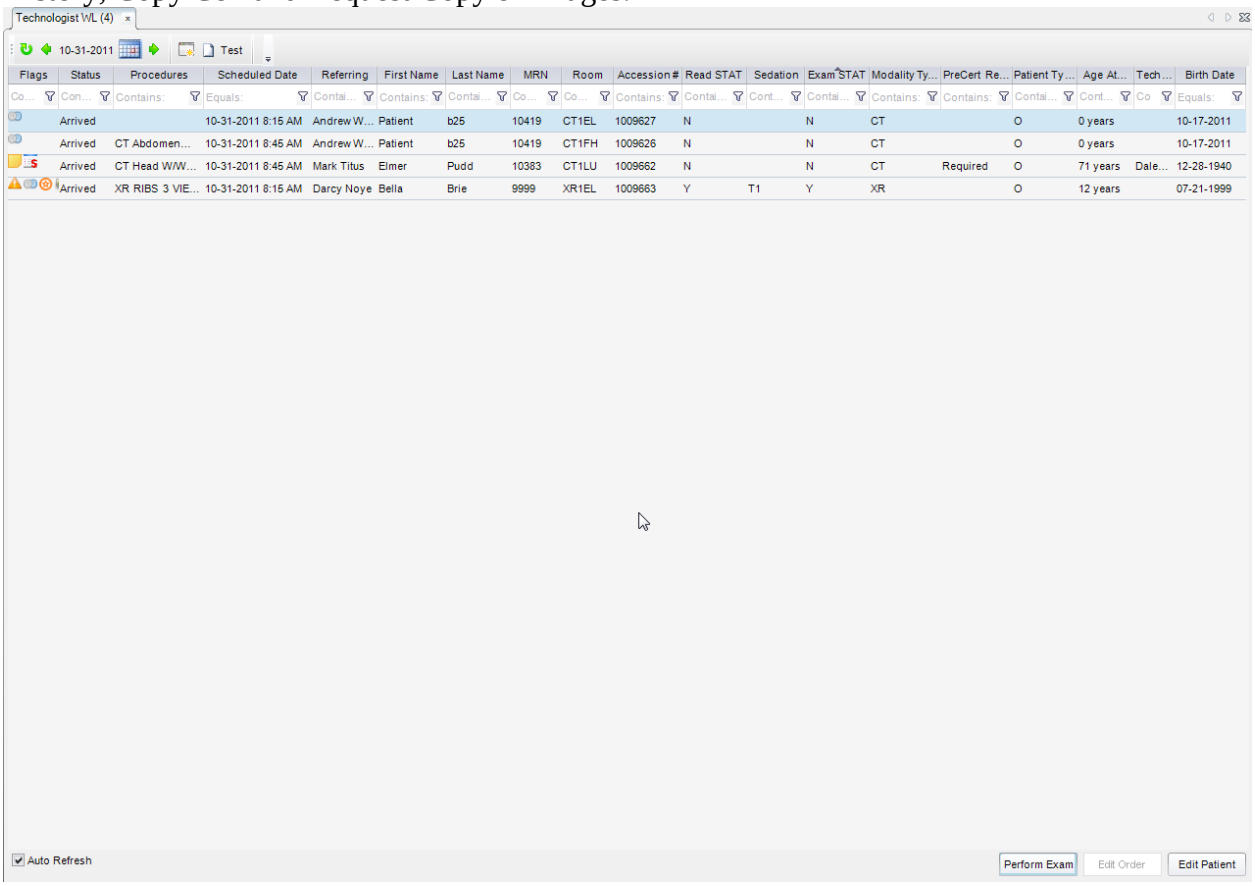



**Figure 7.1.1 – Technologist work list**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## 7.2 Technologist Data Window

Accessing the Technologist data window the user selects a procedure from the work list and then selects the Perform Exam button. This covered in 7.2.8 of this document.

### 7.2.1 Patient Tab

The patient tab has the same look and feel as in Schedule Order and Registration.

### 7.2.2 Order Tab

The Order tab has the Referring details, Chief Complaint, Preferred Location, Flags, and Order Notes.

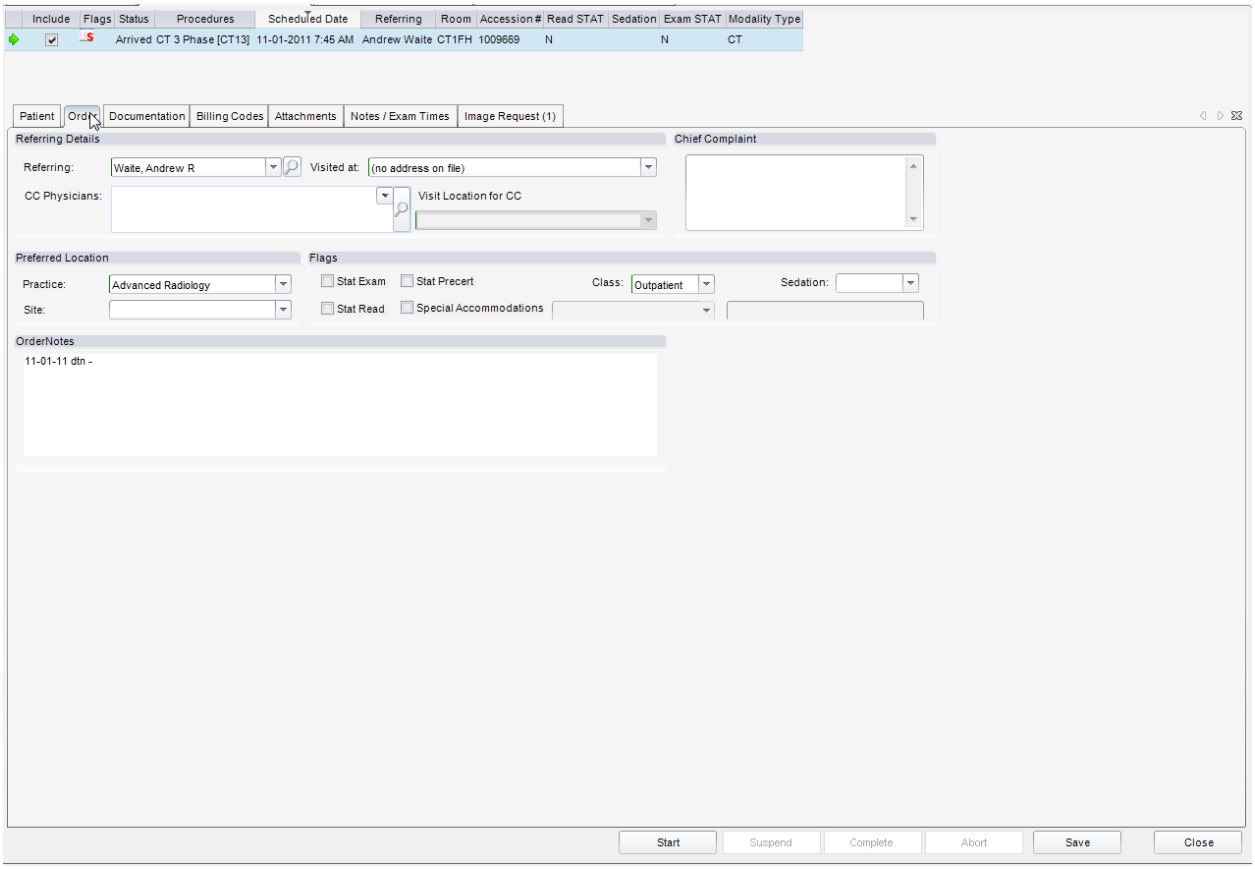



**Figure 7.2.2.1 – Perform Exam Order tab**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

### 7.2.3 Documentation Tab

The Documentation tab captures the Techs notes, the techs that performed and assisted on the exam, patient details, the equipment used and procedure to be performed and any reasons for change and associated radiologists.
To start the exam, the Primary Tech field needs to be populated. If the patient the exam is being performed on is a female between the ages of 12 and 55, the LMP and Pregnant / Not Pregnant fields become required fields.
To complete the exam the Technologist Notes field must be completed.

The referring physician may have a Preferred assigned to the Personnel profile. If they do, the Assigned Radiologist field will be pre-populated this Radiologist. In a case where there is more than one preferred reader, the Assigned Radiologist field will not have a default value. Upon starting the exam a dialog box will inform the user that preferred radiologists are assigned to this referrer. Ok to the message will mark the field with **!** indicating that a preferred radiologist is configured and may be selected. The preferred radiologists will be prefixed with Preferred:

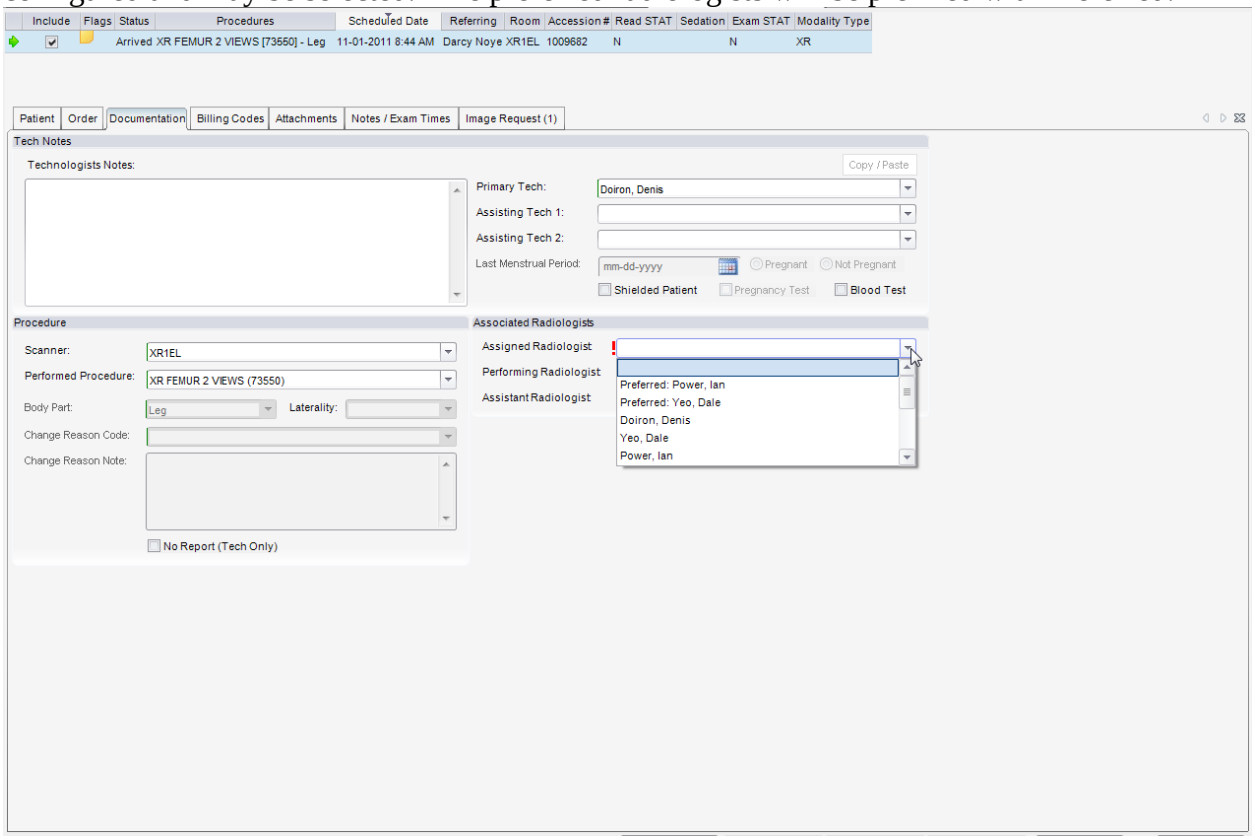



**Figure 7.2.3.1 – Perform Exam Documentation tab**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

If the exam being performed is flagged with No Report (Tech Only) and / or Report External to rRIS, additional check boxes will appear on the Documentation tab. If both of these check boxes are present when Performing Exam, only one will be permitted to be checked as they contradict one another. A warning message will be presented to the user when one of the checkboxes is selected.

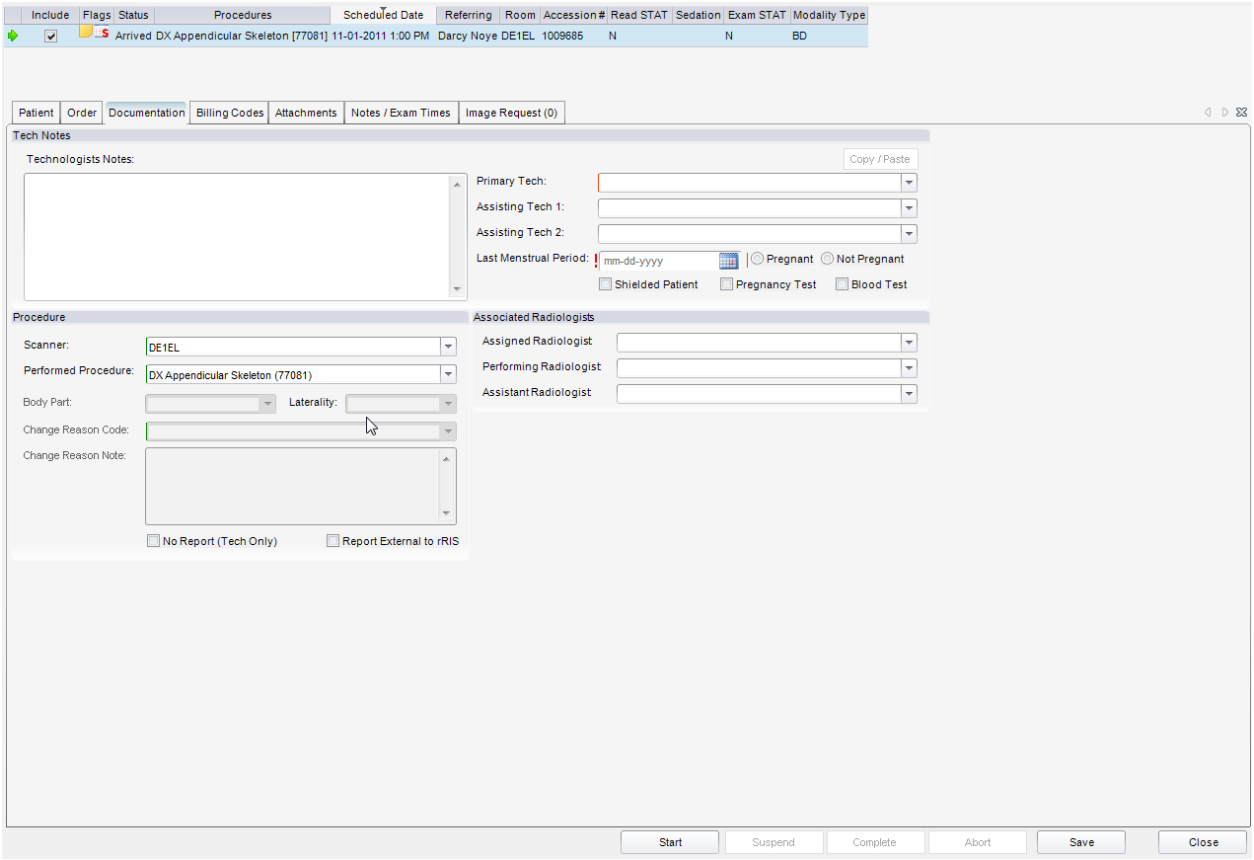



**Figure 7.2.3.2 – Perform Exam showing No Report and Report External check boxes**

Completing an exam with either "No report (Tech Only)" or "Report External to rRIS" will send the exam to a status of "ExamDoneTechOnly" and will not be added to the Radiologists work list of Exam Done.

After the exam is started, the rest of the buttons will become enabled. If the exam is aborted, the Abort Exam window opens. The user must select a reason why the exam has been aborted. The list of reasons can be sorted and / or filtered. A right click on the column header gives the user more sorting options.
When a reason code is selected and you hit the OK button a dialog box will open asking if you would like to send this order back to the Orders to Scheduled work list. Select Yes will do so. Select No will cancel the exam and set the status to Discontinued.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

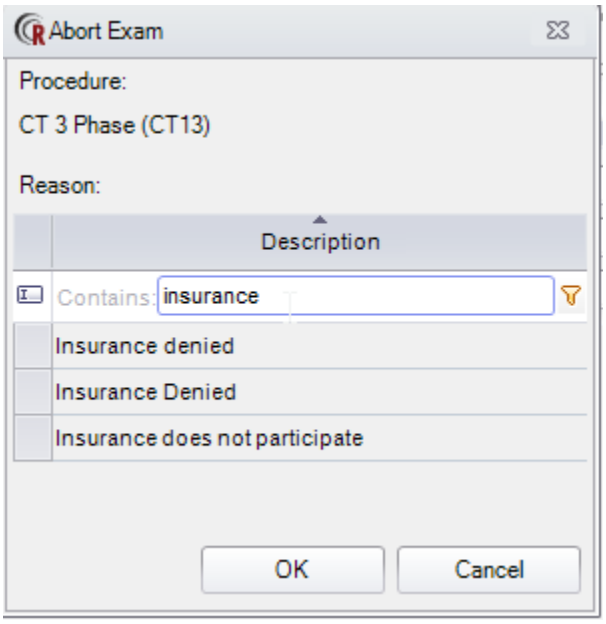



**Figure 7.2.3.3 – Abort Exams reason codes**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

### 7.2.4 Billing Codes

The Billing codes tab allows the tech to edit the details of the billing codes, add cpt modifiers, units used, change reason, and precert status.

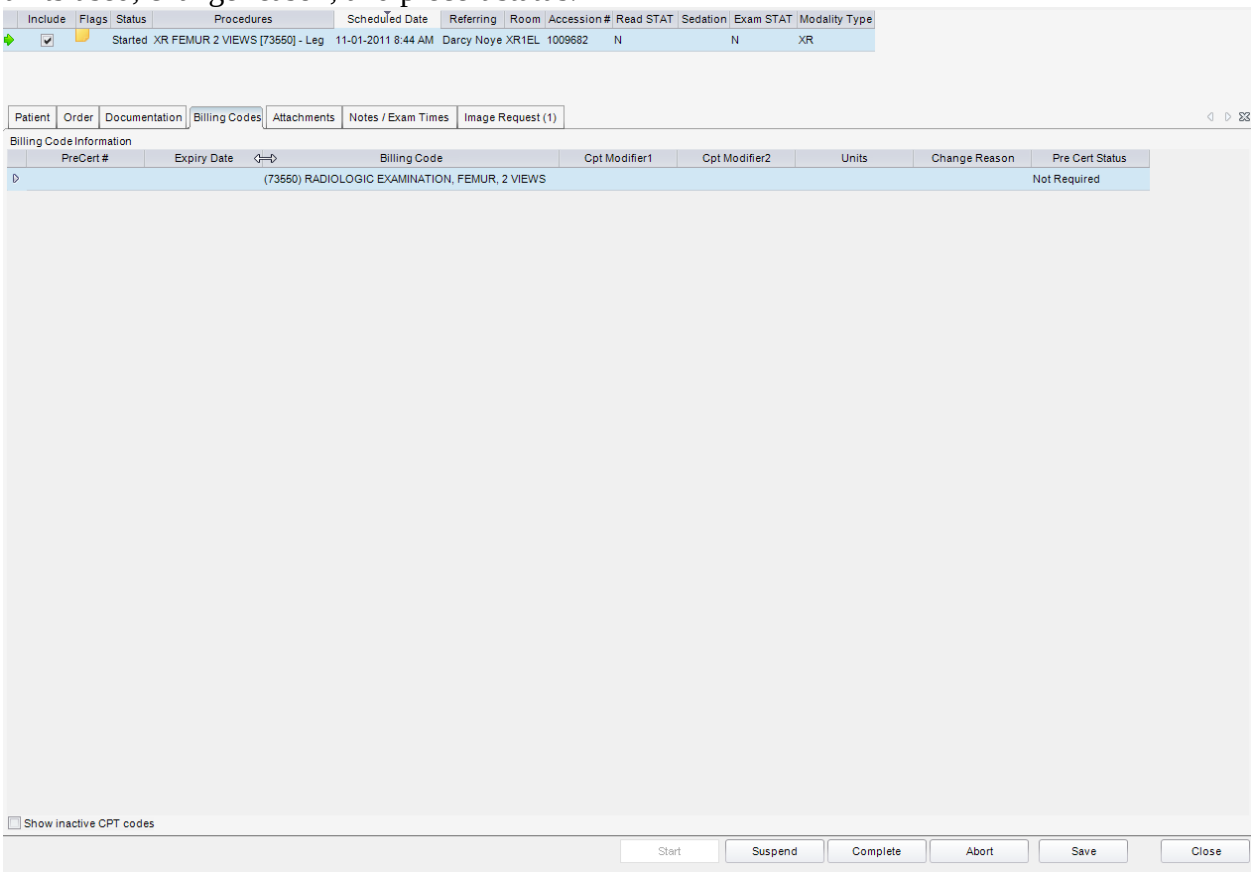



**Figure 7.2.4.1 – Perform Exam Billing Codes**

### 7.2.5 Attachments Tab

The Attachments Tab is the same as in previous data window.

### 7.2.6 Notes / Exams Times

The Notes / Exam times tab captures the Scheduled / Arrival time and who scheduled and arrived the patient.

The time that exam was started and completed and by whom is also captured.

Appointment notes and a duplicate view of the patient notes is present. Both of these text boxes can be edited. The patient notes entered here will also display in the patient notes field on the Patient tab.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

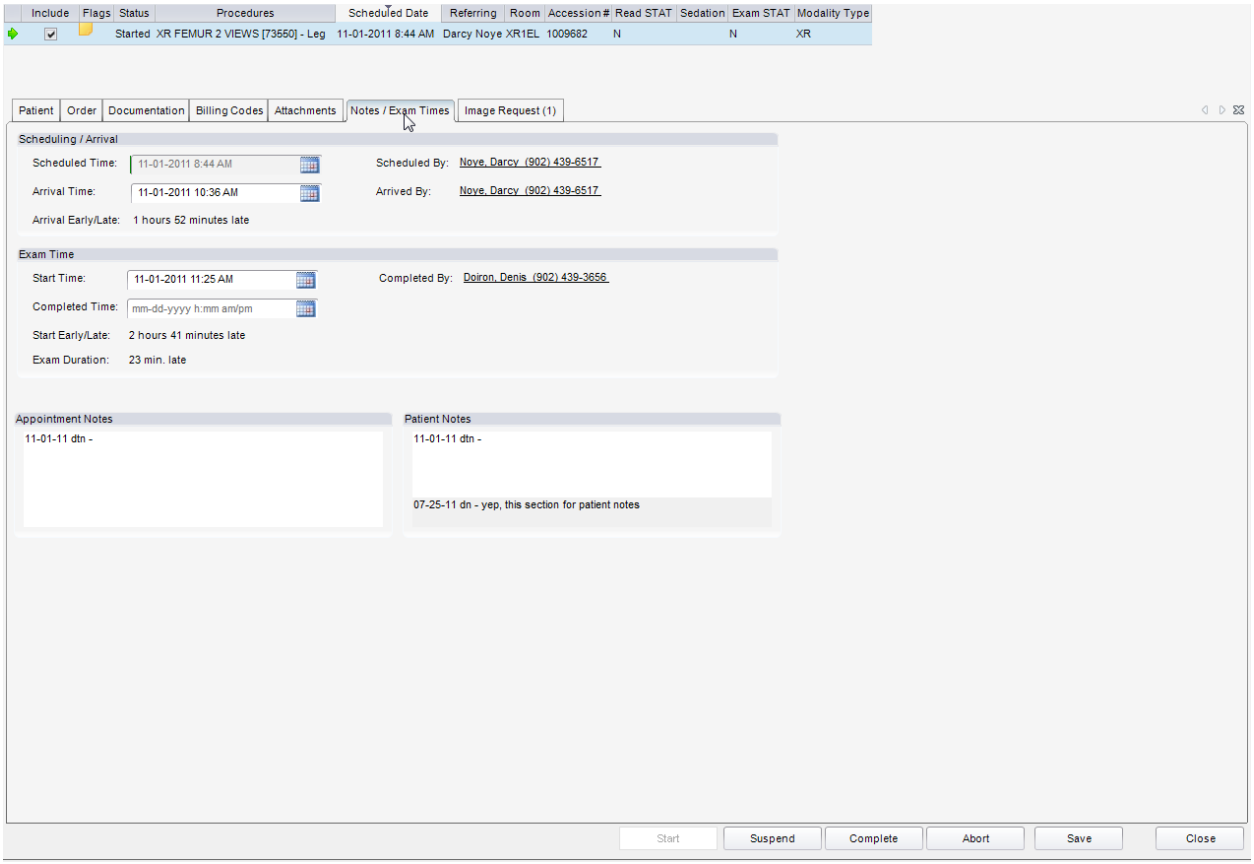



**Figure 7.2.6.1 – Perform Exam Notes / Exam Times tab**

### 7.2.7 Image Request

There are no changes to the Image Request tab. Please see section 6.2.5 of this document.

### 7.2.8 Credential Switch

To assist in auditing in shared workstation environments where a common login may be used, Credential Switch has been developed. This flag is added at the user's personnel level. If the users account has this flag checked, they will receive prompt. If valid credentials are entered the user will be permitted to continue workflow.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

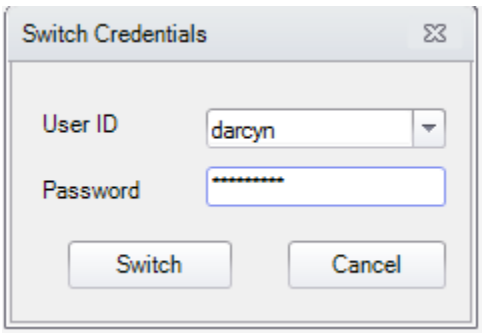



**Figure 7.2.8.1 Switch Credential dialog box**

The user will be prompted every time either of these Data Windows is accessed, even when the user may currently have a data window open where credentials have been passed. If a second user clicks on the first user's tab, rRIS will allow them to see the tab, without being prompted for credentials again. In this manner, it is possible for the second user to save the data of the first user, and it will be saved under the credentials of the first user. This was preferred to having the system prompt yet again for credentials. When the user leaves the Perform Exam or the Edit Patient, the credentials will be set back to the user logged into the application. The dialogue box will keep a history of User ID's enter as long as the current rRIS session is active.

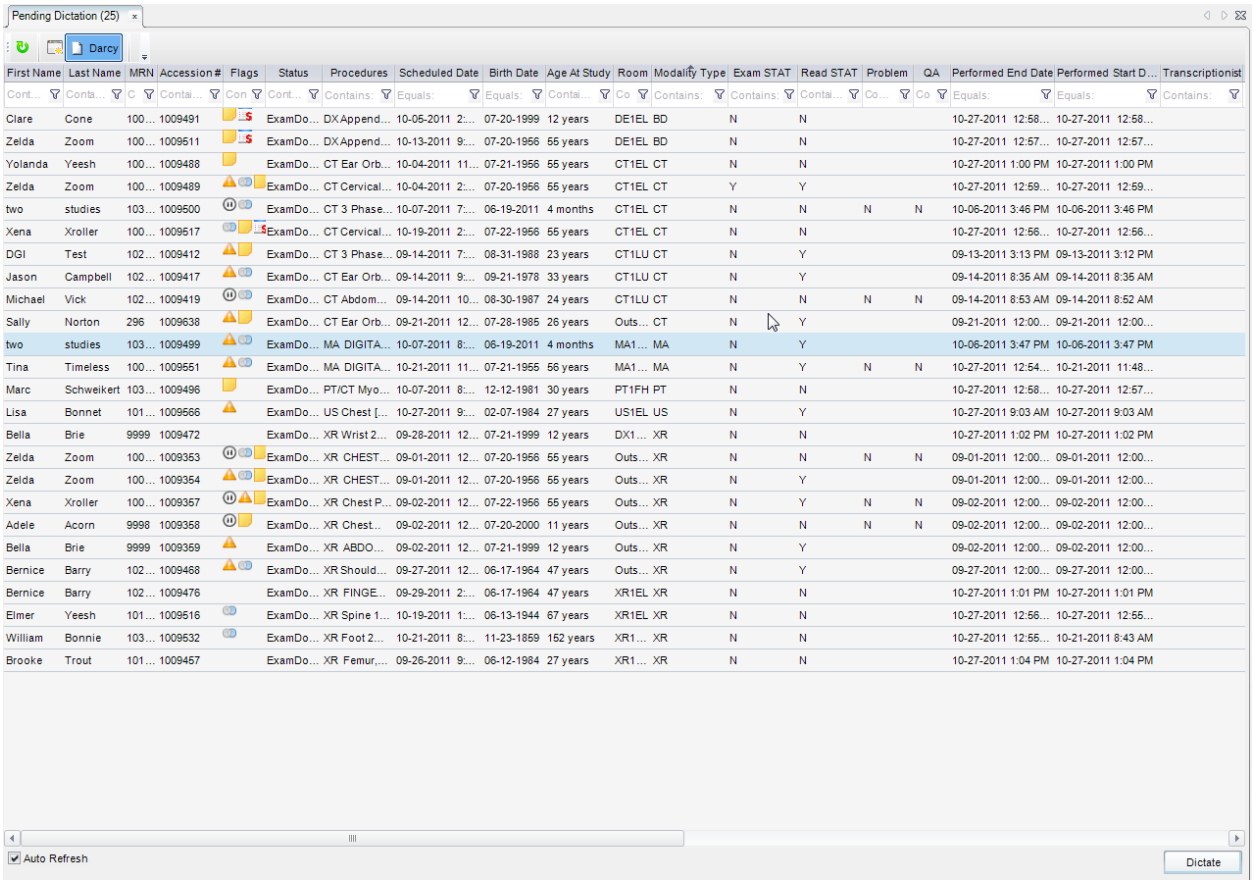
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 8. Radiologist

## 8.1 Pending Dictation

The Pending Dictation work list has two different default views. For most users who access this work list they will see the Pending Dictation option from the Radiologist menu. There is also a menu option of Pending Dictation (all) that displays all pending dictations for all users. The work list that opens for the user will not display exams that are assigned to another Radiologist, or exams that have been dictated on or suspended by another Radiologist. Beside tab contains the name of the work list as well as the count of records in the work list. The number is updated jobs are completed. When a filter is applied it will display the number of records currently on work list followed by the overall count. (Example 9 of 25)
Button actions from this work list are only to Dictate. Context menu options are Dictate, Patient Folder Audit History, Copy Cell, Forms and Labels, Stat Case (which has a sub menu), Assign to Radiologist and Request Copy of Images
The Pending Dictation work list has a large selection of columns available to be viewed. I have included 2 screenshots to capture all columns.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.




| First Name | Last Name | MRN | Accession # | Flags | Status | Procedures | Scheduled Date | Birth Date | Age At Study | Room | Modality Type | Exam STAT | Read STAT | Problem | QA | Performed End Date | Performed Start D... | Transcriptionist |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Clare | Cone | 100... | 1009491 | | ExamDo... | DX Append... | 10-05-2011 2:... | 07-20-1999 | 12 years | DE1EL | BD | N | N | | | 10-27-2011 12:58... | 10-27-2011 12:58... | |
| Zelda | Zoom | 100... | 1009511 | | ExamDo... | DX Append... | 10-13-2011 9:... | 07-20-1956 | 55 years | DE1EL | BD | N | N | | | 10-27-2011 12:57... | 10-27-2011 12:57... | |
| Yolanda | Yeesh | 100... | 1009488 | | ExamDo... | CT Ear Orb... | 10-04-2011 11... | 07-21-1956 | 55 years | CT1EL | CT | N | N | | | 10-27-2011 1:00 PM | 10-27-2011 1:00 PM | |
| Zelda | Zoom | 100... | 1009489 | | ExamDo... | CT Cervical... | 10-04-2011 2:... | 07-20-1956 | 55 years | CT1EL | CT | Y | Y | | | 10-27-2011 12:59... | 10-27-2011 12:59... | |
| two | studies | 103... | 1009500 | | ExamDo... | CT 3 Phase... | 10-07-2011 7:... | 06-19-2011 | 4 months | CT1EL | CT | N | N | N | N | 10-06-2011 3:46 PM | 10-06-2011 3:46 PM | |
| Xena | Xroller | 100... | 1009517 | | ExamDo... | CT Cervical... | 10-19-2011 2:... | 07-22-1956 | 55 years | CT1EL | CT | N | N | | | 10-27-2011 12:56... | 10-27-2011 12:56... | |
| DGI | Test | 102... | 1009412 | | ExamDo... | CT 3 Phase... | 09-14-2011 7:... | 08-31-1988 | 23 years | CT1LU | CT | N | Y | | | 09-13-2011 3:13 PM | 09-13-2011 3:12 PM | |
| Jason | Campbell | 102... | 1009417 | | ExamDo... | CT Ear Orb... | 09-14-2011 9:... | 09-21-1978 | 33 years | CT1LU | CT | N | Y | | | 09-14-2011 8:35 AM | 09-14-2011 8:35 AM | |
| Michael | Vick | 102... | 1009419 | | ExamDo... | CT Abdom... | 09-14-2011 10... | 08-30-1987 | 24 years | CT1LU | CT | N | N | N | N | 09-14-2011 8:53 AM | 09-14-2011 8:52 AM | |
| Sally | Norton | 296 | 1009638 | | ExamDo... | CT Ear Orb... | 09-21-2011 12... | 07-28-1985 | 26 years | Outs... | CT | N | Y | | | 09-21-2011 12:00... | 09-21-2011 12:00... | |
| two | studies | 103... | 1009499 | | ExamDo... | MA DIGITA... | 10-07-2011 8:... | 06-19-2011 | 4 months | MA1... | MA | N | Y | | | 10-06-2011 3:47 PM | 10-06-2011 3:47 PM | |
| Tina | Timeless | 100... | 1009551 | | ExamDo... | MA DIGITA... | 10-21-2011 11... | 07-21-1955 | 56 years | MA1... | MA | N | Y | N | N | 10-27-2011 12:54... | 10-21-2011 11:48... | |
| Marc | Schweikert | 103... | 1009496 | | ExamDo... | PT/CT Myo... | 10-07-2011 8:... | 12-12-1981 | 30 years | PT1FH | PT | N | N | | | 10-27-2011 12:58... | 10-27-2011 12:57... | |
| Lisa | Bonnet | 101... | 1009566 | | ExamDo... | US Chest [... | 10-27-2011 9:... | 02-07-1984 | 27 years | US1EL | US | N | Y | | | 10-27-2011 9:03 AM | 10-27-2011 9:03 AM | |
| Bella | Brie | 9999 | 1009472 | | ExamDo... | XR Wrist 2... | 09-28-2011 12... | 07-21-1999 | 12 years | DX1... | XR | N | N | | | 10-27-2011 1:02 PM | 10-27-2011 1:02 PM | |
| Zelda | Zoom | 100... | 1009353 | | ExamDo... | XR CHEST... | 09-01-2011 12... | 07-20-1956 | 55 years | Outs... | XR | N | N | N | N | 09-01-2011 12:00... | 09-01-2011 12:00... | |
| Zelda | Zoom | 100... | 1009354 | | ExamDo... | XR CHEST... | 09-01-2011 12... | 07-20-1956 | 55 years | Outs... | XR | N | Y | | | 09-01-2011 12:00... | 09-01-2011 12:00... | |
| Xena | Xroller | 100... | 1009357 | | ExamDo... | XR Chest P... | 09-02-2011 12... | 07-22-1956 | 55 years | Outs... | XR | N | Y | N | N | 09-02-2011 12:00... | 09-02-2011 12:00... | |
| Adele | Acorn | 9998 | 1009358 | | ExamDo... | XR Chest... | 09-02-2011 12... | 07-20-2000 | 11 years | Outs... | XR | N | N | N | N | 09-02-2011 12:00... | 09-02-2011 12:00... | |
| Bella | Brie | 9999 | 1009359 | | ExamDo... | XR ABDO... | 09-02-2011 12... | 07-21-1999 | 12 years | Outs... | XR | N | Y | | | 09-02-2011 12:00... | 09-02-2011 12:00... | |
| Bernice | Barry | 102... | 1009468 | | ExamDo... | XR Should... | 09-27-2011 12... | 06-17-1964 | 47 years | Outs... | XR | N | Y | | | 09-27-2011 12:00... | 09-27-2011 12:00... | |
| Bernice | Barry | 102... | 1009476 | | ExamDo... | XR FINGE... | 09-29-2011 2:... | 06-17-1964 | 47 years | XR1EL | XR | N | N | | | 10-27-2011 1:01 PM | 10-27-2011 1:01 PM | |
| Elmer | Yeesh | 101... | 1009516 | | ExamDo... | XR Spine 1... | 10-19-2011 1:... | 06-13-1944 | 67 years | XR1EL | XR | N | N | | | 10-27-2011 12:56... | 10-27-2011 12:55... | |
| William | Bonnie | 103... | 1009532 | | ExamDo... | XR Foot 2... | 10-21-2011 8:... | 11-23-1859 | 152 years | XR1... | XR | N | N | | | 10-27-2011 12:55... | 10-21-2011 8:43 AM | |
| Brooke | Trout | 101... | 1009457 | | ExamDo... | XR Femur,... | 09-26-2011 9:... | 06-12-1984 | 27 years | XR1... | XR | N | N | | | 10-27-2011 1:04 PM | 10-27-2011 1:04 PM | |

**Figure 8.1.1 – Pending Dictation work list #1**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

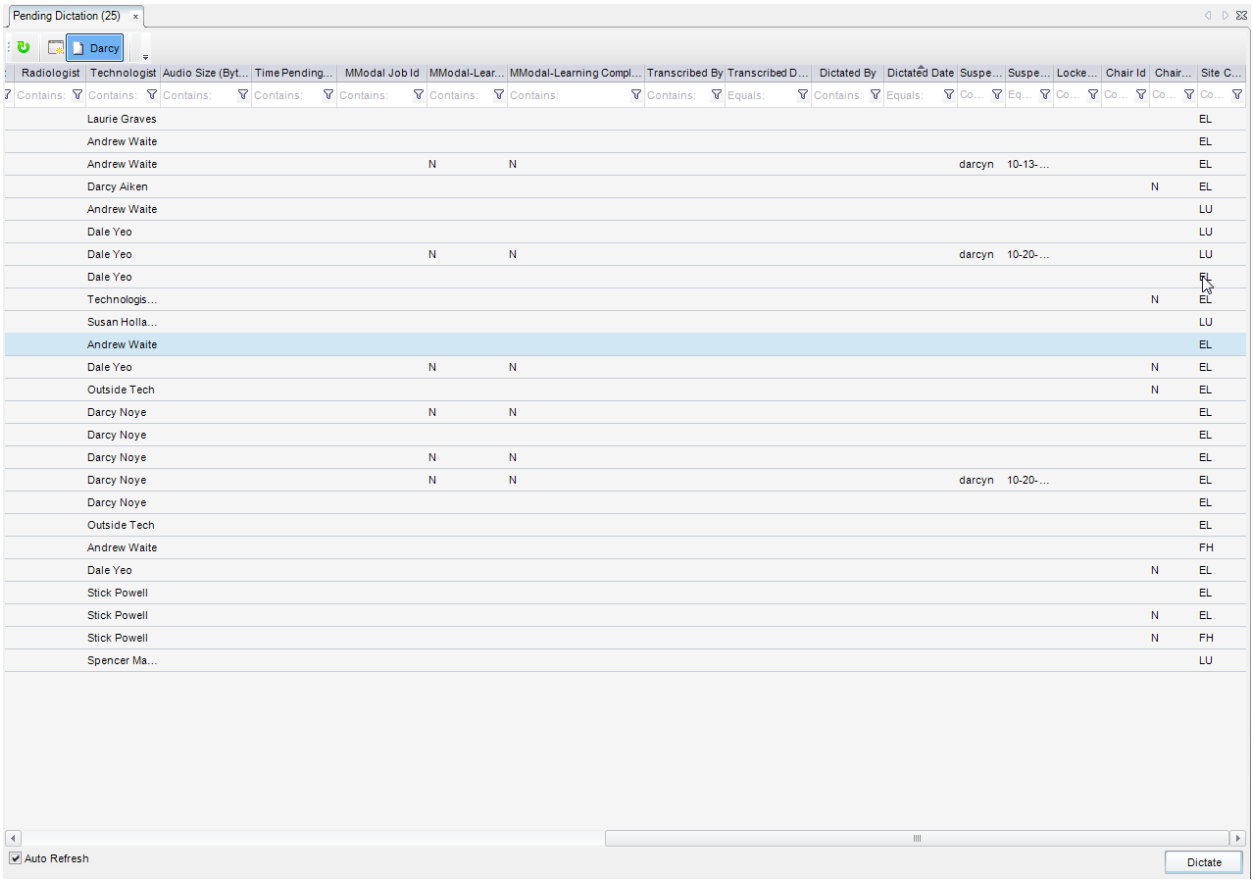



**Figure 8.1.2 – Pending Dictation work list #2**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## 8.2 Dictating Data Window

When the Dictating data window is opened a new menu option "View" becomes present. This menu has options for the dictating data window. This menu is present in the dictate and reporting windows. Expanding the menu allows the user to select which data panes they wish to view. If one of the data panes is accidently closed, it can be re-opened from this menu. You will also notice that you can "Save Layout" changes and "Reset Layout" changes. Adjusting the layout during the session doesn't automatically save the layout on exit of the window. If the user adjusts the layout to their liking, select Save Layout will retain the layout for all future sessions. Reset layout will remove any changes made and revert back to the default layout.

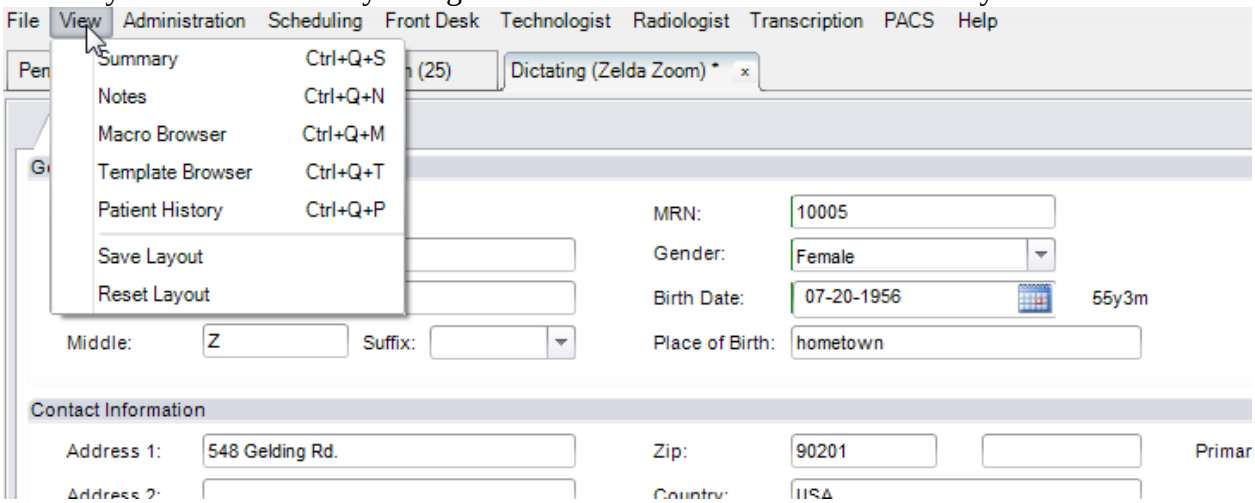



**Figure 8.2.1 – View Menu**

The dictating data window has 3 tabs, the Patient Tab with the patient's name, address origin, and notes. The Exam tab that shows the technologists work flow. Lastly, the report tab which has the dictation control, and report editor. The data tabs can be moved and docked within the main document frame area. A user can list the tabs in the order they like or dock them individually. On the outer frames of the data windows are data panes. These data panes include the patient summary, a section to enter notes, Macro Browser, Template Browser, and a Patient History list box.

These controls are much more flexible, they can be docked anywhere in the bounds of the reporting screen, they can be displayed as a tabbed document window next to the document window as if it was one. It can be floating above the rRIS, or on another screen. They can be pinned so that they stay visible or they can be unpinned so that they auto hide to a small tab.

I have provided examples in an attempt to show the versatility of the data pane.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

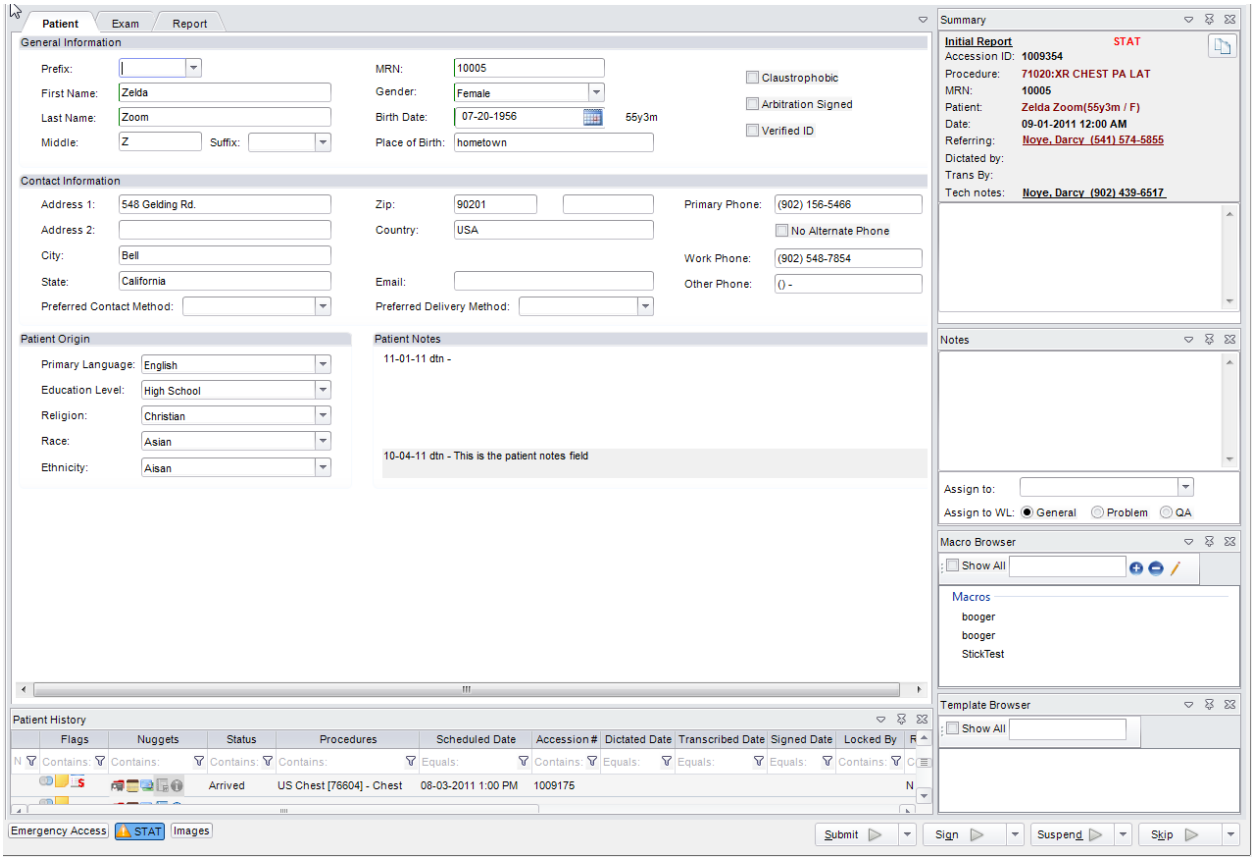



**Figure 8.2.2 – Dictating data window sample view 1 tabbed**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

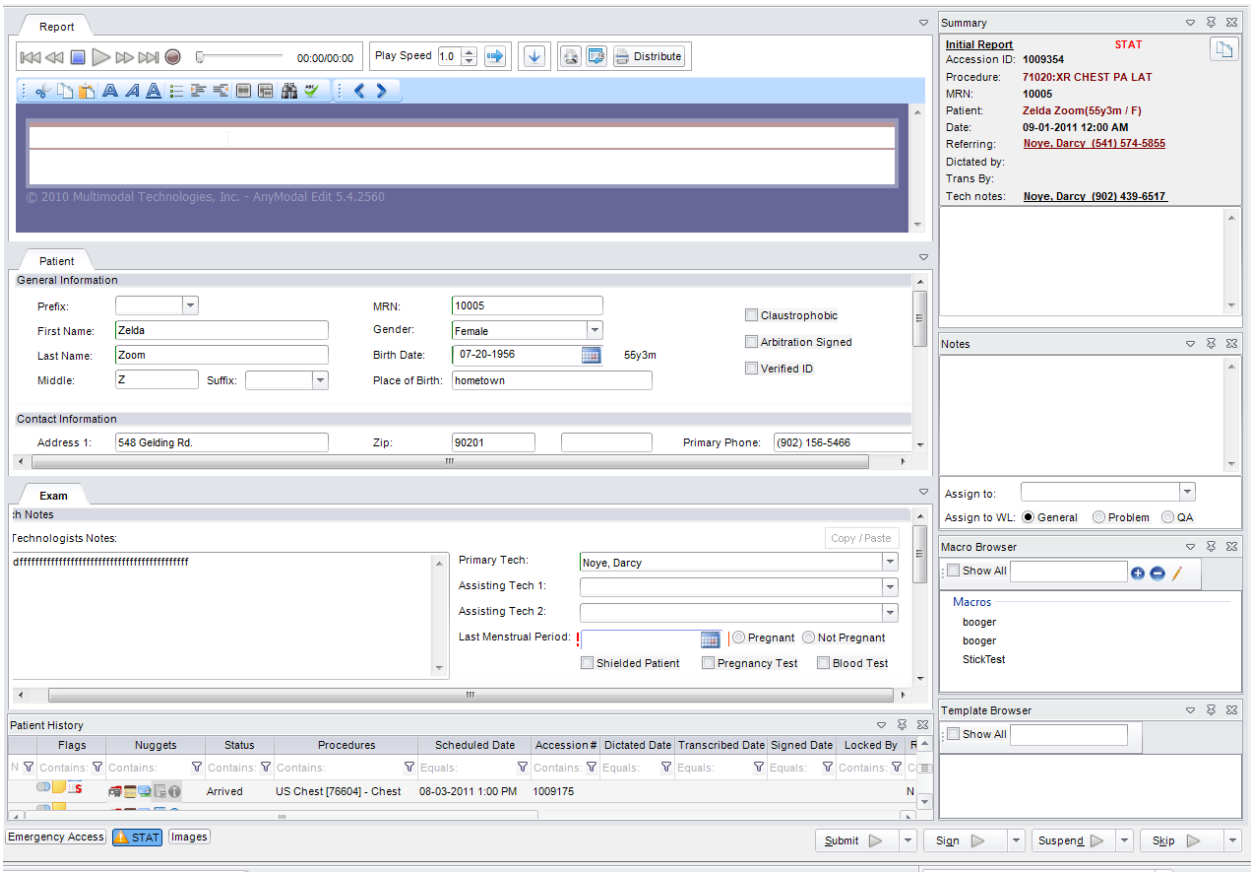



**Figure 8.2.3 – Dictating data window sample view 2 horizontal**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

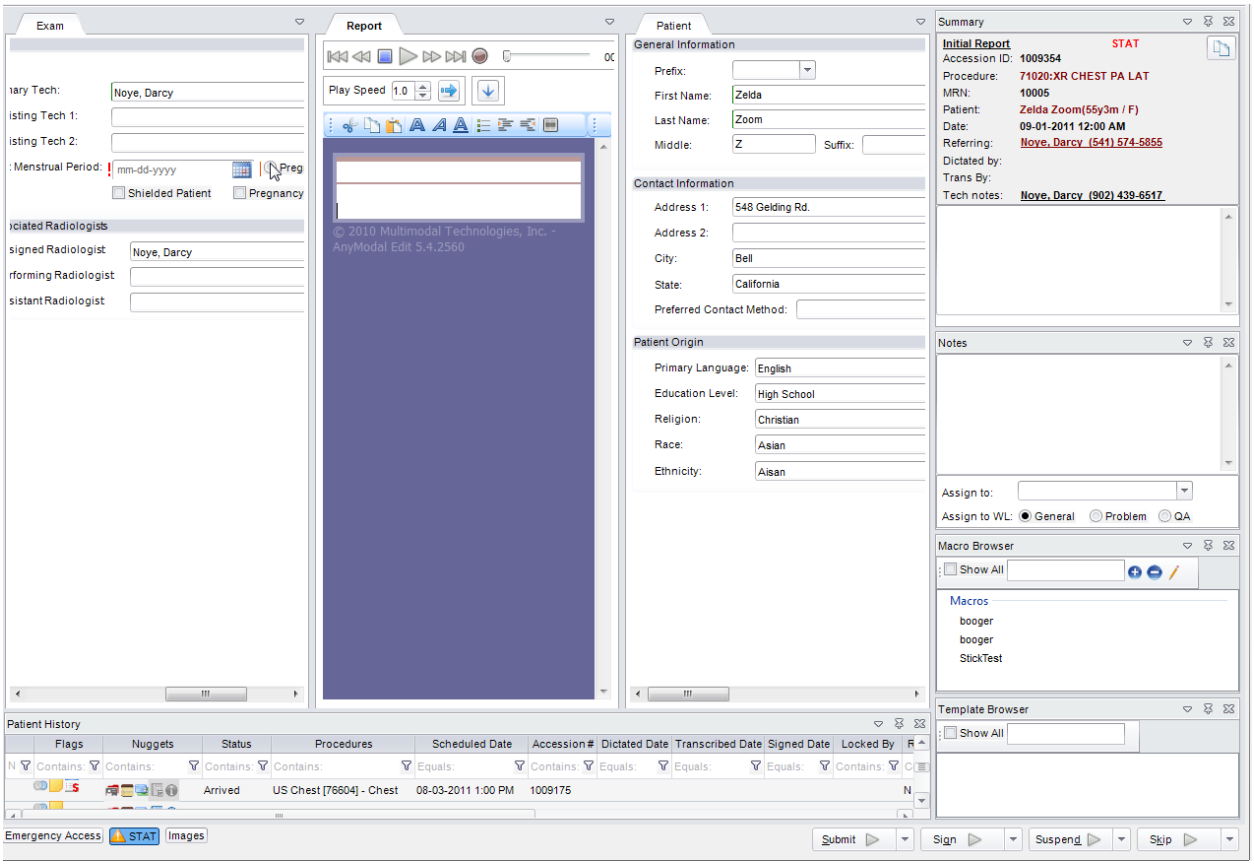



**Figure 8.2.4 – Dictating data window sample view 3 vertical**

The user can have one or two tabs horizontal / vertiacal and the other(s) tabbed. The layout can be saved in the users desired configuration. If the layout is changed, but not desired, the user can select reset layout to revert back to the original.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

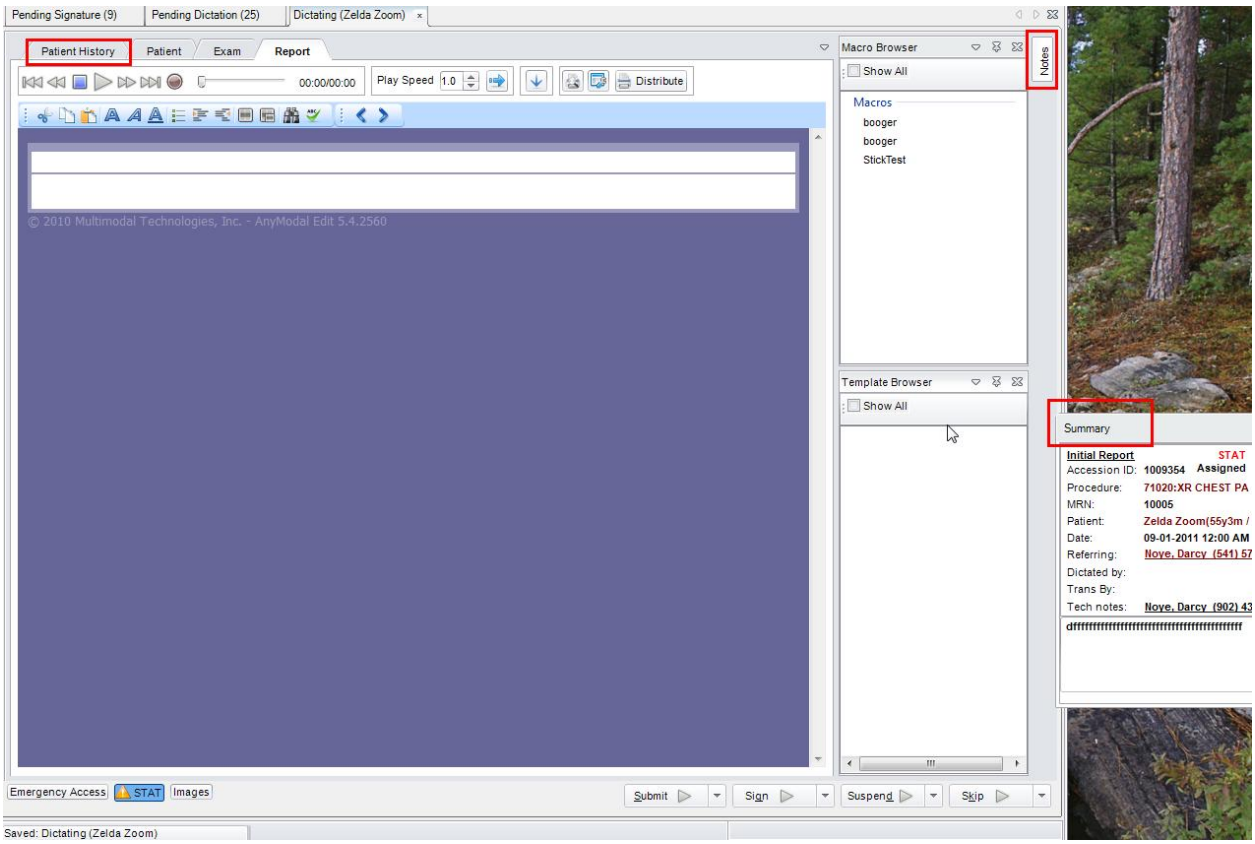



**Figure 8.2.5 - Dictating data window sample view 4 permitter panes layout changed**

In Figure 8.25 we have the summary screen that is floating on the desktop on the right of the rRIS. Patient history is a tab next to the patient tab (sequence of tabs can be re-arranged), and the notes are unpinned to make them auto hide on the left side of the window. Hover the mouse over the unpinned data panes will expand that data pane into view.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

### 8.2.1 Patient Tab

Figure 8.2.2 shows the patient tab. The information available are the patients general Information such has name, gender date of birth, contact information, patient Origin, and patient notes.

### 8.2.2 Exam Tab

The exam tab is a view of the technologist's notes, the tech that performed the exam, procedure details, and assigned radiologists.

### 8.2.3 Report Tab

On the report tab the user will find the report template, the dictation control, the ability to adjust play back speed, distribute report, report history, and preview report.

**Dictation Control**

The dictation control buttons in use will be lit to easily identify the current state. The buttons will light up in a blue color, with the exception of the record button which will be red. When no buttons are selected from either the Speechmike, or the dictation control, the stop button will be lit blue.

**Figure 8.2.3.1 – Dictation control in a stopped state**

**Figure 8.2.3.2 – Dictation control in record state**

A right click within the report template will open context menu. From this menu the option of text expander is available. The text expander has a preconfigured list, but the user may also add to this list.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

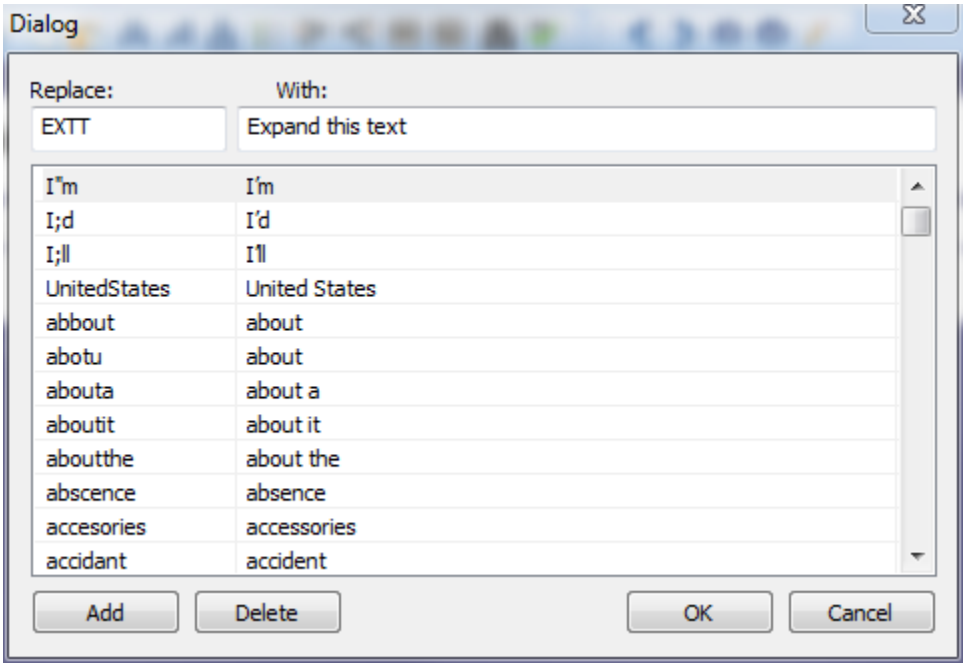



**Figure 8.2.3.3 – Text expander dialog window**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

**Report History**

Report history is accessed from the Icon outlined in red below. Selecting this button will open the Report History window.

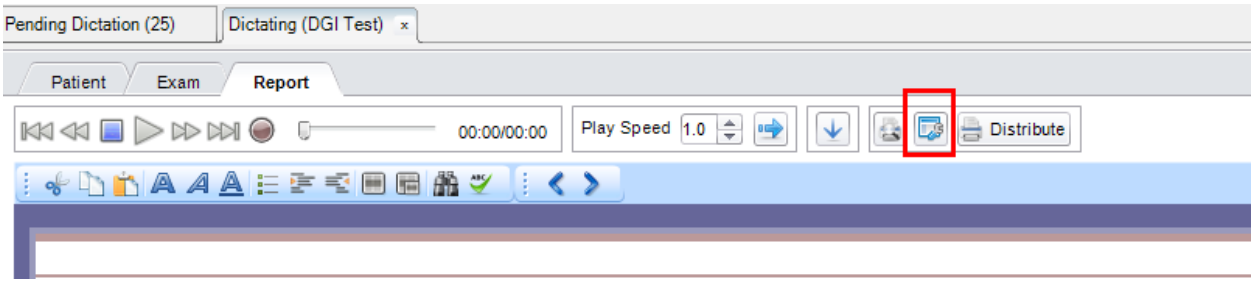



**Figure 8.2.3.4 – Report History Icon**

The user can select which version they would like to view as well as play back the dictation for that interpretation. The user may also enter another accession number to view the report and play back the dictation. The study info panel displays information about the patient and specific history of the study.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

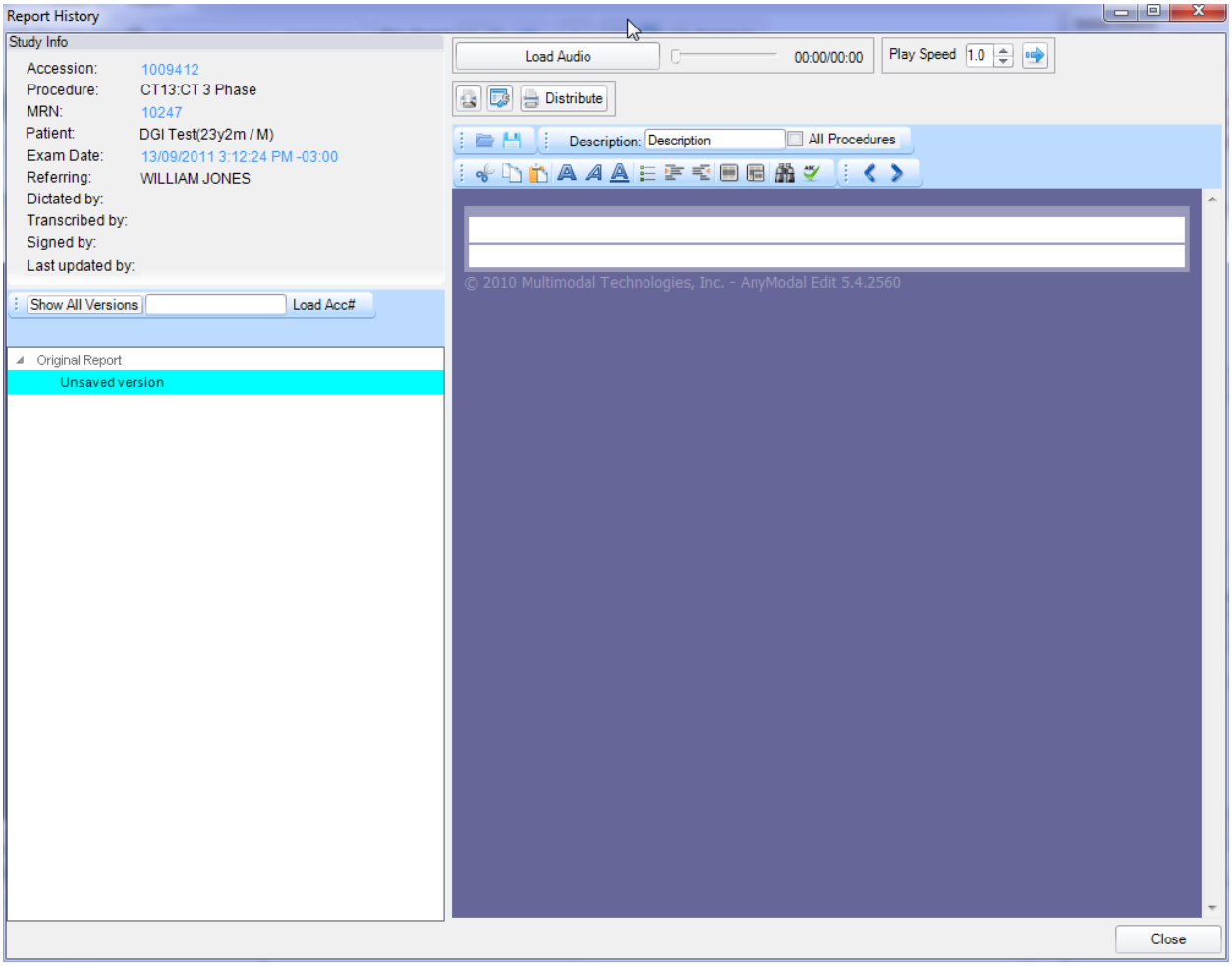



**Figure 8.2.3.5 – Report History Window**

The Report Preview button outlined in red below provides the radiologist and the technologist the ability to preview diagnostic reports.

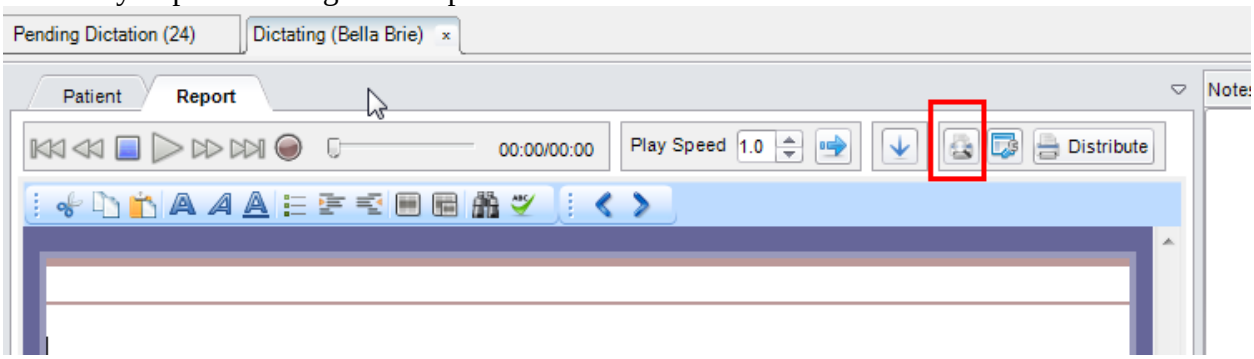



**Figure 8.2.3.6 – Report Preview**

From within the diagnose window or create reports windows will display a print layout view of the report even when the interpretation is not saved to the DB.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

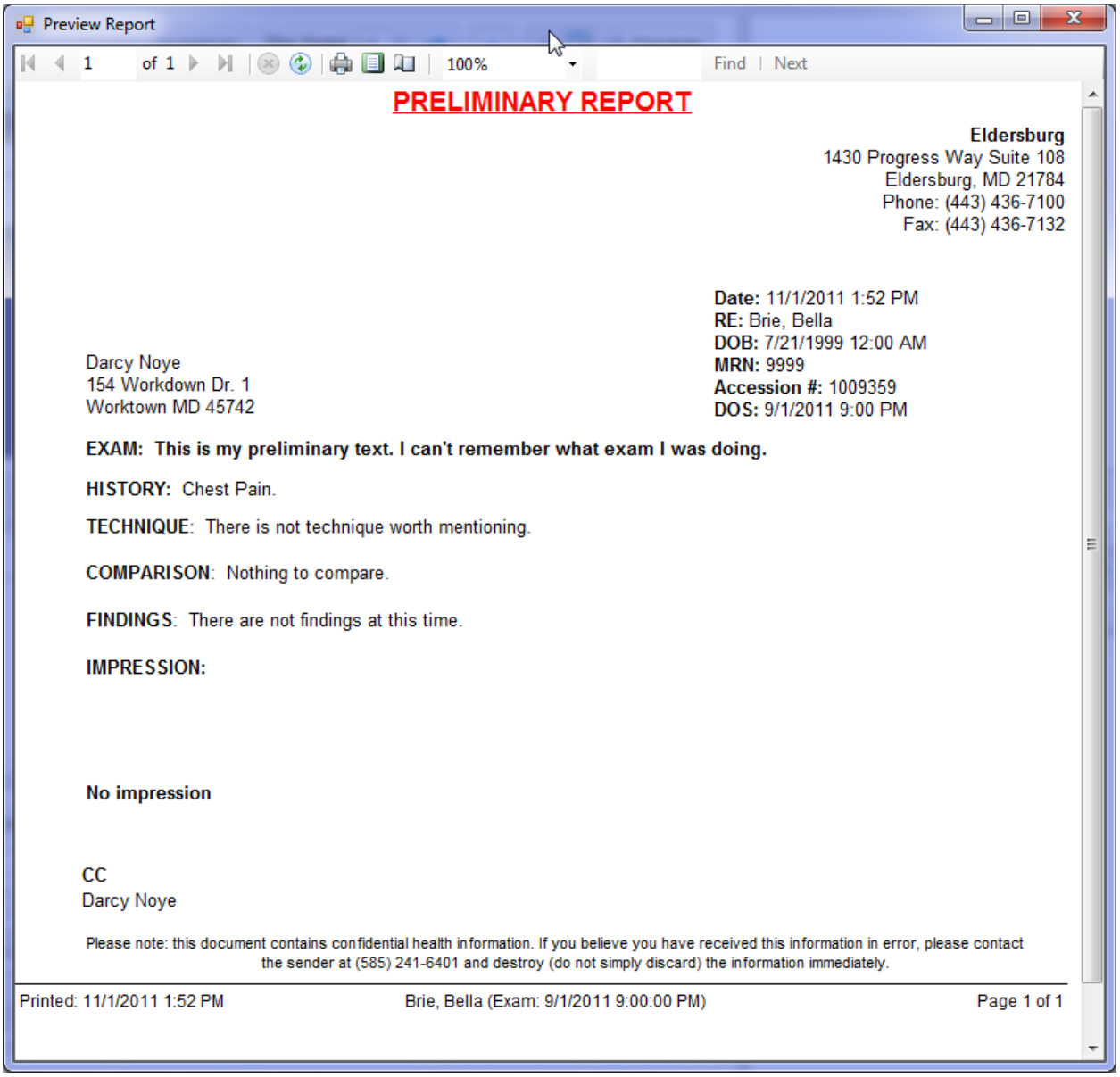



**Figure 8.2.3.7 – Report Preview**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

**Dictating and Create Report Configurable Default Buttons**

The button controls on the Dictating, and Reporting windows for Radiologists and Transcriptionists have a downward arrow next to the button indicating that there is more than one potential action that can be completed on a particular button control. Figure 8.2.3.8 displays these buttons, with the Submit button menu expanded showing alternate actions. Hover the mouse pointer over the button will show its default value. Clicking directly on the button will perform the assigned default action.

You can see in Figure 8.2.3.8 that two option from this buttons drop down list have bypass VR. Selecting one of this menu options will submit the dictation skipping voice recognition.

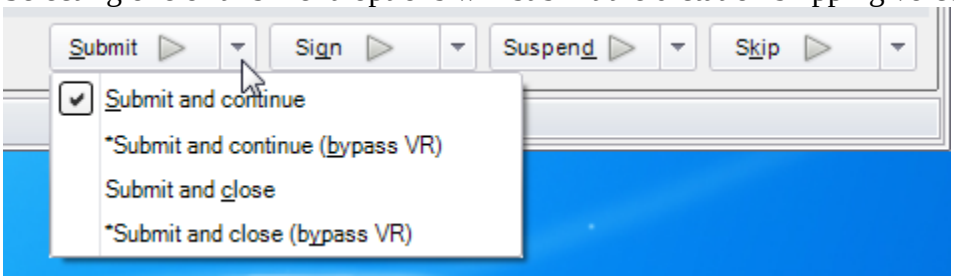



**Figure 8.2.3.8 – Radiologist drop down buttons**

To change the default action of the button, hold down the CTRL key on the keyboard and select the action from the drop down list. The option selected from the list will be performed as well as change the default setting for the button. When the default action is changed for a button, the text on the button will also change.

Some actions are preceded by an '*' (as displayed in figure 8.2.3.8), these are the actions that cannot be defaulted. If the user attempts to default that action a message box would be displayed.

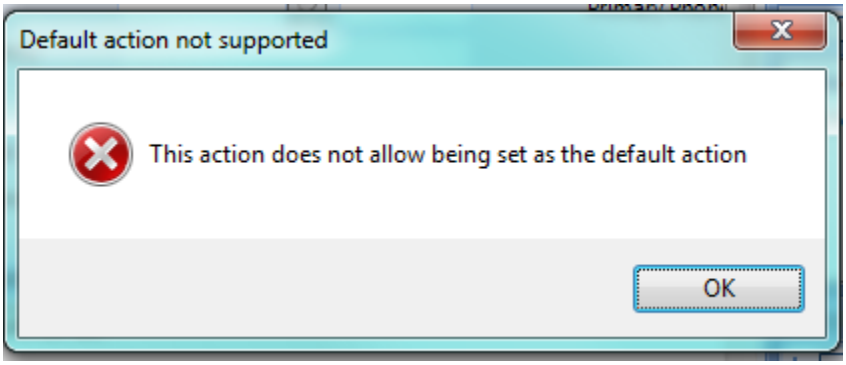



**Figure 8.2.3.8 – Message informing user the action cannot be defaulted to the button**

Actions are defined as "button action" and continue or "button action" and close. Referring to Figure 8.2.3.9, you will notice ICONS on the buttons as play or stop. Assigning actions that are to continue to the next record on the work list display the play ICON, and actions that are to complete action and close data window to return to the work list will have the stop ICON.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

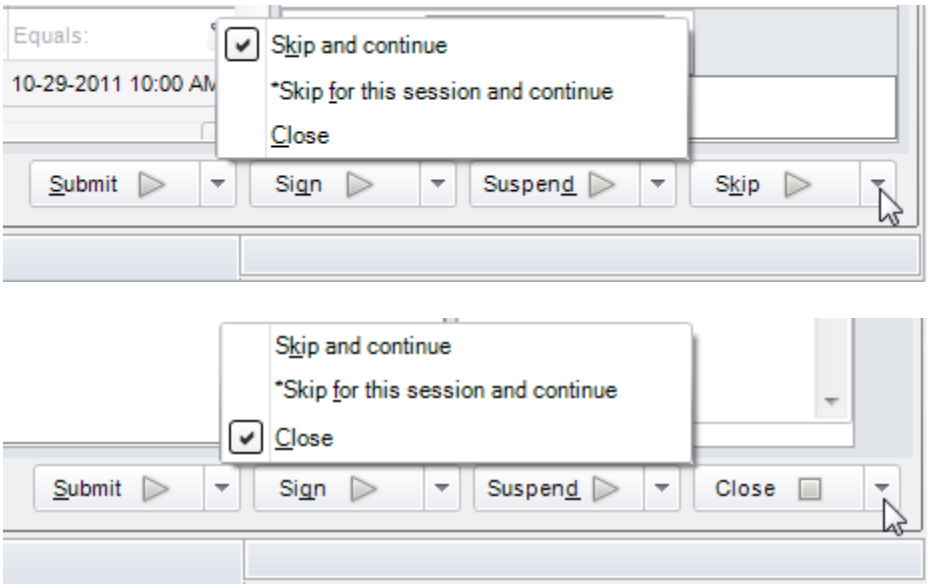



**Figure 8.2.3.9 – Default button changed. Default action checked in drop menu with text on button also changed.**

In figure 8.2.3.9 the menu options are to skip the current exam and a specified following action. In this example Skip and Close if defaulted with the action being to simply close the Dictate window.
Skip and continue will skip the item for the current workflow instance. To access this exam in the Dictate window again, it can be opened directly from the work list as normal, or if the user completes the entire work list, then the skipped rows are accessed next.
The final menu option of "*Skip for this session and continue" will mark this exam as such. Unlike "Skip and Continue" once the user completes the work list, exams flagged "*Skip for this session and continue" will not be accessed during the normal "next available exam" work flow. If the user so chooses, they can access the exam via the work list, or if the exam(s) are to be added back into the "next exam" work flow, the user does have the ability to manually add these skipped exams back into the workflow by resetting skipped rows via the Radiologist menu option displayed in Figure 8.2.3.10. Also in Figure 8.2.3.10 is the window that opens. The user can reset individual rows or all of the skipped rows in this list.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

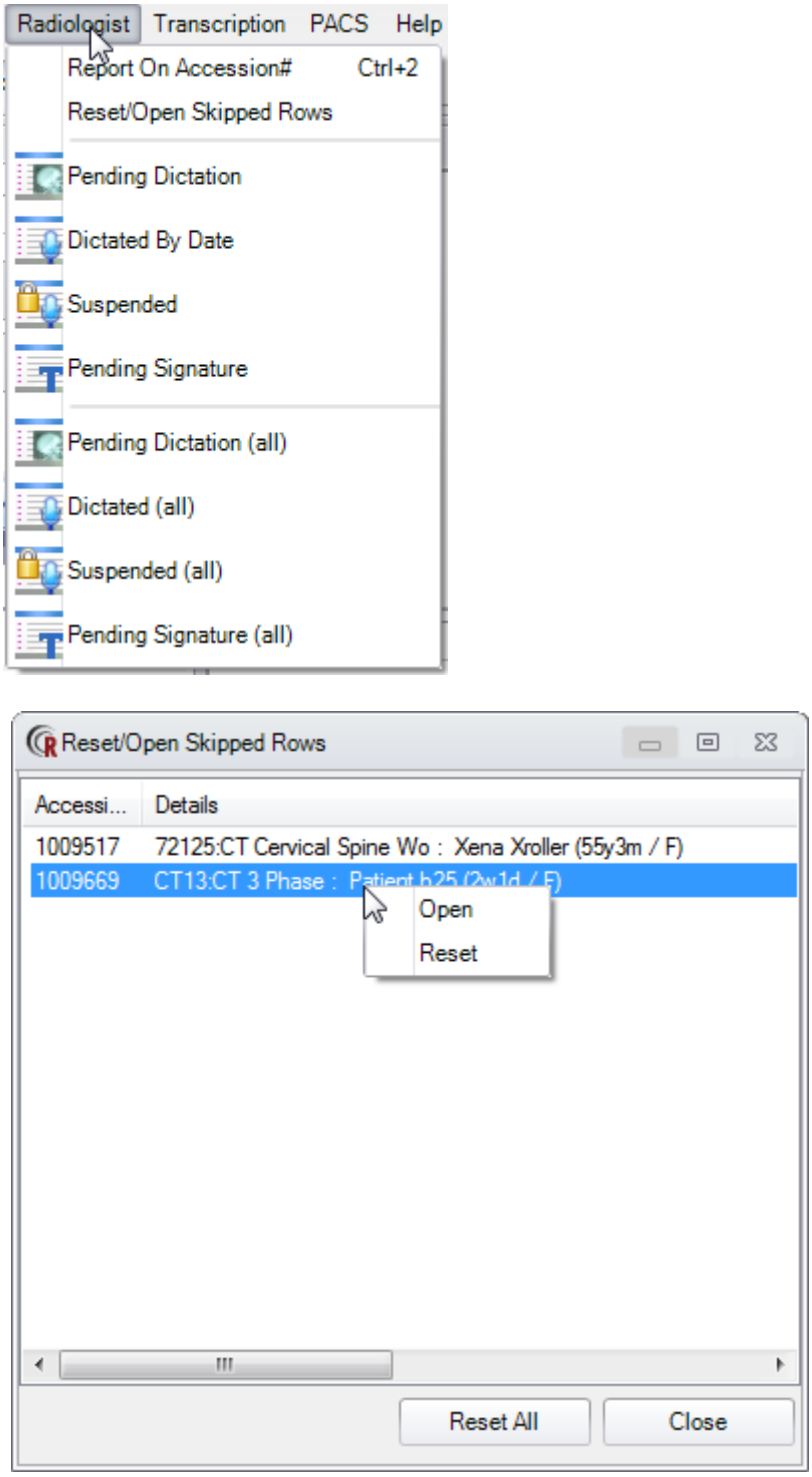



**Figure 8.2.3.10 – Reset/Open Skipped Rows menu option and Window**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

**Emergeny Access**

If the user has the Emergency Access flag, they will be permitted to override a lock to an exam and continue workflow. Figure 8.2.3.11 shows the Dictate window open by a user that has the Emergency Access flag. This exam is not owned by this particular user. Selecting the Emergency Access button will enable the "Submit, Sign, and Suspend" buttons, permitting the user to continue workflow for this exam. The emergency access flag is set for the user in the personnel editor.

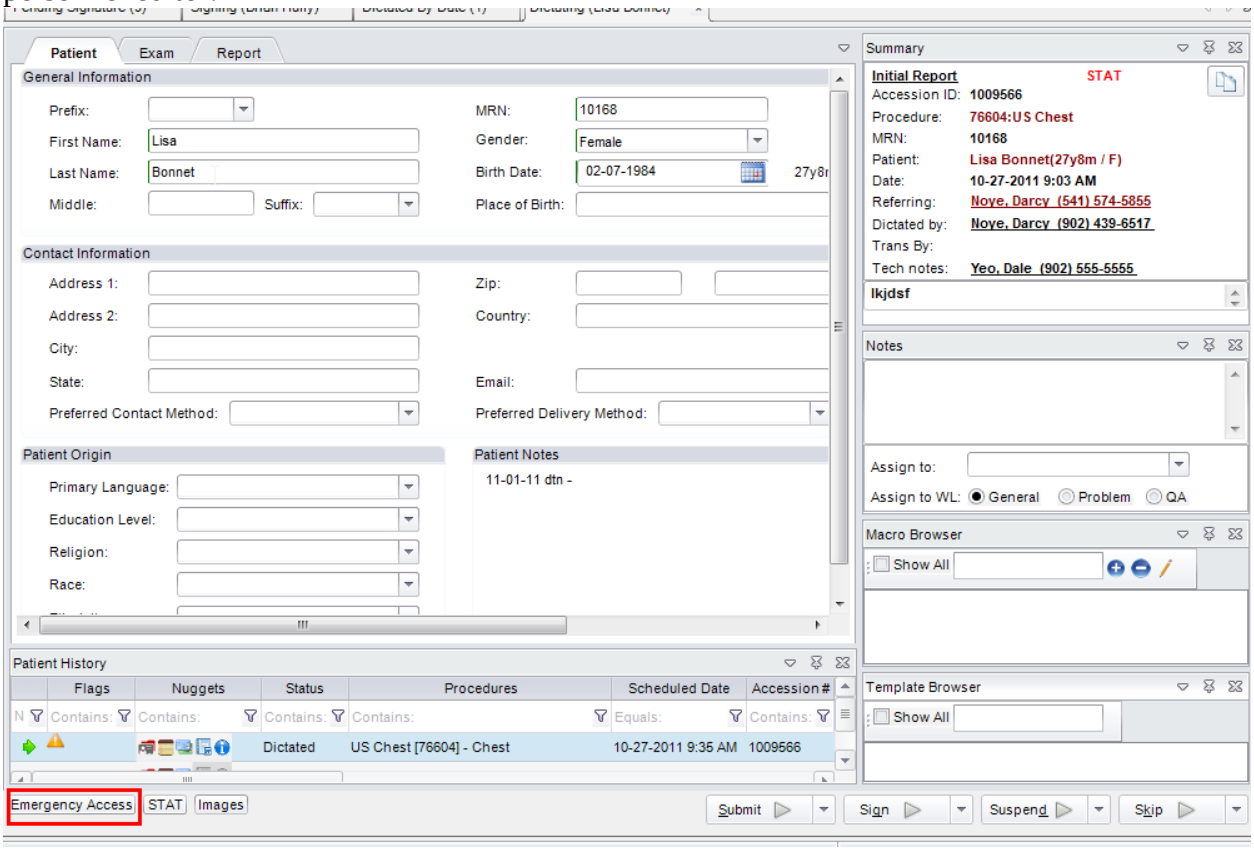
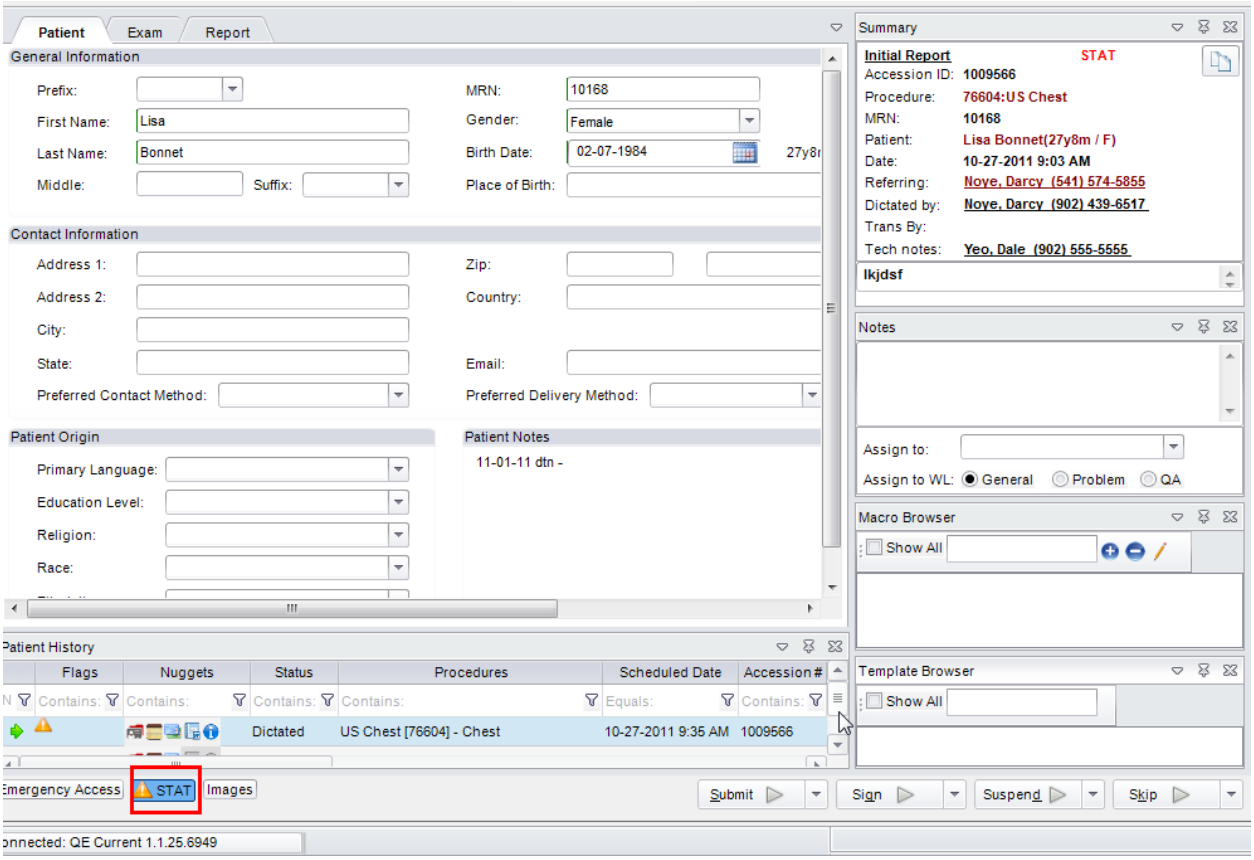



**Figure 8.2.3.11 – Emergency access**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## 8.3 Dictated by Date

The Dictated by date work list is a daily view of jobs completed by the logged in user. It shows jobs in all status from Dictated to Signed.
Buttons actions from the Dictated by Date work list is only Dictate. Context menu options are Assign to Transcriptionist, Stat case (has sub menu to assign/unassign), Problem Queue (sub menu to assign/unassign) , QA Queue (sub menu to assign/unassign), Change Status To Report Drafted, Delete the dictation/report and reset the status, Patient Folder Audit History, Copy Cell and Request Copy of Images.
Again, the work list columns available are numerous so I have added two screenshots with an overlap of the columns displayed.

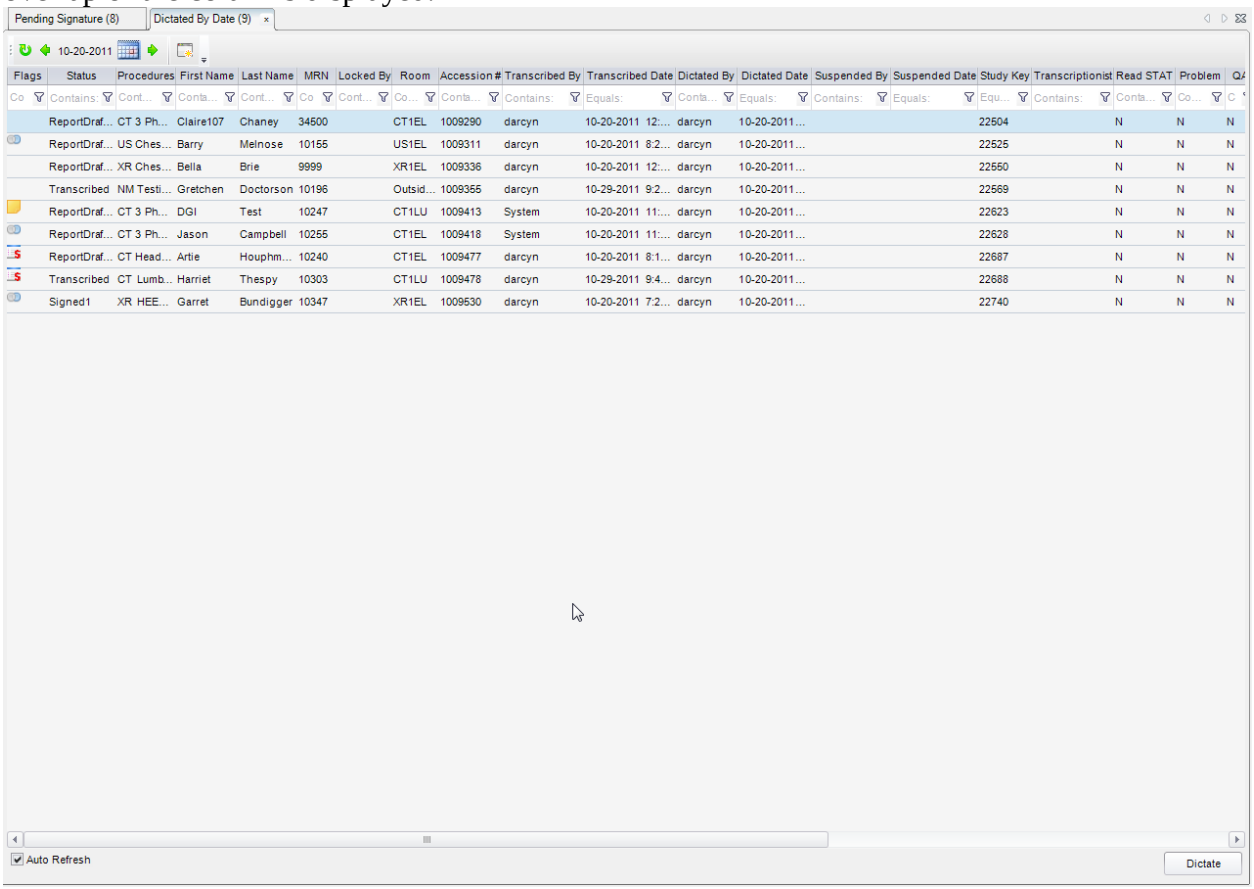



**Figure 8.3.1 – Dictated by Date**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

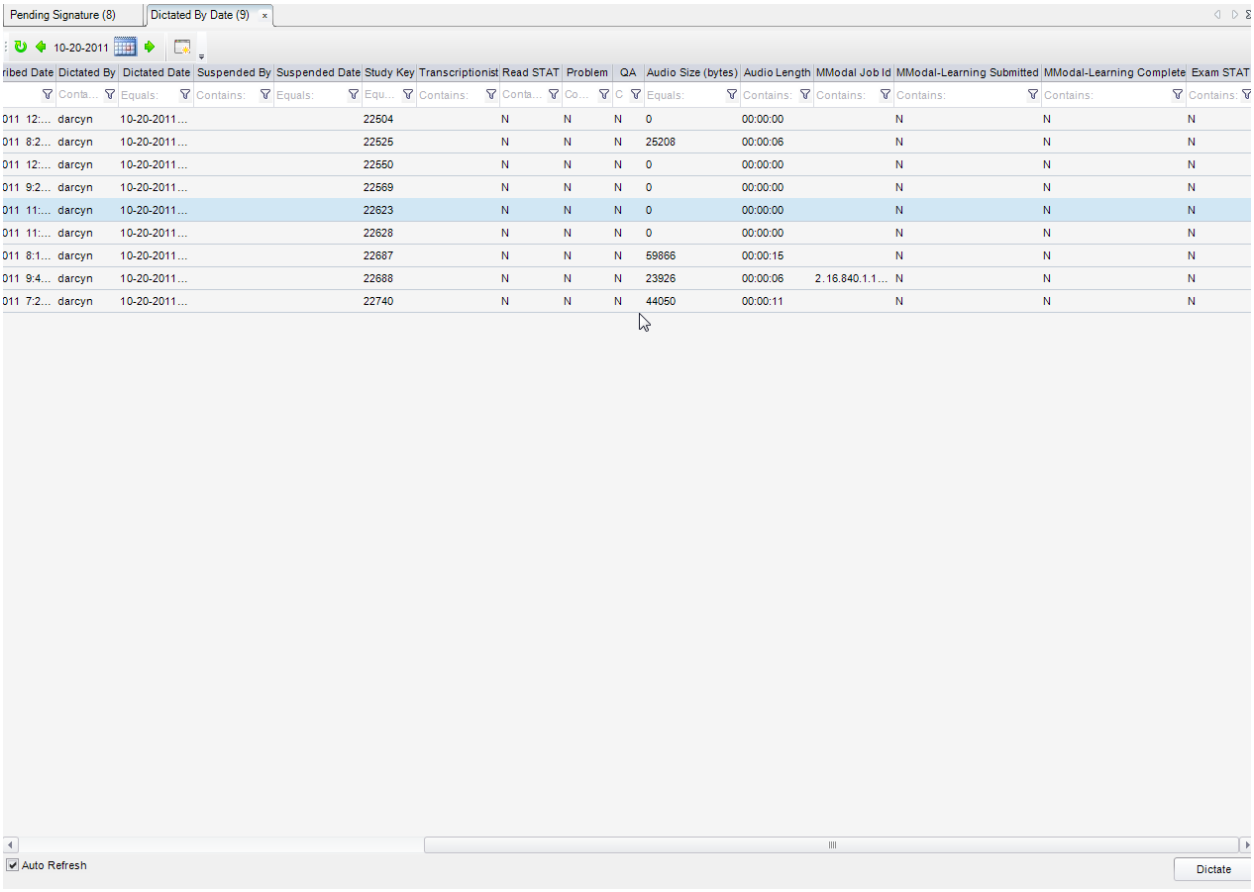



**Figure 8.3.2 - Dictated by Date**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## 8.4 Suspended work list

There are two views of the Suspended work list. Most users will only see the one that displays the current exams in Suspended state by the current logged in user. Admin types can also view the Suspended (all) which shows all jobs in suspended state for all users.
There is only one button action of Dictate from this work list.
The context menu options are Assign to Radiologist, Stat Case (sub menu to assign/unassign), Patient Folder, Audit History, Copy Cell and Request Copy of Images.
Two screen shots are needed to display all of the columns for this work list.

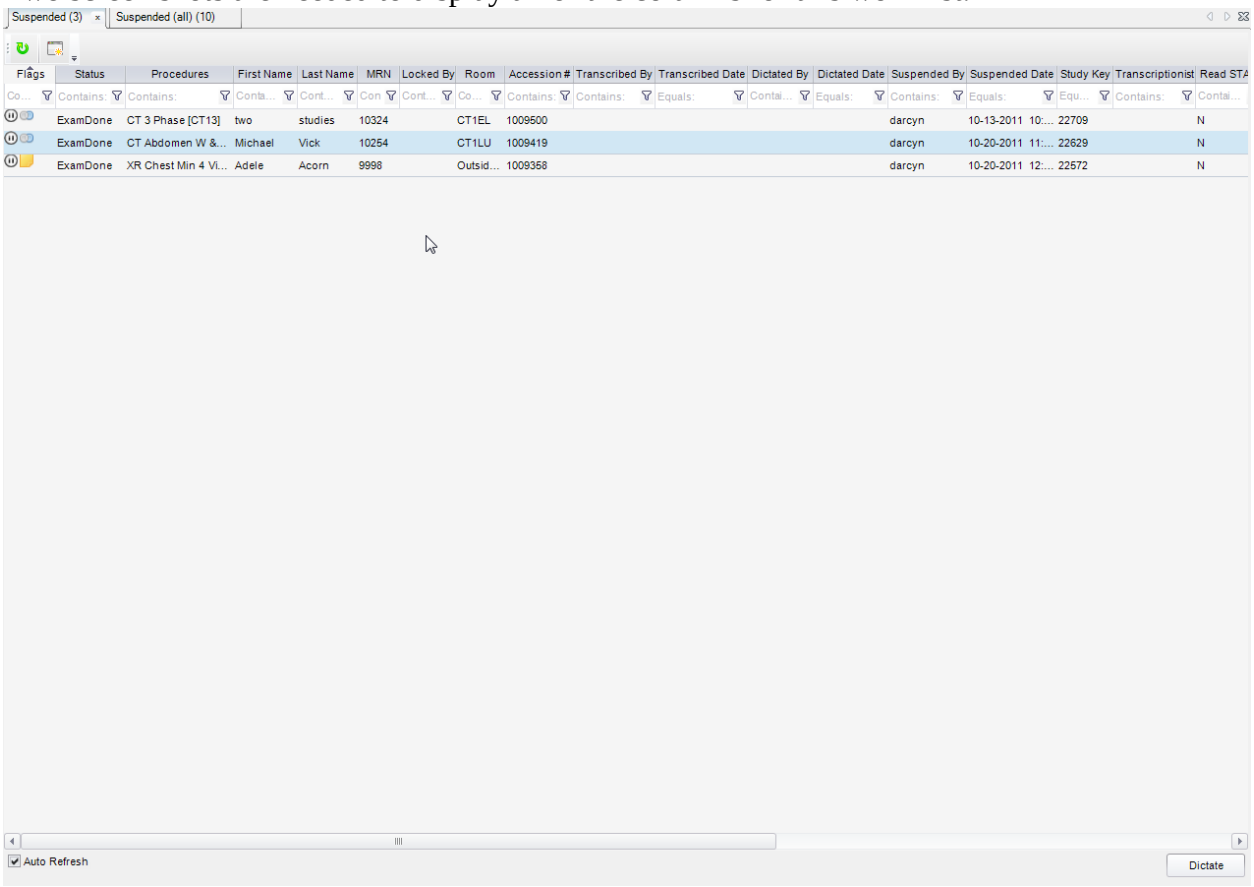



**Figure 8.4.1 – Suspended work list**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

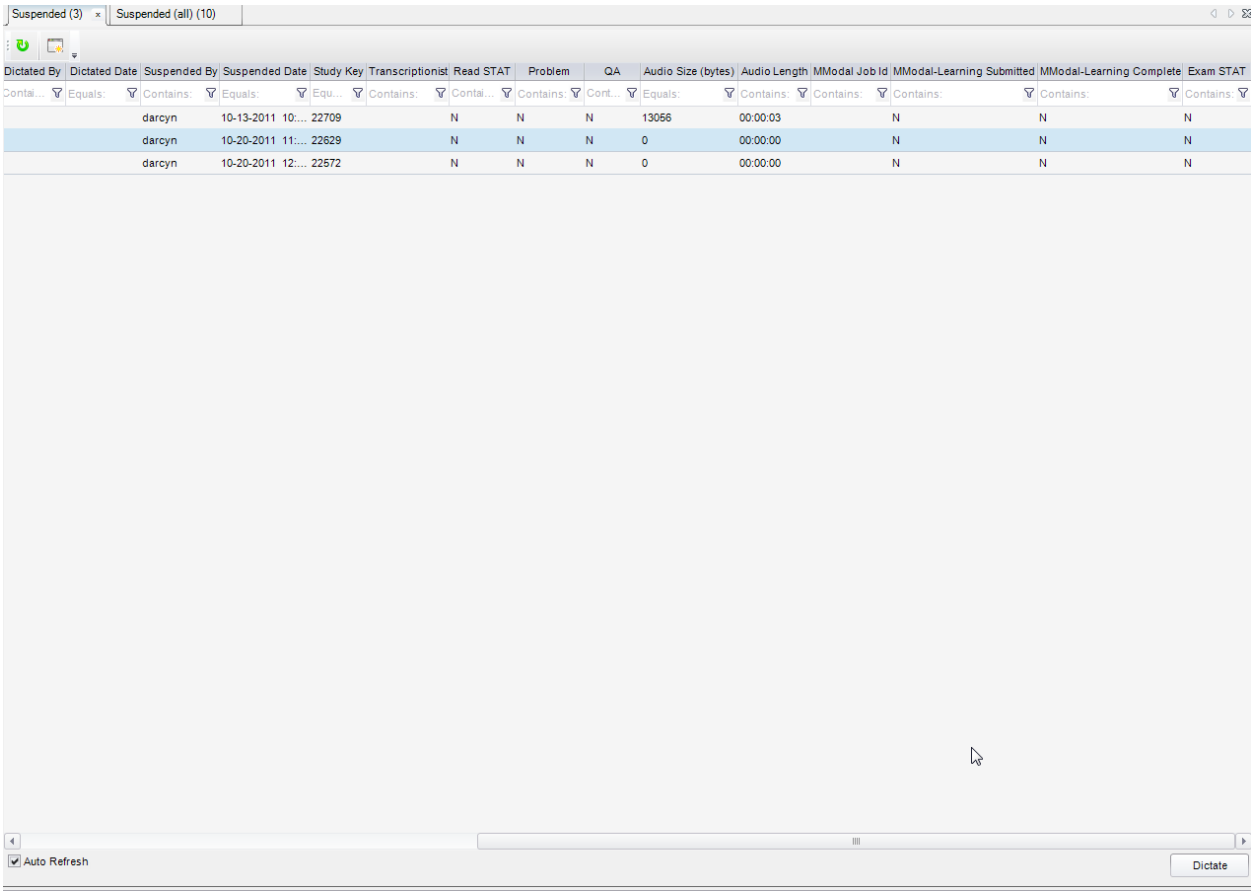



**Figure 8.4.2 – Suspended work list additional columns**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## 8.5 Pending Signature work list

The Pending Signature work list contains the exams that require sign off by the logged in user. Users of resource type Radiologist will have their Pending Signature work list launch when they log into the application.
Again admin types will also have an additional Radiologist menu option of Pending Signature (all) display a view of reports from all users that needing final signature.
The only button action available is Sign Reports.
Context menu options are Dictate, Patient History, Audit History, Copy Cell, Change Status To Report Drafted, Delete the dictation/report and reset the status, Forms and Labels, Stat Case…(sub menu to assign/unassign) and Request Copy of Images.
The following two figures were required to display all columns available in the Pending Signature work list.

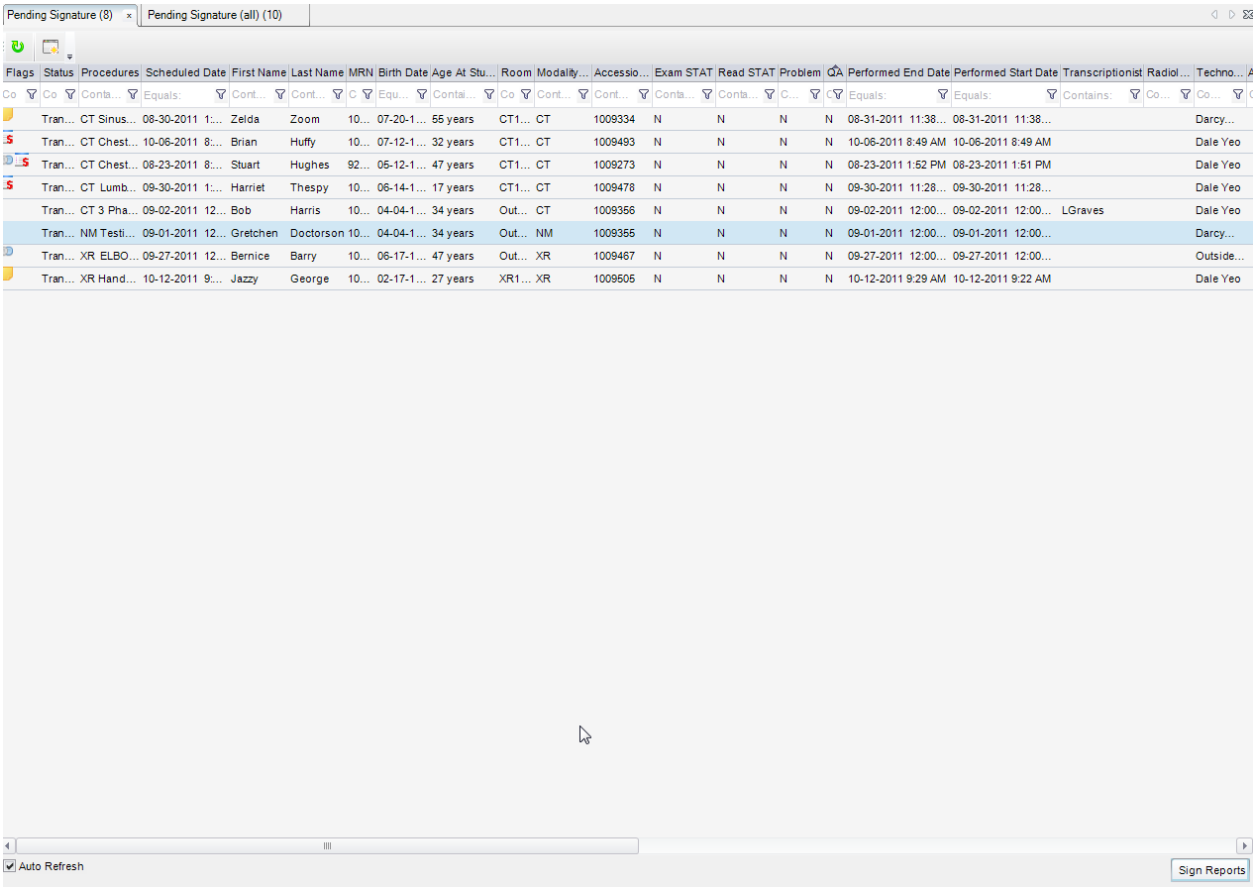



**Figure 8.5.1 – Pending Signature work list**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

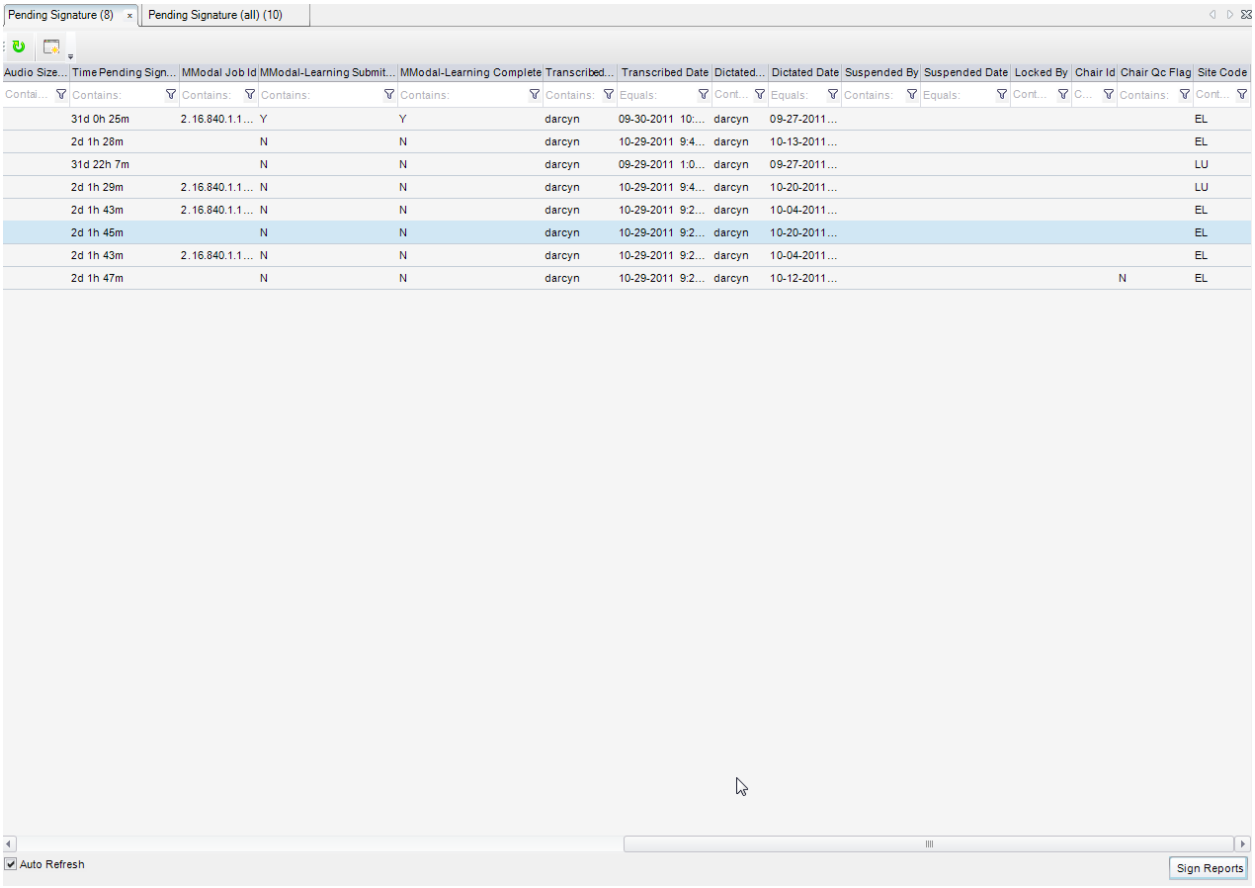



**Figure 8.5.2 – Pending Signature work list**

Selecting the context menu item Delete the dictation/ report and reset the status will prompt the user with a confirmatory message.

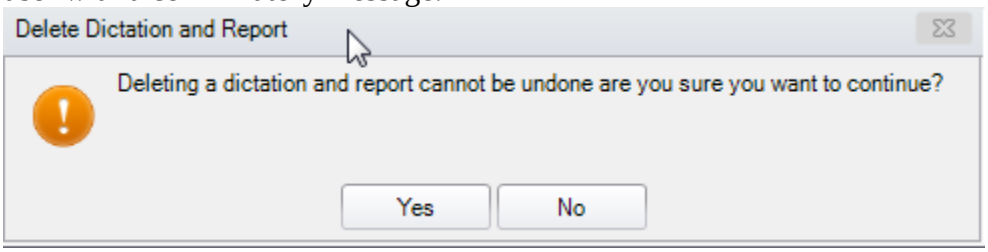



**Figure 8.5.3 Delete the dictation / report confirmation dialog**

When the delete dictation/report happens the system will remove the current dictation and set the status back to exam done with the exception of an addendum. If the dictation is for an addendum then the application will reset the status back to Signed where it can be dictated on once again if needed.

A dictation deletion can only be performed when the study is in Dictated, ReportDrafted or Transcribed status.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

### 8.5.1 Sign Reports Data window

The data window tabs, panes and features are the same as the dictating data window pictured in section 8.2 of this document. Once the report is signed the exam the accessed from the patient folder.

### 8.5.2 Amending Reports

From the patient folder select the Exam in the list. This will enable the Dictate button. Selecting the Dictate button will prompt the user with the following message.

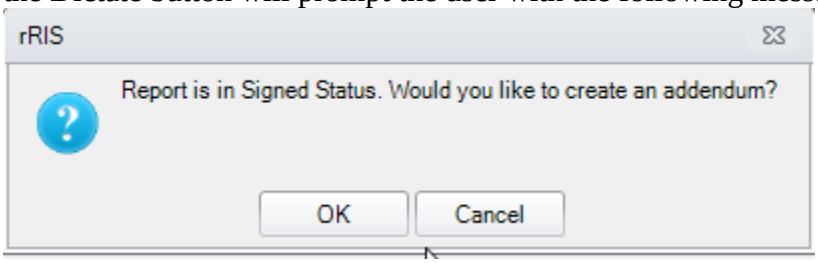



**Figure 8.5.2.1 – Create addendum message**

After selecting the OK button to the message above will open the Dictating (patient name) window, and the user can complete the dictation or add template normal text, or cancel out and the status of the exam stays in in signed status.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## 8.6 Report on Accession Number

This feature will allow the user to open the Diagnose screen on a study based on a specified accession number. This provides the user with the ability to bypass the worklist type workflow and run rRis in a "slave" type mode. The input of this accession number can come in different forms as tcp listener, file watcher, etc. These are all used as methods to drive workflow from another system such as a PACS system.

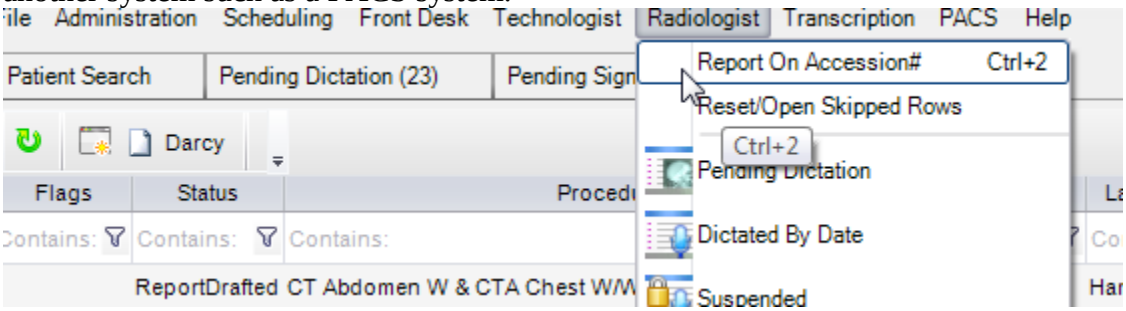



**Figure 8.6.1 – Report on Accession Number**

The user also has the ability to manually enter an Accession Number and let rRIS search for it. This can be done by using the menu option or the right-click context menu on the system tray icon. If the Accession Number is not found, the user is prompted accordingly.

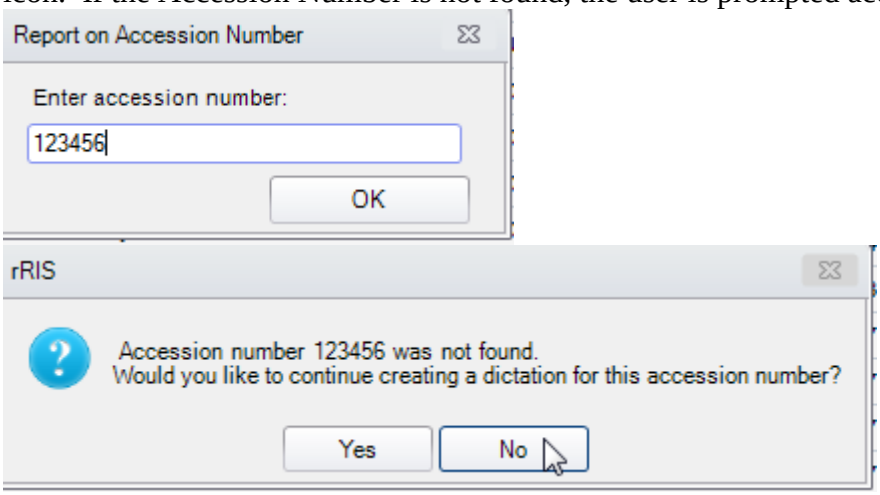



**Figure 8.6.2 – Enter Accession Number Dialog and Confirmation Message**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 9. Transcription

## 9.1 Report Drafted

The Reported Drafted is a work list for the Transcription role and is a complete list of all jobs that require action to move to Transcribed status (transcribed exams are displayed in the Pending signature work list).
The only button action is Create/Edit Reports.
Context menu options are Assign to Transcriptionist, Stat Case (sub menu to assign/unassign), Problem Queue (sub menu to assign/unassign), QA Queue (sub menu to assign/unassign), Change Status To Report Drafted, Delete the dictation/ report and rest the status, Patient Folder, Audit History, Copy Cell and Request Copy of Images.
The following 2 figures display the columns available from the Reports Drafted work list.

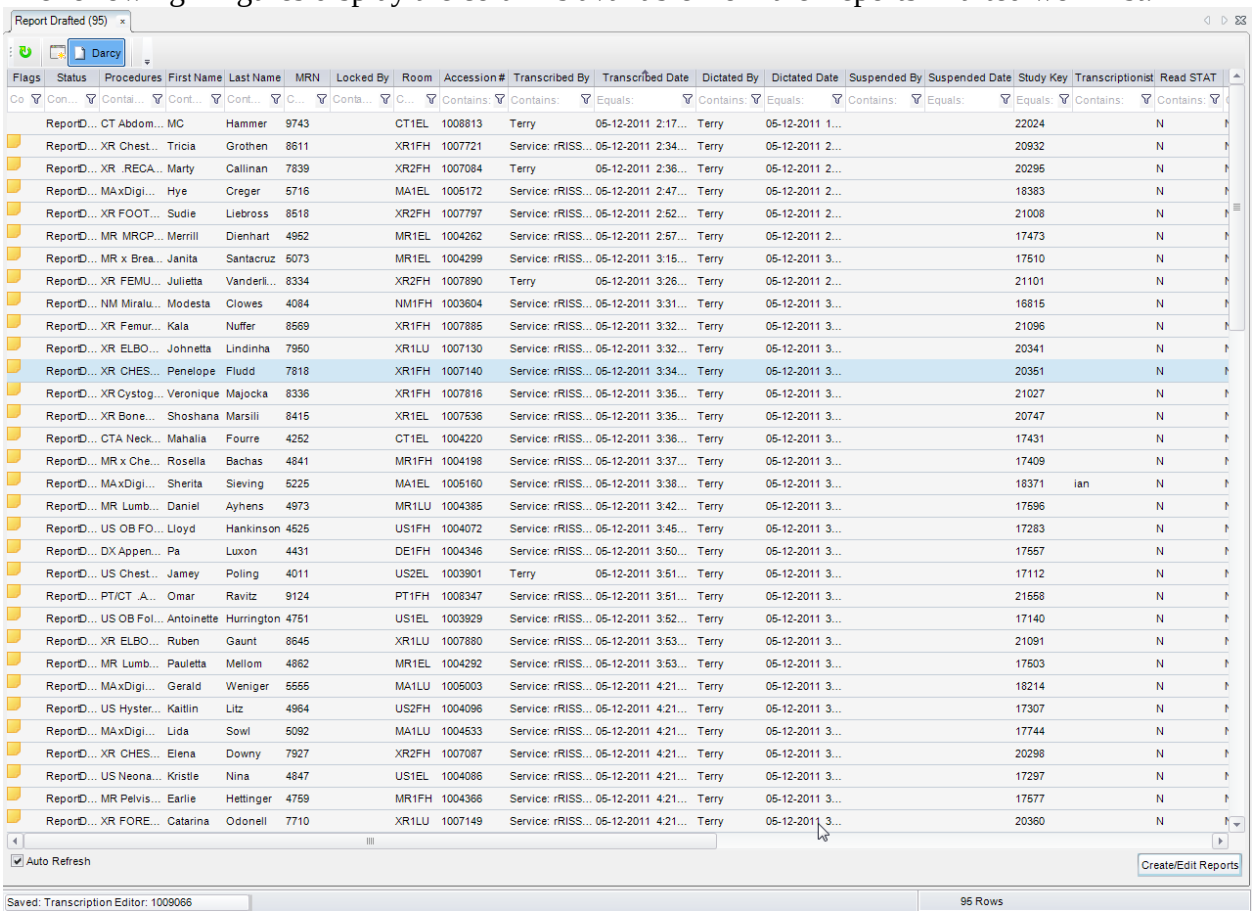



**Figure 9.1.1 Report Drafted work list**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

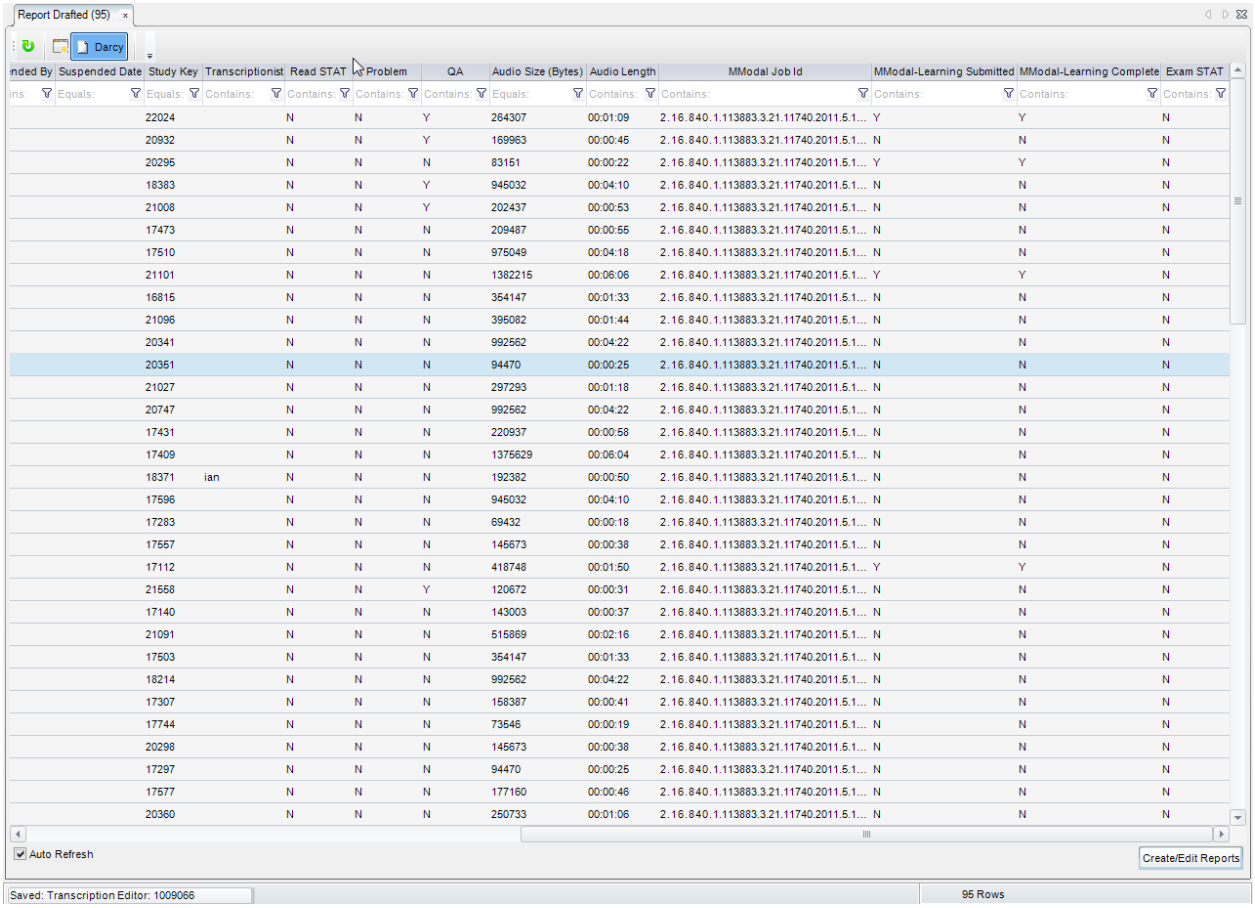



**Figure 9.1.2 Report Drafted work list**

Selecting the context menu item Delete the dictation/ report and reset the status will prompt the user with a confirmatory message.

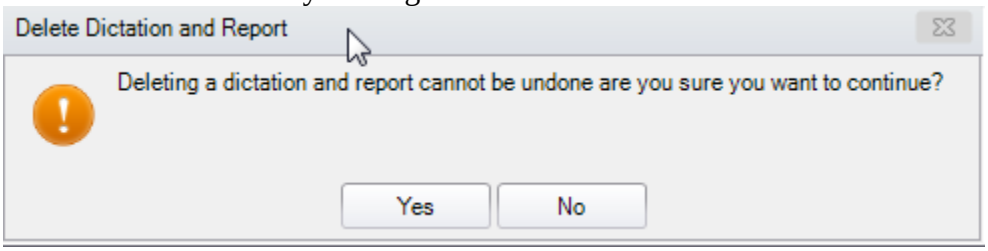



**Figure 9.1.3 Delete the dictation / report confirmation dialog**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

When the delete dictation/report happens the system will remove the current dictation and set the status back to exam done with the exception of an addendum. If the dictation is for an addendum then the application will reset the status back to Signed where it can be dictated on once again if needed.
A dictation deletion can only be performed when the study is in Dictated, ReportDrafted or Transcribed status.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

### 9.1.1 Reported Drafted Data Window

The Transcription Editor is a mirror image of the Dictating data windows with the exception of the button available to skip and close.

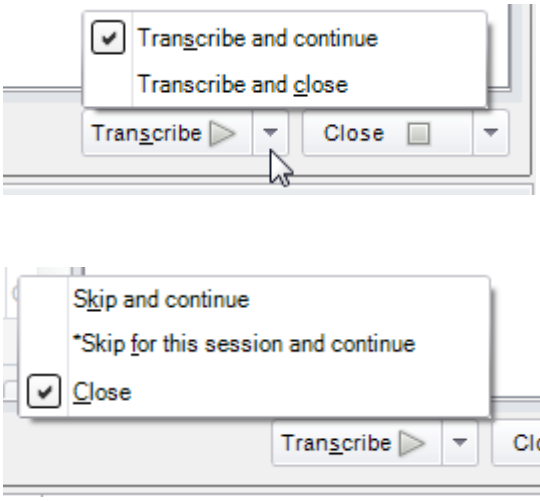



**Figure 9.1.1.1 Transcription Editor buttons for transcribing and closing**

### 9.1.2 Diagnostic – Note to Radiologist

Note to Radiologist has been added in this build. Utilizing the pre-existing "Transcription Notes" data pane in the reporting data window, a checkbox was added. When checked it marks the notes are meant for the radiologist to review. Also when this checkbox is selected the "Assign to:" and Assign to WL:" are disabled.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

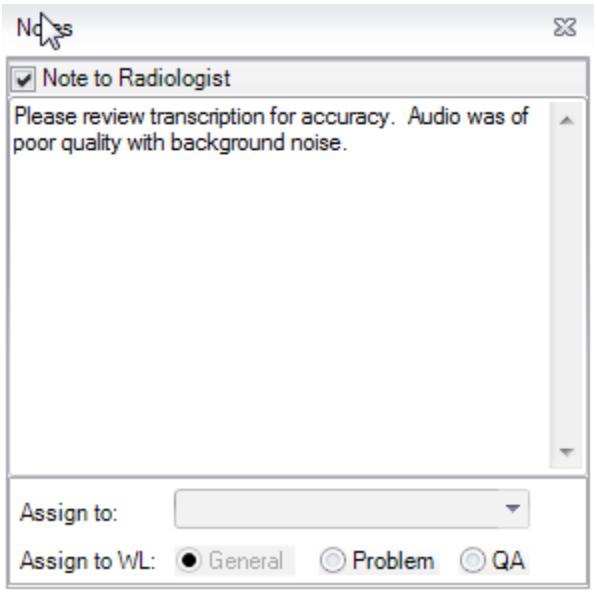



**Figure 9.1.2.1 – Note to Radiologist selecting, disabling Assign to and Assign to WL**

When the transcriptionist submits this study with "Note to Radiologist" checked, the Radiologist must acknowledge the note before the study can be signed off.

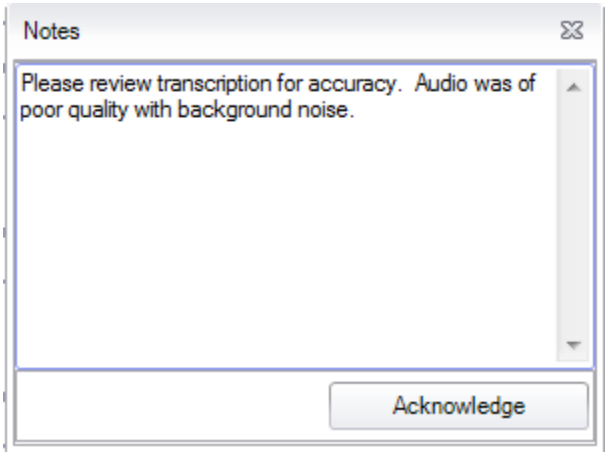



**Figure 9.1.2.2 – Note to Radiologist – Note to be acknowledged.**

The Radiologist can choose to re-dictate, edit report, or edit data window fields without having to acknowledge the "Note to Radiologist". If the exam is moved to a status of Dictated or Report Drafted, the flag for "Note to Radiologist" is retained. The radiologist still has to acknowledge the note before it can be signed. If the exam status was changed to Report Drafted by a radiologist, the transcriptionist can remove the "Note to Radiologist" flag and the exam will no longer have to be acknowledged by the Radiologist.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

If the Radiologist attempts to sign off a report that has not been acknowledged, they will be presented with a confirmatory message that provides the option to acknowledge and sign off, or select No and return to the data window.

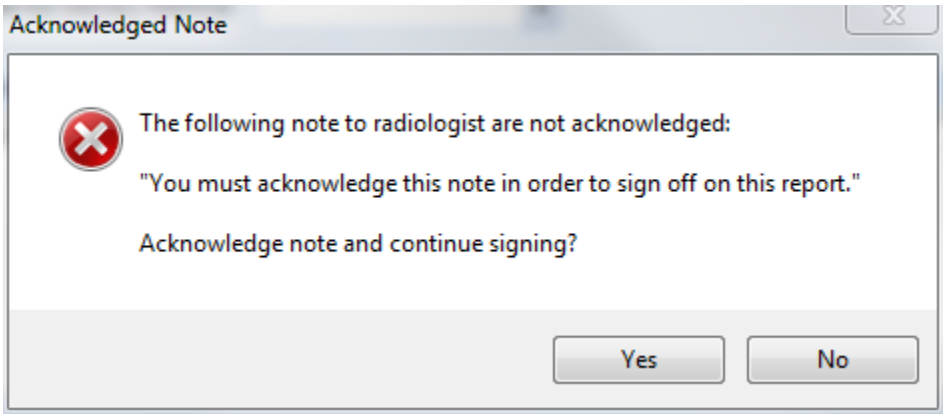



**Figure 9.1.2.3 – Confirmation of signing before acknowledging Note To Radiologist**

### 9.1.3 Optimizing Dictation Playback

On the reporting control there is an Optimize Playback toggle buttons . When this button is enabled, rRIS will skip any dead space in the report/dictation. The button state is stored at the user level so the application will remember the setting when the next report is loaded.

### 9.1.4 Playback Speed per Radiologist

Transcription can adjust the playback per radiologist. If Radiologist A has a slower talking rate when dictating, and Radiologist B has a faster, the transcriptionist can adjust the playback speed. The speed selected will be auto saved and the next dictation the transcriptionist completes on Radiologist A or B, etc… is maintained.

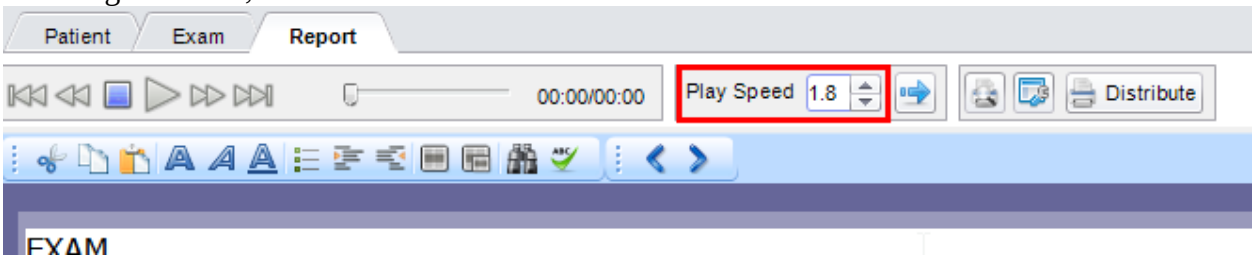



**Figure 9.1.2.4 – Playback speed**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## 9.2 Pending Review

The Pending Review work list contains jobs that may have been dictated on but the accession number was not recognized by the system, the job will be added to this work list.
Only the Create/Edit Reports button action is available from this work list.
The context menu options are
Again 2 figures were needed to show the columns available.
Please Note that in rRIS first release, although the menu item and work list is accessible, the feature is not complete, therefore there will be no records assigned to the work list. This is listed as a known limitation.

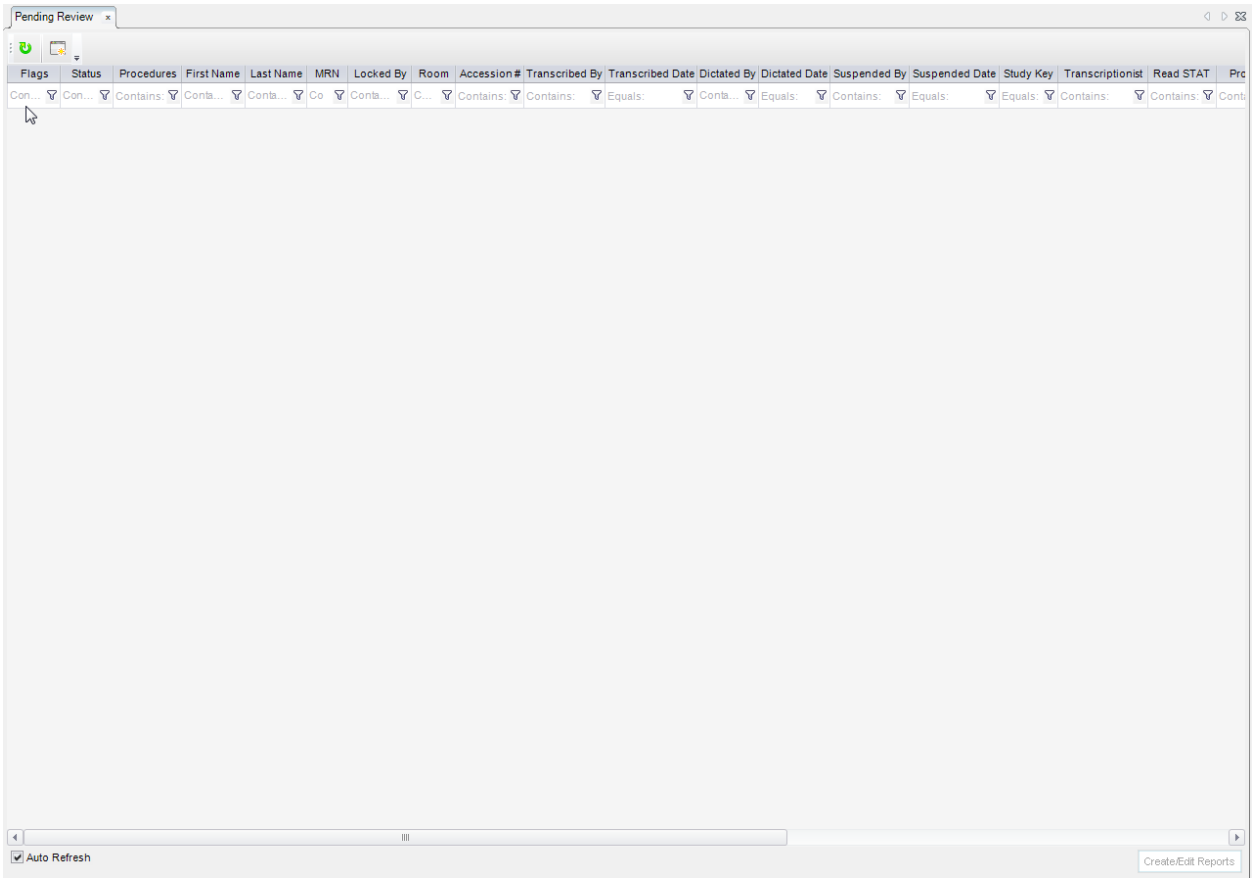



**Figure 9.2.1 – Pending Review work list**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

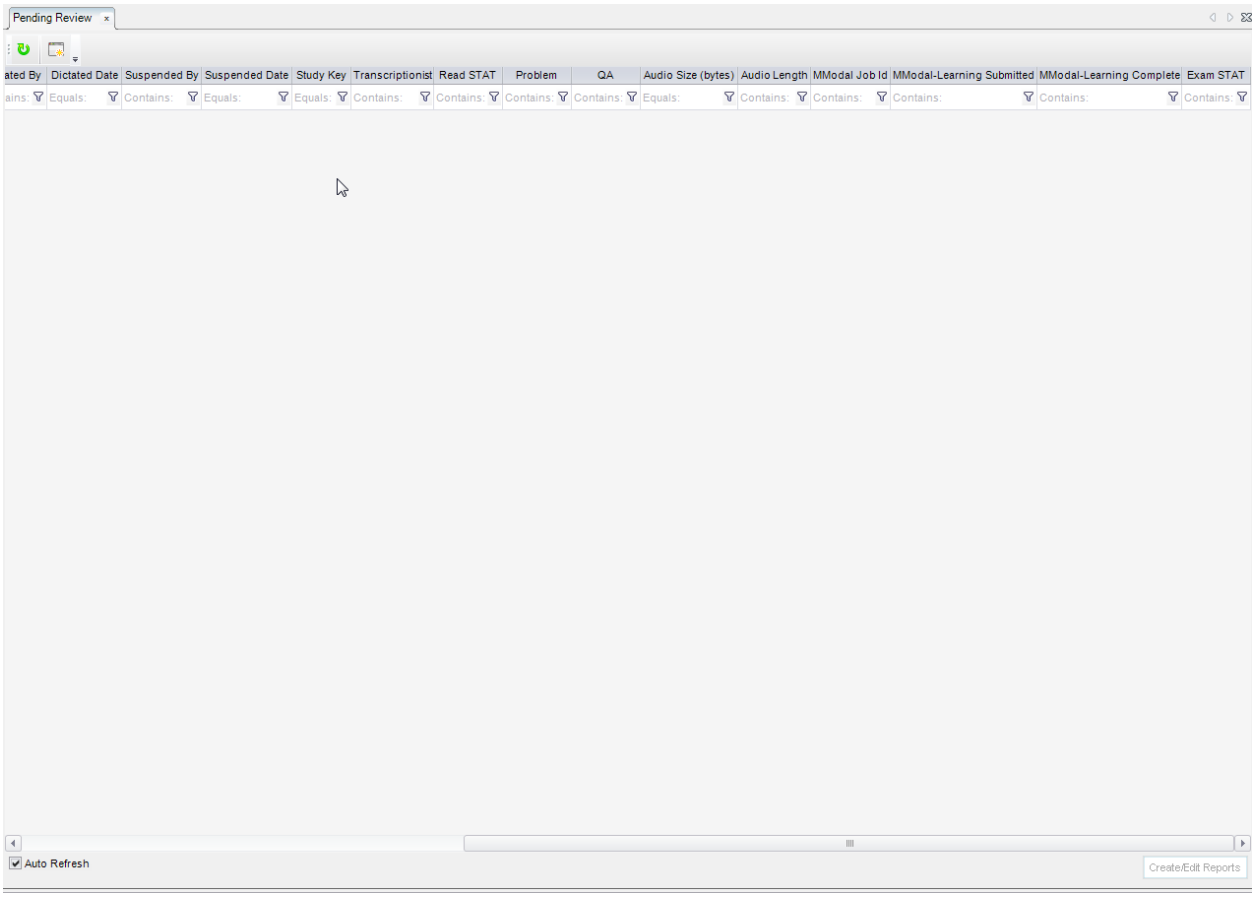



**Figure 9.2.2 – Pending Review work list**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 10. CDS Job Manager

The CDS Job Manager is an application that handles communication with our MModal partner for voice recognition. You can access the CDS Job Manager console from within the rRIS main GUI application. Under the menu option Administration>CDS Job Manager.

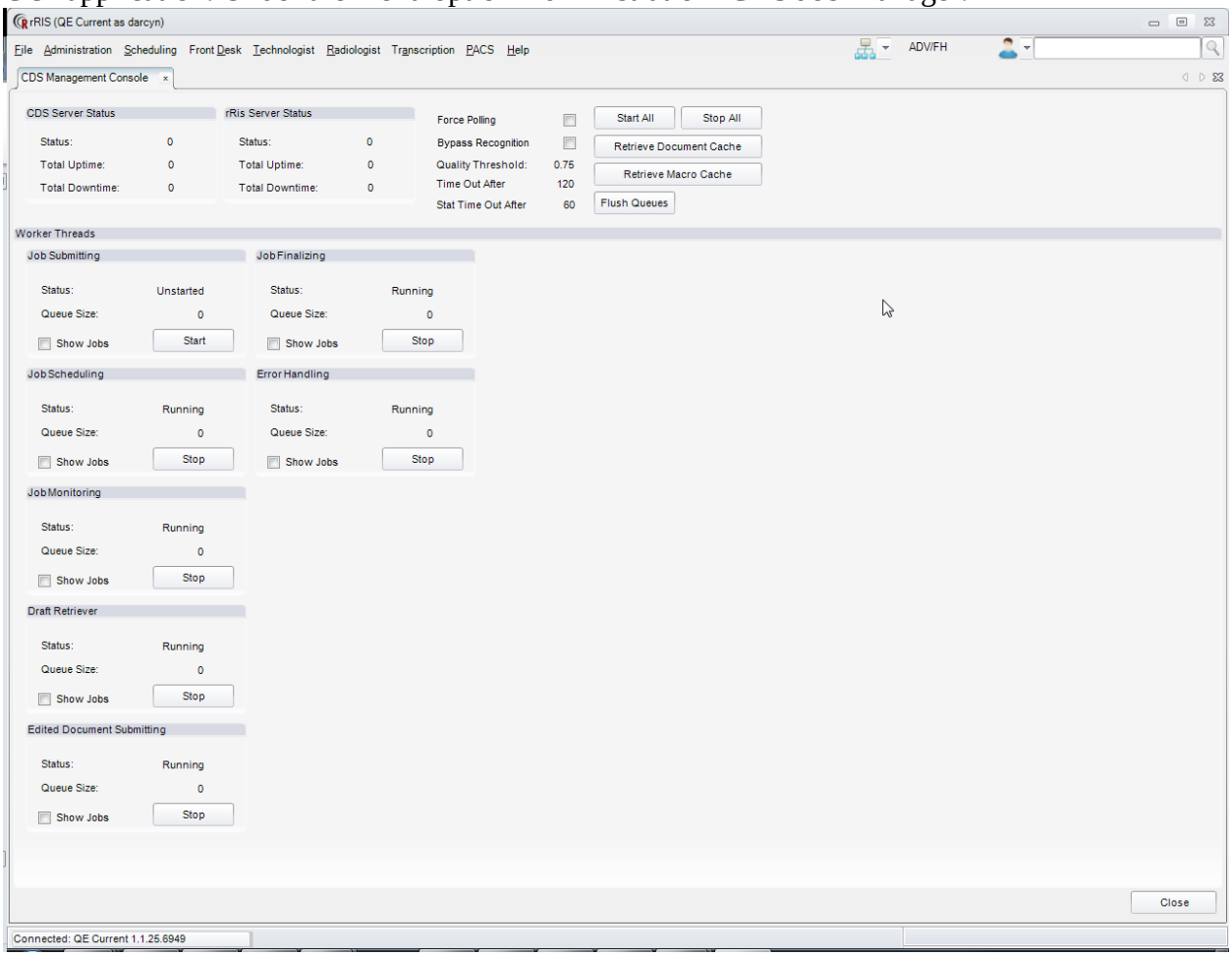



**Figure 10.1 CDS Job Manager Console**

**CDS Server Status:** shows the amount of uptime and downtime since the last service restart that the CDS service has been communicating with MModal servers.

**rRIS Server Status:** shows the amount of uptime and downtime since the last service restart that the CDS service has been communicating with rRIS servers

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

**Force Polling:** normally we poll MModal for completed jobs every 10 minutes for normal cases and 5 minutes for stat cases. If this option is checked we will poll every minute. This shoulc only be turned on in cases where you are trying to catch jobs or when trouble shooting.

**Bypass Recognition:** if this option is checked we will always return typing documents to the MT's and bypass the recognition process completely. This is added in the event a site wants digital dictation only of if the MModal servers go down for an extended period of time.

**Quality Threshold (70):** reflects the system configuration value stored in the lookup table. When a dictation is submitted for recognition we get a qualtiy score. If the quality score is higher thatn this value we will wait for the recognized draft to be returned from MModal. If the quality score is below the value we will bypass recognition and return a typing document.

**Time out after:** reflects the CDSTimeOutInMinutes.

**Stat Time out after:** reflects the CDSStatTimeOutInMinutes.

**Start All** : this will start all of the worker threads (processes)

**Stop All**: this will stop all of the worker threads (processes)

**Retrieve Document Cache:** this will download all of the templates from MModal into the rRIS database

**Retrieve Macro Cache**: this will download all of the macros (normal) from MModal in the rRIS database

**Flush Queues:** this will clear all of the worker threads of any data (jobs) that may be in each process

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 11. Organization Picker

The ability to change between organizations has been built into the application. A new ICON was added to the menu bar. Selecting the arrow next to the ICON will expand to a drop down list enabling the user to change from current site. Expanding the list will display all the Orgs and Sites the current logged in user is configured for. When the selected Org or site changes, work lists will refresh as will the label next to the ICON. The org and site codes of your currently selected Organization and site are displayed to the right of the ICON.

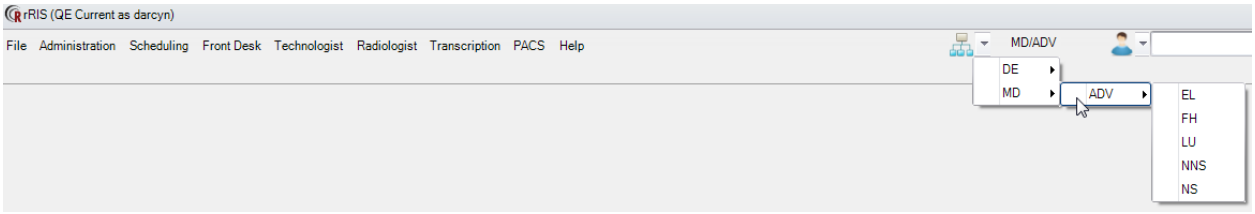



**Figure 11.1 – Expanded Organization Picker**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 12. Search Functionality

Within rRIS there are multiple search options. Users with the proper permissions have the ability to not only search for patients, but also for staff, sites, and insurance carriers. The search functionality also supports the ability to add multiple search providers such as Google and / or WebMD.

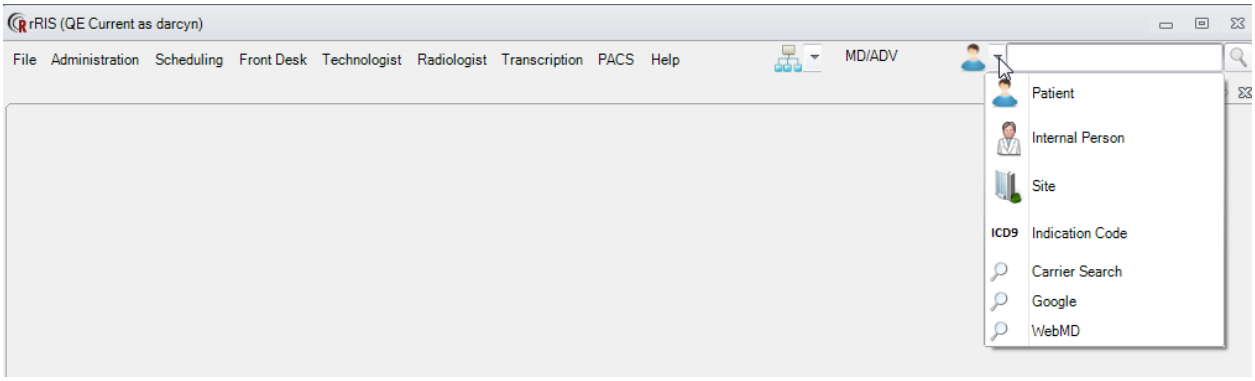



**Figure 12.1 – Accessing search options available**

The internal person search is a great utility to quickly find the resources such as referring doctors, techs, radiologists, etc. within the application.

The site search allows users to lookup contact information for other sites within the organization.

Multiple search providers can also be added to the search functionality selection.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## 12.1 Enhanced Patient Search

Patients can be searched on by last name, first name, birthdate, or MRN. In the event that the patient's name changed, a search can be performed on the patient's previous name(s) or MRN.

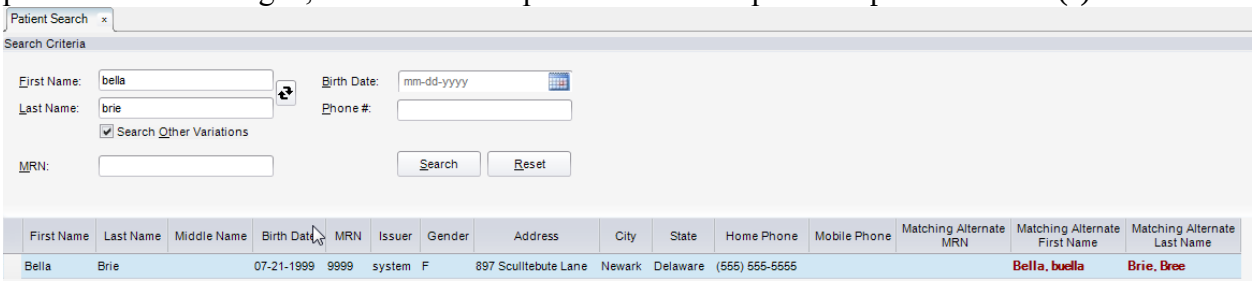



**Figure 12.1.1 – Previous name**

You will also notice in the above figure the check box "Search Other Variations" is selected. When this checkbox is selected rRIS will complete a more extensive search. Patients name "starts with" Search first, then a "sounds like" search as well as search for birthdate variations ('12/01/1970', '01/12/1970'). If the name field only has one character, the sounds like search will do a starts with instead.
Example - firstname sounds like s, lastname sounds like smith will be converted to firstname starts with s, lastname sounds like smith.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 13. User Preferences

## 13.1 Font Size

User can adjust the font size within the application. Three font sizes are offered, small, medium and large. Adjusting font size is accessed from the File > Font Size menu.

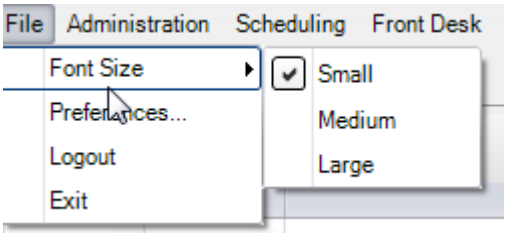



**Figure 13.1.1 – Adjusting Font Size**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## 13.2 User Preferences

User preferences are also accessed from the file menu. Most the preferences are for Radiologist and Technologist workflow.

### 13.2.1 General Tab

**MT Polling –** Used for transcription. When user logs in they don't see a work list, the create / edit report window opens automatically.

**Screen Lock –** There is a system config setting "MaxUILockTimeoutMin" which is the maximum inactivity time the user can set their user preferences to. So for example if the system max is set to 10, everyone will be locked out after 10 minutes of inactivity and users can only set their local preference to 10 minutes or less.

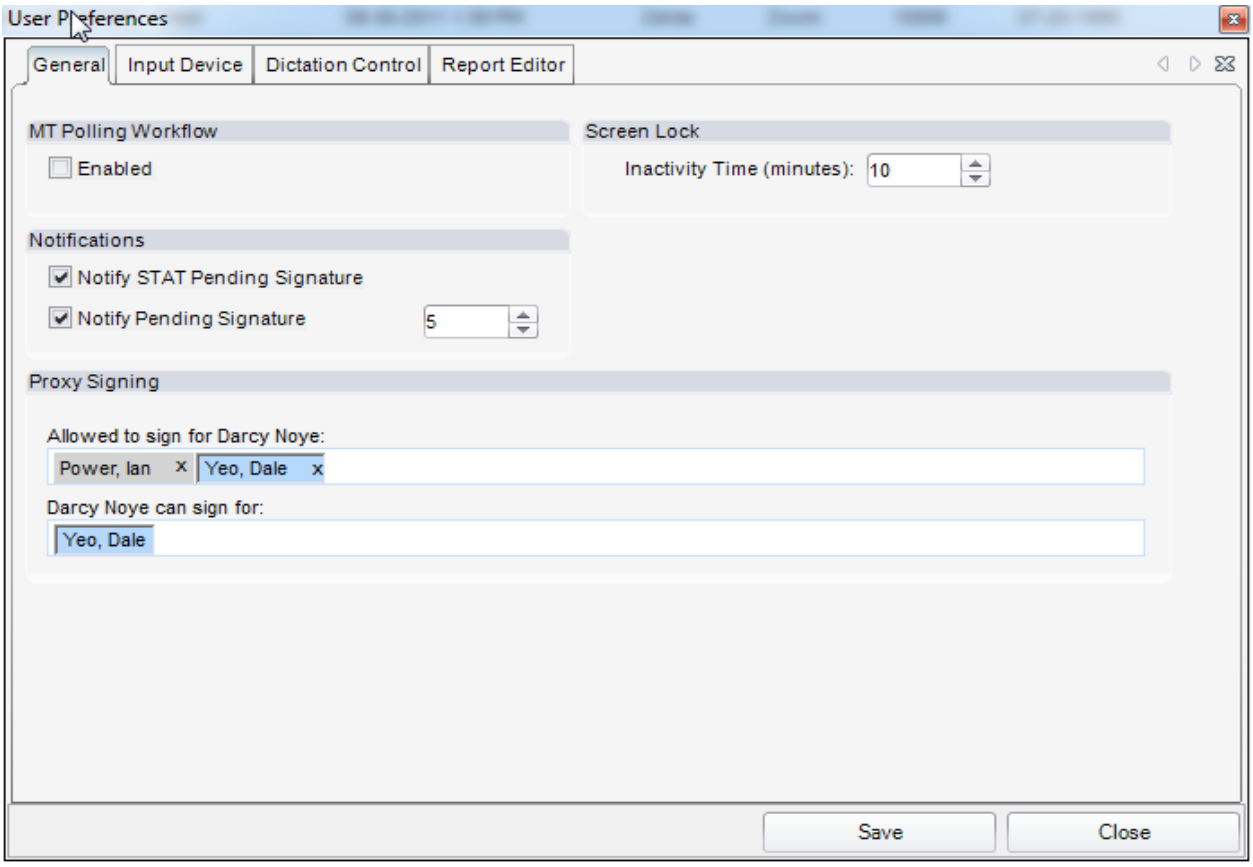



**Figure 13.2.1.1 – General tab of User Preferences**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

**Notifications -**

**Proxy Signing -** Users can specify who will be able to proxy sign on their behalf. Also as a display only, it will inform who you (the user preferences of the user logged in) that you may sign for.

### 13.2.2 Input Device Tab

**SpeechMike Buttons –** Used to configure the user preferences of the Philips SpeechMike Function 1-4 keys, the EOL button and Instr (INS / OVR on speechmike) on the face of the SpeechMike and also the trigger button located on the underside of the SpeechMike.

**Foot Pedals –** Used to configure foot pedals the users desired preference

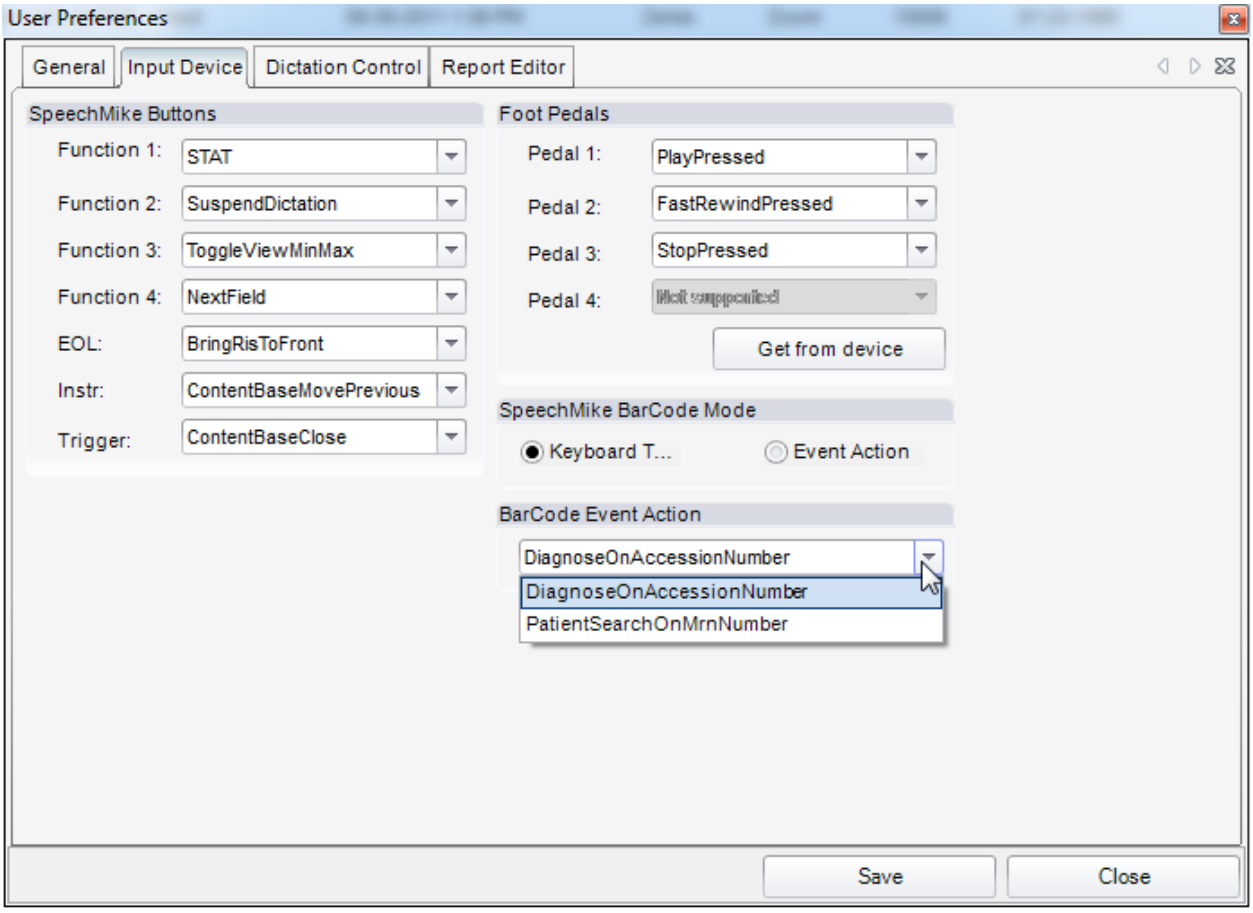



**Figure 13.2.2.1 – User Preferences Input Device tab**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

**SpeechMike BarCode Mode –**

- Keyboard Text - Takes the scanned barcode and essentially keyboards it into whatever field is active. This is the standard barcode implementation
- Event Action - This will cause the Barcode to trigger a configurable event to be fired in rRis and a corresponding action will be taken.

**Barcode Event Action –** Scanning barcode event action. Scanning the patients folder barcode will either Diagnose on the Accession Number or Search for the patient using their MRN

### 13.2.3 Dictation Control tab

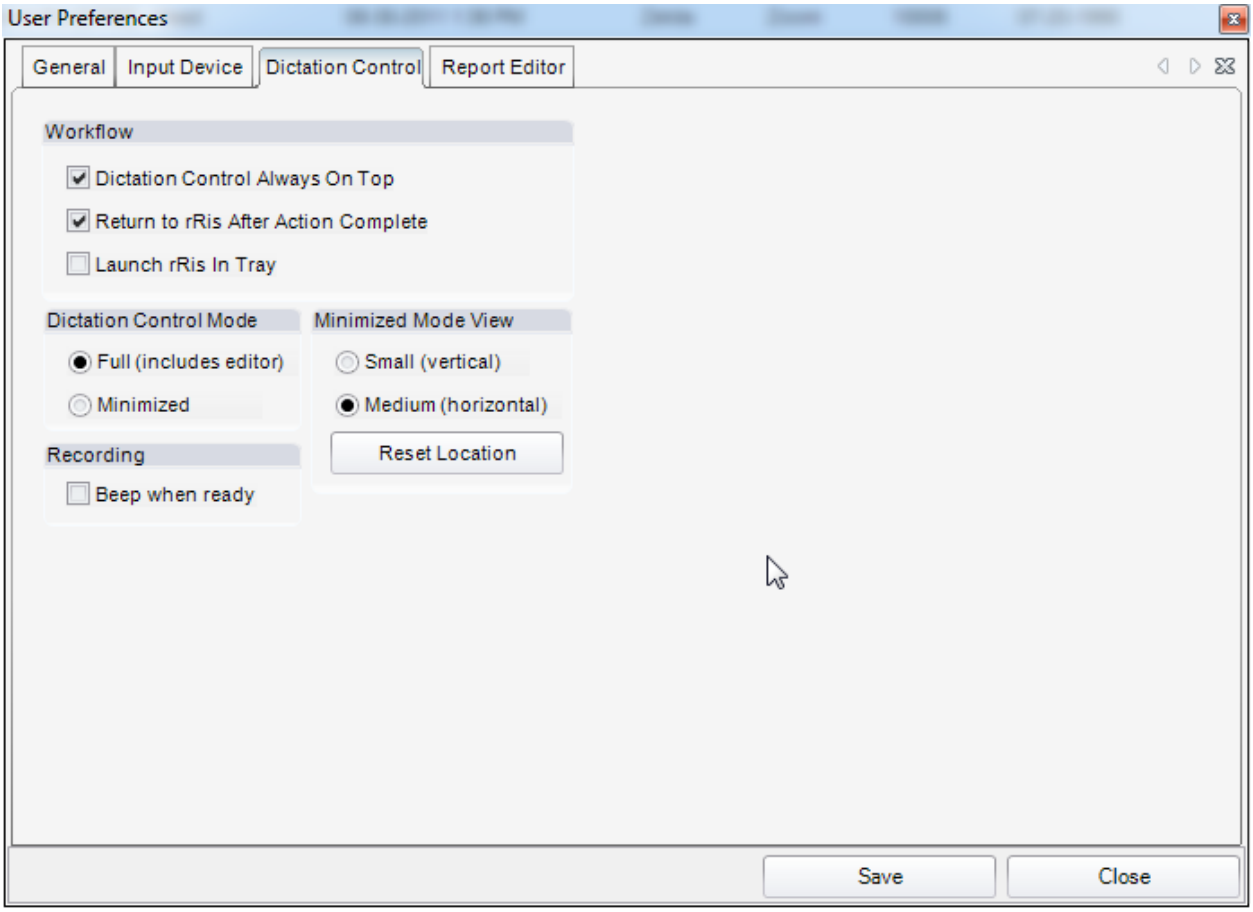



**Figure 13.2.3.1 – User Preference Dictation Control tab**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

**WorkFlow-**

- **Dictation Control Always On Top -** when turned on will force the control to remain on top of other windows even if the other window has focus.

- **Return to rRIS After Action Complete –** If this is selected, and Dictation Control Mode is set to Minimized, once the Radiologist has completed dictation and exits the Dictation window they will be returned to rRIS in Full view

- **Launch rRIS tin Tray -** If rRIS is configured to launch in tray, immediately after logging in the application will not show on the screen as usual but appear in the system tray as a small "R" icon. When rRis is shown and this mode is configured, minimizing or closing rRis using the icons at the top right of the application window will simply return rRis to the tray icon. To actually exit rRis the user needs to select File -> Exit from the file menu when rRis is onscreen, or using the tray icons context menu -> Exit.
    - **User id** - identifies currently logged in user
    - **Show rRis** - Will bring rRis on the screen, same as double clicking
    - **Report on accession #** - Prompt user for the accession number
    - **Info** - Will display information about rRis such as version
    - **Exit** - Will exit rRis completely

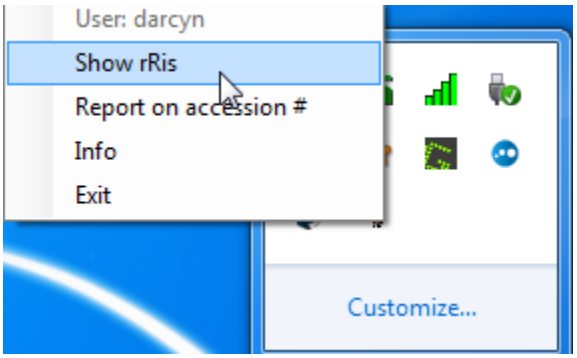



**Figure 13.2.3.2 – rRIS launched to system tray**

**Dictation Control Mode –** Full (includes editor) is the standard mode. Minimized will open as one of the two options in figure 13.2.3.3.

**Minimized Mode View –** Two different dictation control layouts have been implemented; a vertical (small) and a horizontal (medium). These controls exist outside of the rRis GUI. They have the ability to float on the screen and can be place where they will least interfere with the radiologist's existing RIS/PACS workstation.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

**Figure 13.2.3.3 – Horizontal (medium) control and Vertical (small) control**

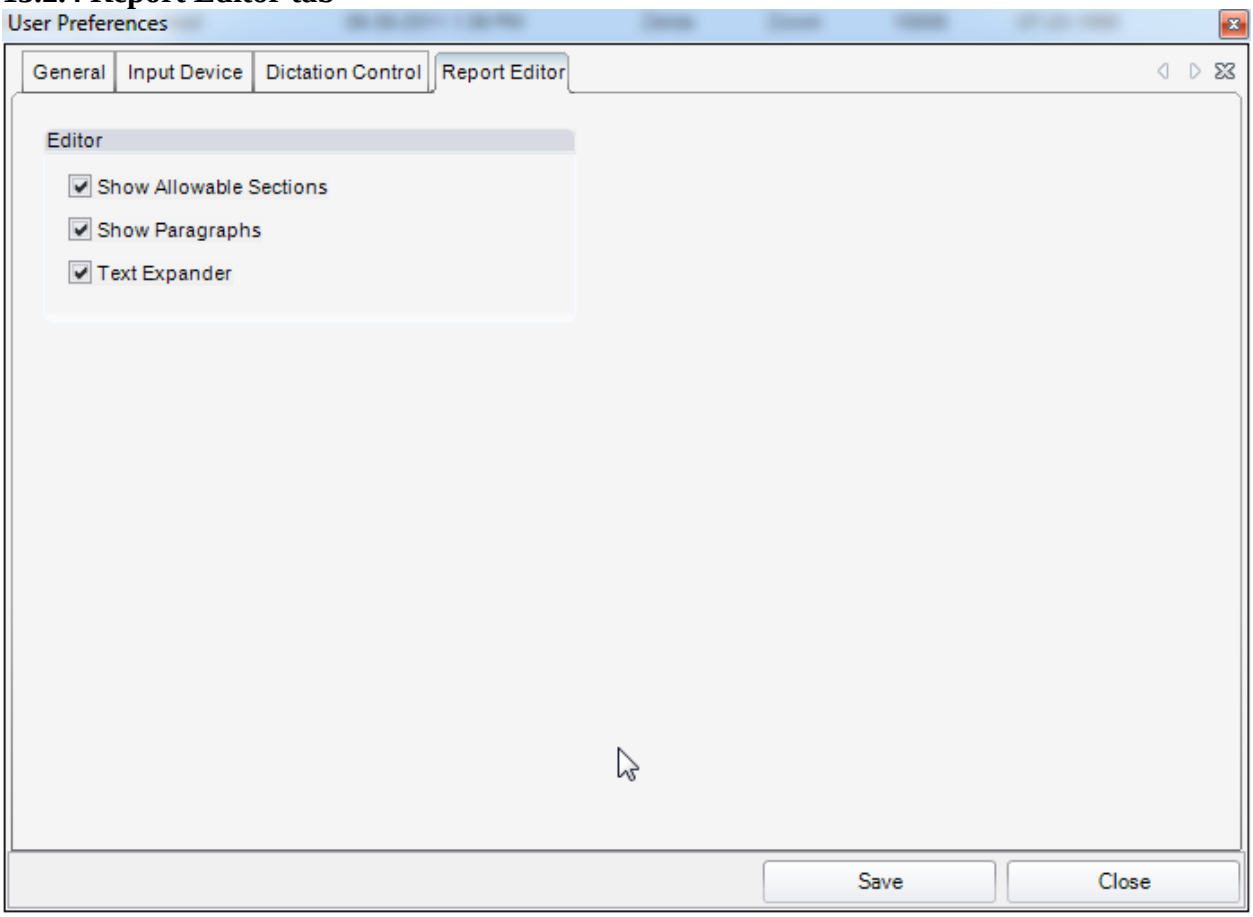
The minimized views can be placed anywhere on the screen and their location will be remembered forever. In the unlikely event that the location was saved to make them appear in an area which is not visible, in the user preferences the user can select "Reset Location" which will reset the control's location to position 0,0 (top left of screen 1).

**Recording -**

A user preference called Beep when ready was added to the Dictation Control tab. This feature will play and audible sound to alert the user as to when the control is ready for recording.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

### 13.2.4 Report Editor tab




**13.2.4.1 – User Preference Report Editor tab**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Editor

**Show allowable Sections –** In the report editor, selecting a section name within the editor will display the allowable sections available. With focus within the section header and typing will open a window displaying the allowable sections.

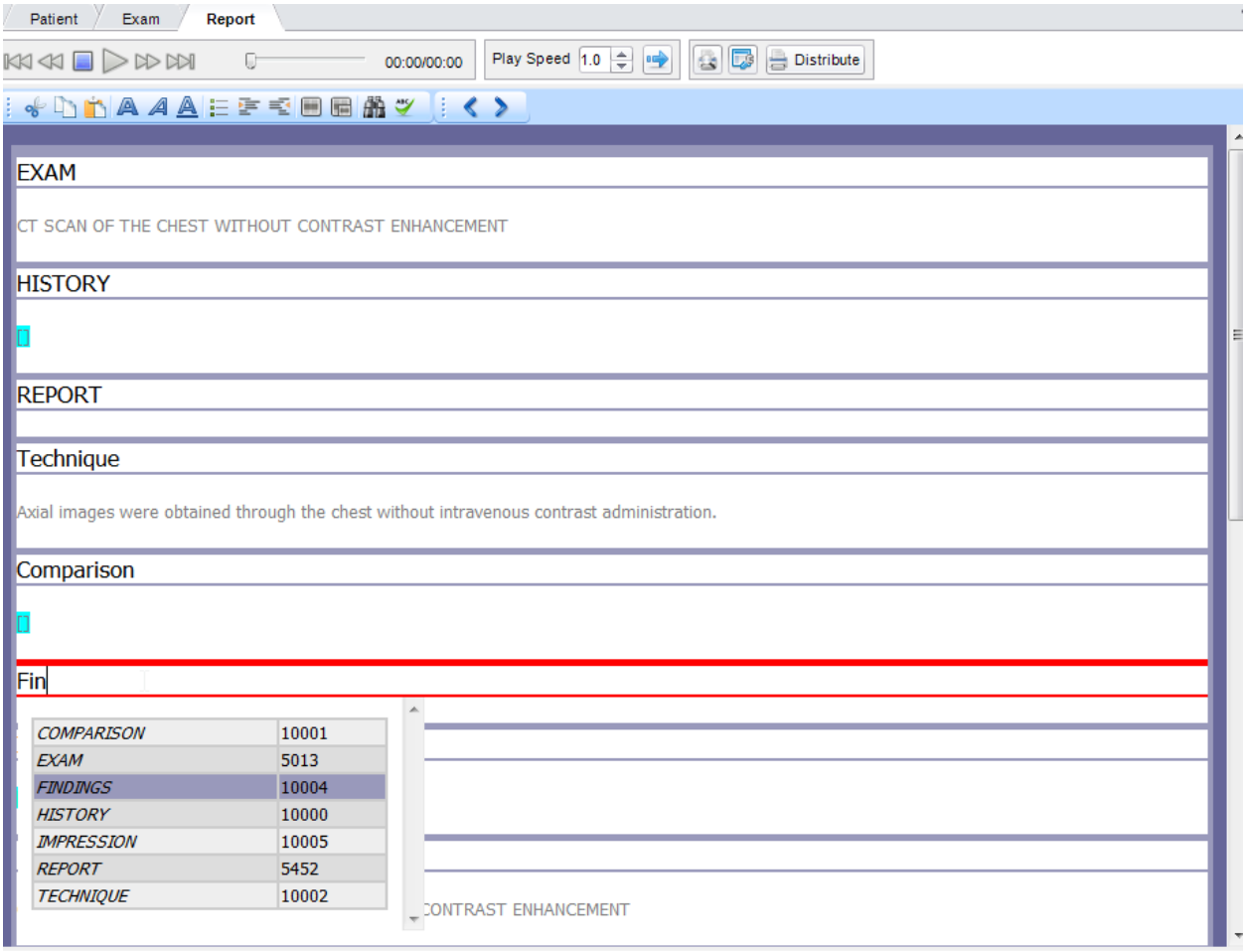
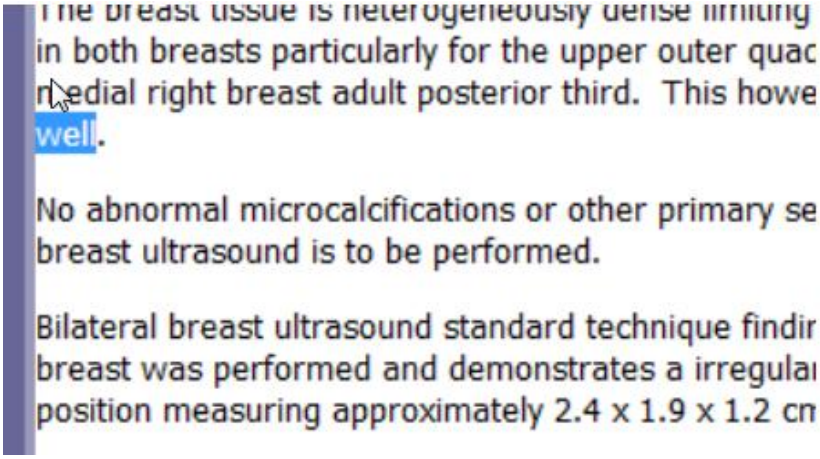


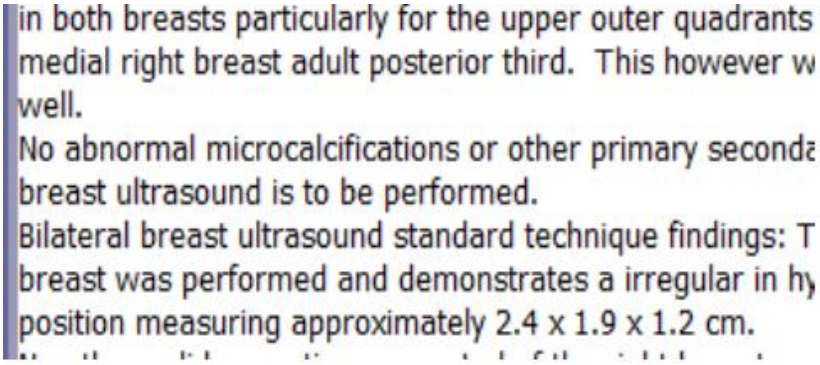

**Figure 13.2.4.2 – Show allowable sections**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

**Show Paragraphs –** Separates the text into paragraphs in report editor.




**13.2.4.2 Show Paragraph Enabled**




**13.2.4.3 Show Paragraphs Disabled**

**Text Expander –** Enables the Text Expander utility. See section 8.2.3 of this document for more information on Text Expander.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 14. Forms and Labels

Forms and Labels can be configured to print when the order reaches a specific status or the user can manually print from the context menu accessed from Patient Folder, Reception work list, Confirmation work list, Technologist work list, and Radiology work lists. Also from the Registration data window, and Technologist work list.

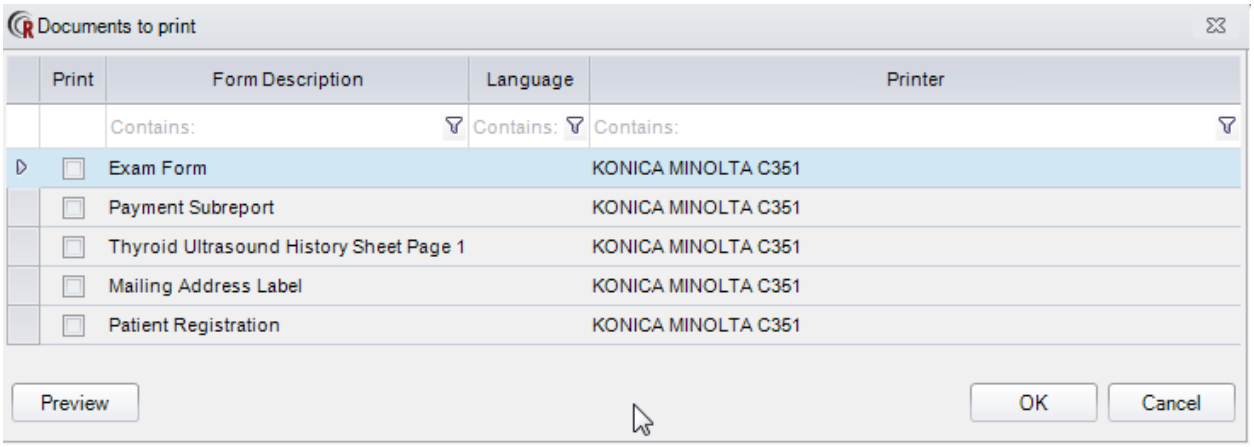



Figure 14.1 – Forms and Labels.

Forms and Labels can be configured to print for a specific modality type, procedure type, specific carrier, gender, and practice.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 15. Help menu

The help provides important information of the versions, where the application was installed from, current connection, logged on user, etc.

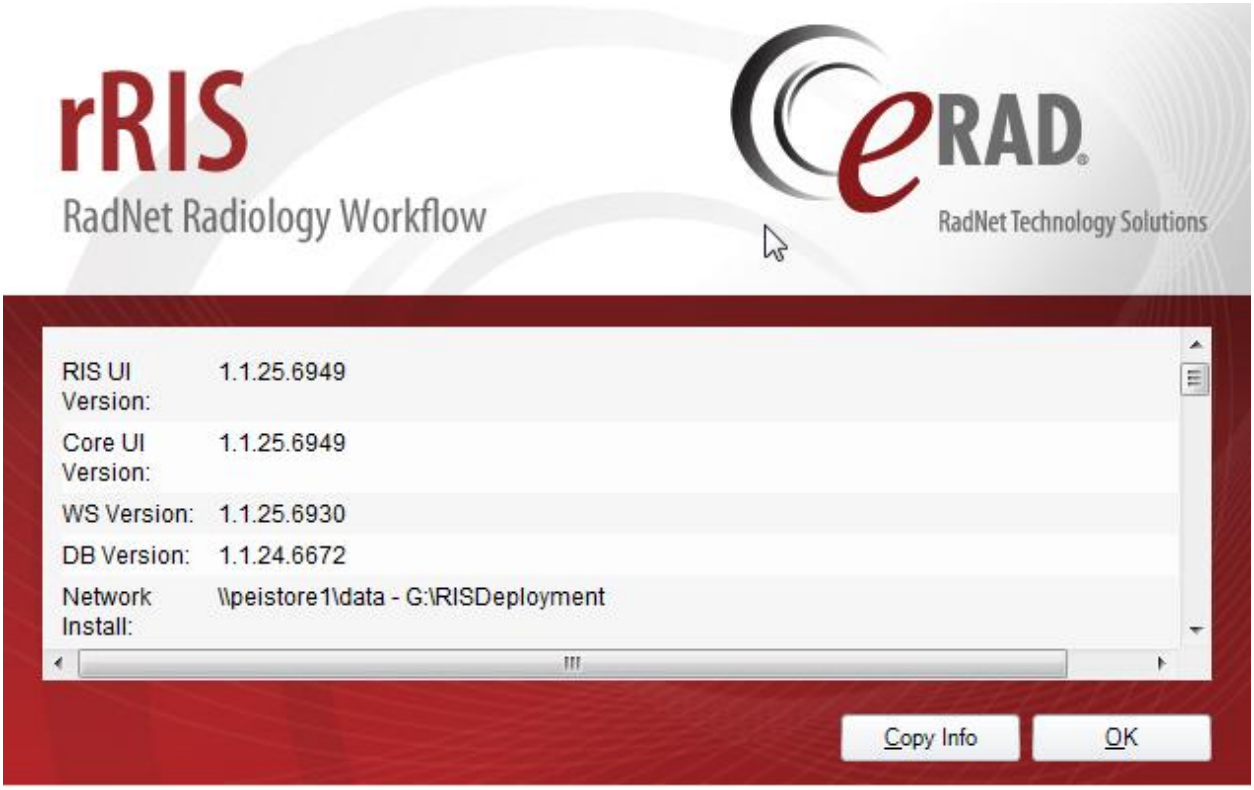



**Figure 15.1 – Help About Window**

Selecting the Copy Info button will capture the data window the Help About window, and then the user can easily paste the contents into an editor.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 16. Shortcuts

rRIS application shortcuts will be covered in a separate document.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 17. Known Limitations

| # | Status | Project | Subject | Category | Target version |
|---|---|---|---|---|---|
| 660 | New | Radnet RIS | Outside reads will eventually end in billing exceptions. | Thick Client GUI | 1.25 |
| 560 | New | Radnet RIS | Column filter range of same day - no results returned | Thick Client GUI | 1.21 |
| 644 | New | Radnet RIS | Cannot close application if there is a data window open. | Thick Client GUI | 1.25 |
| 659 | New | Radnet RIS | Manage policies > Injury Details keeps history of last selected | Thick Client GUI | 1.25 |
| 665 | New | Radnet RIS | fk error when adding new order | Thick Client GUI | 1.25 |
| 438 | New | Radnet RIS | User Preferences - Should enable or disable speech preferences based on resource type | Admin Tools | 1.16 |
| 447 | New | Radnet RIS | Dictation - User is able to start dictating with SpeechMike when it is not the recording device | Thick Client GUI | 1.17 |
| 667 | New | Radnet RIS | Dictating > Adding tech notes and submit throws error | Thick Client GUI | 1.25 |
| 671 | New | Radnet RIS | Launch rRIS to system tray Icon needs to be updated. | Thick Client GUI | 1.25 |
| 360 | New | M Modal Interim Reporting | Audio not played to the end message | | |
| 639 | New | Radnet RIS | Work list column not expanded when opening work list. | Thick Client GUI | 1.25 |
| 657 | New | Radnet RIS | Opening dictate window on signed exam or suspended message conflicts with pacs message | Thick Client GUI | 1.25 |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

| | | | | | |
|---|---|---|---|---|---|
| 668 | New | Radnet RIS | User Preference > Stat Notification not working | Thick Client GUI | 1.25 |
| 670 | New | Radnet RIS | Diagnose > Report preview can be opened multiple times | Thick Client GUI | 1.25 |
| 639 | New | Radnet RIS | Work list column not expanded when opening work list. | Thick Client GUI | 1.25 |
| 675 | New | Radnet RIS | Edit Order > Verbal Order returns error | Thick Client GUI | 1.25 |
| 677 | New | Radnet RIS | Edit order tab missing patient name | Thick Client GUI | 1.25 |
| 678 | New | Radnet RIS | Transcription > Save playback speed for dictating rads | Thick Client GUI | 1.25 |
| 674 | New | Radnet RIS | Cancelled Orders work list buttons not enabled | Thick Client GUI | 1.25 |
| 358 | New | M Modal Interim Reporting | Accession Number for Memo recordings | | |
| 74 | New | Radnet RIS | Patients with deleted_flag = 'Y' are still showing up on worklists | Thick Client GUI | 1.07 |
| 252 | New | Radnet RIS | ScheduleGroup - Slowness when saving lookup | Web Services/DB | 1.11 |
| 406 | New | Radnet RIS | New Appointment - Unhandled WCF exception | Web Services/DB | 1.15 |
| 463 | New | Radnet RIS | Concurrency error on scheduling | Web Services/DB | 1.17 |
| 469 | New | Radnet RIS | After deleting 1 User cannot save for other users | Web Services/DB | 1.17 |
| 633 | New | Radnet RIS | Walk in image request | Thick Client GUI | 1.24 |
| 640 | New | Radnet RIS | Installer error > Windows xp cannot register spellchecker - wspell.ocx | Thick Client GUI | 1.23 |
| 652 | New | Radnet RIS | The recently used patient list sometimes return an empty patient folder | | |
| 663 | New | Radnet RIS | Add outside read does not have new attachment Icon | Thick Client GUI | 1.25 |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

| | | | | | |
|---|---|---|---|---|---|
| 669 | New | Radnet RIS | Data nugget for notes has study notes where data windows have order notes | Thick Client GUI | 1.25 |
| 649 | New | Radnet RIS | System menu location error | Thick Client GUI | |
| 650 | New | Radnet RIS | Deleting study from exam tab with multiple exams | Thick Client GUI | 1.25 |
| 635 | New | Radnet RIS | Build 1.25 - new color scheme | | |
| 647 | New | Radnet RIS | Labels can be partial hidden when using large text size | Thick Client GUI | 1.25 |
| 648 | New | Radnet RIS | Fullscreen covers taskbar | Thick Client GUI | |
| 658 | New | Radnet RIS | Order tab > OrderNotes spelled as one word | Thick Client GUI | 1.25 |
| 522 | New | Radnet RIS | Search for available times incomplete based on criteria | Thick Client GUI | 1.2 |
| 529 | New | Radnet RIS | Reschedule study search returning incorrect times | Thick Client GUI | 1.21 |
| 624 | New | Radnet RIS | Schedule exam, selecting time from Advance tab can make available times "jump" | Thick Client GUI | 1.23 |
| 321 | New | Radnet RIS | DataSet Visualizer - Does not show for Studys and CC Physician | Thick Client GUI | 1.12 |
| 448 | New | Radnet RIS | Receipt - Registration screen should stay in foreground when prompted for receipt | Thick Client GUI | 1.17 |
| 666 | New | Radnet RIS | Abort exams window resize issue | Thick Client GUI | 1.25 |
| 655 | New | Radnet RIS | Document Distirbution History > formatting of fax number | Thick Client GUI | 1.25 |
| 106 | In Progress | Radnet RIS | Worklist - Issue with refreshing when web services are down | Thick Client GUI | 1.12 |
| 224 | In Progress | Radnet RIS | Order - Exception when scheduling a modified order | Thick Client GUI | 1.11 |
| 357 | In Progress | Radnet RIS | Lookup table filters with dropdown datatype don't work | | 1.13 |
| 643 | QE Rejected | Radnet RIS | Dictate window > Blank error is displayed and rRIS stops | Thick Client GUI | 1.25 |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

| | | | | | |
|---|---|---|---|---|---|
| | | | responding. | | |
| 418 | QE Rejected | Radnet RIS | IVT workflow -Object reference not set to an instance of an object | Thick Client GUI | 1.15 |
| 579 | QE Rejected | Radnet RIS | IVT PreCert column does not update | Thick Client GUI | 1.22 |
| 310 | QE Rejected | Radnet RIS | Appointment Book - Needs to default to a configurable start of day | Thick Client GUI | 1.12 |
| 613 | QE Rejected | Radnet RIS | If patient mode is already open, and you try to go to patient mode for a different study... | Thick Client GUI | 1.24 |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# User Release Notes

for RADNET rRIS
Version 1.0
Build 26

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Purpose ..... 3
2. Intended Audience ..... 3
3. Installing/Accessing the Application ..... 3
4. New Features and Enhancements ..... 4
   Problem List – Requirement MU 170.302.c ..... 4
   Electronic Prescribing (ePrescribing) – Requirement MU 170.304.b ..... 6
   Clinical Decision Support – MU Requirement 170.304.e ..... 11
   Exchange Clinical Information and Patient Summary Record – MU Requirement 170.304.i. 12
   Referring Column Added to IVT Work List ..... 14
   Removing Study from Procedure Picker Row Must Add Cancel Reason ..... 15
5. Resolved Defects ..... 16
6. Known Limitations ..... 17

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 1. Purpose

This document describes some of the new features and changes implemented in rRIS as of the end of Sprint 26. This version of rRIS is referred to as Build 1.26.

Only features which can be visually demonstrated to the user will be outlined in this document.

# 2. Intended Audience

This document is created by the rRIS Development team for the RadNet RIS management team.

# 3. Installing/Accessing the Application

The installation instructions for the rRIS client have been posted to the RadNet Wiki page at http://mdbal01rdtweb/Wiki/

Under the RIS menu, click on the rRIS page. The credentials to access the page are:
Username: rRIS
Password: Summerside

*Please note that Build 1.26 is considered a new core release of the application and will require a reinstallation of rRIS. This is accomplished by navigating to the rRIS shared installation drive and running the CoreInstall.bat file (ex: I:\RISDeployment\CoreInstall.bat)*

If you experience difficulties accessing the application, please do not hesitate to contact Darcy Noye with the PEI RIS Development Team.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 4. New Features and Enhancements

## Problem List – Requirement MU 170.302.c

A new data pane was added to the Visit History tab of the Registration data window. The Problem List data pane is a grid view that will display an historical list of "problems" recorded in previous visits.

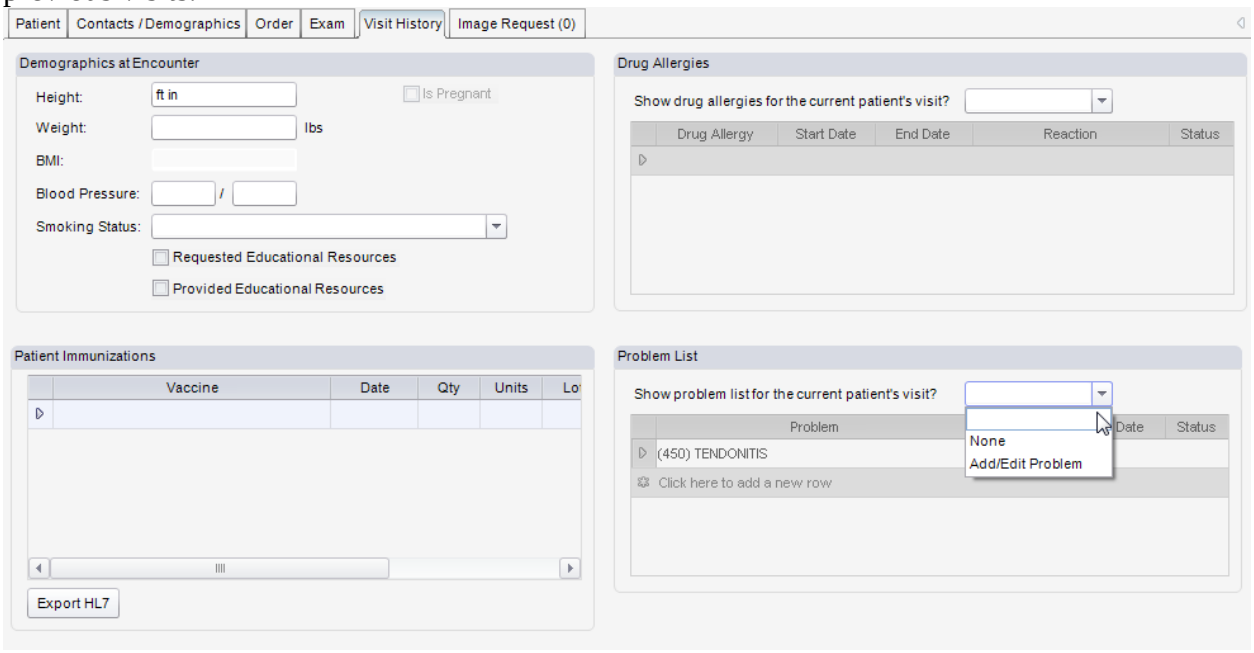



**Figure 4.1 – Problem List Grid**

The list box has 2 hard coded values of "None" and "Add/Edit Problem". Selecting the Visit History tab, the Problem list grid will be disabled. Selecting "None" will capture the current visit as not having a problem associated with it. Selecting "Add/Edit Problem" will enable the grid. If there is a problem from a previous visit, the user can edit the entry or can add a new problem.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

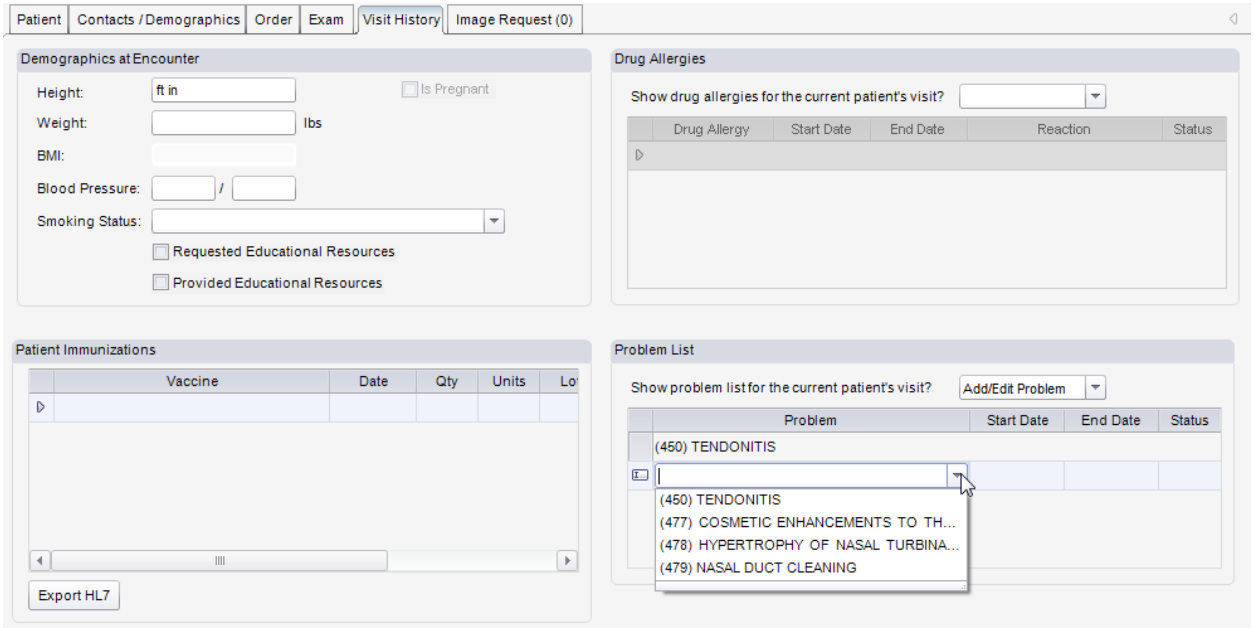



**Figure 4.2 – Problem List enabled showing available problems (ICD-9)**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Electronic Prescribing (ePrescribing) – Requirement MU 170.304.b

A new button available on the Patient window titled eRx. This button does some data validation to compile an xml message into a format that New Crop requires to get access to their ePrescription application.

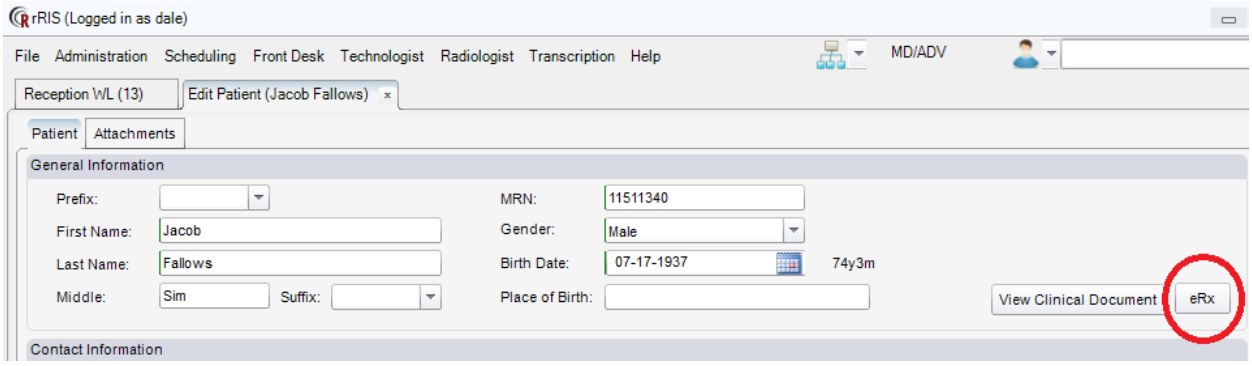



**Figure 4.3 – eRx button on patient tab**

If the user is not presented with any validation errors a web browser object will launch and they will be logged into the New Crop System and taken directly to their Compose Rx screen. This object will close with the application.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

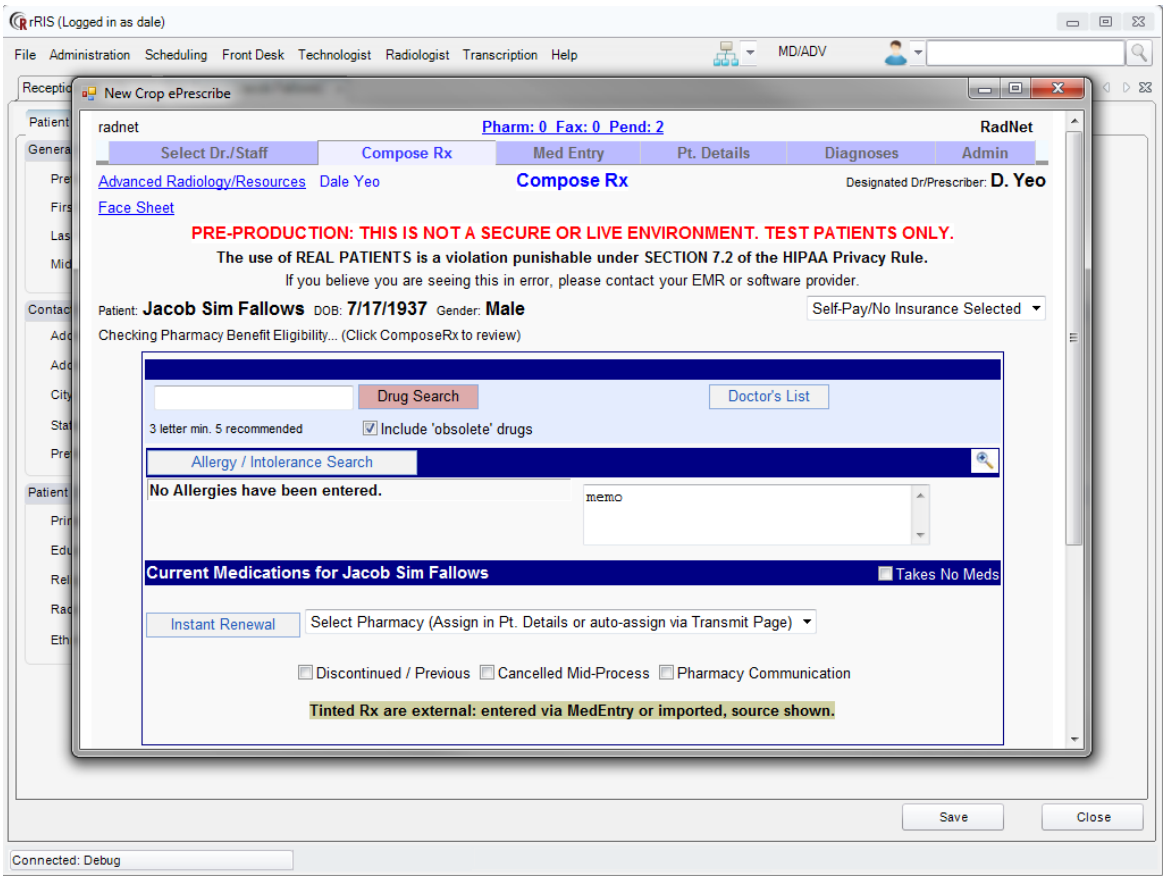



**Figure 4.4 – New Crop ePrescribe window**

A new field has been added to the personnel editor to capture the DEA# that will need to be completed for the Radiologist to access the New Crop ePrescribe website.

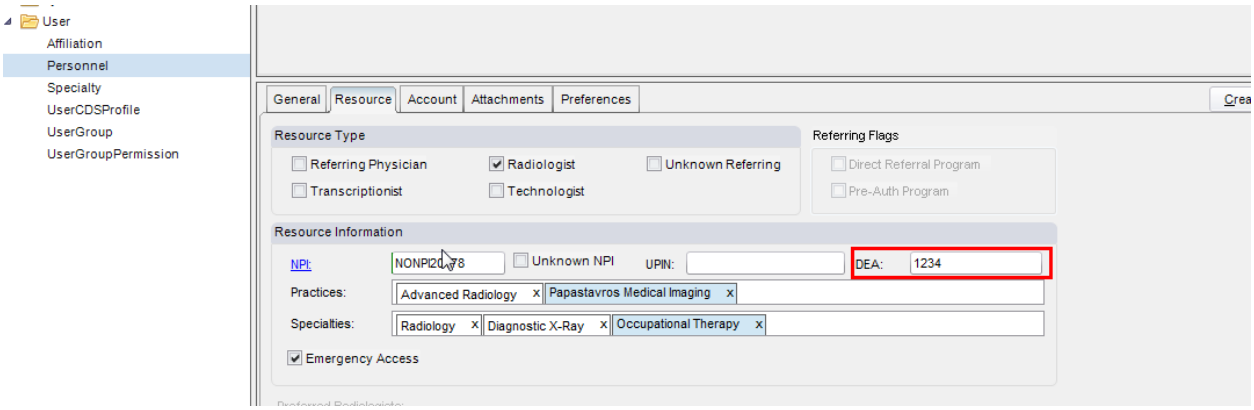



**Figure 4.5 – DEA number field in personnel editor**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

There are 3 types of validation checks
First is to verify ePrescribing the account fields are configured

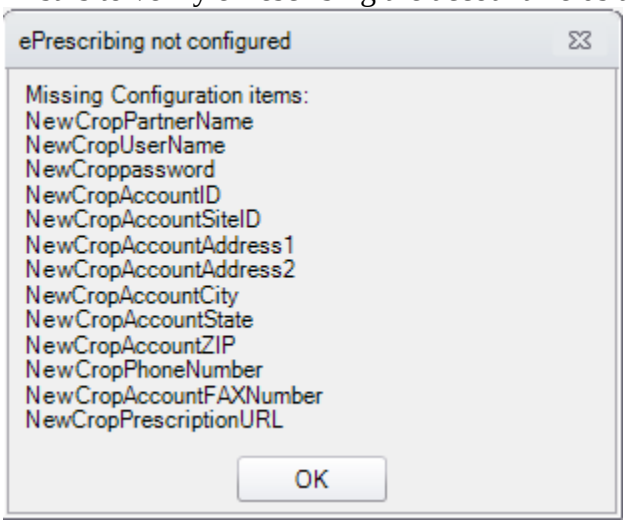



**Figure 4.6 – Validation on ePrescribe fields**

Second would be for missing information on both patient and practice

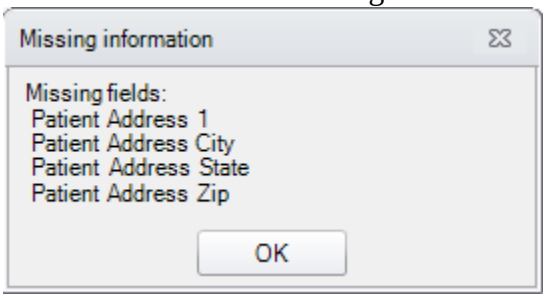



**Figure 4.7 – Checks on missing information on patient / practice data**

Third check validates information on both patient and practice

1. ?, & and " are not accepted by New Crop
2. State must be a valid 2 digit state
3. Zip must be 5 digits (and 4 if there is a zip extension)
4. Country must be US

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

**Figure 4.8 – Validation on Invalid characters for patient / practice**

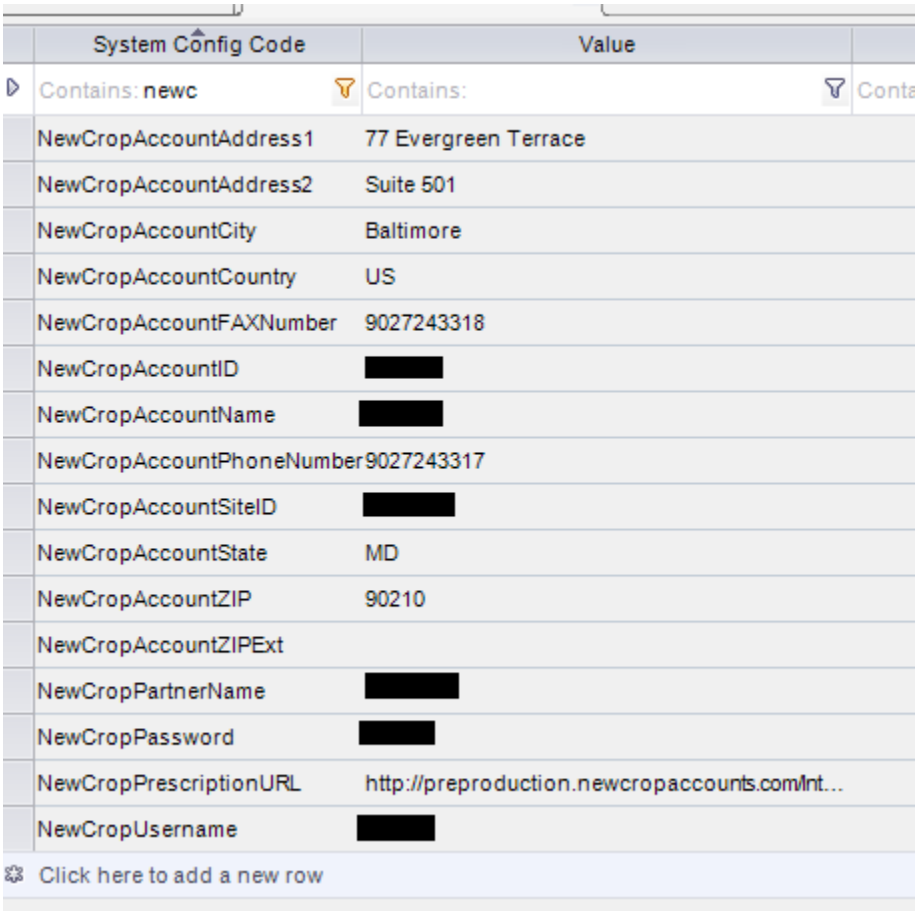
A new access string was created, and should be granted to the Radiolgist user group

| Access String Code | Description | Display Order | Default Access Level Code | Active |
|---|---|---|---|---|
| Contains: clinical.epre | Contains: | Equals: | Contains: | Contains: |
| Clinical.ePrescribe | Access ePrescription (eRx) | 1 | None | Y |
| Click here to add a new row | | | | |

**Figure 4.9 – Access String**

New system config Code values for New Crop

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.



| System Config Code | Value |
|---|---|
| Contains: newc | Contains: |
| NewCropAccountAddress1 | 77 Evergreen Terrace |
| NewCropAccountAddress2 | Suite 501 |
| NewCropAccountCity | Baltimore |
| NewCropAccountCountry | US |
| NewCropAccountFAXNumber | 9027243318 |
| NewCropAccountID | [redacted] |
| NewCropAccountName | [redacted] |
| NewCropAccountPhoneNumber | 9027243317 |
| NewCropAccountSiteID | [redacted] |
| NewCropAccountState | MD |
| NewCropAccountZIP | 90210 |
| NewCropAccountZIPExt | |
| NewCropPartnerName | [redacted] |
| NewCropPassword | [redacted] |
| NewCropPrescriptionURL | http://preproduction.newcropaccounts.com/Int... |
| NewCropUsername | [redacted] |
| Click here to add a new row | |

**Figure 4.10 – New System config values**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Clinical Decision Support – MU Requirement 170.304.e

Alert framework has been added so that an alert message will fire when we meet a certain criteria. We created two alert rules in the application:

1) No Phone number which fires a message if there is no cell, home or work phone entered for a patient.
2) Rule if the modality is a MR and the patient is over 65 to fire the alert.

If both are met for a patient, the alerts will be applied in one message.

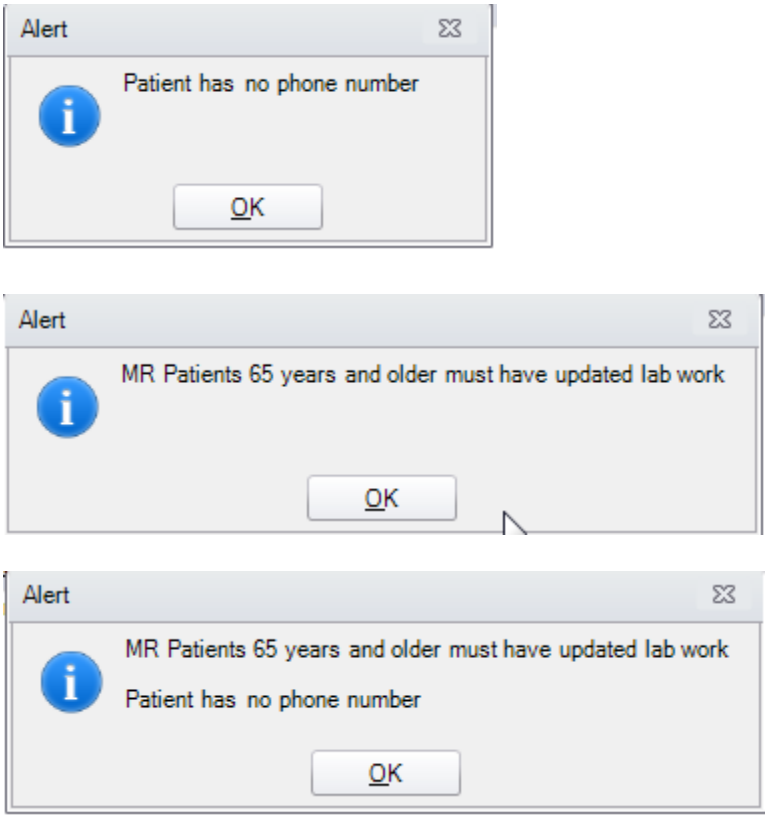



**Figure 4.11 – Possible Alert Messages**

A new lookup table has also been added to contain the alert codes and messages.

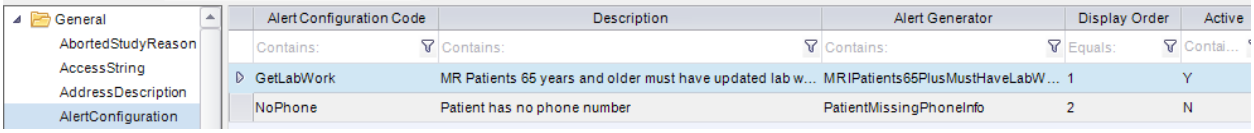



**Figure 4.11 – Alert Configuration lookup table**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Exchange Clinical Information and Patient Summary Record – MU Requirement 170.304.i

We added a button on the Patient General tab which will allow the user the ability to import a validate CCR or CCD document and display in human readable format.

To successfully show the imported xml file we loaded two xls stylesheets into the resources part of the application for each type CCR.xsl and CDA.xsl. The stylesheet transforms the xml to a html document which we store on the local users workstation where the user is running the application from. After closing the web browser we remove the results file from the users workstation. Finally we do some low level validation when importing the file,

1) We do a quick check to make sure the file location exists on both types and throws an exception error message if one or both don't exists in the location specified.
2) `TODO: remove the results.html file when closing the webbrowers`

We display the SHA-1 value of the imported document (used to verify that the document is not modified by an outside force).

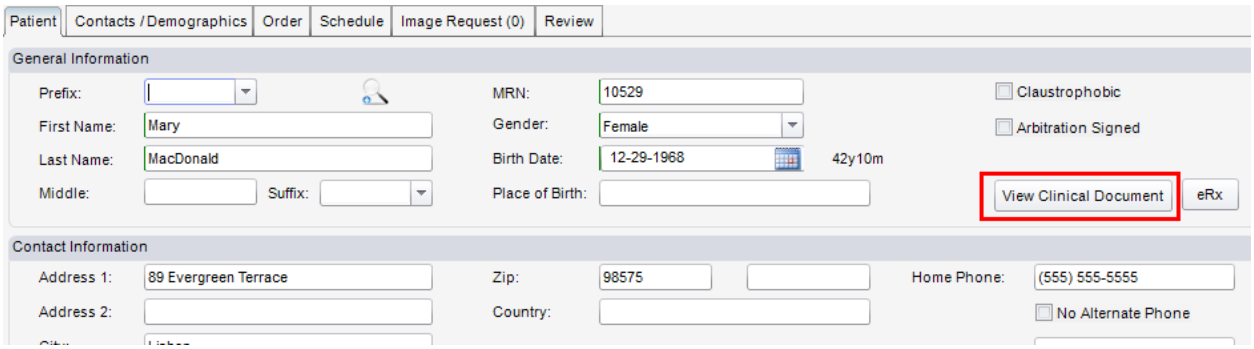



**Figure 4.12 – View Clinical Document button**

The example below is a sample displaying an imported CCR document opened in rRIS internal web browser.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

Continuity of Care Record Sha-1 Hash: 2DD44E1444A20EABB233B8ED20A19C2F2EFE468A

# Continuity of Care Record

**Date Created:** Thu Mar 25, 2010 at 01:15 PM UTC-05:00
**From:** John Q Doe Jr. MD (Primary Physician)
**To:** Long Term Care Facility of America (Long Term Care Facility)
**Purpose:** consult/ referral

## Patient Demographics

| Name | Date of Birth | Gender | Identification Numbers | Address / Phone |
|---|---|---|---|---|
| John D. Smith | Jul 04, 1960 | Male | 999999999 | 355 Maple Street Williamsport, PA17701 +1-570-837-8364 |

## Alerts

| Type | Date | Code | Description | Reaction | Source |
|---|---|---|---|---|---|
| Allergy | Adverse Event Date: Jun 27, 1996 | 416098002 (SNOMED-CT) | Drug Allergy (disorder) | Drug-induced hypotension (disorder) | John D. Smith |

## Problems

| Type | Date | Code | Description | Status | Source |
|---|---|---|---|---|---|
| Diagnosis | Date Diagnosed: Sep 16, 2009 | 44054006 (SNOMED-CT) | Diabetes mellitus type 2 (disorder) | Active | |
| Diagnosis | Date Diagnosed: May 05, 2002 | 55822004 (SNOMED-CT) | Hyperlipidemia (disorder) | Resolved | John D. Smith |
| Diagnosis | Date Diagnosed: Sep 16, 2009 | 53741008 (SNOMED-CT) | Coronary arteriosclerosis (disorder) | Active | John D. Smith |
| Diagnosis | Date Diagnosed: Sep 16, 2009 | 59621000 (SNOMED-CT) | Essential hypertension (disorder) | Active | John D. Smith |

## Medications

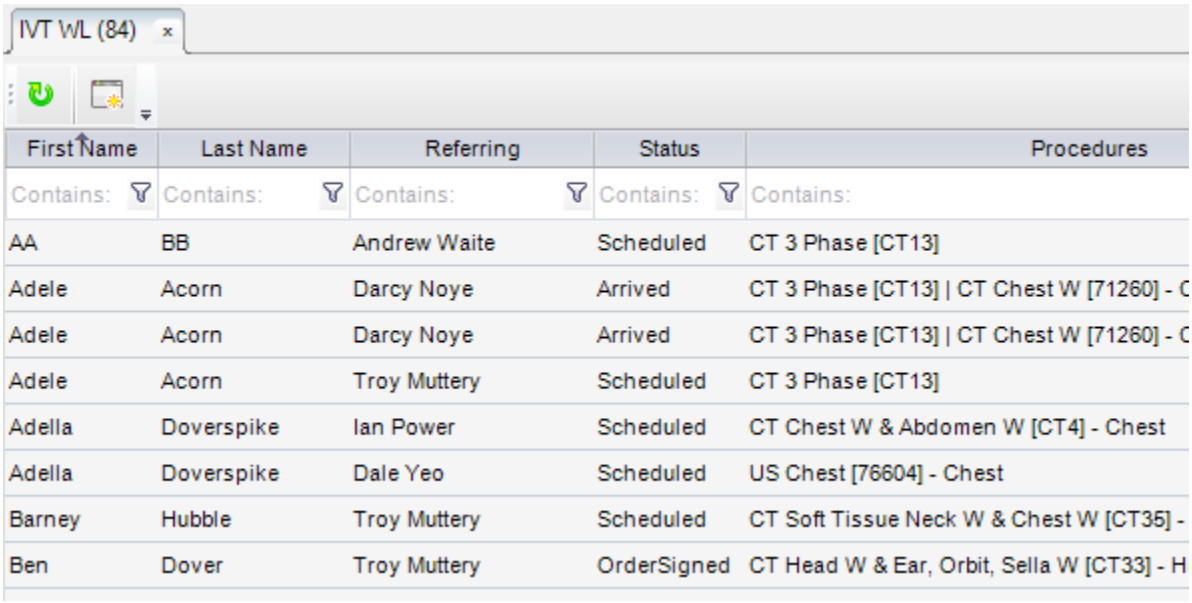
| Medication | RxNorm Code | Date | Status | Form | Strength | Quantity | SIG | Indications | Instruction | Refills | Source |
|---|---|---|---|---|---|---|---|---|---|---|---|
| glyburide (Diabeta) | 205875 | Date Started: Sep 16, 2009 | Active | | 2.5 MG | | 1 tablet PO | | | | John D. Smith |
| Atorvastatin Calcium | 617314 | Date Started: May 05, | Active | | 10 MG | | 1 tablet | | | | John D. |

**Figure 4.13 – Imported Sample CCR document.**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Referring Column Added to IVT Work List

In build 1.26 the referring column has been added to the IVT work list. If the patient record is edited and the referrer is changes, the column will reflect this change on the IVT work list. As like other columns, the referring column can be pinned to the left or right or hidden from view.




| First Name | Last Name | Referring | Status | Procedures |
|---|---|---|---|---|
| Contains: | Contains: | Contains: | Contains: | Contains: |
| AA | BB | Andrew Waite | Scheduled | CT 3 Phase [CT13] |
| Adele | Acorn | Darcy Noye | Arrived | CT 3 Phase [CT13] \| CT Chest W [71260] - C |
| Adele | Acorn | Darcy Noye | Arrived | CT 3 Phase [CT13] \| CT Chest W [71260] - C |
| Adele | Acorn | Troy Muttery | Scheduled | CT 3 Phase [CT13] |
| Adella | Doverspike | Ian Power | Scheduled | CT Chest W & Abdomen W [CT4] - Chest |
| Adella | Doverspike | Dale Yeo | Scheduled | US Chest [76604] - Chest |
| Barney | Hubble | Troy Muttery | Scheduled | CT Soft Tissue Neck W & Chest W [CT35] - |
| Ben | Dover | Troy Muttery | OrderSigned | CT Head W & Ear, Orbit, Sella W [CT33] - H |

**Figure 4.14 – Displaying Referring Column on IVT Work List**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Removing Study from Procedure Picker Row Must Add Cancel Reason

At the time of Registration on scheduled studies, if the user removes the procedure picker row via the large red ✗ located on the right edge of the picker row, the user will now have to enter a reason for cancelling.

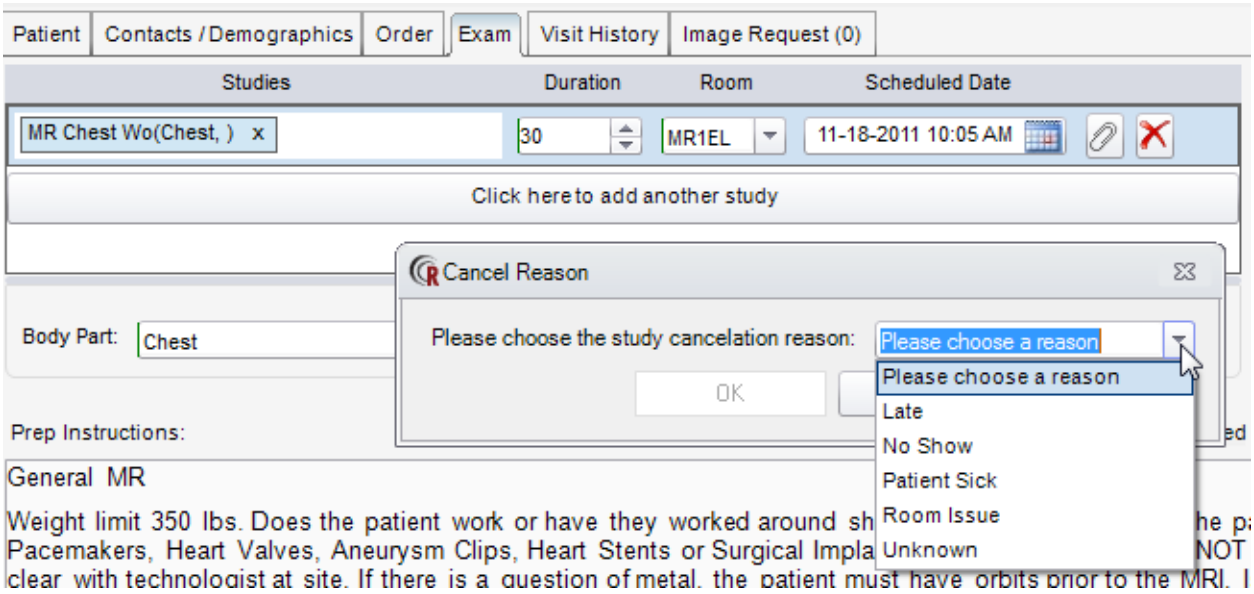



**Figure 4.15 – Cancel Reason window opens when removing procedure row.**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 5. Resolved Defects

Bugs, Suggested Features and Support Issues resolved in build 1.26. The extract is taken from Redmine bug tracking system and only displays defects resolved in 1.26.

| # | Status | Tracker | Priority | Subject | Category | Target version | Resolved Version |
|---|---|---|---|---|---|---|---|
| 666 | Resolved | Bug | Low | Abort exams window resize issue | Thick Client GUI | 1.25 | 1.26 |
| 664 | Resolved | Bug | Normal | error searching for appointment time when modality template key is null | Thick Client GUI | 1.25 | 1.26 |
| 662 | Resolved | Bug | High | schedule start date and performed start date null after billing edit save | Thick Client GUI | 1.25 | 1.26 |
| 661 | Resolved | Bug | High | Need to be able to edit insurance information on billing exceptions screen | Thick Client GUI | 1.25 | 1.26 |
| 635 | Resolved | Bug | Normal | Build 1.25 - new color scheme | | | 1.26 |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 6. Known Limitations

The following are Bugs, Suggested Features, and Support Issues found in build 1.26.

| # | Status | Subject | Category | Target version |
|---|---|---|---|---|
| 714 | New | Permission - Issue with Edit Patient permission | Thick Client GUI | 1.26 |
| 713 | New | Management Reports - Parameter selection is not available when defaults are specified | Thick Client GUI | 1.26 |
| 712 | New | Report History > Show all versions throws error | Thick Client GUI | 1.26 |
| 711 | New | Dictation - Send To throws error | Thick Client GUI | 1.26 |
| 710 | New | Session History Clean up item | Thick Client GUI | 1.26 |
| 709 | New | Dictation / Create Edit reports - Patient Alert pop up not centered | Thick Client GUI | 1.26 |
| 708 | New | Action on Order that has alert criteria throws error | Thick Client GUI | 1.26 |
| 707 | New | Error thrown when cancel selected on reschedule and alert rule configured | Thick Client GUI | 1.26 |
| 706 | New | Patient injury not associated with visit | Thick Client GUI | 1.26 |
| 694 | New | Perform Exam data window mystery list box | Thick Client GUI | 1.26 |
| 682 | New | CPT Modifiers Display | Thick Client GUI | 1.26 |
| 681 | New | Default "Units" | Thick Client GUI | 1.26 |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# User Release Notes

for RADNET rRIS
Version 1.0
Build 27

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Purpose ..... 3
2. Intended Audience ..... 3
3. Installing/Accessing the Application ..... 3
4. New Features and Enhancements ..... 4
   Advanced Beneficiary Notice (ABN) Flag ..... 4
   Outside Read Sites Insurance Required ..... 6
   Clinical Decision Support – MU Requirement 170.304.e ..... 8
   Lab Results – MU Requirement 170.306.g ..... 10
   Drug to Drug Allergy and Drug Formulary – MU Requirements 170.302(a)(b) ..... 12
5. Resolved Defects ..... 13
6. Known Limitations ..... 14

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 1. Purpose

This document describes some of the new features and changes implemented in rRIS as of the end of Sprint 27. This version of rRIS is referred to as Build 1.27.

Only features which can be visually demonstrated to the user will be outlined in this document.

# 2. Intended Audience

This document is created by the rRIS Development team for the RadNet RIS management team.

# 3. Installing/Accessing the Application

The installation guide for the rRIS client have been posted to the RadNet Wiki page at http://mdbal01rdtweb/Wiki/

Under the RIS menu, click on the rRIS page. The credentials to access the page are:
Username: rRIS
Password: Summerside

*Please note that Build 1.27 is considered a new core release of the application and will require a reinstallation of rRIS. This is accomplished by navigating to the rRIS shared installation drive and running the CoreInstall.bat file (ex: I:\RISDeployment\CoreInstall.bat)*

If you experience difficulties accessing the application, please do not hesitate to contact Darcy Noye with the PEI RIS Development Team.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 4. New Features and Enhancements

## Advanced Beneficiary Notice (ABN) Flag

In build 27 the ability to mark patient studies with ABN flag has been added. A drop down list box was added to the billing code information data pane. During Registration, the ABN list box is adjacent to the procedure picker row.
Available options

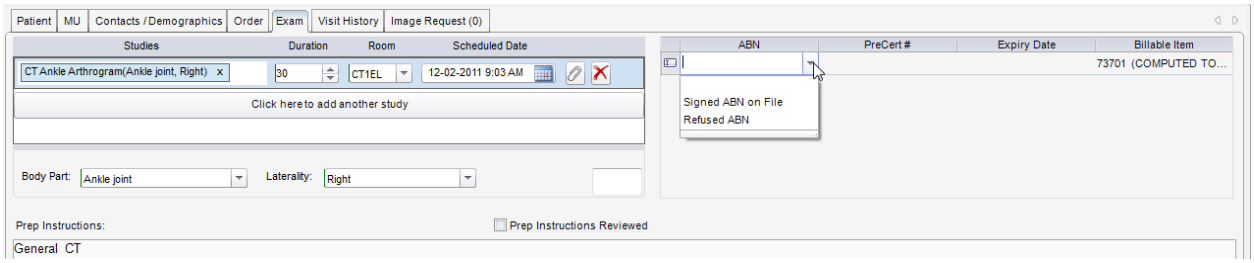



**Figure 4.1 – ABN list box displayed from the Registration window.**

The ABN flag is also available to Technologists from Perform Exam window.

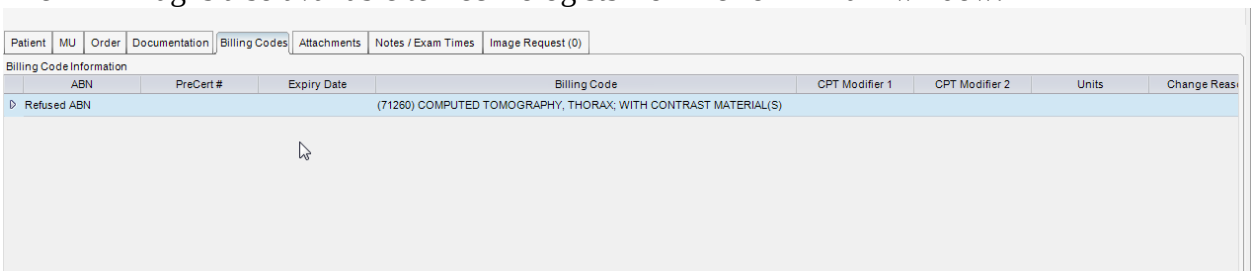



**Figure 4.2 – ABN list box from Perform Exam window.**

Lastly the ABN flag is available in the IVT data window.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

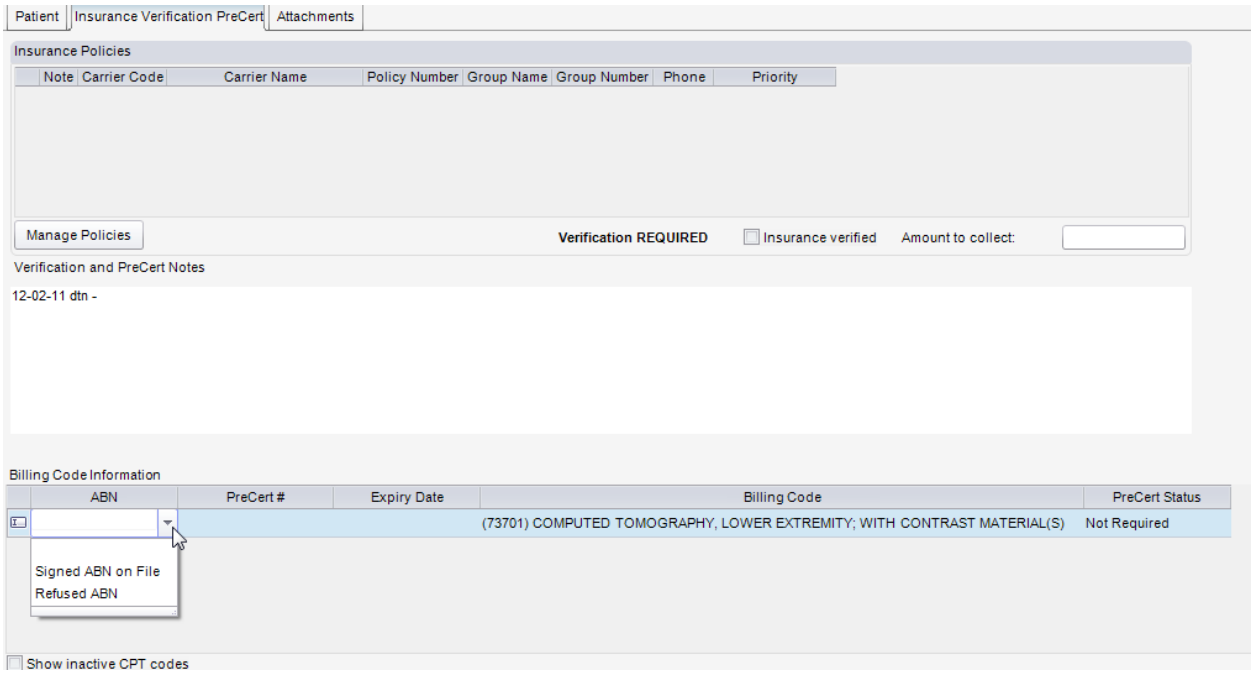



**Figure 4.3 – ABN list box from IVT data window**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Outside Read Sites Insurance Required

Insurance policies can now be specified for outside reads. At the site level, a flag was added to indicate if the particular site required insurance.

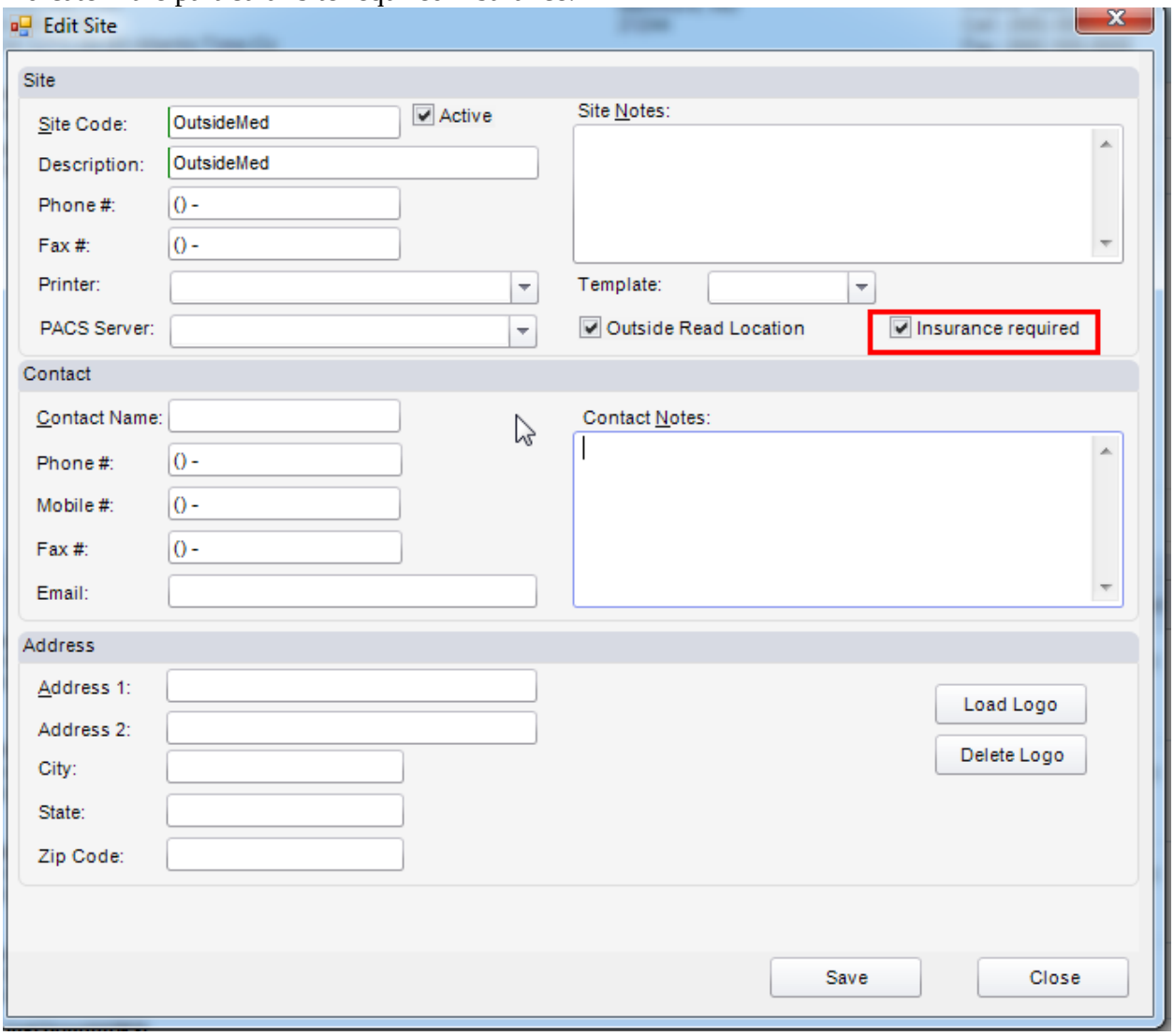



**Figure 4.3 – Insurance Required flag at site level**

When creating an Outside Read, once the site is selected for the order, the Insurance Policies data pane appears allowing the user to add a new or select a previous Insurance Policy.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

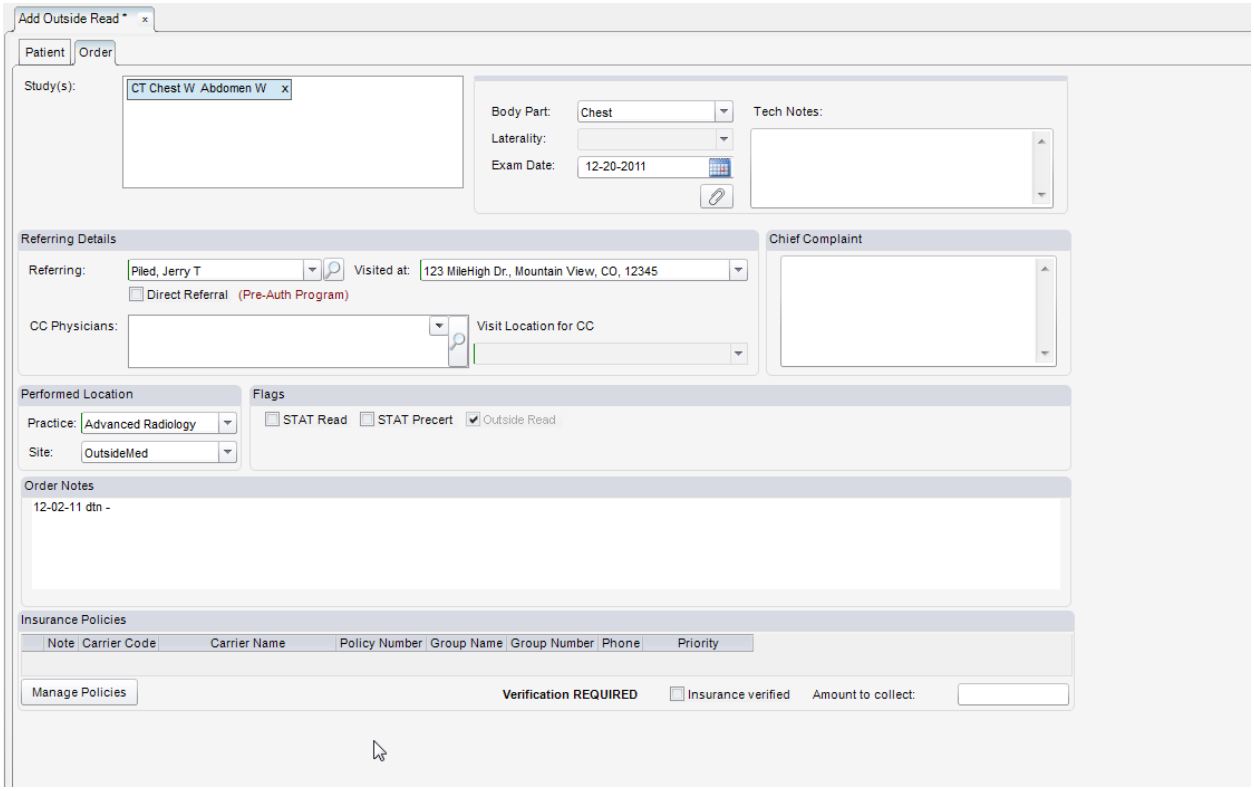



**Figure 4.4 – Add Outside Read displaying Insurance Policies data pane**

Outside reads that require insurance can also be added to the Billing Exception work list. If the outside read site does not have the "Insurance Required" flag, it will not be added to the Billing Exception work list.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Clinical Decision Support – MU Requirement 170.304.e

On the MU tab where medications are located a grid for lab results has been added under the grid there are buttons for adding and editing lab results. There is also a right click context menu for add/edit and delete. The delete warns the user asking them to confirm the delete.
The grid only shows the fields that are critical to the technician for example the lab's name and address information isn't critical to their decision making and is only available on the right click edit menu.
In the edit screen most fields are free text data entry. The main exception being the test name, which is combo box entry based on the LabTest lookup table. Only the active tests in the LabTest lookup are returned with the patient recorded for display in the UI. This is to limit bandwidth usage, to speed performance and make it easier for techs and rads to see the critical items they are concerned with. Note if we were to receive the values via an HL7 feed, the system would enter all test items but only the active tests would display and download to the clients. Later if a test is activated the history of all past retrievals for that test will be displayed.
For the entry of a lab result the only required fields are the observation date which is the date the test was collected on in all cases where there is a specimen (such as blood work – according to the HL7 spec). The other required fields include observation_value and the name of the test aka lab_test_code.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

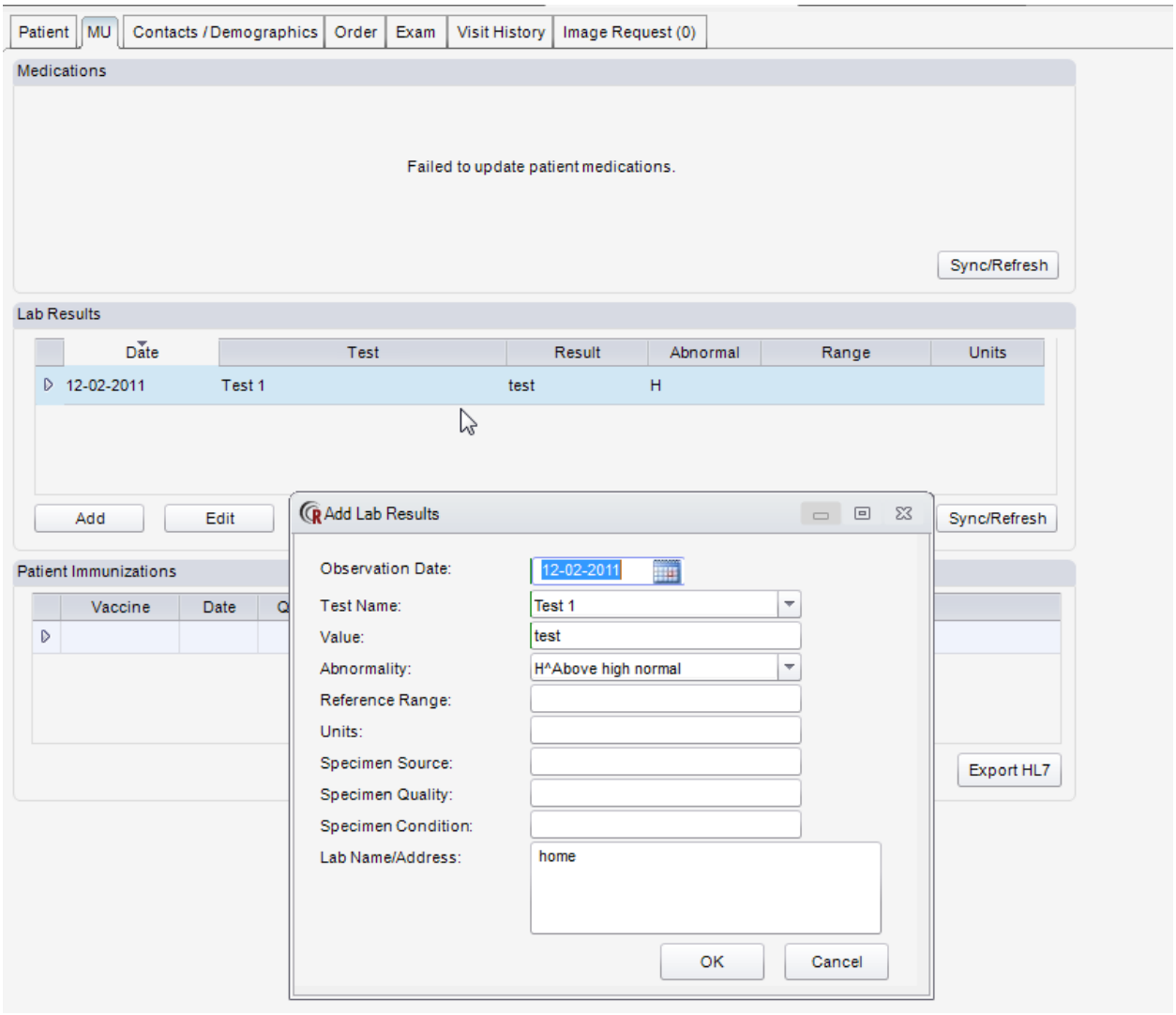



**Figure 4.5 – Possible Alert Messages**

Please note that this feature is incomplete. The sync refresh button does nothing at this time because NewCrop has not yet released WS methods for receiving lab results. HL7 portion of the solution still needs work if we are to receive lab results via HL7.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Lab Results – MU Requirement 170.306.g

The medications grid is located on the MU tab, next to the patient tab in most content screens. In addition to the auto sync feature the user can click on the "Refresh/Sync" button just below the grid. This refresh will query NewCrop on a separate thread as not to slow down or lockup the main workflow in the case where the intranet connection is unavailable, failing or slow.

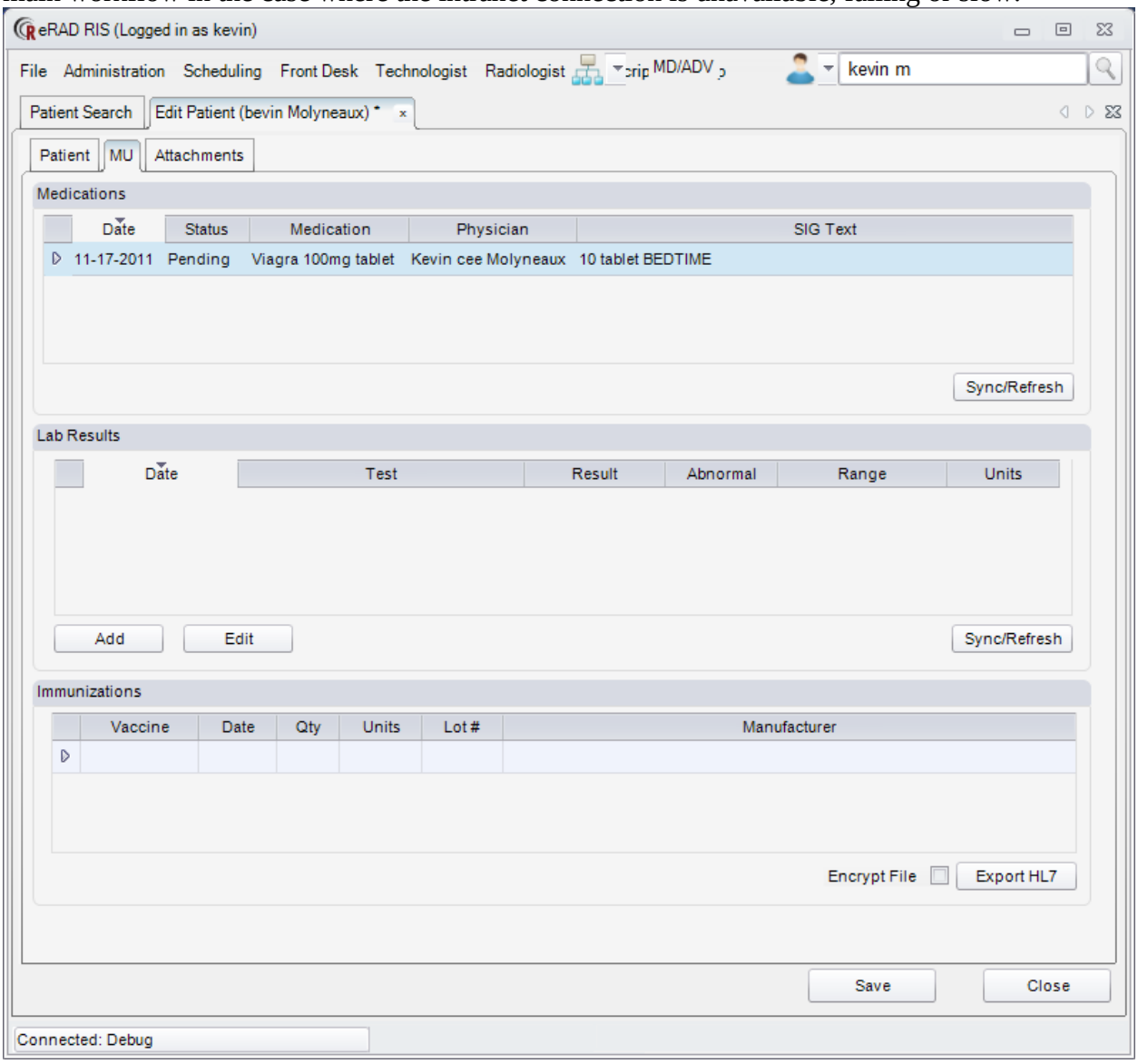



**Figure 4.6 – Medication data pane on MU tab**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

A new system configuration setting "MUMedicationSyncFrequency" has also been created. After the sync is performed the patient.last_medication_sync is updated to reflect the change. The new medications (if any) and patient.last_medication_sync are stored when the user saves the screen. Saving the screen is guaranteed at key points in the workflow such as IVT verification, arrival, starting and completing studies.

Auto sync's can be disabled by setting the "MUMedicationsSyncFrequency" to -1. A zero value would force an autosync every time they open a patient record. For example, a value such as 600 would force a check every 10 hours.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Drug to Drug Allergy and Drug Formulary – MU Requirements 170.302(a)(b)

A new button has been added on the Visit History tab in the Drug Allergies data pane.
This button passes along the allergies entered in our grid to the New Crop application where the user will be responsible to add them to the patient within New Crop.

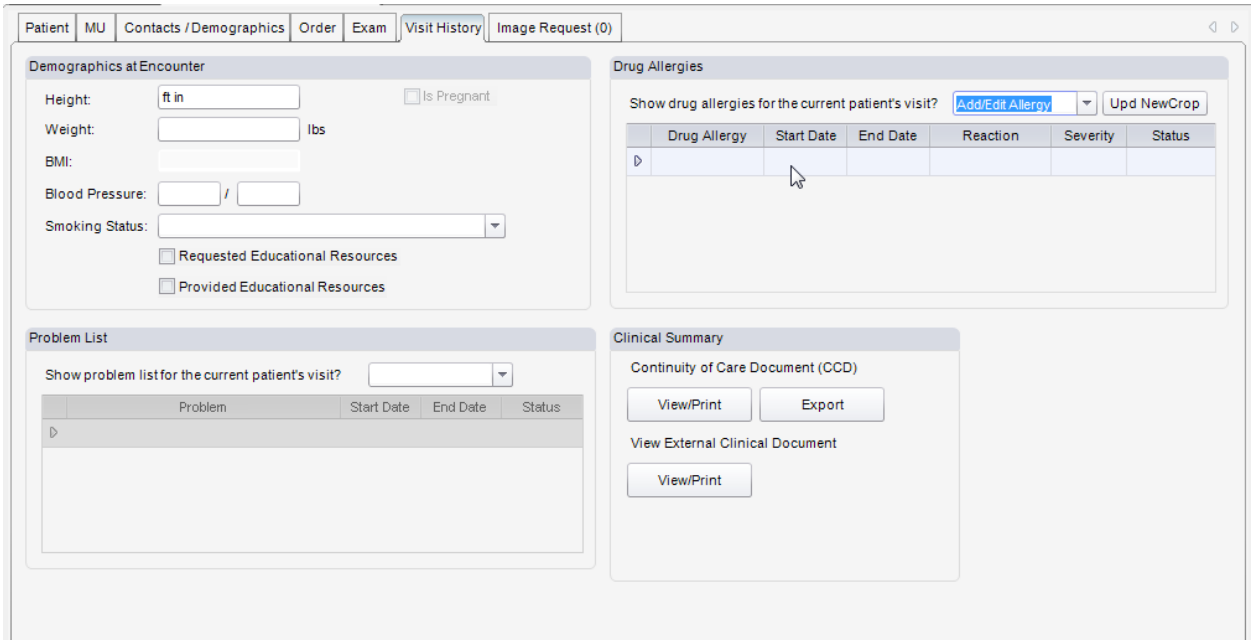



**Figure 4.7 – Drug Allergies and Update NewCrop**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 5. Resolved Defects

Bugs, Suggested Features and Support Issues resolved in build 1.27. The extract is taken from Redmine bug tracking system and only displays defects resolved in 1.27.

| # | Status | Tracker | Priority | Subject | Category | Target version | Resolved Version |
|---|---|---|---|---|---|---|---|
| 701 | Resolved | Bug | High | No way to turn off ChairService | Web Services/DB | 1.27 | 1.27 |
| 706 | Resolved | Bug | Normal | Patient injury not associated with visit | Thick Client GUI | 1.26 | 1.27 |
| 699 | Resolved | Bug | Normal | CarrierType - Issue with display order | Admin Tools | 1.25 | 1.27 |
| 698 | Resolved | Bug | Normal | Organization - Couple of issues when adding sites | Admin Tools | 1.25 | 1.27 |
| 697 | Resolved | Bug | Normal | Organization - Edit Region Popup | Admin Tools | 1.25 | 1.27 |
| 695 | Resolved | Bug | Normal | Management Report > Daily Schedule copay format issue | Mgt Reports | 1.27 | 1.27 |
| 694 | Resolved | Bug | Normal | Perform Exam data window mystery list box | Thick Client GUI | 1.26 | 1.27 |
| 689 | Resolved | Bug | Normal | Lookup table Unit of Measure > Measure type is case sesitive | Admin Tools | 1.25 | 1.27 |
| 624 | Resolved | Bug | Normal | Schedule exam, selecting time from Advance tab can make available times "jump" | Thick Client GUI | 1.23 | 1.27 |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 6. Known Limitations

The following are Bugs, Suggested Features, and Support Issues found in build 1.27. This build is the current QE build and testing is ongoing. The list may increase in size. This document will not be updated or re-released.

| # | Status | Subject | Category | Target version |
|---|---|---|---|---|
| 741 | New | Add Outside Read - can save outside read without visit selected. | Thick Client GUI | 1.27 |
| 738 | Resolved | Create outside read without insurance policy will throw error from Billing Exception | Thick Client GUI | 1.27 |
| 701 | Resolved | No way to turn off ChairService | Web Services/DB | 1.27 |
| 746 | New | Logging off application will show message "rRIS is already running." | Thick Client GUI | 1.27 |
| 744 | Resolved | Errors in Edit Billing | Thick Client GUI | 1.27 |
| 743 | Resolved | Date selected from Date / Time Picker not accepted after removing compostite code. | Thick Client GUI | 1.27 |
| 740 | Resolved | Outside Read - Edit billing does not show all the billing exceptions | Thick Client GUI | 1.27 |
| 739 | Resolved | Outside Read - Edit Billing from Billing Exception and Responsible Party is required | Thick Client GUI | 1.27 |
| 736 | Resolved | DB Version in help about is not updated | Web Services/DB | 1.27 |
| 702 | Closed | Document distribution is not configurable for queue name or poll time | Web Services/DB | 1.27 |
| 695 | Resolved | Management Report > Daily Schedule copay format issue | Mgt Reports | 1.27 |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# User Release Notes

for RADNET rRIS
Version 1.0
Build 28

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Purpose ..... 3
2. Intended Audience ..... 3
3. Installing/Accessing the Application ..... 3
4. New Features and Enhancements ..... 4
   Adding RVU to Billing Codes ..... 4
   Real Time Alerts ..... 4
   Clinical Summary – MU Requirement 170.304.i ..... 5
   Clinical Quality Measures – MU Requirement 170.304j ..... 7
5. Resolved Defects ..... 10
6. Known Limitations ..... 12

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 1. Purpose

This document describes some of the new features and changes implemented in rRIS as of the end of Sprint 28. This version of rRIS is referred to as Build 1.28.

Only features which can be visually demonstrated to the user will be outlined in this document.

# 2. Intended Audience

This document is created by the rRIS Development team for the RadNet RIS management team.

# 3. Installing/Accessing the Application

The installation guide for the rRIS client have been posted to the RadNet Wiki page at http://mdbal01rdtweb/Wiki/

Under the RIS menu, click on the rRIS page. The credentials to access the page are:
Username: rRIS
Password: Summerside

*Please note that Build 1.28 is considered a new core release of the application and will require a reinstallation of rRIS. This is accomplished by navigating to the rRIS shared installation drive and running the CoreInstall.bat file (ex: I:\RISDeployment\CoreInstall.bat)*

If you experience difficulties accessing the application, please do not hesitate to contact Darcy Noye with the PEI RIS Development Team.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 4. New Features and Enhancements

## Adding RVU to Billing Codes

In build 28 the Billing Code table has 2 new columns added to specify RVU values. The columns Technical RVU and Professional RVU are displayed in Figure 4.1 below.

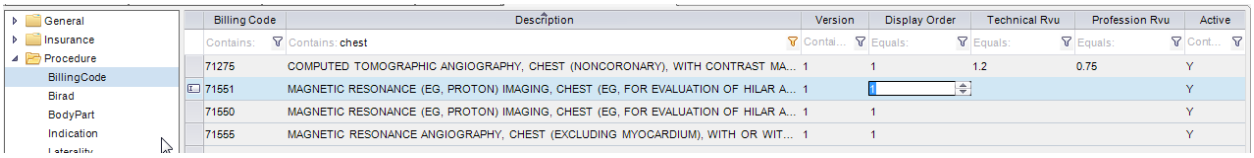



**Figure 4.1 – Billing Code table showing Technical and Professional RVU columns.**

## Real Time Alerts

The Alert configuration was introduced in Build 26. In Build 28 the alert will also be real time. Added to the Alert Configuration table patients first or last name has changed and birth date. This is for existing patients if a new patient is being added and one of these fields are changed no alert will display.
For existing patients, if the value for one of these fields are changed and do not match with the value stored in database, the user will automatically receive an alert when the field that was edited is exited. Example: User edits birth date by changing day of birth and tabs out of that field, or selects another area of the form, an alert will pop up.

Also in build 26 the alert for a Patient over the age of 65 and the modality is MR an alert was opened. This alert has been enhanced. The additional conditions must also be met for this alert to fire. In addition to the patient's age and modality type, the patient must have been prescribed Lipitor, lab result has LDL Cholesterol over 100 and have and have heart disease captured in the Problem List.

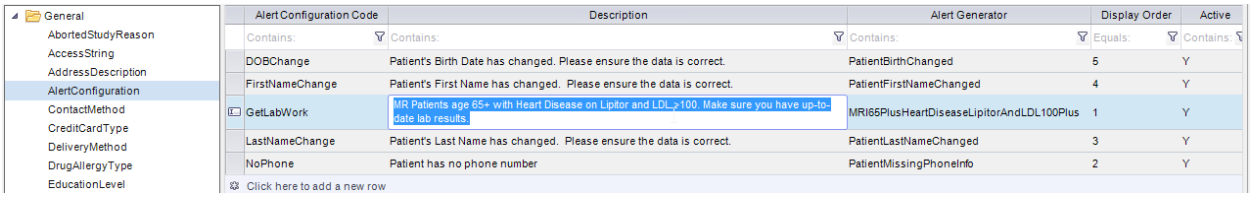



**Figure 4.2 – Alert Configuration lookup table**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

The Alert Configuration Code and Description can be entered as the user wishes. The Alert Configuration Code must be a unique value.
The alert generators are hard coded values in the application. The cell under the Alert Generator column is a list box and currently has the following values:

- PatientBirthChanged
- PatientFirstNameChanged
- PatientLastNameChanged
- PatientMissingPhoneInfo
- MRI65PlusHeartDiseaseLipitorAndLDL100Plus

## Clinical Summary – MU Requirement 170.304.i

The generation of the Clinical Summary structured xml file actually satisfies pieces of requirements.

- 170.304(f) Copy of Electronic Health Record
- 170.304(h) Clinical Summaries
- 170.304(i) Exchange Clinical Information / Patient Summary

On the Clinical Summaries section within the Patient Visit 2 buttons were added
View /Print and Export.

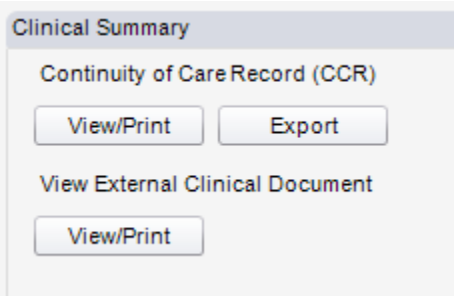
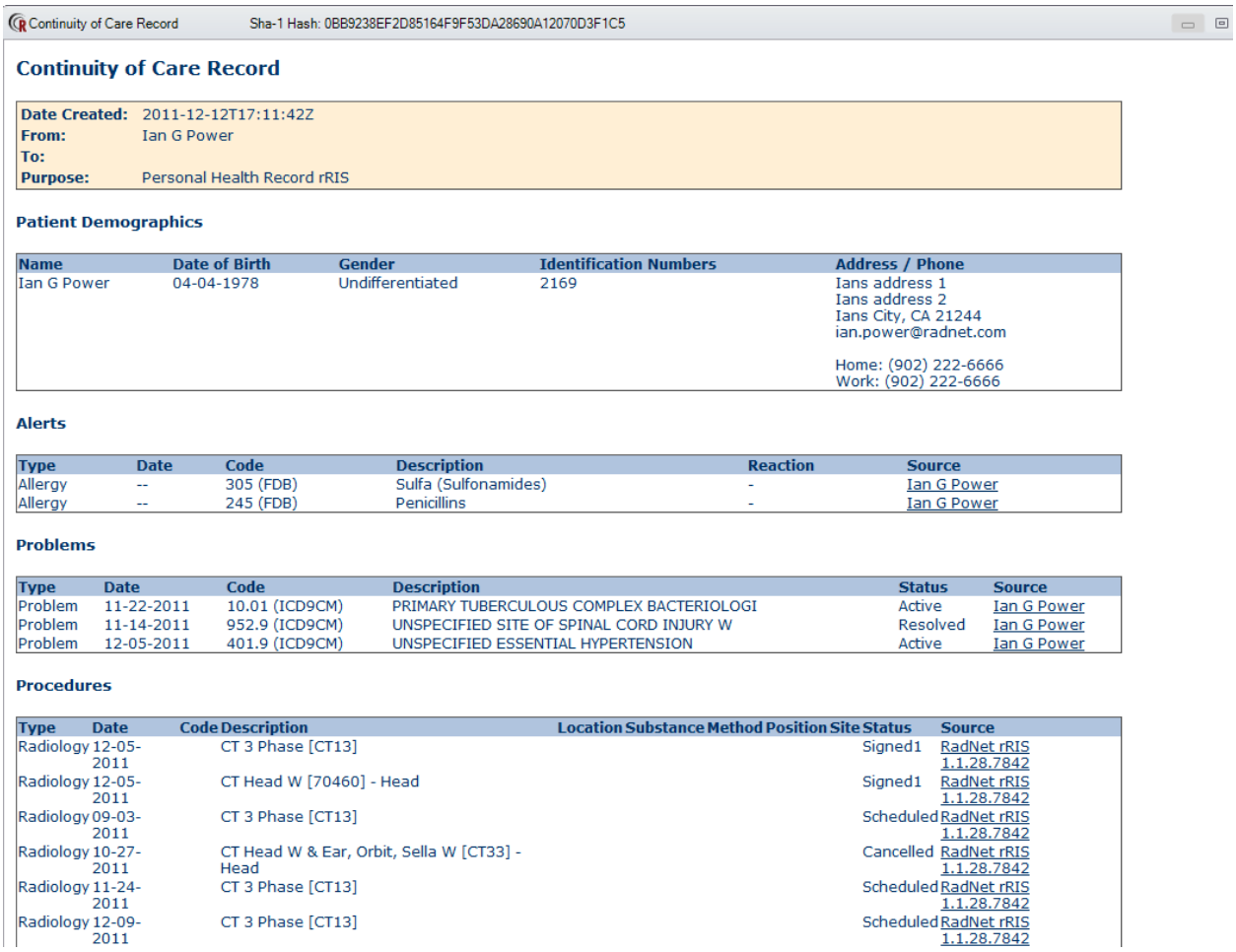



**Figure 4.3 – Clinical Summary – CCR buttons for View/Print and Export**

Basically you have the option to View the Patient CCR in a browser window. Printing is covered off by using the right click print on the open record.
Exporting the file allows the user to specify where they want the generated XML file saved. From there is can be handled like any file in the Windows environment for printing, copying, emailing and deleting.
The preview mode for the CCR looks something like this…

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.



Continuity of Care Record Sha-1 Hash: 0BB9238EF2D85164F9F53DA28690A12070D3F1C5

## Continuity of Care Record

**Date Created:** 2011-12-12T17:11:42Z
**From:** Ian G Power
**To:**
**Purpose:** Personal Health Record rRIS

### Patient Demographics

| Name | Date of Birth | Gender | Identification Numbers | Address / Phone |
|---|---|---|---|---|
| Ian G Power | 04-04-1978 | Undifferentiated | 2169 | Ians address 1<br>Ians address 2<br>Ians City, CA 21244<br>ian.power@radnet.com<br><br>Home: (902) 222-6666<br>Work: (902) 222-6666 |

### Alerts

| Type | Date | Code | Description | Reaction | Source |
|---|---|---|---|---|---|
| Allergy | -- | 305 (FDB) | Sulfa (Sulfonamides) | - | Ian G Power |
| Allergy | -- | 245 (FDB) | Penicillins | - | Ian G Power |

### Problems

| Type | Date | Code | Description | Status | Source |
|---|---|---|---|---|---|
| Problem | 11-22-2011 | 10.01 (ICD9CM) | PRIMARY TUBERCULOUS COMPLEX BACTERIOLOGI | Active | Ian G Power |
| Problem | 11-14-2011 | 952.9 (ICD9CM) | UNSPECIFIED SITE OF SPINAL CORD INJURY W | Resolved | Ian G Power |
| Problem | 12-05-2011 | 401.9 (ICD9CM) | UNSPECIFIED ESSENTIAL HYPERTENSION | Active | Ian G Power |

### Procedures

| Type | Date | Code | Description | Location | Substance | Method | Position | Site | Status | Source |
|---|---|---|---|---|---|---|---|---|---|---|
| Radiology | 12-05-2011 | | CT 3 Phase [CT13] | | | | | | Signed1 | RadNet rRIS 1.1.28.7842 |
| Radiology | 12-05-2011 | | CT Head W [70460] - Head | | | | | | Signed1 | RadNet rRIS 1.1.28.7842 |
| Radiology | 09-03-2011 | | CT 3 Phase [CT13] | | | | | | Scheduled | RadNet rRIS 1.1.28.7842 |
| Radiology | 10-27-2011 | | CT Head W & Ear, Orbit, Sella W [CT33] - Head | | | | | | Cancelled | RadNet rRIS 1.1.28.7842 |
| Radiology | 11-24-2011 | | CT 3 Phase [CT13] | | | | | | Scheduled | RadNet rRIS 1.1.28.7842 |
| Radiology | 12-09-2011 | | CT 3 Phase [CT13] | | | | | | Scheduled | RadNet rRIS 1.1.28.7842 |

**Figure 4.4 – Viewing CCR**

Currently we generate the following sections, but could add others as required.

1. Document Header
2. Patient Demographics
3. Alerts (Allergies)
4. Problems (ICD codes)
5. Procedures (RIS procedures_
6. Medications
7. Immunizations
8. Results (Lab Results)
9. People (Patient information)

Information Systems (RadNet rRIS)

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Clinical Quality Measures – MU Requirement 170.304j

Under the Administration menu a new menu item Meaningful Use has been added. This opens the Meaningful Use window (we will change the name of this menu item and window to CQM or Clinical Quality Measures in a later build). The window has a series of list boxes. The first has a list of the CQM options. A radiologist list box, report interval, and the Period Ending for the report.

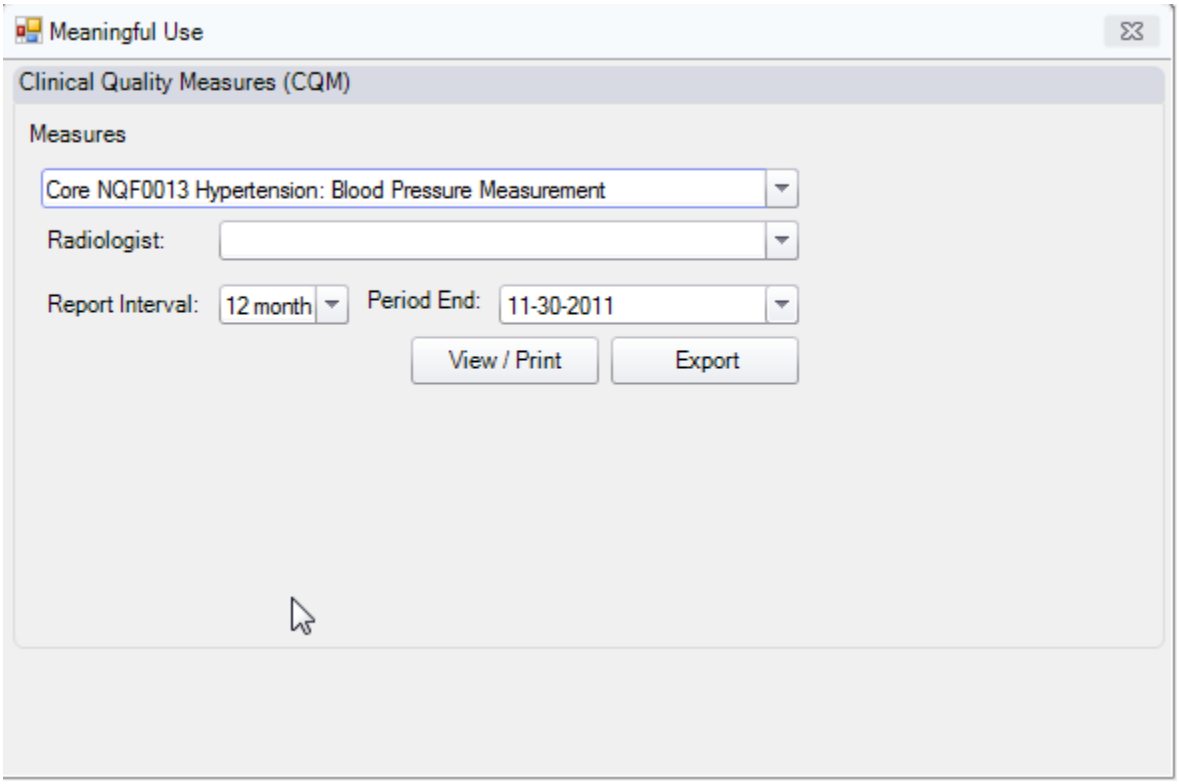



**Figure 4.5 – Medication data pane on MU tab**

The following describes each of the CQM requirements to generate the report.

Core
c_mu_cqm_0013_hypertension –

a) The patient must be at least **18 years of age or older** at the start of the reporting period and have at least **two encounters** with the Rad during the reporting period.
b) An active diagnosis of **Hypertension(used icd-9 codes).**
c) At least one **blood pressure reading (systolic and diastolic)** should be performed and documented during the reporting period in the Vital Signs chart section.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

c_mu_cqm_0028a_tobacco_use –

a) The patient must be at least **18 years of age or older** at the start of the reporting period and have at least **two encounters** with the Rad during the reporting period.
b) The patient was queried about tobacco use one or more times within 24 months.

c_mu_cqm_0028b_tobacco_intervention –

a) The patient must be at least **18 years of age or older** at the start of the reporting period and have at least **two encounters** with the Rad during the reporting period.
b) Documentation that the patient is a tobacco user within the last 24 months.
c) An active diagnosis of Nondependent tobacco use disorder **(used icd-9 codes).**

c_mu_cqm_0421a_weight_screening -

a) The patient must be at least **65 years of age or older** at the start of the reporting period and have at least **one encounter** with the Rad during the reporting period.
b) The number of patients in the denominator that have a normal BMI (BMI >= 22 or <30) OR an abnormal BMI (BMI >= 30 or <22) recorded in the Vital Signs chart section (BMI must be recorded in the six months prior to the encounter date or during the reporting period);

c_mu_cqm_0421b_weight_screening –

a) The patient must be aged 18 - 64 at the start of the reporting period and have had one encounter with the Rad during the reporting period.
b) The number of patients in the denominator that have a normal BMI (BMI >=18.5 or <25) OR an abnormal BMI (BMI >=25 or <18.5) recorded in the Vital Signs chart section (BMI must be recorded in the six months prior to the encounter date or during the reporting period);

Alternative Core

c_mu_cqm_0024_child_weight_assessment -

a) The patient must be aged 2 - 17 at the start of the reporting period and have had one encounter with the Rad during the reporting period.
b) And had BMI percentile documentation (**V85.5, V85.51, V85.52, V85.53, V85.54),** counseling for nutrition (V65.3) and counseling for physical activity (V65.41) during the reporting period. **(used icd-9 codes).**

c_mu_cqm_0038_childhood_immunization - missing

c_mu_cqm_0041_influenza_immunization -

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

a) The patient must be at least **50 years of age or older** at the start of the reporting period and have at least **two encounters** with the Rad during the reporting period.
b) And had an influenza shot during the flu season(Jan-Feb and Sept –Dec).
c) And have received influenza vaccine CVX code 111 or 140.

Optional
c_mu_cqm_0031_breast_screening -

a) The patient must be female aged 40 - 69 at the start of the reporting period and have had one encounter with the Rad during the reporting period.
b) At least one procedure should be a mammo type(Screening)**.**

c_mu_cqm_0043_pneumonia_vaccination -

a) The patient must be aged 65 at the start of the reporting period and have had one encounter with the Rad during the reporting period.
b) And have ever received a pneumococcal vaccine CVX code 100 or 133.

c_mu_cqm_0061_diabetes_blood_pressure –

a) The patient must be aged 18 - 74 at the start of the reporting period and have had one encounter with the Rad during the reporting period.
b) And had a diagnoisis of Diabetes recorded(used icd-9 codes): 250, 250.0, 250.00, 250.01, 250.02, 250.03, 250.10, 250.11, 250.12, 250.13, 250.20, 250.21, 250.22, 250.23, 250.30, 250.31, 250.32, 250.33, 250.4, 250.40, 250.41, 250.42, 250.43, 250.50, 250.51, 250.52, 250.53, 250.60, 250.61, 250.62, 250.63, 250.7, 250.70, 250.71, 250.72, 250.73, 250.8, 250.80, 250.81, 250.82, 250.83, 250.9, 250.90, 250.91, 250.92, 250.93, 357.2, 362.0, 362.01, 362.02, 362.03, 362.04, 362.05, 362.06, 362.07, 366.41, 648.0, 648.00, 648.01, 648.02, 648.03, 648.04

Patient in the reporting period last blood pressure reading must be <140/90 during the reporting period.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 5. Resolved Defects

Bugs, Suggested Features and Support Issues resolved in build 1.28. The extract is taken from Redmine bug tracking system and only displays defects resolved in 1.28.

| # | Status | Tracker | Priority | Subject | Category | Target version | Resolved Version |
|---|---|---|---|---|---|---|---|
| 752 | Closed | Bug | High | Created a Business Hours Availability Template and error returned | Admin Tools | 1.27 | 1.28 |
| 749 | Closed | Bug | High | Perform Exam > Abort > Study is not sent to Orders to Schedule | Thick Client GUI | 1.27 | 1.28 |
| 738 | Closed | Bug | High | Create outside read without insurance policy will throw error from Billing Exception | Thick Client GUI | 1.27 | 1.28 |
| 747 | Closed | Bug | Normal | Walk-In - If the room is selected when the system time is greater than the Scheduled date field, buttons are disabled | Thick Client GUI | 1.27 | 1.28 |
| 744 | Closed | Bug | Normal | Errors in Edit Billing | Thick Client GUI | 1.27 | 1.28 |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 737 | Closed | Bug | Normal | Add outside read patient search from enter key not initiated | Thick Client GUI | 1.26 | 1.28 |
| 736 | Closed | Bug | Normal | DB Version in help about is not updated | Web Services/DB | 1.27 | 1.28 |
| 720 | Closed | Bug | Normal | Carrier Search needs a unique ICON | Thick Client GUI | 1.26 | 1.28 |
| 698 | Closed | Bug | Normal | Organization - Couple of issues when adding sites | Admin Tools | 1.25 | 1.28 |
| 649 | Resolved | Bug | Normal | System menu location error | Thick Client GUI | | 1.28 |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 6. Known Limitations

The following are Bugs, Suggested Features, and Support Issues found in build 1.28. This build is the current QE build and testing is ongoing. The list may increase in size. This document will not be updated or re-released.

| # | Status | Subject | Category | Target version |
|---|---|---|---|---|
| 760 | New | Edit Send To report is not defaulted correctly | Thick Client GUI | 1.28 |
| 761 | New | Closing the Report History will through series of messages | Thick Client GUI | 1.28 |
| 762 | New | Seen this error when closing Report Drafted | Thick Client GUI | 1.28 |
| 763 | New | Report History data nugget throws error on Send To button | Thick Client GUI | 1.28 |
| 764 | Resolved | Walk-In Error thrown after completing required fields. | Thick Client GUI | 1.28 |
| 765 | Resolved | Cannot open 2 instances of Edit Patient | Thick Client GUI | 1.28 |
| 766 | New | Exiting application with data window open keeps record locked | Thick Client GUI | 1.28 |
| 767 | New | Logging off application with data window open can cause error | Thick Client GUI | 1.28 |
| 768 | New | CQM window > Report Interval fields need to be longer | Thick Client GUI | 1.28 |
| 769 | New | Drug Allergies Row Error | Thick Client GUI | 1.28 |
| 771 | New | CQM 00043 Pneumonia Vaccination Status for Older Adults returns error | Thick Client GUI | 1.28 |
| 772 | Resolved | Clinical Summary > Continuity of Care Record needs "Scheduled Study Date" | Thick Client GUI | 1.28 |
| 773 | Resolved | Clinical Summary > Continuity of Care Record Throws error if patient folder is missing procedures | Thick Client GUI | 1.28 |
| 774 | New | Patient search column for "DataNug" gone after search | Thick Client GUI | 1.28 |
| 775 | New | Spelling error for RVU column | Admin Tools | 1.28 |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# User Release Notes

for eRAD RIS
Version 1.0
Build 29

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Purpose ..... 3
2. Intended Audience ..... 3
3. Installing/Accessing the Application ..... 3
4. New Features and Enhancements ..... 4
MT Polling Permission ..... 4
Ability for Medical Transcription to Change Polling Queues ..... 5
Reset Skipped Rows for Transcription ..... 6
Suspended Workflow Added for Transcription ..... 8
Change Dictating Radiologist from Work List ..... 10
Preview Report Enhancements ..... 12
Billing Exception ..... 13
User Preferences for Inbound Reporting (File Listener and TCP Listener) ..... 13
Modality Scheduling Interval ..... 14
Automated Measure Calculation – MU Requirement 170.302.n ..... 15
Generate Patient Lists – MU Requirement 170.302.i ..... 17
Session Individual Production Counters ..... 18
Failed PACS Correction Work List ..... 19
Interactive Dictation ..... 22
View / Edit Data Window ..... 22
5. Resolved Defects ..... 25
6. Known Limitations ..... 27

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 1. Purpose

This document describes some of the new features and changes implemented in eRAD RIS as of the end of Sprint 29. This version of eRAD RIS is referred to as Build 1.29.

Only features which can be visually demonstrated to the user will be outlined in this document.

# 2. Intended Audience

This document is created by the RIS Development team for the RadNet RIS management team.

# 3. Installing/Accessing the Application

The installation guide for the eRAD RIS client have been posted to the RadNet Wiki page at http://mdbal01rdtweb/Wiki/

Under the RIS menu, click on the rRIS page. The credentials to access the page are:
Username: rRIS
Password: Summerside

*Please note that Build 1.29 is considered a new core release of the application and will require a reinstallation of eRAD RIS. This is accomplished by navigating to the eRAD RIS shared installation drive and running the CoreInstall.bat file (ex: I:\RISDeployment\CoreInstall.bat)*

If you experience difficulties accessing the application, please do not hesitate to contact Darcy Noye with the PEI RIS Development Team.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 4. New Features and Enhancements

## MT Polling Permission

MTPolling will now be disabled in the User Preference screen if the permission "Clinical.UserPreferences.TranscriptionPolling" is not granted to the user. It is suggested that the base permission be set to "None".

**Figure 4.1 – User who has permission to change preference**

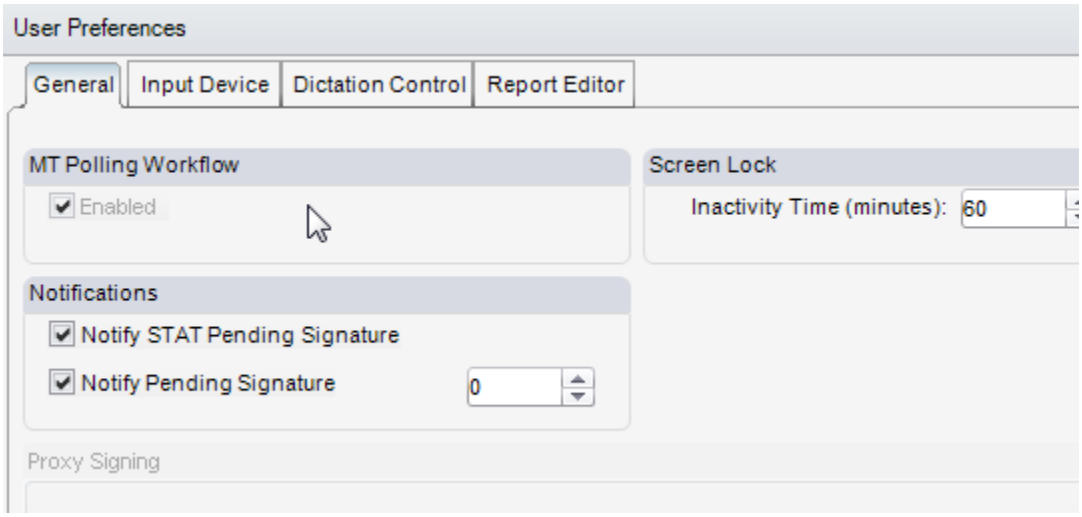



**Figure 4.2 – User who does not have permission to change preference**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Ability for Medical Transcription to Change Polling Queues

In previous builds, transcription had the ability to assign / un-assign to the Problem and QA work lists. The user would have access to the work list to view the contents and select which record they would like to open from the work list. With the introduction of work list polling, and the possibility of transcription not having access to these work lists, we needed to provide access to these queues.

Four new access strings have been added to control the access to the menu items.

| Access String | Description |
|---|---|
| WL.GetJob | Access to MT polling workflow for general queue/all queues |
| WL.GeneralQueue | Access to MT polling workflow for general queue |
| WL.ProblemQueue | Access to MT polling workflow for problem queue |
| WL.QaQueue | WL access to MT polling workflow for qa queue |

The transcription menu will display the Get Job menu item with a submenu listing the individual queues.

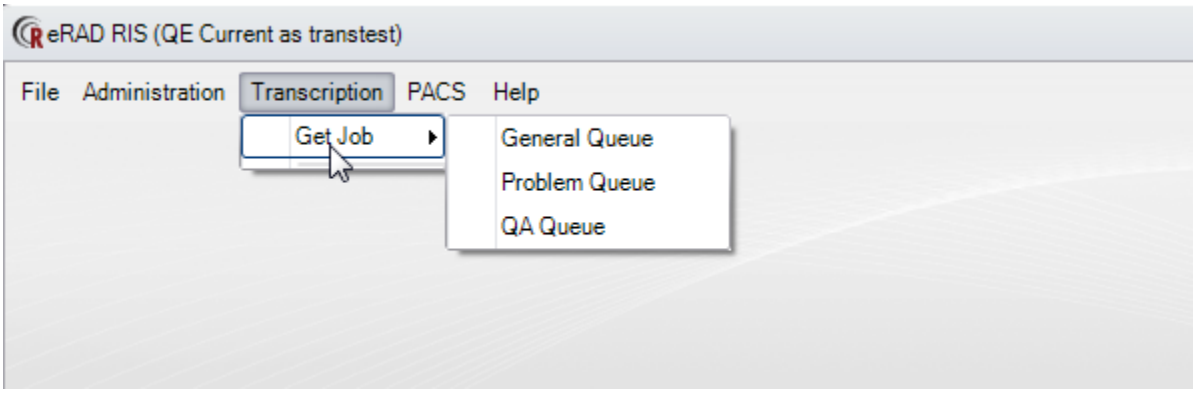



**Figure 4.3 – Transcription role with only access to polling queue's**

Selecting one of these menu items will start polling the respective queue and get a job as soon as one is available. If an Edit report screen is already open on, it will tell them to close it before they can start polling a new queue.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Reset Skipped Rows for Transcription

This feature was introduced for Radiologists in Build 23 and is now included in work flow for Transcription.
Figure 4.4 below shows the options available to be assigned the far right button on the Transcription Editing tab. The default button action can be changed. To change the default action of the button, hold down the CTRL key on the keyboard and select the action from the drop down list. The option selected from the list will be performed as well as change the default setting for the button. When the default action is changed for a button, the text on the button will also change.

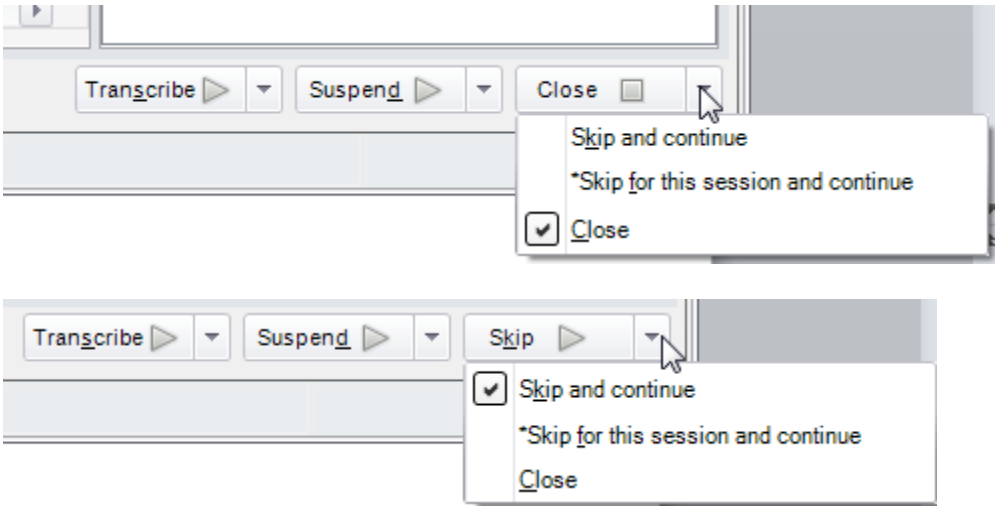



**Figure 4.4 – Displaying the ability to Skip work list rows and changing the default action of the "Close" Button**

Actions are defined as "button action" and continue or "button action" and close. Referring to Figure 4.4, you will notice ICONS on the buttons as play ▷ or stop □. Assigning actions that are to continue to the next record on the work list display the play ICON, and actions that are to complete action and close data window to return to the work list will have the stop ICON.

Also in figure 4.4 the menu options are to skip the current exam and a specified following action. In the first example, Close if defaulted with the action being to simply close the Transcription Editing window.
Skip and continue will skip the item for the current workflow instance. To access this exam in the Editing window again, it can be opened directly from the work list as normal, or if the user completes the entire work list, then the skipped rows are accessed next.
The final menu option of "*Skip for this session and continue" will mark this exam as such. Unlike "Skip and Continue" once the user completes the work list, exams flagged "*Skip for this session and continue" will not be accessed during the normal "next available exam" work flow.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

If the user has access to the work list they can access the exam via the work list, or if the exam(s) are to be added back into the "next exam" work flow, the user does have the ability to manually add these skipped exams back into the workflow by resetting skipped rows via the Transcription menu option displayed in Figure 4.5. Figure 4.6 is the window that opens. The user can reset individual rows or all of the skipped rows in this list.

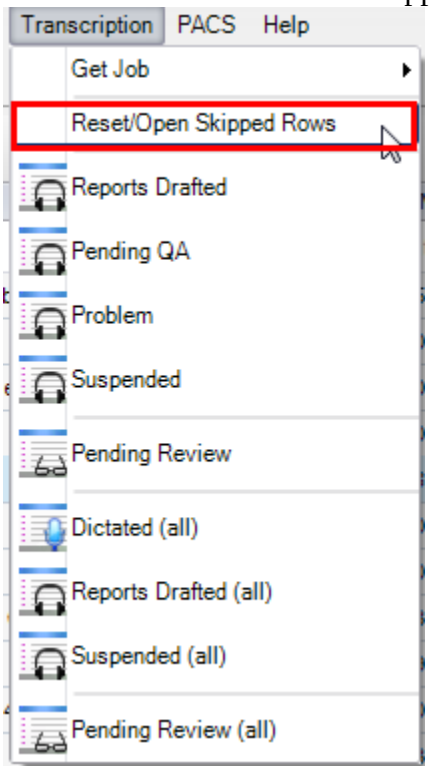



**Figure 4.5 – Reset/Open Skipped Rows menu option**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

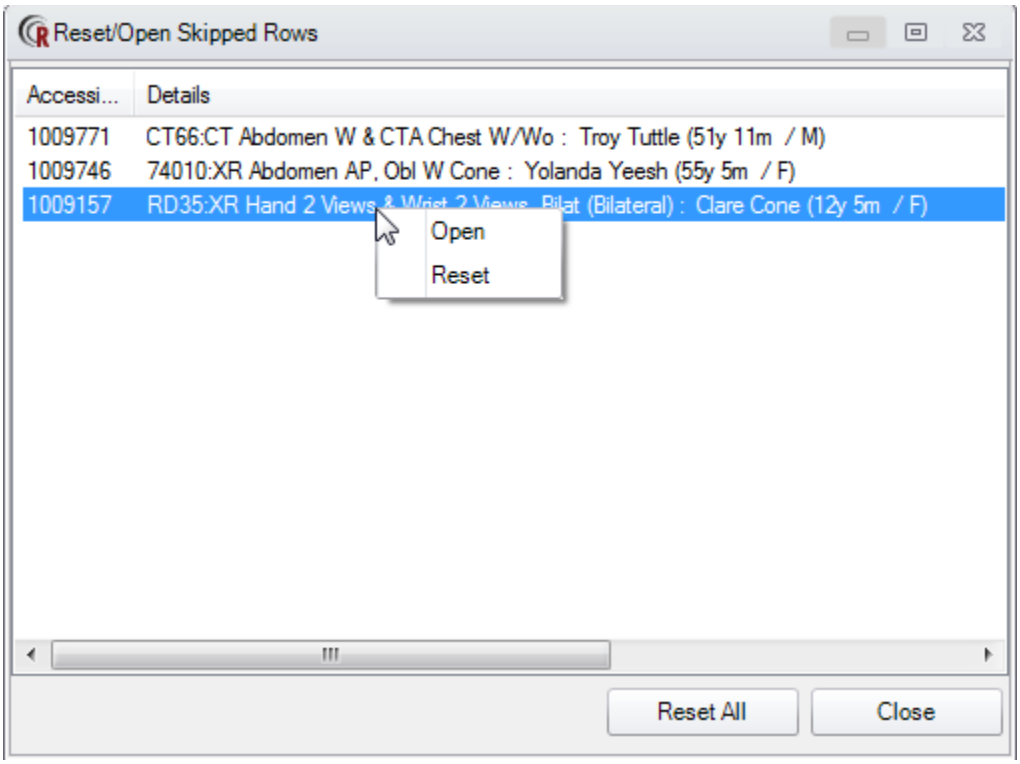



**Figure 4.6 – Reset/Open Skipped Rows window**

## Suspended Workflow Added for Transcription

The ability to suspend a job has been available to the Radiologists for some time now. In build 29 this work flow has been introduced to the Transcription work flow as well. In the Report Editing window a new drop list button has been added with the options to Suspend and continue or to Suspend and close.

Suspend and continue will suspend the current exam open in report editor window. Suspend and close will suspend the current exam and return the user to the work list they accessed the record from. If the user is configured polling work flow only (does not have access to work list views) they are returned to the main screen.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

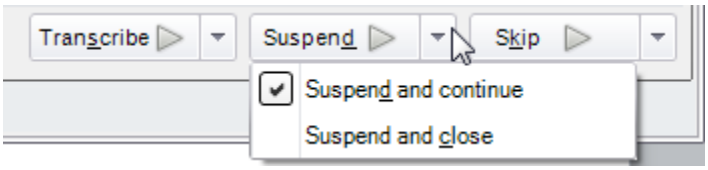



**Figure 4.7 – Suspended Button with drop list options**

For those that do have access to work lists, under the Transcription menu you will find two new menu options. Suspended and Suspend (all) have been added. The Suspended work list will have all suspended records belonging to the current logged in user. The Suspend (all) work list will display records from all users suspended from transcription. This menu option will most likely only be available to an admin.

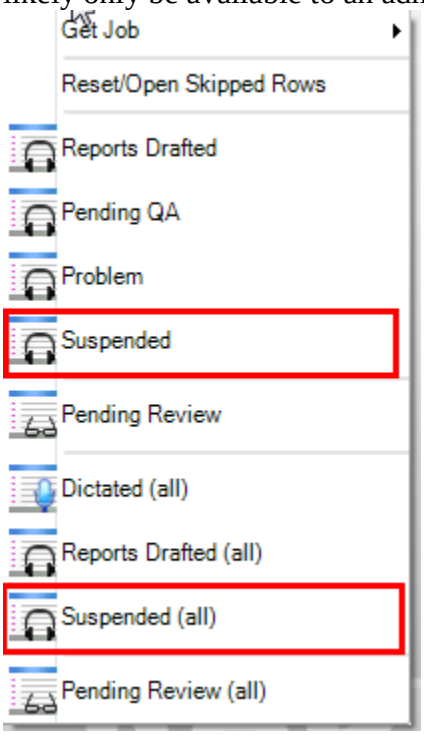



**Figure 4.8 – Suspended menu options to access work list**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Change Dictating Radiologist from Work List

In build 29, exams that are in a status of Dictated, Report Drafted, Transcribed, and Signed can have the dictating radiologist changed. From the Patient folder, Dictated by Date, and Pending Signature work lists select the row to be changed and from the context menu (right click) select the menu option Change Dictated by Radiologist.

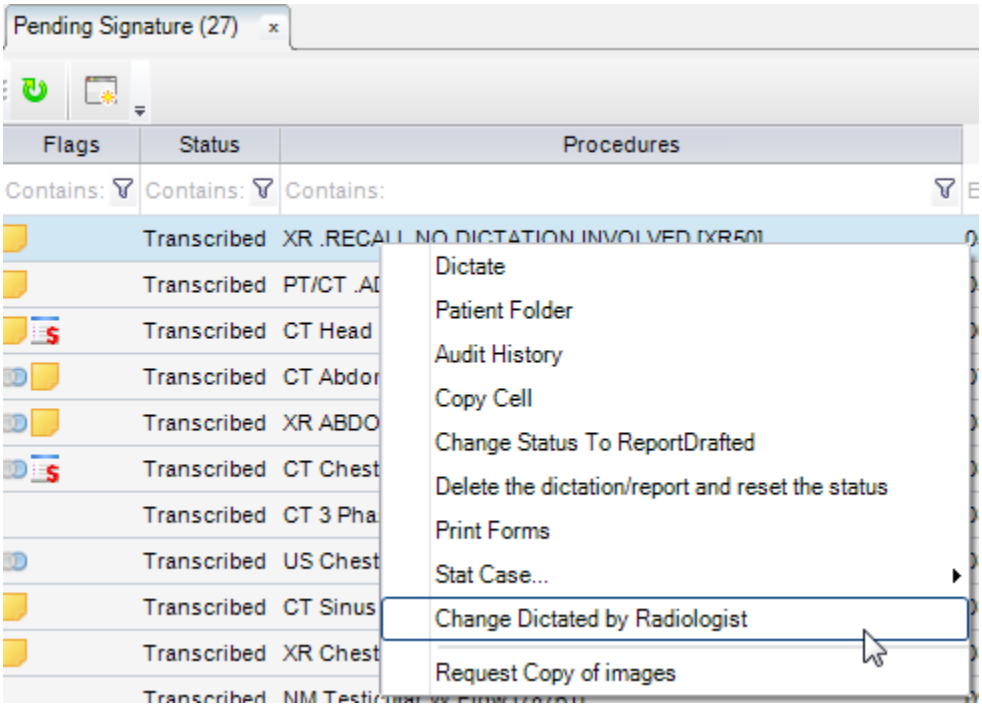



**Figure 4.9 – Change Dictated by Radiologist on context menu**

This will open a new window with the Radiologists that can be assigned to the study(s) selected based on what practice they are assigned to and where the modality resides for the studies affected. Only the latest interpretation will be affected.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

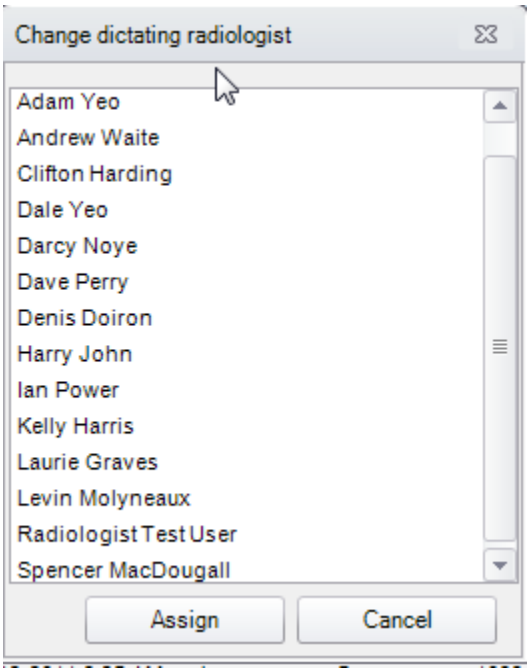



**Figure 4.10 – Change dictating Radiologist window**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Preview Report Enhancements

If the record selected has an interpretation row, Preview Report will show on the context menu. Before build 29, if the report was not ready, it would throw an error stating that it was not ready. Now the report will be prepared for display without saving the interpretation body.

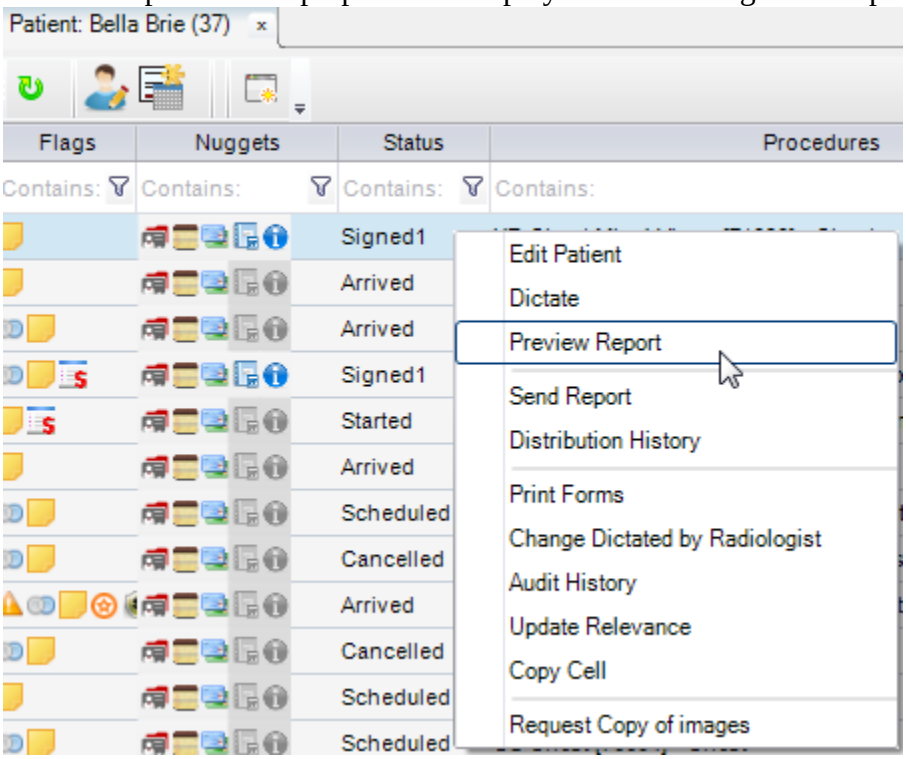



**Figure 4.11 – Preview Report from context menu**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Billing Exception

We created a method that will run when a study is being signed off.
The new functionality was designed to ensure that the following segments of data where populated;

- Referring Physician was selected, and was not still flagged as an unknown referring Physician
- Insurance was specified
    - Insurance Policy number was specified
    - Checks to see if the policy number doesn't override the policy mask
    - Insurance is active
- There was a responsible party selected.
- Pre Certification number is defined.

All these cases apply to outside read studies excluding responsible party, when the outside site required Insurance.

We also created a WL called "Billing Exception WL", under the administration menu, studies will appear on this worklist when the study is either on hold for billing, or when the study failed a billing exception on signing.

## User Preferences for Inbound Reporting (File Listener and TCP Listener)

Two new user preferences have been added in this build. Start TCP Listener and Start File Listener each are checkboxes. When logging in we determine if we should start the listeners based on the system setting first and the user preference second. If both are true then we turn the corresponding listener on.
The default setting is checked or true. This was determined to be the norm if the system setting is on.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

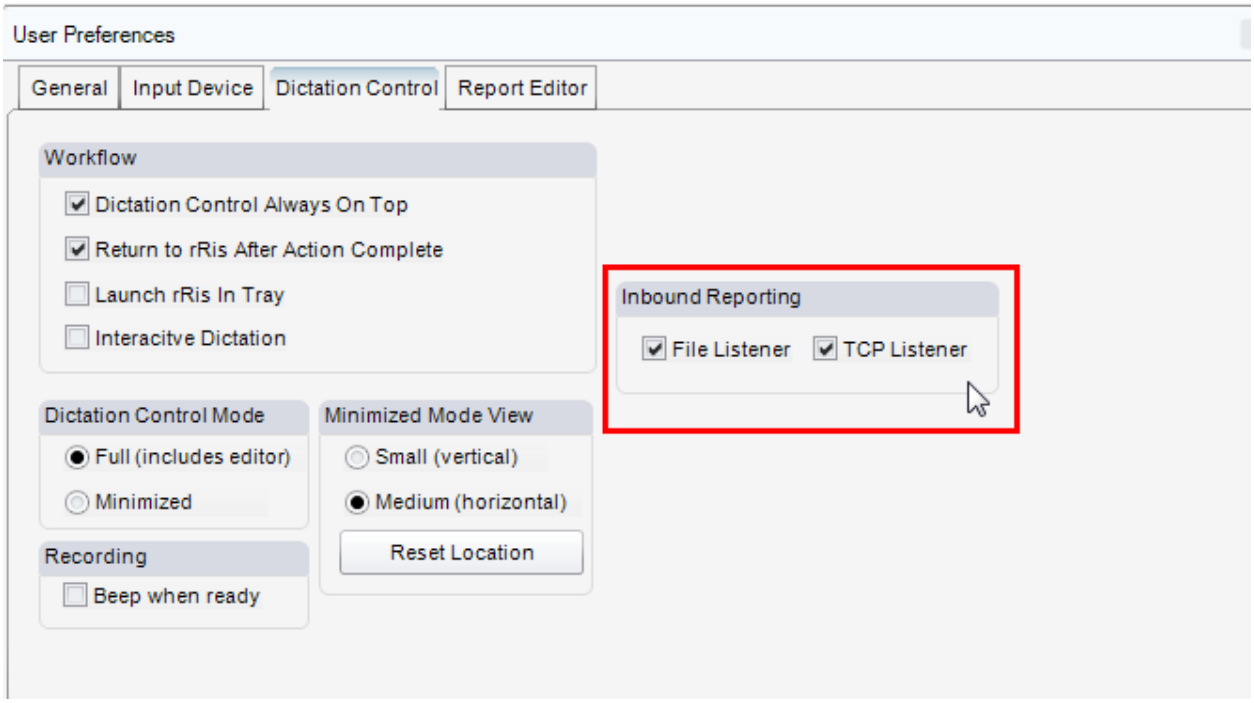



**Figure 4.11 – Inbound Reporting User Preferences**

## Modality Scheduling Interval

To allow for time blocks to be more configurable for each modality a new column called "Scheduling Interval" has been added to the Modality Lookup table. The time interval is defaulted to 5, but will allow each modality to have individual time blocks.

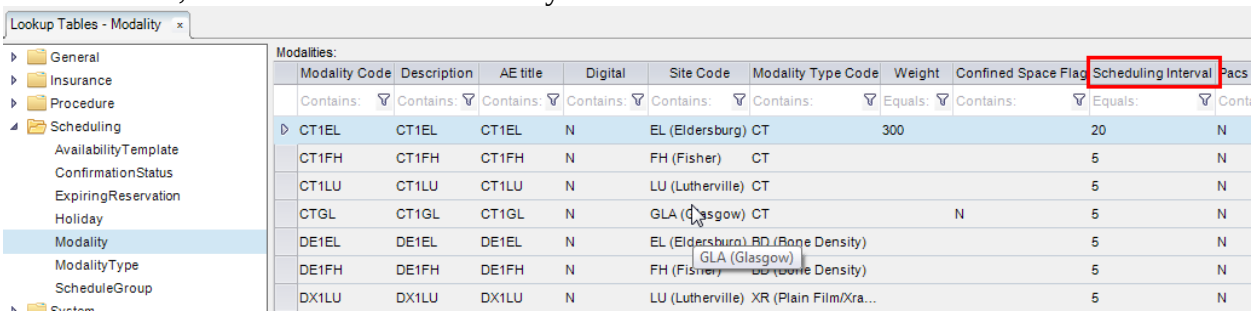



**Figure 4.12 – Modality lookup displaying new column Scheduling Interval**

If the procedure selected has a default time that is less than the Scheduling Interval for the modality, the time blocks will reflect the modality scheduling interval.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# Automated Measure Calculation – MU Requirement 170.302.n

Meaningful User requirement # 170.302 n_AutomatedMeasure_Gen_PS_RevE.doc

***"170.302 n Automate measure calculation***. For each meaningful use objective with a percentage-based measure, electronically record the numerator and denominator and generate a report including the numerator, denominator, and resulting percentage associated with each applicable meaningful use measure.

Created a management to call stored procedure to display automated measures.(report is called MU Scorecard added it to the report server(Home > Dev > Meaningful Use ).

Added a number of new fields to our hidden MU tab used to capture measures

1) **Hidden MU tab(ctlr + M + U)**

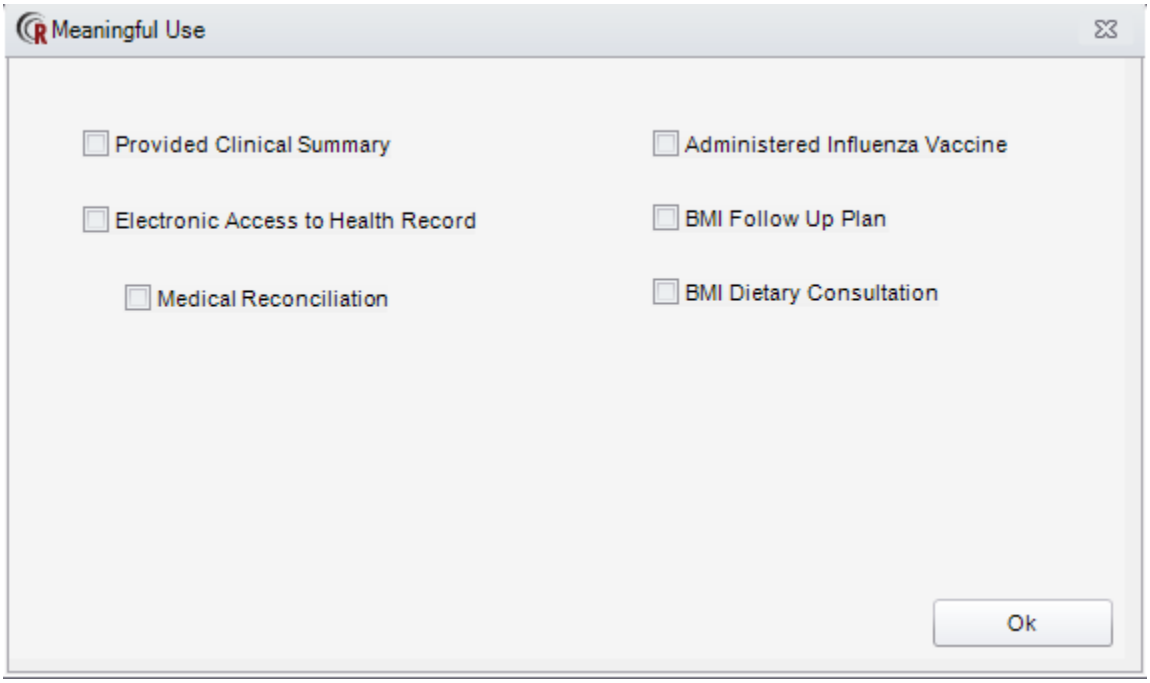



**Figure 4.13 – Meaning Use (hidden tab)**

a) **Provided Clinical Summary –** captures if a clinical summary was provided to the patient at any during the visit. Behind the scene the date is stamped when this checkbox was checked.
b) **Electronic Access to Health Record –** is used to capture timely access. Behind the scene the date is stamped when this checkbox was checked.
c) **Medical Reconciliation –** is used to capture if the Rad did any medical reconciliation on the patient during the visit.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

d) **Administered influenza vaccine –** Is used by CMQ to capture if influenza vaccine was administered during the visit.

e) **BMI Follow Up plan –** Is used by CMQ to capture if a follow up plan was suggested to the patient. Should never be used other than certification day.

f) **BMI Dietary Consultation -** Is used by CMQ to capture if a follow up plan was suggested to the patient. Should never be used other than certification day.

2) **Other Automated Measures –**

a) **Transition of care** - must be checked if the patient is referred to the rad by a referring physician. In our case all exams should have this checked. Talking to Susan only mammo screening should not check this off.

b) **Provided Educational Resources –** if the patient was provided educational resources during visit this should be checked.

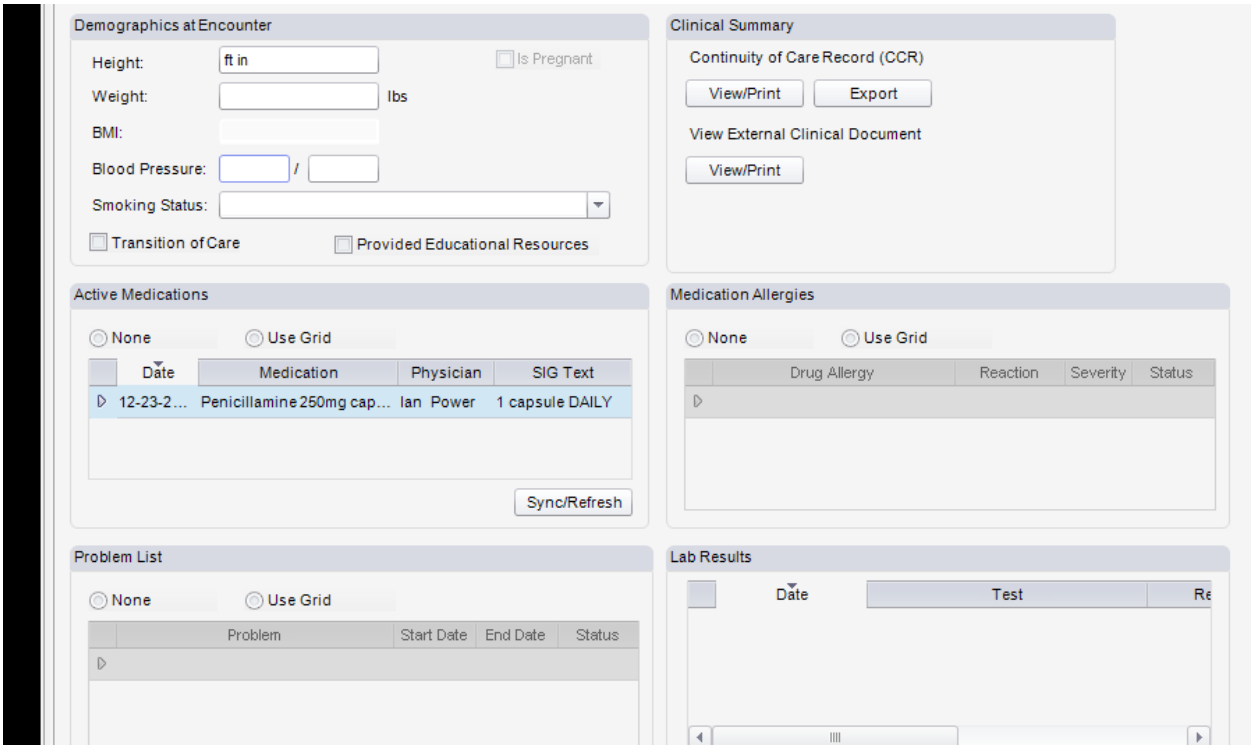



**Figure 4.14 – Meaning Use "Hidden Tab" is accessed from Visit History**

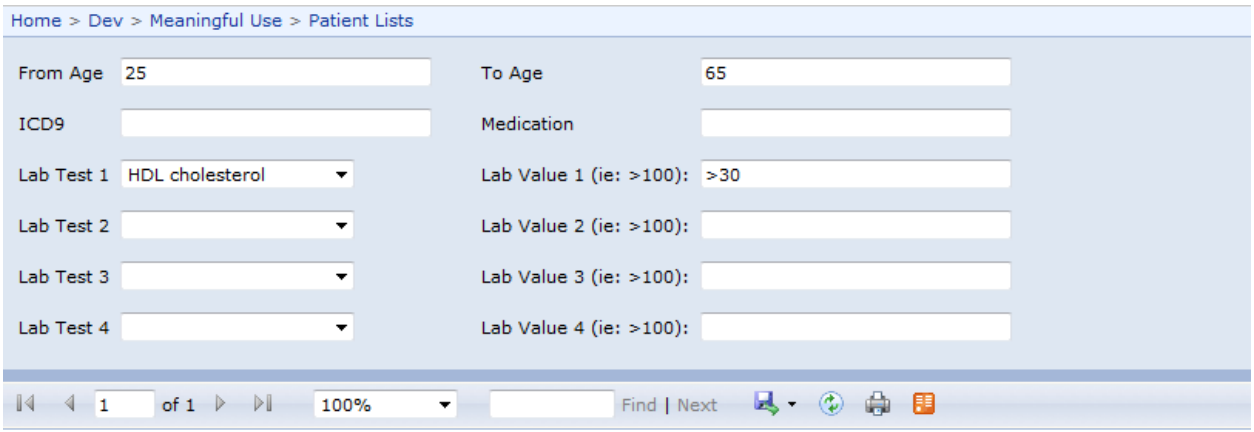
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Generate Patient Lists – MU Requirement 170.302.i

Requirement
*"Generate lists of patients by specific conditions to use for quality improvement, reduction of disparities, research, or outreach."*
The Test Procedure requires the following…
*Enable a user to electronically select, sort, retrieve, and generate lists of patients according to, at a minimum, the data elements included in:*
*(1) Problem list;*
*(2) Medication list;*
*(3) Demographics; and*
*(4) Laboratory test results.*

Following this we created a management report named "Patient Lists" which provides the user with parameters to filter a list based on patient age (range), ICD9 (Problem), Medication (string search) as well as 4 sets of labs and lab value. The age parameters include the values selected. So in the screen shot I've selected ages 25-65 this would include ages of 25, 65 and everything in between.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.




**Patient Lists**

**Age: 25 through 65**
**Lab 1: HDL cholesterol with lab value: >30**

| MRN | First Name | Last Name | Age | Gender |
|---|---|---|---|---|
| 405979410 | Frank | Lewis | 61 | M |
| | Lab Results | 2010-09-20 Test:Total cholesterol Result:162mg/dl<br>2010-09-20 Test:HDL cholesterol Result:43mg/dl<br>2010-09-20 Test:LDL cholesterol Result:84mg/dl<br>2010-09-20 Test:Triglycerides Result:127mg/dl | | |
| | | | | **Count: 1** |

*Report Description: Designed for Meaningful Use requirement 170.302(i) this returns list of patients based on the conditions(conditions) specified.*

Patient Lists | RadNet - Confidential and Proprietary | Date Run: 12/22/2011 3:22 PM
http://peidev1/ReportServer/Dev/Meaningful Use | Page 1 of 1 | RMIS\dale

**Figure 4.15 – Patient List report**

## Session Individual Production Counters

Introduced in build 29 are status counters for Radiologists and Transcription work flows. Located at the bottom of the application, they are visible from all windows.
The stats displayed are based the users production for that day. We are capturing the data based on a 24 hour calendar day (midnight to midnight). For example if a dictation was completed yesterday and signed today, the Signed count at the bottom would increase by one, but the dictation count would remain the same because it was captured the day before.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

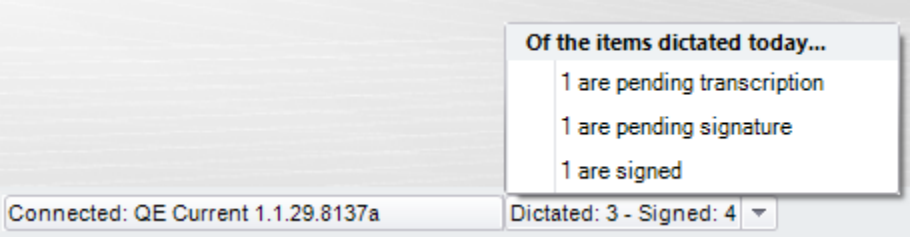



**Figure 4.16 – Production Counters for Radiologists**

The expanded menu shows the status of exams that were dictated today. In the example above the Radiologist dictated on 3 exams and has signed 4. Of the 3 that were dictated today, 1 is pending transcription 1 is pending signature and 1 has been signed.

Transcription will see a similar counter tracking their individual progress for that day.

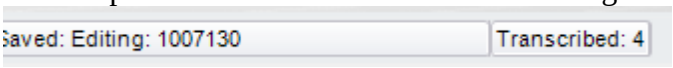



**Figure 4.17 – Production counter for transcription**

## Failed PACS Correction Work List

The modality lookup table contains a new column “Pacs Correction Required Flag”.

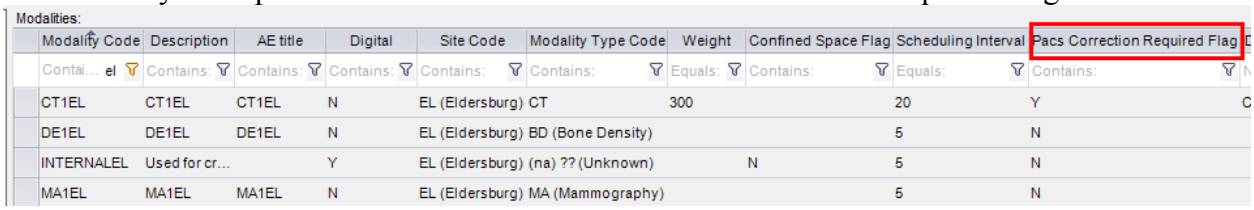



**Figure 4.18 – Modality lookup table displaying new column Pacs Correction Required Flag**

If the value is Y or on for a modality the exam will be sent to the Failed PACS Correction work list when the technologist completes the exam. If the value on the modality is N or off, when the technologist completes the exam it will go to the Pending Dictation work list.

A new work list has been added under the Administration menu titled “Failed PACS Correction” has been added. As mentioned previously the modalities marked for PACS correction will have the completed exams populate this work list.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

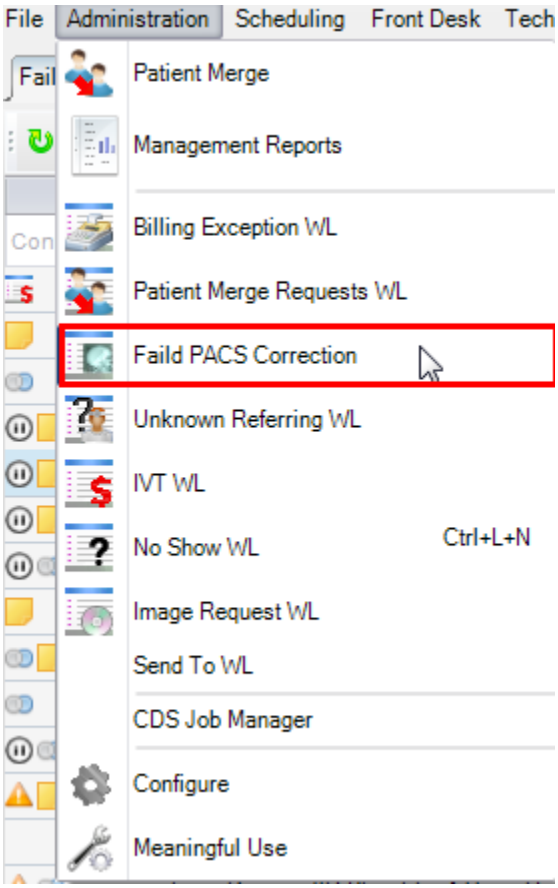



**Figure 4.19 – Administration menu showing Failed PACS Correction menu option**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

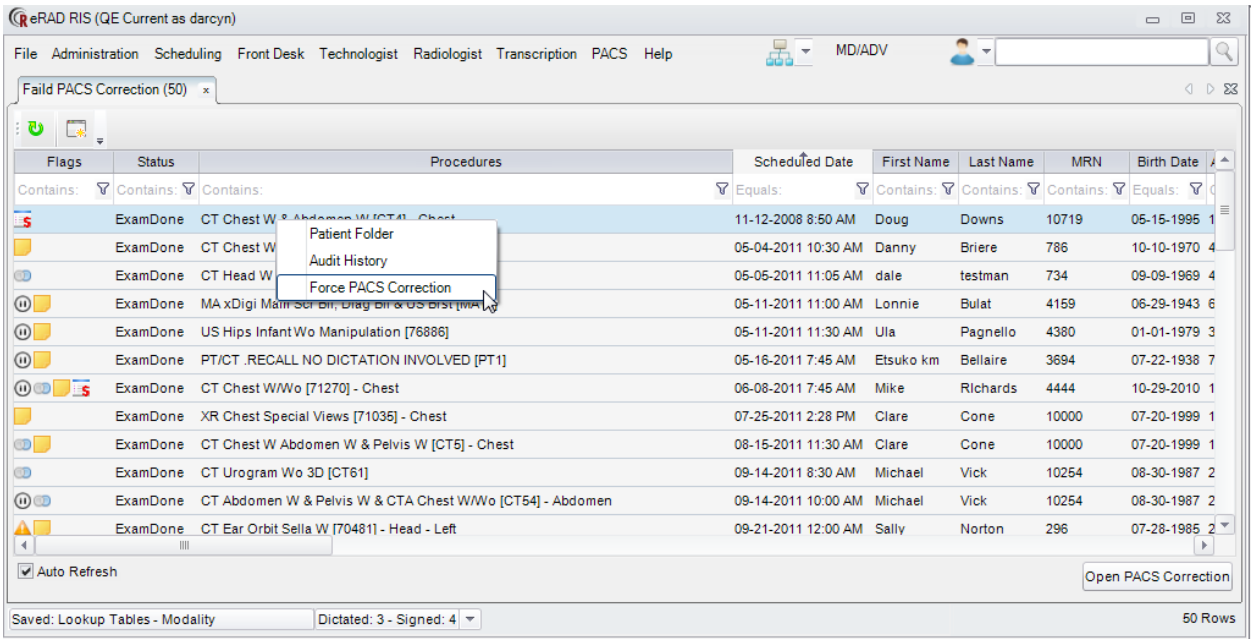



**Figure 4.20 – Failed PACS Correction Work List**

Selecting the Open PACS Correction button will open the corresponding PACS viewer window designed for this function. If a user so chooses, they can select Force PACS Correction from the context menu the exam(s) will be moved to the Pending Dictation work list.

The patient folder also has a new column PACS Corrected Flag.

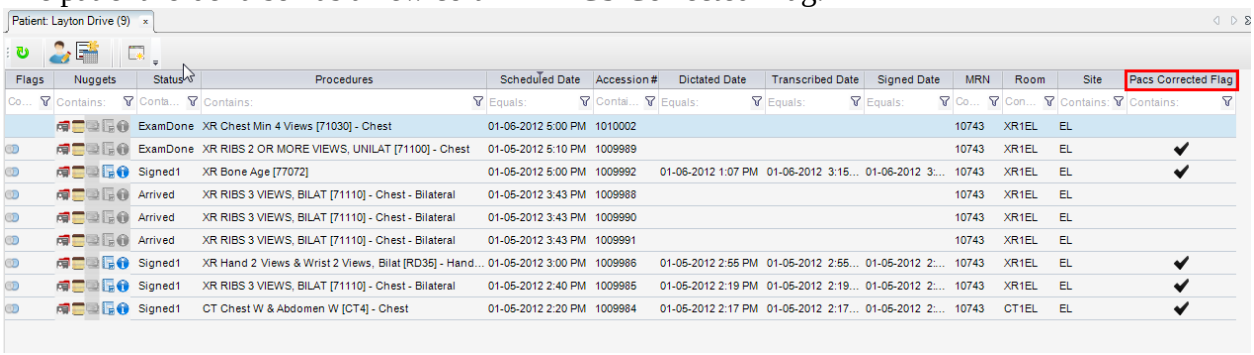



**Figure 4.20 – Patient folder displaying column for PACS Corrected Flag**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Interactive Dictation

Build 29 introduces Interactive Dictation. This is enabled by a user preference flag under the Dictation Control tab.

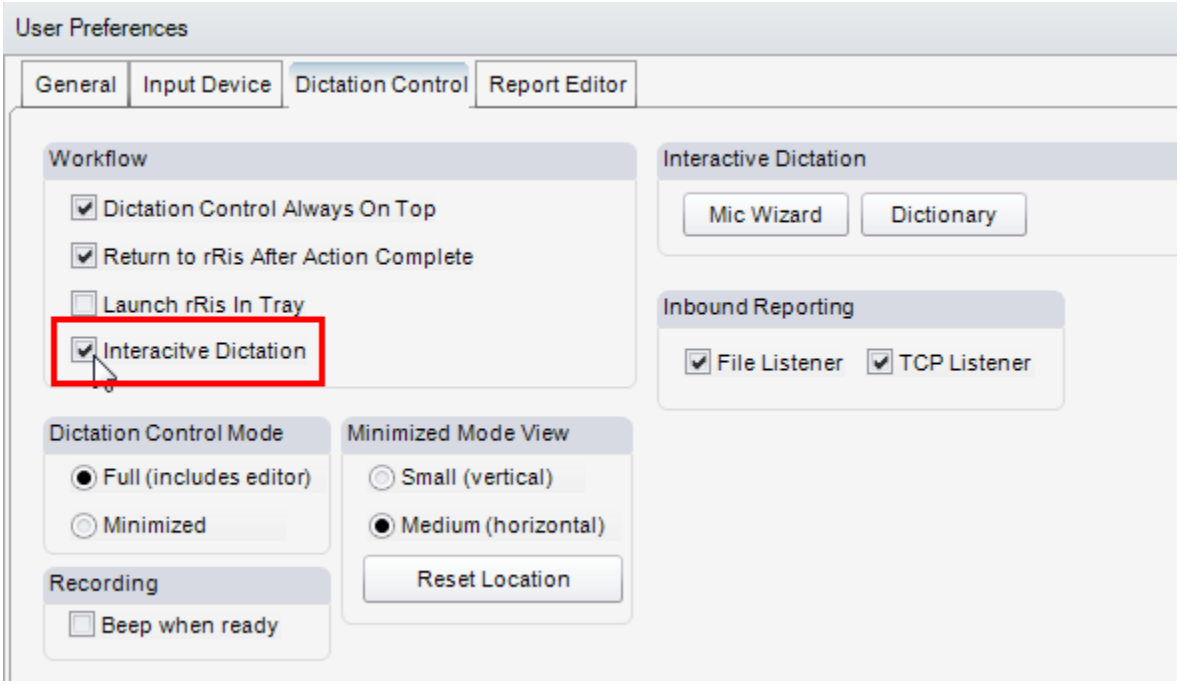



**Figure 4.21 – Interactive Dictation user preference flag**

The dictation window opens as it normally would without Interactive Dictation. As the Radiologist records the dictation, the text is captured real time. The user can release the dictation button control and start / stop as required.

More documentation will be available in Build 30 regarding Interactive Dictation.

## View / Edit Data Window

A new data window has been added in Build 29. This window is accessed from the patient folder and is enabled for all active statuses except for status of Cancelled.
Selecting a row from the patient folder and select the View / Edit button will open the View/Edit (patient name) data window. In this release the data tabs are the same for all statuses. This will be enhanced in the next build. Also OrderSigned will return error.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

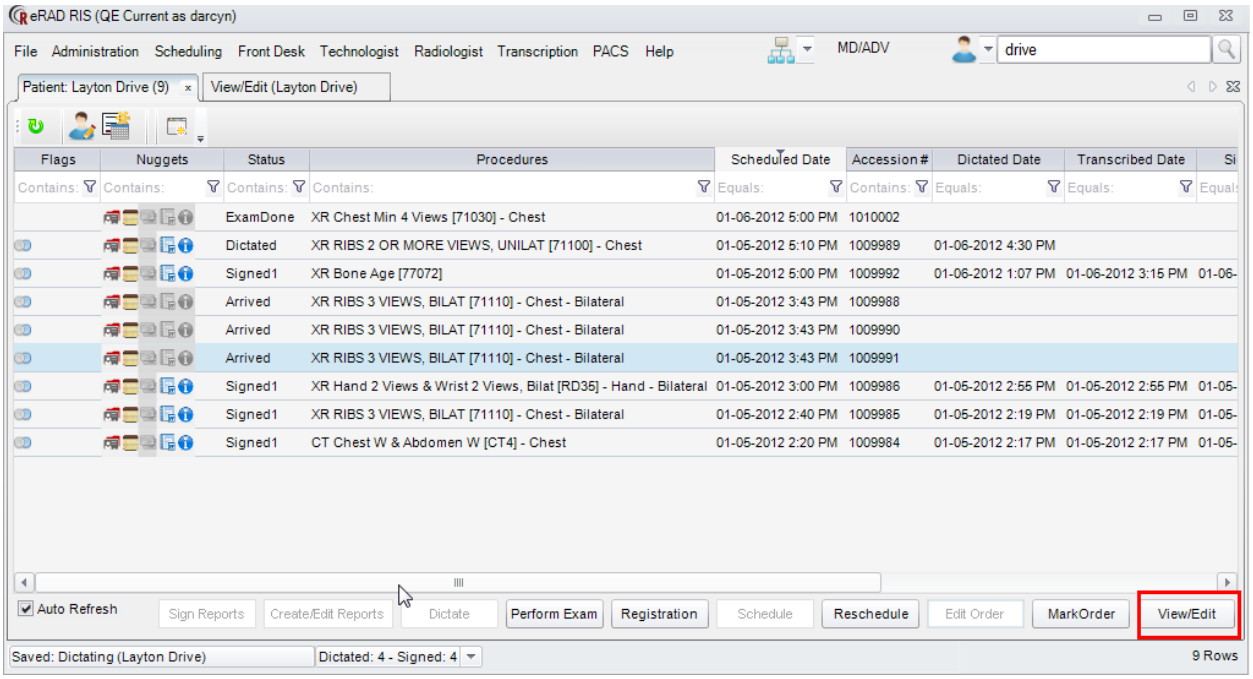



**Figure 4.22 – View / Edit button to access View/Edit data window**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

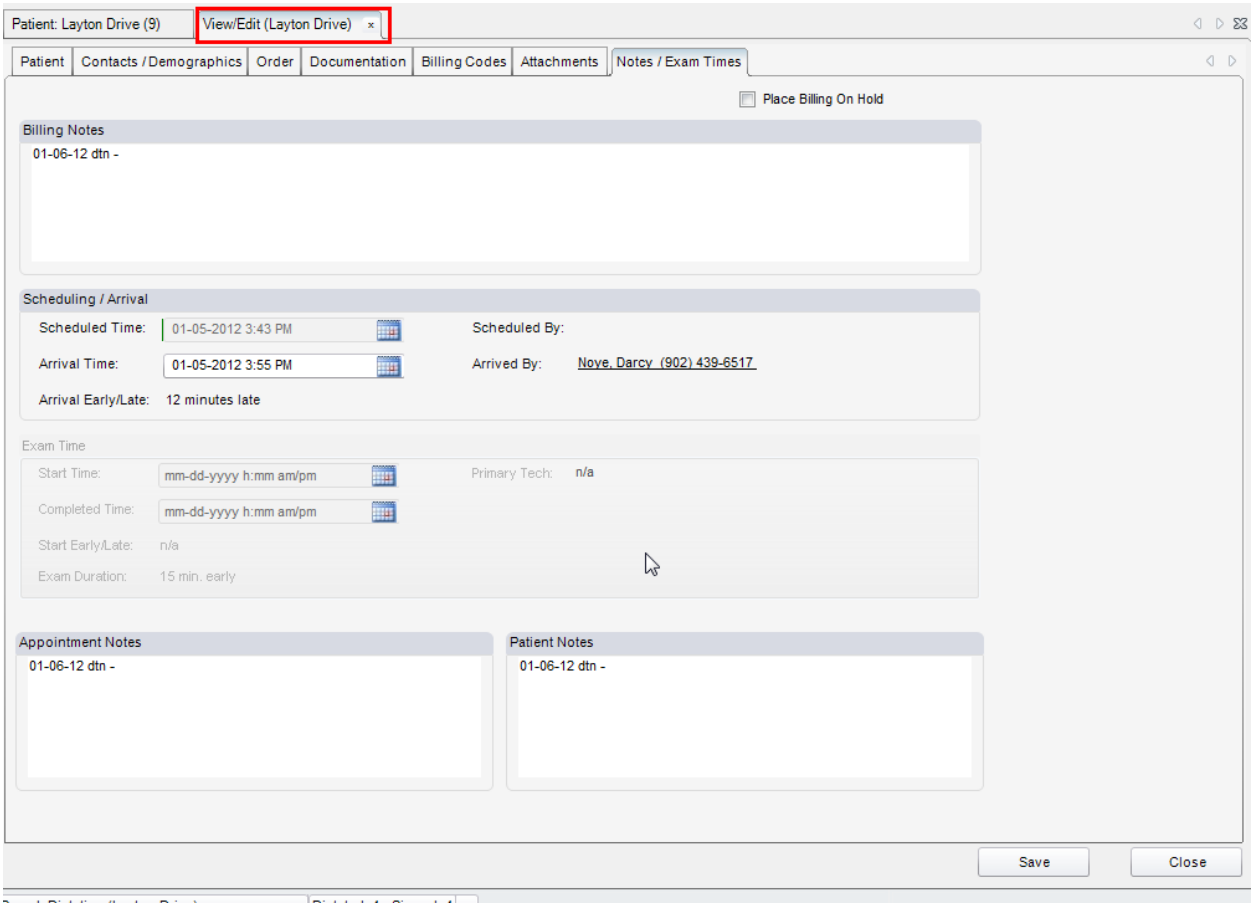



**Figure 4.23 – View/Edit data window.**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 5. Resolved Defects

Bugs, Suggested Features and Support Issues resolved in build 1.29. The extract is taken from Redmine bug tracking system and only displays defects resolved in 1.29.

| # | Status | Tracker | Priority | Subject | Category | Target version | Resolved Version |
|---|---|---|---|---|---|---|---|
| 785 | Closed | Bug | High | Add patient. Cannot create new order | Thick Client GUI | 1.28 | 1.29 |
| 782 | Closed | Bug | Normal | Unselecting Referring resource type, the NPI is still required to save. | Admin Tools | 1.28 | 1.29 |
| 780 | Closed | Bug | Normal | Schedule study for past date and select Room can throw error | Thick Client GUI | 1.28 | 1.29 |
| 773 | Closed | Bug | Normal | Clinical Summary > Continuity of Care Record Throws error if patient folder is missing procedures | Thick Client GUI | 1.28 | 1.29 |
| 772 | Closed | Bug | Normal | Clinical Summary > Continuity of Care Record needs "Scheduled Study Date" | Thick Client GUI | 1.28 | 1.29 |
| 765 | Closed | Bug | Normal | Cannot open 2 instances of Edit Patient | Thick Client GUI | 1.28 | 1.29 |
| 763 | Closed | Bug | Normal | Report History data nugget throws error on Send To button | Thick Client GUI | 1.28 | 1.29 |
| 754 | Closed | Bug | Normal | Labels and Forms - Issue with Action Picker | Admin Tools | 1.25 | 1.29 |
| 743 | Closed | Bug | Normal | Date selected from Date / Time Picker not accepted after removing compostite code. | Thick Client GUI | 1.27 | 1.29 |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 741 | Closed | Bug | High | Add Outside Read - can save outside read without visit selected. | Thick Client GUI | 1.27 | 1.29 |
| 740 | Closed | Bug | Normal | Outside Read - Edit billing does not show all the billing exceptions | Thick Client GUI | 1.27 | 1.29 |
| 739 | Closed | Bug | Normal | Outside Read - Edit Billing from Billing Exception and Responsible Party is required | Thick Client GUI | 1.27 | 1.29 |
| 733 | Closed | Bug | High | Cannot Scan documents | Thick Client GUI | 1.26 | 1.29 |
| 709 | Resolved | Bug | Low | Dictation / Create Edit reports - Patient Alert pop up not centered | Thick Client GUI | 1.26 | 1.29 |
| 675 | Closed | Bug | Normal | Edit Order > Verbal Order returns error | Thick Client GUI | 1.25 | 1.29 |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 6. Known Limitations

The following are Bugs, Suggested Features, and Support Issues found in build 1.29. This build is the current QE build and testing is ongoing. The list may increase in size. This document will not be updated or re-released.

| # | Status | Subject | Category | Target version |
|---|---|---|---|---|
| 807 | New | Timezone issue - Cannot update personnel | Admin Tools | 1.29 |
| 806 | Resolved | Walk-In error when checking in | Thick Client GUI | 1.29 |
| 805 | Resolved | Failed PACS Correction > Flag on modality does not work | Thick Client GUI | 1.29 |
| 804 | New | Perform Exam > Labels don't activate after changing Performed Procedure. | Thick Client GUI | 1.29 |
| 803 | New | User Preferences options access | Thick Client GUI | 1.29 |
| 802 | New | Column Age At Study not calculating age correctly. | Thick Client GUI | 1.29 |
| 801 | New | Possible issue with date / time formats and Perform Exam data window | Thick Client GUI | 1.29 |
| 800 | New | Forms and labels action on <-- arrow continues when filtered list is done | Admin Tools | 1.29 |
| 799 | Resolved | Configurable Modality Scheduling | Thick Client GUI | 1.29 |
| 797 | Resolved | Failed PACS Correction work list only moves one exam at time when forcing PACS Correction | Thick Client GUI | 1.29 |
| 796 | Resolved | Creating duplicate user throws error | Admin Tools | 1.29 |
| 795 | Resolved | MT polling work flow. Once list is complete cannot close the editor window | Thick Client GUI | 1.29 |
| 794 | Resolved | Patient Search window > Search by Phone number will throw error | Thick Client GUI | 1.29 |
| 791 | New | View / Edit data window error on View OrderSigned | Thick Client GUI | 1.29 |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

| | | | | |
|---|---|---|---|---|
| 790 | Resolved | View / Edit data window prompts for required fields | Thick Client GUI | 1.29 |
| 783 | New | the gui has hard coded values for Patient relation | Thick Client GUI | 1.29 |
| 777 | New | missing a billing message when tech only workflow | Web Services/DB | 1.29 |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# User Release Notes

for eRAD RIS
Version 1.0
Build 30

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Purpose ..... 3
2. Intended Audience ..... 3
3. Installing/Accessing the Application ..... 3
4. New Features and Enhancements ..... 4
   Reporting – Permission to Edit Macros ..... 4
   Advanced Macro Editing Options ..... 5
   Administration Macro Editing ..... 7
   Transcription Polling – Ability to Close Tab on Empty Queue ..... 8
   Ability to Assign Reports without Clearing Fields '[ ]' from the Report ..... 10
   Relevance Flag ..... 12
   Access Strings Added ..... 13
   State Field Selection – List Box ..... 14
   Manual Entry of Medication ..... 15
   Automated Measures – MU Requirement 170.302n ..... 16
   Clinical Quality Measures – MU Requirement 170.304j ..... 18
5. Resolved Defects ..... 21
6. Known Limitations ..... 23

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 1. Purpose

This document describes some of the new features and changes implemented in eRAD RIS as of the end of Sprint 30. This version of eRAD RIS is referred to as Build 1.30.

Only features which can be visually demonstrated to the user will be outlined in this document.

# 2. Intended Audience

This document is created by the RIS Development team for the RadNet RIS management team.

# 3. Installing/Accessing the Application

The installation guide for the eRAD RIS client have been posted to the RadNet Wiki page at http://mdbal01rdtweb/Wiki/

Under the RIS menu, click on the rRIS page. The credentials to access the page are:
Username: rRIS
Password: Summerside

*Please note that Build 1.30 is considered a new core release of the application and will require a reinstallation of eRAD RIS. This is accomplished by navigating to the eRAD RIS shared installation drive and running the CoreInstall.bat file (ex: I:\RISDeployment\CoreInstall.bat)*

If you experience difficulties accessing the application, please do not hesitate to contact Darcy Noye with the PEI RIS Development Team.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 4. New Features and Enhancements

## Reporting – Permission to Edit Macros

In build 30 a new permission has been added to remove the ability to edit Macros from the report editor. The new permission access string is "Clinical.MacroEditing". If the user group does not have this permission, a user belonging to this group will not be able to add / remove or edit macros. It should be noted that a user can only edit a Marco from the report editor when they are the owner of that Macro.

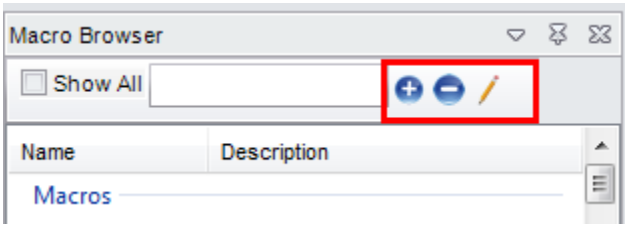



**Figure 4.1 – User who has permission Edit Macros (permission Clinical.MacroEditing = Full)**

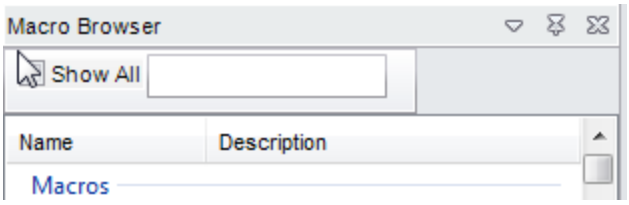



**Figure 4.2 – User who does not have permission Edit Macros (permission Clinical.MacroEditing = None)**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Advanced Macro Editing Options

In build 30 a new tab has been added within the Macro Editor. The Advanced tab allows a user with access to the Macro Editor to assign a Macro to other Practice's and / or other User's.

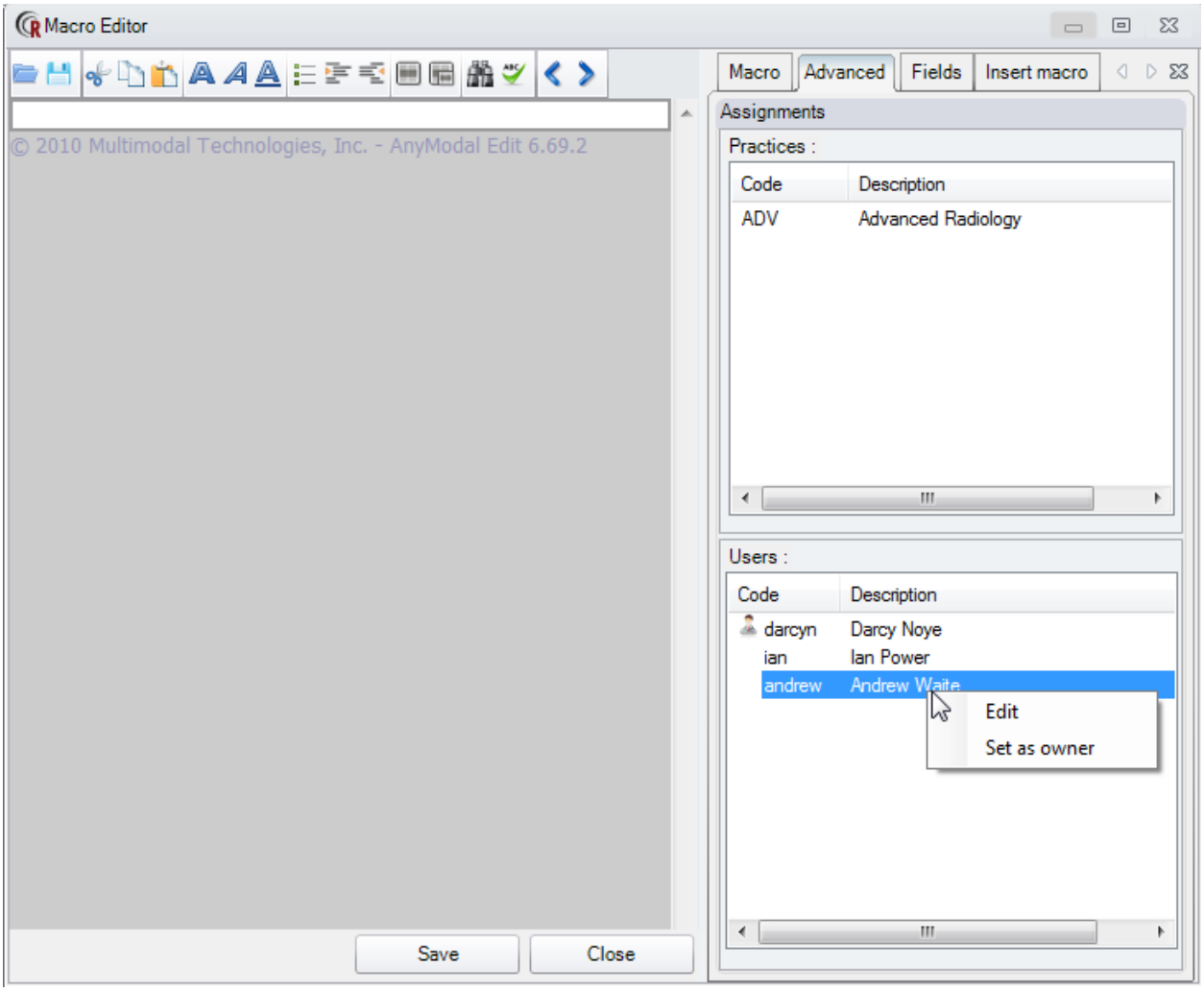



**Figure 4.3 – Macro Editor displaying Advanced tab**

In the figure above the Advance tab is selected. Under the Assignments pane you can see that this particular macro is assigned to Advanced Radiology. The practice the user belongs to will be the default value when creating a Macro.

Under the Users pane you can see that this Macro is assigned to 3 users. Currently the Macro is "owned" by user darcyn as indicated by the Icon next to the user name under the code column.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

From the context menu the current owner can change who the owner of the Macro is and also edit who has access to the Macro. Selecting the "Edit" option opens the window below.

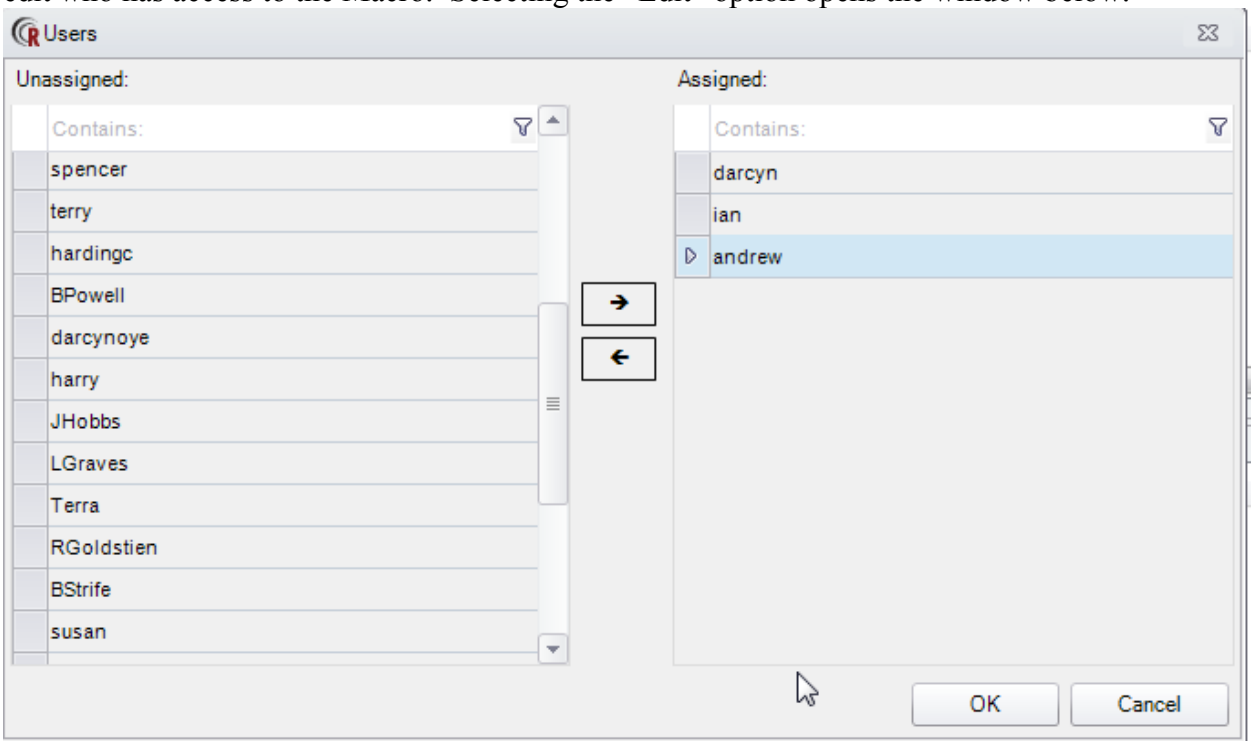



**Figure 4.4 – Users window allows for the addition or removal of users that will have access to the Macro**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Administration Macro Editing

With the new advanced tab added to the Macro Editor, practically all functions can be performed within the Macro Editor. Because of this added functionality to the Macro Editor, the lookup editor for the Macro table has been simplified. There is now only one grid and the rule sets are no longer configurable on this screen. From the macro lookup editor, users can set it to active / inactive, delete and create or edit macros.

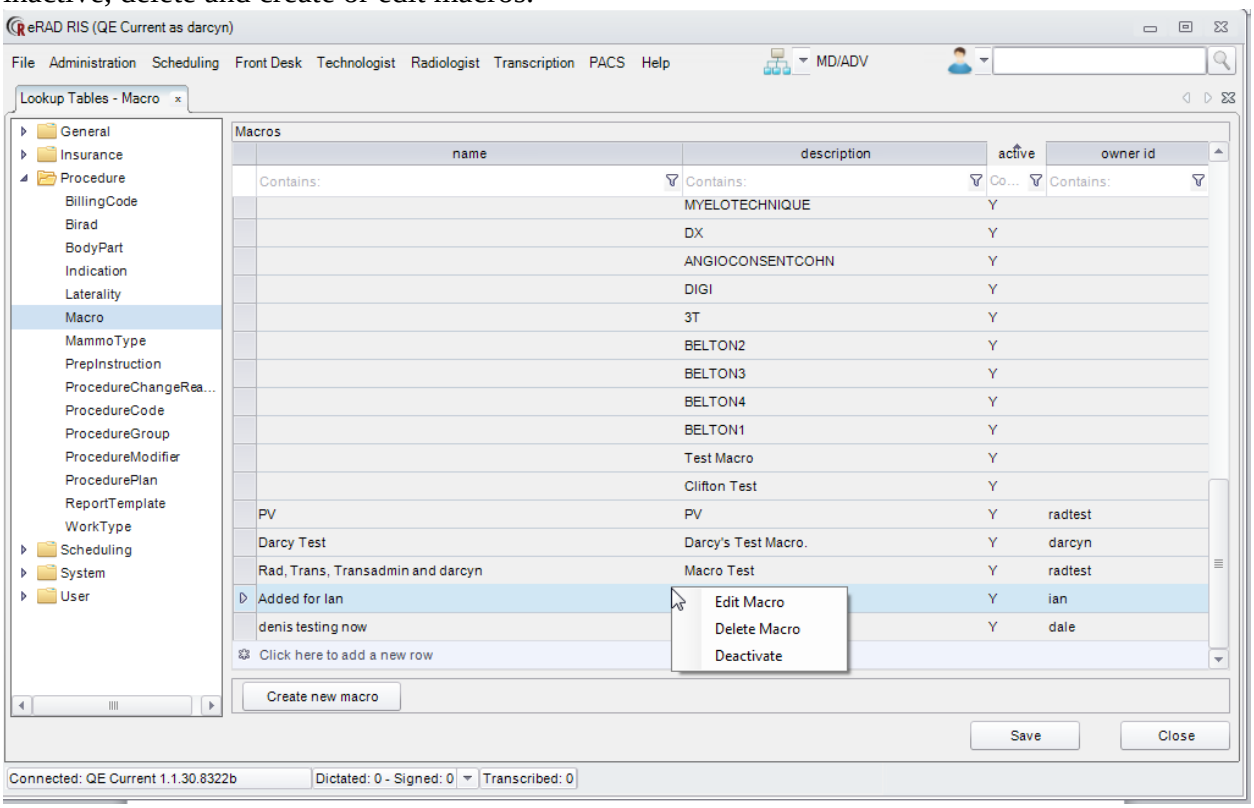



**Figure 4.5 – Macro lookup table**

When creating or editing macros the same macro editor will show, user must have access to the advanced tab in order to perform advanced assignments.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

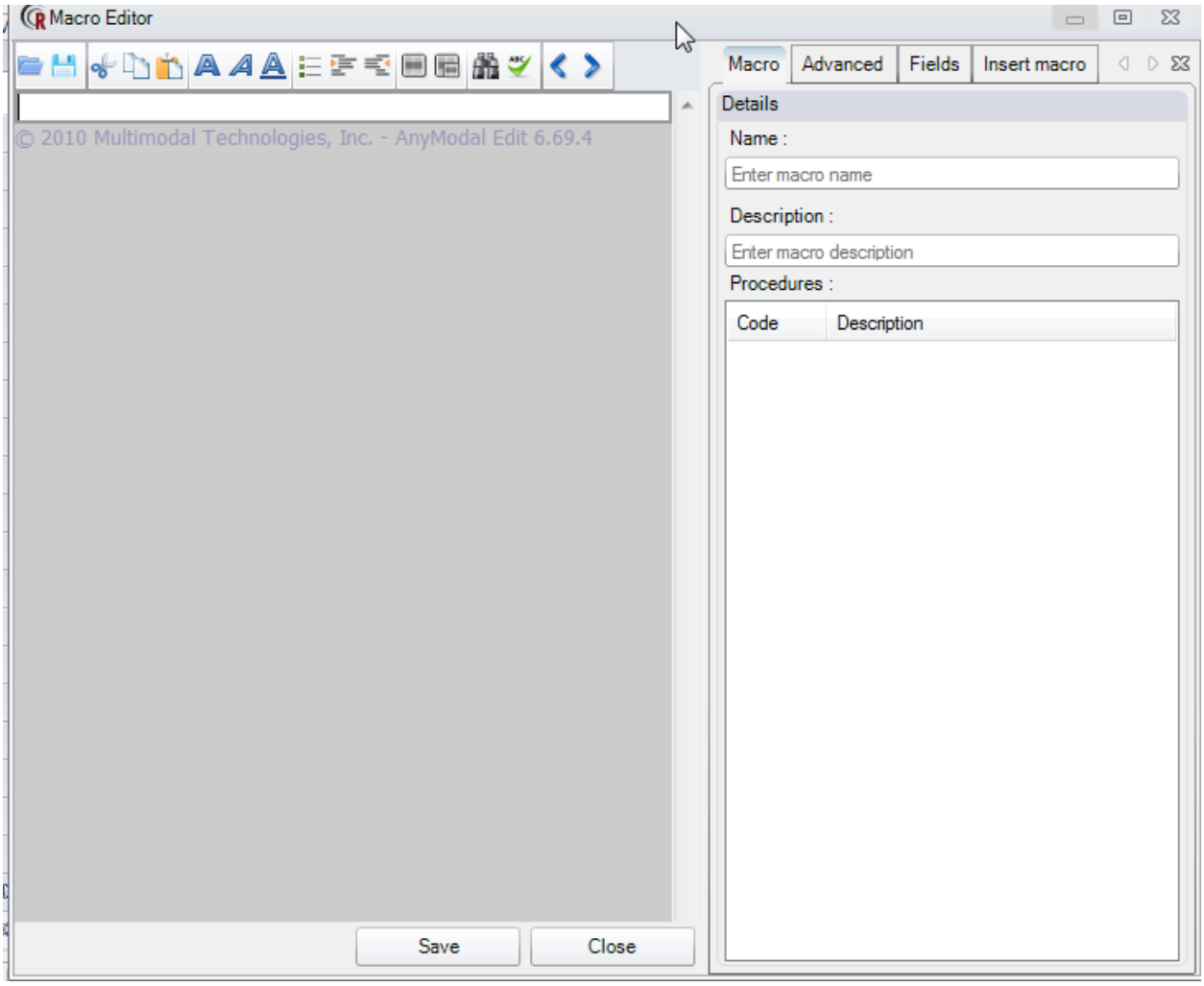



**Figure 4.6 – Macro Editor (same is accessed from report editor)**

## Transcription Polling – Ability to Close Tab on Empty Queue

In the previous build Transcription polling was added to eRAD RIS, but when the polling queue list was completed, or an empty queue was opened the user had no way to close the data window queue. In build 30 the user will now be able to close an empty queue and open a different one to continue transcription work flow.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

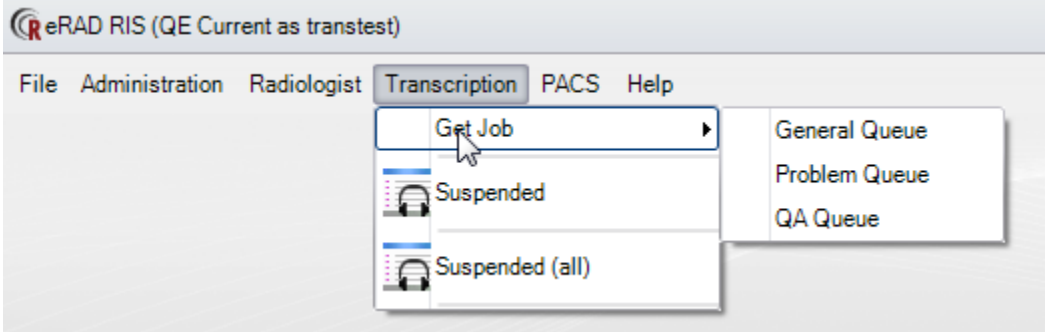



**Figure 4.7 – Displaying Transcription Polling Queues**

The polling window can be closed the same as other data windows in the application. Viewing the figure below the user can select one of the "X"s or choose an option from the tabs context menu.

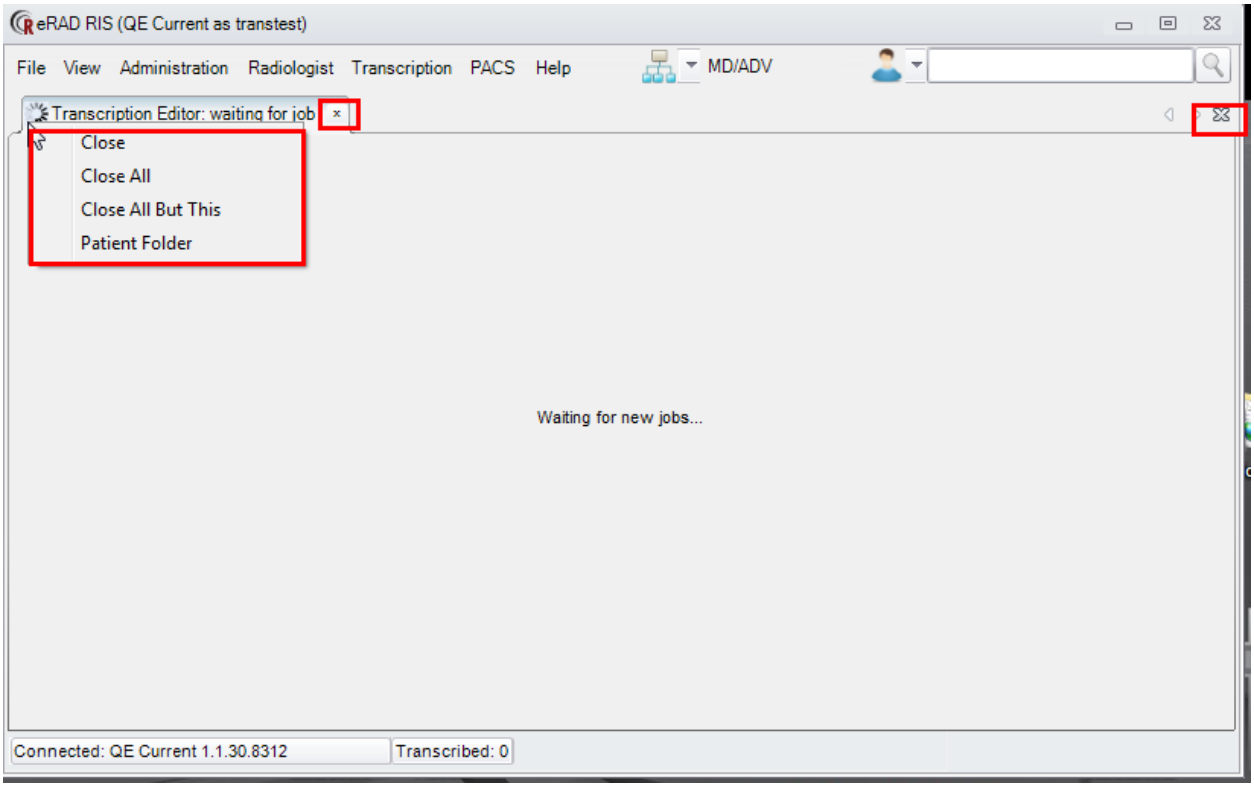



**Figure 4.8 – Closing Polling window**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Ability to Assign Reports without Clearing Fields '[ ]' from the Report

In the Report Editor window the report must have all of the pre-marked fields [ ] that are highlighted removed before the report can be transcribed (selecting the transcribed button).

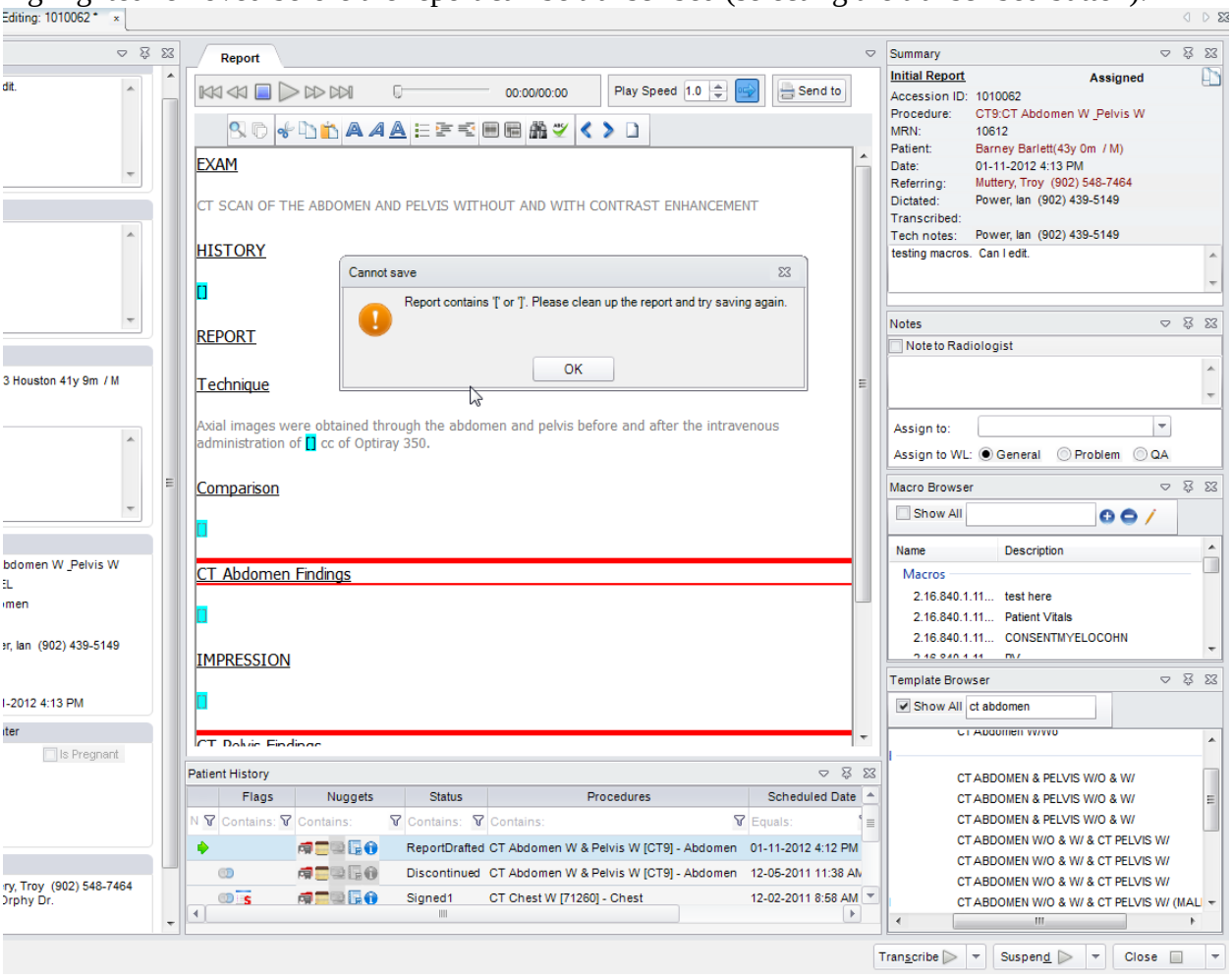



**Figure 4.9 – Display message that appears if the pre-marked fields are not removed from the report**

If the report is assigned to another Transcriptionist or to another WL the user will be permitted to select the Transcribe button with the pre-marked fields still in the report. The exam status does not change, but it moved to the selected work list, or remains in its current work list assigned to the designated user.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

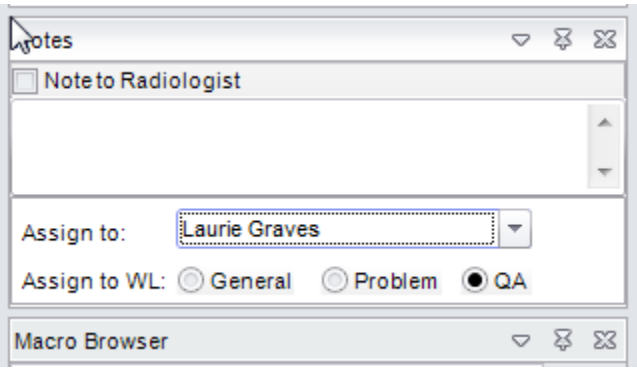
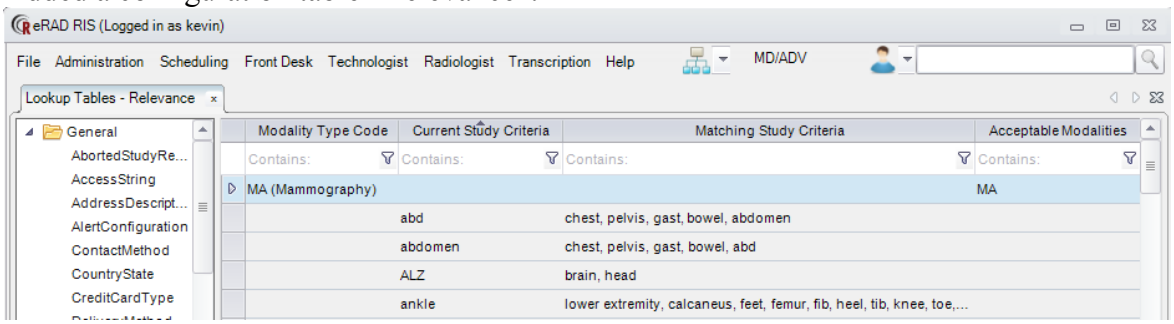



**Figure 4.10 – Notes data pane of report editor window showing the Assign to: list box and the Assign to WL.**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Relevance Flag

Added a configuration table "Relevance":




For the first entry in the above, Mammo studies of any body part will only be relevant if the modality for the other study is also a Mammo. Note: adb and abdomen are considered as possible body part strings and if they appear studies with "chest, pelvis, gast…" will be considered as relevant on any modality.

Each row represents a Relevance Rule. If any one of applicable relevance rules applies evaluate to True, then the matching study is marked as "Relevance_flag = 'Y'".

**ModalityTypeCode**: When a rule exists with a modality type cod, such as MA, then source studies of type MA will only be applicable to relevance rules that have "Modality Type Code" MA. If this is left blank then it's considered a generic rule and will apply to any source studies where there isn't already a modality type code based relevance rule.

**CurrentStudyCriteria**: If the word in this column exists in the source study description, then this rule is used.

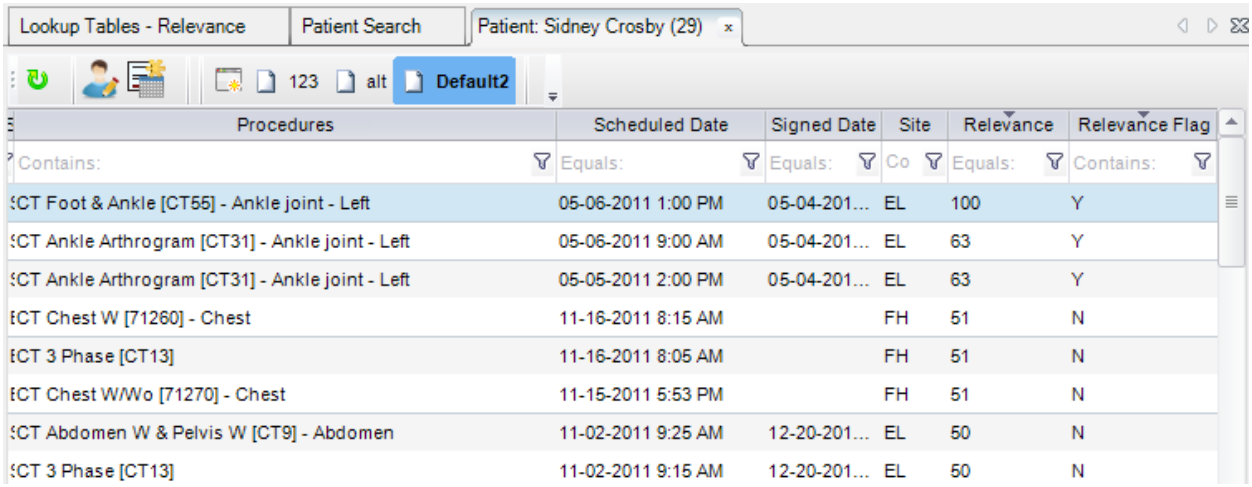
**MatchingStudyCriteria**: Comma separate list of words that must exist in the matching study. If other study matches one of the words in this field's comma separated list then it is considered Relevant. It is default behavior that we also include the word in the CurrentStudyCriteria. For example, where CurrentStudyCriteria contains **adb**, then it is a relevant if the other study contains **abd**, chest, pelvis, gast, bowel or abdomen.

**AcceptableModalities:** If specified, then matching studies must also be of one of the specified modality types. This acceptableModalities string can be a single modality type or a comma separated list of acceptable modality types.

For the first entry in the above screenshot, the source study of type Mammo will only be relevant if the modality for the other study is also a Mammo by leaving the "CurrentStudyCritiera" and "MatchingStudyCriteria" empty its equivalent to say any current study description and any MatchingStudyCriteria.

Also, added the work list Relevance Flag as shown in the following:

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.




In the above, the CT31 is most relevant to the other CT31 because they are the same study. Next is the CT Foot because it has the relevant flag and is of the Left ankle, the right angle even though it was performed on the same day as the previous study gets a lower relevance score of "79" instead of "81" because it has a different laterality.
We use much the same % relevance calculation (idea is for sorting) as before; however, the weight of date and procedure description match is given 50% to each. Also, the configuration from the l_relevance table also adds weight to the scores.
For the procedure description portion of the calculation, each matching word is given a score of .5; however, if the word is a modality type it's given a score of 1, if it's a body part a score of 2, a laterality gets a score of 3 and if it's a string in the Relevance rule it's given a score between 6 and 2. If it's a string in the relevance rule, 6 is given if it's the first word (in the comma separated list for the MatchingStudyCriteria column), while 2 would be given to the last item in the comma separated list. Finally the total score is divided the best possible score for that patient and scaled to 50%.

**Figure 4.11 – Preview Report from context menu**

## Access Strings Added

Added the following access strings to the lookup table AccessStrings
*** 'Config.LookupEditor.CountryState'
*** 'Config.LookupEditor.LabTest'
*** 'Config.LookupEditor.Relevance'

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

*** 'Clinical.UserPreferences.TranscriptionPolling'
*** 'Clinical.DeleteDictationReportResetStatus'
*** 'Clinical.AssignRadiologist'
*** 'Clinical.ChangeDictateByRadiologist'
*** 'Clinical.RequestImageCopy'
*** 'Clinical.EditSchedule'
*** 'Clinical.ChangeStatusExamDone'
*** 'Clinical.ChangeStatusCanceledStudy'
*** 'Clinical.EditDiagnosticReport'

## State Field Selection – List Box

In build 30 the State Field has been enhanced to change to a list box if the value for the Country field entered is US. The State field will change to a list box with each state listed as an available selection.

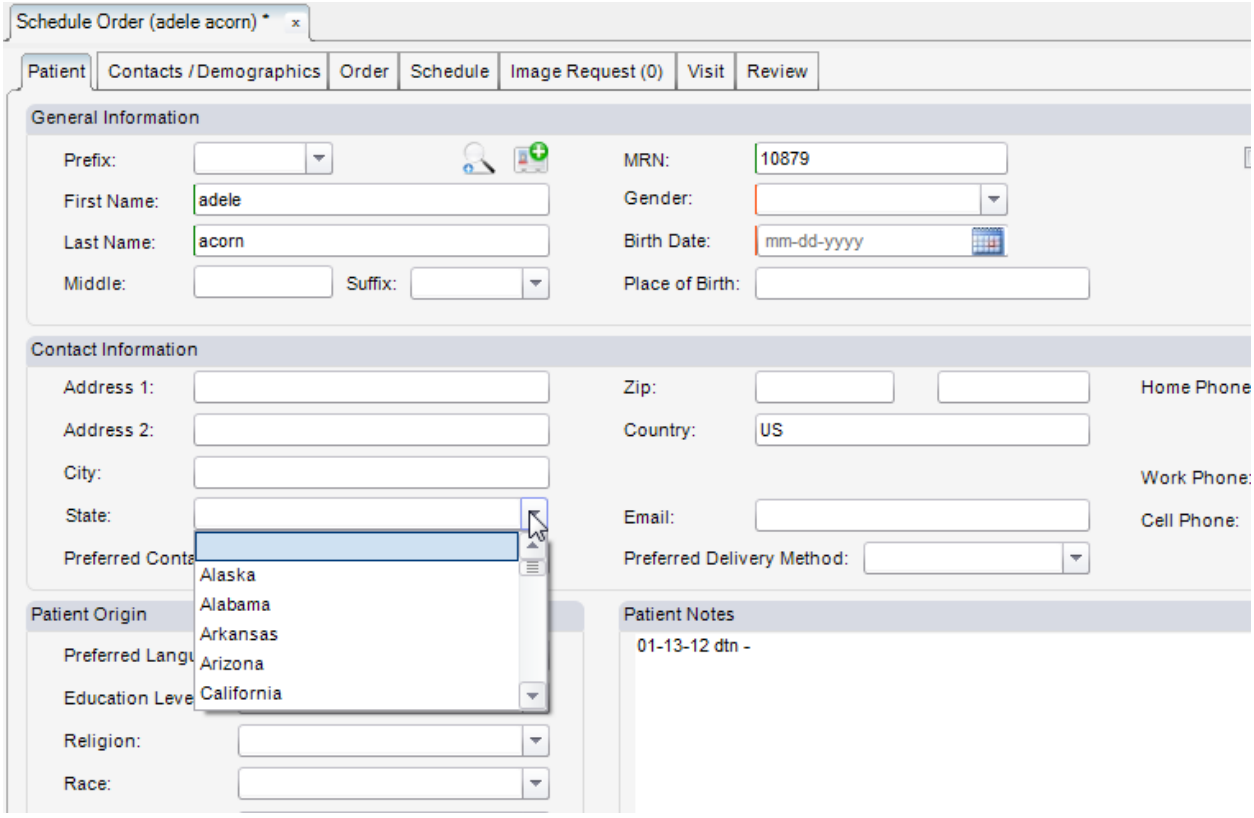



**Figure 4.12 – Displaying State field list box when country is US**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Manual Entry of Medication

On the Active Medications data pane the ability to Add / Edit / Delete medications has been added. Buttons to "Add or Edit" have been added to the data pane. Also a context menu on the medications data panel has the options to Add or Edit as well as Delete, as shown in the following:

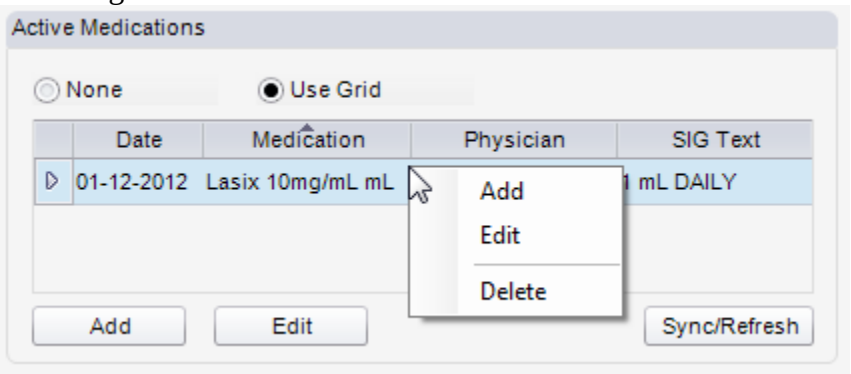



**Figure 4.13 – Active Medications data pane New context menu and Add / Edit buttons**

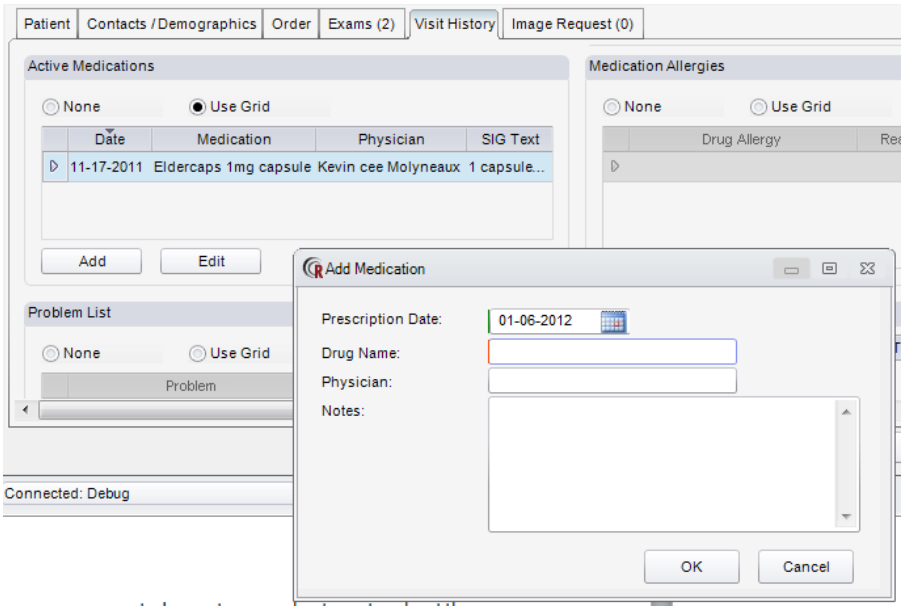



**Figure 4.14 – Add Medication window**

Also added a flag to the c_patient_medication table called "ris_entered_flag", which will keep ris entered medications when we sync with new crop and will allow us to edit only the ris_entered items.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Automated Measures – MU Requirement 170.302n

Meaningful User requirement # 170.302 n_AutomatedMeasure_Gen_PS_RevE.doc

***"170.302 n Automate measure calculation***. For each meaningful use objective with a percentage-based measure, electronically record the numerator and denominator and generate a report including the numerator, denominator, and resulting percentage associated with each applicable meaningful use measure.

Created a management to call stored procedure to display automated measures.(report is called MU Scorecard added it to the report server(Home > Dev > Meaningful Use ).

Added a number of new fields to our hidden MU tab used to capture measures

1) **Hidden MU tab(ctlr + M + U)**

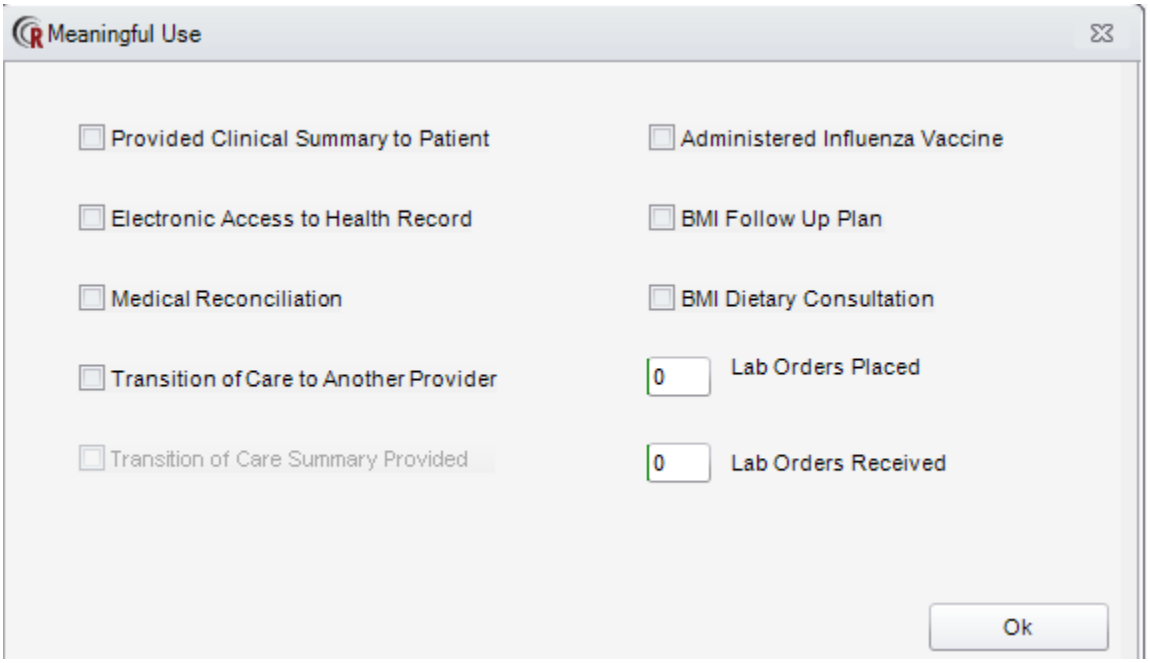



**Figure 4.15 – Hidden MU Tab**

a) **Provided Clinical Summary –** captures if a clinical summary was provided to the patient at any during the visit. Behind the scene the date is stamped when this checkbox was checked.
b) **Electronic Access to Health Record –** is used to capture timely access. Behind the scene the date is stamped when this checkbox was checked.
c) **Medical Reconciliation –** is used to capture if the Rad did any medical reconciliation on the patient during the visit.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

d) **Administered influenza vaccine –** Is used by CMQ to capture if influenza vaccine was administered during the visit.
e) **BMI Follow Up plan –** Is used by CMQ to capture if a follow up plan was suggested to the patient. Should never be used other than certification day.
f) **BMI Dietary Consultation -** Is used by CMQ to capture if a follow up plan was suggested to the patient. Should never be used other than certification day.
g) **Transition of Care to Another Provider –** if the patient is referred to another setting of care or provider.
h) **Transition of Care Summary Provided –** if the patient the is referred to another setting of care or provider and a patient summary record is provided.
i) **Lab Orders Placed –** used to capture if a lab order was requested.
j) **Lab Orders Received –** used to capture if a lab order results were retrieved.

2) **Other Automated Measures –**

a) **Transition of care** - must be checked if the patient is referred to the rad by a referring physician. In our case all exams should have this checked. Talking to Susan only mammo screening should not check this off.

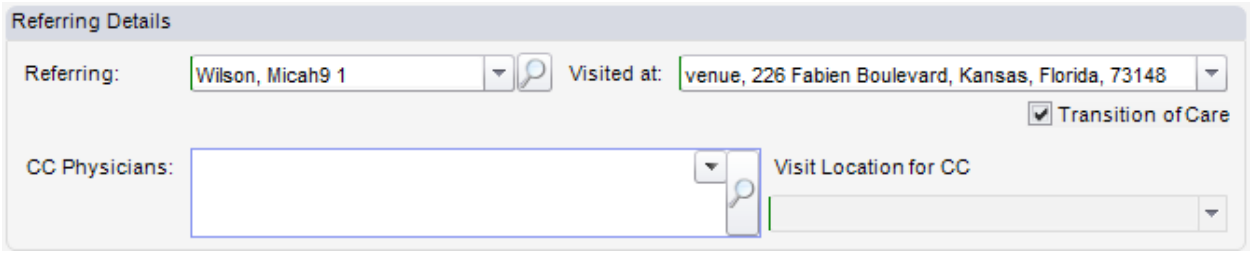



**Figure 4.17 – Referring Details**

b) **Provided Educational Resources –** if the patient was provided educational resources during visit this should be checked.

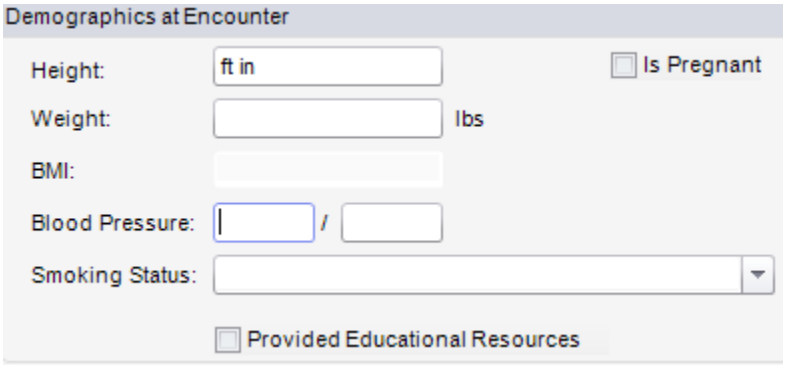



**Figure 4.17 – Demographics**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Clinical Quality Measures – MU Requirement 170.304j

Meaningful User requirement #
170.304j_CalculateClinicalQualityMeasures_Amb_PS_RevE.doc

"170.304 (j) Clinical Quality Measures This test procedure is organized into two sections:
Calculate clinical quality measures – evaluates the capability to electronically calculate
1. all six of the core clinical measures specified by CMS for eligible professionals and
2. at a minimum, three clinical quality measures specified by CMS for eligible professionals, excluding the

Submit calculated clinical quality measures – evaluates the capability to electronically submit calculated quality measures in accordance with the standard and implementation specifications.

Resolution
Core
c_mu_cqm_0013_hypertension –

a) The patient must be at least **18 years of age or older** at the start of the reporting period and have at least **two encounters** with the Rad during the reporting period.
b) An active diagnosis of **Hypertension(used icd-9 codes).** (401.0, 401.1, 401.9, 402.00, 402.01, 402.10, 402.11, 402.90, 402.91, 403.00, 403.01, 403.10, 403.11, 403.90, 403.91, 404.00, 404.01, 404.02, 404.03, 404.10, 404.11, 404.12, 404.13, 404.90, 404.91, 404.92, 404.93)
c) At least one **blood pressure reading (systolic and diastolic)** should be performed and documented during the reporting period in the Vital Signs chart section.

c_mu_cqm_0028a_tobacco_use –

a) The patient must be at least **18 years of age or older** at the start of the reporting period and have at least **two encounters** with the Rad during the reporting period.
b) The patient was queried about tobacco use one or more times within 24 months.

c_mu_cqm_0028b_tobacco_intervention –

a) The patient must be at least **18 years of age or older** at the start of the reporting period and have at least **two encounters** with the Rad during the reporting period.
b) Documentation that the patient is a tobacco user within the last 24 months.
c) An active diagnosis of Nondependent tobacco use disorder **(used icd-9 codes).**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

c_mu_cqm_0421a_weight_screening -

a) The patient must be at least **65 years of age or older** at the start of the reporting period and have at least **one encounter** with the Rad during the reporting period.
b) The number of patients in the denominator that have a normal BMI (BMI >= 22 or <30) OR an abnormal BMI (BMI >= 30 or <22) recorded in the Vital Signs chart section (BMI must be recorded in the six months prior to the encounter date or during the reporting period);

c_mu_cqm_0421b_weight_screening –

a) The patient must be aged 18 - 64 at the start of the reporting period and have had one encounter with the Rad during the reporting period.
b) The number of patients in the denominator that have a normal BMI (BMI >=18.5 or <25) OR an abnormal BMI (BMI >=25 or <18.5) recorded in the Vital Signs chart section (BMI must be recorded in the six months prior to the encounter date or during the reporting period);

Alternative Core

c_mu_cqm_0024_child_weight_assessment -

a) The patient must be aged 2 - 17 at the start of the reporting period and have had one encounter with the Rad during the reporting period.
b) And had BMI percentile documentation (V85.5, V85.51, V85.52, V85.53, V85.54**),** counseling for nutrition (V65.3) and counseling for physical activity (V65.41) during the reporting period. **(used icd-9 codes).**

c_mu_cqm_0038_childhood_immunization – missing

c_mu_cqm_0041_influenza_immunization -

a) The patient must be at least **50 years of age or older** at the start of the reporting period and have at least **two encounters** with the Rad during the reporting period.
b) And had an influenza shot during the flu season(Jan-Feb and Sept –Dec).
c) And have received influenza vaccine CVX code 111 or 140.

Optional

c_mu_cqm_0031_breast_screening -

a) The patient must be female aged 40 - 69 at the start of the reporting period and have had one encounter with the Rad during the reporting period.
b) At least one procedure should be a mammo type(Screening**).**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

c_mu_cqm_0043_pneumonia_vaccination -

a) The patient must be aged 65 at the start of the reporting period and have had one encounter with the Rad during the reporting period.
b) And have ever received a pneumococcal vaccine CVX code 100 or 133.

c_mu_cqm_0061_diabetes_blood_pressure –

a) The patient must be aged 18 - 74 at the start of the reporting period and have had one encounter with the Rad during the reporting period.
b) And had a diagnoisis of Diabetes recorded(used icd-9 codes): 250, 250.0, 250.00, 250.01, 250.02, 250.03, 250.10, 250.11, 250.12, 250.13, 250.20, 250.21, 250.22, 250.23, 250.30, 250.31, 250.32, 250.33, 250.4, 250.40, 250.41, 250.42, 250.43, 250.50, 250.51, 250.52, 250.53, 250.60, 250.61, 250.62, 250.63, 250.7, 250.70, 250.71, 250.72, 250.73, 250.8, 250.80, 250.81, 250.82, 250.83, 250.9, 250.90, 250.91, 250.92, 250.93, 357.2, 362.0, 362.01, 362.02, 362.03, 362.04, 362.05, 362.06, 362.07, 366.41, 648.0, 648.00, 648.01, 648.02, 648.03, 648.04
c) Patient in the reporting period last blood pressure reading must be <140/90 during the reporting period.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 5. Resolved Defects

Bugs, Suggested Features and Support Issues resolved in build 1.30. The extract is taken from Redmine bug tracking system and only displays defects resolved in 1.30.

| # | Status | Tracker | Priority | Subject | Category | Target version | Resolved Version |
|---|---|---|---|---|---|---|---|
| 796 | Closed | Bug | High | Creating duplicate user throws error | Admin Tools | 1.29 | 1.30.8182 |
| 795 | Closed | Bug | High | MT polling work flow. Once list is complete cannot close the editor window | Thick Client GUI | 1.29 | 1.30 |
| 790 | Closed | Bug | High | View / Edit data window prompts for required fields | Thick Client GUI | 1.29 | 1.30 |
| 778 | Closed | Bug | High | ePrescribing > Birth date being passed incorrectly to New Crop | Thick Client GUI | 1.28 | 1.30 |
| 771 | Closed | Bug | High | CQM 00043 Pneumonia Vaccination Status for Older Adults returns error | Thick Client GUI | 1.28 | 1.30 |
| 752 | Closed | Bug | High | Created a Business Hours Availability Template and error returned | Admin Tools | 1.27 | 1.30 |
| 732 | Closed | Bug | High | ** Exceptions Thrown when changing patient | | 1.25 | 1.30 |
| 731 | QE Rejected | Bug | High | ** Exception thrown (invalid cast) when attempting to add image requests before a patient is selected. | | 1.25 | 1.30.8227 |
| 715 | Closed | Bug | High | Application crash on Perform exam | Thick Client GUI | 1.26 | 1.30.8178 |
| 809 | Resolved | Bug | Normal | Error on New Appointment | Web Services/DB | 1.30 | 1.30 |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 808 | QE Rejected | Bug | Normal | After logging in get error on Dictation control | Thick Client GUI | 1.30 | 1.30 |
| 806 | Closed | Bug | Normal | Walk-In error when checking in | Thick Client GUI | 1.29 | 1.30 |
| 797 | Closed | Bug | Normal | Failed PACS Correction work list only moves one exam at time when forcing PACS Correction | Thick Client GUI | 1.29 | 1.30 |
| 794 | Closed | Bug | Normal | Patient Search window > Search by Phone number will throw error | Thick Client GUI | 1.29 | 1.30.8178 |
| 786 | Resolved | Bug | Normal | Resuming rRIS application. | Thick Client GUI | 1.28 | 1.30.8188 |
| 764 | Closed | Bug | Normal | Walk-In Error thrown after completing required fields. | Thick Client GUI | 1.28 | 1.30 |
| 755 | Closed | Bug | Normal | Logout with Newcrop window open throws error | Thick Client GUI | 1.27 | 1.30 |
| 730 | Closed | Bug | Normal | Permissions - Missing Lookup Access Strings | Admin Tools | 1.25 | 1.30.8232 |
| 441 | Closed | Bug | Normal | Add Patient - Age calculation | Thick Client GUI | 1.16 | 1.30 |
| 310 | QE Rejected | Bug | Normal | Appointment Book - Needs to default to a configurable start of day | Thick Client GUI | 1.12 | 1.30 |
| 252 | Closed | Bug | Normal | ScheduleGroup - Slowness when saving lookup | Web Services/DB | 1.11 | 1.30 |
| 833 | Resolved | Bug | High | Build 30 cannot run on Windows XP | Thick Client GUI | 1.30 | 1.30 |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 6. Known Limitations

The following are Bugs, Suggested Features, and Support Issues found in build 1.30. This build is the current QE build and testing is ongoing. The list may increase in size. This document will not be updated or re-released.

| # | Status | Subject | Category | Target version |
|---|---|---|---|---|
| 830 | New | View / Edit on a signed report will throw error on Report tab | Thick Client GUI | 1.30 |
| 824 | New | Removing Procedure can close RIS | Thick Client GUI | 1.30 |
| 819 | Resolved | “Inactive” lateral codes are showing up in scheduling screen. Any values “inactive” values in lookup should not be “selectable” in combo boxes. | Thick Client GUI | 1.30 |
| 816 | Resolved | State selection does not save | Thick Client GUI | 1.30 |
| 814 | New | Cannot preview reports | Thick Client GUI | 1.30 |
| 813 | New | Cannot access CDS Job Manager | Admin Tools | 1.30 |
| 832 | New | Demographics at encounter is duplicated | Thick Client GUI | 1.30 |
| 831 | New | Active medictations - Right click brings up 2 context menus on on column headers | Thick Client GUI | 1.30 |
| 829 | Resolved | Meaningful Use - Automated Measure report return duplicate user | Mgt Reports | 1.30 |
| 828 | New | Macro lookup - Cannot deactivate or delete a macro | Admin Tools | 1.30 |
| 827 | New | Assigning macros to other users includes all resource types | Thick Client GUI | 1.30 |
| 826 | New | Duplicate NPI throws exception | Thick Client GUI | 1.30 |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

| | | | | |
|---|---|---|---|---|
| 825 | Resolved | Inactive rooms appear in advanced scheduling | Thick Client GUI | 1.30 |
| 823 | New | Macros ignoring "assign to user" | Thick Client GUI | 1.30 |
| 822 | New | Remove access string Macro Editing Advanced tab and cannot edit macros | Thick Client GUI | 1.30 |
| 821 | New | Newly added access strings are not easily found in UserGroup Lookup editor | Thick Client GUI | 1.30 |
| 820 | New | View Images not available from login | Thick Client GUI | 1.30 |
| 818 | New | After bypass PACS correction no order to the next exam selected in work list when WL sorted by scheduled date | Thick Client GUI | 1.30 |
| 817 | New | Order of tabs for Order Signed | Thick Client GUI | 1.30 |
| 815 | New | External patient can be scheduled without creating an internal patient. | Thick Client GUI | 1.30 |
| 812 | New | Open dictate data window to add addendum will throw error | Thick Client GUI | 1.30 |
| 811 | New | GUI will not open to full size | Thick Client GUI | 1.30 |
| 810 | Resolved | advanced search times are not correct in relation to current system time | Thick Client GUI | 1.30 |
| 809 | Resolved | Error on New Appointment | Web Services/DB | 1.30 |
| 808 | QE Rejected | After logging in get error on Dictation control | Thick Client GUI | 1.30 |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# User Release Notes

for eRAD RIS
Version 1.0
Build 31

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Purpose ..... 3
2. Intended Audience ..... 3
3. Installing/Accessing the Application ..... 3
4. New Features and Enhancements ..... 4
   Mammo Callbacks, Recalls, Repeats ..... 4
   Mammo Follow Up – Breast Density ..... 11
   Mammo Follow Up – Contact Logging ..... 12
   Mammo Layletter Printing ..... 14
   Mammo Reminder, Short Term Followup, Call Back Printing ..... 21
   Mammo Follow Up Worklists ..... 26
   Password Change ..... 30
   Removal of Philips Device Control and Default Device ..... 32
   Reporting – RegFreeCom ..... 35
   Rewind Desktop Interactive Dictation ..... 36
   Tentatively Sign (AKA Sign Opps) ..... 37
   Updated Meaningful Use Permissions ..... 39
   Miscellaneous High Priority Items ..... 40
5. Resolved Defects ..... 41
6. Known Limitations ..... 43

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 1. Purpose

This document describes some of the new features and changes implemented in eRAD RIS as of the end of Sprint 31. This version of eRAD RIS is referred to as Build 1.31.

Only features which can be visually demonstrated to the user will be outlined in this document.

# 2. Intended Audience

This document is created by the RIS Development team for the RadNet RIS management team.

# 3. Installing/Accessing the Application

The installation guide for the eRAD RIS client have been posted to the RadNet Wiki page at http://mdbal01rdtweb/Wiki/

Under the RIS menu, click on the rRIS page. The credentials to access the page are:
Username: rRIS
Password: Summerside

*Please note that Build 1.31 is considered a new core release of the application and will require a reinstallation of eRAD RIS. This is accomplished by navigating to the eRAD RIS shared installation drive and running the CoreInstall.bat file (ex: I:\RISDeployment\CoreInstall.bat)*

If you experience difficulties accessing the application, please do not hesitate to contact Darcy Noye with the PEI RIS Development Team.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 4. New Features and Enhancements

## Mammo Callbacks, Recalls, Repeats

Birad and Recommendation both existed in previous builds. A new directory titled Mammography has been added to the Administration> Configure list of. Under this new directory are lookup tables for Breast Density, Pathology, MammoBiopsyTechnique, MammoBiopsyStage, MammoLetterConfig, and FollowUpType. The BIRAD and Recommendation lookups will be moved to this directory in the next build.

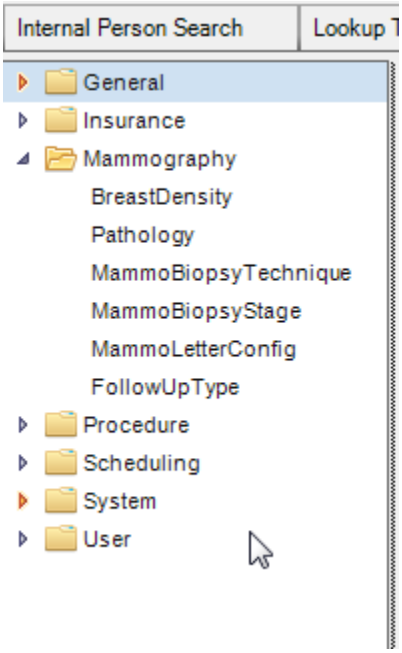



**Figure 4.1 – New Configure directory titled "Mammography"**

On a new install, an administrator can create BIRADS in the Birad editor and then create the Recommendations in the Recommendation editor.

By configuring the set of Recommendations for each BI-RADS level, the administrator can determine which short list of recommendations the Radiologist will see after indicating the BI-RADS code.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

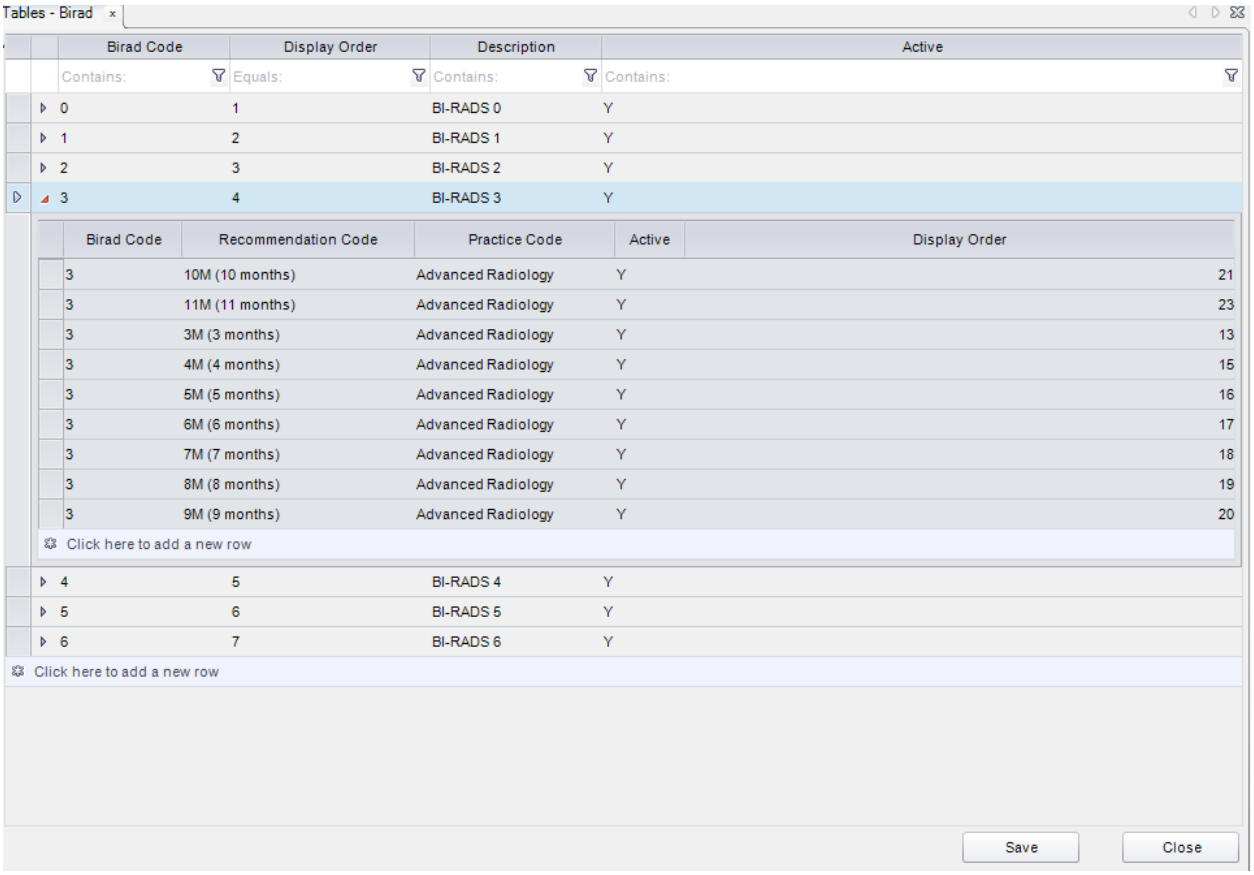



**Figure 4.2 – BIRAD editor. These are not expected to change after initial configuration**

Recommendations have been enhanced in the Mammography workflow in build 31. Looking at Figure 4.3 two new columns have been added to drive callbacks, recalls, invitations, and repeats. The Follow-up Days column was added to trigger the creation of a new order with a particular "target date" for scheduling. The procedure code column will determine which procedure code should be used for the new order. If procedure code is null, the new order will use the same procedure code as the original study.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

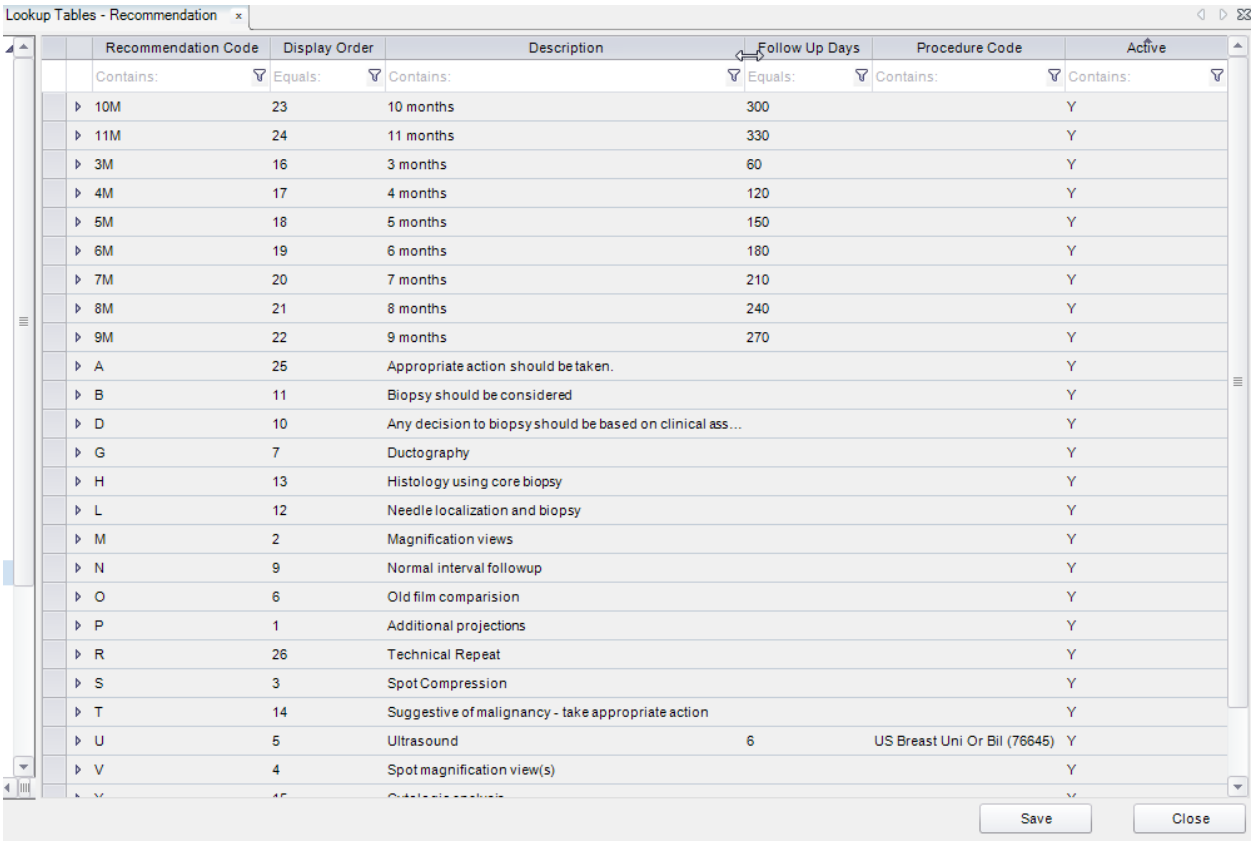



**Figure 4.3 – Recommendation lookup**

Follow-up Orders are created as required when the Radiologist signs a report. The backend services will determine if a follow-up order is required by looking at the Radiologist's recommendation.

A new order will not be created unless the Radiologist selects a recommendation that has an associated "Follow Up Days" or "Procedure Code".

The following table shows how the status of the new order is determined:

| Follow-Up Order Status | Condition |
|---|---|
| Callback | If the recommendation includes a procedure code, the callback status will be used. The order will have the procedure code that is indicated by the recommendation, instead of what was initially performed. |
| Short Term Follow Up | If the recommendation includes a follow-up days that is less than 365, the follow-up order will have a Short Term Follow Up status and a target schedule date of Date Of Service + |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

| | |
|---|---|
| | follow-up days. Procedure code will be the same as the original study. |
| Invitation | If the recommendation includes a follow-up days that is 365 or greater, the follow-up order will have a status of Invitation and a target schedule date of Date Of Service + follow-up days. Procedure code will be the same as the original study. |

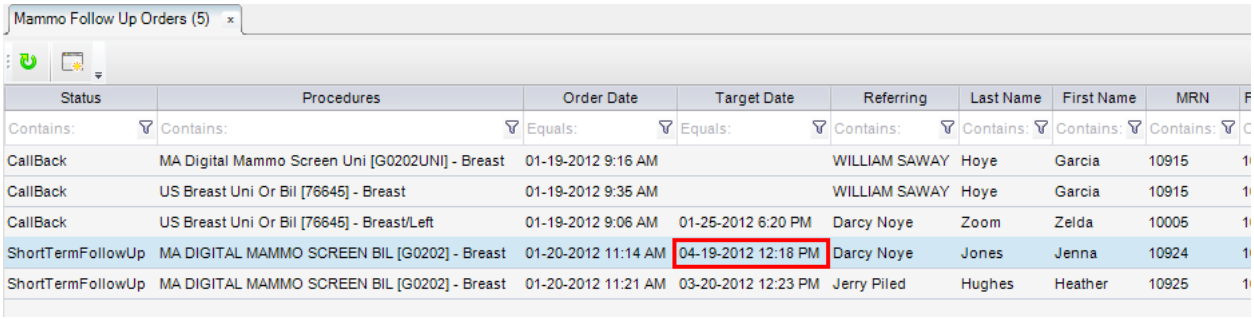
BI-RADS play an indirect role in determining the behavior of the follow-up order creation process. The BI-RADS code will determine which recommendations are presented to the Radiologist, and the selected recommendation will determine the workflow from that point. BI-RADS 0, 4, and 5 are given special treatment however, even though follow-up orders are not automatically generated.
There is a BI-RADS 0 Follow-up Work list and a BI-RADS 4/5 Follow-up Work list from which the user can manually schedule additional procedures, log contact and follow-up attempts, enter biopsy and pathology information, etc. The 0 and 4/5 follow-up worklist and the biopsy, pathology, and contact logging will be discussed in separate documents.
Note: Invitations will not be generated for male patients as males are excluded from reminder letter workflow. The behavior that skips male patients for invitations will be enhanced to look at other criteria such as a patient or study level flag that indicates that an invitation/reminder letter should not be sent.

**Follow-up Order attributes**

The follow-up order will have a status that is determined based on the logic in the section above. It will also have a key reference to the study that caused the creation of the order. The reference to the original study is required in case the Radiologist addends the report and changes the recommendation. In this case, the backend services will modify the existing follow-up order as appropriate (i.e. update the target schedule date and the status), in order to ensure we are not generating multiple follow-up orders for the same study.

In addition, a target date for scheduling will be set if applicable, based on the follow up days of the recommendation.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.




| Status | Procedures | Order Date | Target Date | Referring | Last Name | First Name | MRN |
|---|---|---|---|---|---|---|---|
| Contains: | Contains: | Equals: | Equals: | Contains: | Contains: | Contains: | Contains: |
| CallBack | MA Digital Mammo Screen Uni [G0202UNI] - Breast | 01-19-2012 9:16 AM | | WILLIAM SAWAY | Hoye | Garcia | 10915 |
| CallBack | US Breast Uni Or Bil [76645] - Breast | 01-19-2012 9:35 AM | | WILLIAM SAWAY | Hoye | Garcia | 10915 |
| CallBack | US Breast Uni Or Bil [76645] - Breast/Left | 01-19-2012 9:06 AM | 01-25-2012 6:20 PM | Darcy Noye | Zoom | Zelda | 10005 |
| ShortTermFollowUp | MA DIGITAL MAMMO SCREEN BIL [G0202] - Breast | 01-20-2012 11:14 AM | 04-19-2012 12:18 PM | Darcy Noye | Jones | Jenna | 10924 |
| ShortTermFollowUp | MA DIGITAL MAMMO SCREEN BIL [G0202] - Breast | 01-20-2012 11:21 AM | 03-20-2012 12:23 PM | Jerry Piled | Hughes | Heather | 10925 |

**Figure 4.4 – Target date from Mammo Follow Up Orders**

When a user attempts to schedule an order with a target schedule date, the scheduling screen should set the start date search criteria automatically. E.g. if a scheduler opens up a study 2 weeks before the target schedule date, the start date should be 2 weeks in the future, instead of set to the current date. The scheduler will have the ability to massage the start date range if required.

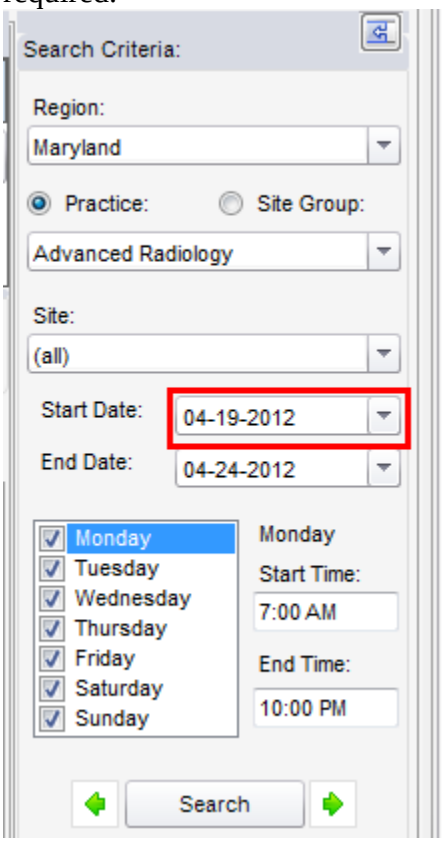



**Figure 4.5 – Search Criteria start date determined by the target date of the Mammo Follow Up.**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

The target schedule date is currently calculated based on the date of service + the follow up days associated with the recommendation. We may need to add a "Back on schedule" checkbox for cases where the current study is a follow-up of a previous mammography exam and the patient was late. E.g. if a patient is supposed to come in every 6 months and they are two months late, "back on schedule" would massage the target date such that the patient is due back in 4 months.

Currently all follow-up orders will be visible in the Patient Folder. Call Backs and Invitations will be placed on a work list tentatively titled "Mammo Follow-Up Orders" which will be described in a separate document. Invitations will be used to help drive the reminder letter workflow, which will be described in a separate document.

**Follow-up Order procedure code**

The procedure code for the Follow-up order will be the same as the original procedure, unless there is an override attached to the recommendation (e.g. mammo diag ultrasound breast). The system cannot currently replace a single procedure with 2 follow-up procedures.
In the event that there is no procedure code override attached to the recommendation, the follow-up order will use the same body part and laterality as the original study.

**Technical Repeats** (currently a known limitation is preventing this feature to be used. This will be corrected in the next build)

The Radiologist can sign a report with BI-RADS 0 and a recommendation of Technical Repeat. This will send the exam to a BI-RADS 0 Follow-Up worklist (discussed later). A user can then choose "Create Technical Repeat" once they have the patient on the phone and they are ready to schedule a new time.
The Technical Repeat will be a study that starts off in Scheduled status and has the same accession number as the original study.
Repeats are walked through the workflow and performed by the technologist as if they were a regular exam.
When the Radiologist picks up the Exam from the Exam Done Worklist, they will be prompted to create an addendum, and they should see both the original and the new images in PACS. The addendum will be associated with the original exam, not with the Technical Repeat. The tech notes from the technical repeat will be merged into the technotes from the original study.
After the Rad dictates or signs off on the addendum, the technical repeat will move to a final status of RepeatDone. It will be visible from Patient History but not from any of the other status driven worklists.
A Technical Repeat should bypass billing, the original exam itself is the study that will be billed.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

Technical Repeats will not function as designed (with respect to opening the new images on the pacs) unless/until our PACS integration framework passes over the accession number (+MRN?) instead of simply sending over study instance UID.
Note: the reporting screen does not look for the recommendation description of "Technical Repeat", it looks for the recommendation code that is specified by the system config setting: TechnicalRepeatRecommendationCode (in the futures branch this is set to "R" which maps to the recommendation code/description "R"/"Technical Repeat".

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Mammo Follow Up – Breast Density

A new lookup table has been added under the Mammography directory.

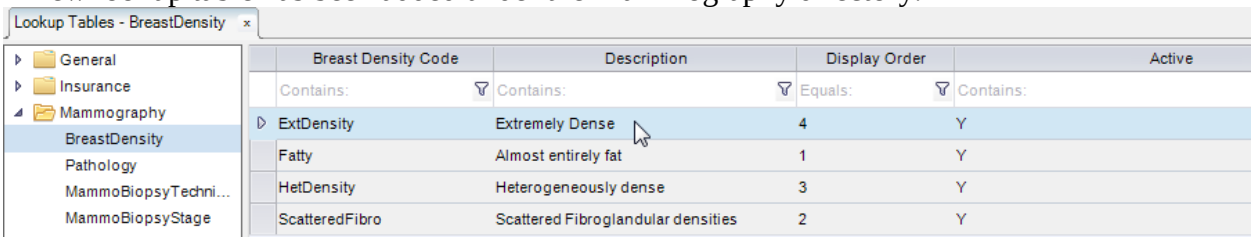



**Figure 4.6 – Breast Density lookup table**

Breast Density table contains the values the will be available to the Radiologist user. The Tissue Density dropdown list mimics the behavior of the BI-RADS and Recommendation dropdown lists. These controls only become visible when the radiologist opens an exam that has a procedure code that has "BIRAD ENABLED FLAG" set to "Y"

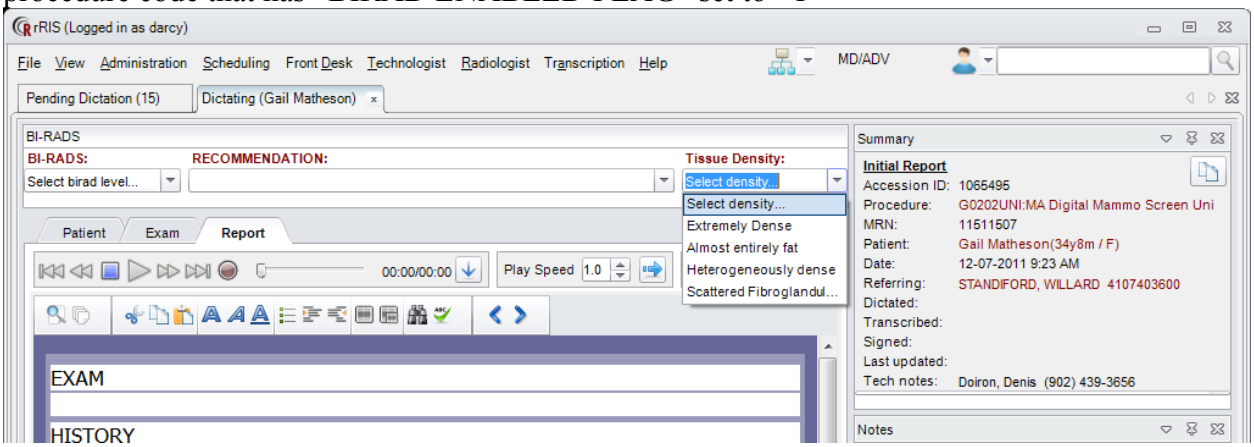



**Figure 4.7 – Tissue Density drop down list.**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Mammo Follow Up – Contact Logging

Contact logging was added to the Mammo Follow Up work lists of ACR Cat. 0 Follow-Up and ACR Cat. 4/5 Follow-Up. Columns on the work list track the "Last Follow Up date, Method of Last Follow-Up and Follow Up Attempts".

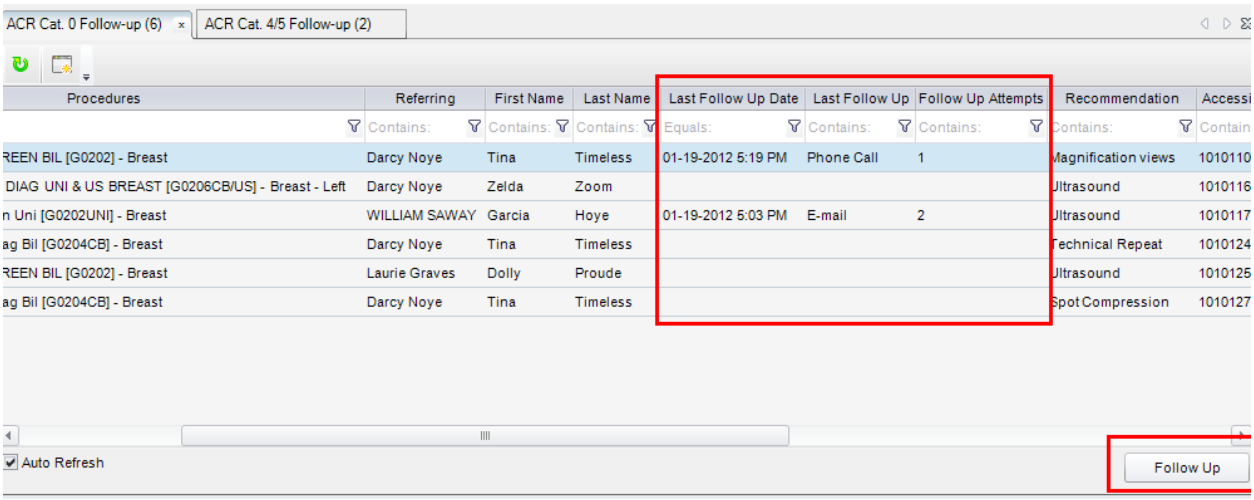



**Figure 4.8 – Follow Up work list displaying Follow Up columns**

The "Follow-Up's" are created from the Follow-Up data window.

The main grid sits on the Follow Up tab and shows a summary of the follow-up activity on the current exam. The yellow sticker icon means there are notes/comments attached to the follow-up entry.
The user can double-click or highlight a follow-up and click view to see the full details on a pop-up dialog.

The Figure below shows the Follow Up tab displaying the contact attempts. The Add button has been selected displaying the Follow Up Details window.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

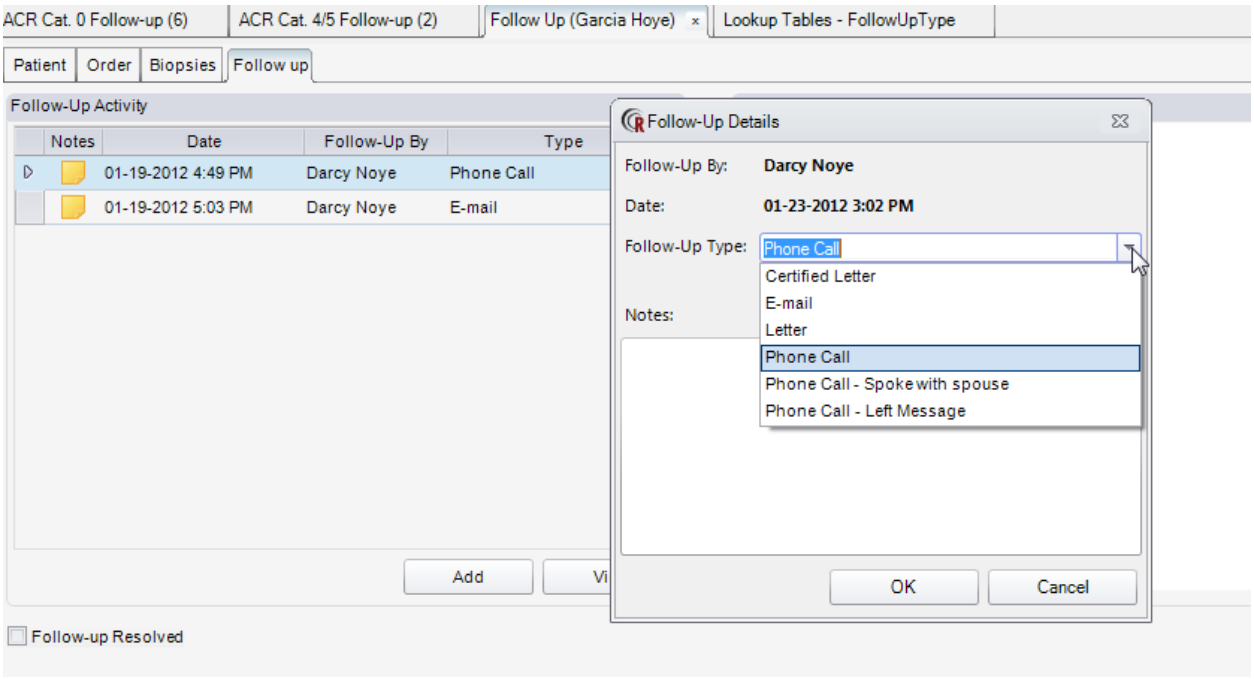



**Figure 4.9 – Entering Follow Up.**

A list box within the window has various Follow Up values from a lookup table was created in the Administration -> Configuration screen to allow the administrator to define a set of Follow-Up codes for the user to choose from on the Follow-Up Details pop-up dialog. An administrator can configure new follow-up types as required to increase the value of the information on the work list.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Mammo Layletter Printing

Lay Letter printing has been added to build 31. The SystemConfig table has new values to specify default letters for each BIRAD category.

| System Config Code | Value | Default | Description |
|---|---|---|---|
| Contains: | Contains: | Contains: | Contains: |
| LayletterBIRAD0Default | /QE Current/Forms/Generic Mammo Lay Let... | | (value = path and name) The path and name... |
| LayletterBIRAD1Default | /QE Current/Forms/Generic Mammo Lay Let... | | (value = path and name) The path and name... |
| LayletterBIRAD2Default | /QE Current/Forms/Generic Mammo Lay Let... | | (value = path and name) The path and name... |
| LayletterBIRAD3Default | /QE Current/Forms/Generic Mammo Lay Let... | | (value = path and name) The path and name... |
| LayletterBIRAD4Default | /QE Current/Forms/Generic Mammo Lay Let... | | (value = path and name) The path and name... |
| LayletterBIRAD5Default | /QE Current/Forms/Generic Mammo Lay Let... | | (value = path and name) The path and name... |
| LayletterBIRAD6Default | /QE Current/Forms/Generic Mammo Lay Let... | | (value = path and name) The path and name... |

**Figure 4.10 – SystemConfig table displaying new Config Codes for LayLetters**

The default values for system config layletter paths can be overridden by values in the Forms and Labels lookup editor.

FORMS AND LABELS – Custom LayLetter for each appropriate BIRAD can be configured for each PRACTICE in the Forms and Labels configuration screen. If not defined, no letter will be available of on demand printing via right click print forms. On demand printing can still be accomplished via right click, distribution→ distribution history and re-sending the layletter for back end printing.
If no custom template is defined for practice. Document distribution engine will use the system default Layletter template.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

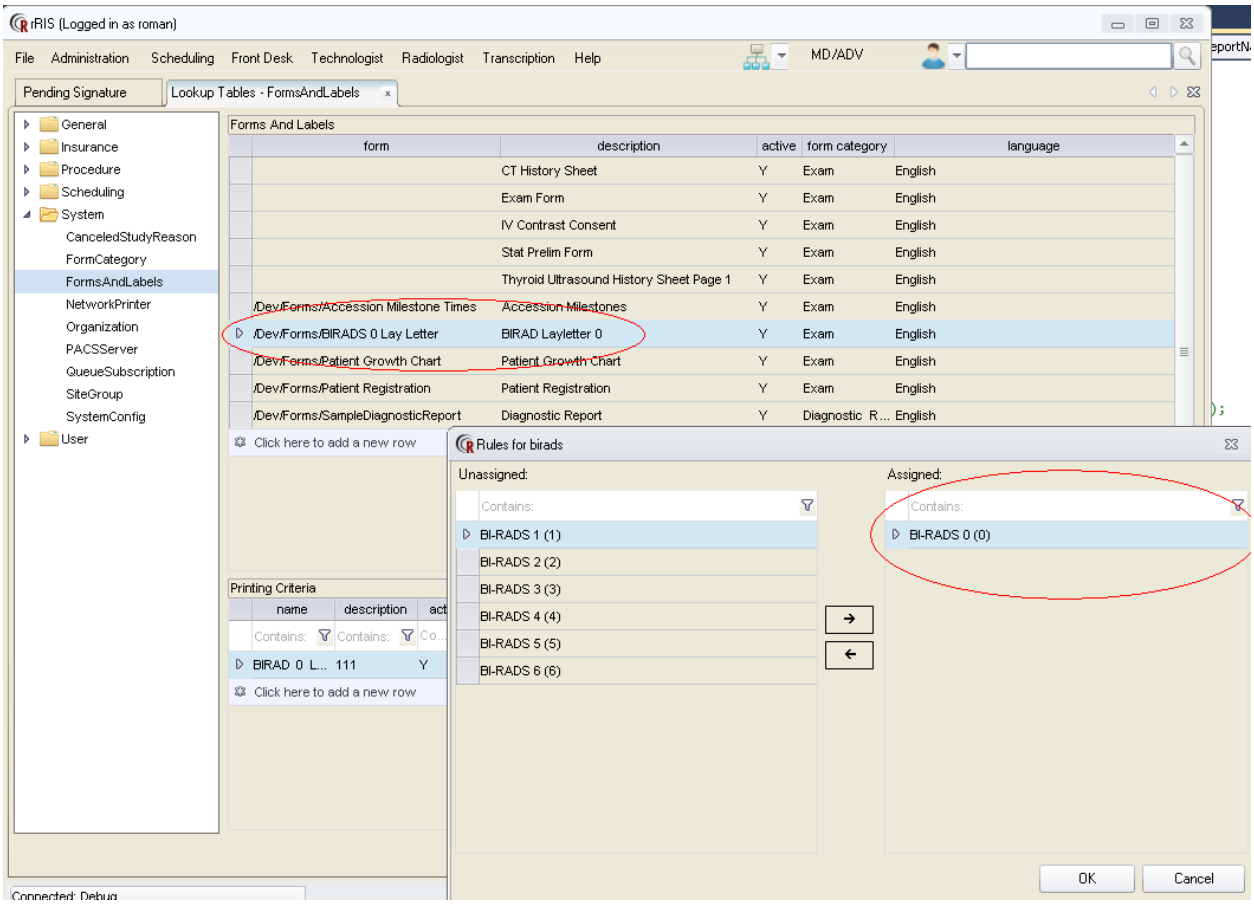



**Figure 4.11 – Forms and Labels displaying a configured BIRAD Layletter**

FORM CATEGORIES - Form categories for mammography letter forms have been made static ( system locked – for mammography and other purposes. Categories “Diagnostic Report”, “Layletter”, “Recall Letter”, “Call Back Letter” , “Short Term Followup” → system will not allow a user to delete or change the name of these 3 categories.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

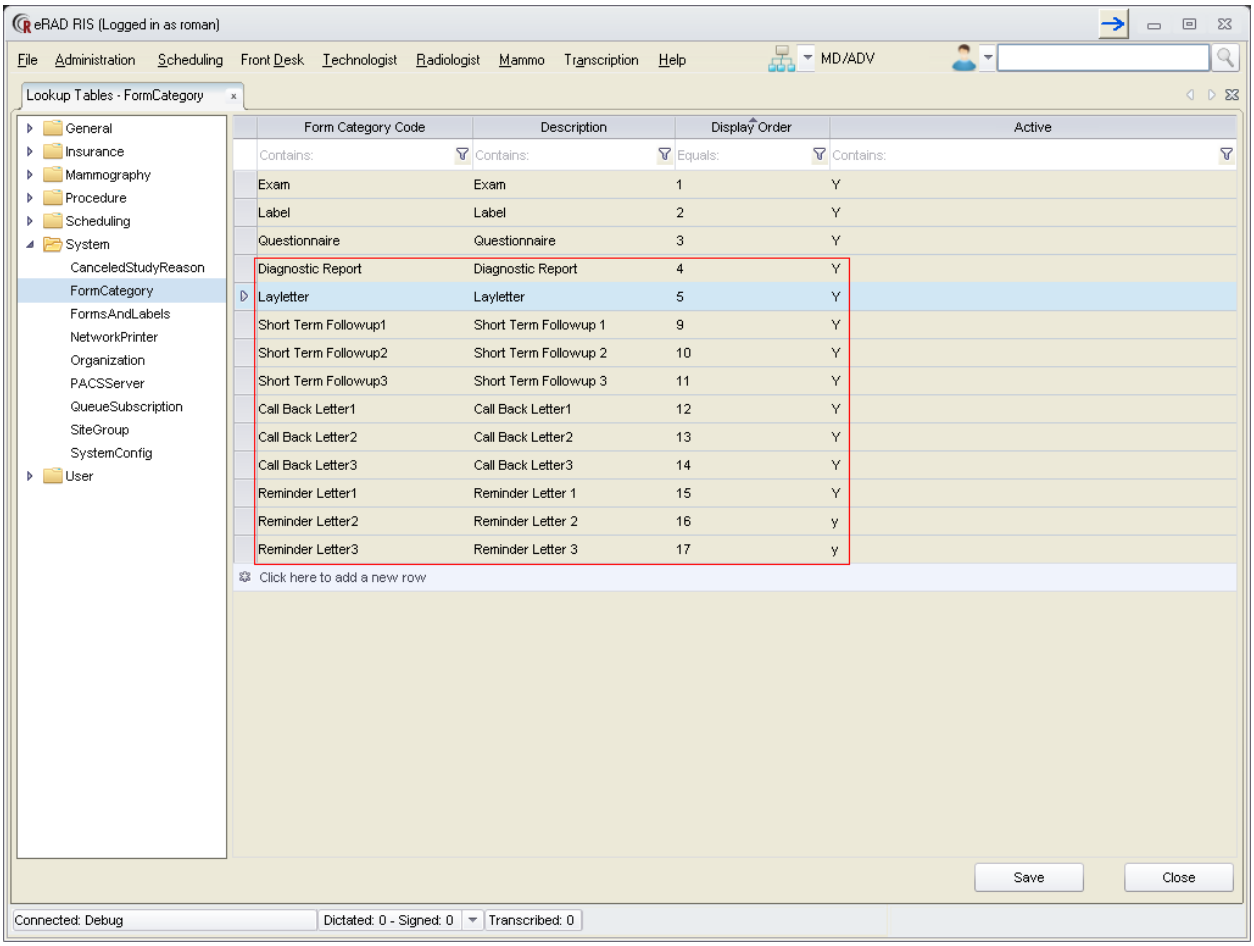



**Figure 4.12 – Form Category for Layletters, Callback, Short Term Follow Up and Reminder Letters**

If patients diagnosis BIRAD code / PRACTICE matches the layletter code assigned and the study is in “Signed1” status, the letter will be available for printing from the patient history work list, by right clicking the study and selecting “Print Forms”. (To print to the local printer)

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

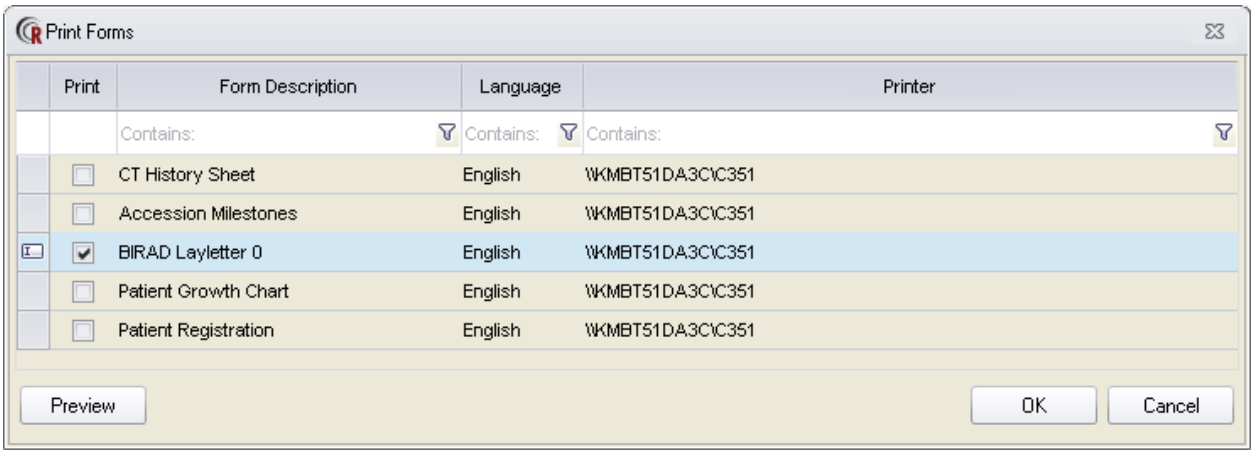



**Figure 4.13 – Print Forms displaying Layletter specified in Forms and Labels lookup editor**

Alternative method of on demand printing is by accessing the document distribution history via right click.

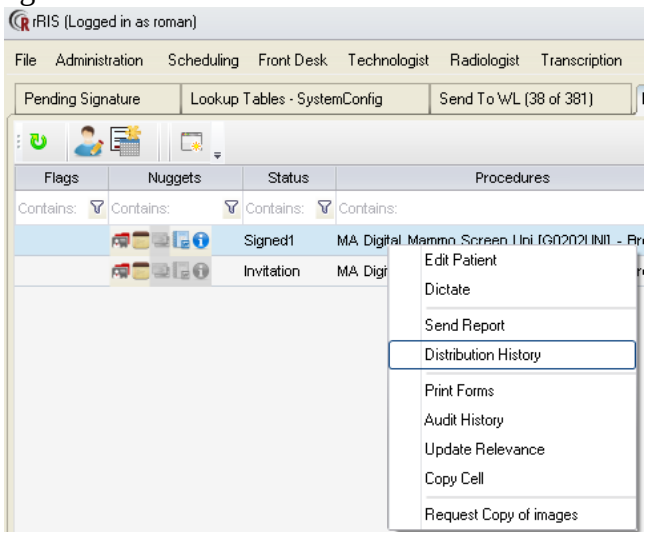



**Figure 4.14 – Accessing Distriubtion History from patient folder.**

Selecting the layletter for the exam and hitting the “Start / Restart Job” to print a copy of the letter to the back end printer.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

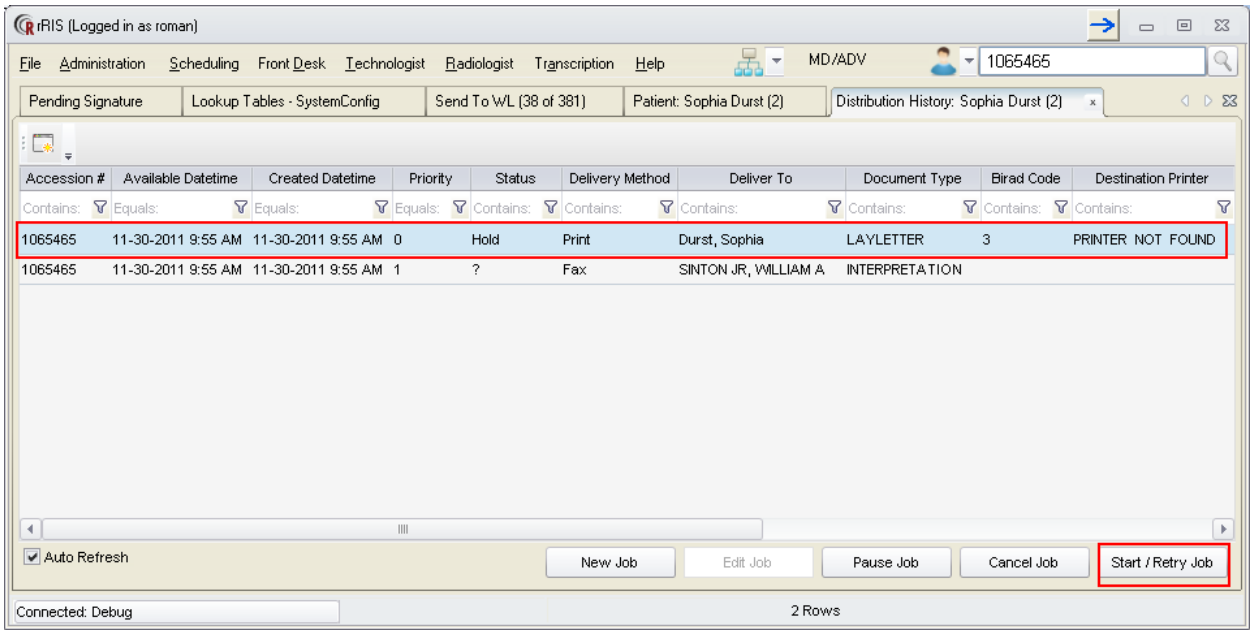
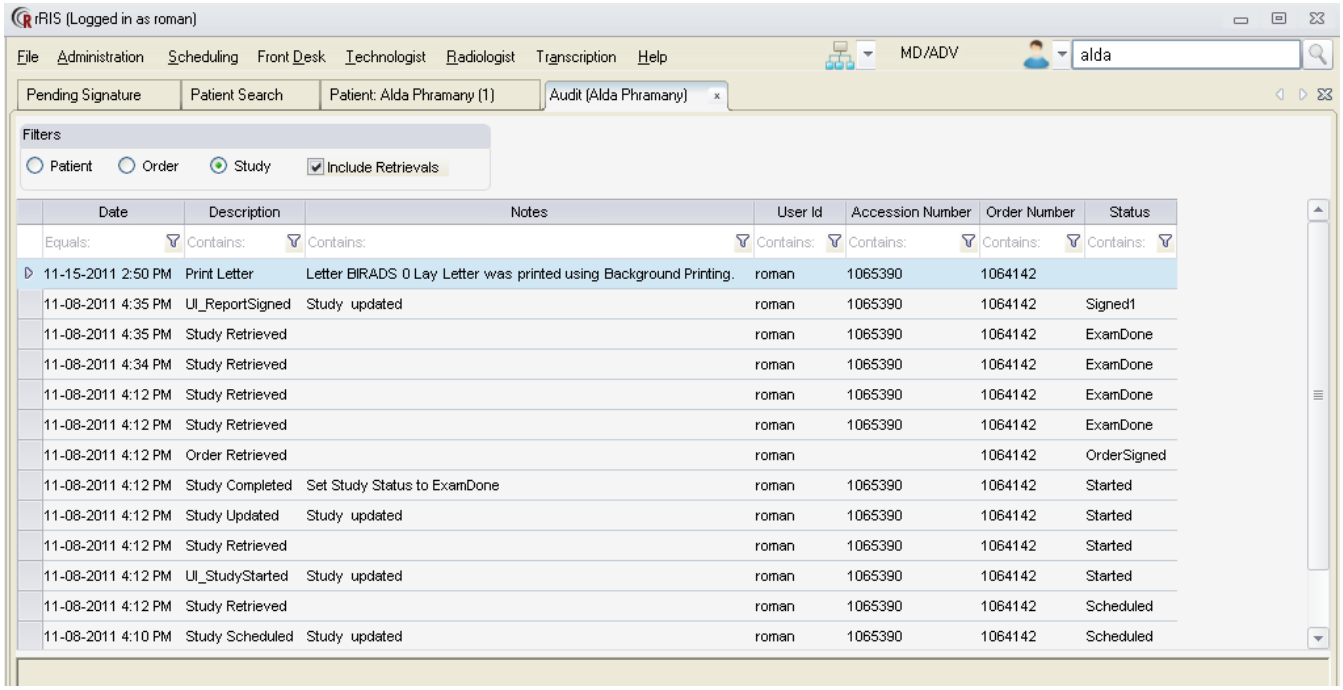



**Figure 4.15 – Distribution History Work List**

NOTE: Document Distribution History work list will not allow a user to resume a Layletter job that was cancelled by the DDE engine (as in this case a newer version / newer diagnosis layletter was created). Only user cancelled layletters can be retried.

When the letter is created, automatically printed or (replaced with a newer version by the system) an entry will be logged in the Audit History:

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.




| Date | Description | Notes | User Id | Accession Number | Order Number | Status |
|---|---|---|---|---|---|---|
| 11-15-2011 2:50 PM | Print Letter | Letter BIRADS 0 Lay Letter was printed using Background Printing. | roman | 1065390 | 1064142 | |
| 11-08-2011 4:35 PM | UI_ReportSigned | Study updated | roman | 1065390 | 1064142 | Signed1 |
| 11-08-2011 4:35 PM | Study Retrieved | | roman | 1065390 | 1064142 | ExamDone |
| 11-08-2011 4:34 PM | Study Retrieved | | roman | 1065390 | 1064142 | ExamDone |
| 11-08-2011 4:12 PM | Study Retrieved | | roman | 1065390 | 1064142 | ExamDone |
| 11-08-2011 4:12 PM | Study Retrieved | | roman | 1065390 | 1064142 | ExamDone |
| 11-08-2011 4:12 PM | Order Retrieved | | roman | | 1064142 | OrderSigned |
| 11-08-2011 4:12 PM | Study Completed | Set Study Status to ExamDone | roman | 1065390 | 1064142 | Started |
| 11-08-2011 4:12 PM | Study Updated | Study updated | roman | 1065390 | 1064142 | Started |
| 11-08-2011 4:12 PM | Study Retrieved | | roman | 1065390 | 1064142 | Started |
| 11-08-2011 4:12 PM | UI_StudyStarted | Study updated | roman | 1065390 | 1064142 | Started |
| 11-08-2011 4:12 PM | Study Retrieved | | roman | 1065390 | 1064142 | Scheduled |
| 11-08-2011 4:10 PM | Study Scheduled | Study updated | roman | 1065390 | 1064142 | Scheduled |

**Figure 4.16 – Audit History**

Also, all user actions for putting the job on Hold, Cancelling, Starting / Retrying the job will be audited to the system audit log.

**BULK Layletter Printing Workflow:**

Layletters will be automatically submitted to the Document Distribution Engine when an exam is Signed. The printer selection will be made in the same way the DDE engine currently selects the printer for diagnostic reports. (BASED on network printer configured to the Site). DDE back end printing Layletter jobs when queued will be automatically placed in HOLD status (not to tie up the printer). Administrative staff will need to open the DDE work list at the end of the day, multi select the layletters to be printed and select to START the jobs. (Recommend creating a LAYLETTER filtered view on the Document Distribution Work list for this purpose).

While the Job is in any status other than Completed, if diagnosis is changed on the exam ( ex. Addendum with different BIRAD reading), the lay letter in the DDE worklist will be cancelled and a new job with a newer letter will be generated.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

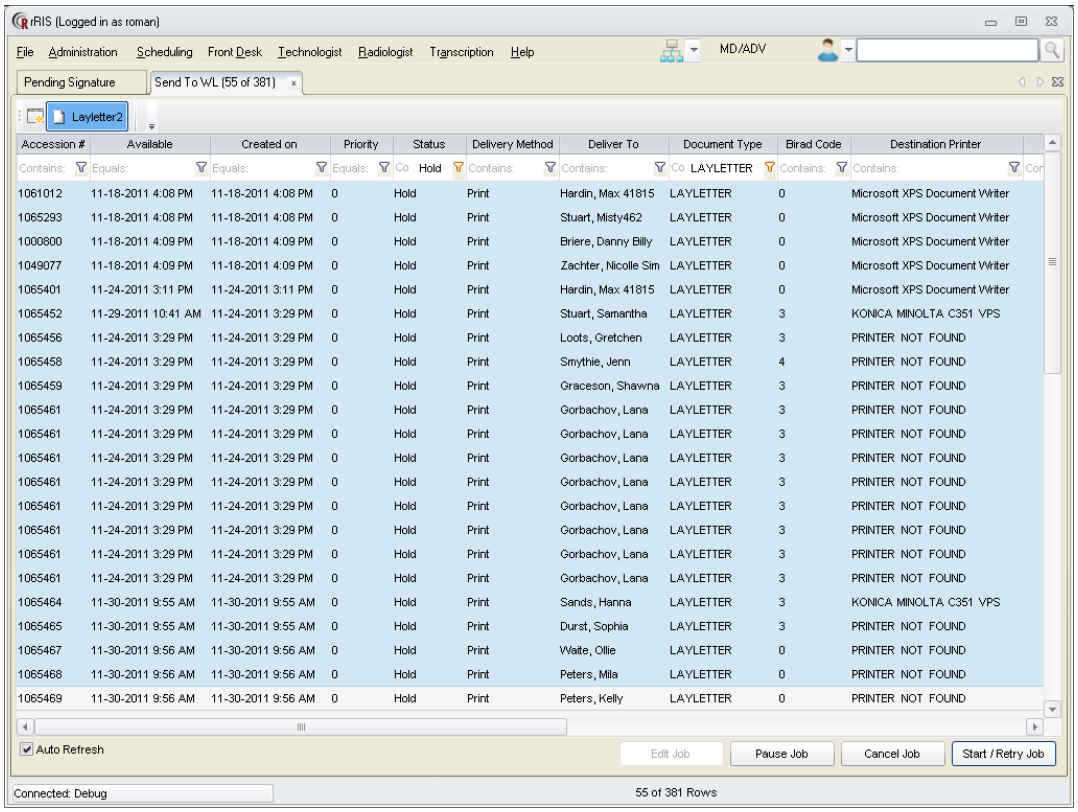



**Figure 4.17 – Send To work list, printing bulk layletters**

Document Distribution Engine will attempt to dynamically pick a template for each Layletter as per configuration in the FORMS and LABELS screen. (Considering only criteria of BIRAD + PRACTICE).

If there is no template specified for (BIRAD + PRACTICE), DDE engine will use a System template for BIRAD from the SystemConfiguration table. If for some reason multiple templates are configured for (BIRAD + PRACTICE) → mis-configuration. DDE engine will pick the first available template.

Edit Job → Edit Job button is disabled on the DDE work list when working with a lay letter. Edit Job button is specific to sending diagnostic reports (to change fax number or recipient) so not applicable to layletters.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Mammo Reminder, Short Term Followup, Call Back Printing

A method to print Reminder, Short Term Followup and Call Back letter printing was needed. These letters
Configuration:
**FORM CATEGORIES** - Form categories for mammography letter forms have been made static (system locked – for mammography and other purposes. Categories "Diagnostic Report", "Layletter", "Recall Letter", "Call Back Letter" , "Short Term Followup" → system will not allow a user to delete or change the name of these 3 categories.

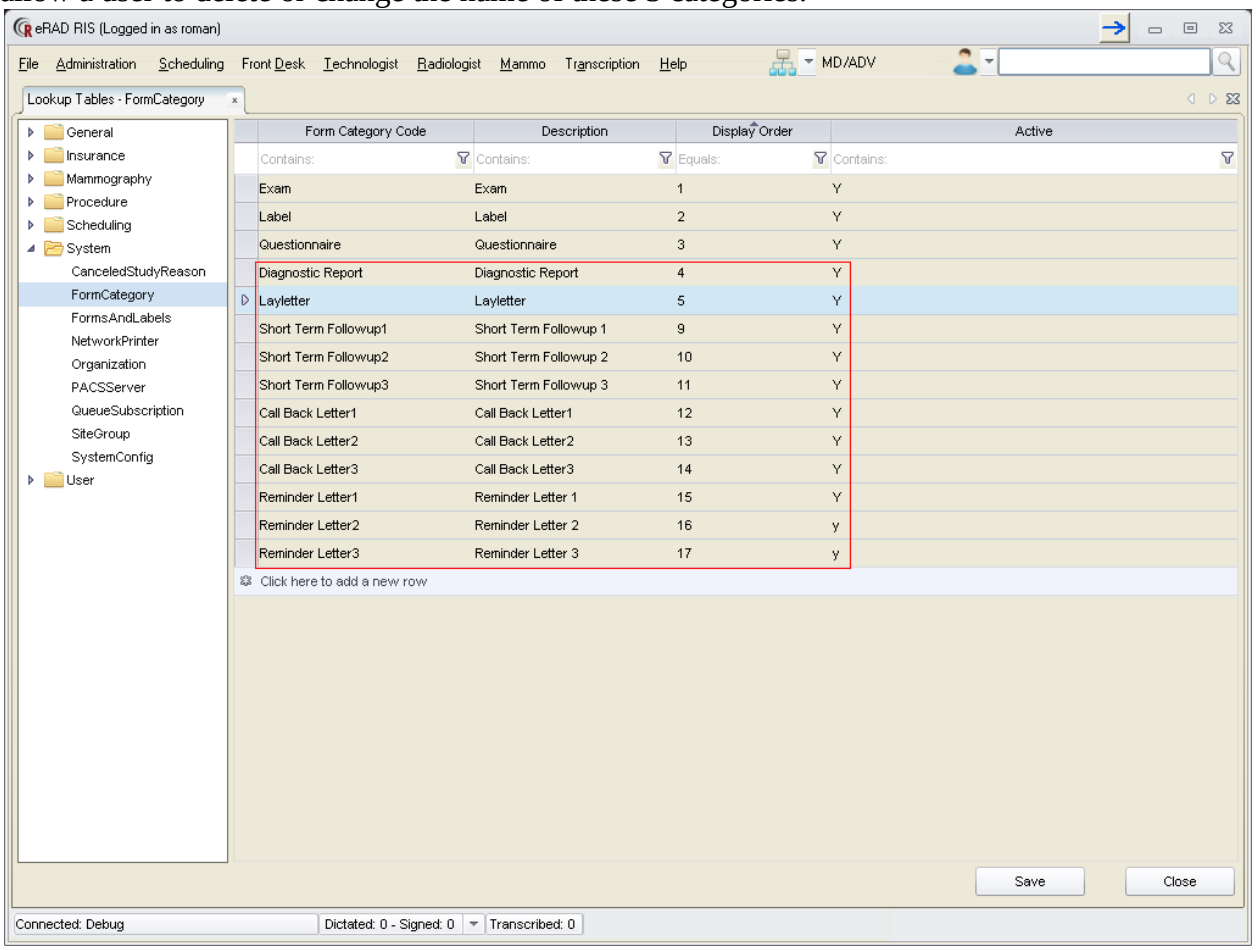



**Figure 4.18 – Form categories for Short Term, Callback and Reminder letters created**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

FORMS AND LABELS – 3 Custom letters can be created for each letter category for each PRACTICE in the Forms and Labels configuration screen. If not defined, a system default letter will be used.
Mapping a mammography letter to PRACTICE is the only mapping configuration Document Distribution Engine uses.

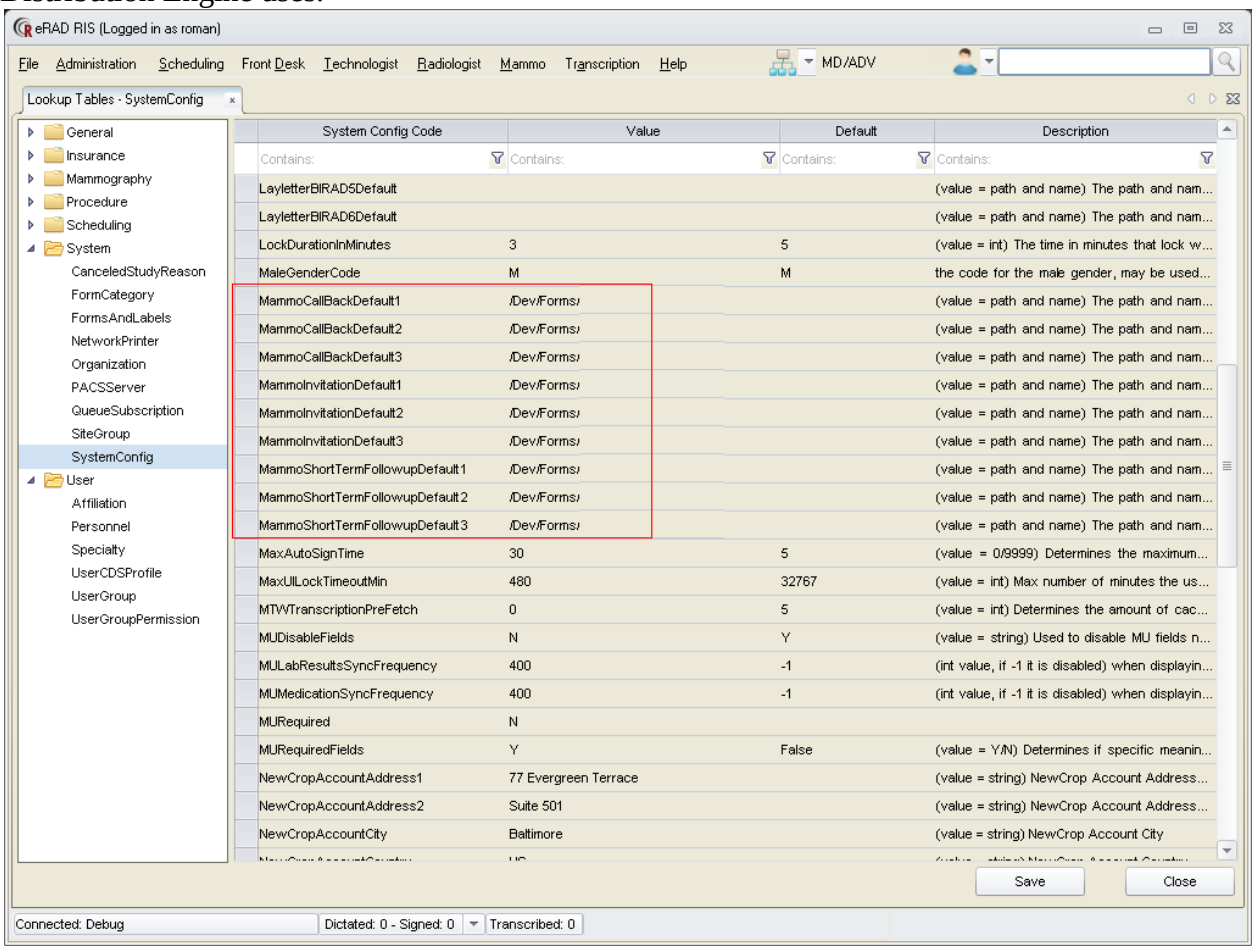



**Figure 4.19 – SystemConfig values for default letter templates**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

MAMMOGRAPHY LETTER CONFIGURATION ( # letters, and timeframes)
There are 3 SYSTEM DEFAULT form categories (categories that have NO association to any PRACTICE or SITE) defined to be used as system wide defaults. These should not be deleted!
Using the Mammography Letter Configuration screen each practice or site can populate 1,2 or 3 letters for each category. The number of letters a site or practice had defined will control how many letters they will be configured to print.
So if system defaults are used → all 3 letters are available.
If Site Mapped 2 Reminder letters → they will only have access to print 2 reminder letters.
If Site Mapped 3 Call Back letters → site will have access to 3 Call back letters.

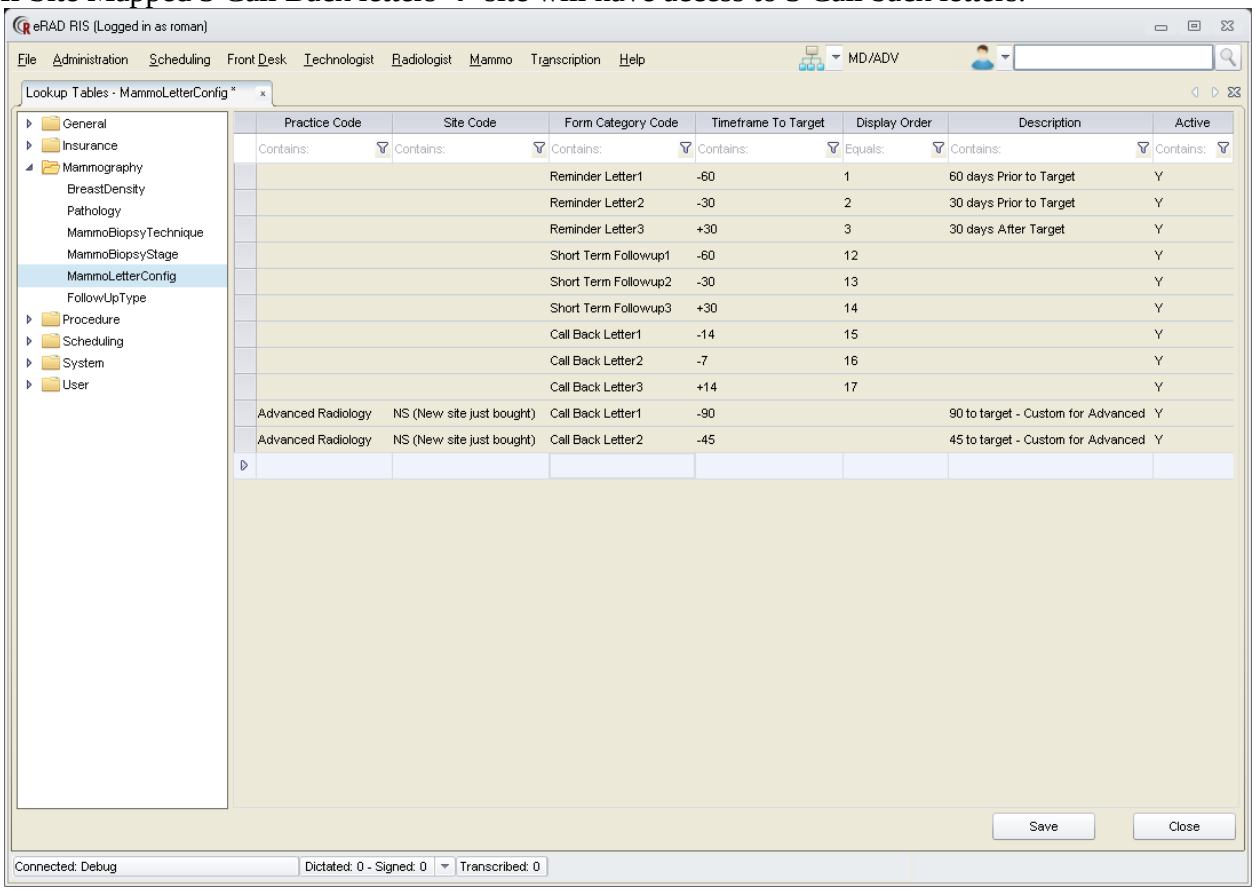



**Figure 4.20 – MammoLetterConfig lookup table**

Time Frames for letters**.** Time frames for letters can be customized on system wide or if Site defined their own category letters (time frame can be set just for practice or just for site category).
Reminder Letters → are used for orders of type "Invitation"
Short Term Followup Letters → are used for orders of type "ShortTermFolloup"
Call Back Letters → are used for orders of type "CallBack"

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

Each order has a defined "Target Date" for the patient to be scheduled. For orders of type "Inviation" and "ShortTermFolloup" the Target date is determined based on the "Recommendation" that the radiologist specified.
For orders of type "CallBack" the intent is for the patient to come back as soon as possible, so the **Target Date is set to the current date** (when **the layletter is printed** for the corresponding exam).

TIME FRAME CALCULATION**:** The Mammography Letters work list has a calculated column field that will calculate (which letter should be sent to the patient) for every "Invitation", "ShortTermFolloup", "CallBack" order. The calculation is performed based on order "Target Date" and the configuration that is entered in the MammoLetterConfig screen.

For example: Letter 1 Configuration of **-60 days to Target Date**, on the work list will calculate to send the patient Letter 1 until letter 1 is printed or calculation fall into next criteria example Letter 2 **– 30 days to Target Date.**
So the system will recommend Letter 1 to be printed for the patient until the letter is printed or the calculation falls into the next timeframe (ex. Letter 2 timeframe).

Deceased Handling**:** If a patient has a deceased flag specified on the patient record. System will not calculate a Mammography Letter for the patient. (Preventing printing).

Ignored Reminder**:** Calculated letter category will fall into **Ignored Reminder** calculation 2 weeks (14 days) after last letter has been sent to the patient. (Last letter could be letter 2, or 3 depending on configuration)

BULK Mammography Letter Printing Workflow:
In order to bulk print letters, the designated staff member will need to load the Mammography Letter work list via Mammo menu → Letters.

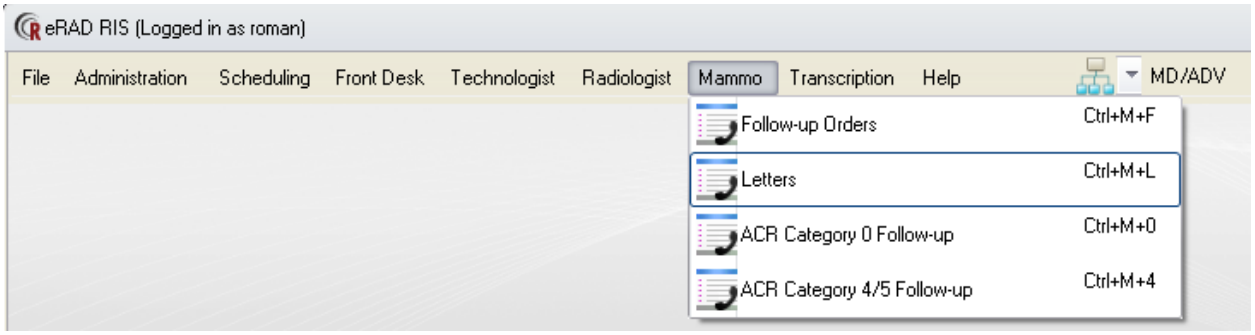



**Figure 4.21 – Mammo → Letters menu option**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

The user will then see all calculated letters due to be printed. Work list can be filtered down to see only specific letter categories. Once the work list is filtered to desired letters for printing, the user may use (CTRL –A) keyboard shortcut to select all items on the work list, and click the "Print Selected" button. This action will send all selected letters for printing to the Document Distribution Work list. The system does allow the user to submit letters of various types at the same time.

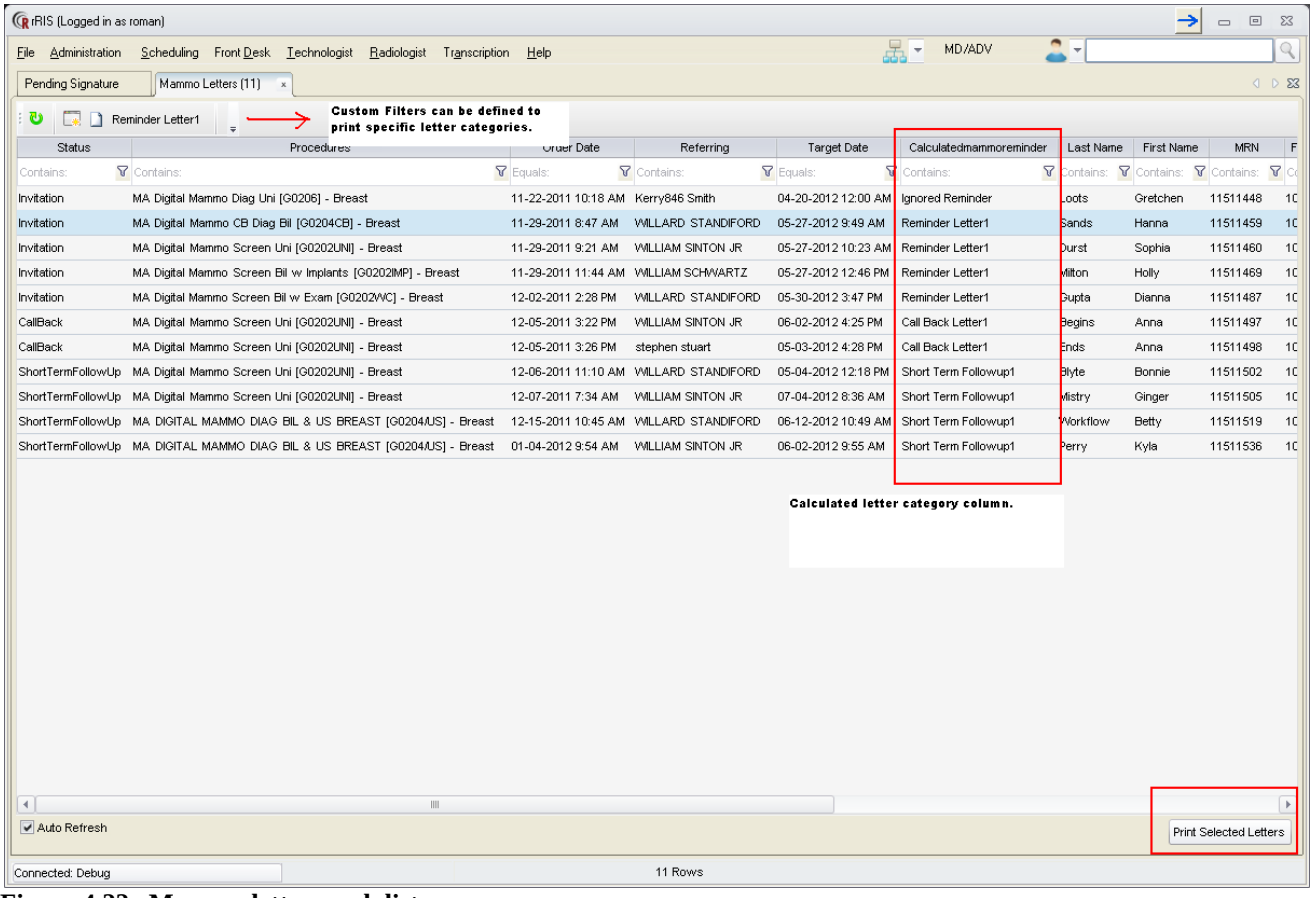



**Figure 4.22– Mammo letter work list**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Mammo Follow Up Worklists

For the Mammography work flow there was a need to capture Mammo exams of BIRAD 0 and BIRAD 4/5 follow up's was required. Two new work lists have been added in build 31. Each is described below.

BI-RADS 0 Worklist

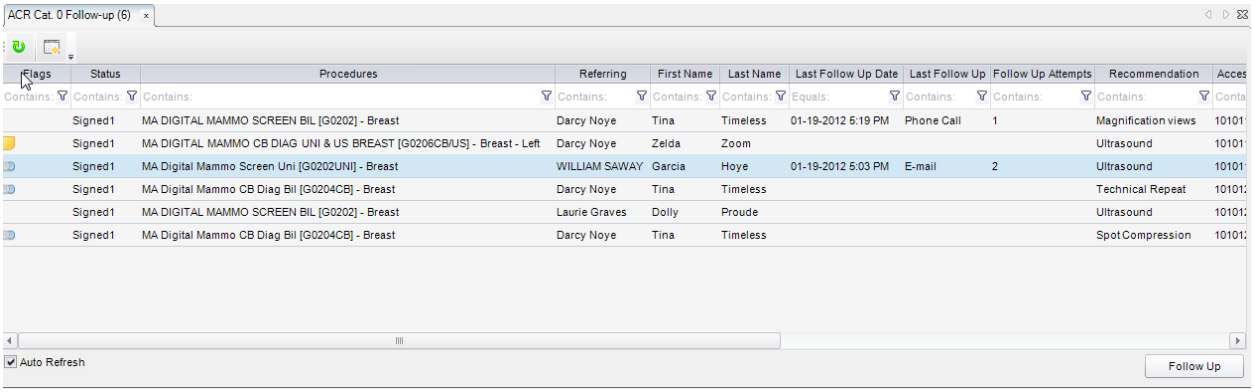



**Figure 4.23 – ACR Cat. 0 Follow-up work list**

Tentative Work list Tab Title: "ACR Cat. 0 Follow-up Work list"
Work list filter: show all signed studies with a BI-RADS code of 0, in the ReportSigned1 status, with mammo_fup_required_flag = 'Y'. When a BI-RADS 0 study is signed, it will automatically go to this work list. The study remains on the work list until a user opens the Post Exam screen and checks the "Follow-up Resolved" checkbox and saves the change to the database.

**Double click action**: Open Post Exam follow-up.

**Context menu items available from right click:**

- Patient folder,
- Audit History,
- Print Forms,
- Post Exam,
- Rescheduled Flag … Set Follow up Rescheduled
- Rescheduled Flag … Clear Follow up Rescheduled

**Columns:**

- Flags
- Status

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

- Procedures
- Referring
- First Name
- Last Name
- Accession #
- BI-RADS
- Technologist
- Signed By Radiologist
- MRN
- Performed End Date
- Recommendation
- Last Follow Up Date
- Last Follow Up (Type)
- Follow Up Attempts
- Signed Date
- Rescheduled (Flag) – set automatically when the user schedules an exam from Post Exam -> Schedule, or manually (as a fail-safe) if the study gets scheduled in some other way
- Locked By – indicates the user, if any, who is currently working on the study.

**Expected Workflow:**

Users will use this list to follow-up on BIRADS 0 studies. They can open Post Exam and schedule a follow-up study, and add follow-up activity (e.g. sent certified letter).

The study will not leave the work list at the point of scheduling. It will remain on the list until the exam is flagged as “Resolve Follow-Up”.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

BI-RADS 4/5 Work list

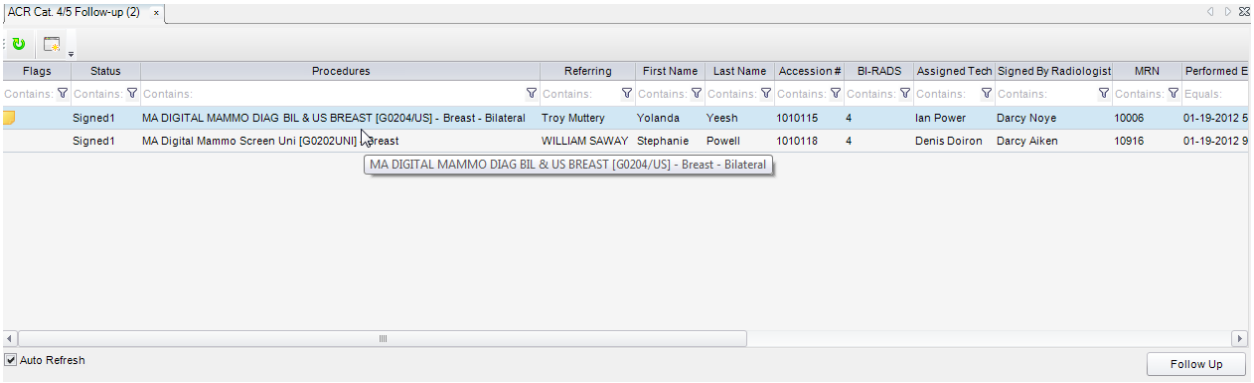



**Figure 4.24 – ACR Cat. 4/5 Follow-up**

**Tentative Worklist Tab Title:** "ACR Cat. 4/5 Follow-up" (suggestions?)
**Worklist filter:** same as BI-RADS 0, except we filter for BI-RADS 4/5
**Double click action:** same as BI-RADS 0
**Context menu items available from right click:** same as BI-RADS 0
**Columns:** same as BI-RADS 0
**Expected Workflow:** same as BI-RADS 0 except the user may also enter biopsy and pathology information on the Post Exam follow-up screen.
Again, to be clear, the studies on this list will not fall off until the user "resolves follow-up" on the Post Exam screen.

CallBack and Short Term Follow-up Worklist

**Tentative Worklist Tab Title:** "Mammo Follow Up Orders" (suggestions?)
**Worklist filter:** order status is "Callback" or "ShortTermFollowUp" and target date (for scheduling) is specified. (suggestions? Callbacks may not need to have a target date, perhaps we should only look at those 2 statuses).
**Double click action:** Schedule Order
**Context menu items:** to be determined

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

**Columns:**

- Status
- Procedures
- Order Date
- Referring
- Last Name
- First Name
- MRN
- Filler Order Number
- City
- Insurance Carrier
- PreCert Required
- Patient Type
- Target Date (for scheduling)
- Primary Phone Number

These columns are preliminary and most were borrowed from the Orders To Schedule WL.

**Expected Workflow:**

Callbacks and Short Term Follow Up orders will be created automatically when the Rad signs off on a study with a special recommendation (documented elsewhere). Other users will work this list, and as the exam is scheduled it will automatically fall off the Follow Up Orders list.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Password Change

In build 31 the ability to change your password from within the RIS has been added.

A new check box called "Domain Authentication" on the Account tab of the Personnel editor has been added.

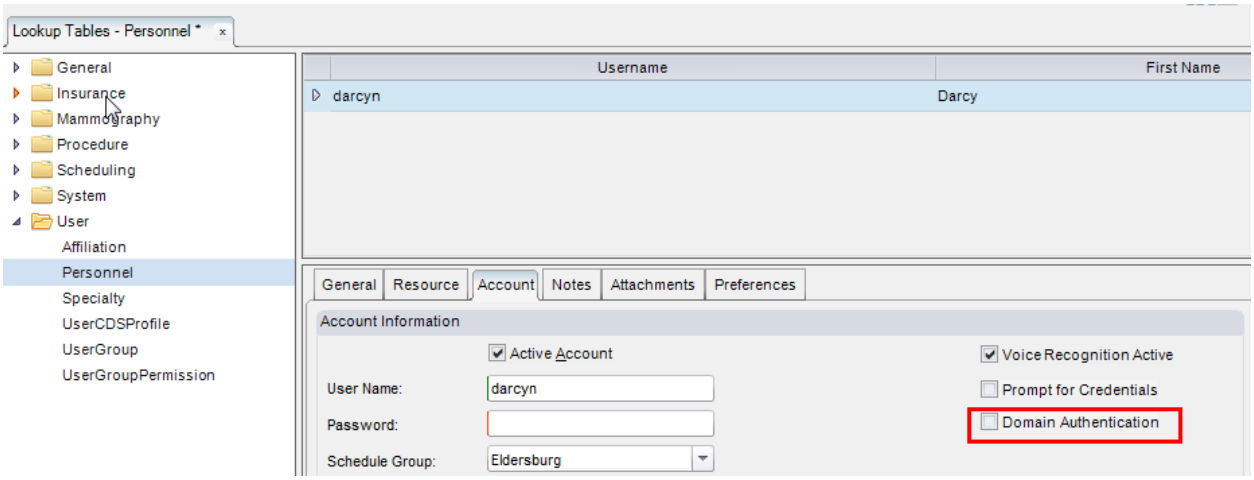



**Figure 4.25 – Domain Authentication flag**

When this flag is **not** set (unchecked) a new menu option under the File menu called "Change Password…" will appear.

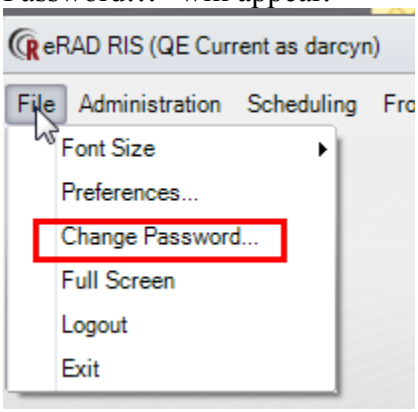



**Figure 4.26 – Change Password Menu item activated when the Flag for Domain Authentication is unchecked in the personnel editor.**

Selecting this menu option will open the Change Password dialogue window. You must enter in the correct current password. If you enter the current password incorrectly it will prompt on save that it has been entered incorrectly.
The New Password and the Repeat New Password must match.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

The New Password must have “At least 1 lowercase letter, 1 uppercase letter, 1 number and length between 6 and 15 characters”. This is currently the default setting.

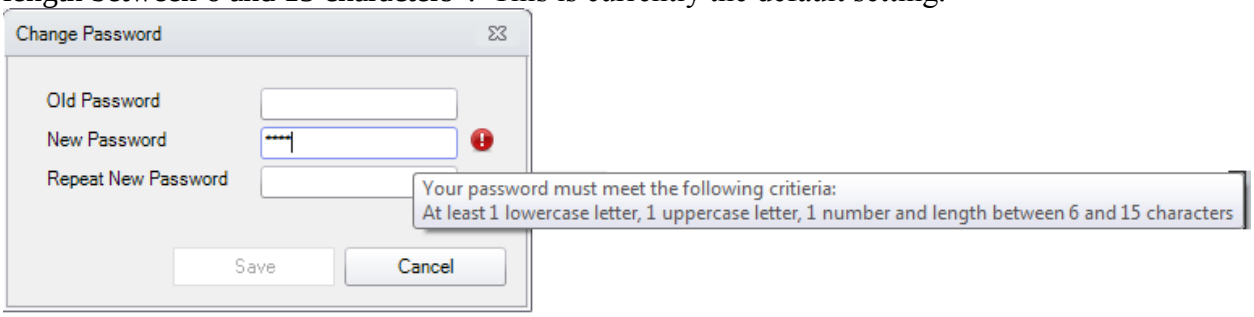



**Figure 4.27 – Change Password dialogue box**

To change the RIS password the user must enter their old password, and re-enter their new password twice.

Validations:
The new password must meet the Strong Password validation. This validation is configured by setting a regex value in the Config Table item: StrongPasswordRegex.

For example, (and the default value is)

(?=^.{6,15}$)(?=.*\d)(?=.*[a-z])(?=.*[A-])(?=.*[!@#$%^&*()_+}{":;'?/>.<,])(?!.*\s).*
This translates to at least 1 lowercase letter, 1 uppercase letter, 1 number and length between 6 and 15 characters.

If this regex is passed, a checkmark appears beside the new password field. Otherwise, an exclamation mark will appear. The tooltip on the exclamation mark will explain the regex validation in human readable terms. This human readable version comes from another Config Table Entry called StrongPasswordRegexHing, which is defaulted to “At least 1 lowercase letter, 1 uppercase letter, 1 number and length between 6 and 15 characters”

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Removal of Philips Device Control and Default Device

In previous builds it was noted that the playback of dictations was not being played back on the Philips SpeechMike, and were being played back on the systems default device. To avoid conflicting hardware it is being suggested that the Philips SpeechMike should not be the default recording /playback device.

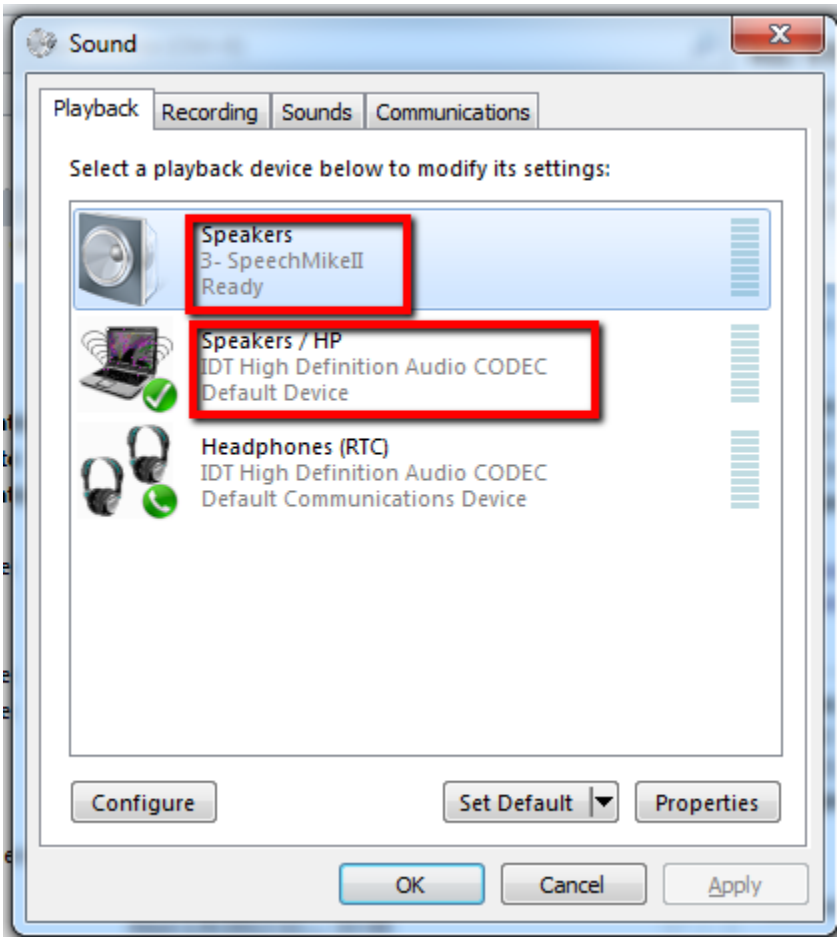



**Figure 4.28 – SpeechMike is not default playback device**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

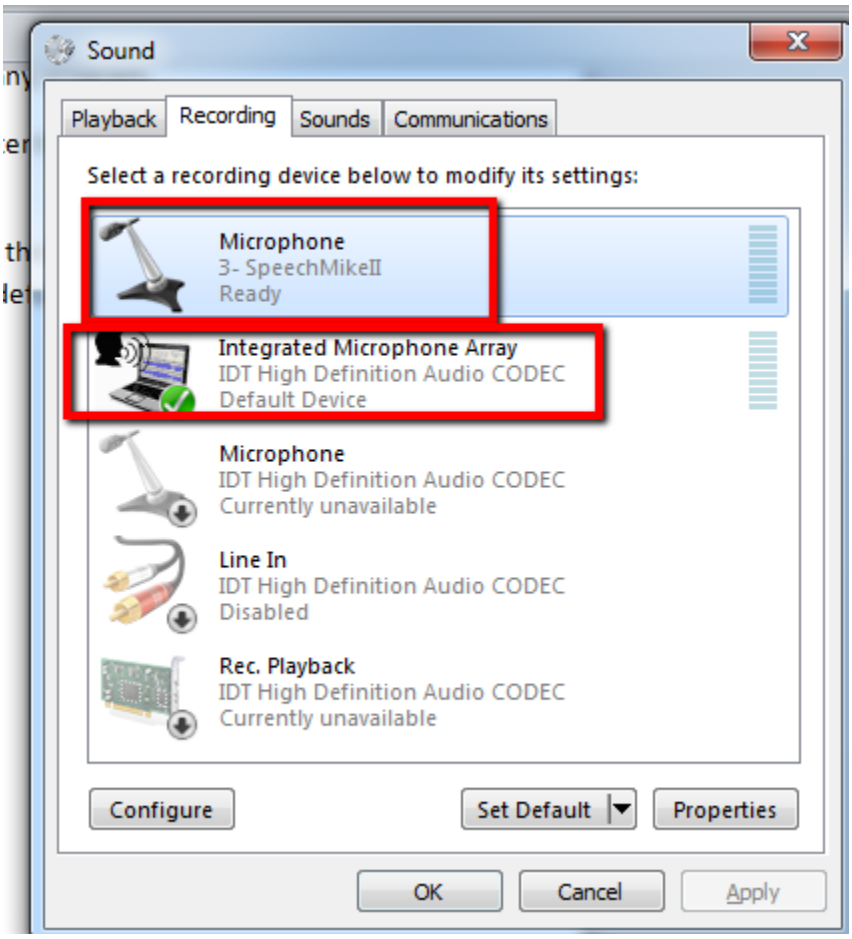



**Figure 4.29 – Philips SpeechMike is not the default recording device**

Selecting the User Preference Interactive Dictation flag will active the Interactive Dictation data pane. Selecting the Mic Wizard button will open the MicConfig window. On the second step of the MicConfig wizard the user can select the ERAD RIS recording and playback devices. If the Philips SpeechMike is the default recording / playback device, the user will also be informed on this page.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

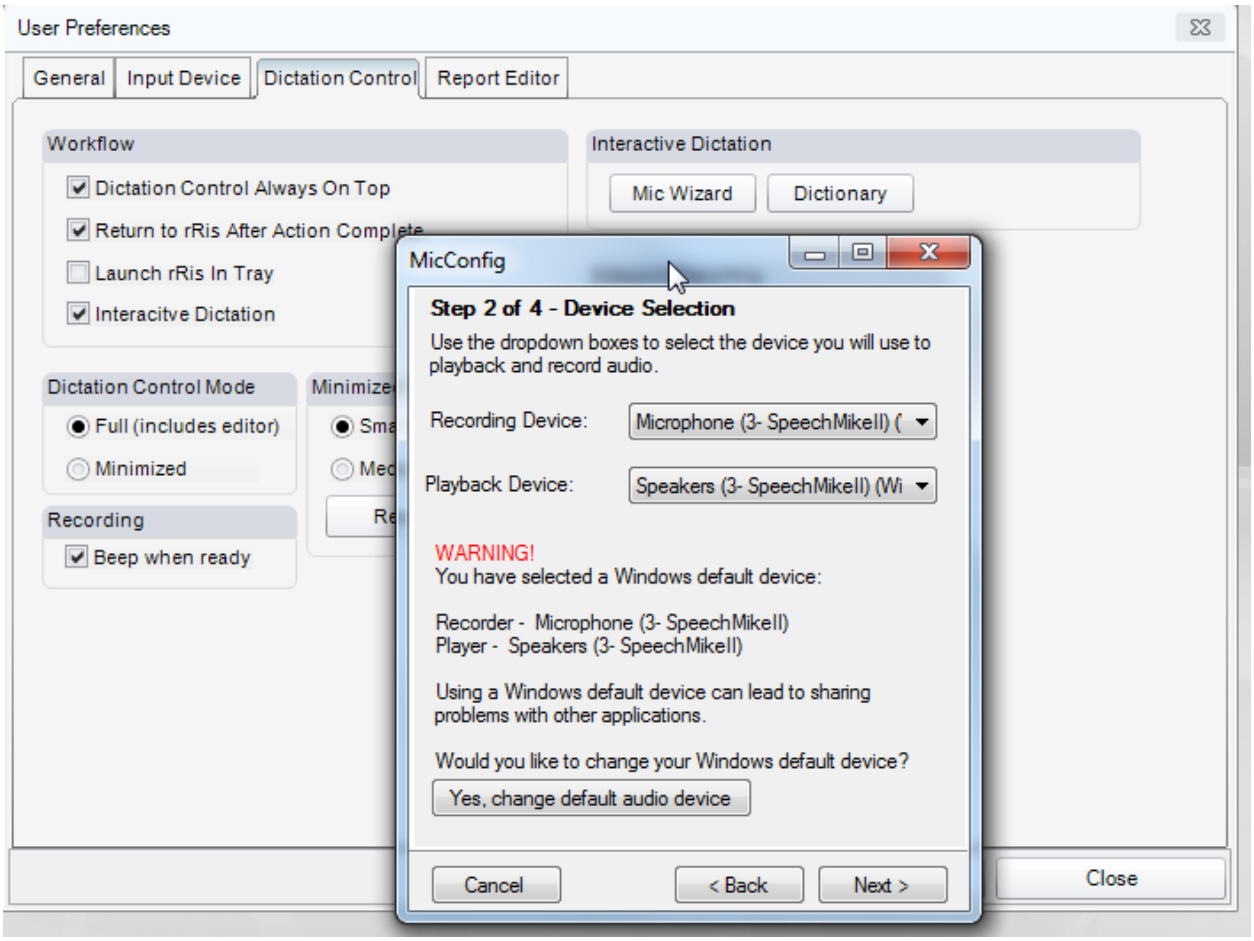



**Figure 4.30 – MicConfig wizard. Step 2 of 4 Device Selection**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Reporting – RegFreeCom

We have provided the manifest files along with our application files in the installation directory. Now with these new files they will register themselves on demand.
The two files we use with regfree com are AnyModalCaptureCtrl.dll and AnyModalEditCtrl2.dll. We added four files to the root of the MainApp project. They are:

AnyModalCaptureCtrl.dll,

AnyModalCaptureCtrl.sxs.manifest,

AnyModalEditCtrl2.dll and

AnyModalEditCtrl2.sxs.manifest

These files are set to copy into the build directory and will need to be updated as new releases are provided from MModal. Note that the manifest files typically don't change unless the interface to either dll changes.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Rewind Desktop Interactive Dictation

In previous builds that included Interactive Dictation we didn't have the ability to rewind the dictation when working in Interactive Mode. MModal will need to supply a "true" fix for this deficiency. Until then this temporary fix for rewind has been added into the application. There is no visual representation of the rewinding action (bouncing ball affect) in the document.

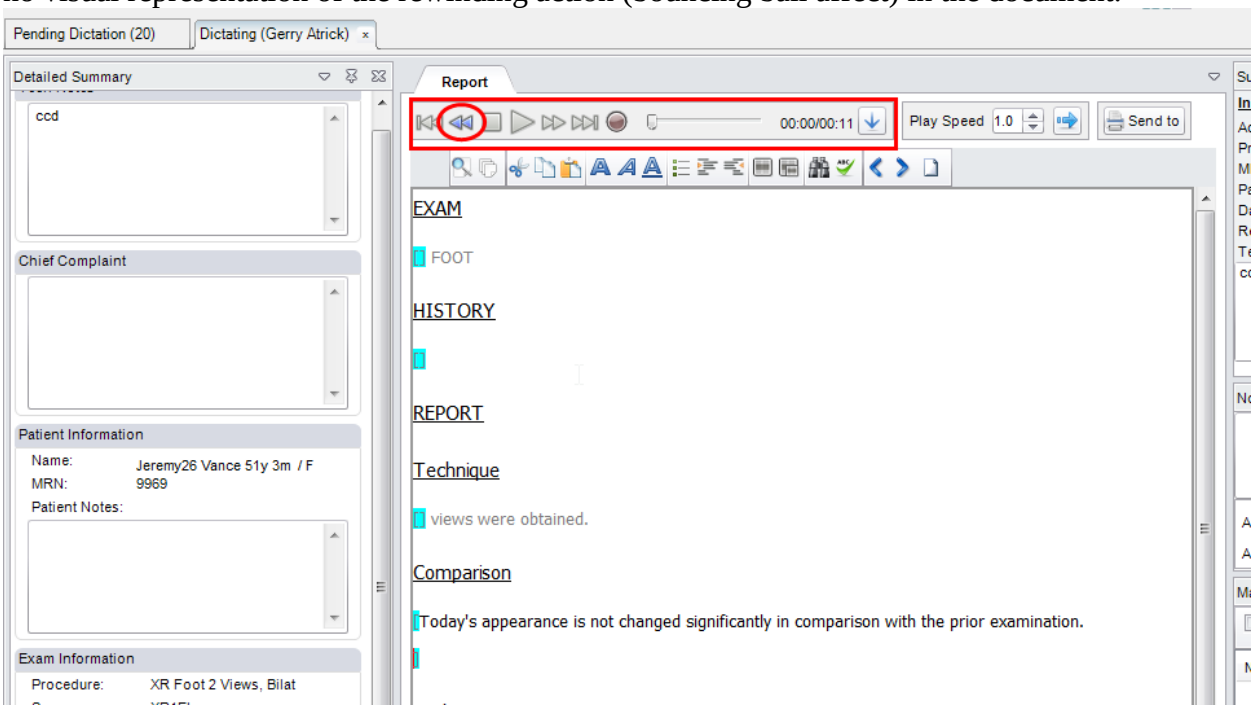



**Figure 4.31 – Interactive Dictation rewind feature. Rewinding from Philips Speechmike**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Tentatively Sign (AKA Sign Opps)

A new status of ***TentativelySigned1*** was created which will hold a signed report for a configurable amount of time.

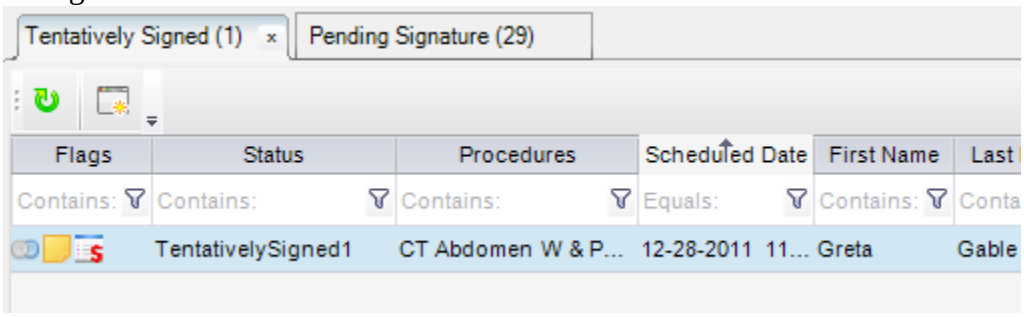



**Figure 4.32 - Tentatively Signed Work List displaying 1 record in TentativelySigned1 status**

Once the time has elapsed we have a service that will pick the job up and send it through for report distribution and billing.

A new System Config entry called **MaxAutoSignTime** has been created to (1.) assign a default value for time allotted to hold an exam in TentativelySigned1 status and (2.) allows the user to set a different system time greater or less than the default time.

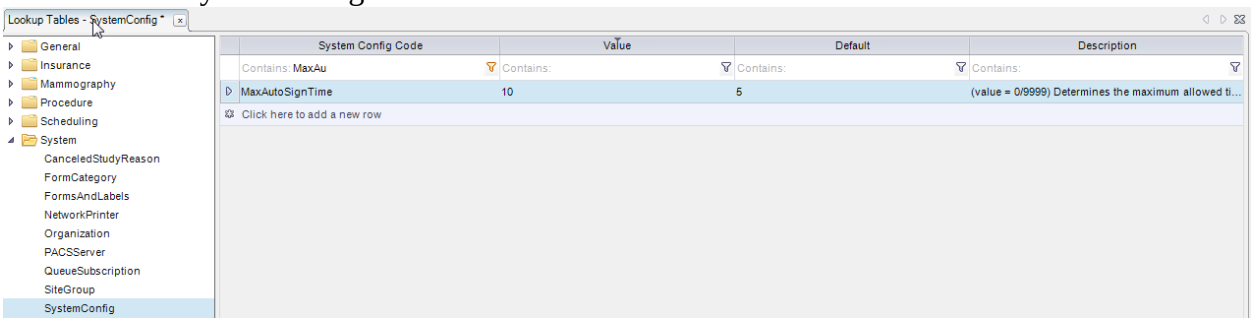



**Figure 4.33 – System Config table displaying MaxAutoSignTime**

Four new access strings have been added for this feature:

**Clinical.UserPreferences.TentativeSigning** that will control if the user has access to turn the feature on or off in the User Preference screen. This would typically be added to an admin group who generally configures user preferences for each user via the Configuration screens. This access string may also be given to radiologist groups if they require the ability to change and manage this at that level.

**WL.TentativelySigned** was added to control access to the work list for radiologist or individual users.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

**WL.TentativelySignedAll –** A work list that will display all Tentatively Signed records for all users. Usually only accessed by an Admin type user.

**Clinical.ReleaseTentativelySignedReport** was added to control access to the right click context menu to push the exam through.

The user preference Tentative Signing is accessible if the **Clinical.UserPreferences.TentativeSigning** access string is enabled. Checking it will enable the **hold time** spinner box. This hold time value is the amount of time before the report will be automagically moved to Signed status. The default value will be the default for the system configuration value **MaxAutoSignTime** or the value assigned to it. The user preference cannot be more than the value (default or user entered) of the System Config Code.

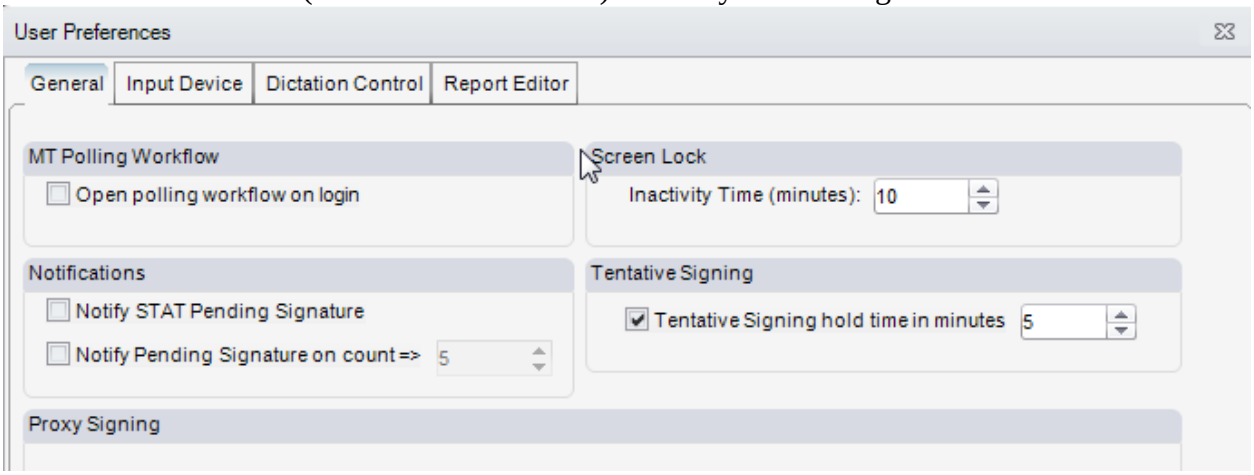



**Figure 4.34– Tentatively Signing User Preference**

If the User Preference was already set and the Value of system config entry for MaxAutoSignTime is changed to be less than the user preference, the next time the user opens User Preferences a message prompt will be displayed informing that your value has been adjusted.

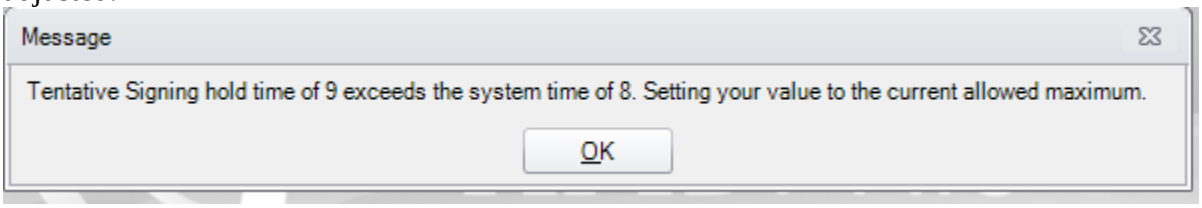



**Figure 4.35 – Message pop up displayed if the user preference is more than the current system config value**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Updated Meaningful Use Permissions

Changed permission codes for the following access strings.

1. Clinical.ConfigureMeaningfulUse
2. Clinical.eLabOrdering
3. Clinical.ePrescribeAdministrator
4. Clinical.ePrescribeRadiologist
5. Clinical.ePrescribeStaff

Updated permissions to be this.

1. MU.ConfigureMeaningfulUse
2. MU.eLabOrdering
3. MU.ePrescribeAdministrator
4. MU.ePrescribeRadiologist
5. MU.ePrescribeStaff
6. MU.TransitionOfCare **New permission for the transition of care checkbox on the order tab

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Miscellaneous High Priority Items

1. Race, Smoking, preferred language, ethnicity need a config setting that will make them required at registration.
2. Scheduling – Summary tab should be the default tab.
3. Personnel – Need a Notes section where notes can be added and displayed about a person
4. Image request – if you add more than one study, the patient is no longer an option for the deliver-to functionality
5. When patient folder is open, the New Appointment menu item assumes it should take patient context. This is no longer desired, so now it will not take patient context, unless the smaller New Appointment button is used within the patient folder itself.
6. Registration – Must be able to enter a PreCert number and expiry date in the registration grid.
7. Registration – Change checkbox on billing codes to say "Show previous PreCert and CPT codes"
8. Technologist – Patient tab should be read-only, except patient notes.
9. Scheduling – Default tab should be patient.
10. Verbal Order – Change the Free Text option to be the default for studies, not the multi-type ahead.
11. Technologist - LMP, pregnancy check, and Tech name should be required on Complete, not on start.
12. Tech Worklist – Want to also see Checking in status
13. Tech Worklist – Do not want to see discontinued exams in this WL.
14. Technologist - Billing code grid columns should be in the order of Abn, units, change reason code, billing code
15. Various billing codes grids: PreCert expiry date column showed a time portion, when it should only have been date.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 5. Resolved Defects

Bugs, Suggested Features and Support Issues resolved in build 1.31. The extract is taken from Redmine bug tracking system and only displays defects resolved in 1.31.

| # | Status | Tracker | Priority | Subject | Category | Target version |
|---|---|---|---|---|---|---|
| 711 | Closed | Bug | High | Dictation - Send To throws error | Thick Client GUI | 1.26 |
| 725 | Resolved | Bug | Normal | Pending Dictation > Open Suspended exam can cancel will return error. | Thick Client GUI | 1.26 |
| 745 | Closed | Bug | Normal | Should not be allowing State as free text | Thick Client GUI | 1.25 |
| 761 | Closed | Bug | Normal | Closing the Report History will through series of messages | Thick Client GUI | 1.28 |
| 762 | Resolved | Bug | Normal | Seen this error when closing Report Drafted | Thick Client GUI | 1.28 |
| 784 | Closed | Bug | Normal | Delete drug allergy and try to access eRx (newcrop) will through error | Thick Client GUI | 1.28 |
| 789 | Closed | Bug | Normal | Clinical Summary CCR to view/print or export throws error | Thick Client GUI | 1.28 |
| 799 | Resolved | Bug | High | Configurable Modality Scheduling | Thick Client GUI | 1.29 |
| 805 | Closed | Bug | High | Failed PACS Correction > Flag on modality does not work | Thick Client GUI | 1.29 |
| 808 | Closed | Bug | Normal | After logging in get error on Dictation control | Thick Client GUI | 1.30 |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

| | | | | | | |
|---|---|---|---|---|---|---|
| 810 | Resolved | Bug | Normal | advanced search times are not correct in relation to current system time | Thick Client GUI | 1.30 |
| 812 | Resolved | Bug | High | Open dictate data window to add addendum will throw error | Thick Client GUI | 1.30 |
| 814 | New | Bug | High | Cannot preview reports | Thick Client GUI | 1.30 |
| 816 | Closed | Bug | High | State selection does not save | Thick Client GUI | 1.30 |
| 819 | Closed | Bug | High | â€œInactiveâ€ lateral codes are showing up in scheduling screen. Any values â€œinactiveâ€ values in lookup should not be â€œselectableâ€ in combo boxes. | Thick Client GUI | 1.30 |
| 825 | Closed | Bug | Normal | Inactive rooms appear in advanced scheduling | Thick Client GUI | 1.30 |
| 829 | Closed | Bug | Normal | Meaningful Use - Automated Measure report return duplicate user | Mgt Reports | 1.30 |
| 830 | Closed | Bug | High | View / Edit on a signed report will throw error on Report tab | Thick Client GUI | 1.30 |
| 835 | Closed | Bug | High | Perform exam - laterality codes are not retained once you start the exam. | Thick Client GUI | 1.31 |
| 836 | Closed | Bug | Normal | Country field defaults to USA if zip code is entered first. | Thick Client GUI | 1.31 |
| 837 | Closed | Bug | Normal | Removing country code changes state format | Thick Client GUI | 1.31 |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 6. Known Limitations

The following are Bugs, Suggested Features, and Support Issues found in build 1.31. This build is the current QE build and testing is ongoing. The list may increase in size. This document will not be updated or re-released.

| # | Status | Subject | Category | Target version |
|---|---|---|---|---|
| 839 | Resolved | Interactive dictations will stay in Dictated status if use submit button | Thick Client GUI | 1.31 |
| 840 | New | Order tab name on reschedule | Thick Client GUI | 1.31 |
| 842 | Resolved | Interactive dictation can freeze after dictating on Suspended exam with no audio | Thick Client GUI | 1.31 |
| 843 | New | Playback device selected in Mic Wizard is not being used. | Thick Client GUI | 1.31 |
| 845 | New | Non Interactice User cannot playback interactive dictations | Mgt Reports | 1.31 |
| 846 | New | Tentitive signing hold time message | Admin Tools | 1.31 |
| 847 | Resolved | Pending Dictation / Dictated / Report Drafted / Pending Review / Dictated need to be appended with (All) | Thick Client GUI | 1.31 |
| 848 | Resolved | Mammography directory for lookups | Admin Tools | 1.31 |
| 853 | New | Follow up orders - Need to add the ability to cancel follow up orders | Thick Client GUI | 1.31 |
| 854 | New | Mammo Layletters are not being sent for distribution | Thick Client GUI | 1.31 |
| 855 | New | Follow up work lists still have Post Exam in context menu | Thick Client GUI | 1.31 |
| 856 | New | Mammo exams > Recommendation and Tissue Density are not saving | Thick Client GUI | 1.31 |
| 857 | New | Mammo Follow Up Orders - Target date not searched on schedule | Thick Client GUI | 1.31 |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

| | | | | |
|---|---|---|---|---|
| 858 | New | Interactive dictation suspended throws Anymodel error when opened by non interactive user. | Thick Client GUI | 1.31 |
| 859 | New | Procedures scheduled with default laterality are not saved when flag for Laterality required is N | Thick Client GUI | 1.31 |
| 860 | Resolved | Attempting to create Technical Repeat throws error | Thick Client GUI | 1.31 |
| 674 | Resolved | Cancelled Orders work list buttons not enabled | Thick Client GUI | 1.31 |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# User Release Notes

for eRAD RIS
Version 1.0
Build 32

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Purpose ..... 3
2. Intended Audience ..... 3
3. Installing/Accessing the Application ..... 3
4. New Features and Enhancements ..... 4
   Interactive – Submit Button Changes ..... 4
   Macro Editor Changes \ Updates ..... 5
   Dictation Data Window Changes \ Updates ..... 6
   Dictation Commands ..... 7
   New Management Reports ..... 14
   MQSA Reporting ..... 15
5. Resolved Defects ..... 23
6. Known Limitations ..... 24

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 1. Purpose

This document describes some of the new features and changes implemented in eRAD RIS as of the end of Sprint 32. This version of eRAD RIS is referred to as Build 1.32.

Only features which can be visually demonstrated to the user will be outlined in this document.

# 2. Intended Audience

This document is created by the RIS Development team for the RadNet RIS management team.

# 3. Installing/Accessing the Application

The installation guide for the eRAD RIS client have been posted to the RadNet Wiki page at http://mdbal01rdtweb/Wiki/

Under the RIS menu, click on the rRIS page. The credentials to access the page are:
Username: rRIS
Password: Summerside

*Please note that Build 1.32 is considered a new core release of the application and will require a reinstallation of eRAD RIS. This is accomplished by navigating to the eRAD RIS shared installation drive and running the CoreInstall.bat file (ex: I:\RISDeployment\CoreInstall.bat)*

If you experience difficulties accessing the application, please do not hesitate to contact Darcy Noye with the PEI RIS Development Team.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 4. New Features and Enhancements

## Interactive – Submit Button Changes

When opening a dictate screen as an interactive user the submit button will be modified to not show the bypass VR option as they really don't apply to this workflow. The normal submit option get rewired to send the interactive dictation directly to the transcriptionists for review.

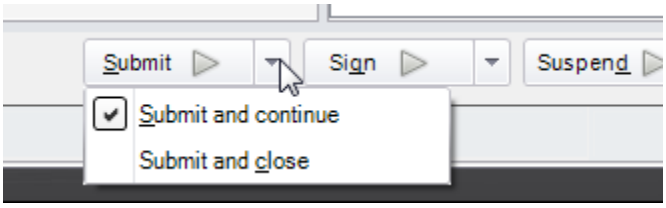



**Figure 4.1 – Submit Button Options for Interactive Dictation User**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Macro Editor Changes \ Updates

1. In the previous build the Advanced tab on the macro editor was added. If the permission for the Advanced tab was removed an error would be thrown. This has been corrected.

2. Also now when assigning a macro to users, the list that is presented is filtered to only be Radiologists. In build 1.31 the list presented displayed all resource types

3. Before build 1.32 a macro created would automatically be assigned to the user that was creating it, even when the user did not have the resource flag for Radiologist. In Build 1.32 if the user is a rad, we will automatically assign the macro to them, if the user is not a rad we check to see who dictated the study. In the case of an MT creating a macro, there would be a dictating rad, and therefore we would assign it to the dictating rad. If there was no dictating rad and the user isn't a rad then it would not get assigned to anyone. In this case the user creating the macro (which should in theory here be an admin) will have to create the assignements manually.

4. Macros are automatically assigned to the Radiologist who created it. The creator (owner) can assign additional users to have access to the macro. In previous builds, if the macro was only assigned to the owner, other users could still see the macro in the available list. This has been corrected in build 1.32.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Dictation Data Window Changes \ Updates

1. In previous builds data panes that were pinned but then closed so not in view and the layout was saved in the Dictate, Sign Reports, or Create \ Edit Reports data window, the next time the screen was loaded you could not open that data pane from the View menu. This has been corrected in build 32.
2. The ability to change the dictating Radiologist in the Summary pane of the Sign Reports window was not working. This has been fixed in build 32
3. In previous builds if the user had the user preference for Dictation Control Mode set to Minimized and the exam opened from the work list had a dictation, the dictation would not load in the minimized control. This has been fixed in build 32

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Dictation Commands

Below is the list of defined commands available for reporting dictation.

### DICTATION COMMANDS

#### SELECTING AND CORRECTING

**select <word sequence>** Select a word or group of words; 5 word limit, including punctuation
CDS Live will find exact matches, as well as any related match. It will select the first available instance after the cursor.
**correct <word sequence>** Correct a word or group of words
**select <word> through <word>**
Select the text beginning with the first word spoken through to the last word spoken.
**correct <word> through <word>**
Correct the text beginning with the first word spoken through to the last word spoken.
**select all** Select all text in the entire document.

#### FOLLOW-UP SELECTION

**select next**
**select next one**
**next one**
Select the next instance of the currently selected text.
Can be used with:
Sentence, Section, Subsection, List Item, Paragraph, or Line.
This command requires the use of "Select Current <x>" first.
**select previous**
**select previous one**
**select previous**
Select the previous instance of the currently selected text.
Can be used with:
Sentence, Section, Subsection, List Item, Paragraph, or Line
This command requires the use of "Select Current <x>" first.
**select next <n> words**
Select the number of words (between 2 and 10, including punctuation) to the right of the cursor.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

Cannot use the Next One commands in conjunction with this command.
The cursor must be at the beginning or end of a word to use this command properly.
**select previous <n> words**
Select the number of words (between 2 and 10, including punctuation) to the left of the cursor.
Cannot use the Previous One commands in conjunction with this command.
The cursor must be at the beginning or end of a word to use this command properly.
2

## CLEAR SELECTION

**clear selection** Clear the selected text. Cursor will be positioned at the end of the selection, once cleared.
**unselect text** Deselect the selected text.
**unselect that** Deselect the selected text.

## SECTION AND SUBSECTION

**toggle section/subsection**
Toggle the current selection between regular text and a section/subsection.
**new section/subsection**
Turn regular selected text into a new section/subsection at the current cursor position.
**new section <section title>: [word sequence x]**
Create a new section/subsection beginning with the section/subsection title, colon, and section content.
**insert section/subsection** Insert a new section/subsection at the current cursor position.
**new section <section title>: [word sequence x]**
Insert a new section/subsection beginning with the section/subsection title, colon, and section content.
**select current section/subsection**
Select the entire section/subsection in which the cursor is currently positioned.
**delete current section/subsection**
Delete the entire section/subsection

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

in which the cursor is currently positioned.
**delete next section/subsection**
Delete the next section/subsection to the right of the cursor position, excluding the current section/subsection.
**delete previous section/subsection**
Delete the previous section/subsection to the left of the cursor position, excluding the current section/subsection.
3

## LIST

**item <n> <word sequence>** Begin a list at the current cursor position with the first list item. Continue with Item <n> until complete.
**item number <n> <word sequence>** Begin a list at the current cursor position with the first list item. Continue with Item Number <n> until complete.
**next item <word sequence>** Begin a list at the current cursor position with the first list item. Next Item command continues the list.
**delete next list** Delete the next list item, excluding the current list item.
**delete previous list** Delete the previous list item, excluding the current list item.

## LINE AND PARAGRAPH

**new line/paragraph**
Start selected text on a new line/paragraph or create a new line/paragraph at the current cursor position
**next line/paragraph** Move to the next line/paragraph following the current line/paragraph.
**insert line/paragraph** Insert a new line/paragraph from the cursor position.
**select current line/paragraph**
Select the current line/paragraph in which the cursor is currently positioned.

## UNDOING AND DELETING

**delete selection**
**delete current selection** Delete the currently selected text. All delete commands ensure proper spacing and case at the location of the deletion.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

**delete current sentence** Deletes the entire sentence in which the cursor is currently positioned.
**delete next <n> words**
Delete a specified number (between 2 and 10 words, including punctuation) of words to the right of the cursor position.
If the cursor is positioned within a word, it will use that word as the first word.
**delete previous <n> words**
Delete a specified number (between 2 and 10 words, including punctuation) of words to the left of the cursor position.
If the cursor is positioned within a word, it will use that word as the first word.
**undo that**
**undo last**
**undo last command**
Undo last command spoken.
4

## CAPITALIZING

**lowercase/no caps selection** Turns current selection into lowercased text
**lowercase/no caps next <n> words**
Lowercases the sequence of <n> tokens to the left of the current cursor position
Can select between 2 and 10 words, including punctuation
**lowercase/no caps previous <n> words**
Lowercases the sequence of <n> tokens to the right of the current cursor position
Can select between 2 and 10 words, including punctuation
**uppercase/all caps selection** Turns current selection into uppercased text
**uppercase/all caps next <n> words**
Uppercases the sequence of <n> tokens to the left of the current cursor position
Can select between 2 and 10 words, including punctuation
**uppercase/all caps previous <n> words**
Uppercases the sequence of <n> tokens to the right of the current cursor position
Can select between 2 and 10

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

words, including punctuation

## EDITING AND FORMATTING TEXT

**boldface selection** Turns current selection into boldfaced text
**boldface next <n> words**
Boldfaces the sequence of <n> tokens to the left of the current cursor position
Can select between 2 and 10 words, including punctuation
**boldface previous <n> words**
Boldfaces the sequence of <n> tokens to the right of the current cursor position
Can select between 2 and 10 words, including punctuation
**italicize selection** Turns current selection into italicized text
**italicize next <n> words**
Italicizes the sequence of <n> tokens to the right of the current cursor position
Can select between 2 and 10 words, including punctuation
**italicize previous <n> words**
Italicizes the sequence of <n> tokens to the left of the current cursor position
Can select between 2 and 10 words, including punctuation
**underline selection** Turns current selection into underlined text
**underline next <n> words**
Underlines the sequence of <n> tokens to the left of the current cursor position
Can select between 2 and 10 words, including punctuation
**underline previous <n> words**
Underlines the sequence of <n> tokens to the right of the current cursor position
Can select between 2 and 10 words, including punctuation
5

## NAVIGATING THE DOCUMENT

**scroll up** Scrolls up
**scroll down** Scrolls down
**insert after <word>** Places cursor after the given word in insert mode
**insert after <word sequence>** Places cursor after the given word

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

sequence in insert mode
**insert before <word>** Places cursor before the given word in insert mode
**insert before <word sequence>** Places cursor before the given word in insert mode
**go to <start/begin/beginning> of <sentence/paragraph>**
Places cursor at the beginning of the current sentence, paragraph, or list
**move to <start/begin/beginning> of <sentence/line/paragraph>**
Places cursor at the beginning of the current sentence, line, paragraph, or list
**go to <end/ending> of <sentence/line/paragraph>**
Places cursor at the end of the current sentence, line, paragraph, or list
**move to <end/ending> of <sentence/line/paragraph>**
Places cursor at the end of the current sentence, line, paragraph, or list
6

## FIELD COMMANDS

**next field**
**go to next field**
Positions cursor in next field (relative to current cursor position)
A Field is identified by surrounding square brackets, e.g. [This is a field]. The selection will include the brackets.
**previous field**
**go to previous field**
Positions cursor in previous field (relative to current cursor position)
**first field**
**go to first field**
Positions cursor in first field in document
**last field**
**go to last field**
Positions cursor in last field in document

## RADIOLOGY SPECIFIC COMMANDS

**go to start/begin/beginning of <section name>** Places cursor at the beginning of the given section
**move to the <start/begin/beginning>**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

**of the <section name>**
Places cursor at the beginning of the given section
**go to the <start/begin/beginning> of the <section name> section**
Places cursor at the beginning of the given section
**move to the <start/begin/beginning> of the <section name> section**
Places cursor at the beginning of the given section
**go to <end/ending> of <section name>**
Places cursor at the end of the given section
**move to <end/ending> of <section name>**
Places cursor at the end of the given section
**go to the <end/ending> of the <section name> section**
Places cursor at the end of the given section
**move to the <end/ending> of the <section name> section**
Places cursor at the end of the given section
**move that to beginning of <section name> section**
Moves currently selected content to the beginning of the indicated section
**move current selection to start of <section name>**
Moves currently selected content to the beginning of the indicated section
**move selection to begin of <section name>**
Moves currently selected content to the beginning of the indicated section
**move that to end of <section name>** Moves currently selected content to the end of the indicated section
**move current selection to ending of <section name> section**
Moves currently selected content to the end of the indicated section
**move current selection to <section name>**
Moves currently selected content to the end of the indicated section

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# New Management Reports

## 1. Daily FAX Log

The Daily Fax log can be filtered on a specified date criteria and also on the Distribution Statuses.

**Daily FAX Log**
**Date:** 01/19/12
**Status(s):** ?,Cancelled,Completed,Error,Hold,InProgress,Pending

| Date | Status | Acc # | Patient Name | MRN | Recipient | Fax # | Retries | Job Id | Del. Method |
|---|---|---|---|---|---|---|---|---|---|
| Total Count | | | | | | | | | 0 |

**Figure 4.2 – Daily Fax Log Report**

## 2. Unread Exams **displays all exams in status "exam done"*

The Unread Exams list cannot be filtered. It returns a list of all unread exams.

**Unread Exams**

| Performed | Patient | MRN | Acc # | Procedures | Performed By |
|---|---|---|---|---|---|
| 01/19/2012 02:22 PM | testman, dale | 734 | 1000853 | CT Head W & Sinus W [CT22] - Head | |
| 01/06/2012 02:26 PM | Worster, Elane | 2008109 | 1052996 | PT/CT Myo Imag Perf Study [78459] | Denis Doiron |
| 12/28/2011 12:17 PM | Bevacqua, Elva | 11499448 | 1052999 | PT/CT Myo Imag Perf Study [78459] | Ian Power |
| 01/06/2012 01:48 PM | Oaxaca, Misha | 17135 | 1053658 | PT/CT Myocardial Multi Study [78492] | Denis Doiron |
| 01/12/2012 07:12 PM | Zempel, Akilah | 7795 | 1054083 | PT/CT Myo Imag Perf Study [78459] | Denis Doiron |
| 01/13/2012 04:13 PM | Delarge, Tamara | 10022 | 1054113 | PT/CT Myo Imag Perf Study [78459] | Ian Power |
| 11/28/2011 09:17 AM | Powell, Stephen | T.34323 | 1058500 | CT 3 Phase [CT13] | Denis Doiron |
| 12/20/2011 11:07 AM | Lovenbury, Donnetta | 11502287 | 1058804 | CT Thoracic Spine W [72129] | Ian Power |
| 09/01/2011 12:00 AM | Bonkers, Betty | 11506331 | 1061341 | NM Testicular W Flow [78761] | Darcy Aiken |

**Figure 4.3 – Unread Exams Report**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## MQSA Reporting

Proposed DEFINITIONS:
The following definitions should be used in the creation of the Mammography MQSA Audit reports. Reference the ACR BI-RADS® Breast Imaging Atlas, BI-RADS®. Mammography pages 229-260 for more information.

Positive Exam: An exam is considered to be positive if the BI-RADS® assessment category is 0, 4, 5 for a screening exam; or 4, 5 for a diagnostic exam.

Negative Exam: An exam is considered to be negative with a benign or probably benign finding if the BI-RADS® assessment category is 1, 2, or 3 for either a screening or a diagnostic exam.

MQSA does not limit the use of category 3 to diagnostic exams. Therefore, a BI-RADS® category 3 is considered negative for both screening and diagnostic exams.

True-Positive (TP): Cancer was diagnosed within 1 year after biopsy recommendation based on an abnormal mammogram.
(BI-RADS® Category 0, 4 or 5 for screening; BI-RADS® Category 4 or 5 for diagnostic).

True-Negative (TN): No known tissue diagnosis of cancer within 1 year of a negative examination
(BI-RADS® Category 1 or 2 for screening, BI-RADS® Category 1, 2 or 3 for diagnostic).

False-Negative (FN): Tissue diagnosis of cancer within 1 year of a negative examination
(BI-RADS® Category 1 or 2 for screening, BI-RADS® Category 1, 2 or 3 for diagnostic).

False-Positive (FP): Three separate definitions:

a. (FP1): No known tissue diagnosis of cancer within 1 year of a positive screening examination
(BI-RADS® Category 0, 4, or 5).

b. (FP2): No known tissue diagnosis of cancer within 1 year after recommendation for which
further imaging evaluation, biopsy, or surgical consultation on the basis of a positive
examination (BI-RADS® Category or 5 ).

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

c. (FP3): Benign tissue diagnosis within 1 year after recommendation for biopsy on the basis of
a positive examination (BI-RADS® Category 4 or 5).

Note: TP + TN + FP + FN = Total number of examinations.
This note refers to definitions 9, 10, 11, and 12.

Positive Predictive Value (PPV): Three separate definitions:

a. (PPV1) (abnormal findings at screening): The percentage of all positive screening examinations
(BI-RADS® Categories 0, 4 and 5) that result in a tissue diagnosis of cancer within 1 year. An
initial screening assessment of Category 4 or 5 is unusual, but is possible.
PPV1 = TP/(number of positive screening examinations)
OR
PPV1 = TP/(TP + FP1) [FP1 = see 12a in glossary of statistical terms]

b. (PPV2) (biopsy recommended): The percentage of all screening or diagnostic examinations
recommended for biopsy or surgical consultation (BI-RADS® Categories 4 and 5) that resulted
in a tissue diagnosis of cancer within one year.
PPV2 = TP/(number of screening or diagnostic examinations recommended for biopsy)
OR
PPV2 = TP/(TP + FP2) [FP2 = see 12b in glossary of statistical terms]

c. (PPV3) (biopsy performed): The percentage of all known biopsies done as a result of positive
screening or diagnostic examinations or additional imaging evaluations of positive screening
examinations (BI-RADS® Categories 4 and 5) that resulted in a tissue diagnosis of cancer
within 1 year. PPV3 is also known as the Biopsy Yield of Malignancy or the Positive Biopsy
Rate (PBR).
PPV3 = TP/(number of biopsies)

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

OR
PPV3 = TP/(TP + FP3) [FP3= see 12c in glossary of statistical terms]

Negative Predictive Value: indicates the percentage of patients who truly do not have breast cancer when the mammogram was called normal.

Sensitivity: The probability of detecting a cancer when a cancer exists or the number of cancers diagnosed after being identified at mammography in a population within 1 year of the imaging examination, divided by all cancers present in that population in the same time period.
Sensitivity = TP/(TP + FN) [Remember that FN is actually a cancer case]

Specificity: The probability of interpreting an examination as negative when cancer does not exist; or the number of true-negative mammograms in a population divided by all actual negative cases (those for which there is no tissue diagnosis of cancer within 1 year of the mammogram) in the population.
Specificity = TN/(TN + FP)

Cancer Detection Rate: The number of cancers correctly detected at mammography per 1,000 patients examined at mammography.
a. This is of greatest value when calculated for screening examinations only or when calculated separately for screening and diagnostic examinations.
b. May also be calculated separately for PREVALENT cancers (those found at first-time mammographic examination) and for INCIDENT cancers (those found at subsequent screening examinations performed at or close to the recommended screening interval).
c. May also be calculated by AGE GROUP (40–49 years, 50–59 years, etc.).

Recall Rate (Abnormal Interpretation Rate: The percentage of examinations interpreted as positive. For screening mammography, positive examinations include BI-RADS® Categories 0, 4 and 5
assessments. For diagnostic mammography positive examinations include BI-RADS® Category 4
and 5 assessments.

Recall Rate (Abnormal Interpretation Rate) = (positive examinations) / (all examinations)
Note that in many scientific publications concerning screening mammography, a Recall Rate is reported as being equivalent to the Abnormal Interpretation Rate, even though some screening

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

examinations occasionally are given BI-RADS® Category 4 or 5 assessments. This is done because
prompt further imaging evaluation with mammography and/or ultrasound (to assess for extent of disease and to plan for imaging-guided biopsy) is also recommended in addition to tissue diagnosis
for almost all (if not all) screening examinations that are given BI-RADS® Category 4 or 5 assessments.

Note from Randy Rogers:
---

According to MQSA:

Recall Rate: # of positive examinations on screening (BI-RADS Categories 0,4 and 5) divided by the total number of examinations (screenings)

Would like this as one calculation and then a breakout of just the 0 and a breakout of 4/5. So:

Recall Rate Total

Recall Rate 0

Recall Rate 4/5

Unknown Exams: Positive exams that do not have a biopsy result (ex. BIRAD 0) and therefore cannot be classified as either true or false positives. For screening exams, BI-RADS® 0 is considered positive per ACR guidelines.

Proposed List of Reports for MQSA audit:

General Exam list: (drill down report would be ideal)

| PARAMETERS to query by: | Exam Data to Display: | Statistical Data to Display: |
|---|---|---|
| Date Range | Patient Name | Date time report was ran |
| Location ( Practice, Site, etc) | Patient ID | List of parameters used. |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

| | | |
|---|---|---|
| BIRAD codes to include. (ex. Looking for positive, negative exams). Do we want to create automatic groupings of BIRAD codes to report by?? | Accession Number | |
| Radiologist(s) – All or specific | Exam Date | Totals per location |
| Filter exams by Biopsy results, Include / Exclude exams without biopsies. | Exam Status | Totals per Radiologist |
| Procedure Codes to query on: Ex. Looking for only Mammo Screening, or only Mammo Diagnostic exams, only Ultrasounds etc. | Dictating Radiologist | Totals per BIRADS category |
| | Signing Radiologist | |
| | Biopsy Result | |
| | Biopsy Date | |
| | BIRAD assigned | |

Report should not list any exams that have not been performed. All in Signed1 status.

Summary Reporting by Location and or By Radiologist: (could be 2 different reports but data queried should be identical)

| PARAMETERS to query by: | Statistical Data to Display: | Statistical Data to Display: |
|---|---|---|
| Date Range | Break down exams by Screening vs Diagnostic | Date time report was ran |
| Location ( Practice, Site, etc) | Break down Sreening and Diagnostic by procedure. | List of parameters used. |
| | Breakdown each procedure by BIRAD. ( so total for each birad per site/radiologist) | Total exams by Screening vs Diagnostic |
| | Summary per Screening , | Total Sreening and |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

| | | |
|---|---|---|
| | per Diagnostic:<br>True Positive Total<br>True Negative Total<br>False Positive Total<br>False Negative Total<br>Sensitivity<br>Specificity<br>PPV<br>Unknown exams | Diagnostic by procedure. |
| | Combined total of Screening and Diagnostic exams. | Total each procedure by BIRAD. ( so total for each birad per site/radiologist) |
| | | |
| | | |

List of False Negative Exams - by Location and or By Radiologist:

| PARAMETERS to query by: | Exam Data to Display: | Statistical Data to Display: |
|---|---|---|
| Date Range | Patient Name | Date time report was ran |
| Location ( Practice, Site, etc) | Patient ID | List of parameters used. |
| Radiologist ( All or specific | Accession Number | Total exams by Location |
| | Exam Date | Total exams by Radiologist |
| | Exam Status | |
| | Dictating Radiologist | |
| | Signing Radiologist | |
| | Biopsy Result | |
| | BIRAD assigned | |

List of False Positive Exams - by Location and or By Radiologist:

| PARAMETERS to query by: | Exam Data to Display: | Statistical Data to Display: |
|---|---|---|
| Date Range | Patient Name | Date time report was ran |
| Location ( Practice, Site, etc) | Patient ID | List of parameters used. |
| Radiologist ( All or specific | Accession Number | Total exams by Location |
| | Exam Date | Total exams by Radiologist |
| | Exam Status | |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

| | | |
|---|---|---|
| | Dictating Radiologist | |
| | Signing Radiologist | |
| | Biopsy Result | |
| | BIRAD assigned | |

List Mammography exams performed by Technologist:

| PARAMETERS to query by: | Exam Data to Display: | Statistical Data to Display: |
|---|---|---|
| Date Range | Patient Name | Date time report was ran |
| Location ( Practice, Site, etc) | Patient ID | List of parameters used. |
| Technologist | Accession Number | Total exams by Location |
| Select procedures to include ( ex Mammo Screening, Mammo Diagnositc, Mammo Ultrasounds) | Exam Date | Total exams by Technologist |
| | Exam Status | |
| | Dictating Radiologist | |
| | Signing Radiologist | |
| | Biopsy Result | |
| | BIRAD assigned | |

By technologist - list of exams where a technologist has performed a mammogram or interventional procedure within the date range and location specified in the report.

List of Positive exams with outstanding Pathology Follow-ups:

| PARAMETERS to query by: | Exam Data to Display: | Statistical Data to Display: |
|---|---|---|
| Date Range | Patient Name | Date time report was ran |
| Location ( Practice, Site, etc) | Patient ID | List of parameters used. |
| | Accession Number | Exam Total |
| | Exam Date | |
| | Exam Status | |
| | Dictating Radiologist | |
| | Signing Radiologist | |
| | Biopsy Result | |
| | BIRAD assigned | |

All positive mammography exams performed during the specified period that do not have pathology results recorded nor does a later exam exist with pathology results.

List of Positive exams Follow-ups by BIRAD:

| PARAMETERS to query by: | Exam Data to Display: | Statistical Data to Display: |
|---|---|---|

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

| | | |
|---|---|---|
| Date Range | GROUP EXAMS by Recommendation ( ex. BIRAD 0, followup exam scheduled is Ultrasound, etc) | Date time report was ran |
| Location ( Practice, Site, etc) | Patient Name | |
| BIRAD code(s) to include | Patient ID | List of parameters used. |
| Procedure Codes to query on: Ex. Looking for only Mammo Screening, or only Mammo Diagnostic exams, only Ultrasounds etc. | Accession Number | Exam Total |
| | Exam Date | |
| | Exam Status | |
| | Dictating Radiologist | |
| | Signing Radiologist | |
| | Biopsy Result | |
| | BIRAD assigned | |
| | NEXT Exam Reffering MD# | |
| | NEXT Exam Accesion # | |
| | NEXT Exam Date | |
| | NEXT EXAM Status | |

New requirement provide a report (for Referring Physician) listing patients that have ignored all reminder letters sent (so have not returned). Also listing any patients that RadNet has not received biopsy results from.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 5. Resolved Defects

Bugs, Suggested Features and Support Issues resolved in build 1.32. The extract is taken from Redmine bug tracking system and only displays defects resolved in 1.32.

| # | Status | Tracker | Priority | Subject | Category | Target version |
|---|---|---|---|---|---|---|
| 860 | Closed | Bug | High | Attempting to create Technical Repeat throws error | Thick Client GUI | 1.31 |
| 850 | Closed | Bug | High | Beaumont - Management Reports window should not be modal | Thick Client GUI | 1.27 |
| 839 | Closed | Bug | High | Interactive dictations will stay in Dictated status if use submit button | Thick Client GUI | 1.31 |
| 790 | Closed | Bug | High | View / Edit data window prompts for required fields | Thick Client GUI | 1.29 |
| 848 | Closed | Bug | Normal | Mammography directory for lookups | Admin Tools | 1.31 |
| 847 | Closed | Bug | Normal | Pending Dictation / Dictated / Report Drafted / Pending Review / Dictated need to be appended with (All) | Thick Client GUI | 1.31 |
| 828 | Closed | Bug | Normal | Macro lookup - Cannot deactivate or delete a macro | Admin Tools | 1.30 |
| 827 | Closed | Bug | Normal | Assigning macros to other users includes all resource types | Thick Client GUI | 1.30 |
| 823 | Closed | Bug | Normal | Macros ignoring "assign to user" | Thick Client GUI | 1.30 |
| 822 | Closed | Bug | Normal | Remove access string Macro Editing Advanced tab and cannot edit macros | Thick Client GUI | 1.30 |
| 817 | Closed | Bug | Normal | Order of tabs for Order Signed | Thick Client GUI | 1.30 |
| 674 | Closed | Feature | Normal | Cancelled Orders work list buttons not enabled | Thick Client GUI | 1.31 |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 6. Known Limitations

The following are Bugs, Suggested Features, and Support Issues found in build 1.32. This build is the current QE build and testing is ongoing. The list may increase in size. This document will not be updated or re-released.

| # | Status | Subject | Assigned to | Category | Target version | Resolved Version |
|---|---|---|---|---|---|---|
| 879 | New | If RIS in minimized with Dictate window open the application will not open to desktop | Clifton Harding | Thick Client GUI | 1.32 | |
| 878 | New | All hyperlinks in dictate / reporting summary data pane open as "Referring Details" | Stephen Powell | Thick Client GUI | 1.32 | |
| 877 | New | Interactive user cannot dictate if Dictation Control Mode is minimized | Clifton Harding | Thick Client GUI | 1.32 | |
| 876 | New | Error accessing transcribed records | Clifton Harding | Thick Client GUI | 1.32 | |
| 875 | New | Error trying to preview report | Clifton Harding | Thick Client GUI | 1.32 | |
| 873 | Resolved | User can create another new macro from the create new macro editor | Denis Doiron | Admin Tools | 1.32 | 1.33 |
| 872 | Resolved | Concurrency error on saving macro lookup. | Denis Doiron | Admin Tools | 1.32 | 1.33 |
| 871 | Resolved | Create a new macro from Macro Editor returns a Unique key violation | Denis Doiron | Admin Tools | 1.32 | 1.33 |
| 866 | New | Error thrown when changing Performed Procedure Code durning perfom exam | Kevin Molyneaux | Thick Client GUI | 1.32 | |
| 865 | New | Forms and Labels set to auto print can have multiple instances open | Darcy Aiken | Thick Client GUI | 1.32 | |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# User Release Notes

for eRAD RIS
Version 1.0
Build 33

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Purpose ..... 3
2. Intended Audience ..... 3
3. Installing/Accessing the Application ..... 3
4. New Features and Enhancements ..... 4
Interactive – Submit Button Changes ..... 4
Unknown Referring Fixes ..... 5
Enhancements for Suspending / Un-suspending Studies ..... 6
Interpretation Type Handling ..... 7
New Management Reports ..... 8
Mammography Biopsy and Pathology ..... 10
Scan Doc Events ..... 17
Front end integration with PACS - MRN + Accession ..... 17
5. Resolved Defects ..... 18
6. Known Limitations ..... 20

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 1. Purpose

This document describes some of the new features and changes implemented in eRAD RIS as of the end of Sprint 33. This version of eRAD RIS is referred to as Build 1.33.

Only features which can be visually demonstrated to the user will be outlined in this document.

# 2. Intended Audience

This document is created by the RIS Development team for the RadNet RIS management team.

# 3. Installing/Accessing the Application

The installation guide for the eRAD RIS client have been posted to the RadNet Wiki page at http://mdbal01rdtweb/Wiki/

Under the RIS menu, click on the rRIS page. The credentials to access the page are:
Username: rRIS
Password: Summerside

*Please note that Build 1.33 is considered a new core release of the application and will require a reinstallation of eRAD RIS. This is accomplished by navigating to the eRAD RIS shared installation drive and running the CoreInstall.bat file (ex: I:\RISDeployment\CoreInstall.bat)*

If you experience difficulties accessing the application, please do not hesitate to contact Darcy Noye with the PEI RIS Development Team.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 4. New Features and Enhancements

## Interactive – Submit Button Changes

When opening a dictate screen as an interactive user the submit button will be modified to not show the bypass VR option as they really don't apply to this workflow. The normal submit option get rewired to send the interactive dictation directly to the transcriptionists for review.

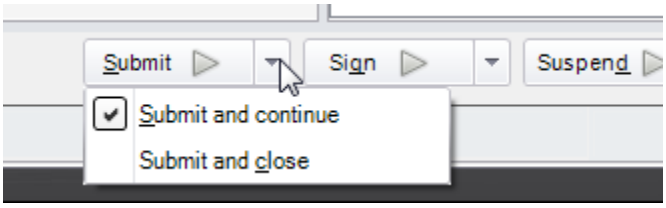



**Figure 4.1 – Submit Button Options for Interactive Dictation User**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Unknown Referring Fixes

When a referring is unknown, the normal search button now launches the reconciliation screen. This prevents them from orphaning an unknown referring by the user selecting a different referring from the search without using the reconciliation screen.

On the user manager resource tab, the unknown referring checkbox is data bound ( as it was before) but is now visually disabled. This prevents someone from manually creating an unknown referring directly in this screen, without associating them to an order (which would make them an orphan). It also has the benefit of preventing someone from resolving an exception by unchecking the unknown checkbox, and selecting either no other resource type, or selecting them as a rad, tech, or transcriptioninists. This would create an order that is not truly linked to a referring.

When initially creating the unknown referring, the button has been renamed to Add Unknown (from Create New) to make it more intuitive.

When an order is Book-X 'ed (multiple orders are created) it is possible to re-use the same "unknown referring" on more than one order. However, the process for resolving unknown referring expects a relationship of 1 to 1 between order and unknown referring. Therefore, a message was generated after resolving each order saying:

"The unknown referring is referenced elsewhere and cannot be removed."

To avoid confusion this message was changed to:
"Your changes were saved, however the original unknown referring is still linked to another order.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Enhancements for Suspending / Un-suspending Studies

Additional ways to suspend and un-suspend studies has been added in build 33. In figure 4.1 is displaying the dictate window open on a study that is in suspended status. Two new options have been added to the Suspend button:

- Unsuspend and continue
- Unsuspend and close

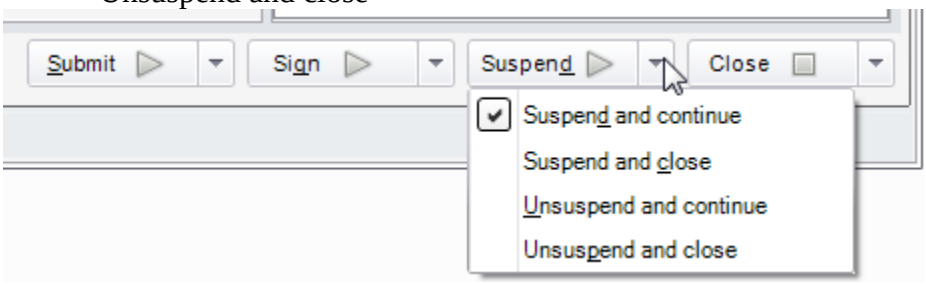



**Figure 4.1 – Un-spending options added to Suspend button drop list**

Also from the main work lists, context menu items have been added. When the study is in the Pending Dictation or Pending Signature work lists the context menu item option for Suspend Study has been added. For studies on the Suspended work list, the context menu item Unsuspend Study has been added.

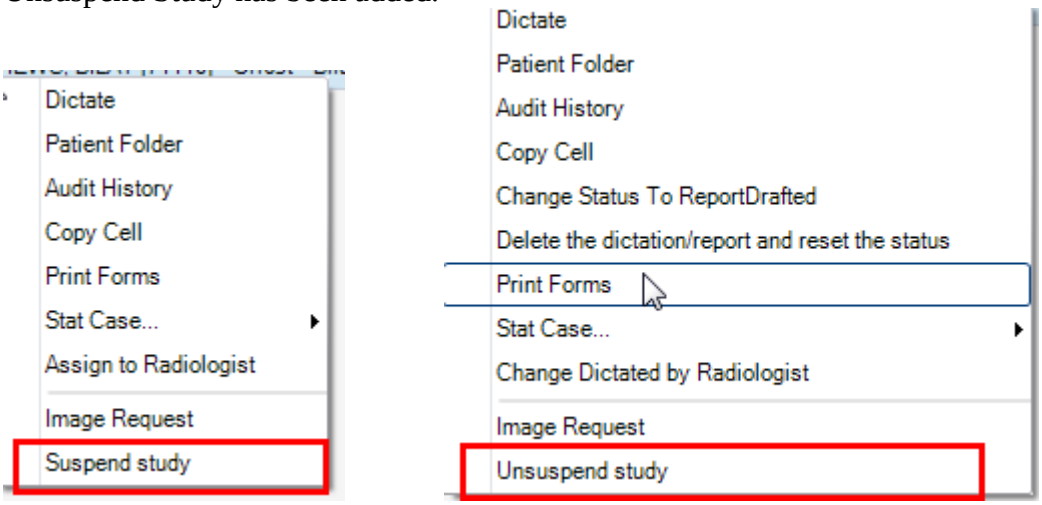



**Figure 4.2 – Context menus displaying options to Suspend / Un-suspend studies from the work list**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Interpretation Type Handling

In previous builds a non-Interactive (or desktop dictation) would encounter an error when opening a dictated study that was completed using Interactive dictation, and vice versa. In build 33 when a user opens a study that was dictated in a mode different than their current mode, they will be prompted with message box with 3 options.

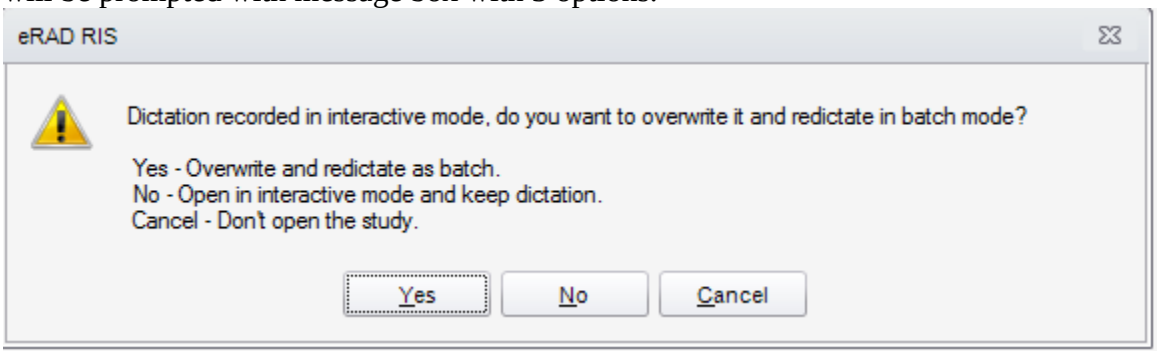



**Figure 4.3 – New message box for non-interactive user opening interactive dictation.**

The message describes the action of each option.

**Yes –** Will open the dictate window with no dictation, and no text in report. If the dictate window is closed you will be prompted if you would like to save your changes. Selecting no will retain the original

**No –** Will open the dictate window in Interactive mode (even if the user's current preference is non-interactive) and keep the current dictation

**Cancel –** Will return the user to the work list.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# New Management Reports

## 1. Audit Log

**Audit Log**
**Date:** 1/24/2012
**User:** IAN

| Date\Time | Patient | User | Description | Changes |
|---|---|---|---|---|
| 1/24/2012 7:55 AM | (998877799): Eckerd, Sally | (Ian):Power, Ian | Study Retrieved | |
| 1/24/2012 8:04 AM | (998877799): Eckerd, Sally | (Ian):Power, Ian | Study Updated | <Changes><ModifiedRows><c_patient><last_medication_sync Before="18/01/2012 4:51:24 PM -04:00" After="24/01/2012 8:01:29 AM -04:00" /></c_patient></ModifiedRows><DeletedRows><c_patient_medication /></DeletedRows><AddedRows><c_patient_medication /></AddedRows></Changes> |
| 1/24/2012 8:04 AM | (998877799): Eckerd, Sally | (Ian):Power, Ian | Study Updated | <Changes><AddedRows><c_patient_contact /></AddedRows></Changes> |
| 1/24/2012 8:04 AM | (998877799): Eckerd, Sally | (Ian):Power, Ian | Study Retrieved | |
| 1/24/2012 8:07 AM | (998877799): Eckerd, Sally | (Ian):Power, Ian | Study Updated | <Changes><ModifiedRows><c_patient><last_medication_sync Before="24/01/2012 8:01:29 AM -04:00" After="24/01/2012 8:04:43 AM -04:00" /></c_patient><c_patient_medication><dea_class_code Before="" After="0" /></c_patient_medication><c_patient_lab_result><observation_date Before="05/02/2010 12:00:00 AM -04:00" After="15/07/2009 12:00:00 AM -03:00" /><requested_date Before="17/01/2012 12:00:00 AM -04:00" After="15/07/2009 12:00:00 AM -03:00" /></c_patient_lab_result></ModifiedRows><DeletedRows><c_patient_medication /></DeletedRows><AddedRows><c_patient_medication /></AddedRows></Changes> |

**Figure 4.4 – Audit Log Report**

## 1. Audit Log by Patient

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

**Audit Log by Patient**
**Patient:** (11040) Senior, Bob

| Log Date | Log Time | User ID | Username | description | modification meta data |
|---|---|---|---|---|---|
| 01-25-2012 | 01:14 PM | Ian | Ian Power | Study Scheduled | <Changes><AddedRows><c_patient /><c_patient_drug_allergy /><c_patient_problem_list /><c_patient_medication /><c_patient_lab_result /></AddedRows></Changes> |
| | 01:14 PM | Ian | Ian Power | Study Scheduled | <Changes><AddedRows><c_visit /></AddedRows></Changes> |
| | 01:14 PM | Ian | Ian Power | Study Scheduled | <Changes><AddedRows><c_order /></AddedRows></Changes> |
| | 01:14 PM | Ian | Ian Power | Study Scheduled | <Changes><AddedRows><c_study /><c_study_item /><c_study_item_certification /><c_billing_detail /></AddedRows></Changes> |
| | 01:15 PM | Ian | Ian Power | Patient Retrieved | |
| | 01:15 PM | Ian | Ian Power | Study Retrieved | |
| | 01:15 PM | Ian | Ian Power | Study Confirmed | <Changes><ModifiedRows><c_study><confirmed_flag Before="N" After="Y" /></c_study></ModifiedRows></Changes> |
| | 01:15 PM | Ian | Ian Power | Study Retrieved | |
| | 01:16 PM | Ian | Ian Power | Study Updated | <Changes><ModifiedRows><c_patient><last_medication_sync Before="25/01/2012 1:13:59 PM -04:00" After="25/01/2012 1:15:59 PM -04:00" /></c_patient><c_patient_medication><dea_class_code Before="" After="0" /></c_patient_medication></ModifiedRows></Changes> |
| | 01:16 PM | Ian | Ian Power | Study Updated | <Changes><ModifiedRows><c_visit><provided_clinical_summary_date Before="25/01/2012 12:00:00 AM" After="25/01/2012 1:16:02 PM" /><timely_access_date Before="25/01/2012 12:00:00 AM" After="25/01/2012 1:16:02 PM" /><transition_of_care_summary_flag Before="N" After="Y" /><transition_of_care_to_provider_flag Before="N" After="Y" /></c_visit></ModifiedRows><AddedRows><c_patient_contact /></AddedRows></Changes> |

**Figure 4.5 – Audit Log by Patient**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Mammography Biopsy and Pathology

A tab was added to the Post Exam screen that displays current biopsies, allows for adding new biopsies, and provides edit/remove functionality.

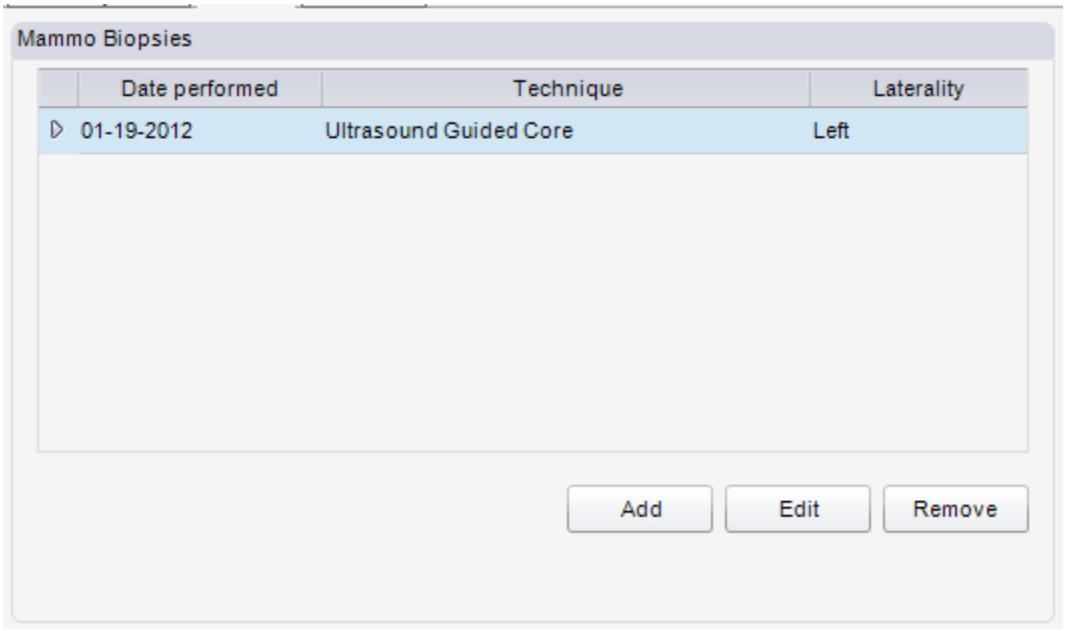



**Figure 4.6 – Mammo Biopsy data pane from the Follow-up data window**

- Clicking the Add or Edit button will present the Add/Edit Dialog, where biopsy information can be collected. On the next screen capture:
  - 1: Correlate biopsies with other studies
    - Clicking a checkbox will correlate the biopsy with the study corresponding to the checkbox row. After checking, the biopsy would appear if the checked row study was opened.
  - 2: Required fields
    - All fields on this side of the screen are required as of Sprint 29.
  - 3: Technical data
    - No fields on this side are required as of Sprint 29.
  - 4: Multi-type look ahead

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

- Pathology codes will automatically display if the first character of any word in the code is entered. For instance if the desired code is "The First Code", it will appear if the character (T, F, or C) is entered.

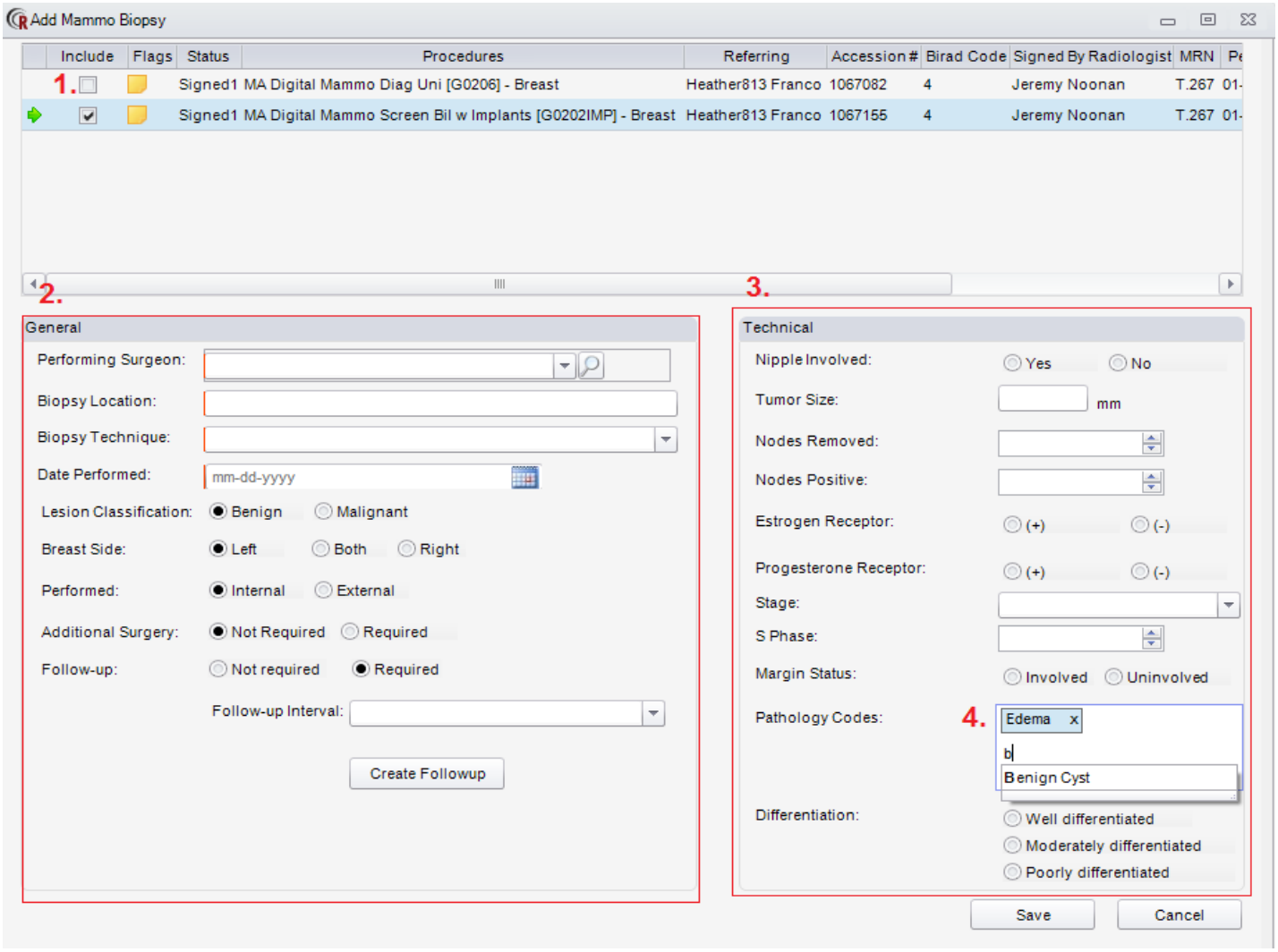



**Figure 4.7 – Add Mammo Biopsy**

- The performing surgeon can be selected /added from the referring physician popup.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

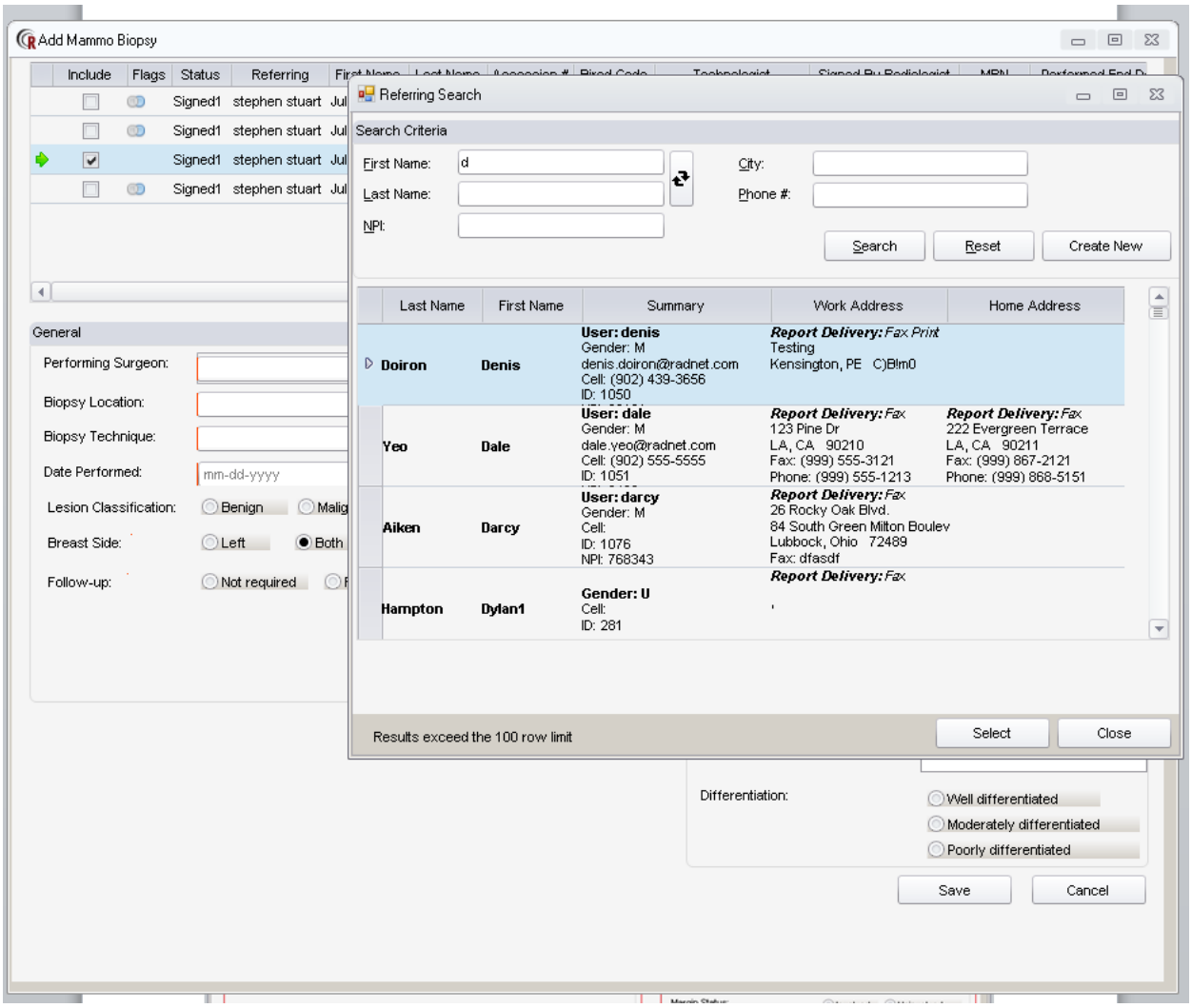



**Figure 4.8 – Performing Surgeon Search**

- Follow-up orders can be created after “Create Followup” is clicked

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

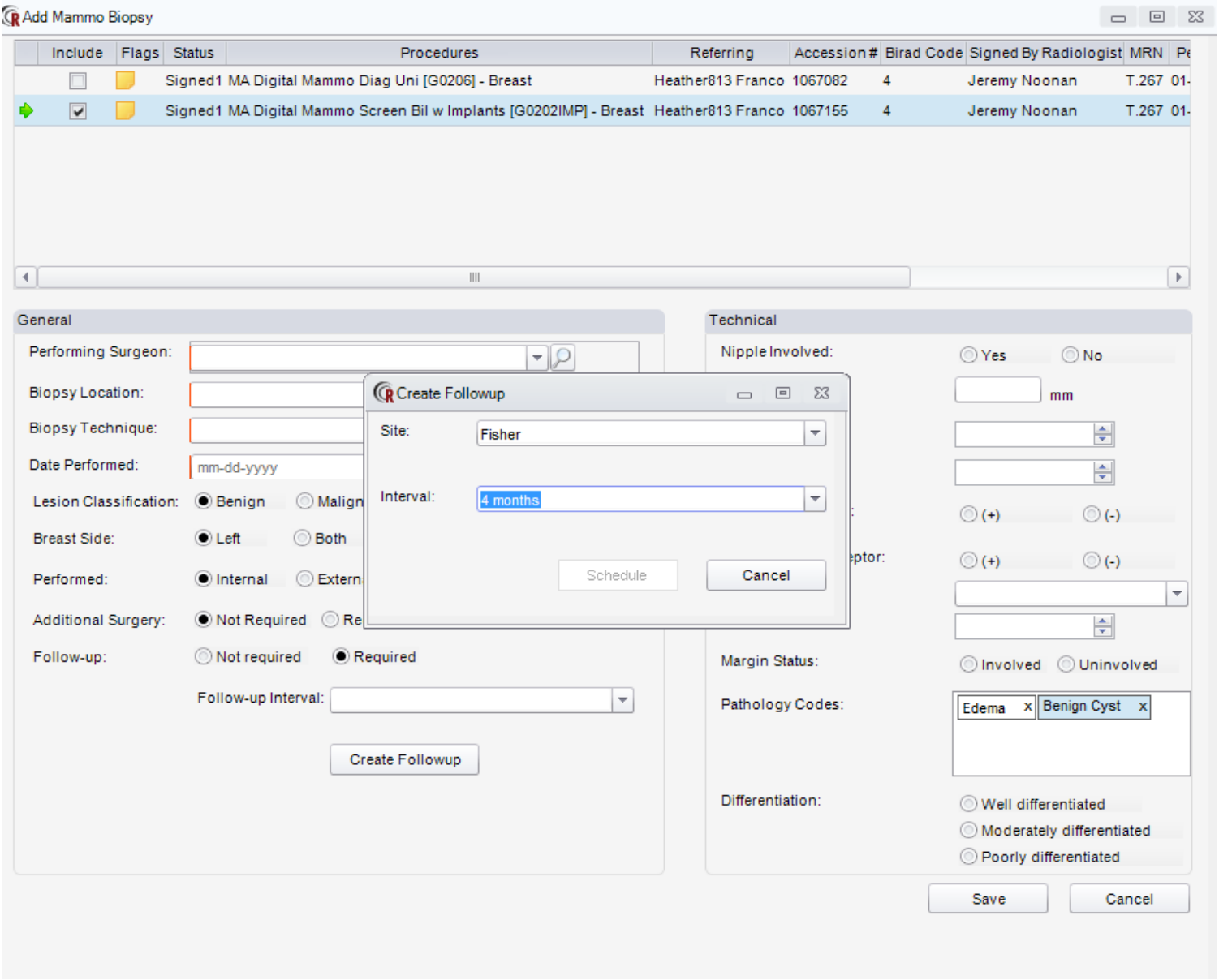



**Figure 4.9 – Dialogue from Create Followup**

- Pathology, Biopsy techniques, and Biopsy stages can be added/edited from the lookup table editor:

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

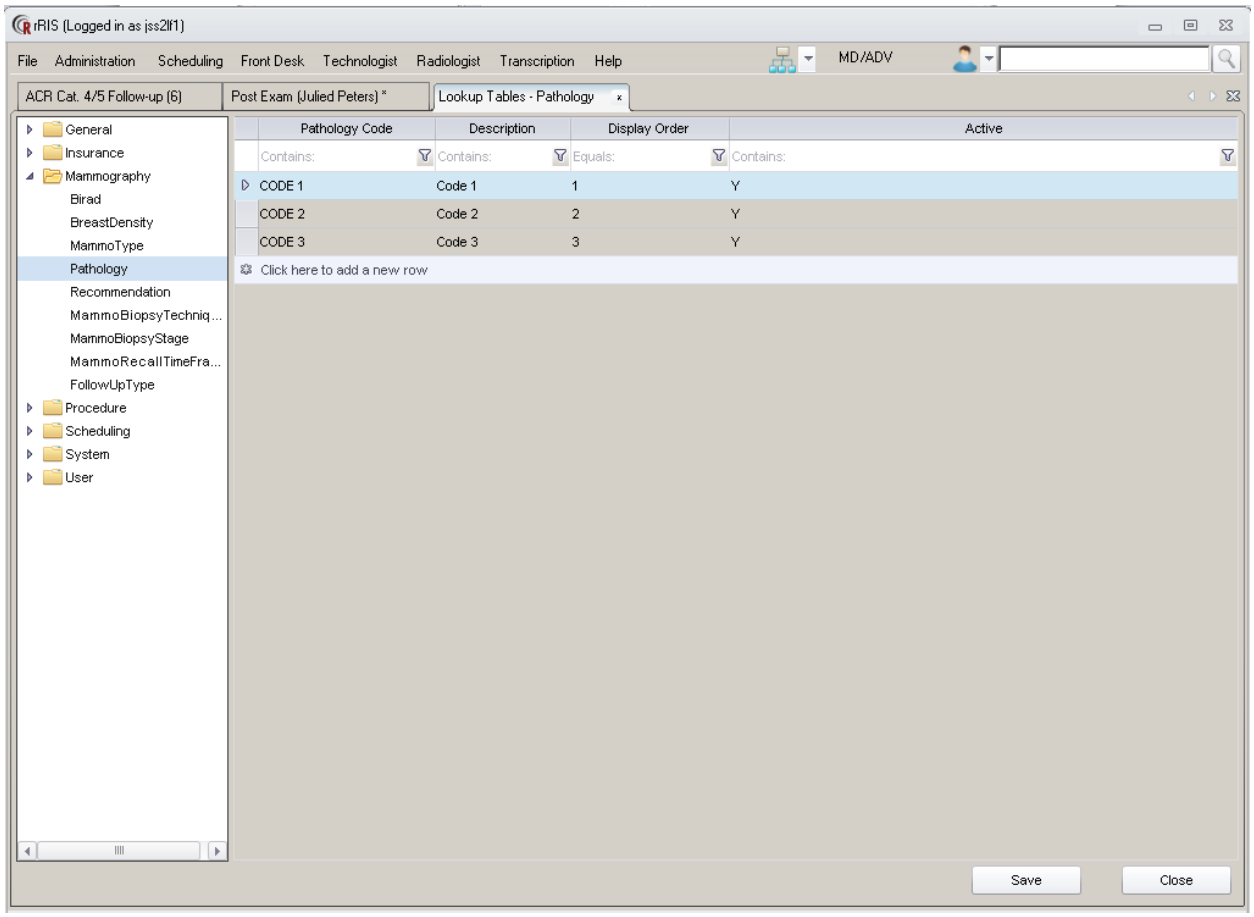



**Figure 4.10 – Pathology lookup table**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

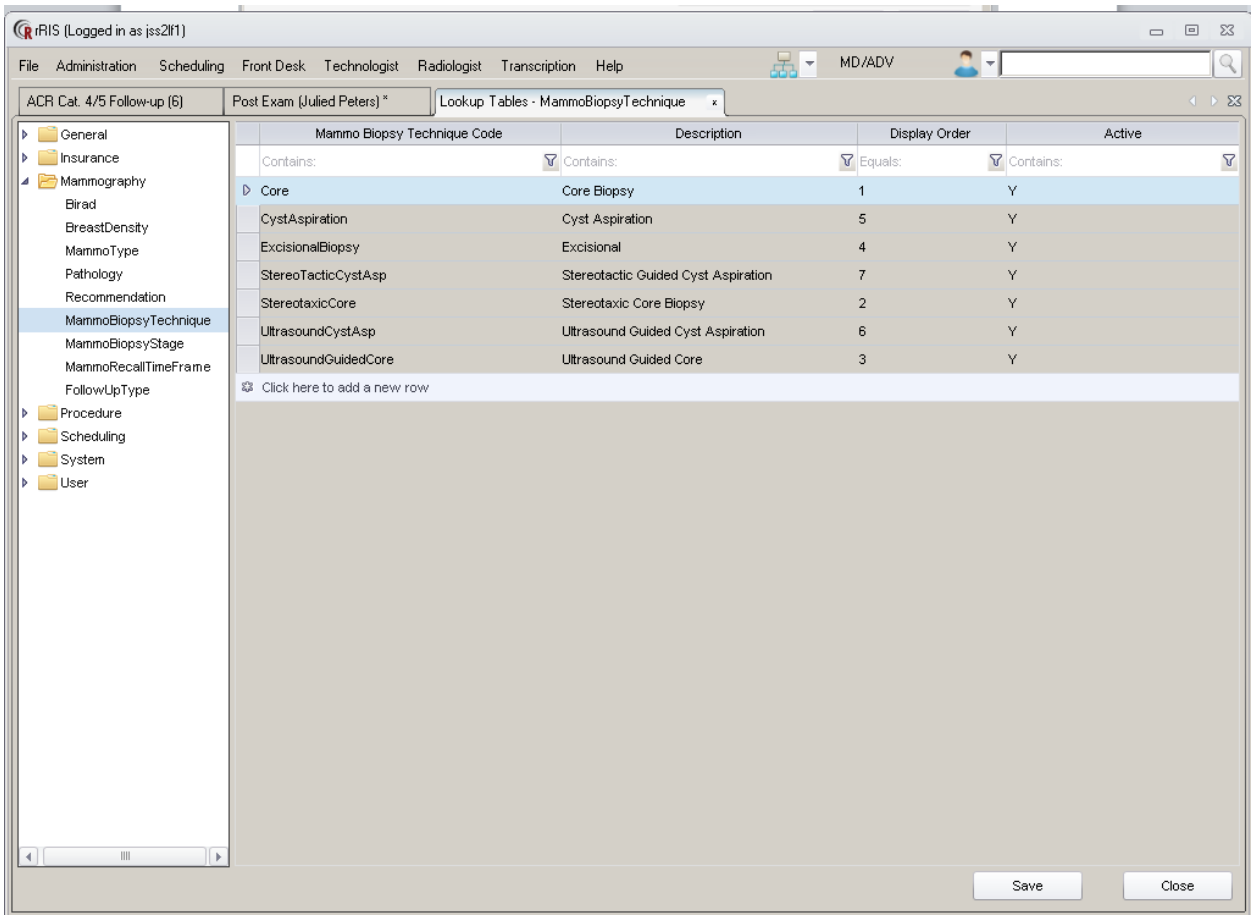



**Figure 4.11 – Mammo Biopsy Technique Lookup Table**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

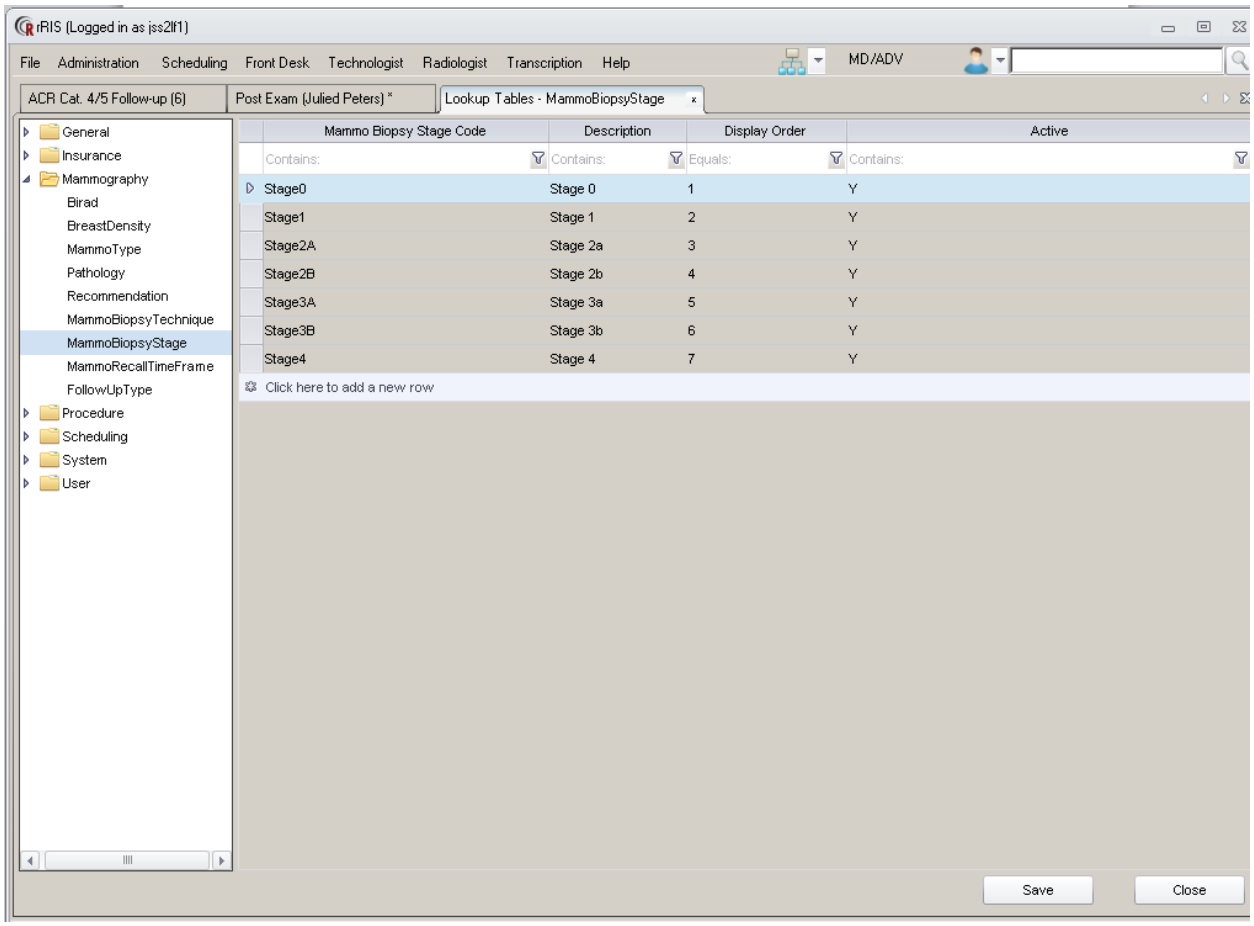



**Figure 4.12 – Mammo Biopsy Stage Lookup table**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Scan Doc Events

The transfer of scanned documents to the PACS was needed. The action queue mechanism already supported sending events to Mirth. New db_action types were added for StudyCorrected, ScanDocAssociated, ScanDocDisassociated, ScanDocCreated, ScanDocUpdated, ScanDocDeleted. Actions of these types are sent to Mirth which writes out an xml file describing the action and containing the relevant keys.
From the PACS side a script was written to pull data from the RIS database and push it to the PACS. As described above we now notify the script that images / documents should be transferred.

## Front end integration with PACS - MRN + Accession

Previously we used the study instance UIDS to match with the PACS image. In build 33 we will now match on MRN as well as the Accession number as well as the 2 most relevant Priors.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 5. Resolved Defects

Bugs, Suggested Features and Support Issues resolved in build 1.33. The extract is taken from Redmine bug tracking system and only displays defects resolved in 1.33.

| # | Tracker | Priority | Subject | Category | Target version |
|---|---|---|---|---|---|
| 888 | Bug | Urgent | Perform Exam - If you select include check box on second exam change reason code is required | Thick Client GUI | 1.33 |
| 881 | Bug | High | Constraint exception on visit table when saving a multiple study containers | Web Services/DB | 1.32 |
| 872 | Bug | High | Concurrency error on saving macro lookup. | Admin Tools | 1.32 |
| 866 | Bug | High | Error thrown when changing Performed Procedure Code durning perfom exam | Thick Client GUI | 1.32 |
| 856 | Bug | High | Mammo exams > Recommendation and Tissue Density are not saving | Thick Client GUI | 1.31 |
| 742 | Bug | High | Beaumont - Issue with WSBinding | Web Services/DB | 1.25 |
| 898 | Bug | Normal | Suspending a transcribed study from work list context menu will not prompt with Suspended message | Thick Client GUI | 1.33 |
| 878 | Bug | Normal | All hyperlinks in dictate / reporting summary data pane open as "Referring Details" | Thick Client GUI | 1.32 |
| 873 | Bug | Normal | User can create another new macro from the create new macro editor | Admin Tools | 1.32 |
| 871 | Bug | Normal | Create a new macro from Macro Editor returns a Unique key violation | Admin Tools | 1.32 |
| 863 | Bug | Normal | Error on AssignedRad when attempting to edit image request from perform exam. | Thick Client GUI | 1.31 |
| 862 | Bug | Normal | Attempting to Add image request can throw an error | Thick Client GUI | 1.31 |
| 855 | Bug | Normal | Follow up work lists still have Post Exam in context menu | Thick Client GUI | 1.31 |
| 832 | Bug | Normal | Demographics at encounter is duplicated | Thick Client GUI | 1.32 |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

| | | | | | |
|---|---|---|---|---|---|
| 768 | Bug | Normal | CQM window > Report Interval fields need to be longer | Thick Client GUI | 1.33 |
| 724 | Bug | Normal | Patient Tab > View Clinical Document wrong tab stop | Thick Client GUI | 1.33 |
| 679 | Bug | Normal | Drug Allergy data panel | Thick Client GUI | 1.33 |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 6. Known Limitations

The following are Bugs, Suggested Features, and Support Issues found in build 1.33. This build is the current QE build and testing is ongoing. The list may increase in size. This document will not be updated or re-released.

| # | Status | Subject | Category | Target version | Resolved Version |
|---|---|---|---|---|---|
| 895 | New | Signing Interactive job as non interactive user can delete report | Thick Client GUI | 1.33 | |
| 886 | Resolved | Removing Pathology codes throws error | Thick Client GUI | 1.33 | 1.34 |
| 883 | Resolved | Saving Biopsy result can throw error | Thick Client GUI | 1.33 | 1.34 |
| 900 | New | Add multiple to UserGroupPermission throws exception | Admin Tools | 1.33 | |
| 899 | Resolved | Study suspended without interpretation throws error after suspended message | Thick Client GUI | 1.33 | 1.34 |
| 896 | Resolved | Issues with Changing "Internal RIS" passwords. | Admin Tools | 1.33 | 1.34 |
| 894 | Resolved | Multi order scheduling search results not picking correct times | Thick Client GUI | 1.33 | 1.34 |
| 893 | New | Macro editing - same user can be added twice | Admin Tools | 1.33 | |
| 892 | New | Dictate > if duplicate MRN's exist but from different issuer of ID the Summary and Exam Information can display different patient names | Web Services/DB | 1.33 | |
| 891 | New | multiple study scheduling search results not correct for first site on list | Web Services/DB | 1.33 | 1.34 |
| 890 | Resolved | On a new order removing procedure with laterality code throws error | Thick Client GUI | 1.33 | 1.34 |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

| | | | | | |
|---|---|---|---|---|---|
| 887 | New | Cannot submit dictation db contraint | Web Services/DB | 1.33 | |
| 885 | New | Mammo Follow-up > Add \ Edit biopsy tabbing order | Thick Client GUI | 1.33 | |
| 884 | Resolved | When region and language format is not English (United States) then "Meaningful Use" on administration screen does not work | Thick Client GUI | 1.33 | 1.34 |
| 882 | New | Adding Performing Surgeon from search throws error | Thick Client GUI | 1.33 | |
| 897 | Resolved | Placement of tabs on Book X | Thick Client GUI | 1.33 | 1.34 |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# User Release Notes

for eRAD RIS
Version 1.0
Build 34

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Purpose ..... 3
2. Intended Audience ..... 3
3. Installing/Accessing the Application ..... 3
4. New Features and Enhancements ..... 4
TWAIN Scanning ..... 4
Enhancements to Status Area ..... 6
MU Screen Changes ..... 7
Organization Added to Exam Information of Summary / Exam Details ..... 9
Medical Transcriptionist Reminder On Save ..... 11
Suspending from Work List Permissions ..... 12
Interactive Panel Event Logging ..... 13
Spell Check Prompts ..... 14
Extended Field Functionality ..... 15
Canonical Fax Numbers ..... 17
MQSA Reporting ..... 18
5. Resolved Defects ..... 38
6. Known Limitations ..... 40

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 1. Purpose

This document describes some of the new features and changes implemented in eRAD RIS as of the end of Sprint 34. This version of eRAD RIS is referred to as Build 1.34.

Only features which can be visually demonstrated to the user will be outlined in this document.

# 2. Intended Audience

This document is created by the RIS Development team for the RadNet RIS management team.

# 3. Installing/Accessing the Application

The installation guide for the eRAD RIS client have been posted to the RadNet Wiki page at http://mdbal01rdtweb/Wiki/

Under the RIS menu, click on the rRIS page. The credentials to access the page are:
Username: rRIS
Password: Summerside

*Please note that Build 1.34 is considered a new core release of the application and will require a reinstallation of eRAD RIS. This is accomplished by navigating to the eRAD RIS shared installation drive and running the CoreInstall.bat file (ex: I:\RISDeployment\CoreInstall.bat)*

If you experience difficulties accessing the application, please do not hesitate to contact Darcy Noye with the PEI RIS Development Team.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 4. New Features and Enhancements

## TWAIN Scanning

Originally the eRAD RIS was going to support WIA (Windows Image Acquisition: http://msdn.microsoft.com/en-us/library/windows/desktop/ms630368(v=vs.85).aspx) scanning only. Most modern scanners support WIA technology with updated drivers from the manufacturer. There are some that have not provided support and do not intend to provide support for pre-existing hardware.

Build 34 will now support TWAIN as well as the existing support we had for WIA.
In the figure below you will see a new menu option under the File Menu titled Scanning. The sub menu provides the user with the option to select the type of scanning they require.

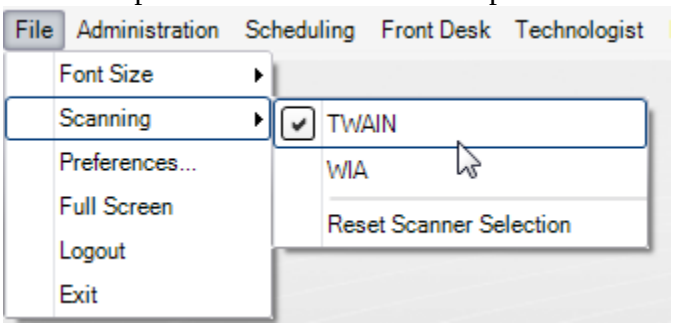



**Figure 4.1 – File > Scanning menu**

Also, in the above menu, it the option "Reset Scanner Selection", which is used to reset the default scanner for cases where the user has more than one scanner to choose from and wants to switch scanners or the previously used scanner has been disconnected. After choosing "Reset Scanner Selection", the next time the user performs a scan they will receive a prompt to select a scanner.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

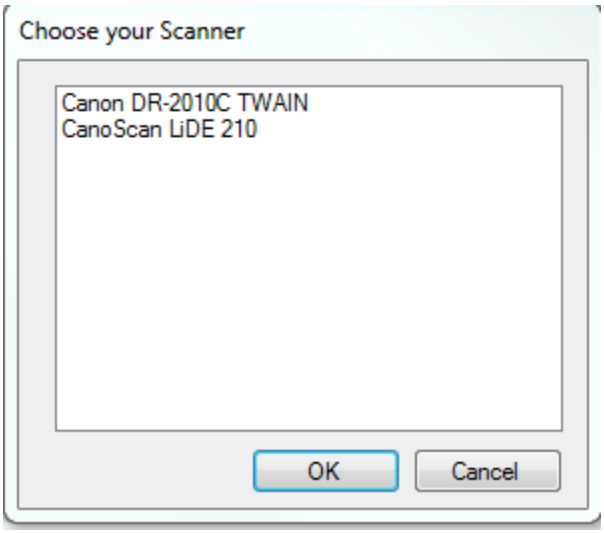



**Figure 4.2 – Choose your Scanner selection box**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Enhancements to Status Area

To make the status message area more usable, we've split the context based menu items and non-context based status messages as displayed below

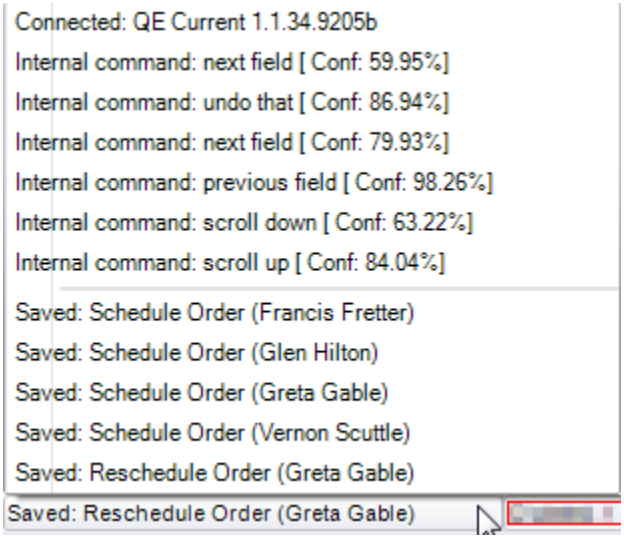



**Figure 4.3 – Enhanced Status Area**

The non-context items show at the top above the status area separator in order that they occurred (up to 12 items). As you can see in the figure above it is displaying messages for internal commands and are displaying the type of command (Internal or Custom) the command issued (next field, Scroll down, etc.) and the confidence that the recognizer determined the speech ( [Conf: 86.94%] ).

The context based status messages are displayed at the bottom of the list. The text showing on the actual status bar in this case "Saved: Reschedule Order (Greta Gable)" is the last thing that was written regardless of context.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## MU Screen Changes

Changes were identified as needed in order to improve usability of certain MU features.

1) The eLab button was removed completely.
2) The eRx button is security driven.
3) Moved the blood pressure, the patient education and the immunization grid to the hidden MU window.

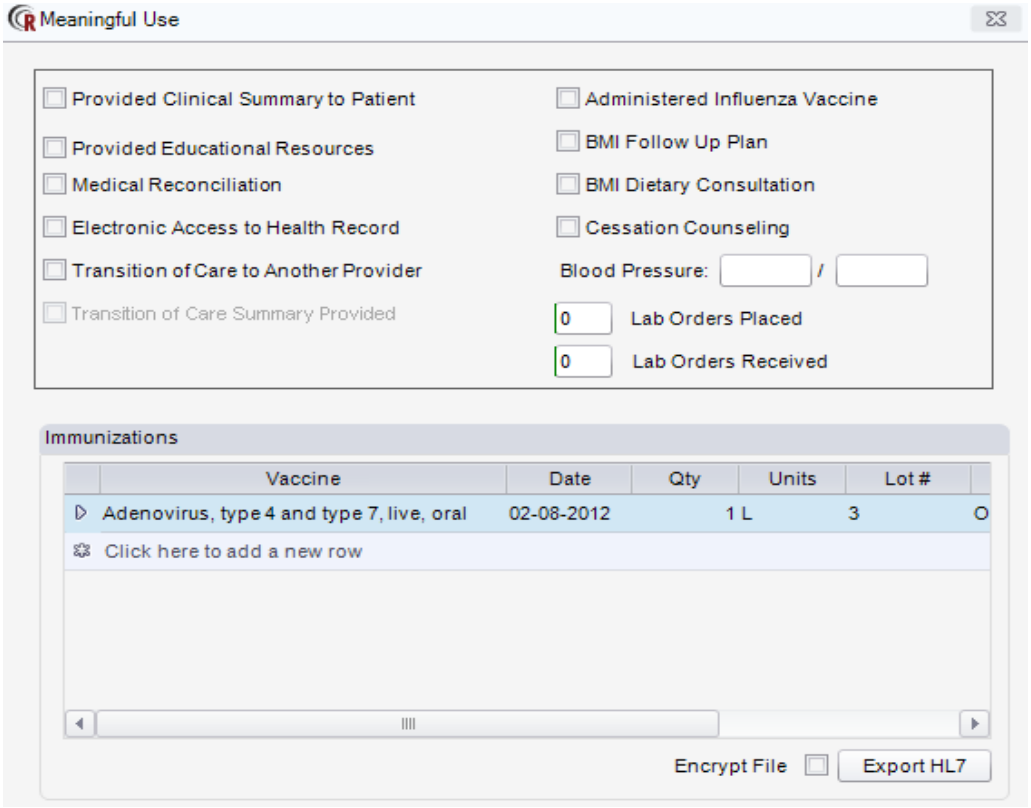



**Figure 4.4 – Hidden MU window changes**

4) Visit Tab has been added to the Perform Exam workflow.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

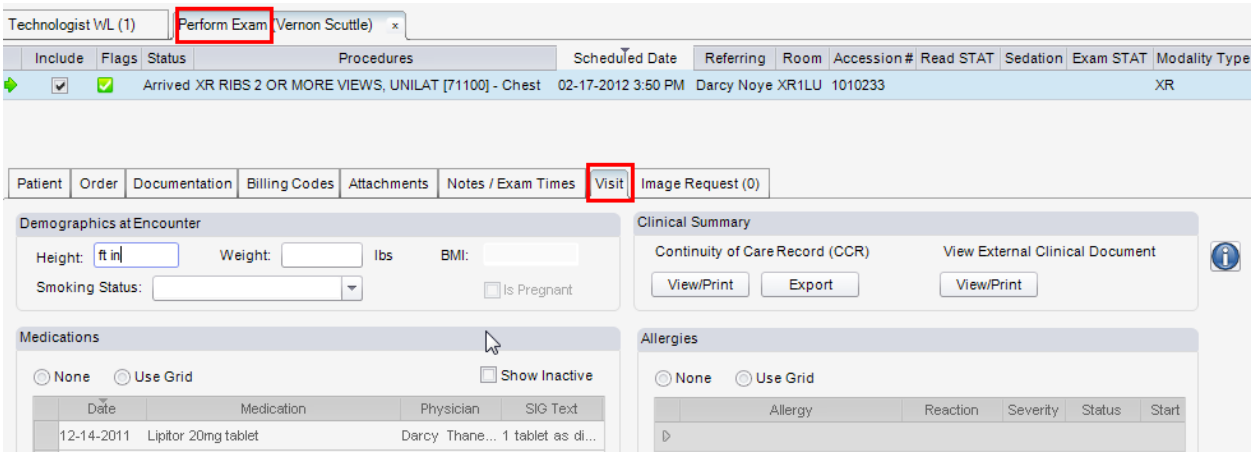



**Figure 4.5 – Visit tab for Technologists**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Organization Added to Exam Information of Summary / Exam Details

It was requested to have the Organization path added to the reporting window. In build 34, the Exam Details and the Summary pane now display this information. If the exam was from an outside read, the side will be indicated as "OUT" as displayed in figure below.

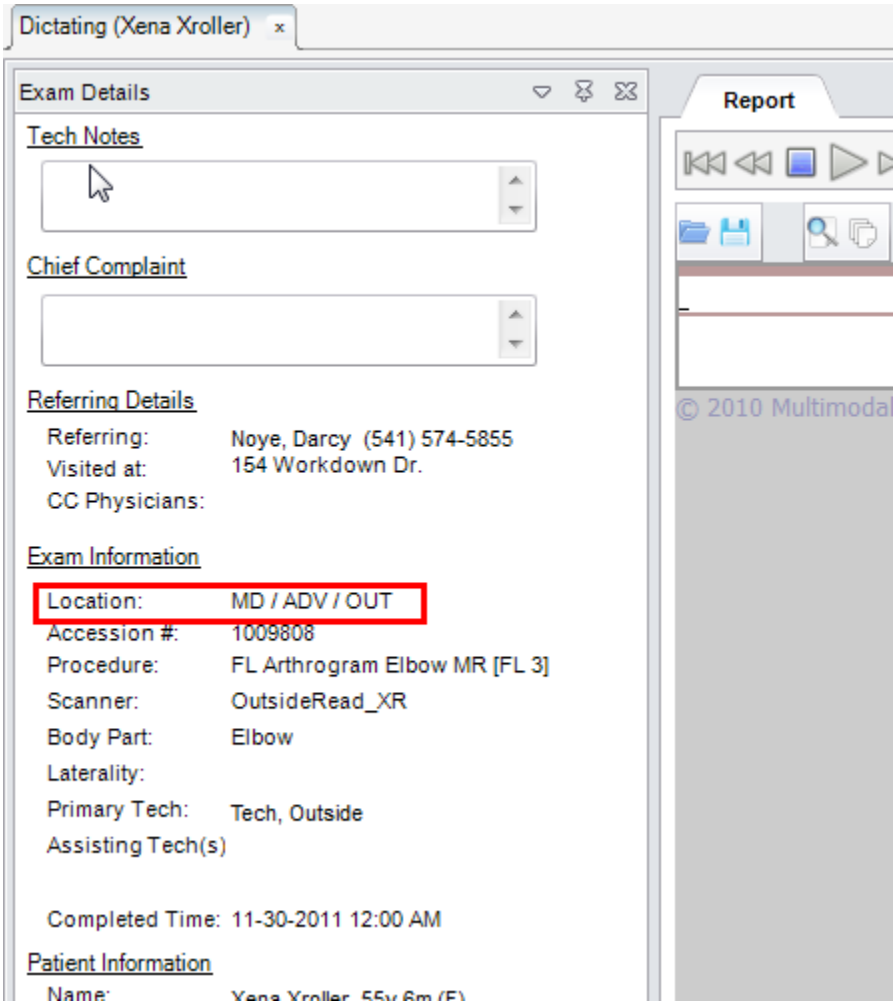



**Figure 4.6 – Exam Details of dictating / reporting window**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

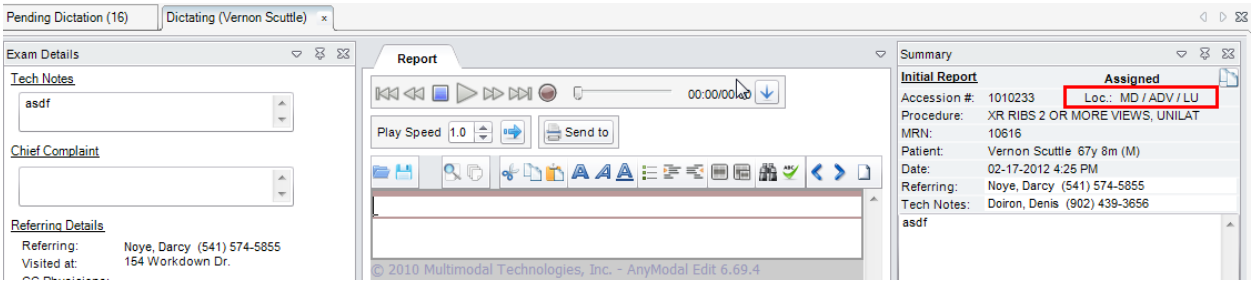



**Figure 4.7 – Summary pane of dictating / reporting window**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Medical Transcriptionist Reminder On Save

When transcribing reports the transcriptionist has the ability to assign the report to another user or to the problem or QA work lists.

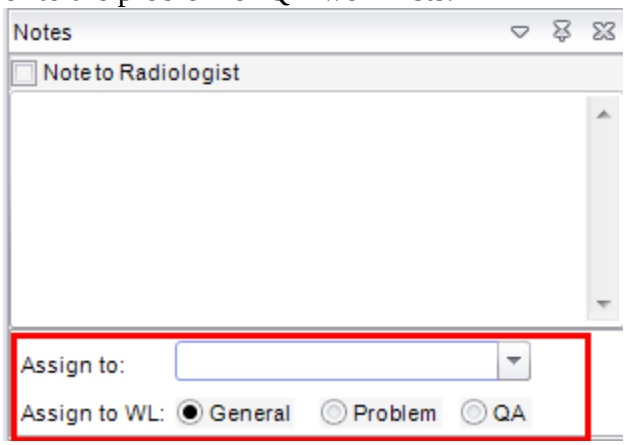



**Figure 4.8 – Reporting window, Notes data pane showing the ability to assign to a user or work list**

A reminder in the form of pop-up messages has been added when the Transcribe button is selected.

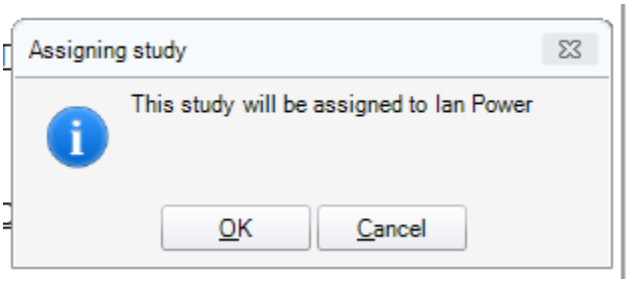



**Figure 4.9 – Assigning to a user**

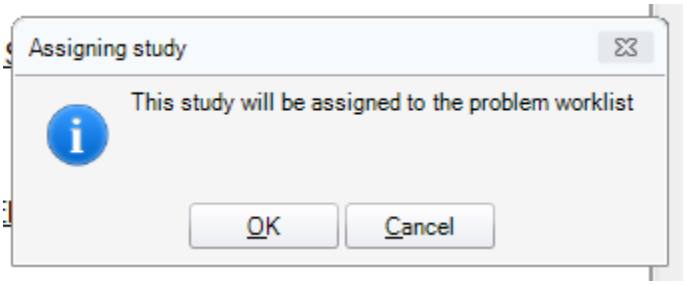



**Figure 4.10 – Assigning to a work list**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

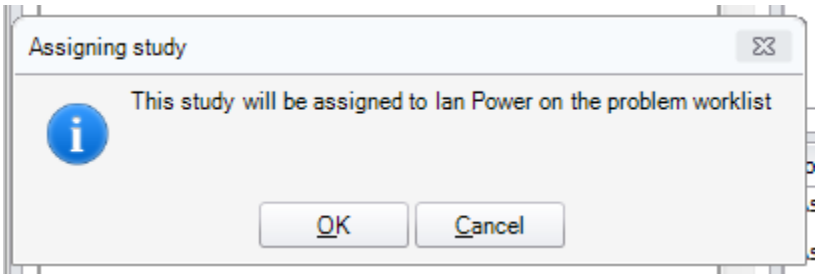



**Figure 4.11 – Assigning to a user and a work list**

## Suspending from Work List Permissions

Two new access strings have been added to control who and when the suspend from work list options are available.

1. Clinical.SuspendStudyFromOtherUser
2. Clinical.UnsuspendStudyFromOtherUser

These access strings gives the user the permission to Suspend and Unsuspend pretty much anything regardless who owns it at the time.
If a user doesn't have these permission(s) then he can only

- Unsuspend – when the job is suspended by the current user.
- Suspend
    - Exam done
        - If it's not dictated yet, the user can suspend it if he is the assigned radiologist, or if it's not assigned to any radiologists
        - If it's dictated, the user can suspend it if he is the dictating radiologist.
    - Dictated or Report Drafted
        - The user can suspend if he is the dictating radiologist or if he is the assigned MT
    - Transcribed
        - The user can suspend if he is the dictating radiologist or if he is the MT that transcribed.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Interactive Panel Event Logging

The Interactive Panel is accessed from the Radiologist menu. The menu option is controlled by the access string **Clinical.Rad.InteractivePanel.** By default this access string is set to none in the access string lookup table and must be added to the UserGroupPermission lookup table. As the access string would suggest, it would be available to Radiologist group.

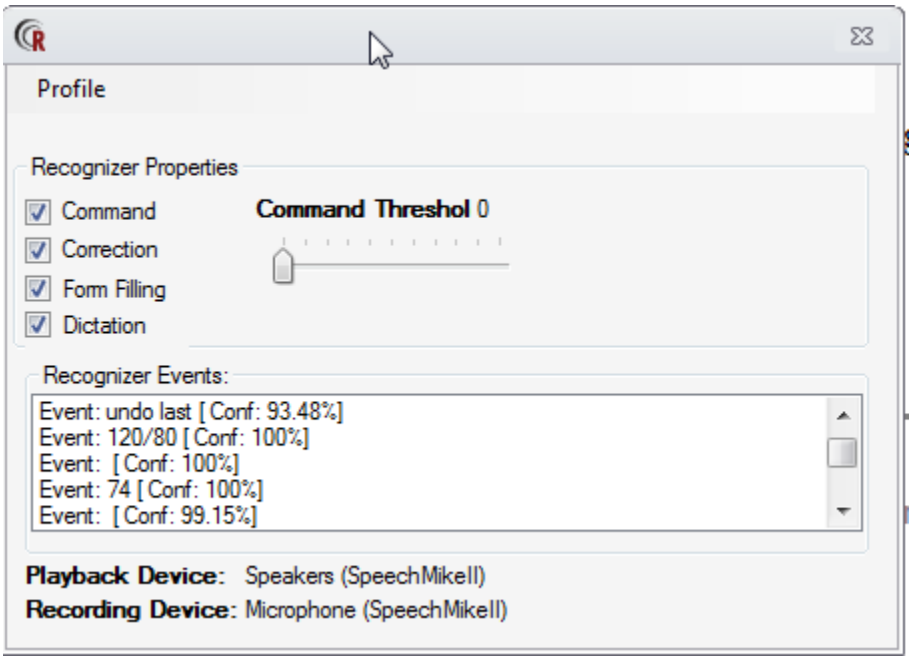



**Figure 4.12 – Interactive Panel**

The Interactive control panel listens to the recognizer events and writes the recognized utterance and the confidence level at which it recognized it.

This can be opened and remain visible, drag it out of the way, while the user is dictating.

**Note**: events will not be written to the log while the Interactive Panel is closed to save resources.

The Recognizer Properties control what interactive commands / dictation events that can be used in the document. For example if the flag for "Command" is removed, voice commands such as "**go to the end of the Findings section"** will no longer be accepted in the document.

There are no save, ok or cancel buttons in this window. If a flag is selected / unselected, it will be saved when the window is closed.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Spell Check Prompts

From the reporting window, if there is spelling errors detected in the report, once the user selects the Sign or Transcribed buttons the user will be prompted asking if they would like to correct the errors.

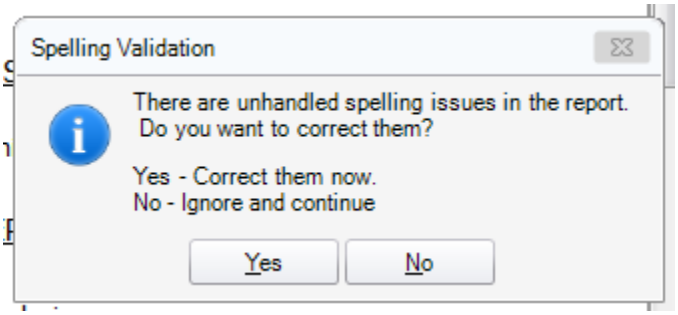



**Figure 4.13 – Spelling Error Message Prompt**

Selecting "Yes" will open the spell check window giving the user the options to Ignore, Change, Add, etc…

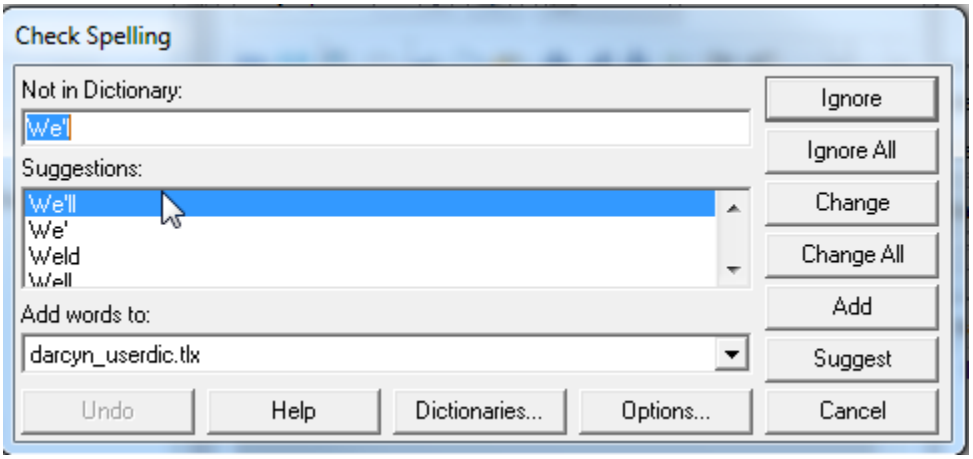



**Figure 4.13 – Check spelling dialogue window**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Extended Field Functionality

We added the "cue" attribute which can be defined when editing/creating a field in a document. This cue field will set the rules which define what needs to be dictated to move the cursor position to the field or to place dictation content in the field. There are several rules which are set forth by the JSGF standard.
Here is an example cue: " **[fetal] biophysical [profile] score | biophysical profile**". There are several important characteristics in this definition. Anything in "[]" indicates that it may or may not be spoken. The "|" character is an "or" conditions. So in the example the same result would happen if we said the following commands.

- Fetal biophysical profile score
- Biophysical score
- Fetal biophysical score
- Biophysical profile score

Or

- Biophysical profile

As you can see these combinations can go from simple to very complex.
**GRAMMAR:**
We created the grammar field which is also editable when editing/creating fields in the macro editor. The grammar field will allow users to specify what data should be recognized when dictating into the field. It will not limit literally but will try to recognize the values in the said grammar field first. For example if our grammar was set to be "yes|no|maybe" it would, at a degree recognize those three words before any others.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

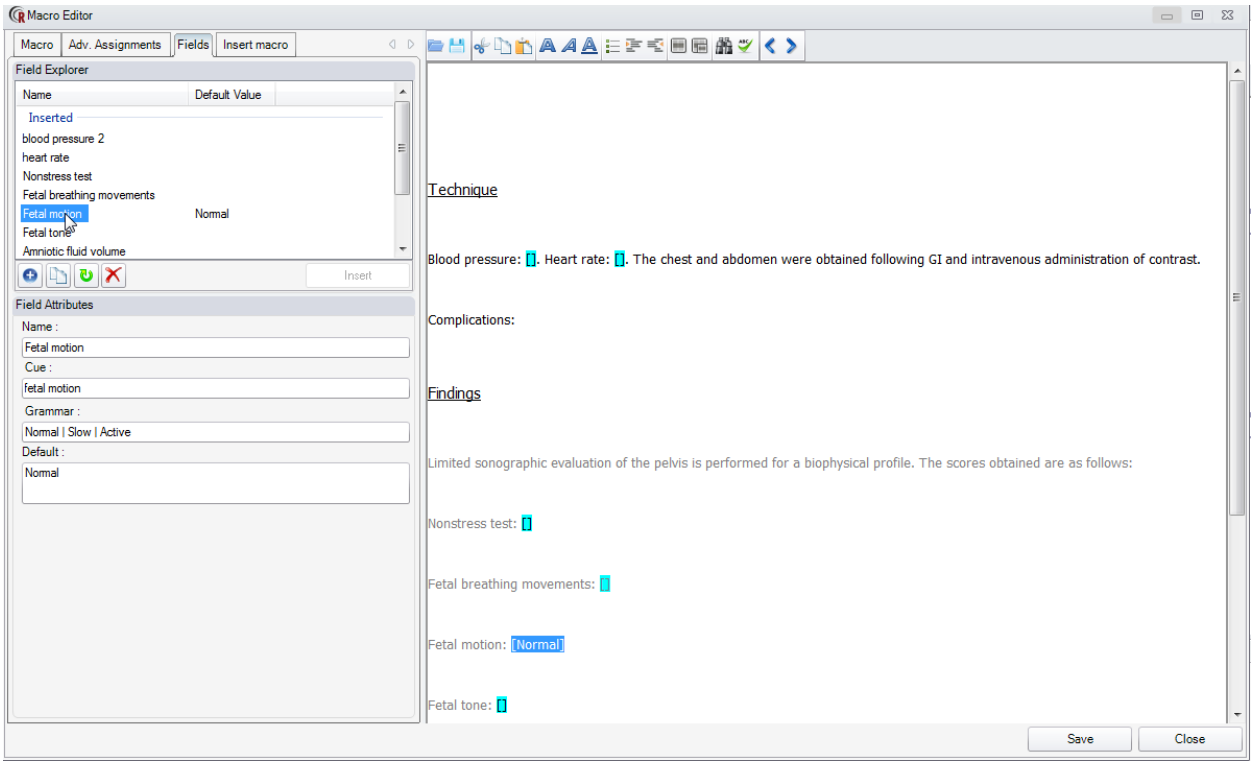



**Figure 4.14 – Macro Editor displaying the Extending Field Functionality**

Looking at the figure above, in the Field Explorer section the Field Motion is selected. You can see this opens the Field Motion Field Attributes:

- Name = The display name in the Field Explorer
- Cue = Dictation command to select this field in the report. As the example above states this can be a range of words. For example to select the Fetal motion field the cue could be configured as **Fetal motion | Fetal movement.** In this case the field will be selected with either of the voice commands.
- Grammar = The most likely voice dictation that will be given. It can be a range of values separated with the pipe "|". Does not have to be one of these commands, but improves the recognition rates.
- Default = The field will be defaulted with this value, but can be changed

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Canonical Fax Numbers

Windows has a built in utility to specify dialing rules that will provide a way to specify a pre-dial a number for either (or both) long-distance and local calling. You can also specify dialing of a 1 and/or area code prior to the main 7 digit phone number. These dialing rules only take effect if the fax number is specified in canonical form, ie. +1 (999) 999-9999. The Phone and Modem dialogue is accessed from the Control Panel.

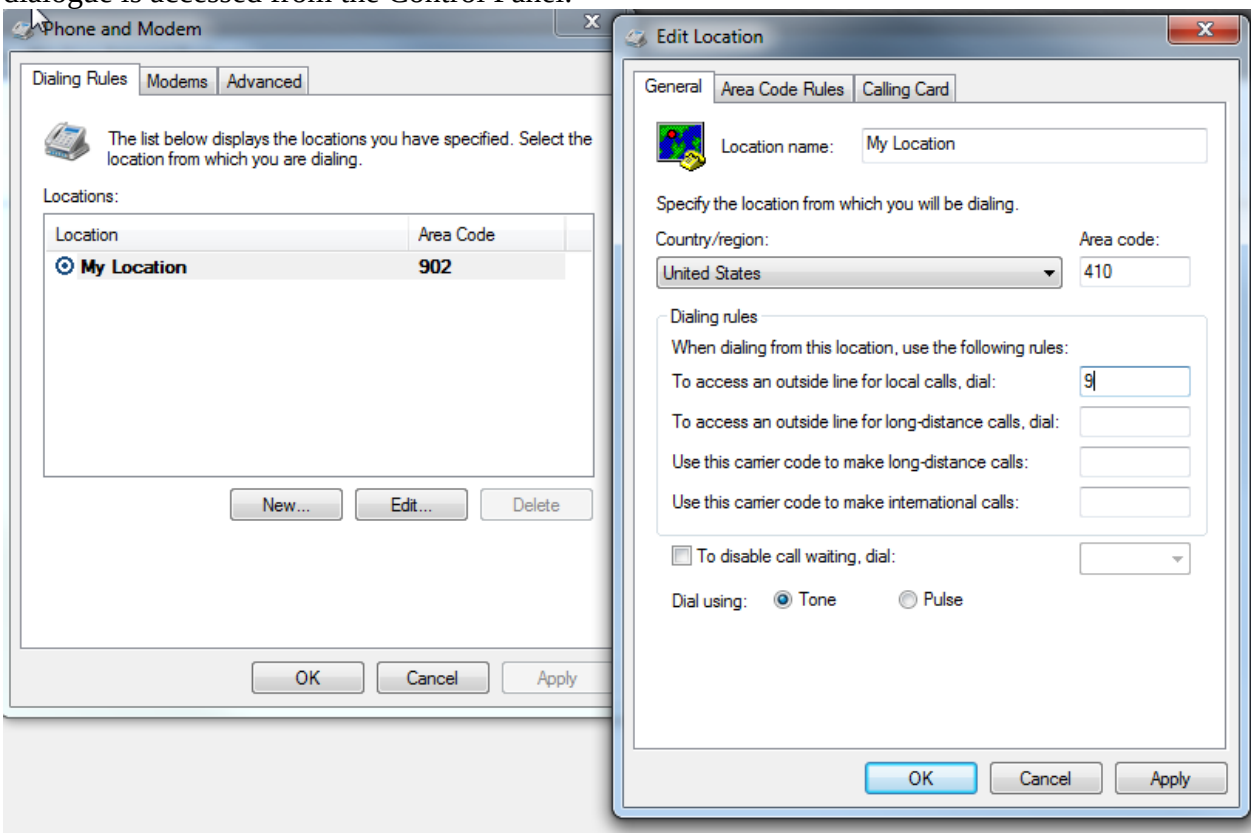



**Figure 4.15 – Displaying Microsoft Windows Phone and Modem dialing rules**

Another issue was formatting of numbers. In eRAD RIS we have all of the phone / fax number fields masked as (xxx)xxx-xxxx. If a number was obtained from an external system that didn't have this formatting, it would cause errors.
Now prior to submitting the fax job, the formatting and any non-numeric characters are removed. If the remaining characters are numbers with either 10 or 11 digits, it will be forced into canonical form and submitted.
NOTE: if the remaining numbers are 11 characters in length and the first digit is a one it is also removed so that we have a 10 character phone number remaining.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## MQSA Reporting

Proposed DEFINITIONS:
The following definitions should be used in the creation of the Mammography MQSA Audit reports. Reference the ACR BI-RADS® Breast Imaging Atlas, BI-RADS®. Mammography pages 229-260 for more information.

Positive Exam: An exam is considered to be positive if the BI-RADS® assessment category is 0, 4, 5 for a screening exam; or 4, 5 for a diagnostic exam.

Negative Exam: An exam is considered to be negative with a benign or probably benign finding if the BI-RADS® assessment category is 1, 2, or 3 for either a screening or a diagnostic exam.

MQSA does not limit the use of category 3 to diagnostic exams. Therefore, a BI-RADS® category 3 is considered negative for both screening and diagnostic exams.

True-Positive (TP): Cancer was diagnosed within 1 year after biopsy recommendation based on an abnormal mammogram.
(BI-RADS® Category 0, 4 or 5 for screening; BI-RADS® Category 4 or 5 for diagnostic).

True-Negative (TN): No known tissue diagnosis of cancer within 1 year of a negative examination
(BI-RADS® Category 1 or 2 for screening, BI-RADS® Category 1, 2 or 3 for diagnostic).

False-Negative (FN): Tissue diagnosis of cancer within 1 year of a negative examination
(BI-RADS® Category 1 or 2 for screening, BI-RADS® Category 1, 2 or 3 for diagnostic).

False-Positive (FP): Three separate definitions:

a. (FP1): No known tissue diagnosis of cancer within 1 year of a positive screening examination (BI-RADS® Category 0, 4, or 5).

b. (FP2): No known tissue diagnosis of cancer within 1 year after recommendation for which further imaging evaluation, biopsy, or surgical consultation on the basis of a positive examination (BI-RADS® Category or 5 ).

c. (FP3): Benign tissue diagnosis within 1 year after recommendation for biopsy on the basis of a positive examination (BI-RADS® Category 4 or 5).

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

Note: TP + TN + FP + FN = Total number of examinations.
This note refers to definitions 9, 10, 11, and 12.

Positive Predictive Value (PPV): Three separate definitions:

a. (PPV1) (abnormal findings at screening): The percentage of all positive screening examinations
(BI-RADS® Categories 0, 4 and 5) that result in a tissue diagnosis of cancer within 1 year. An initial screening assessment of Category 4 or 5 is unusual, but is possible.
PPV1 = TP/(number of positive screening examinations)
OR
PPV1 = TP/(TP + FP1) [FP1 = see 12a in glossary of statistical terms]

b. (PPV2) (biopsy recommended): The percentage of all screening or diagnostic examinations recommended for biopsy or surgical consultation (BI-RADS® Categories 4 and 5) that resulted in a tissue diagnosis of cancer within one year.
PPV2 = TP/(number of screening or diagnostic examinations recommended for biopsy)
OR
PPV2 = TP/(TP + FP2) [FP2 = see 12b in glossary of statistical terms]

c. (PPV3) (biopsy performed): The percentage of all known biopsies done as a result of positive screening or diagnostic examinations or additional imaging evaluations of positive screening examinations (BI-RADS® Categories 4 and 5) that resulted in a tissue diagnosis of cancer within 1 year. PPV3 is also known as the Biopsy Yield of Malignancy or the Positive Biopsy Rate (PBR).
PPV3 = TP/(number of biopsies)
OR
PPV3 = TP/(TP + FP3) [FP3= see 12c in glossary of statistical terms]

Negative Predictive Value: indicates the percentage of patients who truly do not have breast cancer when the mammogram was called normal.

Sensitivity: The probability of detecting a cancer when a cancer exists or the number of cancers diagnosed after being identified at mammography in a population within 1 year of the imaging examination, divided by all cancers present in that population in the same time period.
Sensitivity = TP/(TP + FN) [Remember that FN is actually a cancer case]

Specificity: The probability of interpreting an examination as negative when cancer does not

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

exist; or the number of true-negative mammograms in a population divided by all actual negative cases (those for which there is no tissue diagnosis of cancer within 1 year of the mammogram) in the population.
Specificity = TN/(TN + FP)

Cancer Detection Rate: The number of cancers correctly detected at mammography per 1,000 patients examined at mammography.
a. This is of greatest value when calculated for screening examinations only or when calculated separately for screening and diagnostic examinations.
b. May also be calculated separately for PREVALENT cancers (those found at first-time mammographic examination) and for INCIDENT cancers (those found at subsequent screening examinations performed at or close to the recommended screening interval).
c. May also be calculated by AGE GROUP (40–49 years, 50–59 years, etc.).

Recall Rate (Abnormal Interpretation Rate: The percentage of examinations interpreted as positive. For screening mammography, positive examinations include BI-RADS® Categories 0, 4 and 5
assessments. For diagnostic mammography positive examinations include BI-RADS® Category 4
and 5 assessments.

Recall Rate (Abnormal Interpretation Rate) = (positive examinations) / (all examinations)
Note that in many scientific publications concerning screening mammography, a Recall Rate is reported as being equivalent to the Abnormal Interpretation Rate, even though some screening examinations occasionally are given BI-RADS® Category 4 or 5 assessments. This is done because
prompt further imaging evaluation with mammography and/or ultrasound (to assess for extent of disease and to plan for imaging-guided biopsy) is also recommended in addition to tissue diagnosis
for almost all (if not all) screening examinations that are given BI-RADS® Category 4 or 5 assessments.

Note from Randy Rogers:
---
According to MQSA:
Recall Rate: # of positive examinations on screening (BI-RADS Categories 0,4 and 5) divided by the total number of examinations (screenings)
Would like this as one calculation and then a breakout of just the 0 and a breakout of 4/5. So:

Recall Rate Total

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

Recall Rate 0
Recall Rate 4/5

Unknown Exams: Positive exams that do not have a biopsy result (ex. BIRAD 0) and therefore cannot be classified as either true or false positives. For screening exams, BI-RADS® 0 is considered positive per ACR guidelines.

# Proposed List of Reports for MQSA audit:

General Exam list: (drill down report would be ideal)

| PARAMETERS to query by: | Exam Data to Display: | Statistical Data to Display: |
|---|---|---|
| Date Range | Patient Name | Date time report was ran |
| Location ( Practice, Site, etc) | Patient ID | List of parameters used. |
| BIRAD codes to include. (ex. Looking for positive, negative exams). Do we want to create automatic groupings of BIRAD codes to report by?? | Accession Number | |
| Radiologist(s) – All or specific | Exam Date | Totals per location |
| Filter exams by Biopsy results, Include / Exclude exams without biopsies. | Signing Radiologist | Totals per Radiologist |
| Procedure Codes to query on: Ex. Looking for only Mammo Screening, or only Mammo Diagnostic exams, only Ultrasounds etc. | Biopsy Result | Totals per BIRADS category |
| | Biopsy Date | |
| | BIRAD assigned | |
| | | |
| | | |

Report should not list any exams that have not been performed. All in Signed1 status.

Summary Reporting by Location and or By Radiologist: (could be 2 different reports but data queried should be identical)

| PARAMETERS to query by: | Statistical Data to Display: | Statistical Data to Display: |
|---|---|---|
| Date Range | Break down exams by Screening vs Diagnostic | Date time report was ran |
| Location ( Practice, Site, etc) | Break down Sreening and Diagnostic by procedure. | List of parameters used. |
| | Breakdown each procedure by BIRAD. ( so total for each birad per site/radiologist) | Total exams by Screening vs Diagnostic |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

| | | |
|---|---|---|
| | Summary per Screening , per Diagnostic:<br>True Positive Total<br>True Negative Total<br>False Positive Total<br>False Negative Total<br>Sensitivity<br>Specificity<br>PPV<br>Unknown exams | Total Sreening and Diagnostic by procedure. |
| | Combined total of Screening and Diagnostic exams. | Total each procedure by BIRAD. ( so total for each birad per site/radiologist) |
| | | |
| | | |

List of False Negative Exams - by Location and or By Radiologist:

| PARAMETERS to query by: | Exam Data to Display: | Statistical Data to Display: |
|---|---|---|
| Date Range | Patient Name | Date time report was ran |
| Location ( Practice, Site, etc) | Patient ID | List of parameters used. |
| Radiologist ( All or specific | Accession Number | Total exams by Location |
| | Exam Date | Total exams by Radiologist |
| | Exam Status | |
| | Dictating Radiologist | |
| | Signing Radiologist | |
| | Biopsy Result | |
| | BIRAD assigned | |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

List of False Positive Exams - by Location and or By Radiologist:

| PARAMETERS to query by: | Exam Data to Display: | Statistical Data to Display: |
|---|---|---|
| Date Range | Patient Name | Date time report was ran |
| Location ( Practice, Site, etc) | Patient ID | List of parameters used. |
| Radiologist ( All or specific | Accession Number | Total exams by Location |
| | Exam Date | Total exams by Radiologist |
| | Exam Status | |
| | Dictating Radiologist | |
| | Signing Radiologist | |
| | Biopsy Result | |
| | BIRAD assigned | |

List Mammography exams performed by Technologist:

| PARAMETERS to query by: | Exam Data to Display: | Statistical Data to Display: |
|---|---|---|
| Date Range | Patient Name | Date time report was ran |
| Location ( Practice, Site, etc) | Patient ID | List of parameters used. |
| Technologist | Accession Number | Total exams by Location |
| Select procedures to include ( ex Mammo Screening, Mammo Diagnositc, Mammo Ultrasounds) | Performed Date | Total exams by Technologist |
| | Exam Status | |
| | | |
| | | |
| | | |
| | | |

By technologist - list of exams where a technologist has performed a mammogram or interventional procedure within the date range and location specified in the report.

List of Positive exams with outstanding Pathology Follow-ups:

| PARAMETERS to query by: | Exam Data to Display: | Statistical Data to Display: |
|---|---|---|
| Date Range | Patient Name | Date time report was ran |
| Location ( Practice, Site, etc) | Patient ID | List of parameters used. |
| | Accession Number | Exam Total |
| | Exam Date | |
| | Exam Status | |
| | Dictating Radiologist | |
| | Signing Radiologist | |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

| | | |
|---|---|---|
| | Biopsy Result | |
| | BIRAD assigned | |

All positive mammography exams performed during the specified period that do not have pathology results recorded nor does a later exam exist with pathology results.

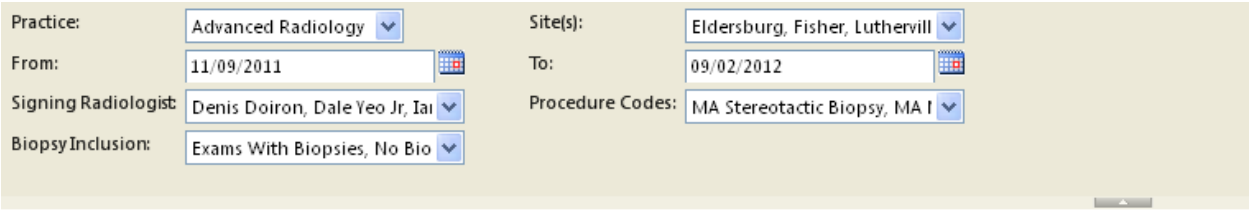
List of Positive exams Follow-ups by BIRAD:

| PARAMETERS to query by: | Exam Data to Display: | Statistical Data to Display: |
|---|---|---|
| Date Range | GROUP EXAMS by Recommendation ( ex. BIRAD 0, followup exam scheduled is Ultrasound, etc) | Date time report was ran |
| Location ( Practice, Site, etc) | Patient Name | |
| BIRAD code(s) to include | Patient ID | List of parameters used. |
| Procedure Codes to query on: Ex. Looking for only Mammo Screening, or only Mammo Diagnostic exams, only Ultrasounds etc. | Accession Number | Exam Total |
| | Exam Date | |
| | Exam Status | |
| | Dictating Radiologist | |
| | Signing Radiologist | |
| | Biopsy Result | |
| | BIRAD assigned | |
| | NEXT Exam Reffering MD# | |
| | NEXT Exam Accesion # | |
| | NEXT Exam Date | |
| | NEXT EXAM Status | |

- New requirement provide a report (for Referring Physician) listing patients that have ignored all reminder letters sent (so have not returned). Also listing any patients that RadNet has not received biopsy results from.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

SAMPLE REPORTS
MQSA General Exam List:
Standard Filtering Criteria: (Practice, Site, Date Range)
Additional Filtering Criteria: ( Radiologist, Include / Exclude Biopsies, Procedures to Include / Exclude)




## MQSA Geneal Exam List

**Practice:** Advanced Radiology
**Site(s):** Eldersburg, Fisher, Lutherville, New site just bought, OutsideMed
**Date Range:** 9/11/2011 - 2/9/2012
**Signing Radiologist:** Denis Doiron , Dale Yeo Jr, Ian Power , Andrew WaiteW , Radiologist Test User , Darcy Aiken , Kevin Molyneaux , Clifton Harding , Jenko Stuart , Jenko Stuart , Clifton Harding , Roman Embleton
**Procedure Codes:** 77031, 77032S, 77053, 77054, G0202, G0202IMP, G0202UIMP, G0202UNI, G0202WC, G0204, G0204/US, G0204BX, G0204CB, G0204CB/US, G0206, G0206/US, G0206BX, G0206CB, G0206CB/US, MA10, MA11, MA12, MA13, MA14, MA15, MA16, MA17, MA18, MA50, MA999, MAPH

| BIRAD / Recommendation | Accession | Patient Name | Signed Date | Signing Radiologist | Procedure | Biopsy | Biopsy Date | Biopsy Result |
|---|---|---|---|---|---|---|---|---|
| ⊟ BIRAD 0 | 8 | | | | | | | |
| ⊞ Additional projections | 4 | | | | | | | |
| ⊞ Magnification views | 2 | | | | | | | |
| ⊟ Technical Repeat | 2 | | | | | | | |
| | 1067162 | Milton Polly, | 01-19-2012 | Darcy Aiken | MA Digital Mammo Screen Uni [G0202UNI] - Breast | N | | |
| | 1067177 | Power Yvonne, | 01-19-2012 | Darcy Aiken | MA Digital Mammo Screen Uni [G0202UNI] - Breast | N | | |
| ⊞ BIRAD 1 | 6 | | | | | | | |
| ⊞ BIRAD 2 | 3 | | | | | | | |
| ⊞ BIRAD 3 | 14 | | | | | | | |
| ⊞ BIRAD 4 | 3 | | | | | | | |
| ⊞ BIRAD 6 | 1 | | | | | | | |
| Report Total: | 35 | | | | | | | |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

*Report Description: This report displays the general mammography exam list for selected sites/practice. All Exams are Signed exams.*

4ef24a25-6723-4116-bac5-9311f9e48e9e Advanced Radiology Confidential and Proprietary Date Run: 2/9/2012 2:41 PM

Page 1 of 1 RMIS\roman

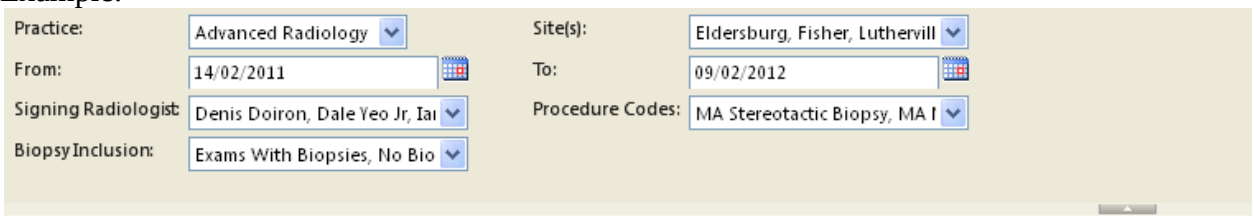
Current report server http://peidev1/ReportServer

**MQSA False Negative List & MQSA False Positive List -** both reports display exactly as the "General Exam List" report above, but the content is only filtered to False Negative False Positive Exams.

Standard Filtering Criteria: (Practice, Site, Date Range)

Additional Filtering Criteria: ( Radiologist, Include / Exclude Biopsies, Procedures to Include / Exclude)

Example:



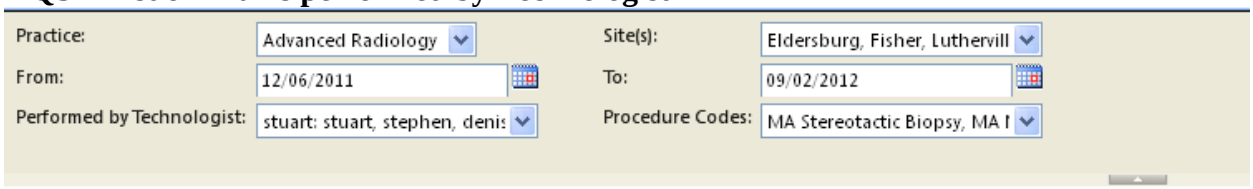

## MQSA List of False Positive Exams

**Practice:** Advanced Radiology
**Site(s):** Eldersburg, Fisher, Lutherville, New site just bought, OutsideMed
**Date Range:** 2/14/2011 - 2/9/2012
**Signing Radiologist:** Denis Doiron , Dale Yeo Jr, Ian Power , Andrew WaiteW , Radiologist Test User , Darcy Aiken , Kevin Molyneaux , Clifton Harding , Jenko Stuart , Jenko Stuart , Clifton Harding , Roman Embleton
**Procedure Codes:** 77031, 77032S, 77053, 77054, G0202, G0202IMP, G0202UIMP, G0202UNI, G0202WC, G0204, G0204/US, G0204BX, G0204CB, G0204CB/US, G0206, G0206/US, G0206BX, G0206CB, G0206CB/US, MA10, MA11, MA12, MA13, MA14, MA15, MA16, MA17, MA18, MA50, MA999, MAPH

| BIRAD / Recommendation | Accession | Patient Name | Signed Date | Signing Radiologist | Procedure | Biopsy | Biopsy Date | Biopsy Result |
|---|---|---|---|---|---|---|---|---|
| ⊟ BIRAD 4 | 2 | | | | | | | |
| ⊟ Biopsy should be considered | 1 | | | | | | | |
| | 1067377 | Brinks Betty, | 02-07-2012 | Darcy Aiken | MA Digital Mammo Screen Uni [G0202UNI] - Breast | Y | 02-05-2012 | Benign |
| ⊟ Needle localization and biopsy | 1 | | | | | | | |
| | 1066991 | TEST0031 CQM, | 01-19-2012 | Roman Embleton | MA xDigi Mam Scr Bil & Diag Uni [MA13] - Breast | Y | 02-15-2012 | Malignant |
| Report Total: | 2 | | | | | | | |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## MQSA List of Exams performed by Technologist




### MQSA List of Exams performed by Technologist

**Practice:** Advanced Radiology
**Site(s):** Eldersburg, Fisher, Lutherville, New site just bought, OutsideMed
**Date Range:** 6/12/2011 - 2/9/2012
**Performed by Technologist:** stuart: stuart, stephen, denis: Doiron, Denis, dale: Yeo, Dale, ian: Power, Ian, andrew: WaiteW, Andrew, schedtest: Test, Scheduler, regtest: Test User, Registration, radtest: Test User, Radiologist, transtest: Test User, Transcriptionist, transadmin: Test User, Transcriptionist Admin, stick: Powell, Stick, darcy: Aiken, Darcy, kevin: Molyneaux, Kevin, terry: Mills, Terry, schedtest1: Test, Scheduler, hardingc: Harding, Clifton, BPowell: Powell, Brittany, asdfff: asdfff, asdfff, delme1: test123, testasdf, kevinc: MolyneauxClone, KevinClone, upsala: Stuart, Jenko, jenko2: Stuart, Jenko, clifton: Harding, Clifton, GenTech: Tech, Generic, jeremy: Noonan, Jeremy, roman: Embleton, Roman, SwiftRadius: SwiftRadius, SwiftRadius, KevinB27: KevinB27, KevinB27, transpoll: Polling, Transcription, jbetts: Betts, Johnny
**Procedure Codes:** 77031, 77032S, 77053, 77054, G0202, G0202IMP, G0202UIMP, G0202UNI, G0202WC, G0204, G0204/US, G0204BX, G0204CB, G0204CB/US, G0206, G0206/US, G0206BX, G0206CB, G0206CB/US, MA10, MA11, MA12, MA13, MA14, MA15, MA16, MA17, MA18, MA50, MA999, MAPH

| Technologist: | Procedure | Accession | Patient Name | Exam Status | BIRAD | Performed Date |
|---|---|---|---|---|---|---|
| ⊞ darcy: Aiken, Darcy | 1 | | | | | |
| ⊞ denis: Doiron, Denis | 26 | | | | | |
| ⊟ ian: Power, Ian | 14 | | | | | |
| | ⊞ MA Digital Mammo Screen Uni [G0202UNI] - Breast | 8 | | | | |
| | ⊞ MA Digital Mammo CB Diag Bil [G0204CB] - Breast | 1 | | | | |
| | ⊞ MA xDigi Mam Scr Bil, Diag Bil & US Brst [MA10] - Breast | 1 | | | | |
| | ⊞ MA xDigi Mam Scr Bil & Diag Uni [MA13] - Arm | 1 | | | | |
| | ⊟ MA xDigi Mam Scr Bil & Diag Uni [MA13] - Breast | 2 | | | | |
| | | 1066991 | TEST0031 CQM, | Signed1 | 4 | 01-06-2012 |
| | | 1067209 | Doyle Krista, | Signed1 | 3 | 01-20-2012 |
| | ⊞ MA xDigi Mam Scr Bil & US Brst [MA14] - Breast | 1 | | | | |
| ⊞ roman: Embleton, Roman | 1 | | | | | |
| ⊞ terry: Mills, Terry | 2 | | | | | |
| Report Total: | 44 | | | | | |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

*Report Description: This report displays the list of mammography exams performed by Technologist.*

a85c8f48-ce46-4949-af5d-9c1597fca3a9 Advanced Radiology Confidential and Proprietary Date Run: 2/9/2012 2:52 PM

**MQSA List of Positive Exams with Outstanding Biopsies -** *This report displays the list of Positive Mammography Exams ( for selected time period, location, radiologist) that do not have pathology result recorded, nor does a later exam exist with pathology results. All Exams are Signed exams.*

## MQSA List of Positive Exams with Outstanding Biopsies

**Practice:** Advanced Radiology
**Site(s):** Eldersburg, Fisher, Lutherville, New site just bought, OutsideMed
**Date Range:** 5/15/2011 - 2/9/2012
**Signing Radiologist:** Denis Doiron , Dale Yeo Jr, Ian Power , Andrew WaiteW , Radiologist Test User , Darcy Aiken , Kevin Molyneaux , Clifton Harding , Jenko Stuart , Jenko Stuart , Clifton Harding , Roman Embleton

| BIRAD | Accession | Patient Name | Procedure | Signed Date | Signing Rad | Biopsy Performed |
|---|---|---|---|---|---|---|
| ⊟ BIRAD 0 | 7 | | | | | |
| | 1067162 | Milton Polly, | MA Digital Mammo Screen Uni [G0202UNI] - Breast | 01-19-2012 | Darcy Aiken | N |
| | 1067177 | Power Yvonne, | MA Digital Mammo Screen Uni [G0202UNI] - Breast | 01-19-2012 | Darcy Aiken | N |
| | 1067192 | Molyneaux Kendra, | MA Digital Mammo Screen Uni [G0202UNI] - Breast | 01-20-2012 | Darcy Aiken | N |
| | 1067305 | Pitts Georgia, | MA Digital Mammo Screen Uni [G0202UNI] - Breast | 02-02-2012 | Darcy Aiken | N |
| | 1067354 | Hoast Ivan, | MA DIGITAL MAMMO SCREEN BIL [G0202] - Breast | 02-07-2012 | Clifton Harding | N |
| | 1061947 | Thornquist Mel, Sim | MA xDigi Mam Scr Bil & Diag Uni [MA13] - Arm | 11-08-2011 | Roman Embleton | N |
| | 1065390 | Phramany Alda, Sim | MA xDigi Mam Scr Bil & US Brst [MA14] - Breast | 11-08-2011 | Roman Embleton | N |
| ⊟ BIRAD 4 | 1 | | | | | |
| | 1067078 | OOQQ OOQQ, | MA xDigi Mam Scr Bil & Diag Bil [MA11] - Breast | 01-12-2012 | Darcy Aiken | N |
| Report Total: | 8 | | | | | |

*Report Description: This report displays the list of Positive Mammography Exams ( for selected time period, location, radiologist) that do not have pathology result recorded, nor does a later exam exist with pathology results. All Exams are Signed exams.*

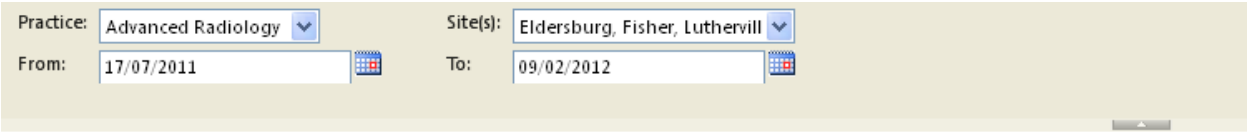
6ae38983-760e-4958-ad4a-ac6c1c1999f6 Advanced Radiology Confidential and Proprietary Date Run: 2/9/2012 2:59 PM

Page 1 of 1 RMIS\roman

Current report server http://peidev1/ReportServer

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

**MQSA List of Positive Exam Follow-ups -** *Report Description: This report displays the list of Follow-up (Orders / Exams) for Positive Exams, by date, location. All Exams are Signed exams.*




## MQSA List of Positive Exam Follow-ups

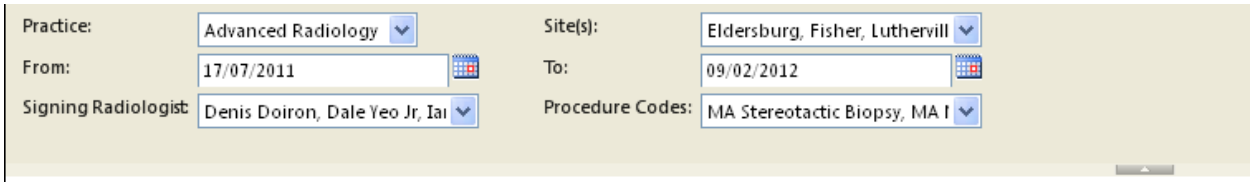
**Practice:** Advanced Radiology
**Site(s):** Eldersburg, Fisher, Lutherville, New site just bought, OutsideMed
**Date Range:** 7/17/2011 - 2/9/2012

| Original ACC# - Patient Name | | Requested Date | Next Order Status | Requested by: | Next Accession | Next Accesion Status | Next Procedure performed |
|---|---|---|---|---|---|---|---|
| ⊟ BIRAD 0 | 8 | | | | | | |
| ⊞ 1067192 - Molyneaux Kendra, | | | | | | | |
| ⊞ 1067354 - Hoast Ivan, | | | | | | | |
| ⊟ 1065390 - Phramany Alda, Sim | | | | | | | |
| | | | No Followup | | | | |
| ⊟ 1061947 - Thornquist Mel, Sim | | | | | | | |
| | | | No Followup | | | | |
| ⊟ 1067162 - Milton Polly, | | | | | | | |
| | | 01-19-2012 | OrderSigned | WILLIAM SCHWARTZ | 1067162 | Signed1 | G0202UNI |
| ⊟ 1067177 - Power Yvonne, | | | | | | | |
| | | 01-19-2012 | OrderSigned | WILLIAM SINTON JR | 1067177 | Signed1 | G0202UNI |
| | | 01-19-2012 | ShortTermFollowUp | WILLIAM SINTON JR | | | |
| ⊞ 1067305 - Pitts Georgia, | | | | | | | |
| ⊞ BIRAD 4 | 5 | | | | | | |
| Report Total: | 13 | | | | | | |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

**MQSA Radiologist Reporting Summary**
There was a request to group this report by site (see below).

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.




## MQSA Radiologist Reporting Summary

**Practice:** Advanced Radiology
**Site(s):** Eldersburg, Fisher, Lutherville, New site just bought, OutsideMed
**Date Range:** 7/17/2011 - 2/9/2012
**Signing Radiologist:** Denis Doiron , Dale Yeo Jr, Ian Power , Andrew WaiteW , Radiologist Test User , Darcy Aiken , Kevin Molyneaux , Clifton Harding , Jenko Stuart , Jenko Stuart , Clifton Harding , Roman Embleton
**Procedure Codes:** 77031, 77032S, 77053, 77054, G0202, G0202IMP, G0202UIMP, G0202UNI, G0202WC, G0204, G0204/US, G0204BX, G0204CB, G0204CB/US, G0206, G0206/US, G0206BX, G0206CB, G0206CB/US, MA10, MA11, MA12, MA13, MA14, MA15, MA16, MA17, MA18, MA50, MA999, MAPH

| Site | Signing Radiologist | Accession | Patient Name | TP | TN | FP1 | FN |
|---|---|---|---|---|---|---|---|
| Eldersburg | ⊟ Darcy Aiken | 1 | | | | | |
| | ⊞ Diagnostic | 1 | | 0 | 0 | 0 | 0 |
| | ⊞ Clifton Harding | 2 | | | | | |
| | ⊞ Roman Embleton | 1 | | | | | |
| Fisher | ⊞ Andrew WaiteW | 1 | | | | | |
| | ⊟ Darcy Aiken | 25 | | | | | |
| | ⊟ Screening | 25 | | 0 | 0 | 1 | 0 |
| | ⊟ Procedure: MA Digital Mammo Screen Uni [G0202UNI] - Breast | 21 | | | | | |
| | ⊞ BIRAD 0 | 4 | | | | | |
| | ⊞ BIRAD 1 | 3 | | | | | |
| | ⊞ BIRAD 2 | 2 | | | | | |
| | ⊞ BIRAD 3 | 11 | | | | | |
| | ⊟ BIRAD 4 | 1 | | | | | |
| | | 1067377 | Brinks Betty, | N | N | Y | N |
| | ⊞ Procedure: MA xDigi Mam Scr Bil & Diag Bil [MA11] - Breast | 2 | | | | | |
| | ⊞ Procedure: MA xDigi Mam Scr Bil & Diag Uni [MA13] - Breast | 2 | | | | | |
| | ⊞ Roman Embleton | 2 | | | | | |
| Lutherville | ⊞ Clifton Harding | 1 | | | | | |
| | ⊞ Ian Power | 1 | | | | | |
| | ⊞ Roman Embleton | 1 | | | | | |
| | Report Total: | 35 | | | | | |

**MQSA Location Reporting Summary (Example 1 – Grouped by BIRAD → Procedure)**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## MQSA Location Reporting Summary

**Practice:** Advanced Radiology
**Site(s):** Eldersburg, Fisher, Lutherville, New site just bought, OutsideMed
**Date Range:** 3/13/2011 - 2/9/2012
**Procedure Codes:** 77031, 77032S, 77053, 77054, G0202, G0202IMP, G0202UIMP, G0202UNI, G0202WC, G0204, G0204/US, G0204BX, G0204CB, G0204CB/US, G0206, G0206/US, G0206BX, G0206CB, G0206CB/US, MA10, MA11, MA12, MA13, MA14, MA15, MA16, MA17, MA18, MA50, MA999, MAPH

| Site / Location: | Accession | Positive | TP | TN | FP1 | FN | Sensitivity | Specificity | PPV3 | Recall Rate |
|---|---|---|---|---|---|---|---|---|---|---|
| ⊞ Eldersburg | 5 | | | | | | | | | |
| ⊟ Fisher | 31 | | | | | | | | | |
| ⊞ Diagnostic | 3 | 1 | 0 | 0 | 0 | 0 | NaN | 0 | 0 | 0.03 |
| ⊟ Screening | 28 | 8 | 0 | 0 | 0 | 0 | NaN | 0 | 0 | 0.21 |
| ⊞ BIRAD 0 | 5 | | | | | | | | | |
| ⊞ BIRAD 1 | 4 | | | | | | | | | |
| ⊞ BIRAD 2 | 2 | | | | | | | | | |
| ⊞ BIRAD 3 | 13 | | | | | | | | | |
| ⊟ BIRAD 4 | 3 | | | | | | | | | |
| ⊞ MA Digital Mammo Screen Bil w Implants [G0202IMP] - Breast | 1 | | | | | | | | | |
| ⊞ MA Digital Mammo Screen Uni [G0202UNI] - Breast | 1 | | | | | | | | | |
| ⊟ MA xDigi Mam Scr Bil & Diag Bil [MA11] - Breast | 1 | | | | | | | | | |
| | 1067078 | Y | N | N | N | N | | | | |
| ⊞ BIRAD 6 | 1 | | | | | | | | | |
| ⊞ Lutherville | 3 | | | | | | | | | |
| Report Total: | 39 | 13 | 0 | 0 | 0 | 0 | NaN | 0 | 0 | 0.33 |

*Report Description: This report displays the Mammography Site Reporting Summary for selected sites/practice. All Exams are Signed exams.*
*Sensitivity Definition: Site/Practice TP Total for selected period / ( System Wide TP + System Wide FN) within the same time period.*
*Specificity Definition: Site/Practice TN Total for selected period / ( System Wide TN + System Wide FP) within the same time period.*
*PPV3 Definition: Total (Screening or Diagnostic) TP exams for selected period / ( System Wide Total of Biopsies) within the same time period.*
*Recall Rate: Total (Screening or Diagnostic) Positive exams for selected period / ( System Wide Total Mammo Exams) within the same time period.*

f474f6a4-b9f4-4812-b259-7d0f9b5904ae Advanced Radiology Confidential and Proprietary Date Run: 2/9/2012 3:24 PM
Page 1 of 1 RMIS\roman

**MQSA Location Reporting Summary (Example 2 – Grouped by Procedure → BIRAD)**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## MQSA Location Reporting Summary

**Practice:** Advanced Radiology
**Site(s):** Eldersburg, Fisher, Lutherville, New site just bought, OutsideMed
**Date Range:** 6/12/2011 - 2/9/2012
**Procedure Codes:** 77031, 77032S, 77053, 77054, G0202, G0202IMP, G0202UIMP, G0202UNI, G0202WC, G0204, G0204/US, G0204BX, G0204CB, G0204CB/US, G0206, G0206/US, G0206BX, G0206CB, G0206CB/US, MA10, MA11, MA12, MA13, MA14, MA15, MA16, MA17, MA18, MA50, MA999, MAPH

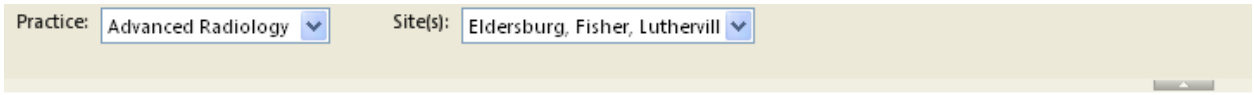
| Site / Location: | Accession | Positive | TP | TN | FP1 | FN | Sensitivity | Specificity | PPV3 | Recall Rate |
|---|---|---|---|---|---|---|---|---|---|---|
| ⊞ Eldersburg | 4 | | | | | | | | | |
| ⊟ Fisher | 31 | | | | | | | | | |
| ⊞ Diagnostic | 3 | 1 | 0 | 0 | 0 | 0 | NaN | 0 | 0 | 0.03 |
| ⊟ Screening | 28 | 8 | 0 | 0 | 0 | 0 | NaN | 0 | 0 | 0.21 |
| ⊞ MA Digital Mammo Screen Bil w Implants [G0202IMP] - Breast | 1 | | | | | | | | | |
| ⊟ MA Digital Mammo Screen Uni [G0202UNI] - Breast | 21 | | | | | | | | | |
| ⊟ BIRAD 0 | 4 | | | | | | | | | |
| | 1067162 | Y | N | N | N | N | | | | |
| | 1067177 | Y | N | N | N | N | | | | |
| | 1067192 | Y | N | N | N | N | | | | |
| | 1067305 | Y | N | N | N | N | | | | |
| ⊞ BIRAD 1 | 3 | | | | | | | | | |
| ⊞ BIRAD 2 | 2 | | | | | | | | | |
| ⊞ BIRAD 3 | 11 | | | | | | | | | |
| ⊞ BIRAD 4 | 1 | | | | | | | | | |
| ⊞ MA xDigi Mam Scr Bil, Diag Bil & US Brst [MA10] - Breast | 1 | | | | | | | | | |
| ⊞ MA xDigi Mam Scr Bil & Diag Bil [MA11] - Breast | 2 | | | | | | | | | |
| ⊞ MA xDigi Mam Scr Bil & Diag Uni [MA13] - Breast | 2 | | | | | | | | | |
| ⊞ MA xDigi Mam Scr Bil & US Brst [MA14] - Breast | 1 | | | | | | | | | |
| ⊞ Lutherville | 3 | | | | | | | | | |
| Report Total: | 38 | 12 | 0 | 0 | 0 | 0 | NaN | 0 | 0 | 0.32 |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

*Report Description: This report displays the Mammography Site Reporting Summary for selected sites/practice. All Exams are Signed exams.*
*Sensitivity Definition: Site/Practice TP Total for selected period / ( System Wide TP + System Wide FN) within the same time period.*
*Specificity Definition: Site/Practice TN Total for selected period / ( System Wide TN + System Wide FP) within the same time period.*
*PPV3 Definition: Total (Screening or Diagnostic) TP exams for selected period / ( System Wide Total of Biopsies) within the same time period.*
*Recall Rate: Total (Screening or Diagnostic) Positive exams for selected period / ( System Wide Total Mammo Exams) within the same time period.*

f474f6a4-b9f4-4812-b259-7d0f9b5904ae Advanced Radiology Confidential and Proprietary Date Run: 2/9/2012 3:24 PM
Page 1 of 1 RMIS\roman

## Mammography Document Distribution Status - *Report Description: This report displays mammography documents queue'd in the Document Distribution Worklist. Items older than 2 days will be red.*



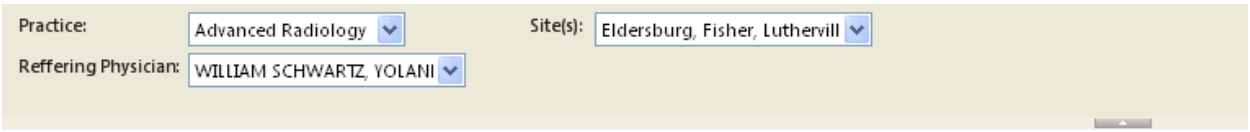

## Mammography Document Distribution Status

**Practice:** Advanced Radiology
**Site(s):** Eldersburg, Fisher, Lutherville, New site just bought, OutsideMed

| Document Type / Status | ACC# | Recipient: | BIRAD | Date Created | Time in DDE Queue |
|---|---|---|---|---|---|
| ⊟ **LAYLETTER** | 30 | | | | |
| ⊞ Hold | 30 | | | | |
| ⊟ **Short Term Followup1** | 2 | | | | |
| ⊟ Hold | 1 | | | | |
| | 1066965 | waite, andrew | | 01-17-2012 | 23 |
| ⊟ Pending | 1 | | | | |
| | 1067167 | BlueEyes, Betty | | 02-07-2012 | 2 |
| Report Total: | 32 | | | | |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

**Mammography Ignored Reminders List -** *Report Description: This report displays the list of patients( per Radiologist) that have Ignored Mammography Reminder letters*



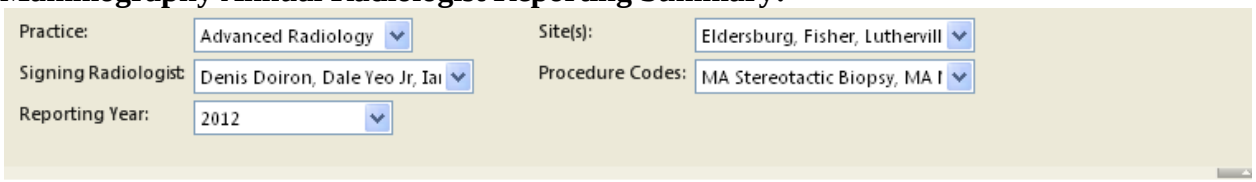

## Mammography Ignored Reminders List

**Practice:** Advanced Radiology
**Site(s):** Eldersburg, Fisher, Lutherville, New site just bought, OutsideMed
**Reffering Physician:** WILLIAM SCHWARTZ, YOLANDA AJALA

| Reffering Name / Reminder Ignored | Target Date | Patient ID | Patient Name | Procedures | Last Letter Sent | Last Letter Date |
|---|---|---|---|---|---|---|
| ⊟ WILLIAM SCHWARTZ | 1 | | | | | |
| ⊟ ShortTermFollowUp | | | | | | |
| | 06-17-2012 | 1000000812 | BlueEyes Betty | MA Digital Mammo Screen Uni [G0202UNI] - Breast | Short Term Followup3 | 01-23-2012 |
| ⊟ YOLANDA AJALA | 1 | | | | | |
| ⊟ ShortTermFollowUp | | | | | | |
| | 06-04-2012 | 4542 | waite andrew | MA xDigi Mam Scr Bil & Diag Uni [MA13] - Breast | Short Term Followup3 | 01-23-2012 |
| Report Total: | 2 | | | | | |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Mammography Annual Radiologist Reporting Summary:



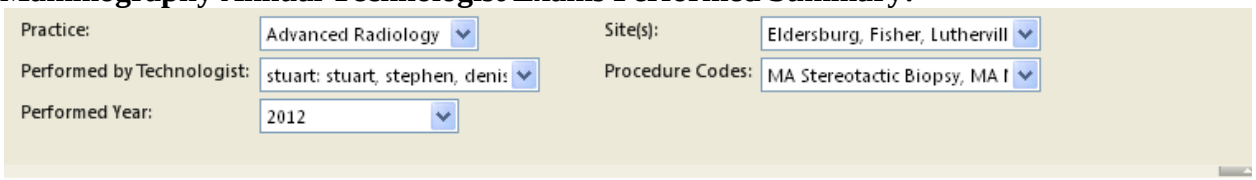

### Mammography Annual Radiologist Reporting Summary

**Practice:** Advanced Radiology
**Site(s):** Eldersburg, Fisher, Lutherville, New site just bought, OutsideMed
**Reporting Year:** 2012
**Signing Radiologist:** Denis Doiron , Dale Yeo Jr, Ian Power , Andrew WaiteW , Radiologist Test User , Darcy Aiken , Kevin Molyneaux , Clifton Harding , Jenko Stuart , Jenko Stuart , Clifton Harding , Roman Embleton , kevinb34smoke kevinb34smoke
**Procedure Codes:** 77031, 77032S, 77053, 77054, G0202, G0202IMP, G0202UIMP, G0202UNI, G0202WC, G0204, G0204/US, G0204BX, G0204CB, G0204CB/US, G0206, G0206/US, G0206BX, G0206CB, G0206CB/US, MA10, MA11, MA12, MA13, MA14, MA15, MA16, MA17, MA18, MA50, MA999, MAPH

| Radiologist Reporting Totals for 2012 | Accession | Patient Name | Signed Date | BIRAD |
|---|---|---|---|---|
| ⊞ Andrew WaiteW | 1 | | | |
| ⊞ Clifton Harding | 3 | | | |
| ⊟ Darcy Aiken | 25 | | | |
| ⊞ February | 3 | | | |
| ⊟ January | 22 | | | |
| ⊞ MA Digital Mammo Screen Uni [G0202UNI] - Breast | 18 | | | |
| ⊞ MA xDigi Mam Scr Bil & Diag Bil [MA11] - Breast | 2 | | | |
| ⊟ MA xDigi Mam Scr Bil & Diag Uni [MA13] - Breast | 2 | | | |
| | 1066965 | waite andrew, | 01-13-2012 | 3 |
| | 1067209 | Doyle Krista, | 01-20-2012 | 3 |
| ⊞ Denis Doiron | 1 | | | |
| ⊞ Roman Embleton | 1 | | | |
| Report Total: | 31 | | | |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Mammography Annual Technologist Exams Performed Summary:




### Mammography Annual Technologist Exams Performed Summary

**Practice:** Advanced Radiology
**Site(s):** Eldersburg, Fisher, Lutherville, New site just bought, OutsideMed
**Performed Year:** 2012
**Performed by Technologist:** stuart: stuart, stephen, denis: Doiron, Denis, dale: Yeo, Dale, ian: Power, Ian, andrew: WaiteW, Andrew, schedtest: Test, Scheduler, regtest: Test User, Registration, techtest: Test User, Technologist, radtest: Test User, Radiologist, transtest: Test User, Transcriptionist, transadmin: Test User, Transcriptionist Admin, stick: Powell, Stick, darcy: Aiken, Darcy, kevin: Molyneaux, Kevin, terry: Mills, Terry, schedtest1: Test, Scheduler, hardingc: Harding, Clifton, BPowell: Powell, Brittany, asdfff: asdfff, asdfff, delme1: test123, testasdf, kevinc: MolyneauxClone, KevinClone, upsala: Stuart, Jenko, jenko2: Stuart, Jenko, clifton: Harding, Clifton, GenTech: Tech, Generic, jeremy: Noonan, Jeremy, roman: Embleton, Roman, SwiftRadius: SwiftRadius, SwiftRadius, KevinB27: KevinB27, KevinB27, transpoll: Polling, Transcription, jbetts: Betts, Johnny, b34unittest: kevinb34smoke, kevinb34smoke
**Procedure Codes:** 77031, 77032S, 77053, 77054, G0202, G0202IMP, G0202UIMP, G0202UNI, G0202WC, G0204, G0204/US, G0204BX, G0204CB, G0204CB/US, G0206, G0206/US, G0206BX, G0206CB, G0206CB/US, MA10, MA11, MA12, MA13, MA14, MA15, MA16, MA17, MA18, MA50, MA999, MAPH

| Technologist Performed Totals for 2012 | Accession | Patient Name | Exam Status | BIRAD | Performed Date |
|---|---|---|---|---|---|
| ⊞ darcy: Aiken, Darcy | 1 | | | | |
| ⊟ denis: Doiron, Denis | 22 | | | | |
| ⊞ February | 2 | | | | |
| ⊟ January | 20 | | | | |
| ⊞ MA Digital Mammo Screen Bil w Implants [G0202IMP] - Breast | 1 | | | | |
| ⊞ MA Digital Mammo Screen Uni [G0202UNI] - Breast | 16 | | | | |
| ⊞ MA xDigi Mam Scr Bil & Diag Bil [MA11] - Breast | 2 | | | | |
| ⊟ MA xDigi Mam Scr Bil & Diag Uni [MA13] - Breast | 1 | | | | |
| | 1066965 | waite andrew, | Signed1 | 3 | 01-06-2012 |
| ⊞ ian: Power, Ian | 10 | | | | |
| ⊞ techtest: Test User, Technologist | 3 | | | | |
| Report Total: | 36 | | | | |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 5. Resolved Defects

Bugs, Suggested Features and Support Issues resolved in build 1.34. The extract is taken from Redmine bug tracking system and only displays defects resolved in 1.34.

| # | Tracker | Priority | Subject | Category | Target version |
|---|---|---|---|---|---|
| 886 | Bug | High | Removing Pathology codes throws error | Thick Client GUI | 1.33 |
| 883 | Bug | High | Saving Biopsy result can throw error | Thick Client GUI | 1.33 |
| 880 | Bug | High | When scheduling an appointment that spans 2 orders then 2 visits are created | Thick Client GUI | 1.32 |
| 919 | Bug | Normal | preview report does not alway show report correctly | Thick Client GUI | 1.34 |
| 906 | Bug | Normal | Error printing receipts | Thick Client GUI | 1.34 |
| 901 | Bug | Normal | Scanner not detected | Thick Client GUI | 1.34 |
| 899 | Bug | Normal | Study suspended without interpretation throws error after suspended message | Thick Client GUI | 1.33 |
| 896 | Bug | Normal | Issues with Changing "Internal RIS" passwords. | Admin Tools | 1.33 |
| 894 | Bug | Normal | Multi order scheduling search results not picking correct times | Thick Client GUI | 1.33 |
| 891 | Bug | Normal | multiple study scheduling search results not correct for first site on list | Web Services/DB | 1.33 |
| 890 | Bug | Normal | On a new order removing procedure with laterality code throws error | Thick Client GUI | 1.33 |
| 884 | Bug | Normal | When region and language format is not English (United States) then "Meaningful Use" on administration screen does not work | Thick Client GUI | 1.33 |
| 859 | Bug | Normal | Procedures scheduled with default laterality are not saved when flag for Laterality required is N | Thick Client GUI | 1.31 |
| 897 | Bug | Low | Placement of tabs on Book X | Thick Client GUI | 1.33 |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

| | | | | | |
|---|---|---|---|---|---|
| 846 | Bug | Low | Tentitive signing hold time message | Admin Tools | 1.31 |
| 840 | Bug | Low | Order tab name on reschedule | Thick Client GUI | 1.31 |
| 505 | Bug | Low | Exception thrown scanning document | Thick Client GUI | 1.20 |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 6. Known Limitations

The following are Bugs, Suggested Features, and Support Issues found in build 1.34. This build is the current QE build and testing is ongoing. The list may increase in size. This document will not be updated or re-released.

| # | Status | Subject | Category | Target version | Resolved Version |
|---|---|---|---|---|---|
| 936 | New | Usergroups require Config.LookupEditor.Personnel to add unknown referring | Thick Client GUI | 1.34 | |
| 913 | New | Patient folder will display target and previously viewed images | Thick Client GUI | 1.34 | |
| 912 | New | Cannot view priors in dictate window | Thick Client GUI | 1.34 | |
| 910 | New | Patient Folder will keep opening image viewer | Thick Client GUI | 1.34 | |
| 908 | New | Object reference from dictate window will close RIS | Thick Client GUI | 1.34 | |
| 933 | New | MQSA_Reporting - General Exam List - Procedure Codes | Mgt Reports | 1.34 | |
| 932 | New | MQSA_Mammo - General Exam List - Date range does not included selected "To:" date | Mgt Reports | 1.34 | |
| 931 | New | Mammo reporting - General Exam List - not displaying Patient ID | Mgt Reports | 1.34 | |
| 930 | Resolved | Alternate phone flag does not disable alternate phone number fields | Thick Client GUI | 1.34 | 1.35 |
| 929 | New | User Group permissions difficult to add | Admin Tools | 1.34 | |
| 928 | Resolved | View / Edit OrderCancelled gives GetData error | Thick Client GUI | 1.34 | 1.35 |
| 927 | Resolved | Issue with procedure picker type ahead when procedure is removed. | Thick Client GUI | 1.34 | 1.35 |
| 926 | Resolved | Memory leak causing error. | Thick Client GUI | 1.34 | 1.35 |
| 925 | Resolved | Error scanning specific document type from Perform Exam | Thick Client GUI | 1.34 | 1.35 |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

| | | | | | |
|---|---|---|---|---|---|
| 924 | Resolved | Add outside read on site that requires insurance, but insurance is not chosen, is not added to billing exception | Thick Client GUI | 1.34 | 1.35 |
| 923 | Resolved | Image Request on Multi procedure order belonging to different orders throws error | Thick Client GUI | 1.34 | 1.35 |
| 922 | Resolved | Error thrown attempting to create multi procedure schedule | Thick Client GUI | 1.34 | 1.35 |
| 921 | Resolved | Home phone is not copied to Responsible Party | Thick Client GUI | 1.34 | 1.35 |
| 917 | New | Minimizing application by moving another application over top of RIS throws error | Thick Client GUI | 1.34 | |
| 916 | New | Adding UserGroupPermission with empty access string throws exception | Admin Tools | 1.34 | |
| 915 | New | Error returned on suspended study when selecting Cancel on overwrite message | Thick Client GUI | 1.34 | |
| 914 | New | Documents can be distributed without specifying deliver to: causing error | Thick Client GUI | 1.34 | |
| 911 | New | Adding a third study through registration behaves differently. | Thick Client GUI | 1.34 | |
| 909 | New | First time launch of a study does not find the image | Thick Client GUI | 1.34 | |
| 907 | Resolved | Datetimeoffset columns not correctly updating to the correct time zone | Web Services/DB | 1.34 | 1.35 |
| 905 | New | Rescheduling an exam without selecting time returns un-informative error. | Thick Client GUI | 1.34 | |
| 904 | New | Rescheduling exam and choose Schedule later and the procedure is not retained | Thick Client GUI | 1.34 | |
| 903 | New | Tool tips on flags don't always worked | Thick Client GUI | 1.34 | |
| 902 | New | worklist filler connection leak on exception | Web Services/DB | 1.34 | |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

| | | | | | |
|---|---|---|---|---|---|
| 918 | Resolved | Clean up tab order of Visit tab | Thick Client GUI | 1.34 | 1.35 |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# User Release Notes

for eRAD RIS
Version 1.0
Build 35

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Purpose ..... 4
2. Intended Audience ..... 4
3. Installing/Accessing the Application ..... 4
4. New Features and Enhancements ..... 5
Scheduling Timeslot Lock Release ..... 5
Schedule Review on Selecting Schedule Button ..... 6
Scheduling Across Sites Warning ..... 7
Cancelling / Rescheduling Studies ..... 8
Unknown Carrier Work Flow ..... 12
Self-Pay Feature ..... 16
Meaningful Use Wizard ..... 17
Hide New Crop Access ..... 19
Control Access to Proxy Signing Feature ..... 19
Notes Fields - User Identifier ..... 20
Billing Exception Additions ..... 20
MWL Enhancements ..... 21
Document Distribution Enhancements ..... 22
Management Reports – Sales ..... 23
Limit Number of Relevant Priors ..... 29
Radiologist Written Signature on Reports ..... 30
Pending Edit Work List ..... 39
Reporting - Message Prompt for Missing or Empty Required Sections ..... 40
Reporting – Sign Oops (Delayed Release of Report after Signing) ..... 42
Reporting – Remove Field Markers for Document Distribution ..... 45
Reporting – Maintain Field Markers User Preference ..... 46
Reporting – Insert Normal and Default Templates ..... 47
Reporting - Set User ID and Role for Reporting ..... 48
Reporting / Dictation – Insert / Overwrite Recording Preference ..... 49
SQL Server Reporting Services with Secure Socket Layer ..... 51
View Images of Studies Started but not Completed ..... 53
KBI Extract ..... 54
PACS Integration Message for Studies with no Images ..... 55
Miscellaneous Additions and Enhancements ..... 56
Increase System Config Value ..... 56
Reporting - Addendum Work Type ..... 56
Reporting – Note to Radiologist ..... 56
Reporting – Inconsistency with Next Field Functionality ..... 56
Reporting – Create Macro from Command Bar ..... 56

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

Other ..... 56
5. Resolved Defects ..... 57
6. Known Limitations ..... 62

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 1. Purpose

This document describes some of the new features and changes implemented in eRAD RIS as of the end of Sprint 35. This version of eRAD RIS is referred to as Build 1.35.

Only features which can be visually demonstrated to the user will be outlined in this document.

# 2. Intended Audience

This document is created by the RIS Development team for the RadNet RIS management team.

# 3. Installing/Accessing the Application

The installation guide for the eRAD RIS client have been posted to the RadNet Wiki page at http://mdbal01rdtweb/Wiki/

Under the RIS menu, click on the rRIS page. The credentials to access the page are:
Username: rRIS
Password: Summerside

*Please note that Build 1.35 is considered a new core release of the application and will require a reinstallation of eRAD RIS. This is accomplished by navigating to the eRAD RIS shared installation drive and running the CoreInstall.bat file (ex: I:\RISDeployment\CoreInstall.bat)*

If you experience difficulties accessing the application, please do not hesitate to contact Darcy Noye with the PEI RIS Development Team.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 4. New Features and Enhancements

## Scheduling Timeslot Lock Release

In the past if the user has searched for and selected available time slots for scheduling, this user would have those times locked. In the event the user was distracted from completing the schedule, the selected times would remain locked.

In build 35 we have introduced a lock release. We check every 10 seconds to see if there was any activity. As long as the scheduling tab is the active tab then any mouse or keyboard event will refresh the lock. If the user opens a new tab then any mouse or keyboard event will not refresh the lock. When the timer runs through the configurable amount of time, the focus will jump back to the scheduling tab with a pop-up prompting the user if the lock timer should refresh or release the lock, if the pop-up is left open for 1 minute then it will close and the lock will automatically be released.

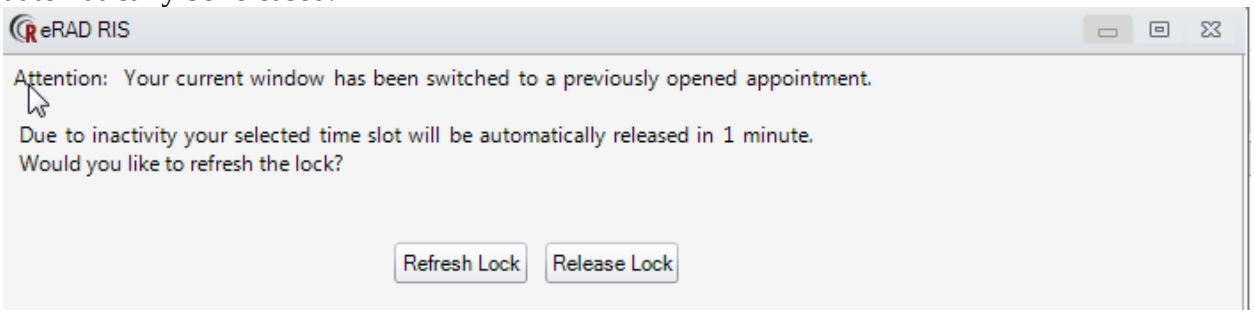



**Figure 4.1 – Lock release prompt if not in data window**

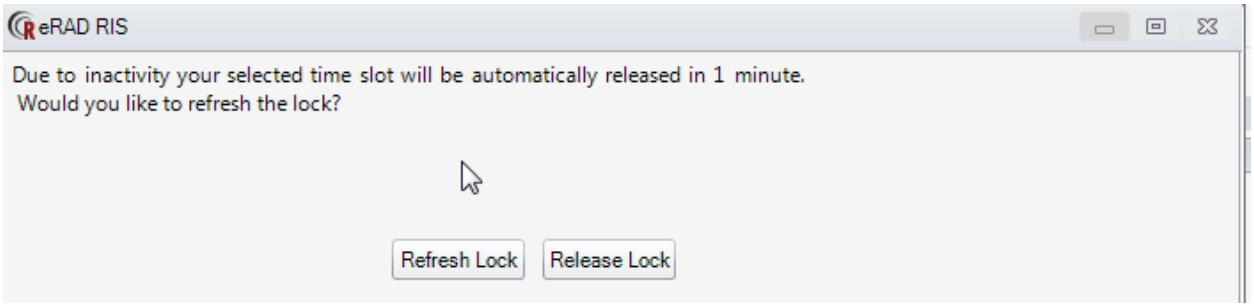



**Figure 4.2 – Lock release prompt if you are in data window but not on Schedule tab**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Schedule Review on Selecting Schedule Button

When a user had completed entering in data, searching for available schedule dates and time, etc they would select the schedule button to commit the data. It was desired that the user be presented with a review of the schedule.

In build 35 upon selecting the Schedule button the user will now be presented with the Review window. The review window will display a Schedule Summary of the patients name, procedures scheduled, date time and duration of the study. The address of the site in which the exams will occur and any prep instructions for the procedures selected.

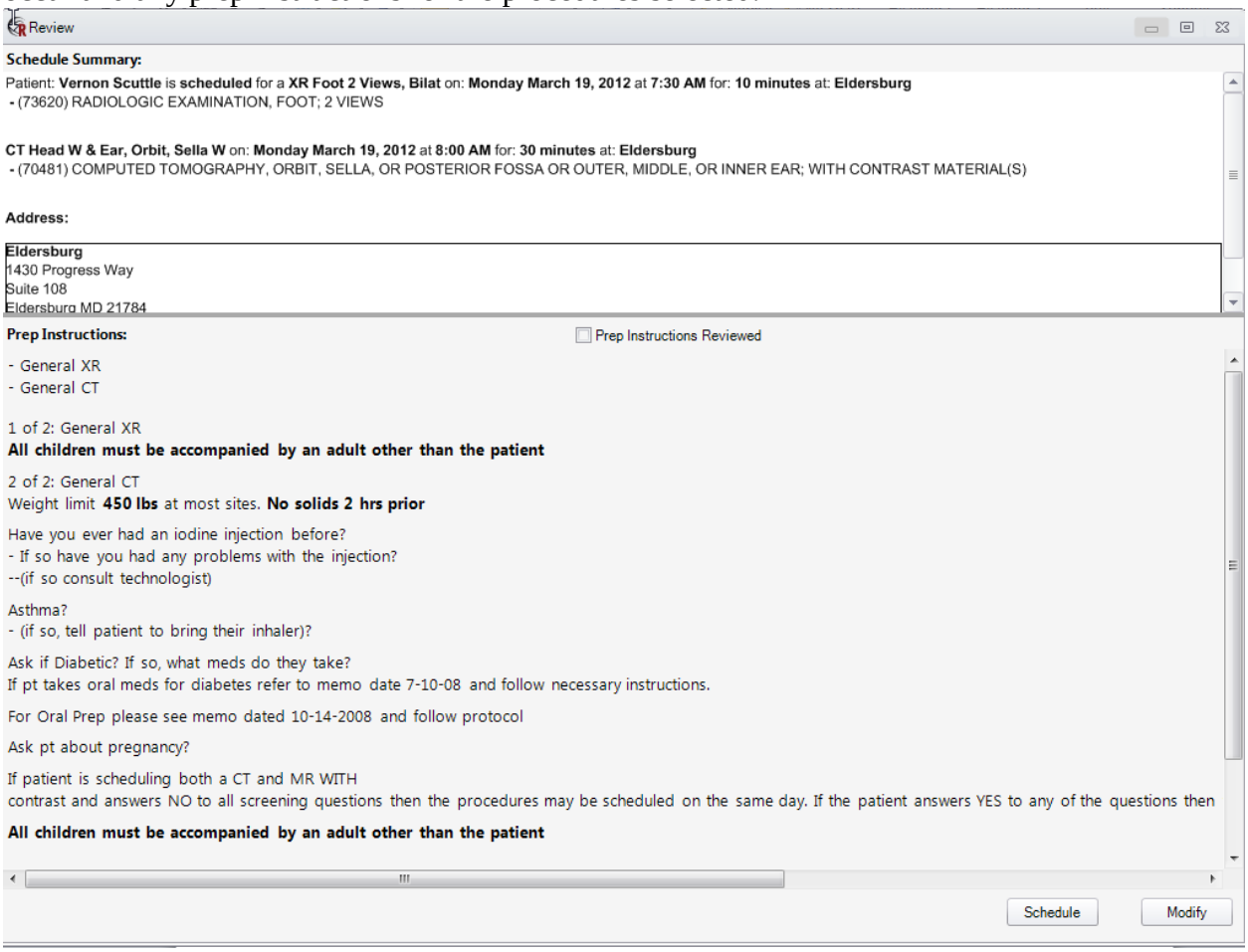



**Figure 4.3 – Schedule Review window**

The user can select the Schedule button to confirm, or select the Modify button to return to the Schedule Order data window to make any corrections required.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Scheduling Across Sites Warning

If the user is scheduling a multi procedure order and the rooms selected are (modality code) from different sites, the user will be prompted with an informative message with a Yes / No option to continue with the selection.

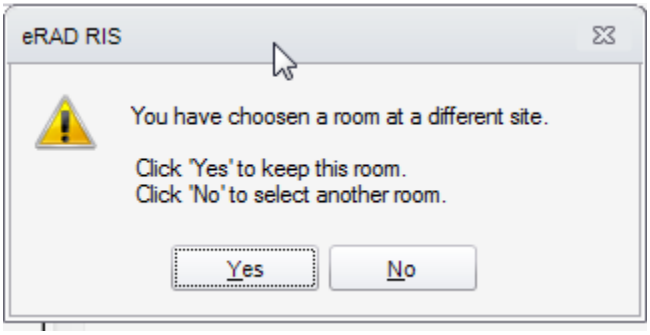


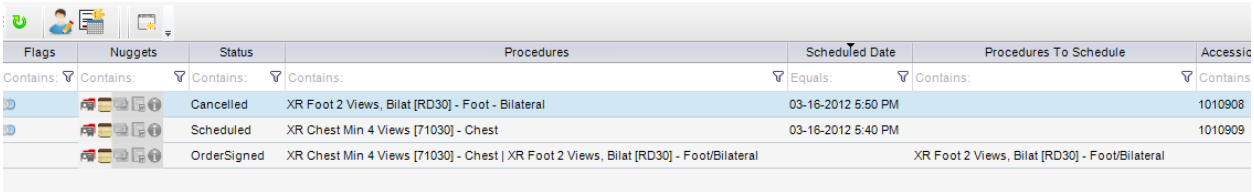

**Figure 4.4 – Scheduling across sites warning**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Cancelling / Rescheduling Studies

The patient folder has a new column on the work list. The procedures to schedule column will now show the procedures that are to be scheduled from an order in the event that one of the procedures from an original order remains scheduled, arrived, completed, etc…

In the example displayed below, the patient had an order with 2 procedures scheduled. One of the procedures was cancelled and sent to the Orders to Schedule work list. The result in the patient folder is the Order Signed showing the original procedures for that order and the Procedures to Schedule from that order, the study that was cancelled, and the study that remained in schedule status.



| Flags | Nuggets | Status | Procedures | Scheduled Date | Procedures To Schedule | Accessio |
|---|---|---|---|---|---|---|
| Contains: | Contains: | Contains: | Contains: | Equals: | Contains: | Contains |
| | | Cancelled | XR Foot 2 Views, Bilat [RD30] - Foot - Bilateral | 03-16-2012 5:50 PM | | 1010908 |
| | | Scheduled | XR Chest Min 4 Views [71030] - Chest | 03-16-2012 5:40 PM | | 1010909 |
| | | OrderSigned | XR Chest Min 4 Views [71030] - Chest \| XR Foot 2 Views, Bilat [RD30] - Foot/Bilateral | | XR Foot 2 Views, Bilat [RD30] - Foot/Bilateral | |

**Figure 4.5 – Patient folder displaying results of scheduled order with one cancelled study**

The list below is some possible scenarios and the results from cancelled and aborted exams.

### Scenario #1-1:

A patient is scheduled for a US Bladder on Friday at 11:00 AM. The patient calls and cannot make the appointment but request a new time. The PSR cancels the Friday appointment and then searches for new appointment times. The PSR and patient together find an appointment for Monday.

The patient folder now contains:

- Friday's cancelled US Bladder.
- Monday's scheduled US Bladder

### Scenario #1-2:

The patient from Scenario #1 arrives for his Monday appointment. The PSR registers the patient and marks the study as "Patient Arrived". The technologist invites the patient to the imaging room and starts the procedure. The technologist discovers the patient bladder is not full enough and cannot complete the procedure at this time. The patient has other commitments and must reschedule this procedure for a future date. The Monday's procedure is "Aborted" and a new study is put on the pending orders worklist to be scheduled (re-scheduled flag can be used to show that this is a re-scheduling event).

The patient folder now contains:

- Friday's cancelled US Bladder.
- Monday's aborted US Bladder.
- Pending order for US Bladder

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

### Scenario #1-3:

A PSR calls the patient from scenario #1 to re-schedule the US Bladder. The patient decides not to follow up with the procedure and wishes to not have it completed. The PSR cancels the pending order (pending study).
The patient folder now contains:

- Friday's cancelled US Bladder.
- Monday's aborted US Bladder.
- Cancelled US Bladder pending order.

### Scenario #2:

A patient is scheduled for a CT Head on Tuesday at 11:00 AM and XR Foot on Tuesday at 11:45 AM. The patient arrives and is registered. The tech performs the CT Head on the patient. After the CT Head, the patient has to leave and cannot have the XR foot done at this time. The tech completes the CT Head and cancels the XR Foot and request that it be put back on the pending order work list.
The patient folder now contains:

- Tuesday's completed CT Head
- Tuesday's cancelled XR Foot
- Pending order by XR Foot

### Scenario #3-1

A patient is scheduled for a MR Knee on Friday at 9:00 AM, and XR Elbow on Friday at 10:00 AM. The patient calls a day before the exam and request that they be rescheduled. The PSR and the patient together reschedule then for Monday at the same times.
The patient folder now contains:

- Friday's cancelled MR Knee
- Friday's cancelled XR Elbow
- Mondays scheduled MR Knee
- Mondays scheduled XR Elbow

### Scenario #3-2

The patient from scenario #3 arrives on. The PSR notices that the script is for a MR Knee and XR Ankle. The PSR updates the XR Elbow to XR Ankle. The tech performs and completes the MR Knee. However, the patient unfortunately has to leave prior to starting the XR Ankle. The tech cancels the XR Ankle and returns it to the pending order worklist.
The patient folder now contains:

- Friday's cancelled MR Knee
- Friday's cancelled XR Elbow
- Monday's completed MR Knee

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

- Monday's cancelled XR Ankle
- Pending order for XR Ankle

### Scenario #4-1

Sorry for the bad example of procedures here.
A patient is scheduled for US Bladder and US Pelvis On Tuesday at 2:30 and 3:00 PM respectively. The patient arrives and is registered. The technologist starts both studies in the RIS. The tech cannot complete the studies as the patient bladder is not full. The technologist aborts both exams and sends them to the pending order worklist.
The patient folder now contains:

- Tuesday's aborted US Bladder
- Tuesday's aborted US Pelvis
- Pending order for US Bladder (under the skin, this technically belongs the same order as the US Pelvis).
- Pending order for US Pelvis (under the skin, this technically belongs the same order as the US Bladder).

### Scenario #4-2

A PSR calls the patient to reschedule procedures aborted in scenario #4. Together they schedule 2 studies for Thursday at 3:30 PM and 4:00 PM. The patient arrives and is registered. The tech starts both procedures. The tech completes the US Bladder. But a clinical decision is made that the US Pelvis is not needed so the procedure is aborted.
The patient folder now contains:

- Tuesday's aborted US Bladder
- Tuesday's aborted US Pelvis
- Thursday's completed US Bladder.
- Thursday's aborted US Pelvis.

### Scenario #5-1

A patient is scheduled for a mammo screening on Friday at 11:30 AM. The patient arrives, registered and the procedure is performed. The radiologist diagnoses a Birad-0, and recommends a follow-up US Breast.
The patient folder now contains:

- Friday's completed mammo screening exam.
- Pending order for US Breast. The study is also visible in the mammo follow-up worklist, but not visible in the generic pending ordered worklist.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

### Scenario #5-2

A PSR calls the patients to schedule US-Breast follow-up. Together they schedule an appointment for Wednesday at 10:45 AM. The patient does not show for Wednesday morning appointment. The appointment is cancelled and is marked to be rescheduled.
The patient folder now contains:

- Friday's completed mammo screening exam.
- Wednesday morning cancel US Breast
- Pending order for US Breast. The study is also visible in the mammo follow-up worklist, but not visible in the generic pending ordered worklist.

### Scenario #5-3

A PSR calls the patients to re-schedule US-Breast follow-up. Together they schedule an appointment for Thursday at 10:45 AM. The patient arrives and the procedure is performed.
The patient folder now contains:

- Friday's completed mammo screening exam.
- Wednesday morning cancel (no-show) US Breast
- Thursday morning completed US Breast.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Unknown Carrier Work Flow

Needed with the eRAD RIS was a method to add Insurance Carriers that did not already exist within the application at the time of scheduling.

In build 35 users will have the ability to add unknown carriers. Within the existing Manage Policies window, if a Carrier name entered does not match an existing carrier, the user can add the unknown carrier from the Carrier Search window.

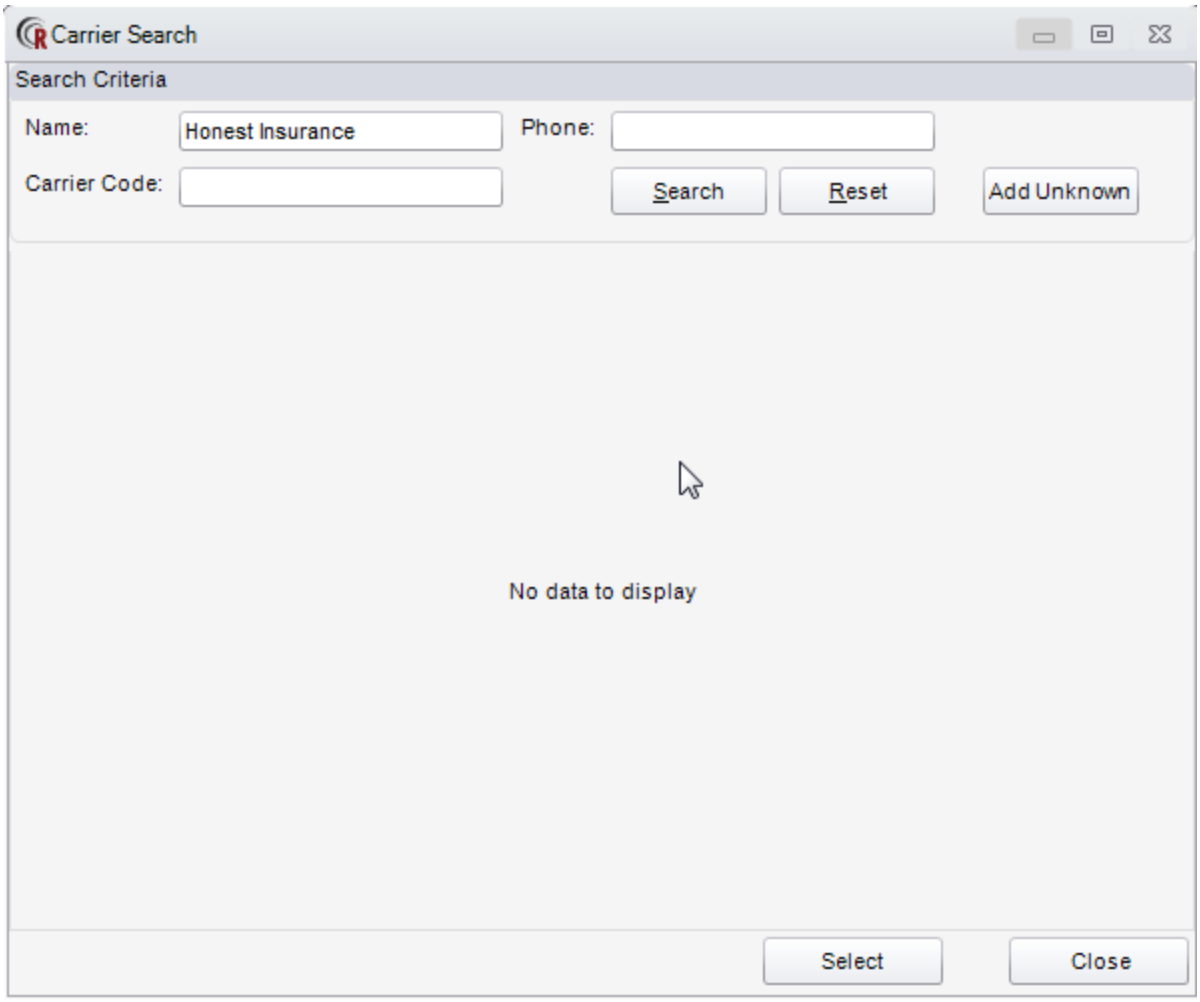



**Figure 4.6 – Carrier Search window didn't find a match**

Selecting the Unknown Carrier button in the above figure will open the Add Unknown Carrier window

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

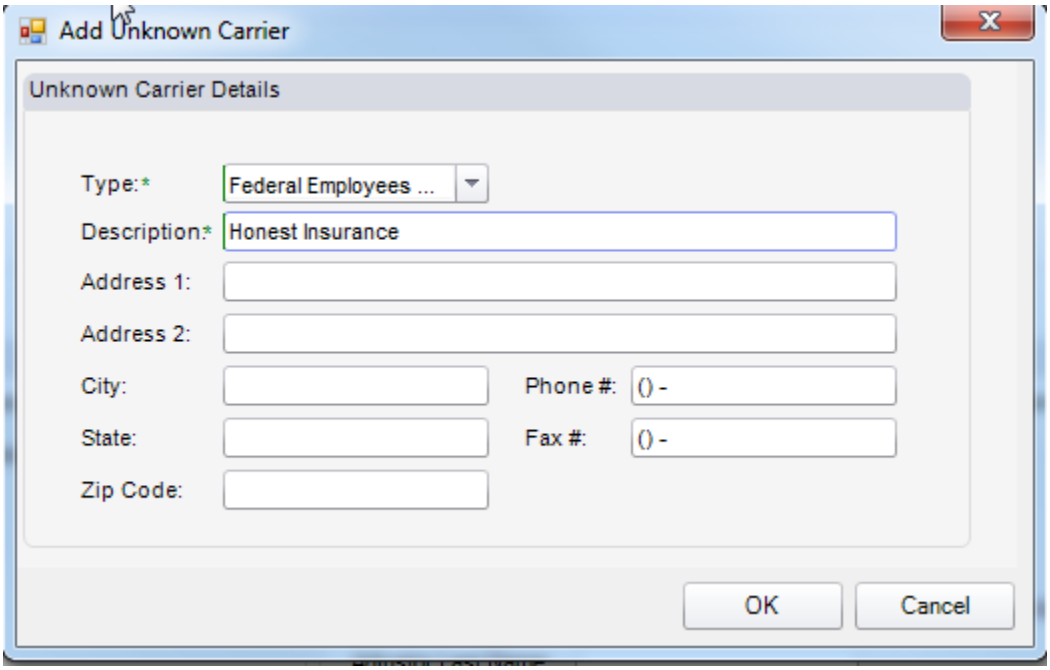



**Figure 4.7 – Add Unknown Carrier window**

After scheduling the above example, the entries with unknown carriers will be added to the "Unknown Reconciliation WL" (formally known as the "Unknown Referring WL") and will contain Unknown Carriers and Unknown Referrers as indicated under the columns for each in the work list

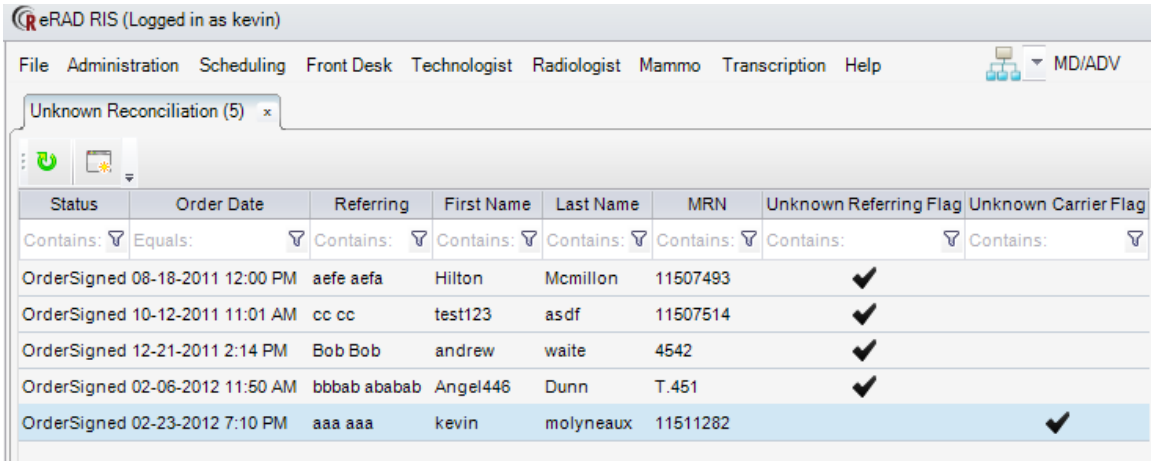



**Figure 4.8 – Unknown Reconciliation work list**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

Double clicking on the row with the "Unknown Carry Flag" checked will open edit order and you can go to the insurance grid, right clicking on the row to reconcile the unknown entry. The Reconcile Unknown menu item is only available to users who have admin access to edit the carrier lookup table. Orders listed in the Unknown Reconciliation WL can only be accessed when the status of the order is OrderSigned. Once the study is scheduled and statuses past scheduled in the work flow, the Unknown Carrier can be reconciled from any data window that has the Manage Policies data pane, included View / Edit from the patient folder and Edit Billing from the Billing Exception work list.

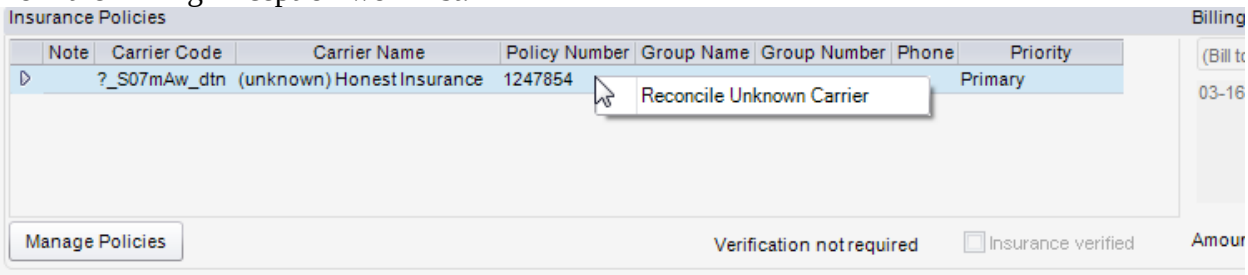



**Figure 4.9 – Reconcile Unknown Carrier**

In the "Reconcile Unknown Carrier" screen you can enter a code for the carrier and chose "Make Known" or you can search for an existing carrier, which may have been added but was not found earlier when scheduling the patient.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

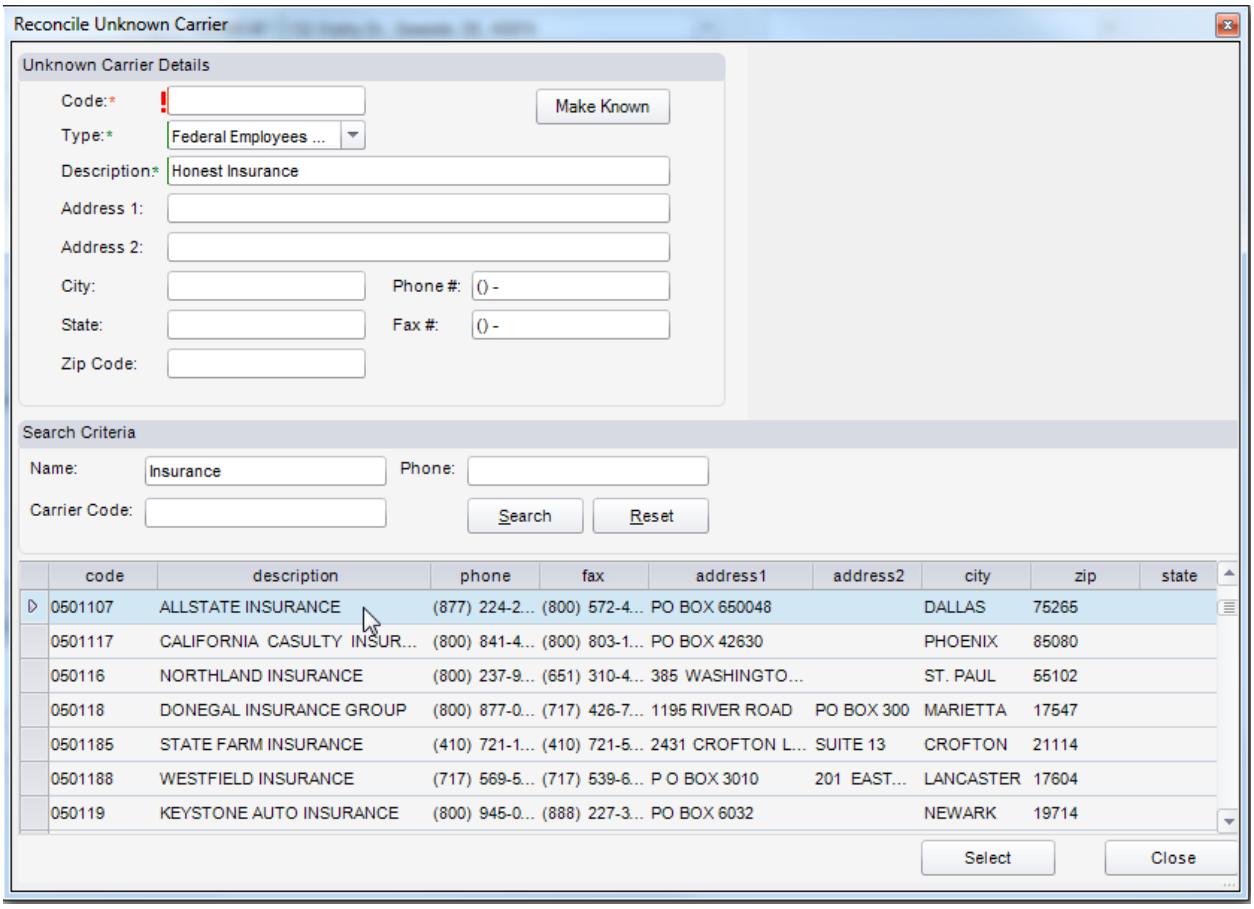



**Figure 4.10 – Reconcile Unknown Carrier window**

Validation was also added so that users can not add carrier codes that start with '?', which is reserved for the system generated unknown carrier codes.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Self-Pay Feature

The new Billing Method controls are located to the right of the Insurance Policies grid.

A new drop down box exists for Billing Method. It will be defaulted to "Bill to Insurance"
The PSR can select the dropdown, and populate 1 of 4 other values, which are driven from a new lookup table (l_bill_to_types), consisting initially of: 1. Self pay no discount 2. Self pay prompt pay discount 3. Self pay medical hardship 4. Self pay manager override)
There is a small notes section which becomes enabled when any self pay option is selected from the drop down list box. This is in fact the Billing Notes column.
The existing amount to collect textbox would be where we put in the quoted amount for the self-pay.
If the PSR later selects an insurance carrier, the billing method box is reset to "bill to insurance", and the box and notes are then disabled. To re-enable them, the PSR my un-select the insurance carrier.
The new controls are controlled by a permission "Clinical.BillingMethod"
Also the alert when no insurance is added has been removed if a self-pay option is selected.

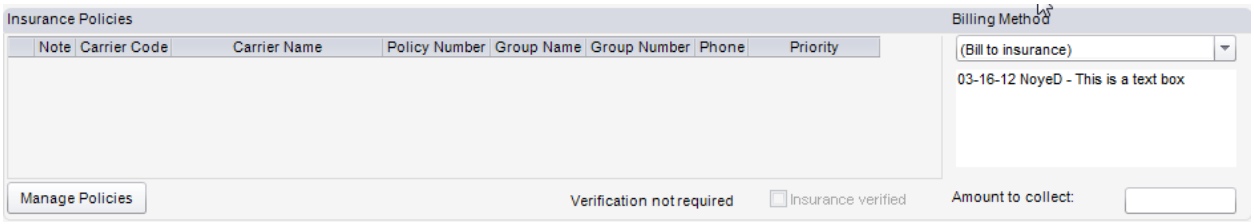



**Figure 4.11 – Billing Method data pane, list box and notes billing notes text box**

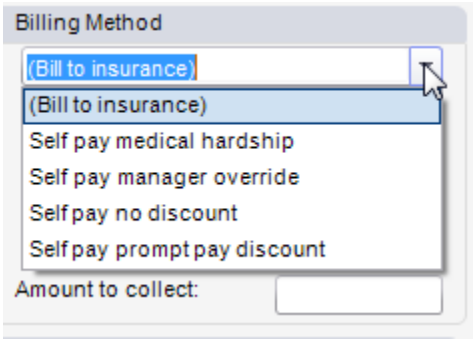



**Figure 4.12 –Billing Method list box values**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Meaningful Use Wizard

A new ICON has been added to the Patient Visit tab. This ICON will open a new Meaningful Use Wizard dialog where the users can check an item and that item will be added to the grid on the patient visit tab.

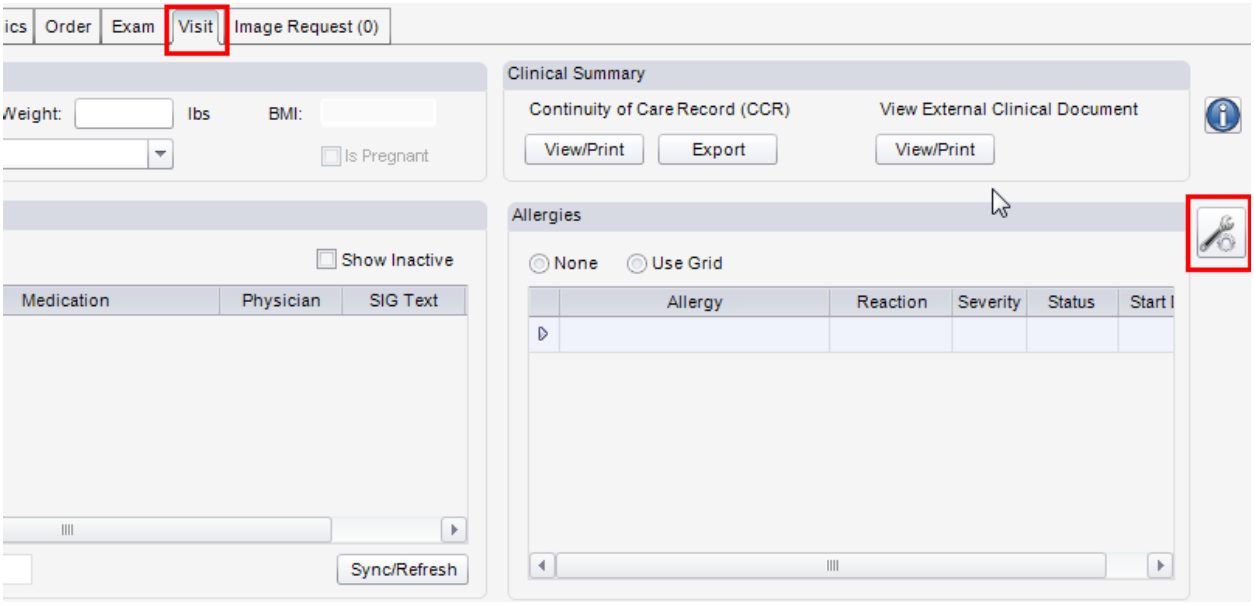



**Figure 4.13 – Meaningful Use Wizard button**

The Meaningful User Wizard button is controlled by the access string MU.WizardDialog. User groups must have this value set to full in order to see the button.

Medical History – The medical history grid allows the user the ability to have the same icd-9 code show multiple times however, we don't allow the dates of an icd-9 code to overlap. If the user selects the same icd-9 code only one can be active at a time (we throw an error saying overlapping dates not allowed). We added code that forces the user to select a start date for active icd-9 codes and we added code to force an end date for inactive or resolved icd-9 codes. This is needed so we can use the mu wizard to activate or inactive the correct code in the list.

Allergies – The allergy shows in the grid only once. Therefore you have an allergy or the user does not have the allergy.

Medications – Because we are using NewCrop medications can show in the list multiple times. We don't have the concept of start and end dates with medications so the way we use the meaningful use wizard is as follows. If the user clicks the wizard button we show all active drugs by checking the appropriate mediation (no matter if entered in ris or NewCrop). If the user

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

unchecks the checkbox we make all medications entered in rRIS (ris_entered_flag = Y) inactive. We don't inactive the medications entered in NewCrop because the sync button will control the status of the medication. If the user checks a medication in the wizard we add a new row to the grid.

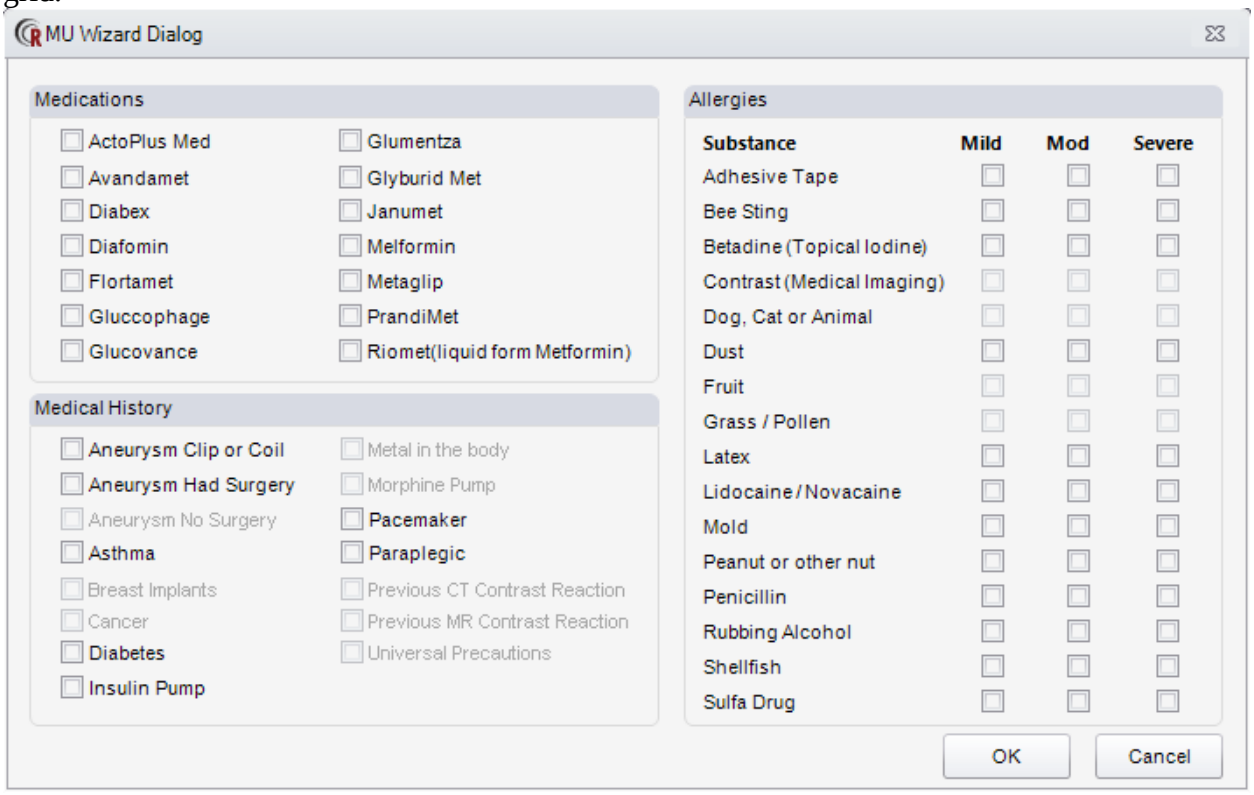



**Figure 4.14 – Meaningful Use Wizard window**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Hide New Crop Access

Added an access string “Clinical.NewCrop”, which if set to something other than Level.Full will prevent any of the newcrop features from being accessible, which means the button on the PatientInformation and the update button on PatientDrugs will be hidden.

The permission controls the visibility of the buttons and the syncing with New Crop.

## Control Access to Proxy Signing Feature

Add the access string: Clinical.UserPreferences.ProxySigning

When set to None, the proxy group box in the user prefer screen will be hidden. If its set to any other level other than full the proxy group box will be disabled.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Notes Fields - User Identifier

In previous builds the Notes field would capture the user's initials. In build 35 it will now display the last name and first initial of first name. The notes history will also display the same.

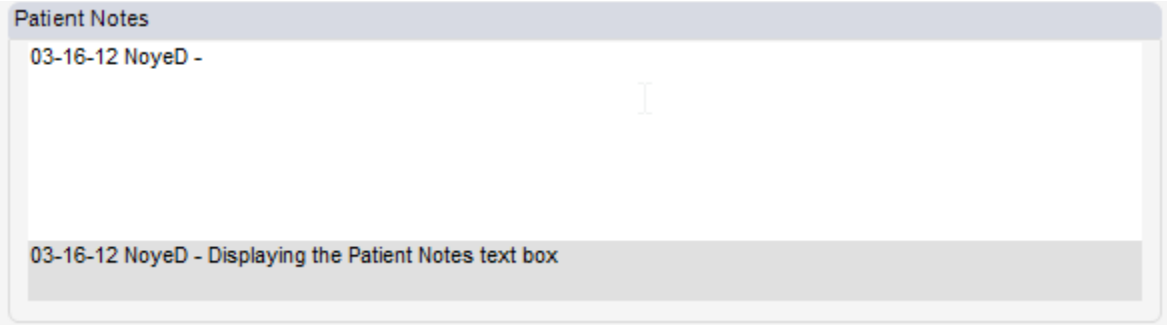



**Figure 4.15 – Notes field displaying new User Identifier**

## Billing Exception Additions

New exceptions added:
**Patient**
- Full name
- Address
- A contact phone number

**Insurance**
- Policy holder relationship
- Name
- Date of Birth
- Address

**Responsible party**
- Relationship
- Date of birth
- Gender
- Address

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## MWL Enhancements

DCM4CHEE supports coercion of inbound messages via xsl stylesheets, meaning that we can make modifications to the passed in messages before they are acted upon.
For MWL queries, there is a base stylesheet that is shared across all queries in addition to optional stylesheets that are specific to a particular calling AE Title.

The common stylesheet now coerces the dicom tag for study status (00400020) to be ARRIVED\STARTED\DISCONTINUED. This will filter the worklist to studies of only these statuses. In addition, we only send HL7 to dcm4chee when the status is arrived, started, discontinued, exam done, or cancelled. Note that scheduled studies are NOT sent to dcm4chee. The stylesheet also uses the current date if no date, accession number, or patient id is provided, otherwise it will use the date provided which could possibly be none.
In order to support the modality_x_modality requirement, a separate xml file has been created in order to contain the groupings. For each calling AE Title, it is required that all AE titles to be returned in the worklist are listed, including the calling AE Title itself.
The following example specifies that a Calling AE Title of CT1EL will return all studies scheduled under either CT1EL or MR1FH. Note that this example is somewhat nonsensical.

```
<modality_x_modality>
        <modality calling_ae_title="CT1EL">
                <x_modality ae_title="CT1EL" />
                <x_modality ae_title="MR1FH" />
        </modality>
</modality_x_modality>
```

If no modality node exists with the calling AE Title sent in the query then the query will be limited to only the calling AE Title.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Document Distribution Enhancements

For busy jobs, I put a delay in of 10 minutes, hardcoded.
A catch-all else block to handle all failures that were not previously being checking for was added. These errors included “Fax Transmission Error” and “Disconnected”. This will send these jobs to error status.

For busy jobs, a delay in of 10 minutes was added (hardcoded for this release, may look at configurable value in the future)

On a manual retry, we’ll now clear the fax no answer log.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Management Reports – Sales

The Sales Team had requested management report. Below is a list of 6 new management reports designed specifically for the Sales Team.

For a list of all current designed management reports, please see the rRIS Core Management Reports.pdf file that can be accessed on the RADNET Wiki

### 1. 6 Month Variance Report

**6 Month Variance Report**

**Practice:** Advanced Radiology
**Site(s):** Fisher, Lutherville
**Date Range:** Aug 2011 - Feb 2012

| Referring Phys | Specialty | Site | Modality | Aug 2011 | Sep 2011 | Oct 2011 | Nov 2011 | Dec 2011 | Jan 2012 | Total | Mnthly Avg | Feb 2012 | Variance |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| aaa aaa | Breast Surgery | FH | CT | 0 | 0 | 0 | 0 | 1 | 2 | 3 | 0.5 | 0 | (0.5) |
| | | | XR | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0.2 | 0 | (0.2) |
| | | LU | CT | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0.2 | 1 | 0.8 |
| | | | XR | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0.2 | 0 | (0.2) |
| | | | | **0** | **0** | **0** | **0** | **2** | **4** | **6** | **1.0** | **1** | **0.0** |
| Administrator Test User | | FH | BD | 3 | 0 | 0 | 0 | 0 | 0 | 3 | 0.5 | 0 | (0.5) |
| | | | CT | 0 | 0 | 1 | 0 | 0 | 1 | 2 | 0.3 | 0 | (0.3) |
| | | | PT | 6 | 5 | 2 | 0 | 2 | 1 | 16 | 2.7 | 8 | 5.3 |
| | | | XR | 102 | 0 | 23 | 0 | 0 | 3 | 128 | 21.3 | 0 | (21.3) |
| | | LU | XR | 41 | 0 | 13 | 0 | 0 | 0 | 54 | 9.0 | 0 | (9.0) |
| | | | | **152** | **5** | **39** | **0** | **2** | **5** | **203** | **33.8** | **8** | **(25.8)** |
| aefe aefa | Head & Neck Surgery | FH | MA | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0.2 | 0 | (0.2) |
| | | | | **0** | **0** | **1** | **0** | **0** | **0** | **1** | **0.2** | **0** | **(0.2)** |
| Aimee86 Mcclain | | LU | XR | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0.2 | 0 | (0.2) |
| | | | | **0** | **0** | **0** | **0** | **0** | **1** | **1** | **0.2** | **0** | **(0.2)** |
| Alfred Tapia | | FH | CT | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0.2 | 0 | (0.2) |
| | | LU | CT | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0.2 | 0 | (0.2) |
| | | | | **0** | **0** | **1** | **0** | **0** | **1** | **2** | **0.3** | **0** | **(0.3)** |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## 2. 13 Month Variance Report

### 13 Month Variance Report

**Practice:** Advanced Radiology
**Site(s):** Fisher, Lutherville
**Date Range:** Aug 2011 - Feb 2012

| Physician | Affiliation | Specialty | Site | Modality | Feb 2011 | May 2011 | Jun 2011 | Jul 2011 | Aug 2011 | Sep 2011 | Oct 2011 | Nov 2011 | Dec 2011 | Jan 2012 | Monthly Avg | Feb 2012 | Var | Difference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| aaa aaa | | Breast Surgery | FH | CT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 0.3 | 0 | (0.3) | -100% |
| | | | | XR | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0.1 | 0 | (0.1) | -100% |
| | | | LU | CT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0.1 | 1 | 0.9 | 1100% |
| | | | | XR | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0.1 | 0 | (0.1) | -100% |
| | | | Total | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 4 | 0.5 | 1 | 0.5 | 100% |
| Administrator Test User | | | FH | BD | 0 | 0 | 0 | 1 | 3 | 0 | 0 | 0 | 0 | 0 | 0.3 | 0 | (0.3) | -100% |
| | | | | CT | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0.2 | 0 | (0.2) | -100% |
| | | | | PT | 0 | 0 | 0 | 2 | 6 | 5 | 2 | 0 | 2 | 1 | 1.5 | 8 | 6.5 | 433% |
| | | | | XR | 0 | 0 | 0 | 39 | 102 | 0 | 23 | 0 | 0 | 3 | 13.9 | 0 | (13.9) | -100% |
| | | | LU | XR | 0 | 0 | 0 | 18 | 41 | 0 | 13 | 0 | 0 | 0 | 6.0 | 0 | (6.0) | -100% |
| | | | Total | | 0 | 0 | 0 | 60 | 152 | 5 | 39 | 0 | 2 | 5 | 21.9 | 8 | (13.9) | -63% |
| aefe aefa | | Head & Neck Surgery | FH | MA | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0.1 | 0 | (0.1) | -100% |
| | | | Total | | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0.1 | 0 | (0.1) | -100% |
| Aimee86 Mcclain | | | LU | XR | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0.1 | 0 | (0.1) | -100% |
| | | | Total | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0.1 | 0 | (0.1) | -100% |
| Alexander06 Avila | | | LU | MA | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.1 | 0 | (0.1) | -100% |
| | | | Total | | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.1 | 0 | (0.1) | -100% |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## 3. 13 Month Variance Report by Physician Location

### 13 Month Variance Report by Physician/Location with Percentage

**Practice:** Advanced Radiology

**Site(s):** Fisher, Lutherville

**Date Range:** Feb 2011 - Feb 2012

| Physician | Site | Modality | Feb 2011 | May 2011 | Jun 2011 | Jul 2011 | Aug 2011 | Sep 2011 | Oct 2011 | Nov 2011 | Dec 2011 | Jan 2012 | Mnthly Avg | Feb 2012 | Var | Difference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| aaa aaa | FH | CT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 0.3 | 0 | (0.3) | -100% |
| | | XR | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0.1 | 0 | (0.1) | -100% |
| | LU | CT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0.1 | 1 | 0.9 | 1100% |
| | | XR | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0.1 | 0 | (0.1) | -100% |
| | **Total** | | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **2** | **4** | **0.6** | **1** | **0.5** | **100%** |
| Administrator Test User | FH | BD | 0 | 0 | 0 | 1 | 3 | 0 | 0 | 0 | 0 | 0 | 0.3 | 0 | (0.3) | -100% |
| | | CT | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0.2 | 0 | (0.2) | -100% |
| | | PT | 0 | 0 | 0 | 2 | 6 | 5 | 2 | 0 | 2 | 1 | 1.5 | 8 | 6.5 | 433% |
| | | XR | 0 | 0 | 0 | 39 | 102 | 0 | 23 | 0 | 0 | 3 | 13.9 | 0 | (13.9) | -100% |
| | LU | XR | 0 | 0 | 0 | 18 | 41 | 0 | 13 | 0 | 0 | 0 | 6.0 | 0 | (6.0) | -100% |
| | **Total** | | **0** | **0** | **0** | **60** | **152** | **5** | **39** | **0** | **2** | **5** | **21.9** | **8** | **(13.9)** | **-63%** |
| aefe aefa | FH | MA | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0.1 | 0 | (0.1) | -100% |
| | **Total** | | **0** | **0** | **0** | **0** | **0** | **0** | **1** | **0** | **0** | **0** | **0.1** | **0** | **(0.1)** | **-100%** |
| Aimee06 Mcclain | LU | XR | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0.1 | 0 | (0.1) | -100% |
| | **Total** | | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **1** | **0.1** | **0** | **(0.1)** | **-100%** |
| Alexander06 Avila | LU | MA | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.1 | 0 | (0.1) | -100% |
| | **Total** | | **0** | **0** | **1** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0.1** | **0** | **(0.1)** | **-100%** |
| Alfred Tapia | FH | CT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0.1 | 0 | (0.1) | -100% |
| | LU | CT | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0.1 | 0 | 0.9 | 1100% |
| | **Total** | | **1** | **0** | **0** | **0** | **0** | **0** | **1** | **0** | **0** | **1** | **0.2** | **0** | **0.8** | **500%** |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## 4. 13 Month Variance Report by Group

### 13 Month Variance Report by Group with Percentage

| Affiliations | Physician | Site | Modality | Feb 2011 | May 2011 | Jun 2011 | Jul 2011 | Aug 2011 | Sep 2011 | Oct 2011 | Nov 2011 | Dec 2011 | Jan 2012 | Mnthly Avg | Feb 2012 | Var |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| BLAKER CHIROPRACTIC | WILLIAM BLAKER | Total | | 0 | 94 | 4 | 14 | 0 | 0 | 0 | 0 | 0 | 0 | 9.3 | 0 | (9.3) |
| CALVERT WOMENS HEALTH | WILLIAM SPENCER-STRONG I | FH | BD | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.1 | 0 | (0.1) |
| | | | MR | 0 | 12 | 4 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 1.5 | 0 | (1.5) |
| | | | PT | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.1 | 0 | (0.1) |
| | | LU | MR | 0 | 17 | 2 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 1.8 | 0 | (1.8) |
| | | | XR | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.3 | 0 | (0.3) |
| | | Total | | 0 | 34 | 7 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 3.8 | 0 | (3.8) |
| CARDIOVASCULAR SPECIALISTS OF CENTRAL MD | WILLIAM HERZOG | FH | CT | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0.1 | 0 | (0.1) |
| | | | PT | 0 | 18 | 11 | 8 | 0 | 0 | 1 | 0 | 0 | 0 | 3.2 | 0 | (3.2) |
| | | | XR | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0.1 | 0 | (0.1) |
| | | LU | CT | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.2 | 0 | (0.2) |
| | | | US | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.2 | 0 | (0.2) |
| | | Total | | 0 | 21 | 12 | 10 | 0 | 0 | 1 | 0 | 0 | 0 | 3.7 | 0 | (3.7) |
| | WILLIAM PARNES | FH | CT | 0 | 2 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0.4 | 0 | (0.4) |
| | | | MA | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0.1 | 0 | (0.1) |
| | | | PT | 0 | 8 | 22 | 10 | 0 | 0 | 1 | 0 | 0 | 0 | 3.4 | 0 | (3.4) |
| | | | US | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.1 | 0 | (0.1) |
| | | | XR | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.1 | 0 | (0.1) |
| | | LU | CT | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.1 | 0 | (0.1) |
| | | | US | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.1 | 0 | (0.1) |
| | | Total | | 0 | 13 | 24 | 13 | 0 | 0 | 1 | 0 | 0 | 0 | 4.3 | 0 | (4.3) |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## 5. 13 Month Specific Group Report

### Specific Group 13 Month Variance Report

**Practice:** Advanced Radiology
**Site(s):** Fisher, Lutherville
**Date Range:** Aug 2011 - Feb 2012

| Affiliation | Physician | Site | Modality | Feb 2011 | May 2011 | Jun 2011 | Jul 2011 | Aug 2011 | Sep 2011 | Oct 2011 | Nov 2011 | Dec 2011 | Jan 2012 | Mnthly Avg | Feb 2012 | Var |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 888 888 | FH | CT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 0.3 | 0 | (0.3) |
| | | | XR | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0.1 | 0 | (0.1) |
| | | LU | CT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0.1 | 1 | 0.9 |
| | | | XR | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0.1 | 0 | (0.1) |
| | | **Total** | | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **2** | **4** | **0.5** | **1** | **0.5** |
| | Administrator Test User | FH | BD | 0 | 0 | 0 | 1 | 3 | 0 | 0 | 0 | 0 | 0 | 0.3 | 0 | (0.3) |
| | | | CT | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0.2 | 0 | (0.2) |
| | | | PT | 0 | 0 | 0 | 2 | 6 | 5 | 2 | 0 | 2 | 1 | 1.5 | 8 | 6.5 |
| | | | XR | 0 | 0 | 0 | 39 | 102 | 0 | 23 | 0 | 0 | 3 | 13.9 | 0 | (13.9) |
| | | LU | XR | 0 | 0 | 0 | 18 | 41 | 0 | 13 | 0 | 0 | 0 | 6.0 | 0 | (6.0) |
| | | **Total** | | **0** | **0** | **0** | **60** | **152** | **5** | **39** | **0** | **2** | **5** | **21.9** | **8** | **(13.9)** |
| | aafa aafa | FH | MA | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0.1 | 0 | (0.1) |
| | **Total** | | | **0** | **0** | **0** | **0** | **0** | **0** | **1** | **0** | **0** | **0** | **0.1** | **0** | **(0.1)** |
| | Aimee86 Mcclain | LU | XR | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0.1 | 0 | (0.1) |
| | **Total** | | | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **1** | **0.1** | **0** | **(0.1)** |
| | Alexander06 Avila | LU | MA | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.1 | 0 | (0.1) |
| | **Total** | | | **0** | **0** | **1** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0.1** | **0** | **(0.1)** |
| | Alfred Tapia | FH | CT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0.1 | 0 | (0.1) |
| | | LU | CT | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0.1 | 1 | 0.9 |
| | | **Total** | | **1** | **0** | **0** | **0** | **0** | **0** | **1** | **0** | **0** | **1** | **0.2** | **1** | **0.8** |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## 6. 9 Month Quarterly Variance Report

### Quarterly Variance Report

| Physician | Specialty | Site | Modality | Qtr 3 2011 | Qtr 4 2011 | Mnthly Avg | Qtr 1 2012 | Var |
|---|---|---|---|---|---|---|---|---|
| aaa aaa | Breast Surgery | FH | CT | 0 | 1 | 0.2 | 2 | 1.8 |
| | | | XR | 0 | 0 | 0.0 | 1 | 1.0 |
| | | LU | CT | 0 | 1 | 0.2 | 1 | 0.8 |
| | | | XR | 0 | 0 | 0.0 | 1 | 1.0 |
| | **Total** | | | **0** | **2** | **0.3** | **5** | **4.7** |
| Administrator Test User | | FH | BD | 4 | 0 | 0.7 | 0 | (0.7) |
| | | | CT | 0 | 1 | 0.2 | 1 | 0.8 |
| | | | PT | 13 | 4 | 2.8 | 9 | 6.2 |
| | | | XR | 141 | 23 | 27.3 | 3 | (24.3) |
| | | LU | XR | 59 | 13 | 12.0 | 0 | (12.0) |
| | **Total** | | | **217** | **41** | **43.0** | **13** | **(30.0)** |
| aefe aefa | Head & Neck Surgery | FH | MA | 0 | 1 | 0.2 | 0 | (0.2) |
| | **Total** | | | **0** | **1** | **0.2** | **0** | **(0.2)** |
| Aimee86 Mcclain | | LU | XR | 0 | 0 | 0.0 | 1 | 1.0 |
| | **Total** | | | **0** | **0** | **0.0** | **1** | **1.0** |
| Alfred Tapia | | FH | CT | 0 | 0 | 0.0 | 1 | 1.0 |
| | | LU | CT | 0 | 1 | 0.2 | 0 | (0.2) |
| | **Total** | | | **0** | **1** | **0.2** | **1** | **0.8** |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Limit Number of Relevant Priors

Added a system configuration setting called “MaxRelevantPriors”, which limits the number of relevant priors shown in the PACs “sorted by ranking”.

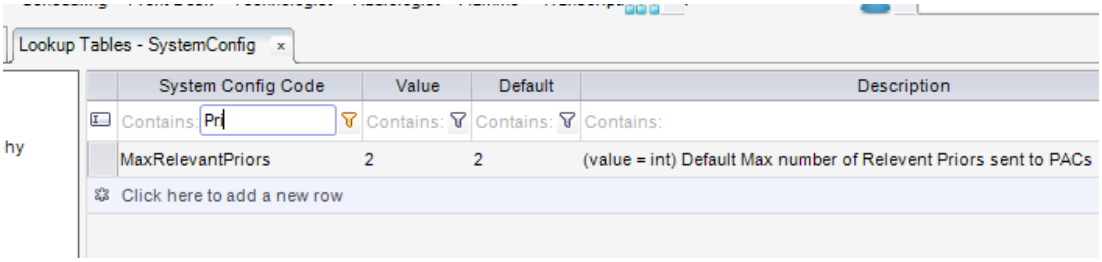



**Figure 4.16 – MaxRelevantPriors system config entry**

A user can modify their personal MaxRelevantPriors via user preferences.

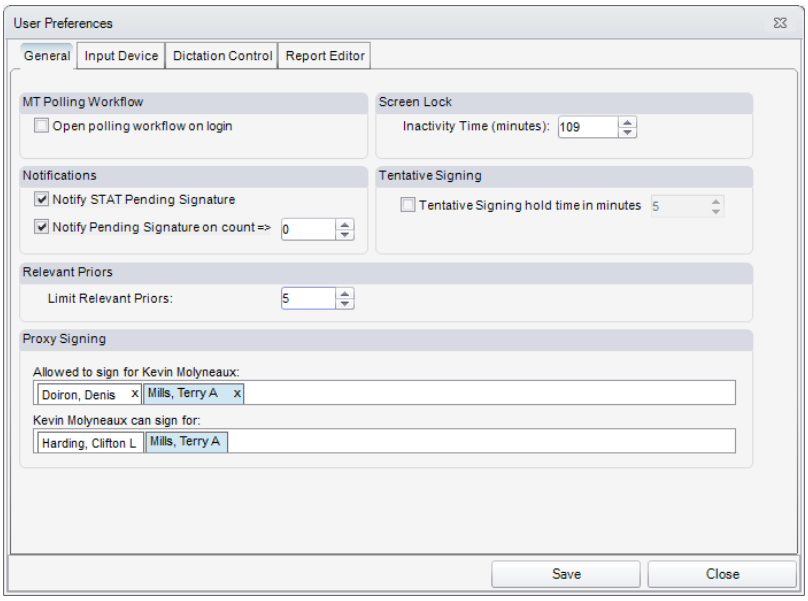



**Figure 4.17 – MaxRelevantPriors User Preference**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

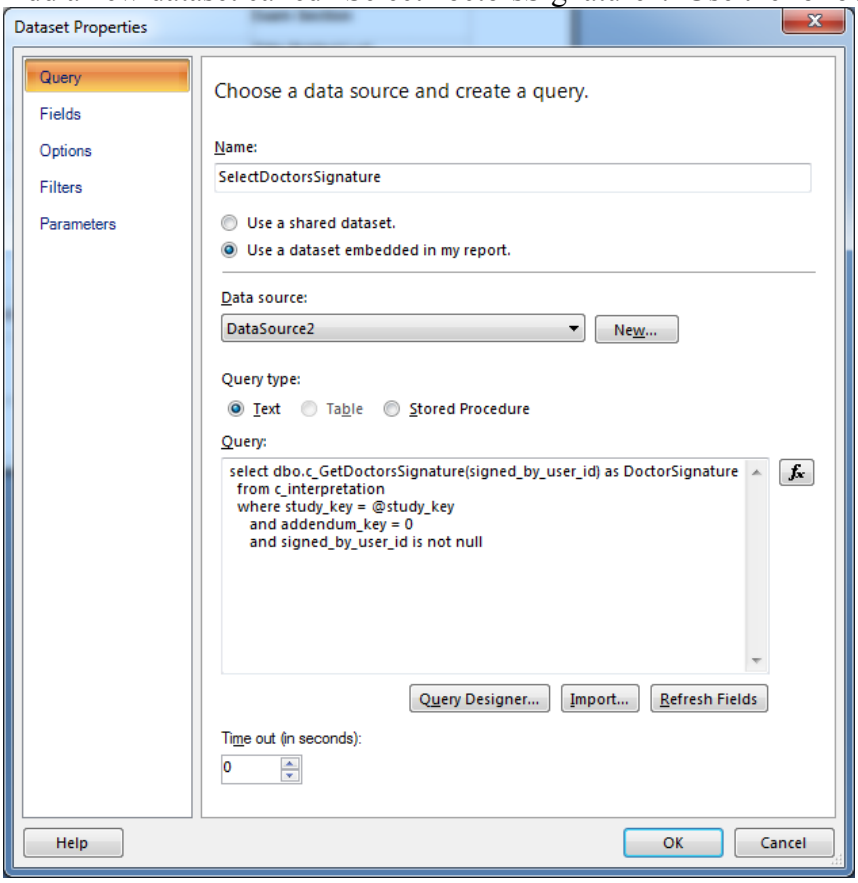
## Radiologist Written Signature on Reports

To implement, you will need to add a new scan document type that is associated to the person level. This scan document type must be referenced in the DoctorsSignatureScanType system configuration setting.
**The default DoctorsSignatureScanType value is "DoctorsSignature".**
Also, you will need to update your version of the Diagnostic Report Body and Diagnostic Report Addendum reports in SQL Server Report Server. If you are using the "SampleDiagnosticReportBody" and the "SampleDiagnosticReportAddendum", then the signature feature is automatically included. Please feel free to reference the sample diagnostic report template for more implementation details.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

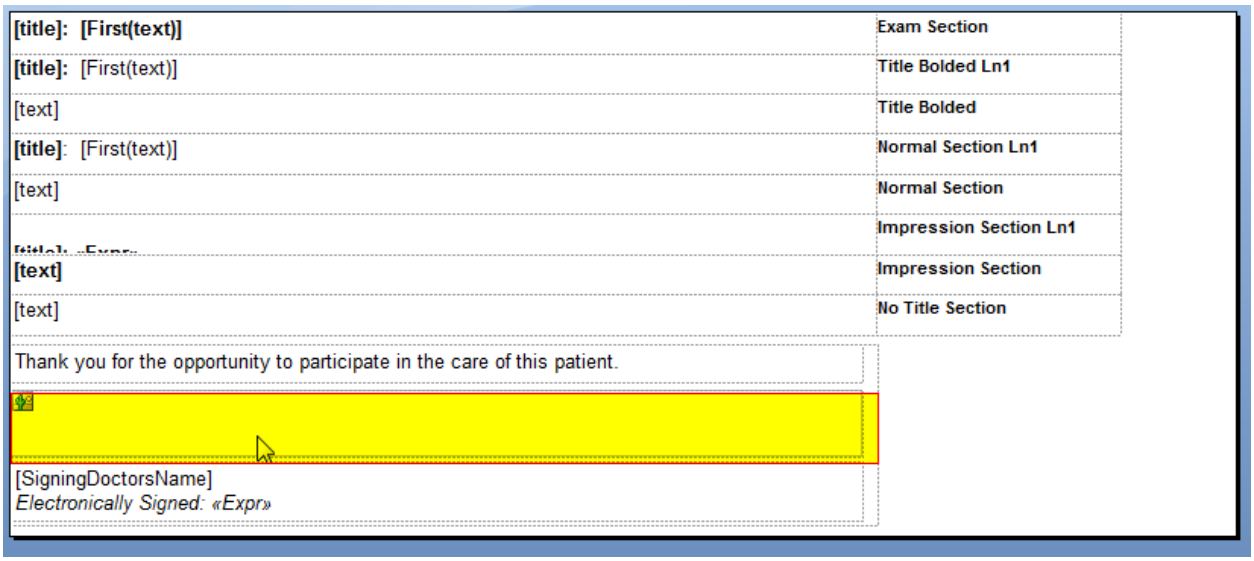
## Implementation instructions for the original report:

Open the diagnostic report template that the system uses for report body.
Add a new dataset called “SelectDoctorsSignature”. Use the following properties.

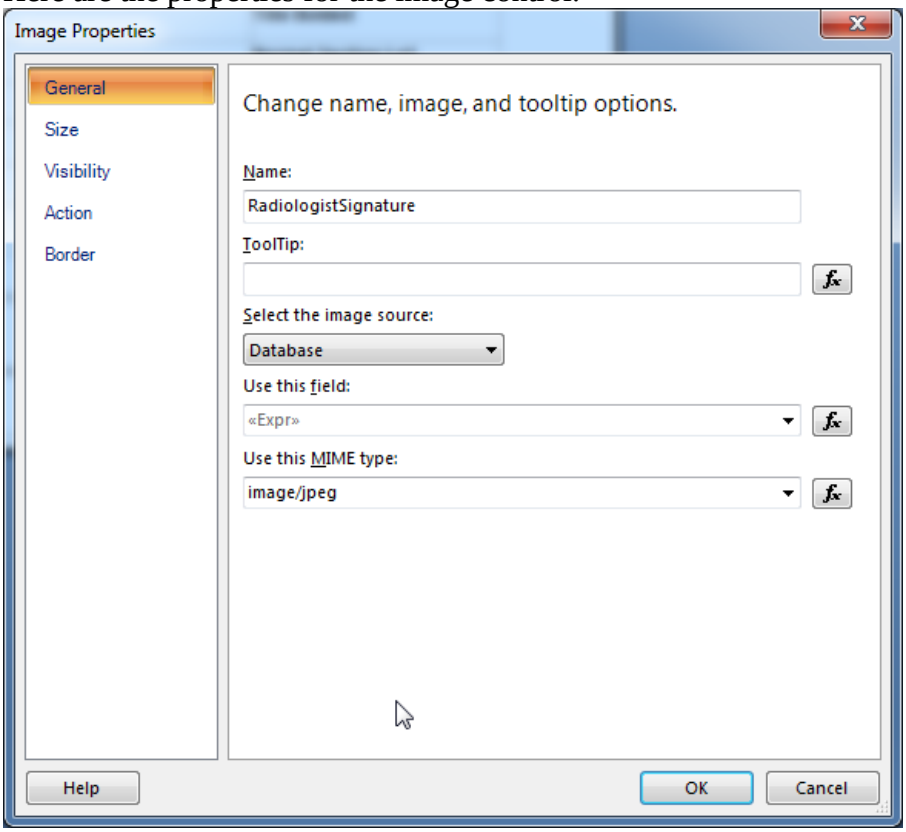



Add a new image control to the area you want the signature to appear. We added the image control just above the doctor’s name in the sample template.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

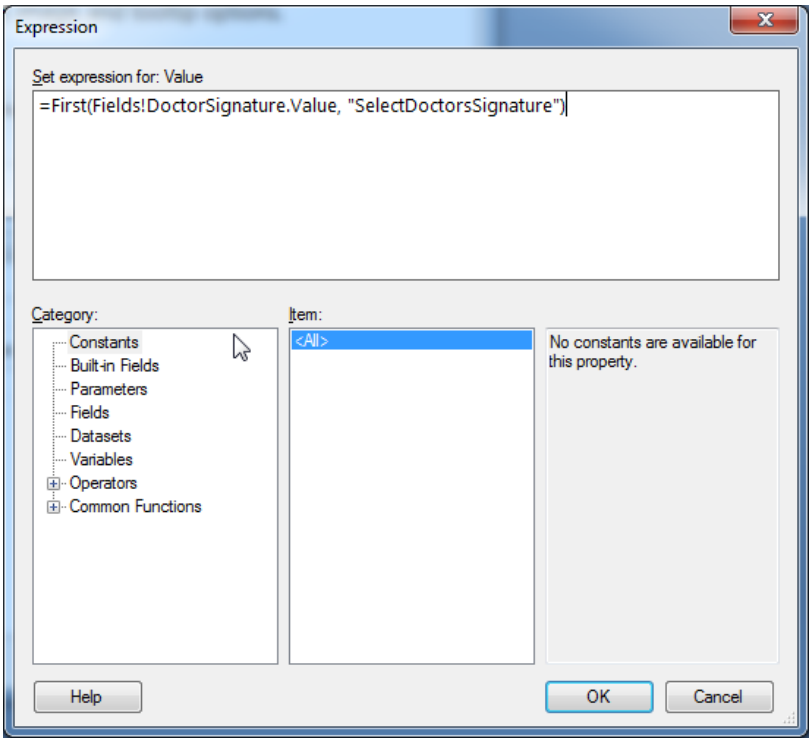



Here are the properties for the image control.

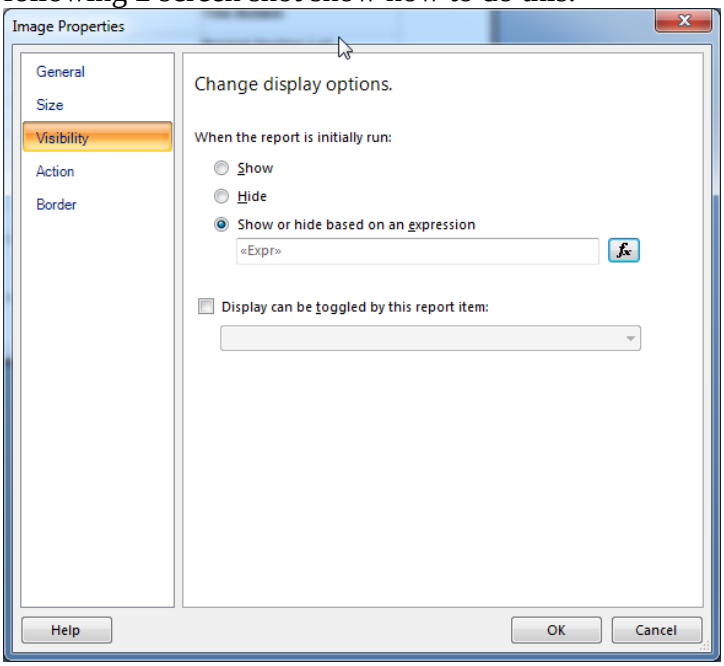



In the "Use this field" we used the following:

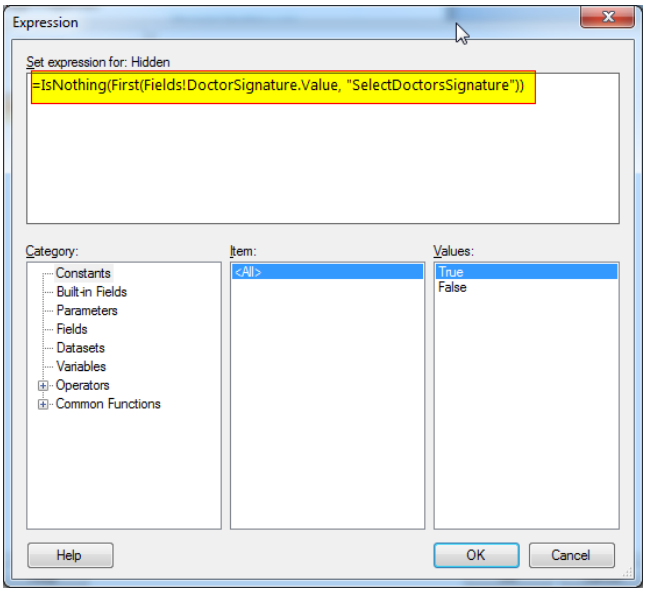
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.




For visibility, we will hide the image control if there is no signature on file for the doctor. The following 2 screen shot show how to do this.



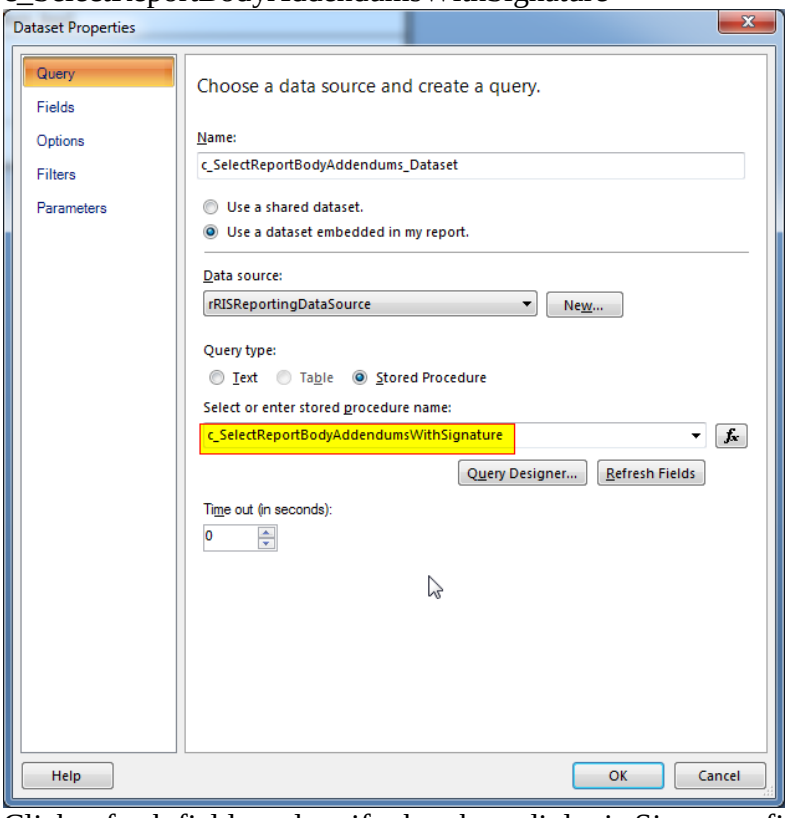

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

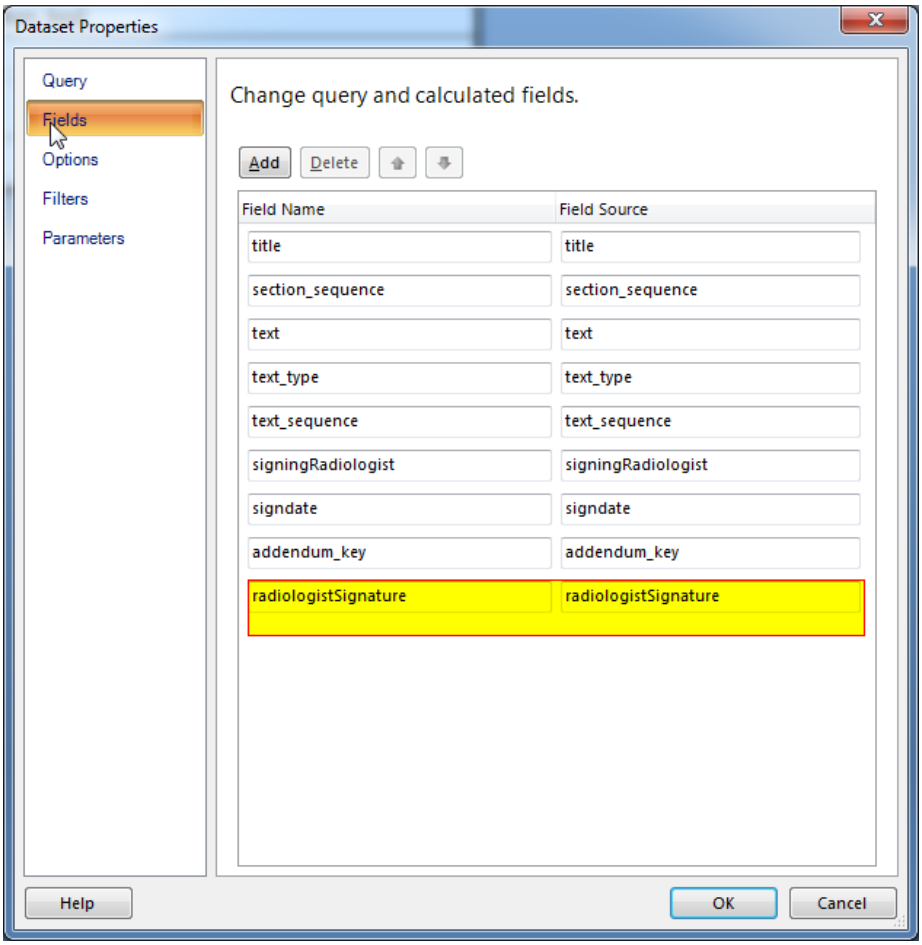
**Implementation instructions for Addendums:**

Open the diagnostic report template that the system uses for report addendums.
Change the c_SelectReportBodyAddendum dataset to point to a new stored procedure call c_SelectReportBodyAddendumsWithSignature

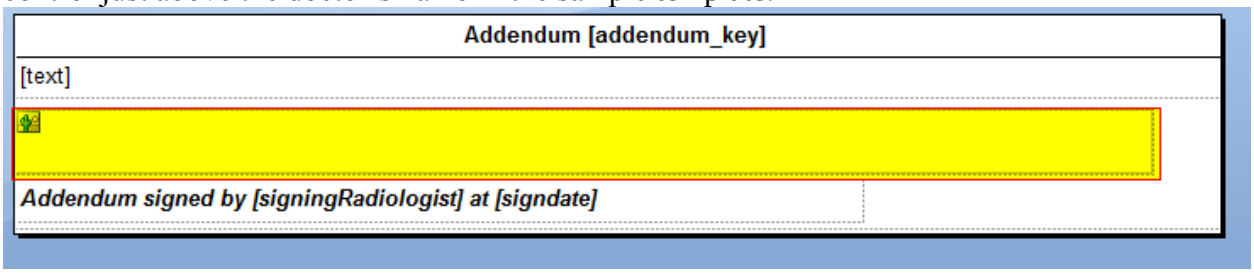



Click refresh fields and verify that the radiologistSignature field is not populated in the Fields list.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

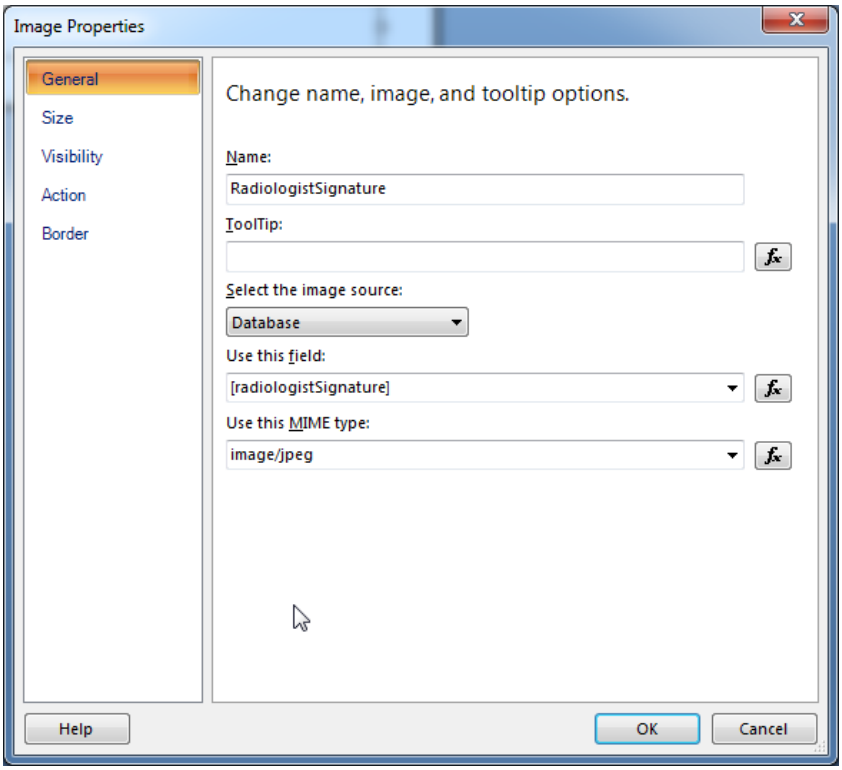



Add a new image control to the area you want the signature to appear. We added the image control just above the doctor's name in the sample template.

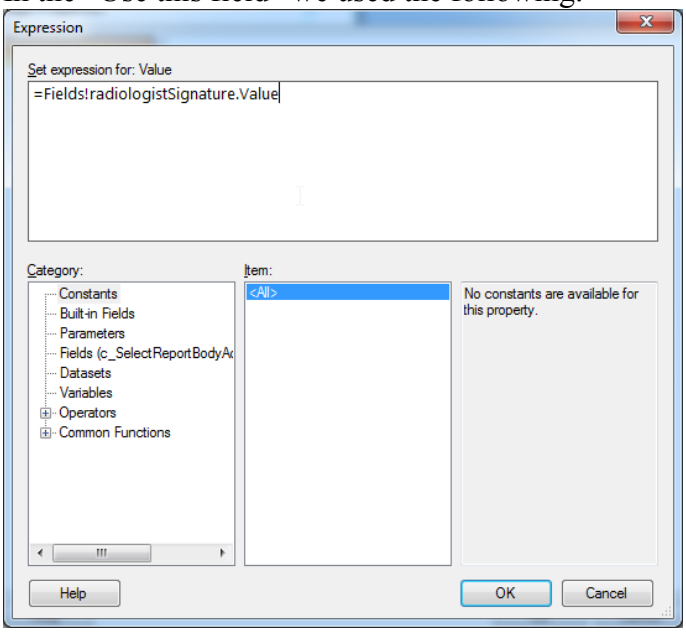



Here are the properties for the image control.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

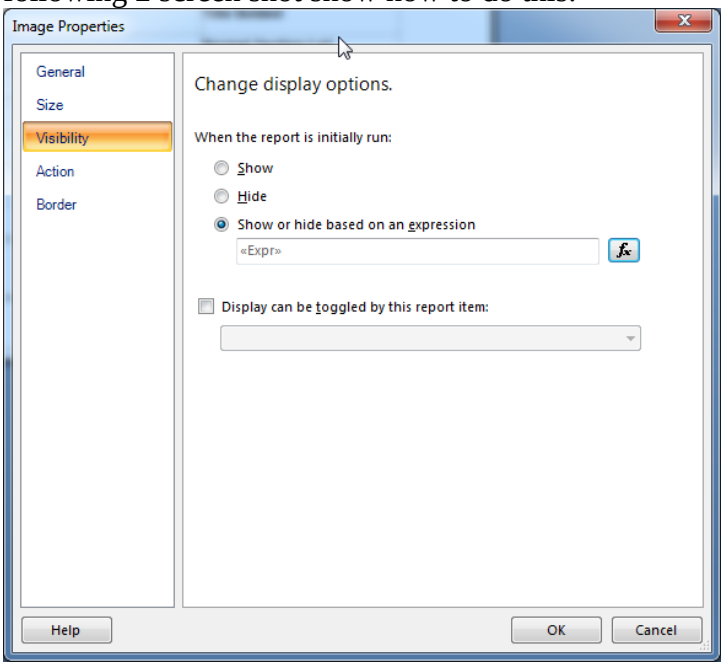


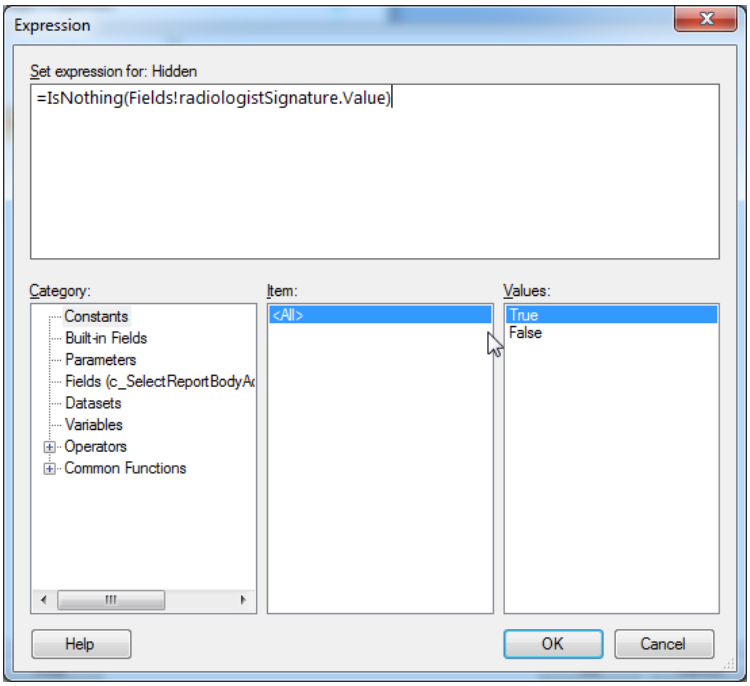

In the "Use this field" we used the following:




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

For visibility, we will hide the image control if there is no signature on file for the doctor. The following 2 screen shot show how to do this.




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Pending Edit Work List

A new work list called Pending Edit has been added for the Radiologist role. This new work list will contain exams in Report Drafted items dictated by the current logged in Radiologist. The columns in the work list are the same as the Pending Signature work list.

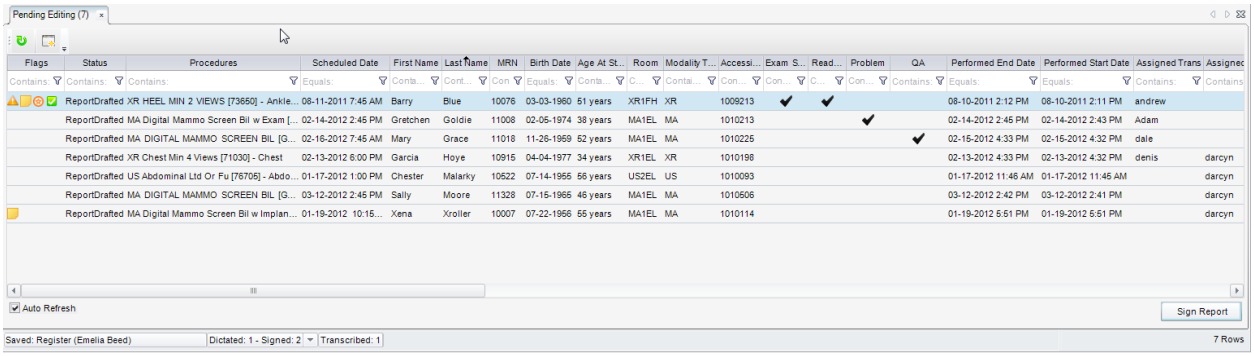



**Figure 4.18 – Pending Edit work list**

The Radiologist can open the sign reports data window from the button in the lower right, double clicking on the selected work list row, or choosing from the options from the context menu displayed in the figure below.

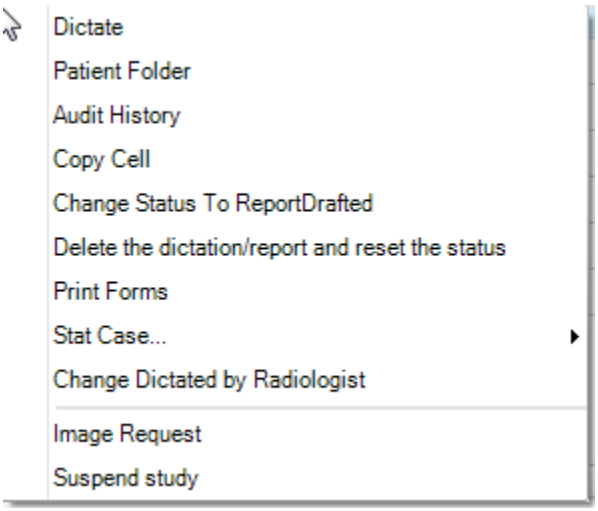



**Figure 4.19 – Pending Edit context menu options**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Reporting - Message Prompt for Missing or Empty Required Sections

When the "Sign" or "Transcribe" button is pressed we will run validation against the report and compare it to the Document Model to make sure all required sections are accounted for. If they are not, the user will be prompted with a message box. The user will have to correct the issues before they are able to sign/transcribe the report. If the user needs to save without correcting the issue(s), he will have to save using another button, like suspend for example would be the perfect example. Or perhaps a Radiologist might want to send it to a transcriptionist to make the corrections, which he could do by using the appropriate button under the submit button drop down.

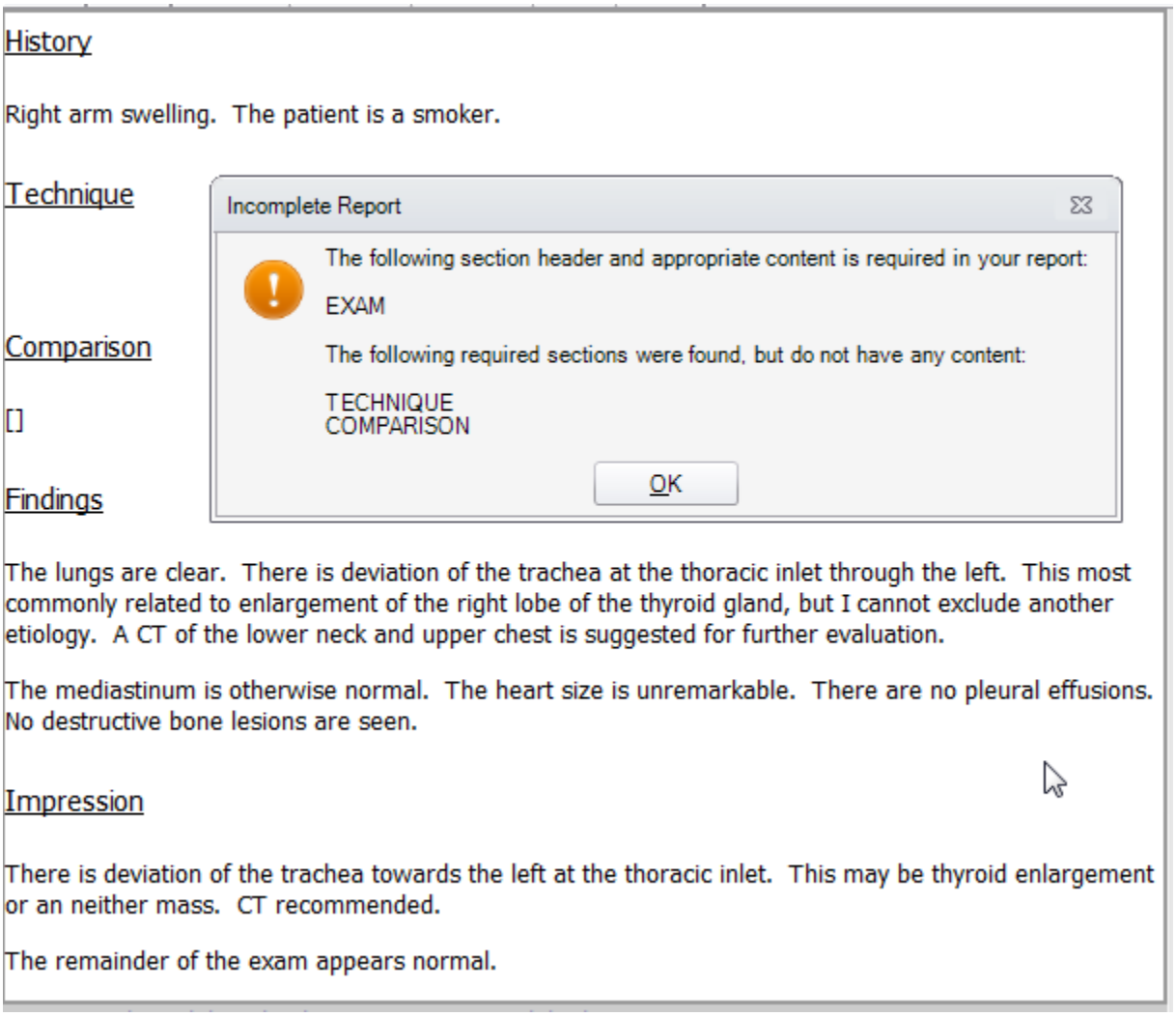



**Figure 4.20 – Incomplete Report Message Prompt**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

This new feature is controlled by two new config values that can turn on or off parts of this feature.

- ReportingEnforceEmptyRequiredSections
- ReportingEnforceMissingRequiredSections

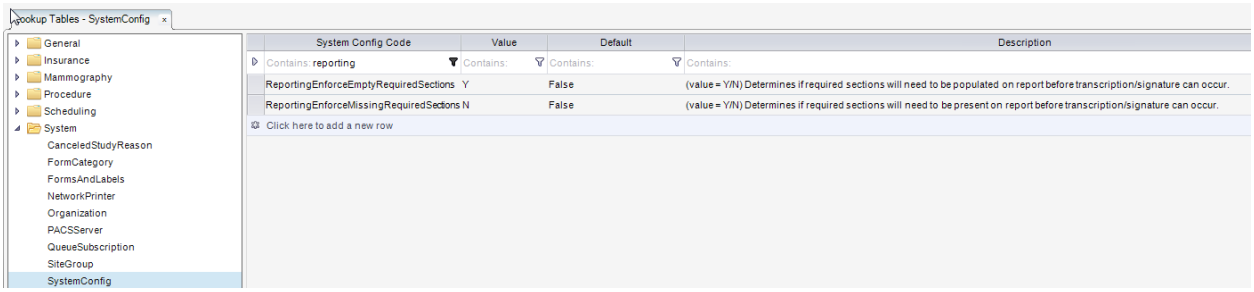



**Figure 4.21 – Incomplete Report new config settings**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Reporting – Sign Oops (Delayed Release of Report after Signing)

**NOTE: The screen shots and explanation of the feature below reference "*Tentatively Signed*". This terminology will be replaced in the next build and captured in the release notes of the next build.**

Another new feature in build 35 is the Sign Oops feature. This feature is a configurable value controlled first on the client side system config settings.

- The feature can be turned on/off from the system config – TentativeSigningEnabled with possible options of Y or N
- The "MaxAutoSign" config setting determines the max allowed time for a study to sit in "TentativelySigned1".
- The user preference pane allow the user to set if they want to use this feature or not, and also what they want their time period to be, which can be set up to the "MaxAutoSign" value. And as low as 1 minute.

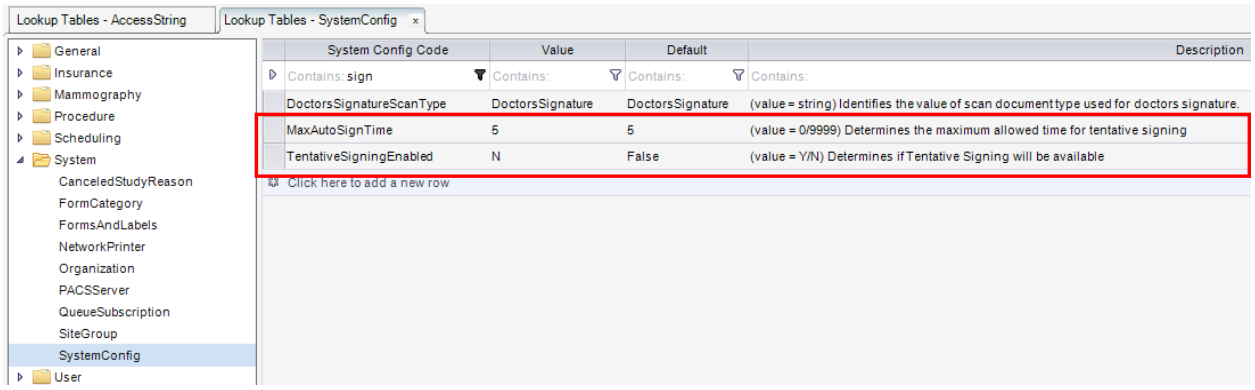



**Figure 4.21 – System config options for Sign Oops feature**

Access to the work lists, user preference and the option to release the report before the configured time has elapsed are controlled by the following access strings

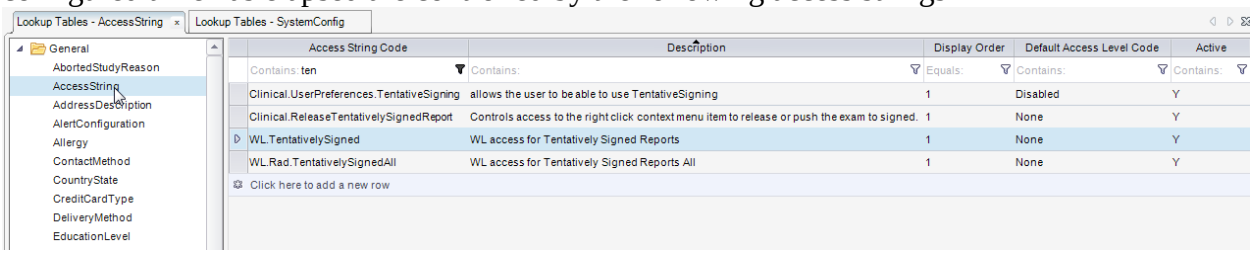



**Figure 4.22 – Access strings for Tentatively signed features**

- WL.TentativelySigned – Controls the access to the Tentatively Signed work list. This would be for the logged in user

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

- WL.Rad.TentativelySignedAll – Controls access to the All Tentatively Signed work list. This would be for an Admin to see all users exams in Tentatively Signed status
- Clinical.UserPrefernces.TentativelySigning – Enables the User Preference
- Clinical.ReleaseTentativelySignedReport – Controls if the user will have the option to release the exam early from Tentatively Signed work list/status before the designated time specified in the user preference

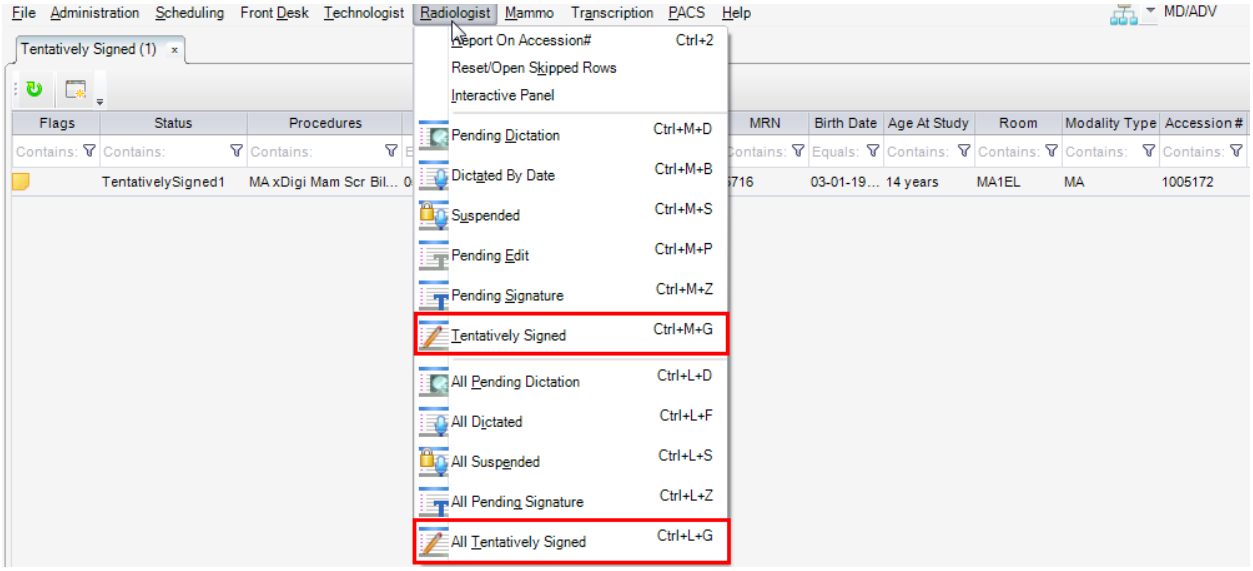



**Figure 4.23 – Tentatively Signed work list and Work list access from the Radiologist menu**

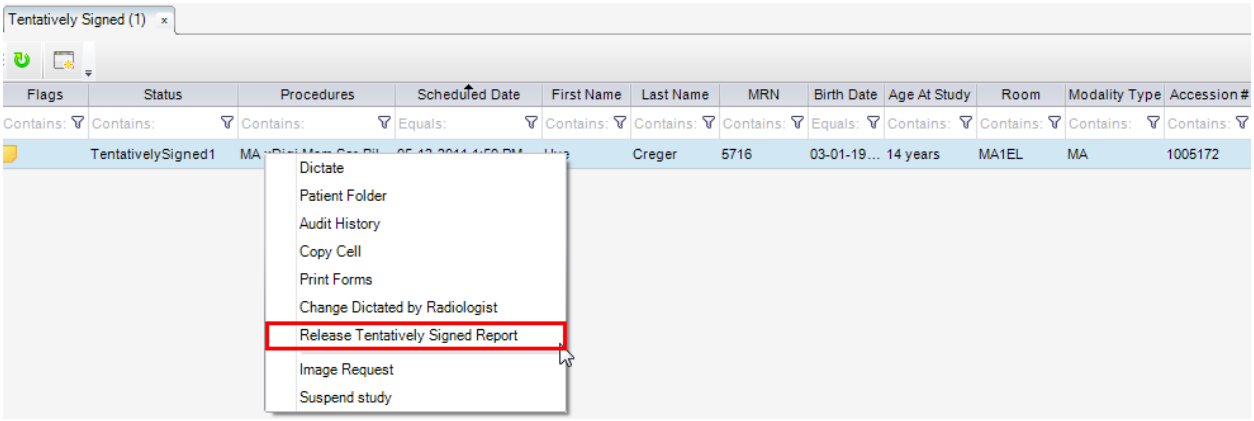



**Figure 4.24 – Context menu option to Release Tentatively Signed Report**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

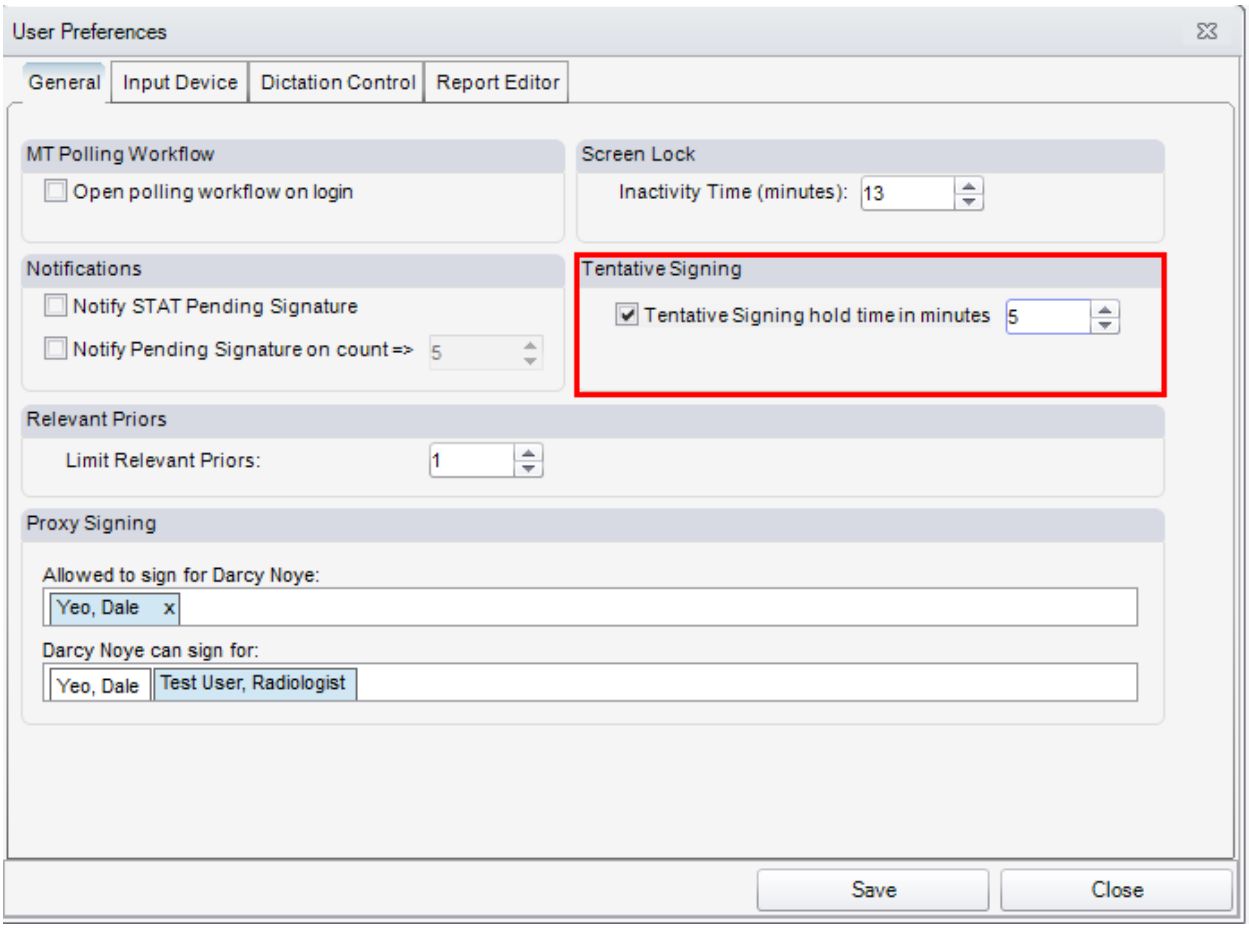



**Figure 4.25 – Tentatively Signing User Preference**

NOTE: The user preference value for "Tentatively Signing hold time in minutes" cannot exceed the system config setting value specified for "MaxAutoSignTime".

Exams that are in the Tentatively Signed work list can be opened in the dictate window. The user will have access to the same options / controls within the dictate window. The exam can be submitted to MT again, putting it in a status of Report Signed. The exam can be signed again, which would put the exam back in Tentatively Signed status, starting the time to be held in this status over again. The exam can be suspended, and the exam would then be in the Suspended work list. Closing the data window would return the exam to the Tentatively Signed work list.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Reporting – Remove Field Markers for Document Distribution

In previous builds the Radiologist or Transcriptionist could not submit or sign a report if the report had field markers "[" or "]" still in the report, requiring the user to remove all instances before the job could be submitted.

In build 35 the use can now submit jobs with the field markers still existing in the report. Going forward the "[" and "]" will be removed before the report is previewed or sent for distribution. When viewing the report via the Data Nugget, the field markers will still be present.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Reporting – Maintain Field Markers User Preference

A new user preference has been added for maintaining field markers within the report. If the User Preference is not selected, when the user is completing a report that has the predefined field markers, once that field is selected and it is dictated interactively or a value is manually entered in that field, the field marker will be removed.

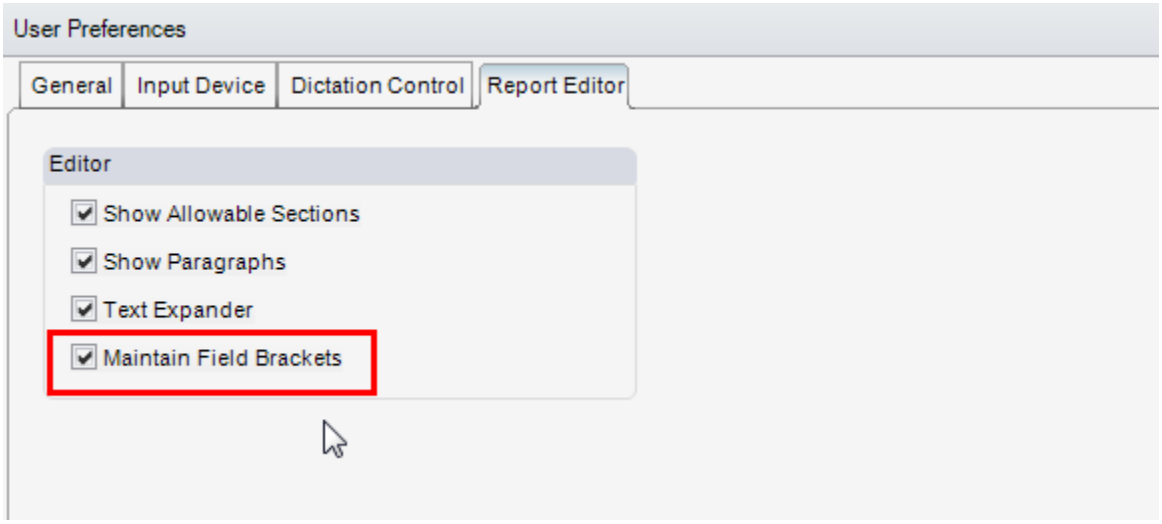



**Figure 4.26 – User preference "Maintain Field Brackets"**

The alternative is having the user preference Maintain Field Brackets enabled. In this case when the user enters a value in a predefined field, the field brackets are retained.

The access string Clinical.UserPreferences.MaintainFieldBrackets controls access to the user preference.

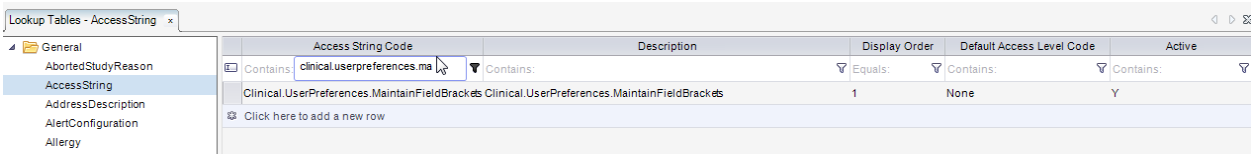



**Figure 4.27 – Access string Clinical.UserPreferences.MaintainFieldBrackets**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Reporting – Insert Normal and Default Templates

When opening an exam for dictation, the templates that are available to the user are based on the naming convention of Worktype Code = Procedure Code. We do an exact match on these fields to load the default, shortlisting the templates of any items that precede the work type code.
For example for procedure code: 34560

- Worktype code 34560 will load as a default and will be available in the template picker.
- Worktype code 34560-N will load in the template picker shortlist (this is mentioned purposely)
- Worktype code 34560-N@@@@ will load in the template picker shortlist. Where @@@@ can be anything but usually is the doctors name.

To assist the users in selecting templates and the ability to insert the default and the main normal, the use can use voice commands:

a) Insert Template Default - will insert the exact match template as it did when loading the study. Mainly for undoing or returning to original state.
b) Insert Template Normal – will insert the procedure code match plus the additional –N which specifies normal. For example this will insert template 34560-N
c) Insert Template My – will insert the procedure code match plus the N plus the user id if supplied. For example this will insert template 34560-NHARDINGC

New buttons have also been added to the Template Browser data pane D for the default, N for the normal and M for My template.

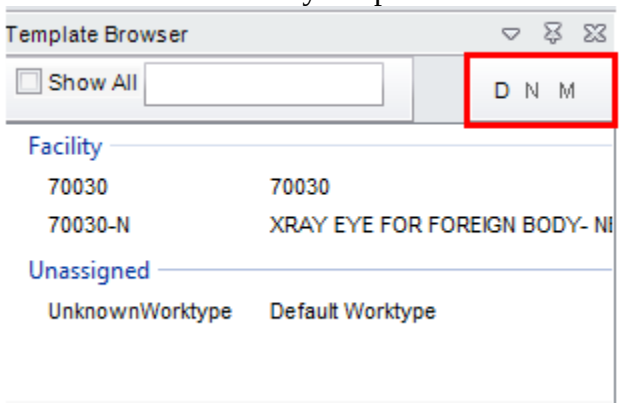



**Figure 4.28 – Template Browser buttons for selecting templates**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Reporting - Set User ID and Role for Reporting

When a report is opened in the editor we set the user id and role. We use the currently logged on user identifier and if opening ReportingRadiologist we set the role to RAD. Alternatively if they are opening the ReportingTranscription we set the role to MT.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Reporting / Dictation – Insert / Overwrite Recording Preference

Users requested to have the option to choose default recording preference when adding dictation. A new user preference called "Overwrite mode (non-interactive only) has been added in build 35. From the file menu > preferences > Dictation Control tab under the Recording section, the user can make the preference to be Overwrite if selected, or insert when unselected. Overwrite is not supported with Interactive Dictation, thus this user preference does not apply to Interactive (aka: self-edit) users.

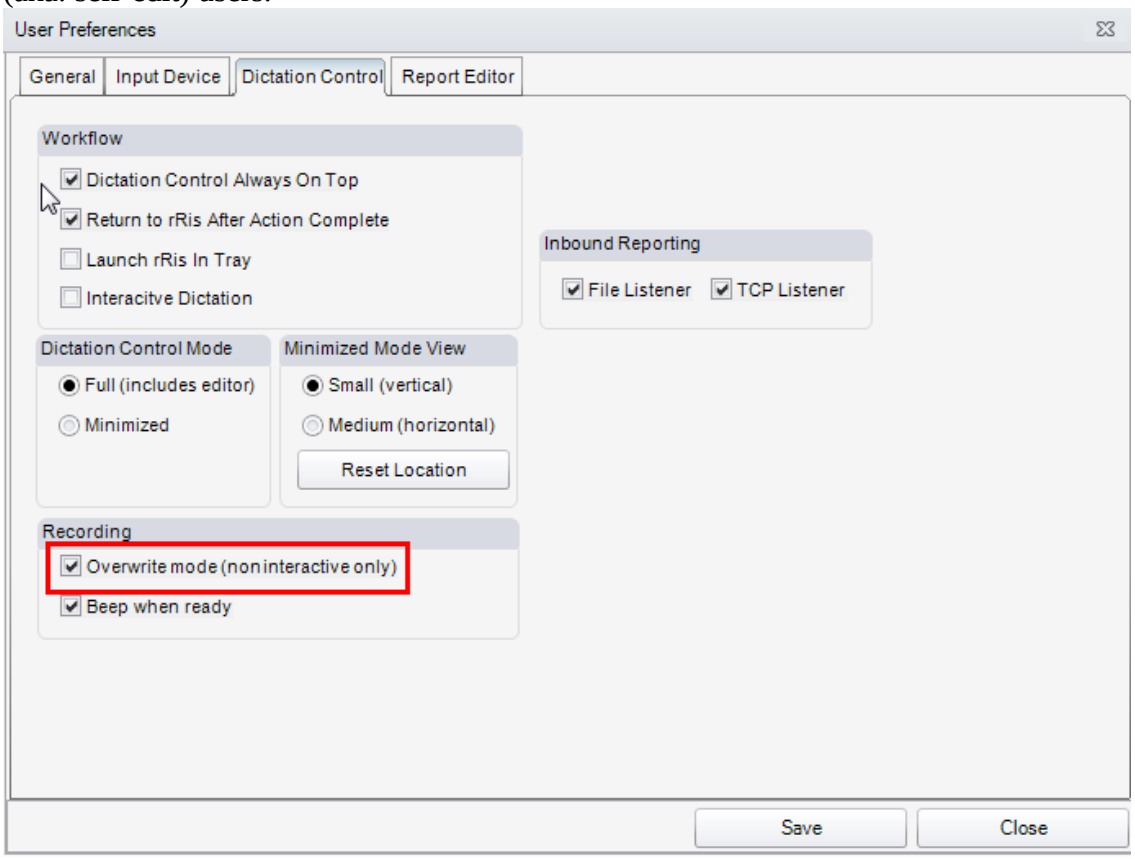



**Figure 4.29 – Overwrite dictation user preference.**

The insert/overwrite is used within the dictation window – dictation control. If the user places the dictation marker at a point within the recording the previous default would be to insert into the recording if the Radiologist decided to add to the dictation. This new user preference will change the default to overwrite the dictation from the point where the dictation pointer is positioned to the point where it is stopped. The recording before and after this point would remain untouched.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

To indicate what the current state is, the recording ICON on the dictation control has been enhanced. You will notice in the figures below the extra colored red or green dots on either side of the dictation button. The dots appear on opposite sides of the record button to help color blind users determine the current state of insert / overwrite.

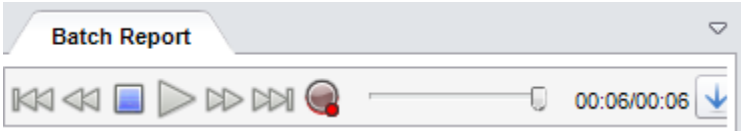



**Figure 4.30 – Dictation control indicating Overwrite**

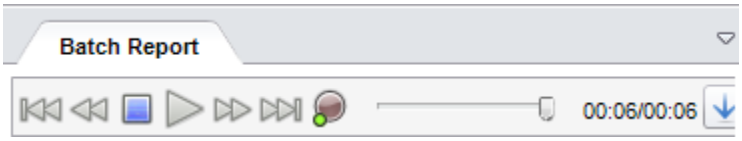



**Figure 4.31 – Dictation control indicating Insert**

The option can be toggles on the Speechmike as well. The Ins\Ovr button will toggle between Insert and Overwrite. A light on the Speechmike directly above the Ins\Ovr button will also change colors depending on which option is currently selected. Insert - the light will be green. Overwrite – the light will be red.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## SQL Server Reporting Services with Secure Socket Layer

Forms and labels, management reports, and diagnostic reports all leverage SQL Server Reporting Services (SSRS). SSRS exposes webservices that are called behind the scenes in the RIS client. The url for the webservices is currently set in the system config table in Administration->Configure.

Under no circumstances should RIS client use plain http for the URL in an internet scenario. If the client is being run in a protected, intranet or internal LAN, then http is acceptable. Either a VPN or https must be used for the internet to keep patient data from being transmitted over the internet in clear text.

For a resolution, we create a server certificate with a name that matches the server's computer name, Run Visual Studio Command Prompt 2010 as administrator:
Example: makecert –sr LocalMachine –ss My –a sha1 –n CN=ip-0A0223EF6 –sky exchange –pe where ip-0A0223EF6 is the computername.

This will create a certificate with a private key and put it in the Local Machine, Personal certificate store.

Open up certificates for the local machine personal store using Start->Run->mmc->File->Add/Remove Snapin->Certificates

Browse to the newly create certificate, right click the cert, All Tasks -> Export… Choose Yes, export the private key, choose next, choose Export all extended properties, choose next, enter a password, click next, specify a file name that includes servercert in the name (for clarity).

Repeat the steps above except the second time, do not export the private key, and then pick a file name that includes clientcert in the name (for clarity).

Remote into the server and launch mmc, import the server certificate into both "My Computer/Personal" and "My Computer/Trusted People".

On the server, run Reporting Services Configuration Manager, go to the Web Service URL tab and choose the newly created certificate from the list, verify that after the selection is made the results section does not report any failures.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

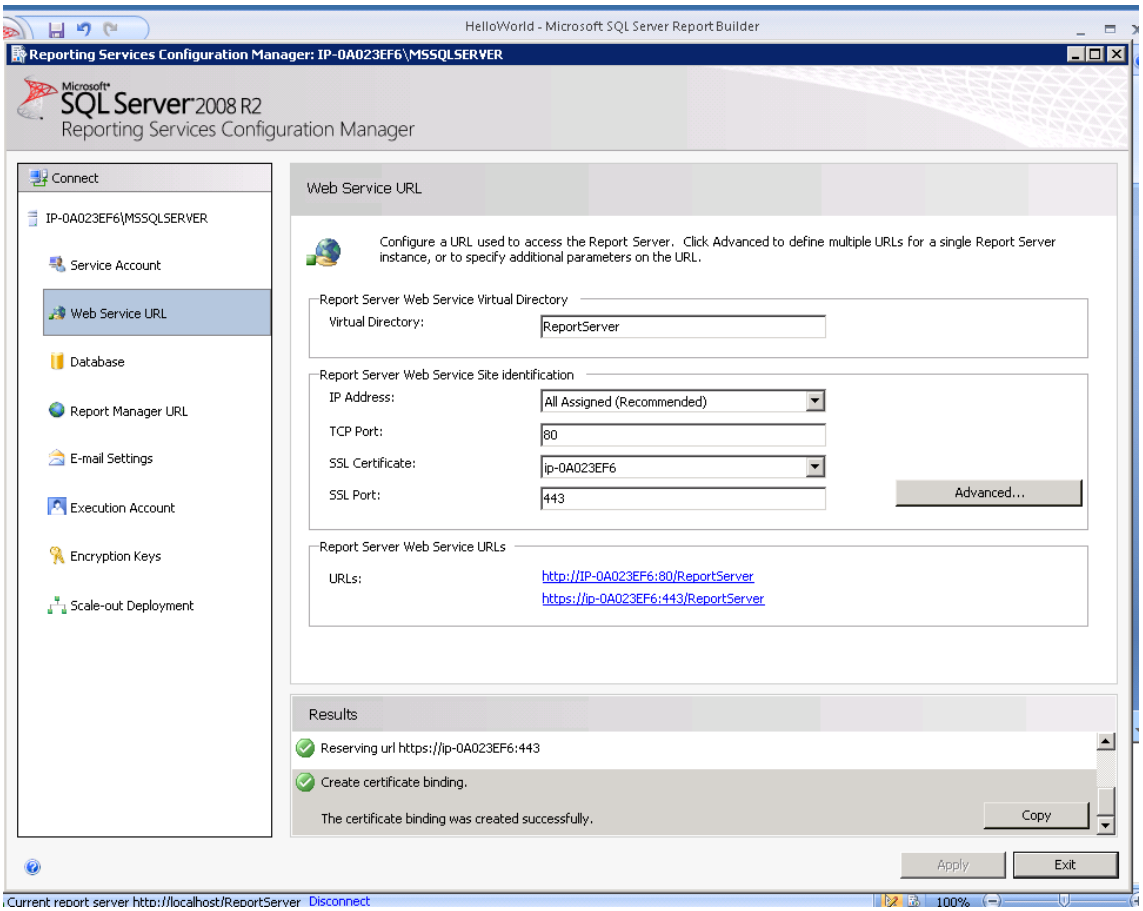



**Figure 4.32 – Reporting Services Configuration Manager**

On the client, import the client certificate created above into Local Machine/Trusted People using mmc.

Launch RIS. In the Administration->Configure menu option in RIS, browse to System\SystemConfig and find the ReportServerUrl config setting. Set the Value to: https://ip-0a023ef6/ReportServer where ip-0a023ef6 is the server's computer name.

Note: the above requires that port 443 incoming is open on the windows server's firewall. Edit the hosts file on the client and add an entry for the servers computer name with the appropriate IP address. Note that this step may not be required in cases where ping <servername> resolves the IP correctly.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## View Images of Studies Started but not Completed

The current implementation will allow a user to view image from the search field, by typing **v:** followed by the **accession number** (Example – v:1010245) will open the Patient Folder, automatically select the associated study from the patient folder work list, and open the PACS to view the images.
Similar to the accession number search, if the accession number could not be found then the same message prompt will appear.

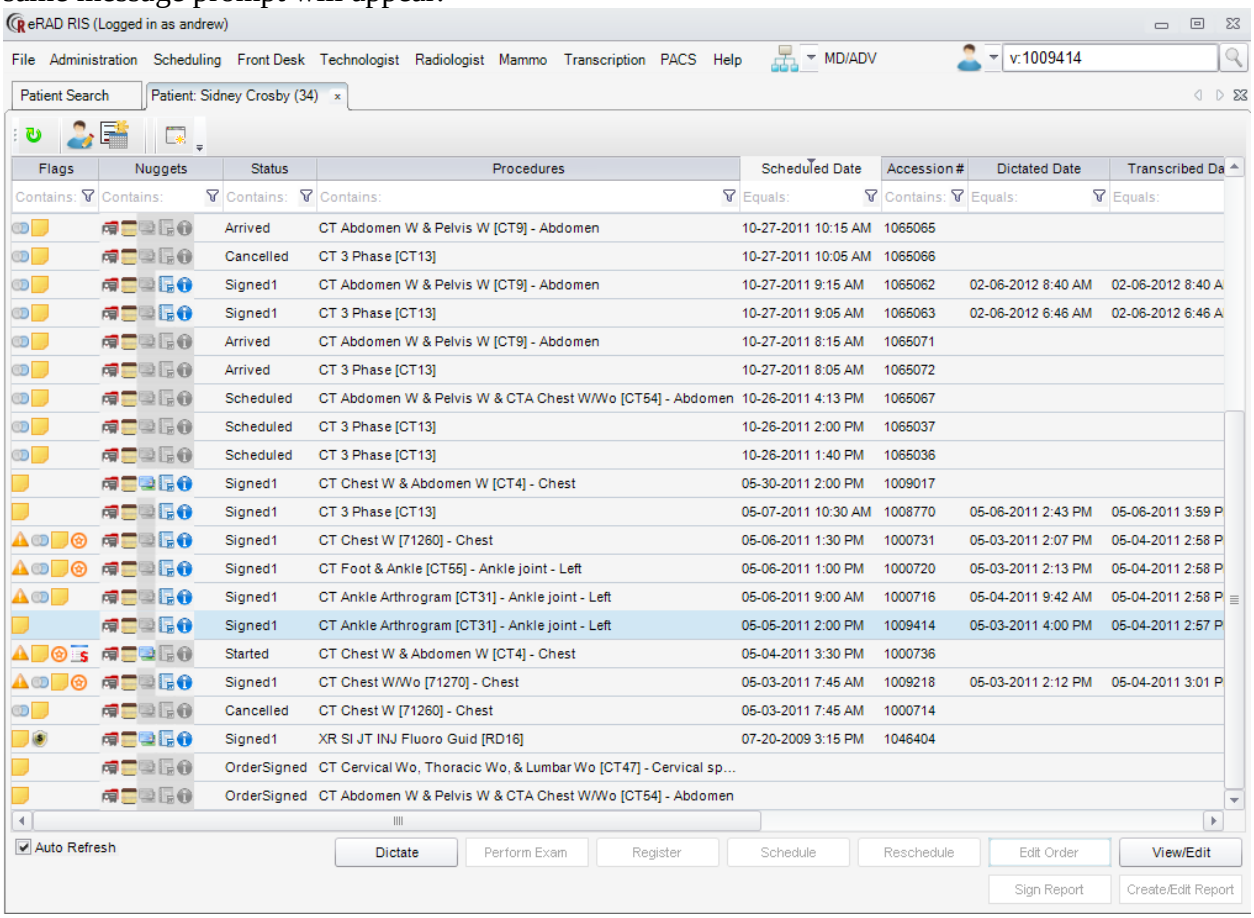



**Figure 4.33 – Image search**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## KBI Extract

KBI is an external system that is used for measuring productivity at each site. The RIS will provide a method so that KBI can extract the transactional count on a daily bases.

A stored procedure call c_KBIExtract for rRIS was created that does the following:

- Provide a count of billable items by transaction date (perfomed date), practice and modality.
- The performed date is based on an argument that is passed to the stored procedure. This way the stored procedure could be run for any day, versus a day based on the current day.

It only includes exam status when there are images associated to the study, basically after the technologist role.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## PACS Integration Message for Studies with no Images

A change was made on the PACS side to return a list of the opened accession numbers. The RIS then checks this opened list against the list that was requested. If there is a discrepancy then the user is notified.

If the primary study failed to load the message indicates explicitly that it was the primary that failed to load.

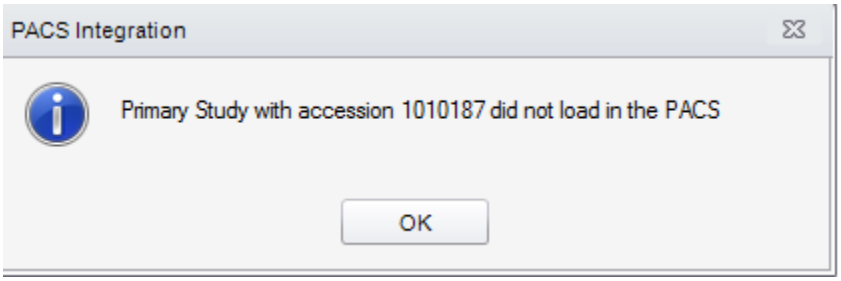



**Figure 4.34 – Primary study does not have images**

If it happens to be a prior study that did not have images, a message will also inform the user.

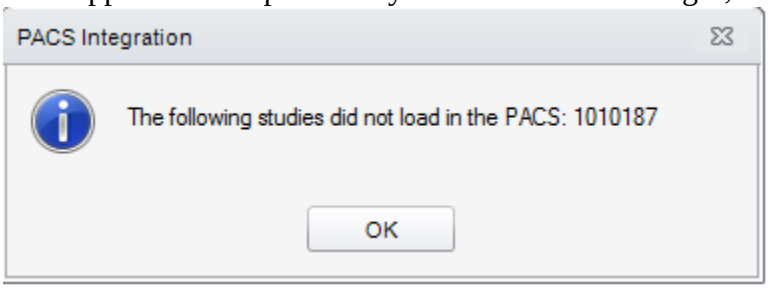


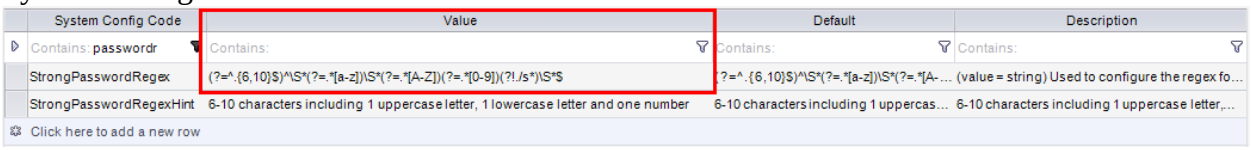

**Figure 4.34 – Relevant prior study does not have images**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Miscellaneous Additions and Enhancements

### Increase System Config Value

System Configuration field value was increased from 100 to 500



| System Config Code | Value | Default | Description |
|---|---|---|---|
| Contains: passwordr | Contains: | Contains: | Contains: |
| StrongPasswordRegex | (?=^.{6,10}$)^\S*(?=.*[a-z])\S*(?=.*[A-Z])(?=.*[0-9])(?!./s*)\S*$ | (?=^.{6,10}$)^\S*(?=.*[a-z])\S*(?=.*[A-... | (value = string) Used to configure the regex fo... |
| StrongPasswordRegexHint | 6-10 characters including 1 uppercase letter, 1 lowercase letter and one number | 6-10 characters including 1 uppercas... | 6-10 characters including 1 uppercase letter,... |
| Click here to add a new row | | | |

**Figure 4.35 – System Config table displaying the value column with increased field length**

### Reporting - Addendum Work Type

When the reporting screens are in Addendum mode, if a work type exists with work type code of "ADDENDUM" it will be used for the report, if not, "unknown work type" will be used.

### Reporting – Note to Radiologist

In previous builds the radio buttons where not disabling after selecting the check box for Note To Rad. Now the Qa and Problem radio button will be disabled when Note to Rad is checked, enabled on uncheck.

### Reporting – Inconsistency with Next Field Functionality

When using the keyboard manual "Next Field" it wold sometimes select part of the section header and get confused of its location. Result would be more text selected than was desired. This has been resolved by modifying the code for next field.

### Reporting – Create Macro from Command Bar

The user used to receive a COM error when attempting to create a macro from selected text, but the user had not selected any text.
We have added an appropriate message if nothing is selected when trying to create macro from selected text.
We still allow for empty text if a paragraph is selected or new lines.
A tooltip description has also been added to the command button.

### Other

1. Site column was added to the Orders To Schedule work list

2. PACS corrected column was added to the Tech work list

3. When submitting a New Appointment to the Orders to Schedule work list the site field must be completed on the Order tab.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 5. Resolved Defects

Bugs, Suggested Features and Support Issues resolved in build 1.35. The extract is taken from Redmine bug tracking system and only displays defects resolved in 1.35.

| # | Tracker | Priority | Subject | Category | Found Version |
|---|---|---|---|---|---|
| 1101 | Bug | Urgent | Scheduled exam is in Overbooked timeslot, cannot complete tech workflow | Thick Client GUI | 1.35 |
| 999 | Bug | Urgent | Cannot transcribe Mammo exams | Thick Client GUI | 1.35 |
| 854 | Bug | Urgent | Mammo Layletters are not being sent for distribution | Thick Client GUI | 1.31 |
| 1090 | Bug | High | Personnel address information not expanded for Mirth | Web Services/DB | 1.35 |
| 1089 | Bug | High | Order CC Person Key not expanded for Mirth | Web Services/DB | 1.35 |
| 1037 | Bug | High | LastContacts functionality not working properly | Thick Client GUI | 1.35 |
| 1034 | Bug | High | RAD - Mammo Scheduling from Followup 0 worklist | Thick Client GUI | 1.35 |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

| | | | | | |
|---|---|---|---|---|---|
| 1029 | Bug | High | Diagnose as ReadOnly, using speech command you are able to sign the report | Thick Client GUI | 1.35 |
| 1006 | Bug | High | Management report for CPT Quantity | Mgt Reports | 1.35 |
| 997 | Bug | High | emergency contact not saved if relation to patient not specified | Thick Client GUI | 1.35 |
| 936 | Bug | High | Usergroups require Config.LookupEditor.Personnel to add unknown referring | Thick Client GUI | 1.34 |
| 934 | Bug | High | Key Not Found when printing forms after network error communicating with SSRS | Mgt Reports | 1.35 |
| 913 | Bug | High | Patient folder will display target and previously viewed images | Thick Client GUI | 1.34 |
| 910 | Bug | High | Patient Folder will keep opening image viewer | Thick Client GUI | 1.34 |
| 875 | Bug | High | Error trying to preview report | Thick Client GUI | 1.32 |
| 820 | Bug | High | View Images not available from login | Thick Client GUI | 1.3 |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

| | | | | | |
|---|---|---|---|---|---|
| 712 | Bug | High | Report History > Show all versions throws error | Thick Client GUI | 1.26 |
| 1094 | Bug | Normal | Type column in Mirth dashboard not populated correctly | Web Services/DB | 1.35 |
| 1076 | Bug | Normal | Cannot add payment for Walk - In | Thick Client GUI | 1.35 |
| 1073 | Bug | Normal | document distribution rows created in duplicate | Thick Client GUI | 1.35 |
| 1002 | Bug | Normal | problem deleting injury information | Thick Client GUI | 1.35 |
| 983 | Bug | Normal | null reference error in radgridhelper dispose when closing insurance dialog | Thick Client GUI | 1.35 |
| 982 | Bug | Normal | two users shceduling at same time have change of double booking | Thick Client GUI | 1.35 |
| 968 | Bug | Normal | View / Edit error on Mammo statuses | Thick Client GUI | 1.35 |
| 957 | Bug | Normal | Scanning > After selecting scanner the first scan is not saved. | Thick Client GUI | 1.35 |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

| | | | | | |
|---|---|---|---|---|---|
| 946 | Bug | Normal | Patient Insurance Policies search is blank page on search | Thick Client GUI | 1.35 |
| 939 | Bug | Normal | Change status to Cancel - No row at index 0 | Thick Client GUI | 1.34 |
| 933 | Bug | Normal | MQSA_Reporting - General Exam List - Procedure Codes | Mgt Reports | 1.34 |
| 932 | Bug | Normal | MQSA_Mammo - General Exam List - Date range does not included selected "To:" date | Mgt Reports | 1.34 |
| 930 | Bug | Normal | Alternate phone flag does not disable alternate phone number fields | Thick Client GUI | 1.34 |
| 928 | Bug | Normal | View / Edit OrderCancelled gives GetData error | Thick Client GUI | 1.34 |
| 925 | Bug | Normal | Error scanning specific document type from Perform Exam | Thick Client GUI | 1.34 |
| 921 | Bug | Normal | Home phone is not copied to Responsible Party | Thick Client GUI | 1.34 |
| 914 | Bug | Normal | Documents can be distributed without specifying deliver to: causing error | Thick Client GUI | 1.34 |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

| | | | | | |
|---|---|---|---|---|---|
| 895 | Bug | Normal | Signing Interactive job as non interactive user can delete report | Thick Client GUI | 1.35 |
| 870 | Bug | Normal | When "zipcode" table not populated / not in DB, user cannot create patients, orders, etc. | Admin Tools | 1.31 |
| 857 | Bug | Normal | Mammo Follow Up Orders - Target date not searched on schedule | Thick Client GUI | 1.31 |
| 834 | Bug | Normal | Expand system config value to 255 characters from 100 | Web Services/DB | 1.31 |
| 770 | Bug | Normal | Organization - Modifying Practice or Site removes Logo | Admin Tools | 1.27 |
| 579 | Bug | Normal | IVT PreCert column does not update | Thick Client GUI | 1.35 |
| 1040 | Bug | Low | Unable to post billing exception with Claim # required when both a claim number are entered and the "Unknown Claim Number" are checked | Thick Client GUI | 1.35 |
| 800 | Bug | Low | Forms and labels action on <-- arrow continues when filtered list is done | Admin Tools | 1.29 |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 6. Known Limitations

The following are Bugs, Suggested Features, and Support Issues found in build 1.35. This build is the current QE build and testing is ongoing. The list may increase in size. This document will not be updated or re-released.

| # | Status | Subject | Category | Found Version | Resolved Version |
|---|---|---|---|---|---|
| 1105 | Resolved | ConfirmValidMRNNumber failing | Web Services/ DB | 1.35 | |
| 1102 | New | CDS Threads pinning CPU in Balitmore Sandbox environment | Web Services/ DB | 1.35 | 1.36 |
| 1097 | New | Reporting > Problems continuing dictation when using interactive and field markers | Thick Client GUI | 1.35 SVN 10005 | |
| 1063 | Resolved | New patient button on patient demographics screen. | Thick Client GUI | 1.35 | 1.36.10196 |
| 1117 | New | Report editor text can span off of the editor | Thick Client GUI | 1.35 | |
| 1116 | New | Procedure can be scheduled when laterality is required but not selected | Thin Client GUI | 1.35 | |
| 1114 | New | Room is not updated on work lists if changed during Perform Exam | Thick Client GUI | 1.35 | |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

| | | | | | |
|---|---|---|---|---|---|
| 1112 | New | New Appointment > Patient tab > Contact Information tab order | Thick Client GUI | 1.35 | |
| 1111 | New | Billing exception for unknown carrier. | Thick Client GUI | 1.35 | |
| 1110 | New | Tooltip to create macro from selected text is misspelled | Thick Client GUI | 1.35 | |
| 1109 | New | User preference > Interactive Dictation misspelling | Thick Client GUI | 1.35 | |
| 1108 | Resolved | When pasting an address into the Report Delivery address field only the first line is filled in | Thick Client GUI | 1.35 | 1.36.10179 |
| 1107 | Resolved | Address paste on personnel screen doesn't work | Thick Client GUI | 1.35 | 1.36.10179 |
| 1106 | New | Logging into locked workstation when GUI ZIP file has changed | Thick Client GUI | 1.35 | |
| 1098 | New | PACS Correction and PACS view image functionality conflict re: Session Id | Thick Client GUI | 1.35 | |
| 1096 | New | Reporting > viewing report history throws COM error | Thick Client GUI | 1.35 SVN 10005 | |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

| | | | | | |
|---|---|---|---|---|---|
| 1095 | New | Session Id for PACS is not being handled appropriately | Thick Client GUI | 1.35 | |
| 1093 | New | When allergy is inactive in the lookup the value is not displayed for the patient that has that allergy | | 1.35 | |
| 1087 | Resolved | Unknown Reconciliation - Cannot edit order from this work list if the study is past ordersigned status | Thick Client GUI | 1.35 | 1.36.10210 |
| 1085 | New | Scheduling an aborted exam, removing a completed exam from the order and adding a new proceudre | Thick Client GUI | 1.35 | |
| 1084 | New | External patients can be scheduled without having "System" MRN | Thick Client GUI | 1.35 | |
| 1083 | New | Completed Time | Thick Client GUI | 1.35 | |
| 1082 | Resolved | Appointment Book "Interval" dropdown does not reflect displayed interval | Thick Client GUI | 1.35 | 1.36 |
| 1080 | New | Mammo -- Followup -- Schedule ( runtime issue) - Able to schedule without selecting a room | Thick Client GUI | 1.35 | |
| 1079 | New | Mammo -- Followup 0 --> Schedule ( Save as Order) Null sdudy dataset | Thick Client GUI | 1.35 | |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

| | | | | | |
|---|---|---|---|---|---|
| 1075 | Resolved | patient notes and order notes not synchronizing in View/Edit | Thick Client GUI | 1.35 | 1.36.9940 |
| 1074 | Resolved | Location label not populated/recommendation codes not populating. | Thick Client GUI | 1.35 | 1.36.9941 |
| 1072 | Resolved | Graceful exception if new scheduled study deleted before saving | Thick Client GUI | 1.35 | 1.36 |
| 1071 | New | Mammo -- Followup 0 Worklist --> schedule ( runtime- object reference error) | Thick Client GUI | 1.35 | |
| 1070 | New | Rescheduling an order that has a study cancelled will still show the cancelled study | Thick Client GUI | 1.35 | |
| 1067 | Resolved | If you click Schedule button on the follow up screen after you have already scehduled the follow up you get an exception | Thick Client GUI | 1.35 | 1.36 |
| 1066 | Resolved | Scheduling - able to schedule procedure to wrong room | Thick Client GUI | 1.35 | 1.36 |
| 1062 | New | Edit order with multiple procedures change one procedure and save | Thick Client GUI | 1.35 | |
| 1061 | Resolved | Scheduling -- no study -- able to do room search ( runtime error) | Thick Client GUI | 1.35 | 1.36 |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

| | | | | | |
|---|---|---|---|---|---|
| 1059 | New | Broken Lock on Re-Schedule Should Disable "Schedule Later" and "Cancel Study" Buttons | Thick Client GUI | 1.35 | |
| 1057 | New | Scheduling - Confirmation WL --> runtime crash | Thick Client GUI | 1.35 | |
| 1055 | New | Tentatively signed feature cannot be turned off with System Config value | Thick Client GUI | 1.35 | |
| 1053 | Resolved | Mammo Callback can create order with duplicate procedure | Thick Client GUI | 1.35 | 1.36 |
| 1050 | New | An outgoing call cannot be made since the application is dispatching an input-synchronous call. (Exception from HRESULT: 0x8001010D (RPC_E_CANTCALLOUT_ININPUTSYNCCALL)) | Thick Client GUI | 1.35 | |
| 1045 | Resolved | Foreign Key Contraint error from New Appointment | Thick Client GUI | 1.35 | 1.36 |
| 1044 | New | New Patient with Canadian address throws 'Invalid Selection' validation | Thick Client GUI | 1.35 | |
| 1041 | Resolved | Index was outside the boudns of the array. | Thick Client GUI | 1.35 | 1.36 |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

| | | | | | |
|---|---|---|---|---|---|
| 1039 | New | Unable to post billing exception. Claim number is required when carrier doesn't have injury flag set if any data at all is entered in injury details | Thick Client GUI | 1.35 | |
| 1035 | Resolved | Cannot insert duplicate key row in object 'dbo.c_order_item' with unique index 'IX_c_order_item'. The duplicate key value is (23978, 1) | Thick Client GUI | 1.35 | 1.36 |
| 1024 | Resolved | Exception thrown when changing room in Confirmation window. | Thick Client GUI | 1.35 | 1.36 |
| 1023 | New | When user creates a worklist view, there is no way to return to the worklist's default system view | Thick Client GUI | 1.35 | |
| 1020 | New | As SchedAdmin, add study to existing list of studies generates duplicate key | Thick Client GUI | 1.35 | |
| 1017 | Resolved | Invalid Scheduled Date Error when trying to complete a Tech where the room was closed after scheduling | Thick Client GUI | 1.35 | 1.36 |
| 1014 | New | Patient Audit throws exception when clicking filter radio box value | Thick Client GUI | 1.35 | |
| 1011 | New | Rad - Macro Editor -- Object Reference Runtime error | Thick Client GUI | 1.35 | |
| 1007 | New | Mammo Follow-up order | Web Services/ DB | 1.35 | |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

| | | | | | |
|---|---|---|---|---|---|
| 994 | Resolved | When creating a patient, and user adds an attachment, there is no option to delete a row if entered incorrectly. | Thick Client GUI | 1.35 | 1.36 |
| 991 | New | Patient Merge -- Selecting source and destination give weird birthdates | | 1.35 | |
| 989 | New | Cannot update 'State' field in Patient | Thick Client GUI | 1.35 | |
| 984 | Resolved | When doing an "outside read" upon choosing performed location site, the insurance grid appears and some text is cut off. | Thick Client GUI | 1.35 | 1.36 |
| 981 | New | Data nugget and camel notation | Thick Client GUI | 1.35 | |
| 980 | New | Streaming execption when playing dictation | Thick Client GUI | 1.35 | |
| 976 | Resolved | Object reference saving multiple procedure order | Thick Client GUI | 1.35 | 1.36 |
| 970 | Resolved | Schedule Order Patient search does not automatically highlight best available | Thick Client GUI | 1.35 | 1.36.10289 |
| 969 | Resolved | Add Outside Read Billing Method needs more real estate | Thick Client GUI | 1.35 | 1.36 |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

| | | | | | |
|---|---|---|---|---|---|
| 965 | New | Dictate Screen does not lock after period of inactivity | Thick Client GUI | 1.35 | |
| 956 | New | When in "pending signature" WL, there is no context menu option for "Sign Report" | Thin Client GUI | 1.35 | |
| 954 | Resolved | Outside read - order_item_key not found | Thick Client GUI | 1.35 | 1.36 |
| 953 | Resolved | Study field on procedure picker row (including outside read) is not marked as required | Thick Client GUI | 1.35 | 1.36.10217 |
| 938 | New | ReportingExceptions logged on report server logs | Mgt Reports | 1.35 | |
| 935 | Resolved | Erron on launch "Value SendBringRisToFrontEvent is no longer a valid entry" | Thick Client GUI | 1.35 | 1.36 |
| 1113 | New | Lang item for rRIS to system try need to be updated. | Thick Client GUI | 1.35 | |
| 1077 | Resolved | Scheduling - Calendar is too small = windows XP | Thick Client GUI | 1.35 | 1.36 |
| 1069 | Resolved | Personnel editor inconsistency | Thick Client GUI | 1.35 | 1.36.10270 |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

| | | | | | |
|---|---|---|---|---|---|
| 1065 | Resolved | Error saving user in personnel editor. | Thick Client GUI | 1.35 | 1.36.10299 |
| 1064 | Resolved | Clicking Schedule Later on a procedure loses the laterality for the procedure | Thick Client GUI | 1.35 | 1.36 |
| 1060 | New | Tab order in Patient Demographics Content Pane | Thick Client GUI | 1.35 | |
| 1058 | New | Scheduling a child patient | Thick Client GUI | 1.35 | |
| 1051 | New | Recorder::resume couldn't open recording device (AnyModalCaptureCtrl.AsyncRecognizer.1 ) | Thick Client GUI | 1.35 | |
| 1038 | New | Confirmation Dialog popups do not pop up on the same monitor as RIS ( always primary monitor) | Thick Client GUI | 1.35 | |
| 1033 | New | Weight limit warning displays twice | Thick Client GUI | 1.35 | |
| 1032 | New | Mammo Followup -> Cat 0 Followup worklist - Adding Biopsies | Thick Client GUI | 1.35 | |
| 1015 | Resolved | Personnel | Thick Client GUI | 1.35 | 1.36.10172 |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

| | | | | | |
|---|---|---|---|---|---|
| 1010 | New | Continuity of Care Record (CCR) - user is able to click view / print, but when the preview appears there is no "print" button. | Thick Client GUI | 1.35 | |
| 1008 | Resolved | Pasting Address on Patient Screen does not populate state if US is already entered in Country field | Thick Client GUI | 1.35 | 1.36.10179 |
| 995 | Resolved | Invisible tab | Thick Client GUI | 1.35 | 1.36 |
| 973 | Resolved | Issues adding multiple CC physicians | Thin Client GUI | 1.35 | 1.36.10232 |
| 967 | New | When placing a new order, w/ schedule, upon focus of "Schedule" tab, cursor is not visible but focus appears to be in the "Studies" field. | Thick Client GUI | 1.35 | |
| 959 | Resolved | Edit Medical Access window title is incorrect | Thick Client GUI | 1.35 | 1.36 |
| 685 | Resolved | Error When Exporting Table Data | Thick Client GUI | 1.35 | 1.36.10143 |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# HOTFIX

for eRAD RIS
Version 1.0
Build 35
Hotfix 35.001

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Purpose ..... 3
2. Intended Audience ..... 3
3. Who is affected ..... 3
4. Installing ..... 4

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 1. Purpose

An issue was discovered where after a study is scheduled all outbound messaging from RIS is in a faulted state. This is no fault of the user and no workflow changes are required to prevent it.

There are drop-down controls on the RIS client that are pre-populated with Referring Physicians that have been previously associated with the current patient. When saving the study, the internal keys related to these physicians are being persisted in the RIS database with the details surrounding the action undertaken by the user. In the case of an Unknown Referring in this list, the key stored is -1.

The Wedge service takes these details and tries to resolve this -1 to an existing physician. It throws an error because that -1 does not refer to anything. Since the Wedge preserves the order of messages in a first-in-first-out manner, its message queue is now blocked, preventing any other messages from going out.

**The result of this error was the halting of all outbound messaging from the RIS.**

This hot fix applied to Build 35 for this issue causes the Wedge service to no longer resolve person keys of -1. This fix will automatically carry forward in future builds.

# 2. Intended Audience

This document is created by the RIS Development team for the RadNet RIS Implementation team.

# 3. Who is affected

Installations of eRAD RIS 1.1.35.10140 (RIS application Help About → labeled as 1.1.34.10140)

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 4. Installing

*To install this hot fix:*
*1) Shut down the Wedge service*
*2) Replace the existing Wedge.exe with the one distributed with this readme file.*
*3) If Wedge.pdb exists, replace it also*
*4) Start the Wedge service*
*5) The Wedge.exe (and pdb) files should also be replaced in the directories containing the other rRIS services (Core, DocumentDistribution, CDS, etc.) in a similar manner.*

If you have any questions regarding this Hotfix, contact Darcy Noye with the PEI RIS Development Team.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# HOTFIX

for eRAD RIS
Version 1.0
Build 35
Hotfix 35.002

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Purpose ..... 3
2. Intended Audience ..... 3
3. Who is affected ..... 4
4. Installing ..... 4

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 1. Purpose

The text in Red indicates changes from Hotfix 35.001, which this fix also includes.

An issue was discovered where after a study is scheduled all outbound messaging from RIS could be potentially be in a faulted state. This is no fault of the user and no workflow changes are required to prevent it.

There are drop-down controls on the RIS client that are pre-populated with Referring Physicians that have been previously associated with the current patient. When saving the study, the internal keys related to these physicians are being persisted in the RIS database with the details surrounding the action undertaken by the user. In the case of an Unknown Referring in this list, the key stored is -1. 0 is also a possible value.

The Wedge service takes these details and tries to resolve this -1(or 0) to an existing physician. It throws an error because that -1(or 0) does not refer to anything. Since the Wedge preserves the order of messages in a first-in-first-out manner, its message queue is now blocked, preventing any other messages from going out.

**The result of this error was the halting of all outbound messaging from the RIS.**

This hot fix applied to Build 35 for this issue causes the Wedge service to no longer resolve person keys ~~of -1~~ less than 0 or any person keys from the c_previous_referring table. This fix will automatically carry forward in future builds.

A separate issue with the Mirth mapping files was causing the Proposed Study Instance UID sent to the PACS to be truncated. This has been fixed in the OBX.js file included in this directory.

# 2. Intended Audience

This document is created by the RIS Development team for the RadNet RIS Implementation team.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## 3. Who is affected

Installations of eRAD RIS 1.1.35.10140 (RIS application Help About → labeled as 1.1.34.10140)

## 4. Installing

*To install this hot fix:*
*1) Shut down the Wedge service*
*2) Replace the existing Wedge.exe with the one distributed with this readme file.*
*3) If Wedge.pdb exists, replace it also*
*4) Start the Wedge service*
*5) The Wedge.exe (and pdb) files should also be replaced in the directories containing the other rRIS services (Core, DocumentDistribution, CDS, etc.) in a similar manner.*

*Copy the OBX.js file to the MirthMappings\Outbound\eRadPACS directory.*

If you have any questions regarding this Hotfix, contact Darcy Noye with the PEI RIS Development Team.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# HOTFIX

for eRAD RIS
Version 1.0
Build 35
Hotfix 35.003

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Purpose ..... 3
2. Intended Audience ..... 3
3. Who is affected ..... 4
4. Installing ..... 4

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 1. Purpose

1. A Microsoft update was released on April 10, 2012 to fix several security vulnerabilities. This update inadvertently made a change to the way the Document Distribution Engine is submitting fax jobs to the MS Fax console. A code fix was required to make a small adjustment to this job submission.

   The hotfix 35.003 includes 3 files to correct this issue.

   i) Tourreau.Gilles.FaxDotNet.dll

   ii) Tourreau.Gilles.FaxDotNet.pdb

   iii) Tourreau.Gilles.FaxDotNet.XML

2. For Highway go live, accreditation logos on the diagnostic reports were required. This hotfix will add the logos to the reports by adding the SQL objects without updating the RIS binaries. This means that for build 35 system administrators will not be able to add logos or associate logos to a modality and/or procedure and the issue is temporarily corrected via Patch-b35-2.sql file in the 35.003.

3. The KBI extract stored procedure had changes made to it on the NY City production system. As a precaution and to keep in sync we have included these changes to the Patch-b35-2.sql file so the changes are not inadvertently overwritten in a potential future patch of build 35.

4. SQL update required to correct an issue with the Daily Schedule management report. The Insurance Carrier was not being populated. This SQL update is also included in the Patch-b35-2.sql

# 2. Intended Audience

This document is created by the RIS Development team for the RadNet RIS Implementation team.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 3. Who is affected

Installations of eRAD RIS 1.1.35.10140 (RIS application Help About → labeled as 1.1.34.10140)

# 4. Installing

*To install this hot fix:*
*1) Shut down the Document Distribution Engine service*
*2) Replace the existing Torreau.Gilles.FaxDotNet.* files with the ones distributed with this readme file.*
*3) Start the Document Distribution Engine service*
*4) These files should also be replaced in the directories containing the other rRIS services (Core, DocumentDistribution, CDS, etc.) in a similar manner.*
*5) From the SQL Server Management Studio execute the Patch-b35-2.sql on your database.*

If you have any questions regarding this Hotfix, contact Darcy Noye with the PEI RIS Development Team.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# HOTFIX

for eRAD RIS
Version 1.0
Build 35
Hotfix 35.004

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Purpose ..... 3
2. Intended Audience ..... 3
3. Who is affected ..... 3
4. Installing ..... 4

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 1. Purpose

1) Redmine Bug 1141: Backend printing jobs report an error even though they successfully print.

   The error message in the log indicates that the patient_key column in the c_document_distribution table is db_null. This is because after the job prints there is an attempt to create an audit message indicating success, but the patient key in the row is null.

   The c_document_distribution_patient_key_patch.sql file in this directory provides a trigger that looks up the patient_key based on the study key if the patient key is not already provided. With this change the jobs will continue to print successfully and will eliminate the error message.

2) Redmine Bug 1143: Fax jobs are failing with an error: "Could not load file or assembly 'Microsoft.ReportViewer.Winforms, ...". This is because there are two missing .dll files that are not packaged with the Distribution Service. These .dll's are Microsoft.ReportViewer.Winforms.dll and Microsoft.ReportViewer.Common.dll. The Microsoft.ReportViewer.WinForms.xml file has also been packaged with the .dll's.

# 2. Intended Audience

This document is created by the RIS Development team for the RadNet RIS Implementation team.

# 3. Who is affected

Installations of eRAD RIS 1.1.35.10140 (RIS application Help About → labeled as 1.1.34.10140)

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 4. Installing

*To install this hot fix:*
*1) Open a new query window in SQL Server Management studio.*
*2) Paste the contents of the c_document_distribution_patient_key_patch.sql file into it.*
*3) Ensuring that the correct DB instance is selected, execute the sql. (DB may have more than one DB instance installed. (Example – Test and Production environments)*

*4) Copy the Microsoft.ReportViwer.Winforms.dll, Microsoft.ReportViewer.Common.dll, and Microsoft.ReportViewer.Common.xml files into the directory containing the DocumentDistribution Service.*
*5) Restart the service.*

If you have any questions regarding this Hotfix, contact Darcy Noye with the PEI RIS Development Team.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# HOTFIX

for eRAD RIS
Version 1.0
Build 35
Hotfix 35.005

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Purpose ..... 3
2. Intended Audience ..... 3
3. Who is affected ..... 3
4. Installing ..... 3

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 1. Purpose

1) Redmine Bug 1152: Mammo exam --> Recommendation codes not saving. Transcription opens the exam to transcribe but the recommendation field is empty

# 2. Intended Audience

This document is created by the RIS Development team for the RadNet RIS Implementation team.

# 3. Who is affected

Installations of eRAD RIS 1.1.35.10140 (RIS application Help About → labeled as 1.1.34.10140)

This is a cumulative HOTFIX. It includes all previous HOTFIXES (35.001 – 35.004)

# 4. Installing

Please remember to take a backup of all files before replacing with current HOTFIX

*To install this hot fix:*

1) *Replace the contents of the RISDeployment folder with the contents in the ThickClient folder included with this patch. This includes:*
   a) *Build\YourSystemName\rRIS_1.1.35.10752.zip*
   b) *Build\rupdate.exe*
   c) *Core_setup\rRisSetup.msi and setup.exe*
2) *Replace the binaries in the rRISService folder with the binaries included with this HOTFIX in the rRISService folder. The will require you to stop the rRISSERVICE*
3) *Run the Patch-b35-2.sql file and the rRISCoreData.sql file against your database.*

   *NOTE other files that are included folders such as MirthConfig were updated in previous HOTFIXES and are also included here. Please refer to previous HOTFIX documentation.*

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

If you have any questions regarding this Hotfix, contact Darcy Noye with the PEI RIS Development Team.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# HOTFIX

for eRAD RIS
Version 1.0
Build 35
Hotfix 35.006

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Purpose ..... 3
2. Intended Audience ..... 5
3. Who is affected ..... 5
4. Installing ..... 5

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 1. Purpose

This HOTFIX has been produced to fix bugs required for production setting, or to complete an enhancement requested for production.

This HOTFIX includes the following:

1) Redmine Bug 1157: Image Center Manager (ICM) Dashboard was not completed in Build 35. This has 2 new report files and a .sql file
   a) Accession Milestone Time.rdl
   b) Imaging Center Manager (ICM).rdl
   c) Patch-b35-3.sql. This script creates:
      i) 2 new views – c_mamt_wait_times and c_mgmt_PWT.
      ii) 1 new function – c_GetPatientNameFromPatientKey
      iii) 1 Updated view – c_mgmt_unread_exams
      iv) 1 updated stored procedure – c_GetDailyModalityUtilization

2) Append MRN with letter – This is a request for production so the MRN's generated from RIS do not collide with MRN's from legacy systems. The MRN will be appended with an r for all new generated MRN's.
   This has 4 new files for the rRISServices directory and a .sql file
   a) CommonLib.dll
   b) CommonLib.pdb
   c) WCFService.dll
   d) WCFService.pdb
   e) defaultMRNSuffix.sql – Creates new system config entry and adds value of r for the config value.

3) Redmine Bug 1262: When a user tries to manually send out a legacy report at Highway, it fails in the distribution queue with a "Could not generate report: The system cannot find the file specified" error.
   This issue was caused by the use of the PDFToImages.exe utility to manipulate the legacy report. This executable and a dll it depends on could not be found for two reasons. First, they were not being included with the service binaries and second, the path on which the service was looking for it was incorrect. The build process has been updated to include these files and the path issue has been corrected to ensure that it is looking for PDFToImages.exe in the same directory as the rest of the assemblies.
   This includes 4 new files to be added or replaced in the Document Distribution Service directory

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

a) PDFToImages.exe
b) O2S.Components.PDFRender4NET.dll
c) DDEngine.dll
d) DDEngine.pdb

4) Redmine Bug 1183 – Fix will exclude study items and bill codes that are not active. Removes trailing suffix from the MRN (problem with Radnet Nobel blender). Corrects mappings when multiple interpretation nodes are included in the message. The fix includes the Billing folder to be replaced on the Mirth server. The billing folder contains 17 files:
   a) 01_DecodeContainer.js, ACC.js, EVN.js, FT1.js, GT1.js, IN1.js, MSH_ADT.js, MSH_DFT.js msh_ORU.js, OBX.js, ORC_OBR.js, PID.js, PV1.js, VariableSetup.js, ZCS.js, ZFT.js, ZIN.js

5) Redmine Bugs 1264 and 1265 –
   Bug 1264 - Turnaround times not all being reported correctly. Incorrect user being looked for to get the drafted date from mModal in VR1 it was "Service: rRISServices" now in RIS is now called "System"

   Bug 1265 - Numbers for component Unread Exams being incorrectly counted. Needed to add a PACS corrected flag and a coalesce to performed_end_date, performed_start_date to correct handle null performed_end_dates.

   The 3rd part is an enhancement to the Result Template used at New City (Highway). The fix is to provide a function called by the view which returns a formatted name in LastName Suffix, FirstName of the patient. This issue came to light when a patient was also a Dr and he expected to see MD after his name.
   a) Files included are NewCityDiagnosticReport.rdl and Patch-b35-4.sql

6) Redmin Bugs 1275 and 1282 (partial fix) –
   Bug 1275 – This fixes an issue using the F8 key on keyboard. If dictating as non-interactive and the F8 key is used to initiate dictation, some interactive commands were firing.

   Bug 1282 – MT polling studies from same order is not skipped when locked. Studies belonging to the same order, such as a stat read, work list will apply a lock on both studies if either is opened. The issue is when using the MT polling workflow the "other study" can still be accessed.
   a) Files included are ris.exe and WCFService.dll.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## 2. Intended Audience

This document is created by the RIS Development team for the RadNet RIS Implementation team.

## 3. Who is affected

Previous versions of build 35. Current build is 1.1.35.10752.

## 4. Installing

Please remember to take a backup of all files before replacing with current HOTFIX

*To install this hot fix:*
Redmine Bug 1157:

1) *Manually add and/or replace the 2 report files on the report server.*
   a) *Accession Milestone Time.rdl*
   b) *Imaging Center Manager (ICM).rdl*
2) *Run the Patch-b35-3.sql file against your database.*

Append MRN with letter:

1) *Copy the 4 files to the rRISService directory.*
2) *Run the defaultMRNSuffix.sql file against your database*

Redmine Bug 1262:

1) *Manually add/replace the included files into the directory containing the Document Distribution Service.*

Redmine Bug 1183:

1) *To install, connect to your Mirth server, copy mapping files to the appropriate billing channels and re-deployment the channels.*

Redmine Bugs 12364 and 1265:

1) *Manually add or replace the report file on the report server*
   a) *NewCityDiagnosticReport.rdl*
2) *Run the Patch-b35-4.sql file against your database*

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

RedMine Bugs 1282 and 1275:

1) *From the RISDeployment directory, unzip the rRIS_1.1.35.10752. Replace the ris.exe file. Re-zip the contents and rename the zip folder to rRIS_1.1.35.10752a*
2) *In the rRISServices directory replace the WCFService.dll*

If you have any questions regarding this Hotfix, contact Darcy Noye with the PEI RIS Development Team.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

for eRAD RIS
Version 1.0
Build 35
Update 35.007

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Purpose ..... 3
2. Intended Audience ..... 3
3. Who is affected ..... 3
4. Installing ..... 4

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 1. Purpose

This update has been produced to fix bugs required for production setting, or to complete an enhancement requested for production.

This update includes the following:

1) HL7 Mammo Report Message with Recommendation Code– This fix will allow messages with Mammo reports with recommendation codes to come into RIS. There was a bug that caused a null reference error.
    a) WCFService.dll
    b) WCFService.pdb

2) Outbound HL7 message queue was blocked due to person key resolution problem. Two files to be replaced:
    a) Wedge.exe
    b) Wedge.pdb

3) IVT Order Row Specific – This fix will convert the IVT work list from showing all the studies related to an order to only show the single order and show the more appropriate information.
    a) Files included - Patch-b35-5-UpdateIVTtobeOrderRowSpecfic.sql

# 2. Intended Audience

This document is created by the RIS Development team for the RadNet RIS Implementation team.

# 3. Who is affected

All previous versions of build 35. Current build is 1.1.35.10752.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 4. Installing

*1)* HL7 Mammo Report Message with Recommendation Code*:*
*Copy the 2 files to the directory for each rRISService. rRISService directories include:*
*a) rRISService*
*b) CDS rRISService*
*c) Wedge rRISService*
*d) DDE rRISService (DDE – Document Distribution Engine.*

*2)* Outbound HL7 message queue:
*Copy the 2 files to the directory for each rRISService. rRISService directories include:*
*a) rRISService*
*b) CDS rRISService*
*c) Wedge rRISService*
*d) DDE rRISService (DDE – Document Distribution Engine.*

3) IVT Order Row Specific:
*Run the Patch-b35-5-UpdateIVTtobeOrderRowSpecfic.sql file against your database*

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# HOTFIX

for eRAD RIS
Version 1.0
Build 35
Hotfix 35.009

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Purpose ..... 3
2. Intended Audience ..... 3
3. Who is affected ..... 3
4. Installing ..... 3

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 1. Purpose

This HOTFIX has been produced to fix bugs required for production setting, or to complete an enhancement requested for production.

This HOTFIX includes the following:

1) Outbound HL7 message queue was blocked due to person key resolution problem.
   a) Wedge.exe, Wedge.pdb

# 2. Intended Audience

This document is created by the RIS Development team for the RadNet RIS Implementation team.

# 3. Who is affected

All previous version of build 35. Current build is 1.1.35.10752.

# 4. Installing

1) *Copy the 2 files to the directory for each rRISService. The changes to these files are only relevant to the Wedge, but it is recommended to also copy them to the other rRISService directories.*

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# User Release Notes

for eRAD RIS
Version 1.0
Build 36

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# Table of Contents

1. Purpose ..... 3
2. Intended Audience ..... 3
3. Installing/Accessing the Application ..... 3
4. New Features and Enhancements ..... 4
Sending Tech Only Studies to Billing at Exam Done Status ..... 4
Study Statuses Display Changes ..... 6
Deploying RIS Reporting Services ..... 7
Check In / Arrive Before Scheduled Date ..... 10
Site and Practice filtered according to schedule group ..... 12
Logging client side errors to the server ..... 13
Management Report Authorization ..... 14
Modality closure "times" ..... 18
Meaningful Use (MU) wizard dialog ..... 19
MU Scorecard Management Report ..... 21
Outside Read Changes ..... 23
Self-Pay Carrier ..... 32
Mammo Diagnostic Reporting Window Features ..... 33
Surgeon as Person Type ..... 35
Reporting – Bring RIS to Front ..... 36
Reporting - Easy Access to Macro Editor ..... 37
Reporting – Indicate Reporting Mode ..... 39
Reporting – Patient History Apply Filtered Views ..... 40
Reporting – Patient History Mark Priors ..... 41
Reporting - Preview Report Templates ..... 43
Reporting - Viewing Current Study and Prior Study Attachments ..... 44
Reporting – Signed by date Work List for Administrator(s) ..... 46
Reporting – Tables in Reports ..... 47
Reporting – Template Browser Buttons for Default, Normal and My Normal ..... 48
Reporting – Yellow Sticker Support ..... 49
5. Resolved Defects ..... 51
6. Known Limitations ..... 58

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 1. Purpose

This document describes some of the new features and changes implemented in eRAD RIS as of the end of Sprint 36. This version of eRAD RIS is referred to as Build 1.36.

Only features which can be visually demonstrated to the user will be outlined in this document.

# 2. Intended Audience

This document is created by the RIS Development team for the RadNet RIS management team.

# 3. Installing/Accessing the Application

The installation guide for the eRAD RIS client have been posted to the RadNet Wiki page at http://mdbal01rdtweb/Wiki/

Under the RIS menu click on the rRIS page. The credentials to access the page are:
Username: rRIS
Password: Summerside

*Please note that Build 1.36 is considered a new core release of the application and will require a reinstallation of eRAD RIS. This is accomplished by navigating to the eRAD RIS shared installation drive and running the CoreInstall.bat file (ex: I:\RISDeployment\CoreInstall.bat)*

If you experience difficulties accessing the application please do not hesitate to contact Darcy Noye with the PEI RIS Development Team.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 4. New Features and Enhancements

## Sending Tech Only Studies to Billing at Exam Done Status

Studies that were flagged as No Report Required Tech Only will never be set to Signed status. Previously only studies in Signed status were sent to billing. Now if a study is flagged No Report (Tech Only) when the study reaches exam done status it will be sent to billing.

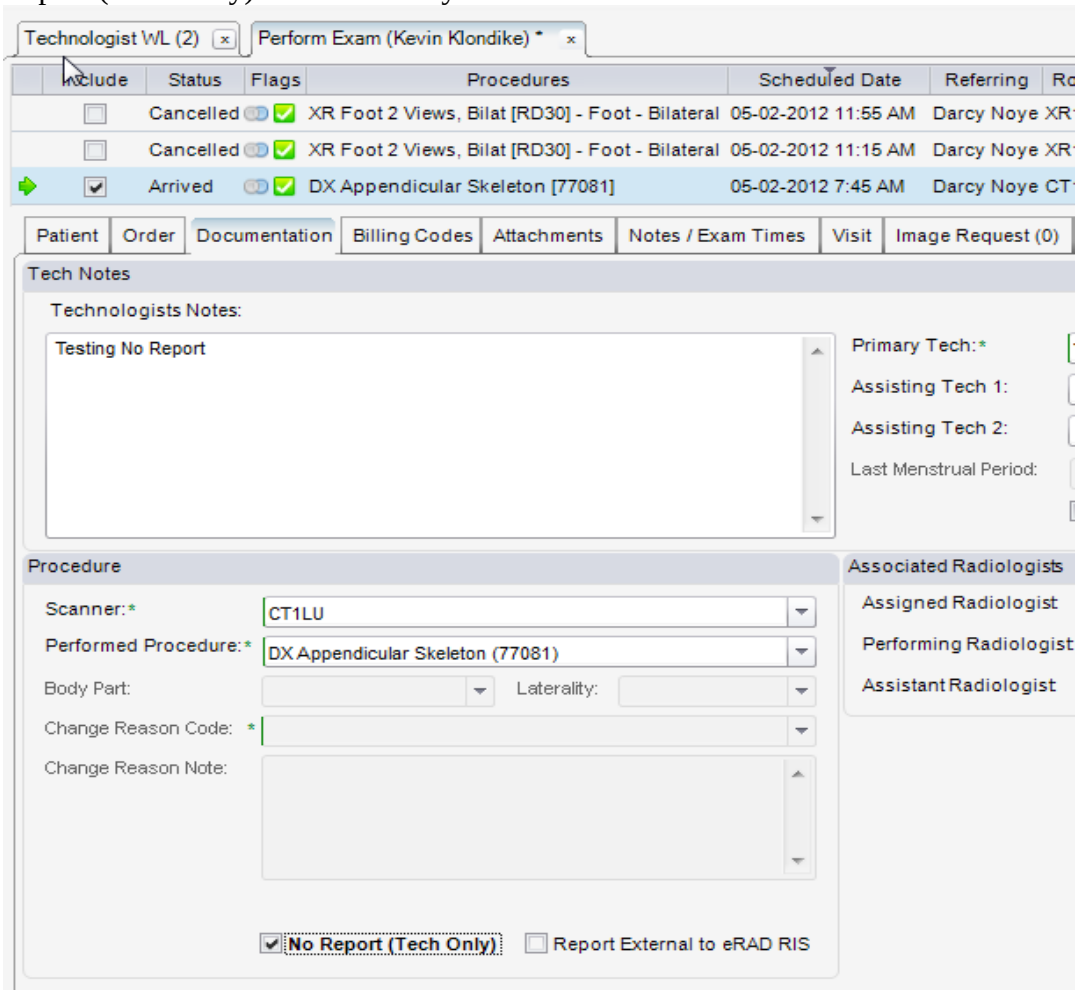



**Figure 4.1 – Perform Exam: No Report required flag**

As you can see from the figure above this study has been flagged that no report is required.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

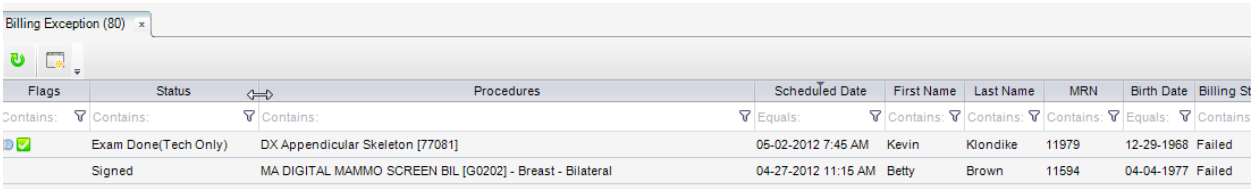



**Figure 4.2 – Status of Exam Done (Tech Only) added to billing.**

This particular study did not meet the billing requirements and has been added to the Billing Exception work list. Notice the status is Exam Done(Tech Only).

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Study Statuses Display Changes

In previous builds study statuses were displayed as one complete word regardless of how many actually words were in the status. In build 36 the DB study status will be converted to be more easily read. Below is a list of status and the converted text that will be displayed on the work list.

| DB Status | Work list Displayed Status |
|---|---|
| OrderDraftedOrder | Drafted |
| OrderSigned | Ordered |
| OrderCancelled | Order Cancelled |
| Invitation | Invitation |
| ShortTermFollowUp | Short Term Follow Up |
| CallBack | Call Back |
| Scheduled | Scheduled |
| Cancelled | Cancelled |
| CheckingIn | Checking In |
| Arrived | Arrived |
| Started | Started |
| Discontinued | Discontinued |
| ExamDone | Exam Done |
| ExamDoneTechOnly | Exam Done(Tech Only) |
| Dictated | Dictated |
| ReportDrafted | Report Drafted |
| Transcribed | Transcribed |
| RepeatDone | Repeat Done |
| TentativelySigned1 | Signed* |
| Signed1 | Signed |
| ActionPending | Action Pending |
| ActionComplete | Action Complete |

**Table 4.1 – Statuses converted to readable text.**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Deploying RIS Reporting Services

Utilizing the Report Server utility (RS.EXE which is part of SSRS) a DOS batch file and some VB .NET scripts have been created.
The structure of the report server is deployed as follows:
Root Folder will contain these directories

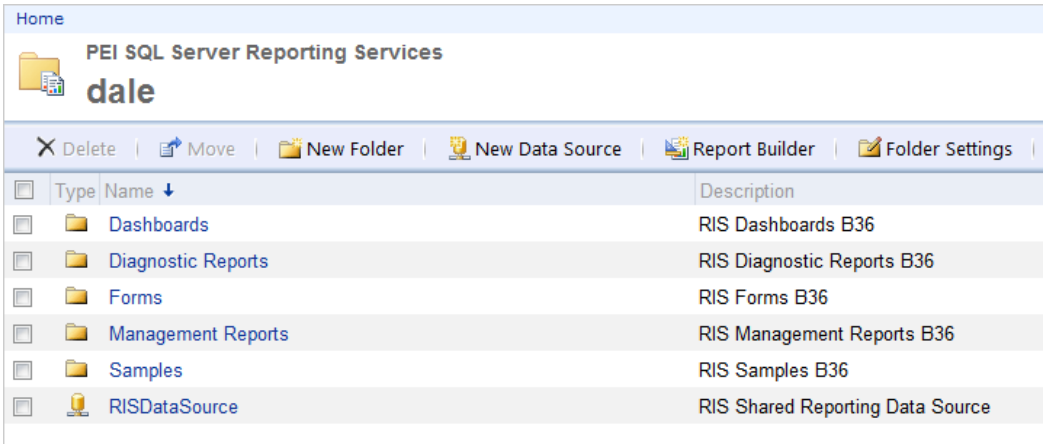



**Figure 4.3 – Root Folder for deploying reports to reporting server**

Dashboards, Diagnostic Reports and Forms folders are designated as site folders. This means they will get an initial deployment, but will not be overwritten during upgrades.
Management Reports folder
This folder will not be deleted, but the following subfolders will be:

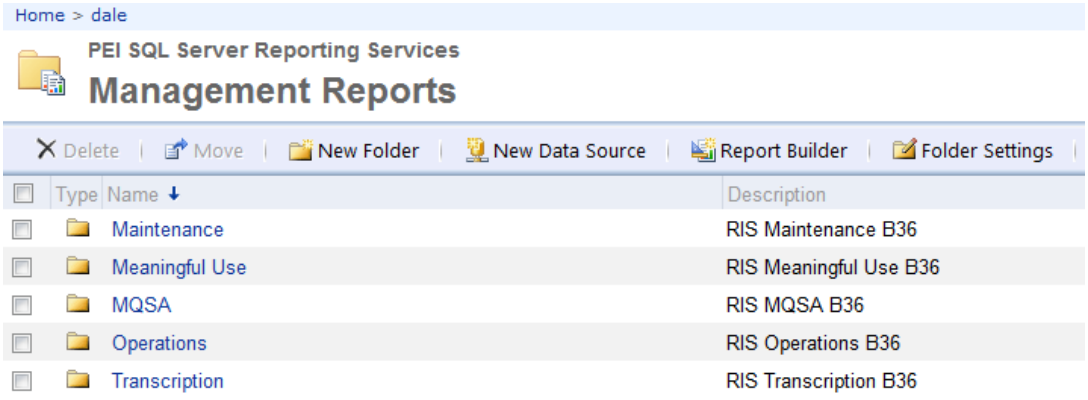



**Figure 4.4 – Management Reports Subfolders**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

***The intention below Management Reports is to add a folder (yet to be named) where site specific (custom) reports would live. That folder would not be deleted and rebuilt in the deployment process.***

Samples Folder
The samples folder will be deleted and rebuilt with the upgrades.
The root of Samples folder has a store for Diagnostic Templates and Forms

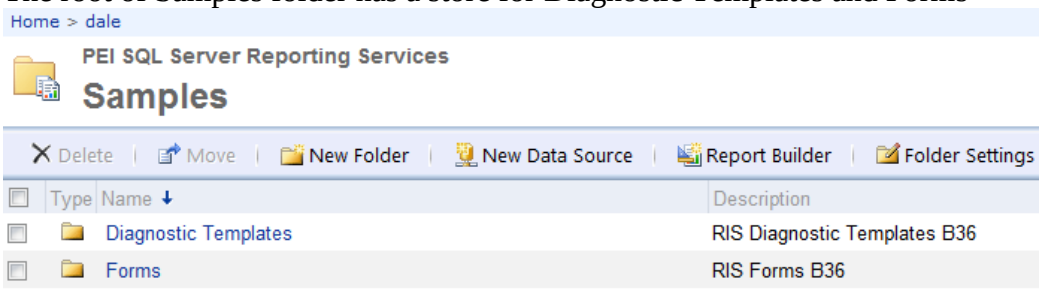



**Figure 4.5 – Sample folder deployed**

The forms folder underneath Samples contains a large set of examples which have currently been categorized like this, but may change moving forward.

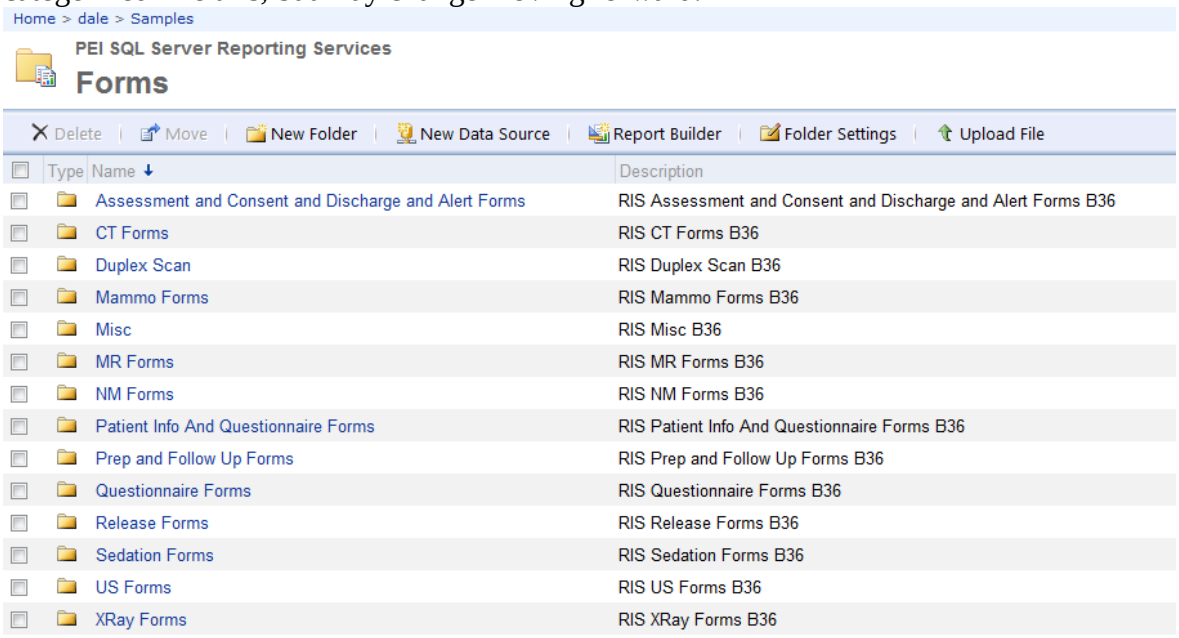



**Figure 4.6 – Forms folder**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

Deploying using the deployment script is pretty basic.

1. Launch the DeployReports.bat file.
2. ***Enter report server name:***
    a. A script will run against the server and return a list of all the root folders on that report server
3. A subscript will execute to display a list of the root folders currently sitting on the report server entered above.
4. **Enter root folder to deploy reports**:
    a. This will create a new root if the name you give doesn't exist, or it will simply publish below the root of the folder if it does already exist.
5. **Enter the Build Number (ie: B35)**:
    a. This number will get tagged into the description of the folders as they get built (or rebuilt). It will not update folders if they exist and are not being replaced.
6. **Do you wish to deploy core management reports**?
    a. If you enter "y", it will redeploy the core management reports
7. **Do you wish to deploy sample files**?
    a. If you enter "y", it will delete, rebuild and deploy the core samples
8. **Do you wish to create a datasource**?
    a. If you select "y" you will get prompted for more information about the datasource you wish to create

If you selected to create a datasource, the following steps will be requested to complete the connection string.

1. **Enter database server name**:
    a. This is the name of the physical database server
2. **Enter database name**:
    a. This is the name of the database on the database server
3. **Enter report schema user name**:
4. **Enter report schema password**:

The results of deployment will be written to log.txt in the same folder as the DeployReports.bat file.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Check In / Arrive Before Scheduled Date

If a patient arrives for their scheduled appointment before the scheduled date, registration needs to accommodate the patient. A new window will open

Studies scheduled for a future date can be checked in / arrived early. A new window has been added to the process. If the patients study being checked in / arrived is for a future date the new window will open prompting the user to select the desired patient's studies in which they would like to check in / arrive.

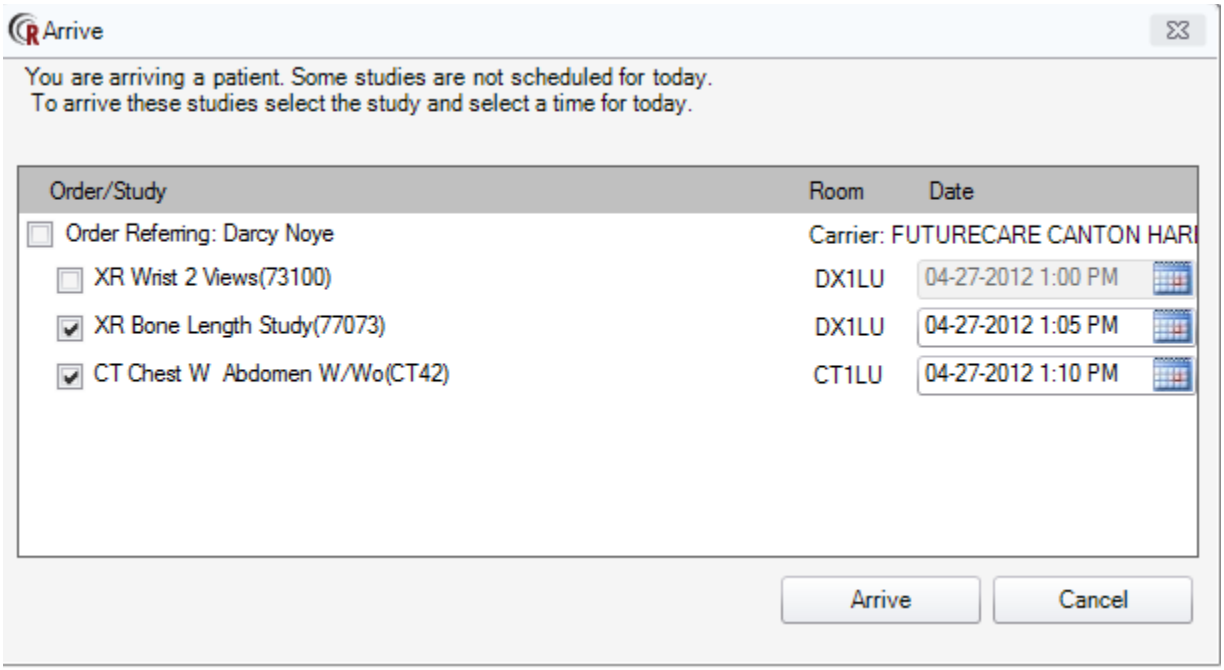



**Figure 4.7 – Arrive window displayed on early arrivals**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

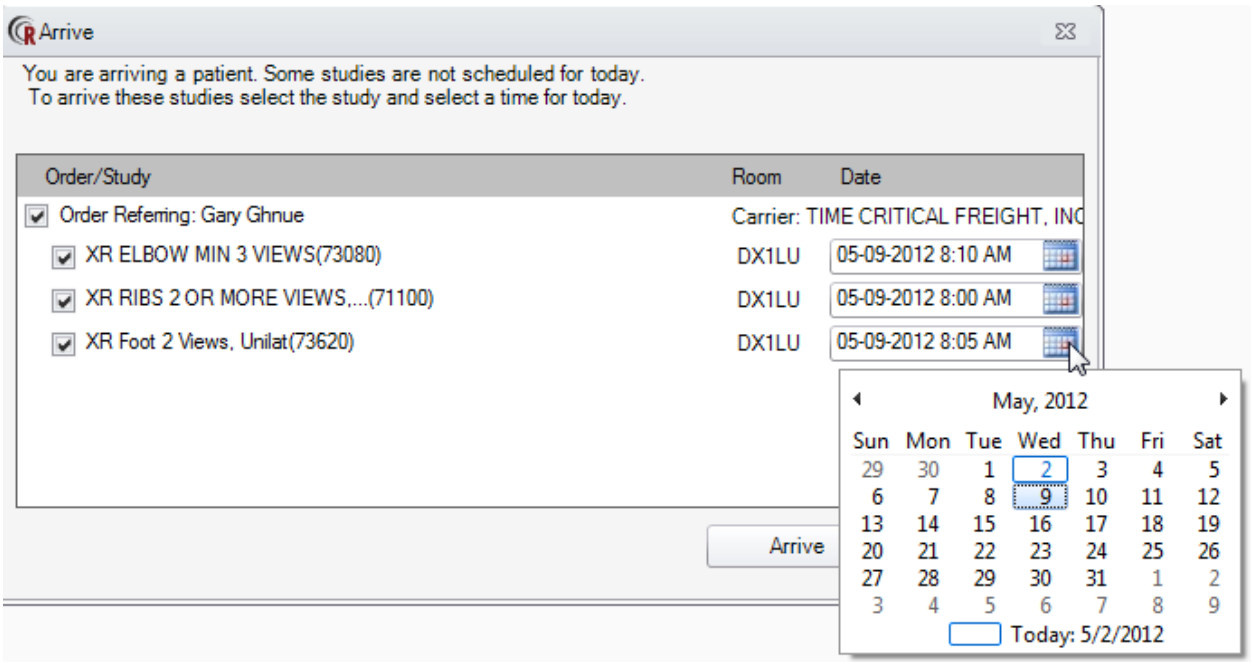



**Figure 4.8 – Order selected auto selects all. Must be current date to arrive**

Looking at the figure above, selecting the Order Referring check box will select all the studies. If you then try to unselect one of the studies it will deselect all including the Order Referring check box.
Selecting the check box for the study will activate the Date control. Selecting the calendar ICON opens the calendar control to select the current date. The date can also be input manually.

If the Check In / Arrive button is selected and a study(s) selected does not have the current date selected, it will inform the user with a message prompt.

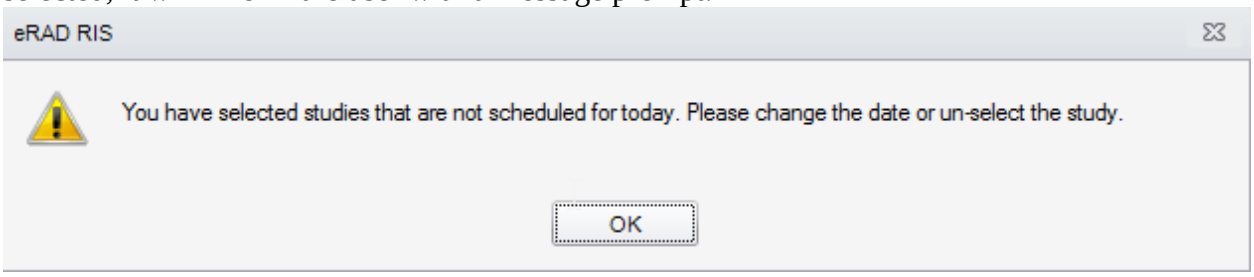



**Figure 4.9 – Message of study with a future date.**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Site and Practice filtered according to schedule group

The user group the user belongs to will control what sites the user will now be able to have access to. Also based on those sites the practices will also be filtered to the practices that the user has sites for scheduling.

This will be seen in the dropdown lists in which the practice or site is selectable. For instance, when creating a new appointment on the order tab, the list boxes for Practice and Site will be filtered to what is configured for the user in the schedule group the user belongs to.

Also, included in the dropdown's list of values is any practice/site that is already saved in the dataset. For example if another user (with a different schedule group) opens a study in the New Order, Registration, or View/Edit windows and does not have access to the site that the order was saved with, the user may edit the order/study and save.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Logging client side errors to the server

To aid support in troubleshooting errors that may have occurred, the ability to log the error in a database table has been added in build 36.

The logging is configurable, controlled by a new system configuration value called EnableLoggingClientErrorsToServer, which defaults to true. . If this is false then the GUI will not try to upload errors as they occur. If this is true, the GUI will upload errors as soon as they occur, as long as a) the error is not related to authentication, and b) the error is not the exact same as the last error that was logged by that user.

If an error occurs while logging to the server, we silently suppress the error so it is not displayed to the client, and we disable future logging for the rest of the session (i.e. until RIS is restarted). This functionality was put in place to ensure that we didn't fall into an infinite loop of logging an error, logging the error that occurred while logging the error, etc.

Errors are stored in the c_client_error_log table. The log contains the date of the error, the user_id of the current user, the computer name, the details of the error itself, and a hash_code for that error.
The hash_code is calculated using the description of the error to help with grouping and filtering.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Management Report Authorization

eRAD RIS supports both Windows and custom authentication, but our Reporting Services integration has always relied upon the Report Manager web interface to configure permissions. Starting in build 36, we will support managing authorization for Management Reports from within our Configuration module. Authorization should allow members of specified user groups to access the contents of particular folders on the Management Report Server.

When the user opens eRAD RIS, we query the report server to obtain a list of reports and forms that the guest user is authorized to access. We have built new logic into the application to ensure that the Administration -> Management Report screen will only display the reports for which the current user is authorized to access. Note that if a user belongs to Groups A and B, they will have access to folder C if EITHER group A or group B is authorized.

### Initial Configuration

From Administration->Configure->System->SystemConfig, the administrator/installer can set the values for the following key configuration values:

| | |
|---|---|
| ReportServerUrl | Identifies the URL of the SSRS Report Server web services endpoint. |
| ReportServerUserName | Identifies the name of a windows account on the report server. If this value is blank, the RIS will try to use the active user's credentials instead. Before populating this value, the user will need to create a windows account on the report server. Consider using the password never expires option when creating the account. |
| ReportServerPassword | The password that will be used to authenticate to the report server when using the guest account specified above |
| ReportServerMgmtReportFolderFilter | The folder that will be used as the top level folder for management reports. No folders or reports should be accessible that are not children of this folder |

**Figure 4.2 – Report server System Config codes**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Configuring the guest account's report server permissions

Step 1: visit the report manager in Internet Explorer, by default this is http://peidev1/Reports in our environment, substitute the machine name for the report server in place of peidev1 if applicable. From the "Home" folder, click "Site Settings" in the top Right Corner and then click "Security" on the left side of the screen. Ensure that the guest account has the "System User" role.

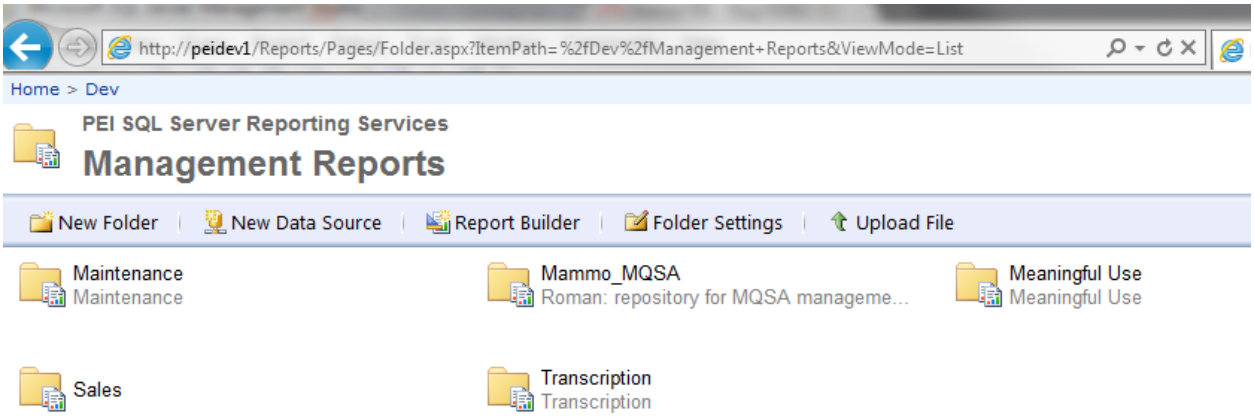



**Figure 4.10 – Report Manager page that is provided by SQL Server reporting Services**

Step 2: again using the report manager, browse to the top level folder that will be specified in the config setting "ReportServerMgmtReportFolderFilter", click "Folder Settings" and assign the Browser role assignment to this folder. Note that the guest user also needs browser permissions at the root folder for the report server.

## New Report Permissions Editor

1. A list of folder hyperlinks shows which folder is currently being edited. The user is editing the folder "DA Test Folder" in the screenshot above. The user can navigate back up the tree by pressing the backspace button, or by clicking on the link for another folder (e.g. "Research and Development". The Home folder is the top level folder for this RIS install, it is configured to point to a physical folder on the report server (see ReportServerUrl and ReportServerMgmtReportFolderFilter in the SystemConfig editor).
2. Folder View – displays the folders within the folder that is currently being edited. If the user double-clicks or presses the enter key on a folder, the editor will update all areas to reflect the selected folder. In the screenshot above, the folder "DA Test Folder" contains two other folders. If the user presses enter or double-clicks "DA Test Child1", the area

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

in section 1 would update to show "Home > Research and Development > DA Test Folder > DA Test Child1", the folder list would show "DA Test Child1"'s folder contents and the list of groups in section 3 would update to reflect the permissions for the "DA Test Child1" folder.

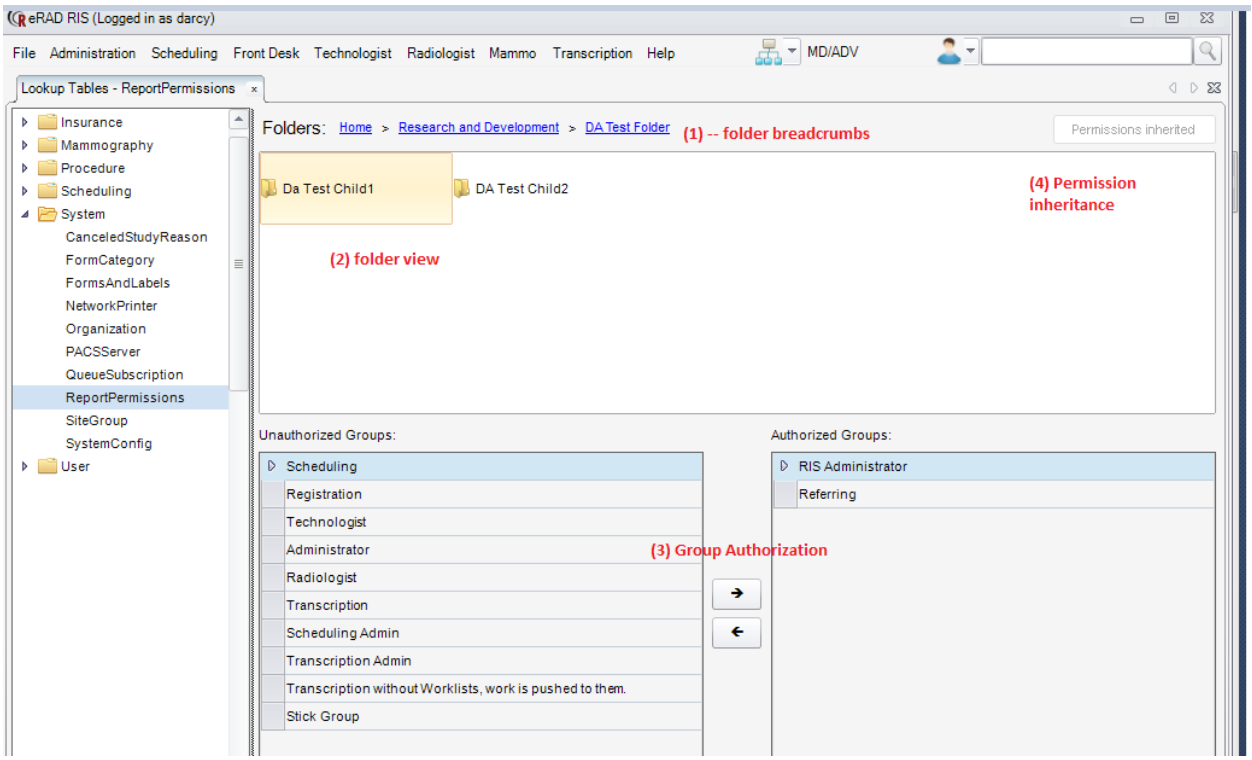



**Figure 4.11 – Report permission editor**

3. Group Authorizations – the bottom portion of the editor shows a list of groups. All existing groups should fall into the "Unauthorized Groups" or "Authorized Groups". The user can move a group from one category to the other by double-clicking, pressing enter, or using the arrow buttons between the two grids.
4. Permission Inheritance – our permission framework is built so that a folder will either have its own list of authorized groups, or it will inherit from its closest ancestor (e.g. parent, grand-parent, great-grand parent, etc). While editing the top level ("Home") folder, this button will be invisible. If the current folder inherits its permissions from an ancestor, the button will be disabled and show the text "Permissions inherited". If the current folder has its own defined permissions, it will be enabled and show the text "Revert to parent security". Reverting to parent security will result in the current set of authorizations being deleted, and the screen will refresh to show the inherited permissions.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

Note: when the user changes the assigned groups from a folder so that it is different from its parent, the user will be prompted with:

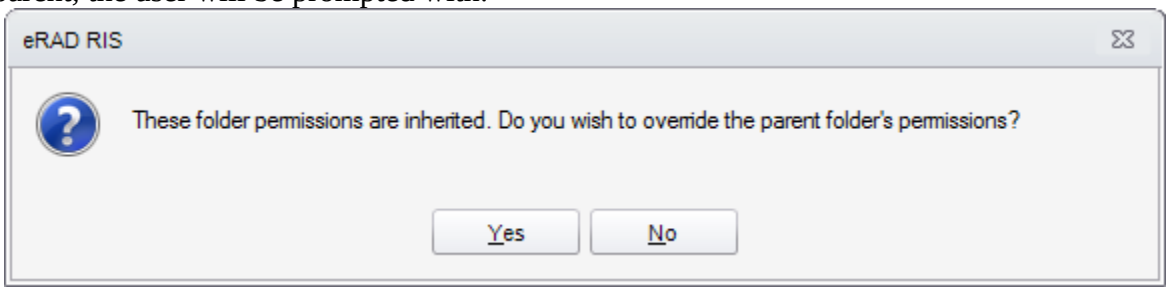



**Figure 4.12 – Prompt to override the permissions of a parent folder**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Modality closure "times"

In previous builds of eRAD RIS modalities could be closed in a date range, but the time could not be specified. In build 36 2 new columns have been added to the modality closure grid. This now allows the modality to be closed for an hour, 2, 3, etc… instead of a full day.

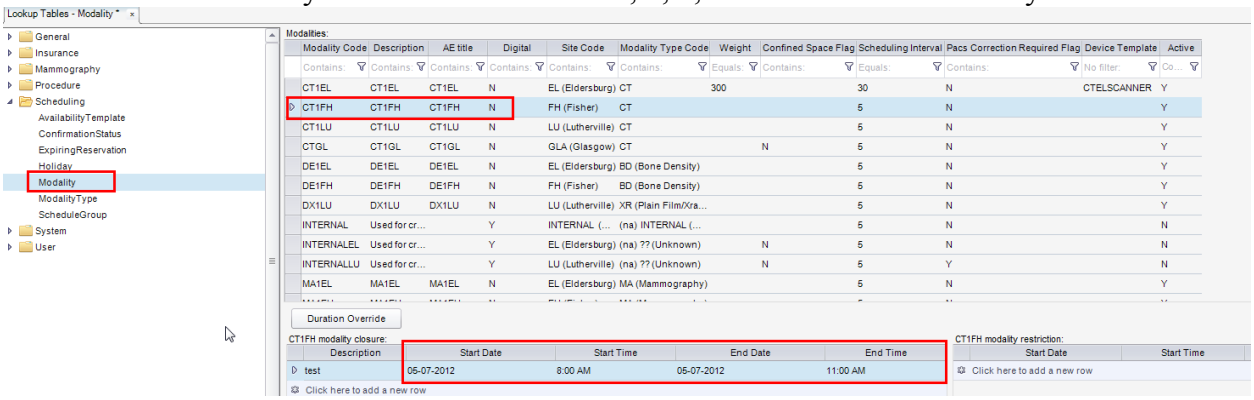



**Figure 4.13 – Modality closure times**

In the figure above the Modality lookup is opened. The Specific modality to be closed is selected in the top pane. This will show all modality closures. The user can specify the start date, start time, end date and time.

This has also been extended to the modality restrictions.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Meaningful Use (MU) wizard dialog

The patient visit tab has been enhanced with a MU wizard. The wizard will allow the user to quickly add or remove allergies, medical history and medications via a list of check boxes. When an item is checked, that item will be added to the grid on the patient visit tab. The wizard is accessed from the Meaningful Use Wizard button shown in figure 4.15.

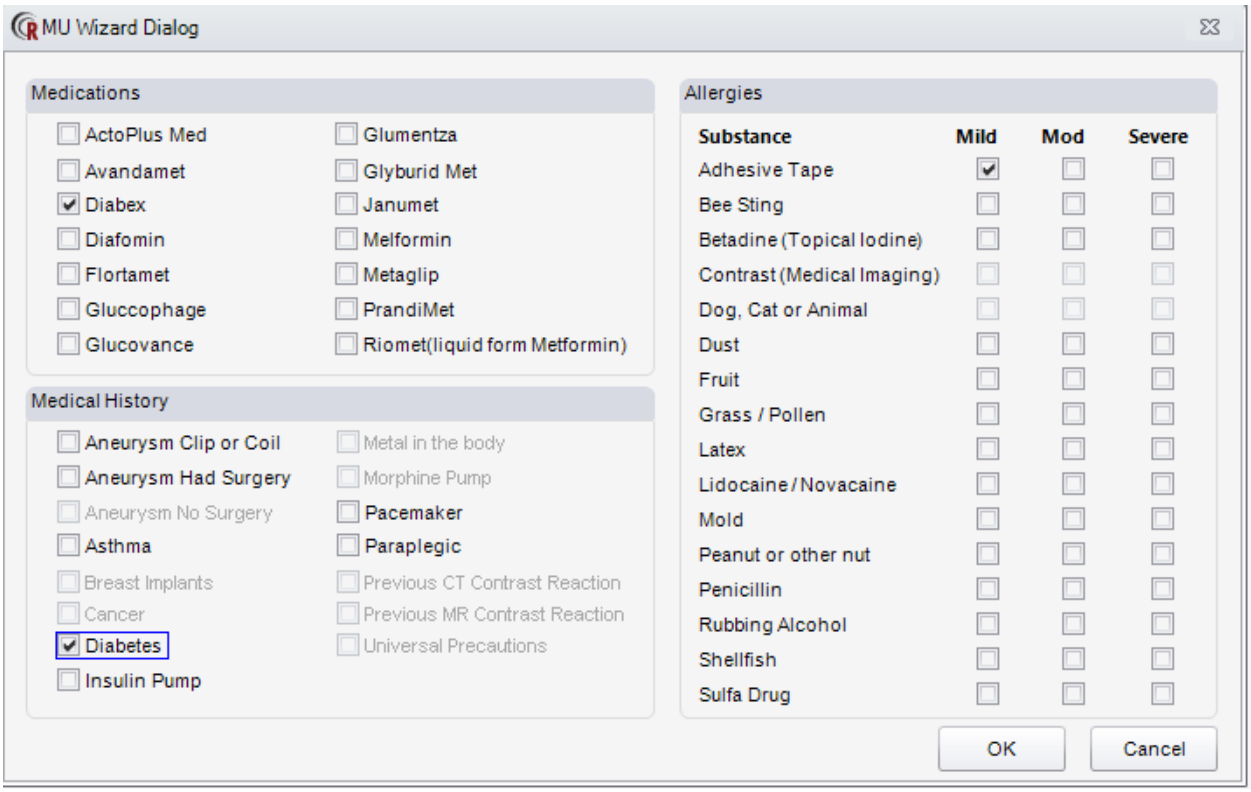



**Figure 4.14 – MU wizard**

Medical History – The medical history grid allows the user the ability to have the same icd-9 code show multiple times, however we don't allow the dates of an icd-9 code to overlap. If the user selects the same icd-9 code only one can be active at a time (we throw an error saying overlapping dates not allowed). We added code that forces the user to select a start date for active icd-9 codes and we added code to force an end date for inactive or resolved icd-9 codes. This is needed so we can use the mu wizard to activate or inactivate the correct code in the list.

Allergies – The allergy shows in the grid only once. If an inactive allergy is flagged again, it will simply activate it.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

Medications – Because we are using NewCrop medications can show in the list multiple times. We don't have the concept of start and end dates with medications so the way we use the meaningful use wizard is as follows.
If the user clicks the wizard button we show all active drugs by checking the appropriate medication (no matter if entered in ris or newcrop). If the user unchecks the checkbox we make all medications entered in eRAD RIS (ris_entered_flag = Y) inactive. We don't inactive the medications entered in NewCrop because the sync button will control the status of the medication. If the user checks a medication in the wizard we add a new row to the grid.

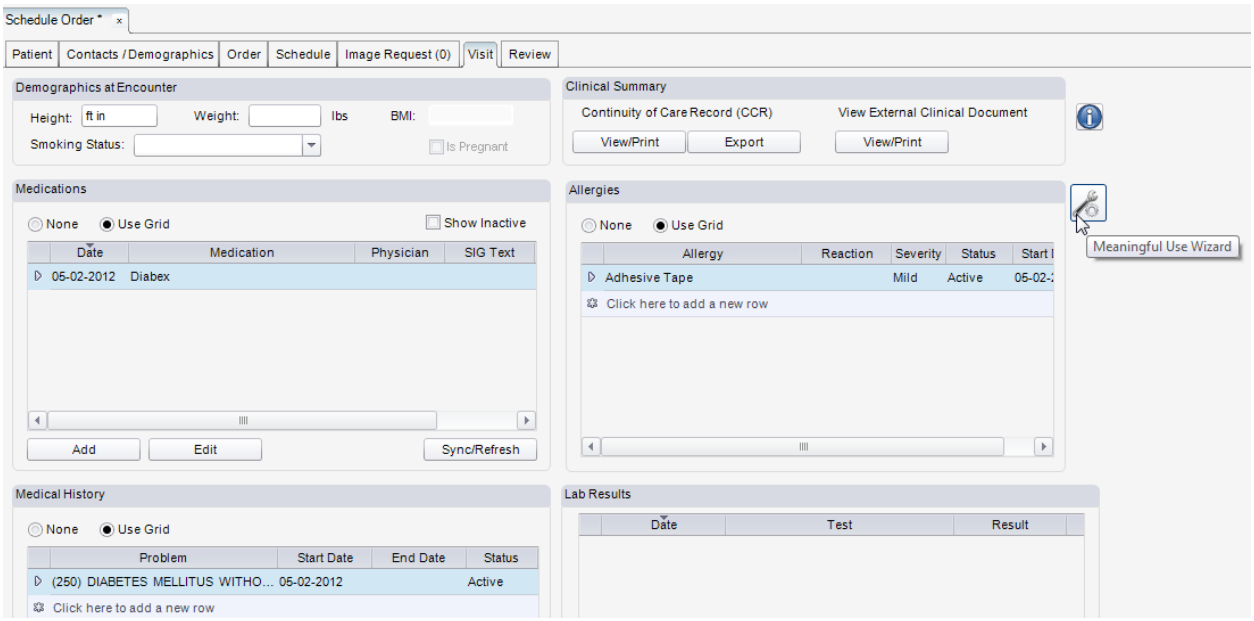
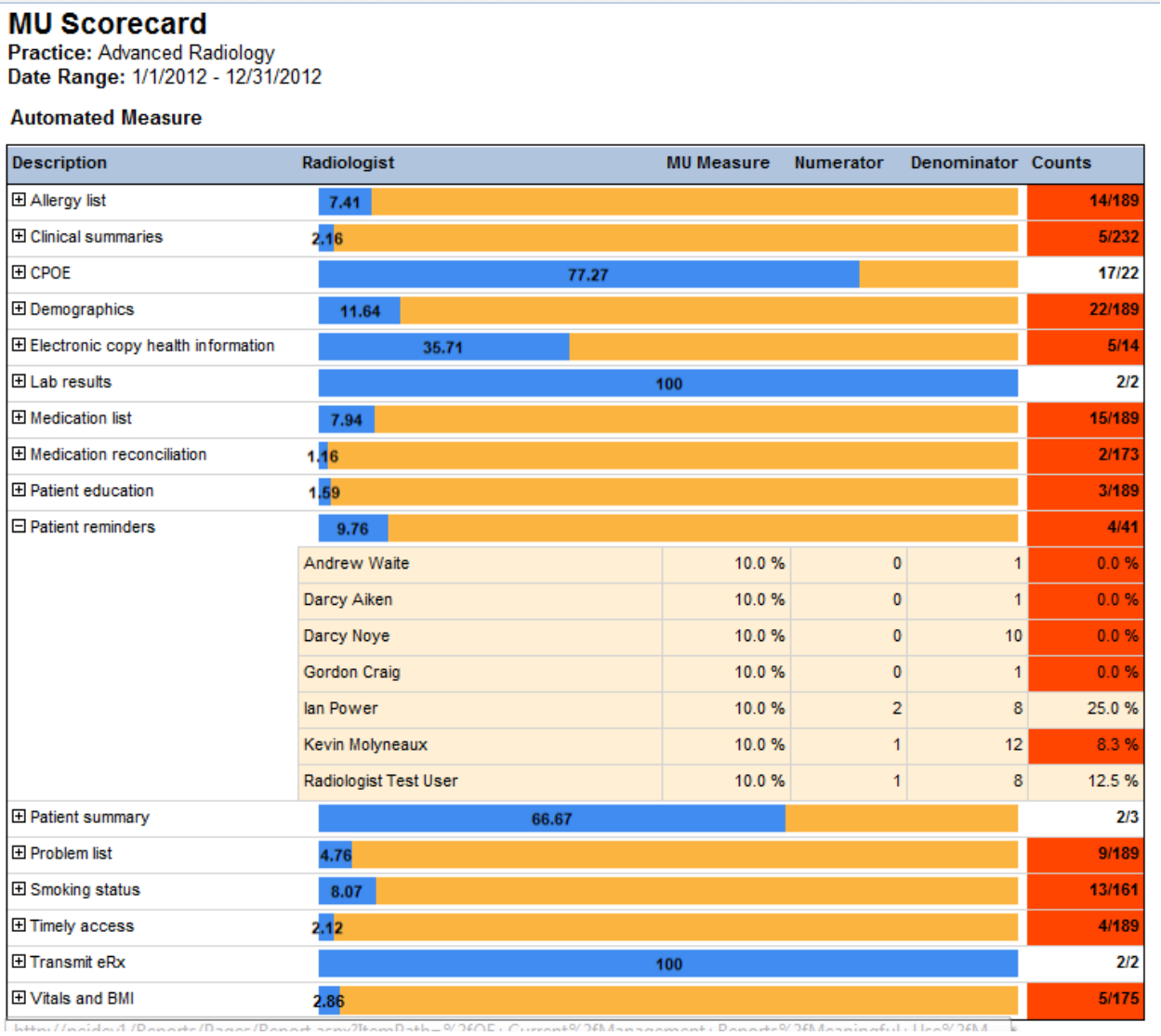



**Figure 4.15 – Displaying access to the MU wizard and the Medications, Allergies and Medical History grids**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## MU Scorecard Management Report

The automated measure report has a details section which allows the user the ability to drill down into each MU status to check each user's numerator/denominator and percentages for each measure MU Status. To help the user easily track down users that are not meeting the MU standard we fill the last textbox red indicating below the MU standard for the MU Status. Ideally, if the users are using the system in a meaningful way we will never see red in the last textbox



**MU Scorecard**
**Practice:** Advanced Radiology
**Date Range:** 1/1/2012 - 12/31/2012

**Automated Measure**

| Description | Radiologist | MU Measure | Numerator | Denominator | Counts |
|---|---|---|---|---|---|
| ⊞ Allergy list | | 7.41 | | | 14/189 |
| ⊞ Clinical summaries | | 2.16 | | | 5/232 |
| ⊞ CPOE | | 77.27 | | | 17/22 |
| ⊞ Demographics | | 11.64 | | | 22/189 |
| ⊞ Electronic copy health information | | 35.71 | | | 5/14 |
| ⊞ Lab results | | 100 | | | 2/2 |
| ⊞ Medication list | | 7.94 | | | 15/189 |
| ⊞ Medication reconciliation | | 1.16 | | | 2/173 |
| ⊞ Patient education | | 1.59 | | | 3/189 |
| ⊟ Patient reminders | | 9.76 | | | 4/41 |
| | Andrew Waite | 10.0 % | 0 | 1 | 0.0 % |
| | Darcy Aiken | 10.0 % | 0 | 1 | 0.0 % |
| | Darcy Noye | 10.0 % | 0 | 10 | 0.0 % |
| | Gordon Craig | 10.0 % | 0 | 1 | 0.0 % |
| | Ian Power | 10.0 % | 2 | 8 | 25.0 % |
| | Kevin Molyneaux | 10.0 % | 1 | 12 | 8.3 % |
| | Radiologist Test User | 10.0 % | 1 | 8 | 12.5 % |
| ⊞ Patient summary | | 66.67 | | | 2/3 |
| ⊞ Problem list | | 4.76 | | | 9/189 |
| ⊞ Smoking status | | 8.07 | | | 13/161 |
| ⊞ Timely access | | 2.12 | | | 4/189 |
| ⊞ Transmit eRx | | 100 | | | 2/2 |
| ⊞ Vitals and BMI | | 2.86 | | | 5/175 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

CQM Measure

| Description | Radiologist | Population | Num Count | Numerator | Exclusion | Denominator | Percentage |
|---|---|---|---|---|---|---|---|
| ⊞ NQF 0013 | Total | | | 4 | 0 | 4 | 100.0% |
| ⊞ NQF 0024 | Total | | | 0 | 0 | 0 | 0.0% |
| ⊞ NQF 0028a | Total | | | 4 | 0 | 8 | 50.0% |
| ⊞ NQF 0028b | Total | | | 0 | 0 | 3 | 0.0% |
| ⊞ NQF 0031 | Total | | | 6 | 0 | 28 | 21.4% |
| ⊞ NQF 0038 | Total | | | 9 | 0 | 12 | 75.0% |
| ⊞ NQF 0041 | Total | | | 1 | 0 | 5 | 20.0% |
| ⊞ NQF 0043 | Total | | | 1 | 0 | 11 | 9.1% |
| ⊞ NQF 0061 | Total | | | 0 | 0 | 0 | 0.0% |
| ⊞ NQF 0421a | Total | | | 7 | 0 | 11 | 63.6% |
| ⊞ NQF 0421b | Total | | | 0 | 0 | 117 | 0.0% |

**Figure 4.16 – MU Scorecard management report**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Outside Read Changes

In build 36, the Add Outside Read data window has seen some change.

The following has been added to Add Outside Read:

1. **Digital Flag;**
   Added a 'digital' flag to the add outside read screen, if one or more of the images are expected to be in eRad PACS then this check box should be checked, which will put it into the PACS correction workflow and when the rad reads the study the images will get loaded; otherwise, the study is considered analog or that the images will be searched for manually on an external system.

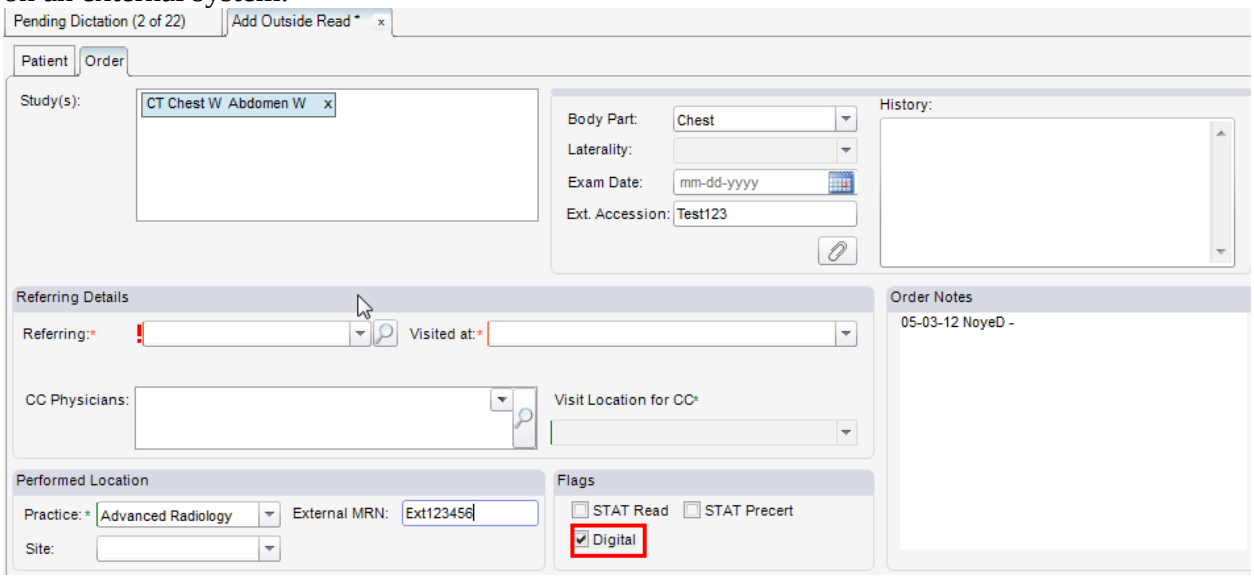



**Figure 4.17 – Digital flag on Add Outside Read window**

Under the hood there is a modality named "OutsideRead_<mod_type_code>" such as "OutsideRead_CT" for each modality type. This is still how things work; however, there is now an additional modality for each type named "OutsideRead_AN_<mod_type_code>" for each modality type. The <AN> standing for analog. An administrator setting up the system access the outside read screen they will be prompted to create outside modalities for each of the active modality types that is still missing from the l_modalities table. They will not get prompted to create the *_AN_* modalities since those can be auto generated from the digital modalities they need to manual create.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

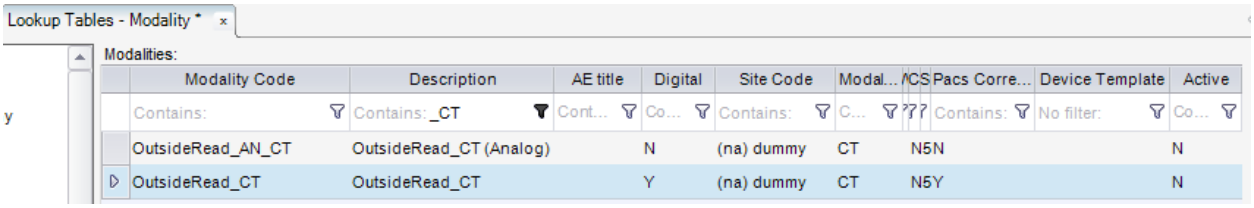



**Figure 4.18 – Modality lookup showing outside read rooms as digital and analog**

The figure below shows a digital outside read study (OutsideRead_XR) and an outside read study that is analog (OutsideRead_AN_XR)

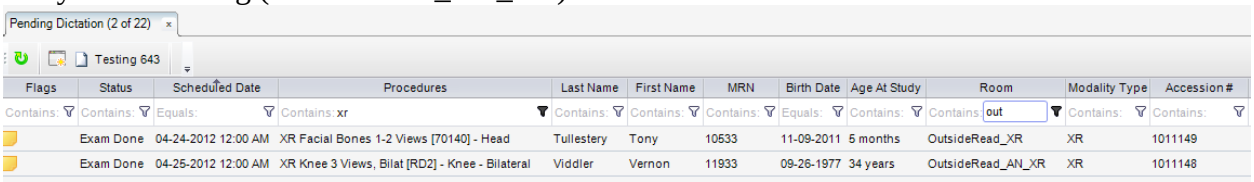



**Figure 4.19 – Work list view of digital and analog outside reads**

The Dictate, Sign Reports, and Create Reports windows also shows analog studies appended with analog in the exam details.

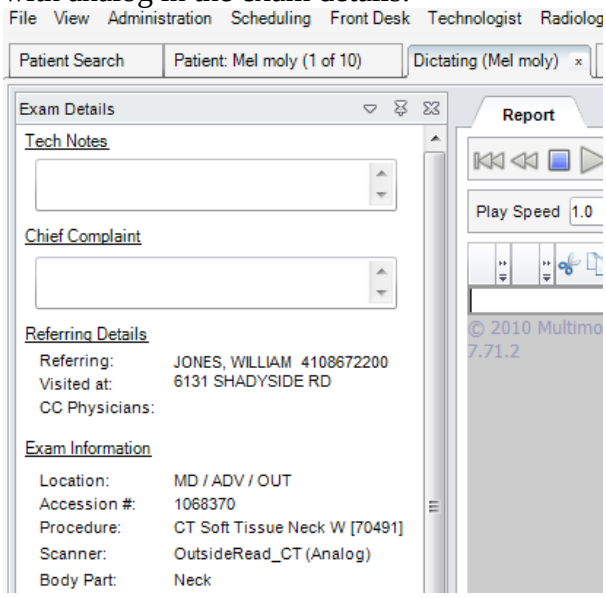



**Figure 4.20 – Dictate window displaying scanner information**

2. **External Accession Number for Outside Reads:**
   Users need to add the external accession number for cases where the images aren't imported into our PACS and the user needs to locate them on an external system where the images where acquired.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

For each study we the user can provide an external accession number, which is displayed on the Radiologist and 'View Edit' screens. Screens show the external accession number so RADs can search the external system (when applicable). The report will show both the RIS and External accession numbers. The RIS accession number must maintain their uniqueness since our search current must resolve studies uniquely and our interfaces require accession number to be unique. We can't use the external accession number as the RIS accession number because we must prevent duplicates.

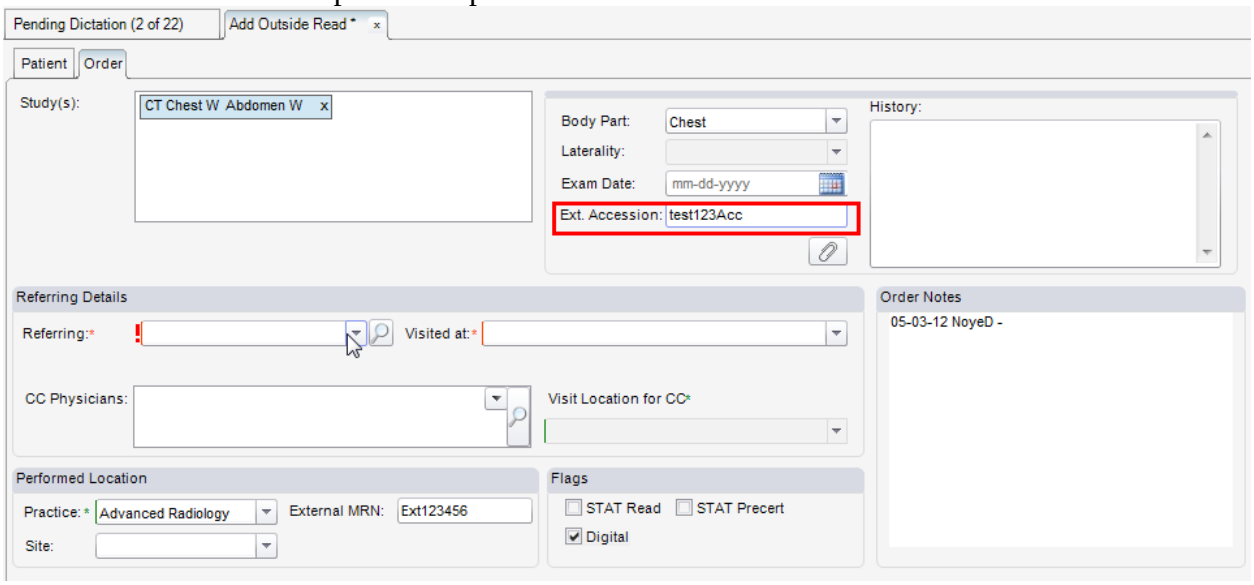



**Figure 4.21 – Add Outside Read window displaying external accession number field**

The external accession number is displayed in the Exam Details and Summary panes of the radiologists and transcription windows.

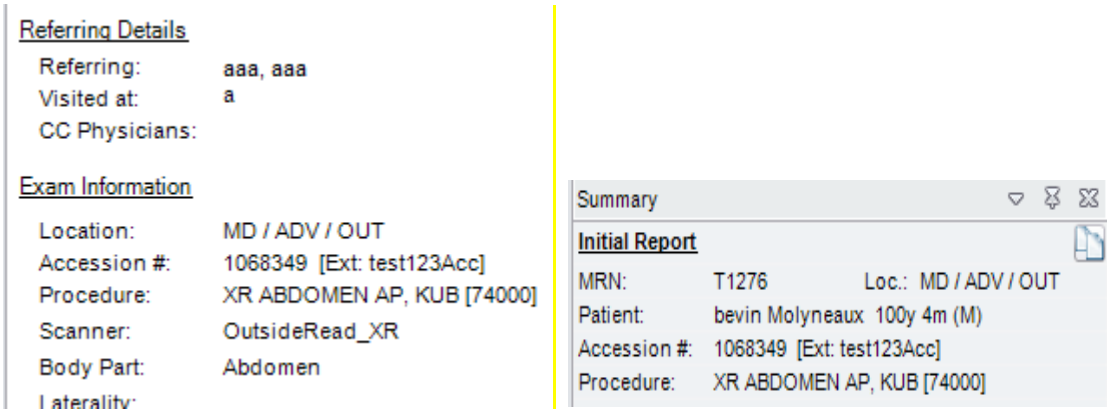



**Figure 4.22 Exam details and Summary Panes of Dictate window**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

The View/Edit data window also has the External Accession number in display on the Note/ Exam Times tab. It can also be edited on the Documentation tab.

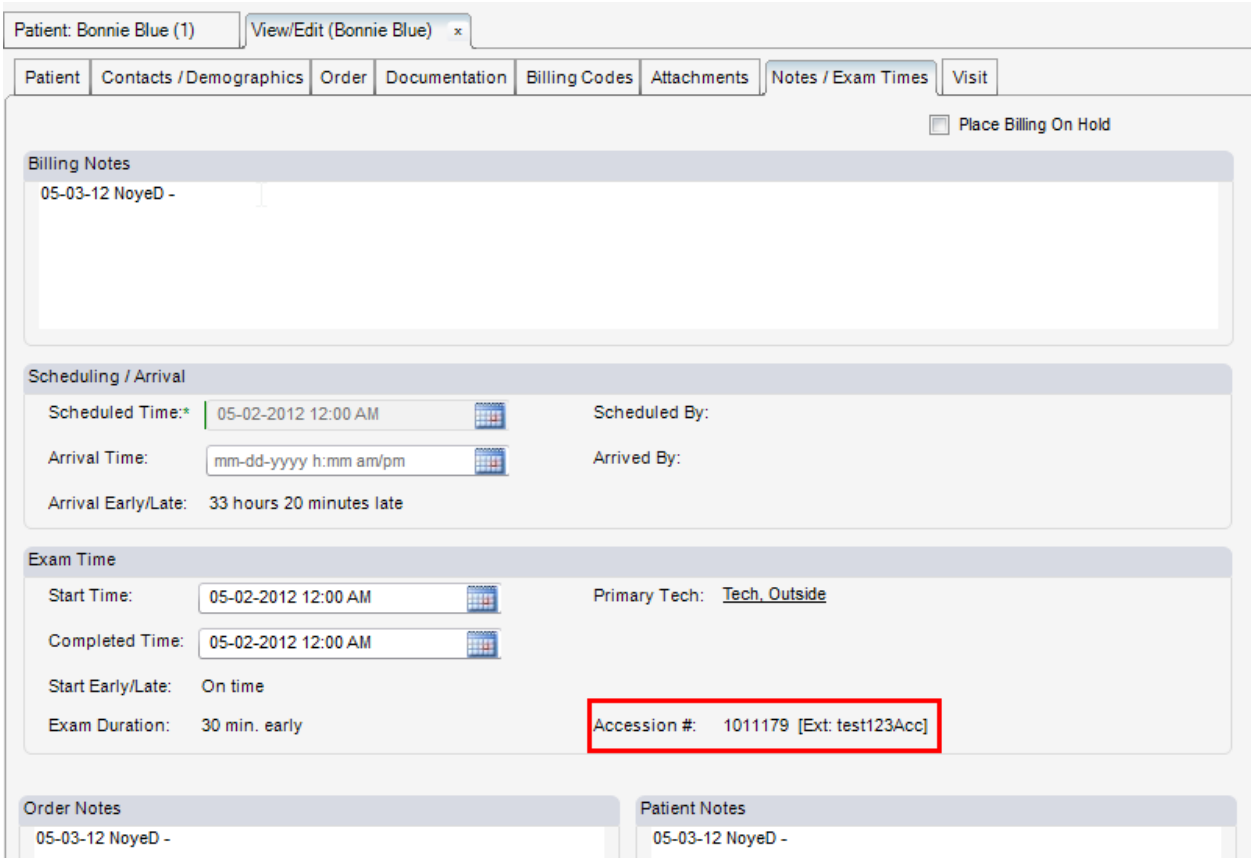



**Figure 4.23 – External Accession number on the View/Edit window**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

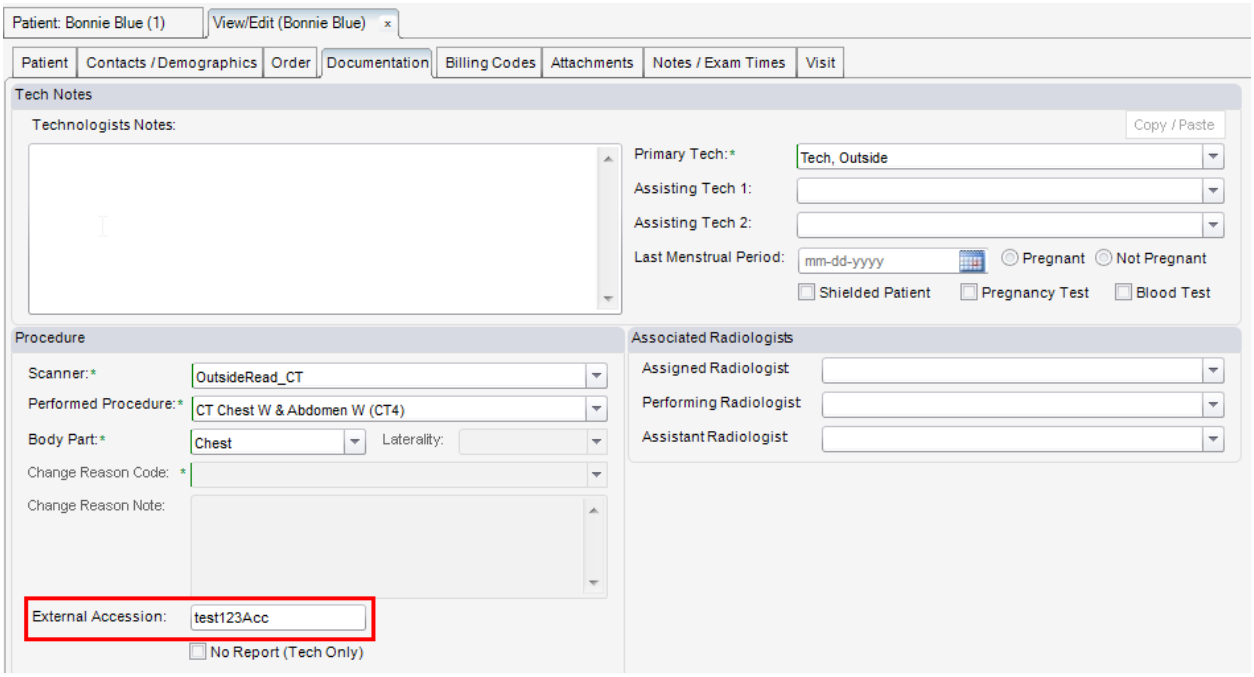



**Figure 4.24 – Ability to edit the External Accession number**

## 3. External MRN:

An External MRN can also be added in the Add Outside Read data window. Located on the Order tab, the External MRN field is a free form text field that will allow users to input and save an external MRN for this patient.

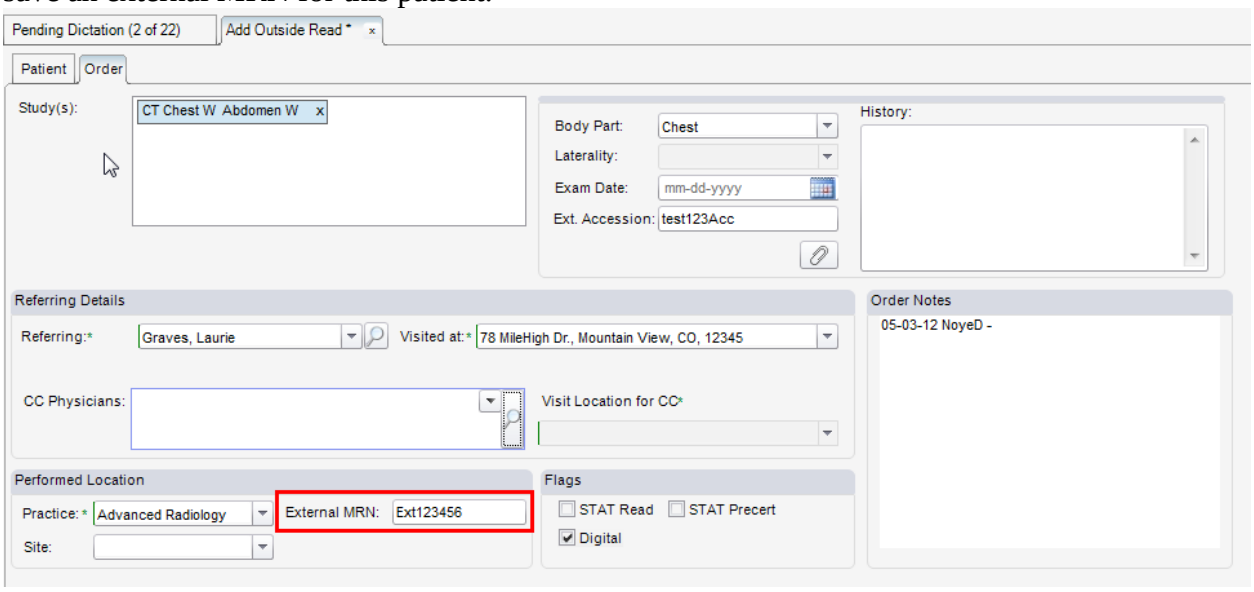



**Figure 4.25 – External MRN field on Add Outside Read window**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

Submiting an outside read with an external MRN also creates a second patient record with that patient_id/MRN with the issuer_of_patient_id of 'outside_<site_code>'. This is so we can locate the patient via the alternate MRN which will be displayed on the report.

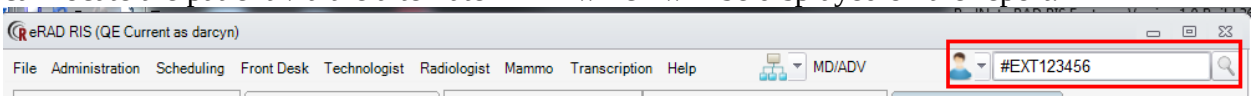



**Figure 4.26 – Searching for external MRN**

A new section has been added on the main patient tab to display the alternate MRN(s) for a patient. If the study that is open was an outside read with an alternate MRN for reporting than that MRN will show in bold if that is the MRN that for the report.

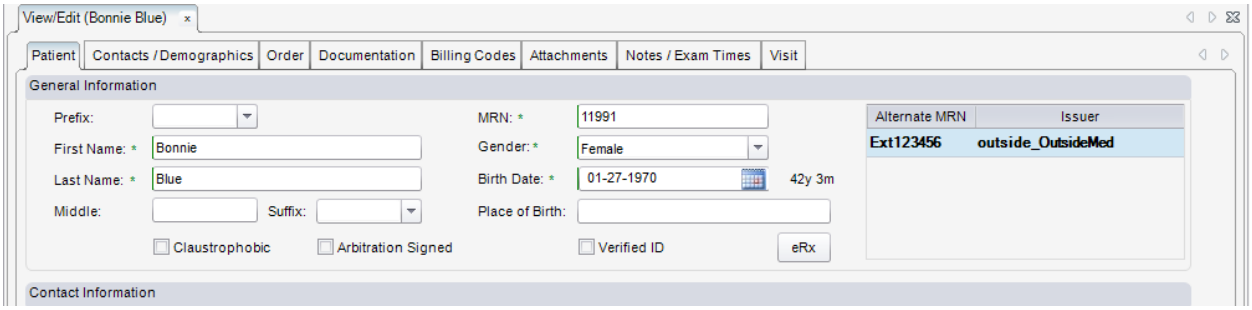



**Figure 4.27 – View/Edit showing Alternate MRN**

When scheduling a new appointment for this patient, the alternate MRN will display. Because this is a new order but you will notice that it is not bolded.

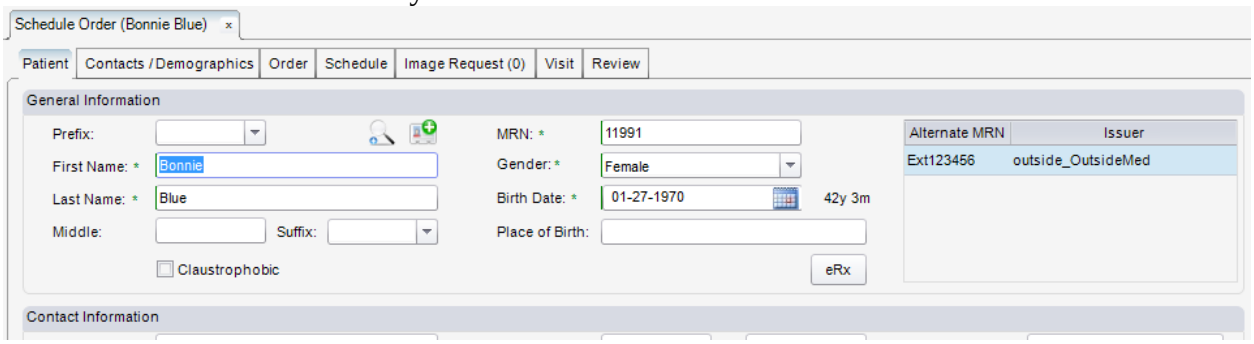



**Figure 4.28 – New appointment showing alternate MRN**

The alternate MRN may be edited in the View/Edit window on the order tab.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

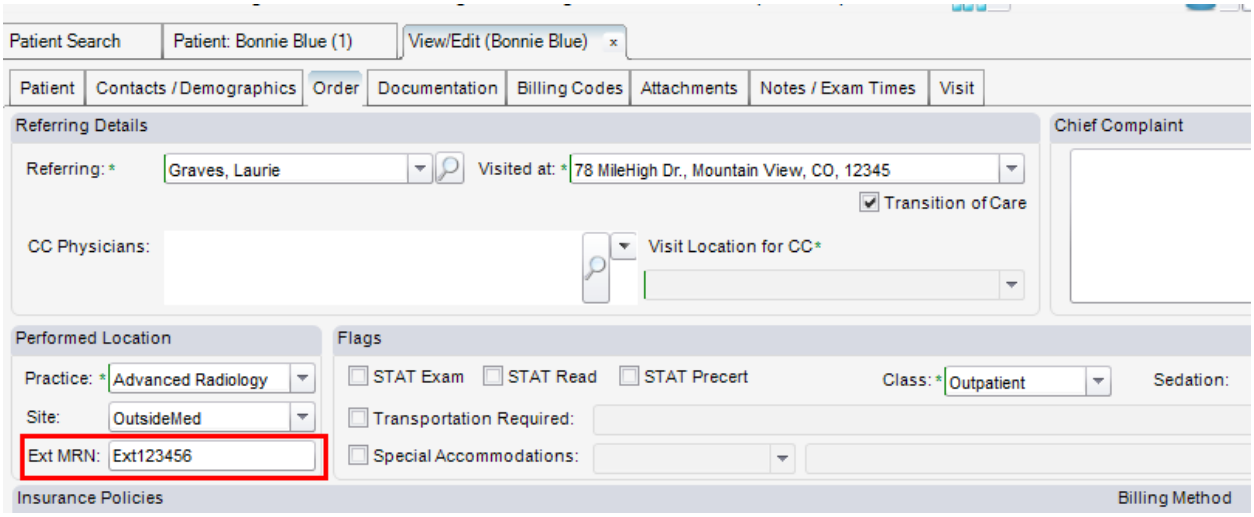



**Figure 4.30 – Ext MRN field in View/Edit window**

4. **History Box:**

On the Order tab, the History box replaces the Tech Notes box. In fact the text box itself is the same, but the label of the box has changed.

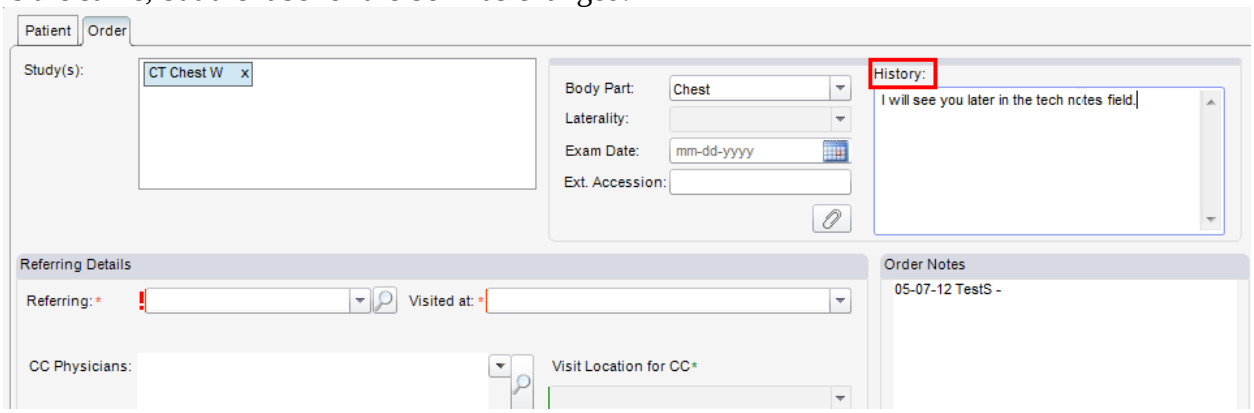



**Figure 4.31 – History text box in Add Outside Read window**

Text entered in the History box will be displayed in the Tech Notes box in View/Edit window and Billing Exception window.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

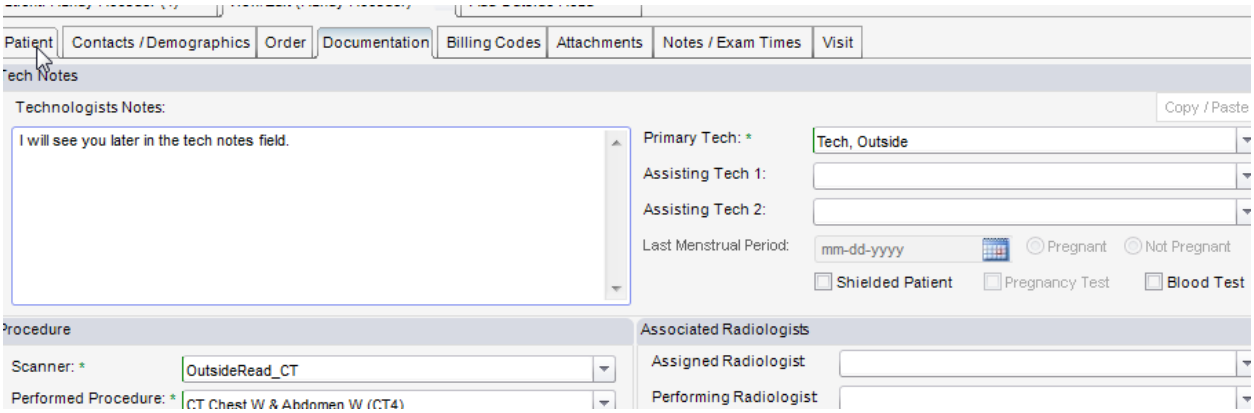



**Figure 4.32 – Text captured in History box appears in the Tech Notes field**

5. **Chief Complaint:**
   The chief complaint field has been removed from the Add Outside Read window. To fill in the space where the chief complaint was shown, the order notes was resized and moved into the empty space. This had a nice effect on the screen and freed up much needed space for outside reads that require insurance information.

6. **Patient Tab Changes:**
   The Field Place of Birth has been removed, as has the Claustrophobic and Verified ID check boxes. The eRx button for ePrescribe does not appear. All of these fields / buttons were located in the upper right of the Add Outside Read window. This space is now for the display of the Alternate MRN

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

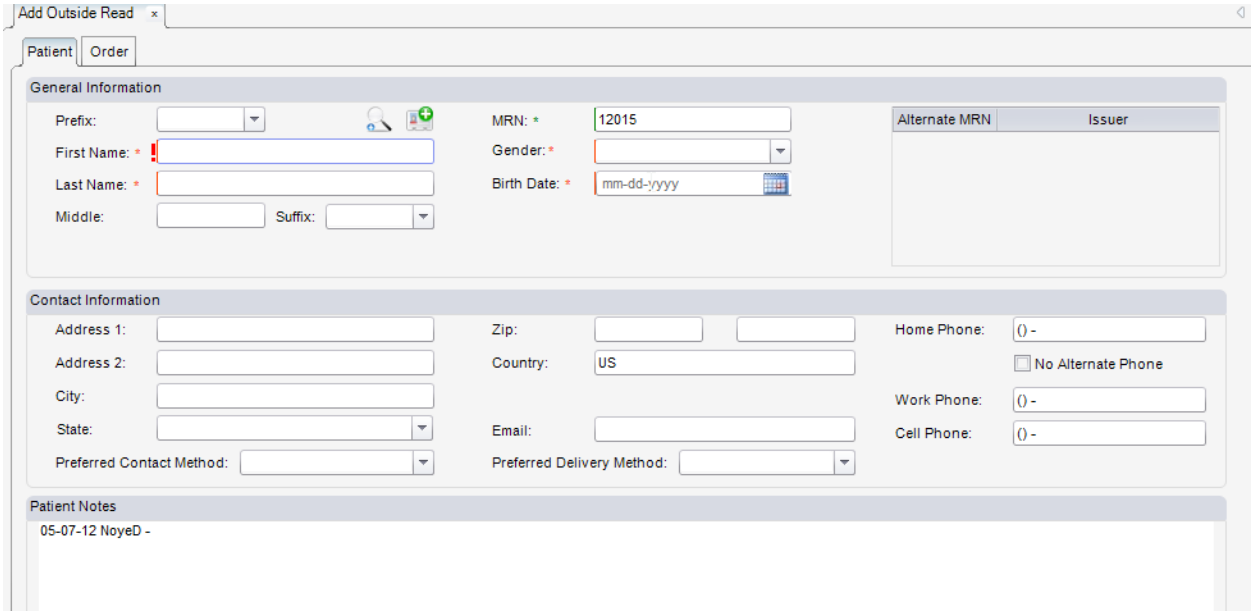



**Figure 4.33 – Add Outside Read data window**

The Patient Origin data pane has also been removed. The patient note pane was expanded to occupy the page real estate.

7. **Site Filtering:**

Finally, we are now filtering practices based on the practices assigned to a user. In addition, a practice will only be displayed in the practice selection if that practice has an outside read site.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Self-Pay Carrier

In previous builds a study could be flagged as self-pay if the patient did not have an insurance carrier. This created an issue with the billing work flow as insurance was a required step.

In build 36 we have added the ability to assign self-pay methods carrier codes which will be used as the insurance required.

The Carrier lookup table has a new column called "Self Pay Flag" added to specify if the carrier is for self-pay.

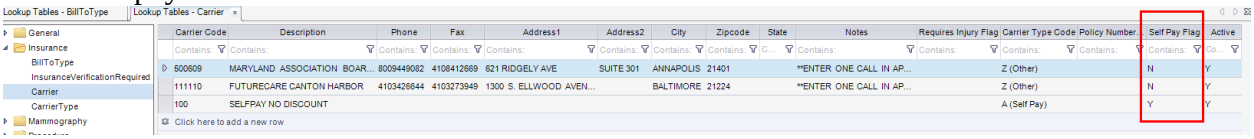



**Figure 4.34 – Carrier lookup displaying new column "Self Pay Flag"**

The Bill to Type lookup table also has a new column "Carrier Code" which allows for the self-pay carrier code to be specified for the Bill to Type Code.

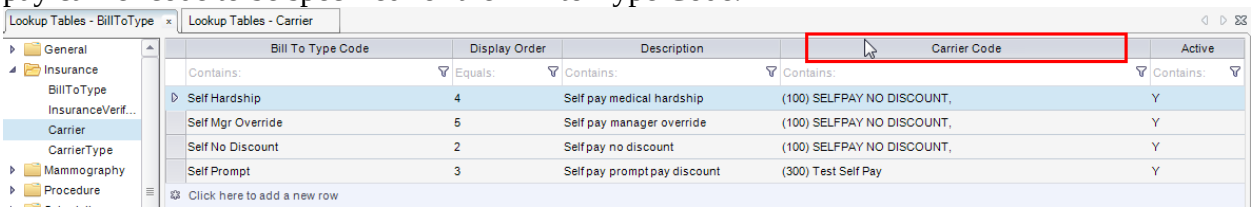



**Figure 4.35 – Bill to Type lookup displaying new column "Carrier Code"**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Mammo Diagnostic Reporting Window Features

It was desired to have data panels with new properties specifically for the Mammography reporting radiologist. We felt these panels were optimal for other users as well. Although we have them initially associated with Mammography reporting, some of these features will be available for all reporting users.

By default, the windows still load in their themed (grey) look. This was done to prevent shock to any existing radiologists before the mammo features are fully in place.

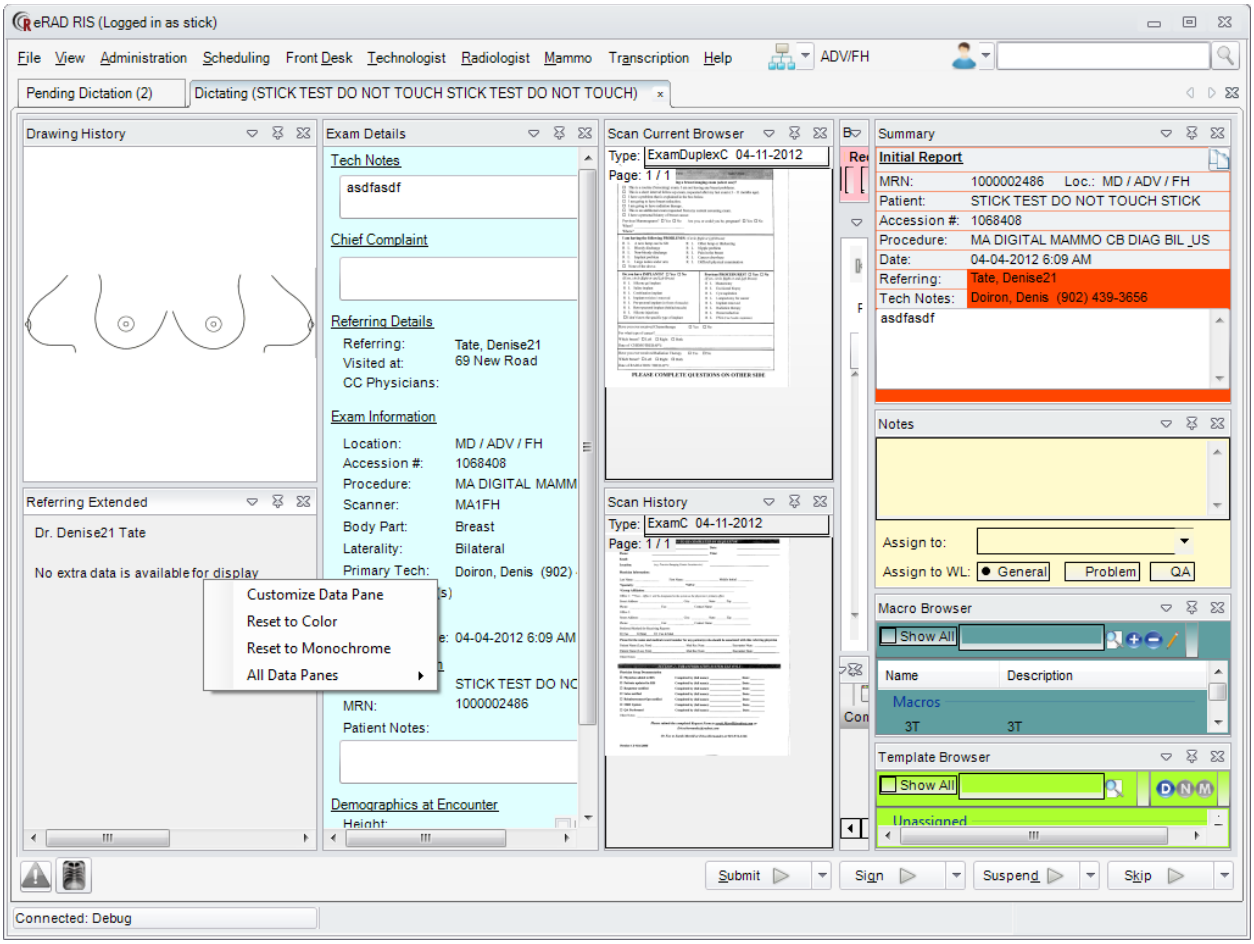



**Figure 4.36 – Reporting window showing background and text colors and context menu**

A new Class RToolWindow was created that maintains a set of defaults colours, for both the themed (ie, mostly grey), and pastel representation of mammo window. Each RToolWindow

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

now has a right-click context menu controlled with an access string (menu.CustomizeDataPanes) with options for:

- Customize window – allows the user to set foreground and background colors on each data pane.
- Reset to Color - initializes the window with the default pastel colour assigned to it.
- Reset to Monochrome - set the color to the default monochrome scheme
- All Data Panes – Contains a sub menu
    - Show/Hide Titlebars – will show or hide the title bars on each tool window
    - Reset to Color - initializes all the panes with the default pastel colour assigned to it
    - Reset to Monochrome - set the color of all panes to the default monochrome scheme

Also added was the extended data glyph. This new feature has another tool window that can be associated with an existing tool window. The example that has been coded is the referring physician window, where only a minimal amount of data is visible by default, but the extended data window features supplemental information

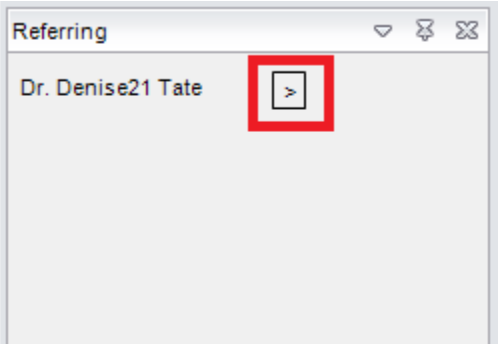



**Figure 4.37 – Extended data glyph button**

When the extended data glyph is hovered over, an additional window is opened as a floating window at the mouse location. This new window is just like any other tool window, so it can be docked into the layout as well.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Surgeon as Person Type

When adding/editing a person through the Personnel lookup editor there is now a Surgeon checkbox available.

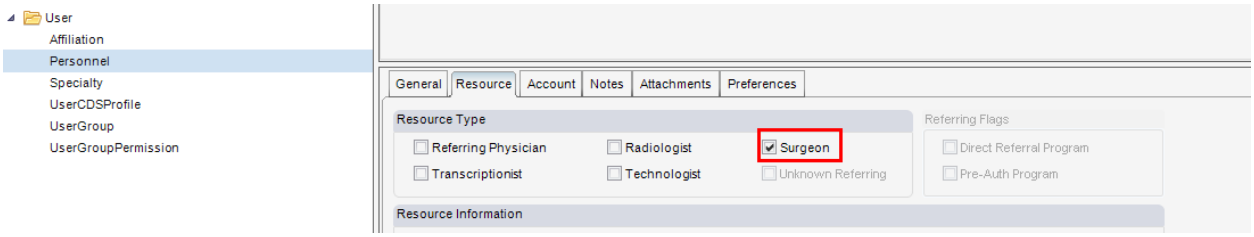



**Figure 4.38 – Surgeon flag in Personnel editor**

The Surgeon can only be searched for and used in the "Send To" Report feature. A user flagged as a surgeon will not return in the results for referring search. This includes the "Performing Surgeon" field on the Mammo Biopsy window (referring search only).

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Bring RIS to Front

Bring RIS to Front is a new available option that can be mapped to a function key, The EOL button, Instr button or the trigger on the underside of the of the Philips Speechmike.

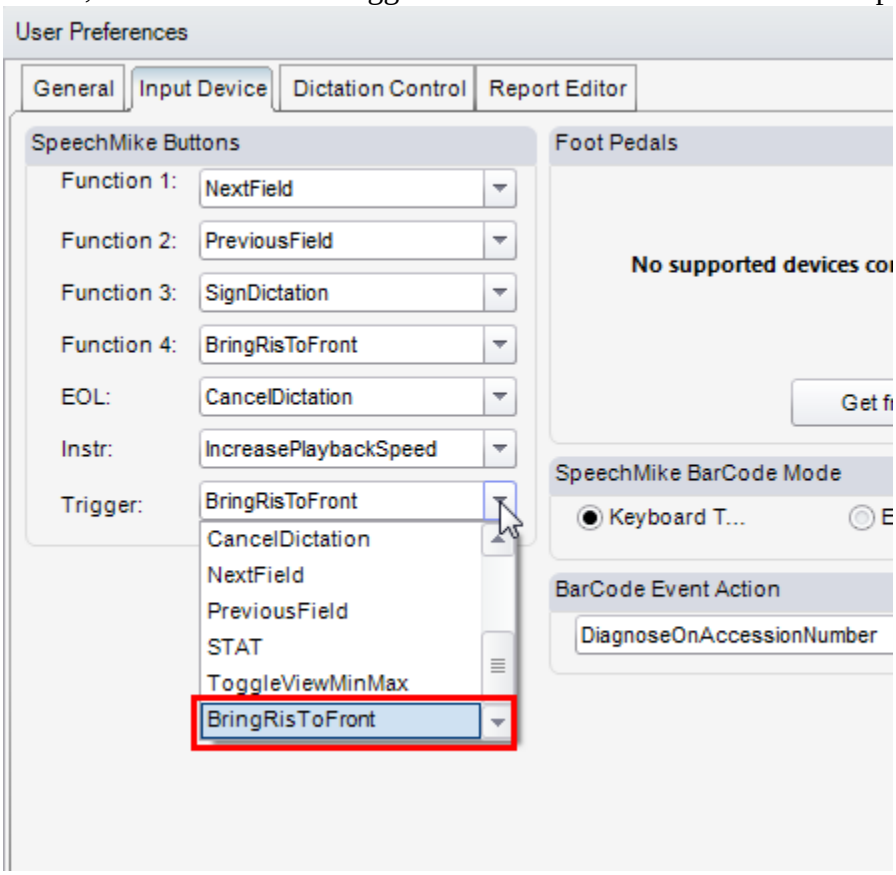



**Figure 4.39 – User Preference SpeechMike button action for BringRisToFront**

If the RIS is hidden behind another application, such as PACS, the user can select the button programed for BringRisToFront and the RIS will appear in the foreground.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting - Easy Access to Macro Editor

In previous builds the macro editor had to be accessed via Administration menu > Configure > Macro lookup table or from within the diagnose window. In build 36 the macro editor can now also be accessed from the Radiologist menu.

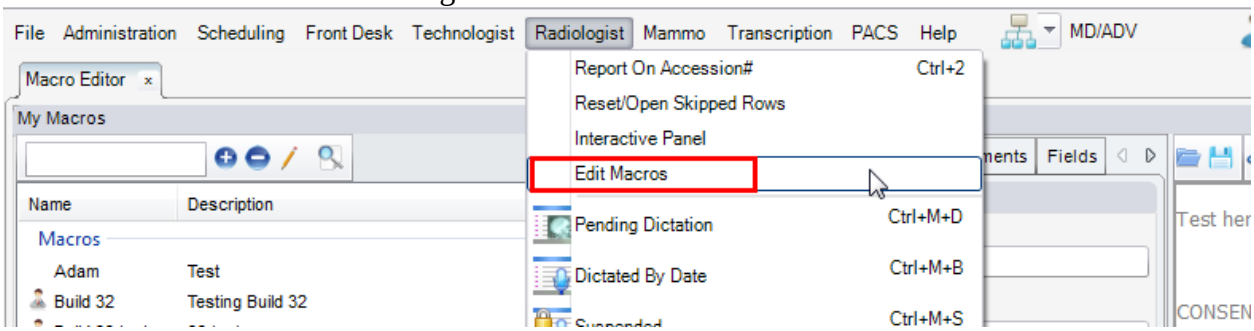



**Figure 4.40 – Macro Editor accessed from the Radiologist menu**

The same access string permissions are required as with previous macro editor access. The Editor will open as a new data window tab. The Macro's displayed on the left are those assigned to the logged in user. This is biggest difference as how the editor is loaded. When accessed from the Radiologist menu, the editor loads those macros assigned to the user. When the editor is accessed from within the dictate window is loads based on the procedure code.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

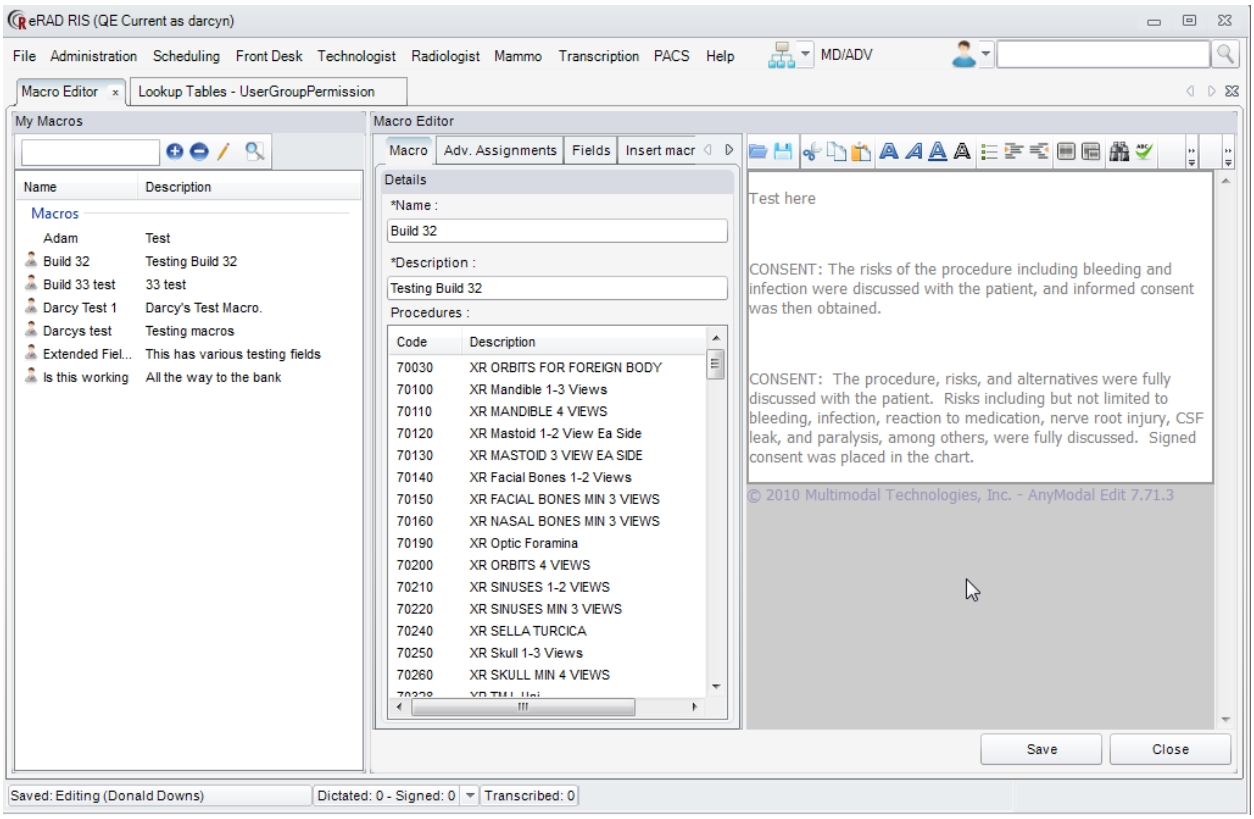



**Figure 4.41 – Macro Editor from Radiologist menu**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Indicate Reporting Mode

Users need to know what mode the report was created with (Interactive or Batch). This is very important to the medical transcriptionists as it changes their editing functions.

In build 36, the reporting tab within the report editor (dictate, create/edit report, sign report windows).

If the report was created using Batch Dictation the report tab will display Batch Report

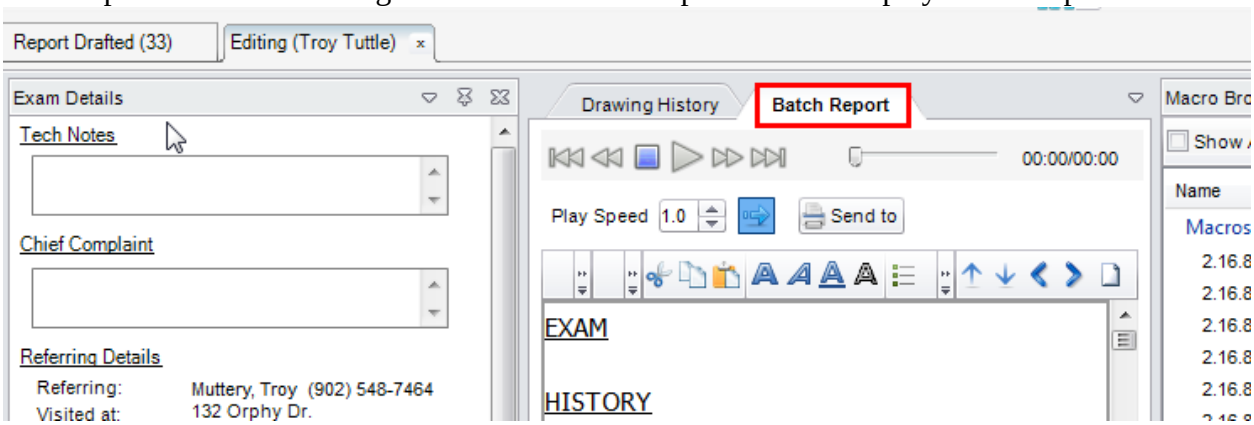



**Figure 4.42 – Editor showing report created with Batch dcitation**

If the report was created using Interactive Dictation the report tab will display Interactive Report

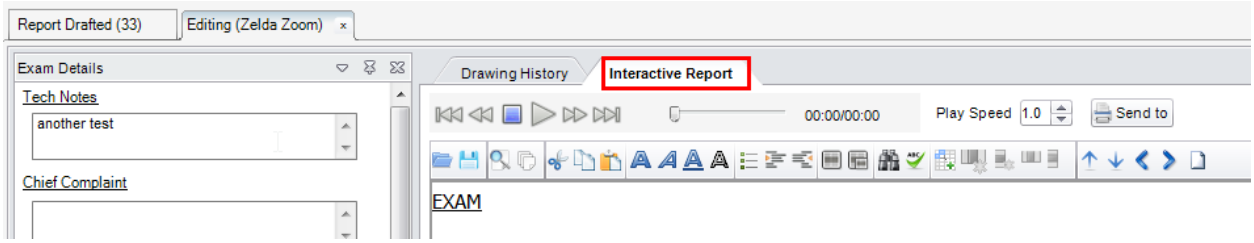



**Figure 4.43 – Editor showing report created with Interactive dictation**

If for some reason the report was not dictated using batch or interactive dictations, the tab will read “Report” as it did in the past.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Patient History Apply Filtered Views

Work lists such as Pending Dictation, Reception, Reports Drafted, etc… have the ability to create custom views to the work list. The list can be sorted, filtered, columns moved or hidden as saved as a view or default view for the user or for the group. The filtering of a list has been added to the Patient History data pane within the Reporting window.

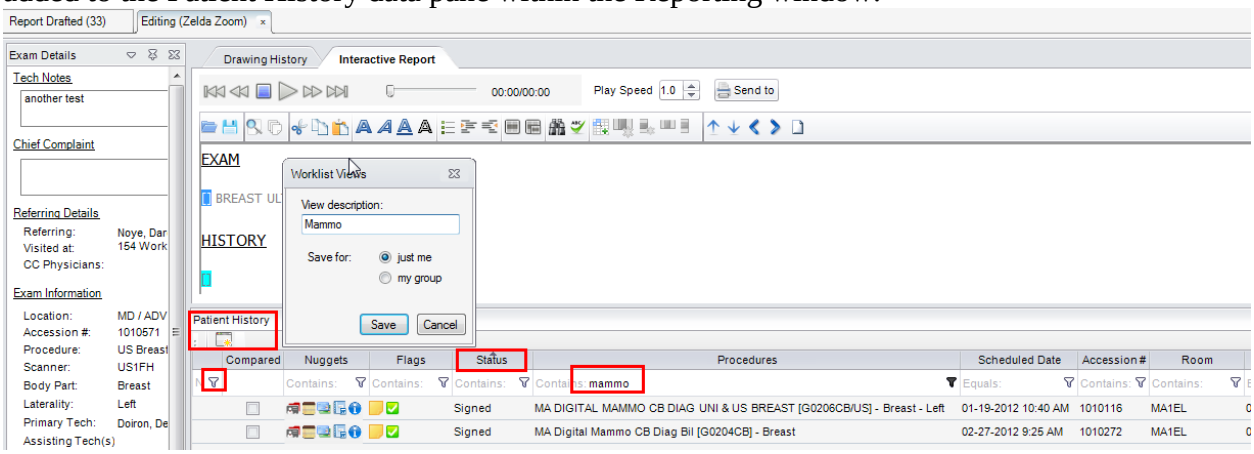



**Figure 4.44 – Creating custom view on patient history data pane in reporting window**

In the figure above, a custom view for mammo exams is being created. The procedure column is filtered on "Mammo" and the status column is sorted descending.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Patient History Mark Priors

The patient history control has also seen another enhancement in build 36. A new column titled "Compared" has been added on the left side of the control. The column contains a check box for each row in the list.

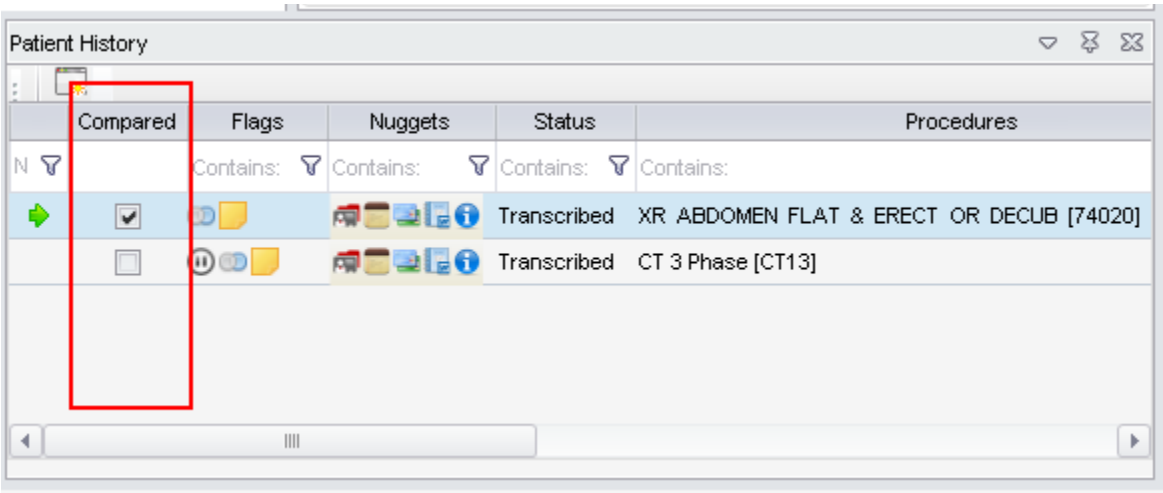



**Figure 4.45 – Patient History displaying new "compared" column**

When the diagnostic screen is opened the working radiologist is able to make any applicable changes to relevant priors, by clicking the checkbox on study history row to mark a study as a relevant prior. Marked relevant priors can be unchecked (removed) on the fly as well by un-checking a row. When the radiologist saves his/her work in the Diagnostic screen by clicking save, completing a dictation, signing, etc. The relevant prior's selection will be automatically saved.

**NOTE: It must be noted that because the row has a check in the compared column, this does not initiate a call to PACS to load the images, this is simply a visual marker to display the prior.**

Another part to this feature and enhancement to the Patient History control is the ability to display the current study in the in control or to omit it. This is controlled by a user preference. Looking at the figure above, the reporting window is opened and the current study is displayed and automatically has a check mark in the Compared column.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

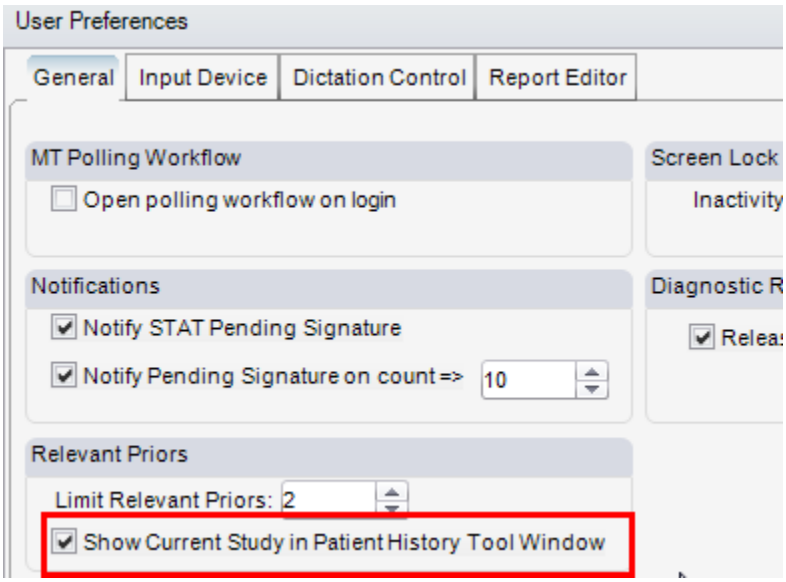



**Figure 4.46 – User preference "Show Current Study in Patient History Tool Window"**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting - Preview Report Templates

Added in build 36 is the ability to view a template or document model. Prior to this version the radiologist would have to load the template into the editor in order to see the layout/contents.

From the report editor window (Dictate window) on the Template Browser data pane a new ICON and context menu options have been added.

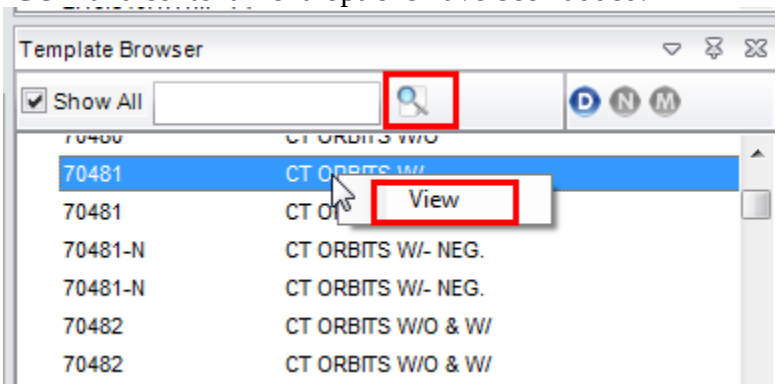



**Figure 4.47 – Access to view report templates and document models**

Highlighting the desired template and selecting the View Icon or the context menu option of View will open a new window displaying the template or document model.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting - Viewing Current Study and Prior Study Attachments

Two new tool windows were created that are accessible to Radiologists through the "View" menu → "Attachments" and "Attachment History".

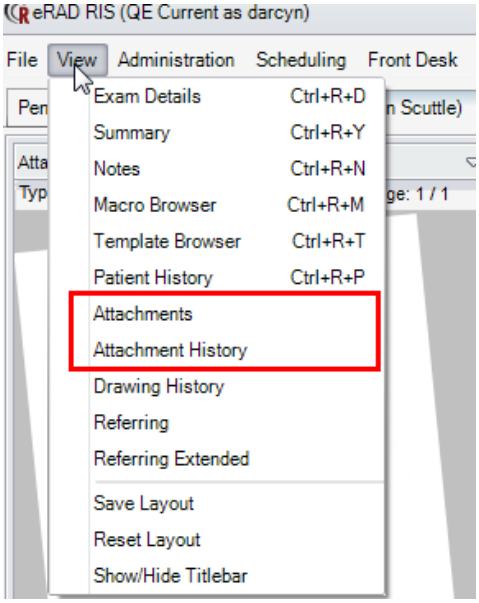



**Figure 4.48 – View menu displaying Attachments and Attachment History menu options**

"Attachments" Tool window → will dynamically display attachments (scanned or imported documents) for the current study radiologist is working on, in the diagnostic screen. "Attachment History" tool window → will dynamically display attachments (scanned or imported documents) for any study that is clicked on (highlighted) in the "Patient History" window.

Both windows, for historic or current study will display relevant attachments according to the user's preferences for displaying attachments. All usual attachment viewer tools and views are available in both tool windows by right clicking on the attachment.

**Attachment Navigation Enhancements:**

- Regardless of the view mode: (full page, page width, or original size) → user can click on the attachment, then use the mouse wheel to scroll to the end of the page, continued scrolling will advance user to next page. Individual pages can also be scrolled if needed via scroll bar. This functionality now applies to all attachment controls in other parts of the application ex. (Document Data Nugget)

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

- Only inside the "Attachments" and "Attachment History" the action of scrolling the mouse wheel through pages → once the last page of a document is reached the viewer will load the next document. This allows the user to scroll through all available documents and pages dynamically.
- Inside the "Attachment History" and "Attachment", in the top right hand corner of the screen document type is displayed, with a drop down menu. Where a user can select a different document type to jump to a different document in the viewer.
- As user uses the mouse wheel to scroll through different pages of the attachments loaded in the viewer in the top right hand corner page count will be displayed.

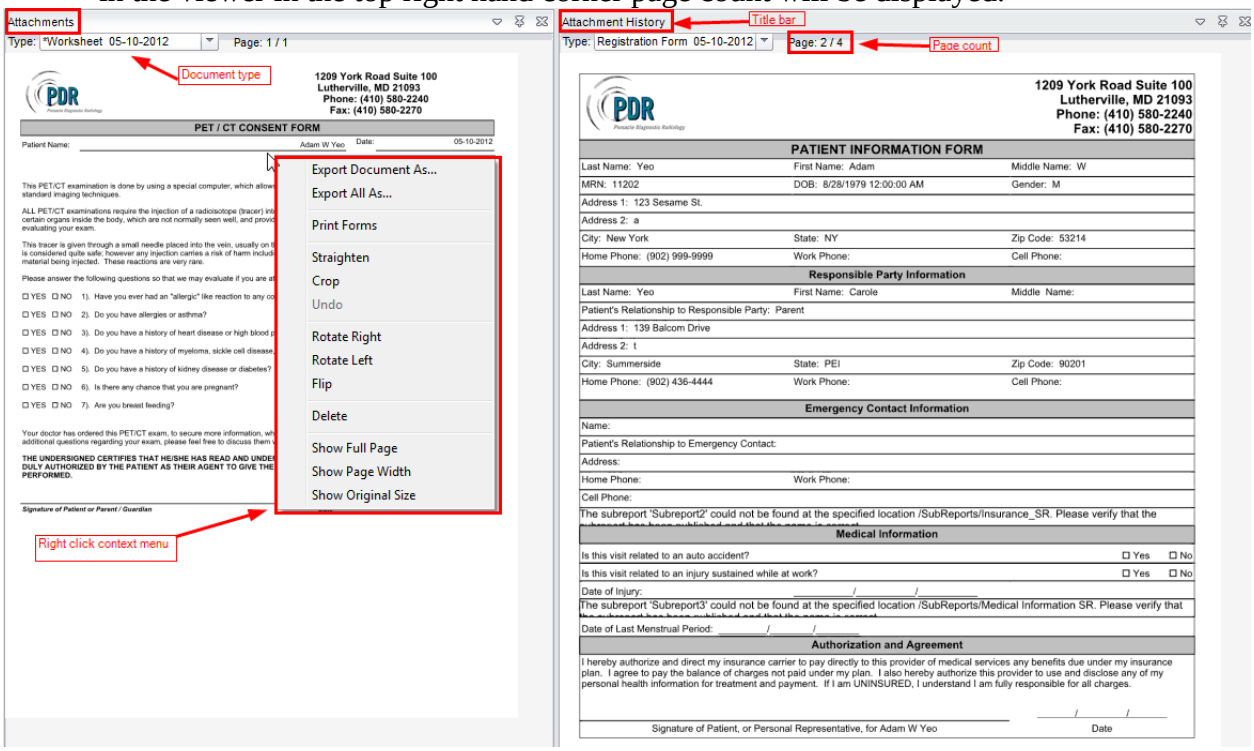



**Figure 4.49 – Example of attachments and attachment history tool window**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Signed by date Work List for Administrator(s)

A new daily work list "All Signed by Date" has been added under the Radiologist menu. Added for the admin role, this work list contains all signed reports for the date selected.

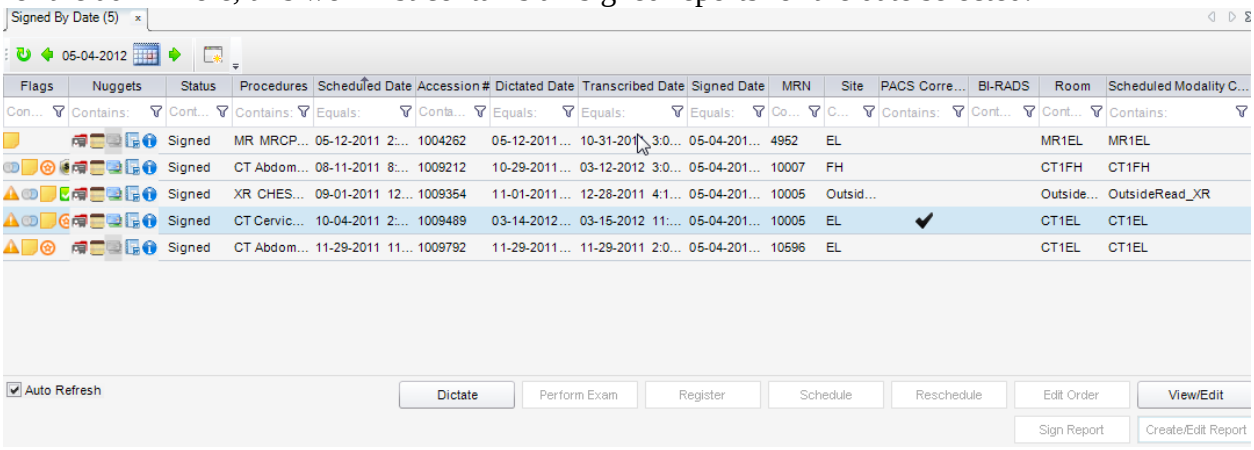



**Figure 4.50 – Signed by date work list.**

This work list takes context menus and buttons from patient mode, but in this case will display all studies signed by date. Just like other by date work lists the user will have the ability to navigate to previous day/next day, or pick a day from a calendar.

Access to the work list is controlled by Access string = `WL.Rad.SignedFilteredByDate`

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Tables in Reports

The ability to add table(s) to reports has been added in build 36. There is a limited set of functionality that is available from the new toolbar buttons and/or context menu options.

In the figure below starting from the left the toolbar buttons are:

- Insert/Delete table
- Insert Column
- Insert Row
- Delete Column
- Delete Row

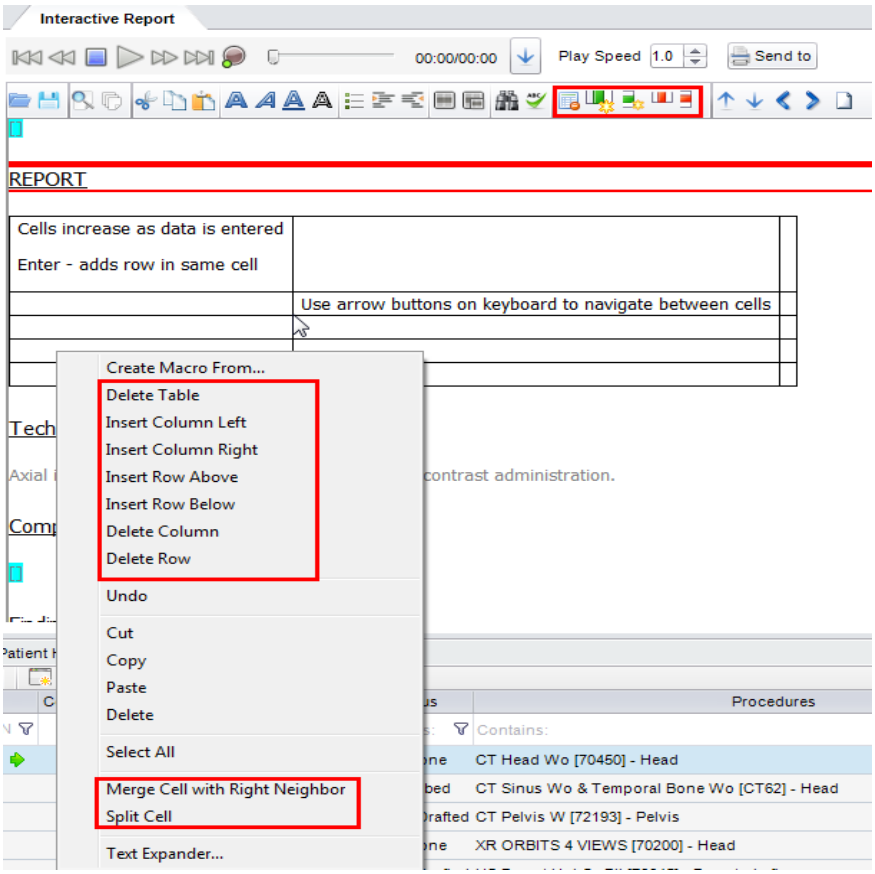



**Figure 4.51 – Adding table to report and available options**

The context menu in the above figure is displayed from a right click within the table. If focus is in another area of the report the context menu will have the option to Insert Table.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Template Browser Buttons for Default, Normal and My Normal

In the reporting window, buttons have been added to the Template Browser for loading report templates. Looking at the figure below the button (D) is for the Default Template, (N) is Normal Report and (M) is for My Normal.

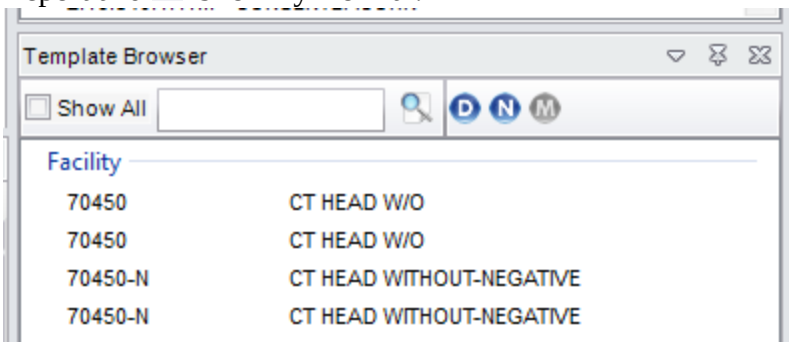



**Figure 4.52 – Reporting window Template Browser buttons.**

If the buttons is colored blue, this indicates there is a template available for the procedure. If the button is grey (such as the M), this indicates the type of template is not available for the procedure.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Yellow Sticker Support

There is an existing application that is used in the field called Yellow Sticker. This application need to know when a radiologist opens an exam to dictate or is dictating a particular case. Yellow Sticker also needs the ability to update a notes field in the system. This notes field can then be viewed by users.

This has been implemented in build 36 and is controlled via a new user preference "Write XML Study Data". This new option is in the form of a check box and when checked will enable the File Path text box. When not checked the text box will be disabled.

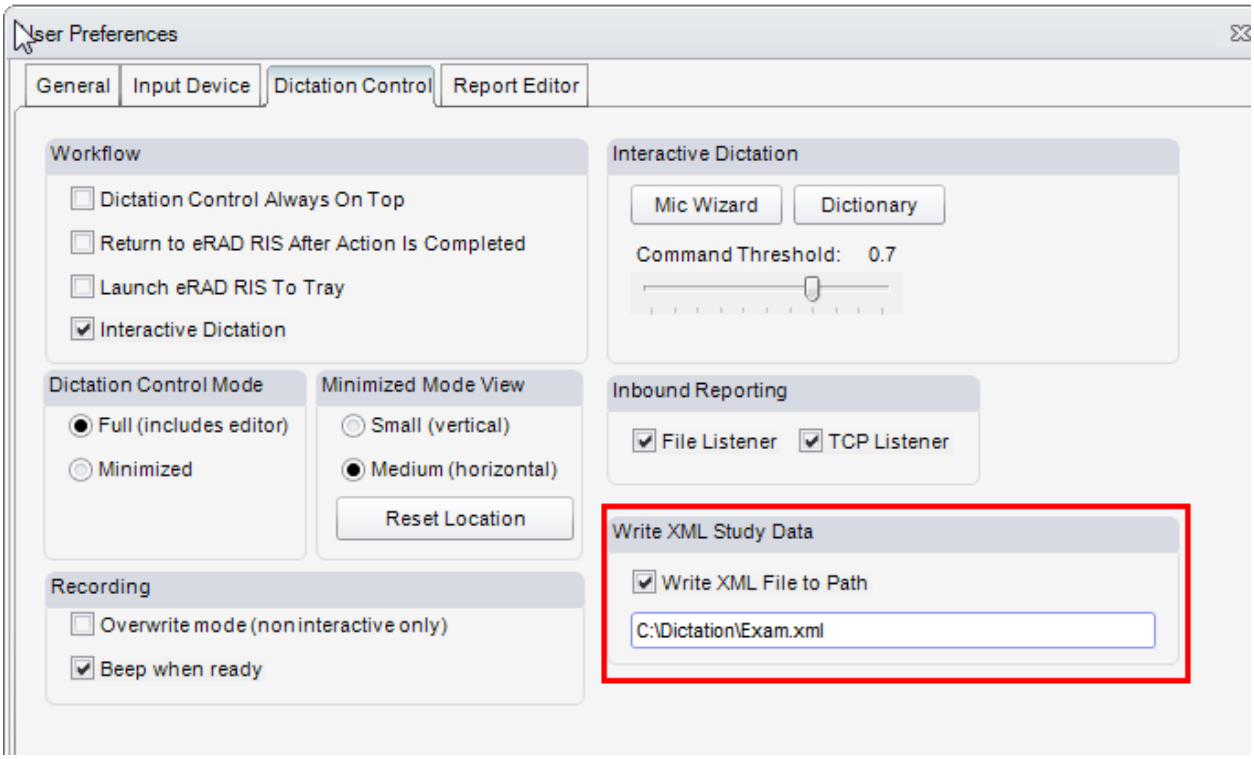



**Figure 4.53 – User preference window displaying new preference "Write XML Study Data"**

The default value for the path is "`C:\Dictation\Exam.xml`". This value can be set to any valid path and file combination. Note that if the path doesn't exist the system will attempt to create it upon the first open of a study for dictation.

Each time a dictation screen is opened or focused we write an xml file containing the required fields to the specified directory.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

Here is the XML that will be created by the RIS when a study is opened or, in the case of multiple studies being open, focused. We do not delete the file but overwrite as a new one is opened or focused.

```
<YellowStickerData xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns:xsd="http://www.w3.org/2001/XMLSchema">
<Accession>1067158</Accession>
 <PatientName>Cynthia7 Shields</PatientName>
 <DOB>2/28/1960</DOB>
 <StudyDate>1/19/2012 12:57:54 PM +00:00</StudyDate>
 <MRN>T.366</MRN>
</YellowStickerData>
```

Also the ability to update the notes field via the Yellow Sticker application has been added too. These notes are attached to the existing order notes. It prepends to the existing notes.

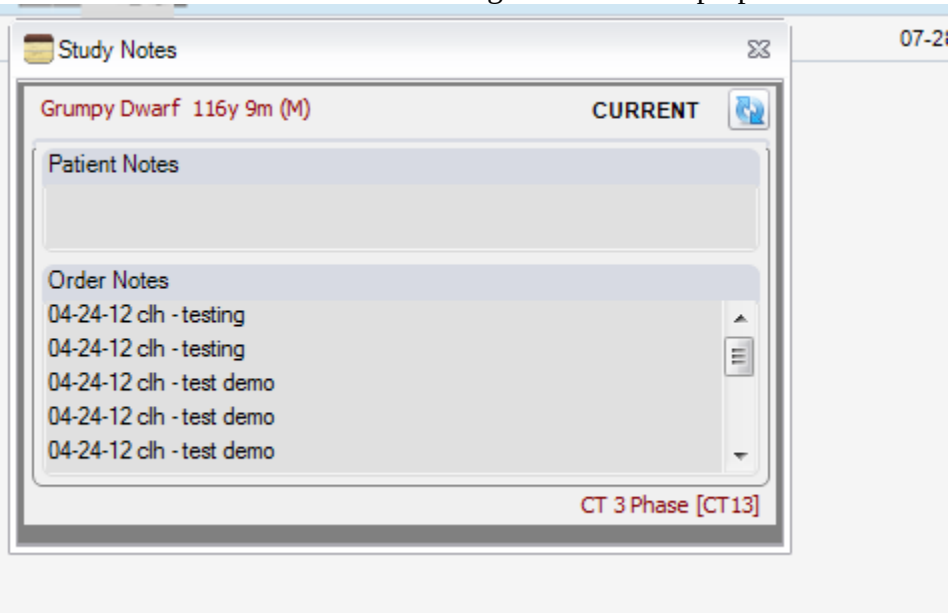



**Figure 4.54 – Study Notes**

To set the notes the calling application should POST to the http://[servername]:9002/api/notes/ with values for accession number, initials, and notes. The accession number will determine which order to attach the notes field.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 5. Resolved Defects

Bugs Suggested Features and Support Issues resolved in build 1.36. The extract is taken from Redmine bug tracking system and only displays defects resolved in 1.36.

| # | Tracker | Priority | Subject | Category | Found Version |
|---|---|---|---|---|---|
| 1141 | Bug | Urgent | Backend Printing jobs reporting Error | Web Services/DB | 1.35 |
| 1143 | Bug | High | Fax/Print jobs failing with missing dll error | Web Services/DB | 1.35 |
| 1102 | Bug | High | CDS Threads pinning CPU in Balitmore Sandbox environment | Web Services/DB | 1.35 |
| 1063 | Bug | High | New patient button on patient demographics screen. | Thick Client GUI | 1.35 |
| 1265 | Bug | Normal | Imaging Center Dashboard | Mgt Reports | 1.35 |
| 1264 | Bug | Normal | Transcription Dashboard | Mgt Reports | 1.35 |
| 1207 | Bug | Normal | Transcription Dashboard | Mgt Reports | 1.35 |
| 1173 | Bug | Normal | personKeyNotFound in summary panel | Thick Client GUI | 1.35 |
| 1167 | Bug | Normal | PushSignature service causes an unwanted addendum | Web Services/DB | 1.35 |
| 1156 | Bug | Normal | error on getdata/displaydata in tech | Thick Client GUI | 1.35 |
| 1148 | Bug | Normal | Check - in Arrive early and cancel one procedure still appears in Check In window | Thick Client GUI | 1.35 |
| 1144 | Bug | Normal | Document Distribution - Fax number not auto completed when referring selected that has Fax as delivery | Thick Client GUI | 1.35 |
| 1137 | Bug | Normal | Daily Schedule Report | Mgt Reports | 1.35 |
| 1136 | Bug | Normal | After getting message for not paper in scanner second attempt will though error | Thick Client GUI | 1.35 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | | |
|---|---|---|---|---|---|
| 1135 | Bug | Normal | Change document type from Attachment viewer includes personal scan type | Thick Client GUI | 1.35 |
| 1134 | Bug | Normal | Scheduling study can require site be selected | Thick Client GUI | 1.35 |
| 1133 | Bug | Normal | Scan cannot be saved because of out of memory error | Thick Client GUI | 1.35 |
| 1132 | Bug | Normal | Clone user clones affiliation at the person level | Admin Tools | 1.35 |
| 1131 | Bug | Normal | Error on Access string WL.MT.GetJob set to none | Thick Client GUI | 1.35 |
| 1130 | Bug | Normal | Unable to use RIS after a cache corruption caused by a hardware failure. | Web Services/DB | 1.35 |
| 1127 | Bug | Normal | Patient Folder not updated to correct patient | Thick Client GUI | 1.35 |
| 1120 | Bug | Normal | Billing Exception occuring when they shouldn't | Thick Client GUI | 1.35 |
| 1119 | Bug | Normal | Post billing exception can return error | Thick Client GUI | 1.35 |
| 1114 | Bug | Normal | Room is not updated on work lists if changed during Perform Exam | Thick Client GUI | 1.35 |
| 1110 | Bug | Normal | Tooltip to create macro from selected text is misspelled | Thick Client GUI | 1.35 |
| 1109 | Bug | Normal | User preference > Interactive Dictation misspelling | Thick Client GUI | 1.35 |
| 1108 | Bug | Normal | When pasting an address into the Report Delivery address field only the first line is filled in | Thick Client GUI | 1.35 |
| 1107 | Bug | Normal | Address paste on personnel screen doesn't work | Thick Client GUI | 1.35 |
| 1087 | Bug | Normal | Unknown Reconciliation - Cannot edit order from this work list if the study is past ordersigned status | Thick Client GUI | 1.35 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | | |
|---|---|---|---|---|---|
| 1082 | Bug | Normal | Appointment Book "Interval" dropdown does not reflect displayed interval | Thick Client GUI | 1.35 |
| 1075 | Bug | Normal | patient notes and order notes not synchronizing in View/Edit | Thick Client GUI | 1.35 |
| 1074 | Bug | Normal | Location label not populated/recommendation codes not populating. | Thick Client GUI | 1.35 |
| 1072 | Bug | Normal | Graceful exception if new scheduled study deleted before saving | Thick Client GUI | 1.35 |
| 1067 | Bug | Normal | If you click Schedule button on the follow up screen after you have already scehduled the follow up you get an exception | Thick Client GUI | 1.35 |
| 1066 | Bug | Normal | Scheduling - able to schedule procedure to wrong room | Thick Client GUI | 1.35 |
| 1061 | Bug | Normal | Scheduling -- no study -- able to do room search ( runtime error) | Thick Client GUI | 1.35 |
| 1059 | Bug | Normal | Broken Lock on Re-Schedule Should Disable "Schedule Later" and "Cancel Study" Buttons | Thick Client GUI | 1.35 |
| 1053 | Bug | Normal | Mammo Callback can create order with duplicate procedure | Thick Client GUI | 1.35 |
| 1050 | Bug | Normal | An outgoing call cannot be made since the application is dispatching an input-synchronous call. (Exception from HRESULT: 0x8001010D (RPC_E_CANTCALLOUT_ININPUTSYNCCALL)) | Thick Client GUI | 1.35 |
| 1045 | Bug | Normal | Foreign Key Contraint error from New Appointment | Thick Client GUI | 1.35 |
| 1041 | Bug | Normal | Index was outside the boudns of the array. | Thick Client GUI | 1.35 |
| 1039 | Bug | Normal | Unable to post billing exception. Claim number is required when carrier doesn't have injury flag set if any data at all is entered in injury details | Thick Client GUI | 1.35 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | | |
|---|---|---|---|---|---|
| 1035 | Bug | Normal | Cannot insert duplicate key row in object 'dbo.c_order_item' with unique index 'IX_c_order_item'. The duplicate key value is (23978, 1) | Thick Client GUI | 1.35 |
| 1019 | Bug | Normal | Rad - Macro Editor - Insert Macro ( Cast Error) | Thick Client GUI | 1.34 or 1.35 |
| 1017 | Bug | Normal | Invalid Scheduled Date Error when trying to complete a Tech where the room was closed after scheduling | Thick Client GUI | 1.35 |
| 1011 | Bug | Normal | Rad - Macro Editor -- Object Reference Runtime error | Thick Client GUI | 1.35 |
| 994 | Bug | Normal | When creating a patient, and user adds an attachment, there is no option to delete a row if entered incorrectly. | Thick Client GUI | 1.35 |
| 989 | Bug | Normal | Cannot update 'State' field in Patient | Thick Client GUI | 1.35 |
| 987 | Bug | Normal | Switch user from patient search | Thick Client GUI | 1.35 |
| 984 | Bug | Normal | When doing an "outside read" upon choosing performed location site, the insurance grid appears and some text is cut off. | Thick Client GUI | 1.35 |
| 981 | Bug | Normal | Data nugget and camel notation | Thick Client GUI | 1.35 |
| 970 | Bug | Normal | Schedule Order Patient search does not automatically highlight best available | Thick Client GUI | 1.35 |
| 969 | Bug | Normal | Add Outside Read Billing Method needs more real estate | Thick Client GUI | 1.35 |
| 962 | Bug | Normal | Unknown Referring: Clicking Add with no first name blows up | Admin Tools | 1.33 |
| 954 | Bug | Normal | Outside read - order_item_key not found | Thick Client GUI | 1.35 |
| 953 | Bug | Normal | Study field on procedure picker row (including outside read) is not marked as required | Thick Client GUI | 1.35 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | | |
|---|---|---|---|---|---|
| 952 | Bug | Normal | Schedulingt: Unable to find modality solution message only lists procedure code | Thick Client GUI | 1.34 |
| 951 | Bug | Normal | PAtient Folder Context Menu for a "Scheduled" study is missing "Reschedule" | Thick Client GUI | 1.34 |
| 950 | Bug | Normal | Weight Restriction Warning has spelling errors | Thick Client GUI | 1.34 |
| 943 | Bug | Normal | Schedule Order Patient tab requests | Thick Client GUI | 1.34 |
| 942 | Bug | Normal | Patient/Order Notes does not follow characters being entered. | Thick Client GUI | 1.34 |
| 941 | Bug | Normal | Schedule Order - Phone number fields lose mask when entering to many extra numbers for extention | Thick Client GUI | 1.34 |
| 935 | Bug | Normal | Erron on launch "Value SendBringRisToFrontEvent is no longer a valid entry" | Thick Client GUI | 1.35 |
| 929 | Bug | Normal | User Group permissions difficult to add | Admin Tools | 1.34 |
| 924 | Bug | Normal | Add outside read on site that requires insurance, but insurance is not chosen, is not added to billing exception | Thick Client GUI | 1.34 |
| 923 | Bug | Normal | Image Request on Multi procedure order belonging to different orders throws error | Thick Client GUI | 1.34 |
| 922 | Bug | Normal | Error thrown attempting to create multi procedure schedule | Thick Client GUI | 1.34 |
| 916 | Bug | Normal | Adding UserGroupPermission with empty access string throws exception | Admin Tools | 1.34 |
| 911 | Bug | Normal | Adding a third study through registration behaves differently. | Thick Client GUI | 1.34 |
| 905 | Bug | Normal | Rescheduling an exam without selecting time returns un-informative error. | Thick Client GUI | 1.34 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | | |
|---|---|---|---|---|---|
| 904 | Bug | Normal | Rescheduling exam and choose Schedule later and the procedure is not retained | Thick Client GUI | 1.34 |
| 900 | Bug | Normal | Add multiple to UserGroupPermission throws exception | Admin Tools | 1.33 |
| 879 | Bug | Normal | If RIS in minimized with Dictate window open the application will not open to desktop | Thick Client GUI | 1.32 |
| 877 | Bug | Normal | Interactive user cannot dictate if Dictation Control Mode is minimized | Thick Client GUI | 1.32 |
| 811 | Bug | Normal | GUI will not open to full size | Thick Client GUI | 1.30 |
| 801 | Bug | Normal | Possible issue with date / time formats and Perform Exam data window | Thick Client GUI | 1.29 |
| 781 | Bug | Normal | Read Only permission still allows some actions | Admin Tools | 1.20 |
| 758 | Bug | Normal | Drug Allergy Type requires Display order to save | Admin Tools | 1.27 |
| 691 | Bug | Normal | Configure > Lookup Tables scroll bar not always present. | Admin Tools | 1.20 |
| 644 | Bug | Normal | Cannot close application if there is a data window open. | Thick Client GUI | 1.25 |
| 643 | Bug | Normal | Dictate window > Blank error is displayed and rRIS stops responding. | Thick Client GUI | 1.25 |
| 529 | Bug | Normal | Reschedule study search returning incorrect times | Thick Client GUI | 1.21 |
| 522 | Bug | Normal | Search for available times incomplete based on criteria | Thick Client GUI | 1.20 |
| 447 | Bug | Normal | Dictation - User is able to start dictating with SpeechMike when it is not the recording device | Thick Client GUI | 1.17 |
| 313 | Bug | Normal | Appointment Book - Out of memory exception | Thick Client GUI | 1.12 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | | |
|---|---|---|---|---|---|
| 105 | Bug | Normal | Worklist - Issue with large worklist and title bar | Thick Client GUI | 1.07 |
| 1124 | Bug | Low | Cannot read contents of list box | Thick Client GUI | 1.35 |
| 1121 | Bug | Low | Book Summary Error | Thick Client GUI | 1.35 |
| 1077 | Bug | Low | Scheduling - Calendar is too small = windows XP | Thick Client GUI | 1.35 |
| 1069 | Bug | Low | Personnel editor inconsistency | Thick Client GUI | 1.35 |
| 1065 | Bug | Low | Error saving user in personnel editor. | Thick Client GUI | 1.35 |
| 1064 | Bug | Low | Clicking Schedule Later on a procedure loses the laterality for the procedure | Thick Client GUI | 1.35 |
| 1044 | Bug | Low | New Patient with Canadian address throws 'Invalid Selection' validation | Thick Client GUI | 1.35 |
| 1038 | Bug | Low | Confirmation Dialog popups do not pop up on the same monitor as RIS ( always primary monitor) | Thick Client GUI | 1.35 |
| 1015 | Bug | Low | Personnel | Thick Client GUI | 1.35 |
| 1008 | Bug | Low | Pasting Address on Patient Screen does not populate state if US is already entered in Country field | Thick Client GUI | 1.35 |
| 995 | Bug | Low | Invisible tab | Thick Client GUI | 1.35 |
| 973 | Bug | Low | Issues adding multiple CC physicians | Thin Client GUI | 1.35 |
| 959 | Bug | Low | Edit Medical Access window title is incorrect | Thick Client GUI | 1.35 |
| 821 | Bug | Low | Newly added access strings are not easily found in UserGroup Lookup editor | Thick Client GUI | 1.30 |
| 685 | Bug | Low | Error When Exporting Table Data | Thick Client GUI | 1.35 |
| 321 | Bug | Low | DataSet Visualizer - Does not show for Studys and CC Physician | Thick Client GUI | 1.12 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 6. Known Limitations

The following are Bugs Suggested Features and Support Issues found in build 1.36. This build is the current QE build and testing is ongoing. The list may increase in size. This document will not be updated or re-released.

| # | Status | Subject | Found Version | Resolved Version |
|---|---|---|---|---|
| 1272 | New | Error trying to import image | 1.36 | |
| 1270 | New | View/Edit data window does not show billing codes | 1.36 | |
| 1269 | Resolved | Relevant priors do not open correctly when user preference to show current study in patient history is off | 1.36 | 1.37.11062 |
| 1257 | New | Signed by date WL access string not included in build | 1.36 | |
| 1249 | Resolved | Creating custom view on status column can crash RIS | 1.36 | |
| 1180 | New | Mammo follow up work lists > Scheduling from follow up does not always flag study as resoolved | 1.36 | |
| 1290 | New | Data nugget - Notes or Study Notes? | 1.36 | |
| 1289 | Resolved | Transcription - Perform Exam ( worklist does not show current study) | 1.36 | 1.37 |
| 1288 | Resolved | Template viewer title bar has incorrect title. | 1.36 | |
| 1287 | New | Carriers flagged as inactive cannt be found in search. | 1.36 | |
| 1286 | New | Status filtering on worklist - you have to filter by old status value, not the displayed value | 1.36 | |
| 1283 | Resolved | Nuggets shouldn't respond to right click | 1.36 | 1.37.11175 |
| 1282 | New | MT Polling > Studies from same order are not skipped when locked | 1.36 | |
| 1281 | New | Surgeon can be searched for to send report, but cannot be used to send report | 1.36 | |
| 1278 | New | Error accessing data windows resuming locked RIS application | 1.36 | |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 1273 | Resolved | Assign to Radiologist window closes if clicking to fast on srcoll bar action down | 1.36 | 1.37.11070 |
| 1268 | Resolved | Personnel > Cannot search for existing after deleting create new | 1.36 | fixed in 1.37.11062 |
| 1259 | New | Yellow Sticker - XML file is not updated when using skip function | 1.36 | |
| 1258 | New | Arriving multiple studies for one day, the Relation to Patient is not captured to the other studies | 1.36 | |
| 1253 | New | Questionnaire exception on "Context Menu" / "Close All" | 1.36 | |
| 1245 | New | Unable to cast System.DBNull to System.String | 1.36 | |
| 1242 | New | Null Reference on Payment control | 1.36 | |
| 1241 | New | Selecting BIRAD or Tissue density will show "..." in the associated box and the the value selected. | 1.36 | |
| 1240 | New | Buttons disappear from bottom of Patient folder on Maximize | 1.36 | |
| 1238 | New | Editiing patient and repeatedly getting "Status can not be empty" message on save | 1.36 | |
| 1235 | New | Select Search multiple times in Carrier search window will throw error. | 1.36 | |
| 1229 | QE Rejected | Modality closure issues | 1.36 | 1.36 |
| 1227 | New | Patient Folder Window --> Scheduled Date filter = object reference error | 1.36 | |
| 1221 | New | Drawing History color schemes cannot be reset | 1.36 | |
| 1220 | New | Insurance - Returns Object Reference Error | 1.36 | |
| 1219 | New | Unable to delete billing codes | 1.36 | |
| 1218 | New | Logging client side errors to the server logs the same consectutive error from the same work station | 1.36 | |
| 1217 | New | Drawing History will not open again after Reset Layout | 1.36 | |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 1215 | New | Rad - Dictate - Template Browser - runtime | 1.36 | |
| 1214 | New | From diagnose screen choosing Referring Extended from View Menu does not show pane | 1.36 | |
| 1213 | New | Rad - All Pending Signature Worklist --> Dictate --> Click Print Icon "Send to" = runtime | 1.36 | |
| 1202 | New | Registering studies early should pick current time | 1.36 | |
| 1198 | New | Scheduling - Edit Image request --> runtime NULL handling | 1.36 | |
| 1195 | QE Rejected | Rad - Dictate or Transcripion window.. Attachments and Attachment History views are missing | 1.36 | |
| 1192 | New | birthday bug -- cannot change birthdate forward 1 day | 1.36 | |
| 1190 | New | Error message appears twice | 1.36 | |
| 1186 | New | Filtered patient folder on Signed and Ordered rows are in the list. | 1.36 | |
| 1179 | New | Walk-in | 1.36 | 1.36 |
| 1178 | New | Macro Editor --> Insert Macro --> Click Previous Field = COM Error | 1.36 | |
| 1177 | New | Completing fields in report editor and using Back button < will return COM error. | 1.36 | |
| 1175 | New | Transcirption editor does not support keyboard shortcut to select text up and down | 1.36 | |
| 1174 | New | Mammo - Followup worklist. Right Click --> Followup "New patient button is available on signed study" | 1.36 | |
| 1172 | New | Rad - Macro Editor - Exception inserting normal | 1.36 | |
| 1170 | New | Warning for scheduling across sites message displayed twice when selecting Yes | 1.36 | |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 1168 | New | User is able to add multiple procedures in one row. | 1.36 | |
| 1162 | New | Error from entering alpha numeric number in allergy field | 1.36 | |
| 1161 | New | error on second save within macro editor | 1.36 | |
| 1160 | QE Rejected | Procedure Group function returns Inactive study items | 1.36 | 1.36 |
| 1154 | New | Removing procedure from study cell can throw exception if Scheduled Date field is selected. | 1.36 | |
| 1153 | New | Save layout not saving selected tabs | 1.36 | |
| 1145 | New | Edit macro twice throws object reference error | 1.36 | |
| 1088 | New | Log RIS Logon Failures to c_Audit log | 1.36 | |
| 964 | New | Payments - Making a credit card payment | 1.36 | |
| 1291 | New | Interactive dictation > non responsive recording using shortcut key | 1.36 | |
| 1277 | New | Self-pay insurance carriers show up in Patient Insurance Policies carrier search | 1.36 | |
| 1261 | Resolved | Double context menu in personnel editor > Contact information | 1.36 | 1.37.11062 |
| 1243 | New | Able to choose same physician multiple times on CC physicians control | 1.36 | |
| 1236 | New | Patient Folder Preview window issue on patient search | 1.36 | |
| 1225 | New | Scheduling - Image Request WL --> Edit Image request ( new patient icon) | 1.36 | |
| 1224 | New | Image Request list sometimes shows "No Data to Display" in DataGrid when there are items in the list | 1.36 | |
| 1223 | New | Image Request tab shows (0) when there are image requests in the list | 1.36 | |
| 1211 | Resolved | Administration - User - Personnel ( Add, Edit Address validation) | 1.36 | 1.37.11062 |
| 1208 | New | Study box size on Walk-In Exam tab is too small to see all of the study description | 1.36 | |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 1200 | New | Patient Merge - Search - Invalid Search Criteria - click Details = error | 1.36 | |
| 1185 | New | Alert may cause button to grey out, even if action did not take place | 1.36 | |
| 1184 | New | Batch to Interactive Mode changes can result in tab being mislabeled | 1.36 | |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# Server Update

for eRAD RIS
Version 1.0
Build 36
Update 36.001

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Purpose ..... 3
2. Intended Audience ..... 3
3. Who is affected ..... 3
4. Installing ..... 4

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 1. Purpose

This server update has been produced to fix bugs required for production setting, or to complete an enhancement requested for production.

This server update includes the following:

1. HL7 Mammo Report Message with Recommendation Code– This fix will allow messages with Mammo reports with recommendation codes to come into RIS. There was a bug that caused a null reference error.
   Two files to be replaced:
   a. WCFService.dll
   b. WCFService.pdb

2. Outbound HL7 message queue was blocked due to person key resolution problem.
   Two files to be replaced:
   a. Wedge.exe
   b. Wedge.pdb

3. SQL scripts. Three separate scripts to be run. Please run scripts in of Patch 1-2-3.
   a. Patch-36b-1- Correct stored procedure c_selectreporttable.sql (Redmine bug #1342 - sql to correct stored procedure c_SelectReportTable)
   b. Patch-b36-2-UpdateIVTtobeOrderRowSpecific.sql (This fix will convert the IVT worklist from showing all studies related to an order to only show the single order, and show the more appropriate infomration. This sql script was already released as hotfix 35.007 for build 35)
   c. Patch-b36-3-from B35 patches.sql (these are sql patches that have been applied to build 35 but were not added to build 36)

# 2. Intended Audience

This document is created by the RIS Development team for the RadNet RIS Implementation team.

# 3. Who is affected

All previous version of build 36. Current build is 1.1.36.11197.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 4. Installing

*1)* HL7 Mammo Report Message with Recommendation Code*:*
*Copy the 2 files to the directory for each rRISService. rRISService directories include:*
*a) rRISService*
*b) CDS rRISService*
*c) Wedge rRISService*
*d) DDE rRISService (DDE – Document Distribution Engine.*

*2)* Outbound HL7 message queue:
*Copy the 2 files to the directory for each rRISService. rRISService directories include:*
*a) rRISService*
*b) CDS rRISService*
*c) Wedge rRISService*
*d) DDE rRISService (DDE – Document Distribution Engine.*

*3)* SQL scripts*:*
*ON the database RIS instance run the 3 sql files in order of patch number. In this order*

*Patch-36b-1- Correct stored procedure c_selectreporttable.sql*
*Patch-b36-2-UpdateIVTtobeOrderRowSpecific.sql*
*Patch-b36-3-from B35 patches.sql*

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

for eRAD RIS
Version 1.0
Build 36
Update 36.002

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Purpose ..... 3
2. Intended Audience ..... 4
3. Who is affected ..... 4
4. Installing ..... 5

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 1. Purpose

This server update has been produced to fix bugs required for production setting, or to complete an enhancement requested for production.

This server update includes the following:

1. Logged as Redmine bug 1328 - Management Report Access fix.
   If during RIS session, the personnel editor was accessed and changes made and saved to a subset of users because of resource type, the logged in user would no longer have access to Management reports. Whenever the cache was updated, the new copy from web services did not include "l_user_x_user_group".
   Files included are:
   a) rRISServices.exe
   b) rRISServices.pdb
   c) SignatureApprovalService.exe
   d) Wedge.exe
   e) Wedge.pdb
   f) CDSJobManager.dll
   g) CDSJobManager.pdb
   h) ScheduledTaskManager.dll
   i) ScheduledTaskManager.pdb
   j) SignatureApprovalService.pdb
   k) DDEngine.dll
   l) DDEngine.pdb
   m) ChairApi.dll
   n) ChairApi.pdb
   o) WCFService.dll
   p) WCFService.pdb
   q) CommonLib.dll
   r) CommonLib.pdb
   s) rRISServices.vshost.exe
   t) Interop.FAXCOMEXLib.dll
   u) Tourreau.Gilles.FaxDotNet.dll
   v) Tourreau.Gilles.FaxDotNet.pdb
   w) Tourreau.Gilles.FaxDotNet.xml

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

2. Logged as Redmine bug 1427 - Appointment book not displaying device availability. The appointment book was not utilizing the device template configuration.
   Files are contained in the rRIS_1.1.36.12558

3. Logged as Redmine bug 1426 – Associating Scanned documents (attachments) to additional accession numbers would create an error.
   Files are contained in the rRIS_1.1.36.12558

4. SQL scripts. Three separate scripts to be run. Please run scripts in of Patch 4-5-6.
   a. Patch-36b-4- BUG1289 Show Current Study.sql – this script will add the user preference "Show Current Study in Patient History Tool Window" for all users.
   b. Patch-b36-5-BUG1442 MQSA Reporting Fix.sql – Changes how the biopsy result is captured. Now the "Lesion Classification" selection is used, not the "Nodes Positive" selection .
   c. Patch-b36-6 Blank Sections in Reports.sql – Corrects report rendering to exclude blank sections

## 2. Intended Audience

This document is created by the RIS Development team for the RadNet RIS Implementation team.

## 3. Who is affected

All previous versions of build 36. Current build is 1.1.36.11197.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 4. Installing

*1)* HL7 Mammo Report Message with Recommendation Code*:*
*Copy the files from the BUG1328- Management report access to the directory for each rRISService.*
*rRISService directories include:*
*a) rRISService*
*b) CDS rRISService*
*c) Wedge rRISService*
*d) DDE rRISService (DDE – Document Distribution Engine.*

*2)* Bugs 1426- Associating Scanned documents and 1427 - Appointment book not displaying device availability.
*Replace the current RIS UI file (Example rRIS_1.1.36.1197) in the RISDeployment directory with the.zip file included in the folder "Bug 1426 and 1427- Appointment book and scan doc association fixes".*
*File included:*
*a) rRIS_1.1.36.12558.zip*

*3)* SQL scripts*:*
*ON the database RIS instance run the 3 sql files.*
*Execute in this order:*

1. *Patch-36b-4- BUG1289 Show Current Study.sql*
2. *Patch-b36-5-BUG1442 MQSA Reporting Fix.sql*
3. *Patch-b36-6 Blank Sections in Reports.sql*

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

for eRAD RIS
Version 1.0
Build 36
Update 36.003

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Purpose ..... 3
2. Intended Audience ..... 4
3. Who is affected ..... 4
4. Installing ..... 4

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 1. Purpose

This server update has been produced to fix bugs required for production setting, or to complete an enhancement requested for production.

This server update fixes 2 issues.

1.) Redmine Bug 1458 – On Windows XP workstations, the DOB may change for dates that fall between the second Sunday of March to the first Sunday of April and the last Sunday of October to the first Sunday of November. This was due to the change to the start and end of Daylight Savings Time (DST) in 2007. Although there was an XP service pack that allowed XP to properly start and end DST, XP inherently could only support a single algorithm for determining the start and end of DST.

2.) Redmine Bug 1505 – Interactive commands not working when using next study workflow.

Files for each reported fix listing about are contained in the 2 folders supplied with this update.

1.) Folder GUI ZIP Updates contains the following
   a. AudioLib.dll
   b. ris.exe
   c. WCFClient.exe

2.) Folder RIS Service Updates contains the following
   a. rRISServices.exe
   b. rRISServices.pdb
   c. WCFService.dll
   d. WCFService.pdb

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## 2. Intended Audience

This document is created by the RIS Development team for the RadNet RIS Implementation team.

## 3. Who is affected

All previous versions of build 36.
**NOTE:** Build 36 Server Update 36.002 must be applied before this update.

## 4. Installing

1.) Copy and replace the files **from** the GUI ZIP Updates folder **to** the rRIS_1.1.36.12558.zip file. Rename the .zip to rRIS_1.1.36.12653.zip

2.) Copy and replace the files from the RIS Service Updates folder to rRISService directory. Stop each service, replace the files and restart each service. These directories may include:
   a. rRISService
   b. CDS rRISService
   c. Wedge rRISService
   d. DDE rRISService

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

for eRAD RIS
Version 1.0
Build 36
Update 36.005

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Purpose ..... 3
2. Intended Audience ..... 4
3. Who is affected ..... 4
4. Installing ..... 4

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 1. Purpose

This server update has been produced to fix bugs required for production setting, or to complete an enhancement requested for production.

This server update fixes 2 issues.

1.) Redmine Bug 1673 – setBuillingStatus NA action causing billing post to fail.
When completing a TechOnly exam that goes to billing, an error was occurring because it was being set at not applicable. It has been changed back to be set as UI_StudyCompleted

Files for this fix are included in the following folders.

1.) Folder GUI ZIP Updates contains the following
   a. ris.exe

2.) Folder RIS Service Updates contains the following
   a. WCFService.dll
   b. WCFService.pdb

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## 2. Intended Audience

This document is created by the RIS Development team for the RadNet RIS Implementation team.

## 3. Who is affected

All previous versions of build 36.
**NOTE:** Previous server updates and hotfixes must be applied before this update.

## 4. Installing

1.) Copy and replace the files **from** the GUI ZIP Updates folder **to** the rRIS_1.1.36.12653.zip file. Rename the .zip to rRIS_1.1.36.12953.zip
(NOTE: the .zip file name must be different for the changes to take effect on the client. Changing it to .12953 will keep it in sync with the RIS UI Version)

2.) Stop the following services as needed: copy the files from the RIS Service Updates folder to rRISService folder and restart the service(s).
These directories may include:
   a. rRISService (core service)
   b. CDS rRISService
   c. Wedge rRISService
   d. DDE rRISService

(NOTE: your installation may not have all services listed)

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# User Release Notes

for eRAD RIS
Version 1.0
Build 37

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# Table of Contents

1. Purpose ..... 5
2. Intended Audience ..... 5
3. Installing/Accessing the Application ..... 5
4. New Features and Enhancements ..... 6
   Activity Work List ..... 6
   Labwork work list ..... 7
   Orders to Schedule WL Flags Column ..... 10
   Export WL to CSV file type ..... 10
   Referring Column Added to Radiologist WL's ..... 11
   Patient First and Last Name Columns Added to Document Distribution WL ..... 12
   Remove Change to…Arrived Status from Reception WL ..... 13
   Default WL view ..... 14
   Statuses and Outside Reads Removed from IVT Work List ..... 15
   Work List Filtering Changes ..... 15
   Context Menus Added to Patient Search Results ..... 16
   Void Signed and Abort Exam Done Studies ..... 17
   Add and Remove Patient Alternate MRN's ..... 18
   Last Menstrual Period Approximate Date ..... 20
   Save As Order from Schedule Order Window ..... 21
   Default CPT ..... 22
   Changes to Patient Merge window ..... 22
   Show Report for Prior Exam for Mammo Follow-ups ..... 24
   Patient Address Updates – Relation to Patient ..... 25
   Order Follow Up Tracking ..... 26
   Zip Code Field Enhancements ..... 27
   Copy Contents from Grids ..... 27
   New Required Fields ..... 28
   Editing Data of Exam for Outside Reads ..... 29
   Meaningful Use (MU) Enable Controls ..... 30
   Meaningful Use Changes ..... 30
   Appointment Book Change Schedule Time by Dragging ..... 33
   External Reporting Workflow / No Report Workflow ..... 35
   IVT Additions and Data Window changes ..... 36
   Mammo Diagnostic Reporting BI-RADS picker changes ..... 39
   Follow-up Screen Enhancements ..... 40
   Xkeys Integration framework ..... 41
   Maximum Open Tabs by User Group ..... 44
   Min Max Wait Time ..... 44

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

PreCert Notes in View Edit and Billing ..... 45
Billing Code Grid Changes ..... 45
Technologist Notes Locking After Completion ..... 46
Tech Only – Patient Class Workflow ..... 46
Technologist No longer Menstruating ..... 49
View Images from Technologist Screen ..... 49
Backend Interface with RADAR ..... 49
Outbound file for RADAR ..... 50
Response File from RADAR ..... 52
Change Default User for New Install ..... 52
Core Version Check ..... 53
New Management Reports Added ..... 53
Reporting – Rewind and Fast Forward Speed Setting ..... 64
User Preferences for Radiologist and Technologist window buttons ..... 65
Reporting – Sign Button Removed for Batch Dictation ..... 68
Reporting – Problem and QA Work Lists for Radiologists ..... 68
Reporting – Dictation Control Stop When Play or Record Released ..... 70
Reporting – Bolding Current Value in "Assign To" Lists ..... 72
Reporting – Audit History Change for CDSManager ..... 72
Reporting – Column "Dictated By" Added to Patient Folder Work List ..... 73
Reporting – Hybrid Navigation for Fields/Sections ..... 73
Reporting - Request Addendum ..... 74
Reporting - Resend Interpretation for VR ..... 75
Reporting – Report Editor Preferences for Color, Fonts and Font Size ..... 75
Report Text ..... 76
Sections ..... 76
Site Level Report Templates ..... 77
Calculating Default and Normal Templates ..... 78
Reporting – Macro and Template Browser Navigation Enhancements ..... 79
Reporting – Assign To Panel ..... 79
Reporting – Miscellaneous Enhancements and Fixes ..... 82
Send To button access string ..... 82
Transcription Summary Fixes ..... 82
Prompt to Run SpeechMike Wizard ..... 82
Editor Ctrl +Shift + Up or Down Arrows ..... 82
Transcribing Assigned Studies ..... 83
Transcription Polling Lock Issue ..... 83
New Fields for Physician Details ..... 84
Button and Context Menu Options Added to Patient Search ..... 86
Modality Type Selection for Outside Reads ..... 87

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

Dynamic Printer to Document Type Configuration ..... 88
Exam Search ..... 89
Generalized Procedure Name ..... 92
Scheduling Date Time Control Enhancement ..... 93
Referring Physician Addresses ..... 94
Notes Text Boxes Copy / Paste Option ..... 94
Multiple Schedule Groups Per User ..... 95
Organization Picker Enhancements ..... 96
Unknown Referring Required Address Removed ..... 96
Verify Credentials Enhancements ..... 96
No Report Required Work Flow Enhancements ..... 97
5. Resolved Defects ..... 99
6. Known Limitations ..... 107

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 1. Purpose

This document describes some of the new features and changes implemented in eRAD RIS as of the end of Sprint 37. This version of eRAD RIS is referred to as Build 1.37.

Only features which can be visually demonstrated to the user will be outlined in this document.

# 2. Intended Audience

This document is created by the RIS Development team for the RadNet RIS management team.

# 3. Installing/Accessing the Application

The installation guide for the eRAD RIS client have been posted to the RadNet Wiki page at http://mdbal01rdtweb/Wiki/

Under the RIS menu click on the rRIS page. The credentials to access the page are:
Username: rRIS
Password: Summerside

*Please note that Build 1.37 is considered a new core release of the application and will require a reinstallation of eRAD RIS. This is accomplished by navigating to the eRAD RIS shared installation drive and running the CoreInstall.bat file (ex: I:\RISDeployment\CoreInstall.bat)*

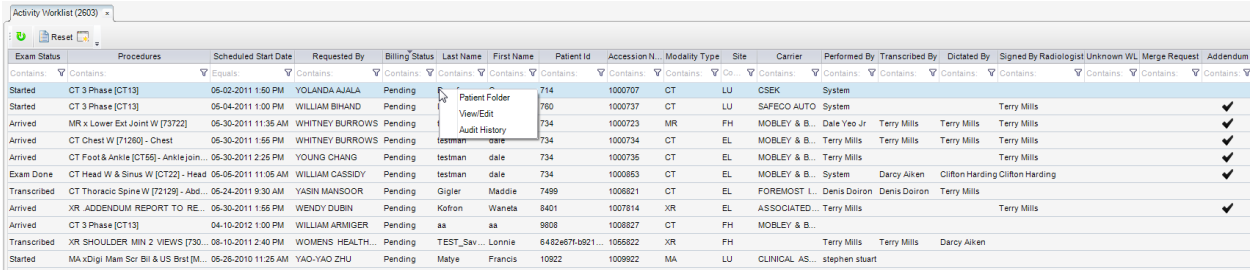
If you experience difficulties accessing the application please do not hesitate to contact Darcy Noye with the PEI RIS Development Team.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 4. New Features and Enhancements

## Activity Work List

The Activity work list is new in Build 37. The Activity work list is accessed under the Administration menu and access is controlled by a new access string called WL.ActivityWL.contains all outstanding active studies.
The Activity work list contains all outstanding active studies. An outstanding study is on that has progressed beyond scheduled status but is not finished. This will include statuses of Checking In, Arrived, Started, Exam Done, Dictated, Report Drafted, Transcribed, Signed* (indicating report is being held). It may also include studies with a status of Signed or Exam Done (tech only) if billing has failed on these studies. It will not include studies in statuses of Scheduled, Cancelled, Discontinued, Void or studies with status of Signed and Exam Done(tech only) that were successfully sent to the billing system.




| Exam Status | Procedures | Scheduled Start Date | Requested By | Billing Status | Last Name | First Name | Patient Id | Accession N... | Modality Type | Site | Carrier | Performed By | Transcribed By | Dictated By | Signed By Radiologist | Unknown WL | Merge Request | Addendum |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Started | CT 3 Phase [CT13] | 05-02-2011 1:50 PM | YOLANDA AJALA | Pending | | | 714 | 1000707 | CT | LU | CSEK | System | | | | | | |
| Started | CT 3 Phase [CT13] | 05-04-2011 1:00 PM | WILLIAM BIHAND | Pending | | | 760 | 1000737 | CT | LU | SAFECO AUTO | System | | | Terry Mills | | | ✔ |
| Arrived | MR x Lower Ext Joint W [73722] | 05-30-2011 11:35 AM | WHITNEY BURROWS | Pending | | | 734 | 1000723 | MR | FH | MOBLEY & B... | Dale Yeo Jr | Terry Mills | Terry Mills | Terry Mills | | | ✔ |
| Arrived | CT Chest W [71260] - Chest | 05-30-2011 1:55 PM | WHITNEY BURROWS | Pending | testman | dale | 734 | 1000734 | CT | EL | MOBLEY & B... | Terry Mills | Terry Mills | Terry Mills | Terry Mills | | | ✔ |
| Arrived | CT Foot & Ankle [CT55] - Ankle join... | 05-30-2011 2:25 PM | YOUNG CHANG | Pending | testman | dale | 734 | 1000735 | CT | EL | MOBLEY & B... | Terry Mills | | | Terry Mills | | | ✔ |
| Exam Done | CT Head W & Sinus W [CT22] - Head | 05-05-2011 11:05 AM | WILLIAM CASSIDY | Pending | testman | dale | 734 | 1000853 | CT | EL | MOBLEY & B... | System | Darcy Aiken | Clifton Harding | Clifton Harding | | | ✔ |
| Transcribed | CT Thoracic Spine W [72129] - Abd... | 05-24-2011 9:30 AM | YASIN MANSOOR | Pending | Gigler | Maddie | 7499 | 1006821 | CT | EL | FOREMOST I... | Denis Doiron | Denis Doiron | Terry Mills | | | | |
| Arrived | XR .ADDENDUM REPORT TO RE... | 05-30-2011 1:55 PM | WENDY DUBIN | Pending | Kofron | Waneta | 8401 | 1007814 | XR | EL | ASSOCIATED... | Terry Mills | | | Terry Mills | | | ✔ |
| Arrived | CT 3 Phase [CT13] | 04-10-2012 1:00 PM | WILLIAM ARMIGER | Pending | aa | aa | 9808 | 1008827 | CT | FH | MOBLEY & B... | | | | | | | |
| Transcribed | XR SHOULDER MIN 2 VIEWS [730... | 08-10-2011 2:40 PM | WOMENS HEALTH... | Pending | TEST_Sav... | Lonnie | 6482e67f-b921... | 1056822 | XR | FH | | Terry Mills | Terry Mills | Darcy Aiken | | | | |
| Started | MA xDigi Mam Scr Bil & US Brst [M... | 05-26-2010 11:26 AM | YAO-YAO ZHU | Pending | Matye | Francis | 10922 | 1009922 | MA | LU | CLINICAL AS... | stephen stuart | | | | | | |

**Figure 4.1 – Activity work list.**

From this work list, users will be able to access the Patient Folder, View/Edit window, and also Audit History.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Labwork work list

A work list titled "Labwork Required WL" has been added in build 37. This work list will contain patient studies have been flagged as blood work required. An example is if a patient is diabetic and/or on certain medication we may want that patient to show on the Labwork WL.

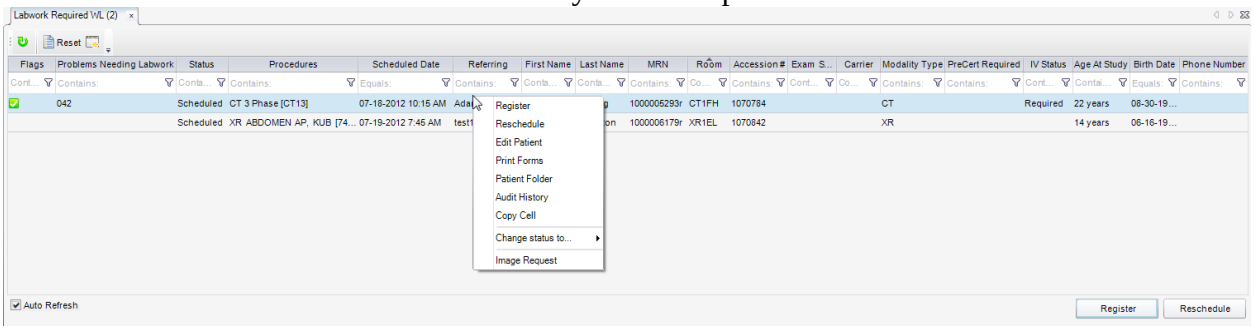



**Figure 4.2 – Labwork Required WL**

A new system config value (LabWLWindowInDays) controls the timeframe in which the studies would appear on the work list. If the study(s) were to appear 2 prior of the scheduled date the system config value would be set as *LabWLWindowInDays=14.*
A study that is scheduled one month in advance wouldn't show in the work list until two weeks before the appointment and will be removed if a recent labwork request or result exists (recent being => the time of the order). Also, the study will be removed from the work list when the patient is arrived.

Changes to lookup tables were also required to accommodate capturing if the patient was to be added to the Labwork WL.

The Indication lookup table (indication codes used in Medical History list on MU Tab) entries have a new column "Bloodwork Required Flag"

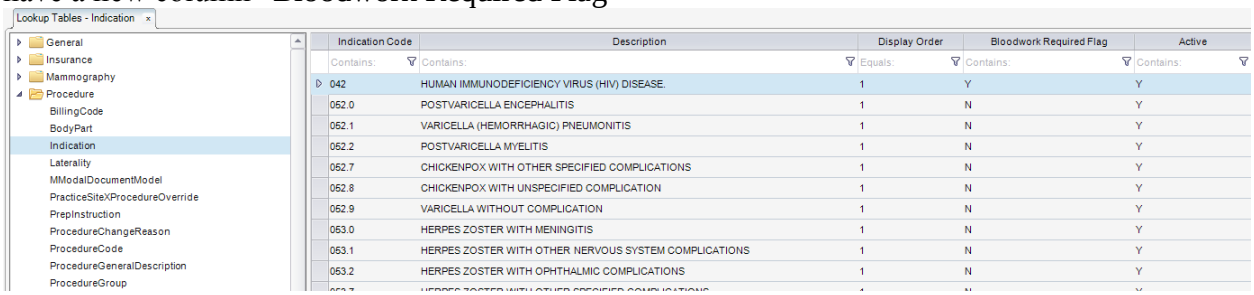



**Figure 4.3 – Indication lookup table**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

The Medication lookup table (medication used in the Medication list on MU tab) entries have a new column “Bloodwork Required Flag”

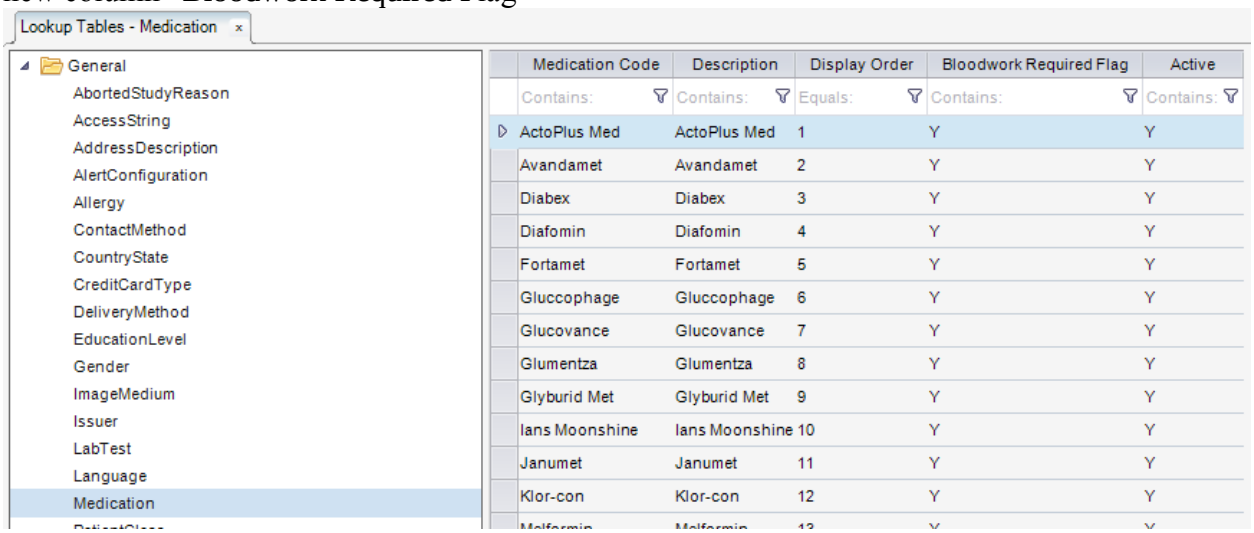



**Figure 4.4 – Medication lookup table**

The Modality Type lookup has a new column “Bloodwork Aplicable Flag”.

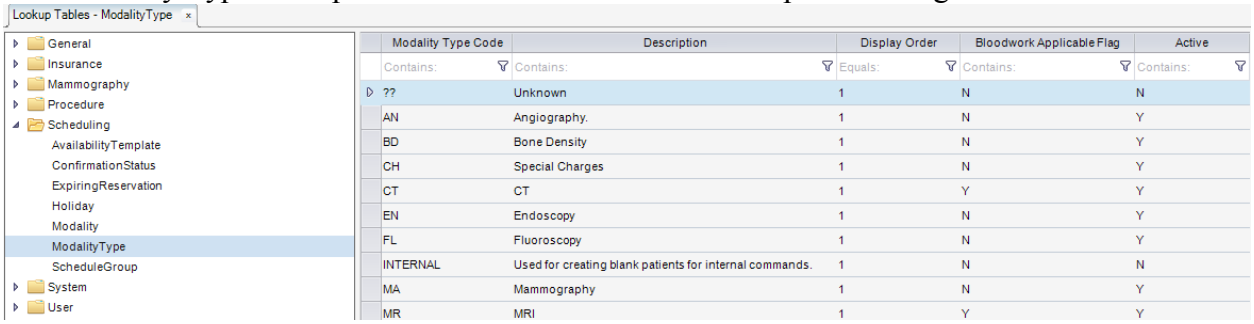



**Figure 4.5 – ModalityType lookup table**

The PracticeSiteXProcedureOverride lookup has a new column “Bloodwork Required Age”.

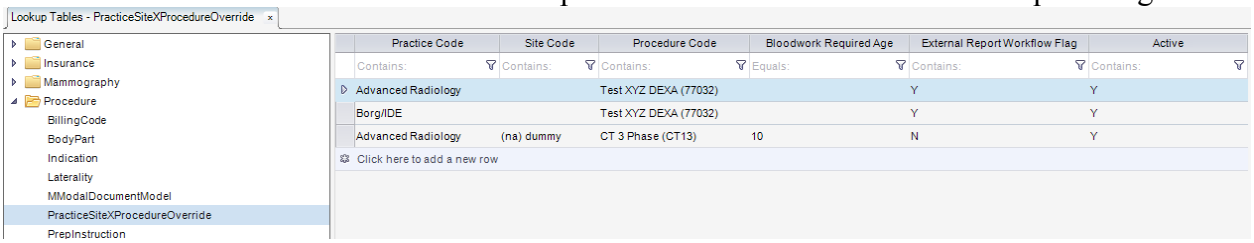



**Figure 4.6 – PracticeSiteXProcedureOverride lookup table**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

Looking at the above lookups new columns, if the patient is diabetic (and diabetic is configured to bloodwork_required_flag 'Y') or the medication they are on is configured to bloodwork_required_flag 'Y' and the modality type has a bloodwork_applicable_flag of 'Y', then the study would fall to the LabWL once the exam is within LabWLWindowInDays.
Note: a "bloodwork required age" set to 0 says that every exam for that procedure will require bloodwork, while a value of 60 would say any exam with a patient 60 or older will require blood work. Bloodwork required age is configurable at the procedure level and can be overridden at the practice or site.

To remove it from the Lab WL, the user needs to do one of the following:

- Enter lab result(s) in the MU Lab Results Grid
- Open the screen and see if lab results get updated from NewCrop
- Make and record a lab work request
- Check the "Skip Lab WL" checkbox.

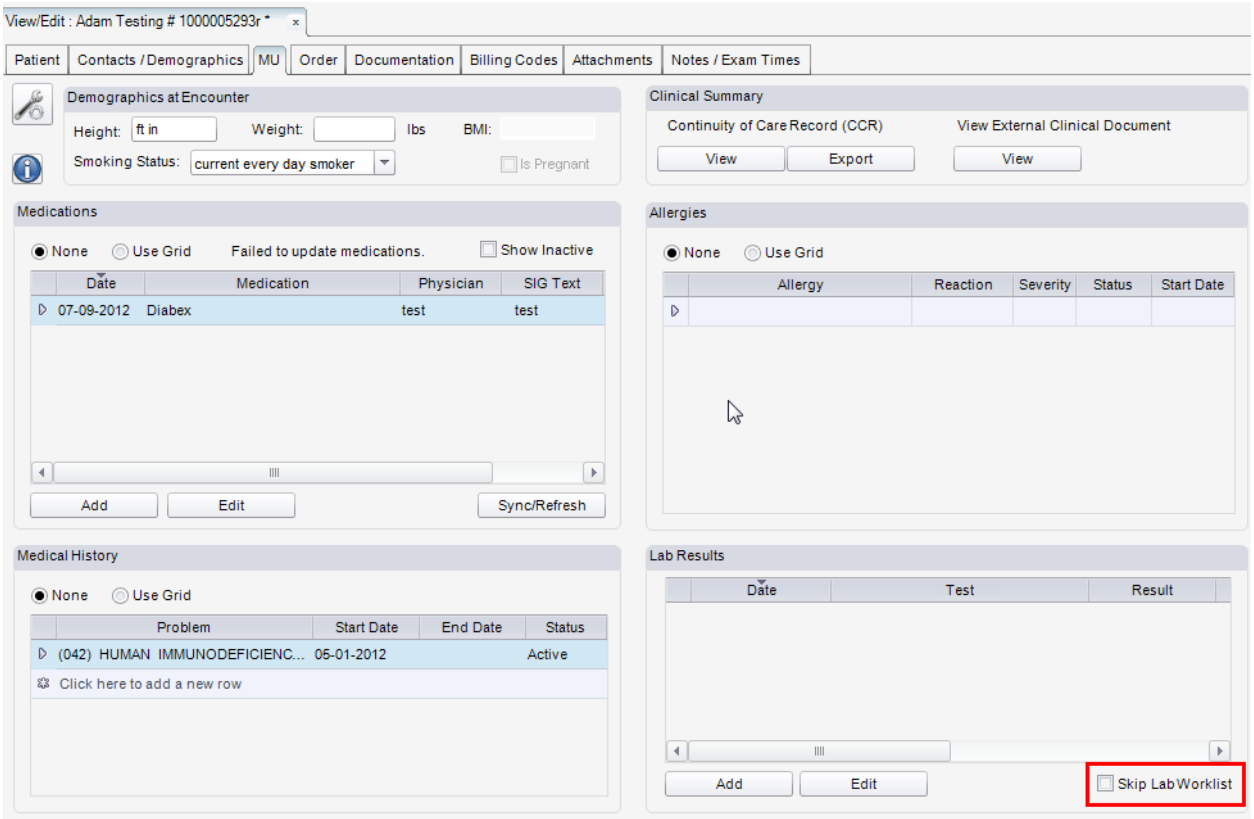



**Figure 4.7 MU tab**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Orders to Schedule WL Flags Column

It was requested to have the Flags column added to the Order to Schedule WL. In build 37, this column has been added.

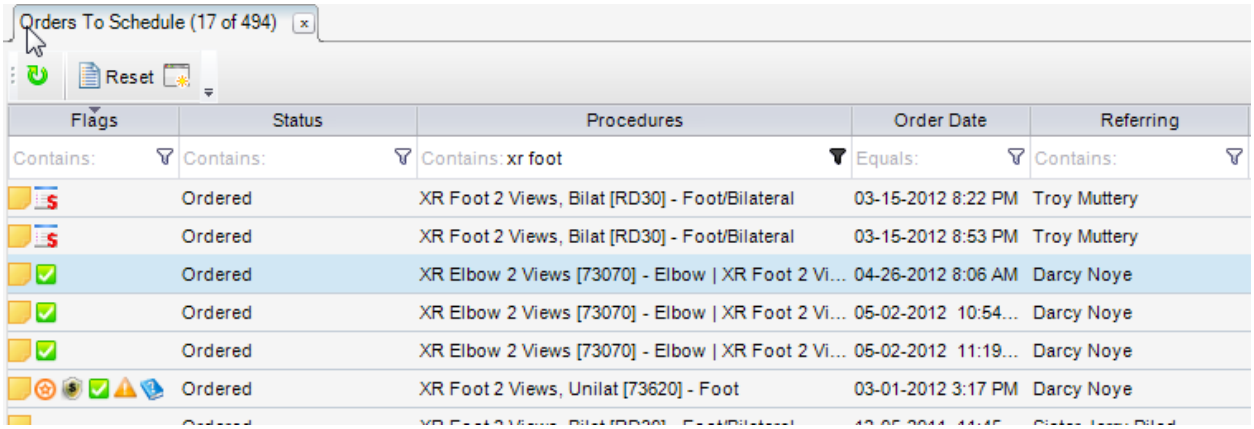



**Figure 4.8 – Orders to Schedule WL**

## Export WL to CSV file type

In previous versions of eRAD RIS, work lists could be exported to Excel in .xml format. This did not work for older versions of Excel. Added to the context menu from work lists columns is the option to export to .csv file type.

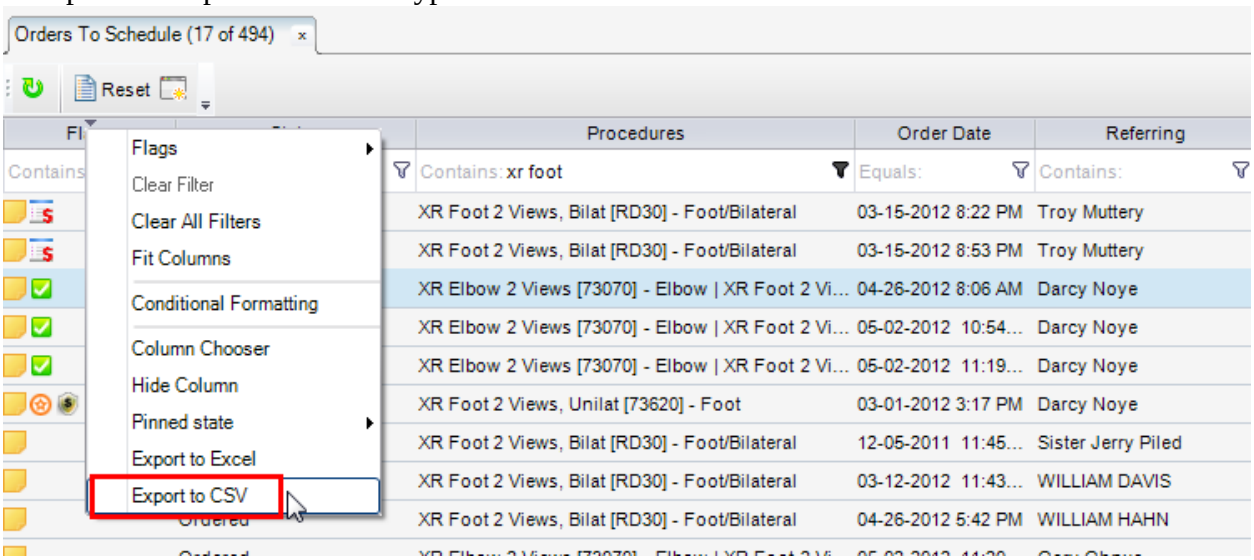



**Figure 4.9 – Export work lists to .csv**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Referring Column Added to Radiologist WL's

The column "Referring" has been added to the Pending Dictation, Suspended, Pending Edit, Pending Signature, Signed Pending Release, All Pending Dictation, All Suspended, All Pending Signature, All Signed Pending Release, All Signed by Date, All Pending QA and All Problem work lists. The above work lists are under the Radiologist menu.

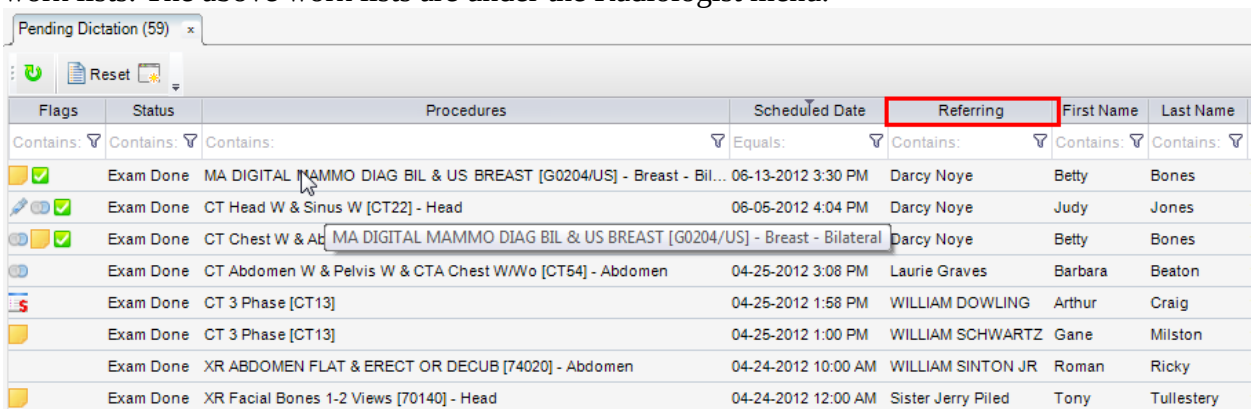



**Figure 4.10 – Displaying the Referring column added to Pending Dictation**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Patient First and Last Name Columns Added to Document Distribution WL

As the title states, the 2 columns were added to the Document Distribution WL for the patients first and last name. The Distribution History By Date WL has also had these columns added.

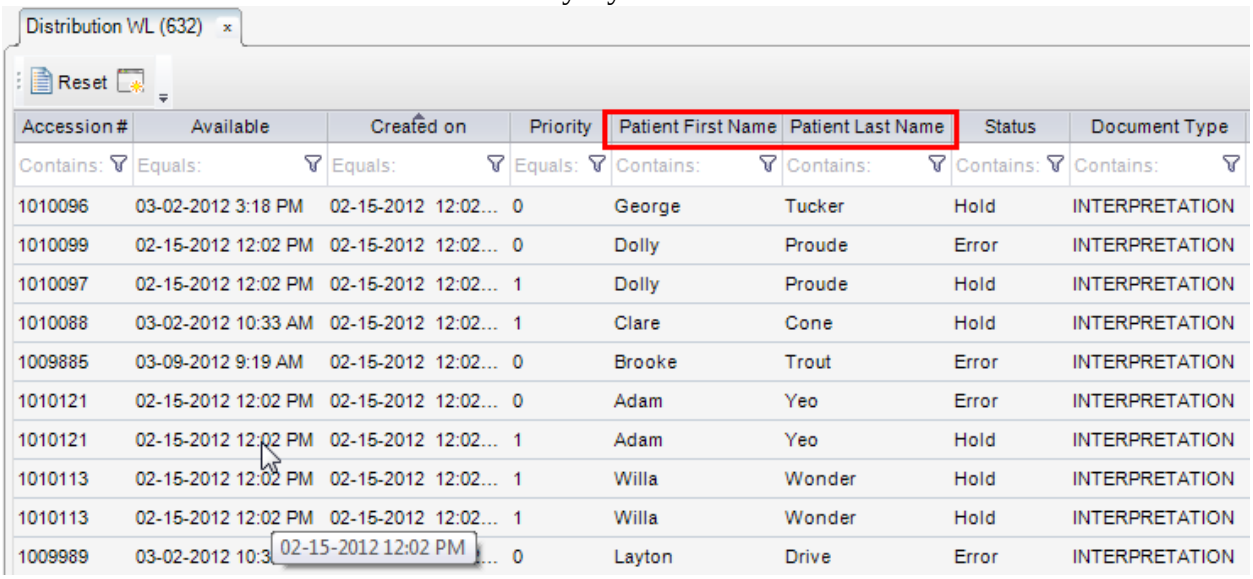



**Figure 4.11 – Document Distribution WL with patient first and last name columns**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Remove Change to…Arrived Status from Reception WL

The Reception WL has had the option to change to "arrived" status removed from the context menu option "Change status to…"

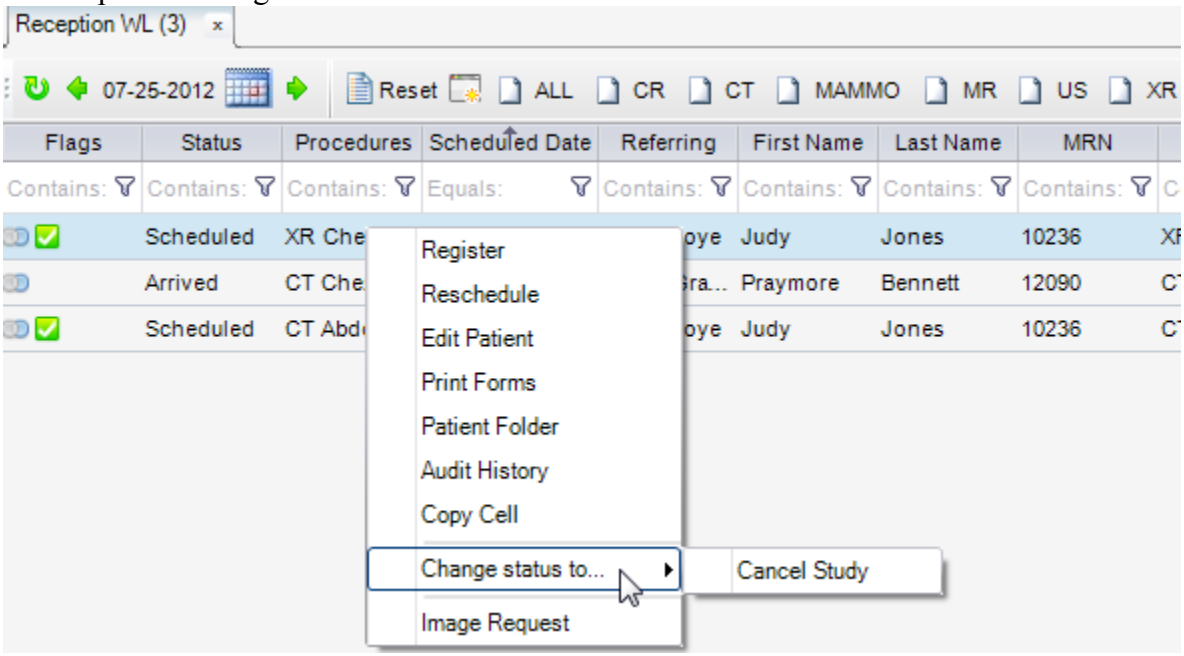



**Figure 4.12 – Arrived status removed from context menu**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Default WL view

In previous versions the user didn't have the ability to remove a "My View", once the view was selected, they could not revert back to the default work list view. In build 37 a "Reset" has been added to all work lists. If a "My View" is selected, the sorting, filtering, columns displayed, etc… have changed, selecting the "Reset" button will revert the work list back to the default of the work list.

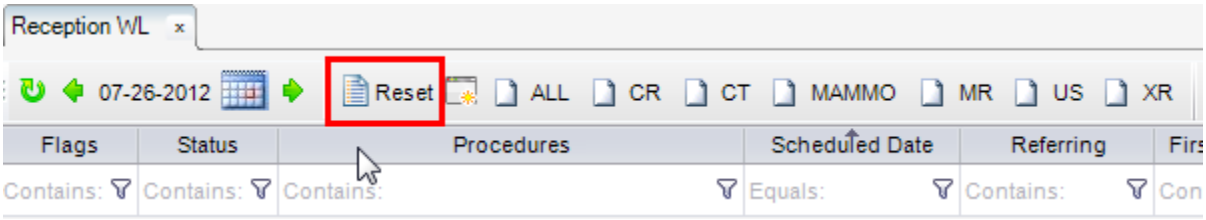



**Figure 4.13 – Reset button to remove my views**

Once the "Reset" button is selected the work list will be sorted by the scheduled start date. The Document Distribution work lists will be sorted by available date.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Statuses and Outside Reads Removed from IVT Work List

In previous versions of eRAD RIS, the IVT work list was displaying rows with statuses in Invitation and Short Term Follow up, these statuses have been removed. It was also displaying Outside Read studies, which will no longer be present on the IVT work list.

## Work List Filtering Changes

We needed the ability to filter work lists using "and" "or" conditions and to exclude other strings that don't contain a particular expression.

To accomplish this we have changed work list filtered to support this. The following is an explanation:

We support 'and' using the '&' character, 'or' using '|', 'not' using '!' and groupings using '(' and ')'. Some example filters are:

(CT & XR) | MR – will display procedures with CT and XR procedures as wells as MR procedures
(CT & XR) | !MR – will display procedures with CT and XR procedures but not MR procedures

The ! operation also works on Parentheses groups such as the following, which displays all CT procedures that are not also XRays:

!(ct & xr) & CT

If the parentheses do not match such as (CT & MR, then the groupings are not evaluated. Also if an operator is missing such as (CT & XR)!MR then the & is used where the missing operator should be.

Note: as before you can match to '', which matches to a blank column so the following expression

(CT & XR) || ''

The above example, matches any procedure that has both CT and an XR in the description or has a blank description.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Context Menus Added to Patient Search Results

The Patient Search window has had some additions in build 37. A context menu has been added allowing the user to select "New Appointment" and "New Walk-in". New buttons have also been added. The top of the search screen has "New Patient", for the case where you can't find the patient you want and only want to add a note to their patient file and first need to create the patient.

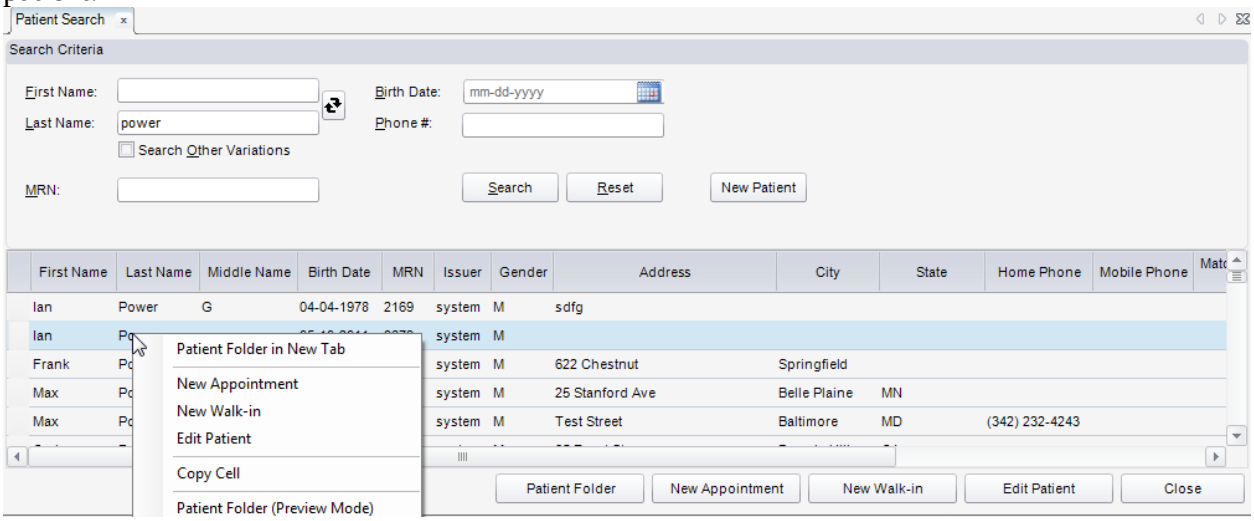


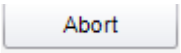

**Figure 4.14 - Patient Search**

When in the patient search popup the bottom buttons and context menu items are hidden and if the patient search is on a popup which is launched from a content base that Search/New Patient icon buttons then the "new Patient" button on the search popup will close the popup and click the "New Patient" icon on the content screen and will populate the default values for the new patient based on what was typed in the search screen.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Void Signed and Abort Exam Done Studies

The ability to void a signed study and Abort a study in statuses of Exam Done, Exam Done (tech only), Dictated, Report Drafted and Transcribed has been added in build 37. Buttons of Void

and Abort 

can be accessed from the View Edit window. The View Edit window is accessible from the patient folder.

When the user selects the Void button in the View Edit window, they will be prompted with a message, displayed in the figure below

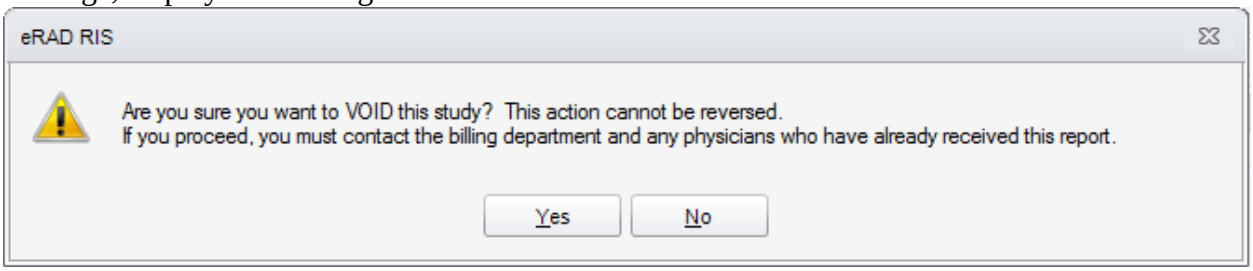



**Figure 4.15 – Confirm Void message**

Clicking 'No' will just return to the view edit screen, 'Yes' will save the study with the status of Void.

When a study is aborted in the View Edit window a confirmatory message prompt will also display

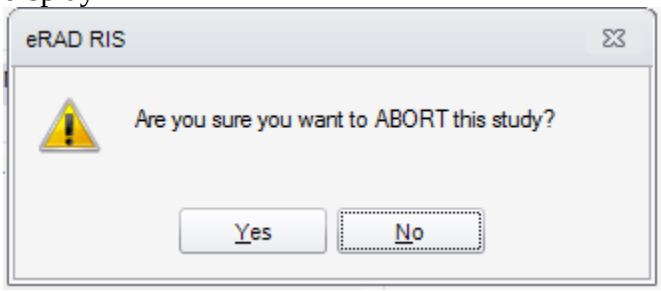



**Figure 4.16 – Confirm Abort**

Studies that are voided will appear in the Patient Folder work list as "Voided", while studies that are aborted will appear on the Patient Folder work list as "Discontinued".

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

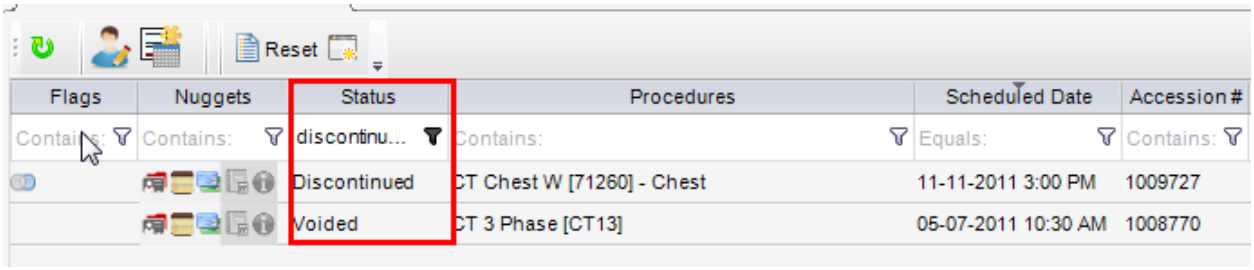



**Figure 4.17 – Patient Folder displaying voided and aborted statuses**

Permissions for these buttons are controlled by the access strings of:
Access to Void – Clinical.VoidStudy
Access to Abort – Clinical.AbortStudy

## Add and Remove Patient Alternate MRN's

On the patient tab, a new data pane has been added that allows users with permissions to add and remove alternate MRN's. If the alternate MRN data pane is empty open the context menu from the column header and the option to "Add MRN" will be available. If there are already alternate MRN's in the data pane, simply open the context menu from the list and the user will have to option to "Add MRN" or Remove MRN"

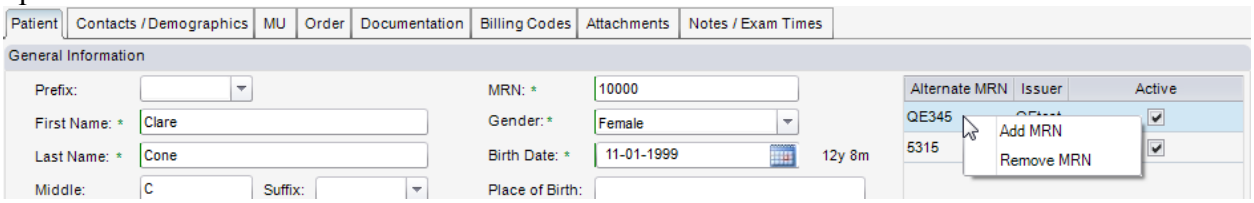



**Figure 4.18 – Add and Remove MRN**

Selecting "Add MRN" will open the Add MRN window.

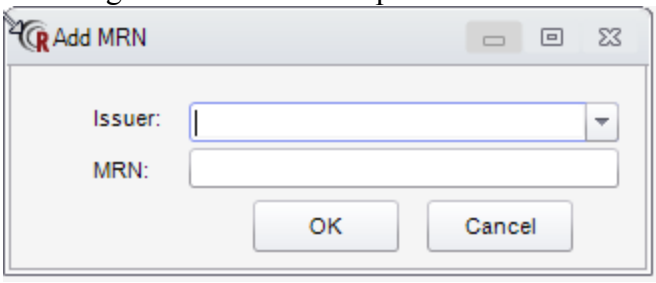



**Figure 4.19 – Add MRN window**

The Issuer: list box is populated with the values from the Issuer Lookup table.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

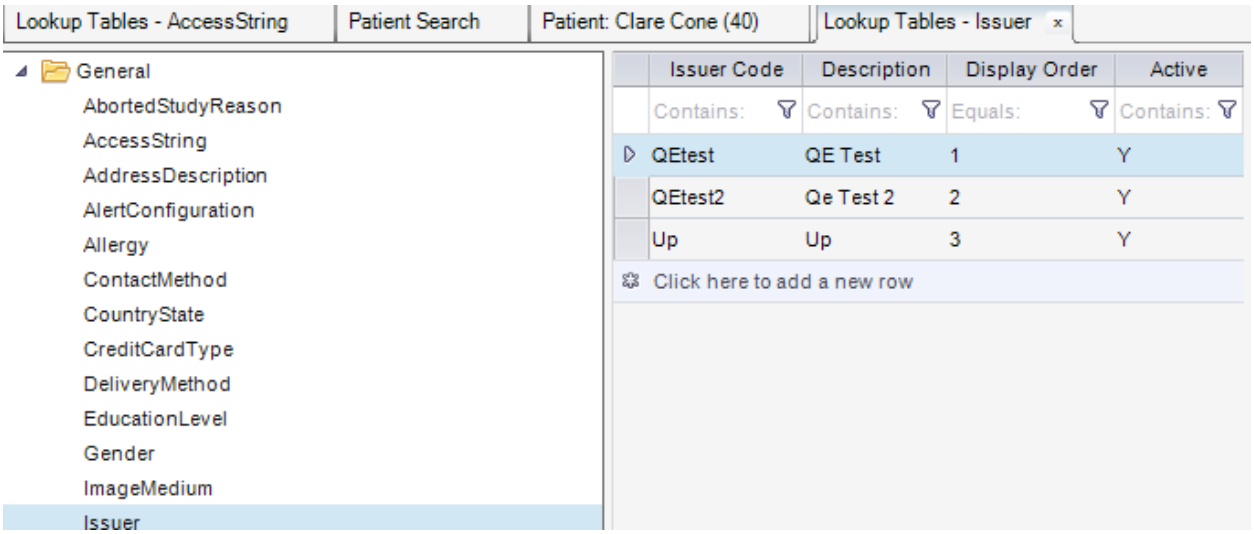



**Figure 4.20 Issuer Lookup**

If an alternate MRN is attempted to be added to another patient, the user will get a prompt informing that the MRN is already assigned to another patient.

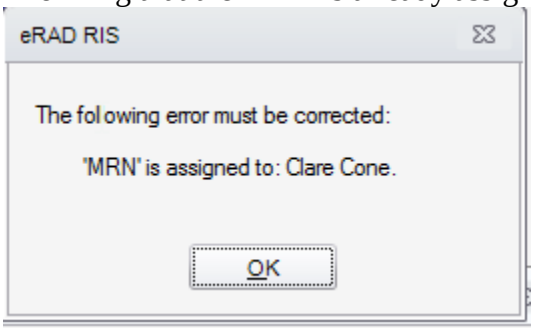



**Figure 4.21 – MRN already assigned**

The alternate MRN can be used for patient search.

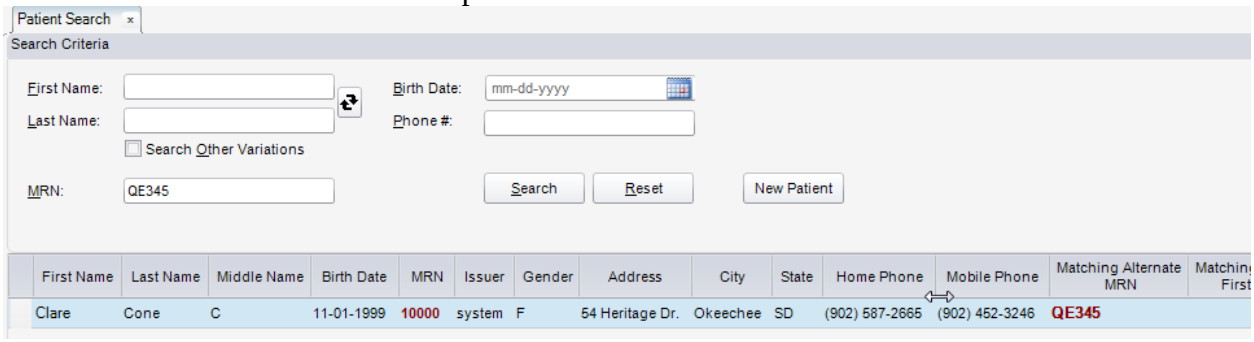



**Figure 4.22 – Patient search on alternate MRN**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

Permissions to access the Add and Remove options as well as the lookup table are as follows
Add MRN – Clinical.AddMRN
Remove MRN – Clinical.RemoveMRN
Access to Issuer lookup table – Config.LookupEditor.Issuer

Note: users can never remove the system MRN or MRN added in the "AddOutsideRead / Alternate MRN ForReport". To remove an "Alternate MRN for Report", use the View Edit screen and edit/remove the "Alternate MRN for Report" from the applicable field.

## Last Menstrual Period Approximate Date

In the Perform Exam window there is a date field for Last Menstrual Period. Requested was the ability to show this date as an approximate date. Within the date field a check box will appear when a date is entered or selected from the calendar control.

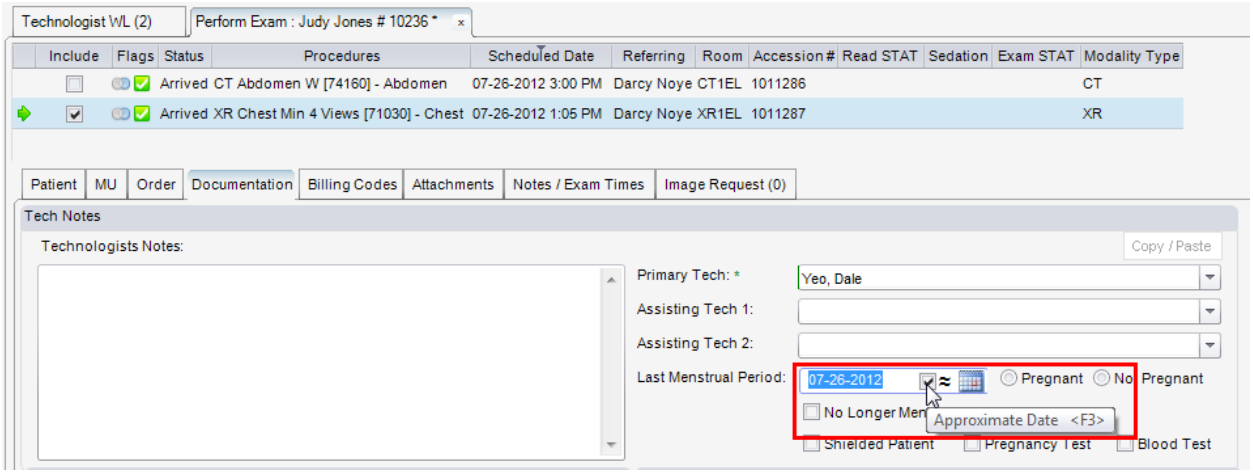



**Figure 4.23 – Approximate date**

The check box can be toggled and the date can be changed backwards and forwards, todays date selected and the day / month swapped when the day does not exceed 12.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

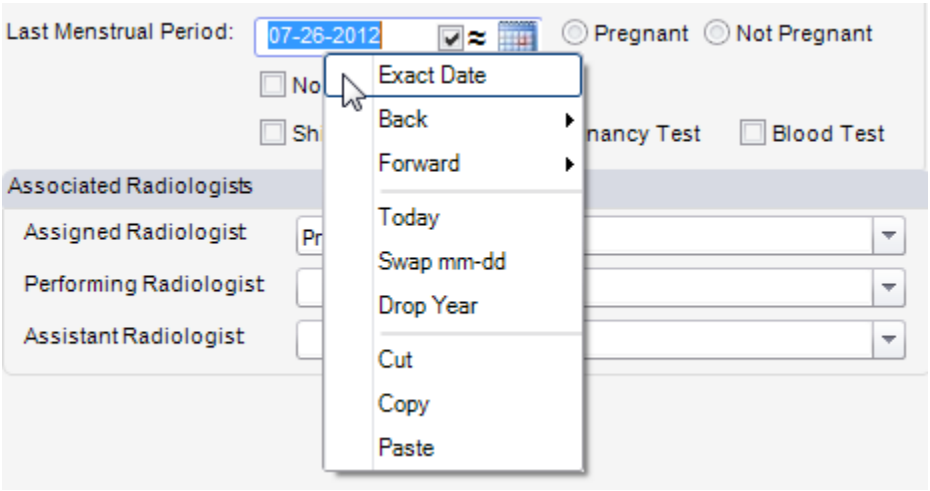



**Figure 4.24 – LMP date field context menu**

## Save As Order from Schedule Order Window

In previous versions the scheduled window allowed the user to either Schedule or Close the Schedule Order window. A new button "Save as Order" has been added. Orders opened in the Schedule window from the Orders to Schedule work list will have this option.

This option was always available from the New Appointment window. This gives the user an extra option in case the patient can't agree on a time with the scheduler at the time; any added information can then be saved to the order.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Default CPT

Procedure codes can now have default CPT1 and CPT2 modifiers assigned. From the procedure code lookup table expand the procedure code row. Looking at the figure below you can see the optional fields for Cpt Modifier1 and Cpt Modifier2 Codes.

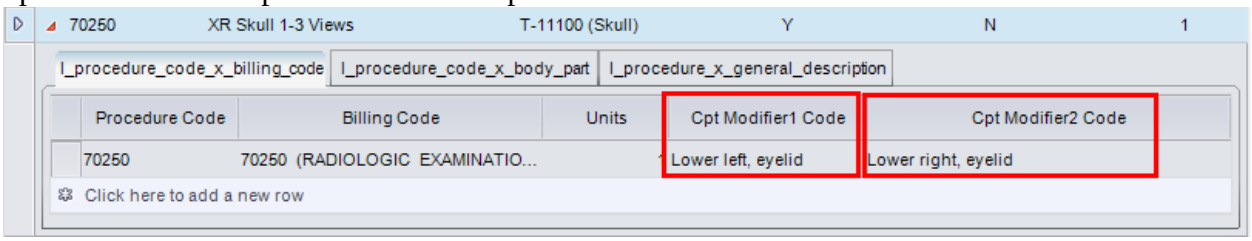



**Figure 4.25 – Default CPT1 and CPT2 modifier**

## Changes to Patient Merge window

We have retained the same Source and Destination concepts, but we now categorize the patient information into separate categories of items that can be merged over from the Source. Name, DOB, Address, Home Phone, Cell Phone, and Work Phone are the categories of information that can be used to merge over. By default each of these options is set to use the Destination patient's attributes, but by toggling a radiobutton for each category, the admin can selectively use the attributes from the Source patient.

Patient Merge suggest was also updated to use this ability, so a front desk user without sufficient authorization for a Patient Merge can still suggest a merge and indicate which version of the data is most appropriate to retain.

In addition, we now show the patient history including access to the nuggets so the admin has easy access to the scan documents if they feel the need to compare the patient's photo ID or signature, and they can view the list of exams on both the source and the destination.

As before,there is a "< -- >" button to switch the source and the destination patient.

A "Show ID" button (a camera icon) that will only be visible if the patient has at least one scan document classified as a license (a config setting is used to specify which "scan document type" represent the driver's license/photo ID.

On the back-end, the logic for patient merge is very similar as it was before, we are now doing a patient merge and then updating the patient attributes where applicable afterwards.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

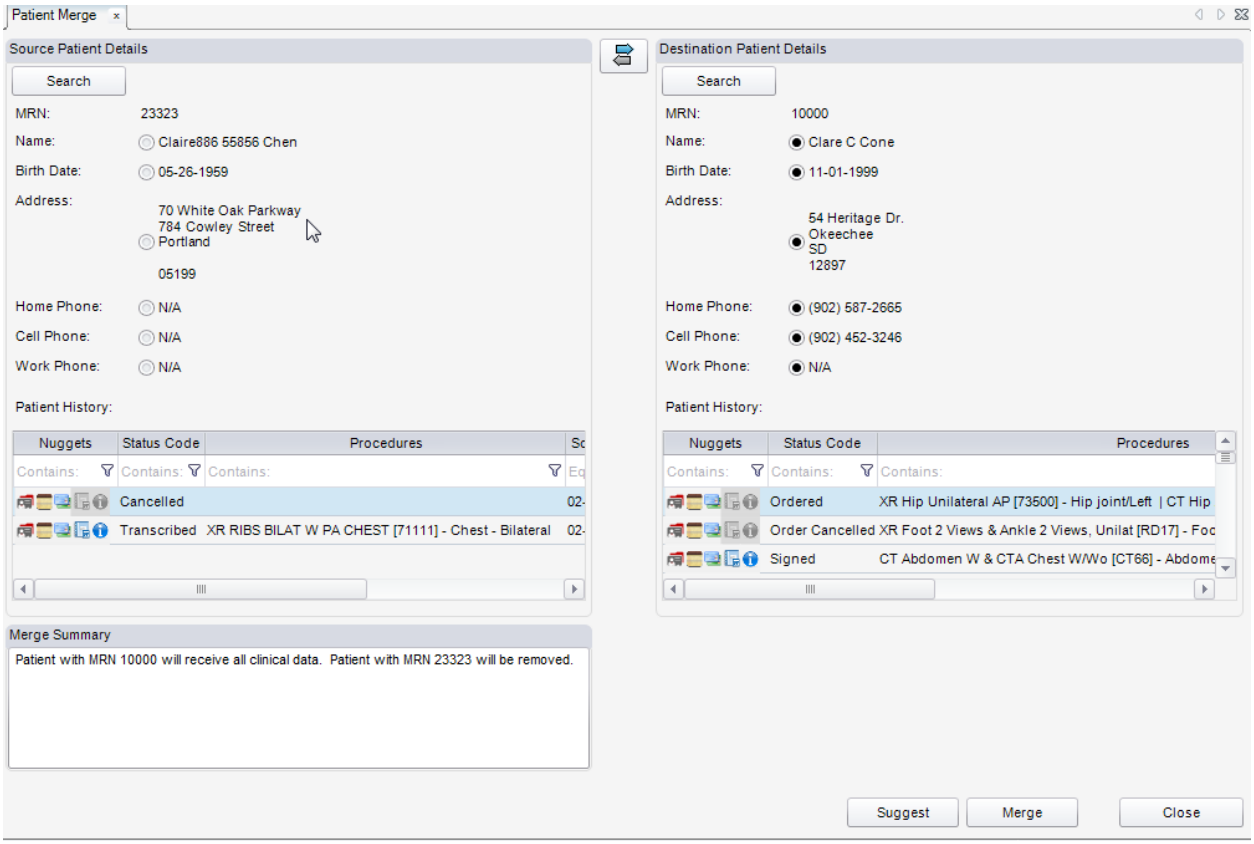



**Figure 4.26 – Patient Merge window**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Show Report for Prior Exam for Mammo Follow-ups

The schedule order window for Mammo follow-ups will allow the user to view reports for the prior exam. The button will be located in the lower left of the window.

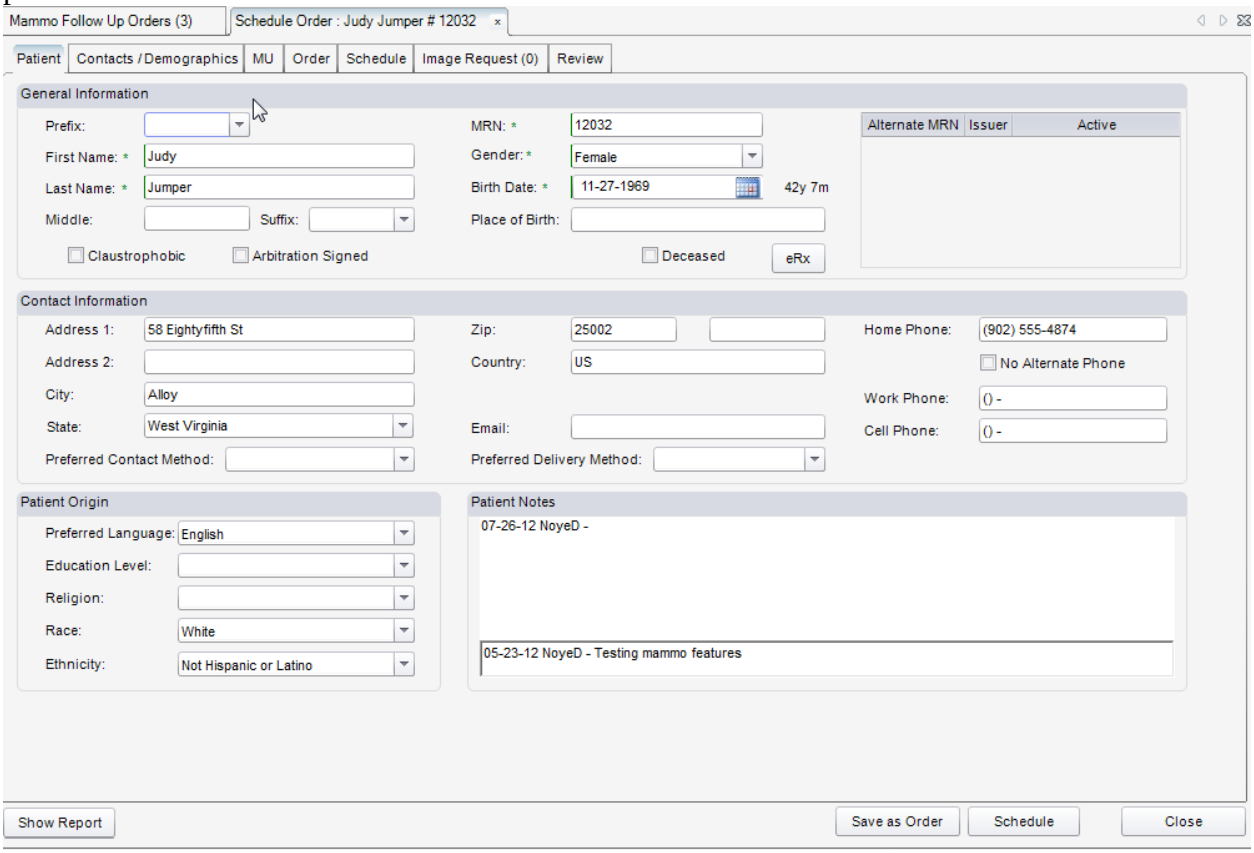
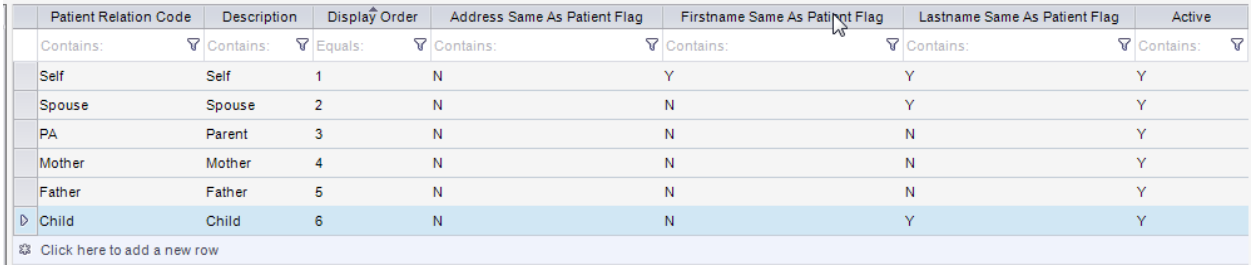



**Figure 4.27 – Mammo follow-up schedule order window**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Patient Address Updates – Relation to Patient

Changes have been made to the PatientRelation lookup so we can configure what is copied over to other patient fields from the Patient Tab information. This applies to the Responsible Party and Emergency Contact sections on the Contacts/Demographics, Medical Record Access window and the Manage Policies window relation to patient.



| Patient Relation Code | Description | Display Order | Address Same As Patient Flag | Firstname Same As Patient Flag | Lastname Same As Patient Flag | Active |
|---|---|---|---|---|---|---|
| Contains: | Contains: | Equals: | Contains: | Contains: | Contains: | Contains: |
| Self | Self | 1 | N | Y | Y | Y |
| Spouse | Spouse | 2 | N | N | Y | Y |
| PA | Parent | 3 | N | N | N | Y |
| Mother | Mother | 4 | N | N | N | Y |
| Father | Father | 5 | N | N | N | Y |
| Child | Child | 6 | N | N | Y | Y |
| Click here to add a new row | | | | | | |

**Figure 4.28 – Additional columns added to PatientRelation lookup table**

Similar to before when we hard coded these conditions to things like "Self" the last name and first name will be copied over if the flag for that piece of data is set and if the field is blank. The Address Same As Patient Flag will copy over all contact information if the destination field hasn't yet been set after doing that if all the fields match the Patient, the "Same as patient field will be checked".

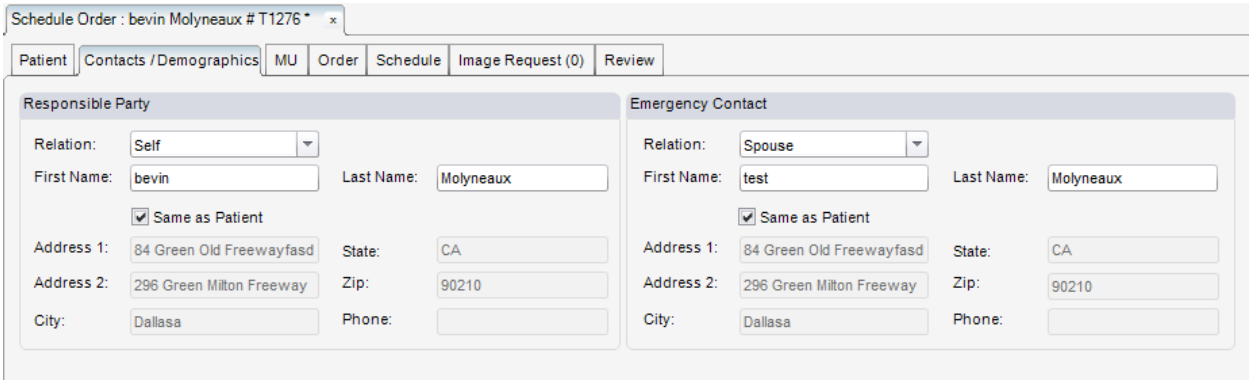



**Figure 4.29 – Relation to patient fields**

If "Same as Patient" is checked then any changes to the patient's address information will be updated in the contacts tab.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Order Follow Up Tracking

In build 37 tracking follow ups on orders will be available. Edit the order and a follow up tab has been added. On this tab the follow ups can be added or previously added follow ups can be viewed.

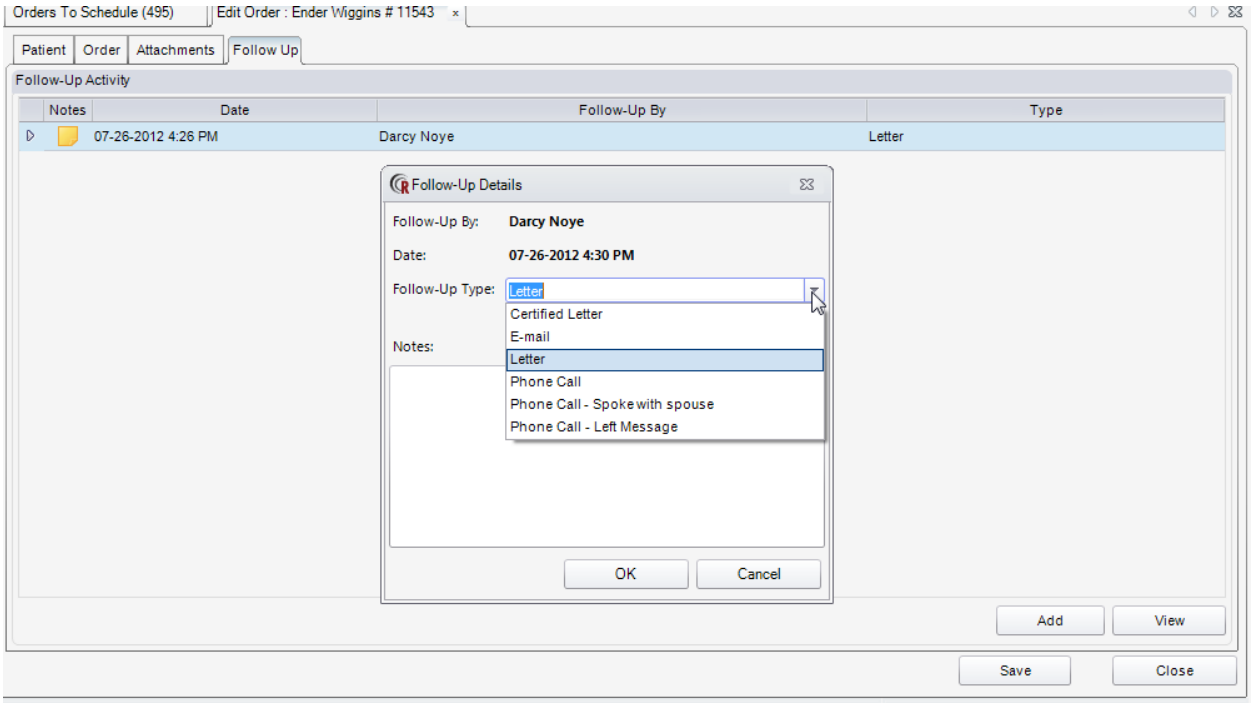



**Figure 4.30 – Order follow up tracking**

This works similar to the pre-existing follow up tracking from Mammo, with the exception of the columns on the work list. ACR Cat. 0 and ACR Cat. 4/5 Follow-up work lists will display the Last Follow Up Date, the follow up attempts, and the method of the Last Follow Up. These columns were not added to the Orders To Schedule or Patient Folder work lists. If the user wishes to see the follow-up, they must open the Edit Order window and select the follow up tab.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Zip Code Field Enhancements

If the zip code field is populated with 5 numeric characters, the search option will be enabled. If the character count does not match five, the search will not be conducted.
To initiate the search and auto populate the City and State fields, the user can tab from or select enter from the zip code field.

## Copy Contents from Grids

To assist in capturing / copying information from a grid the context menu item option of "Copy Cell has been added. Examples are the Insurance Policies grid and Billing Code Information Grid.

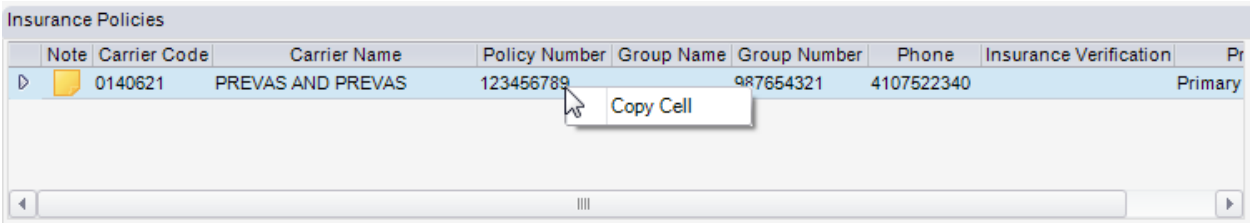



**Figure 4.32 – Copy cell context item added to grids**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## New Required Fields

In build 37 the Chief Complaint field and Special Accommodations field are now required. The standard pop up message information of incomplete required fields will display if these fields are not populated.

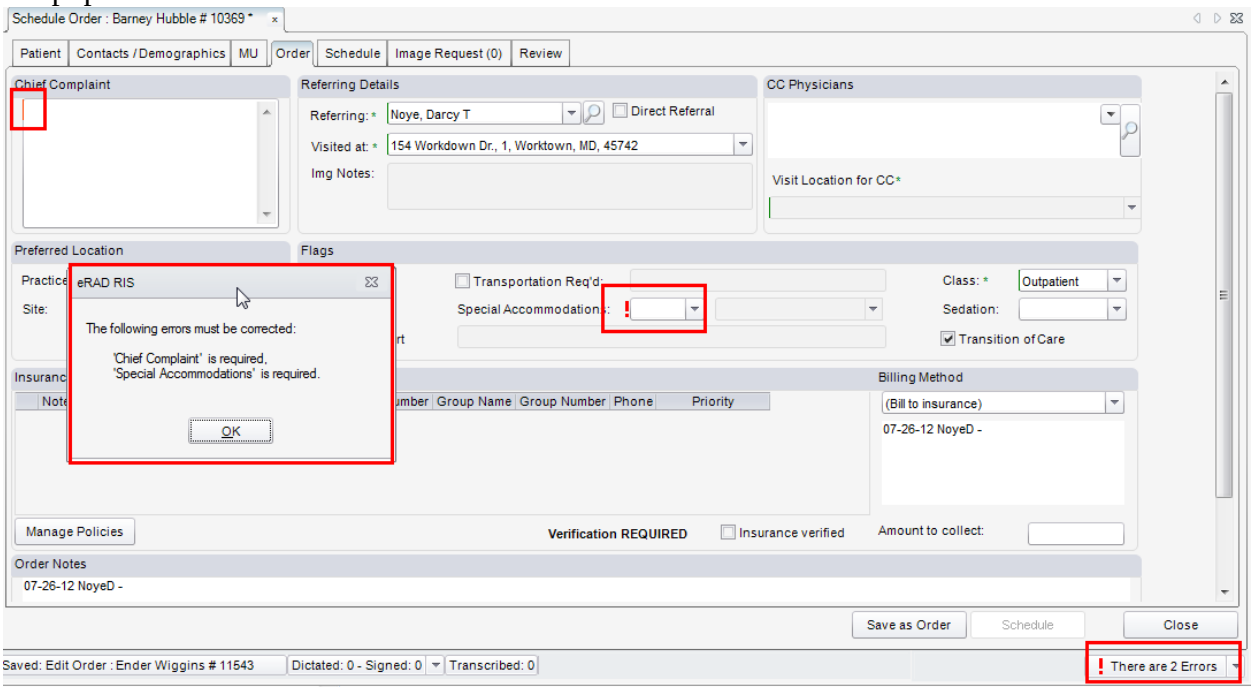



**Figure 4.31 – New required fields**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Editing Data of Exam for Outside Reads

From the view edit window users can change the Arrival time and the Exam start and end times. Neither of these data panes applied to Outside Reads. Now when opening an Outside Read in the view edit window, the Notes/Exam Times tab will have a new data pane of "Outside Read" in place of the Arrival and Exam times data panes.

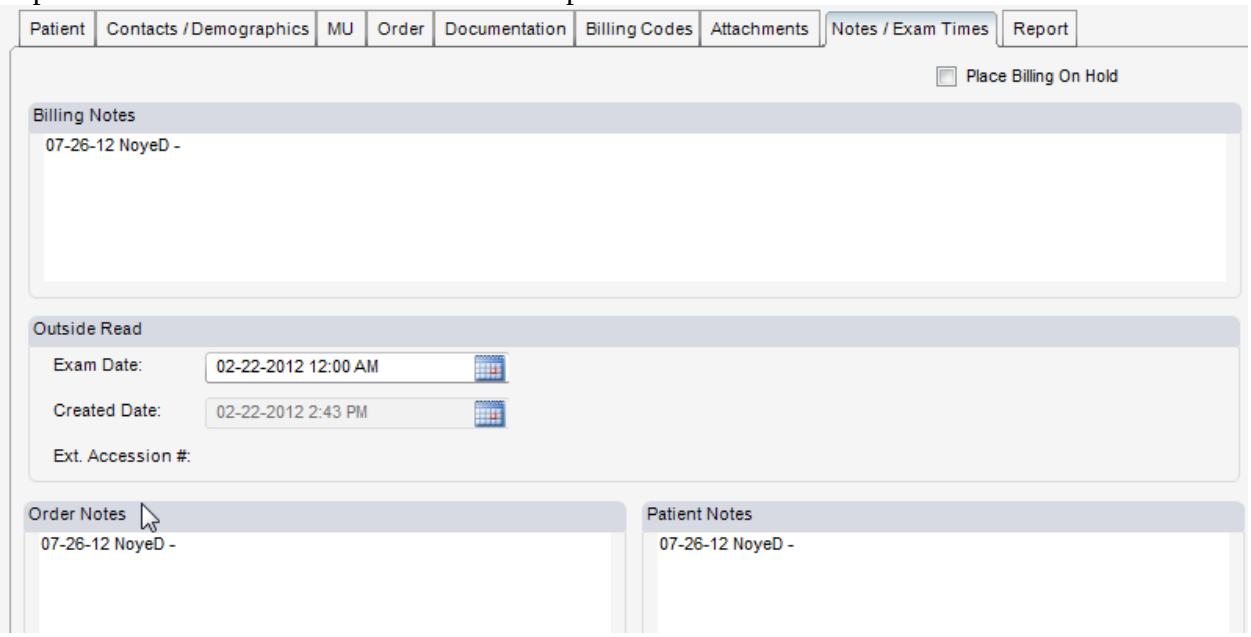



**Figure 4.33 – Outside Read time**

Editing of this field is permission based and the user must have the **Clinical.ModifyTimestamp** permission to edit these fields.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

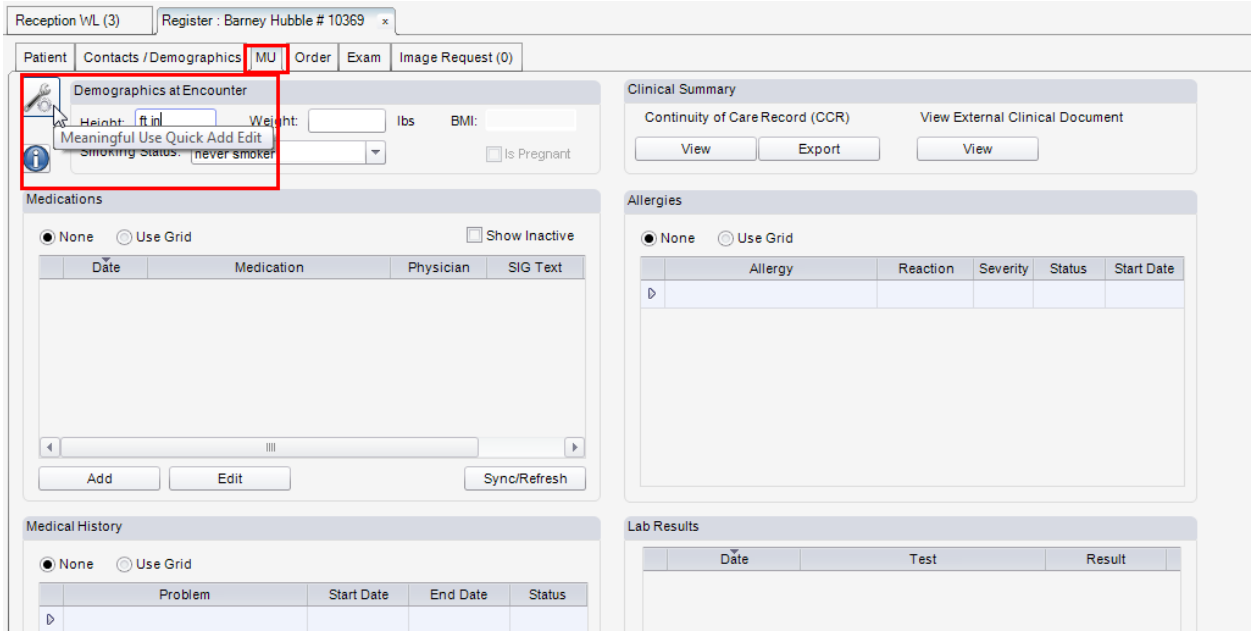
## Meaningful Use (MU) Enable Controls

Added a new Access string **MUEnabledConrols** that when the user has full access to this new permission has the ability to add Problems, Allergies or Medications either by the quick add edit button or the MU grids. If they do not have full access to **MUEnabledConrols** the user will be only able to enter Problems, Allergies and Medications by clicking on the Meaningful Use Quick Add Edit button.

**Figure 4.34 – New access string for Clinical.MUEnableControls**

## Meaningful Use Changes

In build 37 there has been many minor changes to Meaningful Use. First off the data tab that contains the MU grids has been renamed from "Visit" to "MU". The location of the tab has been moved so that it is in front of the "Order" tab in all data windows that MU is present. The MU Wizard Dialog has been renamed to Meaningful Use Quick Add Edit and the location of this button has been moved from the right side of the MU tab to the right side. The Meaningful Use Information button has also been move from the right side to the left.




No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

**Figure 4.35 – MU tabs new location and displaying Meaningful Use Quick Add Edit and Meaningful Use Information buttons new locations.**

The access string for the Meaningful Use Quick Add Edit button was also as MU.QuickAddEditDialog, while the old access string MU.WizardDialog has been removed.

To turn on Meaningful Use as required is now set at the practice level. From the Organization lookup table > Edit Practice and there is a new check box "MU Required". Checking this box will require the Preferred Language, Race, and the Ethnicity fields on the patient tab and the Smoking Status, and radio button for Medications, Allergies and Medical History on the MU tab to have values when Checking in of Arriving the patient.

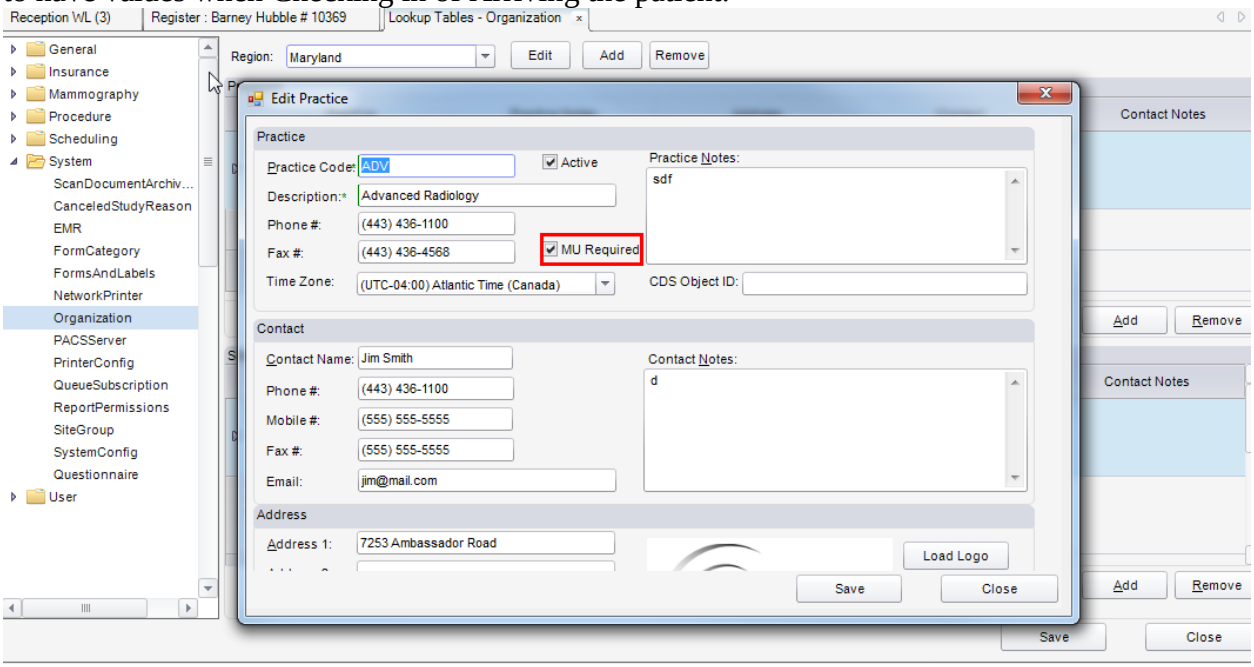



**Figure 4.36 – MU Required at the practice level**

Users are prevented from change the Clinical Summary Rule by not allowing them to de-activate the Alert Configuration code for GetLabWork.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

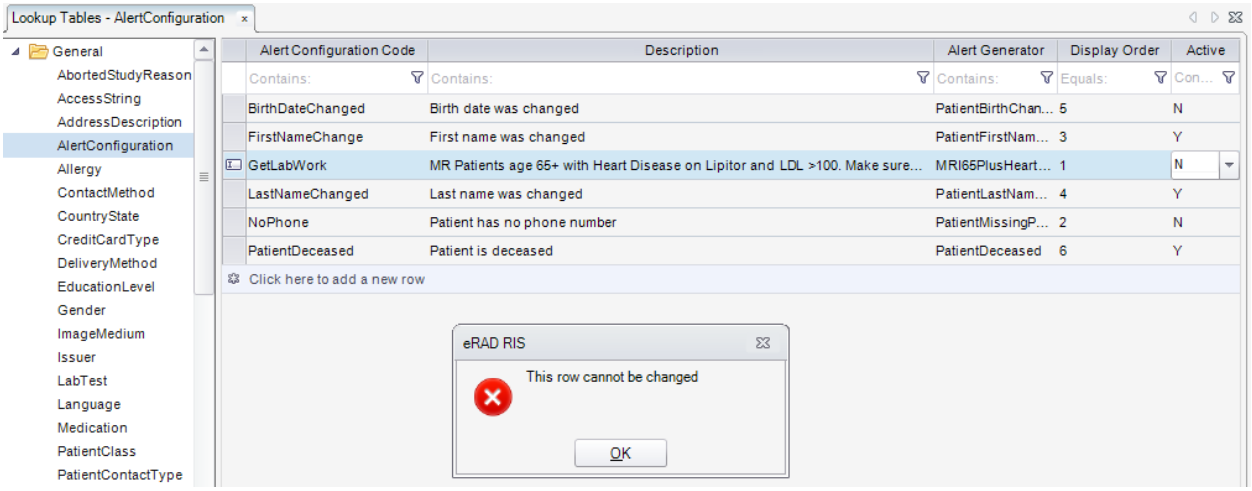



**Figure 4.37 – Alert Configuration cannot be disabled**

A new Clinical Summary management report has been added which is setup in the Forms and Labels lookup table. In order to capture is the report was printed we added a new system config code of MUClinicalSummary item. The value is changeable based on the name of the management report file. If the name of the report is change, the value of MUClinicalSummary code will have to change to match it.
When the user prints this new report the application will look for the Config item to determine if we need to capture if the report was printed. We record the date the report was printed and set the provided_clinical_summary_flag = Y in the db when this report is printed.

Lastly a change was made to the MU Scorecard so it does not calculate multiple patient population and multiple numerator counts. There are two entries ”0024” and “0038” that contain multiple entries. The report will display empty for those two mu entries. The user will to drill down to see the values as displayed in the figure below

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| ⊟ NQF 0038 | Childhood Immunization *** | | | | | | |
| | ⊞ Administrator Test User | | | | | | |
| | ⊞ Andrew WaiteW | | | | | | |
| | ⊞ Clifton Harding | | | | | | |
| | ⊞ Dale Yeo | | | | | | |
| | ⊞ Darcy Aiken | | | | | | |
| | ⊞ Darcy Noye | | | | | | |
| | ⊞ Denis Doiron | | | | | | |
| | ⊟ Ian Power | | | | | | |
| | DTaP vaccine | 1 | 1 | 1 | 0 | 1 | 100.0% |
| | IVP Polio vaccine | 1 | 2 | 1 | 0 | 1 | 100.0% |
| | MMR meals mumps and rubela vaccine | 1 | 3 | 1 | 0 | 1 | 100.0% |
| | HIB vaccine | 1 | 4 | 0 | 0 | 1 | 0.0% |
| | Hepatitis B vaccine | 1 | 5 | 1 | 0 | 1 | 100.0% |
| | Chicken pox (VZV) vaccine | 1 | 6 | 1 | 0 | 1 | 100.0% |
| | Pneumococcal vaccine | 1 | 7 | 1 | 0 | 1 | 100.0% |
| | Hepatitis A vaccine | 1 | 8 | 0 | 0 | 1 | 0.0% |
| | Rotavirus vaccine | 1 | 9 | 0 | 0 | 1 | 0.0% |
| | Influenza vaccine | 1 | 10 | 1 | 0 | 1 | 100.0% |
| | DTaP, IPV, MMR, VZV, Hepatitis B vaccine | 1 | 11 | 1 | 0 | 1 | 100.0% |
| | DTaP, IPV, MMR, VZV, Hepatitis B, Pneumococcal vaccine | 1 | 12 | 1 | 0 | 1 | 100.0% |

**Figure 4.38 – MU Scorecard changes**

## Appointment Book Change Schedule Time by Dragging

A limited piece of functionality was added to the Appointment book window. Users with the permission "Clinical.AppointmentsBooked.AppointmentDragging" will be permitted to move studies in the status of "Scheduled" only to different time slots. This will only work for studies that have 1 procedure in the order. The dragging of appointments that have multiple studies with one order will still have to be completed via rescheduled window.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

After the user has moved to the appointment to the desired time, the user will be prompted with a confirmatory message.

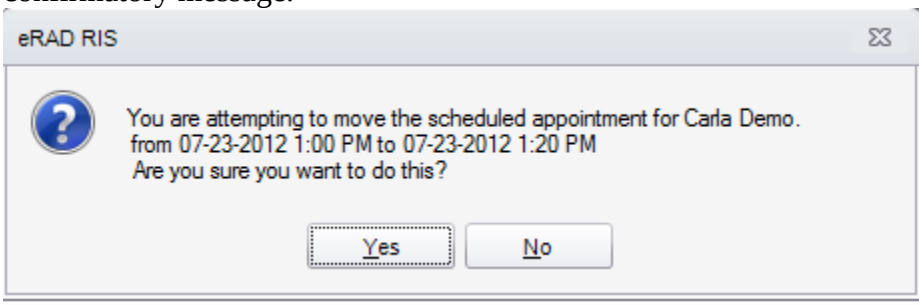



**Figure 4.39 – Dragging appointment confirmatory message**

If the user tries to move the study to a modality that is not valid based the users schedule group configuration, then they will get the warning.

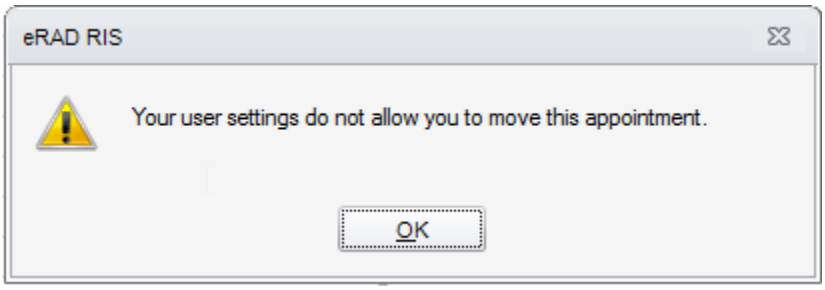



**Figure 4.40 – Message prompt if study is dragged to incorrect modality**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## External Reporting Workflow / No Report Workflow

Previous to build 37 no report workflow was configured at the procedure. If the procedure column No Report Flag was flagged as Y a check box would appear in the Perform Exam window. This column has been renamed to External Report Workflow Flag and if the procedure has this flag, the check box External Report Workflow is automatically checked in the Perform Exam window.

If the study is then opened with the "View Edit" or "Verify External" screens there will be a button "Verify External Report", which will move the study to the final state of "ExtReportVerified".

To find all exam done with external reports, which require verification, use the Exam Search as shown in the following:

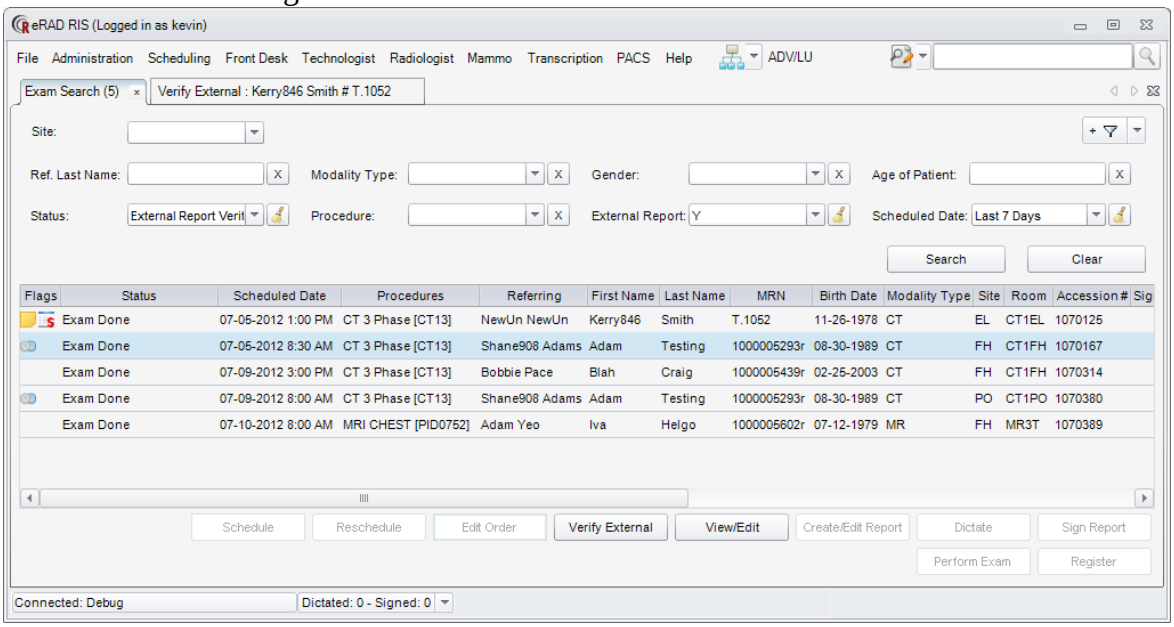



**Figure 4.41 – Exam search window (explained later in this document)**

In the Verify External screen, users can "View Images" and "Verify the report". The Verify External window is accessed from patient folder.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

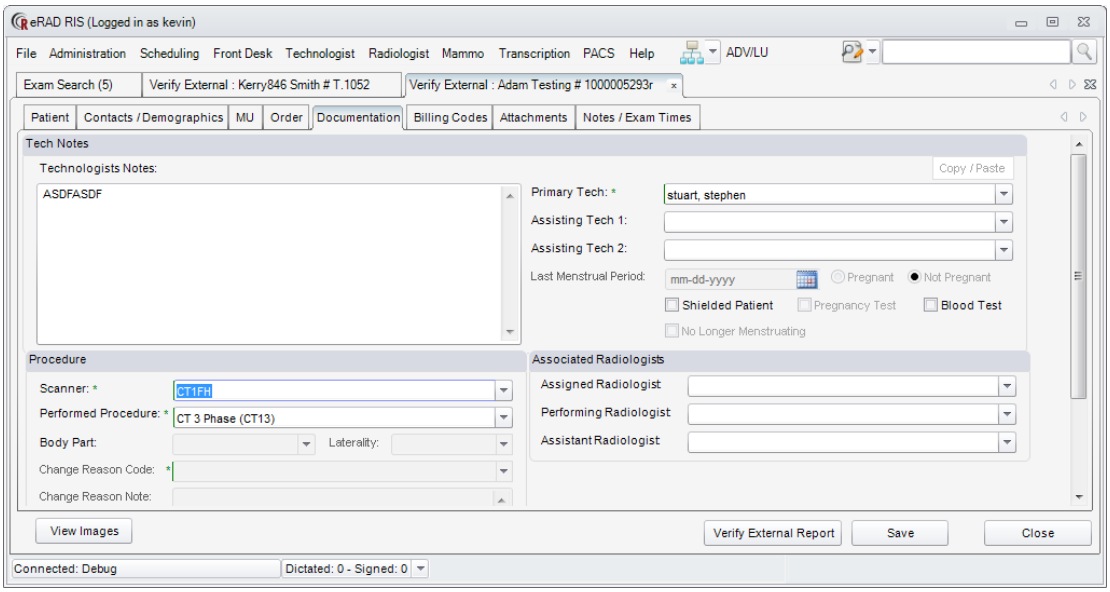



**Figure 4.42 – Verify External window accessed from patient folder**

ExamDoneReportVerified, will get added to the billing rules and will go to billing.

## IVT Additions and Data Window changes

In build 37 some additions have been made accessing the IVT data window as well as changes within the IVT data window.

The Patient Folder now has IVT in the context menu that will open the IVT data window

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

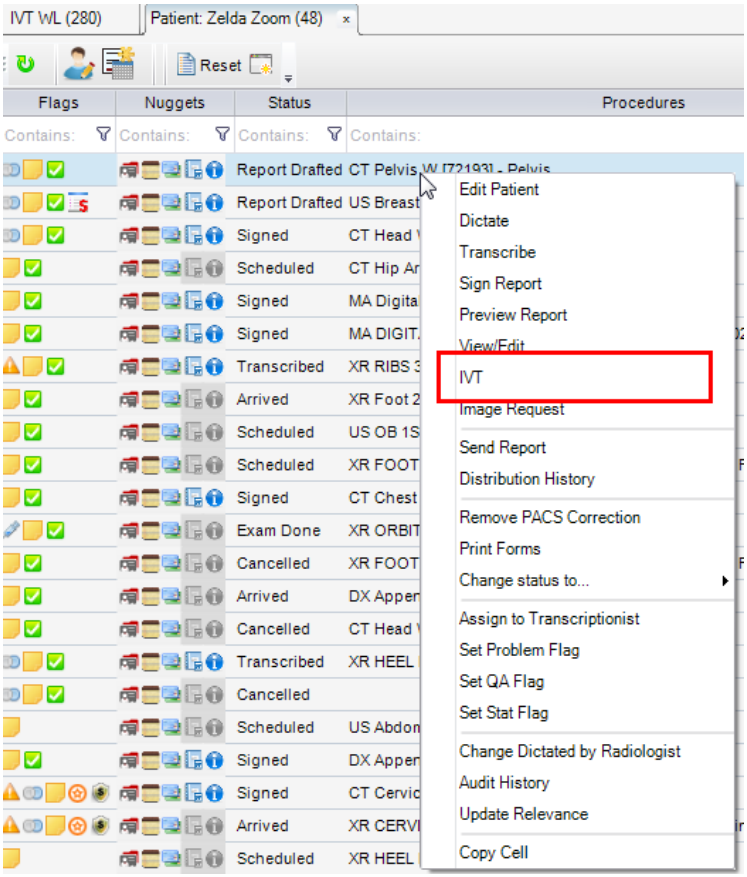



**Figure 4.43 – IVT added to context menu of patient folder**

Changes within the data window are a new tab called Order / Exam located between the Insurance Verification PreCert tab and the Attachments tab. The tab is initializes as read only as there is no need for editing in this window. The exam information data pane contains the Exam date and time, accession number(s) exam status and procedure.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

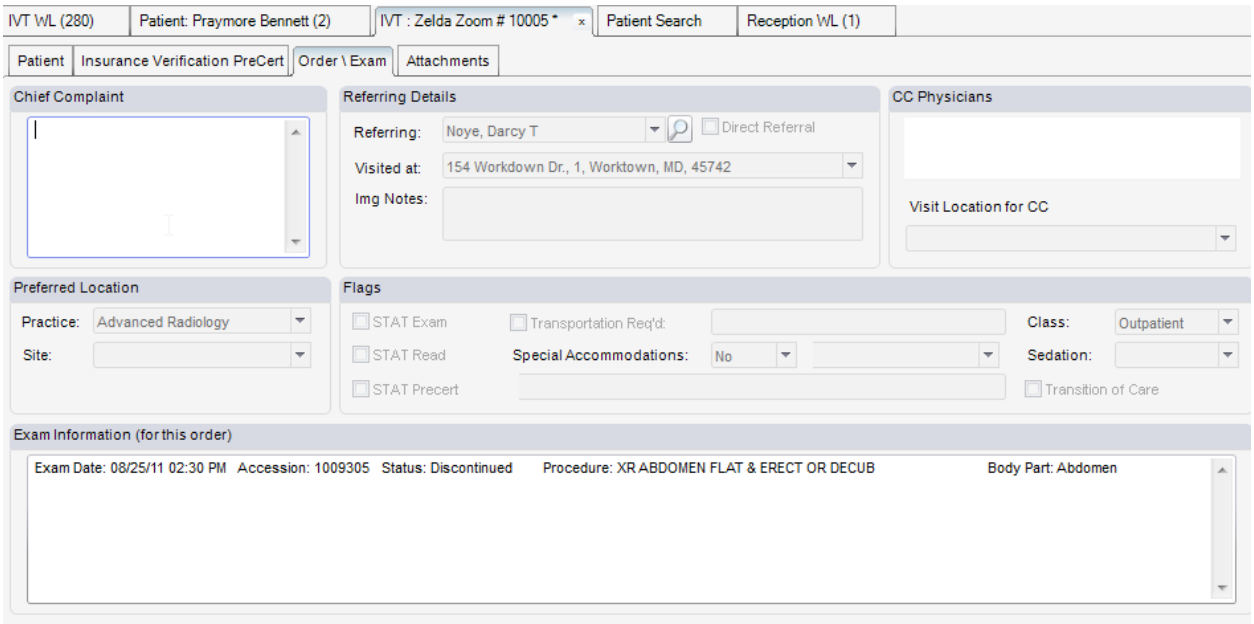



**Figure 4.44 – IVT Order/Exam tab**

Also added to the Insurance Verification PreCert tab was access to the Order Notes text box to simplify work flow.

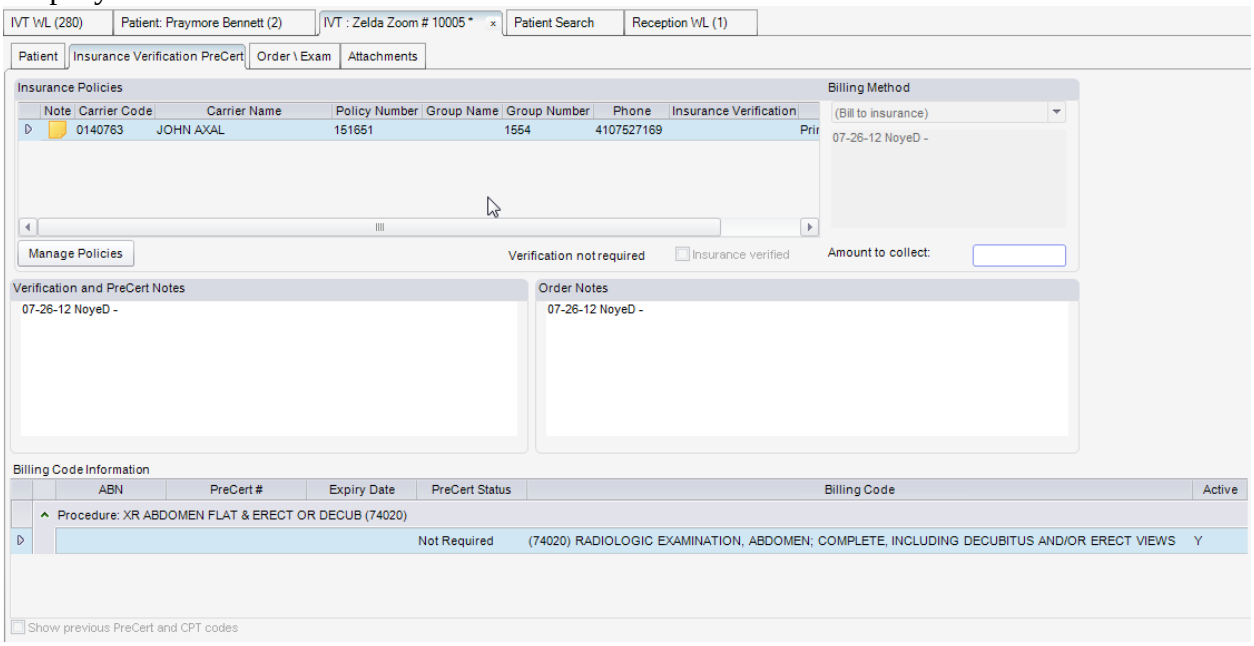



**Figure 4.45 – Order notes field added to IVT window**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Mammo Diagnostic Reporting BI-RADS picker changes

In build 37 there have been some minor changes in the Mammography workflow, specifically the BI-RADS picker, which now has a configurable default recommendation for each BI-RADS level. If BIRAD is expanded, you will see all configured recommendation codes that are mapped (per SITE) to the BIRAD. There is now an optional field " Is Default Recommendation Flag". If set to "Y" this recommendation for the BIRAD, for the Site will be pre-populated automatically once the Radiologist selects a BIRAD.
Majority of the time the Radiologist will keep the default recommendation, however they can always choose to manually change it.

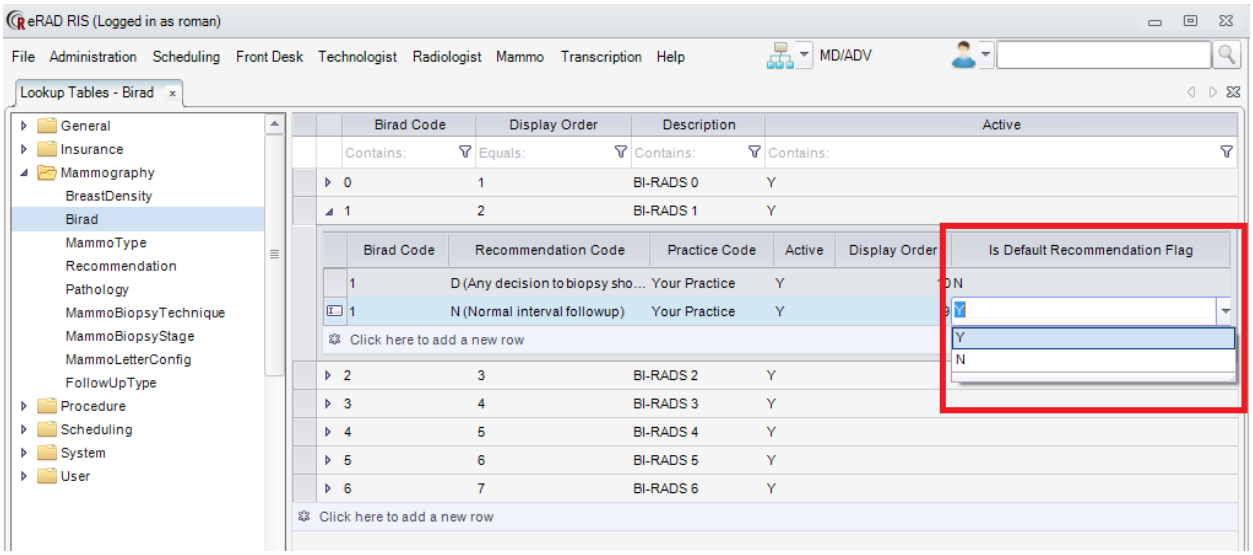



**Figure 4.46 – Configuration example for BI-RADS picker**

In RIS, once configured, if user selects a BI-RADS level, the corresponding 'default' recommendation will automatically populate the 'Recommendation' dropdown.

**Figure 4.47 – BI-RADS selector in RIS**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Follow-up Screen Enhancements

Follow-up workflow needs to allow the user to generate a follow-up order after new information becomes available (Eg. Biopsy results).

After the user chooses "Not Required" for additional surgery, they are able to enter a "Follow-up Required" or "Follow-up not required". If the user chooses "Required" for additional surgery, a "Create Follow-up" button appears, and when clicked, a dialog box appears:

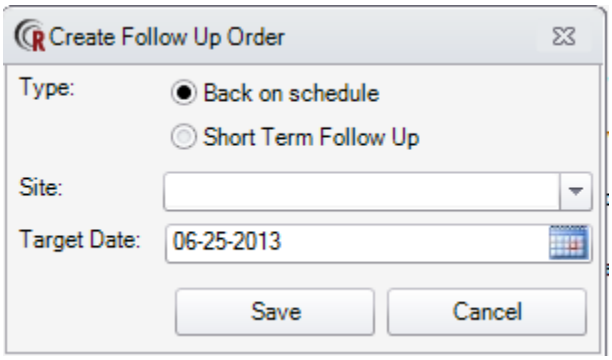



**Figure 4.48 – Create follow-up Order dialog**

This follow-up order dialog allows the user to specify "Back on Schedule" (i.e. invitation status) or Short Term Follow Up.
A site drop down list provides a Site drop down, that is populated with a short list of all sites for the practice that performed the mammography exam.
The target date controls the Target Schedule Date, which will be used to help determine when the order should be scheduled, and when the patient should receive reminder letters.

Auto-Resolving Follow-Ups
If the user specifies that no additional surgery is required and no additional follow-up is required, the signed exam should drop off the Follow-up worklist.

Lost to Follow-up
The follow-up tab of the Follow up screen has a checkbox that says Lost to follow-up. If this is checked, the exam should drop off the follow-up worklist. This functionality existed previously, but the text has been changed.

Follow-up Outstanding Issue
Input on the biopsy window is currently a required field for all practices using mammo tracking. In the future, those practices that don't do additional surgery shouldn't have to click "Not

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

required" (i.e. we should have a configuration setting that controls which practices require this field), for the time being all practices will be required to answer this question.

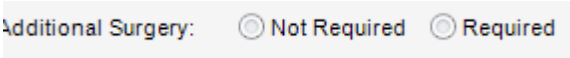



**Figure 4.49 – Additional Surgery Inputs**

## Xkeys Integration framework

Xkeys device mapping is normally done via "MacroWorks Software" that is installed on each user workstation. After exploring various integration options, we decided to leverage the MacroWorks mapping software to allow users to map their own Xkeys device actions.
We will be adding RIS action templates to the existing MacroWorks software, to make RIS actions available for key mappings.

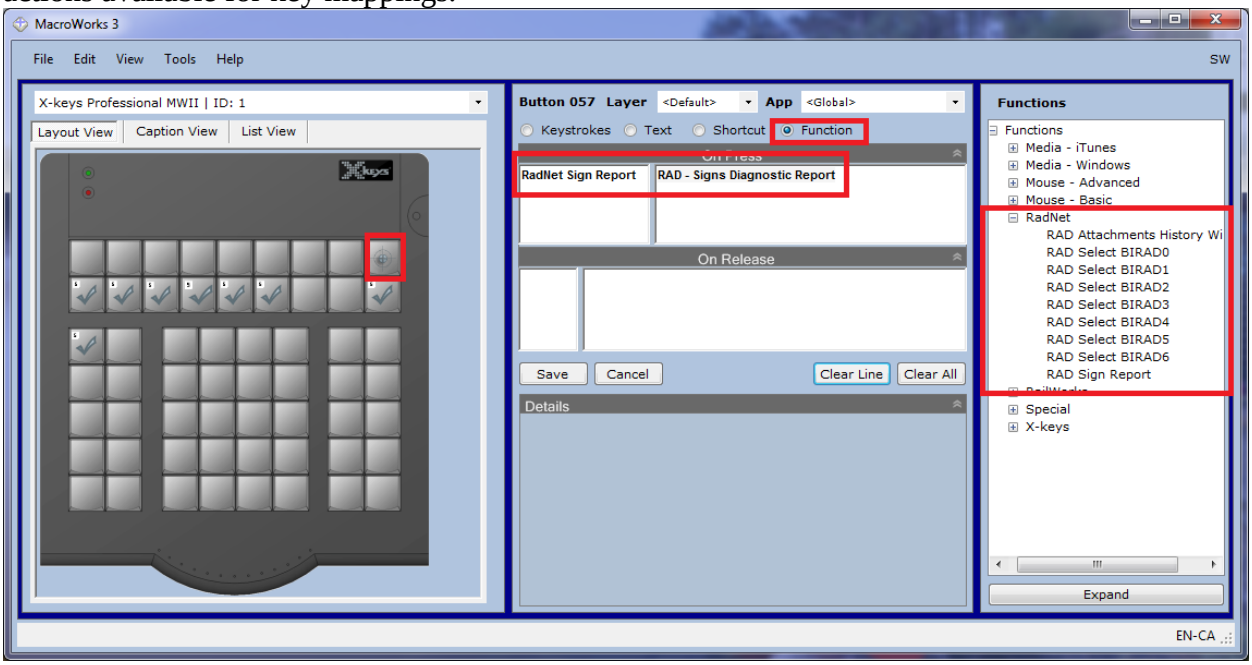



**Figure 4.50 – XKey Configuration Utility**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

**For every "Function" listed** on the right hand of the screen under RadNet, **an XML file will be provided** to the following location on the users workstation:

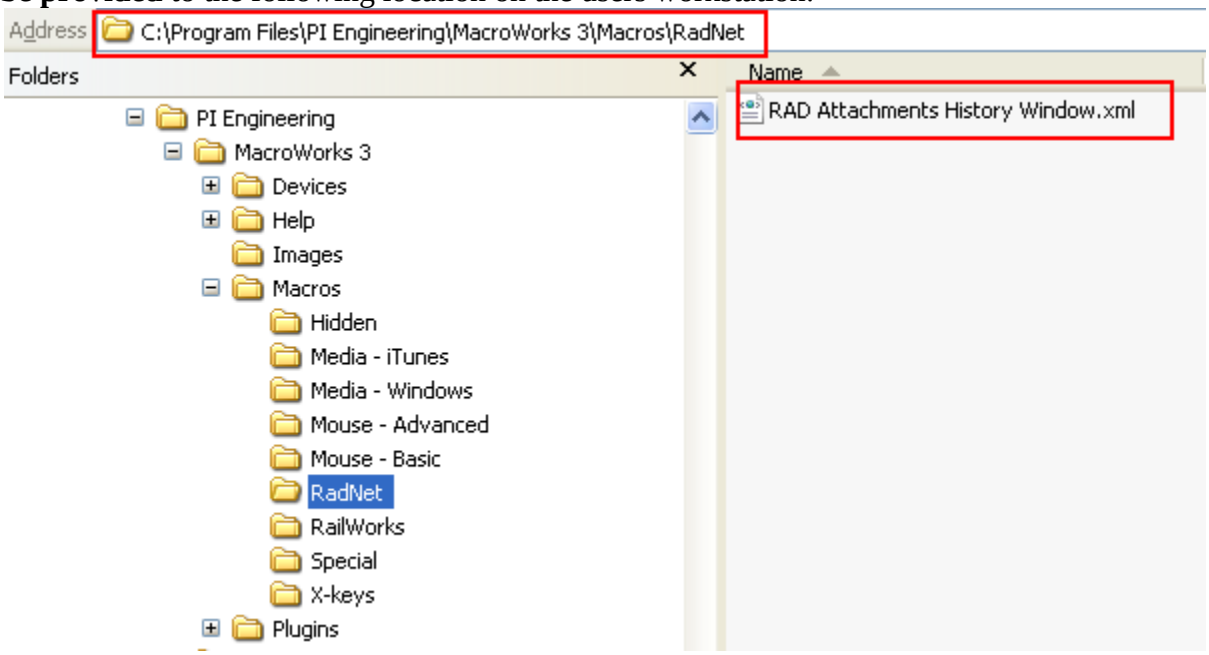



**Figure 4.51 – XKey XML file location**

The XML file it self will contain a command to execute a new DLL that is compiled with RIS. The DLL will execute a call passing an "**Action String**" to RIS. The XML structure file for different actions will always be the same. Only the action description, and the actual action string that is being passed to RIS will need to be changed when creating new actions

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

See sample below:

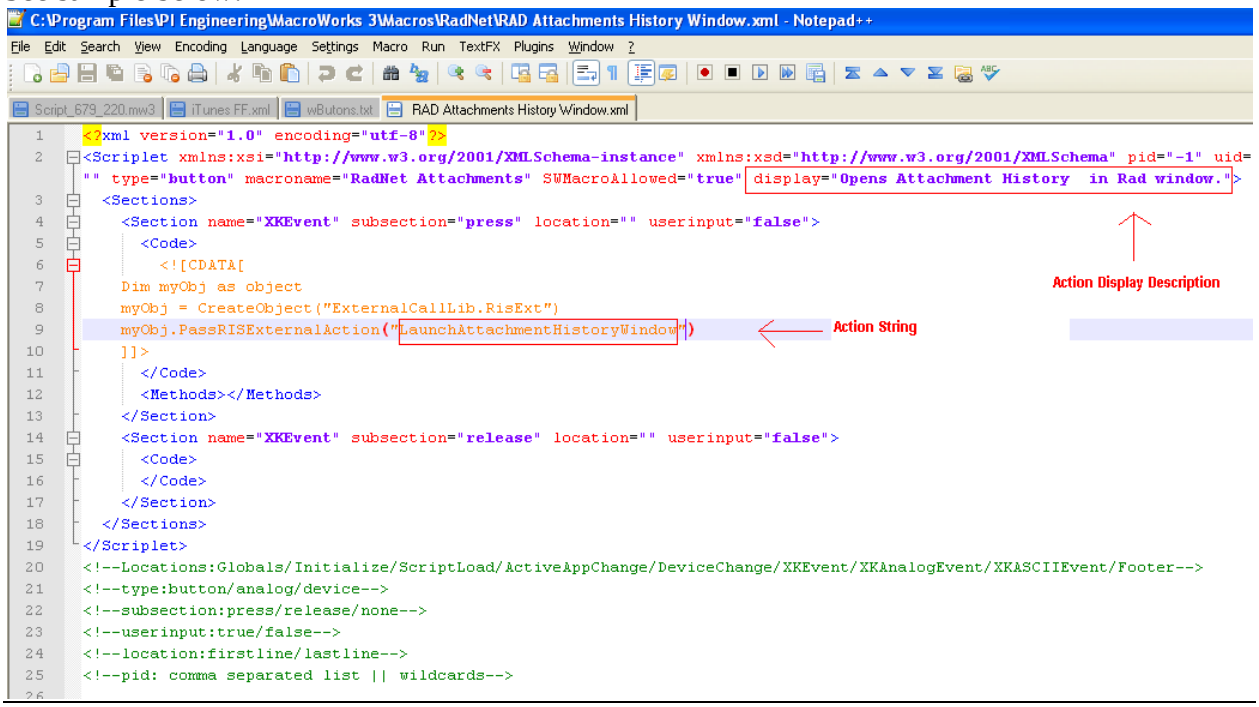



**Figure 4.52 – Sample XML file for XKeys**

Once this action is mapped to a key on the Xkeys device. When a user presses the key, the new DLL will pass an "Action String" to the main RIS window. RIS window will constantly be listening for actions being passed from the external DLL.

The following function will be listening.

MainApp.MainShell → WinProc (function)

If a call is determined to be coming in from the new External Call DLL the "Action String" being passed will be passed to a new XkeysLibrary class →

MainApp.XkeysIntegration.xKeysCallLibrary → AcceptExternalCall (function)

Based on the Action string that is passed in → new actions can be coded into the library. All existing RIS actions can be referenced and re-used. ( ex. Speech Mike actions)

Supported Events for XKey Configuration:

- Ability to select any BIRAD via Xkeys mapping
- Ability to select any breast density code via Xkeys mapping
- Ability to Sign Diagnostic Report via Xkeys mapping
- Ability to Suspend Dictation via Xkeys mapping
- Ability to load any Text Macro into the body of a Diagnostic report ( limitation – in RIS currently can not define default location for the macro to be inserted.) Insert will occur to the location where the user is currently focused in the report.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

NOTE: X keys can be programmed to fire multiple events on press of a key. For example one key stroke could set the BIRAD, insert a Macro into the report and fire an event to another application such as PACS.

## Maximum Open Tabs by User Group

It was determined that a need for a maximum number of open tabs, defined by user group. Code was added to all places that create tabs within RIS. If the maximum number has been exceeded, a message will appear asking the user to close some open tabs.
This does not apply to pop-up style windows, only tabs. Therefore (as an example) Reset Skipped rows dialog will still launch even if the maximum number of open tabs has been met.
A new column was added to the l_user_group table for maximum_open_tabs. The default value is 20. The value for each group can be edited in the lookup editor for user group

## Min Max Wait Time

There was a desire at the sites to allow for a configurable amount of time to occur between studies, part of this desire for this was that existence of the hardcoded limit of 4 hours that could occur between studies.
To resolve this possible issue that could occur of too much time between studies, we created a new config variable called "ScheduleDefaultMaxTimeBetweenStudies" this will work in conjunction with the addition of new controls added to the search panel that will allow for the manual selection of the allowed time between studies. This selection will only affect individual studies, it will not get used for procedure plans, where there is already a configured wait time.

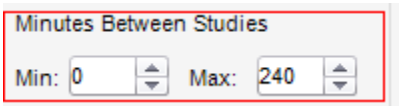



**Figure 4.53 – Min Max Controls**

As described above this selection process applies to all non-procedure plan studies, but there is no visible distinction to the user which one will be affected by the selection, there is a desired addition to have an advanced selection that will allow for the selection of min/max for each procedure and no selection of procedure plan studies.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## PreCert Notes in View Edit and Billing

It was discovered that we need the ability to view pre-cert notes after the pre-cert is done. Viewing ability to view/edit and billing exception screens was added to remedy this issue.

## Billing Code Grid Changes

It was discovered that users were having difficulty distinguishing which billing codes were matched up to each procedure. To remedy this, the procedure code has been added to the grid for billing codes, see below:

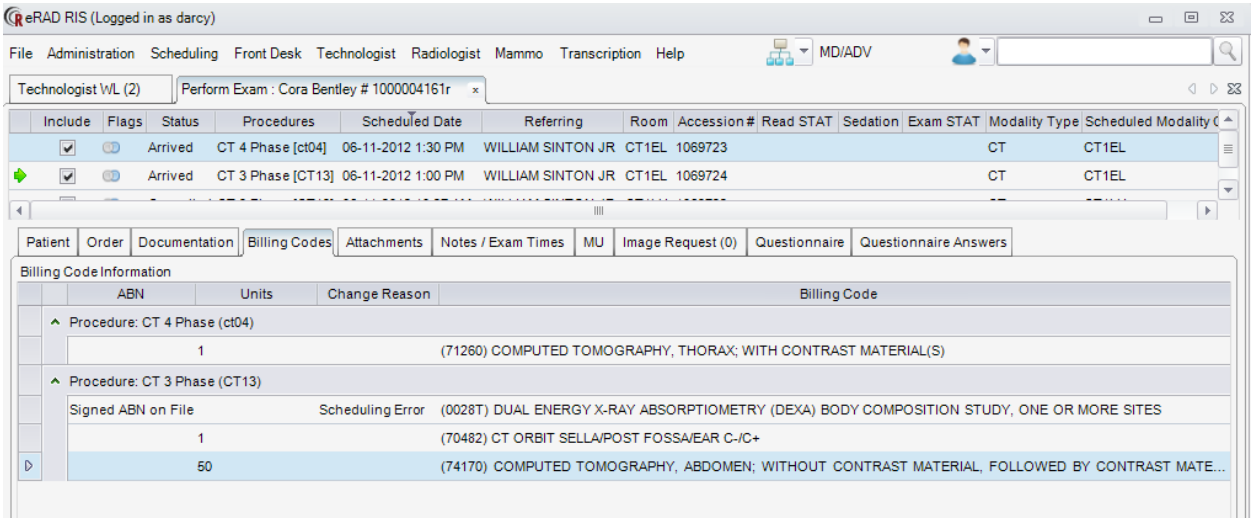



**Figure 4.54 – Billing code grid including associated procedures**

The bill codes above are now shown as rows which are grouped under the procedure.

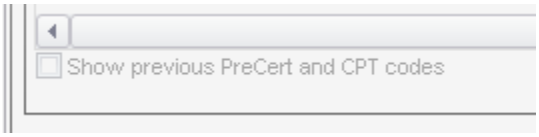



**Figure 4.55 – Disabled dynamically when rows are not being filtered**

The filter for showing prior PreCert and Bill codes has been updated so that it will be disabled unless there are actually rows that are being filtered out. The author was advised that there were complaints that the users had to toggle the checkbox just to see if there were any old rows that

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

were not being shown. This checkbox now behaves like it's cousin on the insurance dialog box (the enabled/disabled state provides information as to whether there is anything extra to show).
I modified the change reason so that it is bound to the procedure change reason lookup instead of a hard coded list.
Finally, the logic for the add button on the bottom of the grid was updated so that it assigns the bill code to the currently selected procedure on the bill code grid. Previously it was using the first active study item for study row [0].

Outstanding issues
When the tech changes the procedure, RIS creates a new study_item_certification row and filters out the old. If the user checks the checkbox to show the old precert rows, it shows them nested under the new procedure code (e.g. modify a CT3 phase to a CT4 phase. The CT3 phase precert rows will be nested under CT4 for the procedure code, because the study item was modified instead of creating and new study item and marking the old row as deleted).

## Technologist Notes Locking After Completion

A new permission was added, "`Clinical.Tech.ModifyTechNotesAfterCompletion`" to allow the locking of Technologist Notes to be permission based.

This permission is checked when the Tech or View/Edit screen opens and the user will prevent an unauthorized user from changing the technotes after the exam has been completed. A RIS Administrator will be able to update technotes at any time. Note that the Tech that completes the exam will be able to change the tech notes after they complete the exam while the screen is still open, but after they close out of the screen, they will need authorization to make a change.

## Tech Only – Patient Class Workflow

There is a TECH ONLY patient class. If it is set, then it should override any other settings and make this a tech only study.
Because customer sites can dynamically add Patient Class codes, I introduced a new configuration setting that will indicate the patient class code to be used for Tech Only workflow.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

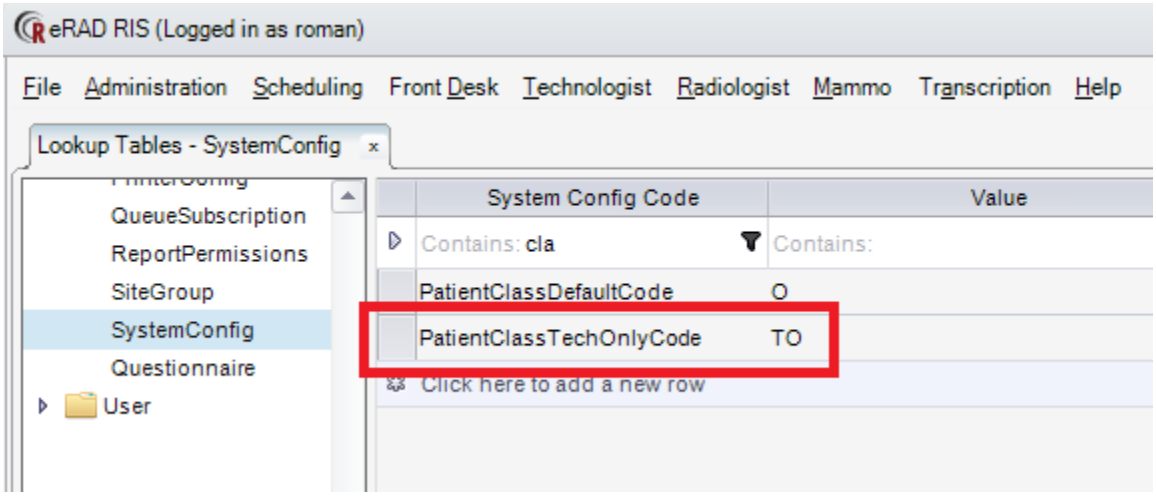



**Figure 4.56 – Configuration to define Patient Class Tech Only**

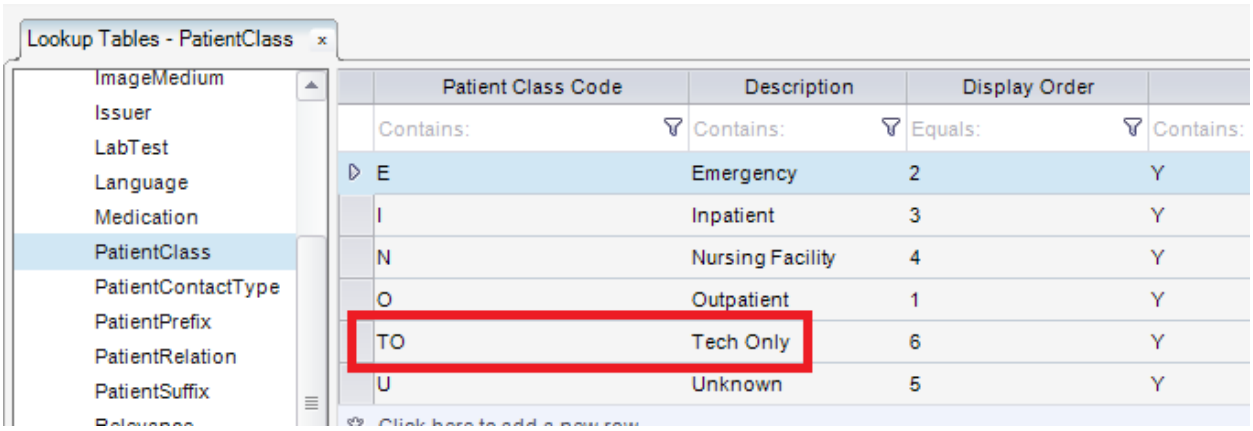



**Figure 4.57 – Patient Class code for Tech Only**

At the time the order is created or a study is booked, if the user selects the "Tech Only" patient class they will receive a confirmation dialog box, similar to the confirmation the Technologist receives if they select the workflow manually. This is to confirm that the user wants to proceed with the workflow.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

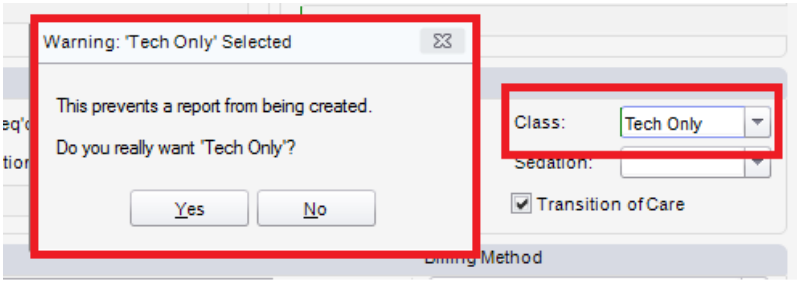



**Figure 4.58 – Patient Class Tech Only Warning**

If the user decides to proceed with "Tech Only" patient class the study will automatically be flagged for Tech Only workflow. The Technologist will NOT need to set the flag manually. ( it will be pre-selected)

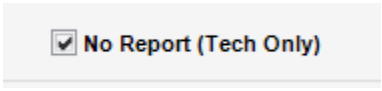



**Figure 4.59 – Pre-selected No Report (Tech Only) checkbox when Tech Only patient class is chosen**

On the technologist work list a new column is available for display, to visually indicate to the Technologist if the study has been selected for Tech Only workflow.

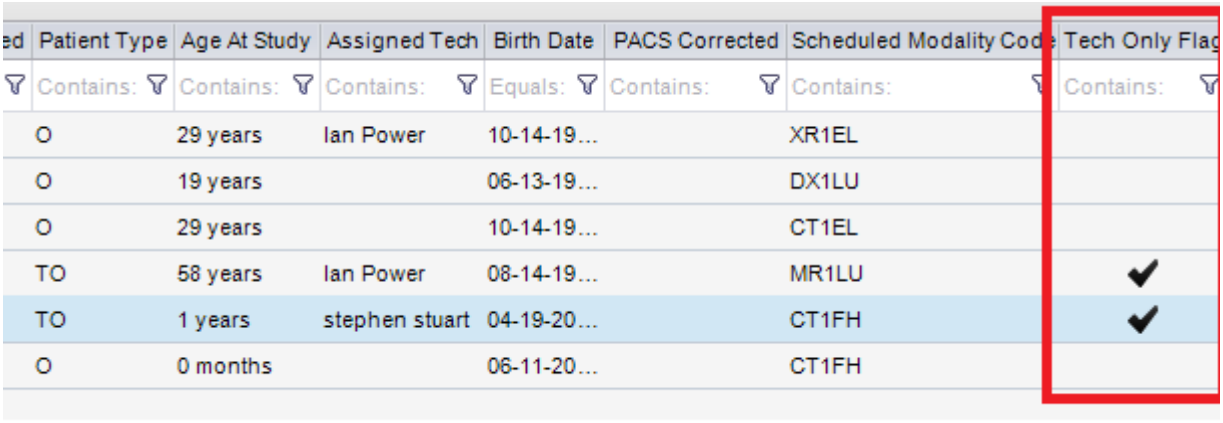



**Figure 4.60 – Worklist flag "Tech Only Flag" is checked for all tech only studies**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Technologist No longer Menstruating

LMP – Add a "no longer menstruating" checkbox beside LMP that skips the required field check. This should be stored at the patient level so that once it is set, it will never prompt again. A checkbox was added for the option for "No Longer Menstruating" to the technologist screen. See screenshot below:

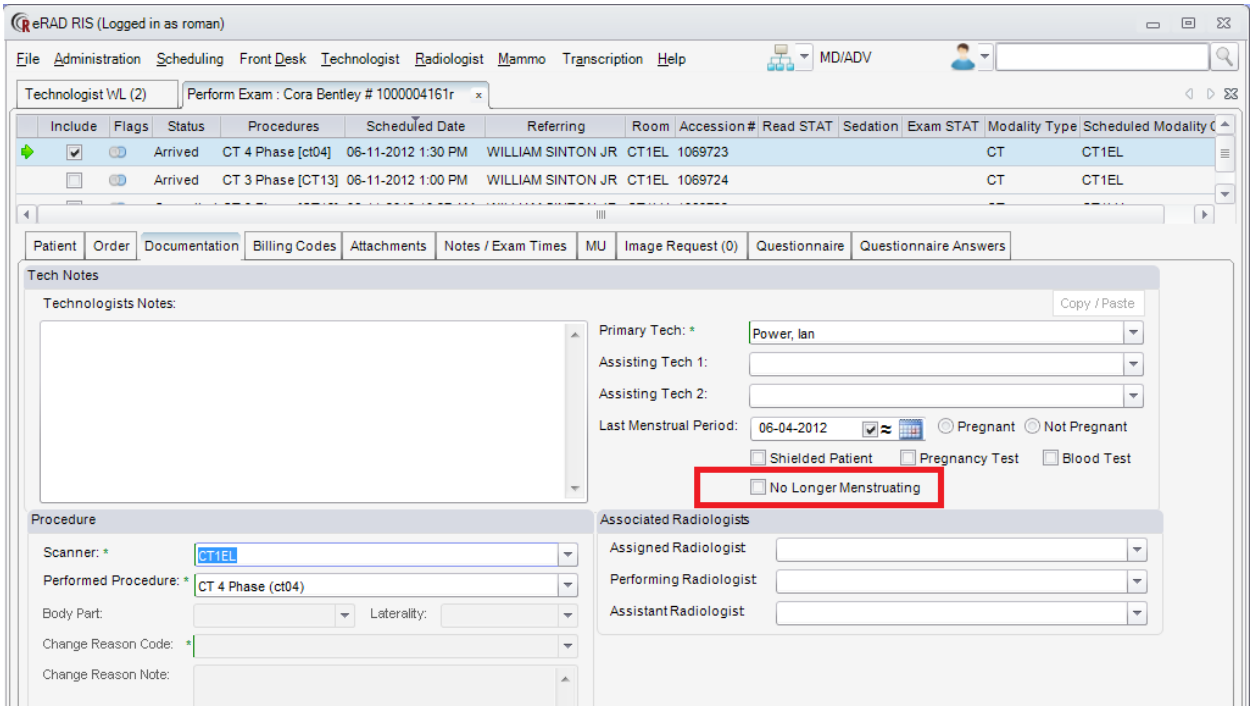



**Figure 4.61 – No longer Menstruating Flag**

## View Images from Technologist Screen

A new button titled "View Images" was added to the technologist Perform Exam Screen, on the bottom left. This button is only visible when you have both PACS and RIS installed.

**Figure 4.62 – View Images Button on RIS / PACS machine**

## Backend Interface with RADAR

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

A need was discovered to have all mammo exams confirmed via automation. RADAR will be used to confirm mammo appointments. Therefore we needed to build an interface with RADAR. Development is underway to interface the Merge RIS with RADAR. The high level solution is as follows:

1. Merge RIS dumps to a flat file a list of mammo appointments that are to be confirmed 4 or 5 days out.
2. RADAR picks up this file and begins confirming the appointments.
3. RADAR will send a flat file to the RIS with a confirmation status of the appointments.
4. This flat file is "processed" and the statuses are updated in the Merge RIS.

rRIS needs to simulate at least this integration with the following additions:

1. The procedures that are to be included in the flat file should be configurable, therefore allowing us to expand this feature functionality beyond mammo exams.
2. If the patient has multiple exams scheduled for that day, regardless of the procedure, we must provide the earliest appointment time to the flat file for RADAR.
3. We need a management report that lists all studies that have a confirmation status of "rescheduled" or "cancel". This report would be used by a PSR to reschedule or cancel the study via the gui.

   Note: In the future, we want to automatically move the study to the "orders to schedule WL" or automatically cancel an appointment based on these confirmation statuses from RADAR. **This is not needed for B37.**

**Outbound file for RADAR**

In S19 and S21, Stuart built a very similar for MedVoice. I used this interface as the base and made the following enhancements.

1. Added a configuration setting called "**RADARProceduresToConfirm**" that contains a comma separated list of procedure codes that are to be confirmed by RADAR.
2. Only return 1 study per day for a patient that meets the "procedures to confirm" criteria
3. Return the scheduled start date and time for the patient's first appointment for that day, regardless of what study it is (includes studies that do not match the "procedure to confirm" criteria.
4. Added a configuration setting called "**RADARConfirmDaysOut**" that contains the number of days out from today (or the date the query is ran) to search for studies that are to be confirmed by RADAR.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

There is a view in the RIS DB called **c_vw_RADAR_confirmation**. This view is used to produce a list of studies that are to be confirmed by RADAR. The **RADARProceduresToConfirm** and **RADARConfirmDaysOut** are built into this view.

The view is limited to only retrieve one days' worth of exams to be confirmed. So if the current day is Friday, and the **RADARConfirmDaysOut** is set to 3, the list retrieved from this view will include all studies scheduled on Monday. Running the view on Saturday with the same parameters will produce a list for Tuesday, and so on. Therefore this view needs to be run daily, regardless if it is a weekend or a holiday, in order to produce a list of exams to be confirmed on for a future date.

A-1 Mirth channel called "RADARConfirmation" has been created to trigger the compiling of the list of studies to be confirmed. This channel connects to the RIS db, queries the c_vw_RADAR_confirmation and creates a file that contains the list of studies to be confirmed.

The output file is a comma separated file with the following columns:

```
LastName
FirstName
HomePhone
MRN
EncounterID
Accession
Modality
ProcedureCode
Location
ArrivalTime
```

The channel configuration is found in \MirthConfig\RADARConfirmation.xml
There are no channel mappings for this channel.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Response File from RADAR

For the inbound implementation from RADAR I largely copied Stuart's implementation for MedVoice. See sprint documents "s19\Medvoice Confirmation Integration Continued_(Stu).docx" for details.
The RADAR side of this portion is not yet completed. We are speculating it will be the same at the MedVoice implementation. If there are differences then we will need to adjust accordingly.
The flat file from RADAR is a comma separated file (with no spaces between the fields) that contains:

Status
Mrn
Encountered
Accession_number

The channel configuration is found in \MirthConfig\RADARInbound.xml
The channel mappings are found in \MirthMapping\Inbound\RADAR.
Mirth mappings were created to accept the inbound file and appropriately update the studies. If the patient id provided does not exist, an error will be thrown indicating that column 'last_name' does not allow nulls. This is because the confirmation file does not have all the patient demographics necessary to create the new patient.

DB Schema Changes
New db view called c_vw_RADAR_confirmation
New stored function call c_GetFirstAppointment

## Change Default User for New Install

The default user for a new RIS install is "administrator". The authentication method is "Domain" (aka Active Directory). We should not default a user RIS to the Windows administrator user on the server where the RIS services are running.

The default RIS user for a new DB install is now set to be "RISAdmin". This account now uses RIS authentication (not active directory). The default password is "RISAdmin" (case sensitive). The RIS installation documentation has also been updated to reflect these changes.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Core Version Check

A check is needed when we apply a patch build, that verifies that the core version of DLLs installed on the workstation matches the core version required for the patch build.
When coping the patch build dependencies a core version check is now performed. If the builds version does not match the installed core's version #, then a prompt is displayed and the application exits:
The RIS software is incompatible with the installed core version. \nContact an administrator to obtain the correct version.\n\nPatch Version is {0}\nCore Version is {1}

Note: when versioning the application such as 1.1.37.svn# where 37 in this example is the sprint number, the second digit will now be the core version so as of build 37 release we are incrementing that to 1.2.37.svn#. Each time we change a core DLL dependency we need to increment the core version in the release.

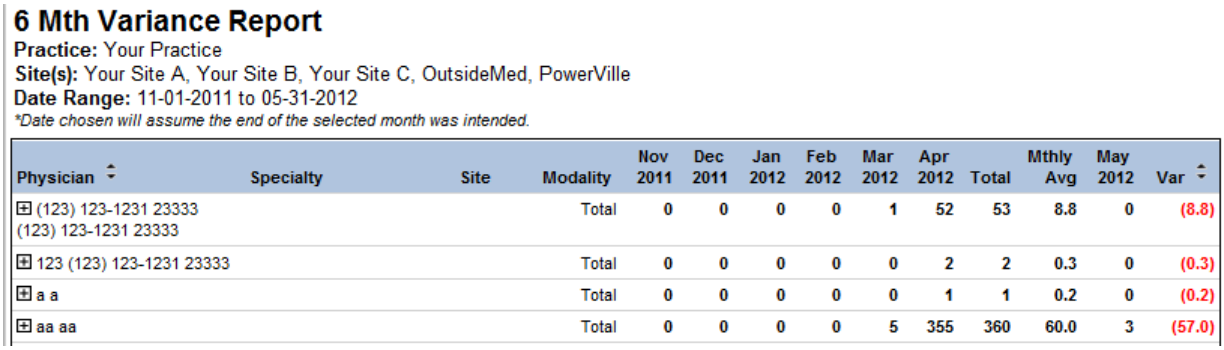
## New Management Reports Added

Front Desk Dashboard Management report - The Report shows a snap shot for the practice based off the selected dated and we break the dashboard into Daily Schedule, Frontdesk Activity, Modality availability and No Shows. The Daily schedule section shows the user all exams scheduled for the selected date for all sites within the selected practice. Within this report we show the user the all exams confirmed, if IVT or Pre-cert is required and the total of Complete vs Schedule exams. The Front Desk Activity section shows the number of exams the user scheduled, checked, walkins and the number of exams verified. The Modality section shows room availability. The report pulls the room availability from the modality template to show the minutes the room is open.
Sales Management reports – The sales team requested 9 new sales management reports:

- 6 Month Variance Report
- 13 Month Variance Report
- 13 Month Variance by Group Report
- 13 Month Variance by Physician location Report
- 13 Month Variance by Spec Group Report
- Month-over-Month Variance Report
- Quarterly Variance Report
- Year-over-Year Variance Report
- Year-to-Date Report

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

**6 Month Variance Report** – This report selects all exams for the entire selected month and all exams from the previous 6 months to display a variance between the selected month and the average of the previous 6 months. Note we exclude exams in status (Cancelled or Discontinued).

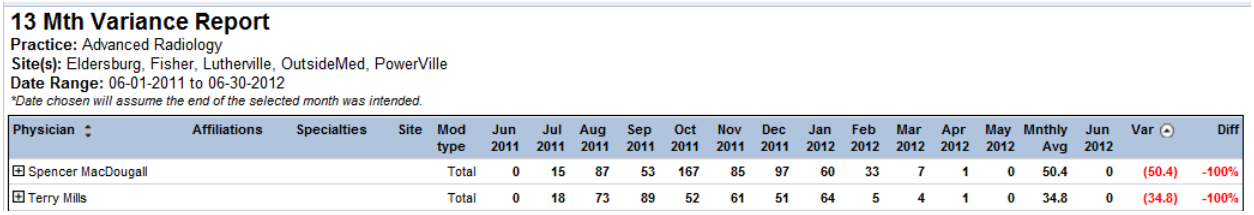


**6 Mth Variance Report**
**Practice:** Your Practice
**Site(s):** Your Site A, Your Site B, Your Site C, OutsideMed, PowerVille
**Date Range:** 11-01-2011 to 05-31-2012
**Date chosen will assume the end of the selected month was intended.*

| Physician | Specialty | Site | Modality | Nov 2011 | Dec 2011 | Jan 2012 | Feb 2012 | Mar 2012 | Apr 2012 | Total | Mthly Avg | May 2012 | Var |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ⊞ (123) 123-1231 23333 (123) 123-1231 23333 | | | Total | 0 | 0 | 0 | 0 | 1 | 52 | 53 | 8.8 | 0 | (8.8) |
| ⊞ 123 (123) 123-1231 23333 | | | Total | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 0.3 | 0 | (0.3) |
| ⊞ a a | | | Total | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0.2 | 0 | (0.2) |
| ⊞ aa aa | | | Total | 0 | 0 | 0 | 0 | 5 | 355 | 360 | 60.0 | 3 | (57.0) |

**Figure 4.62 – 6 Month Variance Report**

**13 Month Variance Report** - This report selects all exams for the entire selected month and all exams from the previous 12 months to display a variance between the selected month and the average of the previous 12 months. Note we exclude exams in status (Cancelled or Discontinued).

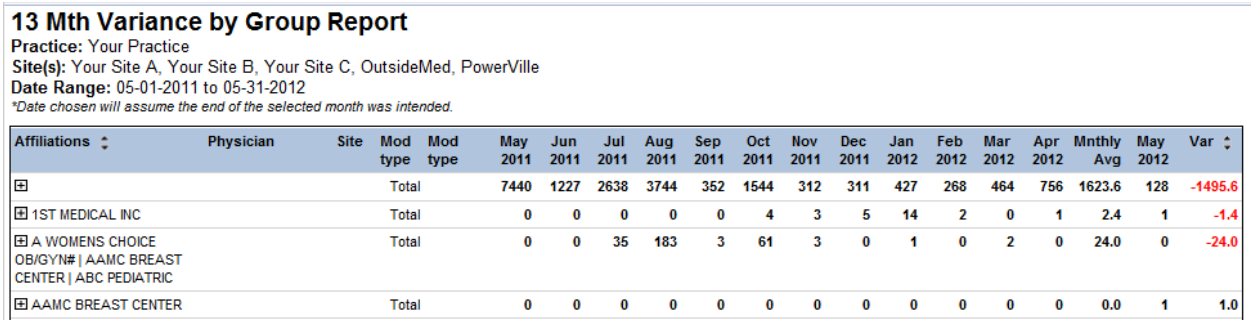


**13 Mth Variance Report**
**Practice:** Advanced Radiology
**Site(s):** Eldersburg, Fisher, Lutherville, OutsideMed, PowerVille
**Date Range:** 06-01-2011 to 06-30-2012
**Date chosen will assume the end of the selected month was intended.*

| Physician | Affiliations | Specialties | Site | Mod type | Jun 2011 | Jul 2011 | Aug 2011 | Sep 2011 | Oct 2011 | Nov 2011 | Dec 2011 | Jan 2012 | Feb 2012 | Mar 2012 | Apr 2012 | May 2012 | Mnthly Avg | Jun 2012 | Var | Diff |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ⊞ Spencer MacDougall | | | | Total | 0 | 15 | 87 | 53 | 167 | 85 | 97 | 60 | 33 | 7 | 1 | 0 | 50.4 | 0 | (50.4) | -100% |
| ⊞ Terry Mills | | | | Total | 0 | 18 | 73 | 89 | 52 | 61 | 51 | 64 | 5 | 4 | 1 | 0 | 34.8 | 0 | (34.8) | -100% |

**Figure 4.63 – 13 Month Variance Report**

**13 Month Variance by Group Report** - This report selects all exams for the entire selected month and all exams from the previous 12 months to display a variance between the selected month and the average of the previous 12 months. Note we exclude exams in status (Cancelled or Discontinued).



**13 Mth Variance by Group Report**
**Practice:** Your Practice
**Site(s):** Your Site A, Your Site B, Your Site C, OutsideMed, PowerVille
**Date Range:** 05-01-2011 to 05-31-2012
**Date chosen will assume the end of the selected month was intended.*

| Affiliations | Physician | Site | Mod type | Mod type | May 2011 | Jun 2011 | Jul 2011 | Aug 2011 | Sep 2011 | Oct 2011 | Nov 2011 | Dec 2011 | Jan 2012 | Feb 2012 | Mar 2012 | Apr 2012 | Mnthly Avg | May 2012 | Var |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ⊞ | | | Total | | 7440 | 1227 | 2638 | 3744 | 352 | 1544 | 312 | 311 | 427 | 268 | 464 | 756 | 1623.6 | 128 | -1495.6 |
| ⊞ 1ST MEDICAL INC | | | Total | | 0 | 0 | 0 | 0 | 0 | 4 | 3 | 5 | 14 | 2 | 0 | 1 | 2.4 | 1 | -1.4 |
| ⊞ A WOMENS CHOICE OB/GYN# \| AAMC BREAST CENTER \| ABC PEDIATRIC | | | Total | | 0 | 0 | 35 | 183 | 3 | 61 | 3 | 0 | 1 | 0 | 2 | 0 | 24.0 | 0 | -24.0 |
| ⊞ AAMC BREAST CENTER | | | Total | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 1 | 1.0 |

**Figure 4.64 – 13 Month Variance by Group Report**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

**13 Month Variance by Physician location Report** – This report selects all exams for the entire selected month and all exams from the previous 12 months to display a variance between the selected month and the average of the previous 12 months. Note we exclude exams in status (Cancelled or Discontinued).

**13 Mth Variance by Phy_Location Report**
**Practice:** Your Practice
**Site(s):** Your Site A, Your Site B, Your Site C, OutsideMed, PowerVille
**Date Range:** 05-01-2011 to 05-31-2012
**Date chosen will assume the end of the selected month was intended.*

| Physician | Practice | Site | Mod type | May 2011 | Jun 2011 | Jul 2011 | Aug 2011 | Sep 2011 | Oct 2011 | Nov 2011 | Dec 2011 | Jan 2012 | Feb 2012 | Mar 2012 | Apr 2012 | Total | Mthly Avg | May 2012 | Var | Diff |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ⊞ (123) 123-1231 23333 (123) 123-1231 23333 | | | Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 52 | 53 | 4.4 | 0 | (4.4) | -100% |
| ⊞ 123 (123) 123-1231 23333 | | | Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 0.2 | 0 | (0.2) | -100% |
| ⊞ a a | | | Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0.1 | 0 | (0.1) | -100% |

**Figure 4.65 – 13 Month Variance by Physician Location Report**

**13 Month Variance by Spec Group Report** – This report selects all exams for the entire selected month and all exams from the previous 12 months to display a variance between the selected month and the average of the previous 12 months. Note we exclude exams in status (Cancelled or Discontinued).

**13 Mth Variance by Spec Group Report**
**Practice:** Your Practice
**Site(s):** Your Site A, Your Site B, Your Site C, OutsideMed, PowerVille
**Date Range:** 05-01-2011 to 05-31-2012
**Date chosen will assume the end of the selected month was intended.*

| Affiliations | Physician | Site | Mod type | Mod type | May 2011 | Jun 2011 | Jul 2011 | Aug 2011 | Sep 2011 | Oct 2011 | Nov 2011 | Dec 2011 | Jan 2012 | Feb 2012 | Mar 2012 | Apr 2012 | Mthly Avg | May 2012 | Var |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ⊞ | | | Total | | 7440 | 1227 | 2638 | 3744 | 352 | 1544 | 312 | 311 | 427 | 268 | 464 | 756 | 1623.6 | 128 | (1495.6) |
| ⊞ 1ST MEDICAL INC | | | Total | | 0 | 0 | 0 | 0 | 0 | 4 | 3 | 5 | 14 | 2 | 0 | 1 | 2.4 | 1 | (1.4) |

**Figure 4.66 – 13 Month Variance by Spec Group Report**

**Month-over-Month Variance Report** – This report selects all exams for the selected month up to the selected date and all exams from the previous month to display a variance between the selected month and the previous month. Note we exclude exams in status (Cancelled or Discontinued).

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Month-over-Month Variance Report

**Practice:** Advanced Radiology
**Site(s):** Eldersburg, Fisher, Lutherville, OutsideMed, PowerVille
**Date Range:** 06-01-2012 to 07-04-2012
**Top N:** 30

| *business day Mon-Fri and not a holiday | | | Business Days | | 21 | 3 | |
|---|---|---|---|---|---|---|---|
| Physician | Specialties | Affiliations | Site | Mod type | Jun 2012 | Jul 2012 | Var |
| ⊞ Ian Power | | | | Total | 3 | 6 | 3.0 |
| ⊞ WILLIAM ARNOLD | General Practice | | | Total | 1 | 3 | 2.0 |
| ⊞ Bobbie Pace | | | | Total | 0 | 1 | 1.0 |
| ⊞ Brittany Powell | | | | Total | 0 | 1 | 1.0 |
| ⊞ KevinClone MolyneauxClone | Allergist | | | Total | 0 | 1 | 1.0 |

**Figure 4.67 – Month-over-Month Variance Report**

**Quarterly Variance Report –** This report selects all exams for the entire selected quarter and all exams from the previous 2 quarters to display a variance between the selected month's quarter and the average of the previous 2 quarters. Note we exclude exams in status (Cancelled or Discontinued).

## Quarterly Variance Report

**Practice:** Your Practice
**Site(s):** Your Site A, Your Site B, Your Site C, OutsideMed, PowerVille

| Physician | Specialties | Site | Modality type | Qtr 4 2011 | Qtr 1 2012 | Total | Mnthly Avg | Qtr 2 2012 | Var |
|---|---|---|---|---|---|---|---|---|---|
| ⊞ (123) 123-1231 23333 (123) 123-1231 23333 | Total | | | 0 | 1 | 1 | 0.2 | 53 | 52.8 |
| ⊞ 123 (123) 123-1231 23333 | Total | | | 0 | 0 | 0 | 0.0 | 2 | 2.0 |
| ⊞ a a | Total | | | 0 | 0 | 0 | 0.0 | 3 | 3.0 |
| ⊞ aa aa | Total | | | 0 | 5 | 5 | 0.8 | 359 | 358.2 |

**Figure 4.68 – Quarterly Variance Report**

**Year-over-Year Variance Report**- This report selects all exams for the selected year and all exams from the previous 2 years to display a variance between the selected year and the average of the previous 2 years. Note we exclude exams in status (Cancelled or Discontinued).

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Year-over-Year Variance Report

**Practice:** Your Practice
**Site(s):** Your Site A, Your Site B, Your Site C, OutsideMed, PowerVille
**Top N:** 30

| Physician | Site | Modality type | 2010 | 2011 | 2 YearAvg | 2012 | Variance |
|---|---|---|---|---|---|---|---|
| ⊞ aa aa | Total | | 0 | 0 | 0 | 364 | 364.0 |
| ⊞ WILLIAM SINTON JR | Total | | 42 | 134 | 88 | 198 | 110.0 |
| ⊞ Andrew WaiteW | Total | | 0 | 101 | 50.5 | 158 | 107.5 |
| ⊞ WILLIAM SCHWARTZ | Total | | 34 | 122 | 78 | 163 | 85.0 |
| ⊞ weewe wwewew | Total | | 0 | 0 | 0 | 56 | 56.0 |

**Figure 4.69 – Year-over-Year Variance Report**

**Year-to-Date Report -** This report selects all exams for the year up to selected date and compares exams from the previous year up to one year from the selected date. Note we exclude exams in status (Cancelled or Discontinued).

## Year-to-Date Report

**Practice:** Your Practice
**Site(s):** Your Site A, Your Site B, Your Site C, OutsideMed, PowerVille
**Date Range(s):**(01-01-2011 - 06-28-2011) to (01-01-2012 - 06-28-2012)
**Top N:** 30

| Physician | Site | 2011 | 2012 | Variance |
|---|---|---|---|---|
| ⊞ aa aa | Total | 0 | 364 | 364.0 |
| ⊞ Andrew WaiteW | Total | 1 | 158 | 157.0 |
| ⊞ Spencer MacDougall | Total | 0 | 101 | 101.0 |

**Figure 4.70 – Year-to-date Report**

***Sales Metrics- Referring Physician Volumes:***

**New Referrers Overview (new entries):** View of all new referring physicians with an entry date over the last 10 days. Ideally, a *Detailed View* ("drill-down") would include City/Town, Specialty, type of study and an identifier for the patient (MRN, etc.).

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| New Referrers added last 10 days | | |
|---|---|---|
| Practice | | Total |
| ⊟ Your Practice | | 2 |
| ⊟ Justin Wells | Hand Surgery | |
| ⊟ Baltimore | | 2 |
| ⊞ MR | | 1 |
| ⊞ XR | | 1 |
| ⊟ Wil Lewis | Anesthesiology | |
| ⊞ Baltimore | | 1 |
| **Total** | | 2 |

**Figure 4.71 – New Referrers**

**Minimalist Referrer View:** View would include all referring physicians that have referred any study for the first time in over 90 days. In order to prevent overlap with "New Referrers View," this data would exclude new physician entries into the system. Ideally, a *Detailed View* would include City/Town, Specialty, type of study and an identifier for the patient (MRN, etc.).
**Top 10 Negative Referring Physician Monthly Variances:** Referring physician data from 2nd month would be compared to 1st month and dashboard would highlight top negative variances to this comparison (actual study count vs. percentages). After 3rd month, dashboard would compare Month 3 data to the monthly average of Months 1 & 2. Eventual goal would be to compare the most recently closed out month to the prior 12 month averages. ALL studies view, as well as separate views per each modality. *w/specialty & group affiliation

| Referrers ordering for first time in over 90+ days | | |
|---|---|---|
| Practice | | Total |
| ⊟ Advanced Radiology | | 1 |
| ⊟ Jody Wilkins | | |
| ⊟ N/A | | 1 |
| ⊟ CT | | 1 |
| LastReq: 176 T.34841 | 1069619 | |
| **Total** | | 1 |

**Figure 4.72 – Minimalist Referrer View**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

**Top 10 <u>Positive</u> Referring Physician Monthly Variances:** Same comparison as above, but with positive variances. *w/specialty & group affiliation

| Top 10 Negative Variance | | | | |
|---|---|---|---|---|
| | Business Days | 22 | 13 | |
| Practice | Specialties | May 2012 | Jun 2012 | Variance |
| ⊟ DATest | | 0.09 | 0.00 | (0.09) |
| ⊟ Alice Gregory | | 0.05 | 0.00 | (0.05) |
| ⊟ CT | | 0.05 | 0.00 | (0.05) |
| 1000003610r | 1069485 | | | |
| ⊞ WILLIAM DAVIS | General Practice | 0.05 | 0.00 | (0.05) |
| ⊞ Your Practice | | 8.32 | 8.77 | 0.45 |
| ⊞ Your Practice 2 | | 0.05 | 0.00 | (0.05) |
| **Total** | | **8.45** | **8.77** | **0.32** |

**Figure 4.73 – Top 10 Positive / Negative Variance**

**Referring Physician Volumes to Date "Search":** The ability to pull a real-time data set for any referring physician that includes volumes to date for the month that we're currently in, as well as historical monthly volume patterns. *Default View* would be ALL studies, but *Detailed Views* would provide data per each modality.

**Physician Search**

| Physician | Jan | Feb | Apr | May | Jun | Sep | Oct | Nov | Dec | Mnthly Avg | Total | Jun 2012 | Variance |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ⊟ Alyssa Jones | 15 | 2 | 3 | 1 | 1 | 1 | 3 | 3 | 5 | | 34 | | |
| ⊞ 2012 | 15 | 2 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 3.3 | 20 | 1 | (2.3) |
| ⊞ 2011 | 0 | 0 | 2 | 0 | 0 | 1 | 3 | 3 | 5 | 1.2 | 14 | 0 | (1.2) |
| **Total** | **15** | **2** | **3** | **1** | **1** | **1** | **3** | **3** | **5** | | **34** | **1** | |

**Figure 4.74 – Referring Physician Volumes to date "Search"**

**Top Referrers by Modality:** View would be month to date. Drill down will descend as far as needed. Detailed view that may also be helpful would be same view, but by affiliation (i.e., "Rockland Orthopedics").

***<u>Center Volume Metrics</u>***

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

Note: Initial challenge may be that volume data might only be available by Accession # vs CPT codes, but worth exploring.

| Top Referrers | | |
|---|---|---|
| **Practice** | | **Total** |
| ⊟ Your Practice | | 134 |
| ⊞ Your Site A | | 41 |
| ⊟ Your Site B | | 43 |
| ⊟ CT | | 5 |
| WILLIAM SINTON JR | General Practice | 2 |
| aa aa | | 1 |
| Andrew WaiteW | Optometrist (for aphakia) | 1 |
| WILLIAM SCHWARTZ | General Practice | 1 |
| ⊞ MA | | 4 |
| ⊞ MR | | 2 |
| ⊞ NM | | 1 |
| ⊞ PT | | 31 |
| ⊞ Your Site C | | 27 |
| ⊞ OutsideMed | | 18 |
| ⊞ PowerVille | | 3 |
| ⊞ test1 | | 2 |
| **Total for: Jun 2012** | | 134 |

**Figure 4.75 – Top Referrers**

**Monthly Volume Reporting:** Similar view to the "Elaine" report, but in real-time rather than per week. Report would provide per day averages (5 day week) per modality for the particular month that we're in.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| Monthly Report | | | | |
|---|---|---|---|---|
| | Business Days | 22 | 7 | |
| Practice | | May 2012 | Jun 2012 | Total |
| ⊟ Advanced Radiology | | 2.3 | 1.7 | 4.0 |
| ⊟ Eldersburg | | 0.4 | 0.7 | 1.1 |
| ⊟ CT | | 0.3 | 0.7 | 1.0 |
| 71260 | | 0.0 | 0.1 | 0.1 |
| 70482 | | 0.1 | 0.3 | 0.4 |
| 74170 | | 0.1 | 0.3 | 0.4 |
| ⊞ XR | | 0.1 | 0.0 | 0.1 |
| ⊞ Fisher | | 0.5 | 0.7 | 1.3 |
| ⊞ Lutherville | | 1.4 | 0.3 | 1.6 |
| ⊞ Borg/IDE | | 0.0 | 0.0 | 0.0 |
| ⊞ DATest | | 0.1 | 0.0 | 0.1 |
| **Total** | | **2.4** | **1.7** | **4.1** |

**Figure 4.76 – Monthly Report**

**Quarterly Volume Reporting:** Same comparison as above, but would provide a quarterly per day volume averages.

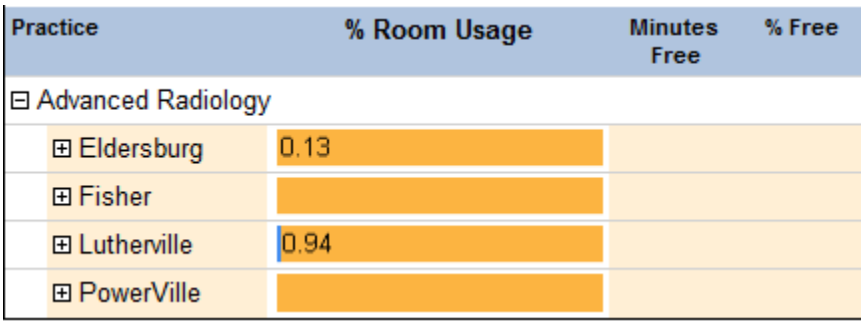
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| Quarterly Report | | | |
|---|---|---|---|
| Business Days | 65 | 56 | |
| Practice | Qtr 1 2012 | Qtr 2 2012 | Variance |
| ⊞ DATest | 0.15 | 0.04 | (0.11) |
| ⊟ Your Practice | 21.51 | 21.14 | (0.37) |
| ⊟ Your Site A | 6.00 | 6.12 | 0.12 |
| ⊞ ?? | 0.02 | 0.09 | 0.07 |
| ⊞ BD | 0.08 | 0.09 | 0.01 |
| ⊞ CT | 4.20 | 3.61 | (0.59) |
| ⊞ MA | 0.43 | 0.55 | 0.12 |
| ⊞ MR | 0.18 | 0.05 | (0.13) |
| ⊞ US | 0.31 | 0.34 | 0.03 |
| ⊞ XR | 0.78 | 1.39 | 0.61 |
| ⊞ Your Site B | 10.94 | 10.55 | (0.39) |
| ⊞ Your Site C | 4.09 | 3.64 | (0.45) |
| ⊞ OutsideMed | 0.48 | 0.57 | 0.09 |
| ⊞ PowerVille | 0.00 | 0.21 | 0.21 |
| ⊞ test1 | 0.00 | 0.04 | 0.04 |
| ⊞ Your Practice 2 | 0.02 | 0.27 | 0.25 |
| **Total** | **21.68** | **21.45** | **(0.23)** |

**Figure 4.77 – Quarterly Report**

**Modality Usage Reports (per Day):** Exact same view as already built in the current ICM dashboard. View provides a daily view of % availability for each modality outside of scheduled exams.

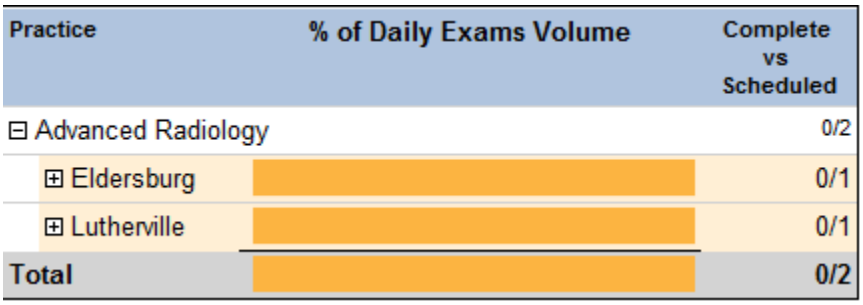
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.



| Practice | % Room Usage | Minutes Free | % Free |
|---|---|---|---|
| ⊟ Advanced Radiology | | | |
| ⊞ Eldersburg | 0.13 | | |
| ⊞ Fisher | | | |
| ⊞ Lutherville | 0.94 | | |
| ⊞ PowerVille | | | |

**Figure 4.78 – Modality Usage Report**

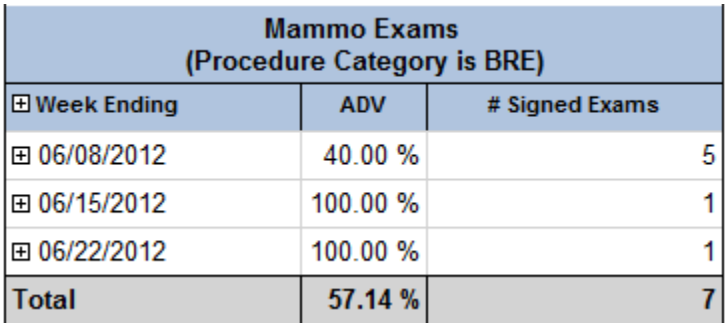
**% of Daily Exams Volume**: Scheduled & completed per modality w/canceled exam explanation e.g. aborted, no auth, etc.



| Practice | % of Daily Exams Volume | Complete vs Scheduled |
|---|---|---|
| ⊟ Advanced Radiology | | 0/2 |
| ⊞ Eldersburg | | 0/1 |
| ⊞ Lutherville | | 0/1 |
| **Total** | | **0/2** |

**Figure 4.79 – % of Daily Exams Report**

**Metrics:** RTAT (all except mammo & mammo only)



| Mammo Exams (Procedure Category is BRE) | | |
|---|---|---|
| ⊞ Week Ending | ADV | # Signed Exams |
| ⊞ 06/08/2012 | 40.00 % | 5 |
| ⊞ 06/15/2012 | 100.00 % | 1 |
| ⊞ 06/22/2012 | 100.00 % | 1 |
| **Total** | **57.14 %** | **7** |

**Figure 4.80 – RTAT Report**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Rewind and Fast Forward Speed Setting

A user preference was added that will allow users to set the rewind and fast forward speed in a range of 2 – 50, with 1 being the normal playback speed.

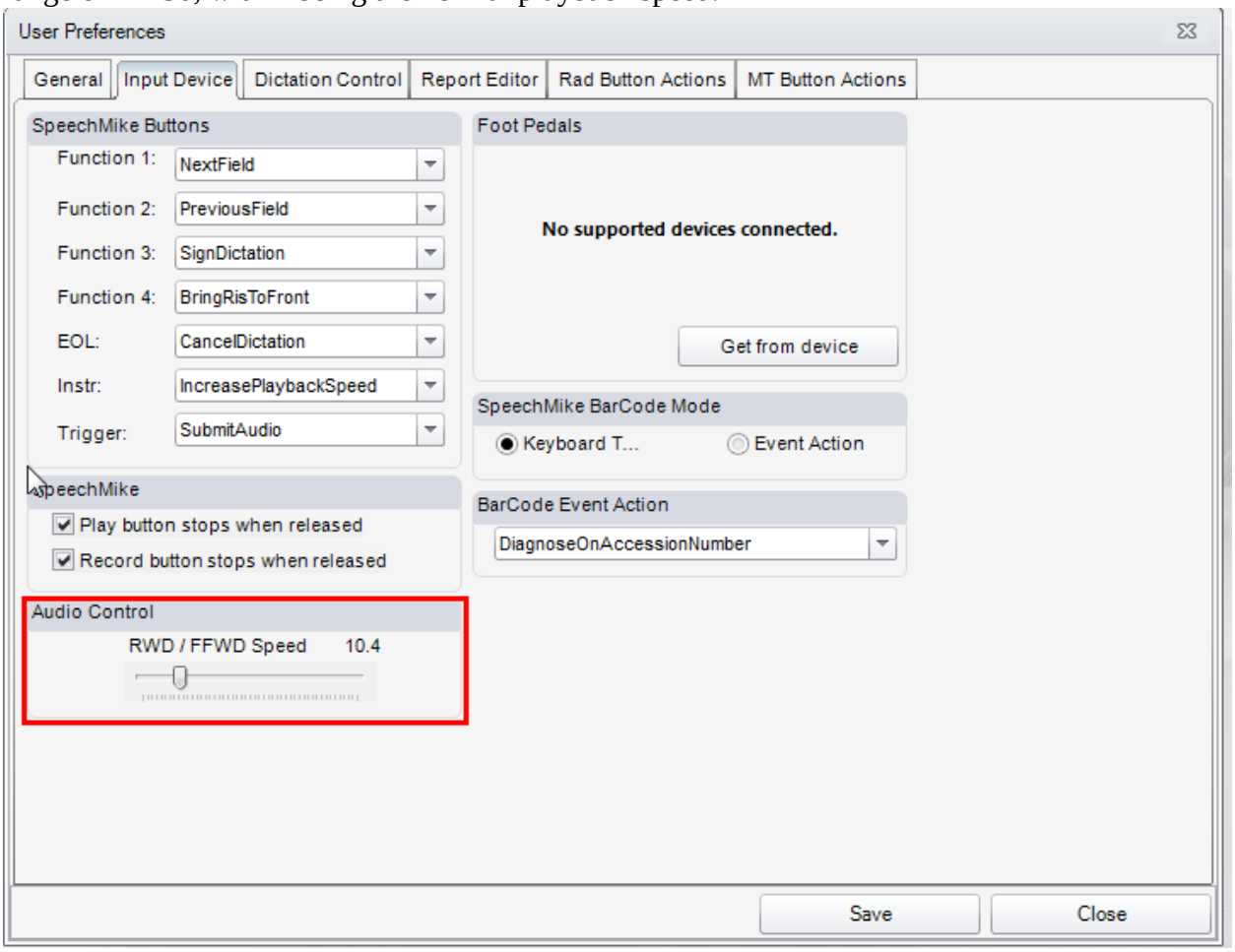



**Figure 4.81 – User preference Audio Control rewind/fast forward speed**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## User Preferences for Radiologist and Technologist window buttons

User preferences have been added so default action of the buttons located in the lower left of the Radiologists windows and the Technologist windows can be defined in one location.

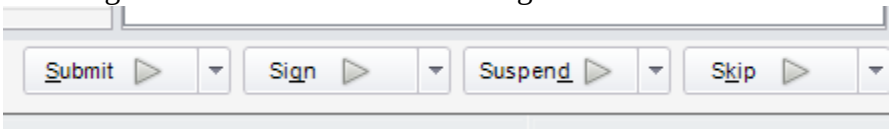



**Figure 4.82 – Buttons available for Radiologists**

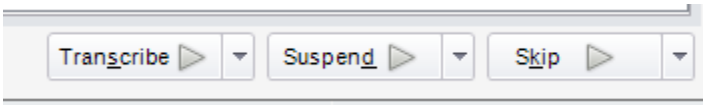



**Figure 4.83 – Buttons available for Technologists**

Two new tabs were added to user preferences to accommodate assigning the action of each of the above displayed buttons in each of the windows associated with the Radiologist and Technologist roles.

In the figures below you can see that each work list is listed and the default action of the button that can be assigned.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

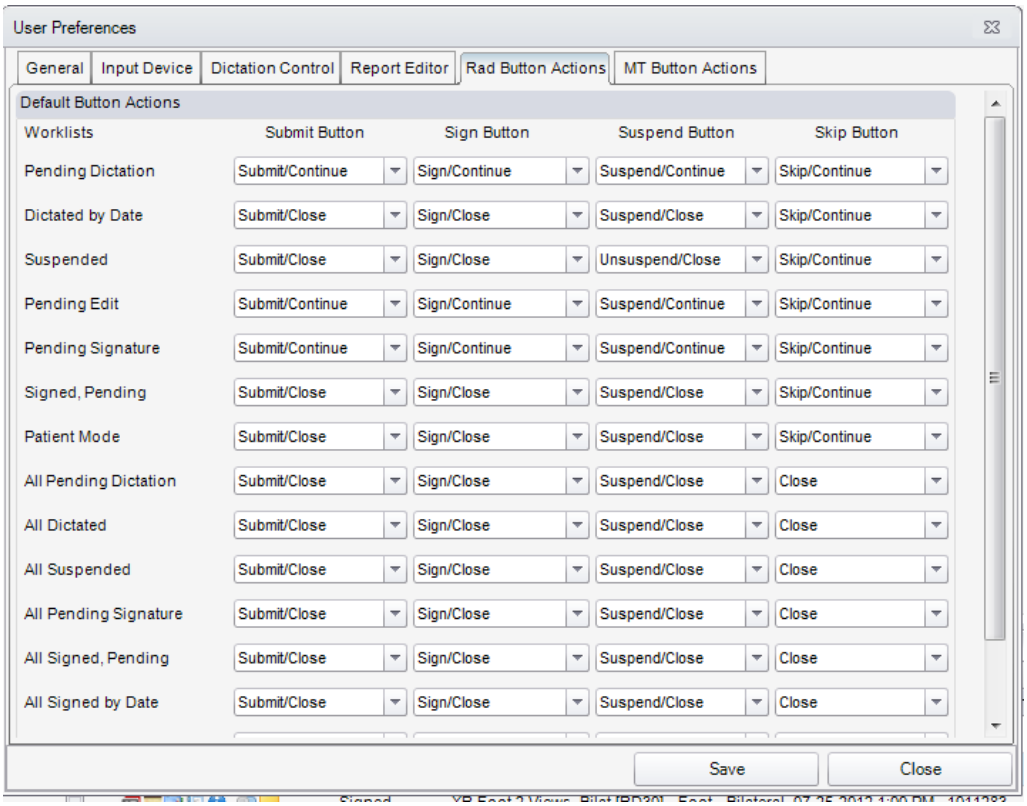



**Figure 4.84 – Radiologist work list button actions**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

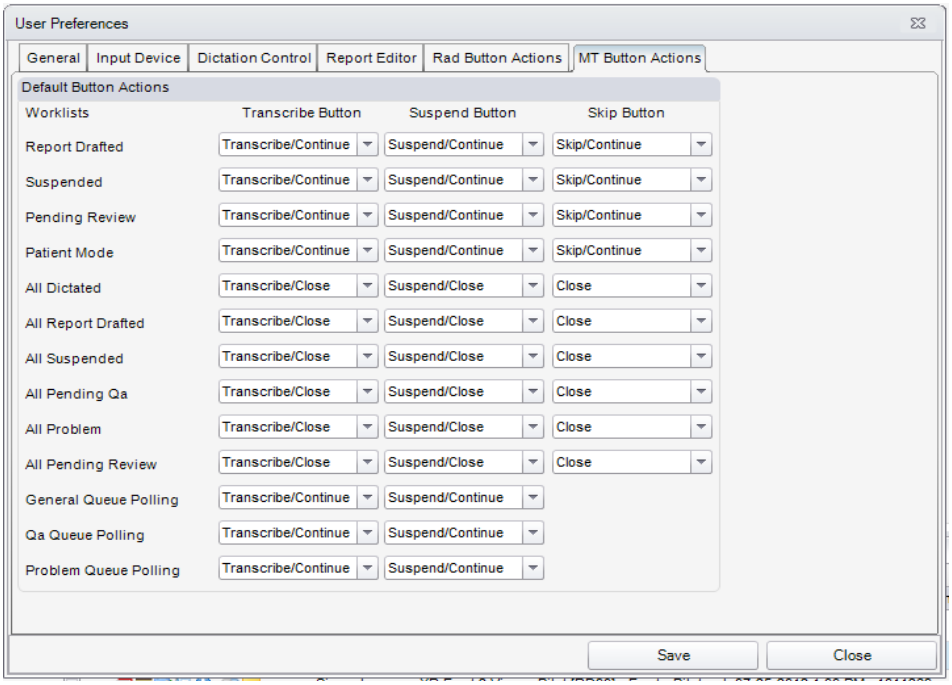



**Figure 4.85 – Transcription work list button actions**

The values available in the dropdowns should relate to the workflow. In some cases when workflow starts in certain work lists the available actions will vary. For instance, since work lists intended for user exclude suspended items from their view, these work lists wouldn't need an unsuspend option, but the same work list intended for an admin (All keyword) included suspended items and will have an unsuspend option.

MT workflow where they poll jobs from the webserver is intended to force work to MTs, skipping the jobs is not allowed. So for these three worklists there are no options at all on the skip button as it is forced to close.

Holding the CTRL button when clicking on a sub-item in the action buttons will set that item up as the default for that workflow, it will not fire the action as it used to.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Sign Button Removed for Batch Dictation

If the user is dictating in Batch mode (non-interactive) the sign button will no longer be an option in the Pending Dictation window.

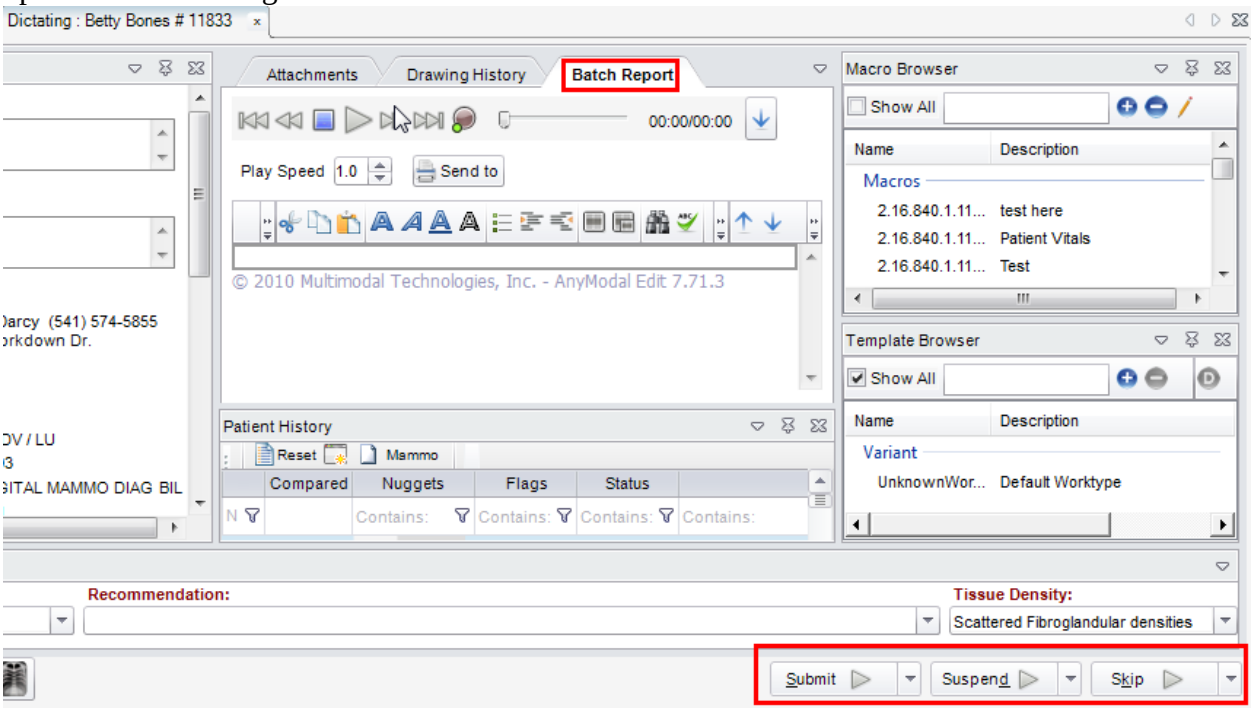



**Figure 4.86 – Sign button removed from Pending Dictation when recording in Batch**

## Reporting – Problem and QA Work Lists for Radiologists

Similar to the pre-existing Problem and QA work lists for transcription, we have added Problem and QA work lists for radiologists. When in one of the radiologist's data windows the assign to data pane will allow for the study to be assigned to one of these work lists.

Access to these work lists are controlled by two new user permission access strings
WL.Rad.QA – grants access to the Radiologist All Pending QA work list
WL.Rad.Problem – grants access to the Radiologist All Problem work list

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

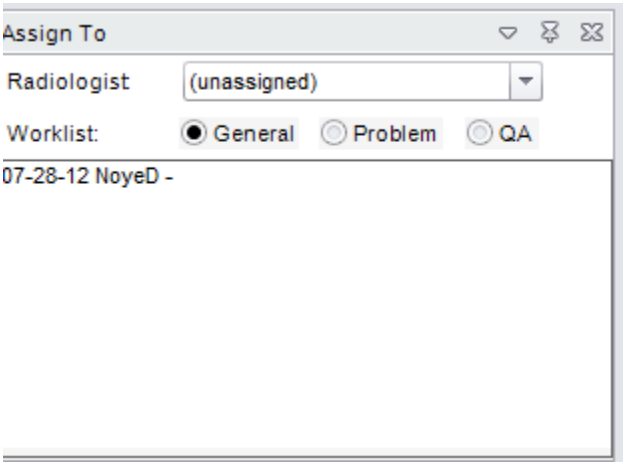



**Figure 4.87 – Assign To in radiologist window**

Once assigned to either the Problem or QA work lists these studies can be accessed from the associated "new" work lists under the Radiologist menu.

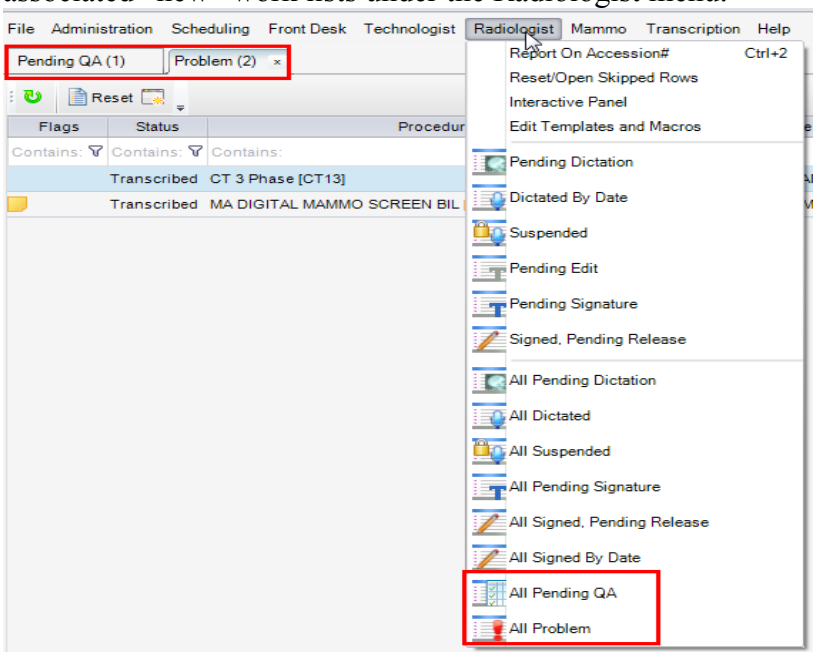



**Figure 4.88 – New Problem and QA work lists.**

From the All Problem work list a new pop up menu that is accessed from the context menu of has been added to resolve problems. The Resolve Problem window that opens will allow user to attach notes to the study assign to a particular Radiologist, mark it unassigned, or leave set to the user who set the problem (this is the default action).

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

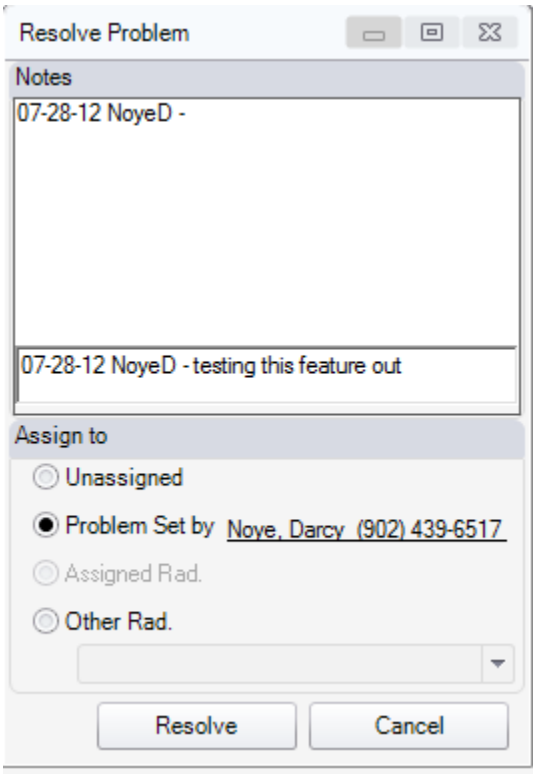



**Figure 4.89 – Resolve Problem window**

## Reporting – Dictation Control Stop When Play or Record Released

In build 37 two more user preferences of "Play button stops when released" and "Record button stops when released" have been added. These user preferences only work with Speechmikes that buttons for play and record and will not work with "slider" style Speechmikes.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

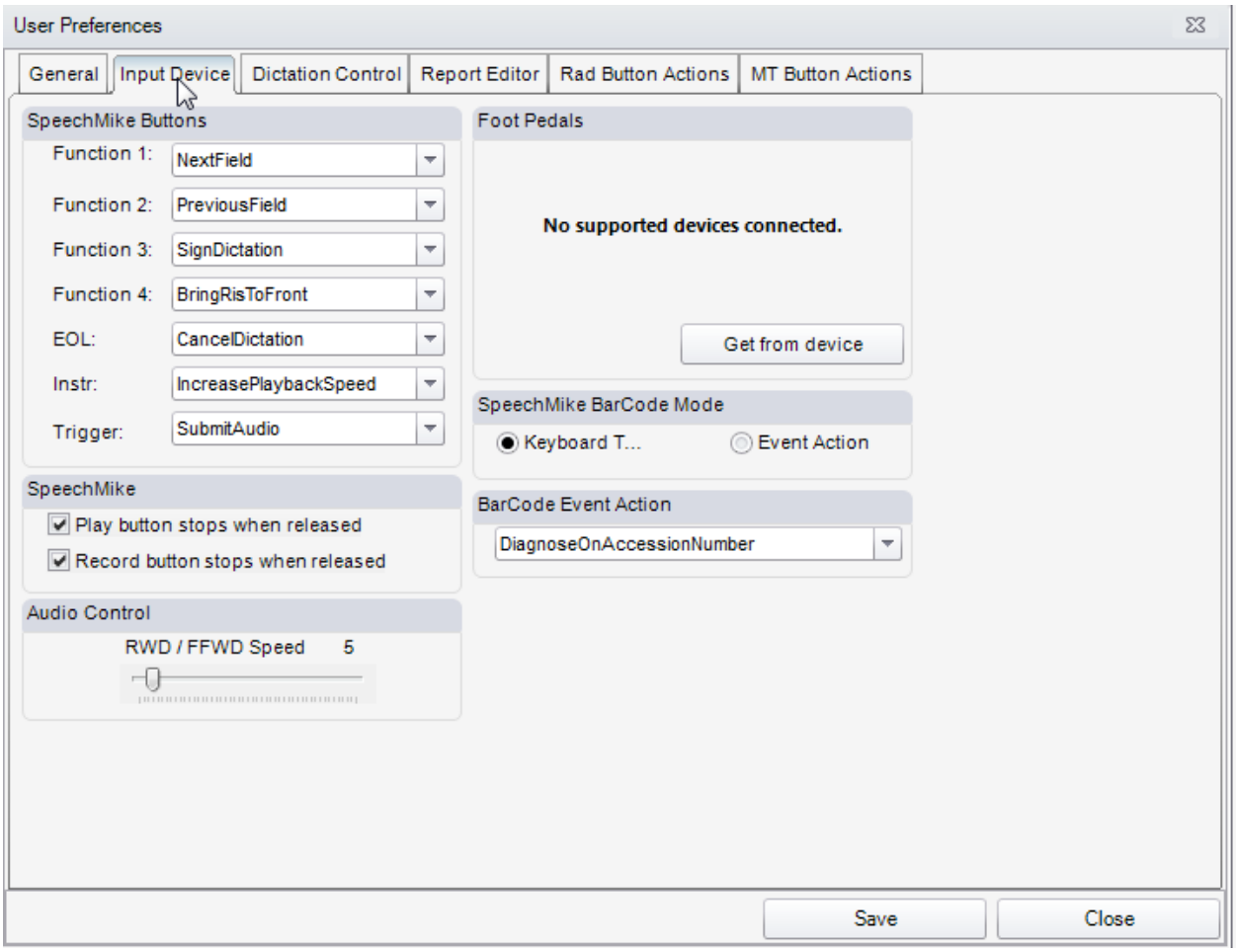



**Figure 4.90 – SpeechMike user preferences**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Bolding Current Value in "Assign To" Lists

From work lists we can assign the study to a particular radiologist or transcriptionist. When the list is opened, the currently assigned user will be bolded. If the study is not assigned, the (unassigned) option in the list will be bolded.

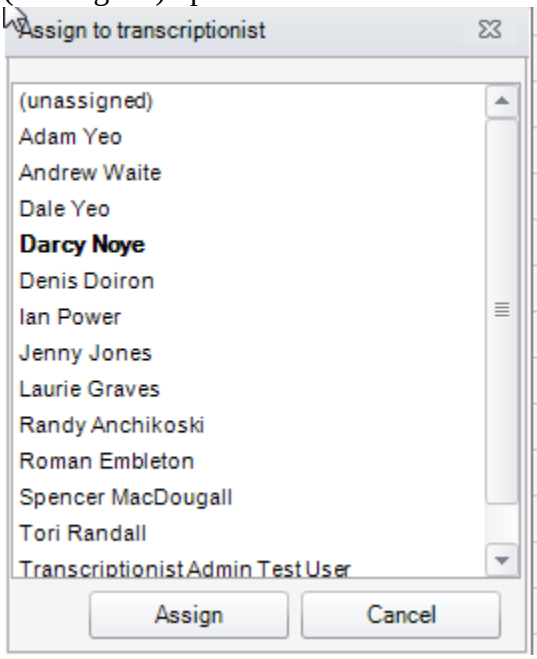



**Figure 4.91 – Assign to Transcriptionist with current assigned user bolded**

## Reporting – Audit History Change for CDSManager

Audit log used to show "Study drafted" message for all studies was processed by the job manager, whether it retrieved a draft or only a typing document. Now when a Typing document is the result it will show in the audit log with a "Study not drafted, typing document retrieved" message instead.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Column "Dictated By" Added to Patient Folder Work List

As the title indicates the column of "Dictated By" has been added to the Patient Folder work list.

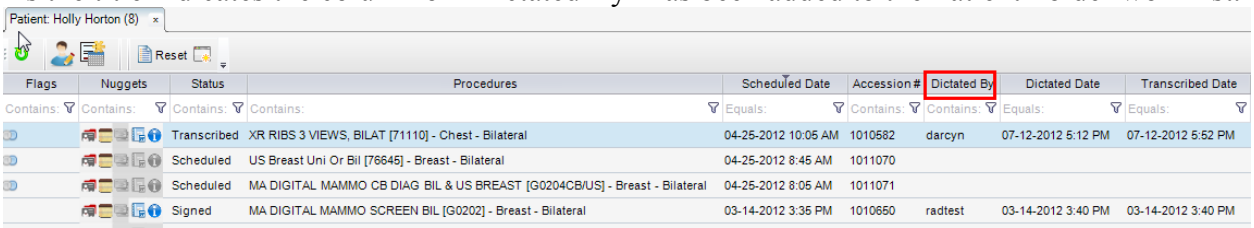



**Figure 4.92 – Patient Folder with new column of Dictated By added**

## Reporting – Hybrid Navigation for Fields/Sections

Added to the available options that the SpeechMike keys can be assigned are the hybrid option to move to the next section or field. In previous versions there were option for either or. Now when working in a document and the option for NextSectionOrField is assigned to the F1 key, the next available section or field will be selected.

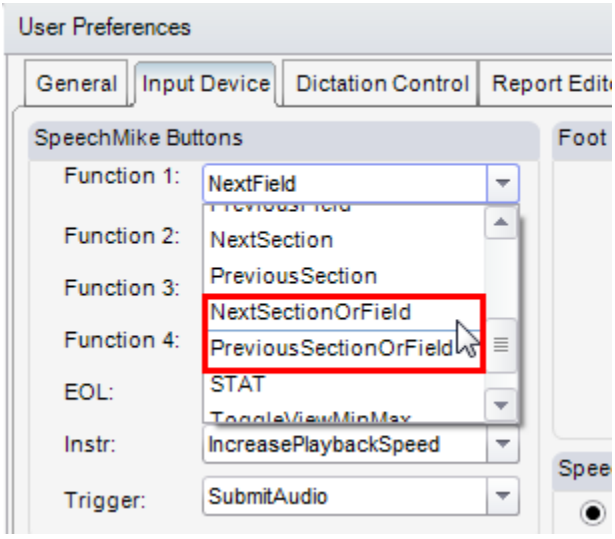



**Figure 4.93 – New available options to assign SpeechMike buttons**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting - Request Addendum

When right clicking on a signed study, user will now see a context menu item called “Request Addendum”. Clicking on that item will bring up the following popup dialog.

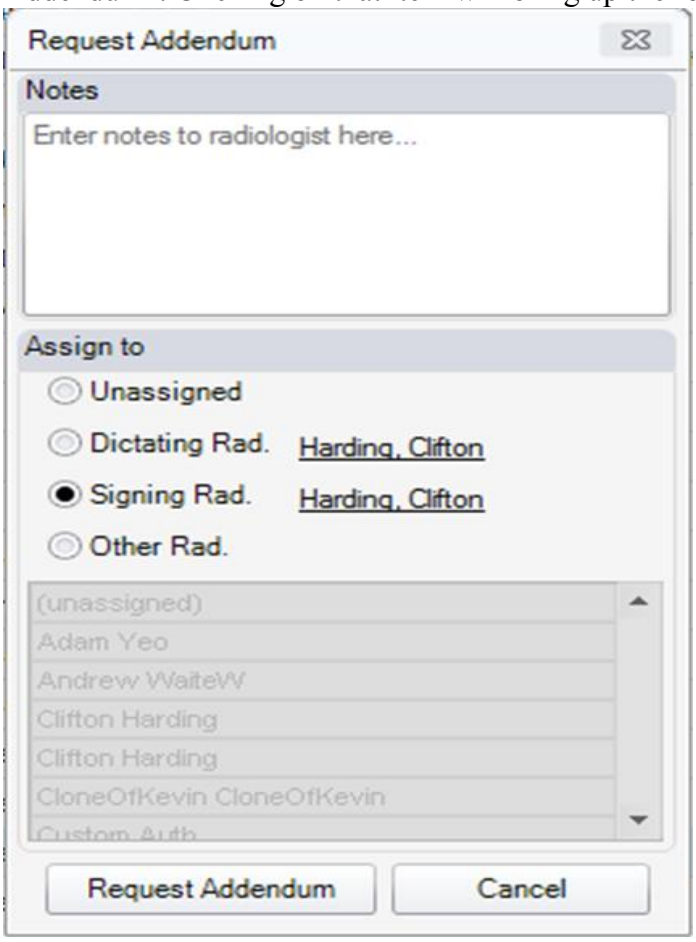



**Figure 4.94 – Request Addendum window**

From this screen user is able to write notes for the radiologist and choose who should be assigned to addend the report. This will default to the signing radiologist. Here is the data it changes:

```
assigned_radiologist = assigned rad selection
transcription_notes = notes in textbox
note_to_radiologist_flag = "Y";
addendum_requested_flag = "Y";
```

When right clicking on a study that is already marked for addendum. The context menu will show “Cancel Addendum Request” which will cancel the request. Here is the data it changes

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

```
Setassigned_radiologistNull();
Settranscription_notesNull();
note_to_radiologist_flag = "N";
addendum_requested_flag = "N";
```

When a study is marked for addendum it will show up the pending dictation work lists. The rad will dictate it as he does his other studies. He will get a prompt indicating that an addendum was requested for this study. When he dictates the study he will see the notes and need to acknowledge them before moving it forward

## Reporting - Resend Interpretation for VR

Added a context menu item to the standard transcriptionist context menu for worklists called "Resend for recognition". When this is used, it will be logged in the audit log, the study will return to dictated status, and the CDSManager will pick it up from there for recognition. We also added the interpretation type code to most worklists for rads/trans.

## Reporting – Report Editor Preferences for Color, Fonts and Font Size

In build 37 the report editor can be customized to the users liking. From within the report editor from a right click will open the context menu. Selecting Editor Appearance will open the Editor Preferences window with options for the report text and for the Sections.

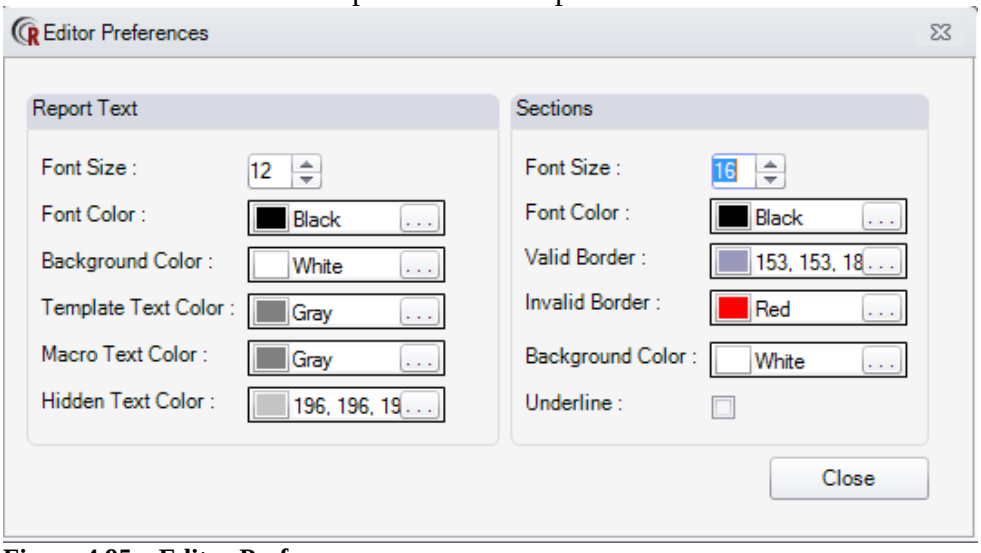



**Figure 4.95 – Editor Preferences**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

Description of settings:

## Report Text

1) Font Size will control the font size of report text excluding section titles. Min 8 – Max 40
2) Font color controls the font color of the text in the report. This will be the color of the text that is typed or recognized as speech to text. This will not include normal text or canned text in the report
3) Background Color will control the color of the report excluding the background and outline of sections
4) Template Text Color controls the canned text that exists in a template when its used
5) Macro Text Color controls the color of the text inserted into the editor
6) Hidden Text Color will control the color of hidden text returned in batch mode if there any. Typically this text is placed at the top of the report.

## Sections

1) Font Size will control the font size of the section title text only
2) Font Color will control the color of the section title text only
3) Valid Border Color will control the border color around sections if they are valid. To hide the border make this color the same as the report background color or section background color.
4) Invalid Border Color will control the border color around sections that are invalid as defined by the document model rules and setup.
5) Background Color will control the only the color of the background of the section title area.

Underline will place an underline under section titles

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Site Level Report Templates

Templates can be assigned at the Site Level. From the Organization lookup table and editing the particular site in question, the report template path can be specified in a new field added to this window.

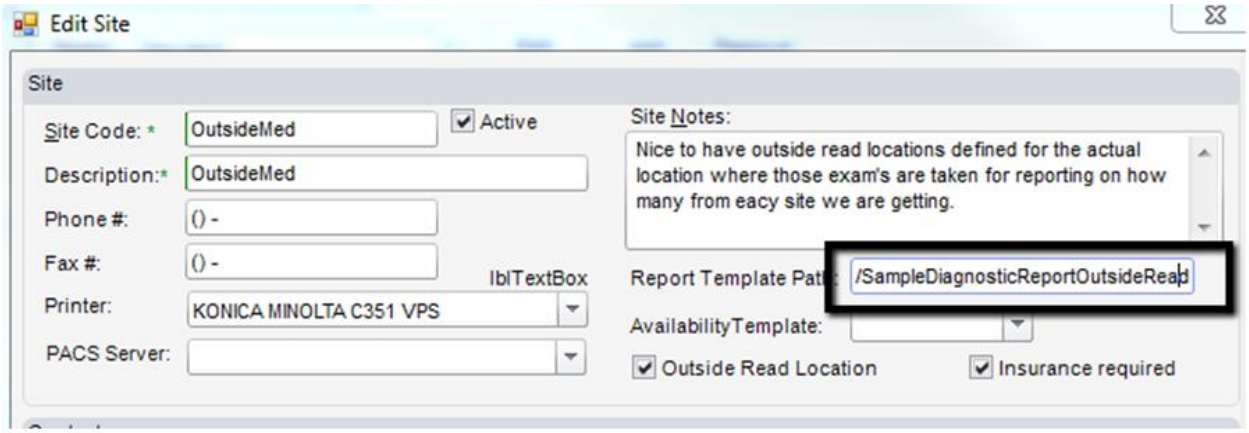



**Figure 4.96 – Site template path**

This new field called Report Template Path will be a pointer to a template created on the SSRS server. It expects a path that will be appended to the Report Server URL configuration value. It will use these two parameters to create the full uri to the report.
For example the system configuration values used are:

ReportServerUrl: http://10.120.19.10/ReportServer

DiagnosticReportDefatultBody: /Forms/ADVDiagnosticReport

The above values will be concatenated to create the complete path of

http://10.120.19.10/ReportServer/ Forms/ADVDiagnosticReport

If the setting in the Site>Report Template Path field is blank or null then it will always default to the System Configuration value as a default.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Calculating Default and Normal Templates

When creating template we have the option to mark them as default or normal. In a perfect world perhaps we would only ever have one default and one normal per study. But in reality, based on the assignments made to the template as far as practices/procedures/users that it applies to, there can be overlap.

What happens if for a particular study there is overlap? Perhaps it has five qualifying default templates. In that case we score the rule set of the templates, and use the highest scoring one. The same would apply to normal, but they are scored and processed separately. The idea of rule set scoring is to mathematically represent how specific the rule set is. The more specific it is the higher the score.

The most specific rule set score would be a rule set assigned 1 practice, one procedure, and 1 user. It cannot get more specific than this, therefore it will score 100%. The more items are assigned to a rule set, the lower the score will be.
I've inserted a table that may be used as reference, or even altered to identify the scores on your specific scenario.

So far we've been talking only about template marked as default/normal in the template editor.

The user also has the ability to mark items in the template browser as default/normal by way of a context menu. These assignments will always take precedence over template level default/macros talked about above. But conflict may still occur and if multiple templates are marked as default/normal by the user in the browser, the rule set score will come to the rescue again and break the ties.

| #Practice | #Procedure | #User | Corrected #Practice | Corrected #Procedure | Corrected #User | Score |
|---|---|---|---|---|---|---|
| 1 | 1 | 1 | 1 | 1 | 1 | 100.000% |
| 0 | 1 | 1 | 9 | 1 | 1 | 11.111% |
| 0 | 2 | 1 | 9 | 2 | 1 | 5.556% |
| 1 | 20 | 1 | 1 | 20 | 1 | 5.000% |
| 2 | 10 | 1 | 2 | 10 | 1 | 5.000% |
| 1 | 10 | 2 | 1 | 10 | 2 | 5.000% |
| 0 | 1 | 0 | 9 | 1 | 74 | 0.150% |
| 1 | 0 | 1 | 1 | 690 | 1 | 0.145% |
| 0 | 0 | 1 | 9 | 690 | 1 | 0.016% |

**Table 4.1 - The above table is interactive. Edit numbers in any of the columns to see the overall score change.**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Macro and Template Browser Navigation Enhancements

Fixed were several bugs and focus problems with the browsers but more notably we added the CTRL+UP and CTRL+DOWN shortcuts. The CTRL+UP places the cursor into the search box within the currently selected browser. CTRL + DOWN move the cursor out of the search box and selects the first item in the browser for further navigation or insertion.
We also now select an item in the list when the browser is selected which will allow the users to quickly navigate using the UP and DOWN keys.

## Reporting – Assign To Panel

The control was changed around a bit to make it more intuitive and more useful. We…

Moved the notes control bellow the "Assign to" controls.

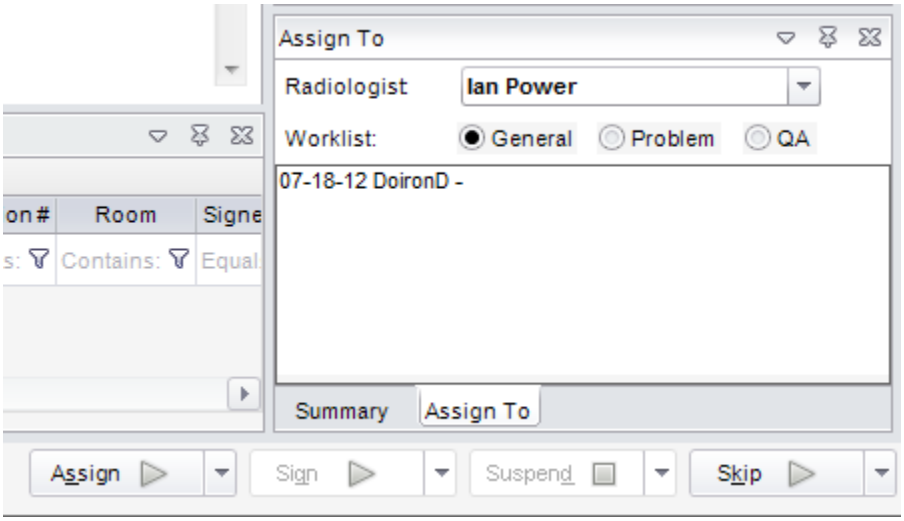



**Figure 4.97 – Assign To data pane**

The assigned transcriptionist control will be pre populated with whoever it is assigned to at the time. This field however does not have to be blanked out in order to transcribe, because only when the value is different will is assign it to that value. If the value didn't change then it will remain assigned to that particular person and will move on to transcribed status

Whenever a value is changed in the assign to panel the main action button on the screen, either Submit, or Transcribe, will change to Assign to. All other button other than skip will be disabled. This should make it clear to the user that values were changed and what action will take place.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

To remove the Assign to button and return to the normal workflow, the assign to panel values will have to be reset to their initial values. Made easier by them being bolded.

When the assigned to user value is changed it will show as bolded text. This lets the user know that this was modified and also the "Assign" button will become enabled.

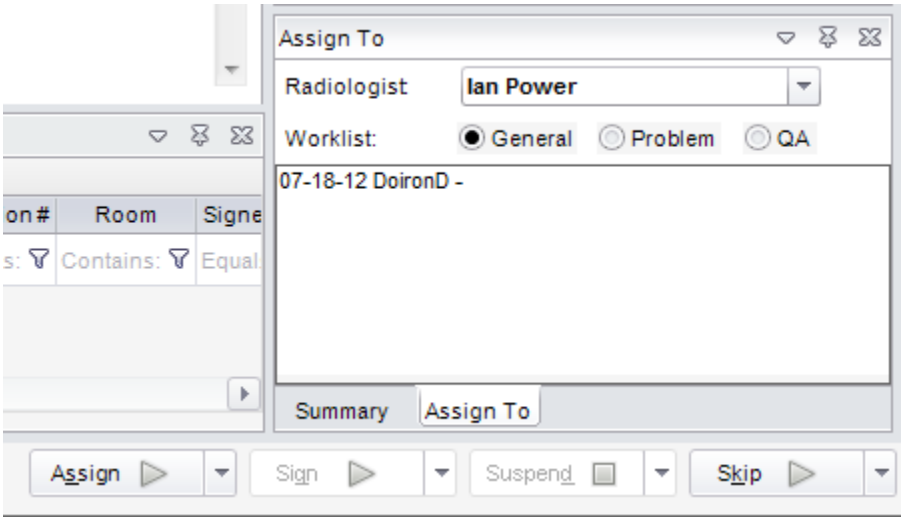



**Figure 4.98 – Assign To data pane user in bolded text**

When looking at a drop down list, the previously assigned to value will show as bolded text. This provided the user the ability to return to the previous value, or simply see what the value was before they changed it.

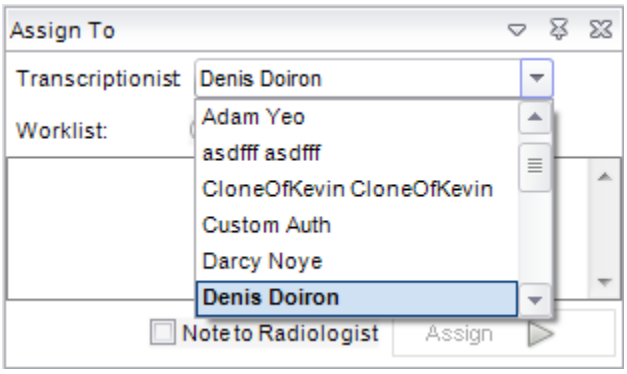



**Figure 4.99 – Assign To list box showing user in bold**

When writing radiologist notes, both the notes must be entered and the checkmark must be checked in order for the "Assign" button to enable. All other controls will disable when the

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

"Notes to Radiologist" check box is checked. Also any changed to these controls will be reverted to their original values.

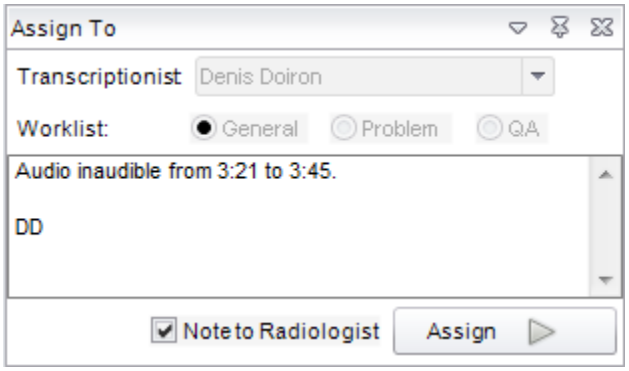



**Figure 4.100 – Assign To "Note to Radiologist checked**

We added an assigned radiologist drop down, which will only be visible in Radiologist screens

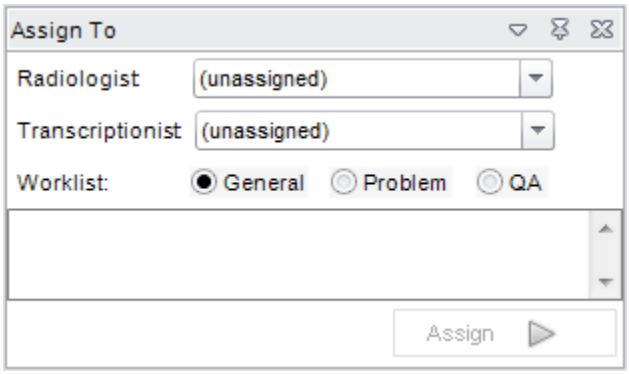



**Figure 4.101 – Assign To Radiologist field**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Miscellaneous Enhancements and Fixes

**Send To button access string**
Added Reporting.SendTo as an access string, when set to none it will remove the button.

**Transcription Summary Fixes**
Location wasn't copying to the clipboard, and Laterality was missing.
Added Location to the copy to clipboard code, added larerality at the end of the procedure code line.
Also cleaned up the copy to clipboard functionality so that's it's ordered better, spaced better and only copying what is on the screen and not hidden unpopulated values.
Example:

Priority: Normal

Location: MD / ADV / LU

MRN: 11504776

Patient: Gemma Wojtowich 80y 2m (M)

Accession: 1059842

Procedure: CTA Abd Aorta Runoff W/Wo [75635]

Performed Date: 03-27-2012 7:28 AM

Referring: MolyneauxClone, KevinClone (902) 439-4503

Dictated: Doiron, Denis (902) 439-3656

Performed By: Test User, Technologist (999) 999-9999

Tech Notes: sgferwte

**Prompt to Run SpeechMike Wizard**
When a user unplugs their speechmike, or starts using a different one. The Mic Wizard setting will point to a non existant device. This causes an error. In this error we now inform the user to run the mic wizard.

**Editor Ctrl +Shift + Up or Down Arrows**
CTRL + Shift + Up or Down should select paragraphs up or down as it does in most editors. But in our case that shortcut was being used to navigate grids on the screen, in this case patient history. It has been changed so that this will now work in the editor.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

**Transcribing Assigned Studies**
Currently when an MT is assigned a job, and she opens it it will show her in the assign to control.
Now when she transcribe it will try to assign it to her again, so she needs to go clear out the value then transcribe again.

We will no longer pre populate that field, it will always load up empty.

**Transcription Polling Lock Issue**
MT polling is broken for multiple studies on the same order, a timing issue exists where the MT will lose work because her lock will be lost.

A GuiLockManager refactor will be required but for now all we did is change the GetAvailableCDSJob to not return any locked items, not even the ones owned by the current user.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## New Fields for Physician Details

Added three new fields to the personnel notes section (Image Preference, Specialty Read and Referring Protocol)

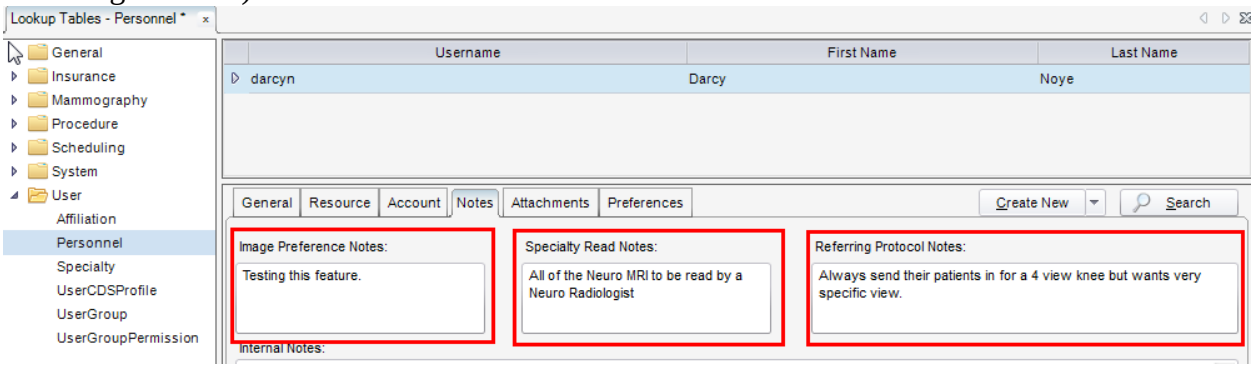



**Figure 4.102 – Notes fields in personnel editor**

When a search is performed for this referring physician, the three new notes sections will also appear in the search.

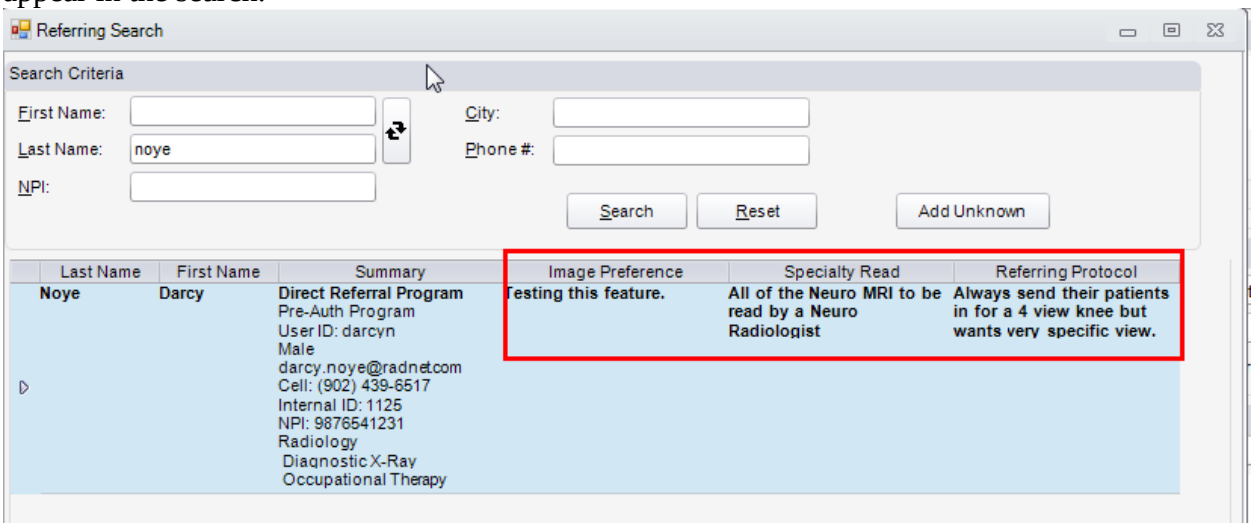



**Figure 4.103 – Referring search shows notes fields**

If the referrer selected has specific notes in these three fields, they can also be viewed on the data window in the Referring Details section on the Order tab.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

The image notes appears in its own section.

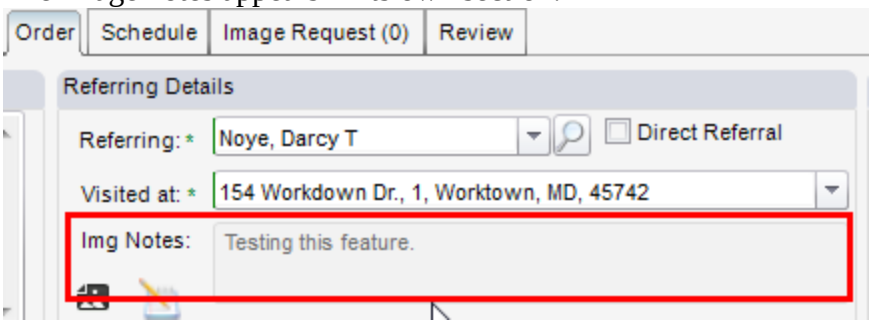



**Figure 4.104 – Image notes on Order tab**

Specialty Read notes appear in a tooltip window when the ICON is hovered over.

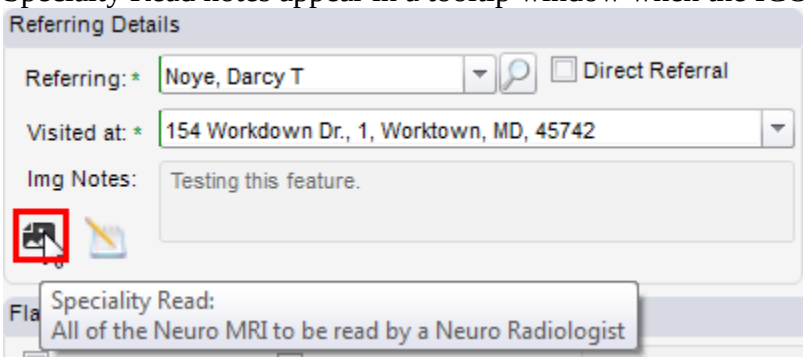



**Figure 4.105 – Specialty Read notes**

The Referring Protocol notes also appear in a tooltip window when the ICON is hovered over.

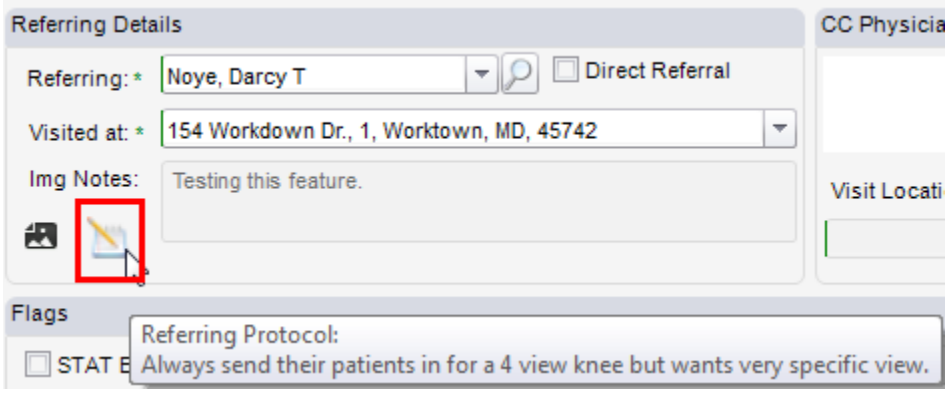



**Figure 4.106 – Referring protocol notes**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Button and Context Menu Options Added to Patient Search

Added the button “New Patient” to the top of the search screen for the case where you can’t find the patient you want and only want to add a note to their patient file and first need to create the patient.
Also, added the following context menu’s and bottom buttons.

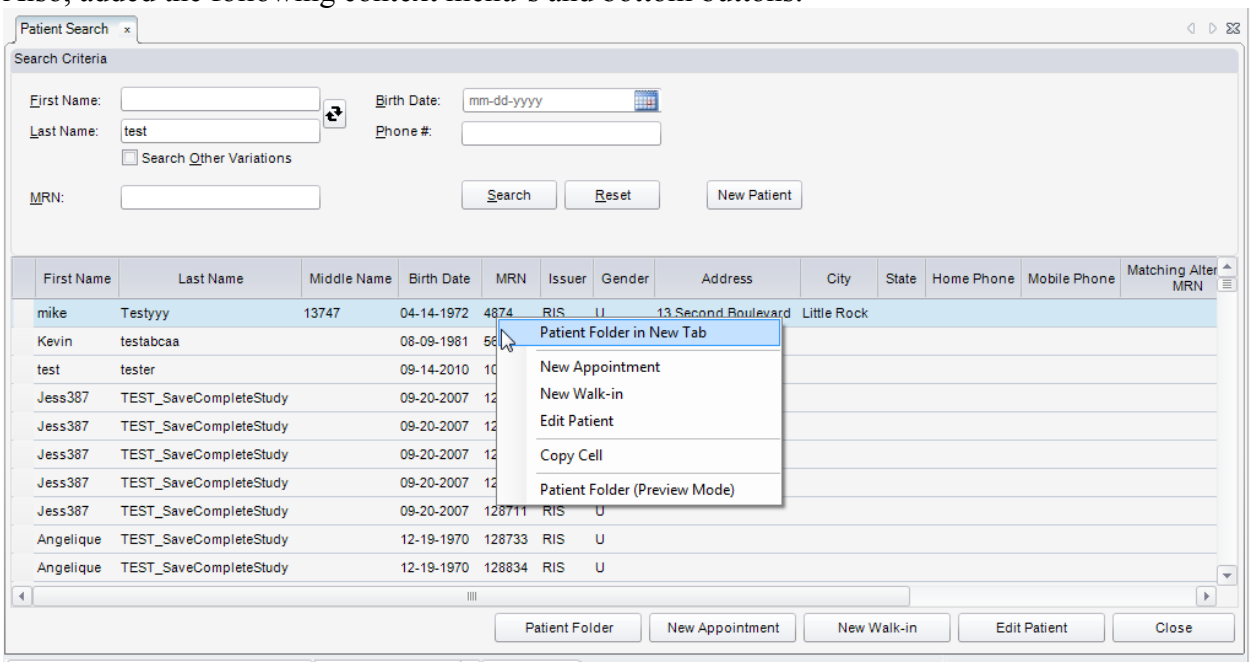



**Figure 4.107 – New buttons and context menu options for patient search**

When in the patient search popup the bottom buttons and context menu items are hidden and if the patient search is on a popup which is launched from a content base that Search/New Patient icon buttons then the “new Patient” button on the search popup will close the popup and click the “New Patient” icon on the content screen and will populate the default values for the new patient based on what was typed in the search screen.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Modality Type Selection for Outside Reads

A new combo box has been added to the Outside Read order tab. The combo box is populated with key/values from **l_modality_type**. In the background we will still try to determine the modality type, but if the site does not have a suitable configuration, the user will have the ability to enter the modality type in this new combo box. The Modality type field will be required.

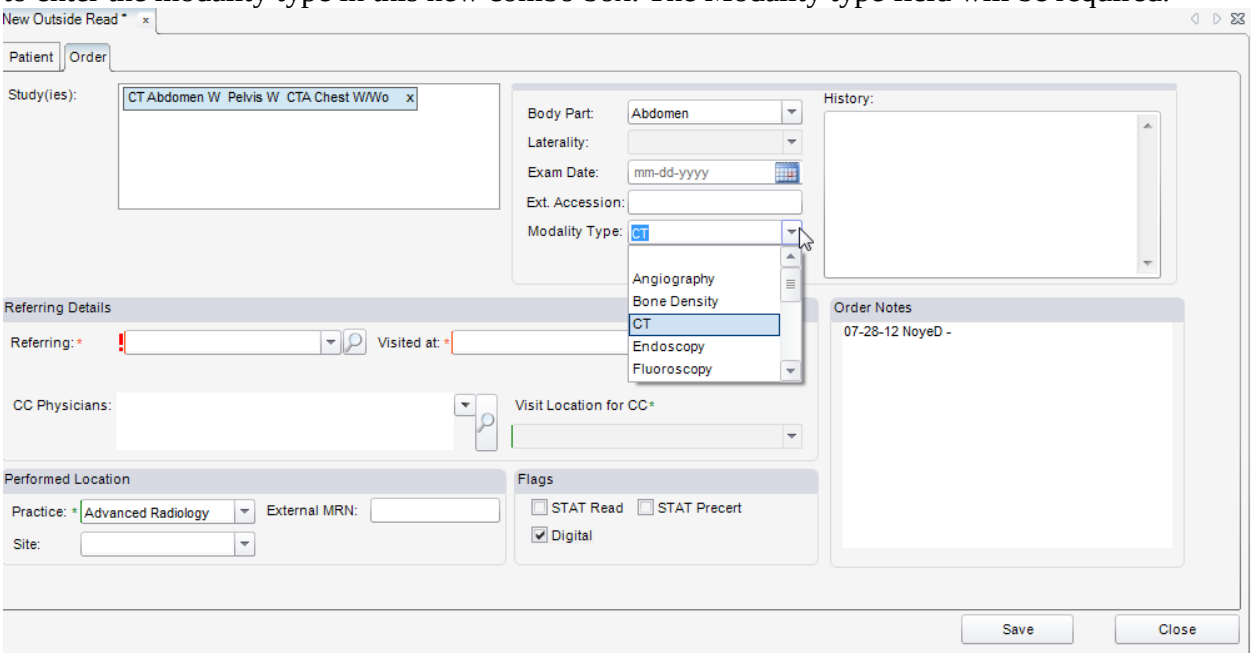



**Figure 4.108 – Modality Type Field**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Dynamic Printer to Document Type Configuration

Added in build 37 is the ability to map printers based on document type, per site / practice. This will give facilities ability to direct print traffic to various destinations.

A new lookup table titled PrinterConfig has been added which allows administrators to configure the practice / site printer where a particular form category should be directed to be printed.

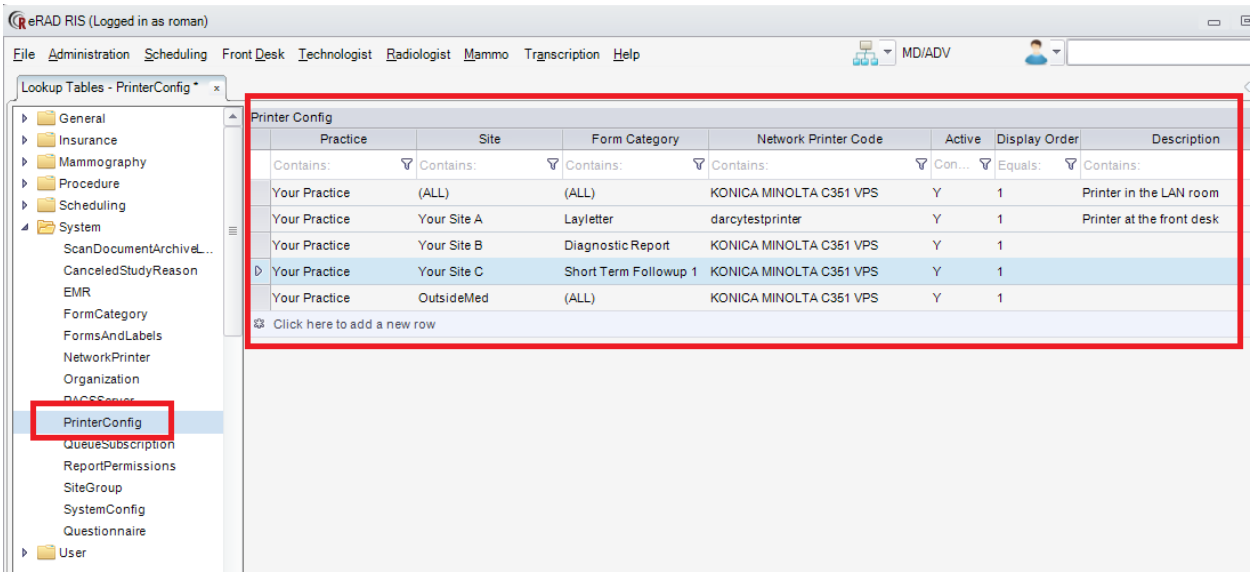



**Figure 4.109 – PrinterConfig lookup table**

For the build 37 upgrade an upgrade script was written. to copy network printers from current site configuration to the new lookup table. By default in the new lookup table the existing printer(s) for site will be mapped to (ALL) document types → to maintain previous configuration. Going forward users can use a new lookup table in the Administration under → System → Printer Config to define a more granular mapping or printers to document types.

This configuration primarily affects ALL back end document print distribution, and ALL mammography letters.

**NOTE:** Printer selection dropdown has been removed from the Add/Edit Site window. All future printer configurations to Practice / Site / Document Types will now be done via this new lookup table.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Exam Search

We've added a new search provider called "Exam Search", which has a dynamic set of search criteria. The only search parameter that is always present is Site, picking a site automatically gets remembered, any other changes to search filters can only be saved if they explicitly choose the +Filter, Save option.
To prevent extremely poor system performance we recommend users choose a site and require the user to choose a date range, which is less than equal to 14 days.
The following screen shot shows the "System Default" layout for Exam Search:

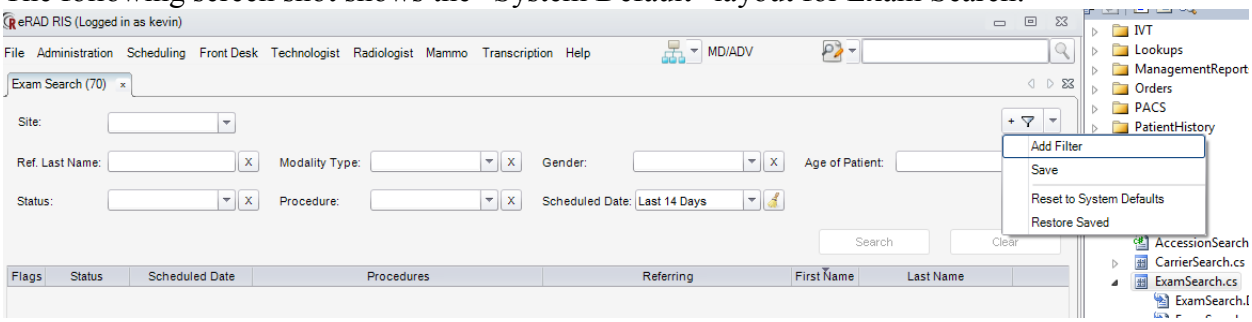



**Figure 4.110 – Exam Search window**

Users can remove filters by clicking the "X" buttons or use drag and drop on the labels to reorder the filters. The first three user defined filters are used in the toolbar's "Quick Search" text box.

All text box inputs such as "Ref. Last Name" matching on values starting with that text. Contains type of matching has not been provided at this time so we can better evaluate performance of this feature before opening it up to a contains type of searching.

Age of patient allows for exact ages such as 20 or age ranges such as 20-25.

Saving your filter set also saves the order and which columns are displayed in the results grid. Sorting by a column, will request that the results be sorted on the server, for cases where the number of search results exceeds what can be displayed.

In addition to dragging and dropping search filters, you can also right click on a search filter entry and use the Move Previous, Move Next buttons to change the order of your custom search criteria.

There are validation checks to insure, invalid dates and invalid combo box selections are not allows.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

Each filter you populate much match for a result to be displayed; however, if you add two filters for the same field such as Modality Type, an ‘or’ operations will be performed on the two values for that field.
For example:

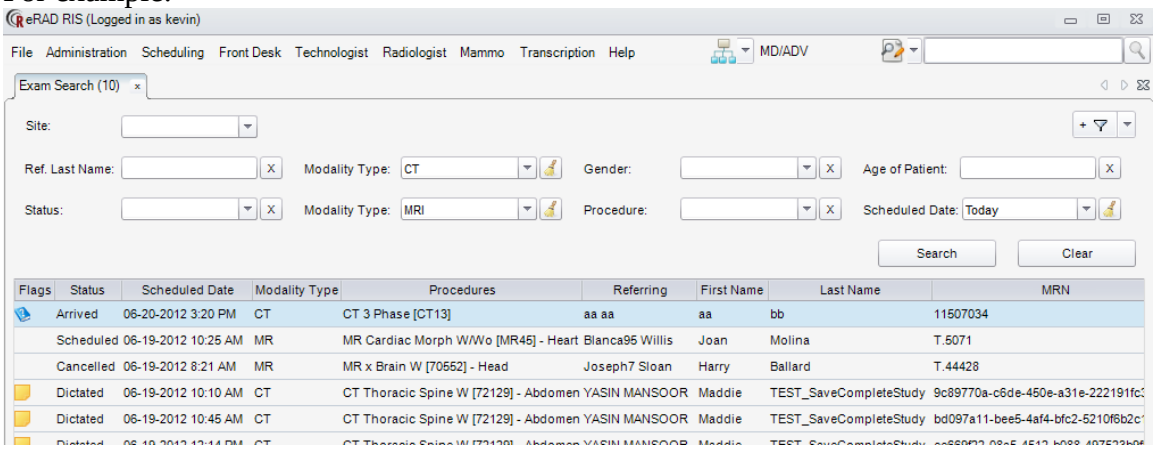



**Figure 4.111 – Exam Search**

The Broom Icon can be used to reset/clear its filters value.
Pressing the enter key on any of the search filters will execute the search. If there are any results in the grid keyboard focus will go to the first row in the grid. If there are no results, your keyboard focus will return to the last search field you were editing so you can quickly make a change and press enter again.

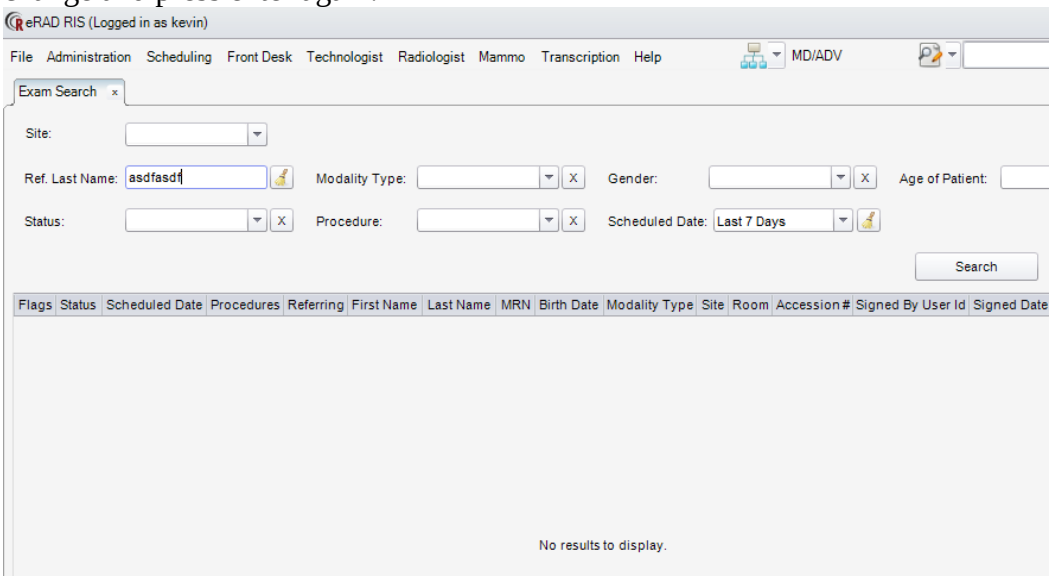



**Figure 4.112 – Exam Search**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

Also if there are too many results the tab will say “Exam Search (100+)”, and the text “Too many matches. Results are limited..” will be displayed just above the results grid

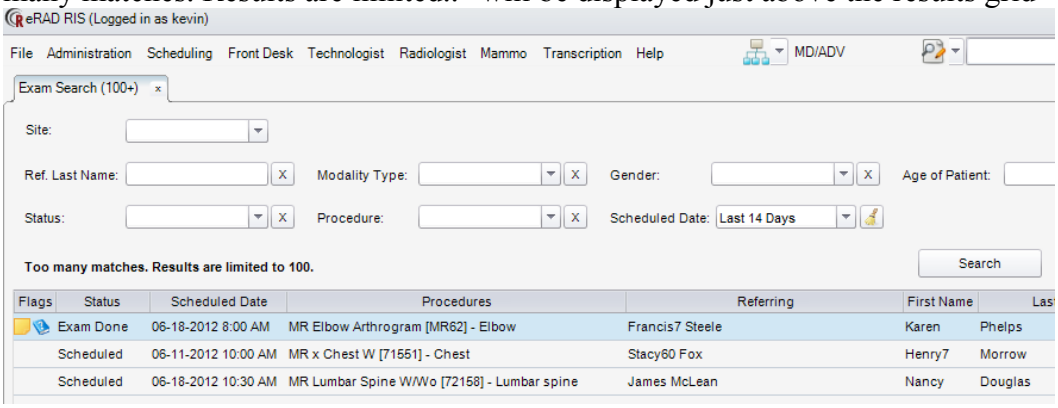



**Figure 4.113 – Exam Search**

The exam search max results is configurable via the System Config setting: ExamSearchMaxResults:

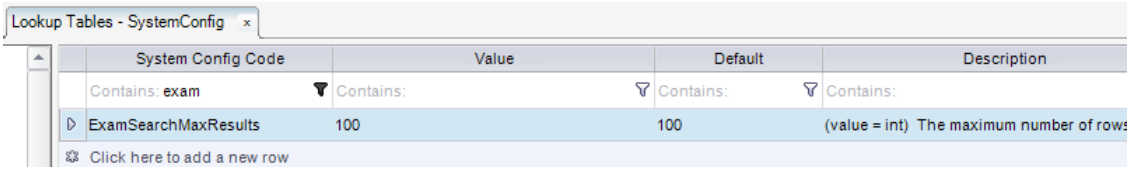



**Figure 4.114 – Exam Search**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Generalized Procedure Name

A new lookup table was added (ProcedureGeneralDescription). This lookup allows you to configure a friendly description.

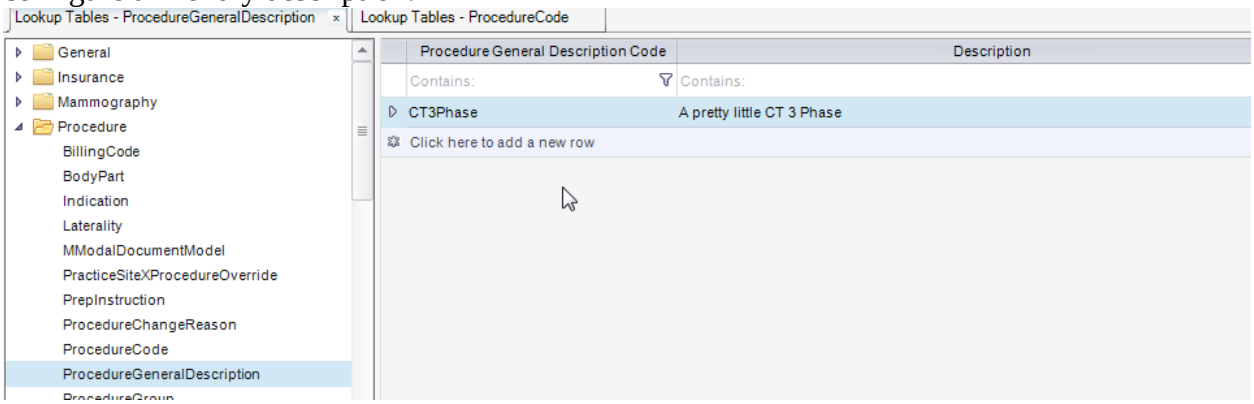



**Figure 4.115 – Procedure General Description lookup**

A new cross table (ProcedureXGeneralDescription) was created and included in the study data set. This cross table also includes a relation to practice.

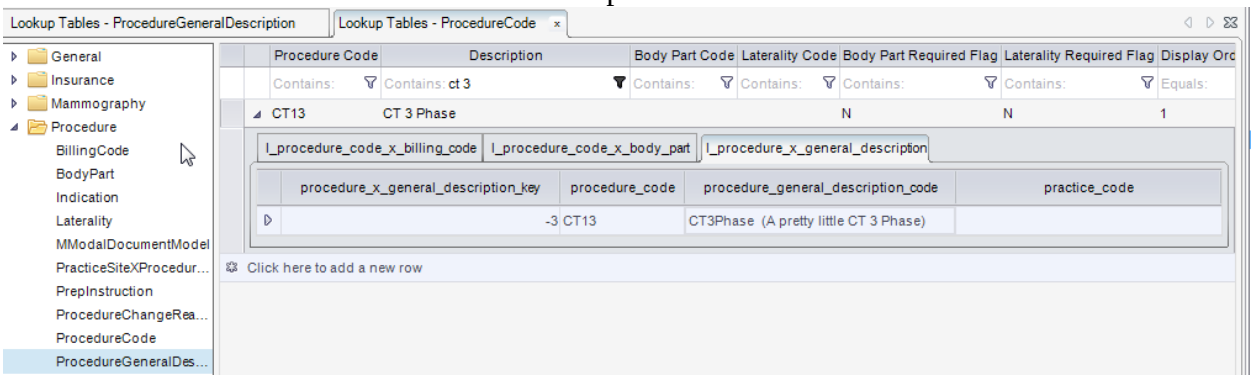



**Figure 4.116 – Procedure code lookup display cross table ProcedureXGeneralDescription**

A null value in practice means for all practices, unless there is another reference to that specific practice. If no entry is found in the procedure_x_general_description table, then the original procedure description is used instead.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Scheduling Date Time Control Enhancement

The previous control that was being used has the limitation of only being able to select the date and not the time.

The new control will allow for the time to be selected by typing in the box, setting focus to the individual time portions and using the up/down controls, or by using the mouse wheel.

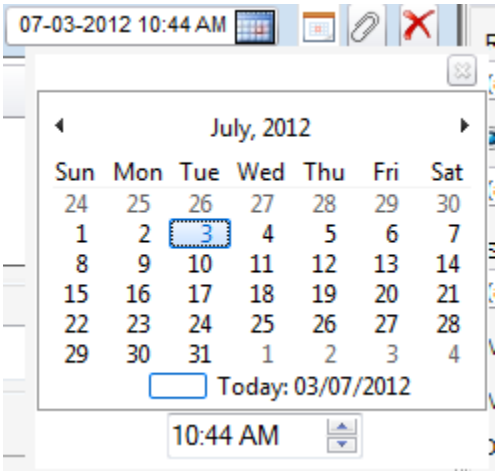



**Figure 4.117 – New date/time control**

The changes to the date picker control will use the provided format to determine which format the pop-up should be displayed in. If the format is a custom format and contains the time then it will be displayed as the figure above. This layout will allow for the closing of the screen by loss of focus outside of the pop-up or by clicking the "X" in the top corner. We have also corrected the issue that when a custom format is specified that the user will be able to change the time using the keyboard up/down keys.

If the format only has the date and not the time, the user will see the calendar only without the time option and will not have the "X" option to close the window.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Referring Physician Addresses

It has been requested that referring physician addresses can be flagged as active or inactive. This has been added in build 37.

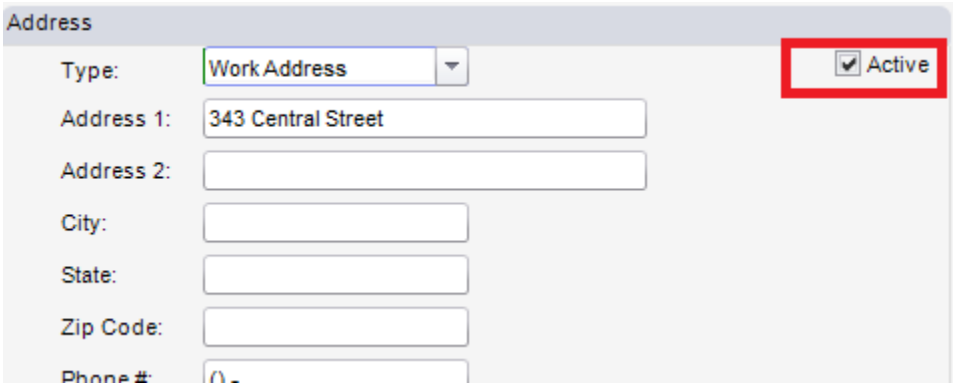



**Figure 4.118 – Referring physician addresses can active or inactive**

## Notes Text Boxes Copy / Paste Option

Added Copy/Paste options to the input box and the Copy context menu to the logged area as shown in the following. Note: paste in the logging area is disabled if the user doesn't have permission to edit the logging area.

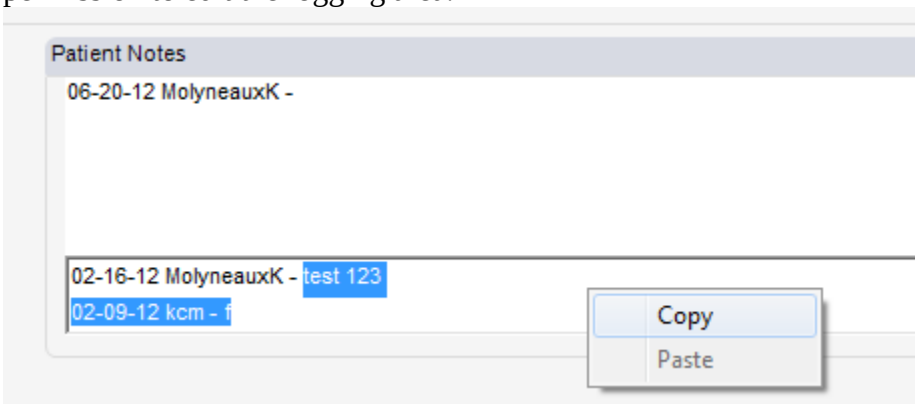



**Figure 4.119 – Copy/Paste notes fields**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Multiple Schedule Groups Per User

In previous versions users could only be assigned to one schedule group. It was desired to allow users to have multiple schedule groups. This was to prevent the need from having to create a new schedule group for each possible configuration, and remove the requirement to build a master schedule group that can be used across all sites/practices.

The previous method of selecting a scheduling group was by a list box in the personnel editor. The list box has been replaced with a multi type ahead box that allows for multiple enteries.

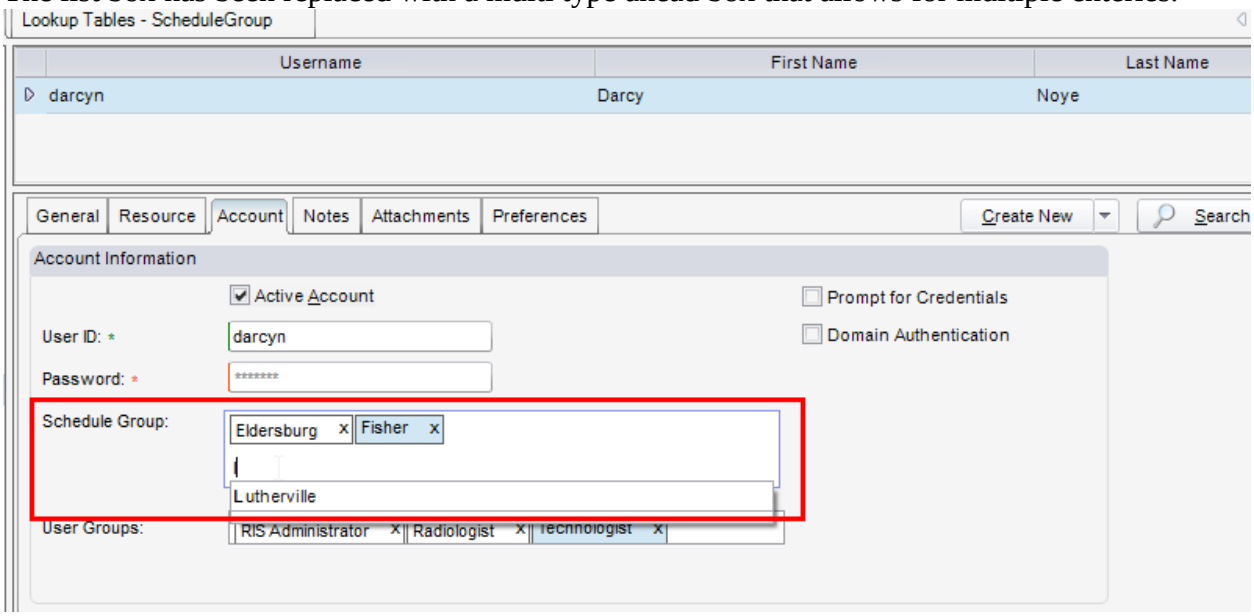



**Figure 4.120 – Multiple schedule groups per user**

With the ability of having multiple schedule groups assigned to the same user there is potential that there could be conflicting configurations. To deal with this issue if the time is available in one configuration then the time slot is available, this also applies to the reservation configuration. But in the case where there is a conflicting duration provided then the template duration will be ignored and the duration will be used from the previous level, which would from the modality duration override, if one exists, otherwise the duration from the procedure will be used.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Organization Picker Enhancements

The Org Picker allows the user to choose their current location in order to help filter worklists. In prior builds we were only showing the region/practice/site code. In Build 37 we will now show the code and the description.

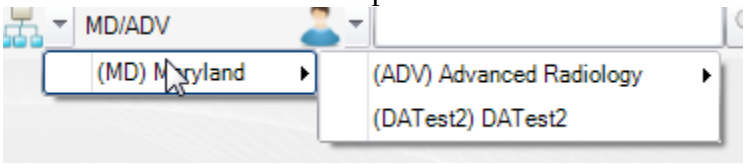



**Figure 4.121 – Org picker enhancements**

The region/practice/site code are displayed first, and their respective descriptions are displayed afterwards. The text of the description is trunctated if it exceeds 50 characters.

## Unknown Referring Required Address Removed

The unknown referring required an address, as all referring's needed a visited at address in the past.
In build 37 the address is no longer a requirement for the Unknown referring physician.

## Verify Credentials Enhancements

The swap credentials feature (now renamed Verify Credentials) would prompt each and every time a Perform Exam window was opened. For techs that might open 2 or 3 patients in a row, this was very time consuming and frustrating.

The swap credentials class was enhanced to be able to store the last UID and PW and Auth type of the last successfully swapped user.

A new timer - activity based – was introduced.

If the timer has not expired, a new button appears on the next opening of the verify credentials screen, with the previous logon id. The text of the button is "I am (userid)"

If the user clicks on this button, it opens the new screen under the credentials of that user, without them needing to key in a password.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

A system config value controls the duration of the inactivity timer. A timer setting of 0 disables the feature.
(SwapCredentialsKeepPreviousUserTimeout)

When the inactivity timer expires, the button will disappear.

An old bug was found if the user closed the tech worklist, reopening the worklist would now adopt the credentials of the switched user. I had not accounted for this, so now the credentials used to open the original worklist are preserved, so they can always be reverted to.

Edit patient was removed as an option from the tech screen, and Edit Patient (if activated by other means) no longer attempts to verify credentials.

## No Report Required Work Flow Enhancements

Previous to build 37, users in the Perform Exam window could flag an exam to not have a report. A flag on the documentation tab of the Perform Exam window, when checked, the exam would not be routed to the radiologist work list(s) and would go directly to billing, provided all the billing criteria has been met. This work flow still exists, but now we also provide the practice / site the option to mark procedures to have "No Report Required"

For configuring this feature see the "PractaceSiteXProcedureOverride" lookup as shown in the following:

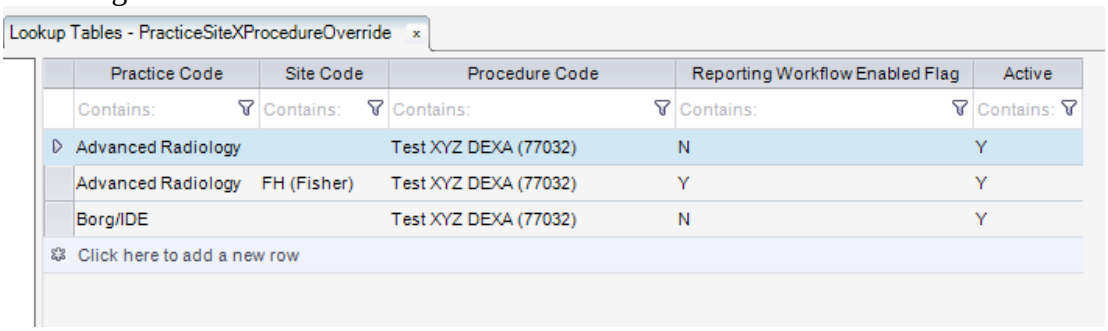



**Figure 4.122 – PracticeSiteXProcedureOverride lookup table**

In the above, the "Test XYZ Dexa" procedure will skip reporting for all of "Borg/IDE" and all of "Advanced Radiology" except for the "Fisher" site. Note: Site code is optional, if it is empty the override is for the entire practice and if a Site code is provided, that overrides the practice setting.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

The tech screen for "ReportingWorkflowEnabled = 'N'" the check box for No Report (Tech Only) is checked and disabled so the user in the tech screen cannot accidently remove it.

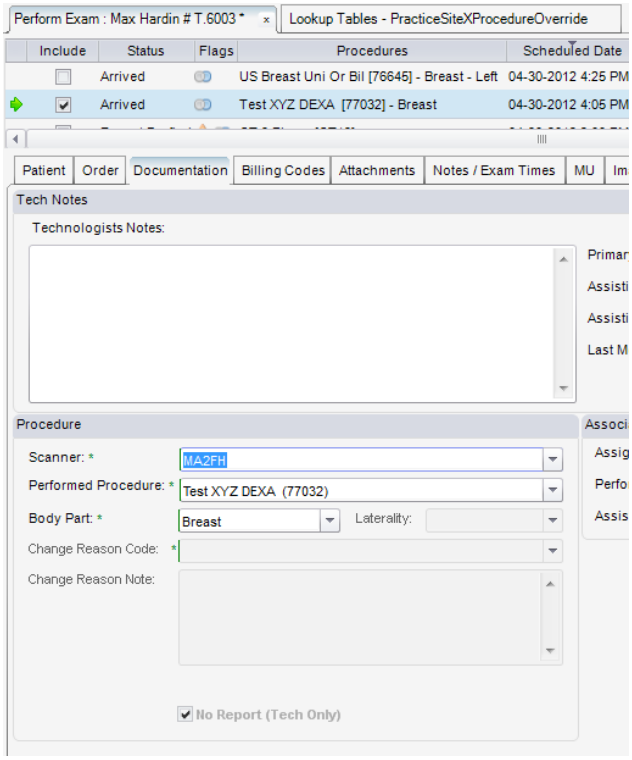



**Figure 4.123 – No Report auto checked and disabled**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 5. Resolved Defects

Bugs Suggested Features and Support Issues resolved in build 1.37. The extract is taken from Redmine bug tracking system and only displays defects resolved in 1.37.

| Bug # | Tracker | Priority | Subject | Category | Found Version |
|---|---|---|---|---|---|
| 1300 | Bug | Urgent | DD when using an undefined recipient fails genreating SSRS report | Thick Client GUI | 1.36 |
| 1563 | Bug | High | Reporting - Update to the latest Radiology Recognizer | Thick Client GUI | 1.36 |
| 1545 | Bug | High | Scanning issue (Not Responding) | | 1.35 |
| 1499 | Bug | High | getting over booked error on outside reads when schedule outside reads exceed 15 | | 1.36 |
| 1496 | Bug | High | Remove Orphans | Thick Client GUI | 1.36 |
| 1494 | Bug | High | Beverly and Highway Users getting communication exception | Web Services/DB | 1.36 |
| 1466 | Bug | High | Reporting Interactive - minimize mode doesn't load macros | Thick Client GUI | 1.36 |
| 1451 | Bug | High | HIA report preview - blank sections should not appear in rendered report | Mgt Reports | 1.36 |
| 1440 | Bug | High | Move To <section> not being recognized consistantly. | Thick Client GUI | 1.36 |
| 1372 | Bug | High | Minimize Dictation - Sign Report as EOL throws exception | Thick Client GUI | 1.36 |
| 1359 | Bug | High | Report on Accession number | Thick Client GUI | 1.36 |
| 1355 | Bug | High | Scheduled by userID is not populating in the study table | Mgt Reports | 1.1.36.11197 |
| 1342 | Bug | High | Report tables not consistently returning in same sequence | Mgt Reports | 1.36 |
| 1330 | Bug | High | Perform exam | Thick Client GUI | 1.36 |
| 1294 | Bug | High | Pacs correction not Y on statuses beyond examdone | Thick Client GUI | 1.36 |
| 1292 | Bug | High | Suspending in WPR workflow doesn't work | Thick Client GUI | 1.36 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | | |
|---|---|---|---|---|---|
| 1284 | Bug | High | Dated Worklists not reflecting proper dates | Thick Client GUI | 1.35 |
| 1272 | Bug | High | Error trying to import image | Thick Client GUI | 1.36 |
| 1270 | Bug | High | View/Edit data window does not show billing codes | Thick Client GUI | 1.36 |
| 1269 | Bug | High | Relevant priors do not open correctly when user preference to show current study in patient history is off | Thick Client GUI | 1.36 |
| 1257 | Bug | High | Signed by date WL access string not included in build | Thick Client GUI | 1.36 |
| 1097 | Bug | High | Reporting > Problems continuing dictation when using interactive and field markers | Thick Client GUI | 1.35 SVN 10005 |
| 851 | Bug | High | Beaumont - PSPLOG.dll error on app launch | Thick Client GUI | 1.27 |
| 777 | Bug | High | missing a billing message when tech only workflow | Web Services/DB | 1.29 |
| 1510 | Bug | Normal | eRAD RIS Error - Scanned Documents (saving after viewing an attached scanned document) | Thick Client GUI | 1.36 |
| 1480 | Bug | Normal | Sort issue on Appointments Schedule | Mgt Reports | 1.36 |
| 1445 | Bug | Normal | Fax jobs: Busy retry count goes forever | Web Services/DB | 1.35 |
| 1429 | Bug | Normal | Cannot update patient prefix table via the GUI lookup table editor | | 1.36 |
| 1425 | Bug | Normal | The image request worklist has a button called "Edit" but when you open the form it says "Request Copies" | | 1.35 |
| 1397 | Bug | Normal | patient search - phone number | Web Services/DB | 1.36 |
| 1395 | Bug | Normal | Image request form shows offset. | Thick Client GUI | 1.35 |
| 1365 | Bug | Normal | Summary tab on scheduling tab is blank when value is not entered on system config, does not recognize defaults | Admin Tools | 1.36 |
| 1364 | Bug | Normal | Some study updated messages are post to the message queues with an empty study container | Web Services/DB | 1.36 |
| 1363 | Bug | Normal | inactive holidays still being applyed to the calendars | Thick Client GUI | 1.35 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | | |
|---|---|---|---|---|---|
| 1360 | Bug | Normal | Mgmt Reports - Scheduled vs Completed - report is showing exams in 'Cancelled' status. | Mgt Reports | 1.1.36.11197 |
| 1358 | Bug | Normal | Mgmt Reports - Scheduled Count by Site - exams are all appearing regardless of status. | Mgt Reports | 1.1.36.11197 |
| 1357 | Bug | Normal | Management Report - Room Utilization - documentation for this report is not correct, appears to be for a different report altogether. | Mgt Reports | 1.1.36.11197 |
| 1353 | Bug | Normal | Billing file can include addendums | Web Services/DB | 1.35 |
| 1351 | Bug | Normal | Mgmt Report 'Referrals by Physician' - when scheduled_start_date is greater than today's date, report and view are still showing it as a valid exam. | Mgt Reports | 1.1.36.11197 |
| 1350 | Bug | Normal | MGMT Report - Radiologist Signing Activity - 'Radiologist(s)' dropdown menu needs to be ordered alphabetically | Mgt Reports | 1.1.36.11197 |
| 1346 | Bug | Normal | Mgmt Report - Pre-Auth Referring Physician - description is not accurate | Mgt Reports | 1.1.36.11197 |
| 1345 | Bug | Normal | Mgmt Report - Pre-Auth Daily Count - description is not accurate of what the report is showing. | Mgt Reports | 1.1.36.11197 |
| 1344 | Bug | Normal | In visit tab, in 'Medications' window, message stating 'Failed to Update Medications' is cut off from view. | Thick Client GUI | 1.1.36.11197 |
| 1343 | Bug | Normal | Dictated by date worklist and counts are using 24 hours instead of date | Thick Client GUI | 1.36 |
| 1341 | Bug | Normal | Mgmt Report - Patient Wait Times - problem with view using two different time zones | Mgt Reports | 1.1.36.11197 |
| 1340 | Bug | Normal | Daily Fax log management report is not filtering out other distribution methods | Mgt Reports | 1.1.36.11197 |
| 1338 | Bug | Normal | core services install.. missing libraries | Web Services/DB | 1.36 |
| 1337 | Bug | Normal | MU required fields prompted for on Outside Reads | Thick Client GUI | 1.36 |
| 1333 | Bug | Normal | Revoming rows from MU Grids so it is empty does not change from "Use Grid" to "None" | Thick Client GUI | 1.36 |
| 1332 | Bug | Normal | Meaningful Use - New Appointment on existing patient with MU history, Medical history does not keep "Use Grid" | Thick Client GUI | 1.36 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | | |
|---|---|---|---|---|---|
| 1328 | Bug | Normal | When in RIS, after creating a new user / person, user attempts to launch Mgt. Reports but when the report selection window opens there is no reports | Mgt Reports | 1.1.36.11197 |
| 1326 | Bug | Normal | Management Report - Referring Physician Notification - when physicians name has suffix, it is appearing twice with their name in the report | Mgt Reports | 1.1.36.11197 |
| 1325 | Bug | Normal | Management Reports - Procedures without Procedure Group has no information at all in document. | Documentation | 1.1.36.11197 |
| 1324 | Bug | Normal | ODC - Login failed attempt will keep password on login screen | Thick Client GUI | 1.35 |
| 1323 | Bug | Normal | ODC - saved my view continously shows hour glass | Thick Client GUI | 1.35 |
| 1320 | Bug | Normal | ODC - Edit patient from patient search hangs app | Thick Client GUI | 1.35 |
| 1318 | Bug | Normal | Management Reports - Audit Log - drop down for 'user' is not in a easy to find order. It displays user name first, but appears to be sorted by user's last name. | Mgt Reports | 1.1.36.11197 |
| 1317 | Bug | Normal | Fax Sender in DDE requires a default printer | Web Services/DB | 1.35 |
| 1316 | Bug | Normal | 'No Shows' management report does not recognize cancelled exams for 'No show' reason | | 1.1.36.11197 |
| 1315 | Bug | Normal | Cell borders are inconsistent on Mgmt Report titled 'No Shows' | | 1.1.36.11197 |
| 1314 | Bug | Normal | Need Plan Management report returns no data whatsoever | | 1.1.36.11197 |
| 1313 | Bug | Normal | Management Report - Modality Utilization - not working, showing no data at all | | 1.1.36.11197 |
| 1312 | Bug | Normal | IVT 7 day trend displays more data than it should. | | 1.1.36.11197 |
| 1311 | Bug | Normal | Management Report - Front Desk Activity - will not populate 'Verified' | Mgt Reports | 1.1.36.11197 |
| 1310 | Bug | Normal | Confirmed Appts. Mgmt Report is showing all confirmed appointments, regardless of status. | Mgt Reports | 1.1.36.11197 |
| 1309 | Bug | Normal | Core reports document does not contian requirements for report titled 'Appointment Schedule' | Documentation | 1.1.36.11197 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | | |
|---|---|---|---|---|---|
| 1308 | Bug | Normal | Mgt Reports - Aborted Exams report - expanding reason shows numbers but does not indicate what they are for | Mgt Reports | 1.36.11197 |
| 1306 | Bug | Normal | Medical History > remove and add new problem will give error | Thick Client GUI | 1.36 |
| 1305 | Bug | Normal | Delete Allergy row, then add through Quick Add/Edit results in status column error | Thick Client GUI | 1.36 |
| 1304 | Bug | Normal | Report Preview unsigned addendum from worklist | Thick Client GUI | 1.35 |
| 1303 | Bug | Normal | Each Failed Login Results in Multiple Login Attempts | Thick Client GUI | 1.35 |
| 1302 | Bug | Normal | Recommendation lookup > Remove drill down control | Thick Client GUI | 1.36 |
| 1301 | Bug | Normal | Error from patient search. | Thick Client GUI | 1.36 |
| 1299 | Bug | Normal | DD Editing an exising job in the worklist doesn't load with all values | Thick Client GUI | 1.36 |
| 1296 | Bug | Normal | Unknown Referring/Carrier... should we be using Edit Order?? Seems bad idea | | 1.36 |
| 1295 | Bug | Normal | Unknown Reconciliation WL - can edit order on studies that are scheduled or further in workflow | Thick Client GUI | 1.36 |
| 1293 | Bug | Normal | Error closing New Appointment / Patient Search | Thick Client GUI | 1.36 |
| 1290 | Bug | Normal | Data nugget - Notes or Study Notes? | Thick Client GUI | 1.36 |
| 1289 | Bug | Normal | Transcription - Perform Exam ( worklist does not show current study) | Thick Client GUI | 1.36 |
| 1288 | Bug | Normal | Template viewer title bar has incorrect title. | Thick Client GUI | 1.36 |
| 1283 | Bug | Normal | Nuggets shouldn't respond to right click | Thick Client GUI | 1.36 |
| 1282 | Bug | Normal | MT Polling > Studies from same order are not skipped when locked | Thick Client GUI | 1.36 |
| 1281 | Bug | Normal | Surgeon can be searched for to send report, but cannot be used to send report | Thick Client GUI | 1.36 |
| 1279 | Bug | Normal | When using CTRL + Shift + '+=' or '_-' buttons or up and down arrow keys, RIS throws an error and | Thick Client GUI | 36.11042 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | | |
|---|---|---|---|---|---|
| | | | crashes. | | |
| 1278 | Bug | Normal | Error accessing data windows resuming locked RIS application | Thick Client GUI | 1.36 |
| 1274 | Bug | Normal | Open Capacity | Mgt Reports | 1.35 |
| 1273 | Bug | Normal | Assign to Radiologist window closes if clicking to fast on srcoll bar action down | Thick Client GUI | 1.36 |
| 1271 | Bug | Normal | Patient Folder > Ordered status studies data nuggets do not load | Thick Client GUI | 1.35 |
| 1268 | Bug | Normal | Personnel > Cannot search for existing after deleting create new | Admin Tools | 1.36 |
| 1256 | Bug | Normal | Macro editor - the delete function will not delete the macro | Thick Client GUI | 1.36.10931 |
| 1245 | Bug | Normal | Unable to cast System.DBNull to System.String | Thick Client GUI | 1.36 |
| 1238 | Bug | Normal | Editiing patient and repeatedly getting "Status can not be empty" message on save | Thick Client GUI | 1.36 |
| 1235 | Bug | Normal | Select Search multiple times in Carrier search window will throw error. | Thick Client GUI | 1.36 |
| 1227 | Bug | Normal | Patient Folder Window --> Scheduled Date filter = object reference error | Thick Client GUI | 1.36 |
| 1220 | Bug | Normal | Insurance - Returns Object Reference Error | | 1.36 |
| 1215 | Bug | Normal | Rad - Dictate - Template Browser - runtime | Thick Client GUI | 1.36 |
| 1213 | Bug | Normal | Rad - All Pending Signature Worklist --> Dictate --> Click Print Icon "Send to" = runtime | Thick Client GUI | 1.36 |
| 1198 | Bug | Normal | Scheduling - Edit Image request --> runtime NULL handling | Thick Client GUI | 1.36 |
| 1195 | Bug | Normal | Rad - Dictate or Transcripion window.. Attachments and Attachment History views are missing | Thick Client GUI | 1.36 |
| 1186 | Bug | Normal | Filtered patient folder on Signed and Ordered rows are in the list. | Thick Client GUI | 1.36 |
| 1178 | Bug | Normal | Macro Editor --> Insert Macro --> Click Previous Field = COM Error | Thick Client GUI | 1.36 |
| 1175 | Bug | Normal | Transcirption editor does not support keyboard shortcut to select text up and down | Thick Client GUI | 1.36 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | | |
|---|---|---|---|---|---|
| 1174 | Bug | Normal | Mammo - Followup worklist. Right Click --> Followup "New patient button is available on signed study" | Thick Client GUI | 1.36 |
| 1172 | Bug | Normal | Rad - Macro Editor - Exception inserting normal | Thick Client GUI | 1.36 |
| 1170 | Bug | Normal | Warning for scheduling across sites message displayed twice when selecting Yes | Thick Client GUI | 1.36 |
| 1161 | Bug | Normal | error on second save within macro editor | Thick Client GUI | 1.36 |
| 1153 | Bug | Normal | Save layout not saving selected tabs | Thick Client GUI | 1.36 |
| 1106 | Bug | Normal | Logging into locked workstation when GUI ZIP file has changed | Thick Client GUI | 1.35 |
| 1093 | Bug | Normal | When allergy is inactive in the lookup the value is not displayed for the patient that has that allergy | | 1.35 |
| 1057 | Bug | Normal | Scheduling - Confirmation WL --> runtime crash | Thick Client GUI | 1.35 |
| 991 | Bug | Normal | Patient Merge -- Selecting source and destination give weird birthdates | | 1.35 |
| 980 | Bug | Normal | Streaming execption when playing dictation | Thick Client GUI | 1.35 |
| 976 | Bug | Normal | Object reference saving multiple procedure order | Thick Client GUI | 1.35 |
| 945 | Bug | Normal | Responsible party is not updated when patient information has changed. | Thick Client GUI | 1.34 |
| 807 | Bug | Normal | Timezone issue - Cannot update personnel | Admin Tools | 1.29 |
| 783 | Bug | Normal | the gui has hard coded values for Patient relation | Thick Client GUI | 1.29 |
| 781 | Bug | Normal | Read Only permission still allows some actions | | 1.2 |
| 758 | Bug | Normal | Drug Allergy Type requires Display order to save | Admin Tools | 1.27 |
| 756 | Bug | Normal | Beaumont - Issue with time zones | Web Services/DB | 1.25 |
| 750 | Bug | Normal | Patient Search > Reset search criteria throws error. | Thick Client GUI | 1.27 |
| 691 | Bug | Normal | Configure > Lookup Tables scroll bar not always present. | | 1.2 |
| 463 | Bug | Normal | Concurrency error on scheduling | Web Services/DB | 1.17 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | | |
|---|---|---|---|---|---|
| 224 | Bug | Normal | Order - Exception when scheduling a modified order | Thick Client GUI | 1.11 |
| 1261 | Bug | Low | Double context menu in personnel editor > Contact information | Admin Tools | 1.36 |
| 1211 | Bug | Low | Administration - User - Personnel ( Add, Edit Address validation) | Thick Client GUI | 1.36 |
| 1208 | Bug | Low | Study box size on Walk-In Exam tab is too small to see all of the study description | Thick Client GUI | 1.36 |
| 1200 | Bug | Low | Patient Merge - Search - Invalid Search Criteria - click Details = error | Thick Client GUI | 1.36 |
| 1184 | Bug | Low | Batch to Interactive Mode changes can result in tab being mislabeled | | 1.36 |
| 1060 | Bug | Low | Tab order in Patient Demographics Content Pane | Thick Client GUI | 1.35 |
| 1058 | Bug | Low | Scheduling a child patient | Thick Client GUI | 1.35 |
| 1051 | Bug | Low | Recorder::resume couldn't open recording device (AnyModalCaptureCtrl.AsyncRecognizer.1) | Thick Client GUI | 1.35 |
| 1010 | Bug | Low | Continuity of Care Record (CCR) - user is able to click view / print, but when the preview appears there is no "print" button. | Thick Client GUI | 1.35 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 6. Known Limitations

The following are Bugs Suggested Features and Support Issues found in build 1.37. This build is the current QE build and testing is ongoing. The list may increase in size. This document will not be updated or re-released.

| # | Status | Priority | Subject | Resolved Version |
|---|---|---|---|---|
| 1613 | New | High | Reporting - Assign to Data pane will not open from view menu | |
| 1611 | New | Normal | View Template - Base Dropdowns visible and enabled | 1.38 |
| 1610 | New | Normal | If Patient Class for Tech Only is missing, scheduling from Orders to Schedule gives strange error. | |
| 1609 | New | Normal | Voided studies cannot accessed in View Edit window | |
| 1608 | New | Normal | Referring column not added to the Dictated by Date and All Dictated work lists | |
| 1607 | New | Normal | Perform Exam - Check \ Uncheck include box issue | |
| 1606 | In Progress | Normal | Dictate window getting Error on GetData/DisplayData | |
| 1598 | New | Normal | WPR workflow, multiple same accession numbers. | |
| 1595 | New | Normal | Message boxes not focusing default button. | |
| 1594 | New | Normal | View/Edit screen does not show EMR order information | |
| 1593 | New | Normal | Dictation / Create Edit Report screens do not show EMR ordered procedure | |
| 1592 | New | Normal | Opening exam done study prompting for an addendum... | |
| 1590 | New | Normal | View Edit report tab does not include section headers or formatted text | |
| 1579 | New | Normal | Exception on patient folder, right-click, Send Report | |
| 1577 | New | Normal | RIS throws an innappropriate error when you try to complete 2 studies at once that are in different modalities. | |
| 1576 | New | Normal | Saving a new order can cause an empty "Patient Mode" list... | |
| 1575 | New | Normal | Assigning one user trice in macro / template throws an error on save | |
| 1572 | New | Normal | Practice Filler code vs Modality - site - practice. | |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 1571 | New | Normal | CDS Retrieve Document Cache -- if service is not running = infinite loop and hang of UI | |
| 1570 | New | Normal | Data consistency error with composite study | |
| 1569 | New | Normal | schedule later does not save procedures that haven't been committed yet | |
| 1568 | New | Normal | Installation Directory Name | |
| 1564 | New | Normal | Tech WL --> Deleting a billing code does not actually delete | |
| 1552 | New | Normal | PACS: Show images button on Dictation window non-functional if first Open call fails | |
| 1536 | New | Normal | Tech WL --> right click cancel a Checked In study = Object reference error | |
| 1534 | New | Normal | Add\deleting of billing codes | |
| 1530 | New | Normal | Macro editor | |
| 1529 | New | Normal | Macro editor | |
| 1526 | New | Normal | Suspend button and Close does not update recent activity list in status bar | |
| 1524 | New | Normal | MU - Grids.. When saving auto select -Use Grid option if validation fails | |
| 1518 | New | Normal | Error on close of Perform Exam window. | |
| 1517 | New | Normal | Exam search - index out of range when returning no results. | 1.2.37.12715 |
| 1503 | New | Normal | Unknown referring match allows you to match an unknown referring to another unknown referring | |
| 1487 | New | Normal | Worklist column does not refresh when exception thrown in Bulk Field Assignment | |
| 1450 | New | Normal | Scheduled from IVT can return error | |
| 1446 | New | Normal | View Macro with description of Test Here - Error inserting selected normal with exception: The value for column 'name' in table 'l_macro' is DBNull | |
| 1442 | New | Normal | Save IVT with large Precert note generates String or binary data would be truncated error | |
| 1430 | New | Normal | Error from view/edit window on close | |
| 1394 | New | Normal | Confirmation workflow should bypass overbook timeslot check | |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 1385 | New | Normal | Scheduling Walk In - Overbook reason required should have the red required icon | |
| 1383 | New | Normal | Tab order\behaviour: Patient Insurance Policies screen | |
| 1375 | New | Normal | hit eRx button on Patient tab get exception | |
| 1370 | New | Normal | Can modify/schedule order with patient that has been flagged as deleted by patient merge in another tab | |
| 1366 | New | Normal | Play back volume is different (louder) for transcription then for rads | |
| 1348 | New | Normal | Special Accommodations required fields | |
| 1336 | New | Normal | on dated WL, adding or deleting a rView will change the display text for the "date" | |
| 1331 | New | Normal | Flags pane of perform exam window | |
| 1298 | New | Normal | DD when send thread has an exception it never starts again | |
| 1297 | New | Normal | Walkin - Randomly Raises "Get Data" error and won't load | |
| 1612 | New | Low | Locking - message box modifictaions perhaps | |
| 1603 | New | Low | Action pending (Internal Patient) doensn't have suspended flag on work list remvoed | |
| 1560 | New | Low | Spell Checker appears by default on primary monitor | |
| 1540 | New | Low | GUI hung | |
| 1539 | New | Low | Busy cursor over worklist only | |
| 1522 | New | Low | Quickly alternating between Suspend & Complete buttons on Perform Exam causes data error | |
| 1516 | New | Low | Exam Search --> Allows 2 different type of Site filters. | |
| 1509 | New | Low | Image Request Window --> Same as requested by checkbox does not work | |
| 1508 | New | Low | Date formatter not applied on new image request Studies grid | |
| 1490 | New | Low | hitting enter twice on the patient tab for scheduling will open clear patient pop-up | |
| 1485 | New | Low | On the Input tab of the Preferences screen there is a Label that can't be read | |
| 1482 | New | Low | Personnel editor - create new validates fields on search | |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 1461 | New | Low | Importing Insurance from EMR Policies doesn't populate Gender or Relation | |
| 1453 | New | Low | Changing or removing insurance does not automatically reset the Insurance Verified Checkbox | |
| 1433 | New | Low | Need to reduce flickering on save | |
| 1379 | New | Low | Address 1 box on Patient Insurance Policies screen partially obscured by another control | |
| 1352 | New | Low | Holiday | |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# Server Update

for eRAD RIS
Version 1.0
Build 37
Update 37.001

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Purpose ..... 3
2. Known Limitations ..... 6
2. Intended Audience ..... 8
3. Who is affected ..... 8
4. Package Contents ..... 8
5. Installing ..... 8

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 1. Purpose

This server update has been produced to fix bugs required for production setting, or to complete an enhancement requested for production.

This server update fixes the following issues.

| Redmine Bug # | Issue | Description | Priority | Status |
|---|---|---|---|---|
| 1643 | External Report | Ideally we need this to be part of the Radiologist Pending Dictation workflow. Add a column that views can be created on. When the radiologist opens the study the view the images and have the Verify External Report button. Goes to billing with the radiologist the clicked the Verify External Report button as the dictating physician. Ultimately we would like a way to scan in the document and save it as the report for approval and deliver that way. | HIGH | COMPLETE |
| 1632 | Voided | Not Able to View/Edit the exam. | HIGH | COMPLETE |
| 1633 | Temporary Template | Still have to enter end time 11:50 to keep the 12 from showing, these are not showing on the Manual Appt (seems to only look at the default template) When using the Appt book through scheduling these slots are still available and are able to be picked without issue. | HIGH | COMPLETE |
| 1641 | Addendum | Need to add addendum_requested_flag to Activity WL - Need to add addendum flag and addendum_requested_flag to patient folder WL - Need to show signed studies in Activity WL where addendum_requested_flag is Y | HIGH | COMPLETE |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

| | | | | |
|---|---|---|---|---|
| 1630 | Addendum | Unsigned Addendum states "Addendum" in the report. Need to fix so if a report is printed/faxed prior to the Addendum then it shouldn't show "Addendum" | HIGH | COMPLETE |
| 1634 | Follow up Tab | Needs to be accessible from any point, example need to see it in Schedule Order or View/Edit | MED/HIGH | COMPLETE |
| | Template documentation | Supply documentation on the Template mgt, for transcription mgt team. | HIGH | COMPLETE |
| 1635 | Pending Dictation - Assigned to Rad details | When assigning a dictation to a specific radiologist, put the rads 'lastname, firstname' in the "Assigned Rad" column on the worklist | HIGH | COMPLETE |
| 1645 | Tech Only | The tech only checkbox is not really necessary any longer. Just need an indication that the tech cannot change. They will use the Patient Class if it needs to be changed. Needs PACS Correction workflow but then just goes directly to billing. | HIGH | COMPLETE |
| 1644 / 1618 | Hold Code | Need flag at procedure level called "Hold Code". At tech completion this goes directly to status of Hold Code Complete. | HIGH | COMPLETE |
| 1638 | Insurance | Insurance: Once you add insurance to an order and try to remove or expire, it still shows in the order as active. No way to remove it once added. | HIGH | COMPLETE |
| 1652 | Verbal Order | You must be NT authenticated to create a Verbal Amended Order, we thought there was a fix for non NT authenticated users to access the reports. | HIGH | COMPLETE |
| BAD CONFIG | Outside Reads | Outside Reads: Unable to save an outside read. | HIGH | COMPLETE |
| 1636 | Billing | Units not being reset to the default value when switching procedures | HIGH | COMPLETE |
| 1614 | Reporting | Set account specs not working if system config values not set to true | HIGH | COMPLETE |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

| | | | | |
|---|---|---|---|---|
| 1653 | Tech | Maintaining correction selection on perform exam screen patient history grid | HIGH | COMPLETE |
| 1616 | External Report workflow | Assigning the "assign by" radiologist | HIGH | COMPLETE |
| 1625 | Alisa - Reporting | Addendums should be blocked on historical (imported) studies | HIGH | COMPLETE |
| 1646 | Reporting | DLL Issues in B37. Cannot successfully run interactive features | CRITICAL | COMPLETE |
| 1637 | Mammo | Mammo follow up target date needs to be editable - We will display and allow the target date to be edited. | HIGH | COMPLETE |
| 1631 | Mammo | MU fields are required, but in mammo workflow, we do not know what the values should be - We will add code to the patch to bypass the MU fields, when the user is using the FollowUp mammo feature. | HIGH | COMPLETE |
| 1627 | Mammo | When entering a new follow-up date for a biopsy, if an order already exists it will not update the target date and simply gives a message "order already exists". - Add new feature to allow the update of the existing follow up order using the manual follow up from the biopsy screen. | HIGH | COMPLETE |
| 1640 | Image Request BUG | Can't open image request editing form from Image request WL. | HIGH | COMPLETE |
| 1639 | Scheduling - Joe | Duration issue with template duration overrides | HIGH | COMPLETE |
| 1545 | Scheduling | Scanning issue (Not Responding) | High | COMPLETE |
| 1642 | Outside Reads | Time of the outside read dates needs to be noon instead of the beginning of the day | Med | COMPLETE |
| 1605 | Reporting | Template Editor > need an easier way to find base templates | Med | COMPLETE |
| 1604 | Reporting | Base templates not saving for new templates created | Med | COMPLETE |
| 1596 | Installer | Error on Installtion ieframe.dll | MED/HIGH | COMPLETE |
| 1375 | Scheduling / MU | hit eRx button on Patient tab get exception | MED/HIGH | COMPLETE |
| 1145 | Reporting | Edit macro twice throws object | Med | COMPLETE |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

| | | | | |
|---|---|---|---|---|
| | | reference error | | |
| 1096 | Reporting | Reporting > viewing report history throws COM error | Med | COMPLETE |
| 1651 | HL7 | error when processing HL7_StudyScheduled Message | Med | COMPLETE |
| 1622 | Payments | Payment made on rescheduled exam was displaying incorrect location and receipt prefix | Med / High | COMPLETE |

## 2. Known Limitations

| # | Priority | Subject | Comments |
|---|---|---|---|
| 1647 | High | Error adding follow up on voided exam | BUG - Most fields are disabled in the view/edit window on voided studies. The few remaining are attachments, payments and follow-up. These will be disabled in future build |
| 1646 | High | Interactive Dictation Problems in Build 37 | BUG - This is currently resolved by reverted back to the previous recognizer file. |
| 1667 | Normal | Historic Tech Only exams do not have "Post" button enabled in billing exception | Known Limitation - Changes have been made in this build to remove the Tech Only check box in the Perform Exam window and have this work flow driven by a new patient class of Tech Only.<br><br>We have seen that with historical exams on the Billing Exception work list that were flagged as Tech Only, the Post button will not enable. The **work around** for this issue is to change the patient class to Tech Only, save the record and reopen the Billing Exception work list. The post button will now be enabled. |
| 1665 | Normal | Blank help about message | BUG - This has only occurred once. A restart of the application fixed the issue. |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

| | | | |
|---|---|---|---|
| 1662 | Normal | Availability Templates / appt book colors shown on legend do not contain legend for 2 colours that appear in the grid. | Known Limitation - The colors referenced in this bug are for the background on the calendar, not the statuses of the studies |
| 1661 | Normal | Cloning availability templates ( problem) | BUG - When cloning, it always adds the template as a "Procedure Availability" |
| 1660 | Normal | Reschedule on same day will enable flag for multiple studies | BUG - Occurs when study is rescheduled for same day |
| 1659 | Normal | Reporting - No space added when dictating measurements. | BUG - reporting MMODAL bug. |
| 1658 | Normal | Pre Auth Program does not appear for referring physician | BUG - If the Referring Physician selected on the order tab has flags in personnel editor for Direct Referral and Pre-Auth Program, only the Direct Referral will display due to space availability |
| 1657 | Normal | Setting playbackspeed on control is slow. | |
| 1654 | Normal | Perform exam patient history grid issues | BUG - Occurs when the Include option on the patient history grid is unselected. |
| 1650 | Normal | Exam Done(tech only) status has Register available in patient folder | BUG - Register button will need to be disabled in future builds. |
| 1649 | Normal | Calendar view on multi procedure order | BUG - This may end up a known limitation on the Telrik controls we use in this window. If there are mutiple procedures and multiple rooms to select from, the room on the right side can off by 5 minutes |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## 2. Intended Audience

This document is created by the RIS Development team for the RadNet RIS Implementation team.

## 3. Who is affected

All previous versions of build 37.

## 4. Package Contents

The following files are included for this upgrade:

1.) Core Installer updates_setup\rRISSetup.msi and setup.exe
2.) GUI ZIP Updates\rRIS_1.2.37.13040.zip
3.) RIS Service Updates\rRISServices.exe, rRISServices.pdb, WCFService.dll, WCFService.pdb, Wedge.exe, Wedge.pdb
4.) SQL\B37.001_updates.sql

## 5. Installing

1.) Copy the file rRIS_1.2.37.13040.zip file **from** the "GUI ZIP Updates" folder and replace the .zip file in the RISDeployment\Build\<RIS_*your environment*> folder. Make sure to create a backup of the previous .zip file. The ris.exe.config made be needed.

2.) Copy and replace the files from the "core Installer updates" folder and replace the _setup folder in the RISDeployment\Core folder.

3.) Stop the following services as needed: (NOTE: your installation may not have all services listed) replace the files and restart each service.

These directories may include:

a. rRISService (core service)
b. CDS rRISService
c. Wedge rRISService
d. DDE rRISService

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

Copy the files from the "RIS Service Updates" folder to rRISService directory and replace the files in each folder associated with the services listed above.
Restart each service.

4.) Run the B37.001_updates.sql file against the RIS DB instance.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

for eRAD RIS
Version 1.0
Build 37
Update 37.002

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Purpose ..... 3
2. Intended Audience ..... 3
3. Who is affected ..... 3
4. Installing ..... 4

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 1. Purpose

This server update has been produced to fix bugs required for production setting, or to complete an enhancement requested for production.

This server update includes the following:

1. Logged as Redmine bug 1669 - Reporting - Custom Field Exam Title not populating laterality.

   Files included are:

   a) WCFService.dll
   b) WCFService.pdb

2. Logged as Redmine bug 1640 - Can't open image request editing form from Image request WL.
   Files included are:
   1) UILib.dll

# 2. Intended Audience

This document is created by the RIS Development team for the RadNet RIS Implementation team.

# 3. Who is affected

All previous versions of build 37. Current build is 1.2.37.13040.

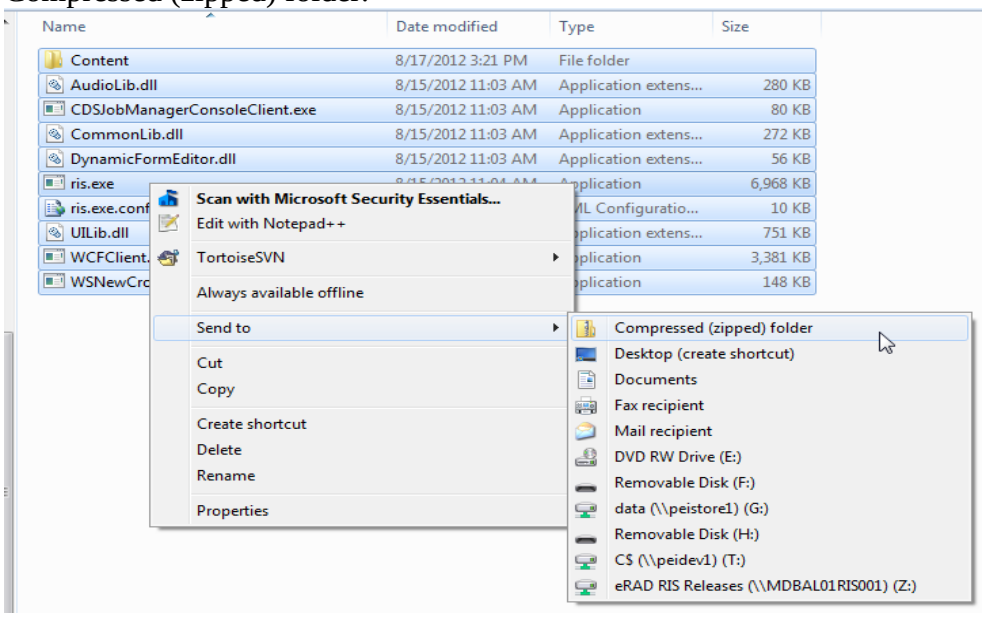
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 4. Installing

1) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService.
   *rRISService directories include:*
   *a) rRISService*
   *b) CDS rRISService*
   *c) Wedge rRISService*
   *d) DDE rRISService*

   Restart each service

2) Copy the UILib.dll file from the GUI ZIP Updates folder and replace the file of the same name in the rRIS_1.2.37.13040.zip file.
   This may require you to unzip the file, copy and replace the UILib.exe file. Zip the contents again by select all of the files in the rRIS_1.2.37.13040 folder, right click, select Send to > Compressed (zipped) folder.




   Rename the .zip file that was created to rRIS_1.2.37.13040a.zip. Move this .zip file up one directory. Remove the old rRIS_1.2.37.13040.zip file and the uncompressed rRIS_1.2.37.13040 folder.

   The next time the users log in, updates will automatically be detected because the .zip file has been renamed.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

for eRAD RIS
Version 1.0
Build 37
Update 37.003

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Purpose ..... 3
2. Intended Audience ..... 3
3. Who is affected ..... 3
4. Installing ..... 4

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 1. Purpose

This server update has been produced to fix bugs required for production setting, or to complete an enhancement requested for production.

This server update includes the following:

1. Logged as Redmine bug 1676 - Users who are domain users cannot login when they do not have a resource type.

   Files included are:
   a) WebApi.dll
   b) WebApi.pdb

# 2. Intended Audience

This document is created by the RIS Development team for the RadNet RIS Implementation team.

# 3. Who is affected

All previous versions of build 37.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 4. Installing

1) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService.
   *rRISService directories include:*
   *a) rRISService*
   *b) CDS rRISService*
   *c) Wedge rRISService*
   *d) DDE rRISService*

Restart each service

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

for eRAD RIS
Version 1.0
Build 37
Update 37.004

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Purpose ..... 3
2. Intended Audience ..... 4
3. Who is affected ..... 4
4. Installing ..... 5

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 1. Purpose

This server update has been produced to fix bugs required for production setting, or to complete an enhancement requested for production.

This server update includes the following:

1. Logged as Redmine bug 1681 – Patient Merge is not creating a data clob in the action data table. This causes all messaging to stop when the action is processed by the wedge due to error.

2. Logged as Redmine bug 1691 – Perform Exam – Error on click of complete button: "error determining study keys for status update". This error was occurring when the scanner was changed in the perform exam window and tried to complete exam.

3. Logged as Redmine bug 1688 - View Edit on Scheduled study prompts for MU required fields

4. Logged as Redmine bug 1687 – Forms not available from print forms option after upgrade. This is an option in the work lists. From context menu > Print Forms > forms that have a practice specified are not available.

5. Logged as Redmine bug 1686 – Min Max wait time system config code value not used in new appointment

6. Logged as Redmine bug 1685 – Merge Request WL error when attempted to view the WL

7. Logged as Redmine bug 1682 – Bypass MU required on "Checking In". Currently when registering a patient, the MU fields will be required when "checking in" the patient. Desired to have it only when arriving.

8. Logged as Redmine bug 1690 – CDS Job Manager not running

9. Logged as Redmine bug 1692 - Export CCR button on MU tab should have the patients name in file name

10. Logged as Redmine bug 1693 - Searching for appointment time excludes the last day in the search range

11. Logged as Redmine bug 1694 - device template assigned to device and procedure with date override has issues using full range

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

12. Logged as Redmine bug 1674 - Access String Reporting.ReleaseOthersTentativeSignedReports missing

13. Logged as Redmine bug 1695 - Concurrency exception when editing templates

Files included for this server update:

1. GUI ZIP Updates folder contains
    a. Ris.exe
    b. WCFClient.exe

2. RIS Service Update folder contains:
    a. CDSJobManager.dll
    b. CDSJobManager.pdb
    c. rRISServices.exe
    d. rRISServices.pdb
    e. SignatureApprovalService.exe
    f. SignatureApprovalService.pdb
    g. WCFService.dll
    h. WCFService.pdb
    i. WebApi.dll
    j. WebApi.pdb

3. SQL folder contains:
    a. rRISCoreData.sql

# 2. Intended Audience

This document is created by the RIS Development team for the RadNet RIS Implementation team.

# 3. Who is affected

All previous versions of build 37.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 4. Installing

1) Copy the files in the GUI ZIP Updates folder and replace those in the rRIS_1.2.37.13040 folder. Rename the zip file to be rRIS_1.2.37.13171

2) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService.
   *rRISService directories include:*
   *a) rRISService*
   *b) CDS rRISService*
   *c) Wedge rRISService*
   *d) DDE rRISService*

   Restart each service

3) Run the rRISCoreData.sql file on you eRAD RIS DB instance

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

for eRAD RIS
Version 1.0
Build 37
Update 37.005

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Purpose ..... 3
2. Package Contents ..... 5
3. Intended Audience ..... 6
4. Who is affected ..... 6
5. Installing ..... 6

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 1. Purpose

This server update has been produced to fix bugs required for production setting, or to complete an enhancement requested for production.

This server update includes the following:

1. Logged as Redmine bug 1689 – Work list views (my views) are no longer available after upgrade

2. Logged as Redmine bug 1702 – Clinical Summary did display the modality type description and now it will display all modality type descriptions for that day

3. Logged as Redmine bug 1679 – Receipt issue resulting in incorrect total payments for patient.

4. Logged as Redmine bug 1696 – Suspended transcriptions are not viewable by the rad in the suspended work list.

5. Logged as Redmine bug 1699 – Unable to sync with NewCrop

6. Logged as Redmine bug 1703 – Memory leak when questionnaire tab is not shown in perform exam window.

7. Logged as Redmine bug 1704 – Error in IVT window "Failed to enable constraints" when closing Manage Policies window

8. Logged as Redmine bug 1705 – Application hang when using minimized dictation control

9. Logged as Redmine bug 1701 – Unable to create an outside read

10. Logged as Redmine bug 1700 – Error on reschedule from "Closed Rooms Reschedule" work list.

11. Logged as Redmine bug 1707 – CDSJobManager is not processing jobs missing "performed by user id"

12. Logged as Redmine bug 1680 – Document Distribution engine queue poller error when referring address unknown

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

13. Logged as Redmine bug 1698 – Application hang after transcription queue is completed in batch editing mode.

14. Logged as Redmine bug 1710 – rRIS Version Number needs to display an extra .1 to display as 1.1.xxxxx

15. Logged as Redmine bug 1731 – Right click Change status to exam done creates bad data

16. Logged as Redmine bug 1722 – Reporting – Wrong default template displaying

17. Logged as Redmine bug 1723 – Studies transcribed from QA WL do not appear in Pending Dictation WL.

18. Logged as Redmine bug 1711 - Unique constraint in Tech window when Check box in patient history grid is selected and scan doc attached then try to start the exam

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 2. Package Contents

Files included for this server update:

1. GUI ZIP Updates folder contains
    a. ris.exe
    b. WCFClient.exe
    c. AudioLib.dll
    d. CommonLib.dll
    e. UILib.dll

2. RIS Service Update folder contains:
    a. Wedge.exe
    b. Wedge.pdb
    c. DDEngine.dll
    d. DDEngine.pdb
    e. WCFService.dll
    f. WCFService.pdb
    g. WebApi.dll
    h. WebApi.pdb
    i. CDSJobManager.dll
    j. CDSJobManager.pdb
    k. SignatureApprovalService.exe
    l. SignatureApprovalService.pdb

3. SQL folder contains:
    a. B37.005_updates.sql
    b. rRISCoreData.sql

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 3. Intended Audience

This document is created by the RIS Development team for the RadNet RIS Implementation team.

# 4. Who is affected

All previous versions of build 37.

# 5. Installing

1) Copy the files in the GUI ZIP Updates folder and replace those in the rRIS_1.2.37.13040 folder. Rename the zip file to be rRIS_1.2.37.13347

2) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService.
   *rRISService directories include:*
   *a) rRISService*
   *b) CDS rRISService*
   *c) Wedge rRISService*
   *d) DDE rRISService*

   Restart each service

3) Run the B37.005_updates.sql and the rRISCoreData.sql file on you eRAD RIS DB instance.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

for eRAD RIS
Version 1.0
Build 37
Update 37.006

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Purpose ..... 3
   Billing exception for missing billing codes ..... 3
   Rooms displayed next to time on details tab of schedule window ..... 3
   Defects resolved ..... 4
2. Package Contents ..... 5
3. Intended Audience ..... 6
4. Who is affected ..... 6
5. Installing ..... 6

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 1. Purpose

This server update has been produced to fix bugs required for production setting, or to complete an enhancement requested for production.

This server update includes the following:

## Billing exception for missing billing codes

If the exam being performed has an inactive billing code or the code is set to inactive during the technologist workflow, the exam will now go to the billing exception work list and a note will be posted in the Billing Notes section.

**Figure 1.1 – Billing exception posted for studies with inactive billing codes**

## Rooms displayed next to time on details tab of schedule window

When scheduling a multi procedure order in the past the advanced search > details tab did not indicate room with the available time. The user would need to select the time and see the rooms populate in the room list box on the procedure picker row. A new column was added to the details view to show the room

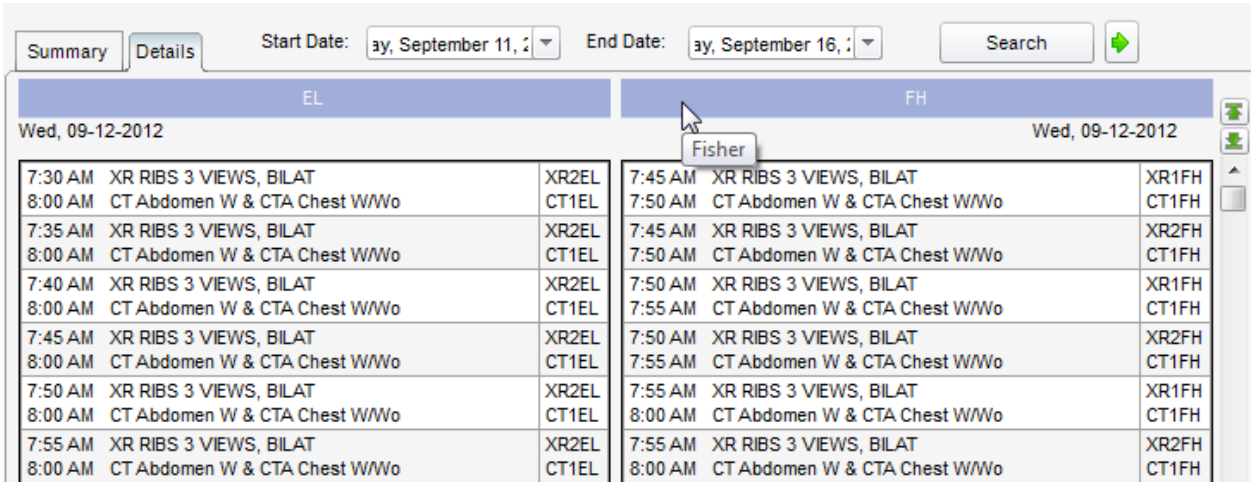



**Figure 1.2 – Details view on schedule tab**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Defects resolved

| Redmine # | Subject | Priority |
|---|---|---|
| 1735 | Studies were being signed off on that no active billing codes were assigned | Med |
| 1736 | Outside reads were not being assigned billing codes | Med |
| 1710 | MU version number | Med |
| 1699 | NewCrop GetCredential Passing NewCropAccountSiteId instead of NewCropUsername | High |
| 1751 | COM component throwing access denied error | Med |
| 1749 | MT polling general queue is getting QA / Problem Jobs | High |
| 1748 | Assigned transcriptionist with non lowercase userid | High |
| 1762 | Remove a CC doctor from the registration screen, and save - it comes back | High |
| 1760 | CC docs get added multiple time on the perform exam screen | High |
| 1761 | Scheduled procedure can be blank after an abort | High |
| 1763 | Provided Clinical Summary | High |
| 1728 | Base template dropdown not filtering out inactive items | High |
| 1708 | Suspended jobs on polling queue will hang the application | High |
| 1515 | error loading worklist views in highway (logged 13 times in 1.5 days) | Med |
| 1755 | Duplicate section templates - When a template included duplicate sections ie multiple EXAM sections. We run into some issues. NOTE: this is a temporary solution. With problematic templates we won't insert the template, we will use the batch draft as is, and let them make the required corrections manually is anything is missing in the report. | High |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 2. Package Contents

Files included for this server update:

1. GUI ZIP Updates folder contains
    a. ris.exe
    b. WCFClient.exe
    c. CommonLib.dll
    d. UILib.dll
    e. WSNewCropClient.exe

2. RIS Service Update folder contains:
    a. Wedge.exe
    b. Wedge.pdb
    c. CommonLib.dll
    d. CommonLib.pdb
    e. WCFService.dll
    f. WCFService.pdb
    g. WebApi.dll
    h. WebApi.pdb
    i. CDSJobManager.dll
    j. CDSJobManager.pdb
    k. SignatureApprovalService.exe
    l. SignatureApprovalService.pdb
    m. rRISServices.exe
    n. rRISServices.pdb

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 3. Intended Audience

This document is created by the RIS Development team for the RadNet RIS Implementation team.

# 4. Who is affected

Previous versions of build 37.

# 5. Installing

1) Copy the files in the GUI ZIP Updates folder and replace those in the rRIS_1.2.37.13347 folder. Rename the zip file to be **rRIS_1.2.37.13665**

2) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService.
   *rRISService directories include:*
   *a) rRISService*
   *b) CDS rRISService*
   *c) Wedge rRISService*
   *d) DDE rRISService*

Restart each service

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

for eRAD RIS
Version 1.0
Build 37
Update 37.007

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Purpose ..... 3
   Defects resolved ..... 3
2. Package Contents ..... 4
3. Intended Audience ..... 5
4. Who is affected ..... 5
5. Installing ..... 5

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 1. Purpose

This server update has been produced to fix bugs required for production setting, or to complete an enhancement requested for production.

This server update includes the following:

### Defects resolved

| Redmine # | Subject | Priority |
|---|---|---|
| 1822 | Reporting - Speech Mike 3 barcoding will not work | High |
| 1807 | Historical (imported) reports - Preview tool, and historical report distribution word-wrapping at a random spot. | High |
| 1826 | Mirth Mapping - After a patient merge, we are sending the original MRN in future messages | High |
| 1724 | Template editing - concurrency violations still intermittently are happening. Edit default template may return Concurrency violation. | High |
| 1823 | Work list - multi sort using dictated date and read stat flag. Worklist performance unacceptable | High |
| 1832 | Work list performance unacceptable at ARS | High |
| 1834 | MU - NewCrop updated EXE needs to be deployed | Med |
| 1774 | Perform Exam - When referrer has perferred Rad the Rad selected will not save on included study | Med |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 2. Package Contents

Files included for this server update:

1. GUI ZIP Updates folder contains
    a. AudioLIb.dll
    b. CommonLib.dll
    c. ris.exe
    d. WCFClient.exe

2. RIS Service Update folder contains:
    a. CDSJobManager.dll
    b. CDSJobManager.pdb
    c. CommonLib.dll
    d. CommonLib.pdb
    e. DDEngine.dll
    f. DDEngine.pdb
    g. rRISServices.exe
    h. rRISServices.pdb
    i. WCFService.dll
    j. WCFService.pdb
    k. WebApi.dll
    l. WebApi.pdb
    m. Wedge.exe
    n. Wedge.pdb

3. Mirth Mappings\Outbound\eRadPACS folder contains:
    a. 04_PID.js

4. SQL Folder contains:
    a. B37.007_updates.sql

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 3. Intended Audience

This document is created by the RIS Development team for the RadNet RIS Implementation team.

# 4. Who is affected

Previous versions of build 37.

# 5. Installing

1) Copy the files in the GUI ZIP Updates folder and replace those in the rRIS_1.2.37.13665 folder. Rename the zip file to be **rRIS_1.2.37.13807**

2) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService.
   *rRISService directories include:*
   *a) rRISService*
   *b) CDS rRISService*
   *c) Wedge rRISService*
   *d) DDE rRISService*

   Restart each service

3) Copy the PID.js file into the MirthMappings/Outbound/eRadPACS directory. If any custom changes at the site have been made (which shouldn't be), they will need to be merged manually.

4) Run the B37.007_updates.sql file against the eRAD RIS database instance.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

for eRAD RIS
Version 1.0
Build 37
Update 37.008

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Purpose ..... 3
   Defects resolved ..... 3
2. Package Contents ..... 4
3. Intended Audience ..... 4
4. Who is affected ..... 4
5. Installing ..... 4

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 1. Purpose

This server update has been produced to fix bugs required for production setting, or to complete an enhancement requested for production.

This server update includes the following:

## Defects resolved

| Redmine # | Subject | Priority |
|---|---|---|
| 1857 | New Appointment – Search for time slot takes 20 seconds at ARS | High |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## 2. Package Contents

Files included for this server update:

1. RIS Service Update folder contains:
    a. WCFService.dll
    b. WCFService.pdb

## 3. Intended Audience

This document is created by the RIS Development team for the RadNet RIS Implementation team.

## 4. Who is affected

Previous versions of build 37.

## 5. Installing

1) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService.
   *rRISService directories include:*
   *a) rRISService*
   *b) CDS rRISService*
   *c) Wedge rRISService*
   *d) DDE rRISService*

Restart each service

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

for eRAD RIS
Version 1.0
Build 37
Update 37.009

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Purpose ..... 3
   Defects resolved ..... 3
2. Package Contents ..... 4
3. Intended Audience ..... 4
4. Who is affected ..... 4
5. Installing ..... 4

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 1. Purpose

This server update has been produced to fix bugs required for production setting, or to complete an enhancement requested for production.

This server update includes the following:

## Defects resolved

| Redmine # | Subject | Priority |
|---|---|---|
| 1863 | Signed exams fail billing – "No active billing codes for this study" | High |
| 1866 | Action data does not have all studies in the study container XML | Med-High |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## 2. Package Contents

Files included for this server update:

1. RIS Service Update folder contains:
    a. WCFService.dll
    b. WCFService.pdb

## 3. Intended Audience

This document is created by the RIS Development team for the RadNet RIS Implementation team.

## 4. Who is affected

Previous versions of build 37.
Server updates may not be cumulative; therefore this server updated must be applied directly to the previous server update.

## 5. Installing

1) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService.
   *rRISService directories include:*
   *a) rRISService*
   *b) CDS rRISService*
   *c) Wedge rRISService*
   *d) DDE rRISService*

Restart each service

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

For eRAD RIS
Version 1.0
Build 37
Update 37.010

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Purpose ..... 3
   Defects resolved ..... 3
2. Package Contents ..... 4
4. Intended Audience ..... 5
5. Who is affected ..... 5
6. Installing ..... 5

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 1. Purpose

This server update has been produced to fix bugs required for production setting, or to complete an enhancement requested for production.

This server update includes the following:

## Defects resolved

| Redmine # | Subject | Priority |
|---|---|---|
| 1860 | Activity WL - View/Edit - View Images throws error looking for room | Med |
| 1874 | Reporting - CDSJobManager Open to Sign>Submit will get stuck in dictated | Med |
| 1867 | Removing study from procedure plan will remove same sequence number from all procedure plans | High |
| 1883 | Some patients cannot be checked in / arrived because of error on saving attachments | Med |
| 1832 | Worklist performance unacceptable at ARS – this includes IVT WL, PACS Correction WL, Billing Exception WL … | High |
| 1865 | Cannot open "New Walk In" from patient search when another Walk In window is already open | Med |
| 1880 | Unique constraint violation on registration screen (ix_c_order_item) | Med |
| 1884 | Error opening new walk in from patient search when patient has a previous referring that is inactive | Med |
| 1885 | Frequent concurrency violation errors when closing the RIS. | Med |
| 1888 | Receipt error posting payment at a site that has a site_code that is a substring of another site | Med |
| 1901 | View Images button from Perform Exam "flaky" at ARS | High |
| 1898 | Referring's without affiliations missing address details on the search results for referring search | High |
| 1780 | Error opening registration or tech when worklist row is modified by another user | Med |
| 1907 | primary key violation on PK_C_BILLING_DETAIL – on save of registration screen an error may be thrown on the billing detail violation | High |
| 1904 | Scheduler duration > 100 saves as 0 | High |
| 1905 | Procedure code picker is not wide enough to show rooms with > 5 or 6 characters | High |
| 1913 | Radar procedure to confirm will not fit in configuration setting. | High |
| 1908 | Fix Performance Issues with MU Reports | Med |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 2. Package Contents

Files included for this server update:

1. GUI ZIP Updates folder contains
    a. AudioLib.dll
    b. CDSJobManagerConsoleClient.exe
    c. CommonLib.dll
    d. DynamicFormEditor.dll
    e. Ris.exe
    f. UILib.dll
    g. WCFClient.pdb
    h. WSNewCropClient.exe

2. RIS Service Update folder contains:
    a. CDSJobManager.dll
    b. CDSJobManager.pdb
    c. CommonLib.dll
    d. CommonLib.pdb
    e. DDEngine.dll
    f. DDEngine.pdb
    g. rRISServices.exe
    h. rRISServices.pdb
    i. rRISServices.vshost.exe
    j. ScheduledTaskManager.dll
    k. ScheduledTaskManager.pdb
    l. SignatureApprovalService.exe
    m. SignatureApprovalService.pdb
    n. WCFService.dll
    o. WCFService.pdb
    p. WebApi.dll
    q. WebApi.pdb
    r. Wedge.exe
    s. Wedge.pdb

3. SQL folder contains:
    a. 37.010_updates.sql

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 4. Intended Audience

This document is created by the RIS Development team for the RadNet RIS Implementation team.

# 5. Who is affected

Previous versions of build 37.
Server updates may not be cumulative; therefore this server updated must be applied directly to the previous server update.

# 6. Installing

1) Copy the files in the GUI ZIP Updates folder and replace those in the rRIS_1.2.37.13807.zip folder. Rename the zip file to be **rRIS_1.2.37.13895.zip**

2) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService.
   *rRISService directories include:*
   *a) rRISService*
   *b) CDS rRISService*
   *c) Wedge rRISService*
   *d) DDE rRISService*

   Restart each service

3) Run the B37.010_updates.sql file against the eRAD RIS database instance.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

For eRAD RIS
Version 1.0
Build 37
Update 37.011

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Purpose ..... 3
Defects resolved ..... 3
2. Package Contents ..... 5
5. Intended Audience ..... 6
6. Who is affected ..... 6
7. eRAD RIS Release Version Numbers ..... 7
8. Installing ..... 7

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 1. Purpose

This server update has been produced to fix bugs required for production setting, or to complete an enhancement requested for production.

This server update includes the following:

## Defects resolved

| Redmine # | Subject | Priority |
|---|---|---|
| 1920 / 1986 | The MU Quick Add Edit has a data error. It should be Metformin and not MelFormin. | Med |
| 1918 | Managememt Reports - Daily Schedule requires chief complaint to be added to the report. | Med |
| 1926 | Error when you right-click to add an MRN to the alternate MRN grid | Med |
| 1939 / 1940 | Webservices including all studies from the same appointment in the action data | High |
| 1931 | Cannot open Labwork WL | High |
| 1912 | Management Report - Unread Exams, request to filter report | Med |
| 1922 | Management Report - Imaging Center Manager (ICM) Dashboard inconsistency | Med |
| 1941 / 1932 | Reporting - Users can dictate on cancelled exams with Report on Accession number | High |
| 1942 | Add Unknown referring - removing access does not hide the button | Med |
| 1925 | Appointment Book - Edit schedule does not remove the old one until the window is re-opened | Med |
| 1788 | Billing Exception - Editing billing codes will clear billing notes field | Med |
| 1938 | Error on reschedule of a single study to scheduling a series | Med |
| 1929 | PACS Integration - Relevance not working when adding Modailty Type criteria | High |
| 1886 | Relevance Lookup Editor - cant delete row | High |
| 1934 | Relevance Calculation - is evaluating inactive rows | High |
| 1947 | Register x was not updating the additional visit contact information | Med |
| 1948 | RTAT Summary report slow | Med |
| 1989 | Problem resolved studies that are unassigned not appearing on Pending Dictation WL | High |
| 1999 | Requesting Addendum on study to unassigned rad will not appear on Pending Dictation WL | High |
| 1998 | Duration not correctly being assigned correctly on search results | Med |
| 1993 | Studies appeared to move from on order to another when HL7 confirmation messages were processed | High |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

| | | |
|---|---|---|
| 1990 | Perform Exam - Study can be completed without tech notes | Med |
| 1598 | WPR workflow, multiple same accession numbers | Med |
| 1933 | Daily Clean scripts for a large database take very long to run and will inflate transaction log | Immediate |
| 2006 | Appointment booking check lock | Med |
| 2005 | Scheduling a procedure plan was casuing issues with duration of 0 not finding results | Med |
| 2007 | Radiologist middle name needed on report signature | High |
| 1985 | Confirmation Screen - Save button bumps the items off | Med |
| 2011 | WPR 000 not creating a new accession number | High |
| 2014 | Durations for search results not always returning as expected | Med |
| 2010 | Resolve problem to assigned rad saves as user who resolved | High |
| 2012 | Appointment Book refresh issue | Med |
| 1983 | PDF Import causes major problem with FAX PDF Files | Med |
| 1949 | Management Reports - Radiologist Dashboard | Med |
| 1859 | Removing procedures picker rows and adding again will return error on Save As Order | Med |
| 2023 | Study comes back to IVT is someone opens the study in View Edit, and Billing | High |
| 2004 | Error scheduling book x on new patient | High |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## 2. Package Contents

Files included for this server update:

1. GUI ZIP Updates folder contains
    a. AudioLib.dll
    b. AudioLib.pdb
    c. CDSJobManagerConsoleClient.exe
    d. CDSJobManagerConsoleClient.pdb
    e. CommonLib.dll
    f. CommonLib.pdb
    g. DynamicFormEditor.dll
    h. DynamicFormEditor.pdb
    i. O2S.Components.PDFRender4NET.dll
    j. PDToImages.exe
    k. Ris.exe
    l. Ris.pdb
    m. UILib.dll
    n. UILib.pdb
    o. WCFClient.exe
    p. WCFClient.pdb
    q. WSNewCropClient.exe
    r. WSNewCropClient.pdb

2. RIS Service Update folder contains:
    a. CDSJobManager.dll
    b. CDSJobManager.pdb
    c. CommonLib.dll
    d. CommonLib.pdb
    e. DDEngine.dll
    f. DDEngine.pdb
    g. O2S.Components.PDFRender4NET.dll
    h. PDFToImages.exe
    i. rRISServices.exe
    j. rRISServices.pdb
    k. rRISServices.vshost.exe
    l. ScheduledTaskManager.dll
    m. ScheduledTaskManager.pdb
    n. SignatureApprovalService.exe
    o. SignatureApprovalService.pdb
    p. WCFService.dll
    q. WCFService.pdb
    r. WebApi.dll
    s. WebApi.pdb

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

t. Wedge.exe
u. Wedge.pdb

3. SQL folder contains:
   a. 37.011_updates.sql

4. Reporting.zip folder contains all of the current management reports:
   a. ParentFolder that contains
      i. dashboards (9 files)
      ii. management reports (95 files contained in various sub folders)
      iii. marketing (9 files)
      iv. samples (numerous files in various sub folders)
      v. sub-reports (8 files)

   b. scripts folder that contains the files required to run DeployReports.bat
      i. CreateParent.fldr.rss
      ii. DeleteAndCreateCoreFolders.rss
      iii. DeleteAndCreateSampleFolders.rss
      iv. DeleteCoreFolders.rss
      v. DeleteSamples.rss
      vi. ListFolders.rss
      vii. RISDataSource.rds.rss

   c. DeployReports.bat

   **NOTE:** This folder has been compressed and added to a .zip file to reduce size for file transfer. The folder must be "unzipped" before the reports can be deployed.

## 5. Intended Audience

This document is created by the RIS Development team for the RadNet RIS Implementation team.

## 6. Who is affected

Previous versions of build 37.
Server updates may not be cumulative; therefore this server updated must be applied directly to the previous server update.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## 7. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 37 | - | 1.2.37.12843 | 1.2.37.12782 | 1.2.37.12843 | 1.2.37.12843 | |
| 37 | 1 | 1.2.37.13040 | 1.2.37.13040 | 1.2.37.13039 | 1.2.37.13003 | |
| 37 | 2 | 1.2.37.13069 | 1.2.37.13040 | 1.2.37.13069 | 1.2.37.13003 | |
| 37 | 3 | 1.2.37.13069 | 1.2.37.13040 | 1.2.37.13069 | 1.2.37.13003 | Just WebAPI updated, no version changes |
| 37 | 4 | 1.2.37.13171 | 1.2.37.13040 | 1.2.37.13165 | 1.2.37.13171 | |
| 37 | 5 | 1.2.37.13347 | 1.2.37.13040 | 1.2.37.12979 | 1.2.37.12979 | Bug was discovered with version numbers, this is why it appears we went backwards in the version number but we really did not. |
| 37 | 6 | 1.2.37.13665 | 1.2.37.13040 | 1.2.37.13580 | 1.2.37.12979 | |
| 37 | 7 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13799 | 1.2.37.13807 | |
| 37 | 8 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13827 | 1.2.37.13807 | |
| 37 | 9 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13839 | 1.2.37.13807 | |
| 37 | 10 | 1.2.37.13895 | 1.2.37.13040 | 1.2.37.13895 | 1.2.37.13895 | |
| 37 | 11 | 1.2.37.14161 | 1.2.37.13040 | 1.2.37.14161 | 1.2.37.14161 | |

## 8. Installing

1) Copy the files in the GUI ZIP Updates folder and replace those in the rRIS_1.2.37.13895.zip folder. Rename the zip file to be **rRIS_1.2.37.14161.zip**

2) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService.
   *rRISService directories include:*
   *a) rRISService*
   *b) CDS rRISService*
   *c) Wedge rRISService*
   *d) DDE rRISService*

Restart each service

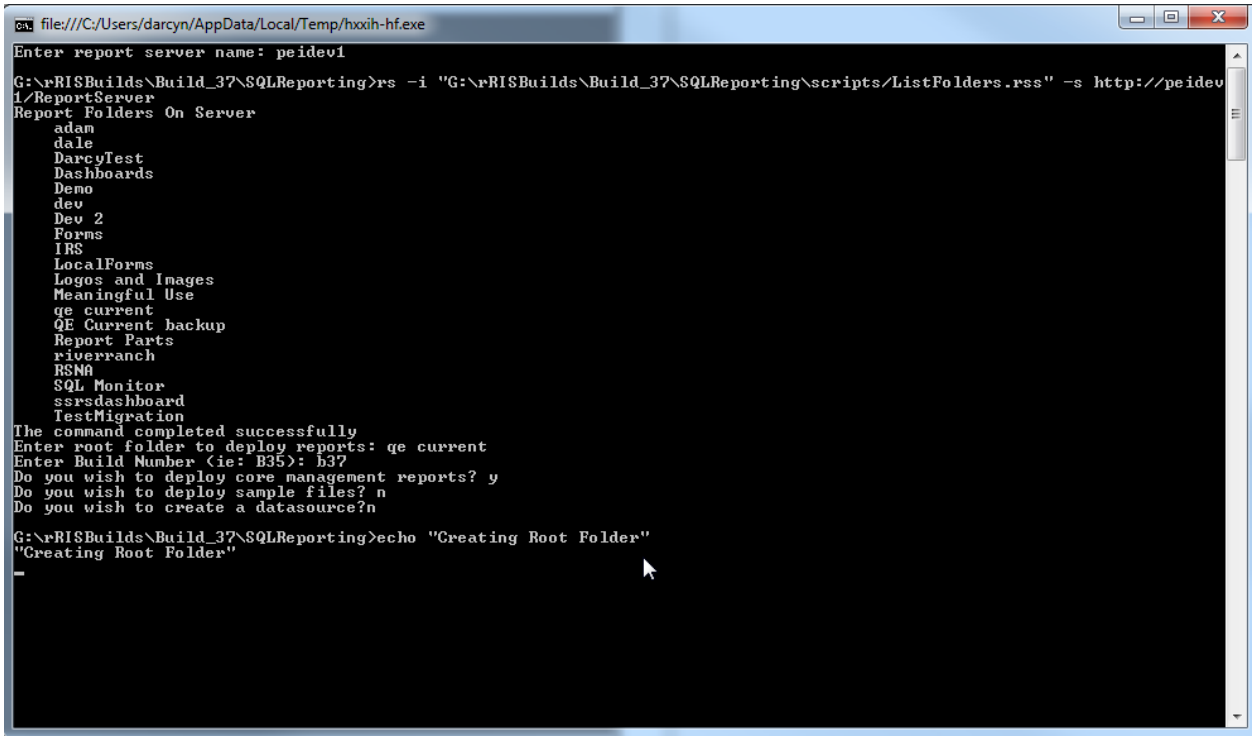
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

3) Run the B37.011_updates.sql file against the eRAD RIS database instance.

4) Copy the Reporting.zip file to the local server. Unzip the contents before running the DeployReports.bat file. Completing the DeployReports.bat file will replace all core management reports and all samples if you choose yes to the associated prompt. It will not affect any custom folders that have been created on the report server.

   To get the latest Management Reports:
   a) Run the DeployReports.bat file by double clicking on the file
   b) Enter the report server name: Example – MDBAL01RIS001. The report folders on the server will be displayed
   c) Enter the root folder to deploy the reports : Example - Baltimore Sandbox
   d) Enter the build number – Example b37
   e) Next question will ask if you want to deploy core management reports – input y
   f) Next question will ask if you want to deploy sample files – input n
   g) Next question will ask if you wish to create a datasource – input n. (Note: creating a datasource would be used for a new installation and creating SQL Server Reporting Services for the first time)

   The window will look like this:




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

For eRAD RIS
Version 1.0
Build 37
Update 37.012

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Purpose ..... 3
Defects resolved ..... 3
2. Package Contents ..... 4
4. Intended Audience ..... 5
5. Who is affected ..... 5
6. eRAD RIS Release Version Numbers ..... 5
7. Installing ..... 6

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 1. Purpose

This server update has been produced to fix bugs required for production setting, or to complete an enhancement requested for production.

This server update includes the following:

## Defects resolved

| Redmine # | Subject | Priority |
|---|---|---|
| 1831 | View images button and retrieving images from archive not working | High |
| 2049 | Object Reference not set to an instance of an object error when editing an order | Med |
| 2059 | Scheduling from appointment book = Teleric error | High |
| 2076 | Issue with logos displaying in reports | Med |
| 2081 | VR2 - Messages from Merge with alternate patient ids no longer Merging | Urgent |
| 2090 | ris appointment search not returning expected results | High |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## 2. Package Contents

Files included for this server update:

1. GUI ZIP Updates folder contains
    a. CommonLib.dll
    b. CommonLib.pdb
    c. Ris.exe
    d. Ris.pdb
    e. UILib.dll
    f. UILib.pdb
    g. WCFClient.exe
    h. WCFClient.pdb

2. RIS Service Updates folder contains
    a. CDSJobManager.dll
    b. CDSJobManager.pdb
    c. rRISServices.exe
    d. rRISServices.pdb
    e. SignatureApprovalService.exe
    f. SignatureApprovalService.pdb
    g. WCFService.dll
    h. WCFService.pdb
    i. Wedge.exe
    j. Wedge.pdb

3. SQL folder contains:
    a. 37.012_updates.sql

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## 4. Intended Audience

This document is created by the RIS Development team for the RadNet RIS Implementation team.

## 5. Who is affected

Previous versions of build 37.
Server updates may not be cumulative; therefore this server updated must be applied directly to the previous server update.

## 6. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 37 | - | 1.2.37.12843 | 1.2.37.12782 | 1.2.37.12843 | 1.2.37.12843 | |
| 37 | 1 | 1.2.37.13040 | 1.2.37.13040 | 1.2.37.13039 | 1.2.37.13003 | |
| 37 | 2 | 1.2.37.13069 | 1.2.37.13040 | 1.2.37.13069 | 1.2.37.13003 | |
| 37 | 3 | 1.2.37.13069 | 1.2.37.13040 | 1.2.37.13069 | 1.2.37.13003 | Just WebAPI updated, no version changes |
| 37 | 4 | 1.2.37.13171 | 1.2.37.13040 | 1.2.37.13165 | 1.2.37.13171 | |
| 37 | 5 | 1.2.37.13347 | 1.2.37.13040 | 1.2.37.12979 | 1.2.37.12979 | Bug was discovered with version numbers, this is why it appears we went backwards in the version number but we really did not. |
| 37 | 6 | 1.2.37.13665 | 1.2.37.13040 | 1.2.37.13580 | 1.2.37.12979 | |
| 37 | 7 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13799 | 1.2.37.13807 | |
| 37 | 8 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13827 | 1.2.37.13807 | |
| 37 | 9 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13839 | 1.2.37.13807 | |
| 37 | 10 | 1.2.37.13895 | 1.2.37.13040 | 1.2.37.13895 | 1.2.37.13895 | |
| 37 | 11 | 1.2.37.14161 | 1.2.37.13040 | 1.2.37.14161 | 1.2.37.14161 | |
| 37 | 12 | 1.2.37.14285 | 1.2.37.13040 | 1.2.37.14300 | 1.2.37.14285 | |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## 7. Installing

1) Copy the files in the GUI ZIP Updates folder and replace those in the rRIS_1.2.37.14161.zip folder. Rename the zip file to be **rRIS_1.2.37.14285.zip**

2) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService.
   *rRISService directories include:*
   *a) rRISService*
   *b) CDS rRISService*
   *c) Wedge rRISService*
   *d) DDE rRISService*

   Restart each service.

3) Run the B37.012_updates.sql file against the eRAD RIS database instance.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

For eRAD RIS
Version 1.0
Build 37
Update 37.013

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Purpose .....3
Defects resolved .....3
2. Package Contents .....4
4. Intended Audience .....5
5. Who is affected .....5
6. eRAD RIS Release Version Numbers .....5
7. Installing .....6

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 1. Purpose

This server update has been produced to fix bugs required for production setting, or to complete an enhancement requested for production.

This server update includes the following:

## Defects resolved

| Redmine # | Subject | Priority |
|---|---|---|
| 1442 | Save IVT with large Precert note generates String or binary data would be truncated error | Normal |
| 2107 | error on opening registration when patient has multiple orders for today | Normal |
| 2122 | selecting search result times/typing date/times in manually could cause the wrong duration override to ber used | Normal |
| 2098 | Registration - When registering an exam for a patient with multiple exams for the same day | High |
| 2081 | VR2 - Messages from Merge with alternate patient ids no longer Merging | Urgent |
| | | |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## 2. Package Contents

Files included for this server update:

1. GUI ZIP Updates folder contains
    a. CommonLib.dll
    b. CommonLib.pdb
    c. Ris.exe
    d. Ris.pdb
    e. UILib.dll
    f. UILib.pdb
    g. WCFClient.exe
    h. WCFClient.pdb

2. RIS Service Updates folder contains
    a. CDSJobManager.dll
    b. CDSJobManager.pdb
    c. CommonLib.dll
    d. bommonLib.pdb
    e. rRISServices.exe
    f. rRISServices.pdb
    g. ScheduledTaskManager.dll
    h. ScheduledTaskManager.pdb
    i. SignatureApprovalService.exe
    j. SignatureApprovalService.pdb
    k. WCFService.dll
    l. WCFService.pdb
    m. Wedge.exe
    n. Wedge.pdb

3. SQL folder contains:
    a. B37.013_updates.sql

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## 4. Intended Audience

This document is created by the RIS Development team for the RadNet RIS Implementation team.

## 5. Who is affected

Previous versions of build 37.
Server updates may not be cumulative; therefore this server updated must be applied directly to the previous server update.

## 6. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 37 | - | 1.2.37.12843 | 1.2.37.12782 | 1.2.37.12843 | 1.2.37.12843 | |
| 37 | 1 | 1.2.37.13040 | 1.2.37.13040 | 1.2.37.13039 | 1.2.37.13003 | |
| 37 | 2 | 1.2.37.13069 | 1.2.37.13040 | 1.2.37.13069 | 1.2.37.13003 | |
| 37 | 3 | 1.2.37.13069 | 1.2.37.13040 | 1.2.37.13069 | 1.2.37.13003 | Just WebAPI updated, no version changes |
| 37 | 4 | 1.2.37.13171 | 1.2.37.13040 | 1.2.37.13165 | 1.2.37.13171 | |
| 37 | 5 | 1.2.37.13347 | 1.2.37.13040 | 1.2.37.12979 | 1.2.37.12979 | Bug was discovered with version numbers, this is why it appears we went backwards in the version number but we really did not. |
| 37 | 6 | 1.2.37.13665 | 1.2.37.13040 | 1.2.37.13580 | 1.2.37.12979 | |
| 37 | 7 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13799 | 1.2.37.13807 | |
| 37 | 8 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13827 | 1.2.37.13807 | |
| 37 | 9 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13839 | 1.2.37.13807 | |
| 37 | 10 | 1.2.37.13895 | 1.2.37.13040 | 1.2.37.13895 | 1.2.37.13895 | |
| 37 | 11 | 1.2.37.14161 | 1.2.37.13040 | 1.2.37.14161 | 1.2.37.14161 | |
| 37 | 12 | 1.2.37.14285 | 1.2.37.13040 | 1.2.37.14300 | 1.2.37.14285 | |
| 37 | 13 | 1.2.37.14326 | 1.2.37.13040 | 1.2.37.14326 | 1.2.37.14326 | |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## 7. Installing

1) Copy the files in the GUI ZIP Updates folder and replace those in the rRIS_1.2.37.14285.zip folder. Rename the zip file to be **rRIS_1.2.37.14326.zip**

2) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService.
   *rRISService directories include:*
   *a) rRISService*
   *b) CDS rRISService*
   *c) Wedge rRISService*
   *d) DDE rRISService*

   Restart each service.

3) Run the B37.013_updates.sql file against the eRAD RIS database instance.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# User Release Notes

for eRAD RIS
Version 1
Build 38

Server Patches 38.001 and 38.002 included

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# Table of Contents

1. Purpose ..... 4
2. Intended Audience ..... 4
3. Installing/Accessing the Application ..... 4
3a. eRAD RIS Release Version Numbers ..... 5
4. New Features and Enhancements ..... 6
Document Distribution – Manual Job Column ..... 6
Firmware Version Check ..... 7
Meaningful Use Clinical Summary Reports ..... 8
Meaningful Use Quick Add Edit Dialog Changes ..... 10
Management Report - Meaningful Use Automated Measures Details ..... 11
Order Level Attachments (Scan Docs) ..... 12
Limit Practices in Template Macro Editor ..... 13
Reporting – QA Workflow ..... 14
Reporting – Enhancements to Navigation ..... 19
Reporting – Auto Populating Macro Fields ..... 22
Reporting – Release Report Workflow Enhancements ..... 26
Reporting – New User Preference for SpeechMike and Speech Commands ..... 27
Reporting – Reporting Window Toolbar Additions ..... 28
Reporting – Correction Dialog Box ..... 31
Reporting - Upgrade MModal to Latest Version ..... 33
Reporting – Laterality Discrepancy Check ..... 34
Correction Dialog User Preference ..... 36
Signed, Pending Release enhancement ..... 37
SpeechMike Mappings to Functional Buttons ..... 38
CTRN (Radar) Reminder Request ..... 38
Billing Exception for Missing Billing Codes ..... 39
Chair Service ..... 40
Scheduling Across Rooms ..... 46
Modality Editor Lookup Restriction by Site ..... 47
Organization Picker Title Bar Color ..... 47
Schedule Order not displaying locked times ..... 48
Management Report – Addended Mammography Exams ..... 49
Management Report – Last Login by User ID ..... 50
Management Report – QA Radiologist Review ..... 51
Management Report – Referring Physician List ..... 52
Management Report – Referring Physician Volumes ..... 53
Management Report - Chief Complaint Audit ..... 54
Management Report Deployment Changes ..... 55

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

5. Access Strings ..... 56
6. Resolved Defects Build 38 ..... 56
7. Resolved Defects Build 38.001 ..... 70
8. Defects Resolved Build 38.002 ..... 71
9. Known Limitations – Please see this section for important information ..... 71

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 1. Purpose

This document describes some of the new features and changes implemented in eRAD RIS as of the end of Sprint 38. This version of eRAD RIS is referred to as Build 1.2.38.

Only features which can be visually demonstrated to the user will be outlined in this document.

# 2. Intended Audience

This document is created by the RIS Development team for the RadNet RIS management team.

# 3. Installing/Accessing the Application

The installation instruction for the eRAD RIS client are included with this software release and can be found in the _Documentation > Installation folder. They have also been posted to the RadNet Wiki page at http://mdbal01rdtweb/Wiki/

Under the RIS menu click on the rRIS page. The credentials to access the page are:
Username: rRIS
Password: Summerside

*Please note that Build 1.38 is considered a new core release of the application and will require a reinstallation of eRAD RIS. This is accomplished by navigating to the eRAD RIS shared installation drive and running the CoreInstall.bat file (ex: I:\RISDeployment\CoreInstall.bat)*

If you experience difficulties accessing the application please do not hesitate to contact Darcy Noye with the PEI RIS Development Team.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## 3a. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 37 | - | 1.2.37.12843 | 1.2.37.12782 | 1.2.37.12843 | 1.2.37.12843 | |
| 37 | 1 | 1.2.37.13040 | 1.2.37.13040 | 1.2.37.13039 | 1.2.37.13003 | |
| 37 | 2 | 1.2.37.13069 | 1.2.37.13040 | 1.2.37.13069 | 1.2.37.13003 | |
| 37 | 3 | 1.2.37.13069 | 1.2.37.13040 | 1.2.37.13069 | 1.2.37.13003 | Just WebAPI updated, no version changes |
| 37 | 4 | 1.2.37.13171 | 1.2.37.13040 | 1.2.37.13165 | 1.2.37.13171 | |
| 37 | 5 | 1.2.37.13347 | 1.2.37.13040 | 1.2.37.12979 | 1.2.37.12979 | Bug was discovered with version numbers, this is why it appears we went backwards in the version number but we really did not. |
| 37 | 6 | 1.2.37.13665 | 1.2.37.13040 | 1.2.37.13580 | 1.2.37.12979 | |
| 37 | 7 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13799 | 1.2.37.13807 | |
| 37 | 8 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13827 | 1.2.37.13807 | |
| 37 | 9 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13839 | 1.2.37.13807 | |
| 37 | 10 | 1.2.37.13895 | 1.2.37.13040 | 1.2.37.13895 | 1.2.37.13895 | |
| 37 | 11 | 1.2.37.14161 | 1.2.37.13040 | 1.2.37.14161 | 1.2.37.14161 | |
| 37 | 12 | 1.2.37.14285 | 1.2.37.13040 | 1.2.37.14300 | 1.2.37.14285 | |
| 37 | 13 | 1.2.37.14326 | 1.2.37.13040 | 1.2.37.14326 | 1.2.37.14326 | |
| 38 | - | 1.2.38.14486 | 1.2.38.14486 | 1.2.38.14486 | 1.2.38.14486 | |
| 38 | 1 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | |
| 38 | 2 | 1.2.38.15182 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 4. New Features and Enhancements

## Document Distribution – Manual Job Column

A new column titled Manual Job has been added to the Distribution WL and Distribution History by Date WL. A check mark in this column indicates that the job was created manually, otherwise the job was system created.

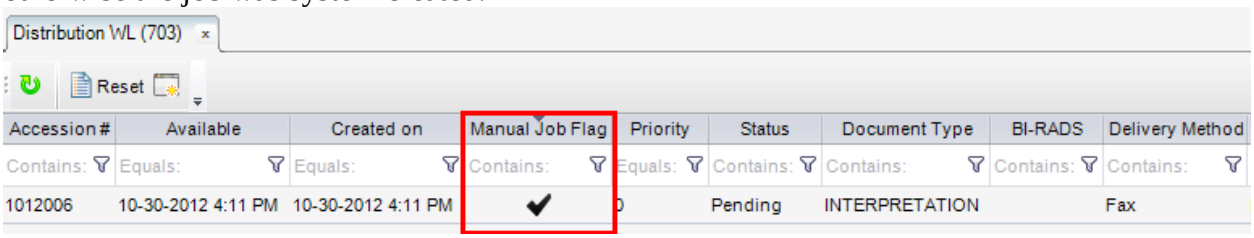



**Figure 4.1 – Document Distribution WL displaying new Manual Job column**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Firmware Version Check

Users have experienced issues in the past when the firmware version was old and out of date. To circumvent these issues a firmware version check of the SpeechMike can now be performed at the time of logging into the application.

A new lookup table called Firmware that allows the eRAD RIS administrator to add different models numbers of SpeechMikes, the firmware at which it should be at, a description for the admins as to why this firmware upgrade is being requested, and if the models and version prompt should be active.

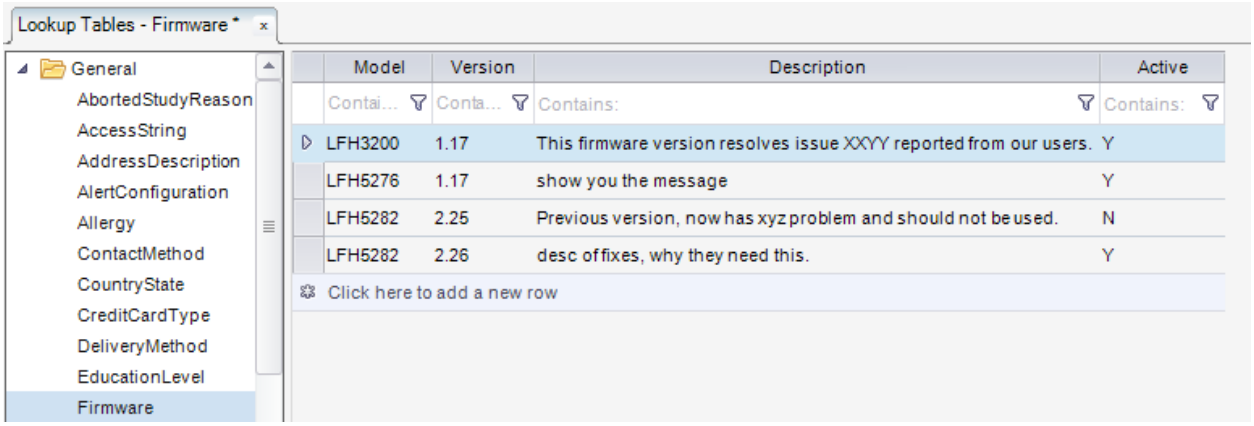



**Figure 4.2 – Firmware lookup table**

If the firmware version of the SpeechMike is not met, the user will be prompted with the following message upon login of eRAD RIS.

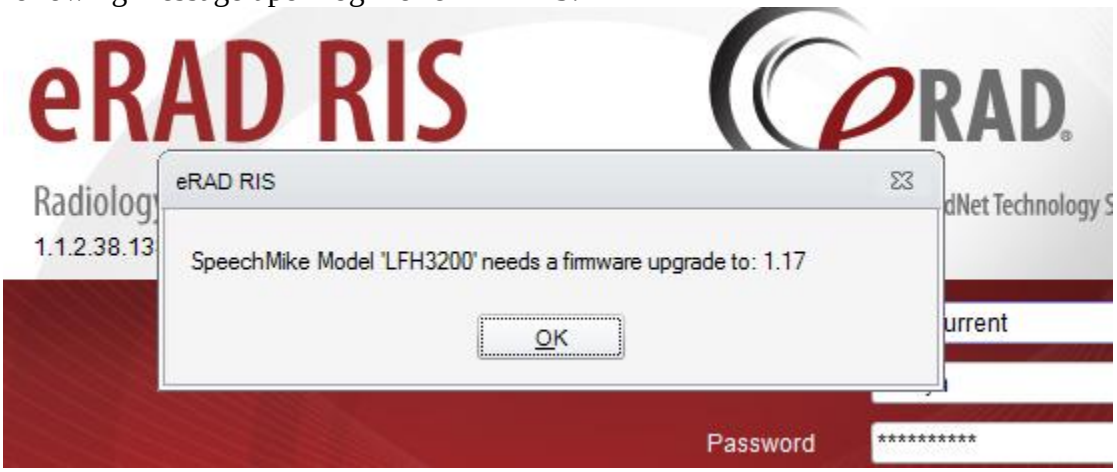



**Figure 4.3 – Message prompt displayed when Model XX firmware does not match with lookup**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Meaningful Use Clinical Summary Reports

The Clinical Summary Report is a summary of the patients visit. Details in the report include patient name, date of exam, modality description (shows all studies for the day based off of procedure group description), reason for the exam (chief complaint), allergies and severity, patient medications, relevant history (medical history) and any pending appointments the patient may have.

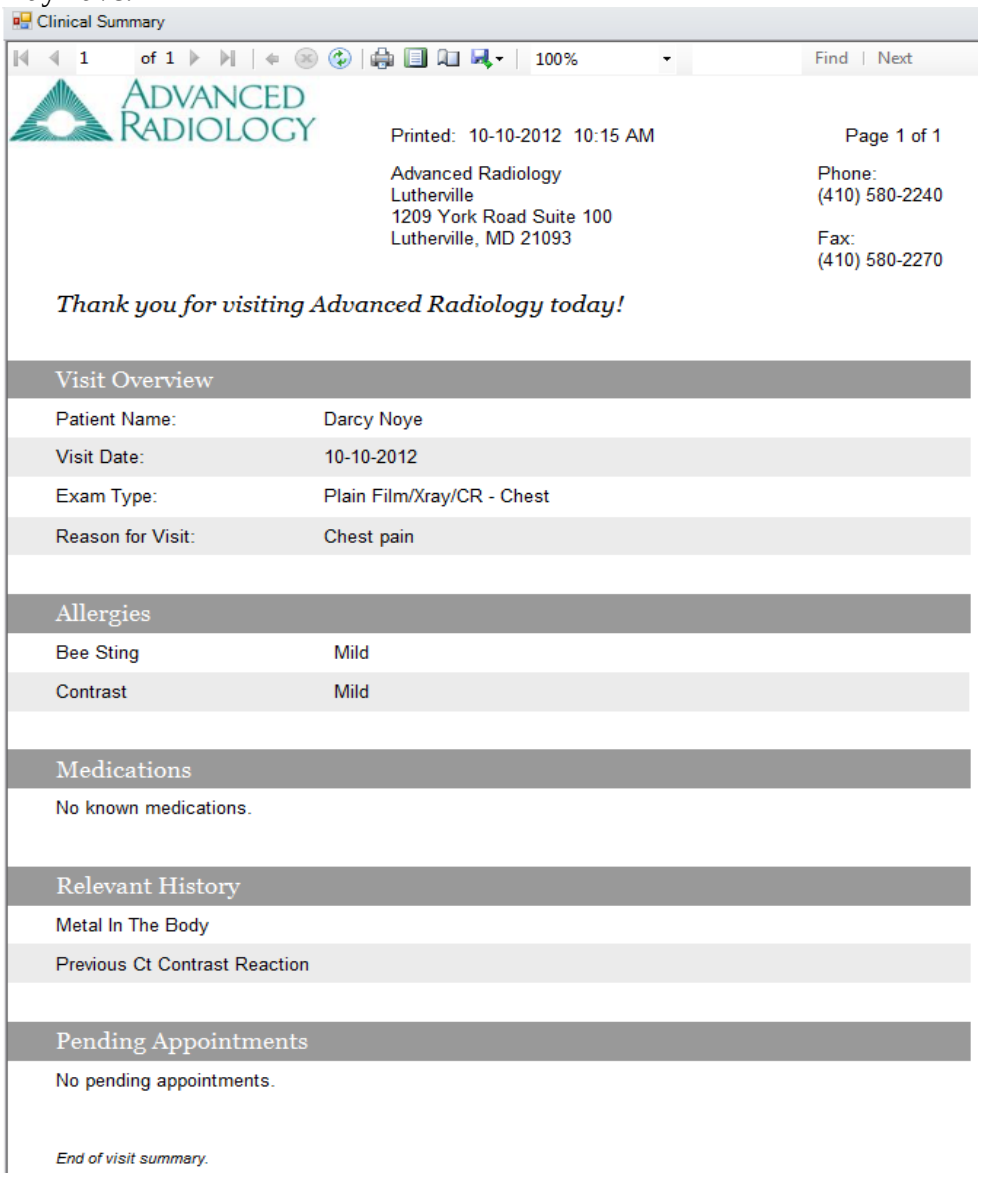



**Figure 4.4 – Print preview of Clinical Summary Report**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

The report is configured in the Forms and Labels lookup editor with form category of Exam. Printing criteria can be configured to print upon a specific action (such as checking in). The form can also be accessed from work lists context menu > print forms option. This opens the Print Forms window. From this window the report can be previewed as displayed in the figure above and also printed from the preview window. It can also be sent directly to the printer without preview by selecting the Print check box for Clinical Summary and selecting the OK button.

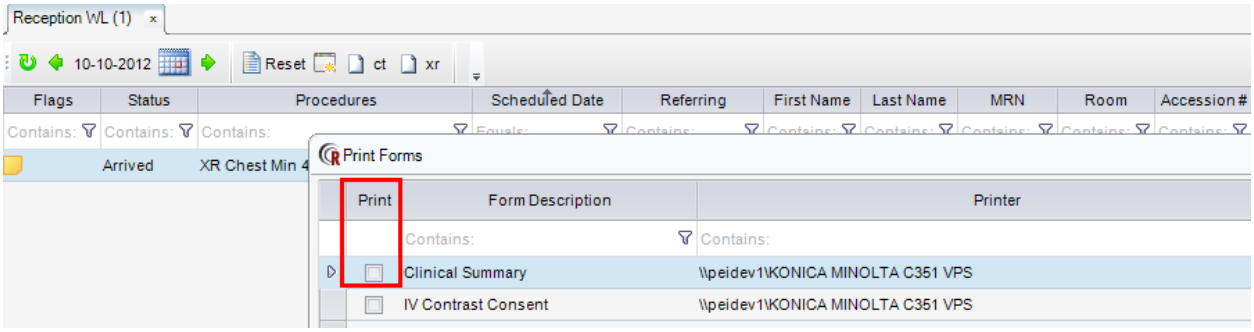



**Figure 4.5 – Print Forms window from Reception WL**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Meaningful Use Quick Add Edit Dialog Changes

Within the Quick Add Edit Dialog window, two new options have been added under Medical History. Hypertension is linked to Indication (ICD-9) code 401.9 and Renal Disease is linked to 593.9.

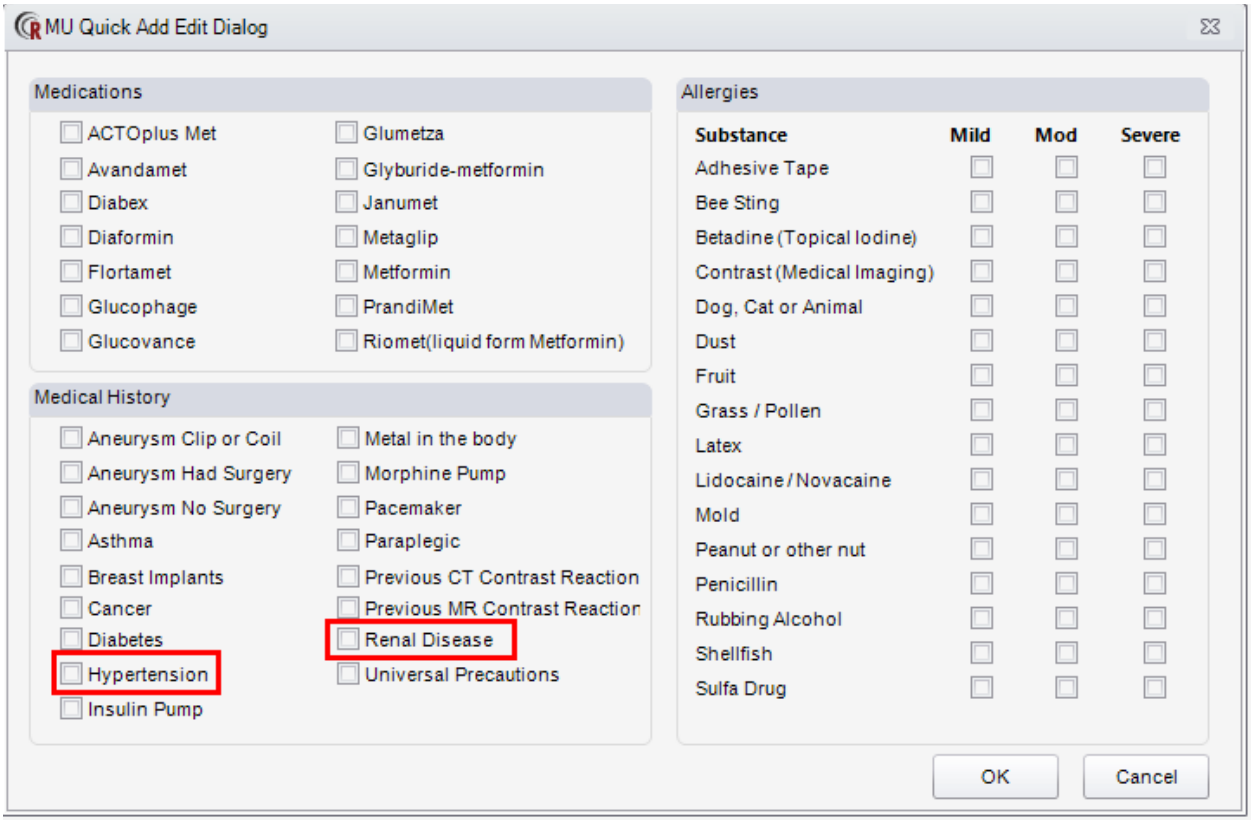
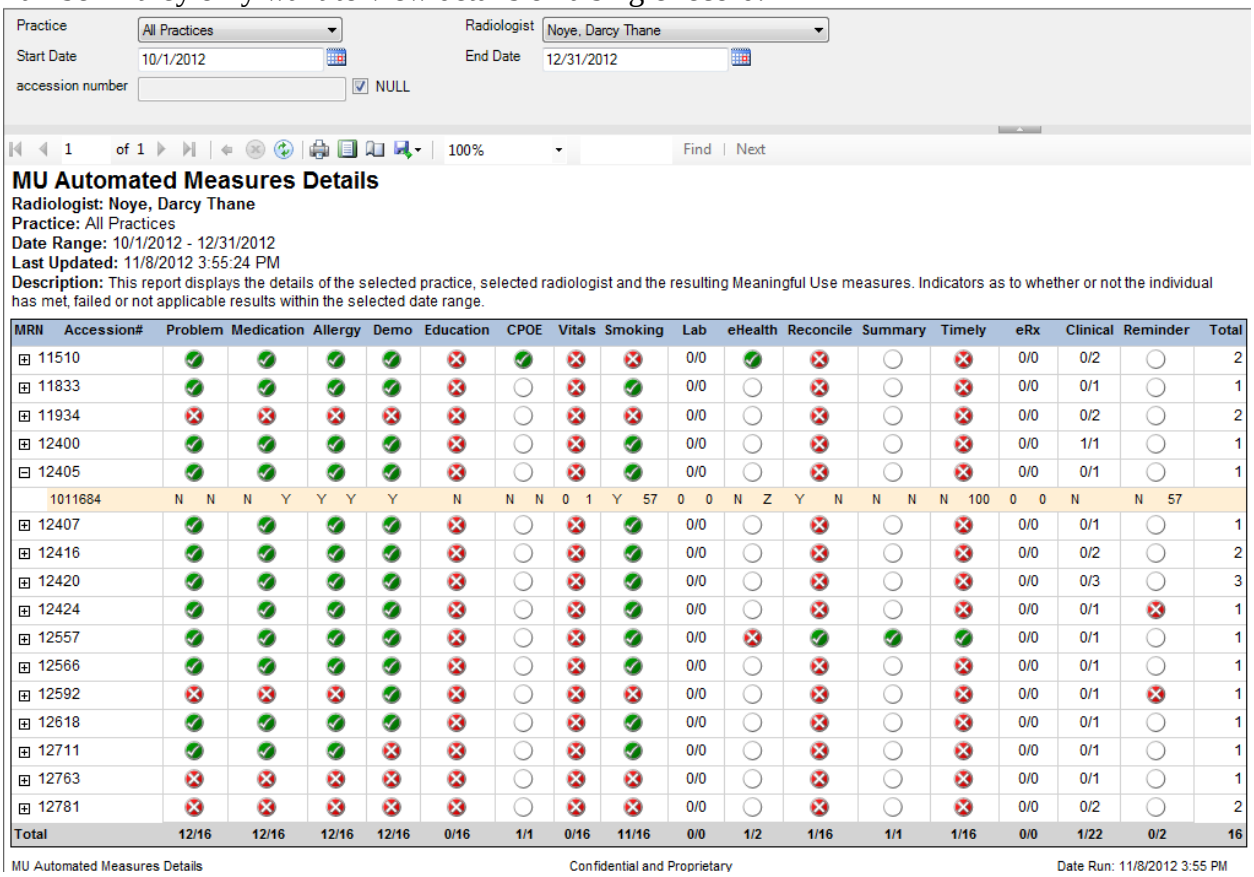



**Figure 4.6 – MU Quick Add Edit Dialog additions**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Management Report - Meaningful Use Automated Measures Details

The MU Automated Measures Details report was created to assist in determining which patient is missing meaningful use criteria. The report is sorted by patient id (MRN). The user has the ability to search by all practices or individual practice. A Radiologist must be selected along with a specific reporting period. The user also has the ability to search for a patient accession number if they only want to view details on a single record.



Practice: All Practices | Radiologist: Noye, Darcy Thane
Start Date: 10/1/2012 | End Date: 12/31/2012
accession number: NULL

1 of 1 | 100% | Find | Next

**MU Automated Measures Details**

**Radiologist:** Noye, Darcy Thane
**Practice:** All Practices
**Date Range:** 10/1/2012 - 12/31/2012
**Last Updated:** 11/8/2012 3:55:24 PM
**Description:** This report displays the details of the selected practice, selected radiologist and the resulting Meaningful Use measures. Indicators as to whether or not the individual has met, failed or not applicable results within the selected date range.

| MRN | Accession# | Problem | Medication | Allergy | Demo | Education | CPOE | Vitals | Smoking | Lab | eHealth | Reconcile | Summary | Timely | eRx | Clinical | Reminder | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ⊞ 11510 | | ✓ | ✓ | ✓ | ✓ | ✗ | ✓ | ✗ | ✗ | 0/0 | ✓ | ✗ | ○ | ✗ | 0/0 | 0/2 | ○ | 2 |
| ⊞ 11833 | | ✓ | ✓ | ✓ | ✓ | ✗ | ○ | ✗ | ✓ | 0/0 | ○ | ✗ | ○ | ✗ | 0/0 | 0/1 | ○ | 1 |
| ⊞ 11934 | | ✗ | ✗ | ✗ | ✗ | ✗ | ○ | ✗ | ✗ | 0/0 | ○ | ✗ | ○ | ✗ | 0/0 | 0/2 | ○ | 2 |
| ⊞ 12400 | | ✓ | ✓ | ✓ | ✓ | ✗ | ○ | ✗ | ✓ | 0/0 | ○ | ✗ | ○ | ✗ | 0/0 | 1/1 | ○ | 1 |
| ⊟ 12405 | | ✓ | ✓ | ✓ | ✓ | ✗ | ○ | ✗ | ✓ | 0/0 | ○ | ✗ | ○ | ✗ | 0/0 | 0/1 | ○ | 1 |
| | 1011684 | N | N | N | Y | Y | Y | Y | N | N | N | 0 | 1 | Y | 57 | 0 | 0 | N | Z | Y | N | N | N | N | 100 | 0 | 0 | N | N | 57 |
| ⊞ 12407 | | ✓ | ✓ | ✓ | ✓ | ✗ | ○ | ✗ | ✓ | 0/0 | ○ | ✗ | ○ | ✗ | 0/0 | 0/1 | ○ | 1 |
| ⊞ 12416 | | ✓ | ✓ | ✓ | ✓ | ✗ | ○ | ✗ | ✓ | 0/0 | ○ | ✗ | ○ | ✗ | 0/0 | 0/2 | ○ | 2 |
| ⊞ 12420 | | ✓ | ✓ | ✓ | ✓ | ✗ | ○ | ✗ | ✓ | 0/0 | ○ | ✗ | ○ | ✗ | 0/0 | 0/3 | ○ | 3 |
| ⊞ 12424 | | ✓ | ✓ | ✓ | ✓ | ✗ | ○ | ✗ | ✓ | 0/0 | ○ | ✗ | ○ | ✗ | 0/0 | 0/1 | ✗ | 1 |
| ⊞ 12557 | | ✓ | ✓ | ✓ | ✓ | ✗ | ○ | ✗ | ✓ | 0/0 | ✗ | ✓ | ✓ | ✓ | 0/0 | 0/1 | ○ | 1 |
| ⊞ 12566 | | ✓ | ✓ | ✓ | ✓ | ✗ | ○ | ✗ | ✓ | 0/0 | ○ | ✗ | ○ | ✗ | 0/0 | 0/1 | ○ | 1 |
| ⊞ 12592 | | ✗ | ✗ | ✗ | ✓ | ✗ | ○ | ✗ | ✗ | 0/0 | ○ | ✗ | ○ | ✗ | 0/0 | 0/1 | ✗ | 1 |
| ⊞ 12618 | | ✓ | ✓ | ✓ | ✓ | ✗ | ○ | ✗ | ✓ | 0/0 | ○ | ✗ | ○ | ✗ | 0/0 | 0/1 | ○ | 1 |
| ⊞ 12711 | | ✓ | ✓ | ✓ | ✗ | ✗ | ○ | ✗ | ✓ | 0/0 | ○ | ✗ | ○ | ✗ | 0/0 | 0/1 | ○ | 1 |
| ⊞ 12763 | | ✗ | ✗ | ✗ | ✗ | ✗ | ○ | ✗ | ✗ | 0/0 | ○ | ✗ | ○ | ✗ | 0/0 | 0/1 | ○ | 1 |
| ⊞ 12781 | | ✗ | ✗ | ✗ | ✗ | ✗ | ○ | ✗ | ✗ | 0/0 | ○ | ✗ | ○ | ✗ | 0/0 | 0/2 | ○ | 2 |
| **Total** | | **12/16** | **12/16** | **12/16** | **12/16** | **0/16** | **1/1** | **0/16** | **11/16** | **0/0** | **1/2** | **1/16** | **1/1** | **1/16** | **0/0** | **1/22** | **0/2** | **16** |

MU Automated Measures Details | Confidential and Proprietary | Date Run: 11/8/2012 3:55 PM

**Figure 4.7 – MU Automated Measures Details**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Order Level Attachments (Scan Docs)

We use the SSRS to create a graphical representation of the order much the same as the diagnostic reports are produced for faxing. The image produced by SSRS is then attached as a scan doc to the newly created order.

These shows up as Order Level scan docs in the UI. The following screenshot shows the editing of an order for a patient that has several orders each with its own scan doc. The Show All checkbox is checked.

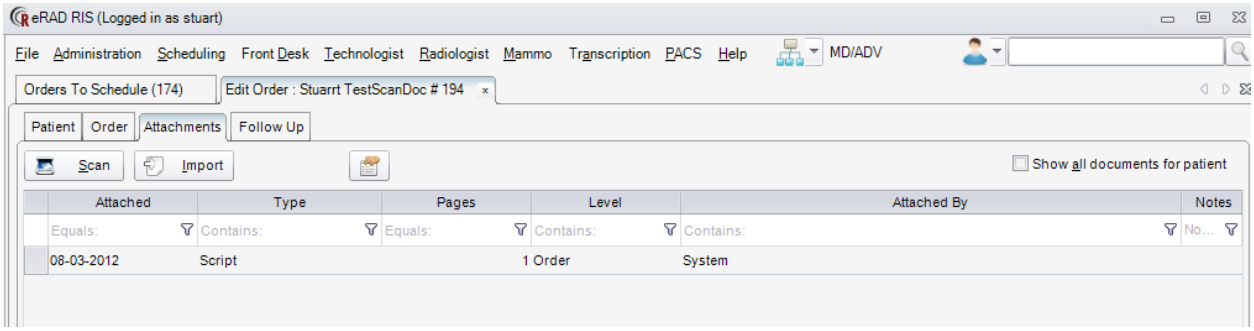



**Figure 4.8 – Patient order displaying attachment at order level**

In this build the documents can be scanned in or imported at the patient level, then from the Attachments tab changed to order level.

A new order via HL7 will result in a scan doc being automatically created and attached to the order.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Limit Practices in Template Macro Editor

The Template Macro Editor Practice selection will be auto filtered to the practices the logged in user is associated with in the Personnel Editor.

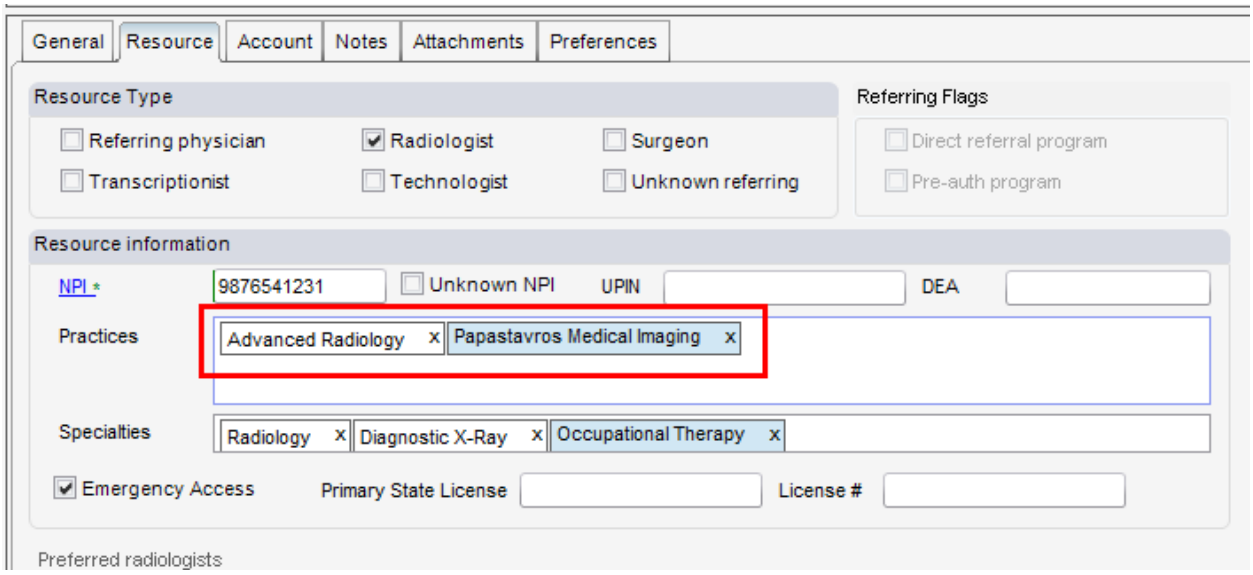



**Figure 4.9 – Displaying Practices for logged in user**

Looking at the figure above you can see that this user is associated with 2 practices. If this user opens the Template Editor, they can only create a template for these 2 practices.

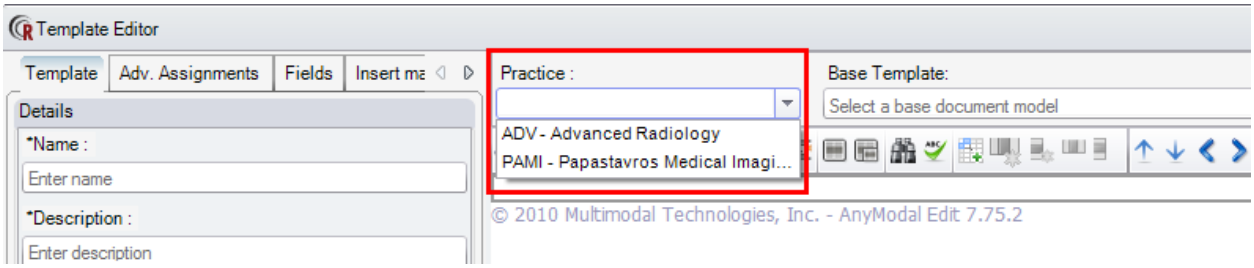



**Figure 4.10 – Template Editor filtered by practice for user**

If for some reason a practice is removed from the users personnel account, the template will still be available for edit to the user, but if creating a new one, the practice that is no longer associated will not be available.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – QA Workflow

QA Workflow has been introduced in build 38 to allow transcribed reports and signed reports to be reviewed by QA personnel.
To start explaining what is involved in implementing this process we will start with a new lookup table that has been added. The User Id column is list of all users with the resource types of either Radiologist or Transcriptionist. The Quality Review Rate is the frequency in which the users transcribed or signed report is reviewed. Only the users added in this lookup table with be sent to QA.

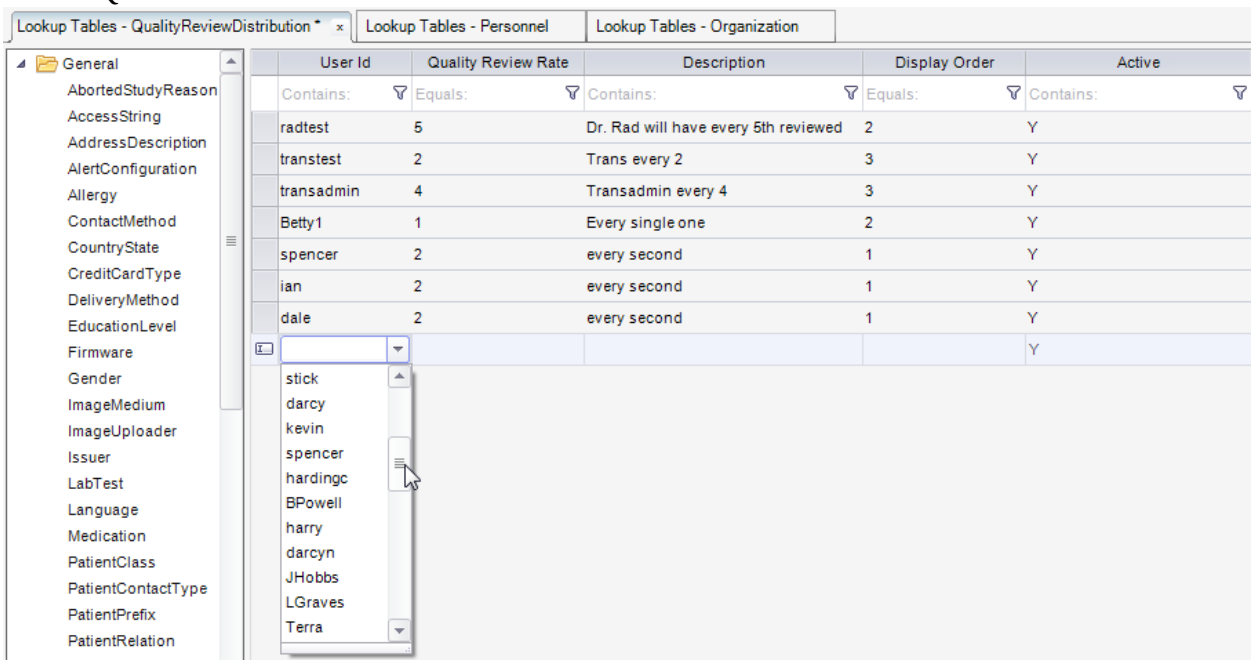


**Figure 4.11 – Quality Review Distribution lookup table**

Looking at the figure above, the user id radtest will have every 5th signed report sent to QA.

The Push Signature Service must be running on the database. The Push Signature Service, up until now has been used for the "Signed, Pending Release" feature (AKA as "Oops" or "Tentatively Signed"). The QA work flow now also utilizes this service. Even if the users don't use the "Oops" feature, this service must be running.

**Transcription Pending QA work flow**
Transcription edits will be sent to the work list Edits Pending QA WL. The work list is accessed from the Transcription menu and granted access from the access string

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

***WL.MT.ReportDraftedQA***. The work list provides many details such as who transcribed the report, who the report is currently assigned to and transcribed and dictated dates.

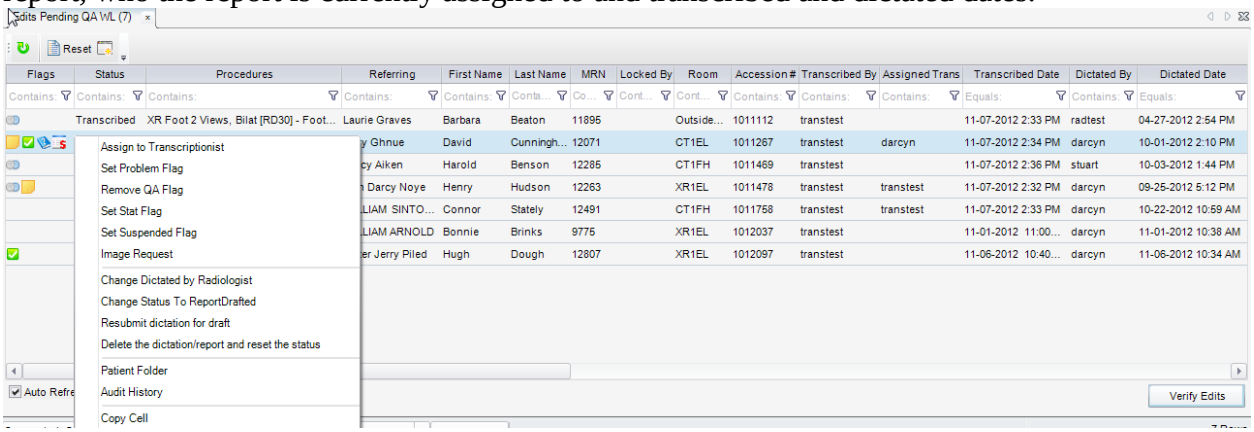



**Figure 4.12 – Edits Pending QA WL**

From this work list, QA personnel can open the Verify Edits window to begin the process of QA. Various other options can be available from the context menu based on permission for the user.

Within the Verify Edits window the QA user can verify the report or reject. If the report is verified the report is released from the QA process and the Radiologist is then able to sign the report. If the report is rejected, the QA personnel can complete the edits required and transcribe the report. The report will then be available for the Radiologist to complete the work flow.

The report can also be rejected and assigned to a particular user via the Assign To data pane within the Verify Edits window. On the initial load of the window the buttons in the lower right are Verify Edits and Close. If the Reject/Edit button is selected the Verify Edits button will change to Transcribe. If the edit is assigned to a Transcriptionist, Problem or QA, the button will then change to Assign. See figure below

If the report is assigned to a specific transcription user, the report is returned to the Reports Drafted WL for further correction

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

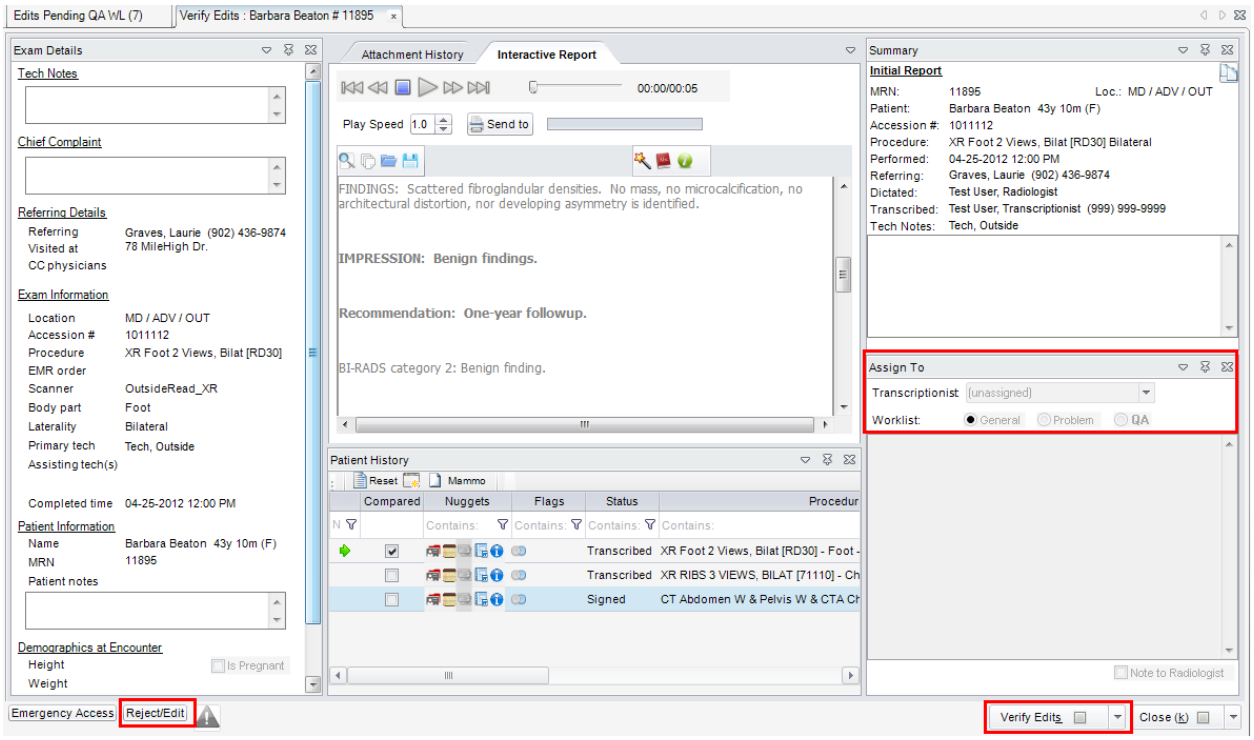



**Figure 4.13 - Verify Edits window**

## Radiologist Pending QA work flow

Radiologists can also have signed reports sent for QA. Signed reports marked for QA are sent to the All Signed Pending QA WL. Similar to the Signed Pending Release WL, the status of the study will be Signed*, until the QA personnel action the study from the Verify Report window. The WL is accessed from the Radiologist menu. The access string

The work list itself has numerous columns for display (49 in total) that offer patient information, study information, dictating and signing Radiologists, dates for signing, dictation, etc…

Access to the Signed Pending QA WL is granted from the access string ***WL.RAD.QA***

The context menu offers many option based on the user permissions and the action buttons in the lower right are Dictate and Verify Report.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

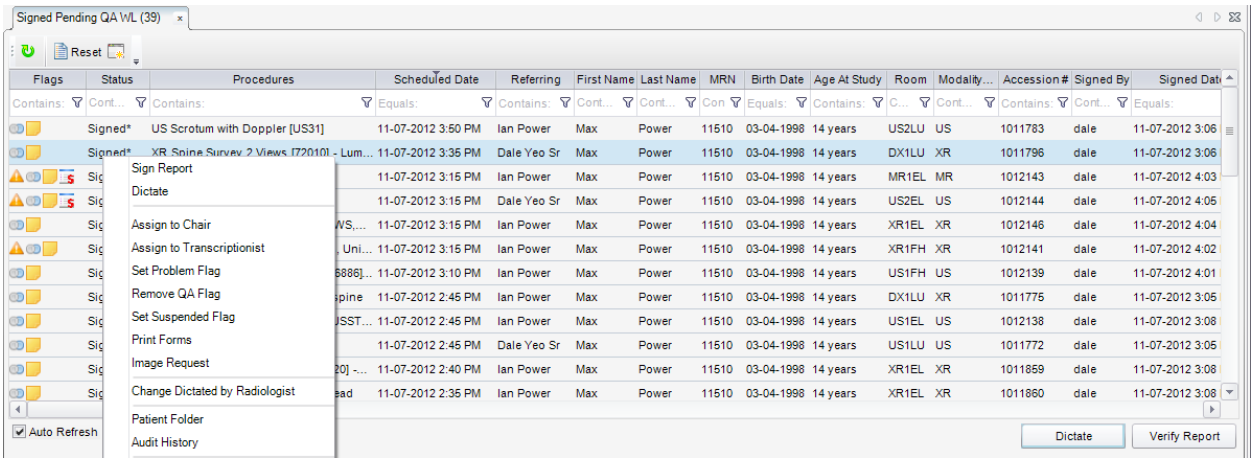



**Figure 4.14 – Signed Pending QA WL**

The Verify Report window allows the QA personnel to Verify Report, which will remove the QA flag and the study will be moved to Signed status.
If radiologists are using the "Oops" feature they will still have the same amount of hold time before the report is released. What may happen is that a radiologist's hold time is 5 minutes but it gets set to QA. If it stays in QA for 20 minutes and then gets "Verified" it will go out immediately because the "Hold Pending Release" time has expired. Alternatively if the report was verified at minute 2 it would stay in the "Pending Release" status until the 5 minutes expired.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

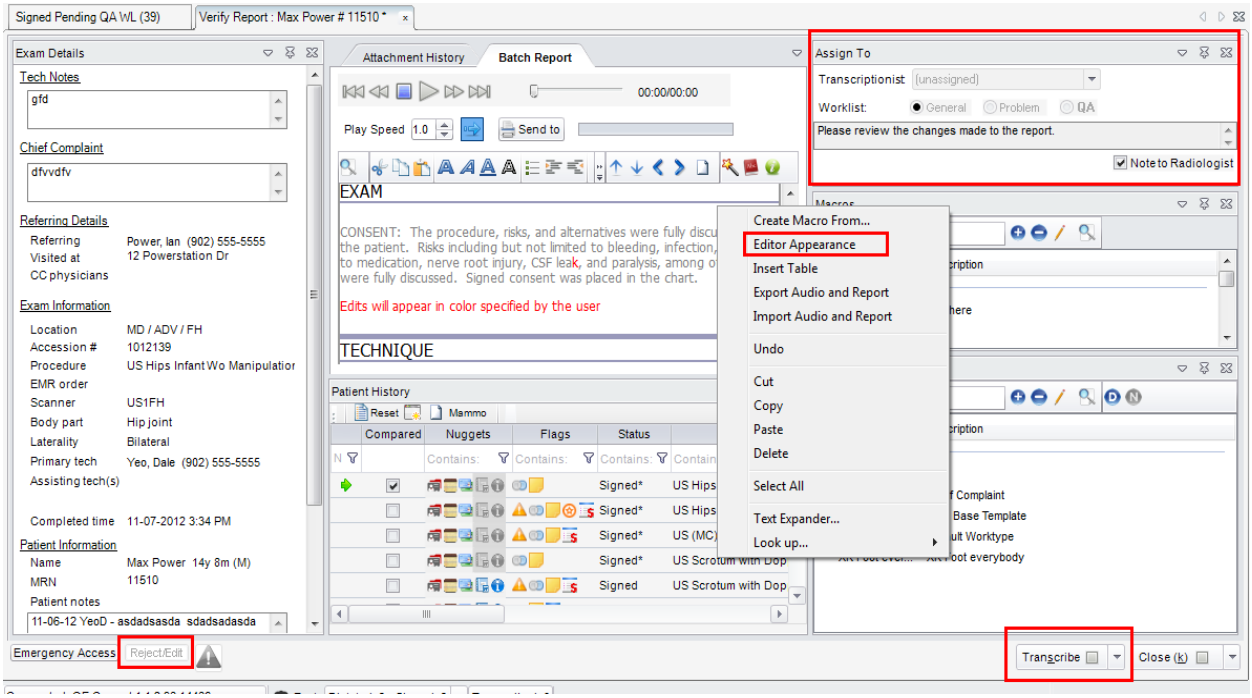



**Figure 4.15 – Verify report window displaying rejected example**

If the user determines edits or changes are required then they should click the Reject/Edit button on the bottom left which will enable all of the controls for further editing. At this point the user can edit the existing report in the same way a transcriptionist would. The notable difference in this window is the "Note to Rad" check box will be auto selected with a note entered. If the QA personnel so chooses, the can add additional notes.

When rejecting the user can then edit and transcribe the report, which will give them credit, or re-assign it to the original MT and let them make the changes required.

## QA Edit Text Color

When QA personnel edit the report after rejecting we track the edits typed and these change can be displayed in a different color. The new editor color is called QA Edit Text and is accessible from the right click Editor Appearance in report editor. This is a user setting so if user "A" changes his/her color it doesn't mean it will appear that way to the radiologist or user "B".

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Enhancements to Navigation

To assist Radiologists when reporting we have implemented three simple but very helpful features.

### Volume Meter

Similar to the volume meter we already in the MicWizard, the Radiologist reporting window will also have a volume meter for a visual confirmation that what is being dictated is recording.

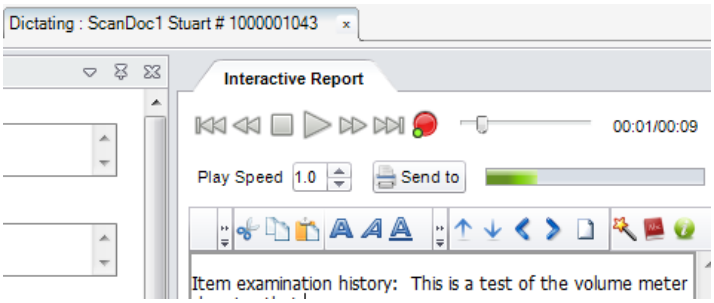



**Figure 4.16 – Volume meter in reporting window**

### Interactive Cursor

In the reporting window the Interactive Cursor is a larger cursor indication to show the current location. If the user current focus is in another application, the Radiologist may still be recording. The enlarged marked gives a visual representation of where in the report the cursor is.

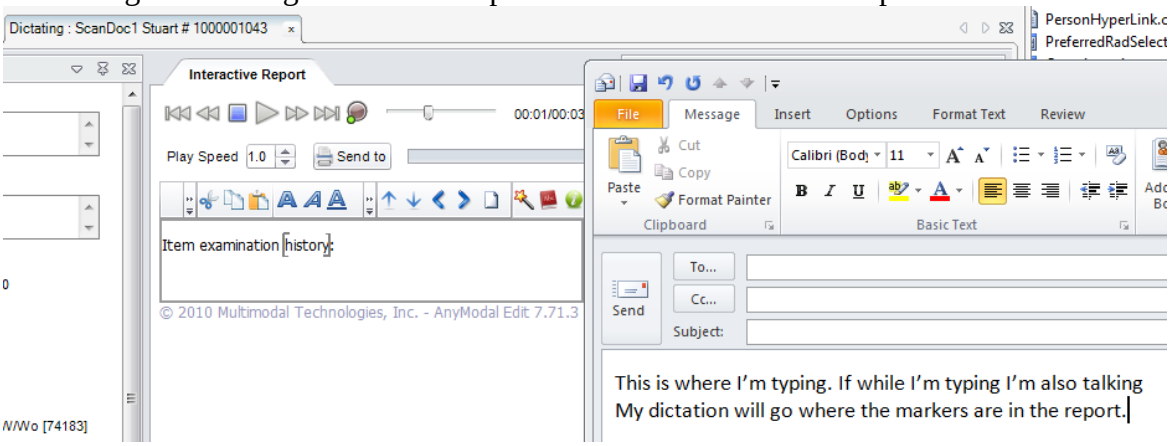



**Figure 4.17 – Markers in the report.**

### Interactive Info Promp of last voice command used

The Interactive Info Prompt is a popup message can be displayed near the users current mouse pointer position, or can be set to display in a fixed location.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

So if the Radiologist has the mouse in the PACS and they issue a command, the popup message displays the command near the mouse to let the user know the command was captured and executed.
If the popup is configured to be in a fixed location, the user can position the popup by clicking and dragging to the desired location with the mouse.

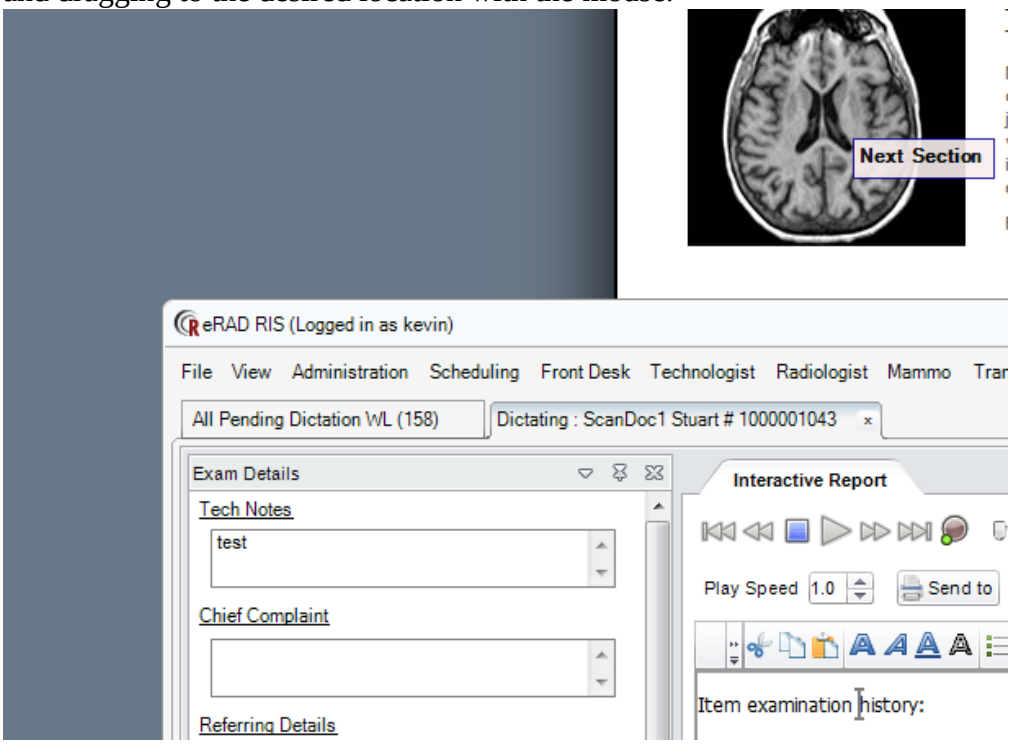



**Figure 4.18 – Interactive Info Prompt message displaying Next Section command**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

The Interactive Info Prompt and Interactive Cursor options are configurable from the User Preferences window > Report Editor tab.

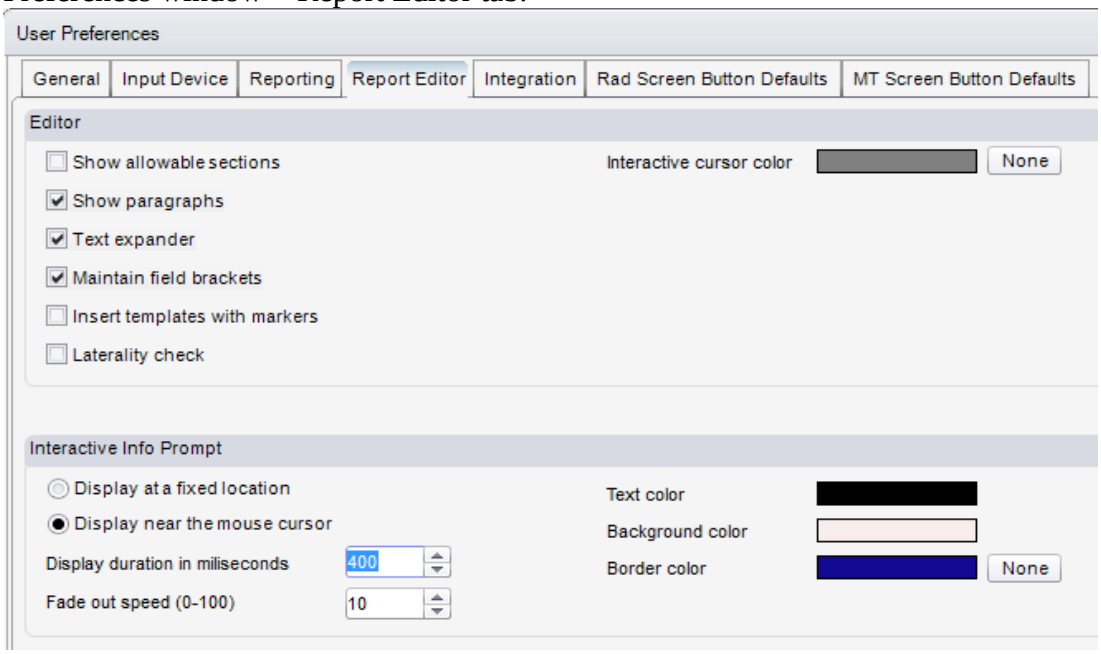



**Figure 4.19 – User Preferences window**

Interactive Cursor Color - color to use for the interactive voice cursor location when we are in another application (RIS Application is inactive).

Fixed/Mouse based Popup Location - popup opens at the mouse location; otherwise, it opens to the last position it was displayed at. Note user can click on a popup message and move it around the screen or right click on the popup message to change this behavior.

Durration/Fade out - duration in ms to display the popup before fading/ Face out is a value between 0 and 100. 1 fades slower while a larger number fades faster up to 100, which fades instantly.

Popup Color Text/Background/Border – Click on the color to change it. The border can also be set to “none”.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Auto Populating Macro Fields

When opening the reporting window, users will now have the option to automatically have values pre-populate in the Exam and Technique sections of the report editor specific to the study being read.

To accomplish this, an "Auto Macro" must be created using the Template Macro lookup editor. The following are the steps to create an "auto populating macro field"

- Administration -> Configure
- Expand procedure section and double click TemplateMacro.
- Select Auto Macro in the radio buttons just above the list.
- Click Create new…

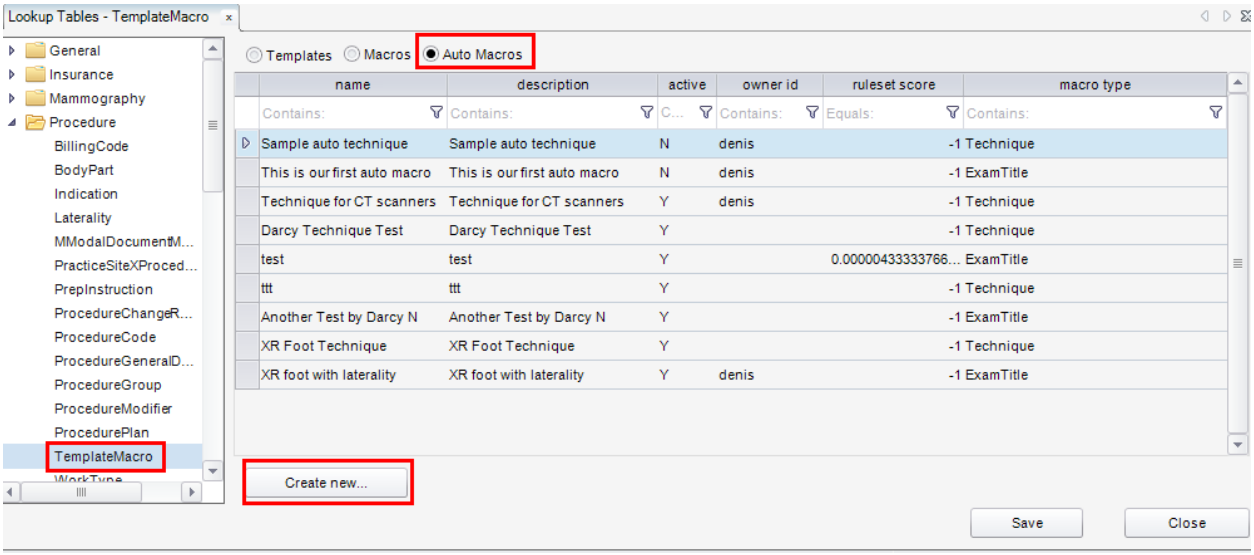



**Figure 4.20 – Template Macro lookup**

- Select an AutoMacro Type in the top drop down. (Currently there is only Exam Title and Technique)
- Enter Name and Description for the Auto Macro
- Adv. Assignments allows the user to add practices and procedures the Auto Macro is available for. If the practices and procedures are left blank, the Auto Macro will be available to all.
- Enter text in the Macro (ex: XR Knee)

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

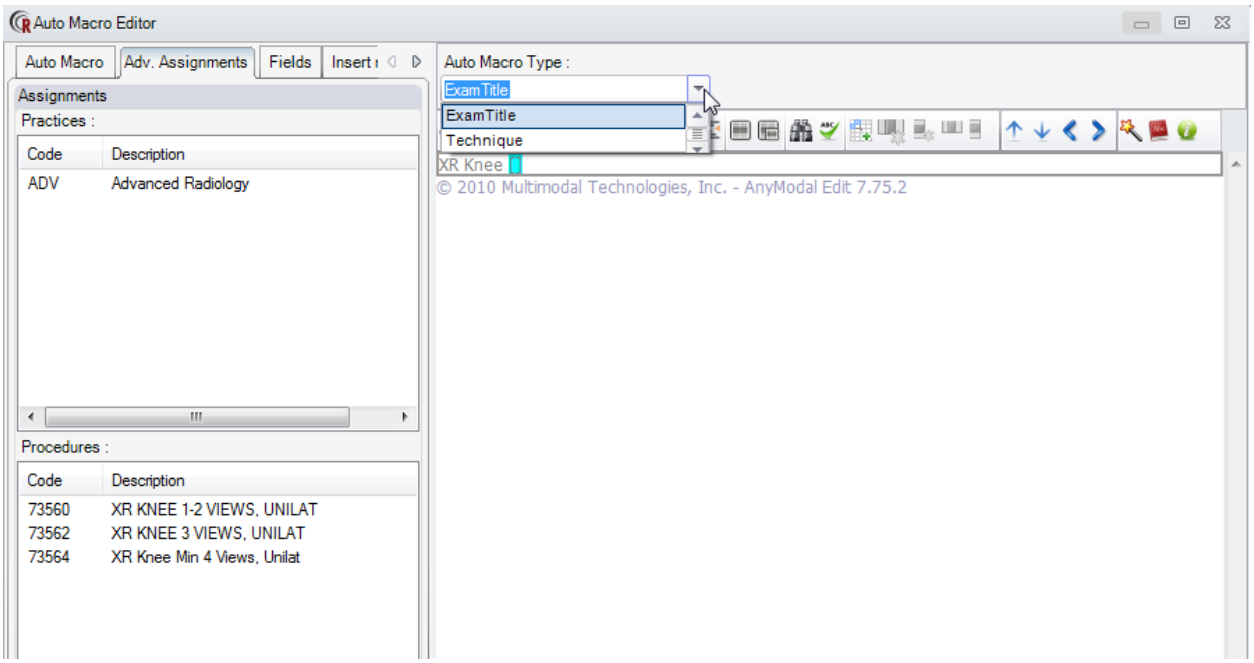



**Figure 4.21 – Auto Macro Editor window**

In the example above I have created an Auto Macro for XR Knee procedures that will populate the Exam Title with "XR Knee [laterality]". The field for laterality is a custom macro that was created earlier and inserted.

## Next Create or Edit a Template

Now that we have the Auto Macro created, we must create or edit a template(s) that will utilize it.

- Administration -> Configure
- Expand procedure section and double click TemplateMacro.
- Select Template in the radio buttons just above the list.
- Click Create new…

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

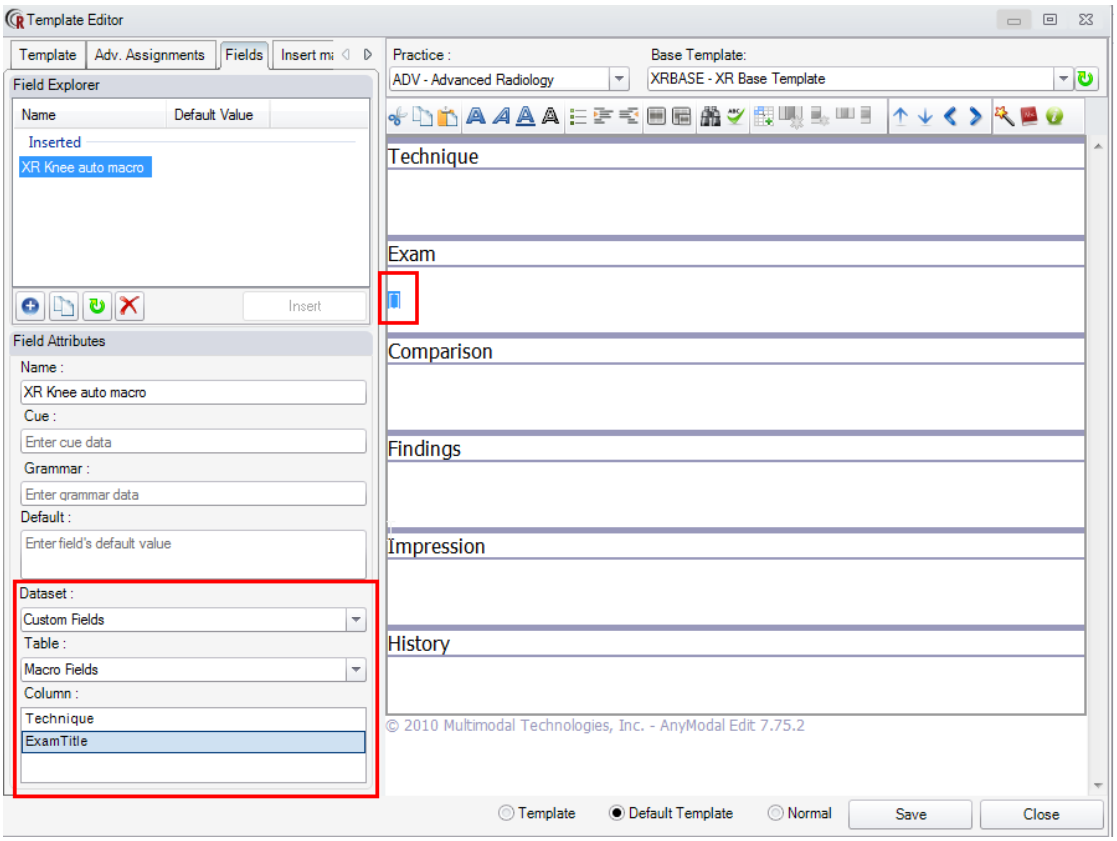



**Figure 4.22 – Creating template that auto populate exam title**

- On the fields tab select the Add field button , enter a field name.
- Dataset select **Custom Field**
- Table select **Macro Fields**
- Column selects either **Technique or Exam Title**. This should match the Auto Macro Type that was chosen earlier.
- Insert the field in the template
- The template must be assigned to a specific practice, and a base template selected
- Procedure(s) and users can be assigned. A default owner can also be set. In this example the template is available to the same procedures selected in the Auto Macro.
- Save the template.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

Now when opening a procedure the template is assigned to the Exam section within the editor will be auto populated with the exam title and laterality.

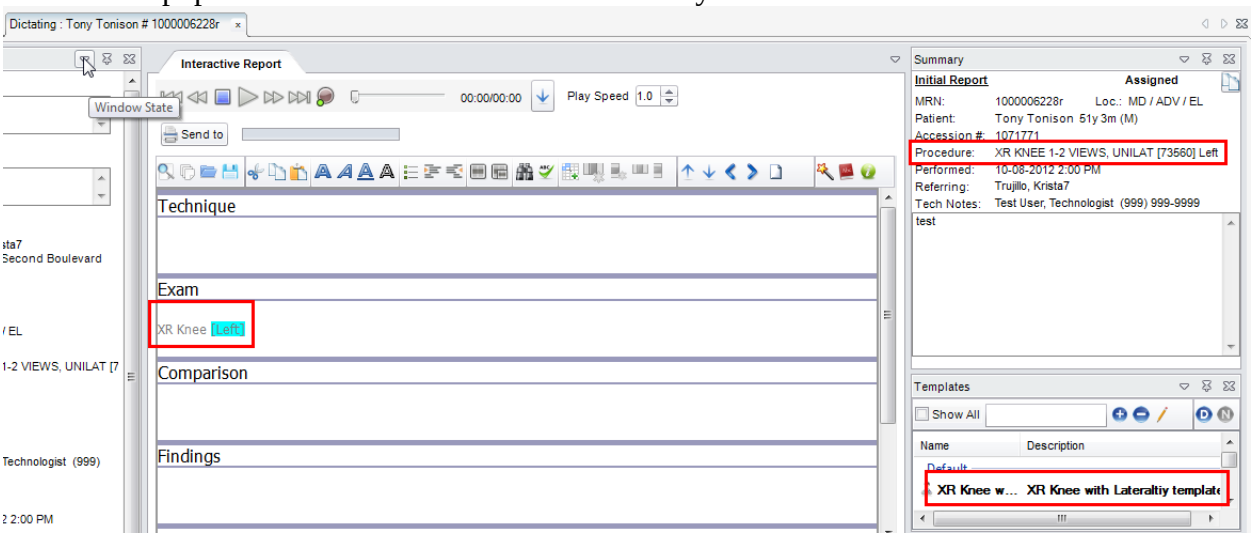



**Figure 4.23 – Dictate window displaying auto populated exam title**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Release Report Workflow Enhancements

A couple of minor additions have been added for the Release Report Workflow.

First addition is the Signed, Pending Release WL has had the context menu option to "Set Suspended Flag" added. Once the Suspended Flag is set, the study is removed from the Signed, Pending Release WL and will appear on the Suspended WL. Also, when the Suspended flag is removed, the study will reappear on the Signed Pending Release WL

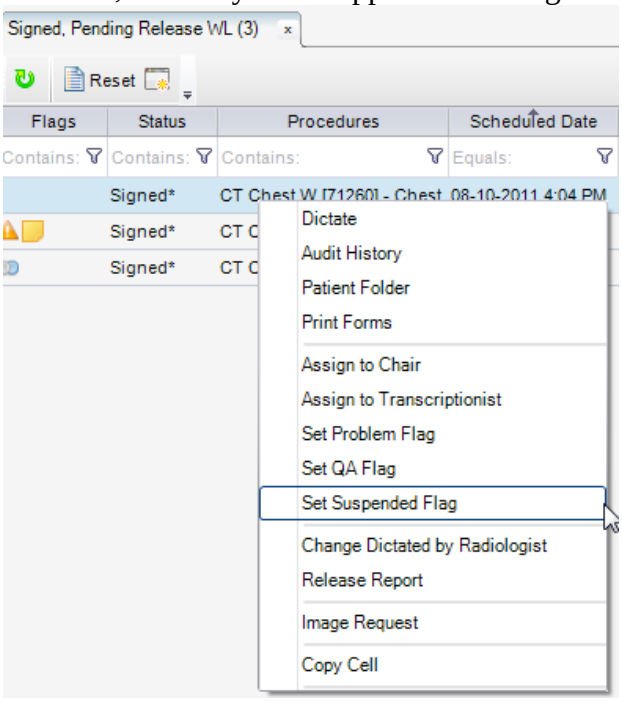



**Figure 4.24 – Signed, Pending Release WL context menu options**

Second addition is a new access string called "Reporting.ReleaseOthersTentativeSignedReports". This access string will allow other users who did not sign the report, have the option to manually release the report from the context menu.

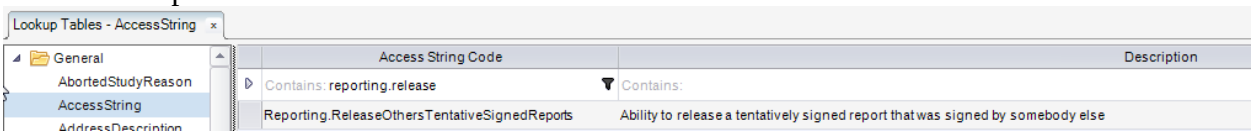



**Figure 4.25 – Access string lookup displaying new string "Reporting.ReleaseOthersTentativeSignedReports"**

As always, it is suggested that the access string permission be set at the User Group level and not from the Access String lookup.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – New User Preference for SpeechMike and Speech Commands

Two new Speechmike button actions have been added in Build 38. The DeleteField and DeleteFieldAndMoveNext options can be assigned to buttons on your Speechmike.

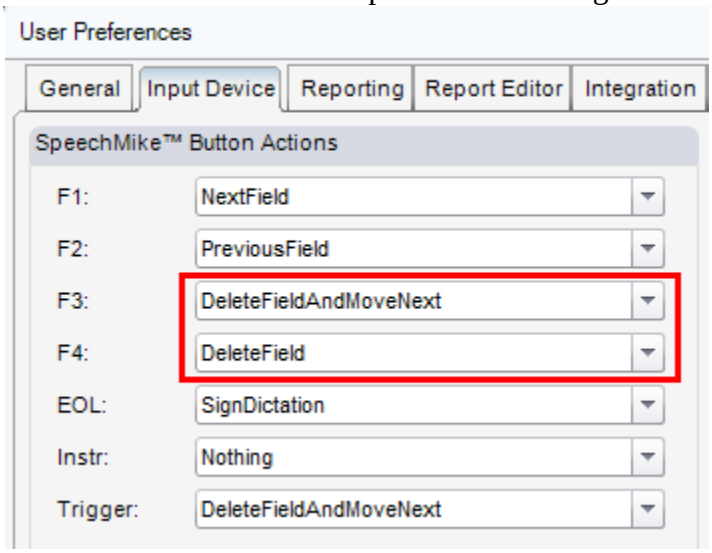



**Figure 4.26 – New Speechmike button action possible assignments**

1. Delete Field(Selection)
   This will delete the selected field or selected word(s) only. Cursor will stay at the current location for further dictation.

2. Delete Field and Next Field
   This will delete the current field and proceed to the next available field in the report. This allows for quick deletion of fields in the report. As some doctors like to have all options in fields and delete the selections they want to keep.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Reporting Window Toolbar Additions

The Dictate window toolbar has 3 new icons added in build 38. The Mic Wizard, Dictionary and Document Model are now accessible from these 3 icons.

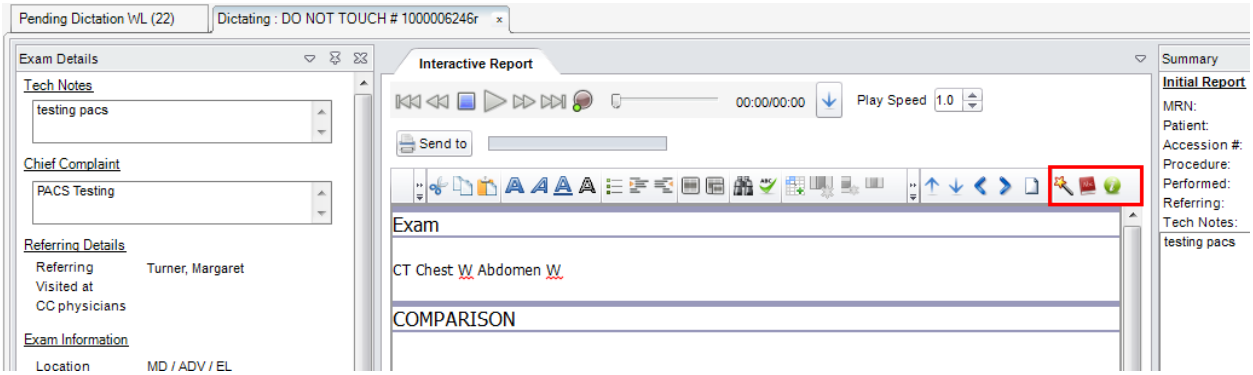



**Figure 4.27- Reporting window new icons**

### Mic Wizard

The Mic Wizard in previous version could only be accessed from user preferences window. In build 38 the Mic Wizard can be accessed in the "Dictate" window (aka reporting window).

Selecting the Mic Wizard icon from the toolbar will open the MicConfig window. By following the series of windows in the wizard, the user can configure their microphone for current eRAD RIS session.

**Figure 4.28 – MicConfig window**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Dictionary

The Dictionary can now also be accessed from the Dictate window. Similar to the Mic Wizard, the Dictionary was only access via the User Preferences window.

Selecting the Dictionary icon will open the Interaction Dictation Dictionary window.

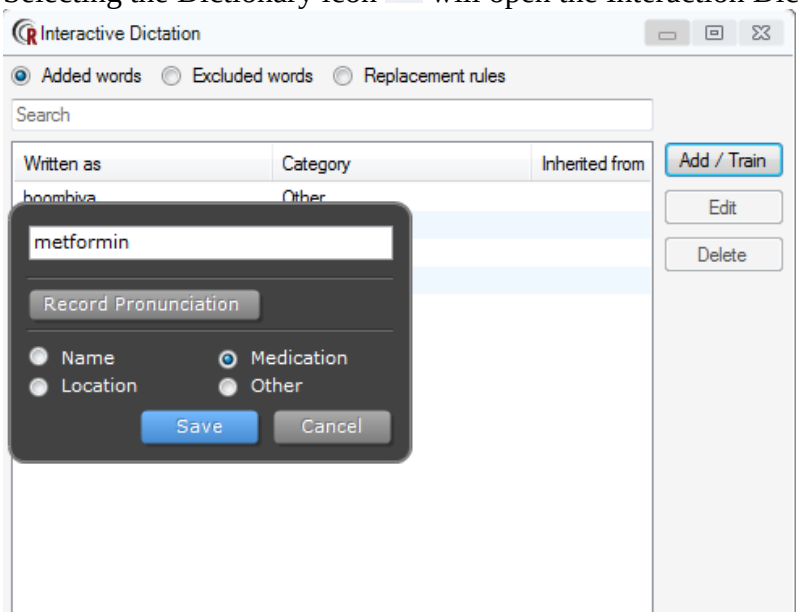



**Figure 4.29 – Dictionary window**

The Dictionary allows the user to enter uncommon words or words that are not as easily recognizable when spoken. The user enters the spelling, records the pronunciation, select the appropriate radio button to associate the latest word and save. The next time the word is used it will be recognized and inserted into the report.

## Document Model

The 3rd new icon added to the toolbar is too access the Document Model information .
The window that is presented to the user provides information about the setting and rules for the base template being used for the currently selected template in the editor. This is a read only window and is used for information purposes only.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

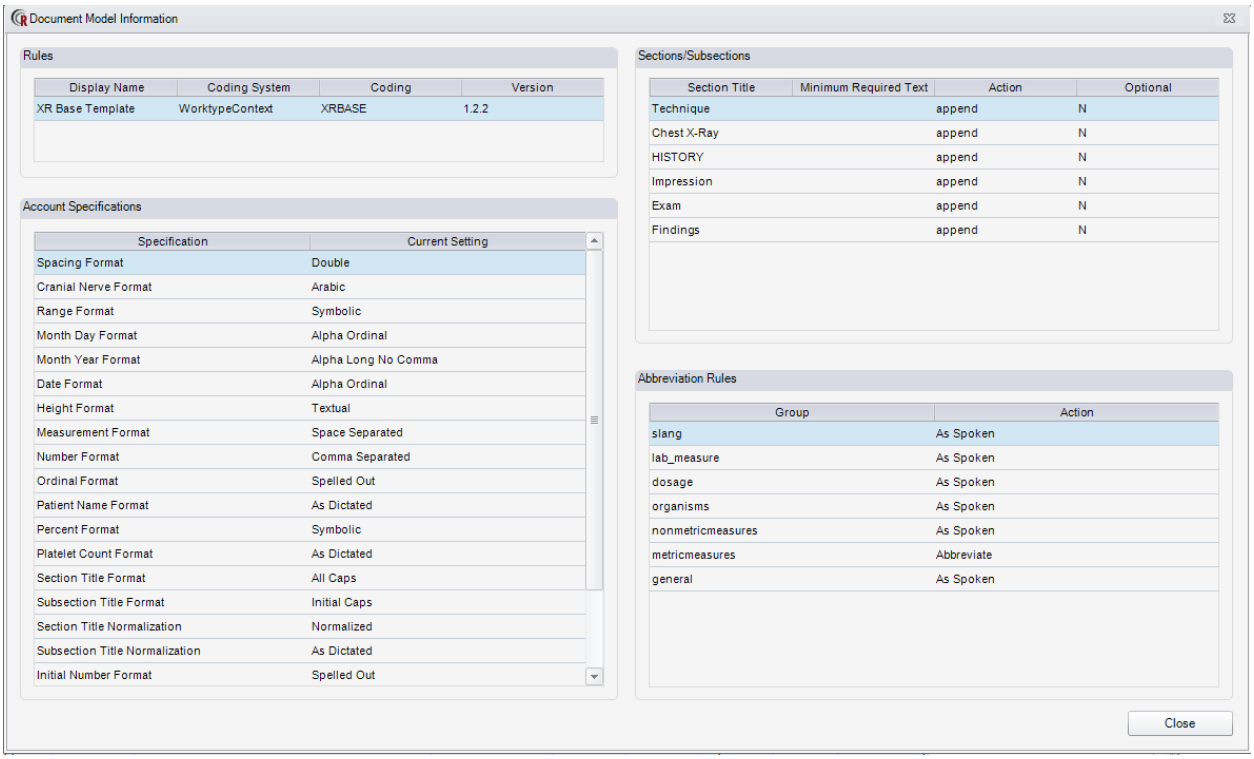



**Figure 4.30 – Document Model information window**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Correction Dialog Box

When dictating in Interactive mode a means to correct words and add them to the dictionary in a more fluid and user friendly matter was needed.
In build 38 a popup correction dialog has been implemented that can be instantiated by using the "correct ***<utterance>***" command. Utterance is a specific word or group of words. Try to limit this utterance to 3 or 4 words. Anything beyond that will be unproductive to use this dialog.

You can also instantiate the correction dialog by issuing "***correct <word> through <word>***".

Additionally you can instantiate the correction dialog by issuing "***correct selection***" which will open the correction dialog with the selected text in the editor.

When this dialog is opened the users can easily dictate a new word or correct the existing one by typing. In this case I would choose to type the word "cylinders" because it is not in the dictionary.

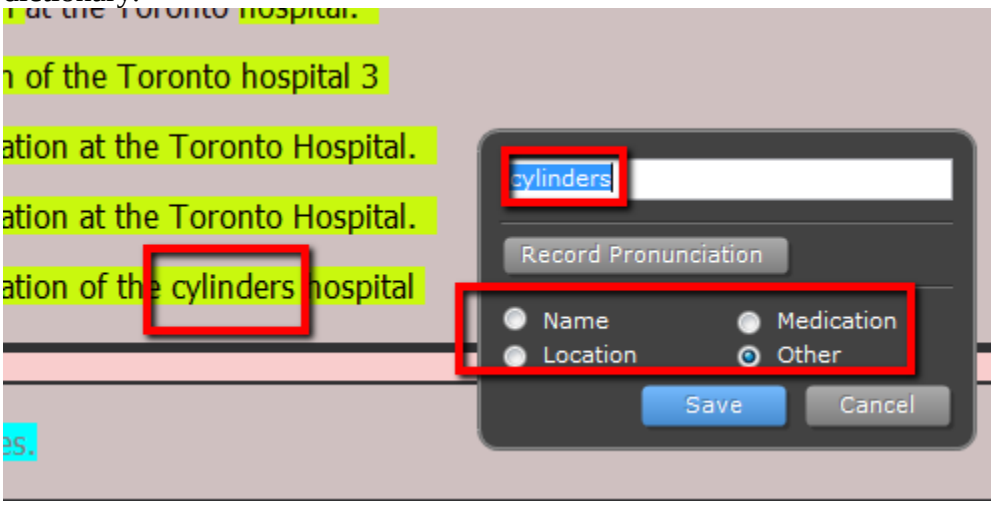



**Figure 4.31 – Correct dialog**

As you can see after I typed "cylinders" in the correction dialog it added it automatically to the list of added words in my dictionary.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

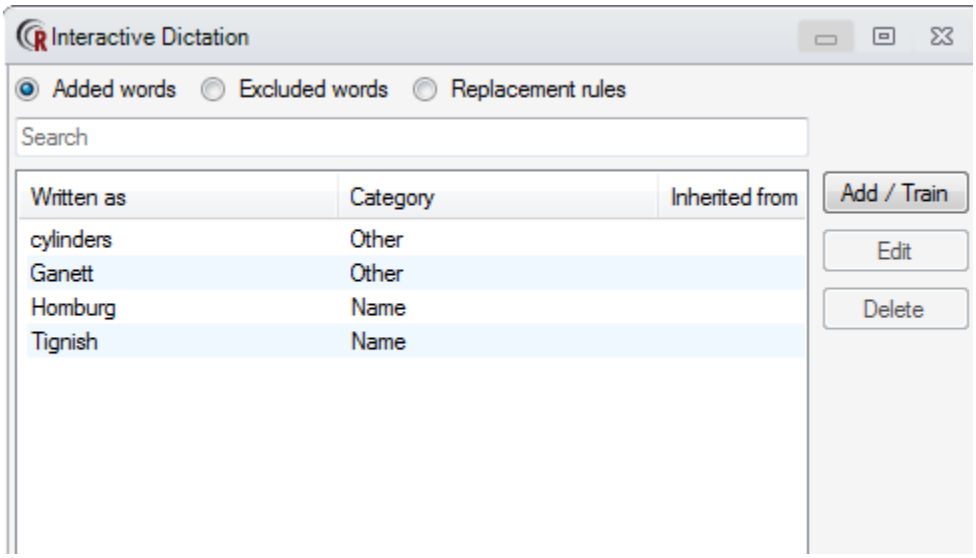



**Figure 4.32 - Corrected word added to dictionary**

After users correct the word by typing or dictating it can be saved or cancelled.
Users can train the word by clicking the Record Pronunciation button. It will change color to RED and then automatically turn off. Click “save” to keep changes.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting - Upgrade MModal to Latest Version

We received new set of .dll files from MModal which were integrated into the current code stream.
The files are housed in the rRISSetup.msi file and are installed locally when a full install is completed (running coreinstall.bat file).
The files included are:
AnyModalCaptureControl Version **v7.75.7751.215**
AnyModalEdit control version **7.75.2.97**
AnyModalCaptureUILib version 7.75.25.342

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Laterality Discrepancy Check

This new feature can be enabled / disabled with a new user preference added to the Report Editor tab of the User Preference window.

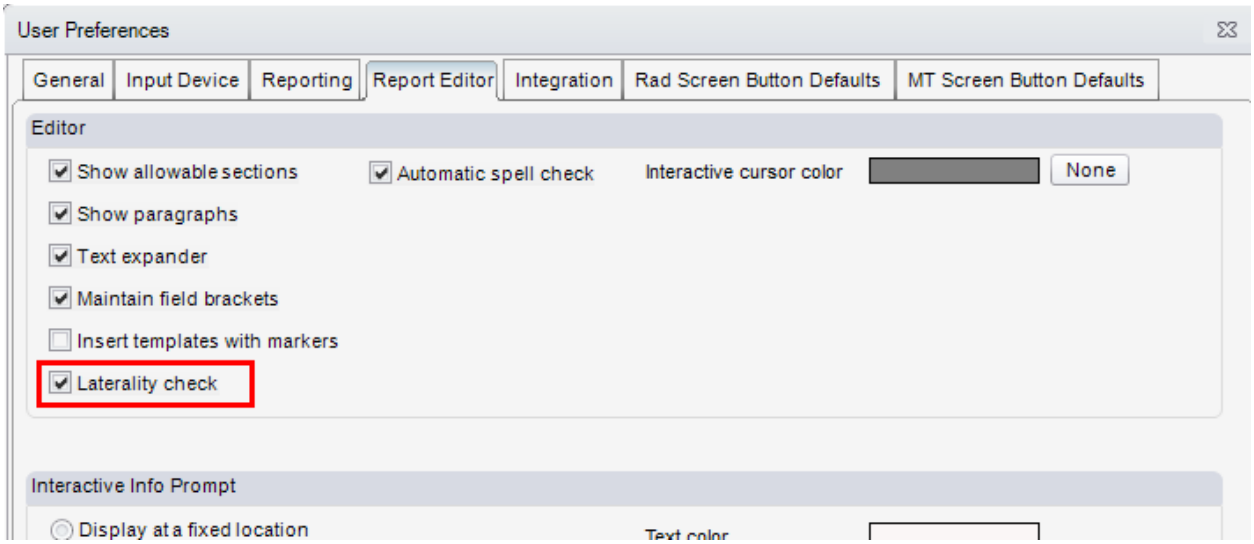



**Figure 4.33 – Laterality check user preference**

With the laterality check user preference enabled, if the user attempts to sign a report in which the laterality of the procedure conflicts with the laterality within the report the user will be presented with a message box.

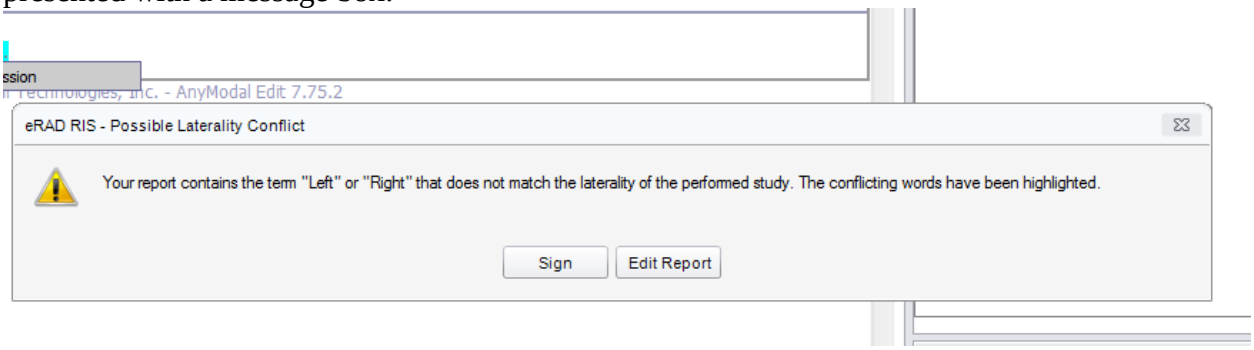



**Figure 4.34 – Possible Laterality Conflict message**

The conflicting laterality's will be highlighted within the report. The procedure laterality will be highlighted in green, and the conflicting "left or right" text will be highlighted in orange. The screenshot below is displaying the procedure with laterality in the Summary pane. In the report we can see the laterality that matches within the report is green and the one that doesn't is orange.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

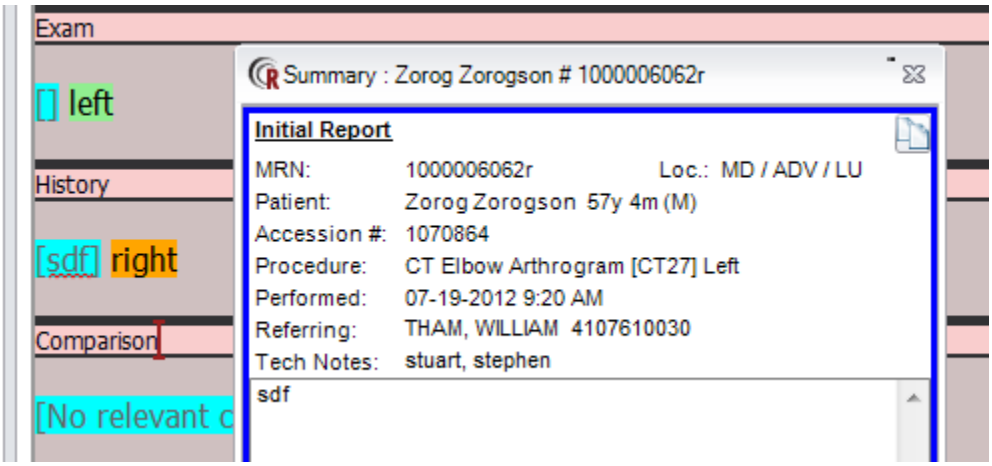



**Figure 4.35 – Conflicting laterality's highlighted in report**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Correction Dialog User Preference

The "Correction Dialog" box is displayed in the reporting window. It allows the user to correct and train with speech word(s) that have not been recognized as originally dictated, and going forward when the user dictates this word(s), it will continually be recognized.

The "Correction Dialog" box is now controlled with a new user preference added to the Reporting tab of the User Preference window. When unselected the "Correction Dialog" window will not appear with the "Correct <utterance>" command is used.

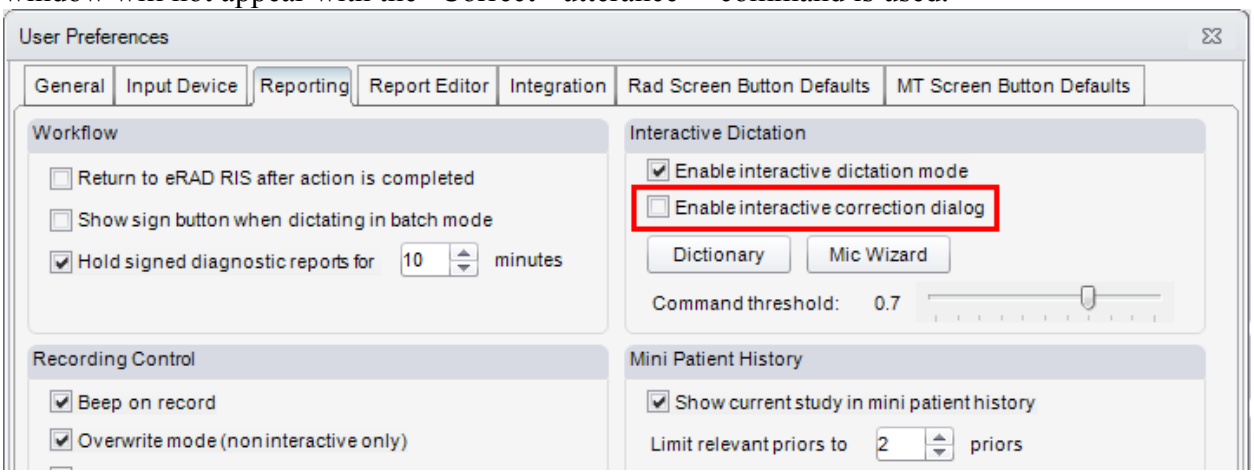



**Figure 4.36 – Enable interactive correction dialog user preference**

Also of note, in previous builds the "Correction Enabled" in the Interactive Panel controlled this feature, but it only applied to the current RIS session. The new user preference will also control the "Correction Enabled" check box in the Interactive Panel.

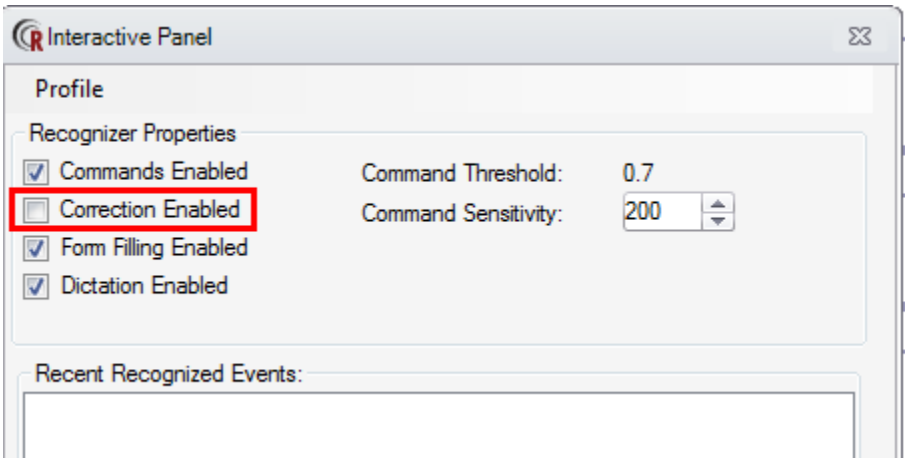



**Figure 4.37 – Correction Enabled in Interactive Panel**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Signed, Pending Release enhancement

The Signed, Pending Release WL now includes the Sign Reports button.
This new button is located in the lower right of the work list. Selecting this button will open the Signing window. This is the same window that is opened from the Pending Signature window.

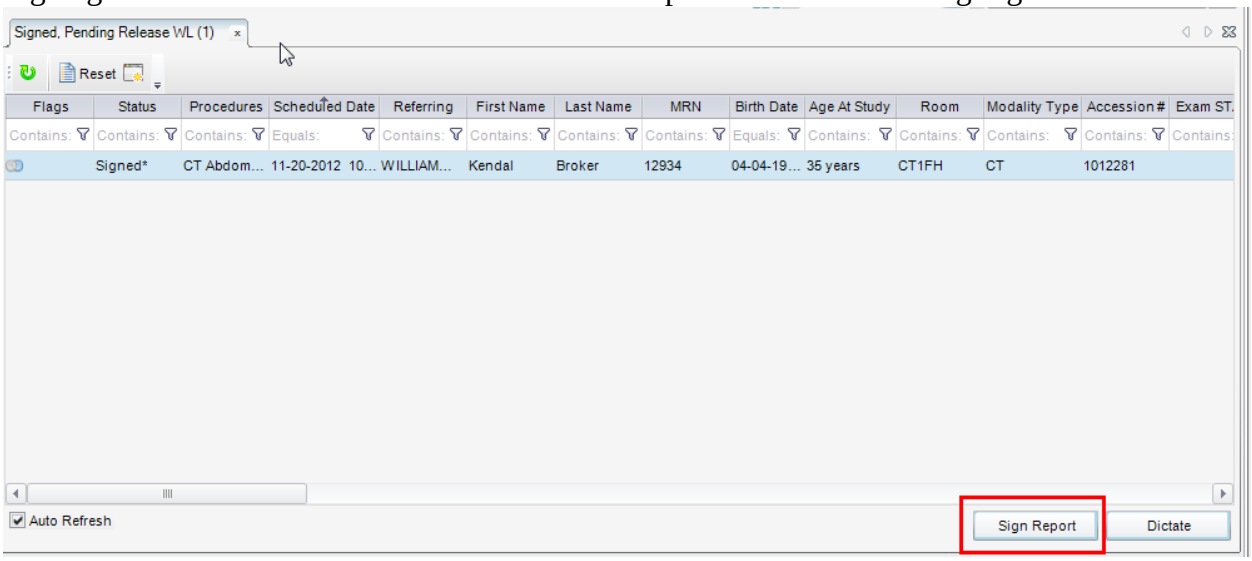



**Figure 4.38 – Signed, Pending Release WL with Sign Report button**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## SpeechMike Mappings to Functional Buttons

In previous builds there were options for “Sign Report”, “Sign Dictation”, “Submit Audio” and “Cancel Dictation”, but they didn’t work when mapped to any of the functional keys on the SpeechMike. This has been resolved in server patch 38.002.

## CTRN (Radar) Reminder Request

This is for Build 38 – 38.002. On the Schedule Review tab in build 38 there is a Reminder Request button that will allow the user to enter in a phone number, email, or mobile phone number to send a reminder request. For build 38 this button is controlled but the access string “Clinical.Schedule.ReminderRequest”.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Billing Exception for Missing Billing Codes

If the exam being performed has an inactive billing code or the code is set to inactive during the technologist workflow, the exam will now go to the billing exception work list and a note will be posted in the Billing Notes section.

**Figure 4.39 – Billing exception posed for study without an active billing code**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Chair Service

Chair workflow is used to help divide studies between radiologists. In prior sprints we had developed functionality to show a chair ID and qc flag on the worklist, but we were leaving it up to external systems to maintain these fields.
In Build 38 we have enhanced the RIS client to support setting these fields. In addition, we have also added a Hard copy prior's flag.

When a radiologist logs in with a practice that supports Chair workflow, they will be prompted to select their "Primary" chair. The list of chairs is determined by the radiologist's current practice. The number in parenthesis represents the number of exams pending dictation that have been assigned to each chair.
This setting will be persisted for their entire log in session and will be used to assign credit to a chair when a Rad dictates or signs an exam.

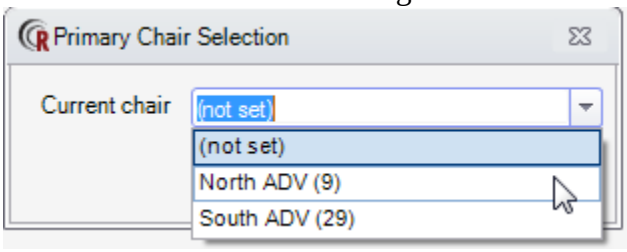



**Figure 4.40 – Primary Chair Selection after login**

Once a selection is made, the primary chair selection will be displayed in the title bar of the application.

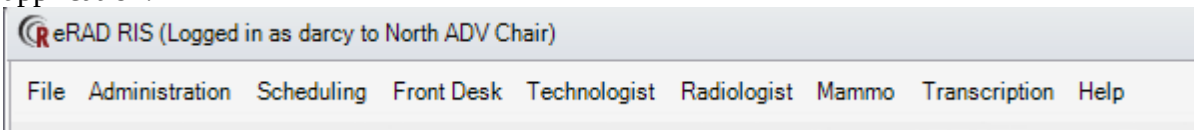



**Figure 4.41 – eRAD RIS title bar displaying primary chair**

If the user dismisses the primary chair selection dialog box or chooses (not set), they will be prompted to make a selection later when/if they open the My Pending Dictation WL or when they try to dictate/sign an exam.

The status bar of the RIS client now includes a Chair control which displays a chair icon (subject to change) and the current chair (if set). This control launches a Chair Selection dialog box which allows the radiologist to set an additional Chair filter for any open work lists that are chair enabled (currently only the Pending Dictation Worklist is chair enabled).
This control will only be visible for a user who is configured as a radiologist, and it will only apply to a practice that is chair enabled.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

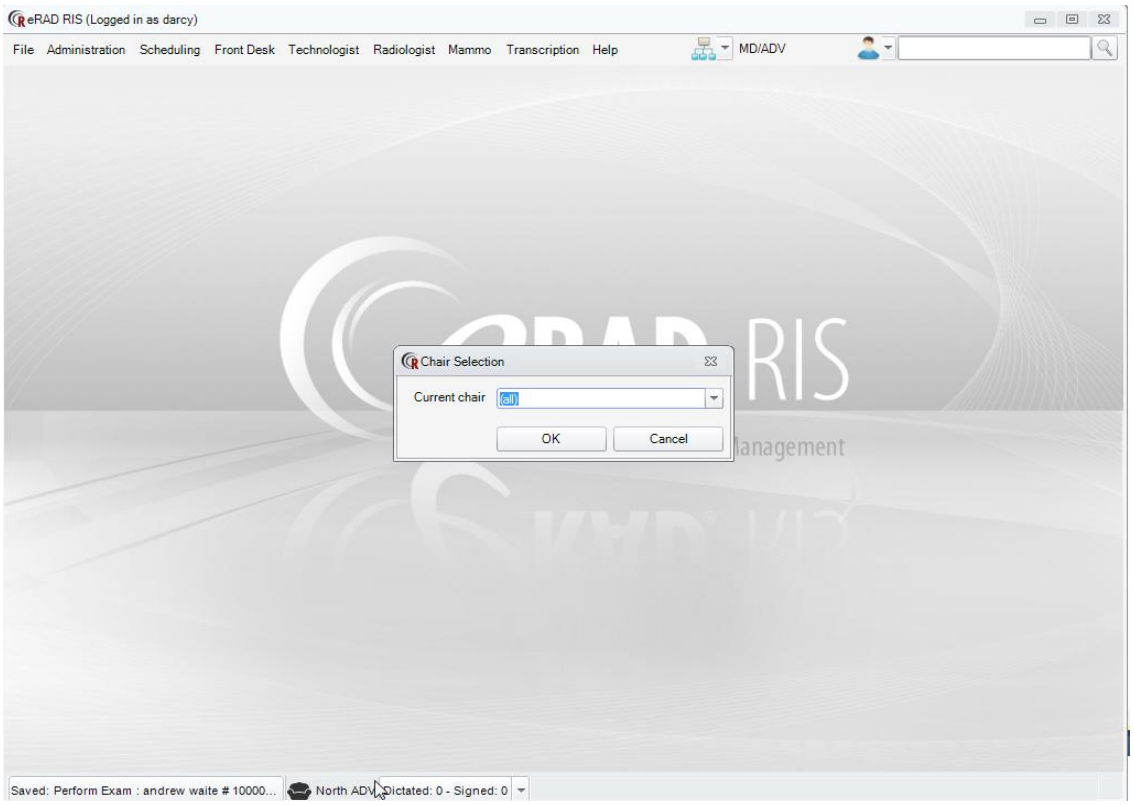



**Figure 4.42 - Access to chair selection and current selection in status bar**

The Chair Selection dialog box can be triggered in 1 of 3 ways:

1) The radiologist clicks on the chair icon on the status bar
2) The radiologist opens a chair enabled worklist when the active chair is not set (or is set to "all")
3) The radiologist has previously specified a chair, but switches the current practice to another chair enabled practice using the "Org Picker".

Like the "Org Picker", the chair control automatically applies a filter and adds it to the user's current filters. Example: if a radiologist has a "My View" configured for CT Exams, they do not need to create one for each practice or chair.

If the primary chair has not been set, the chair icon will set both the primary chair and the chair filter for the dictated work list. After the primary chair has been set, the chair selection will only be used as a work list filter, and will not update the title bar in the RIS client. To be clear, it is the primary chair shown in the title bar that is used to assign credit to a chair, not the work list filter shown on the bottom of the RIS in the status bar area.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Changes to work lists

A new item was created for the context menus on the Pending Dictation work list. The user can now select one or more rows and choose Assign to Chair to open a dialog box that allows them to specify the Chair settings.

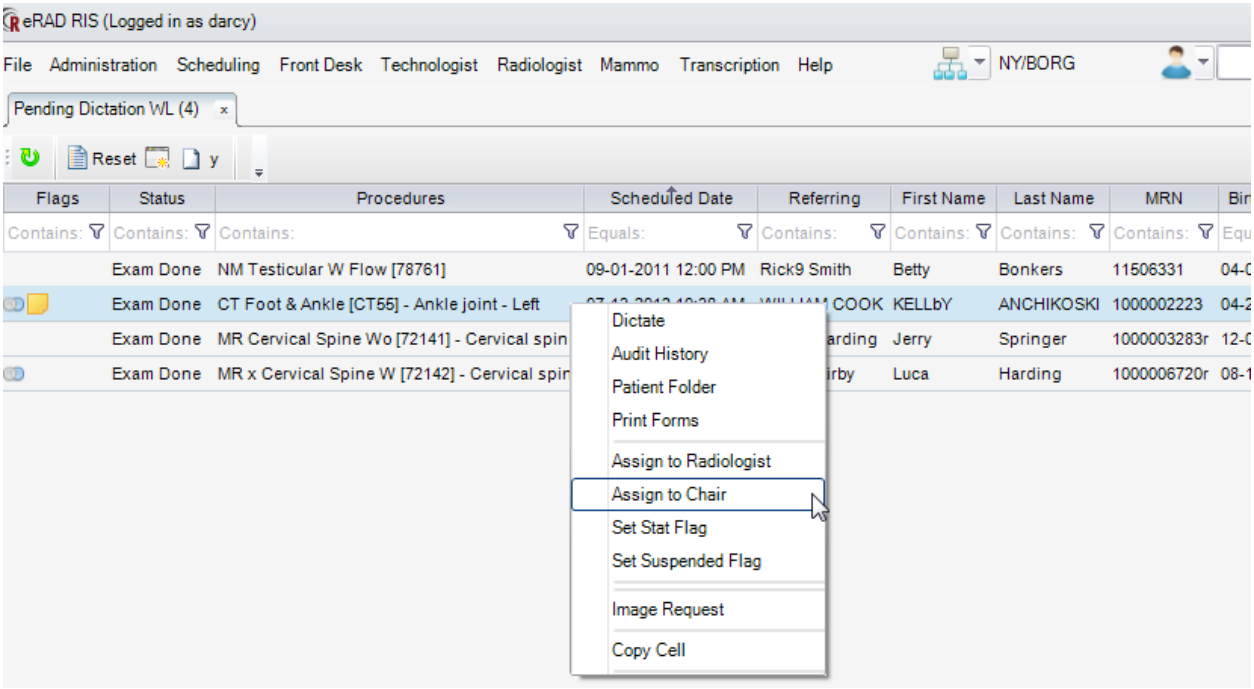



**Figure 4.43 – Context menu for Pending Dictation**

Selecting this menu option will open the Assign to Chair window.

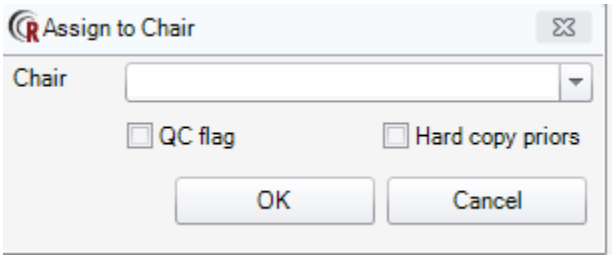



**Figure 4.44 – Assign to Chair window**

Chair assignments from the work list are audited and logged in an action table so they updates are able to be sent out to third party systems using Mirth.

"Hard copy priors" was added to both the radiologist's work lists and the activity work list.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

When a radiologist opens the Dictation or Signing Screen, if they have not yet selected a chair, they will be presented with the following message:

**Figure 4.45 – Message displayed when opening Dictate or Sign Reports window if chair has not been selected**

Selecting OK to the above message will present the user with the chair selection window.

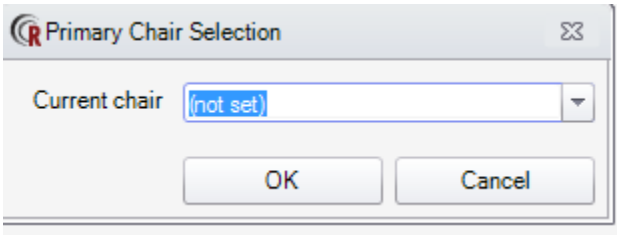



**Figure 4.46 - Primary Chair Selection window**

If Cancel is selected, the user is returned to the work list. To access the dictation or sign reports window, the user must select a chair then OK.
If the Radiologist signs or dictates an exam for which no chair has previously been assigned, the Radiologist's Primary Chair will be assigned to that exam.

## Technologist window changes

We have added a hyperlink to the tech screen to describe the current chair settings:

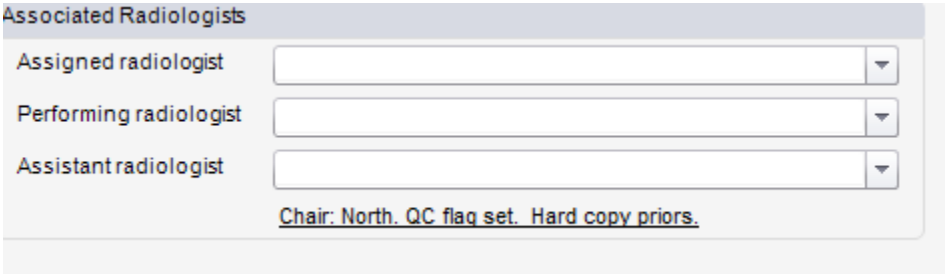



**Figure 4.47 - chair hyperlink on tech screen describes the current chair settings**

When the link is clicked, the following dialog box appears:

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

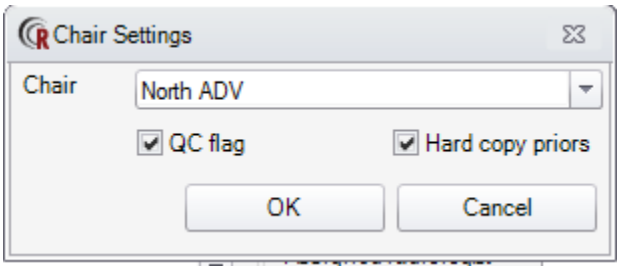



**Figure 4.48 - Chair Settings dialog box as displayed from tech screen**

The Chair Settings dialog box will provide a list of chairs for the current practice, a QC Flag checkbox and a Hard copy priors checkbox. If the user presses "OK" the changes will be saved immediately (i.e. it is not dependent upon the user saving and closing the tech screen). Changes triggered from this dialog box are logged to the audit table and they are also stored as an action that can be delivered to external systems via Mirth.

## Chair Configuration / Setup

A new lookup table titled "Chair" has been added and is accessed from the Administration > Configure > System > Chair.

Chairs can be defined with a unique chair code, user friendly description, and an associated practice.

A practice can have 0 or more chairs. A single chair can belong to only one practice.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

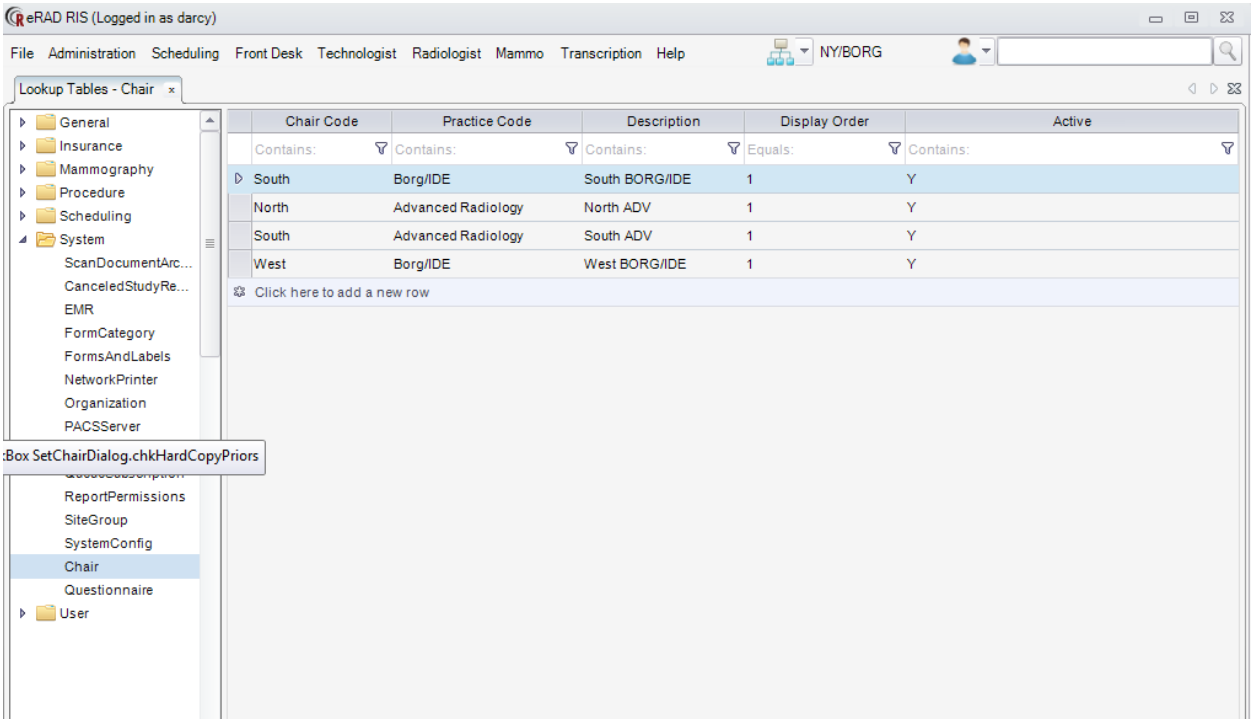



**Figure 4.49 – Chair lookup table**

The Organization lookup has also seen a change. To enable Chair work flow for a practice, edit the desired Practice and check to the Chair enabled work flow check box.

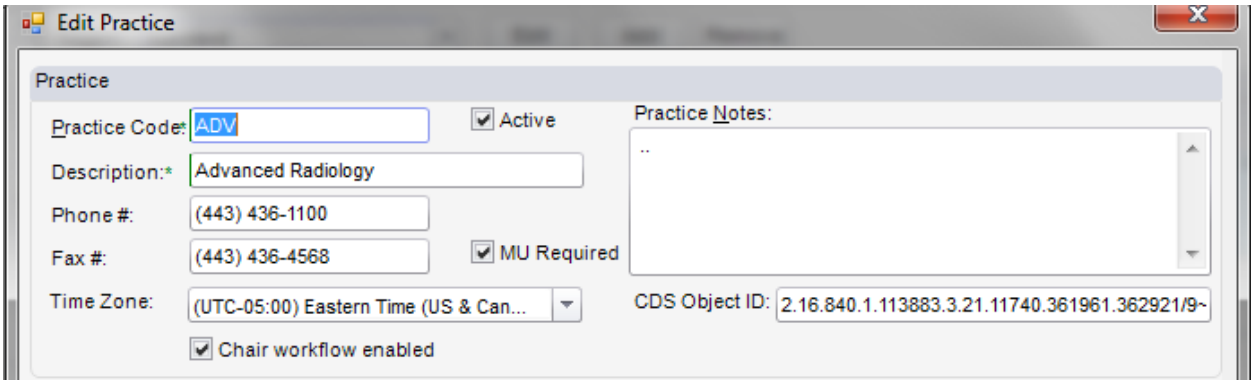



**Figure 4.50– Practice enabled for chair work flow**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Scheduling Across Rooms

A new dynamic column in the scheduled order window has been introduced to give the user a visual representation of the rooms to be selected without reserving the times. In the advanced search > details view the room is displayed in the search results when procedure with different modalities are choosen.

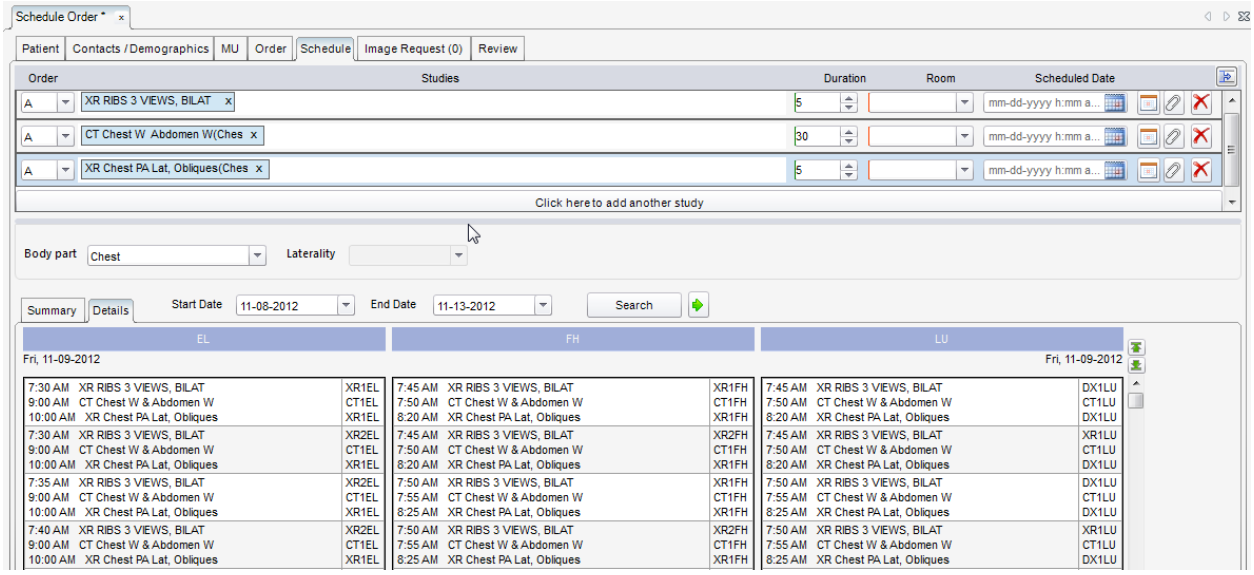



**Figure 4.51 – Schedule order window displaying new column for rooms when multiple studies of different modalities**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Modality Editor Lookup Restriction by Site

This new feature will prevent users from adding or modifying modalities for other practices. This is controlled by a new access string "Config.LookupEditor.Modality.ViewAll"

Full access to the above access string will allow the logged in user access to all modalities in the Modality lookup editor. Access as none, will grant access to only those modalities the user is associated with.

## Organization Picker Title Bar Color

To assist users who may select different practices from the Organization Picker, each practice can be assigned a designated color that will change the color of the title bar. This is accomplished by editing the practice from the Administration menu > Configure > Organization > then select the practice and open for edit.

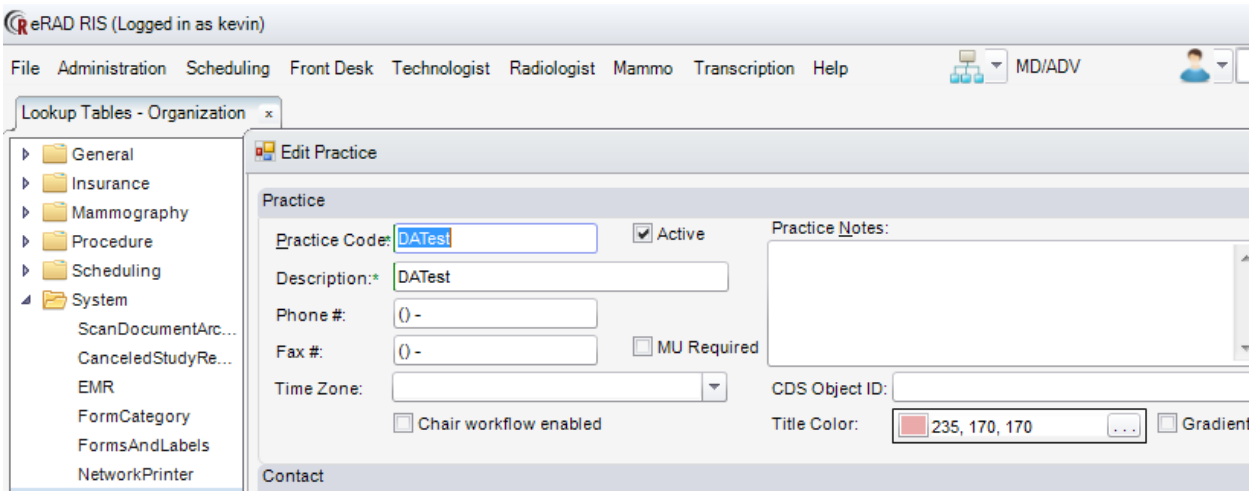



**Figure 4.52 – Edit Practice displaying how to set title bar color**

With the above practice configured for the color shown above, when the user selects this practice from the Organization Picker, the title bar will be of this color. This color will also be displayed upon logging into the application to this practice

**Figure 4.53 – Colored title bar**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Schedule Order not displaying locked times

Desired by the users the removal of locked appointment times in the schedule order window. Previously we relied on the red boarder around the Scheduled Date in the procedure picker row to inform the user that a specific time wasn't available.

We have added a system configuration setting:
ReservedTimeSlotsReturnedinSearchResultsEnabled

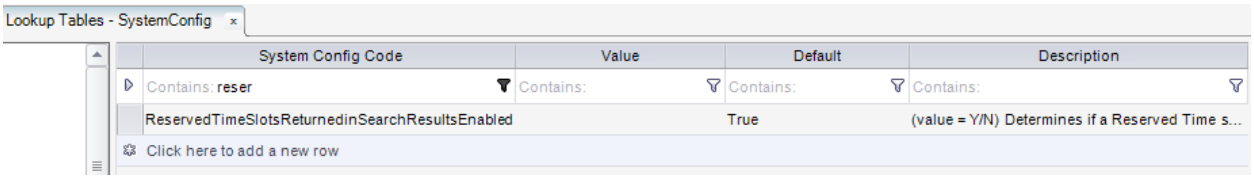



**Figure 4.54 – SystemConfig table display new system config code**

When set to true, which is the default setting, search results will return as they always have.

When set to false, if user A has a time selected in the search results, user B completes a search, the time selected by User A does not return in the search results for user B.

If user A has a schedule order window open and selects a time slot to reserve or lock it, then user A opens a second instance of the schedule order window, the locked time in first schedule order window will appear in the search results, but as before, when selected a red boarder will appear around the Scheduled Date column on the procedure picker row indicating it is not available.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Management Report – Addended Mammography Exams

The Addended Mammography Exams report displays a list of mammography exams that have been addended and dictated within the selected date range. Identification of a mammography exam is based on the procedures mammo type code value being configured.

Parameters:

- From & To Dates (based on dictation date)

Date references:

- Study, interpretation and patient tables

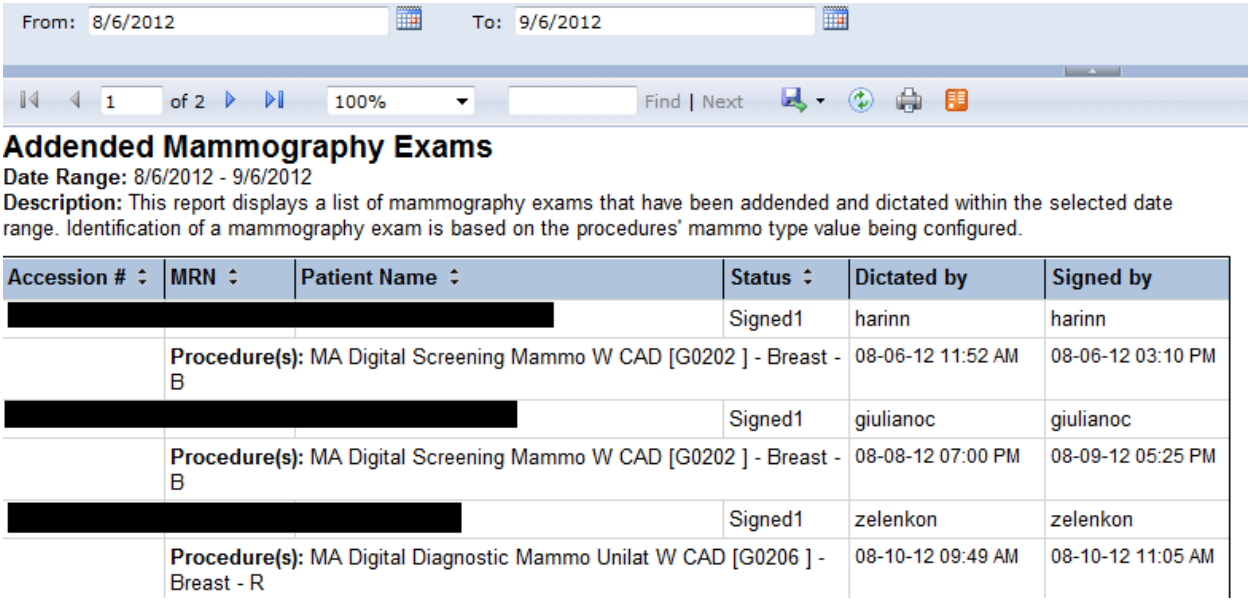



**Figure 4.55 – Addended Mammography Exams report**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Management Report – Last Login by User ID

The Last Login by User ID report displays the audit information capturing the last login for each user for eRAD RIS. This report will be used for security audits. The report is accessed under the Management Reports \ Maintenance menu.

Parameters:

- None

Data references:

- C_audit table
- L_user table

### Last Login by User Id

**Description:** This report displays the audit information capturing the last login for each user with the RIS.

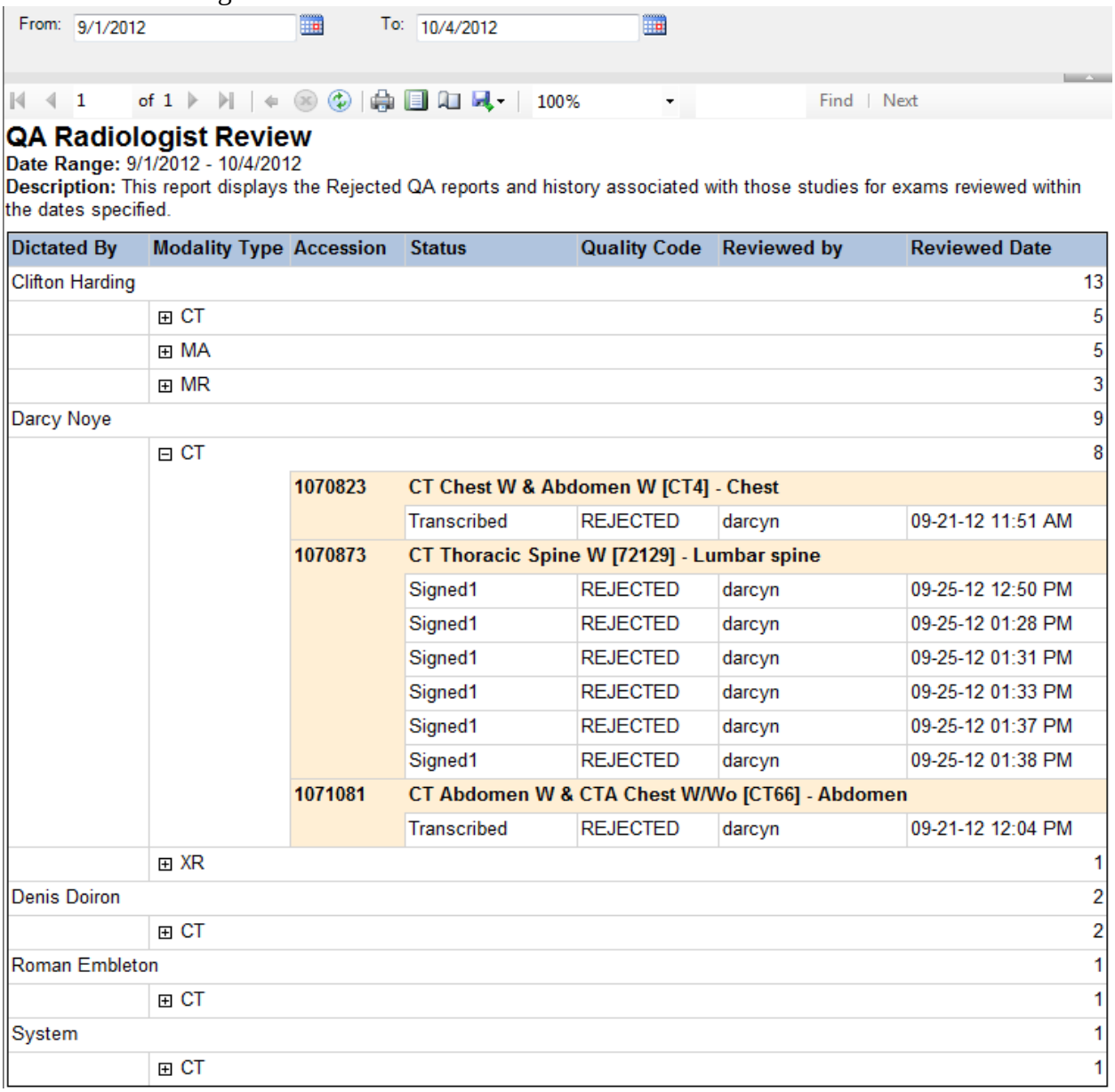
| User Id | User Name | Active | Last Logon |
|---|---|---|---|
| stick | Stick Powell | Y | 10/4/2012 11:22:30 AM -04:00 |
| denis | Denis Doiron | Y | 10/4/2012 10:38:52 AM -04:00 |
| regtest | Registration Test User | Y | 10/4/2012 10:28:53 AM -04:00 |
| darcyn | Darcy Noye | Y | 10/4/2012 9:34:00 AM -04:00 |
| Ian | Ian Power MD | Y | 10/4/2012 7:33:27 AM -04:00 |
| gordon | Gordon Craig | Y | 10/4/2012 7:09:37 AM -04:00 |
| hardingc | Clifton Harding | Y | 10/3/2012 3:10:17 PM -04:00 |
| darcy | Darcy Aiken | Y | 10/3/2012 12:12:24 PM -04:00 |

**Figure 4.56 – Last Login by User Id report**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Management Report – QA Radiologist Review

The QA Radiologist Review report displays the current status of studies that have been flagged for review. The report can be viewed in the eRAD RIS from the Management Report window \ Statistics \ Radiologists.


From: 9/1/2012 To: 10/4/2012

1 of 1 100% Find | Next

**QA Radiologist Review**

**Date Range:** 9/1/2012 - 10/4/2012

**Description:** This report displays the Rejected QA reports and history associated with those studies for exams reviewed within the dates specified.

| Dictated By | Modality Type | Accession | Status | Quality Code | Reviewed by | Reviewed Date |
|---|---|---|---|---|---|---|
| Clifton Harding | | | | | | 13 |
| | ⊞ CT | | | | | 5 |
| | ⊞ MA | | | | | 5 |
| | ⊞ MR | | | | | 3 |
| Darcy Noye | | | | | | 9 |
| | ⊟ CT | | | | | 8 |
| | | **1070823** | **CT Chest W & Abdomen W [CT4] - Chest** | | | |
| | | | Transcribed | REJECTED | darcyn | 09-21-12 11:51 AM |
| | | **1070873** | **CT Thoracic Spine W [72129] - Lumbar spine** | | | |
| | | | Signed1 | REJECTED | darcyn | 09-25-12 12:50 PM |
| | | | Signed1 | REJECTED | darcyn | 09-25-12 01:28 PM |
| | | | Signed1 | REJECTED | darcyn | 09-25-12 01:31 PM |
| | | | Signed1 | REJECTED | darcyn | 09-25-12 01:33 PM |
| | | | Signed1 | REJECTED | darcyn | 09-25-12 01:37 PM |
| | | | Signed1 | REJECTED | darcyn | 09-25-12 01:38 PM |
| | | **1071081** | **CT Abdomen W & CTA Chest W/Wo [CT66] - Abdomen** | | | |
| | | | Transcribed | REJECTED | darcyn | 09-21-12 12:04 PM |
| | ⊞ XR | | | | | 1 |
| Denis Doiron | | | | | | 2 |
| | ⊞ CT | | | | | 2 |
| Roman Embleton | | | | | | 1 |
| | ⊞ CT | | | | | 1 |
| System | | | | | | 1 |
| | ⊞ CT | | | | | 1 |

**Figure 4.57 – QA Radiologist Review report**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Management Report – Referring Physician List

The Referring Physician List report displays the complete list of referring and unknown referring physicians that are active in the eRAD RIS. Also displayed are the NPE, UPIN, License #, DEA#, address, phone, and fax numbers. The report is accessed under Management Reports\Maintenance.

Parameters:

- None

Data reference:

- Person and person address

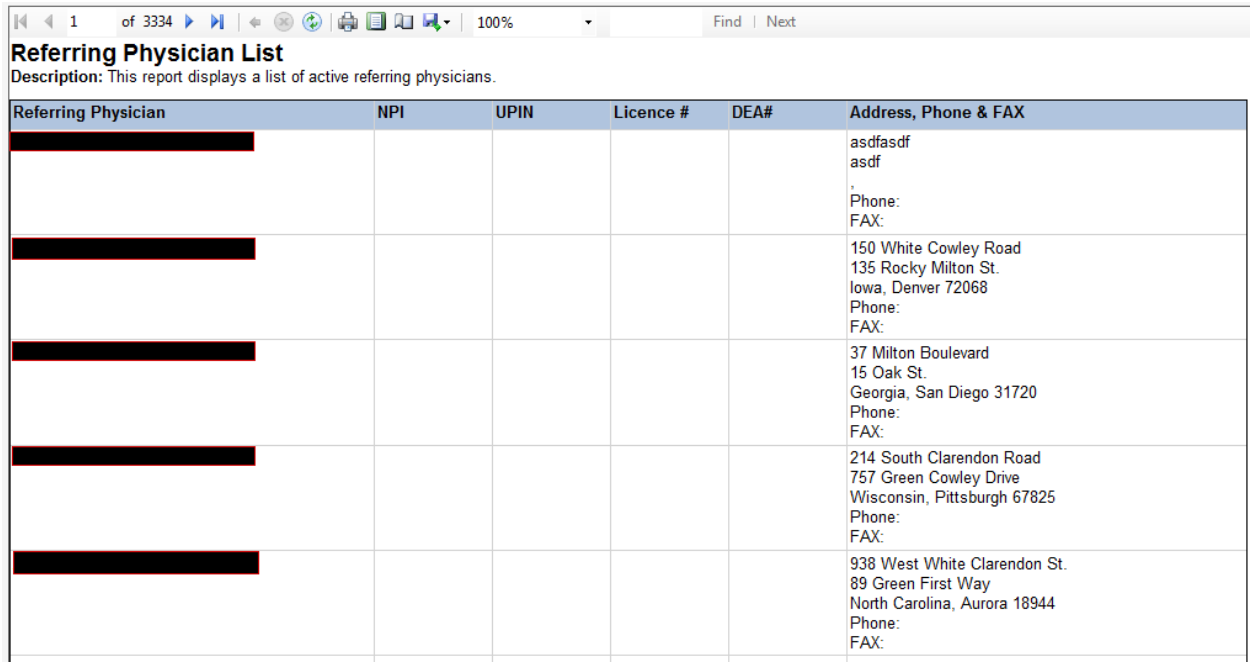



**Figure 4.58 – Referring Physician List report**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Management Report – Referring Physician Volumes

The Referring Physician Volumes report displays the volumes of orders placed by referring physicians within the practice(s), site(s) date range selected. The report is accessed under Management Reports \ Operations.

Parameters:

- Practice
- Site(s)
- From, To Dates

Data references:

- Order table, person table for active referring physicians

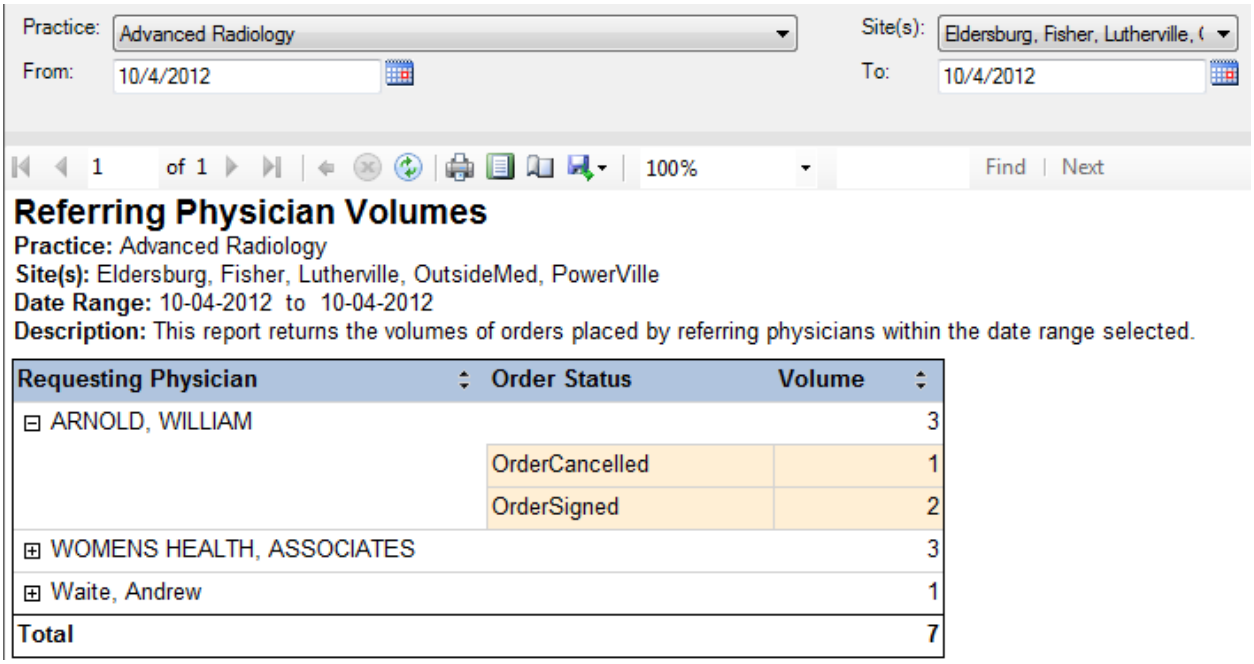



**Figure 4.59 – Referring Physician Volumes report**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Management Report - Chief Complaint Audit

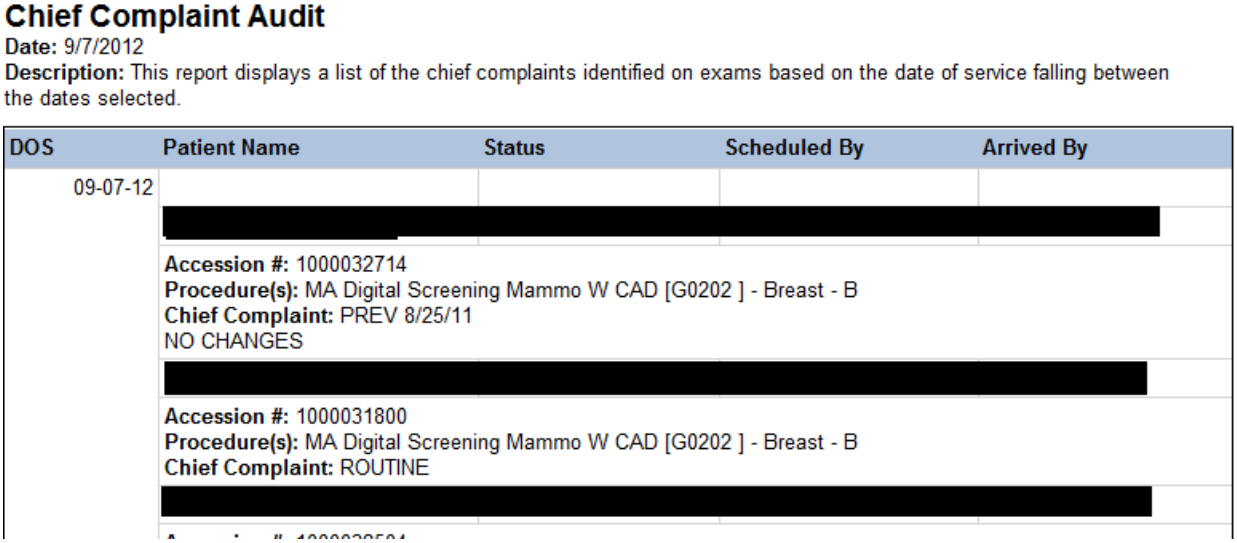
The Chief Complaint Audit report displays a list of chief complaints captured on exams. The report is based on the date range selected for date of service.

Parameters:

- Date Range

Data references:

- Order and study tables (excluding cancelled and aborted status)



**Chief Complaint Audit**

**Date:** 9/7/2012

**Description:** This report displays a list of the chief complaints identified on exams based on the date of service falling between the dates selected.

| DOS | Patient Name | Status | Scheduled By | Arrived By |
|---|---|---|---|---|
| 09-07-12 | [redacted] | | | |
| | **Accession #:** 1000032714<br>**Procedure(s):** MA Digital Screening Mammo W CAD [G0202 ] - Breast - B<br>**Chief Complaint:** PREV 8/25/11<br>NO CHANGES | | | |
| | [redacted] | | | |
| | **Accession #:** 1000031800<br>**Procedure(s):** MA Digital Screening Mammo W CAD [G0202 ] - Breast - B<br>**Chief Complaint:** ROUTINE | | | |
| | [redacted] | | | |

**Figure 4.60 – Chief Complaint Audit report**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Management Report Deployment Changes

Separation of samples from the management reports deployment.
Reason for doing this are:

- Smaller deployment of management reports (reduction of 270+MB)
- The sample forms were specific to Radnet, and may not be appropriate to share with external operations\competitors.

Also modified report deployment to enable the implementation team the ability to drop files into the following folders:

- Upload Forms (and a subfolder called SubReports)
- Upload Diagnostic Templates (and a subfolder called SubReports)

These folders should never have files in them from R&D. They are designed solely for the implementation team to upload files they wish to include. The files will be uploaded into the site-specific folder called Forms or Diagnostic Templates depending on the type of file being uploded.
Ie: if the implementer is setting up a new site and have 40 new forms to copy up to a site, this will enable them drop those files in the folder and it will upload them in bulk vs manually uploading and changing the datasource for each file.
The files will override files that exist in the folder with the same name. At the same time the script does not delete anything out of the destination folders.
Running the deployment now will give the user options to Upload Forms and Upload Diagnostic reports.
As it already does with management reports the datasource for the uploaded forms and templates will be updated to use the destination datasource.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 5. Access Strings

| Access string | Controls Access to |
|---|---|
| WL.MT.ReportDraftedQA | Transcription Edits Pending QA WL menu option |
| WL.RAD.QA | Radiologist Signed Pending QA WL menu Option |
| Reporting.ReleaseOthersTentativeSignedReports | Enables users to release reports signed but other users |
| Clinical.Schedule.ReminderRequest | Enables Reminder Request button on the Scheduling Review window. This window is presented from New Appointment window after the Schedule button is selected and mandatory fields have been completed |
| Config.LookupEditor.Modality.ViewAll | This can restrict or enable a user to configure changes for all modalities in the Modality Lookup Editor |
| Config.LookupEditor.ImageUploader | This feature was not completed for Build 38, but the lookup table exists. If users don't have this access string they will not see the lookup editor option in the Configure window. |

# 6. Resolved Defects Build 38

Bugs Suggested Features and Support Issues resolved in build 1.38. The extract is taken from Redmine bug tracking system and only displays defects resolved in 1.38.

| # | Status | Tracker | Priority | Subject | Category | Found Version |
|---|---|---|---|---|---|---|
| 1911 | Closed | Bug | Urgent | EMR distribution jobs not updating to completed status | Web Services/DB | 1.37 |
| 1770 | Closed | Bug | Urgent | Reporting - Editing templates getting "Out of Memory Exception" | Thick Client GUI | 1.37 |
| 2211 | Closed | Bug | High | Modality closure - same day | | 37.13 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | | | |
|---|---|---|---|---|---|---|
| 2179 | Closed | Bug | High | 0min duration studies where obtain a lock of negative duration length | | 1.37 |
| 2135 | Closed | Bug | High | Reporting - No way to turn spell checker off | Thick Client GUI | 1.37 |
| 2134 | Closed | Bug | High | Reporting - Global dictionary being over-written | Thick Client GUI | 1.37 |
| 2116 | Closed | Bug | High | River Ranch - experiencing issues when adding / editing insurance information. | Thick Client GUI | 37.12 |
| 2111 | Closed | Bug | High | Reporting - Sign, Skip etc and continue will kick you back to the worklist prematurely | Thick Client GUI | 1.37 |
| 2109 | Closed | Bug | High | RRanch - User(s) is sporadically receiving error messages with the subject of the error being insurance. | Thin Client GUI | 37.11 |
| 2092 | Closed | Bug | High | Reporting - Float a panel, close it, and save layout makes other panes disappear | Thick Client GUI | 1.37 |
| 2053 | Closed | Bug | High | Scheduling - Deleted row information cannot be accessed through the row. | Thin Client GUI | 37.11 |
| 2033 | Closed | Bug | High | Fax number not populating in Send To popup for MTs | Thick Client GUI | 1.37 |
| 2013 | Closed | Bug | High | Reporting - PSPLOG missing error message when logging into ris. | Thick Client GUI | 1.37 |
| 1935 | Closed | Bug | High | Relevance Calculation - patient history and relevance is only sorted on relevance percentage | Thick Client GUI | 1.37 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | | | |
|---|---|---|---|---|---|---|
| 1927 | Closed | Bug | High | Inactive dictations can be lost if attempted to be played back in report history | Thick Client GUI | 1.2.37.13895 |
| 1906 | Closed | Bug | High | Sort order needed on preferred radiologist | | 1.37 |
| 1803 | Closed | Bug | High | Transcribed by being overriden by rad user id. | Thick Client GUI | 1.37 |
| 1791 | Closed | Bug | High | Focus not set on report when editing | Thick Client GUI | 1.37 |
| 1789 | Closed | Bug | High | Case issue when assigning templates | Thick Client GUI | 1.37 |
| 1747 | Closed | Bug | High | Synch Macros | Thick Client GUI | 1.37 |
| 1743 | Closed | Bug | High | Study opens in Batch mode when it should be interactive. | Thick Client GUI | 1.37.5 |
| 1729 | Closed | Bug | High | Base template dropdown | Thick Client GUI | 1.37 |
| 1724 | Closed | Bug | High | Edit default template may return Concurrency violation | Admin Tools | 1.1.2.37.13312 |
| 1648 | Closed | Bug | High | Not able to change rooms - re-scheduling. | Thick Client GUI | 1.36.12866 |
| 1640 | Closed | Bug | High | Can't open image request editing form from Image request WL. | Thick Client GUI | 1.37 |
| 1613 | Closed | Bug | High | Reporting - Assign to Data pane will not open from view menu | Thick Client GUI | 1.37 |
| 1563 | Closed | Bug | High | Reporting - Update to the latest Radiology Recognizer | Thick Client GUI | 1.36 |
| 2228 | Resolved | Bug | Normal | the "*" character should not be part of the policy number in the ZIN segment | Web Services/DB | 1.37 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | | | |
|---|---|---|---|---|---|---|
| 2204 | Resolved | Bug | Normal | accident code in HL7 ACC billing message needs to be in uppercase | Web Services/DB | 1.37 |
| 2184 | Resolved | Bug | Normal | Management Reports - multple procedure groups | Web Services/DB | 1.37 |
| 2183 | Resolved | Bug | Normal | Management Reports - Accession Milestone Times | Web Services/DB | 1.37 |
| 2175 | Closed | Bug | Normal | Billing message IN1 segment does not contain the correct value for coordination of benefits priority | Web Services/DB | 1.37 |
| 2165 | Closed | Bug | Normal | Management Report - Daily Summary Report | Mgt Reports | 1.37.13 |
| 2140 | Closed | Bug | Normal | Management Report view for Payments | Web Services/DB | 1.37 |
| 2138 | Closed | Bug | Normal | error when re-ordering insurance priority | Thick Client GUI | 1.37.14326 |
| 2123 | Closed | Bug | Normal | Management Report - Transcription Dashboard | Web Services/DB | 1.37 |
| 2115 | Closed | Bug | Normal | slow view c_mgmt_rad_dict_activity | Web Services/DB | 1.37.12 |
| 2110 | Closed | Bug | Normal | Management Report - Unread Exams | Mgt Reports | 1.37 |
| 2107 | Closed | Bug | Normal | error on opening registration when patient has multiple orders for today | Thick Client GUI | 1.37.12 |
| 2041 | Closed | Bug | Normal | Reproting - Rewind doesn't work with interactive dictations | Thick Client GUI | 1.37 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | | | |
|---|---|---|---|---|---|---|
| 2025 | Closed | Bug | Normal | Relevance includes all studies when modality is included in Acceptable Modalities | Thick Client GUI | 1.2.37.14161 |
| 2015 | Closed | Bug | Normal | Reporting - Transcribed by user id getting set to the radiologist | | 1.37 |
| 2008 | Closed | Bug | Normal | Worklist Sort on column Time Pending Signature | Thick Client GUI | 1.37 |
| 1995 | Closed | Bug | Normal | Addendum report rendering not showing addendm title | Mgt Reports | 1.37 |
| 1994 | Closed | Bug | Normal | If you work on more than 1 person in personnel, any exception messages will show person[0] details, instead of the person you were working on | | 1.37 |
| 1979 | Closed | Bug | Normal | Preferred rad order | | 1.37 |
| 1978 | Closed | Bug | Normal | 14. Preferred Rad if no modality is assigned it should assume all modalities. | | 1.37 |
| 1976 | Closed | Bug | Normal | Enter Key in Referring Field should perform search | | 1.37 |
| 1975 | Closed | Bug | Normal | Scheduled By user id | | 1.37 |
| 1972 | Closed | Bug | Normal | Home/Business address displayorder. | | 1.37 |
| 1970 | Closed | Bug | Normal | Include referring prefix/suffix in search results. | | 1.37 |
| 1969 | Closed | Bug | Normal | DEFAULT PATIENT CLASS is being ignored | | 1.37 |
| 1965 | Closed | Bug | Normal | schedule groups do not clone in the personnel editor. | | 1.37 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | | | |
|---|---|---|---|---|---|---|
| 1961 | Closed | Bug | Normal | For personal addresses, copy button for delivery address same as address. | | 1.37 |
| 1959 | Closed | Bug | Normal | Quick Keys in Batch Reclassification of scan document types doesnâ€™tâ€™ work. | | 1.37 |
| 1957 | Closed | Bug | Normal | Copy from the ICD9 search results grid doesnâ€™t work. | | 1.37 |
| 1953 | Resolved | Bug | Normal | Schedule Order - Can't see start and end dates | | 37.9 |
| 1952 | Closed | Bug | Normal | HTML on Conformation WL is messed up | | 37.9 |
| 1950 | Closed | Bug | Normal | Management Report - Transcription Dashboard - Beverly VR2 | Mgt Reports | 1.37 |
| 1948 | Closed | Bug | Normal | RTAT slow | | 1.37 |
| 1945 | Closed | Bug | Normal | Inablitity to prove polling workflow is being used. | | 1.37 |
| 1944 | Closed | Bug | Normal | MTs losing credit on their work. | | 1.37 |
| 1938 | Closed | Bug | Normal | FK_study_key error on reschedule of a single study to scheduling a series | | 1.37.13895 |
| 1936 | Closed | Bug | Normal | Injury details are not deleted with the Insurance Policy | Thick Client GUI | 1.2.37.13859 |
| 1928 | Closed | Bug | Normal | Users marked as INACTIVE show HTML tag in internal person search | Documentation | 1.2.37.13895 |
| 1921 | Closed | Bug | Normal | Perceived slowness when dictating in minimized mode. | Thick Client GUI | 1.37 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | | | |
|---|---|---|---|---|---|---|
| 1919 | Closed | Bug | Normal | duplicate key error when creating a new user with the same username as an already exsisting user | Admin Tools | 1.37.12812 |
| 1917 | Closed | Bug | Normal | Delete dictation and report is showing as a "Include Retrievals" type of entry | Web Services/DB | 1.37 |
| 1916 | Closed | Bug | Normal | PACS Integration - System Config Max Relevant Studies not relavant as user pref overrides it | Thick Client GUI | 1.37 |
| 1914 | Closed | Bug | Normal | MU Management Reports need Last Updated added to reports. | | 1.37 |
| 1903 | Closed | Bug | Normal | Default access level on for VOID study is FULL | | 1.37 |
| 1902 | Closed | Bug | Normal | OBject reference error from Report on Accession number | Thick Client GUI | 1.2.37.13864 |
| 1900 | Closed | Bug | Normal | CDSService using UI actions | Web Services/DB | 1.37 |
| 1893 | Closed | Bug | Normal | DBNull error when printing patient summary form | Thick Client GUI | 1.37.13858 |
| 1892 | Closed | Bug | Normal | lab order received cannot be null | Thick Client GUI | 1.37.13858 |
| 1890 | Closed | Bug | Normal | Reporting - Document Model Sync cached lookup is out of date | Thick Client GUI | 1.37 |
| 1889 | Closed | Bug | Normal | Should not be able to record a dictation if dictation screen is opened read only | | 1.37 |
| 1885 | Closed | Bug | Normal | frequent concurrency violation errors at ARS | Thick Client GUI | 1.37.13858 |
| 1879 | Closed | Bug | Normal | Management Report - Daily Summary Report | Mgt Reports | 1.37 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | | | |
|---|---|---|---|---|---|---|
| 1878 | Closed | Bug | Normal | Management Report - Transcription Dashboard | Mgt Reports | 1.37 |
| 1872 | Closed | Bug | Normal | Management Report - Transcription Dashboard | Mgt Reports | 1.37 |
| 1866 | Closed | Bug | Normal | action data does not have all studies in the study container xml | Web Services/DB | 1.37 |
| 1850 | Closed | Bug | Normal | Image Request WL - Reset filters returns "unknown worklist type" error | Thick Client GUI | 1.1.2.37.13665 |
| 1824 | Closed | Bug | Normal | MU Measures Details | Thin Client GUI | 1.37 |
| 1810 | Closed | Bug | Normal | Management Report - Transcription Dashboard | Mgt Reports | 1.37 |
| 1809 | Closed | Bug | Normal | Management Report - Transcription Dashboard | Mgt Reports | 1.37 |
| 1800 | Closed | Bug | Normal | Template/Macro editor now filtering properly on initial load | Thick Client GUI | 1.37 |
| 1799 | Closed | Bug | Normal | Sign button is missing from Dictated by Date WL | Thick Client GUI | 1.37 |
| 1792 | Closed | Bug | Normal | Null Visit.PatientClassCode causes Error opening "Edit Billing" | Thick Client GUI | 1.37 |
| 1786 | Closed | Bug | Normal | Caret not attaching automatically after opening a draft. | Thick Client GUI | 1.37 |
| 1782 | Closed | Bug | Normal | Suspend button shortcut | | 1.37 |
| 1777 | Closed | Bug | Normal | Management Report - Charge Audit Report | Mgt Reports | 1.37 |
| 1773 | Closed | Bug | Normal | Reporting - Ability to create macros from the template editor causes errors | Thick Client GUI | 1.37 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | | | |
|---|---|---|---|---|---|---|
| 1764 | Closed | Bug | Normal | Management Report - 'Time to Schedule (Seconds)' shows inconsistent number rounding. | Mgt Reports | 1.1.2.37.13347 |
| 1758 | Closed | Bug | Normal | Saving template in Template Editor | | 1.37 |
| 1756 | Closed | Bug | Normal | Management Report - Unread Exams | Mgt Reports | 1.37 |
| 1750 | Closed | Bug | Normal | Management Report - Transportation | Mgt Reports | 1.37 |
| 1741 | Closed | Bug | Normal | Assigned Radiologist needs to be on Activity List | | 1.37 |
| 1735 | Closed | Bug | Normal | Studies were being signed off on that no active billing codes were assigned | | 1.37 |
| 1733 | Closed | Bug | Normal | Reporting - Read-only in the reporting screen leaves QA and Problem active | Thin Client GUI | 1.37 |
| 1726 | Closed | Bug | Normal | Can Register ordered studies from patient folder | Thick Client GUI | 1.2.37.13347 |
| 1725 | Closed | Bug | Normal | View 'c_mgmt_sched_activity' is returning incorrect 'Hour' for 12:00 am | Mgt Reports | 1.1.2.37.13347 |
| 1721 | Closed | Bug | Normal | Enhancement to Transcription Dashboard | Mgt Reports | 1.36 |
| 1716 | Closed | Bug | Normal | Interactive Panel throws exception for non radiologist | Thick Client GUI | 1.1.2.37.13304 |
| 1715 | Closed | Bug | Normal | NewCrop a way to handle docs without a DEA number | Thick Client GUI | 1.37 |
| 1713 | Closed | Bug | Normal | Second Biopsy follow up returns error | Thick Client GUI | 1.2.37.13255 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | | | |
|---|---|---|---|---|---|---|
| 1711 | Closed | Bug | Normal | Unique contraint in Tech window when Check box in patient history grid is selected and scan doc attached then try to start the exam | Thick Client GUI | 1.2.37.13255 |
| 1709 | Closed | Bug | Normal | Dictating in minimized mode, the volumne meter is not working. | Thick Client GUI | 1.2.37.13255 |
| 1701 | Closed | Bug | Normal | unable to create outside read | Web Services/DB | 1.37 |
| 1677 | Closed | Bug | Normal | Tab text in template editor says macro. | Thick Client GUI | 1.37 |
| 1664 | Closed | Bug | Normal | Reporting - playback highlighter is red | Thick Client GUI | 1.37 |
| 1659 | Closed | Bug | Normal | Reporting - No space added when dictating measurements. | Thick Client GUI | 1.37 |
| 1657 | Closed | Bug | Normal | Setting playbackspeed on control is slow. | Thick Client GUI | 1.37 |
| 1656 | Closed | Bug | Normal | Report Editor - Ctrl+F defualt button is replace | | 1.37 |
| 1650 | Closed | Bug | Normal | Exam Done(tech only) status has Register available in patient folder | Thick Client GUI | 1.37 |
| 1629 | Closed | Bug | Normal | Diagnostic Reports not rendering with double spcacing. | Mgt Reports | B37 |
| 1628 | Closed | Bug | Normal | Signature Approval Service | Web Services/DB | 1.36 |
| 1617 | Closed | Bug | Normal | Changing association of scan docs on Scheduling/Registration form doesn't "stick" | Thick Client GUI | 1.37 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | | | |
|---|---|---|---|---|---|---|
| 1611 | Closed | Bug | Normal | View Template - Base Dropdowns visible and enabled | Thick Client GUI | 1.37 |
| 1608 | Closed | Bug | Normal | Referring column not added to the Dictated by Date and All Dictated work lists | Thick Client GUI | 1.37 |
| 1606 | Closed | Bug | Normal | Dictate window getting Error on GetData/DisplayData | Thick Client GUI | 1.37 |
| 1602 | Closed | Bug | Normal | RIS - Update installer does not install properly after "Multiple zip files error" | Thick Client GUI | 1.36 |
| 1601 | Closed | Bug | Normal | When set to 'floating' template browser disappears after you create / edit a template | Thick Client GUI | 1.2.37.12837 |
| 1597 | Closed | Bug | Normal | WPR workflow null exception when user opts not to create WPR study | Thick Client GUI | 1.37 |
| 1576 | Closed | Bug | Normal | Saving a new order can cause an empty "Patient Mode" list... | | 1.37 |
| 1570 | Closed | Bug | Normal | Data consistency error with composite study | Thick Client GUI | 1.37 |
| 1568 | Closed | Bug | Normal | Installation Directory Name | Thick Client GUI | 1.37 |
| 1536 | Closed | Bug | Normal | Tech WL --> right click cancel a Checked In study = Object reference error | Thin Client GUI | 1.2.37.12746 |
| 1503 | Closed | Bug | Normal | Unknown referring match allows you to match an unknown referring to another unknown referring | Thick Client GUI | 1.37 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | | | |
|---|---|---|---|---|---|---|
| 1446 | Closed | Bug | Normal | View Macro with description of Test Here - Error inserting selected normal with exception: The value for column 'name' in table 'l_macro' is DBNull | Thick Client GUI | 1.37 |
| 1354 | Closed | Bug | Normal | Management reports - when subreport for 'Report Turnaround' is open in the report viewer in RIS, and you click on a different management report, RIS throws an error. | Mgt Reports | 1.1.36.11197 |
| 1336 | Closed | Bug | Normal | on dated WL, adding or deleting a rView will change the display text for the "date" | Thick Client GUI | 1.37 |
| 1319 | Closed | Bug | Normal | View Edit button is not enabled for cancelled status | Thick Client GUI | 1.35 |
| 1287 | Closed | Bug | Normal | Carriers flagged as inactive cannt be found in search. | Admin Tools | 1.36 |
| 1219 | Closed | Bug | Normal | Unable to delete billing codes | Thick Client GUI | 1.36 |
| 1214 | Closed | Bug | Normal | From diagnose screen choosing Referring Extended from View Menu does not show pane | Thick Client GUI | 1.36 |
| 1202 | Closed | Bug | Normal | Registering studies early should pick current time | Thick Client GUI | 1.36 |
| 1190 | Closed | Bug | Normal | Error message appears twice | Thick Client GUI | 1.36 |
| 1179 | Closed | Bug | Normal | Walk-in | Thick Client GUI | 1.36 |
| 1111 | Closed | Bug | Normal | Billing exception for unknown carrier. | Thick Client GUI | 1.35 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | | | |
|---|---|---|---|---|---|---|
| 1084 | Closed | Bug | Normal | External patients can be scheduled without having "System" MRN | Thick Client GUI | 1.35 |
| 1070 | Closed | Bug | Normal | Rescheduling an order that has a study cancelled will still show the cancelled study | Thick Client GUI | 1.35 |
| 1062 | Closed | Bug | Normal | Edit order with multiple procedures change one procedure and save | Thick Client GUI | 1.35 |
| 1020 | Closed | Bug | Normal | As SchedAdmin, add study to existing list of studies generates duplicate key | Thick Client GUI | 1.35 |
| 993 | Closed | Bug | Normal | When user opens "Appointment Book" from the Scheduling menu, the Left, right, and Refresh buttons (green) appear enabled but in fact are disabled until one of the dropdown menus are accessed. | Thick Client GUI | 1.* |
| 927 | Closed | Bug | Normal | Issue with procedure picker type ahead when procedure is removed. | Thick Client GUI | 1.34 |
| 1822 | Closed | Bug | Low | Reporting - Speech Mike 3 barcoding will not work | Thick Client GUI | 1.37 |
| 1781 | Closed | Bug | Low | Submit/Transcribe button shortcuts | | 1.37 |
| 1765 | Closed | Bug | Low | Blook worklist: items are not removed when MU entery marked inactive | Thick Client GUI | 1.37 |
| 1742 | Closed | Bug | Low | Activity WL needs "Assign to Rad" context menu | Thick Client GUI | 1.37 |
| 1666 | Closed | Bug | Low | Template Browser > View template prompted to save changes on close | Thick Client GUI | 1.2.37.13040 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | | | |
|---|---|---|---|---|---|---|
| 1665 | Closed | Bug | Low | Blank help about message | Thick Client GUI | 1.2.37.13040 |
| 1610 | Closed | Bug | Low | If Patient Class for Tech Only is missing, scheduling from Orders to Schedule gives strange error. | Thick Client GUI | 1.37 |
| 1603 | Closed | Bug | Low | Action pending (Internal Patient) doensn't have suspended flag on work list remvoed | Thick Client GUI | 1.37 |
| 1595 | Closed | Bug | Low | Message boxes not focusing default button. | Thick Client GUI | 1.37 |
| 1586 | Closed | Bug | Low | Not Contains Worklist filtering does not work | Thick Client GUI | 1.37 |
| 1553 | Closed | Bug | Low | View menu option disabled on attachements in Patient edit | Thick Client GUI | 1.37 |
| 1540 | Closed | Bug | Low | GUI hung | Thick Client GUI | 1.2.37.12724 |
| 1501 | Closed | Bug | Low | Sync Labwork work list name | Thick Client GUI | 1.37 |
| 1433 | Closed | Bug | Low | Need to reduce flickering on save | | 1.37 |
| 1369 | Closed | Bug | Low | Field name is needed for message prompt on missing field data | Thick Client GUI | 1.36 |
| 1162 | Closed | Bug | Low | Error from entering alpha numeric number in allergy field | Thick Client GUI | 1.36 |
| 1128 | Closed | Bug | Low | "All Dictated" worklist does not have option to "Transcribe" | Thin Client GUI | 1.35.10273 |
| 1024 | Closed | Bug | Low | Exception thrown when changing room in Confirmation window. | Thick Client GUI | 1.35 |
| 975 | Closed | Bug | Low | Billing exceptions WL Shows non-signed studies | | 1.* |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | | | |
|---|---|---|---|---|---|---|
| 748 | Closed | Bug | Low | Patient Folder > nuggets can overlap with column to the right | Thick Client GUI | 1.27 |

# 7. Resolved Defects Build 38.001

| Redmine # | Subject | Priority |
|---|---|---|
| 2421 | image_request completed date Error | Normal |
| 2416 | Reporting - Add user preference for Correction dialogue box | Normal |
| 2415 | scheduled_start_date column does not belong to c_client_worklist error when starting/completing an exam | Normal |
| 2335 | audit history does not display scrollbar when required | High |
| 2332 | When user schedules multiple studies, and cancels any of those studies, the billing codes are still appearing in IVT, and are marked as active | High |
| 2326 | Laterality check | High |
| 2323 | Resolve 7 vs 8 day retrieval for scheduling query | High |
| 2321 | Update priority of insurance | High |
| 2320 | Add IVT flag in Pending IVT status | High |
| 2313 | Set up Request reminder on Review Tab to be security driven | High |
| 2300 | Reporting - Commands button in user preferences remove | Normal |
| 2291 | ExamDoneTechOnly studies are not dropping off MWL after completion | Urgent |
| 2290 | Reporting - No sign button on Signed Pending Release | High |
| 2289 | Can save as order without procedure | Urgent |
| 2246 | Reporting - Interactive Dictation SpeechMike buttons not working when set to SubmitAduio | High |
| 2231 | MT Polling error in GetNextData | High |
| 2183 | Management Reports - Accession Milestone Times | Normal |
| 2094 | NPI Clearing out when clicking the grid for first person searched | Urgent |
| 2024 | Reporting - Macro Lookup Table taking a long time | High |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 8. Defects Resolved Build 38.002

| Redmine # | Subject | Priority |
|---|---|---|
| 2498 | Close application while minimized, after logging in again the application does not appear | Normal |
| 2246 | Reporting - Interactive Dictation SpeechMike buttons not working when set to SubmitAduio | High |

# 9. Known Limitations – Please see this section for important information

The following are Bugs Suggested Features and Support Issues found in build 1.38. This build is the current QE build and testing is ongoing. The list may increase in size. This document will not be updated or re-released.

I would like to elaborate on a few of the bugs listed known limitations in this list below:

**Bug # 2209** – New work flow introduced that can be found in New Features section of this document. The previous work lists that contained studies marked for QA are no longer in the application. As a work around users may access the All Pending Dictation or the All Reports Drafted work lists and apply a filter on the QA column for results.

**Bug # 2178** – Grids within the application can present a large Red X that will cover the area in which the grid was. This is usually the result of rapid mouse clicks in a grid or a cell within the grid. To avoid this issue do not rapidly click from one cell to the next within grids. Grids are found in most lookup tables, the Mange Policies window, the Insurance Policies data pane on the order tab, etc…

**Bug # 2149** – Image Uploader was to be a new feature in Build 38. Late changes in the application had an adverse effect on this lookup table in which the images would not attach to the row properly. The will not affect the application and Image Uploader lookup table can be hidden from the Administration > Configure menu by not granting any UserGroups the permission for access string Config.LookupEditor.ImageUploader. The access string should be set to "none" by default in the AccessString lookup table.

| # | Status | Priority | Subject |
|---|---|---|---|
| 2209 | New | High | All QA studies WL missing |
| 2178 | QE Rejected | High | RED X appearing on Insurance Policies grid |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| 2149 | New | High | Lookup Editor - Image Uploader |
| 2074 | New | High | Patient distribution history - New button throws exception |
| 1829 | QE Rejected | High | Memory leak introduced in B38, needs to be fixed. |
| 2215 | New | Normal | Schedule details grid refresh issue |
| 2214 | New | Normal | Image request with scheduled study tab show (0) in registration window |
| 2199 | New | Normal | INTERNAL PATIENT - Suspend and continue throws exception |
| 2197 | New | Normal | User occasionally has to click previous / next multiple times to move to the prev / next date when on a date worklist |
| 2195 | New | Normal | When user has 4 or more procedures to schedule, the 'Details' window cuts off the top procedure in the top time slot |
| 2194 | New | Normal | Tech Only - External Report Workflow |
| 2193 | New | Normal | Image request not saving "Same as requested by" |
| 2192 | New | Normal | Image request on discontinued exams |
| 2190 | New | Normal | Error On Edit Image Request on Tech screen after status change |
| 2185 | New | Normal | eRx - Practice Zip Code Invalid characters |
| 2182 | New | Normal | Procedure picker row does not display procedure code |
| 2176 | New | Normal | Error on fast clicking schedule button |
| 2171 | New | Normal | Large historical patient notes will display double scroll bars |
| 2170 | New | Normal | Cache Problem when changing user Permissions |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| 2166 | New | Normal | Inactive referring addresses cause issues later in work flow |
| 2163 | New | Normal | Studies in Edits Pending QA can be signed off |
| 2162 | New | Normal | Cannot create a scantype with a document level or order level |
| 2159 | New | Normal | QA Work flow - Reports verified are sent to Signed, Pending Release WL again |
| 2155 | New | Normal | Schedule Group drop down clears out when you hit save |
| 2151 | New | Normal | Audit log should show user friendly terminology |
| 2150 | New | Normal | Audit log displaying user who released report as UI_ReportSIgned |
| 2137 | New | Normal | Reporting - Skip and continue external reports loop |
| 2117 | New | Normal | 'Assigned radiologist is required due to referring's preference. |
| 2099 | New | Normal | can't clear selection of dataset when creating an auto macro |
| 2097 | New | Normal | duplicate field insertion when editing field in auto macro editor |
| 2096 | New | Normal | Reschedule on locked exam does not prompt that the booking is locked. |
| 2094 | New | Normal | NPI Clearing out when clicking the grid for first person searched |
| 2091 | New | Normal | Confirmation Review tab |
| 2089 | New | Normal | Referring Search |
| 2087 | New | Normal | Macro Editor - Modifying Macro's Default keeps inserting it |
| 2086 | New | Normal | Edit Address on user |
| 2070 | New | Normal | Internal Person Search - Can search with blank criteria causing exception |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| 2068 | New | Normal | Perform exam throws error on complete |
| 2067 | New | Normal | Walk-in - New Patient - Issue with Patient Folder displaying patient name |
| 2063 | New | Normal | Cancelled appointment requires default fields |
| 2054 | New | Normal | New user cannot access WL |
| 2039 | New | Normal | Print preview of Dx Report within transcription window when multiple addendums |
| 2018 | New | Normal | Reporting - Resolve Problem Assign to other rad will leave previously assigned if not selected |
| 1894 | New | Normal | validation of dtpScheduleDate failed |
| 1873 | New | Normal | Object error in system config lookup |
| 1842 | New | Normal | Reporting - CdsInterctive Text Color not consitent |
| 1830 | New | Normal | Interactive dictation - Correct selected text removes space when inserted into the report |
| 1819 | New | Normal | Studies can be scheduled on any modality (despite config) |
| 1804 | In Progress | Normal | View / Edit a cancelled exam prompts for required fields on Documentation tab |
| 1795 | New | Normal | Saving Manage Policies window add new column to Insurance policy grid |
| 1794 | New | Normal | Reporting - New setting to run report verification when in QA workflow |
| 2213 | New | Low | Image request location list box |
| 2210 | New | Low | Payments range message |
| 2201 | New | Low | Interactive Panel label for Playback / Recording cut off |
| 2196 | New | Low | Check in date - cast error |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| 2187 | New | Low | Scheduling - Testing Procedure Plan(Darcy duration 0 test) |
| 2180 | New | Low | When we wrap buttons in patient folder due to screen resolution, the wrong button wraps |
| 2173 | New | Low | Configure Save button |
| 2169 | New | Low | UserGroupPermission - Able to enter non validate access strings |
| 2168 | New | Low | Chair Workflow - Able to remove a chair from the lookup that have the chair assigned to a study |
| 2142 | New | Low | Reschedule permission does not make 'reschedule' appear in context menu |
| 2106 | New | Low | Lookup Editor - TemplateMacro Should have Double click functionality |
| 2105 | New | Low | Lookup Editor -TemplateMacro |
| 2088 | New | Low | Macro Editor - Tab Order needs to be reveiwed |
| 2079 | New | Low | Overbook Reason - No max length, causes exception |
| 2071 | New | Low | Window handle error from Dictate window |
| 2069 | New | Low | Add image request to Discontinued study |
| 1991 | New | Low | Locked RIS may not show in taskbar |
| 1855 | New | Low | Reporting - Exam details - Proceudre name my not display completely |
| 1853 | New | Low | QualityReviewDistribution is not listed alphabetically in General menu |
| 1797 | In Progress | Low | Perferred Language field is not marked as required when on the patient tab |
| 1783 | New | Low | Chair Workflow - Select a chair dialog I can type in the dropdown. |
| 1744 | New | Low | Preferred Rad Assignment window bottom border missing |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# Server Update

For eRAD RIS
Version 1.0
Build 38
Update 38.001

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Purpose ..... 3
   Defects resolved ..... 3
2. Package Contents ..... 4
3. Intended Audience ..... 6
4. Who is affected ..... 6
5. eRAD RIS Release Version Numbers ..... 6
6. Installing ..... 7

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 1. Purpose

This server update has been produced to fix bugs required for production setting, or to complete an enhancement requested for production.

This server update includes the following:

## Defects resolved

| Redmine # | Subject | Priority |
|---|---|---|
| 2421 | image_request completed date Erro | Normal |
| 2416 | Reporting - Add user preference for Correction dialogue box | Normal |
| 2415 | scheduled_start_date column does not belong to c_client_worklist error when starting/completing an exam | Normal |
| 2335 | audit history does not display scrollbar when required | High |
| 2332 | When user schedules multiple studies, and cancels any of those studies, the billing codes are still appearing in IVT, and are marked as active | High |
| 2326 | Laterality check | High |
| 2323 | Resolve 7 vs 8 day retrieval for scheduling query | High |
| 2321 | Update priority of insurance | High |
| 2320 | Add IVT flag in Pending IVT status | High |
| 2313 | Set up Request reminder on Review Tab to be security driven | High |
| 2300 | Reporting - Commands button in user preferences remove | Normal |
| 2291 | ExamDoneTechOnly studies are not dropping off MWL after completion | Urgent |
| 2290 | Reporting - No sign button on Signed Pending Release | High |
| 2289 | Can save as order without procedure | Urgent |
| 2246 | Reporting - Interactive Dictation SpeechMike buttons not working when set to SubmitAduio | High |
| 2231 | MT Polling error in GetNextData | High |
| 2183 | Management Reports - Accession Milestone Times | Normal |
| 2094 | NPI Clearing out when clicking the grid for first person searched | Urgent |
| 2024 | Reporting - Macro Lookup Table taking a long time | High |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## 2. Package Contents

Files included for this server update:

1. GUI ZIP Updates folder contains
    a. AudioLib.dll
    b. AudioLib.pdb
    c. CDSJobManagerConsoleClient.exe
    d. CDSJobManagerConsoleClient.pdb
    e. CommonLib.dll
    f. CommonLib.pdb
    g. Diagram Paint.pdb
    h. DynamicFormEditor.dll
    i. DynamicFormEditor.pdb
    j. MessageHelper.pdb
    k. ris.exe
    l. ris.pdb
    m. rupdate.pdb
    n. UILib.dll
    o. UILib.pdb
    p. WCFClient.exe
    q. WCFClient.pdb
    r. WSNewCropClient.exe
    s. WSNewCropClient.pdb

2. RIS Service Updates folder contains
    a. CDSJobManager.dll
    b. CDSJobManager.pdb
    c. CommonLib.dll
    d. CommonLib.pdb
    e. DDEngine.dll
    f. DDEngine.pdb
    g. rRISServices.exe
    h. rRISServices.exe.config
    i. rRISServices.pdb
    j. rRISServices.vshost.exe
    k. ScheduledTaskManager.dll
    l. ScheduledTaskManager.pdb
    m. SignatureApprovalService.exe
    n. SignatureApprovalService.pdb
    o. WCFService.dll
    p. WCFService.pdb
    q. WebApi.dll
    r. WebApi.pdb

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

   s. Wedge.exe
   t. Wedge.pdb

3. SQL folder contains:
   a. B38_001.sql
4. CoreInstall folder contains:
   a. rRisSetup.msi
   b. setup.exe

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## 3. Intended Audience

This document is created by the RIS Development team for the RadNet RIS Implementation team.

## 4. Who is affected

Previous versions of build 38.
Server updates may not be cumulative; therefore this server updated must be applied directly to the previous server update.

## 5. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 37 | - | 1.2.37.12843 | 1.2.37.12782 | 1.2.37.12843 | 1.2.37.12843 | |
| 37 | 1 | 1.2.37.13040 | 1.2.37.13040 | 1.2.37.13039 | 1.2.37.13003 | |
| 37 | 2 | 1.2.37.13069 | 1.2.37.13040 | 1.2.37.13069 | 1.2.37.13003 | |
| 37 | 3 | 1.2.37.13069 | 1.2.37.13040 | 1.2.37.13069 | 1.2.37.13003 | Just WebAPI updated, no version changes |
| 37 | 4 | 1.2.37.13171 | 1.2.37.13040 | 1.2.37.13165 | 1.2.37.13171 | |
| 37 | 5 | 1.2.37.13347 | 1.2.37.13040 | 1.2.37.12979 | 1.2.37.12979 | Bug was discovered with version numbers, this is why it appears we went backwards in the version number but we really did not. |
| 37 | 6 | 1.2.37.13665 | 1.2.37.13040 | 1.2.37.13580 | 1.2.37.12979 | |
| 37 | 7 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13799 | 1.2.37.13807 | |
| 37 | 8 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13827 | 1.2.37.13807 | |
| 37 | 9 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13839 | 1.2.37.13807 | |
| 37 | 10 | 1.2.37.13895 | 1.2.37.13040 | 1.2.37.13895 | 1.2.37.13895 | |
| 37 | 11 | 1.2.37.14161 | 1.2.37.13040 | 1.2.37.14161 | 1.2.37.14161 | |
| 37 | 12 | 1.2.37.14285 | 1.2.37.13040 | 1.2.37.14300 | 1.2.37.14285 | |
| 37 | 13 | 1.2.37.14326 | 1.2.37.13040 | 1.2.37.14326 | 1.2.37.14326 | |
| 38 | - | 1.2.38.14486 | 1.2.38.14486 | 1.2.38.14486 | 1.2.38.14486 | |
| 38 | 1 | 1.2.38.14748 | 1.2.38.14486 | 1.2.38.14748 | 1.2.38.14748 | |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## 6. Installing

1) Copy the files in the GUI ZIP Updates folder and replace those in the rRIS_1.2.38.14486.zip folder. Rename the zip file to be **rRIS_1.2.38. 14748.zip**

2) Copy and replace the files from the "CoreInstall" folder and replace the _setup folder in the RISDeployment\Core folder.

3) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService.
   *rRISService directories include:*
   *a) rRISService*
   *b) CDS rRISService*
   *c) Wedge rRISService*
   *d) DDE rRISService*

   Restart each service.

3) Run the B38_001.sql file against the eRAD RIS database instance.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

For eRAD RIS
Version 1.0
Build 38
Update 38.002

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Purpose ..... 3
   Defects resolved ..... 3
2. Package Contents ..... 4
3. Intended Audience ..... 4
4. Who is affected ..... 4
5. eRAD RIS Release Version Numbers ..... 4
6. Installing ..... 5

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 1. Purpose

This server update has been produced to fix bugs required for production setting, or to complete an enhancement requested for production.

This server update includes the following:

## Defects resolved

| Redmine # | Subject | Priority |
|---|---|---|
| 2498 | Close application while minimized, after logging in again the application does not appear | Normal |
| 2246 | Reporting - Interactive Dictation SpeechMike buttons not working when set to SubmitAduio | High |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## 2. Package Contents

Files included for this server update:

1. GUI ZIP Updates folder contains
    a. ris.exe
    b. ris.pdb

## 3. Intended Audience

This document is created by the RIS Development team for the RadNet RIS Implementation team.

## 4. Who is affected

Previous versions of build 38.
Server updates may not be cumulative; therefore this server updated must be applied directly to the previous server update.

## 5. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 37 | - | 1.2.37.12843 | 1.2.37.12782 | 1.2.37.12843 | 1.2.37.12843 | |
| 37 | 1 | 1.2.37.13040 | 1.2.37.13040 | 1.2.37.13039 | 1.2.37.13003 | |
| 37 | 2 | 1.2.37.13069 | 1.2.37.13040 | 1.2.37.13069 | 1.2.37.13003 | |
| 37 | 3 | 1.2.37.13069 | 1.2.37.13040 | 1.2.37.13069 | 1.2.37.13003 | Just WebAPI updated, no version changes |
| 37 | 4 | 1.2.37.13171 | 1.2.37.13040 | 1.2.37.13165 | 1.2.37.13171 | |
| 37 | 5 | 1.2.37.13347 | 1.2.37.13040 | 1.2.37.12979 | 1.2.37.12979 | Bug was discovered with version numbers, this is why it appears we went backwards in the version number but we really did not. |
| 37 | 6 | 1.2.37.13665 | 1.2.37.13040 | 1.2.37.13580 | 1.2.37.12979 | |
| 37 | 7 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13799 | 1.2.37.13807 | |
| 37 | 8 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13827 | 1.2.37.13807 | |
| 37 | 9 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13839 | 1.2.37.13807 | |
| 37 | 10 | 1.2.37.13895 | 1.2.37.13040 | 1.2.37.13895 | 1.2.37.13895 | |
| 37 | 11 | 1.2.37.14161 | 1.2.37.13040 | 1.2.37.14161 | 1.2.37.14161 | |
| 37 | 12 | 1.2.37.14285 | 1.2.37.13040 | 1.2.37.14300 | 1.2.37.14285 | |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

| | | | | | | |
|---|---|---|---|---|---|---|
| 37 | 13 | 1.2.37.14326 | 1.2.37.13040 | 1.2.37.14326 | 1.2.37.14326 | |
| 38 | - | 1.2.38.14486 | 1.2.38.14486 | 1.2.38.14486 | 1.2.38.14486 | |
| 38 | 1 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | |
| 38 | 2 | 1.2.38.15182 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | |

## 6. Installing

1) Copy the files in the GUI ZIP Updates folder and replace those in the rRIS_1.2.38.14748.zip folder. Rename the zip file to be **rRIS_1.2.38. 15182.zip**

**NOTE**: A core install is note required for this update. Simply exit the application and reopen to get the latest changes.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

For eRAD RIS
Version 1.0
Build 38
Update 38.003

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Purpose ..... 3
   Defects resolved ..... 3
2. Package Contents ..... 4
3. Intended Audience ..... 5
4. Who is affected ..... 5
5. eRAD RIS Release Version Numbers ..... 5
6. Installing ..... 6

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 1. Purpose

This server update has been produced to fix bugs required for production setting, or to complete an enhancement requested for production.

This server update includes the following:

## Defects resolved

| Redmine # | Subject | Priority |
|---|---|---|
| 2649 | Reporting - Field's type attribute datatype cast exception.<br>Translation – Inserting old, pre-existing macros will cause error. | High |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## 2. Package Contents

Files included for this server update:

1. GUI ZIP Updates folder contains
    a. AudioLib.dll
    b. AudioLib.pdb
    c. CDSJobManagerConsoleClient.exe
    d. CDSJobManagerConsoleClient.pdb
    e. CommonLib.dll
    f. CommonLib.pdb
    g. Diagram Paint.pdb
    h. DynamicFormEditor.dll
    i. DynamicFormEditor.pdb
    j. MessageHelper.pdb
    k. Microsoft.Practices.EnterpriseLibrary.Caching.pdb
    l. Microsoft.Practices.EnterpriseLibrary.Common.pdb
    m. Microsoft.Practices.EnterpriseLibrary.Logging.pdb
    n. Microsoft.Practices.ServiceLocation.pdb
    o. Microsoft.Practices.Unity.Interception.pdb
    p. Microsoft.Practices.Unity.pdb
    q. ris.exe
    r. ris.pdb
    s. rupdate.pdb
    t. UILib.dll
    u. UILib.pdb
    v. WCFClient.exe
    w. WCFClient.pdb
    x. WSNewCropClient.exe
    y. WSNewCropClient.pdb

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## 3. Intended Audience

This document is created by the RIS Development team for the RadNet RIS Implementation team.

## 4. Who is affected

Previous versions of build 38.
Server updates may not be cumulative; therefore this server updated must be applied directly to the previous server update.

## 5. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 37 | - | 1.2.37.12843 | 1.2.37.12782 | 1.2.37.12843 | 1.2.37.12843 | |
| 37 | 1 | 1.2.37.13040 | 1.2.37.13040 | 1.2.37.13039 | 1.2.37.13003 | |
| 37 | 2 | 1.2.37.13069 | 1.2.37.13040 | 1.2.37.13069 | 1.2.37.13003 | |
| 37 | 3 | 1.2.37.13069 | 1.2.37.13040 | 1.2.37.13069 | 1.2.37.13003 | Just WebAPI updated, no version changes |
| 37 | 4 | 1.2.37.13171 | 1.2.37.13040 | 1.2.37.13165 | 1.2.37.13171 | |
| 37 | 5 | 1.2.37.13347 | 1.2.37.13040 | 1.2.37.12979 | 1.2.37.12979 | Bug was discovered with version numbers, this is why it appears we went backwards in the version number but we really did not. |
| 37 | 6 | 1.2.37.13665 | 1.2.37.13040 | 1.2.37.13580 | 1.2.37.12979 | |
| 37 | 7 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13799 | 1.2.37.13807 | |
| 37 | 8 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13827 | 1.2.37.13807 | |
| 37 | 9 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13839 | 1.2.37.13807 | |
| 37 | 10 | 1.2.37.13895 | 1.2.37.13040 | 1.2.37.13895 | 1.2.37.13895 | |
| 37 | 11 | 1.2.37.14161 | 1.2.37.13040 | 1.2.37.14161 | 1.2.37.14161 | |
| 37 | 12 | 1.2.37.14285 | 1.2.37.13040 | 1.2.37.14300 | 1.2.37.14285 | |
| 37 | 13 | 1.2.37.14326 | 1.2.37.13040 | 1.2.37.14326 | 1.2.37.14326 | |
| 38 | - | 1.2.38.14486 | 1.2.38.14486 | 1.2.38.14486 | 1.2.38.14486 | |
| 38 | 1 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | |
| 38 | 2 | 1.2.38.15182 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | |
| 38 | 3 | 1.2.38.15251 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## 6. Installing

1) Copy the files in the GUI ZIP Updates folder and replace those in the rRIS_1.2.38.15182.zip folder. Rename the zip file to be **rRIS_1.2.38. 15251.zip**

**NOTE**: A core install is not required for this update. Simply exit the application and reopen to get the latest changes.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

For eRAD RIS
Version 1.0
Build 38
Update 38.004

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Purpose ..... 3
   Defects resolved ..... 3
2. Package Contents ..... 4
3. Intended Audience ..... 5
4. Who is affected ..... 5
5. eRAD RIS Release Version Numbers ..... 5
6. Installing ..... 6

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 1. Purpose

This server update has been produced to fix bugs required for production setting, or to complete an enhancement requested for production.

This server update includes the following:

## Defects resolved

| Redmine # | Subject | Priority |
|---|---|---|
| 2508 | MU Bug - provided clinical summary and Timely Access | High |
| 2659 | Untimely Message: You already have this order open in another tab | High |
| 2650 | CDS Manager crashes due to Quality Review Constraint Violation | Urgent |
| 2634 | Reporting - Status counts are causing delays for radiologists and transcriptionists | Immediate |
| 2279 | double clicking a button on the worklist launches a screen and then clicks a button on the screen | Normal |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## 2. Package Contents

Files included for this server update:

1. GUI ZIP Updates folder contains
    a. ris.exe
    b. ris.pdb
    c. WCFClient.exe
    d. WCFClient.pdb

2. RIS Service Updates folder contains
    a. CDSJobManager.dll
    b. CDSJobManager.pdb
    c. CommonLib.dll
    d. CommonLib.pdb
    e. DDEngine.dll
    f. DDEngine.pdb
    g. rRISServices.exe
    h. rRISServices.pdb
    i. rRISServices.vshost.exe
    j. ScheduledTaskManager.dll
    k. ScheduledTaskManager.pdb
    l. SignatureApprovalService.exe
    m. SignatureApprovalService.pdb
    n. WCFService.dll
    o. WCFService.pdb
    p. WebApi.dll
    q. WebApi.pdb
    r. Wedge.exe
    s. Wedge.pdb

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## 3. Intended Audience

This document is created by the RIS Development team for the RadNet RIS Implementation team.

## 4. Who is affected

Previous versions of build 38.
Server updates may not be cumulative; therefore this server updated must be applied directly to the previous server update.

## 5. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 37 | - | 1.2.37.12843 | 1.2.37.12782 | 1.2.37.12843 | 1.2.37.12843 | |
| 37 | 1 | 1.2.37.13040 | 1.2.37.13040 | 1.2.37.13039 | 1.2.37.13003 | |
| 37 | 2 | 1.2.37.13069 | 1.2.37.13040 | 1.2.37.13069 | 1.2.37.13003 | |
| 37 | 3 | 1.2.37.13069 | 1.2.37.13040 | 1.2.37.13069 | 1.2.37.13003 | Just WebAPI updated, no version changes |
| 37 | 4 | 1.2.37.13171 | 1.2.37.13040 | 1.2.37.13165 | 1.2.37.13171 | |
| 37 | 5 | 1.2.37.13347 | 1.2.37.13040 | 1.2.37.12979 | 1.2.37.12979 | Bug was discovered with version numbers, this is why it appears we went backwards in the version number but we really did not. |
| 37 | 6 | 1.2.37.13665 | 1.2.37.13040 | 1.2.37.13580 | 1.2.37.12979 | |
| 37 | 7 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13799 | 1.2.37.13807 | |
| 37 | 8 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13827 | 1.2.37.13807 | |
| 37 | 9 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13839 | 1.2.37.13807 | |
| 37 | 10 | 1.2.37.13895 | 1.2.37.13040 | 1.2.37.13895 | 1.2.37.13895 | |
| 37 | 11 | 1.2.37.14161 | 1.2.37.13040 | 1.2.37.14161 | 1.2.37.14161 | |
| 37 | 12 | 1.2.37.14285 | 1.2.37.13040 | 1.2.37.14300 | 1.2.37.14285 | |
| 37 | 13 | 1.2.37.14326 | 1.2.37.13040 | 1.2.37.14326 | 1.2.37.14326 | |
| 38 | - | 1.2.38.14486 | 1.2.38.14486 | 1.2.38.14486 | 1.2.38.14486 | |
| 38 | 1 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | |
| 38 | 2 | 1.2.38.15182 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | |
| 38 | 3 | 1.2.38.15251 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | |
| 38 | 4 | 1.2.38.15327 | 1.2.38.14748 | 1.2.38.15290 | 1.2.38.14748 | |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## 6. Installing

1) Copy the files in the GUI ZIP Updates folder and replace those in the rRIS_1.2.38.15251.zip folder. Rename the zip file to be **rRIS_1.2.38.15327.zip**

2) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService.
   *rRISService directories include:*
   *a) rRISService*
   *b) CDS rRISService*
   *c) Wedge rRISService*
   *d) DDE rRISService*

Restart each service.

**NOTE**: A core install is not required for this update. Simply exit the application and reopen to get the latest changes.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

For eRAD RIS
Version 1.0
Build 38
Update 38.005

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Purpose ..... 3
   Defects resolved ..... 3
2. Package Contents ..... 4
3. Intended Audience ..... 5
4. Who is affected ..... 5
5. eRAD RIS Release Version Numbers ..... 6
6. Installing ..... 7

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 1. Purpose

This server update has been produced to fix bugs required for production setting, or to complete an enhancement requested for production.

This server update includes the following:

## Defects resolved

| Redmine # | Subject | Priority |
|---|---|---|
| 2701 | constraint error on open of unknown reconciliation work list | High |
| 2731 | RIS not responding properly to multiple PACS events on same study | Normal |
| 2781 | Reporting - Interactive Dictation set to abbreviate measurements | High |
| 2783 | Reporting - Auto download recognizer needs to be turned off | High |
| 2772 | Reporting – Interactive Interop.SHDocVw | High |
| 2483 | Punctuation added within field when no punctuation was dictated. | Normal |
| 2769 | EMR Inbound orders can't be scheduled | Urgent |
| 2726 | Pacs integration message box | Urgent |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## 2. Package Contents

Files included for this server update:

1. GUI ZIP Updates folder contains
    a. rRIS_1.2.38.15513.zip

2. RIS Service Updates folder contains
    a. CDSJobManager.pdb
    b. CDSJobManager.dll
    c. CommonLib.pdb
    d. CommonLib.dll
    e. DDEngine.pdb
    f. DDEngine.dll
    g. rRISServices.pdb
    h. rRISServices.exe
    i. rRISServices.vshost.exe
    j. ScheduledTaskManager.pdb
    k. ScheduledTaskManager.dll
    l. SignatureApprovalService.pdb
    m. SignatureApprovalService.exe
    n. WCFService.pdb
    o. WCFService.dll
    p. WebApi.pdb
    q. WebApi.dll
    r. Wedge.pdb
    s. Wedge.exe

3. SQL folder contains:
    a. B38_005.sql

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## 3. Intended Audience

This document is created by the RIS Development team for the RadNet RIS Implementation team.

## 4. Who is affected

Previous versions of build 38.
Server updates may not be cumulative; therefore this server updated must be applied directly to the previous server update.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 5. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 37 | - | 1.2.37.12843 | 1.2.37.12782 | 1.2.37.12843 | 1.2.37.12843 | |
| 37 | 1 | 1.2.37.13040 | 1.2.37.13040 | 1.2.37.13039 | 1.2.37.13003 | |
| 37 | 2 | 1.2.37.13069 | 1.2.37.13040 | 1.2.37.13069 | 1.2.37.13003 | |
| 37 | 3 | 1.2.37.13069 | 1.2.37.13040 | 1.2.37.13069 | 1.2.37.13003 | Just WebAPI updated, no version changes |
| 37 | 4 | 1.2.37.13171 | 1.2.37.13040 | 1.2.37.13165 | 1.2.37.13171 | |
| 37 | 5 | 1.2.37.13347 | 1.2.37.13040 | 1.2.37.12979 | 1.2.37.12979 | Bug was discovered with version numbers, this is why it appears we went backwards in the version number but we really did not. |
| 37 | 6 | 1.2.37.13665 | 1.2.37.13040 | 1.2.37.13580 | 1.2.37.12979 | |
| 37 | 7 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13799 | 1.2.37.13807 | |
| 37 | 8 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13827 | 1.2.37.13807 | |
| 37 | 9 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13839 | 1.2.37.13807 | |
| 37 | 10 | 1.2.37.13895 | 1.2.37.13040 | 1.2.37.13895 | 1.2.37.13895 | |
| 37 | 11 | 1.2.37.14161 | 1.2.37.13040 | 1.2.37.14161 | 1.2.37.14161 | |
| 37 | 12 | 1.2.37.14267 | 1.2.37.13040 | 1.2.37.14161 | 1.2.37.14267 | |
| 37 | 13 | 1.2.37.14326 | 1.2.37.13040 | 1.2.37.14326 | 1.2.37.14326 | |
| 38 | - | 1.2.38.14486 | 1.2.38.14486 | 1.2.38.14486 | 1.2.38.14486 | |
| 38 | 1 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | |
| 38 | 2 | 1.2.38.15182 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | |
| 38 | 3 | 1.2.38.15251 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | |
| 38 | 4 | 1.2.38.15327 | 1.2.38.14748 | 1.2.38.15290 | 1.2.38.14748 | |
| 38 | 5 | 1.2.38.15513 | 1.2.38.14748 | 1.2.38.15513 | 1.2.38.15451 | |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## 6. Installing

1) Copy and replace the current rRIS…zip file with the rRIS_1.2.38.15513.zip file provided with this release. The previous GUI.zip should have been renamed to rRIS_1.2.38.15327. Be sure to make a backup of the ris.exe.config file contained within the .zip folder.

2) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService.
   *rRISService directories include:*
   *a) rRISService*
   *b) CDS rRISService*
   *c) Wedge rRISService*
   *d) DDE rRISService*

   Restart each service.

3) Run the B38_005.sql file against the eRAD RIS database instance.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

For eRAD RIS
Version 1.0
Build 38
Update 38.006

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Purpose ..... 3
   Defects resolved ..... 3
2. Package Contents ..... 3
3. Intended Audience ..... 4
4. Who is affected ..... 4
5. eRAD RIS Release Version Numbers ..... 5
6. Installing ..... 6

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 1. Purpose

This server update has been produced to fix bugs required for production setting, or to complete an enhancement requested for production.

This server update includes the following:

### Defects resolved

| Redmine # | Subject | Priority |
|---|---|---|
| 2869 | Reporting - Interactive dictation getting lost and set to 0 bytes | Urgent |
| 2876 | Transcription Dashboard not reporting self-editing radiologists properly | Normal |

# 2. Package Contents

Files included for this server update:

1. GUI ZIP Updates folder contains
    a. AudioLib.dll
    b. AudioLib.pdb
    c. Ris.exe
    d. Ris.pdb

2. SQL folder contains
    a. B38-006.sql

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## 3. Intended Audience

This document is created by the RIS Development team for the RadNet RIS Implementation team.

## 4. Who is affected

Previous versions of build 38.
Server updates may not be cumulative; therefore this server updated must be applied directly to the previous server update.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 5. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 37 | - | 1.2.37.12843 | 1.2.37.12782 | 1.2.37.12843 | 1.2.37.12843 | |
| 37 | 1 | 1.2.37.13040 | 1.2.37.13040 | 1.2.37.13039 | 1.2.37.13003 | |
| 37 | 2 | 1.2.37.13069 | 1.2.37.13040 | 1.2.37.13069 | 1.2.37.13003 | |
| 37 | 3 | 1.2.37.13069 | 1.2.37.13040 | 1.2.37.13069 | 1.2.37.13003 | Just WebAPI updated, no version changes |
| 37 | 4 | 1.2.37.13171 | 1.2.37.13040 | 1.2.37.13165 | 1.2.37.13171 | |
| 37 | 5 | 1.2.37.13347 | 1.2.37.13040 | 1.2.37.12979 | 1.2.37.12979 | Bug was discovered with version numbers, this is why it appears we went backwards in the version number but we really did not. |
| 37 | 6 | 1.2.37.13665 | 1.2.37.13040 | 1.2.37.13580 | 1.2.37.12979 | |
| 37 | 7 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13799 | 1.2.37.13807 | |
| 37 | 8 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13827 | 1.2.37.13807 | |
| 37 | 9 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13839 | 1.2.37.13807 | |
| 37 | 10 | 1.2.37.13895 | 1.2.37.13040 | 1.2.37.13895 | 1.2.37.13895 | |
| 37 | 11 | 1.2.37.14161 | 1.2.37.13040 | 1.2.37.14161 | 1.2.37.14161 | |
| 37 | 12 | 1.2.37.14267 | 1.2.37.13040 | 1.2.37.14161 | 1.2.37.14267 | |
| 37 | 13 | 1.2.37.14326 | 1.2.37.13040 | 1.2.37.14326 | 1.2.37.14326 | |
| 38 | - | 1.2.38.14486 | 1.2.38.14486 | 1.2.38.14486 | 1.2.38.14486 | |
| 38 | 1 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | |
| 38 | 2 | 1.2.38.15182 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | |
| 38 | 3 | 1.2.38.15251 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | |
| 38 | 4 | 1.2.38.15327 | 1.2.38.14748 | 1.2.38.15290 | 1.2.38.14748 | |
| 38 | 5 | 1.2.38.15513 | 1.2.38.14748 | 1.2.38.15513 | 1.2.38.15451 | |
| 38 | 6 | 1.2.38.15618 | 1.2.38.14748 | 1.2.38.15513 | 1.2.38.15618 | |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## 6. Installing

1) Copy the files in the GUI ZIP Updates folder and replace those in the rRIS_1.2.38.15513.zip folder. Rename the zip file to be **rRIS_1.2.38.15618.zip**

2) Run the B38_006.sql file against the eRAD RIS database instance.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

For eRAD RIS
Version 1.0
Build 38
Update 38.007

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Purpose ..... 3
   Defects resolved ..... 3
2. Package Contents ..... 4
3. Intended Audience ..... 4
4. Who is affected ..... 4
5. eRAD RIS Release Version Numbers ..... 5
6. Installing ..... 6

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 1. Purpose

This server update has been produced to fix bugs required for production setting, or to complete an enhancement requested for production.

This server update includes the following:

## Defects resolved

| Redmine # | Subject | Priority |
|---|---|---|
| 2884 | Hold Code Completed Status | Normal |
| 2898 | Verify and continue does not work | High |
| 2904 | HL7 messages are changing study status back in the workflow post-ExamDone | Urgent |
| 2905 | Reporting - Interactive dictation getting lost in data when refocusing after tab switch | High |
| 2908 | Reporting - inbound reporting may not open accession numbers tried once with an error | High |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## 2. Package Contents

Files included for this server update:

1. GUI ZIP Updates folder contains
    a. rRIS_1.2.38.15768.zip

2. RIS Service Updates folder contains
    a. CDSJobManager.pdb
    b. CDSJobManager.dll
    c. CommonLib.pdb
    d. CommonLib.dll
    e. DDEngine.pdb
    f. DDEngine.dll
    g. rRISServices.pdb
    h. rRISServices.exe
    i. rRISServices.vshost.exe
    j. ScheduledTaskManager.pdb
    k. ScheduledTaskManager.dll
    l. SignatureApprovalService.pdb
    m. SignatureApprovalService.exe
    n. WCFService.pdb
    o. WCFService.dll
    p. WebApi.pdb
    q. WebApi.dll
    r. Wedge.pdb
    s. Wedge.exe

## 3. Intended Audience

This document is created by the RIS Development team for the RadNet RIS Implementation team.

## 4. Who is affected

Previous versions of build 38.
Server updates may not be cumulative; therefore this server updated must be applied directly to the previous server update.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 5. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 37 | - | 1.2.37.12843 | 1.2.37.12782 | 1.2.37.12843 | 1.2.37.12843 | |
| 37 | 1 | 1.2.37.13040 | 1.2.37.13040 | 1.2.37.13039 | 1.2.37.13003 | |
| 37 | 2 | 1.2.37.13069 | 1.2.37.13040 | 1.2.37.13069 | 1.2.37.13003 | |
| 37 | 3 | 1.2.37.13069 | 1.2.37.13040 | 1.2.37.13069 | 1.2.37.13003 | Just WebAPI updated, no version changes |
| 37 | 4 | 1.2.37.13171 | 1.2.37.13040 | 1.2.37.13165 | 1.2.37.13171 | |
| 37 | 5 | 1.2.37.13347 | 1.2.37.13040 | 1.2.37.12979 | 1.2.37.12979 | Bug was discovered with version numbers, this is why it appears we went backwards in the version number but we really did not. |
| 37 | 6 | 1.2.37.13665 | 1.2.37.13040 | 1.2.37.13580 | 1.2.37.12979 | |
| 37 | 7 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13799 | 1.2.37.13807 | |
| 37 | 8 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13827 | 1.2.37.13807 | |
| 37 | 9 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13839 | 1.2.37.13807 | |
| 37 | 10 | 1.2.37.13895 | 1.2.37.13040 | 1.2.37.13895 | 1.2.37.13895 | |
| 37 | 11 | 1.2.37.14161 | 1.2.37.13040 | 1.2.37.14161 | 1.2.37.14161 | |
| 37 | 12 | 1.2.37.14267 | 1.2.37.13040 | 1.2.37.14161 | 1.2.37.14267 | |
| 37 | 13 | 1.2.37.14326 | 1.2.37.13040 | 1.2.37.14326 | 1.2.37.14326 | |
| 38 | - | 1.2.38.14486 | 1.2.38.14486 | 1.2.38.14486 | 1.2.38.14486 | |
| 38 | 1 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | |
| 38 | 2 | 1.2.38.15182 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | |
| 38 | 3 | 1.2.38.15251 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | |
| 38 | 4 | 1.2.38.15327 | 1.2.38.14748 | 1.2.38.15290 | 1.2.38.14748 | |
| 38 | 5 | 1.2.38.15513 | 1.2.38.14748 | 1.2.38.15513 | 1.2.38.15451 | |
| 38 | 6 | 1.2.38.15618 | 1.2.38.14748 | 1.2.38.15513 | 1.2.38.15618 | |
| 38 | 7 | 1.2.38.15768 | 1.2.38.14748 | 1.2.38.15768 | 1.2.38.15618 | |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## 6. Installing

1) Copy the zip file to be **rRIS_1.2.38.15768.zip** file from the GUI ZIP Updates folder to the RISDeployment\Build folder. Move the rRIS_1.2.38.15618.zip folder to its backup location. No changes to the ris.exe.config settings file that is contained within the .zip folder.

2) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService.
   *rRISService directories include:*
   *a) rRISService*
   *b) CDS rRISService*
   *c) Wedge rRISService*
   *d) DDE rRISService*

   Restart each service.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# User Release Notes

for eRAD RIS
Version 1
Build 39

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# Table of Contents

1. Purpose ..... 3
2. Intended Audience ..... 3
3. Installing/Accessing the Application ..... 3
4. New Access Strings and Configuration Settings ..... 4
5. New Features and Enhancements ..... 7
Mammo – Ignored Reminder Removal from Mammo Letters Work List ..... 7
Retrieve Locked by User Name ..... 9
Carrier Information from Insurance Policy Grid ..... 10
Ability to Split Studies on Existing Order ..... 11
CD Import ..... 13
PACS Image Caching ..... 18
Reporting – Enhancements to Navigation ..... 21
Reporting – Report History availability ..... 26
Reporting – Default Layout Views for Reporting Window ..... 27
Reporting – Playback Highlighter Color ..... 28
Reporting – Field Tool Window ..... 29
Reporting – Mute Playback on Rewind and Fast Forward ..... 31
Reporting – Auto reposition of minimized dictation window ..... 32
Reporting – Patient History Enhancements ..... 33
Reporting – Attachment Viewer Enhancements for Patient Folder ..... 42
Reporting – Tool Window Boarders ..... 46
Reporting – Patient Folder Back color Preferences ..... 48
Meaningful Use - Scorecard Rollup Tables ..... 49
Meaningful Use – Smoking Status Phase 2 ..... 51
Scan Document Archive ..... 52
Management Report – Daily Summary Report ..... 56
Management Report – Biopsy Results Pending ..... 57
Management Report – Chief Complaint Audit Enhancement ..... 59
Management Report – Daily Schedule Add Ons ..... 60
Management Report – ICM Dashboard Enhancements ..... 61
Management Report – Image Request History ..... 62
Management Report – IVT User Activity ..... 63
Management Report – MQSA Outcome Report ..... 64
Management Report – NM Therapy Patient Listing ..... 65
Management Report – Patients Without Insurance ..... 66
Management Report – Radiologist Dashboard Enhancement ..... 67
Management Report – Referrals by Physician List ..... 68
Management Report – RTAT Detail Mammo ..... 69

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

Management Report – Technologist Unfinished Exams ..... 70
Management Report – West Coast Transcription Dashboard..... 71
6. RIS Release Version Numbers ..... 73
7. Resolved Defects ..... 74
8. Known Limitations ..... 84

# 1. Purpose

This document describes some of the new features and changes implemented in eRAD RIS as of the end of Sprint 39. This version of eRAD RIS is referred to as Build 1.3.39.

Only features which can be visually demonstrated to the user will be outlined in this document.

# 2. Intended Audience

This document is created by the RIS Development team for the RadNet RIS management team.

# 3. Installing/Accessing the Application

The installation guide for the eRAD RIS client have been posted to the RadNet Wiki page at http://mdbal01rdtweb/Wiki/

Under the RIS menu click on the rRIS page. The credentials to access the page are:
Username: rRIS
Password: Summerside

*Please note that Build 1.39 is considered a new core release of the application and will require a reinstallation of eRAD RIS. This is accomplished by navigating to the eRAD RIS shared installation drive and running the CoreInstall.bat file (ex: I:\RISDeployment\CoreInstall.bat)*

If you experience difficulties accessing the application please do not hesitate to contact Darcy Noye with the PEI RIS Development Team.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 4. New Access Strings and Configuration Settings

| Setting Placeholder | Setting | Default | Controls Access to |
|---|---|---|---|
| Access string / User Group Permission tables | Clinical.Schedule.SplittingOrders | none | Controls access to split an order in the registration window |
| rRISServices.exe.config | <serviceThrottling<br>maxConcurrentCalls="2000"<br>maxConcurrentSessions="4000'<br>maxConcurrentInstances="4000" | Was 100, 50, and 50.<br>Will now be 2000, 4000 and 4000 | This is a pre-existing setting that controls the amount of concurrent users. The previous values were 50, 100, and 100 consectutively. |
| Access string / User Group Permission tables | Clinical.ImportCD | None | Controls access to Import CD option from patient folder. |
| SystemConfig table | *PACSCacheDelimiter* | ^ | Determines the delimeter to be used to separate user ids in the PACS cache field |
| SystemConfig table | *PACSCacheServer* | | Determines the PACS work list server used for setting and retrieving the cache field |
| SystemConfig table | PACSCacheField | UDF7 | Determines the field used in the PACS to indicate that the study should be cached |
| SystemConfig table | PACSCachingEnabled | False | Number of studies allowable to cache per user |
| SystemConfig table | PACSMaxNumCachedStudies | 5 | Determines if the PACS image caching functionality is enabled |
| SystemConfig table | PACSCacheFieldLength | 32 | Indicates the expected length of the PACS Cache field in the PACS database |
| Access string / User Group Permission tables | *Clinical.CacheStudy* | None | Allows the user to manually add a study to |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| | | | the cache |
| Access string / User Group Permission tables | Clinical.RISAdminChangeStatus | None | allows a RIS administrator to make changes to the status of an exam that might not be possible otherwise |
| Access string / User Group Permission tables | Config.LookupEditor.ScanDocumentArchiveLocation | None | Controls access to the lookup table under the Configure menu item |
| SystemConfig table | ScanDocumentMaxSizeInDB | 2147483647 | The maximum size in GB that the system will persist scans documents directly in the db. When this value is exceeded the archive process will begin (at its next run time interval) to move scan documents to the archive. |
| SystemConfig table | ScanDocumentMinSizeInDB | 2147483647 | When scan document archiving is initiated, this is the minimum size in GB that the system will reduce the amount of scans documents that are persist directly in the db. |
| SystemConfig table | ScanDocumentArchiveCurrentLocation | | The archive location where the archive process will move scan documents to. The value must match a value in the l_scan_document_archive lookup table. |
| SystemConfig table | ScanDocumentArchiveStartTime | 00:00:00 | The time of day in hh:mi format (24 hour) that the scan document archive process can wake up. |
| SystemConfig table | ScanDocumentArchiveStopTime | 00:00:00 | The time of day in hh:mi format (24 hour) that the scan document archive |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| | | | process must stop. ~~Does not have to be greater~~~~greater~~If less than ScanDocumentArchiveStartTime then the process will continue to the next day until the time is reached. |
| SystemConfig table | ScanDocumentArchiveDaysOfTheWeek | 0,1,2,3,4,5,6 | A comma separated list of days that the archive process will wake up to see if there is work. The list is contains numbers representing the day number within the week, where:<br><br>0 is Sunday<br>1 is Monday<br>2 is Tuesday<br>3 is Wednesday<br>4 is Thursday,<br>5 is Friday<br>6 is Saturday<br><br>For example, a value of 0,1,2,3,4,5,6 means that the archive process will run every day of the week. |
| | ScanDocumentArchiveServerNames | | A comma separated list of server names that are allowed to run the archive service. |
| | ScanDocumentArchiveMaxThreads | 6 | The maximum number of thread the scan document archive process can use within one process. |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 5. New Features and Enhancements

## Mammo – Ignored Reminder Removal from Mammo Letters Work List

The Mammo Letters WL contains the letters to be sent to patients that have upcoming or missed exam dates for follow up mammo exams. We can generate up to 3 reminder letters that will appear on the Mammo Letters WL from a pre-configured time. When the last letter is generated and a follow up order is not scheduled, we then create an Ignored Reminder on the WL when 60 days has passed since the last letter was generated.

The issue we had with the ignored reminder is that if the follow up was scheduled as a new appointment and not from the follow up order itself, we had no way of removing the ignored reminder from the Mammo Letters WL.

We have added a new System Configuration variable:
**IgnoredRemindersMaxDays** with a default value of 7 days. This value can be changed to the practices desired time in day's length. The **IgnoredRemindersMaxDays** allows the practice to set the amount of days the ignored reminder will remain on the Mammo Letters WL after the reminder was generated.

We have added a second System Configuration variable:
**IgnoredRemindersStartDays** with a default of 60 days. This will allow the practice to configure the time in days that an ignored reminder is generated after the last letter was created.

Example – A the third and final reminder letter was generated 30 days past the target exam date. Using the default value for I**gnoredRemindersStartDays,** the ignored reminder will be created 60 days past the last letter generation date. The ignored reminder will remain on the WL until the **IgnoredRemindersMaxDays** configured value is met, with 7 days being the default. Then the ignored reminder is removed from the WL.

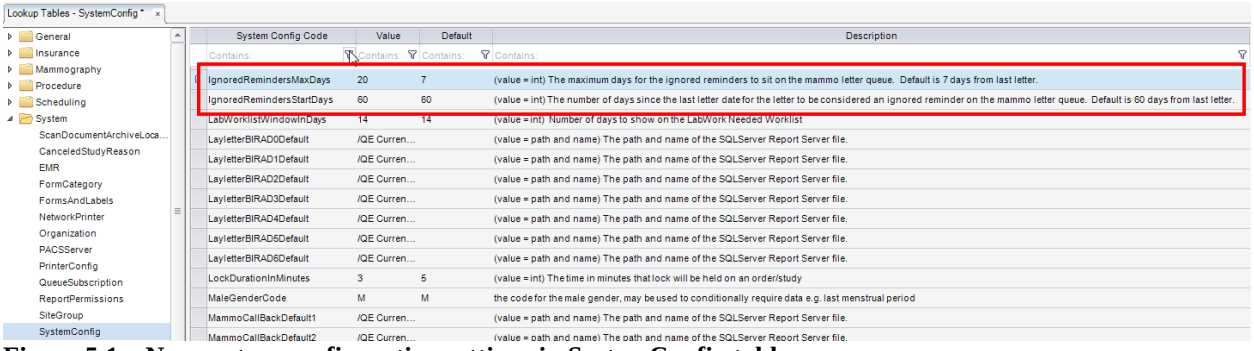


**Figure 5.1 – New system configuration settings in SystemConfig table**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Retrieve Locked by User Name

Today in eRAD RIS we don't let locked or taken time slots to appear in the scheduled search grid in the new appointment window. Users do still have the option to select the time from the Appointment Book, from the Scheduled Date control from the procedure picker row on the Schedule tab and also from the Calendar window also access from the procedure picker row.

If the time selected is currently locked by another user, we will try to obtain the user and person information.

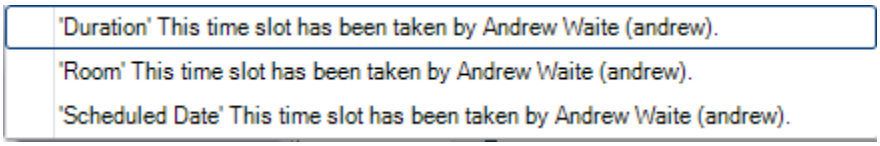



**Figure 5.2 – Locked time block user name and person information information**

If the person information is not obtainable, we will display at the very least the user name.

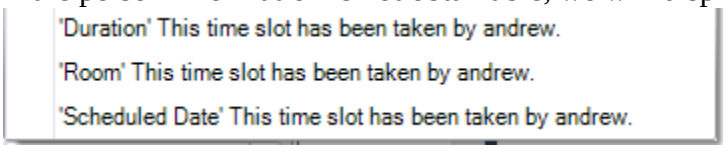



**Figure 5.3 – Locked time block user name only**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Carrier Information from Insurance Policy Grid

To assist users in easily obtaining the insurance carrier contact information we have added a context menu to the Insurance Policies grid located on the order tab of most data windows.

When the carrier name is present in the Insurance Policies grid, a right click on the carrier row displays a new menu option of Carrier Details.

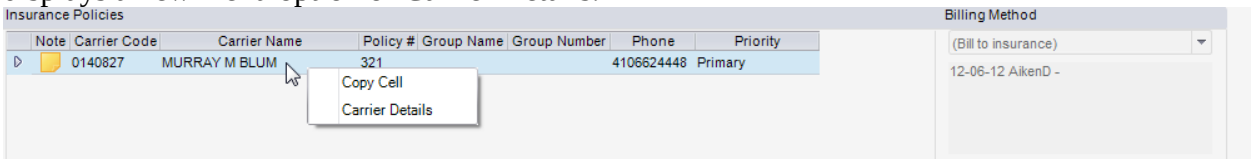



**Figure 5.4 – Access to Carrier Details from Insurance Policies grid**

Selecting the Carrier Details option from the menu provided will open the Carrier Details window with available contact information.

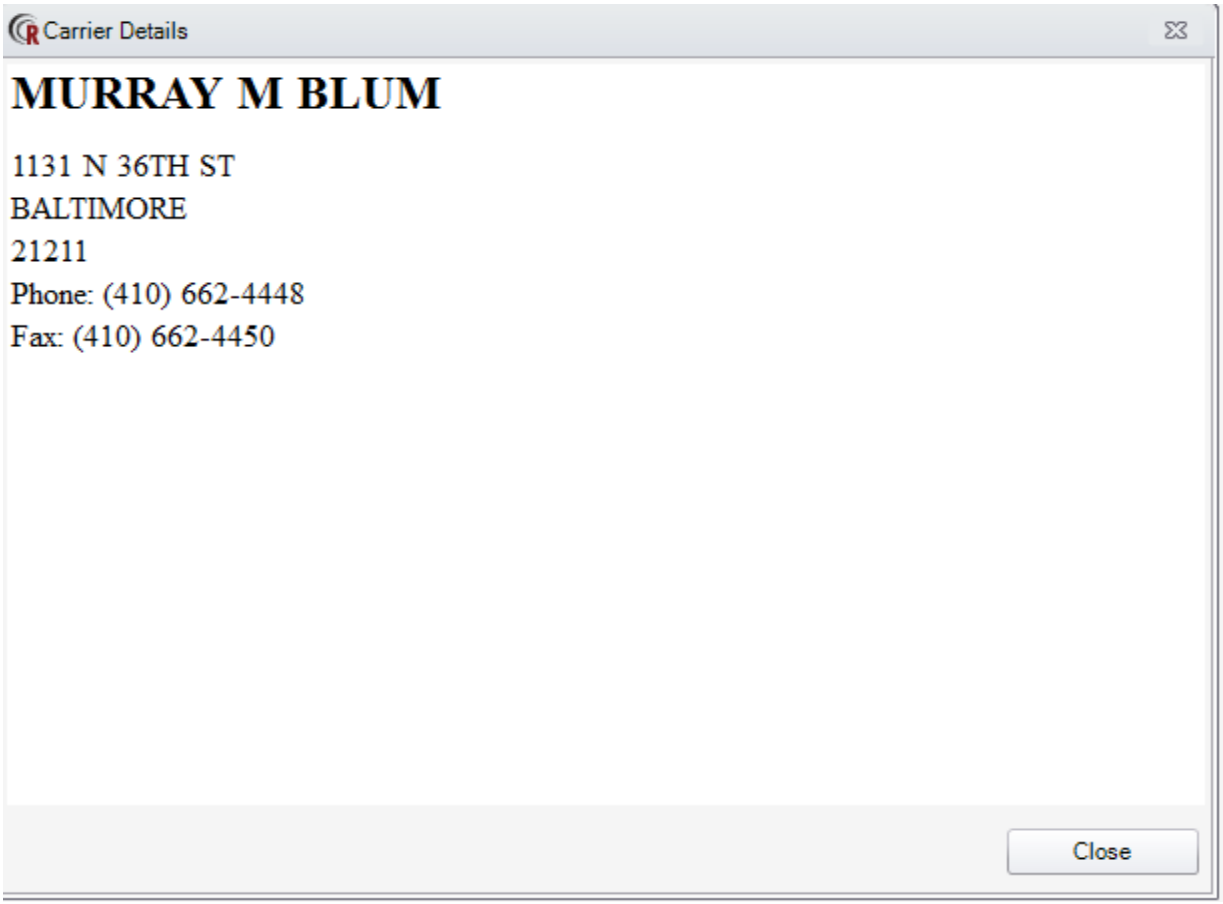



**Figure 5.5– Carrier Details information.**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Ability to Split Studies on Existing Order

Previous to this build, the ability to create separate orders within a single booking was possible, but once the studies were scheduled, they could not be divided into separate orders. In build 39, it is now possible to complete this task in the registration window.

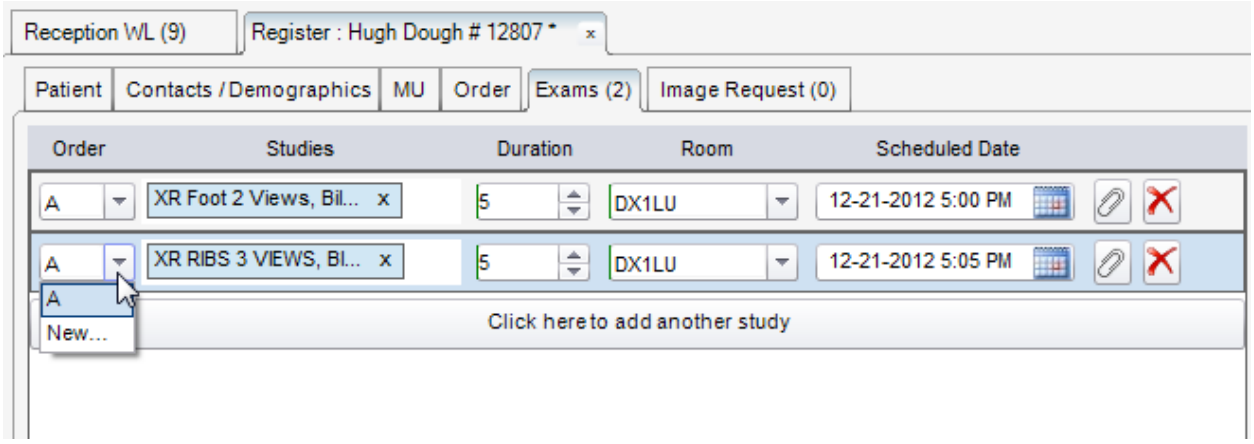



**Figure 5.6 – Splitting studies to separate orders.**

When New… is chosen the behaviour is the same as when scheduling a new appointment. Another order tab appears in which the required details must be completed and the Order tabs become Order[A] and Order[B], etc…

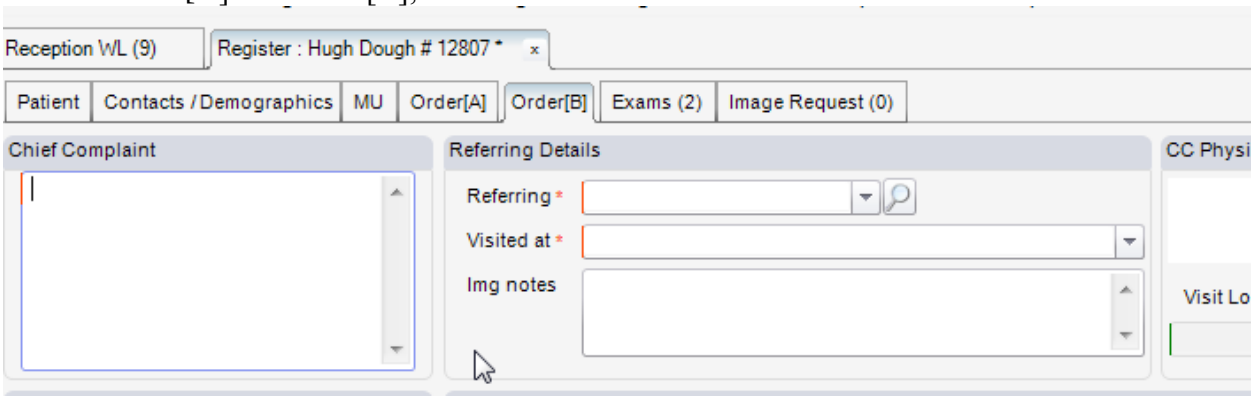



**Figure 5.7 – New order tab**

Access to this feature is available as long as the user has permissions with a new access string `Clinical.Schedule.SplittingOrders`

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

There is a restriction in place to prevent a study from being removed when there is only one remaining pre-existing study in an order. This is to prevent an order from being orphaned back to the Order to Schedule WL.

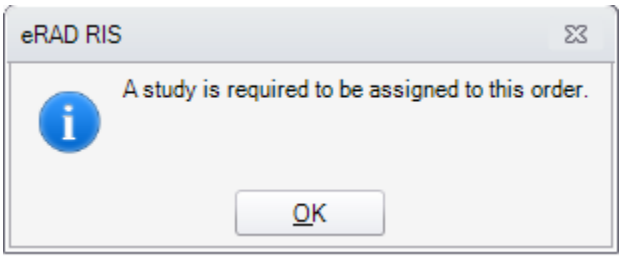



**Figure 5.8 – Message prompt from trying to remove all studies**

When a study is switched between orders, all the original order item and study item will remain the same and only the required order key will be updated.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# CD Import

We needed a way to import studies into RIS so that the accession number matches what is in PACS. The real need is so we have the information in RIS for the Patient Folder and that the RADs can see those studies in the relevance logic so that the correct prior exams get loaded.

CD Import has been added in the patient search window. Once you have the correct patient in the search results window, select the new context menu (right click) option "Import from CD"

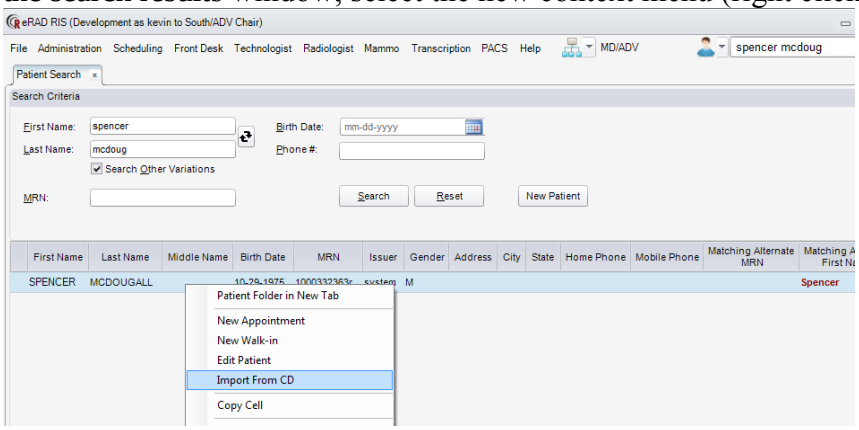



**Figure 5.9 – Patient Search context menu option Import from CD**

This will open the Import from CD window. If there is only one patient on the CD, this patient will be defaulted and the Patient to import list box will be disabled. Alternatively, if there is more than one, the list box will be enabled. Once the procedure is matched with the details in the description field, the modality will be auto populated, but can be changed if needed. Body part and laterality are optional. The Site field is required, and tech notes can be added.

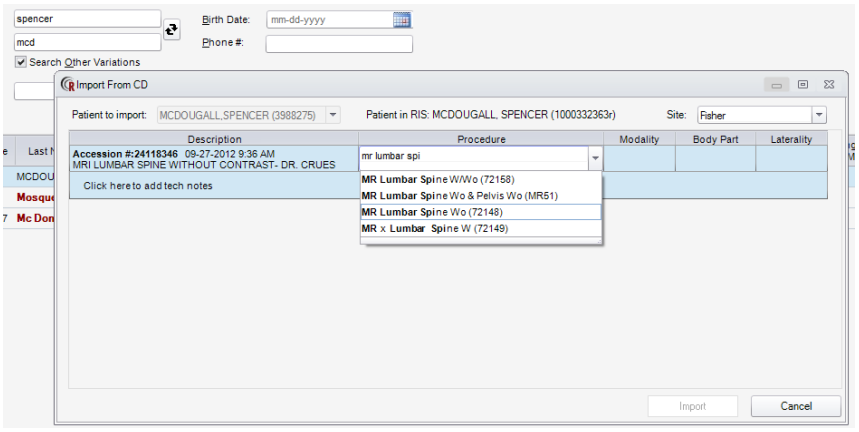



**Figure 5.10 – Import from CD window**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

When the procedure, modality, body part, etc… has been selected, the user can proceed to select the import button.

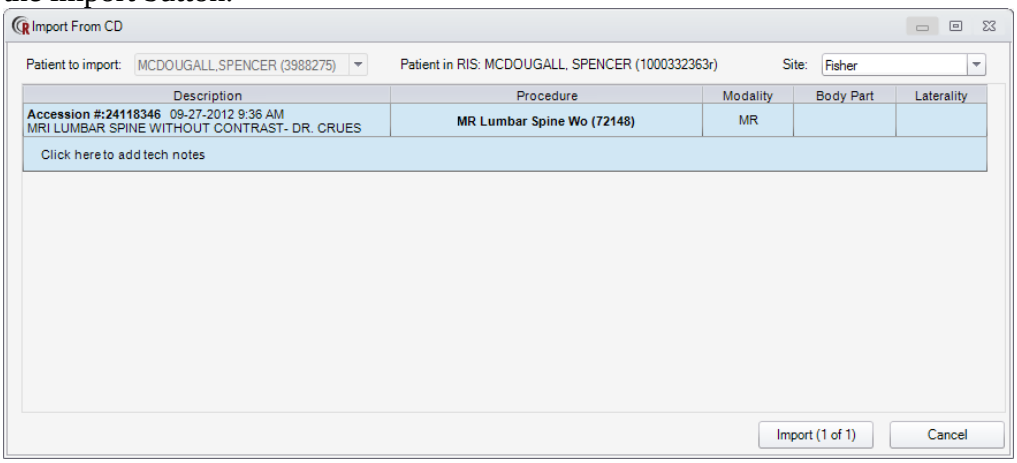



**Figure 5.11 – Import from CD window, ready to import!**

After clicking import, the status area in the bottom left will display "Started Importing into PACS", and the progress bar will appear giving the user a visual indicator of how much of the import has been completed.

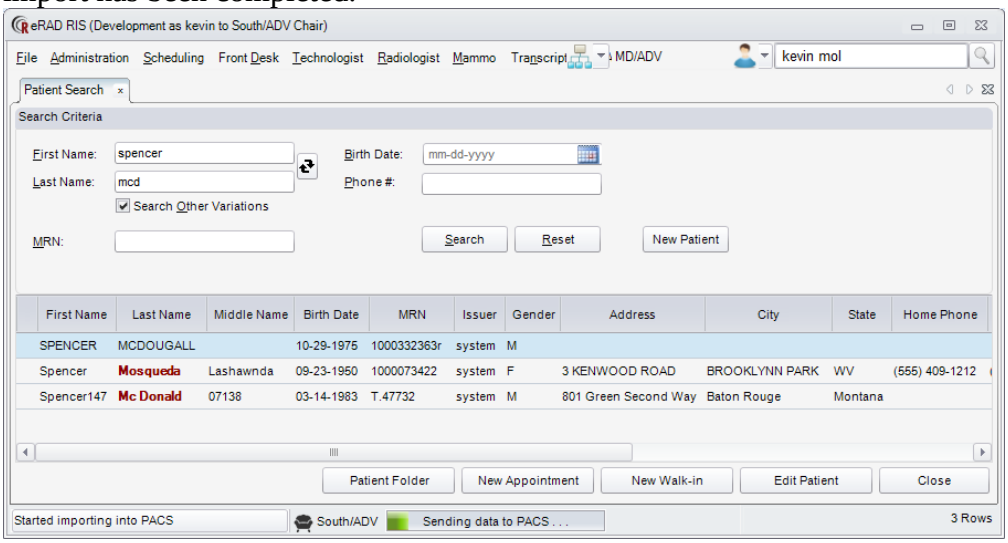



**Figure 5.12 – Import started, showing progress bar and message in status area**

If you try to logoff, exit or if you try to import again you get a message similar to the following.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

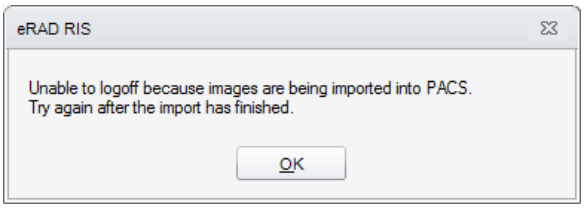



**Figure 5.13 – Message prompt displayed when import hasn't finished**

When the PACS import is complete the user will get a popup and status message as shown in the following. If there was an error the popup would be an exception message box with the e.Message and e.Exception accessible via the show details button along with a failed to import message in the status area. In the example below the status area is displaying Finished importing into PACS.

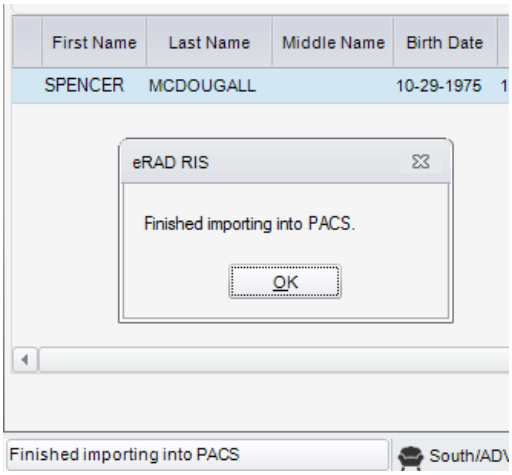



**Figure 5.14 – Import finished**

When the study is imported into RIS you can edit the study via the "View Edit Screen" from the Patient History work list. The exam will have the status of "ExamDoneTechOnly". ExamDoneTechOnly is a final status, for when we don't have the professional services data such as Dictation, CDA, Signed By, etc.

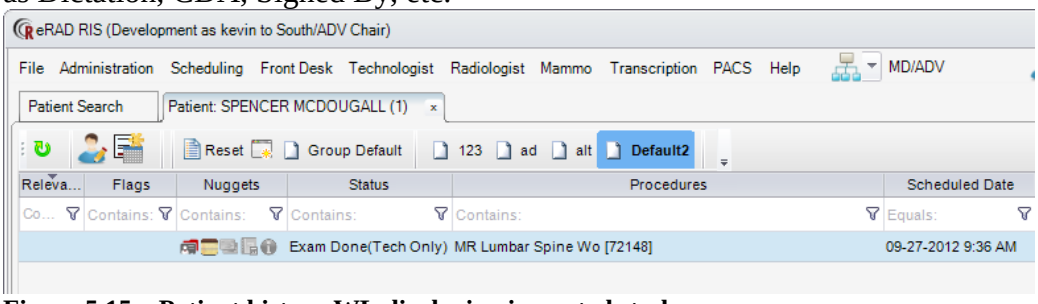



**Figure 5.15 – Patient history WL displaying imported study**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

If for some reason the study was loaded in RIS, but the upload of images to PACS was not completed, when they open up the "Import From CD" dialog they would get the following prompt with the procedure already matched. Clicking Import would only import the study on the PACS as there would be nothing to do on the RIS.

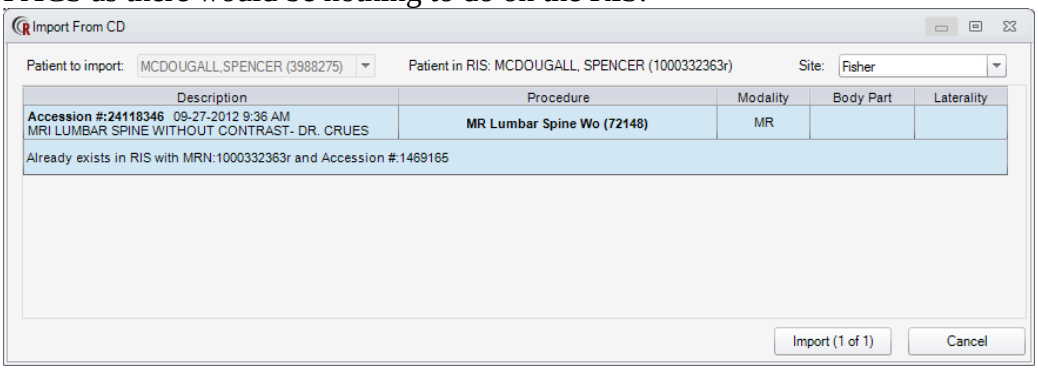



**Figure 5.16 – Study has already been imported to RIS but not PACS**

As mentioned earlier, the site to upload the images to must be selected. Each site can be configured to have a child PACS server. Displayed below the Site is accessed from the Organization lookup editor. Edit the site and enter the Child server for this particular site.

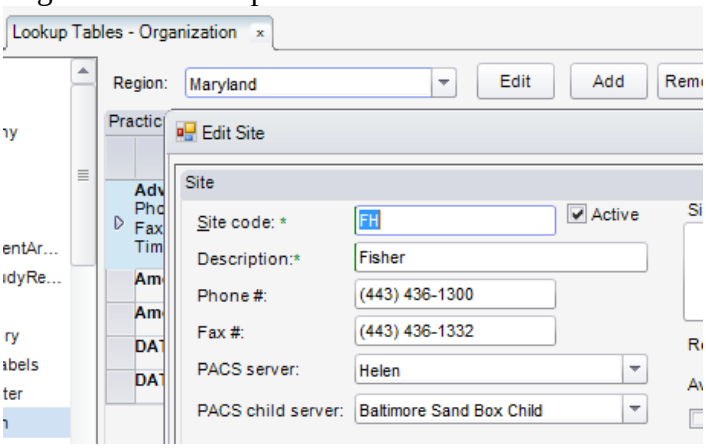



**Figure 5.17 – Organization lookup, Site with PACS child server configured**

The PACS child server is configured in the PACSServer lookup table.

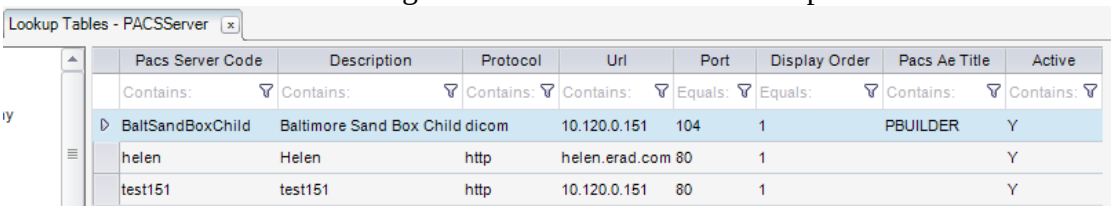



**Figure 5.18 – PACSServer lookup table with child server configured**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

Configuration required importing images to a child PACS server include:

1) IP
2) Port
3) PACS_AE_TITLE
4) Protocol (dicom)

The Import CD feature uses the dummy outside modality codes, which are required for creating an OutsideRead. If the outside modalities have not been configured the user will get prompted with a message explaining the missing entries. These messages are similar to the messages they would see if the system wasn't configured and they attempted to open the Outside Read screen.

To control access to the Import CD feature the access string "Clinical.ImportCD" has been added with default permission set to "None". In order for users to have access to this feature one of their user groups will need full access rights. If their rights are set to "ReadOnly" they will be able to open the "Import from CD" popup but will not have permission to actually perform the import.

The "Import from CD" action first searches for any CD with a "DICOMDIR" in its root folder. If it finds one that CD is used in the import. If it can't find one it then searches for a removable media such as a USB drive that has a "DICOMDIR" in its root folder and if it finds one of those uses that for the import. If it can't find any DICOM image source then it prompts the user with the option of manually select a DICOMDIR.

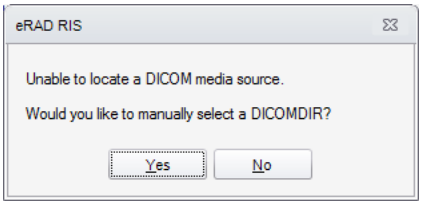



**Figure 5.19 – Message prompt for DICOM media source not located**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## PACS Image Caching

In order to speed up the loading of images on the PACS we need to cache the images on the Rad's workstation prior to their opening the study. The PACS currently has a 'prefetch' worklist that is configurable per user or workstation. This works by the PACS viewer running a task every 5 minutes (configurable) to query for the logged in user's prefetch worklist from the prefetch server(configurable). The studies that show up on this worklist are cached to the workstation.

PACS has 10 user defined fields of various lengths in its database. The approach is to use one of these fields to set up the users' prefetch work lists and to have the RIS populate this value appropriately for the user(s) that want to cache a particular study. This is configurable via the *PACSCacheField* system configuration setting.

It was determined that UDF2 is available and meets the necessary length. It is 32 characters long which will allow us to prefetch a study for on average 3 users. The average length of a user id is 7 characters but we also need to put in starting and ending delimiter characters to prevent problems when one user id is encompassed within another. This delimiter character is configurable via the new ***PACSCacheDelimiter*** system configuration setting.

***Example:*** Users s*tu* and *stuart* would be inserted into the UDF2 field as ^stu^ and ^stuart^. The RIS will retrieve the value of the UDF for each study it wants to cache prior to setting the value so it can determine if other users have already requested the study to be cached.

***Example:*** if we are using UDF2 and its value for accession number 123 is empty the user *stuart* we would set the value of UDF2 to ^stuart^. If user c*lifton* then requested that study be cached, the RIS would retrieve the UDF2 value and after seeing that *stuart* already requested it would set the value to ^stuart^^clifton^.

The PACS viewer can only specify one server for querying its prefetch worklist. The RIS now also has one system configuration setting for which server it will use to query/set its cache requests. This is defined in the ***PACSCacheServer*** system configuration setting.

The RIS client determines what primary studies are to be cached and passes a list of these study keys to the core WCF service. The WCF Service calculates the relevant priors using the same logic the client will use during the open call to the viewer. All primary and relevant studies are then set to be cached in the PACS database.

A c_study_prefetch_log table has been added to the RIS database to capture events surrounding this cache framework. Any time a study cache is attempted, an entry is created in this table

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

indicating the RIS and PACS user ids for the request, the primary study, the study being cached, and a note describing the value of the UDF field in the PACS database or some other information about the event.

Usage:
Studies can be cached either by a manual selection by the user from a right-click option or automatically based on the next available study on their worklist. Both of these approaches apply ONLY to the Pending Dictation worklist.

The automatic caching will take place on every refresh of the worklist after the initial open. This is in order to give the Rad time to sort and filter their worklist appropriately before we start caching studies they have no interest in.

The manual selection involves right-clicking on a study or set of studies using multiple section and selecting *Cache Study*. This is controlled by the access string ***Clinical.CacheStudy.***

Setup Steps:

1) Configure RIS as "trusted" on the PACS worklist server:

   All communication to the PACS server runs through the RIS server. In order for that communication to be possible, the RIS server must be registered with the PACS as a trusted server. This is done by ssh'ing into the PACS worklist server and editing */home/medsrv/var/iface/access.cfg* to enter in a line like:

   10.120.0.152 = "LASBQDEFORTH"

   Where the first value is the IP of the RIS server and the second is the permissions assigned to it. The above string gives full access.

2) Configure RIS to use the PACS worklist server for caching:
   a. If the worklist server does not exist in the l_pacs_server table, add it.
   b. Set the ***PACSCacheServer*** system config setting to the pacs_server_code value of the worklist server in the l_pacs_server table.

3) Set ***PACSCacheField*** to appropriate UDF field for the installation. Example is to use UDF2.

4) Set ***PACSCacheDelimiter*** to appropriate value. The default is ^, but that may have to change if it is found to cause problems with HL7.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

5) Set PACSCachingEnabled to true. This is false by default.

6) For users that need to cache, set the User preference for "number of studies to cache" on the Integration tab of the User Preferences dialog to a number between zero and the value of ***PACSMaxNumCachedStudies***. I'd suggest 3, maybe.

**Reminder:**

**Changes to a system configuration setting do not take place until the service is restarted.**
**Changes to a user preference do not take place until the user logs out and back in.**

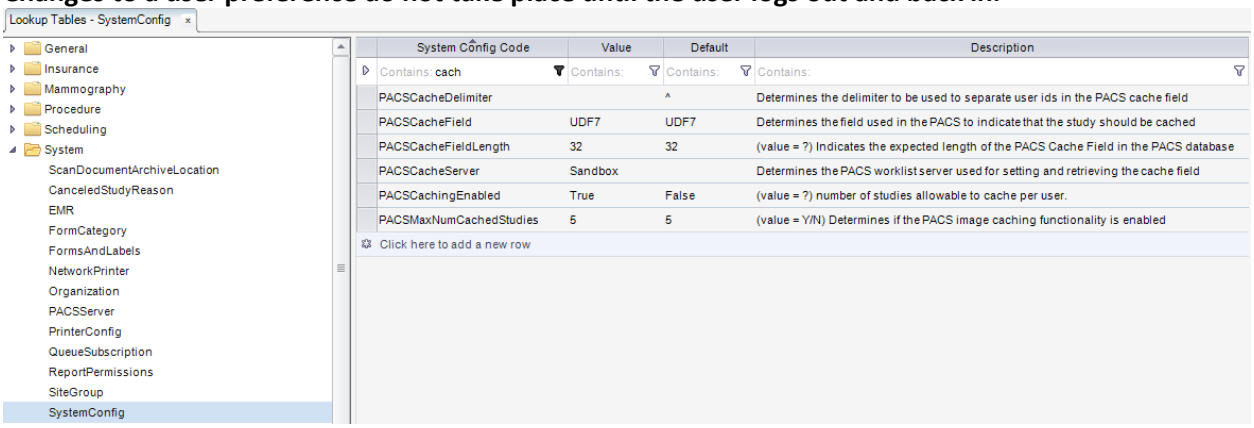



**Figure 5.20 – New system configuration settings for PACS Image Caching**

There is also a new User Preference called "Studies to cache". The value for Studies to cache cannot be greater than the value for the system configuration setting PACSMaxNumberCachedStudies

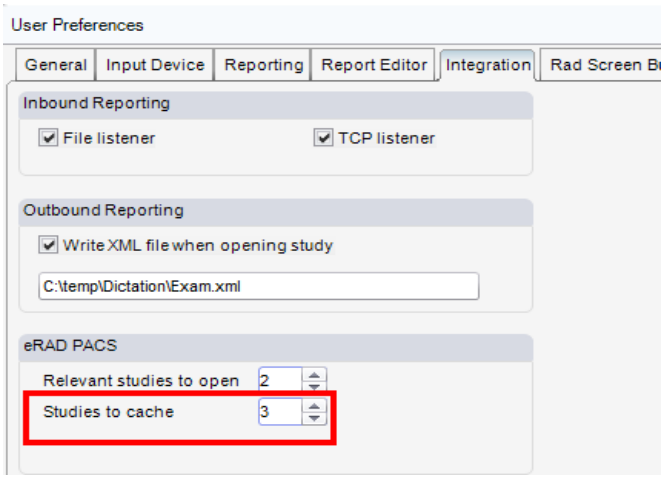



**Figure 5.21 – User Preference Studies to cache**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Enhancements to Navigation

Earlier versions of RIS had a hard coded set of expected status transitions – e.g. an exam could move from Scheduled to Cancelled, but not from Cancelled back to Scheduled. In some cases operations found that they needed to change the status of an exam, but RIS would not allow the exam to move to the desired status. Whenever RIS would not allow a particular transition from one status to another, a RIS Administrator or tech support provider would e-mail R&D and request that the data be updated in the database using SQL.

We added a new database table, s_status_transition, which will be maintained by R&D.

We added a new web method that provides a summary of the current exam (to reduce the likelihood of errors) and returns a list of statuses believed to be appropriate for an exam in a given status.

We added a web method to change the status for a specified study to a new status.
Added a new menu item to the context menu on patient folder, Manual Status Update…

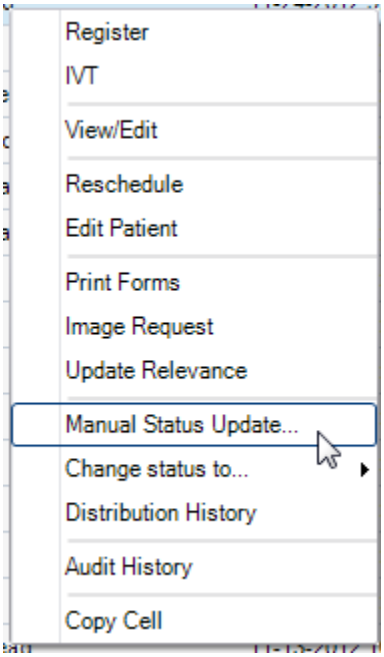



**Figure 5.22 – Manual Status Update context menu option available in Patient History**

The above context menu option is controlled by a new access string "Clinical.RISAdminChangeStatus" permission and is defaulted to None.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

The Manual Status Update dialog shows the patient name, MRN, birth date, Address (if known), the current accession #, procedure description and the scheduled start date.

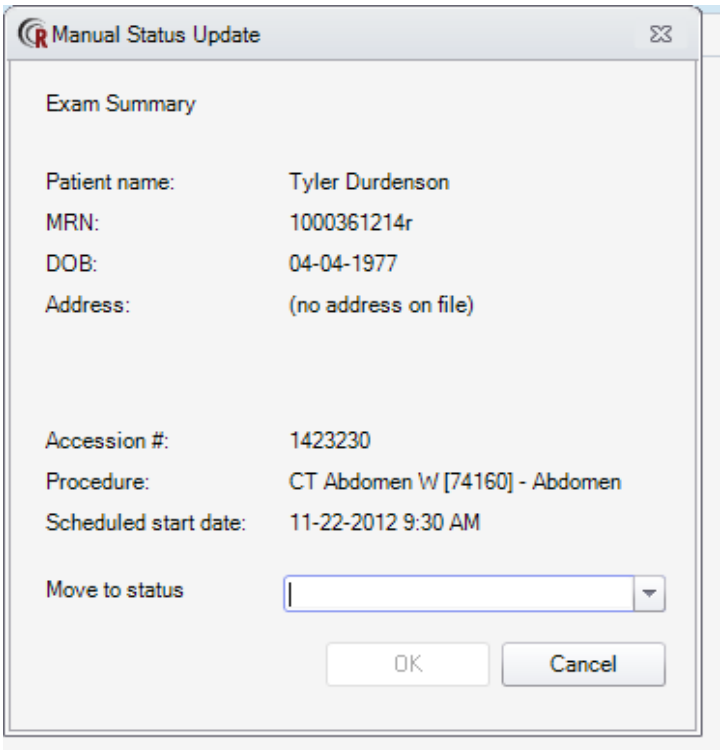



**Figure 5.23 – Manual Status Update window**

The "Move to status" drop down list is populated based on the list of "destination_status_code"s that are present in the s_status_transition table for the "source_status_code" (i.e. current status) of a given exam.

The OK button will remain disabled until the user makes a choice from the list.

After the user makes a selection and presses OK, the prompt below appears. If the user clicks "Yes", RIS will attempt to acquire a lock on the current order, and if successful, it will request the status update

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

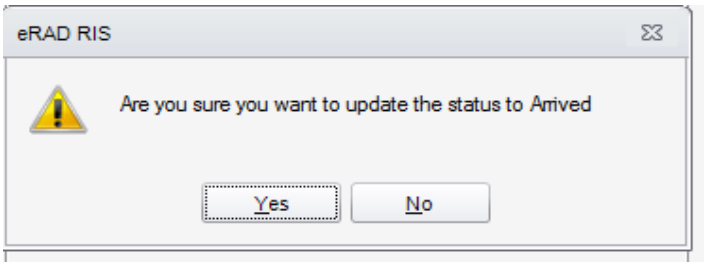



**Figure 5.24 – Confirmation prompt**

The audit logs show the date, an appropriate action, the user who took the action and the changes that took place during the manual status update:

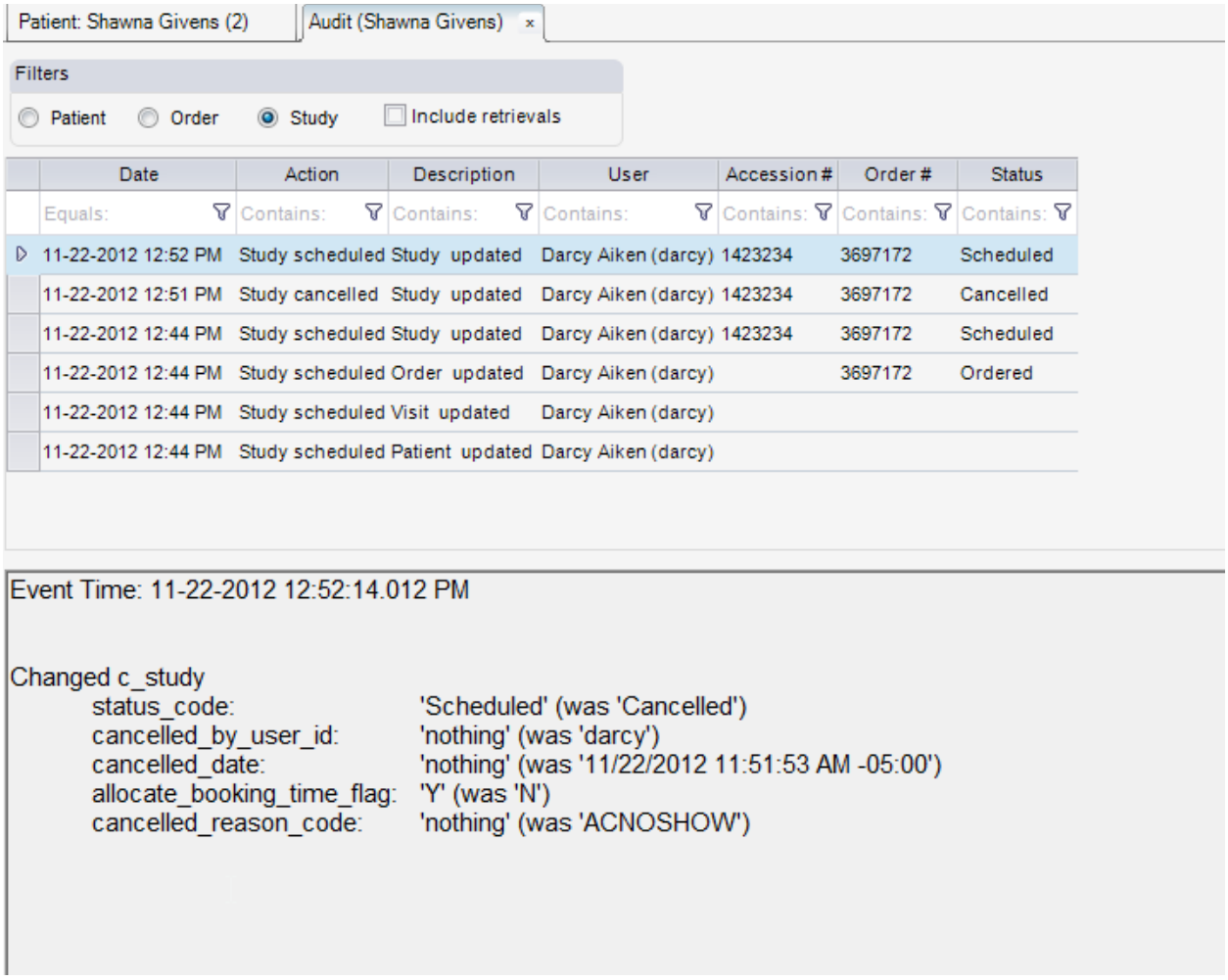



**Figure 5.25 – Audit log**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

The "Action" in the audit logs is determined by the s_status_transition table's "main_action" column. If there is no main_action specified, the main_action will default to "UI_StudyUpdated".

**Special Handling of Statuses on the Server**

In addition to the special case exceptions below, we explicitly set the status to the status requested by the RIS Admin, and then we fire all the business rules associated with the UI_MainAction that is configured for a given status transition. (e.g. if the action is UI_StudyScheduled, the business logic may dictate that scheduled_by_user_id reflect the current user's user ID)

| Moving From | Moving To | Additional Steps Taken |
|---|---|---|
| Cancelled | | Clear out cancelled by user id<br>Clear out cancellation date<br>Set Allocate booking flag to Y<br>Set reschedule_flag to N |
| ExamDoneTechOnly | | Set Tech Only Flag to N |
| Discontinued | | Set discontinued by user id null<br>Set discontinued date null<br>Set aborted reason code null |
| | Cancelled | Set allocate booking flag to N |
| | ExamDoneTechOnly | Set Tech Only Flag to Y |

**Table 5.1 – Status changes "From" and "To" showing additional steps taken**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

This has been addressed at individual installs through configuration changes after-the-fact. The issue was identified and checked-in in May, but the config changes were not documented and thus not pushed out in the normal way. Individual installs have been spot checked for the appropriate settings.

```
<serviceThrottling
            maxConcurrentCalls="2000"
            maxConcurrentSessions="4000"
            maxConcurrentInstances="4000"
                 />
```

**Figure 5.26 – rRISService.exe.config file update (changes in value**

We believe 2000, 4000, 4000 is appropriate for up to 650 concurrent users. These numbers could be set higher if needed.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Report History availability

The radiologists have always been able to review a dictation and previous reports via the Report History window that was available from with the reporting window. Access to this window has been added to the context menu of the Patient History work list window, transcription work lists and also to radiologist work lists. Access for this menu option is the from the access string **Clinical.ReportHistory.**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Default Layout Views for Reporting Window

In prior versions of eRAD RIS, the user could have 2 different views saved. There was one for the dictation reporting window and one for the signing reporting window. In build 39 we have added some default "canned" layout views that are always accessible.

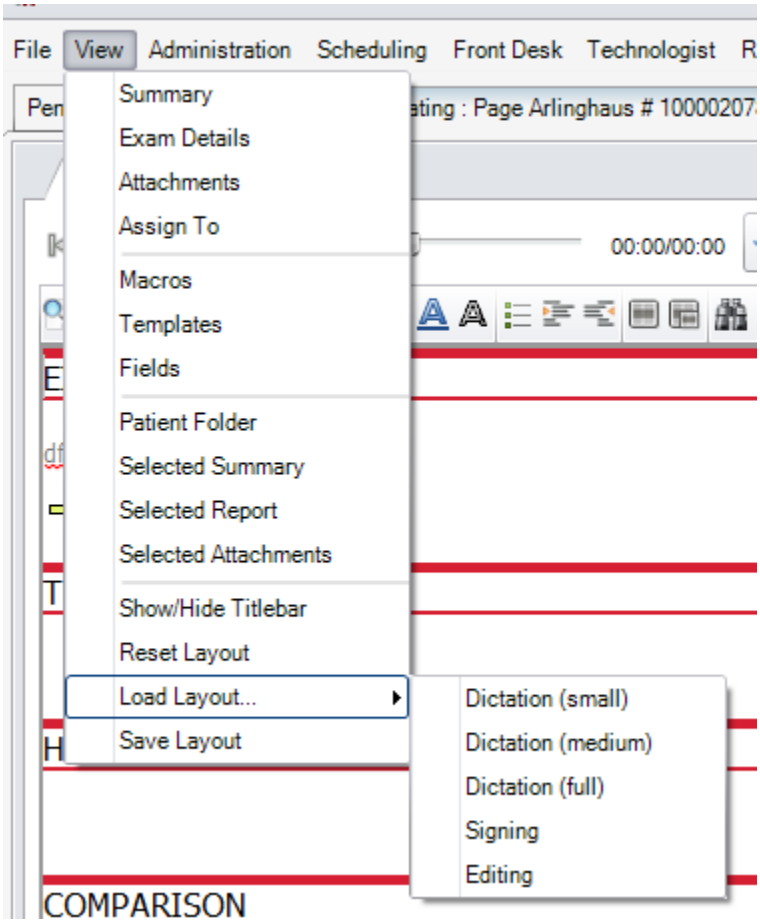



**Figure 5.26 – Default canned layout views**

The default "canned" layouts are static; meaning the configuration of the layout cannot be changed and saved as the default. The user may still have their own custom saved layout, can save one of the default views as their layout, but they cannot make changes to default layouts, save and expect it load the next time a default is selected from the Load Layout… submenu.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Playback Highlighter Color

Transcription wanted to be able to change the playback color in the reporting window. When playing back a dictation, the color is the standard blue color. If the playback and the cursor position are disconnected, meaning they are editing a different position of the report, but still listening to the dictation, the color can now be different. A new color option has been added to the Editor Appearance window.

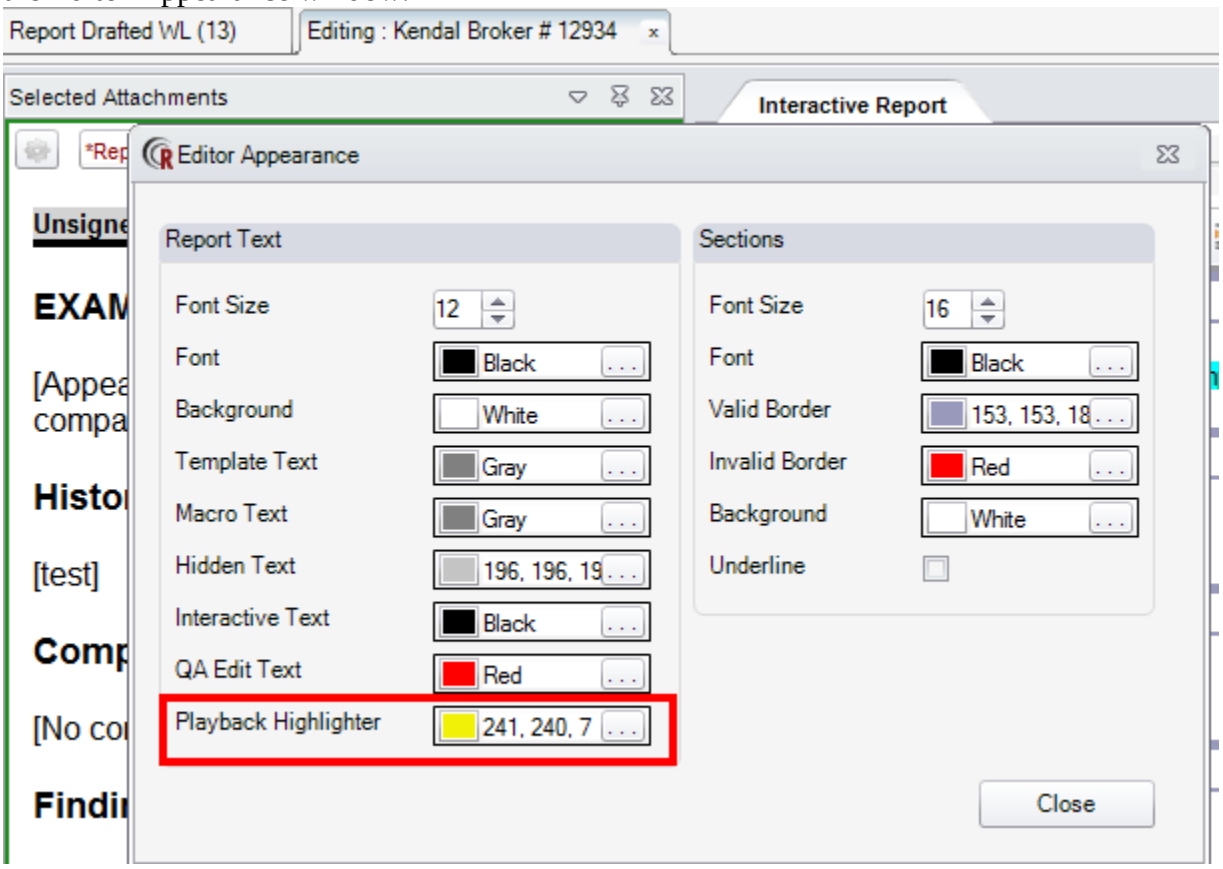



**Figure 5.27 – Playback Highlighter color preference option**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Field Tool Window

A new tool window (or data pane) has been introduced in Build 39. The Fields tool window will allow the user to see the sections and fields plus and field cues in the current report template loaded in the reporting editor.

The Fields tool window helps the radiologist to easily determine what the next field and field cue may be. The cue is the word or term used to navigate to a particular field. For example: There may be a single field in the History section and the cue for that field may be "History colon". This will move the cursor position to this field and allow the radiologist to dictate the history for this report.

In the example below you can see the cursor position is in the comparison field, and in the Fields tool window, comparison is highlighted indicating this is the current position in the report. In the second column you see the cues for the individual fields within the report. Lastly, the Fields window can also be used to navigate to a particular field in the report. For example, selecting the impression field in the Fields tool window will put focus on the impression field in the report. If the section title is selected in the Fields tool window it will put the cursor position at the start of that section.

As with the other tool windows, the Fields tool window can be docked, floating, or tabbed. We anticipate that this window will be floated away from the reporting window and used a navigation tool so the report editor is not the main focus.

There is a limitation if a section or field is deleted from the report, the Fields tool window will not dynamically update. If this section or field is selected from the Fields tool window, the user will receive a message that it could not be found, and then it will be removed from the view.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

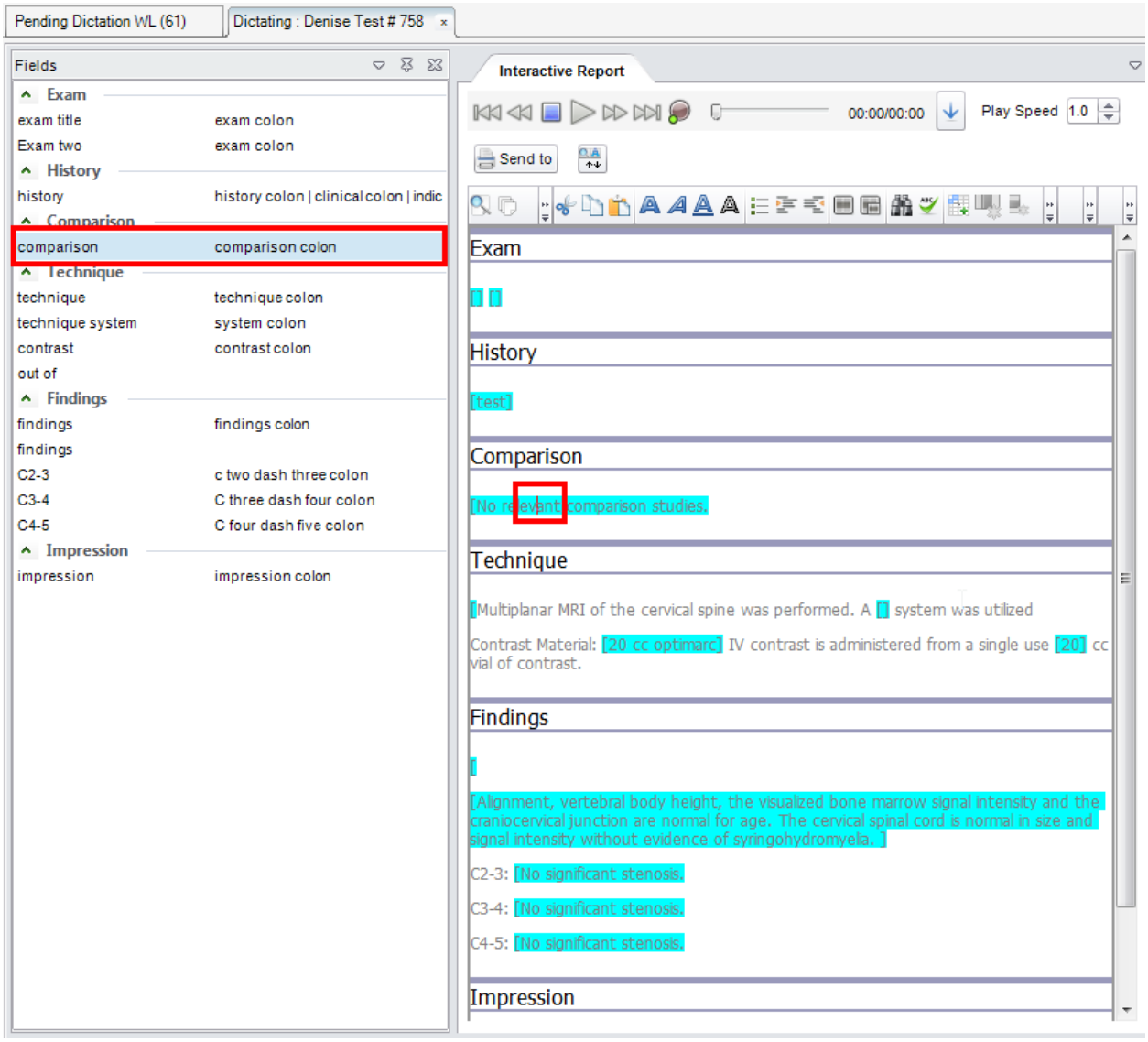



**Figure 5.28 – Field tool window**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Mute Playback on Rewind and Fast Forward

Transcription has requested the ability to mute the playback sound when rewinding or fast forwarding a dictation. We have taken 2 steps for this request.

1. We have made the default to be no sound on playback when rewinding and fast forwarding a dictation
2. We have added a new user preference titled "Enable rewind / fast forward play-back". Selecting this option will allow for the sound to enabled when rewinding and fast forwarding.

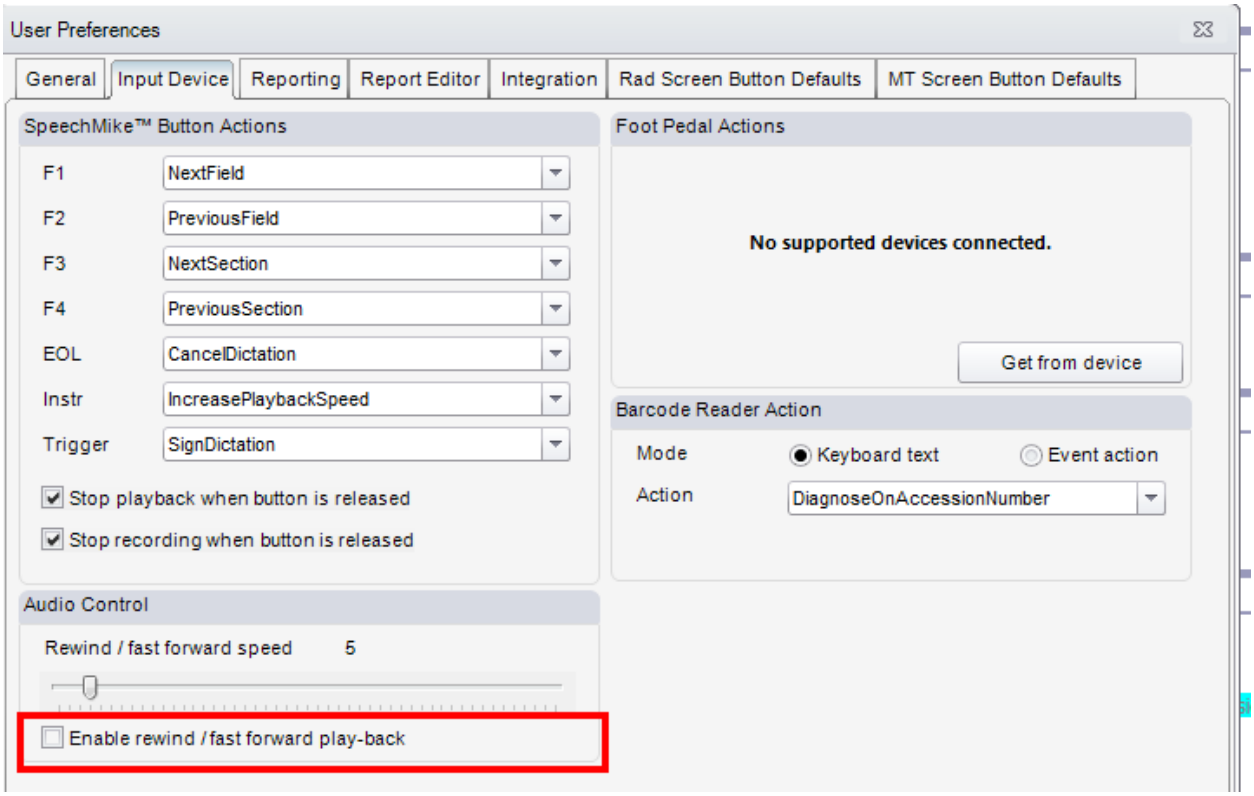



**Figure 5.29 – User preference "Enable rewind / fast forward play-back**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Auto reposition of minimized dictation window

When using the minimized dictation window and the monitor configuration changes (going from 4-3 monitors in use) the dictation control would not automatically realign with active monitors. Although the control was still active, it could not be found. We has a manual reset of the dictation control, but in this build the dictation control will now auto align with the active monitor configuration.

We are now checking to see if the dictation control is completely visible within a screen, if it is not we reset it's position to 0,0 on monitor 1.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Patient History Enhancements

We were tasked with creating a robust full featured patient folder that is launched and managed from within the RIS.

There were several areas that needed to be completed to enhance and complete the patient folder. There are several user preferences, new panes, new controls and views in the patient folder. Below we will describe each and provide some examples on how to set the patient folder up in a real environment.

### Selected Report Panel

We added a selected report pane that can be opened and docked as the user requires. This selected report pane will show a read only HTML rendered version of the selected row in the patient folder. The pane can be shown by opening from the View>Selected Report option from the main menu. When the user preference "Select current study initially" is checked we will open the current study in the selected report pane. If this preference is not checked it will show the next relevant study in the patient folder and display that report.

Note that the report viewer will now show the entire report with the latest addendum at the top. Also who signed the report or if it is "unsigned".

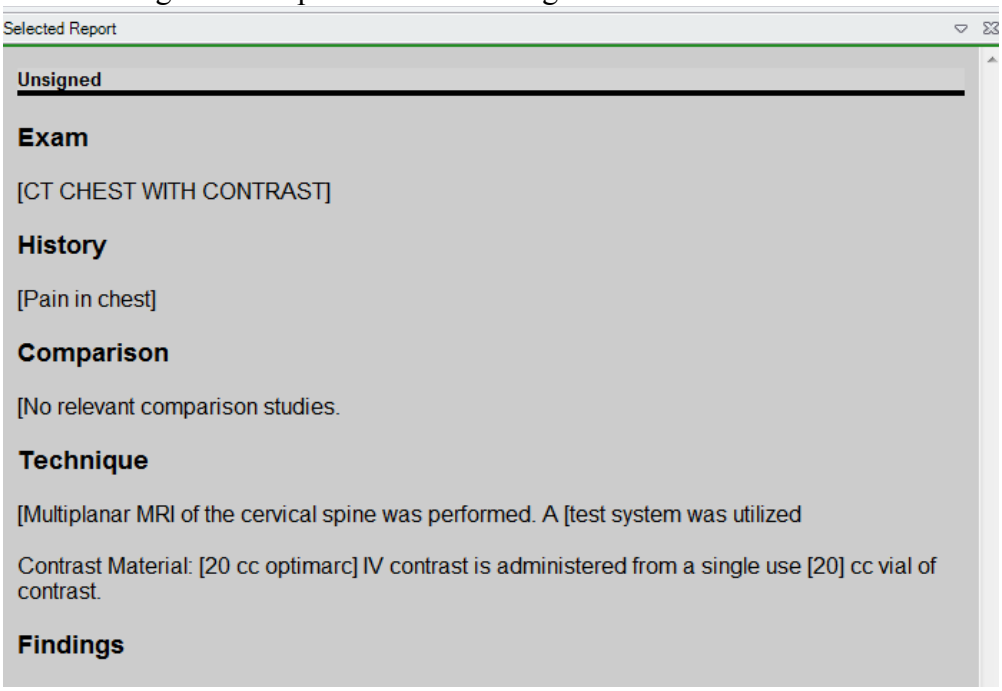



**Figure 5.30 – Selected Report tool window**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

If the report was imported or is deemed a legacy report we provide a button in the report viewer that the user can click to open a PDF.

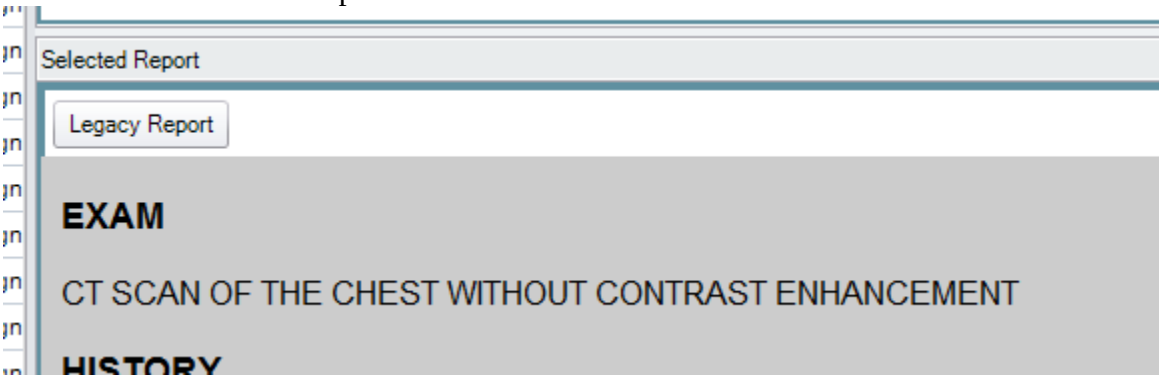



**Figure 5.31 – Selected Report tool window for a legacy report**

## Selected Summary

We added a "Selected Summary" pane that will provide details about the selected study. This pane is opened and access from the View>Selected Summary option. Just like all panes it can be docked and the layout saved as desired. Note that this summary will change based on the selected study. It is essentially the same control as the summary pane that existed previously but it changes with the selected row.

Referring, tech, dictated by, signed by and transcribed by users will show if the values are populated in the DB. They are hyperlinks and upon clicking will open the details for each person. The details screen could use some work.

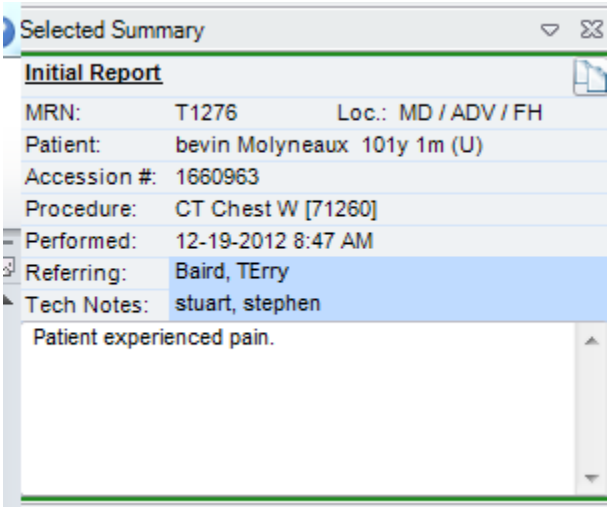



**Figure 5.32 – Selected Summary tool window**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

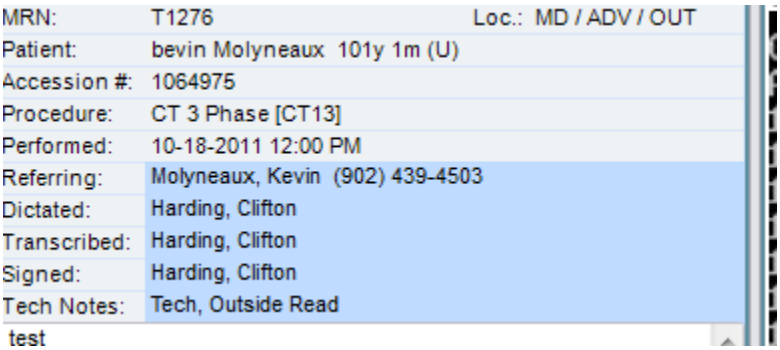



**Figure 5.33 – Selected Summary displaying all hyperlinked fields**

## Document Viewers (Selected Attachments and Attachments)

There is a separate sprint document created to outline the robust features and changes made to the document viewer I won't bother getting too deep on the feature set here. See section Attachment Viewer Enhancement for Patient Folder later in this document.

A document viewer was added as a pane called "Selected Attachments". This can be accessed from the View>Selected Attachments menu option. This particular pane will show scanned documents as per the selected study in the patient folder.

A document viewer was added as a pane called "Attachments". This can be accessed from the View> Attachments menu option. Unlike the "Selected Attachments" this pane will only show the current study.

Both panes support all pane functionality. (saving layout, color, size, state).

Based on the user preference it is possible both viewers can show the same attachments. If you have your "Select current study initially" checked we populate "Selected Attachments" with the current studies attachments. We also populate "Attachments" with the current study attachments. If this is your workflow, and you are lucky enough to have the real estate to show both panes, it will be better to uncheck the user preference which will select the next most relevant study in the patient folder. This would allow viewing of the current attachments and the most relevant at attachments simultaneously.

## User preferences

There were several user preferences added to enable the Patient Folder workflow.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

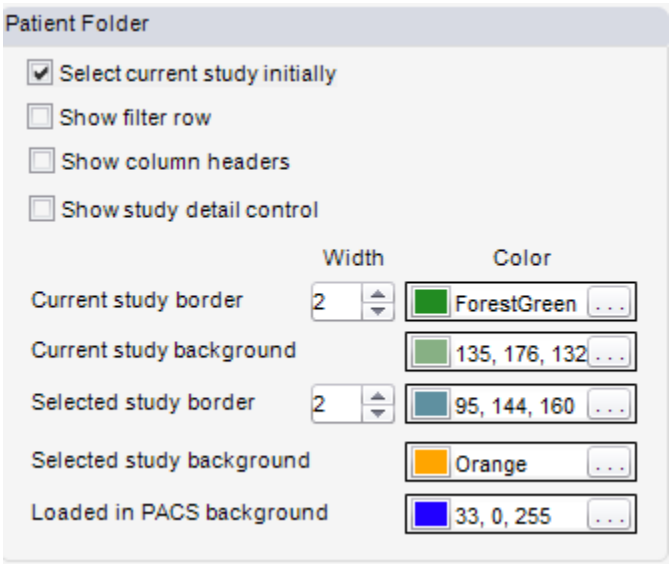



**Figure 5.34 – Patient Folder user preferences**

## Select current study initially

This setting will select the current study when opening the patient folder. This will make all of the "selected" type panes populate with the current study data.

Unchecking this will automatically figure which study is the next relevant in the folder and select that one. Thus populating the "selected" panes with the most relevant study data.

## Show filter row and Show column headers

These settings will be the defaults when opening the patient folder. They can be toggled in the patient folder by clicking the icons outlined below. Neither the filter row or column headers are showing below.

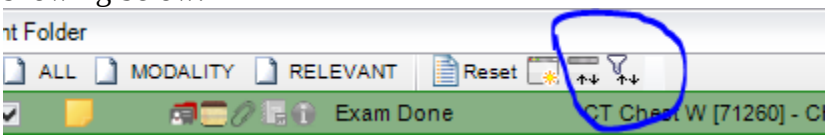



**Figure 5.35 – "Show" options for patient folder**

Toggle the filter and column headers to turn them both on below. This feature will come in handy when setting up specific radiologist views.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

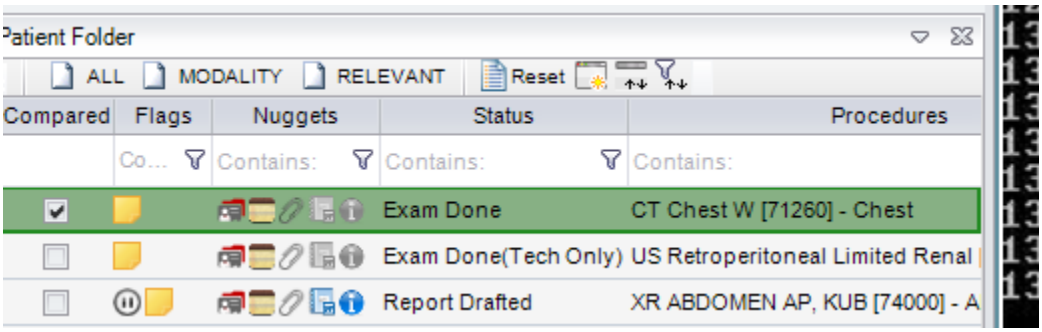



**Figure 5.36 – Patient folder with filter and bar and column headers displayed**

## Show study detail control

When checked the new study detail control will appear in the patient folder list. Notice in the above screen shot that we don't have the control. If you select this option and reopen the same study it will present in the work list. Note that this is just a starting point and now that you have added the control you can remove whatever (likely) all that you desire. Once the modifications to the columns have been made you can save a new view or overwrite it.

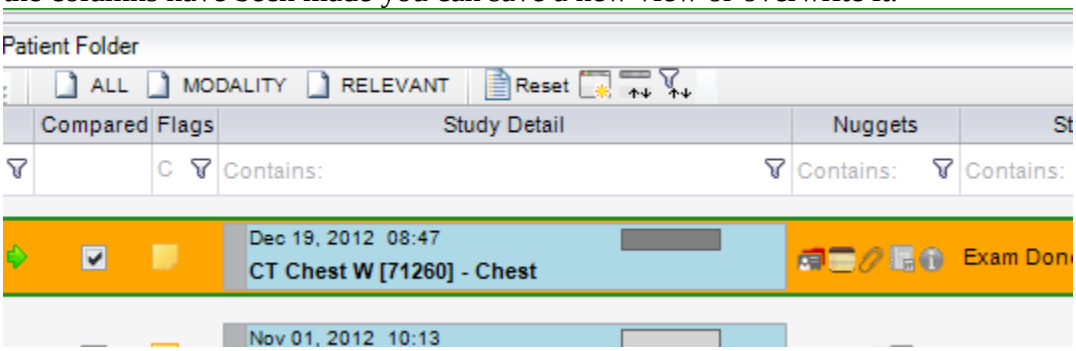



**Figure 5.37 – Show study detail**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

In the figure below, the columns have been modified to include the "current study indicator" (green arrow on the left) and the study detail control only. Saved the view…

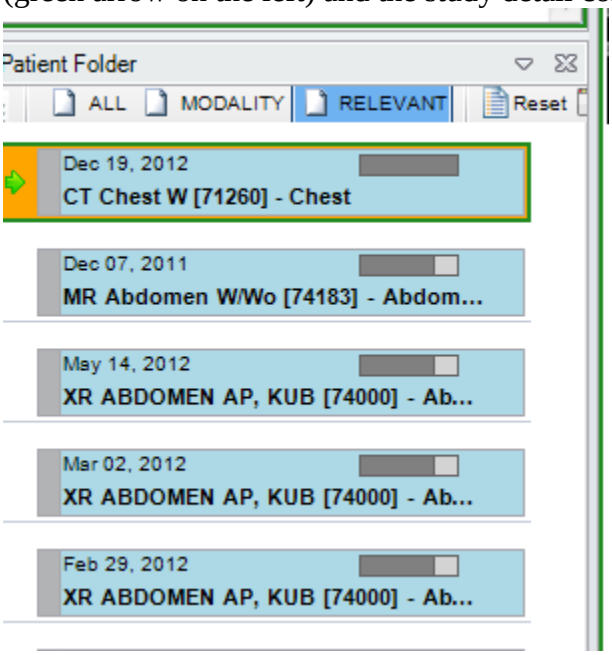



**Figure 5.38 – View created to show only current study indicator and study detail control**

The study detail has several elements worth discussing. Follow along with the figure below with the number list following.

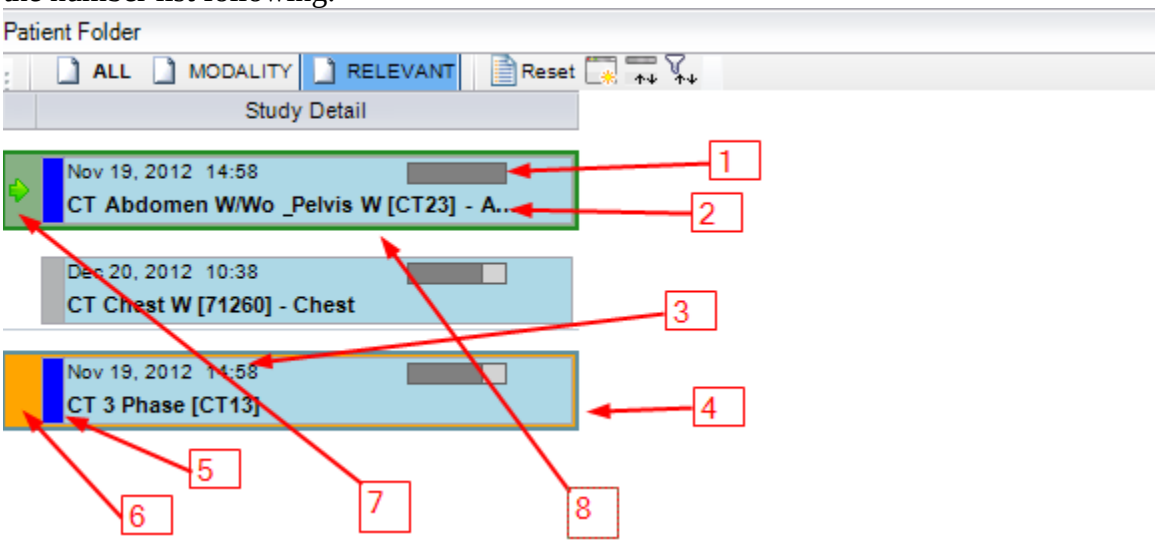
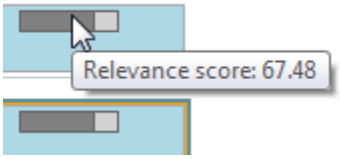



**Figure 5.39 – Patient folder explanations to follow**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

1. Relevance bar. Incrementing in 25% chunks. Hover over the bar will display a tooltip indicating the true relevance score.




2. Procedure description as per worklist display.
3. Date and time of when the exam was performed. If the exam hasn't been performed yet we will put the scheduled date and time instead.
4. Selected border color as per user preference
5. Loaded in PACS color in the detail control. We only change the color for loaded studies.
6. Selected background color as per user preferences
7. Current background color as per user preferences
8. Current border color as per user preferences

The figure below is showing the current study indicator column. When this column is removed we indicate the current study with an earmark in the study detail control.

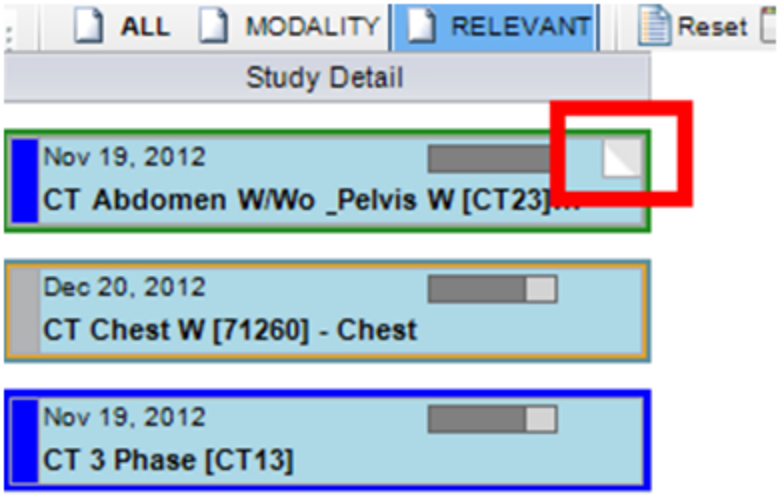



**Figure 5.40 – Displaying earmark**

## Current study border and Current study background

This will set the colors respectively for the current study. Separate document is created for this functionality.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Selected study border and background colors

This will set the colors respectively for the selected study. Separate document is created for this functionality.

## Loaded in PACS background

This setting controls the background color when the study is successfully loaded in PACS. We will load the current study always and all of the relevant priors set in the user preferences. If "0" was set in user preferences then only the current study should load in PACS. If "2" priors were set in user preferences we will load the current and two additional relevant priors. Image below shows we only loaded one study in PACS. Double clicking on a study not loaded in PACS will load it and update the patient folder appropriately to indicate the loading has occurred.

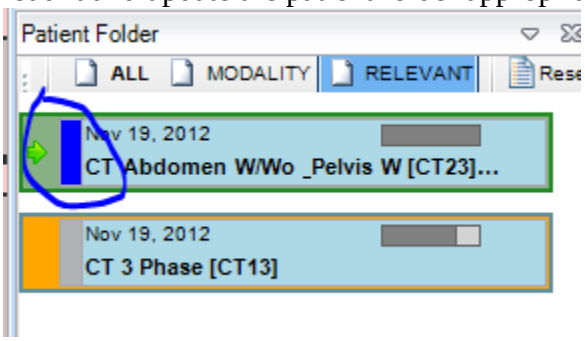



**Figure 5.41 – Top study loaded in PACS**

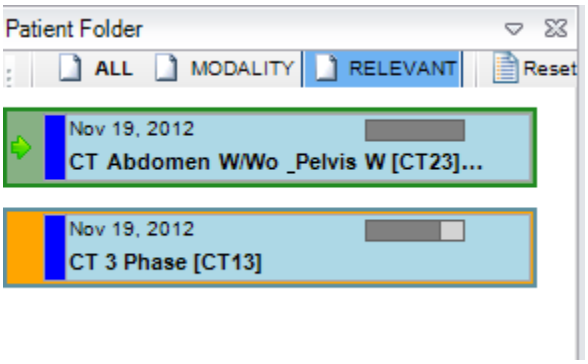



**Figure 5.42 – Second study selected**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

There is a new column added to the patient history control called PACS Loaded Status. This new column can have the following values:

OPEN – simply loaded and open in PACS for viewing

FAILED – could not open or find the study in PACS

ARCHIVE – found the study but it is in archive somewhere

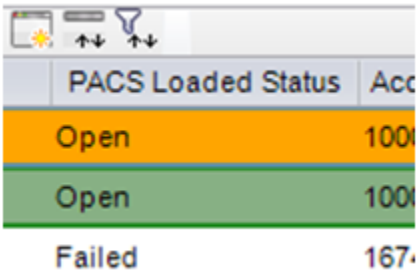



**Figure 5.43 – PACS Loaded Status column added to Patient History control**

## ALL, MODALITY and RELEVANT views

Although views are completely configurable we anticipate users will setup three group views. ALL – will show all of the patients studies. Nothing special about this view and it can be setup however the users prefer to see the list. Users may prefer this list to be more gird-like similar to our worklists instead of showing the study detail control.

MODALITY – this is a new special view created and will show only studies performed on the same modality type as the current study. This is special as we have to calculate what modality type the current study is and then apply a filter descriptor that limits only this modality type. It is done in code and is trigged by the name of the view. The name must be “MODALITY” case insensitive.

RELEVANT – this view will show all relevant studies. So anything with a “Y” in the relevant flag. Keep in mind that we may have a relevant score but not the relevant flag depending on the rulesets.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Attachment Viewer Enhancements for Patient Folder

We need to make the doc viewer simpler to navigate and when shown in a data nugget we need more advanced features such as:

- Panning (click and drag)
- Zooming with scroll wheel
- Click Next/Previous with arrow (hot spots) on the images
- User configurable exclude document types
- In tool bar at the top additional information including total page count
- Buttons at the top for flipping directly to preferred document types (showing count)
- All documents in the same book, such that clicking next, next , next goes through all document pages.
- Rendering of diagnostic report type in attachment viewer
- Enable rotate/flip buttons in attachment viewer (diagnose)
- Add Invert Colors button

Zoom is now possible via the mouse scroll wheel, magnifying buttons, or via the '+'/'-' keyboard keys. When zoomed clicking the mouse on the image and dragging will pan the image.

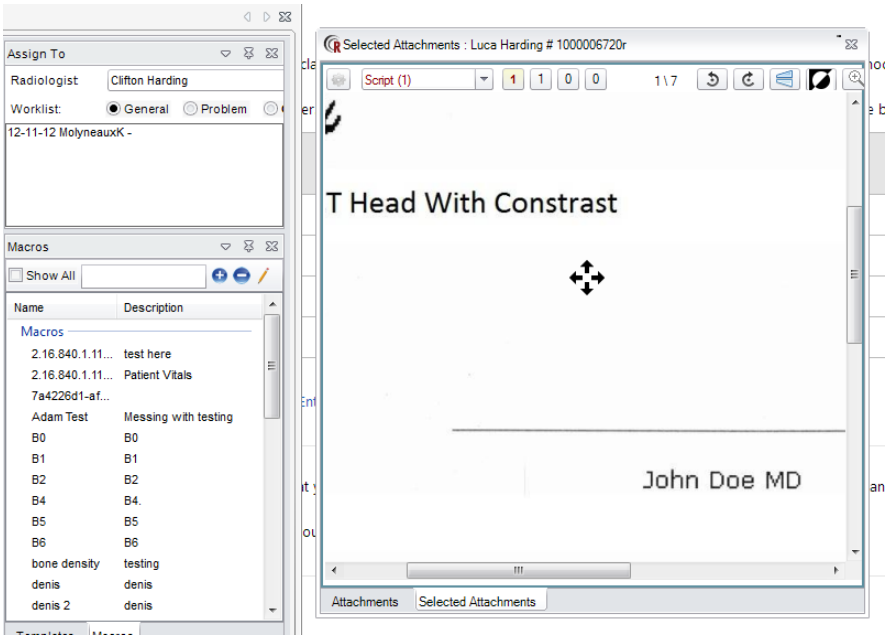



**Figure 5.44 – Zoomed in image and panning feature**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

The user can move to the next image or the previous image by hovering the mouse over the left or right area of the image. A single click anywhere in the left or right area will navigate to the next or pervious image (user doesn't have to click directly on the arrow icon). When the user is in the area which is active for next/previous clicking, the arrow image will paint in darker and the mouse cursor changes to a next or previous arrow.

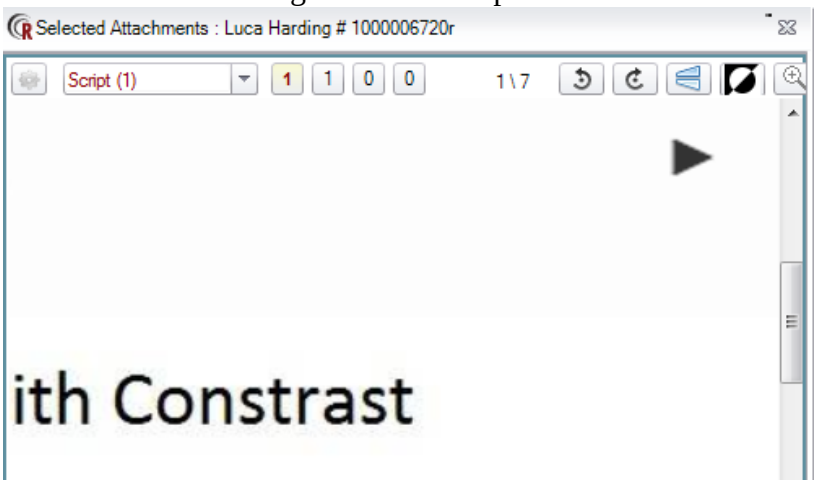



**Figure 5.45 – Next image control**

The top left icon in the attachments viewer (in the attachment data nugget or diagnose) is used to configure the users preferences as shown in the following screen shot. The user can uncheck a document type so that it will never show. This is useful if a Rad never wants to see a patients drivers licence. Also they can change the order in which the documents appear.

The first four document types are mapped to the numbered buttons at the top of the screen. Hovering over one of those numbered buttons will provide a tooltip explaining the document type it represents. The number refers to the total number of pages for that document type. In the following screen shot there is 1 page for the Script, 1 page for the *Report and zero pages for Unclassified and Demo document types. A fifth button will appear if there are other document types.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

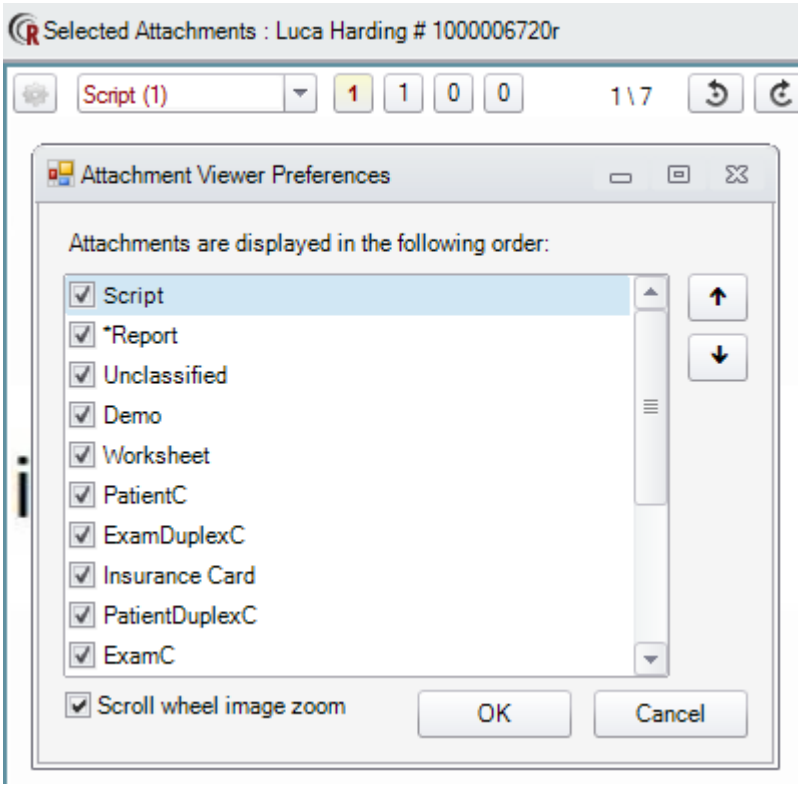



**Figure 5.46 – Attachment Viewer Preferences**

*Report, refers to the actual report, although we don't scan in the report and it technically isn't a scanned attachment. If available a '1' will show in the second button (based on the above configuration) and clicking on that will display the report in the attachments screen. The report, because it isn't a scanned image, displays as a Web Page with selectable text but in the same attachment viewer so that the rad doesn't have to float separate windows for viewing both attachments and reports. *Report is a special attachment type code that can't be re-used via administration for another scan document type code.

The data nugget version of the attachments viewer didn't display the rotate and flip icons, previously these where only visible during the process of acquiring scans/attachments. The "Invert Colors" icon is new in this build. The "Invert Colors" button inverts the white to black and black to white and is automatically invoked in the Rad screens if the user has configured the background of that data pane to dark and the foreground to light.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

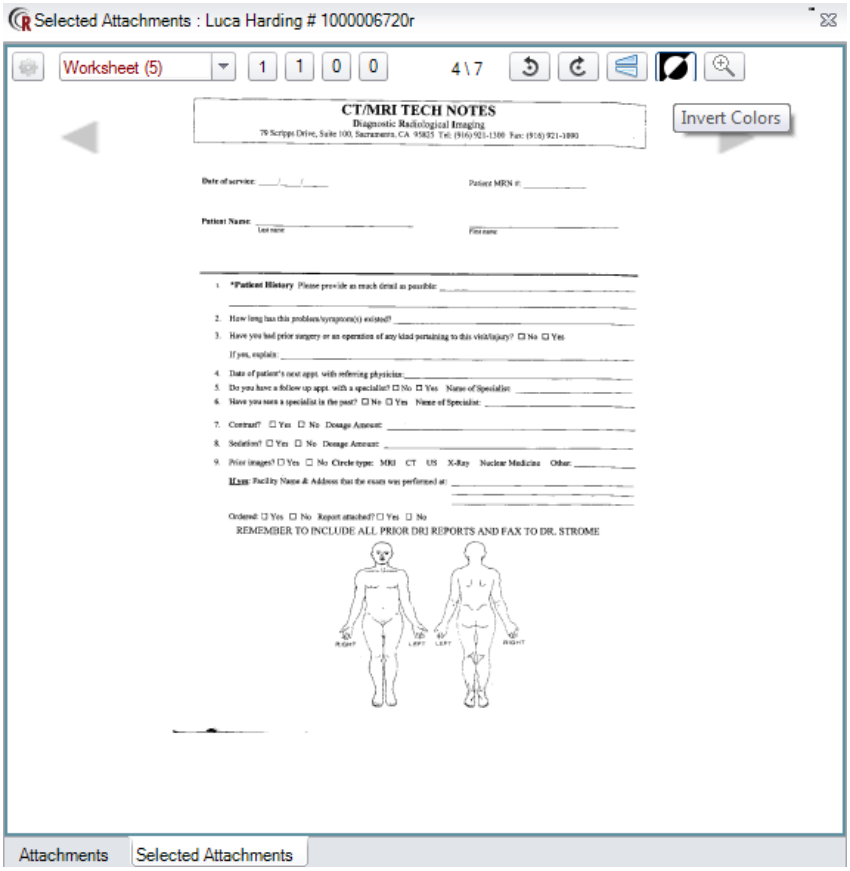



**Figure 5.47 – Data nugget attachment viewer**

There are three places where these changes will be visable:

1. Data Nuggets from patient history

2. Data Panes in the Rad Screens for both ‘Attachments’ and ‘Selected Attachments’

3. In the Attachment Viewer when scanning or reviewing scanned documents from screens such as View Edit. For example, screen: “View Edit”, tab: “Attachments”, double clicking on an attachments row will display the “Attachments Viewer”, which has the next, previous page, zoom and panning enhancements.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Tool Window Boarders

With the recent changes to the Patient History control we needed a method to show if the details being displayed in tool windows such as selected summary and selected attachments were for the current study or for another selected study.

We decided we would go with drawing a border around the tool windows in different colors, one color for tool windows showing current data, and another color for the ones showing prior data. These colors are also used to draw a border around the applicable row in the patient history tool window.

Currently these are the toolwindows that are configure to show borders:

- Summary
- Selected Summary
- Attachments
- Selected Attachments
- Selected Report
- Exam Details

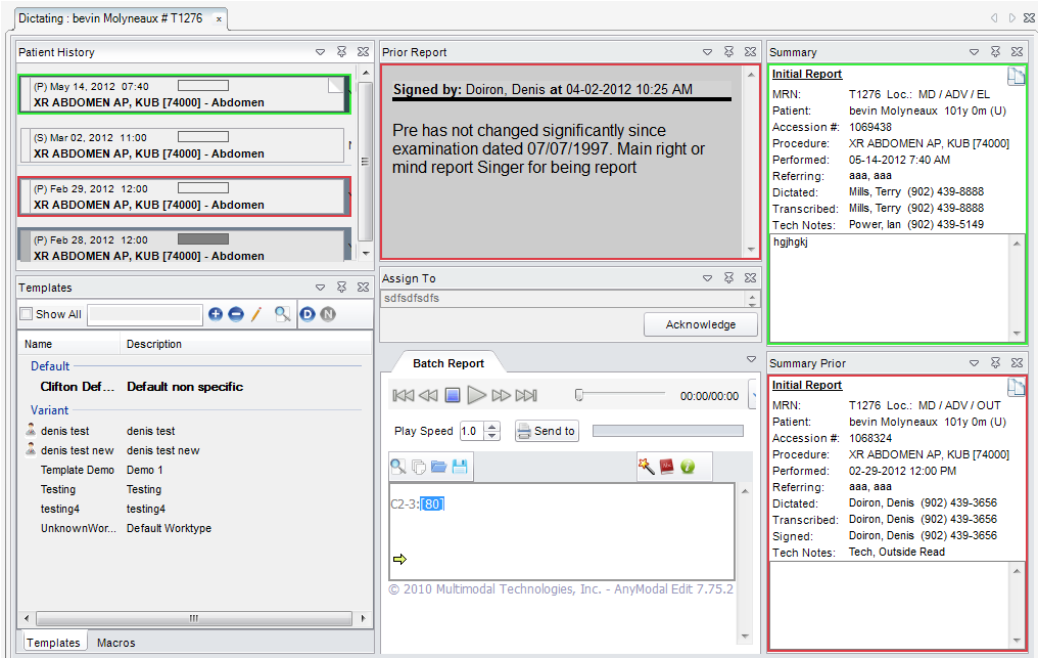



**Figure 5.48 – Reporting window displaying colored boarders**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

These colors are user selectable along with the width of the borders in question. This is accessed through user preferences and is on the "Reporting" tab. The changes will take effect the next time the tool window is drawn.

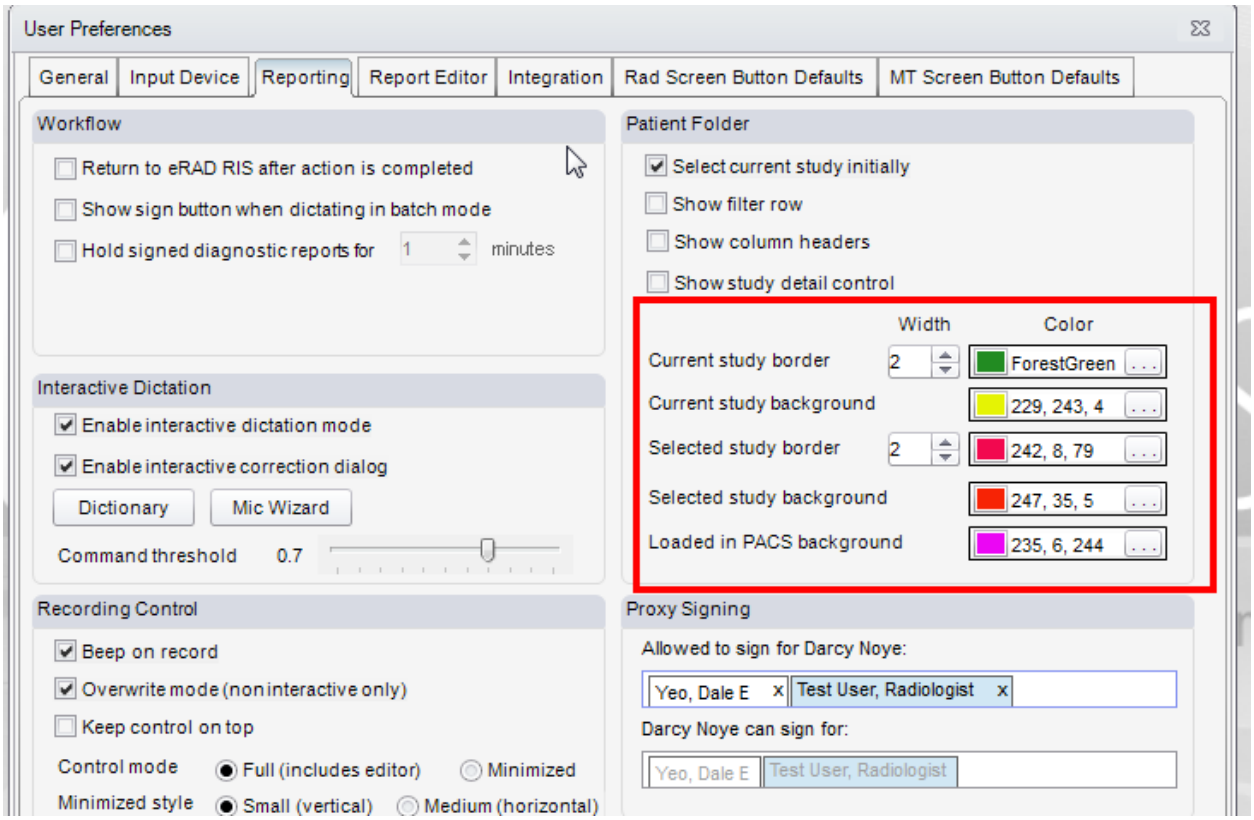



**Figure 5.49 – User preferences for boarder width and color**

The border on the patient history row will follow the width when it's between 0 and 4. When it's higher than 4 it will use 4, as anything higher doesn't work well in the patient history rows. The tool windows will use the exact width specified by the user preference.

If the user doesn't want to see these borders they can be turned off by setting the width to 0.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Patient Folder Back color Preferences

As mentioned earlier in this document the background color can be set in the Patient History control to display which study is currently selected

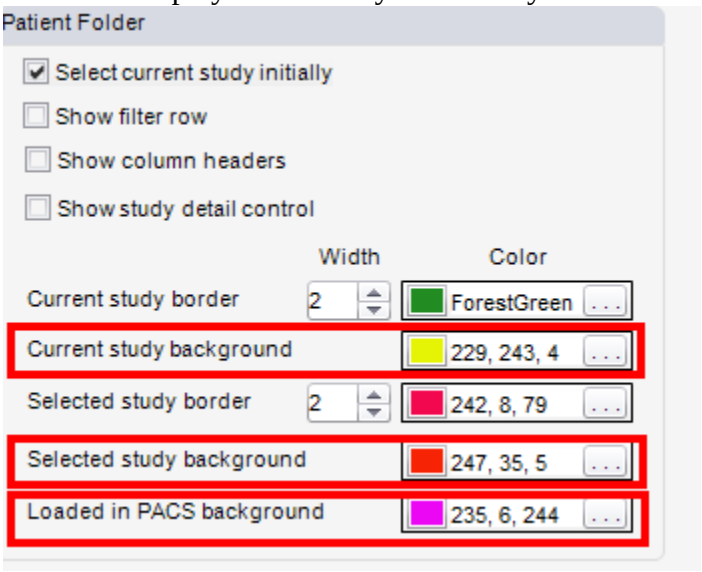



**Figure 5.50 – User preferences to set background study colors**

Looking at the background colors above, you can see in the figure below how this would look to the user. I used colors to be sure to stand out.

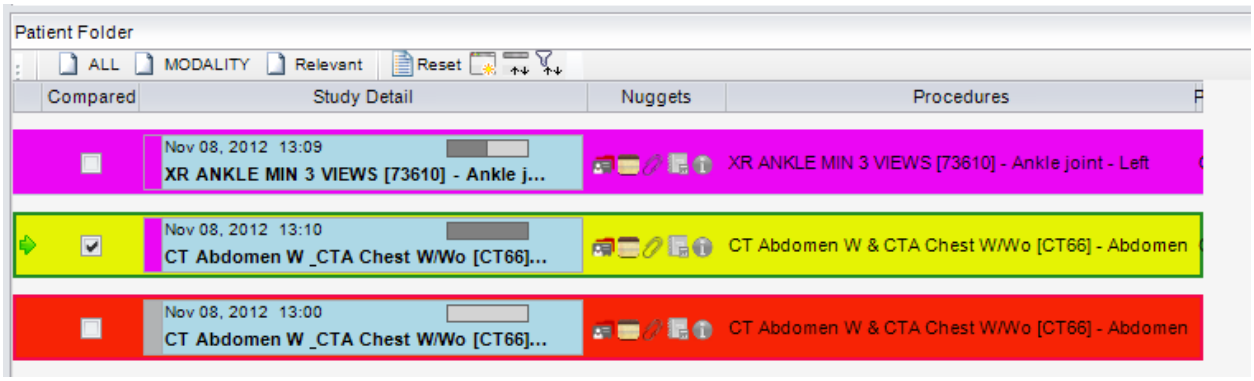



**Figure 5.51 – Patient history control in reporting window**

Notice that only two of the studies are loaded in the PACS. The red row is not, we know this because of the grey color next to the study detail control where the other 2 are purple.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

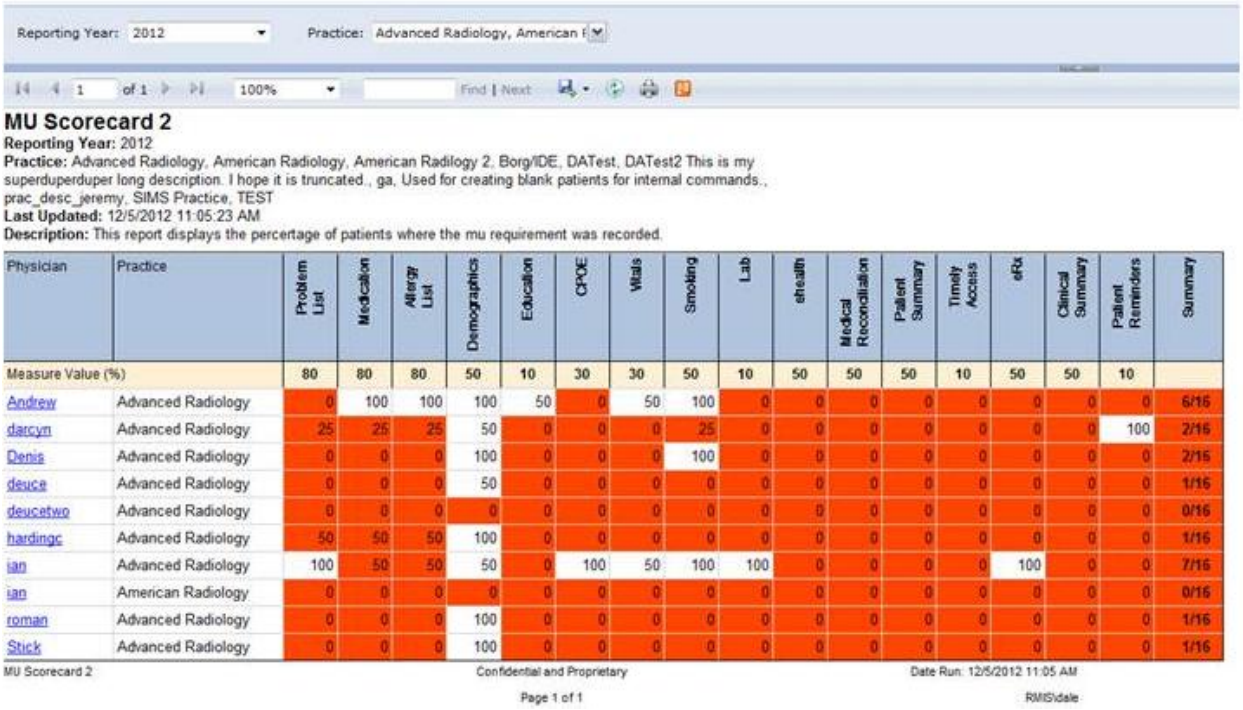
## Meaningful Use - Scorecard Rollup Tables

This feature will be completed over two builds 39 and 40. Phase 1 is completed in Build 39(Automated Measures). To resolve we added a new table c_mu_automated_measure_history which will be used to store automated measures for each patient, a Radiologist signs off on a report, at the specific practice for a specific reporting period(in Years). This table will be used by the mu scorecard report to show users a snap shot of the site with regards to mu. This table will get populated by the new stored procedure c_mu_SetAutomatedMeasures which will receives updates from a nightly job which will called c_ProcessPostEvents. This job checks the c_study_post_processing (this is a new table that gets populated by a new trigger on the c_action table storing action from within rRIS). Note studies will receive updates via the trigger even before the study is signed off but mu statistics will not get accounted for until the study is signed off. There is a new column added on the c_study table that will stamp the last time the mu measure was calculated(mu_automated_measures_last_updated). The reporting period in this table will be for scheduled exams between Oct. 1 2012 to Dec. 31 2012 signed off by a Rad for Year 1 and then Jan. 1 to Dec. 31 for each year after 2012.

Data Migration will have to take place on the c_mu_automated_measure_history to backfill all scheduled exams between Oct 1 and Dec 31 that have been signed off by a Rad.

We modified the existing management Report (MU Scorecard this will be completed in B40) which will eventually replace the existing MU Scorecard Report calling data from the new rollup tables. To better retrieve Automated Measure % on this report we created a new table "s_mu_measures" which will be used to store the MU Automated Measures and their appropriate Measure %'s for each Meaningful Use Stage. (stage 1 is accurate will modify stage 2 when requirements released).

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.




**MU Scorecard 2**

**Reporting Year:** 2012
**Practice:** Advanced Radiology, American Radiology, American Radiology 2, Borg/IDE, DATest, DATest2 This is my superduperduper long description. I hope it is truncated., ga, Used for creating blank patients for internal commands., prac_desc_jeremy, SIMS Practice, TEST
**Last Updated:** 12/5/2012 11:05:23 AM
**Description:** This report displays the percertage of patients where the mu requirement was recorded.

| Physician | Practice | Problem List | Medication | Allergy List | Demographics | Education | CPOE | Vitals | Smoking | Lab | ehealth | Medical Reconciliation | Patient Summary | Timely Access | eRx | Clinical Summary | Patient Reminders | Summary |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Measure Value (%) | | 80 | 80 | 80 | 50 | 10 | 30 | 30 | 50 | 10 | 50 | 50 | 50 | 10 | 50 | 50 | 10 | |
| Andrew | Advanced Radiology | 0 | 100 | 100 | 100 | 50 | 0 | 50 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6/16 |
| darcyn | Advanced Radiology | 25 | 25 | 25 | 50 | 0 | 0 | 0 | 25 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 2/16 |
| Denis | Advanced Radiology | 0 | 0 | 0 | 100 | 0 | 0 | 0 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2/16 |
| deuce | Advanced Radiology | 0 | 0 | 0 | 50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1/16 |
| deucetwo | Advanced Radiology | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0/16 |
| hardingc | Advanced Radiology | 50 | 50 | 50 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1/16 |
| ian | Advanced Radiology | 100 | 50 | 50 | 50 | 0 | 100 | 50 | 100 | 100 | 0 | 0 | 0 | 0 | 100 | 0 | 0 | 7/16 |
| ian | American Radiology | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0/16 |
| roman | Advanced Radiology | 0 | 0 | 0 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1/16 |
| Stick | Advanced Radiology | 0 | 0 | 0 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1/16 |

MU Scorecard 2 Confidential and Proprietary Date Run: 12/5/2012 11:05 AM
Page 1 of 1 RMISdale

**Figure 5.52 – MU Scorecard 2**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# Meaningful Use – Smoking Status Phase 2

A new column (snomed_ct_id) has been added to the existing smoking dataset. The l_smoking_status table we added the two new rows for “Heavy tobacco smoker” and “Light tobacco smoker”.

Only administrators should see the Smoking Status lookup. To prevent non admins from changing these values we have an access string that prevents these users from seeing the lookups…”Config.LookupEditor.SmokingStatus”

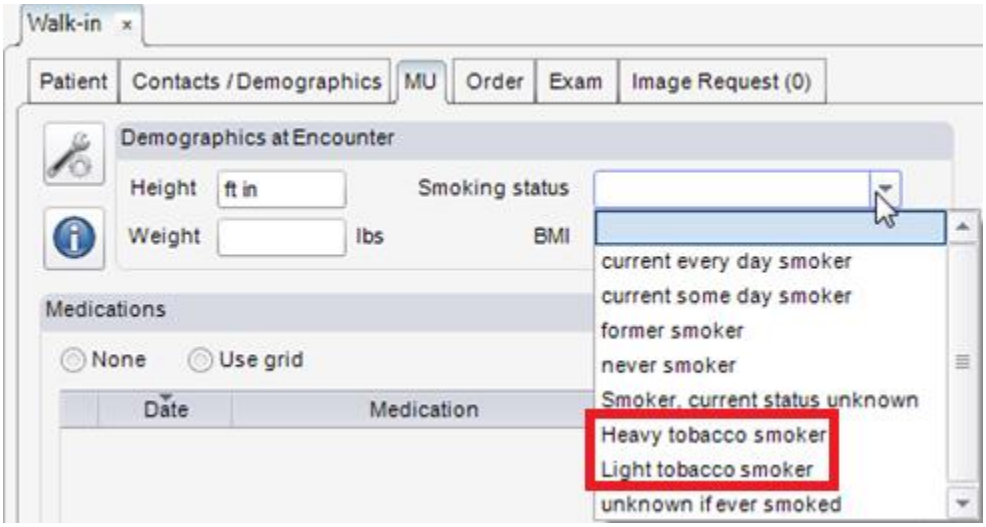



**Figure 5.53 – New smoking statuses**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Scan Document Archive

Scan documents are used extensively by the RIS to capture requisitions, worksheet, waivers, etc. These scan document occupy a significant amount of space in the db. There are some real benefits to storing the scan document in the db, at least initially, but there are some real concerns with db size. It is estimated that for every million exams we would need 1 TB for scan documents. The db backup time becomes longer as the db gets larger. In the event of equipment failure, disaster, etc. we may need to restore the db. A db recovery time ideally should be relatively short. With large db a short recovery time becomes difficult and expensive to implement.

We have added a new lookup table "ScanDocumentArchiveLocation" with access controlled by a new access string "Config.LookupEditor.ScanDocumentArchiveLocation"

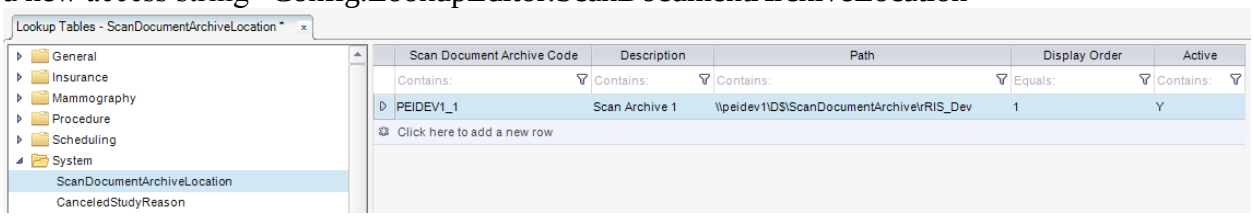



**Figure 5.54 – ScanDocumentArchiveLocation lookup**

l_scan_document_archive

Lookup Table of possible scan document archive locations.

| Name | Data type | Max Length | Default | Allow Nulls | Identity |
|---|---|---|---|---|---|
| scan_document_archive_code (PK)<br>The abbreviated, or short name for this archive code. Used as a natural key in referenced tables. | varchar | 20 | | | |
| description<br>The description for this archive path. | varchar | 500 | | x | |
| path<br>The path to where this archive location referes to. This path must be accessible to all rRISServices. | varchar | 1000 | | | |
| active_flag<br>(Y/N) Used to indicate if this row can be referenced in the future. | char | 1 | 'Y' | | |
| display_order<br>Used to indicate where the sort order position for this row when it appears in a dw combo box, or a list box. | int | 4 | | | |
| last_updated<br>The date and time that this row was lastupdated. | datetimeoffset | 10 | | | |
| last_updated_by_user_id<br>The user id of the person who last updated this row. | varchar | 100 | | | |

**Figure 5.55 – Scan document archive db values**

### Reading scan document from archive:

A scan document will exist in the db if its archive_dirty_flag = "Y". All new scan documents add to the db have this flag set to "Y". If this flag is set to "N" it means that the scan document has been moved from the db to a scan document archive. If this is the case, then the system will read the scan document from the archive. This is all transparent to the user. If the scan document is not accessible, a message will be presented to the user indicating that this "page is not available".

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## New columns for scan document page table

c_scan_document_page

Contains the images of the documents for the scan type

| Name | Data type | Max Length | Default | Allow Nulls | Identity |
|---|---|---|---|---|---|
| rowguid<br>A unique indentifier for this used by SQL Server FileStream feature. | uniqueidentifier | 16 | newid() | | |
| scan_document_page_key (PK)<br>Primary Key, autogenerated, internal use only. | int | 4 | | | x |
| scan_document_key (FK)<br>Identifies the scan document that this images belong to. (see c_scan_document.scan_document_key) | int | 4 | | | |
| page_number<br>The page number of the scanned document | int | 4 | | | |
| front_face<br>An image of the front side of the scan document | varbinary | -1 | | x | |
| last_updated<br>The date and time that this row was lastupdated. | datetimeoffset | 10 | | | |
| last_updated_by_user_id<br>The user id of the person who last updated this row. | varchar | 100 | | | |
| size<br>The size in kilobytes of the image. | int | 4 | | | |
| archive_code (FK)<br>identifies the path information for the scan document. (see l_scan_document_archive.scan_document_archive_code) | varchar | 20 | | x | |
| archive_datetime<br>identifies when this image was archived. | datetimeoffset | 10 | | x | |
| archive_path<br>The path within the archive to where this scan document is archived. | varchar | 300 | | x | |
| archive_dirty_flag<br>if yes we need to archive or re-archive the page | char | 1 | 'Y' | | |

**Figure 5.56 – Scan document page possible data values**

There also new system configuration settings to go with the new access string. The table shows the new settings and descriptions of each.

| | |
|---|---|
| ScanDocumentMaxSizeInDB | The maximum size in GB that the system will persist scans documents directly in the db. When this value is exceeded the archive process will begin (at its next run time interval) to move scan documents to the archive. |
| ScanDocumentMinSizeInDB | When scan document archiving is initiated, this is the minimum size in GB that the system will reduce the amount of scans documents that are persist directly in the db. |
| ScanDocumentArchiveCurrentLocation | The archive location where the archive process will move scan documents to. The value must match a value in the l_scan_document_archive lookup table. |
| ScanDocumentArchiveStartTime | The time of day in hh:mi format (24 hour) that the scan document archive process can wake up. |
| ScanDocumentArchiveStopTime | The time of day in hh:mi format (24 hour) that the scan document archive process must stop. ~~Does not have to be greater~~~~greater~~If less than ScanDocumentArchiveStartTime then the process will continue to the next day until the time is reached. |
| ScanDocumentArchiveDaysOfTheWeek | A comma separated list of days that the archive process will wake up to see if there is work. The list is contains numbers representing the day number within the week, where: |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | |
|---|---|
| | 0 is Sunday<br>1 is Monday<br>2 is Tuesday<br>3 is Wednesday<br>4 is Thursday,<br>5 is Friday<br>6 is Saturday<br><br>For example, a value of 0,1,2,3,4,5,6 means that the archive process will run every day of the week. |
| ScanDocumentArchiveServerNames | A comma separated list of server names that are allowed to run the archive service. |
| ScanDocumentArchiveMaxThreads | The maximum number of thread the scan document archive process can use within one process. |

**Table 5.2 – Scan document archive system configuration settings**

**When writing to the archive:**

The archive process must be scalable. It should be able to run on multiple archive process, possibly running on many services.

Moving scan documents to the archive should be done by oldest first.
The archive process will calculate the value of the c_scan_document_page.archive_path based on the last_updated date of the scan_document_page row using "\yyyy\mm\dd\hh\{scan_document_page_key}.jpg, where yyyy is the year, mm is the month ~~and~~, dd is the day and hh is the hour from the last_updated date.

If a scan document is retrieved from the archive and if and only if it is updated by the user (cropped, rotated, etc), the scan document will be persisted to the db again. When this scan document gets moved to the archive again, the archive process will delete the original file in the archive, then update archive_path based on the new value of the last_updated, then write the file to the new archive location.

Once the document is successfully written to and verified from the archive document we would clear it from the db.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## IMPLEMENTATION ADDITIONS TO THE DESIGN

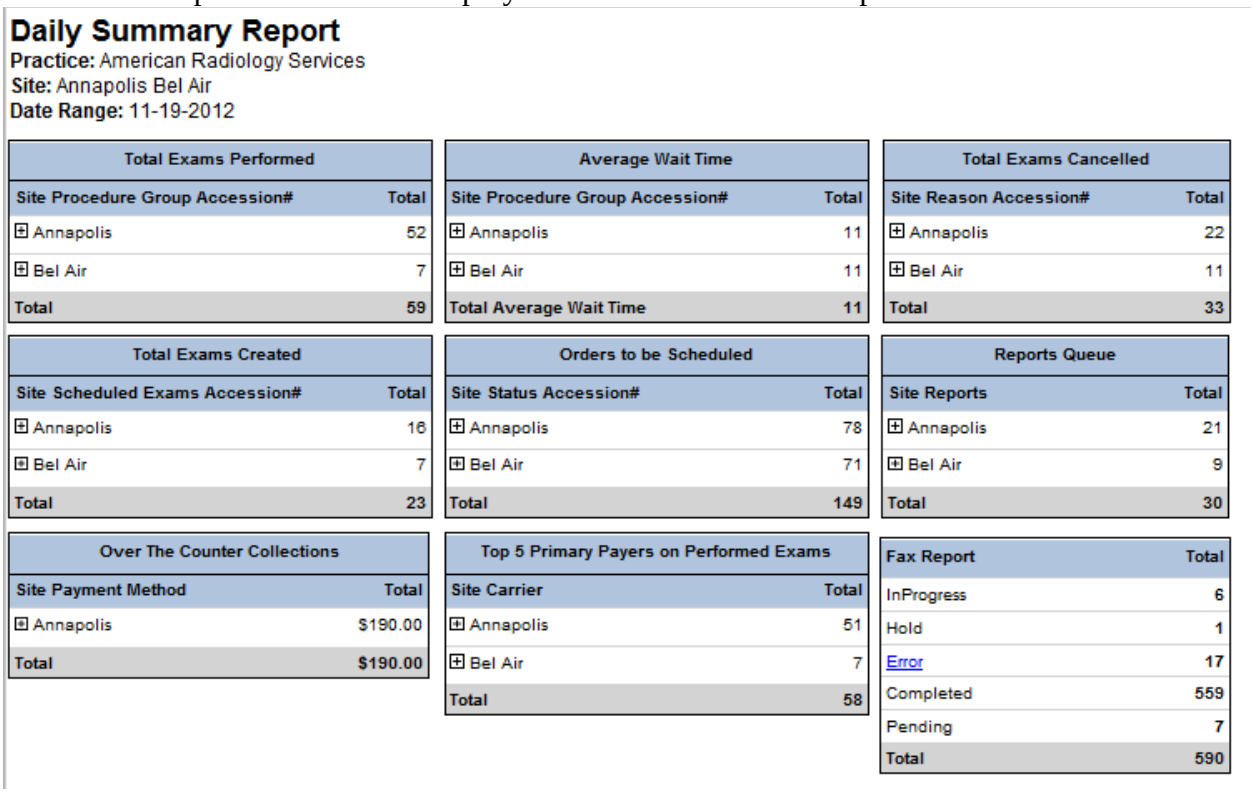
All configuration values changes take effect within 30 seconds after saving the change.

Processing starts once the MaxSizeInDB, Start/Stop Time and day of week conditions are meet. After the MinSizeInDB is reached processing will stop. If the scan document allocation does go above the MaxSizeInDB in the same archive start/stop window, the archive process will resume archiving. If the RIS service is restarted or if a configuration value for archiving is changed the conditions will be tested and if archiving is necessary processing will also start again.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Management Report – Daily Summary Report

We modified all queries on this report to allow the user the ability to filter the report by one or more site(s). Also, on each report within the report we added another group level for "site_code" so now each report will be broken up by totals based on what took place at the individual site.



**Daily Summary Report**

**Practice:** American Radiology Services
**Site:** Annapolis Bel Air
**Date Range:** 11-19-2012

| Total Exams Performed | |
|---|---|
| Site Procedure Group Accession# | Total |
| ⊞ Annapolis | 52 |
| ⊞ Bel Air | 7 |
| Total | 59 |

| Average Wait Time | |
|---|---|
| Site Procedure Group Accession# | Total |
| ⊞ Annapolis | 11 |
| ⊞ Bel Air | 11 |
| Total Average Wait Time | 11 |

| Total Exams Cancelled | |
|---|---|
| Site Reason Accession# | Total |
| ⊞ Annapolis | 22 |
| ⊞ Bel Air | 11 |
| Total | 33 |

| Total Exams Created | |
|---|---|
| Site Scheduled Exams Accession# | Total |
| ⊞ Annapolis | 16 |
| ⊞ Bel Air | 7 |
| Total | 23 |

| Orders to be Scheduled | |
|---|---|
| Site Status Accession# | Total |
| ⊞ Annapolis | 78 |
| ⊞ Bel Air | 71 |
| Total | 149 |

| Reports Queue | |
|---|---|
| Site Reports | Total |
| ⊞ Annapolis | 21 |
| ⊞ Bel Air | 9 |
| Total | 30 |

| Over The Counter Collections | |
|---|---|
| Site Payment Method | Total |
| ⊞ Annapolis | $190.00 |
| Total | $190.00 |

| Top 5 Primary Payers on Performed Exams | |
|---|---|
| Site Carrier | Total |
| ⊞ Annapolis | 51 |
| ⊞ Bel Air | 7 |
| Total | 58 |

| Fax Report | Total |
|---|---|
| InProgress | 6 |
| Hold | 1 |
| Error | 17 |
| Completed | 559 |
| Pending | 7 |
| Total | 590 |

**Figure 5.57 – Daily Summary Report**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Management Report – Biopsy Results Pending

Created new report under the operations deployment Biopsy Results Pending Letter as well as a sample form with the same name. To identify there is a column on the c_study for mammo_fup_required_flag and the report\letter will be looking for a value of 'Y'.
Screenshot: The form and report both have the same look. Difference is the parameters passed to the letter are more refined to the patient and exam where the report pulls all exams in the specified range that meet the criteria.

Parameters for report:

Practice(s), Site(s), and Date range based on scheduled date

Data references

- mammo_dataset
- l_practice
- l_site

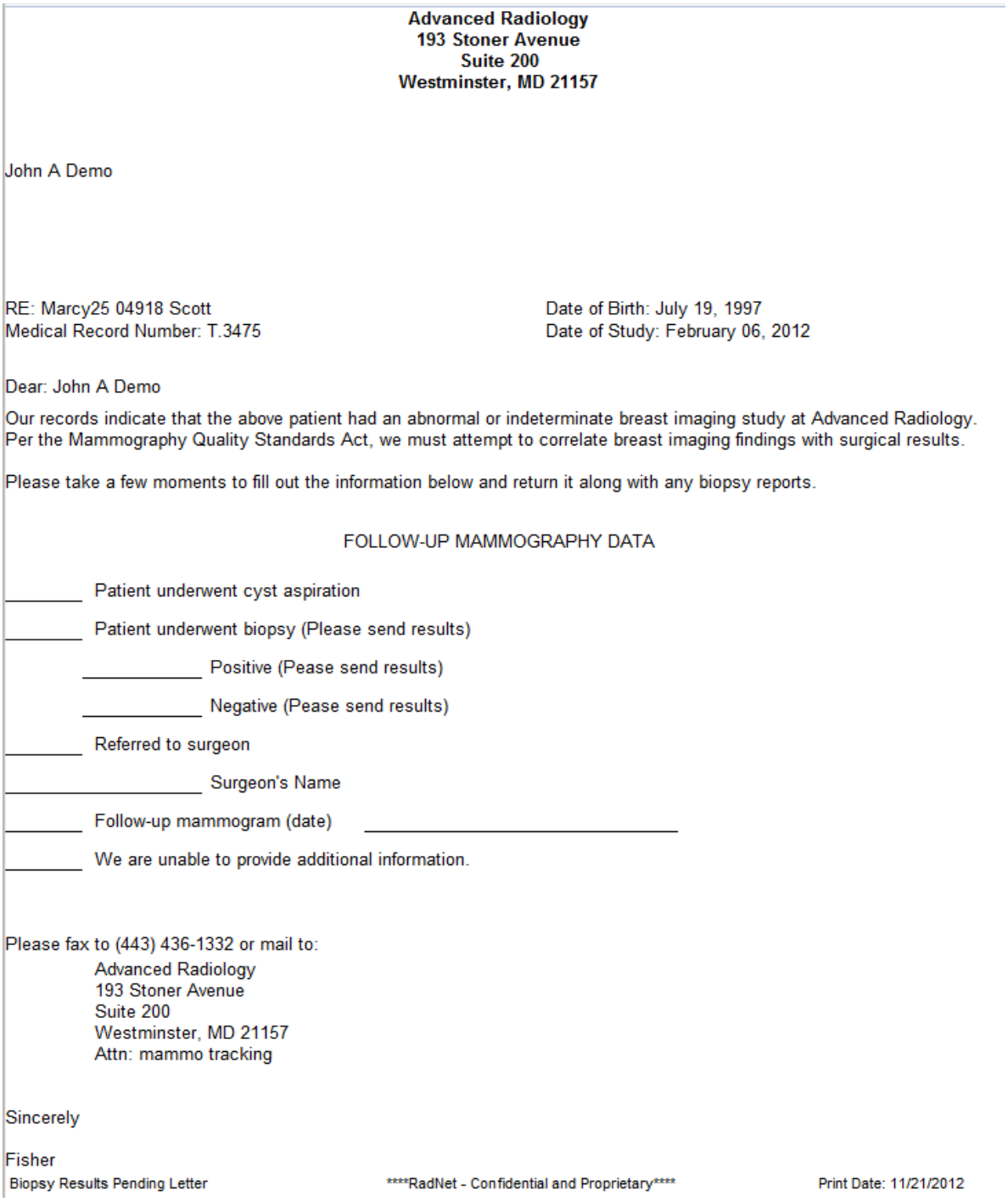
Parameters for letter

- Study_key

Data references

- mammo_dataset (for the study selected)

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.



**Advanced Radiology**
**193 Stoner Avenue**
**Suite 200**
**Westminster, MD 21157**

John A Demo

RE: Marcy25 04918 Scott
Medical Record Number: T.3475

Date of Birth: July 19, 1997
Date of Study: February 06, 2012

Dear: John A Demo

Our records indicate that the above patient had an abnormal or indeterminate breast imaging study at Advanced Radiology. Per the Mammography Quality Standards Act, we must attempt to correlate breast imaging findings with surgical results.

Please take a few moments to fill out the information below and return it along with any biopsy reports.

FOLLOW-UP MAMMOGRAPHY DATA

_____ Patient underwent cyst aspiration

_____ Patient underwent biopsy (Please send results)

_____ Positive (Pease send results)

_____ Negative (Pease send results)

_____ Referred to surgeon

_____ Surgeon's Name

_____ Follow-up mammogram (date) _____

_____ We are unable to provide additional information.

Please fax to (443) 436-1332 or mail to:
Advanced Radiology
193 Stoner Avenue
Suite 200
Westminster, MD 21157
Attn: mammo tracking

Sincerely

Fisher

Biopsy Results Pending Letter ****RadNet - Confidential and Proprietary**** Print Date: 11/21/2012

**Figure 5.58 – Biopsy Results Pending Report**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Management Report – Chief Complaint Audit Enhancement

The "location" (sites) parameter has been added to this report for filtering.

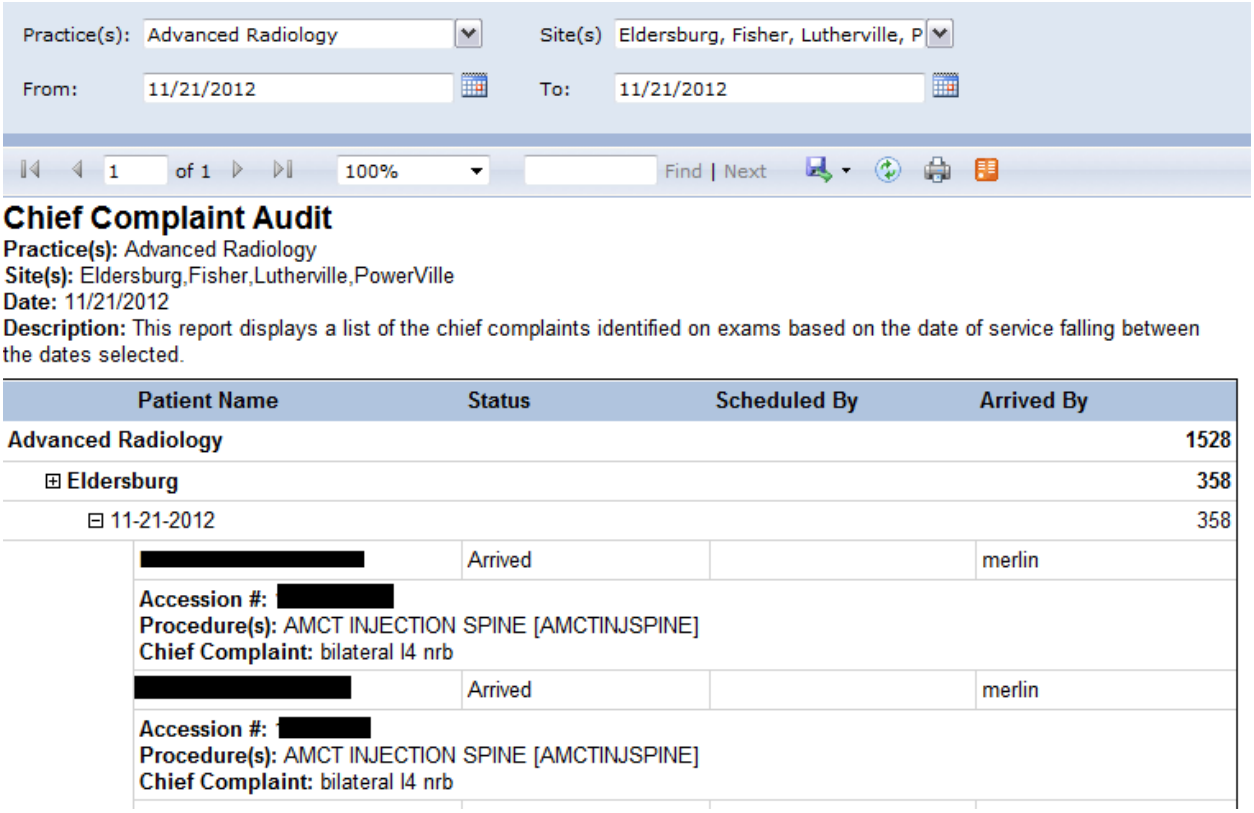



**Figure 5.59 – Chief Complaint Audit Report**

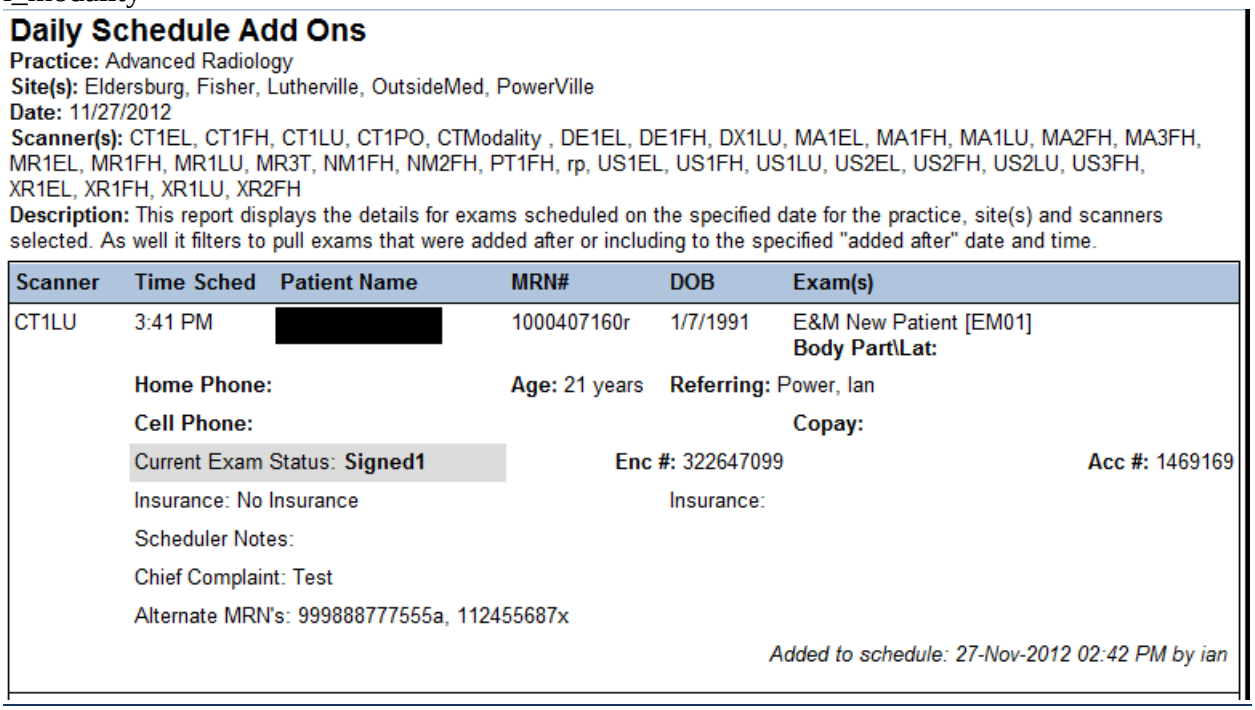
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Management Report – Daily Schedule Add Ons

Description: This report displays the details for exams scheduled on the specified date for the practice, site(s) and scanners selected. As well it filters to pull exams that were added after or including to the specified "added after" date and time.

Parameters:
Scheduled Date (one only), Practice,Site,Scanners and Added after (created date)

Data references:
scheduledappointments_dataset
l_practice
l_site
l_modality



**Daily Schedule Add Ons**

**Practice:** Advanced Radiology
**Site(s):** Eldersburg, Fisher, Lutherville, OutsideMed, PowerVille
**Date:** 11/27/2012
**Scanner(s):** CT1EL, CT1FH, CT1LU, CT1PO, CTModality , DE1EL, DE1FH, DX1LU, MA1EL, MA1FH, MA1LU, MA2FH, MA3FH, MR1EL, MR1FH, MR1LU, MR3T, NM1FH, NM2FH, PT1FH, rp, US1EL, US1FH, US1LU, US2EL, US2FH, US2LU, US3FH, XR1EL, XR1FH, XR1LU, XR2FH
**Description:** This report displays the details for exams scheduled on the specified date for the practice, site(s) and scanners selected. As well it filters to pull exams that were added after or including to the specified "added after" date and time.

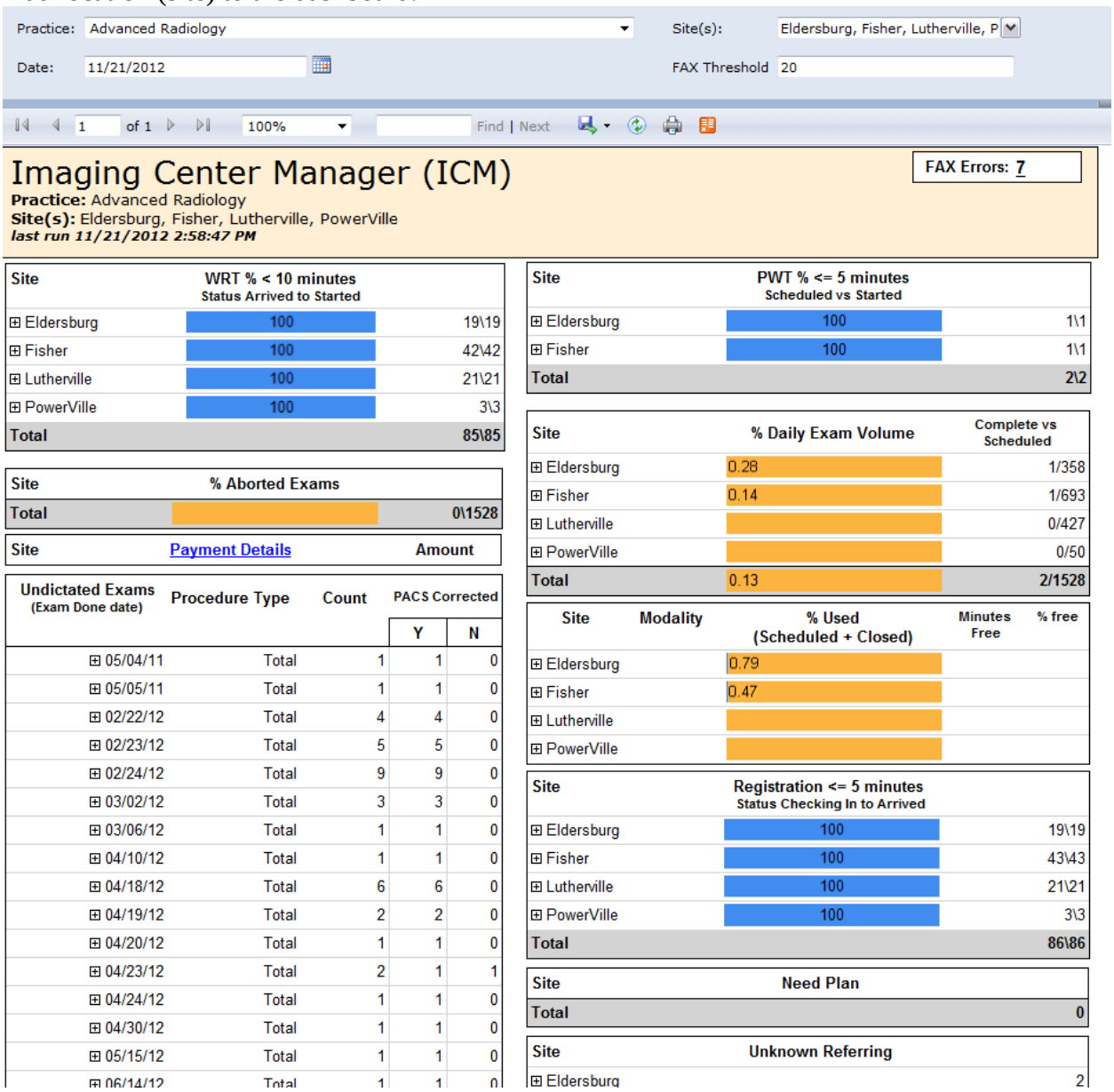
| Scanner | Time Sched | Patient Name | MRN# | DOB | Exam(s) |
|---|---|---|---|---|---|
| CT1LU | 3:41 PM | [redacted] | 1000407160r | 1/7/1991 | E&M New Patient [EM01]<br>**Body Part\Lat:** |
| | **Home Phone:** | | **Age:** 21 years | **Referring:** Power, Ian | |
| | **Cell Phone:** | | | | **Copay:** |
| | Current Exam Status: **Signed1** | | **Enc #:** 322647099 | | **Acc #:** 1469169 |
| | Insurance: No Insurance | | | Insurance: | |
| | Scheduler Notes: | | | | |
| | Chief Complaint: Test | | | | |
| | Alternate MRN's: 999888777555a, 112455687x | | | | |
| | | | | | *Added to schedule: 27-Nov-2012 02:42 PM by ian* |

**Figure 5.60 – Daily Schedule Add Ons report**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# Management Report – ICM Dashboard Enhancements

Add location (site) to the dashboard.



Practice: Advanced Radiology  Site(s): Eldersburg, Fisher, Lutherville, P

Date: 11/21/2012  FAX Threshold 20

1 of 1  100%  Find | Next

## Imaging Center Manager (ICM)

FAX Errors: 7

**Practice:** Advanced Radiology
**Site(s):** Eldersburg, Fisher, Lutherville, PowerVille
***last run 11/21/2012 2:58:47 PM***

| Site | WRT % < 10 minutes Status Arrived to Started | |
|---|---|---|
| ⊞ Eldersburg | 100 | 19\19 |
| ⊞ Fisher | 100 | 42\42 |
| ⊞ Lutherville | 100 | 21\21 |
| ⊞ PowerVille | 100 | 3\3 |
| Total | | 85\85 |

| Site | PWT % <= 5 minutes Scheduled vs Started | |
|---|---|---|
| ⊞ Eldersburg | 100 | 1\1 |
| ⊞ Fisher | 100 | 1\1 |
| Total | | 2\2 |

| Site | % Aborted Exams | |
|---|---|---|
| Total | | 0\1528 |

| Site | % Daily Exam Volume | Complete vs Scheduled |
|---|---|---|
| ⊞ Eldersburg | 0.28 | 1/358 |
| ⊞ Fisher | 0.14 | 1/693 |
| ⊞ Lutherville | | 0/427 |
| ⊞ PowerVille | | 0/50 |
| Total | 0.13 | 2/1528 |

| Site | Payment Details | Amount |
|---|---|---|

| Site | Modality | % Used (Scheduled + Closed) | Minutes Free | % free |
|---|---|---|---|---|
| ⊞ Eldersburg | | 0.79 | | |
| ⊞ Fisher | | 0.47 | | |
| ⊞ Lutherville | | | | |
| ⊞ PowerVille | | | | |

| Undictated Exams (Exam Done date) | Procedure Type | Count | PACS Corrected | |
|---|---|---|---|---|
| | | | Y | N |
| ⊞ 05/04/11 | Total | 1 | 1 | 0 |
| ⊞ 05/05/11 | Total | 1 | 1 | 0 |
| ⊞ 02/22/12 | Total | 4 | 4 | 0 |
| ⊞ 02/23/12 | Total | 5 | 5 | 0 |
| ⊞ 02/24/12 | Total | 9 | 9 | 0 |
| ⊞ 03/02/12 | Total | 3 | 3 | 0 |
| ⊞ 03/06/12 | Total | 1 | 1 | 0 |
| ⊞ 04/10/12 | Total | 1 | 1 | 0 |
| ⊞ 04/18/12 | Total | 6 | 6 | 0 |
| ⊞ 04/19/12 | Total | 2 | 2 | 0 |
| ⊞ 04/20/12 | Total | 1 | 1 | 0 |
| ⊞ 04/23/12 | Total | 2 | 1 | 1 |
| ⊞ 04/24/12 | Total | 1 | 1 | 0 |
| ⊞ 04/30/12 | Total | 1 | 1 | 0 |
| ⊞ 05/15/12 | Total | 1 | 1 | 0 |
| ⊞ 06/14/12 | Total | 1 | 1 | 0 |

| Site | Registration <= 5 minutes Status Checking In to Arrived | |
|---|---|---|
| ⊞ Eldersburg | 100 | 19\19 |
| ⊞ Fisher | 100 | 43\43 |
| ⊞ Lutherville | 100 | 21\21 |
| ⊞ PowerVille | 100 | 3\3 |
| Total | | 86\86 |

| Site | Need Plan |
|---|---|
| Total | 0 |

| Site | Unknown Referring |
|---|---|
| ⊞ Eldersburg | 2 |

**Figure 5.61 – ICM Dashboard Report**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Management Report – Image Request History

This report displays the history of Image Requests where requests fall between the specified dates for the selected practices and locations.

Parameters**:**
Practice, Site, and Date range based on requested date
Data references:

- c_vw_image_request_worklist
- l_practice
- l_site
- request_status

**Image Request History**
**Practice:** Advanced Radiology
**Site(s):** Eldersburg, Fisher, Lutherville, PowerVille
**Date Range:** 9/23/2012 - 11/23/2012
**Description:** This report displays the history of Image Requests where requests fall between the specified dates for the selected practices and locations.

| Requested Date | Completed by | Completed Date | Request Type | Requested By | Image Medium | Delivery Method | Status | MRN | Accession # |
|---|---|---|---|---|---|---|---|---|---|
| Advanced Radiology | | | | | | | | | 11 |
| ⊟ Eldersburg | | | | | | | | | 3 |
| ⊞ 11-21-2012 | | | | | | | | | 3 |
| ⊟ Fisher | | | | | | | | | 5 |
| ⊟ 11-08-2012 | | | | | | | | | 2 |
| | | | Other | test | CD | Courier | Pending | 1000007857r | 1072084 |
| | | | Other | test | CD | Courier | Pending | 1000007857r | 1072084 |
| ⊞ 11-06-2012 | | | | | | | | | 2 |
| ⊞ 11-02-2012 | | | | | | | | | 1 |
| ⊟ Lutherville | | | | | | | | | 3 |
| ⊞ 11-22-2012 | | | | | | | | | 3 |
| Total Requests: | | | | | | | | | 11 |

Image Request History | Confidential and Proprietary | Date Run: 11/23/2012 10:06 AM
Page 1 of 1 | RMIS\dale

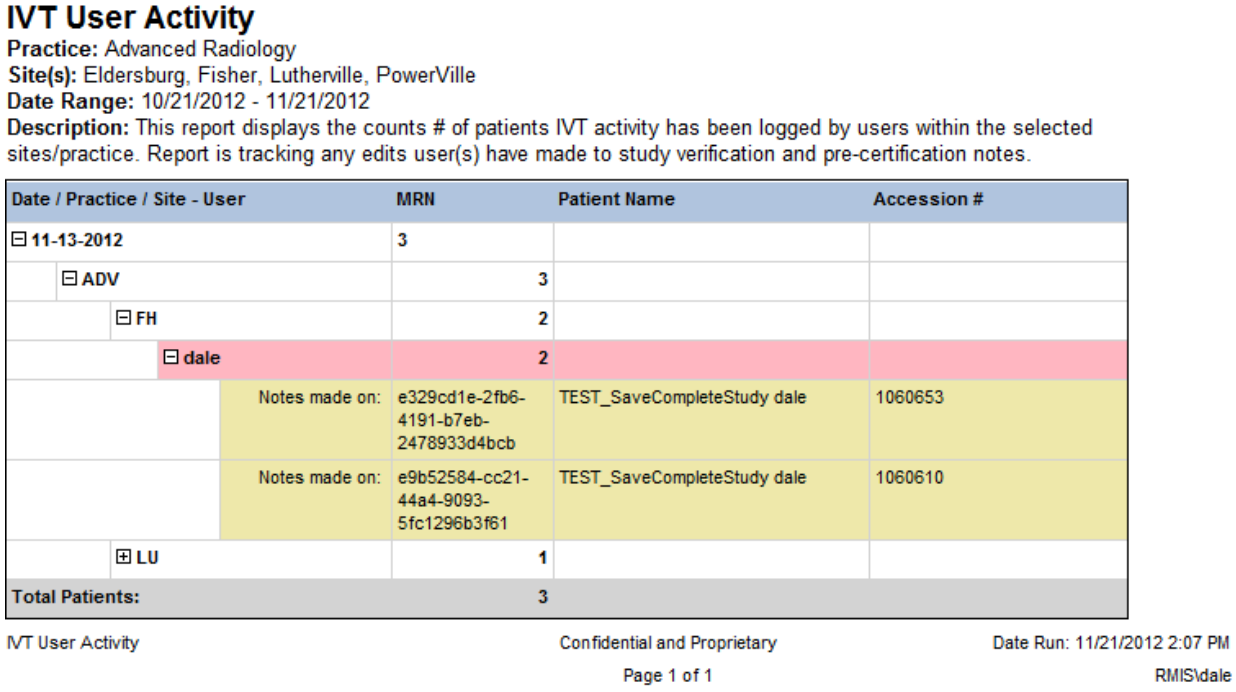
**Figure 5.62 – Image request history**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Management Report – IVT User Activity

This report displays the counts # of patients IVT activity has been logged by users within the selected sites/practice. Report is tracking any edits user(s) have made to study verification and pre-certification notes.
Parameters:
Practice, Site, and Date range based on audit log last_updated date
Data references:

- c_mgmt_IVT_activity
- l_practice
- l_site
- users in practice



**IVT User Activity**

**Practice:** Advanced Radiology
**Site(s):** Eldersburg, Fisher, Lutherville, PowerVille
**Date Range:** 10/21/2012 - 11/21/2012
**Description:** This report displays the counts # of patients IVT activity has been logged by users within the selected sites/practice. Report is tracking any edits user(s) have made to study verification and pre-certification notes.

| Date / Practice / Site - User | MRN | Patient Name | Accession # |
|---|---|---|---|
| ⊟ 11-13-2012 | 3 | | |
| ⊟ ADV | 3 | | |
| ⊟ FH | 2 | | |
| ⊟ dale | 2 | | |
| Notes made on: | e329cd1e-2fb6-4191-b7eb-2478933d4bcb | TEST_SaveCompleteStudy dale | 1060653 |
| Notes made on: | e9b52584-cc21-44a4-9093-5fc1296b3f61 | TEST_SaveCompleteStudy dale | 1060610 |
| ⊞ LU | 1 | | |
| Total Patients: | 3 | | |

IVT User Activity | Confidential and Proprietary | Date Run: 11/21/2012 2:07 PM
Page 1 of 1 | RMIS\dale

**Figure 5.63 – IVT User Activity report**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Management Report – MQSA Outcome Report

This report displays outcome results for BIRAD 4 and BIRAD 5 exams. All Exams are Signed exams.

Report parameters are:

- Practice
- Site(s)
- Date Range
- Signing Radiologist
- Procedure Codes

**Description:** This report displays outcome results for BIRAD 4 and BIRAD 5 exams. All Exams are Signed exams.

| Signing Radiologist | # Studies | # Benign ( + ) | # Malignant ( - ) | No Biopsy on file | % ( + ) | % ( - ) | % NA |
|---|---|---|---|---|---|---|---|
| ⊞ Darcy j233456 Aiken | 1 | 1 | 0 | 0 | 100.00 % | 0.00 % | 0.00 % |
| ⊞ Darcy T Noye | 15 | 11 | 3 | 1 | 73.33 % | 20.00 % | 6.67 % |
| ⊞ Stick da Powell | 1 | 0 | 1 | 0 | 0.00 % | 100.00 % | 0.00 % |
| Total: | 17 | 12 | 4 | 1 | 70.59 % | 23.53 % | 5.88 % |

**Figure 5.64 – MQSA Outcome Report**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Management Report – NM Therapy Patient Listing

New report under the operations deployment

Parameters:
Practice, Site, and Date range based on scheduled date

Data references:
- NM_I131_dataset
- l_practice
- l_site

### NM Therapy Patient Listing

**Practice:** Highway Imaging Associates, Pinnacle Diagnostic Radiology
**Site(s):** Flatbush Ave, 49th Street, New Kirk Ave
**Date Range:** 10/1/2012 - 12/31/2012
**Description:**This report shows all exams within the specified parameters where the procedure description contains I-131.

| Scheduled | Patient Name | MRN # | DOB | Encounter ID |
|---|---|---|---|---|
| 10-17-2012 | [redacted] | [redacted] | 03-07-1957 | [redacted] |
| **Exam:** NM I-131 Whole Body Scan [78018] - Body<br>**Status:** Signed1 | | | **Location:** Flatbush Ave | |
| **Referring:** [redacted] | | | | |
| 10-19-2012 | [redacted] | [redacted] | 03-07-1957 | [redacted] |
| **Exam:** NM I-131 Therapy For Cancer [79005C]<br>**Status:** Signed1 | | | **Location:** Flatbush Ave | |
| **Referring:** [redacted] | | | | |
| 10-26-2012 | [redacted] | [redacted] | 03-07-1957 | [redacted] |
| **Exam:** NM I-131 Whole Body Scan [78018] - Body<br>**Status:** Signed1 | | | **Location:** Flatbush Ave | |
| **Referring:** [redacted] | | | | |

**Figure 5.65 – NM Therapy Patient Listing**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Management Report – Patients Without Insurance

Parameters:
Practice(s), Site(s) and date range (appointment date)

Data references:

- patientsWithoutInsurance
- l_practice
- l_site

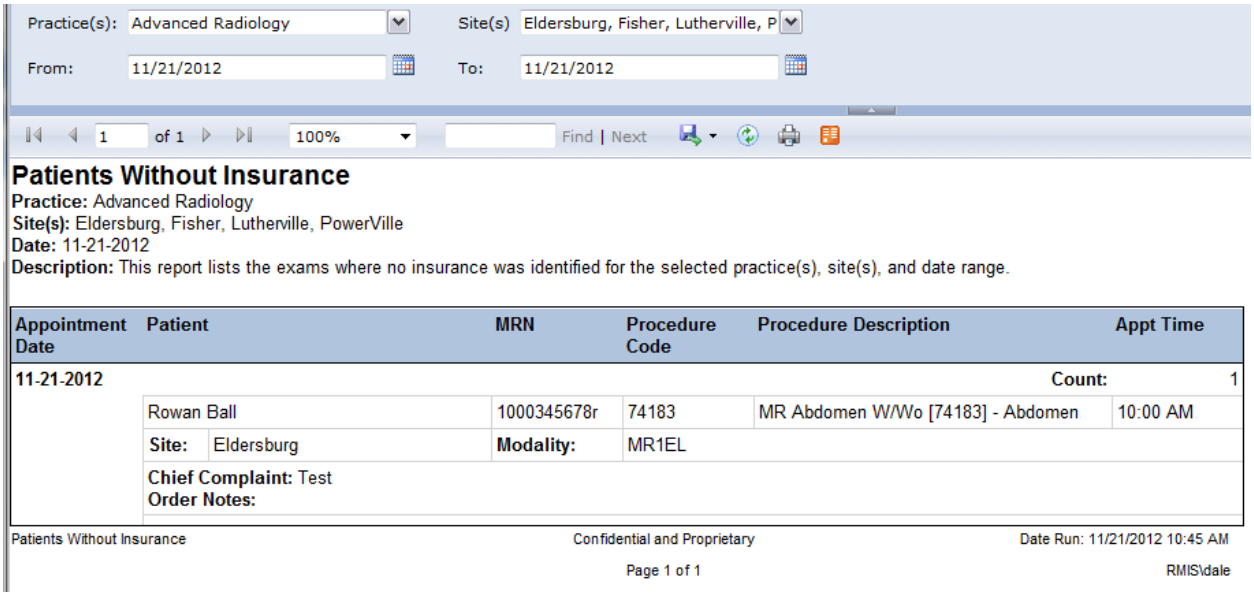


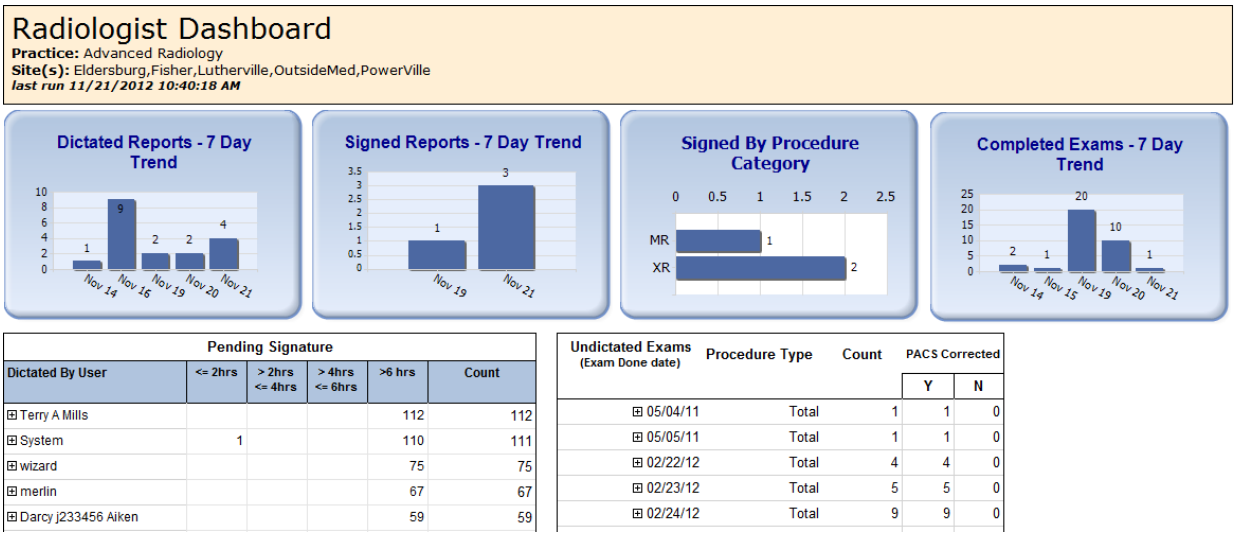

**Figure 5.66 – Patients without insurance report**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Management Report – Radiologist Dashboard Enhancement

Added control for for completed exams.

Screenshot:
New control is called Completed Exams – 7 Day Trend




**Pending Signature**

| Dictated By User | <= 2hrs | > 2hrs <= 4hrs | > 4hrs <= 6hrs | >6 hrs | Count |
|---|---|---|---|---|---|
| ⊞ Terry A Mills | | | | 112 | 112 |
| ⊞ System | 1 | | | 110 | 111 |
| ⊞ wizard | | | | 75 | 75 |
| ⊞ merlin | | | | 67 | 67 |
| ⊞ Darcy j233456 Aiken | | | | 59 | 59 |

| Undictated Exams (Exam Done date) | Procedure Type | Count | PACS Corrected | |
|---|---|---|---|---|
| | | | Y | N |
| ⊞ 05/04/11 | Total | 1 | 1 | 0 |
| ⊞ 05/05/11 | Total | 1 | 1 | 0 |
| ⊞ 02/22/12 | Total | 4 | 4 | 0 |
| ⊞ 02/23/12 | Total | 5 | 5 | 0 |
| ⊞ 02/24/12 | Total | 9 | 9 | 0 |

**Figure 5.67 - Radiologist Dashboard Enhancement**

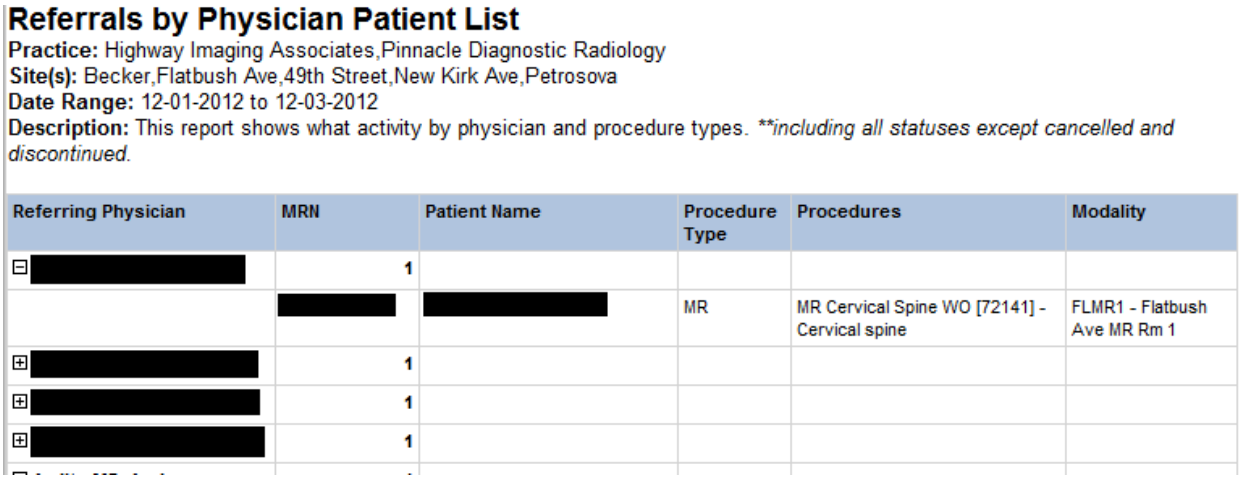
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Management Report – Referrals by Physician List

This report shows what activity by physician and procedure types. **including all statuses except cancelled and discontinued.

Report parameters are:

- Practice
- Site(s)
- Date Range
- Modality Types



**Referrals by Physician Patient List**

**Practice:** Highway Imaging Associates,Pinnacle Diagnostic Radiology
**Site(s):** Becker,Flatbush Ave,49th Street,New Kirk Ave,Petrosova
**Date Range:** 12-01-2012 to 12-03-2012
**Description:** This report shows what activity by physician and procedure types. ***including all statuses except cancelled and discontinued.*

| Referring Physician | MRN | Patient Name | Procedure Type | Procedures | Modality |
|---|---|---|---|---|---|
| [redacted] | 1 | | | | |
| | [redacted] | [redacted] | MR | MR Cervical Spine WO [72141] - Cervical spine | FLMR1 - Flatbush Ave MR Rm 1 |
| [redacted] | 1 | | | | |
| [redacted] | 1 | | | | |
| [redacted] | 1 | | | | |

**Figure 5.68 - Referrals by Physician List**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Management Report – RTAT Detail Mammo

Created new report under the operations deployment called RTAT Detail Mammo.

Parameters for report:
Procedure group where the mammo type code is not null, and Date range based on signed date

Data references:

- rtat_dataset
- l_procedure_group_dataset

**RTAT Detail Mammo**
**Date Range:** 11/16/2012 - 11/22/2012
**Procedure Group(s): Mammography**
**Excluding exams signed on weekends**

| Radiologist: Pending Dictation - Pending Transcription (% of reports completed in < 3 hours) | | |
|---|---|---|
| **Week Ending** | **ARS** | **# Signed Exams** |
| ⊞ 11/16/2012 | 44.98 % | 269 |
| ⊞ 11/23/2012 | 36.71 % | 1,038 |
| **Total** | **38.41 %** | **1,307** |

| Transcriptionist: Pending Transcription - Pending Signature (% of reports completed in < 3 hours) | | |
|---|---|---|
| **Week Ending** | **ARS** | **# Signed Exams** |
| ⊞ 11/16/2012 | 97.77 % | 269 |
| ⊞ 11/23/2012 | 99.04 % | 1,038 |
| **Total** | **98.78 %** | **1,307** |

| Radiologist: Pending Signature - Signed (% of reports completed in < 2 hours) | | |
|---|---|---|
| **Week Ending** | **ARS** | **# Signed Exams** |
| ⊞ 11/16/2012 | 79.93 % | 269 |
| ⊞ 11/23/2012 | 88.44 % | 1,038 |
| **Total** | **86.69 %** | **1,307** |

**Figure 5.69 – RTAT Detail Mammo report**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

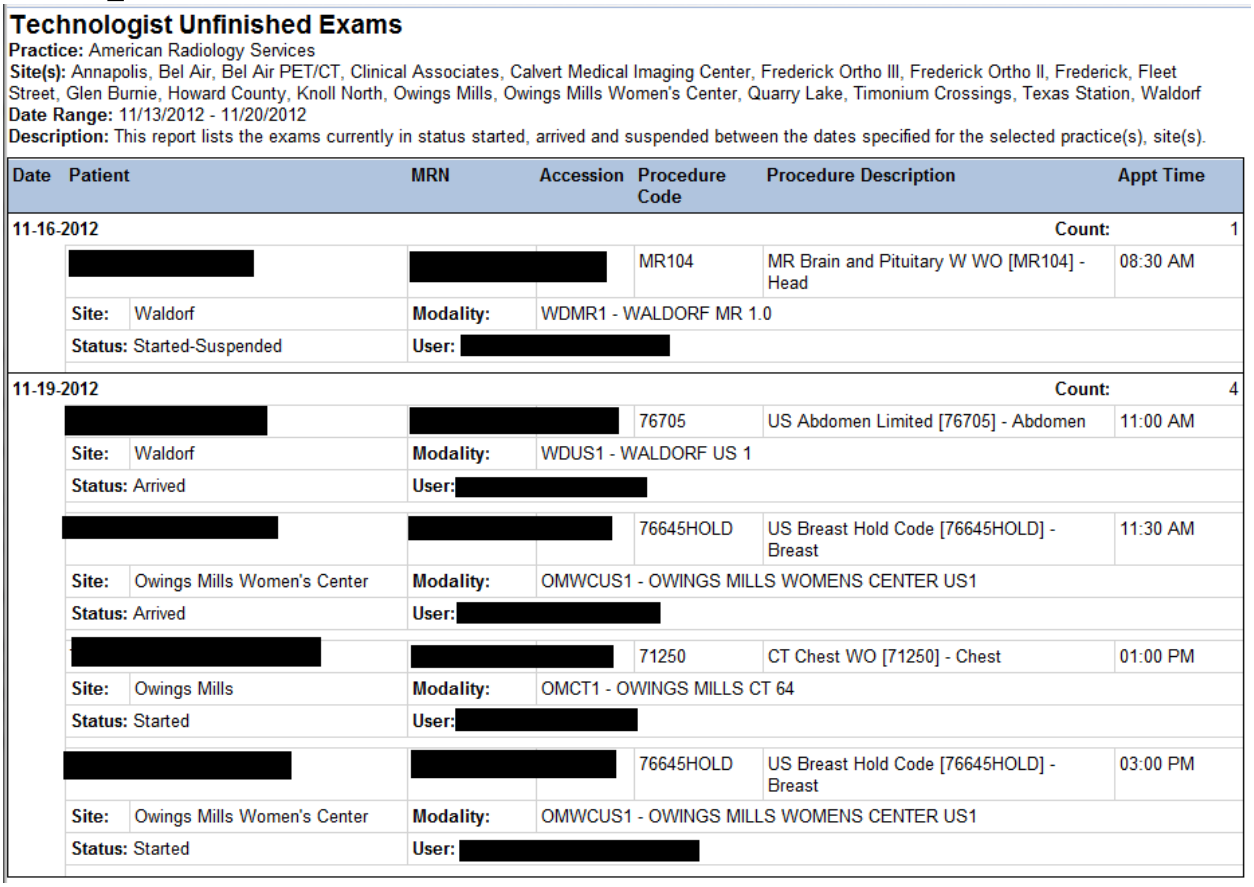
## Management Report – Technologist Unfinished Exams

Report to identify exams that have been left uncompleted on the technologist work list for a given date range based on appointment date and status of arrived, started or suspended.

Parameters:
Practice, Site, and Date range based on scheduled date

Data references:

- techUnfinishedExams_dataset
- l_practice
- l_site



**Technologist Unfinished Exams**

**Practice:** American Radiology Services
**Site(s):** Annapolis, Bel Air, Bel Air PET/CT, Clinical Associates, Calvert Medical Imaging Center, Frederick Ortho III, Frederick Ortho II, Frederick, Fleet Street, Glen Burnie, Howard County, Knoll North, Owings Mills, Owings Mills Women's Center, Quarry Lake, Timonium Crossings, Texas Station, Waldorf
**Date Range:** 11/13/2012 - 11/20/2012
**Description:** This report lists the exams currently in status started, arrived and suspended between the dates specified for the selected practice(s), site(s).

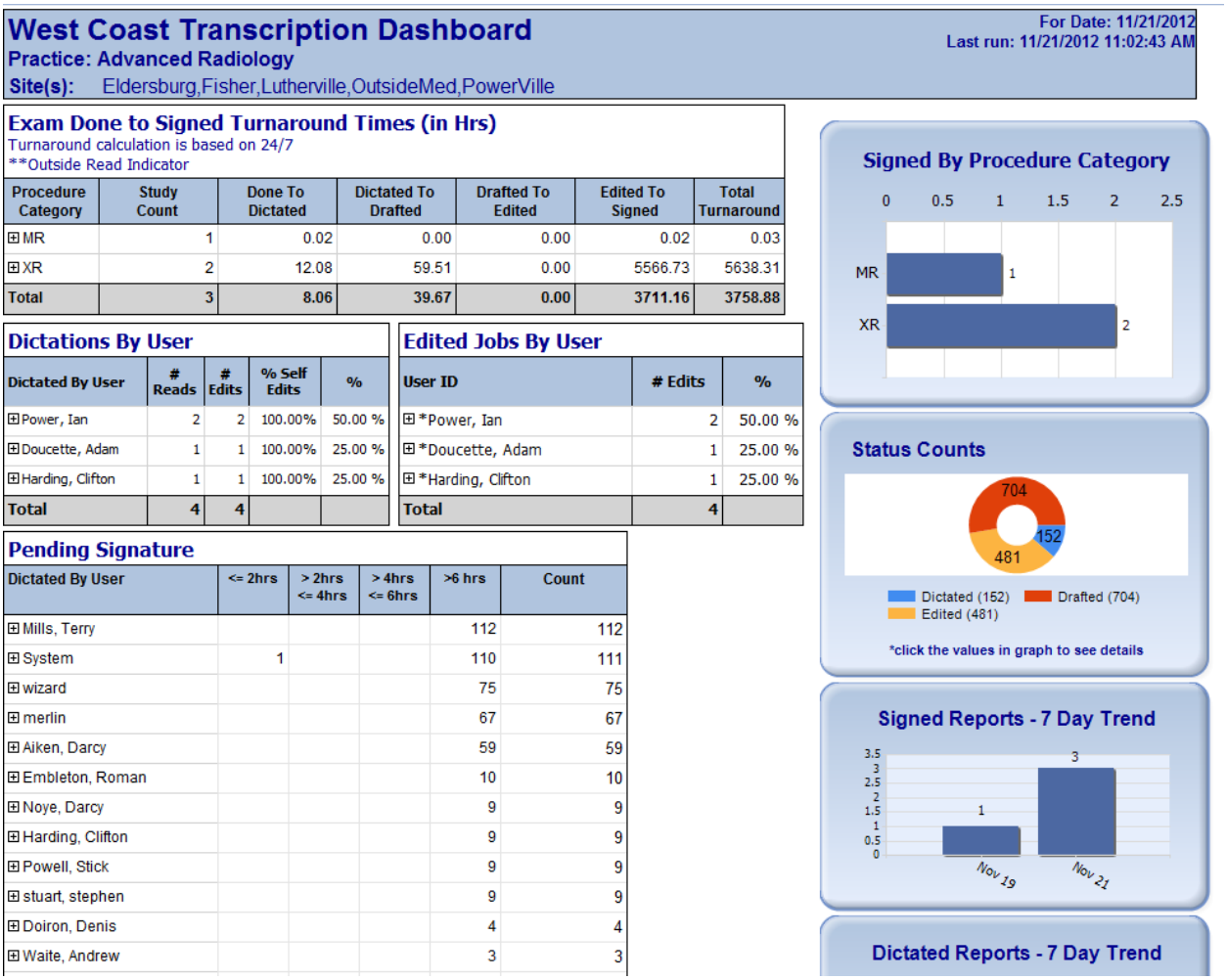
| Date | Patient | MRN | Accession | Procedure Code | Procedure Description | Appt Time |
|---|---|---|---|---|---|---|
| 11-16-2012 | | | | | Count: | 1 |
| | [redacted] | [redacted] | | MR104 | MR Brain and Pituitary W WO [MR104] - Head | 08:30 AM |
| | Site: Waldorf | Modality: | WDMR1 - WALDORF MR 1.0 | | | |
| | Status: Started-Suspended | User: [redacted] | | | | |
| 11-19-2012 | | | | | Count: | 4 |
| | [redacted] | [redacted] | | 76705 | US Abdomen Limited [76705] - Abdomen | 11:00 AM |
| | Site: Waldorf | Modality: | WDUS1 - WALDORF US 1 | | | |
| | Status: Arrived | User: [redacted] | | | | |
| | [redacted] | [redacted] | | 76645HOLD | US Breast Hold Code [76645HOLD] - Breast | 11:30 AM |
| | Site: Owings Mills Women's Center | Modality: | OMWCUS1 - OWINGS MILLS WOMENS CENTER US1 | | | |
| | Status: Arrived | User: [redacted] | | | | |
| | [redacted] | [redacted] | | 71250 | CT Chest WO [71250] - Chest | 01:00 PM |
| | Site: Owings Mills | Modality: | OMCT1 - OWINGS MILLS CT 64 | | | |
| | Status: Started | User: [redacted] | | | | |
| | [redacted] | [redacted] | | 76645HOLD | US Breast Hold Code [76645HOLD] - Breast | 03:00 PM |
| | Site: Owings Mills Women's Center | Modality: | OMWCUS1 - OWINGS MILLS WOMENS CENTER US1 | | | |
| | Status: Started | User: [redacted] | | | | |

**Figure 5.70 – Technologist Unfinished Exams**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Management Report – West Coast Transcription Dashboard

Created new dashboard report called West Coast Transcription Dashboard. Only difference is represented in the first table of the dashboard called Exam Done to Signed Turnaround Times (in Hrs).
These calculations calculate hrs difference regardless of hrs of operations.



**West Coast Transcription Dashboard**
**Practice: Advanced Radiology**
**Site(s):** Eldersburg,Fisher,Lutherville,OutsideMed,PowerVille
For Date: 11/21/2012
Last run: 11/21/2012 11:02:43 AM

**Exam Done to Signed Turnaround Times (in Hrs)**
Turnaround calculation is based on 24/7
**Outside Read Indicator

| Procedure Category | Study Count | Done To Dictated | Dictated To Drafted | Drafted To Edited | Edited To Signed | Total Turnaround |
|---|---|---|---|---|---|---|
| ⊞MR | 1 | 0.02 | 0.00 | 0.00 | 0.02 | 0.03 |
| ⊞XR | 2 | 12.08 | 59.51 | 0.00 | 5566.73 | 5638.31 |
| Total | 3 | 8.06 | 39.67 | 0.00 | 3711.16 | 3758.88 |

**Dictations By User**

| Dictated By User | # Reads | # Edits | % Self Edits | % |
|---|---|---|---|---|
| ⊞Power, Ian | 2 | 2 | 100.00% | 50.00 % |
| ⊞Doucette, Adam | 1 | 1 | 100.00% | 25.00 % |
| ⊞Harding, Clifton | 1 | 1 | 100.00% | 25.00 % |
| Total | 4 | 4 | | |

**Edited Jobs By User**

| User ID | # Edits | % |
|---|---|---|
| ⊞*Power, Ian | 2 | 50.00 % |
| ⊞*Doucette, Adam | 1 | 25.00 % |
| ⊞*Harding, Clifton | 1 | 25.00 % |
| Total | 4 | |

**Pending Signature**

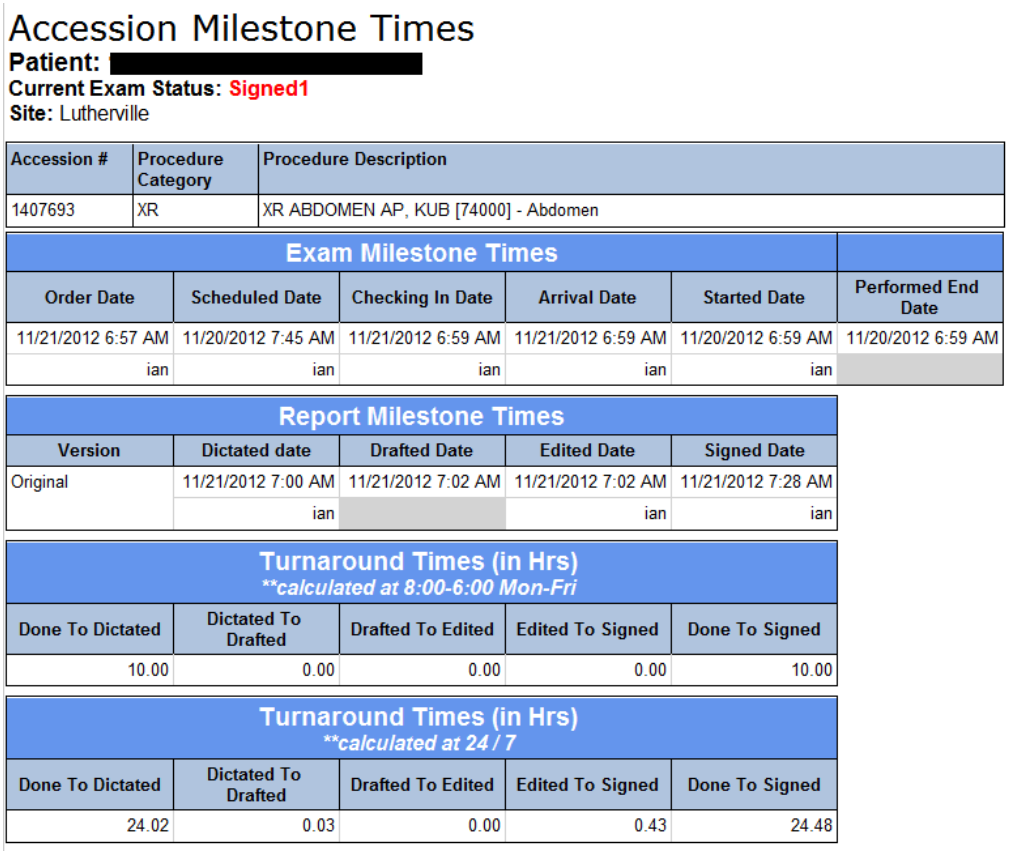
| Dictated By User | <= 2hrs | > 2hrs <= 4hrs | > 4hrs <= 6hrs | >6 hrs | Count |
|---|---|---|---|---|---|
| ⊞Mills, Terry | | | | 112 | 112 |
| ⊞System | 1 | | | 110 | 111 |
| ⊞wizard | | | | 75 | 75 |
| ⊞merlin | | | | 67 | 67 |
| ⊞Aiken, Darcy | | | | 59 | 59 |
| ⊞Embleton, Roman | | | | 10 | 10 |
| ⊞Noye, Darcy | | | | 9 | 9 |
| ⊞Harding, Clifton | | | | 9 | 9 |
| ⊞Powell, Stick | | | | 9 | 9 |
| ⊞stuart, stephen | | | | 9 | 9 |
| ⊞Doiron, Denis | | | | 4 | 4 |
| ⊞Waite, Andrew | | | | 3 | 3 |



**Figure 5.71 – West Coast Transcription Dashboard report**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

As part of this change we also enhanced the accession milestone times subreport to contain both tables as the accession milestone report is used on both coasts and referenced on several reports. Creating a West Coast version would make updating all referencing reports a major activity.



Accession Milestone Times

**Patient:** [redacted]

**Current Exam Status:** Signed1

**Site:** Lutherville

| Accession # | Procedure Category | Procedure Description |
|---|---|---|
| 1407693 | XR | XR ABDOMEN AP, KUB [74000] - Abdomen |

**Exam Milestone Times**

| Order Date | Scheduled Date | Checking In Date | Arrival Date | Started Date | Performed End Date |
|---|---|---|---|---|---|
| 11/21/2012 6:57 AM | 11/20/2012 7:45 AM | 11/21/2012 6:59 AM | 11/21/2012 6:59 AM | 11/20/2012 6:59 AM | 11/20/2012 6:59 AM |
| ian | ian | ian | ian | ian | |

**Report Milestone Times**

| Version | Dictated date | Drafted Date | Edited Date | Signed Date |
|---|---|---|---|---|
| Original | 11/21/2012 7:00 AM | 11/21/2012 7:02 AM | 11/21/2012 7:02 AM | 11/21/2012 7:28 AM |
| | ian | | ian | ian |

**Turnaround Times (in Hrs)**
***calculated at 8:00-6:00 Mon-Fri*

| Done To Dictated | Dictated To Drafted | Drafted To Edited | Edited To Signed | Done To Signed |
|---|---|---|---|---|
| 10.00 | 0.00 | 0.00 | 0.00 | 10.00 |

**Turnaround Times (in Hrs)**
***calculated at 24 / 7*

| Done To Dictated | Dictated To Drafted | Drafted To Edited | Edited To Signed | Done To Signed |
|---|---|---|---|---|
| 24.02 | 0.03 | 0.00 | 0.43 | 24.48 |

**Figure 5.72 – Accession Milestone Times subreport**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 6. RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 37 | - | 1.2.37.12843 | 1.2.37.12782 | 1.2.37.12843 | 1.2.37.12843 | |
| 37 | 1 | 1.2.37.13040 | 1.2.37.13040 | 1.2.37.13039 | 1.2.37.13003 | |
| 37 | 2 | 1.2.37.13069 | 1.2.37.13040 | 1.2.37.13069 | 1.2.37.13003 | |
| 37 | 3 | 1.2.37.13069 | 1.2.37.13040 | 1.2.37.13069 | 1.2.37.13003 | Just WebAPI updated, no version changes |
| 37 | 4 | 1.2.37.13171 | 1.2.37.13040 | 1.2.37.13165 | 1.2.37.13171 | |
| 37 | 5 | 1.2.37.13347 | 1.2.37.13040 | 1.2.37.12979 | 1.2.37.12979 | Bug was discovered with version numbers, this is why it appears we went backwards in the version number but we really did not. |
| 37 | 6 | 1.2.37.13665 | 1.2.37.13040 | 1.2.37.13580 | 1.2.37.12979 | |
| 37 | 7 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13799 | 1.2.37.13807 | |
| 37 | 8 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13827 | 1.2.37.13807 | |
| 37 | 9 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13839 | 1.2.37.13807 | |
| 37 | 10 | 1.2.37.13895 | 1.2.37.13040 | 1.2.37.13895 | 1.2.37.13895 | |
| 37 | 11 | 1.2.37.14161 | 1.2.37.13040 | 1.2.37.14161 | 1.2.37.14161 | |
| 37 | 12 | 1.2.37.14267 | 1.2.37.13040 | 1.2.37.14161 | 1.2.37.14267 | |
| 37 | 13 | 1.2.37.14326 | 1.2.37.13040 | 1.2.37.14326 | 1.2.37.14326 | |
| 38 | - | 1.2.38.14486 | 1.2.38.14486 | 1.2.38.14486 | 1.2.38.14486 | |
| 38 | 1 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | |
| 38 | 2 | 1.2.38.15182 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | |
| 38 | 3 | 1.2.38.15251 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | |
| 38 | 4 | 1.2.38.15327 | 1.2.38.14748 | 1.2.38.15290 | 1.2.38.14748 | |
| 39 | - | 1.3.39. | 1.3.39. | 1.3.39. | 1.3.39. | |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 7. Resolved Defects

Bugs Suggested Features and Support Issues resolved in build 1.39. The extract is taken from Redmine bug tracking system and only displays defects resolved in 1.39.

| Bug # | Tracker | Priority | Subject | Category | Found Version |
|---|---|---|---|---|---|
| 2758 | Bug | Immediate | Scanning - Errors with colour and duplex settings | Thick Client GUI | 1.38 |
| 2662 | Bug | Urgent | billing file missing GT1 segments for outside read study | | 1.37 |
| 2457 | Bug | Urgent | upgrade scripts take too long to run with large databases. | Web Services/DB | 1.38 |
| 2156 | Bug | Urgent | Webservices - UI_StudyStarted_StudyUpdated ( wrong study key in clob vs StudyContainer) | Thick Client GUI | 37.13 |
| 2145 | Bug | Urgent | Over Book Reason - Not logged to the Audit history | Thick Client GUI | 37.13 |
| 2082 | Bug | Urgent | From River Ranch: When you have 2 orders for the same patient and you 'view / edit' one of the orders and change the referring, the change is applied to both orders on that day. | Thick Client GUI | 37.11 |
| 2724 | Bug | High | attachment viewer shows out of date / stale results | Thin Client GUI | 1.38 |
| 2354 | Bug | High | Data nugget alignment and backcolor issue | Thick Client GUI | 1.38 |
| 2348 | Bug | High | Billing exception can be cleared before all notes cleared | Thick Client GUI | 1.2.38.14486 |
| 2335 | Bug | High | audit history does not display scrollbar when required | Thick Client GUI | 1.38.0 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | | |
|---|---|---|---|---|---|
| 2287 | Bug | High | Order notes are not preserved when rescheduiling | | 1.38 |
| 2234 | Bug | High | ReSchedule - ( schedule later) required laterality,, not checked | | 37.13 |
| 2233 | Bug | High | Re-Schedule ( Schedule Later) does not save added procedures. | | 37.13 |
| 2225 | Bug | High | View / Edit -> Billing codes tab -- showing billing codes for NOT active study items | Thick Client GUI | 37.13 |
| 2223 | Bug | High | Reconsile Unknown Insurance Carrier --> Foreign Key error | Thick Client GUI | 37.13 |
| 2209 | Bug | High | All QA studies WL missing | Thick Client GUI | 1.2.38 |
| 2208 | Bug | High | Registration --> Save prompts a check to validate Scheduled Date | Thick Client GUI | 37.13 |
| 2172 | Bug | High | changeing the insurance does not cause the precert rules to run | | 1.2.37 |
| 2144 | Bug | High | Precert Status - "Not Required" does not get logged to the database | Thick Client GUI | 37.13 |
| 2128 | Bug | High | River Ranch - modality availability check is not running upon pressing 'schedule' | Thick Client GUI | 37.12 |
| 2118 | Bug | High | River Ranch - Tech worklist is showing multiple studies flag even if one of those studies is in 'cancelled' status. | Thick Client GUI | 37.12 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | | |
|---|---|---|---|---|---|
| 2114 | Bug | High | Status changes initiated from an open screen in RIS can overwrite a status update from HL/7 | Web Services/DB | 1.37.12 |
| 2048 | Bug | High | Tech - Error Completing exam | Thick Client GUI | 37.11 |
| 2035 | Bug | High | Appointment book.. some appointments do not show tome of exam | | 37.1 |
| 2030 | Bug | High | Delete -Personnel | | 37.1 |
| 2000 | Bug | High | Transportation required flag - when populated in order, then re-opened for View / Edit, user no longer sees check in box | Thick Client GUI | 1.1.2.37 |
| 1960 | Bug | High | Column size for Referring ImagingNotes, SpecialtyNotes | Thick Client GUI | 1.37 |
| 1924 | Bug | High | rRISServices deployed with throttling turned on leading to poor performance | Thick Client GUI | 1.37.13858 |
| 1862 | Bug | High | If modality code has trailing space in code name, scheduled appointments will not show on appointment book | Web Services/DB | 1.1.2.37.13807 |
| 1829 | Bug | High | Memory leak introduced in B38, needs to be fixed. | Thick Client GUI | 1.38 |
| 1537 | Bug | High | When entering outside read info, if you put 'asf' into the study data panel, and you click outside the panel RIS throws a loop of the same error, and you cannot get out of it. | Thick Client GUI | 1.2.37.12724 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | | |
|---|---|---|---|---|---|
| 1116 | Bug | High | Procedure can be scheduled when laterality is required but not selected | Thin Client GUI | 1.35 |
| 2705 | Bug | Normal | Automated Measures eHealth calculation | Thick Client GUI | 1.38 |
| 2696 | Bug | Normal | forms not generated when arriving patient after changing procedure | Thick Client GUI | 1.37 |
| 2653 | Bug | Normal | PACS integration is passing showstudyinfo=Y even if config setting is turned off | Thick Client GUI | 1.37 |
| 2525 | Bug | Normal | Appointment book drag and drop time not working | Thick Client GUI | 1.38.002 |
| 2497 | Bug | Normal | Management Report - Referrals by Physician | Mgt Reports | 1.38 |
| 2495 | Bug | Normal | ris hangs on registration save | Thick Client GUI | 38.15138 |
| 2472 | Bug | Normal | Management Reports - Transcription Dashboard issue with external reports | Mgt Reports | 1.38 |
| 2468 | Bug | Normal | User Preference - opens on wrong tab | | 1.38 |
| 2466 | Bug | Normal | Management Report - Payments Received | Mgt Reports | 1.37 |
| 2464 | Bug | Normal | Reporting - Radiologist resource is required to dictate | Thick Client GUI | 1.37 |
| 2463 | Bug | Normal | Mammo - Annual reports freeze | Mgt Reports | 38 |
| 2462 | Bug | Normal | c_Calculate_BMI error when weight has a decimal | Mgt Reports | 1.37 |
| 2458 | Bug | Normal | Mgmt Report - Room Utilization | Mgt Reports | 1.37 |
| 2456 | Bug | Normal | User Preference - clean up task to remove ":" from labels with controls beside them | Thick Client GUI | 1.37 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | | |
|---|---|---|---|---|---|
| 2452 | Bug | Normal | audit history for tech workflow reflects the status of the exam prior to the status change | Thick Client GUI | 1.38 |
| 2447 | Bug | Normal | right click - Cancel Study does not release lock after cancelling study | Thick Client GUI | 1.38 |
| 2446 | Bug | Normal | FT1.4 date not as expected in billing file. | Web Services/DB | 1.35 |
| 2442 | Bug | Normal | Reporting - next previous field naviagtion with command bar buttons | Thick Client GUI | 1.38 |
| 2440 | Bug | Normal | Reporting - document model information dialog | Thick Client GUI | 1.38 |
| 2439 | Bug | Normal | Reporting - interactive tool options available in the editor | Thick Client GUI | 1.38 |
| 2438 | Bug | Normal | Color pickers in user preferences | Thick Client GUI | 1.38 |
| 2437 | Bug | Normal | MU Error timely_access_date | Thick Client GUI | 1.38 |
| 2435 | Bug | Normal | Reporting - Addendum message box cleanup | Thick Client GUI | 1.37 |
| 2433 | Bug | Normal | Scan Documents, documents should be renamed to "Attachements". | Thick Client GUI | 38 |
| 2417 | Bug | Normal | Resolve Problem : Problem set by not setting properly | Thick Client GUI | 1.37 |
| 2413 | Bug | Normal | Management Report - Transcription Dashboard | Mgt Reports | 1.38 |
| 2411 | Bug | Normal | Mgmt Report - Room Utilization | Mgt Reports | 1.37 |
| 2410 | Bug | Normal | This row has been removed when using the up/down arrows on keyboard from the personnell editor person grid | | 1.38 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | | |
|---|---|---|---|---|---|
| 2381 | Bug | Normal | Reporting Layout gets config file every time from DB | Thick Client GUI | 1.38 |
| 2380 | Bug | Normal | Patient Folder - Issues with floating toolwindows | Thick Client GUI | 1.38 |
| 2373 | Bug | Normal | Tool Window Focussing Issue | Thick Client GUI | 1.38 |
| 2352 | Bug | Normal | Patient Folder - rename view menu and corresponding tool windows. | Thick Client GUI | 1.38 |
| 2338 | Bug | Normal | Reset Open Skipped Rows Window/Menu Clean up | | 1.38 |
| 2325 | Bug | Normal | (intermittent) Null Reference error in scheduling after picking a timeslot that has a hold | Thick Client GUI | 1.37 |
| 2322 | Bug | Normal | Change existing insurance to a new insurance, follows rules applied to original insurance. | Thick Client GUI | 1.38 |
| 2318 | Bug | Normal | confirmation for multiple orders shows verbiage for registration, not confirmation | Thick Client GUI | 1.38 |
| 2312 | Bug | Normal | Managememt Reports - RTAT Detail | Mgt Reports | 1.37 |
| 2309 | Bug | Normal | error on getdata/display data -- invalid cast exception on open of confirmation exception | Thick Client GUI | 1.38 |
| 2293 | Bug | Normal | Reporting - Two release report context menu items | Thick Client GUI | 1.38 |
| 2282 | Bug | Normal | Mgmt Report Sales Marketing Dashboard | Mgt Reports | 1.38 |
| 2281 | Bug | Normal | Bill To Types - dropdown displays inactive items | Thick Client GUI | v37.13 |
| 2275 | Bug | Normal | Reporting - interactive popup mixed case | Thick Client GUI | 1.38 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | | |
|---|---|---|---|---|---|
| 2245 | Bug | Normal | Stored function c_getcontrastrequiredflag is using a cusor and does need to. | Web Services/DB | 1.38 |
| 2244 | Bug | Normal | userids case sensitive for domain logins | Web Services/DB | 1.38 |
| 2238 | Bug | Normal | Management Report Deployment - timeout | Mgt Reports | 1.38 |
| 2235 | Bug | Normal | Inactivity message showing at inappropriate time | Thick Client GUI | 1.2.38.14486 |
| 2232 | Bug | Normal | IVT worklist not loading / refreshing ... constraint violation not presented to user (or not reported by user) | Thick Client GUI | 1.37.13 |
| 2227 | Bug | Normal | Sales Dashboard | Mgt Reports | 1.37 |
| 2224 | Bug | Normal | Dx Templates - Delver to address | Mgt Reports | 1.37.13 |
| 2218 | Bug | Normal | Sales Reports ARS - performance Problems | Mgt Reports | 1.37 |
| 2214 | Bug | Normal | Image request with scheduled study tab show (0) in registration window | Thick Client GUI | 1.2.38.14443 |
| 2200 | Bug | Normal | Reporting - Reset/Open Skipped Rows | Thick Client GUI | 1.38 |
| 2189 | Bug | Normal | Management Reports - Special Accomodations | Mgt Reports | 1.37 |
| 2185 | Bug | Normal | eRx - Practice Zip Code Invalid characters | Thick Client GUI | 1.38.14426 |
| 2177 | Bug | Normal | Management Reports - update parameter to initialize to single day of yesterday | Mgt Reports | 1.38.14391 |
| 2176 | Bug | Normal | Error on fast clicking schedule button | Thick Client GUI | 1.2.38.14391 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | | |
|---|---|---|---|---|---|
| 2159 | Bug | Normal | QA Work flow - Reports verified are sent to Signed, Pending Release WL again | Thick Client GUI | 1.2.38.14350 |
| 2150 | Bug | Normal | Audit log displaying user who released report as UI_ReportSIgned | Admin Tools | 1.2.38.14350 |
| 2149 | Bug | Normal | Lookup Editor - Image Uploader | Thick Client GUI | 1.38 |
| 2137 | Bug | Normal | Reporting - Skip and continue external reports loop | Thick Client GUI | 1.2.38.14327 |
| 2130 | Bug | Normal | Typo - Attachement Viewer | Thick Client GUI | 1.37. |
| 2112 | Bug | Normal | Management Report - Referrals by Physician | Mgt Reports | 1.37.12 |
| 2108 | Bug | Normal | Referring Physician Volume Report | Mgt Reports | 1.37.12 |
| 2099 | Bug | Normal | can't clear selection of dataset when creating an auto macro | Thick Client GUI | 1.1.2.38.14294 |
| 2056 | Bug | Normal | Reporting - Dictatoin control (minimzed) not visible if saved on multiple monitor configurations | Thick Client GUI | 1.37 |
| 2039 | Bug | Normal | Print preview of Dx Report within transcription window when multiple addendums | Mgt Reports | 1.38 |
| 2037 | Bug | Normal | CDS Manager Service attempting to update signed studies. | Web Services/DB | 1.37 |
| 2022 | Bug | Normal | Reporting - Assign To problem when radiologist doesn't exist. | Thick Client GUI | 1.37 |
| 1996 | Bug | Normal | Reporting - VR2 environment signle spacing between sentences on report rendering. | Mgt Reports | 1.37 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | | |
|---|---|---|---|---|---|
| 1796 | Bug | Normal | Reporting - CdsInterctive Text Color | Thick Client GUI | 1.38 |
| 1569 | Bug | Normal | schedule later does not save procedures that haven't been committed yet | Thick Client GUI | 1.2.37.12782 |
| 1373 | Bug | Normal | Minimize Dictation - When doing WPR "000" Submit buttun text not legible | Thick Client GUI | 1.36 |
| 1254 | Bug | Normal | Shortcut keys are not working from floating panes | Thick Client GUI | 1.36.10931 |
| 1139 | Bug | Normal | When running MT polling workflow, lock is not being released | Thick Client GUI | 35.10273 |
| 1129 | Bug | Normal | Access to Diagnose / dictate window | Thick Client GUI | 1.35 |
| 965 | Bug | Normal | Dictate Screen does not lock after period of inactivity | Thick Client GUI | 1.35 |
| 917 | Bug | Normal | Minimizing application by moving another application over top of RIS throws error | Thick Client GUI | 1.34 |
| 909 | Bug | Normal | First time launch of a study does not find the image | Thick Client GUI | 1.34 |
| 876 | Bug | Normal | Error accessing transcribed records | Thick Client GUI | 1.32 |
| 2723 | Bug | Low | tooltip "fit to width" appears over zoom in and zoom out buttons on scan doc attachment viewer | Thick Client GUI | 1.38 |
| 2106 | Bug | Low | Lookup Editor - TemplateMacro Should have Double click functionality | Thick Client GUI | 1.38.14294 |
| 2105 | Bug | Low | Lookup Editor -TemplateMacro | Thick Client GUI | 1.38.14294 |
| 2088 | Bug | Low | Macro Editor - Tab Order needs to be reveiwed | Admin Tools | 1.1.2.38.14194 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | | |
|---|---|---|---|---|---|
| 1853 | Bug | Low | QualityReviewDistribution is not listed alphabetically in General menu | Admin Tools | 1.1.2.38.13809 |
| 1769 | Bug | Low | Repporting - Selecting "Show All" templates can change the default selected | Thick Client GUI | 1.1.2.37.13580 |
| 1678 | Bug | Low | GUI - Macro + Template editor.. base templates field does not display in min resolution | Thick Client GUI | 1.2.37.13040 |
| 1612 | Bug | Low | Locking - message box modifictaions perhaps | Thick Client GUI | 1.37 |
| 1485 | Bug | Low | On the Input tab of the Preferences screen there is a Label that can't be read | Thick Client GUI | 1.37 |
| 1113 | Bug | Low | Lang item for rRIS to system try need to be updated. | Thick Client GUI | 1.35 |
| 670 | Bug | Low | Diagnose > Report preview can be opened multiple times | Thick Client GUI | 1.25 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 8. Known Limitations

The following are Bugs Suggested Features and Support Issues found in build 1.39. This build is the current QE build and testing is ongoing. The list may increase in size. This document will not be updated or re-released.

| # | Status | Priority | Subject | Resolved Build |
|---|---|---|---|---|
| 2775 | New | High | Mammo letter config lookup active column values incorrect | |
| 2727 | New | High | PACS errors flipping between open dictate windows | |
| 2699 | Resolved | High | Inserting template is navigating all fields twice | 40 |
| 2532 | New | High | access to changing the access strings needs to read only. | |
| 2478 | Resolved | High | Title bar color does not change if Practice is set to transparent | 40 |
| 2782 | Resolved | Normal | ICM Dashboard - Need plan and Unknown Referring returning no results | 40 |
| 2777 | New | Normal | Appointment book - double click on open time | |
| 2761 | Resolved | Normal | Sales Mgmt Reports - 6 and 13 Mth Variance Data | |
| 2759 | New | Normal | Distribution WL - Message box should display in the center of the screen | |
| 2757 | New | Normal | Problem with doing multiple Verify Externals in a row. | |
| 2754 | New | Normal | Patient Folder context menu for Report History | |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 2752 | Resolved | Normal | Patient Merge: ShowID Button does not auto select thumbnail | 40 |
| 2750 | New | Normal | Reporting - Select command does not work for words that are at the start or end of a field | |
| 2747 | Resolved | Normal | Reporting - Fields Navigator - Prevoius section does not highlight position in Fields tool window | 40 |
| 2746 | Resolved | Normal | Organization Picker Problem | 40 |
| 2744 | New | Normal | null exception when attempting to show/hide titlebars on report document | |
| 2743 | New | Normal | Personnel Editor - Tab/NewLine issues in notes fields | |
| 2741 | Resolved | Normal | Lookup Editor - Column Header Alignment is Messed up. | 40 |
| 2737 | New | Normal | Patient Folder - multiselect is true and it should be false | |
| 2734 | New | Normal | Reporting - Floating data panes do not stay on top | |
| 2728 | New | Normal | Study locked in PACS message on initial load | |
| 2713 | Resolved | Normal | Report History tab name | 40 |
| 2695 | New | Normal | parameter not specified error in preview report for tables | |
| 2690 | New | Normal | Show/Hide Titlebar issue | |
| 2683 | New | Normal | Patient folder > Study detail column color bleeds outside of row | |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 2677 | New | Normal | Create Report from Reset Open skipped rows | |
| 2676 | New | Normal | Reset open skipped rows - If you dictate and save, it does not remove skipped row from list | |
| 2672 | New | Normal | Appointment book cannot obtain lock error | |
| 2661 | New | Normal | Template Macro Editor - Double click template or macro | |
| 2660 | New | Normal | Template Macro Editor - Adv Assignment - user not defaulting | |
| 2648 | New | Normal | Reporting - Attachments are not realigned when the data pane is resized | |
| 2647 | New | Normal | Reproting window - can't save layout to default Attachments tab | |
| 2646 | New | Normal | Reporting - field navigator using section headers are not navigating if report contains 0 fields | |
| 2645 | New | Normal | Overbook Reason title change | |
| 2643 | New | Normal | Multiple loads of Selection Aware controls | |
| 2641 | New | Normal | Duplicating report fields | |
| 2637 | New | Normal | Next field command selecting multiple fields | |
| 2635 | New | Normal | Unchecking No Longer Menstruating doesnt enable pregnancy fields | |
| 2632 | New | Normal | Perform Exam window doesnt update with changes made in another window | |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 2630 | In Progress | Normal | PACS - Close call could fail if user has been logged off | |
| 2628 | New | Normal | Reporting screen not drawing in, if user make worklists active | |
| 2568 | In Progress | Normal | View menu disappears | |
| 2561 | New | Normal | reception WL retrieval time is slow | |
| 2540 | New | Normal | scan document association | |
| 2536 | New | Normal | Report Permissions, | |
| 2534 | New | Normal | Mammo followup - Newly entered data does not carry forward | |
| 2533 | New | Normal | Scheduling order from follow up mammo work list doesnt return to work list | |
| 2515 | Resolved | Normal | Create/Edit Report not in context menu in Problem WL | 40 |
| 2513 | Resolved | Normal | Create Edit Report missing from context on Pending Review WL | 40 |
| 2512 | Resolved | Normal | Verify Edits context missing on Edits Pending QA WL | 40 |
| 2511 | New | Normal | size and location information is not saved when client is close while minimized | |
| 2509 | Resolved | Normal | Create/Edit Report not in context menu in Report Drafted WL | 40 |
| 2493 | New | Normal | Management Report - RTAT Summary Poor Performance | |
| 2751 | New | Low | Object overlap on Order tab | |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 2749 | Resolved | Low | Reporting - Fields Navigator - Selecting section before field changes cursor selection | 40 |
| 2729 | New | Low | Able to bring up two menus at once | |
| 2679 | New | Low | CDS Management Console | |
| 2664 | New | Low | Billing Exception - Post button | |
| 2658 | New | Low | Stored function c_getcontrastrequiredflag could return wrong value if multiple study items exist | |
| 2652 | New | Low | administration -> management report screen doesn't show any folders if permissions aren't configured | |
| 2535 | New | Low | Region, unable to deactivate | |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# Server Update

For eRAD RIS
Version 1.0
Build 39
Update 39.001

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. New Features ..... 3
   Multiple Signature Workflow ..... 3
   Reporting - Keyboard Shortcuts for Reporting Window ..... 13
   Reporting – Additional buttons for mapping on SpeechMike ..... 14
   Side by Side registration – Eliminate Core Install Requirement ..... 15
2. New Access Stings and Configuration Settings ..... 17
3. Defects resolved ..... 18
4. Package Contents ..... 20
5. Intended Audience ..... 21
6. Who is affected ..... 21
7. eRAD RIS Release Version Numbers ..... 22
8. Installing ..... 23

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 1. New Features

This server update has 4 new features added. This section will describe each feature in detail

## Multiple Signature Workflow

Multiple signature workflow has 3 signing levels. They are Contribute B, Contribute A and Final. Contribute B and Contribute A signatures will change or leave the status (depending on current status) of the study to / at transcribed. Only users with Final signature rights can move the study to Signed status.

Multi Signature Workflow allows for multiple radiologists to work a study by having a radiologist dictate/contribute B a study, then having another radiologist review/contribute A and finally a radiologist review/Final sign the study. Only the Final Sign is a required step in this workflow, assuming proper configuration/permissions.

If a study is modified by an MT or Radiologist and is sent back to dictated, report drafted or transcribed status, contributing signatures will be removed from the latest interpretation. Suspending at any level will not reset contributing signatures, unless it is resumed with one of the above actions. Only the final signature is permanent.

Contributed A and B studies can be directed to a "Supervising Radiologist". The Supervising Dictation WL is used to monitor the studies he/she is marked as the supervising radiologist.

A user will get their highest level signature defaulted when opening a study, unless they override it using the button default functionality. If they do override them, and the overridden signature level isn't available for some reason (it's already contributed at that level or it's been disabled at a system level) then his highest level will be defaulted.

The pending signature work list will show the studies that the radiologist can sign based on his default signature level, and his overrides per modality types. If he can't sign it, it won't show. There are no separate work lists for contribution signatures.

QA workflow does not change with this feature; QA workflow applies only to Final Signatures, Verifying the study will not reset the contributing signatures neither will rejecting.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Setup and Configuration

In order to support multi-signature workflow the following items must be set up…

### System config settings:

ContributeAEnabled - Determines in contribute A is available to use on the system. If this system config setting is disabled (=false), the sign level field in personnel editor will display the value for Contriubute A in a gray color (black when enabled).

ContributeBEnabled - Determines in contribute B is available to use on the system. If this system config setting is disabled (=false), the sign level field in personnel editor will display the value for Contriubute B in a gray color (black when enabled).

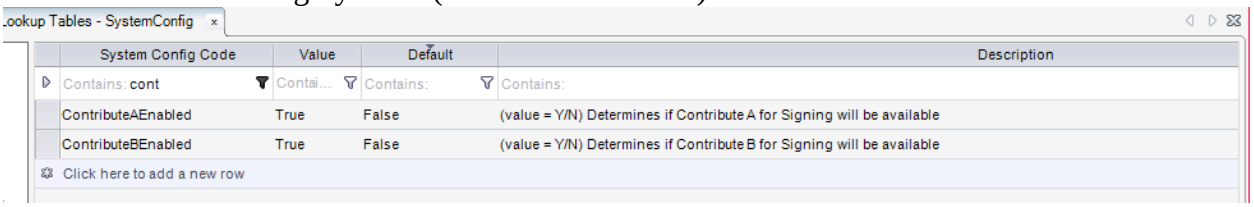



**Figure 1.1 – SystemConfig tables displaying new system config setting for multiple signature**

### Personnel Editor -Radiologist Level Sign:

In the personnel editor on the "Resource" tab there is a drop down to identify the radiologist's sign level. This is only enabled when the "Resource Type" of "Radiologist" is checked. Items shown in light gray in the drop down identify that it is disabled at the system level, based on system config settings above. When one of these items is selected, the label for "Sign Level" will turn red, indicating a conflicting value is selected.

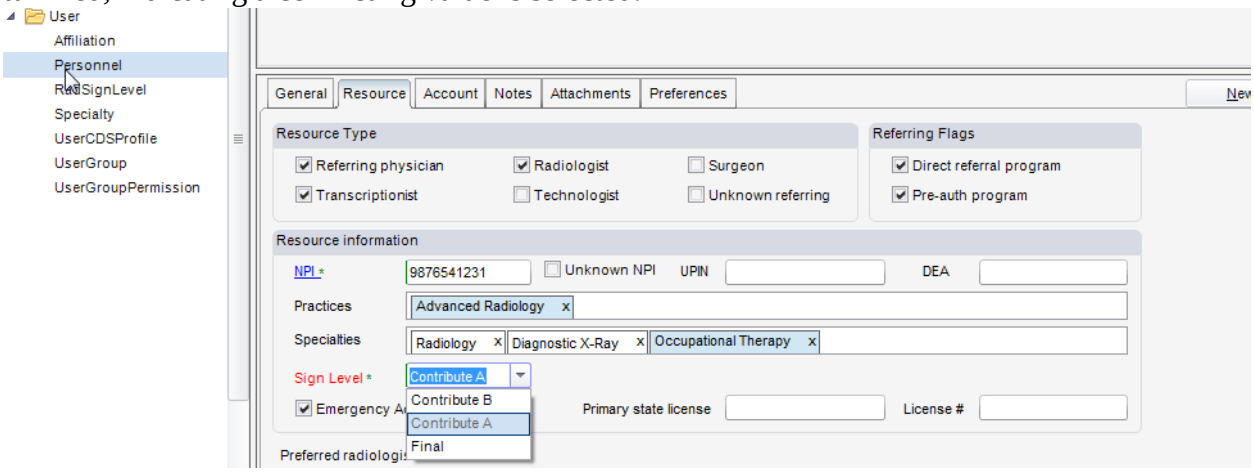



**Figure 1.2 – Personnel editor displaying new list box to assign signature level at user level**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Radiologist Sign Level Overrides:

In the Lookup table editor, under "User" you will see a new lookup table titled "RadSignLevel". This table contains the modality level overrides for radiologist's sign level. If a radiologist has "Final Sign" privileges set in the personnel editor, that users sign level can be overridden at the modality level in this table. For instance, perhaps this radiologist should not be signing off on MRs studies. In this table you would see an entry for that radiologist, MR modality type, and a lesser sign level, either contribute A or B. There can be an unlimited number of overrides, but limited to 1 per modality type/user.

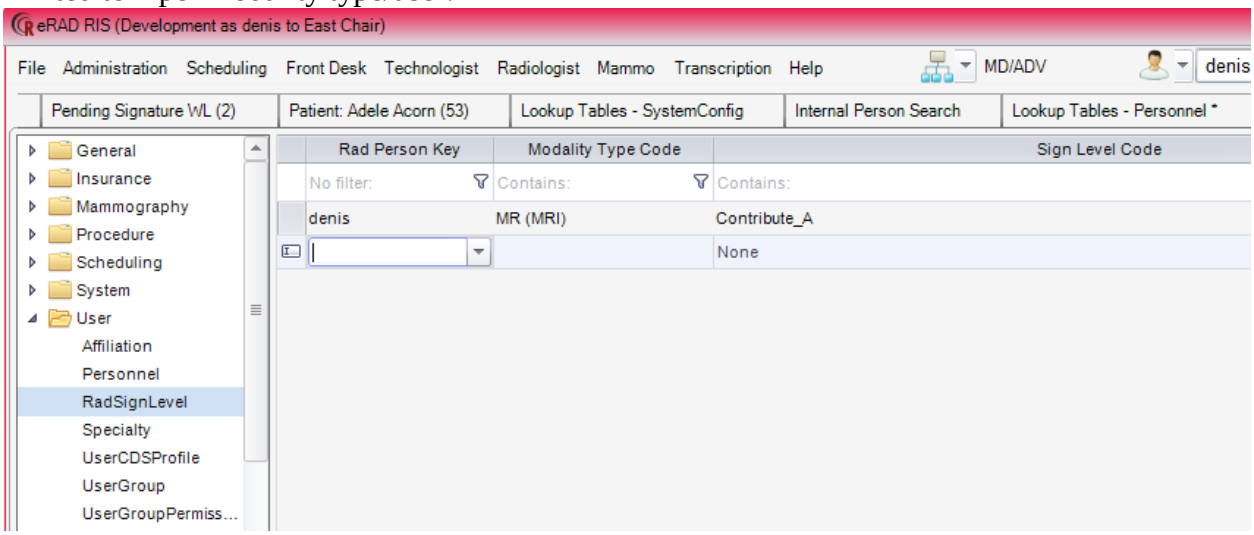



**Figure 1.3 – RadSignLevel lookup table showing user override sign level for MR modality**

## Radiologist user preferences:

In user preferences under the "Reporting" tab you will see in the "Signing" section 5 new user preferences.

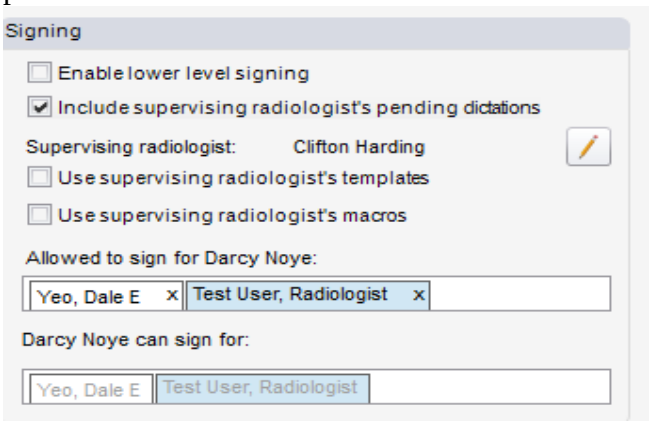



**Figure 1.4 – New user preferences**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

1.) **Enable signing at lesser values** (Default OFF)**:** This allows the user to be able to sign at less than his specified maximum level for the current study. What this mean is if this user is allowed final signature on a study, he would still have the options to contribute A or B. Disabling this option will clean up the gui by removing these items from his drop down "Sign" button.

2.) **Show supervising radiologist's pending dictation** (Default OFF)**:** This allows the user to decide if items assigned to the supervising radiologist will appear in his Pending Dictation WL. If this is false, items assigned to the supervising radiologist would then have to be assigned to his RPA/fellow radiologist to be worked. If this is on then the RPA/fellow radiologist would see them in his work list automatically.

3.) **Supervising Radiologist:** This identifies who the user will normally be working for when logging into eRad Ris. This value will not be affected by the picker in the main screen.

4.) **Default to Supervising Radiologist's Templates** (Default OFF)**:** This determines what user will be used to filter the "Template" browser when a study is opened. If this is off the the current user will be used, as normal. If this is on the supervising radiologist assigned will be used.

5.) **Default to Supervising Radiologist's Macros** (Default OFF): This determines what user will be used to filter the "Macro" browser when a study is opened. If this is off the current user will be used, as normal. If this is on the supervising radiologist assigned will be used.

## Supervising Radiologist Control:

This refers to the control in the status area of eRad Ris which shows the currently assigned Supervising Radiologist. It also allows changing this value for the session. Clicking on this item will show the "Supervising Radiologist Picker".

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

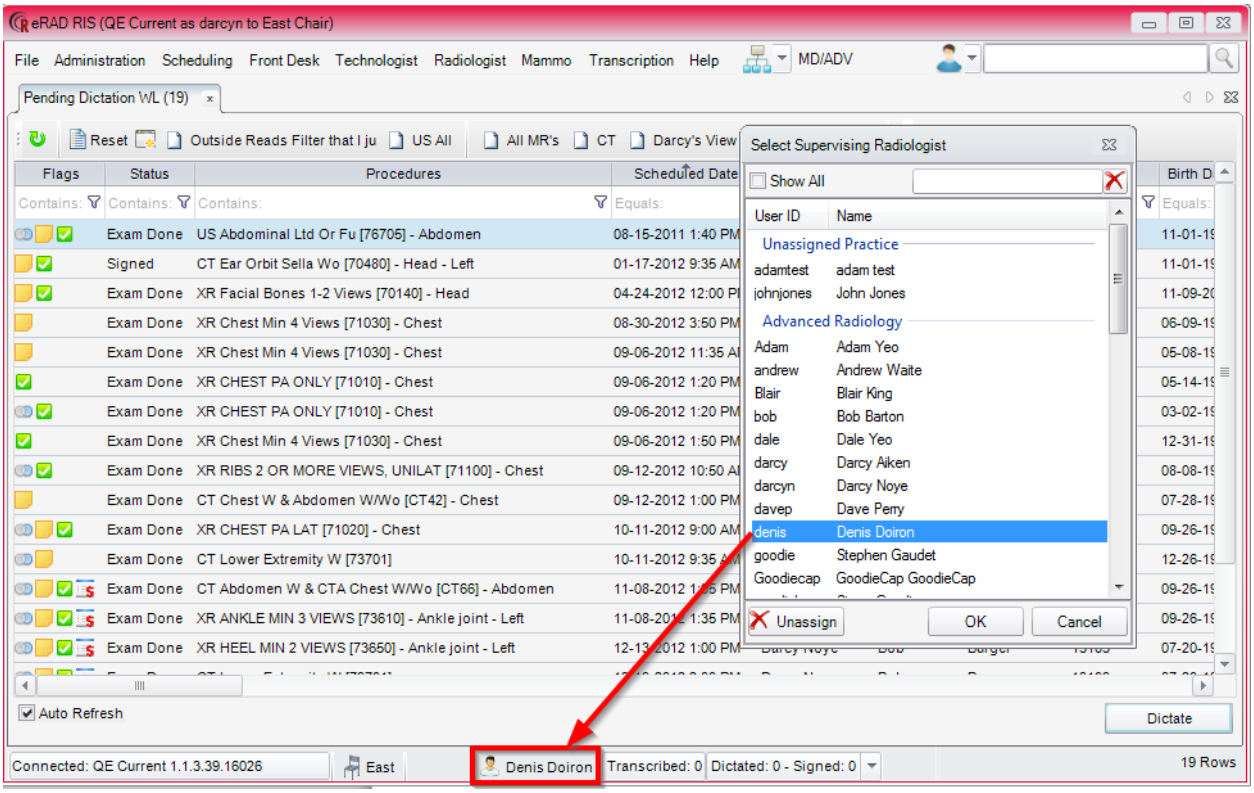



**Figure 1.5 – Select Supervising Radiologist window opened from the control on status bar**

The value here identifies which Radiologist the user is working for, and will insert this value into every report the user dictates, assuming the study didn't already contain a different value. This will only be used on NEW dictations. Previously dictated studies will keep the value they were created with unless it is manually changed using the work list's context menu If the user has "Show supervising radiologist's pending dictation" turned on, when he changes the value in this Supervising Radiologist control, it will refresh the work list with this new value.

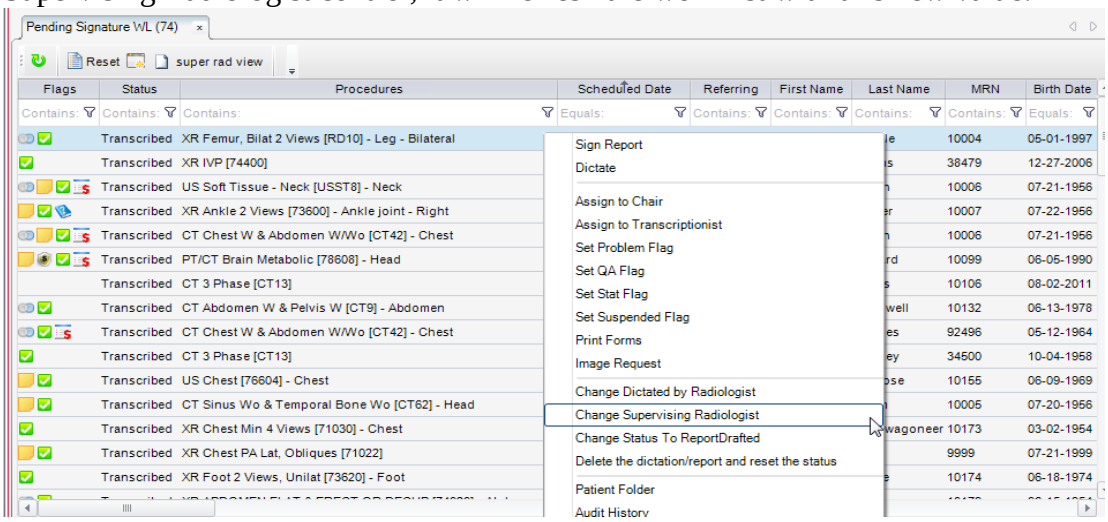



**Figure 1.6 – Context menu option to change supervising radiologist**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

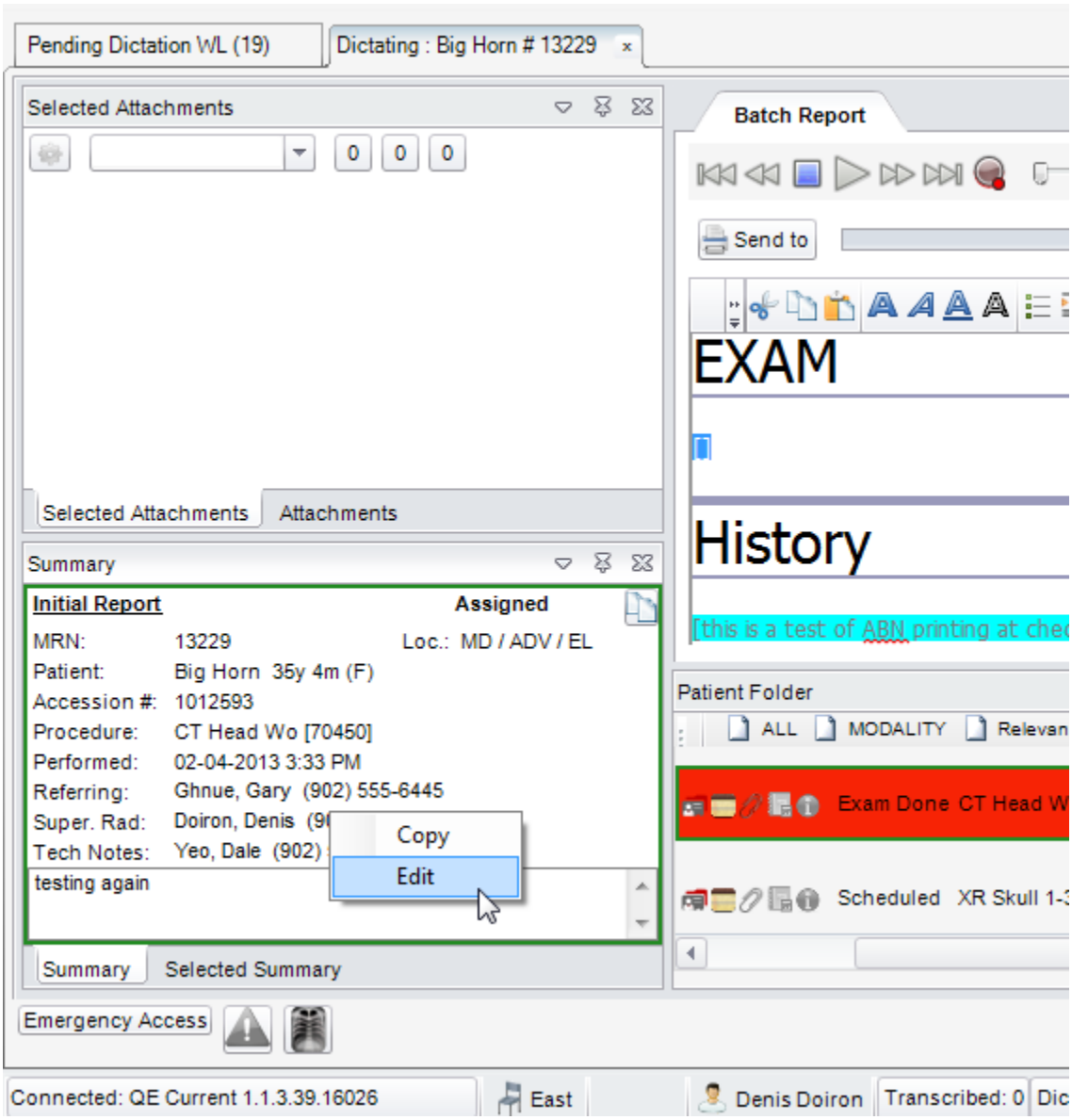



**Figure 1.7 – Context menu from Summary allows changing supervising radiologist**

The radiologist can also change the supervising radiologist from with the reporting window. From within the summary pane, hover the mouse pointer over Super. Rad: and from a right click select Edit. This will also open the Select Supervising Radiologist window.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

I am currently set up to see my supervising radiologists assigned pending dictation items. Here is a screen capture of my pending dictation worklist. If I had "Show supervising radiologist's pending dictation" turned off, then Clifton Harding's items wouldn't show on my worklist.

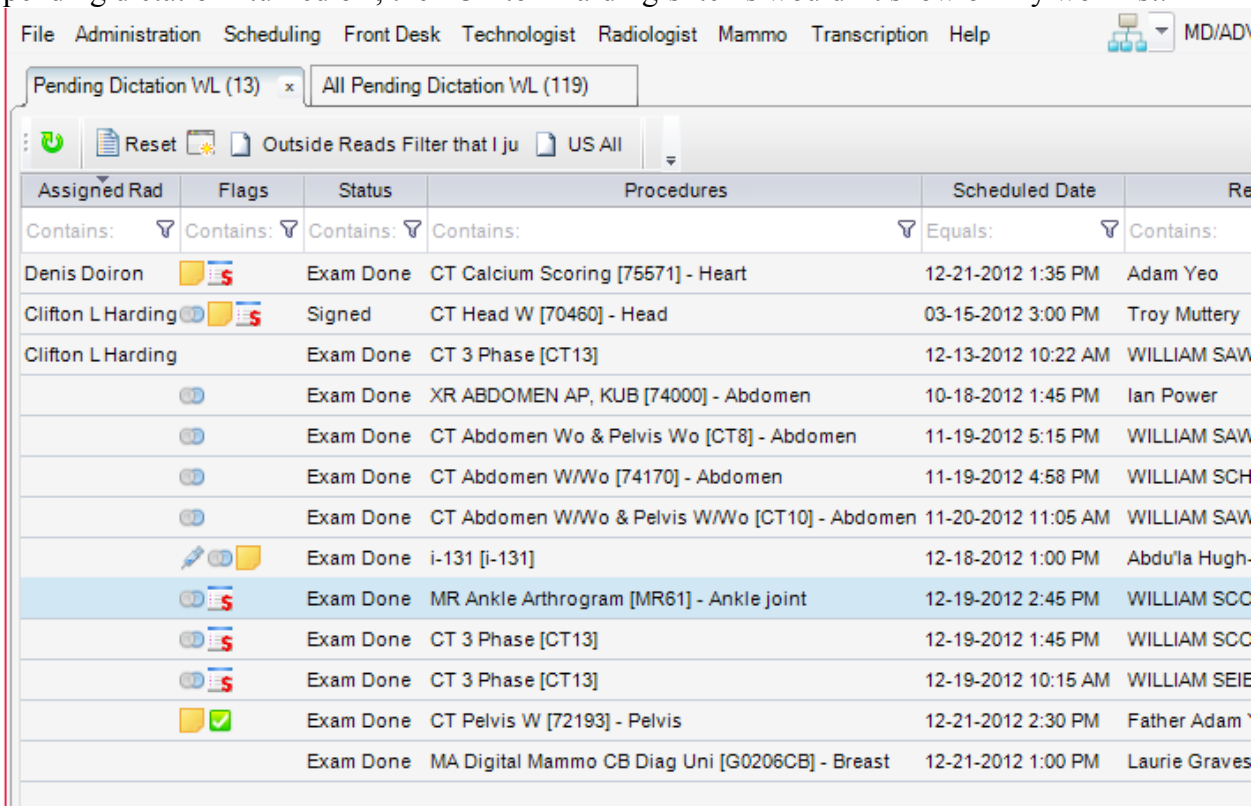



**Figure 1.8 – Assigned Rad's studies appear in my pending dictation work list when that Rad is my supervising radiologist**

Since I am not working for Clifton today, I will click on the "Assigned Radiologist" control and change my supervising radiologist to "Darcy Noye". This automatically refreshes my worklist and will show items assigned to "Darcy Noye".

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

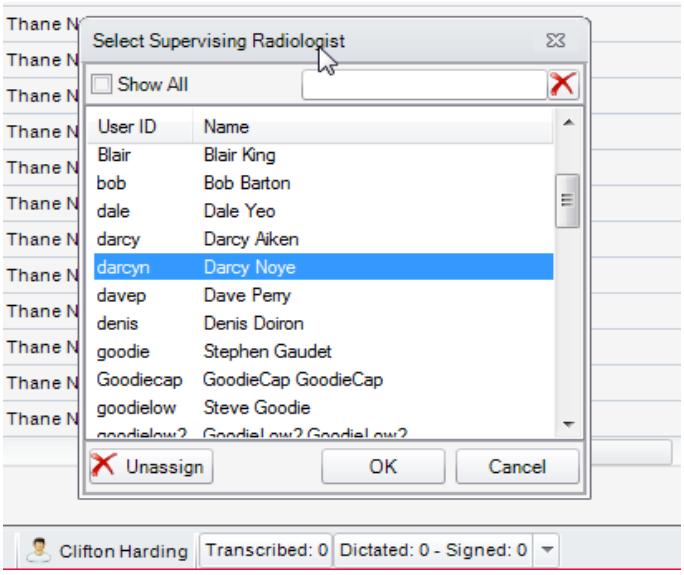



**Figure 1.9 – Assign a different Supervising Radiologist**

I now select to "Dictate" a study. Things to notice on this new screen are the Supervising Radiologist listed in the Summary panel, and the Sign button, which shows what level signature I am on. This is indicated like so: Contribute B Level will show a "Sign – B", Contribute A will show "Sign – A" and Final will show "Sign" as it always has before.

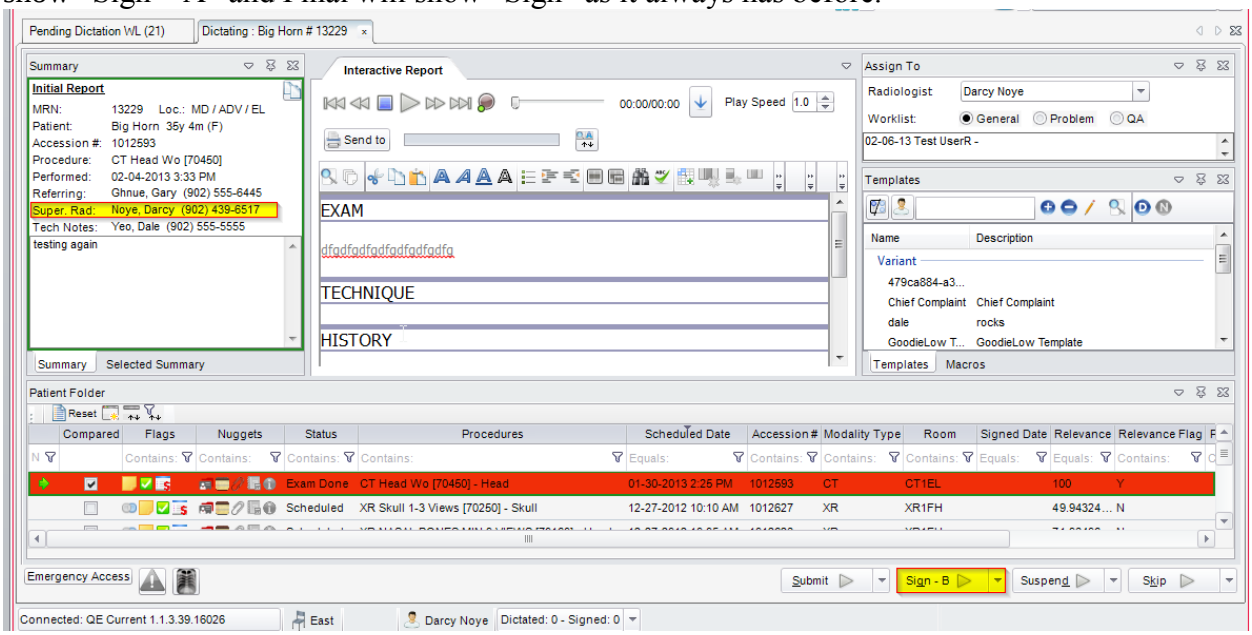



**Figure 1.10 – Dictate window displaying my Supervising Radiologist and my signing level**

I dictate the study. I select Sign B. The study is transcribed. It will now appear in the Pending Signature work list and the Supervising Dictation work list of the user who I have assigned as my Supervising Radiologist. It will also appear on the All Pending Signature worklist.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

It is possible to have it go through 2 different Supervising Radiologists. If I read for Rad A, who read for Rad X then when I signed it (level B) it would go to Rad A for signature, then when Rad A signs it, it will then go to Rad X for final signature.

When I open a screen to dictate, my templates / macros will load based on my "Default to Supervising Radiologist's Templates" and "Default to Supervising Radiologist's Macros" settings. If it is on it will show my supervising rads, and if it's off it will show mine.

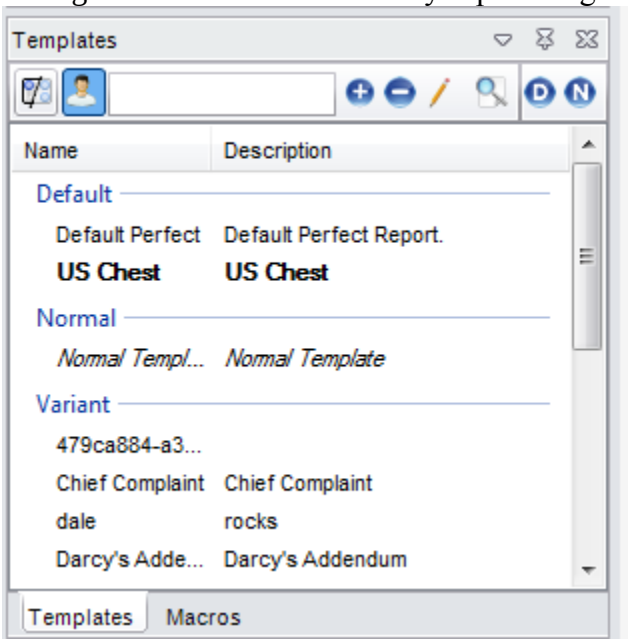



**Figure 1.11 – Templates loaded as my Supervising Radiologist**

This initial load will determine which default template gets inserted automatically in the report. Once the screen is loaded I can toggle between mine and his using the toggle button shown in the image on the right.

The button to the left of the supervising radiologist will toggle the "Show All" functionality. This was a check box control, now for real estate issues it is a toggle button as well. This show all option simply removed the procedure code from the equation, and will show templates for a procedure code that are accessible to me.

Based on what template I used to populate the report, the related user id will be saved to the interpretation row so that the system can then reopen the study using this user id as a filter for the templates. This allows future edits to display a template list that actually contains the template used to dictate. This is important for MT workflow.

Although macros work the same way, we don't save anything to the database for these, only the templates we track. We will still open the Macro filtered based on the template though.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

**If a study is Signed A or Signed B and the signing radiologist did not have a supervising radiologist assigned or if the supervising radiologist does not have the appropriate signing level for that study, the study moves to transcribed status, it won't appear on a Pending Signature Worklist nor the Supervising Dictation work list. The study then must be accessed from the All Pending Signature wl by an admin and from here a supervising radiologist can be assigned. The who signed A or B will also be able to access the study from their Dictated by Date work list. This could happen if a supervising rad didn't have the required signature level for the study type. Or if a rad dictates studies without having a supervising radiologist selected.

## Reporting - Keyboard Shortcuts for Reporting Window

The right and left arrow keys on the keyboard can now be mapped as functional keys within the reporting window. These are configured as user preferences under the Input Device tab.

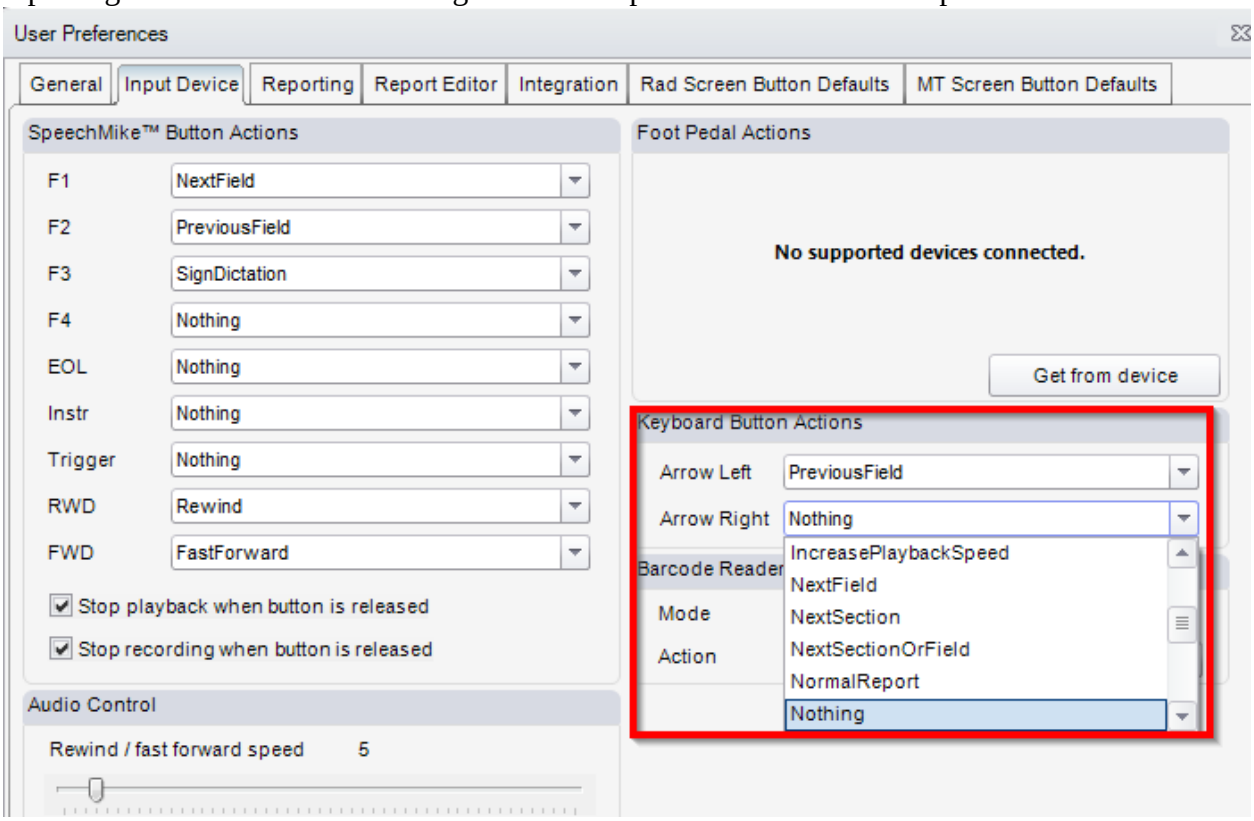



**Figure 1.12 – Keyboard arrow button actions as user preferences**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Reporting – Additional buttons for mapping on SpeechMike

The rewind and fast forward buttons can now be mapped to serve a different purpose in the reporting window. Also the options for "Rewind" and "FastForward" can be mapped to the other SpeechMike buttons.

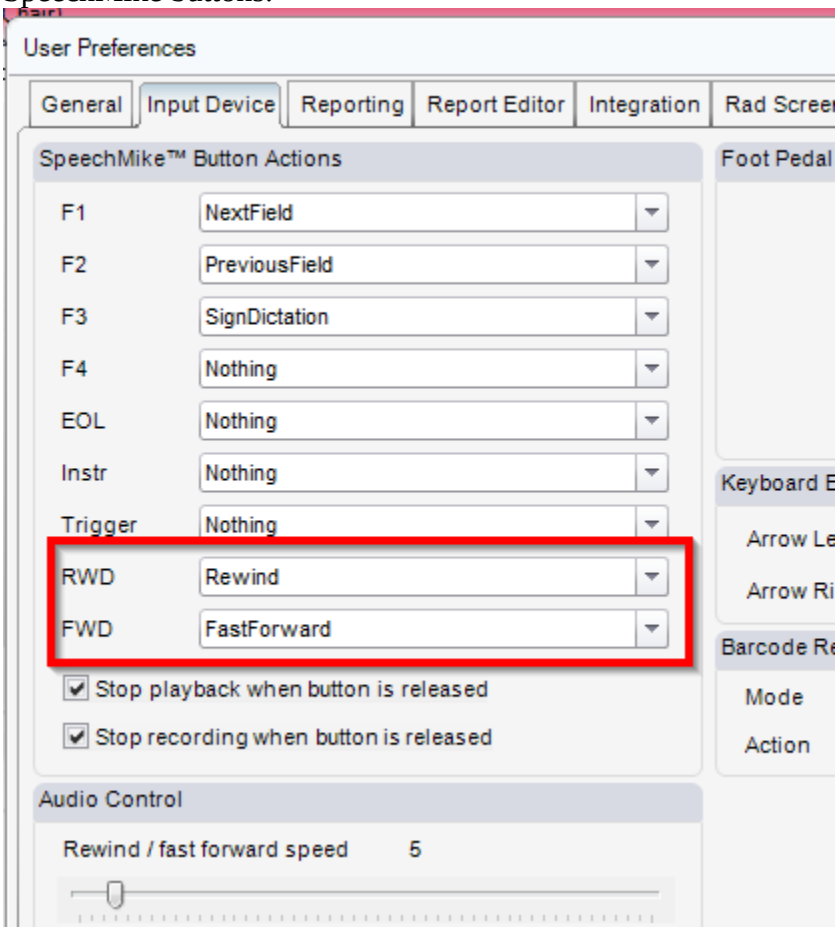



**Figure 1.13 – New SpeechMike buttons to allow mappings**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## Side by Side registration – Eliminate Core Install Requirement

The elimination of the core install is desirable because of the time consuming task of completing an upgrade when every work station needs personnel action. Also, administrators who are managing different practices with different versions would not need to constantly run the core install for the different versions.

Going forward from Build 39, users will be able to switch between versions simply by selecting the environment from the eRAD RIS login window.

**Figure 1.14 – eRAD RIS login displaying the ability to switch between versions without core install**

**NOTE: because of the core version number associated with Build 38 and 39 are different this feature will not allow going back to earlier versions before 39. The users will still need to run the core install to change between Build 39 and earlier versions.**

Below is the explanation of how this was achieved.

To resolve we introduced side-by-side registration of the libraries requiring registration in the application. This document isn't going to explain what side-by-side registration is fully. In short most application that require a registered dll will look to windows for the registered version

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

which could be located anywhere on the file system and re-registering would/could change the version everyone points to. Side-by-side will simply use the library located next to executable. So in our application we will use the libraries in the same folder as the ris.exe program.

To make this happen we first have to tell the ris.exe application that it should look in the same directory and use this type of reference instead of the previous method. To do this need to include a manifest file and tell the application to use this manifest file when running.

To create a side-by-side manifest file you need to include a reference to the library file. You then must set the isolated property to true so the manifest gets created properly. In our case that would be the SpMikeCtrl.dll, AnyModalEditCtrl2.dll, and AnyModalCaptureCtrl.dll file. This posed a couple problems as our application references the interop versions of these files and doing so would create some crazy reference compilation issues.

So we cleverly created a sample windows application, added the library references (3), set the isolated property to true and built the appellation. The build created a manifest file called "WindowsFormsApplication1.exe.manifest". If we inspect this file we can see the three libraries and a bunch of stuff. We rename this file to "ris.exe.manifest" and included it in our MainApp project as a file reference.

So at this point we have created our manifest file and placed it in root directory of our MainApp project. Ensure the application uses the manifest file by altering the properties of the project application manifest drop down to point appropriately.

Now we have setup our application to use the manifest created in the other application.
We previously had file references in the MainApp project to include AnyModalEditCtrl2.dll and AnyModalCaptureCtrl.dll so we had to add SpMikeCtrl.dll as a file reference also that copies to the build directory.

To complete the task we need to change how we deploy the application. Currently we only put a limited number of files in the zip folder for deployment. These files in the zip can be updated and will automatically be copied to the client PC when changing builds or upgrading. So as we previously relied on the core setup to include the libraries and the supporting files for the libraries we now need to include these in the zip file also.

This will create a much larger zip file and include many more files. Not great but it will allow us to switch from one version to another without installing which is worth it. We also had to consider that this larger zip file is only downloaded once per version or hotfix not everytime we switch. As long as the local copy is up-to-date we will not download it again.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## 2. New Access Stings and Configuration Settings

| Setting Placeholder | Setting | Default | Controls Access to |
|---|---|---|---|
| SystemConfig lookup | ContributeAEnabled | False | Determines in contribute A is available to use on the system. |
| SystemConfig lookup | ContributeBEnabled | False | Determines in contribute B is available to use on the system. |
| SystemConfig lookup | BypassSignedQAWorkflow AfterCorrection | False | Determines if a Signed QA study is rejected, it is excluded from the QA workflow when corrected and signed again |
| AccessString lookup and UserGroupPermission Lookup | Config.LookupEditor.RadSignLevel | None | Controls access to the Lookup table RadSignLevel |
| AccessString lookup and UserGroupPermission Lookup | WL.Rad.SupervisingDictation | None | Controls access to the Supervising Dictation menu option under Radiologist menu |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## 3. Defects resolved

| Redmine # | Subject | Priority |
|---|---|---|
| 2963 | Resend for recognition not resetting template applied to draft variable | Immediate |
| 2959 | River Ranch - when multiple MR Arthrogram and FL Arthrogram procedures exist for a patient, the 'Exam Information' show all FL Arthrogram Shoulder studies | Urgent |
| 2929 | River Ranch - New & Cloned radiologists are not appearing in the 'Assigned Radiologist' dropdown | Urgent |
| 2904 | HL7 messages are changing study status back in the workflow post-ExamDone | Urgent |
| 2958 | Templates loading for wrong user when dictating in batch mode. | High |
| 2957 | Apply template to draft firing when it shouldn't | High |
| 2950 | Multiple signature - can't sign a report that was dictated by another rad | High |
| 2923 | Error attempting to view locked study in read-only mode | High |
| 2910 | Template/Macro editor, NewField inserts. | High |
| 2898 | Verify and continue does not work. | High |
| 2846 | Reporting - radiologist pending release worklist not showing reports in QA status | High |
| 2824 | Reporting - rejected reports should never go back to QA after signing again | High |
| 2978 | Date worklists where criteria looks at USERID | Normal |
| 2955 | Reporting - Status counts including action pending and action complete for radiologists | Normal |
| 2928 | River Ranch - HL7 Translation into RIS | Normal |
| 2925 | Dictated by user id and date not getting updated | Normal |
| 2924 | Transcribed by user id populated with Rad user | Normal |
| 2911 | BI-RADS control not defaulting recommendations properly and has some display issues | Normal |
| 2895 | QA Workflow - All Signed Pending QA wotklist tab not consistent with menu | Normal |
| 2888 | Mammo Reporting - BI-RAD picker text does not display properly | Normal |
| 2887 | Mammo Reporting - Default recommendation not selected if study had previous birad / recommendation selected | Normal |
| 2886 | Reporting - Volume meter missing | Normal |
| 2881 | Reporting - User preference Bring RIS To Front not working | Normal |
| 2879 | Reporting - Delete dictation and report exception if quality review table has an entry | Normal |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

| | | |
|---|---|---|
| 2870 | MU - electronic access to health information measure | Normal |
| 2866 | Minimized dictation mode hiding Sign message box | Normal |
| 2849 | xKeys integration broken | Normal |
| 2744 | null exception when attempting to show/hide titlebars on report document | Normal |
| 2730 | Change dictating raiologist loading assigned rad as initial value. | Normal |
| 2686 | no prompt for no screen actions when multiple rows were selected and the action is only a single row action | Normal |
| 1714 | CDSInteractive hanging when multiple hyphens are inserted. | Normal |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 4. Package Contents

Files included for this server update:

1. GUI ZIP Updates folder contains
    a. rRIS_1.3.39.15943.zip

2. rRISCore folder contains:
    a. rRisSetup.msi
    b. setup.exe

3. RIS Service Updates folder contains
    a. CDSJobManager.pdb
    b. CDSJobManager.dll
    c. CommonLib.pdb
    d. CommonLib.dll
    e. DDEngine.pdb
    f. DDEngine.dll
    g. rRISServices.pdb
    h. rRISServices.exe
    i. rRISServices.vshost.exe
    j. ScheduledTaskManager.pdb
    k. ScheduledTaskManager.dll
    l. SignatureApprovalService.pdb
    m. SignatureApprovalService.exe
    n. WCFService.pdb
    o. WCFService.dll
    p. WebApi.pdb
    q. WebApi.dll
    r. Wedge.pdb
    s. Wedge.exe

4. SQL folder contains:
    a) B39_001.sql

5. MirthMappings folder contains:
    a. Inbound\eRAD\08_c_interpretation_html.js
    b. Inbound\ORDPLC\06_c_order.js

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

## 5. Intended Audience

This document is created by the RIS Development team for the RadNet RIS Implementation team.

## 6. Who is affected

Build 39 installs. This server update must be applied directly to the build 39 core install.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 7. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 37 | - | 1.2.37.12843 | 1.2.37.12782 | 1.2.37.12843 | 1.2.37.12843 | Full version release |
| 37 | 1 | 1.2.37.13040 | 1.2.37.13040 | 1.2.37.13039 | 1.2.37.13003 | Core install, GUI.zip, web service and database updates |
| 37 | 2 | 1.2.37.13069 | 1.2.37.13040 | 1.2.37.13069 | 1.2.37.13003 | GUI.zip and Web service updates |
| 37 | 3 | 1.2.37.13069 | 1.2.37.13040 | 1.2.37.13069 | 1.2.37.13003 | WebAPI updated, no version changes |
| 37 | 4 | 1.2.37.13171 | 1.2.37.13040 | 1.2.37.13165 | 1.2.37.13171 | GUI.zip, web service, and database updates |
| 37 | 5 | 1.2.37.13347 | 1.2.37.13040 | 1.2.37.12979 | 1.2.37.12979 | Bug was discovered with version numbers, this is why it appears we went backwards in the version number but we did not. |
| 37 | 6 | 1.2.37.13665 | 1.2.37.13040 | 1.2.37.13580 | 1.2.37.12979 | GUI.zip and Web service updates |
| 37 | 7 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13799 | 1.2.37.13807 | GUI.zip and Web service updates. Also MIRTH mapping changes |
| 37 | 8 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13827 | 1.2.37.13807 | Web service update |
| 37 | 9 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13839 | 1.2.37.13807 | Web service update |
| 37 | 10 | 1.2.37.13895 | 1.2.37.13040 | 1.2.37.13895 | 1.2.37.13895 | GUI.zip, Web service and database updates |
| 37 | 11 | 1.2.37.14161 | 1.2.37.13040 | 1.2.37.14161 | 1.2.37.14161 | GUI.zip, Web service, database updates and SQL Management reporting |
| 37 | 12 | 1.2.37.14267 | 1.2.37.13040 | 1.2.37.14161 | 1.2.37.14267 | GUI.zip, Web service and database updates |
| 37 | 13 | 1.2.37.14326 | 1.2.37.13040 | 1.2.37.14326 | 1.2.37.14326 | GUI.zip, Web service and database updates |
| 38 | - | 1.2.38.14486 | 1.2.38.14486 | 1.2.38.14486 | 1.2.38.14486 | Full version release |
| 38 | 1 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | Core install required |
| 38 | 2 | 1.2.38.15182 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | GUI.zip update only |
| 38 | 3 | 1.2.38.15251 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | GUI.zip update only |
| 38 | 4 | 1.2.38.15327 | 1.2.38.14748 | 1.2.38.15290 | 1.2.38.14748 | GUI.zip and Web service updates |
| 38 | 5 | 1.2.38.15513 | 1.2.38.14748 | 1.2.38.15513 | 1.2.38.15451 | GUI.zip, Web service and database updates |
| 38 | 6 | 1.2.38.15618 | 1.2.38.14748 | 1.2.38.15513 | 1.2.38.15618 | GUI.zip and database updates |
| 38 | 7 | 1.2.38.15768 | 1.2.38.14748 | 1.2.38.15768 | 1.2.38.15618 | GUI.zip and Web Service updates |
| 39 | - | 1.3.39.15389 | 1.3.39.15389 | 1.3.39.15377 | 1.3.39.15355 | Full version release |
| 39 | 1 | 1.3.39.16026 | 1.3.39.15943 | 1.3.39.15943 | 1.3.39.15957 | Requires Core Install. GUI.zip, Web Service, and Database updates |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# 8. Installing

1) Copy and replace the current rRIS…zip file with the rRIS_1.2.39.16026.zip file provided with this release. The previous GUI.zip should have been renamed to rRIS_1.2.39.15389. Be sure to make a backup of the ris.exe.config file contained within the .zip folder.

2) Copy and replace the setup.exe file and the rRisSetup.msi files from the _setup folder to the Build\core_setup folder.

3) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService. Be sure to make backup of all files, but especially the rRISServices.exe.config and rRISServices.vshost.exe.config files.
   *rRISService directories include:*
   *a) rRISService*
   *b) CDS rRISService*
   *c) Wedge rRISService*
   *d) DDE rRISService*

   Restart each service.

3) Run the B39_001.sql file against the eRAD RIS database instance.

4) MirthMappings:

   The sites current MirthMapping files may already have custom configurations applied. Replacing with the files supplied with this server update may overwrite any custom configurations.

   Please contact eRAD RIS Development before copying or making changes to the MirthMapping files.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission from RADNET, Inc.

# User Release Notes

for eRAD RIS
Version 1
Build 40

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# Table of Contents

1. Purpose ..... 3
2. Intended Audience ..... 3
3. Installing/Accessing the Application ..... 3
4. New Access Strings and Configuration Settings ..... 4
5. New Features and Enhancements ..... 6
   Reporting – Auto rewind functionality on play back ..... 6
   Reporting – Resume play-back after rewinding ..... 7
   Reporting – Save notes in problem work flow ..... 8
   Reporting – Open at end of dictation ..... 9
   Assign to Radiologist permission ..... 10
   Scheduling – Existing orders prompt ..... 11
   Registration – IVT Info Provided ..... 12
   Unknown CC Physician ..... 15
   Expired Insurance and Inactive Carrier Warnings ..... 17
   Assign Radiologist at Scheduling / Registration ..... 19
   Assign Radiologist in New Outside Read ..... 20
   Scheduling – Retain Attachments on Reschedule ..... 21
   Patient Allergy Notifications ..... 22
   Specialty Read and Referring Protocol Note Changes ..... 24
   Site Specific Confirmation Flag ..... 25
   Administration – Adding Rows to Lookup Enhancements ..... 26
   Administration – Referring Address Enhancements ..... 27
   GUI Worklist Refactor ..... 29
   Scheduling – Restrictions Enhancement for Appointment Book ..... 33
   PACS IW Integration ..... 35
   Meaningful Use - Image Medium Request Enhancements ..... 39
   Auto Resolving BI-RADS® 0 and 4/5 Exams ..... 40
   Manually Resolve BI-RADS® 0 and 4/5 Exams ..... 40
   Management Report – Cancelled Reasons ..... 41
   Management Report – Unknown Referring Report Enhancements ..... 42
   Management Report – Modality Duration Override Report ..... 43
   Management Report – RTAT by Radiologist ..... 44
   Management Report – Continuing Experience Radiologist ..... 45
   Management Report – Continuing Experience Technologist ..... 46
6. RIS Release Version Numbers ..... 47
7. Resolved Defects ..... 49
8. Known Limitations ..... 60

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 1. Purpose

This document describes some of the new features and changes implemented in eRAD RIS as of the end of Sprint 39. This version of eRAD RIS is referred to as Build 1.3.40.

Only features which can be visually demonstrated to the user will be outlined in this document.

# 2. Intended Audience

This document is created by the RIS Development team for the RadNet RIS management team.

# 3. Installing/Accessing the Application

The installation guide for the eRAD RIS client have been posted to the RadNet Wiki page at http://mdbal01rdtweb/Wiki/

Under the RIS menu click on the rRIS page. The credentials to access the page are:
Username: rRIS
Password: Summerside

*Please note that Build 1.40 is considered a new core release of the application and will require a reinstallation of eRAD RIS. This is accomplished by navigating to the eRAD RIS shared installation drive and running the CoreInstall.bat file (ex: I:\RISDeployment\CoreInstall.bat)*

If you experience difficulties accessing the application please do not hesitate to contact Darcy Noye with the PEI RIS Development Team.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 4. New Access Strings and Configuration Settings

| Setting Placeholder | Setting | Default | Purpose / Controls Access to |
|---|---|---|---|
| Access string / User Group Permission tables | Clinical.Rad.AssignToRadiologistDropDown | Full | Controls access to the Assign To – Radiologist list box in reporting window |
| Access string / User Group Permission tables | Config.LookupEditor.ReferringPractice | None | Controls access to the Referring Practice lookup table |
| Access string / User Group Permission tables | Clinical.ManuallyResolveMammoFollowUp | Full | Controls access to the window that is displayed to select a reason when Follow Up Resolved check box is selected |
| Access string / User Group Permission tables | Clinical.Schedule.AssignRadiologist | Full | Controls access to the Assign Radiologist feature in the New Appointment and Registration windows |
| Access string / User Group Permission tables | Clinical.ReadPreCertNotes | Full | Allow the user to read preCert and verification notes on non-IVT screens |
| SystemConfig lookup | MaxWorklistItem | 500 | Value will be the max number of rows to display on a work list |
| Ris.exe.config | BEFORE:<br><startup><br><supportedRuntime version="v4.0" sku=".NETFramework,Version=v4.0" /><br></startup><br><br>AFTER:<br><startup useLegacyV2RuntimeActivationPolicy="true"><br><supportedRuntime version="v4.0" sku=".NETFramework,Version=v4.0" /><br></starup> | N/A | Addition to start up added for sites that will be using PACS IW Integration.<br>(useLegacyV2RuntimeActivationPolicy="true") |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 5. New Features and Enhancements

## Reporting – Auto rewind functionality on play back

The auto rewind functionality has been added for transcription users. This is controlled by a new user preference "Rewind <value> seconds on play-back. The default is 0 with a maximum of 10.

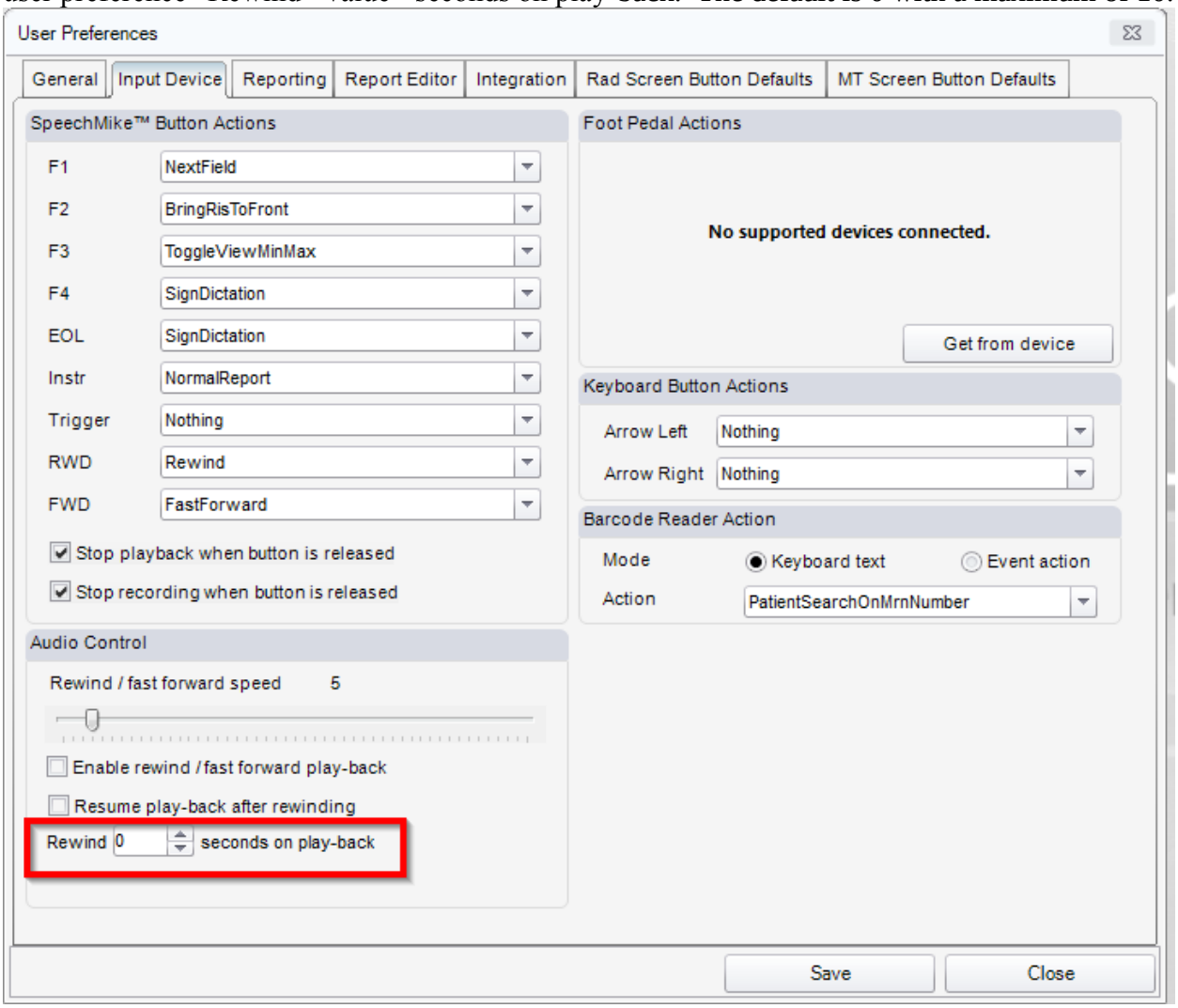



**Figure 5.1 – New user preference to set rewind play-back in seconds**

The new preference is located on the input device tab under Audio Control section.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Resume play-back after rewinding

A new user preference "Resume play-back after rewinding has been added on the input device tab under Audio Control section.

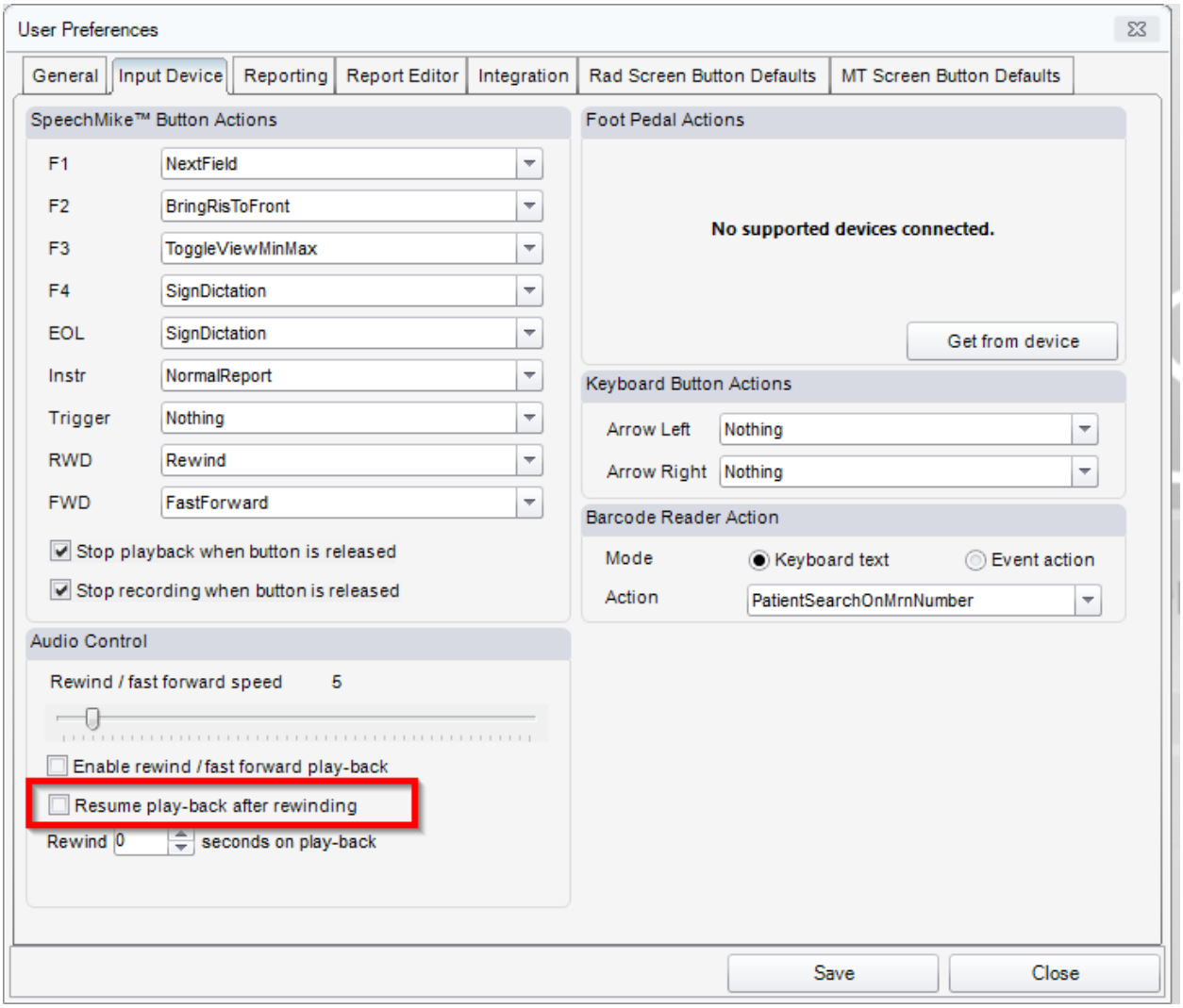



**Figure 5.2 – New user preference "Resume play-back after rewinding**

When enabled (checkbox selected), if the transcription user rewinds a part or all of the dictation, it will automatically begin play back. When disabled it will behave as before and the user will need to initiate the play back.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Save notes in problem work flow

Studies that are on the problem work list could not have notes added without resolving the problem, which would remove the study from the Problem work list. To fix this issue, the resolve button has a drop list addition with a new option to "Save notes only". The notes field displays in a similar fashion to other notes fields within the applications (Ex: patient notes). The date stamp and users last name first initial are displayed for the notes being added. Additionally historical notes will display with the date stamp and user who entered the comment.

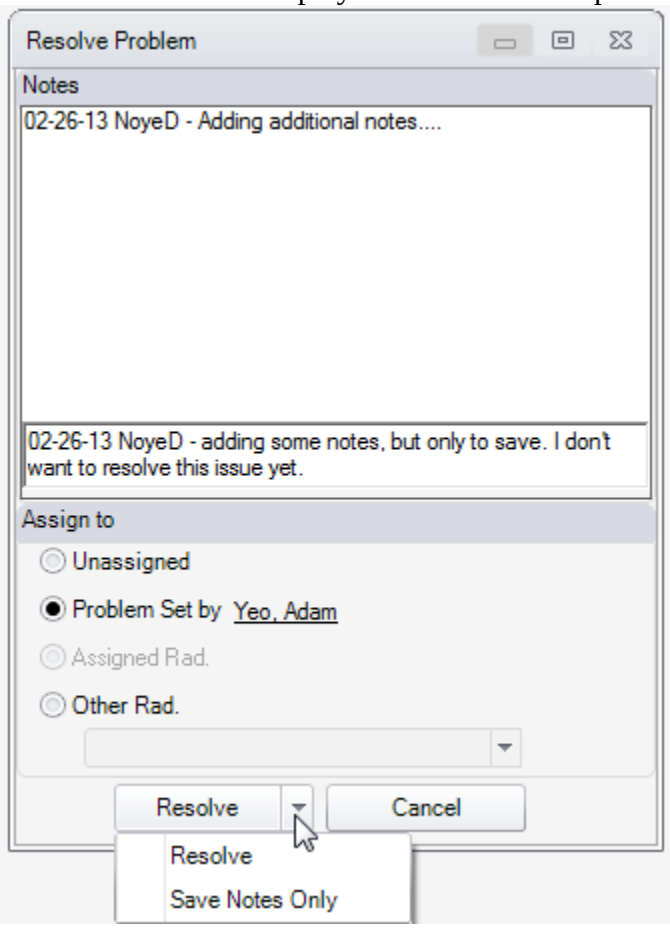



**Figure 5.3 – Displaying new option to "Save notes only" for studies on problem work list.**

Select the Save Notes Only option will close the Resolve Problem window and return the user to the work list and the study will remain on the Problem work list

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Open at end of dictation

In previous builds of eRAD RIS, if a batch dictation user re-opened a study to add additional dictation, the window would open at the start of the dictation. The user would need to go the end of the dictation manually.

For batch dictation users a user preference "Open at the end of dictation (none interactive only) has been added to allow them set if the dictate window opens at the start or end for studies that already have a dictation.

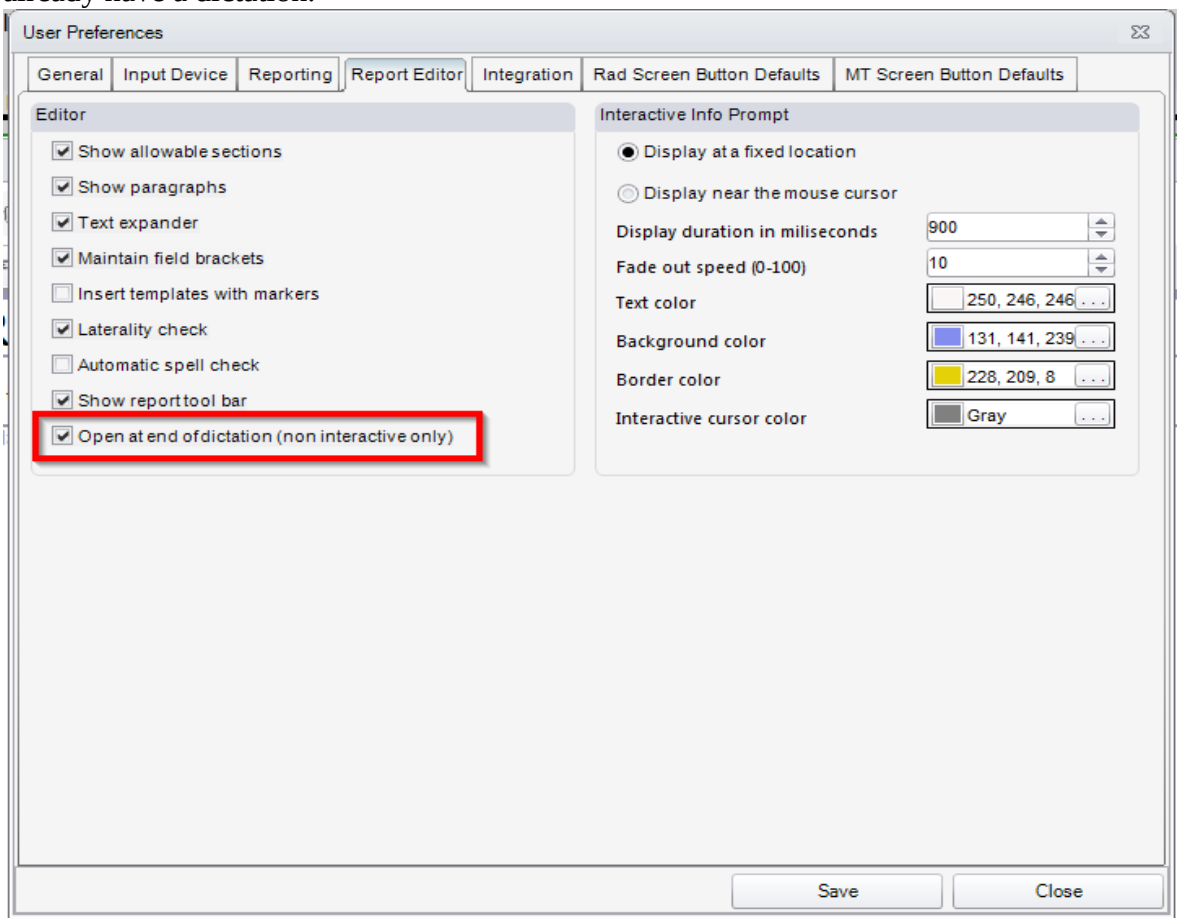



**Figure 5.4 – New user preference "Open at end of dictation (non interactive only)**

When this preference is enabled (checkbox selected) when a study that already has a dictation recorded via batch mode is opened in the dictate window, it will be defaulted to the end of the dictation. If disabled it works as before and will open at the start of the dictation.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Assign to Radiologist permission

Within the reporting window, we have a data pane "Assign To". In the "Assign To" data pane there is a list box to assign to a particular radiologist. This field was available to all user groups. To control access, the access string "**Clinical.Rad.AssignToRadiologistDropDown**" has been added in this build to restrict who can use this field.

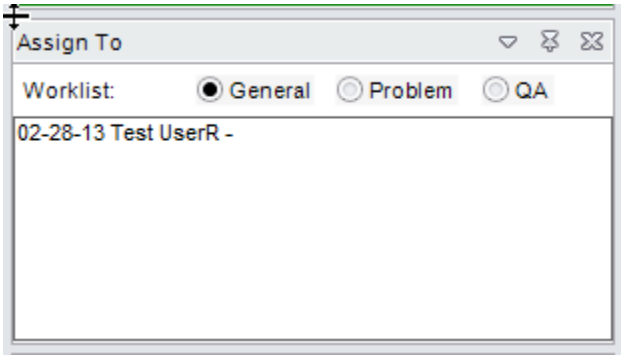



**Figure 5.5 – Clinical.Rad.AssignToRadiologistDropDown = none**

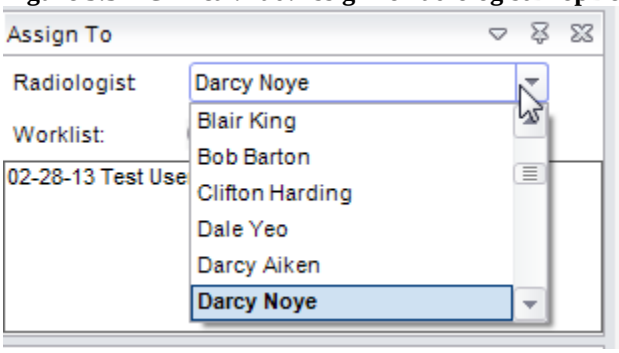



**Figure 5.6 – Clinical.Rad.AssignToRadiologistDropDown = full**

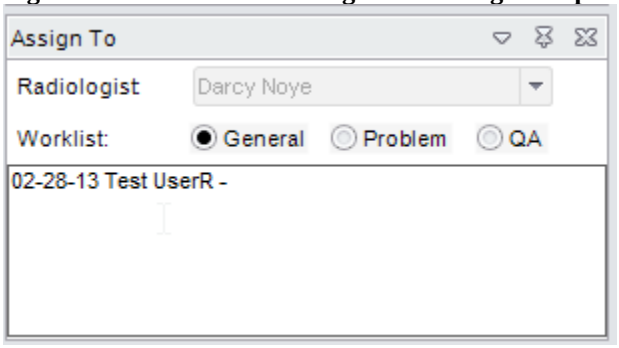



**Figure 5.7 – Clinical.Rad.AssignToRadiologistDropDown = read only / disabled**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Scheduling – Existing orders prompt

When creating a new appointment or walk in schedule, the patient name is entered into the first / last name fields and a search is performed. If the patient entered is an existing patient with orders or short term follow orders, the user will be prompted with the "Existing Orders" window. The "Existing Orders" window allows the user to select a pre-existing order to schedule instead of continuing with the current new appointment.

The user also has the option to select multiple existing orders to schedule instead of the current new appointment, or the user can choose to continue creating the new appointment with the current and add additional existing orders to be scheduled.

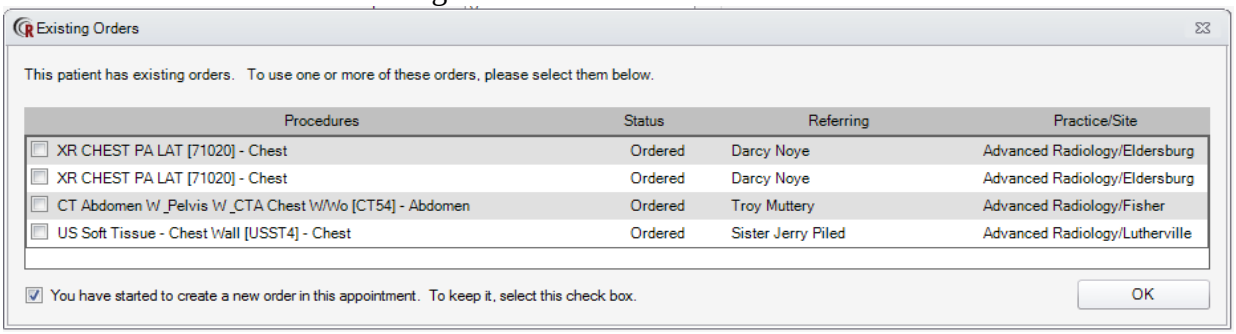



**Figure 5.8 – Existing orders window**

The "You have started to create a new order…" check box is selected by default when the window opens. If this is unchecked, the initial order will be destroyed, but to close (select OK button) the Existing Order window a one of an existing order or the current order must be selected.
If the new appointment window is opened from the patient folder, we assume that you want to create a new order / schedule. The Existing Orders window is still presented but the option to exclude the current new appointment is not available.

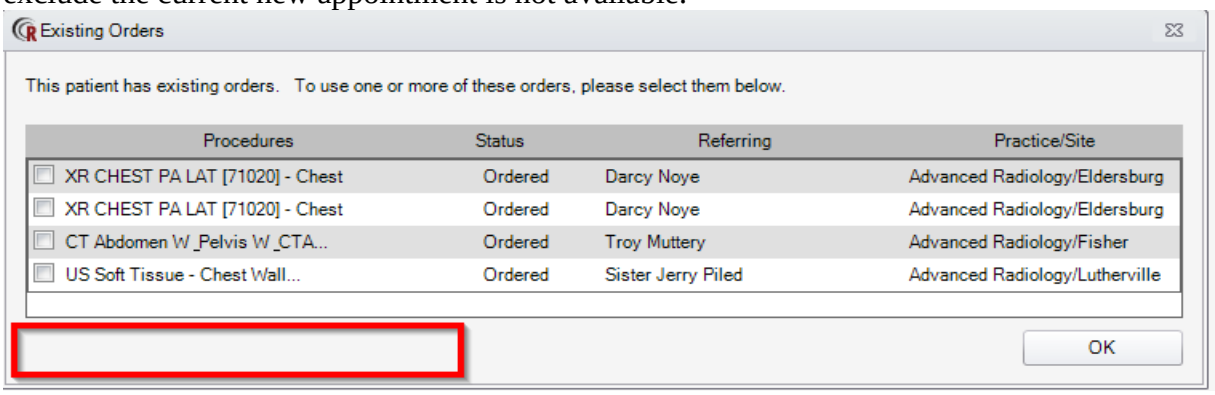



**Figure 5.9 – Existing Orders window presented from patient folder.**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Registration – IVT Info Provided

The registration window now displays a read only PreCert status. The column was added to the existing billing code grid on the Exam tab.

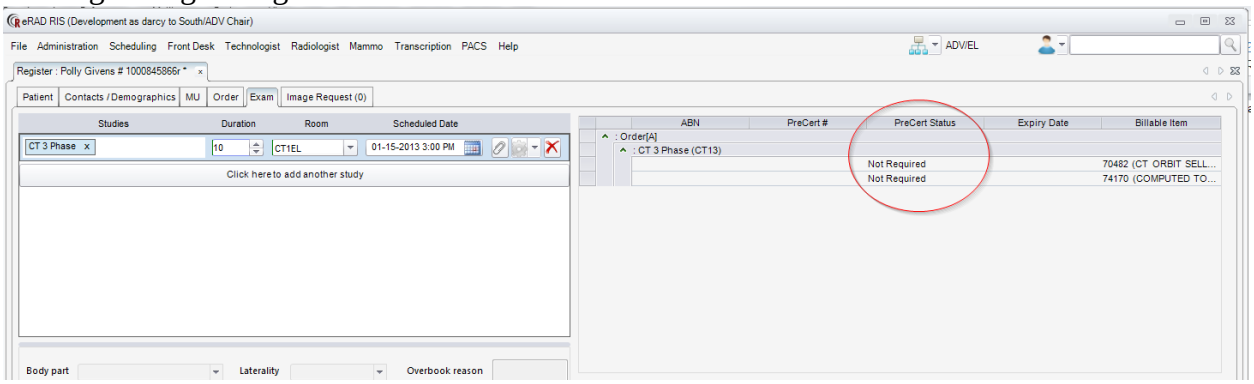



**Figure 5.10 – PreCert status in registration**

An IVT Notes button was added to the Insurance Policies Grid. The expected behavior of the button is as follows:

1. If the parent screen is IVT, the button should be invisible
2. If the current exam(s) do not have notes, the IVT Notes button is disabled
3. If the user does not have permissions (**Clinical.ReadPreCertNotes**) to see IVT Notes, the button is disabled
4. If there is only one open order, display the notes on a pop-up window
5. If there are two open orders (e.g. Order[A], Order[B]), show "Order[A]" and "Order[B]" with the notes for each grouped under a header.
6. The IVT Notes button should be disabled when scheduling a new order.

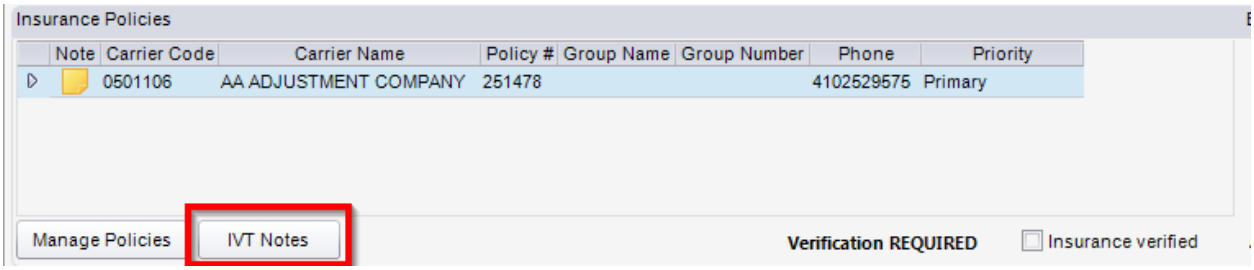



**Figure 5.11 – IVT button to display notes added. This button is available from registration and view/edit**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

If the patient only has one study for the day, or if the patient has multiple studies for the day and the user chose to arrive only one of the studies in the registration window, the notes window opens with the notes associated with that study.

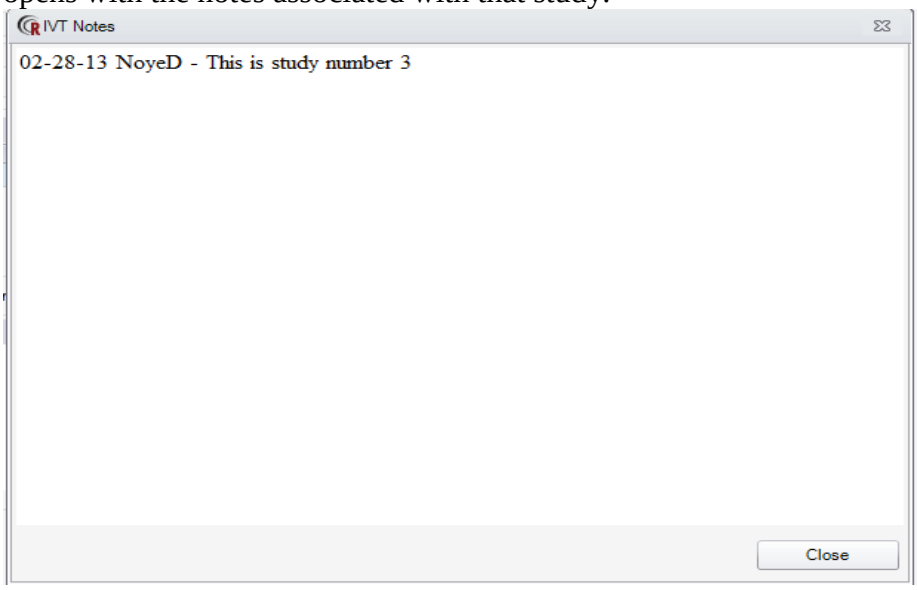



**Figure 5.12 – IVT note accessed from registration on one study**

If the patient has multiple studies and the user chooses to arrive multiple, the IVT notes will display for each study in the same notes window.

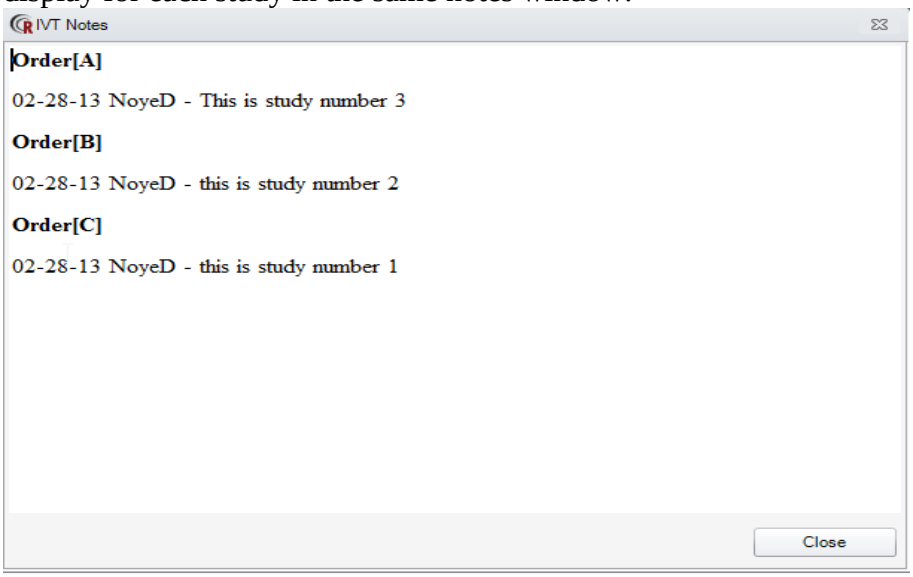



**Figure 5.13 – Notes displayed for multiple studies opened in registration window**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

The perform exam window (tech window) also displays a read only version of the Verification and PreCert Notes field. This display only notes field is located on the Billing Codes tab.

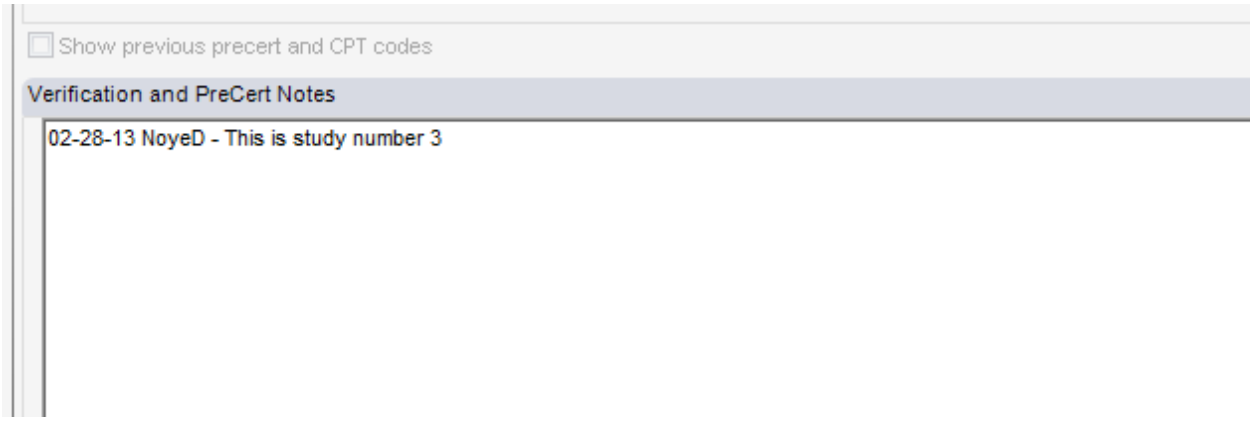



**Figure 5.14 – IVT notes on the Billing Codes tab of the Perform Exam window.**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Unknown CC Physician

Users of eRAD RIS have always had the ability to add the referring physician as an "Unknown Referring Physician" when the referrer was not already known, and /or the details for referrer are not completely known at the time of entering the order.

In build 40, this has been extended to the CC Physician field. Unknown CC Physicians are added in the same manner as the unknown referrer. If the physician entered in the CC Physician field is not found in a search the user can select the "Add Unknown" button in the search window.

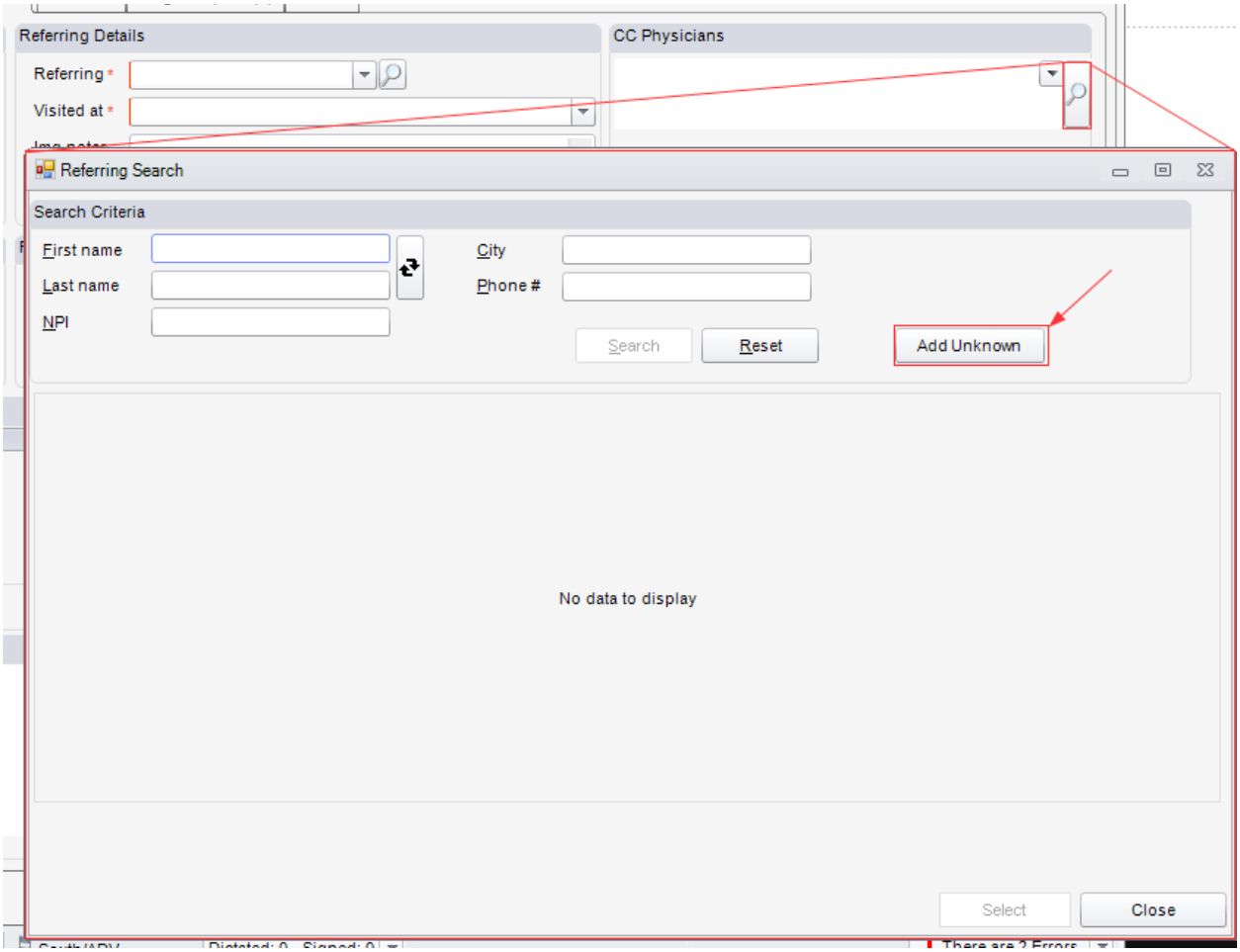



**Figure 5.15 – Add unknown CC Physician.**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

Selecting the Add Unknown button in the Referring Search window that is opened will open the personnel editor (with limited functionality). The Physicians first and last name, gender and D.O.B are required. The Unknown Referring flag is auto selected.

Once the study in which the Unknown CC Physician is being added to is saved, a row is added to the Unknown Reconciliation work list. The Unknown CC Physician can be reconciled from this work list and also from other data windows such as the Schedule/Reschedule window, Registration window, View/Edit window, etc… by a right click on the CC Physician name and selecting Reconcile Unknown Referring

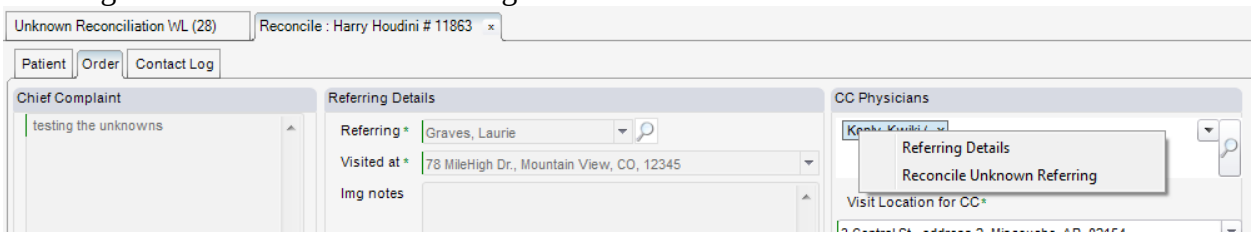



**Figure 5.16 – Reconcile unknown CC Physician**

**NOTE**: A limitation of this release. When a Unknown CC Physician is added, the row added to the Unknown Reconciliation work list will have the Referring Physician displayed in the under the referring column instead of the Unknown CC. The flag on the Unknown Reconciliation work list is added to the Unknown Referring column to indicate the purpose for the row being added to the work list

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Expired Insurance and Inactive Carrier Warnings

Two new alerts have been added in build 40. eRAD RIS can be configured to inform the user if the patient insurance has expired or the insurance carrier is inactive in the RIS.

An expired insurance carrier may arise if the patient has an active order or scheduled appointment with insurance A assigned to the study. Another order or study is created and the patient informs that insurance carrier A has expired, and they now use insurance carrier B. Now when the first study is worked on (scheduled, registered, etc…) it will inform the user by a message prompt.

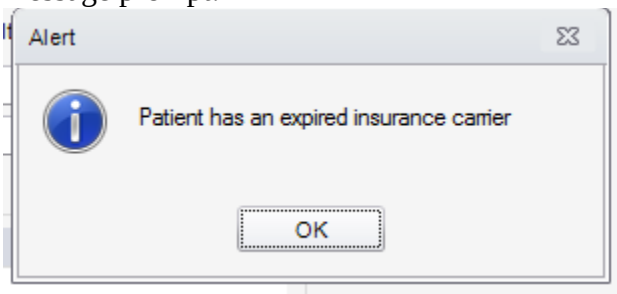



**Figure 5.17 – Expired insurance alert**

Also an Insurance Carrier may be set to inactive in the Carrier lookup table with patients active studies assigned to this carrier. Accessing this study in schedule, reschedule, registration, view / edit, etc… they will be prompted that an inactive carrier is selected

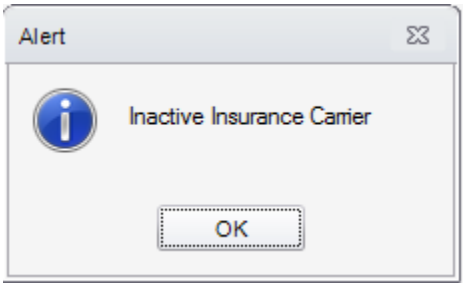



**Figure 5.18 – Inactive carrier alert**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

The alerts are added / activated in the AlertConfiguration lookup editor. The messages that prompt the user are configurable, as what is entered in the Description field of the alert.
To add the alert, open the AlertConfiguration lookup table. Add an Alert Configuration Code. The message you want the user to see is entered in the Description field. The Alert Generators column is a list box that will contain all of the possible systems alerts. To add expired insurance, select ExpiredInsurance, and the inactive carrier alert you must select InactiveCarrierAppliedToVisit.

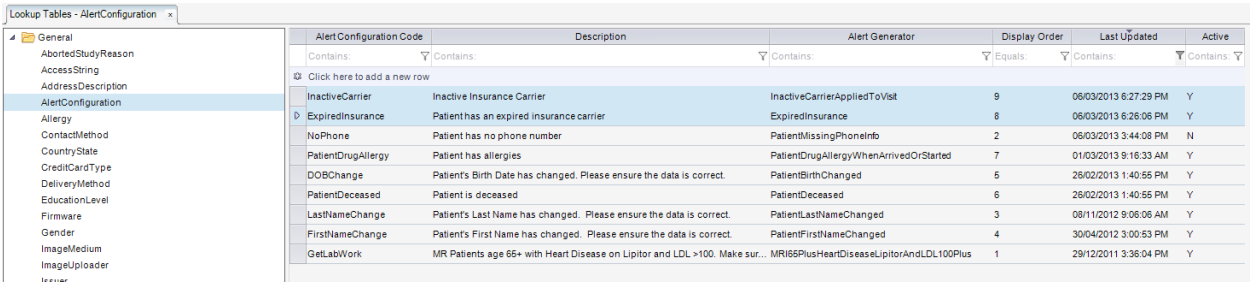



**Figure 5.19 – AlertConfiguration lookup displaying new alert codes**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Assign Radiologist at Scheduling / Registration

Before build 40 the radiologist could only be assigned in the Perform Exam window before the study was in a status before exam done. Once in exam done status a radiologist could be assigned in various reporting windows, and also from radiologists work lists context menu as well as the Patient Folder work list as long as the study was in at least a status of exam done.

Now in the New Appointment and Registration windows the Radiologist can be assigned to the study. On the procedure picker row a next to the Attachment button is an expandable list.

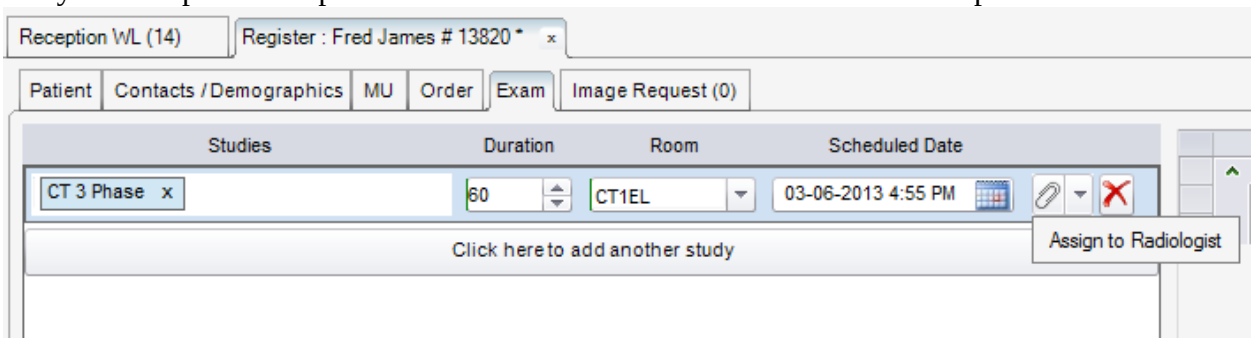



**Figure 5.20 – Assign Rad from new appointment / registration windows**

Selecting the Assign to Radiologist will open a window of the same name. The list of available Radiologists is populated when the "Studies" and "Room" fields are populated.

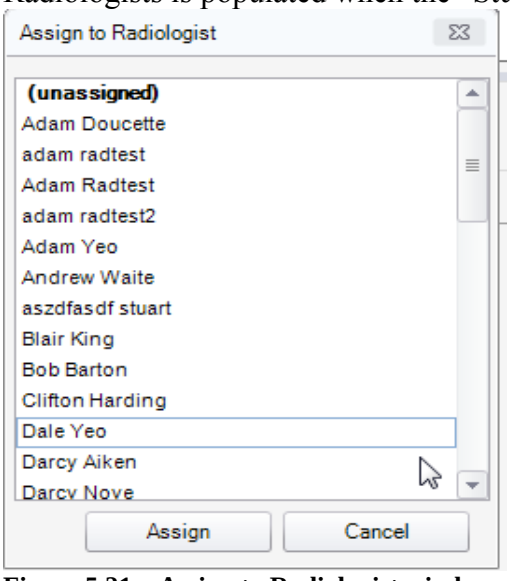



**Figure 5.21 – Assign to Radiologist window**

Access is controlled by the new access string "**Clinical.Schedule.AssignRadiologist** "

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Assign Radiologist in New Outside Read

When creating an Outside Read users can now assign a Radiologist within the New Outside Read window.

The field becomes enabled when the procedure is added to the Studies list. The list of available Radiologists is based on the procedure and modality type selected.

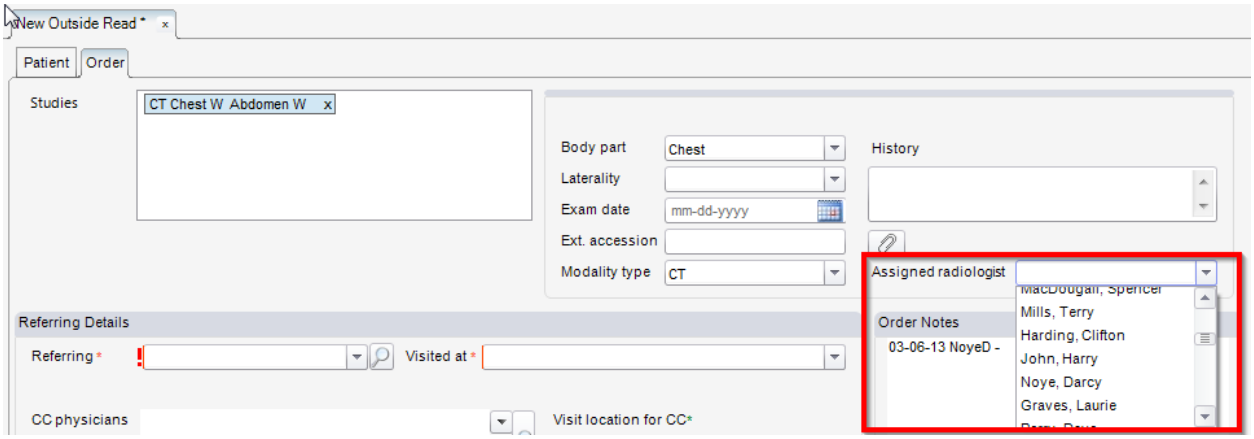



**Figure 5.22 – Assigned radiologist field in New Outside Read window**

Similar to the Assigned Radiologist field in the Perform Exam window, if the Referring selected has preferred radiologist(s) defined, that radiologist(s) name will be prefixed with "Preferred:" If the referring is selected before a value is chosen in the Assigned Radiologist field, and that referring has a preferred radiologist, the Assigned Radiologist field will be auto populated with the preferred radiologist. If the referring has multiple preferred radiologists, the preferred radiologist will not be selected.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Scheduling – Retain Attachments on Reschedule

In previous versions of eRAD RIS, when an scheduled study that has exam level attachments was rescheduled, the RIS was not carrying those scans over to the rescheduled study.

Going forward, when a study is being rescheduled all documents that are associated at the exam level to that study and are of the appropriate scan type, we will create a new association for the newly created study that will be scheduled.

If the study has documents attached at the exam level and at the time of rescheduling the option to schedule later is selected, the RIS will prompt the user to store the attachments at the patient level.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Patient Allergy Notifications

If a patient has allergies, the users of the RIS should be aware. In build 40 we have added two notifications for patient allergies.

The first is a new flag. If the patient has an allergy added to the Allergies grid under the MU tab, when the study is saved, the flags column on the work lists will be updated to include the new icon . This ICON is added regardless of the allergy selected, it is not limited to only drug allergies.

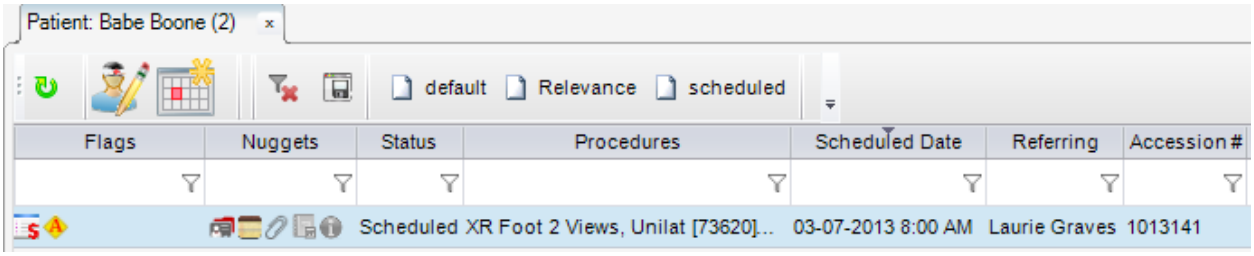



**Figure 5.23 – Patient Folder work list display allergy flag**

The second is a new alert that will prompt the user when the Technologist opens the study is Perform Exam data window. Again regardless if the allergy is drug related, the user will see the alert in the form of a pop up window.

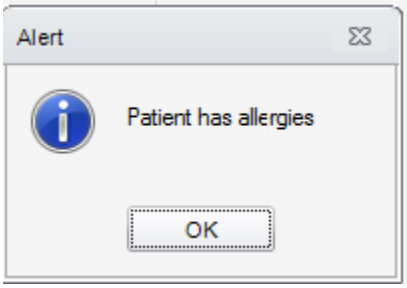



**Figure 5.24 – Allergy alert**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

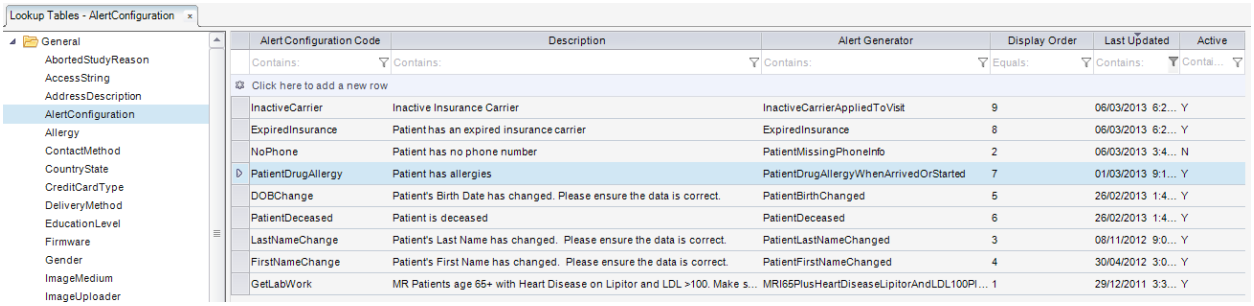



**Figure 5.25 – Alert configuration**

As with the other alerts that can be configured in eRAD RIS, an entry can be added and set to active or inactive in the AlertConfiguration lookup table. The Description is a free form field that the administrator may enter. The Alert Generator to select is PatientDrugAllergyWhenArrivedOrStarted

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Specialty Read and Referring Protocol Note Changes

When a referrer is added on the Order tab, the specialty read and referring protocol notes have been changed in build 40. Previously when the user would hover the mouse over the icon a tooltip would pop up with the associated notes.

We have changed this to be a pop up window when the associated icon is selected.

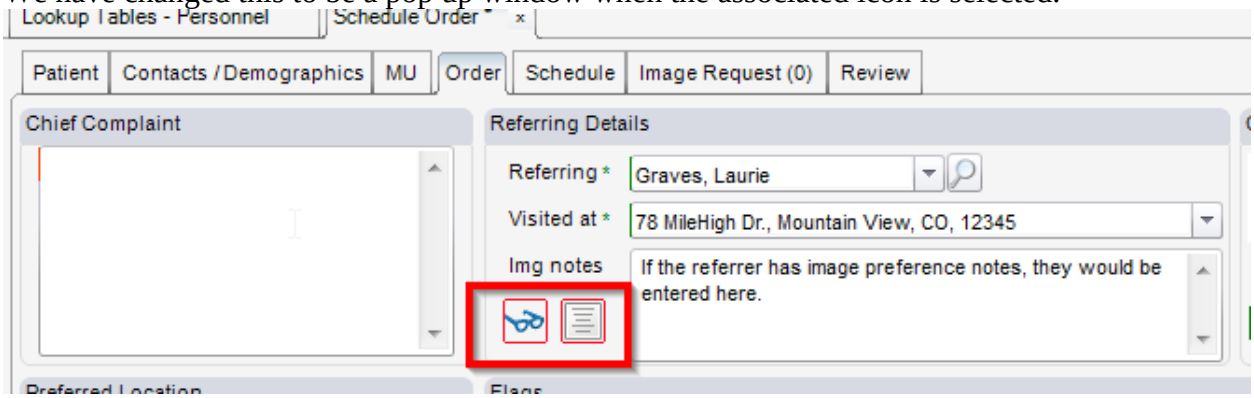



**Figure 5.26 – Specialty Read and Referring Protocol Note icons.**

Selecting the Specialty Read icon will open the associated notes for the referrer.

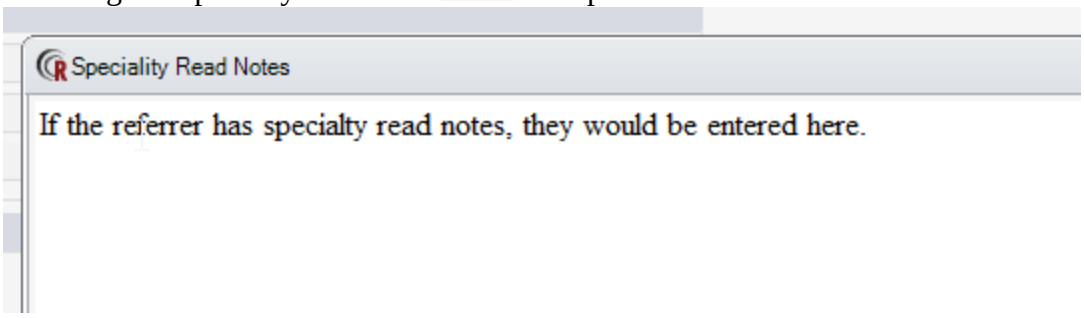



**Figure 5.27 – Specialty Read Notes window.**

Selecting the Referring Protocol Notes icon will open the associated notes for the referrer.

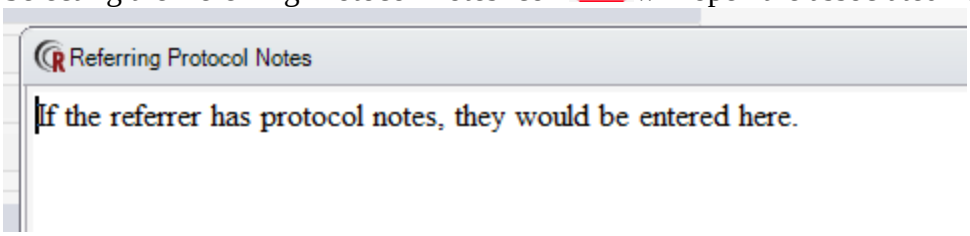



**Figure 5.28 – Referring Protocol Notes window**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Site Specific Confirmation Flag

Previous to build 40, the confirmation flag could be set at the procedure level. Added in this build is the ability to override the procedure and have the confirmation flag set for that procedure for a specific site.

Opening the ProcedureCode lookup table you can see the pre-existing Confirmation Requeired Flag column. Expanding the procedure assignment capabilities to see a new tab titled l_procedure_code_x_site_confirmation tab.

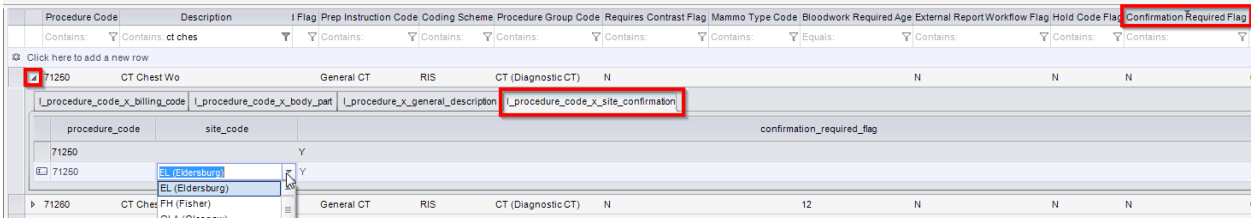



**Figure 5.29 – Assigning confirmation required for procedure to site level.**

If the flag for the procedure is set to N, but for site EL is set to Y, when procedure code # 71250 is scheduled for an EL room, confirmation will be required.
Alternatively, if the confirmation required flag is set to Y for the procedure, we can override confirmation to have it not required for a specific site.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Administration – Adding Rows to Lookup Enhancements

Previously we added new rows at the bottom of the lookup editor and after saving the rows the rows appear in the grid according to the DB or UI sort order. This can make it seem like the rows are jumping into a random gird location. The solution to these issues has two parts.

1. Rows will be added to the top of the gird preventing the user from having to continually scroll down to the bottom of the file.

2. Data will be sorted by last updated date so that the more recently updated rows will always be at the top of the list.

Having the last updated date (as read-only) in the lookup tables will allow them to see entries they recently modified. Often we change an entry, and then in testing realize we want to change it back or adjust it again.

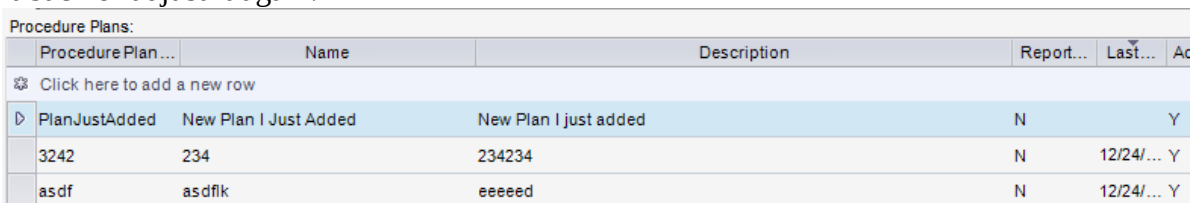



**Figure 5.30 – Adding rows to lookup from top of work list**

As you can see in the above, new rows are added at the top so that the user doesn't have to continually scroll down the grid and even after a save the last updated or newly added row will be at the top.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Administration – Referring Address Enhancements

Referring addresses in previous versions of eRAD RIS had to be added one at a time, unless the user was cloned from another user and the addresses were carried to the next user.

A new lookup table has been added under the User folder. From this lookup the administrator can add in Referring Practices and with each Referring Practice, multiple addresses can be associated. Access to the ReferringPractice lookup table is controlled by access string Config.LookupEditor.ReferringPractice

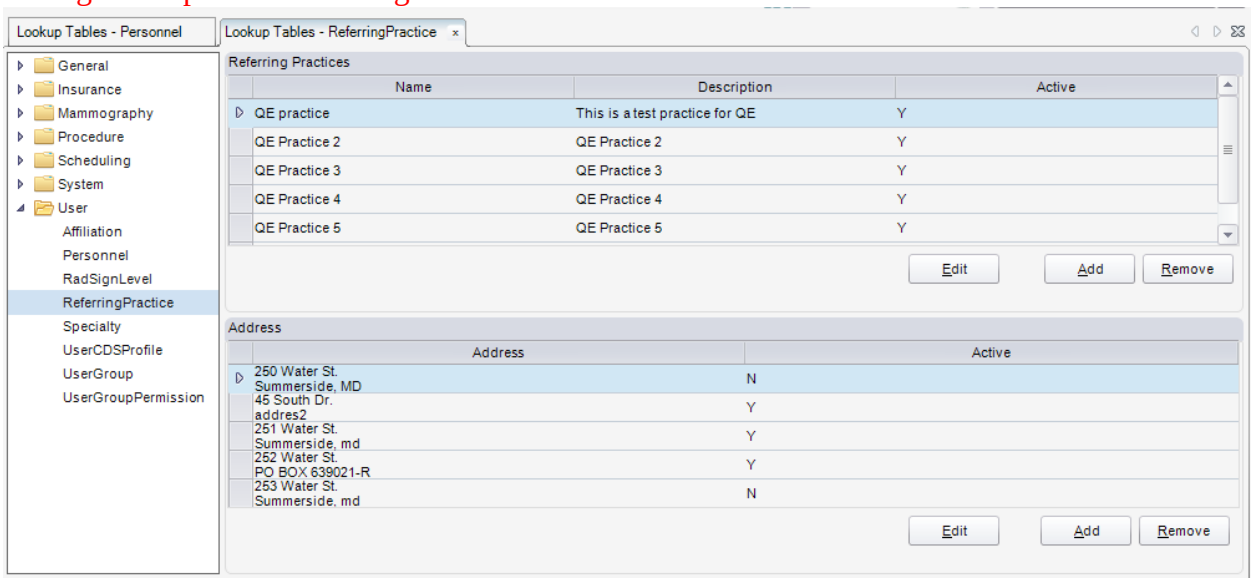



**Figure 5.31 – Referring Practice lookup table**

The Referring Practice and addresses can be set to inactive / active.

The Personnel editor has a new type ahead field on the General tab that looks at the Referring Practice table. When the Referring Practice is added, it will also add all of the addresses that are associated with the practice including inactive ones.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

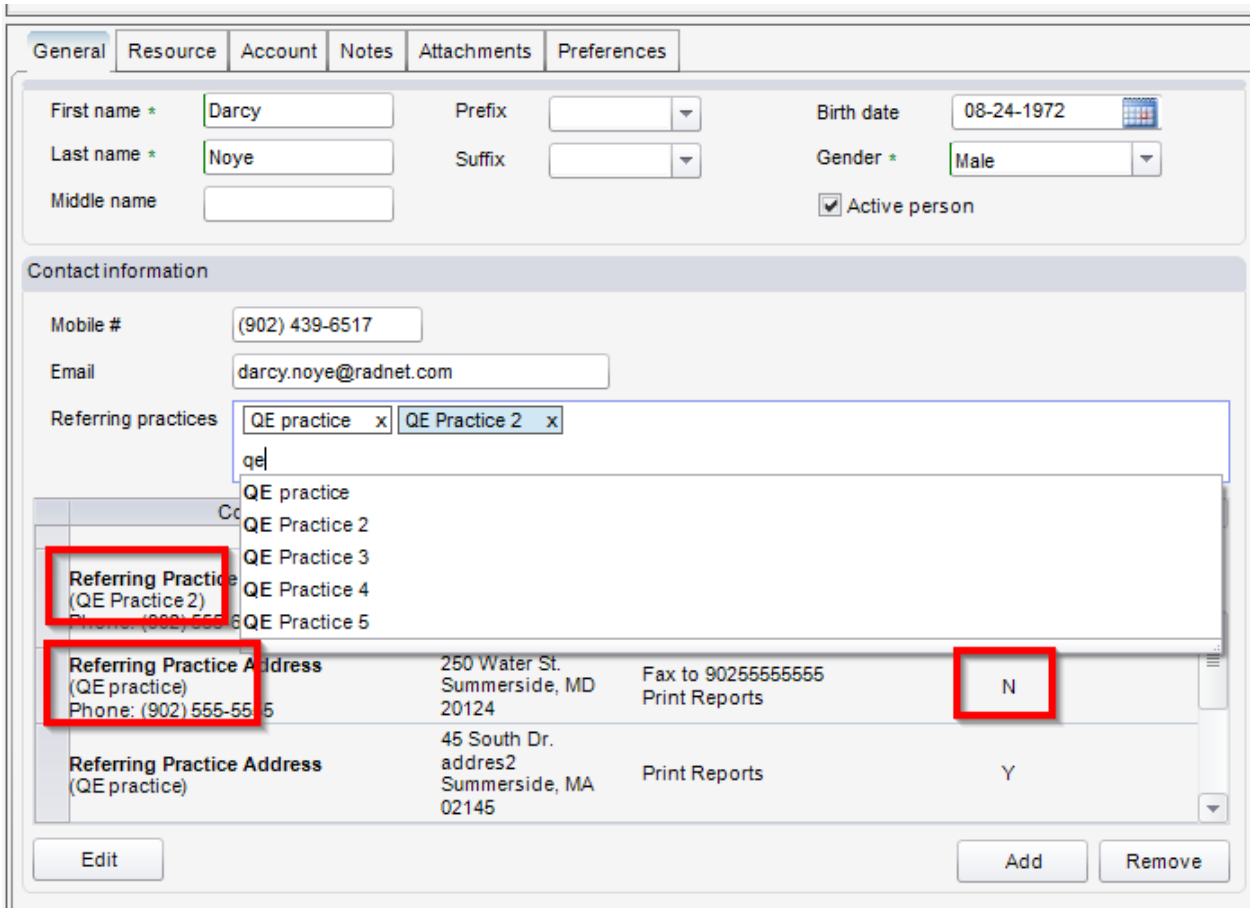



**Figure 5.32 – Personnel editor adding referring practices**

The referring added will have the practice name to differentiate what address belongs to what practice. As before, addresses can be removed if they are not required for this user.

Editing a referring practice address has limited capabilities from the personnel editor. The address can be changed to Active/Inactive, and the deliver to options can flagged if it for referring, CC physician or both.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## GUI Worklist Refactor

The worklists function very similar to how they did before with a few minor changes. We only show the filter compare text such as 'starts with:' or 'equals:' when a filter is applied or the filter is focused. Filters now default to 'StartsWith' instead of 'Contains' because the 'contains' search prevents the DB indexes from being used. In addition columns such as Last Name and MRN don't support the 'contains' filter.

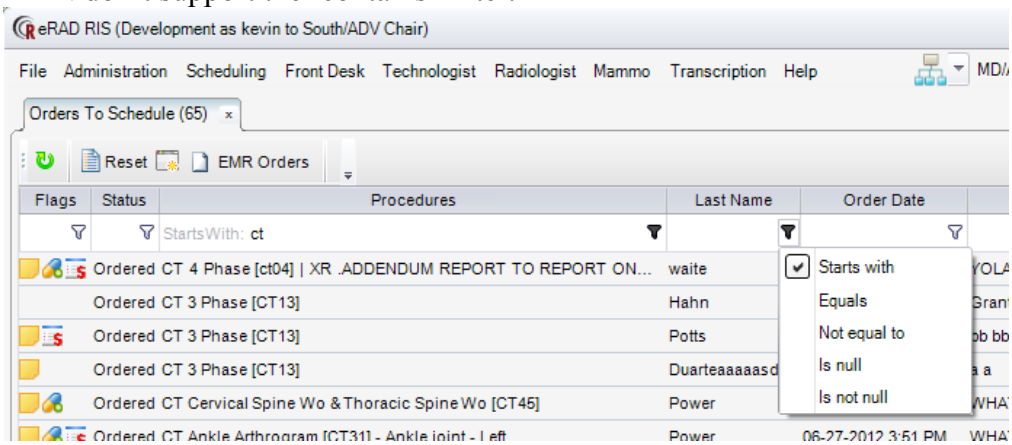



**Figure 5.33 – Filtering options have changed**

The amount of worklist items that can be displayed or retrieved is configurable in the SystemConfig lookup as shown in the following. The default value is 100. It cannot be set to more than 500. Any number greater than 500 entered as a value will be interrupted as 500.

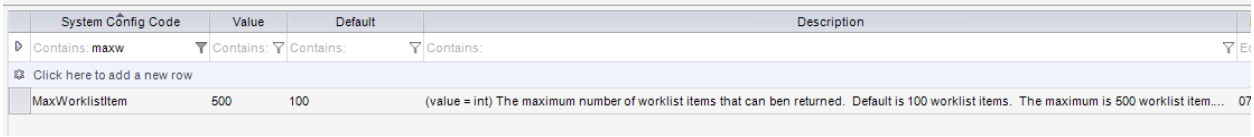



**Figure 5.34 – New system config code entry**

Using a value of 100, if the worklist has more than 100 rows then we only display the first 100 based on the view's sort column/primary key and a status area is introduced at the top of the worklist to explain that we are only displaying the first 100 of the results:

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

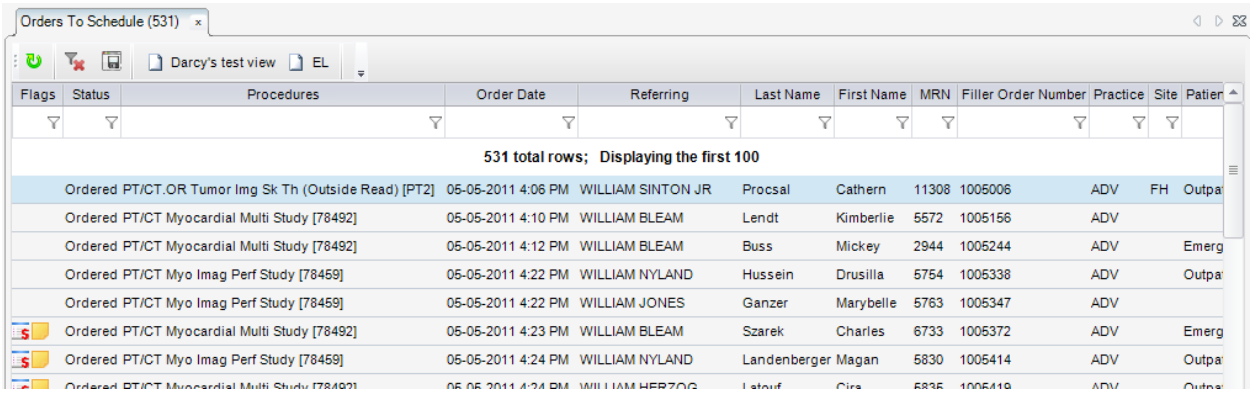



**Figure 5.35 – Work list displaying subset based on system config value.**

To view specific items the user needs to reduce the result set by specifying additional search criteria. For example, in the following we are filtering the Procedure column for studies that start with 'PT'

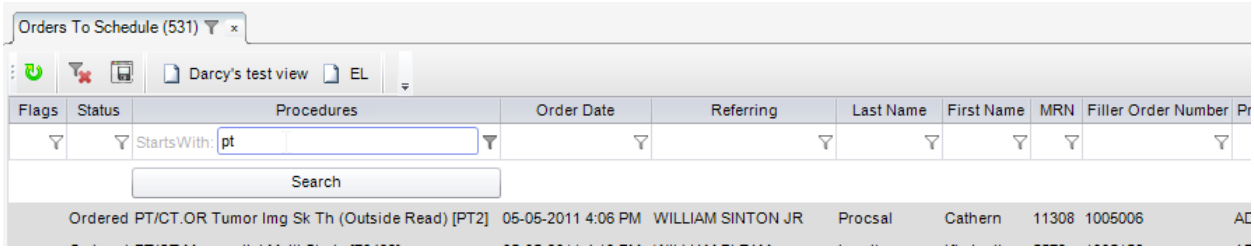



**Figure 5.36 – Work list filtering**

Then after clicking "Search" or pressing <enter> the worklist will look as follows:

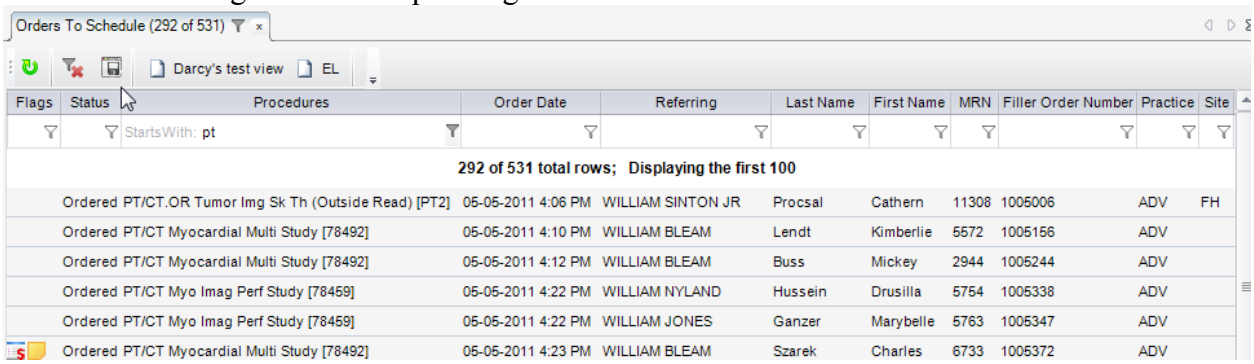



**Figure 5.37 – Work list display after search performed**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

The Reception and Technologist WLs now require a site selection. The site selection is displayed at the top of the worklist next to the day selection as shown in the following:

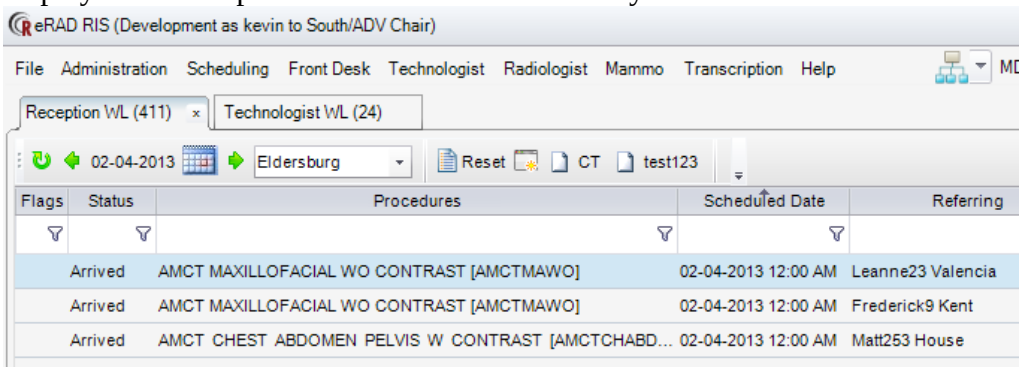



**Figure 5.38 – List box filter for sites on Reception and Technologist work list**

Several columns such as 'Flags', 'Status' and 'Modality Type' now have a "Select Values…" option under the filter button as shown in the following:

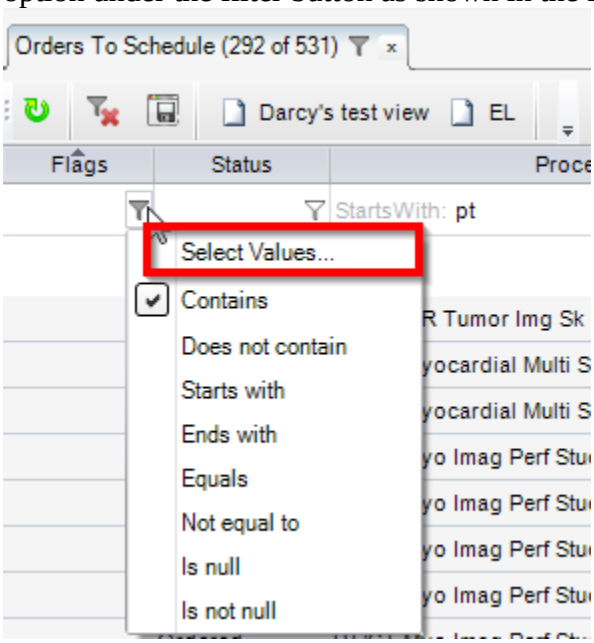



**Figure 5.39 – New filter option**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

The ‘Select Values...’ option displays a popup which allows you to select specific values you would like to match. The following is an example of the ‘Select Values…’ popup for the Flags column:

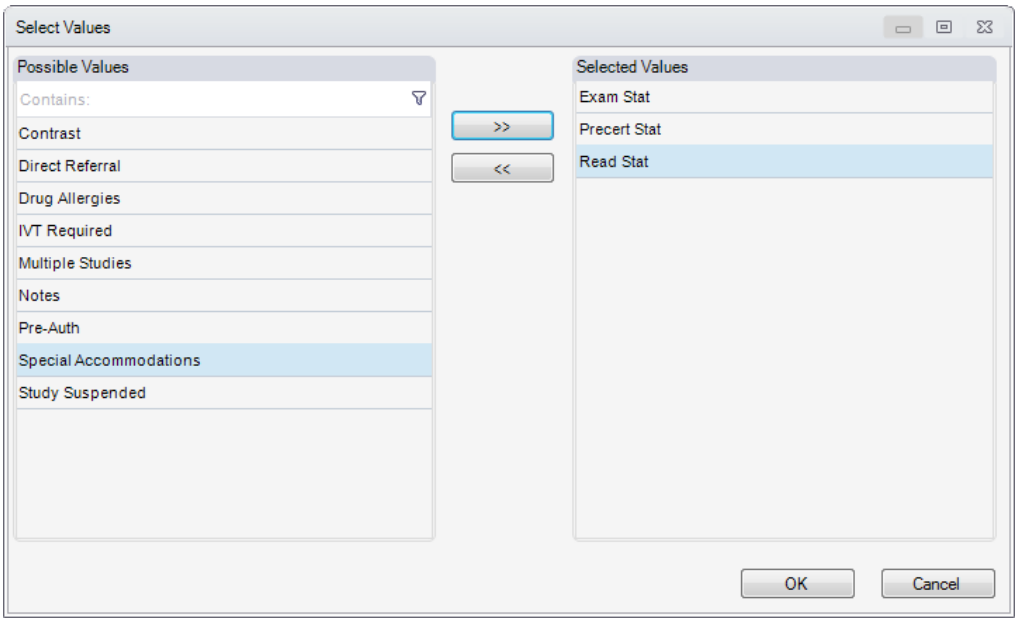



**Figure 5.40 – Select values work list filter options**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Scheduling – Restrictions Enhancement for Appointment Book

In previous versions of eRAD RIS, scheduling restrictions such as holiday's, room closures and restrictions would display similar to an appointment with a different background color.

In build 40 we are not displaying the items that could restrict an appointment from being scheduled as an alternative color to the appointment calendar.

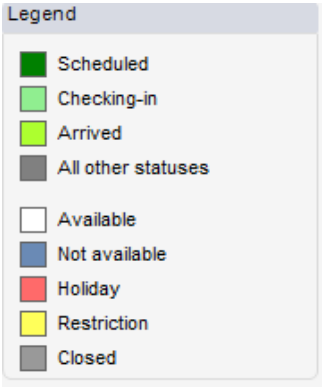



**Figure 5.41 – Appointment Book legend**

The description is displayed as the type of restriction (Holiday, Closed or Restriction), if there is a description configured it will appear on the next line, and will word wrap to fit inside the available space, at the point of painting the background, until finished or the interval will repeat again. The date span will appear on its own line, based on the restriction the date could be formatted in different ways.

The advantage of this will allow for the repeating of the description at set intervals to be user friendly. With the color change, we still display what the color change would relate to when it is not the normal template available/unavailable, but we have also include a legend for the different background colors.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

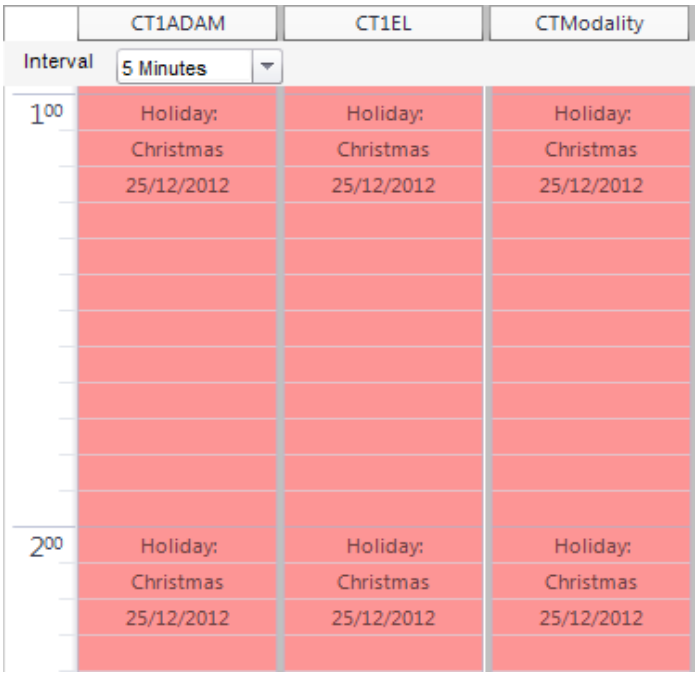



**Figure 5.42 – Room restriction for Holiday in appointment book**

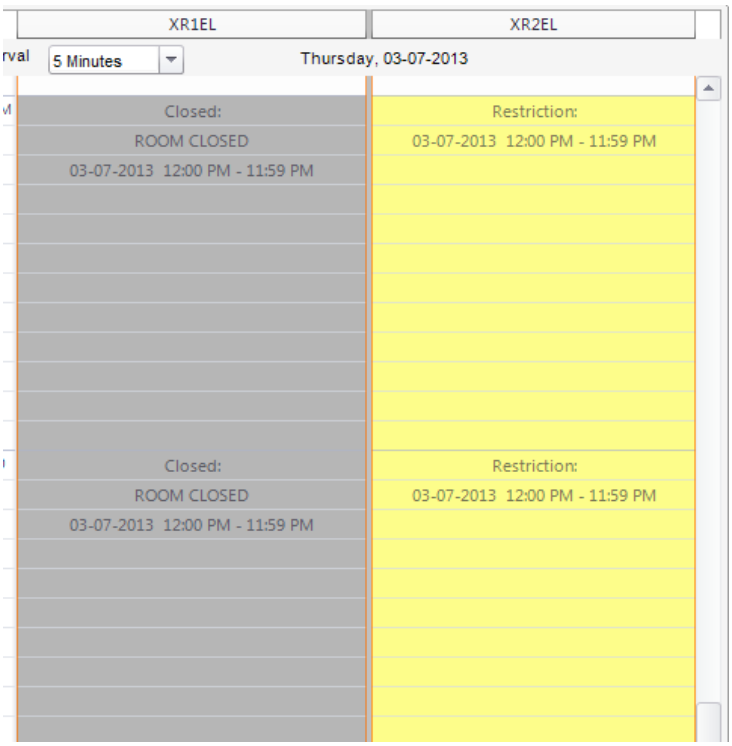



**Figure 5.43 – Room restriction for Closed and Restricted room in appointment book**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## PACS IW Integration

A particular customer required eRAD RIS integration with PACS IW. We also needed to preserve the current integration with eRAD PACS.

We used to associate the PACS server at the site level. This has been moved to the Practice level.

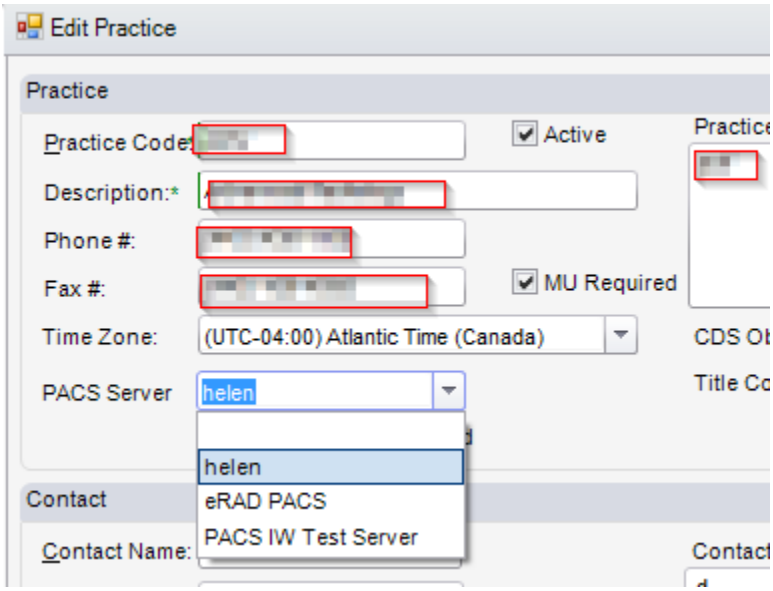



**Figure 5.43 – Practice lookup displaying new PACS Server list box**

This allows the decision of which PACS server should be launched to be based on the selected practice of the org picker. In order to temporarily change from one PACS server to another the user simply changes the selected practice in the org picker.

Also the PACSServer lookup table has a new column "PACS Server Type Code".

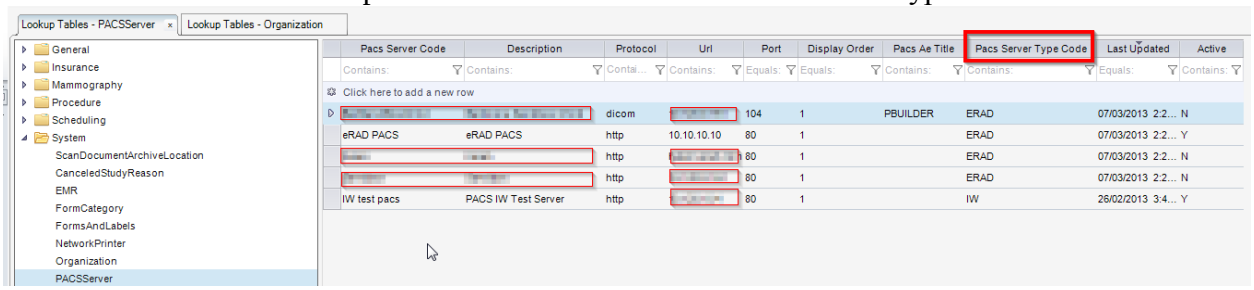



**Figure 5.44 – PACSServer lookup table**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

The c_study table now has an external_identifier_column that will hold the NCDStudyId from PACS IW when it is received. Integration with eRAD will continue to be by MRN and accession number.

The PACS menu on the main menu bar is controlled by whichever PACS integration manager is in use at the time. Selecting the Enable or Disable menu items affects all integration managers. Selecting a practice that is not associated to a PACS server will disable all integration and remove the integration menu entirely.

On the initial opening of a study where the org picker's practice is associated to PACS IW, login is attempted using the username and password that logged into RIS. If these credentials fail, the user is prompted for additional credentials. On successful login, the study continues to open in the PACS.

Calls to IW to display images are triggered by either the View Images action accessed from the context menu on the Patient Folder work list. Also when opening the Dictate window the images for the study will be opened. From the patient history list in the Dictate window, the user can double click on a row to open the images for that study if they were not already loaded a relevant prior.

Attaching priors after the initial opening is very problematic. If study 1 is opened with 4 and 7 as priors on the initial open IW opens a session with 1, 4, and 7. If the RIS then uses the DisplayStudyContext to try to append 10 as a prior, the view session loses 4 and 7 and ends up with only 1 and 10 loaded.

Closing the RIS window from which studies were opened (either dictation or patient folder) will cause the images to close in PACS.

Opening a second active dictation window will result in a second instance of IW. Changing between tabs in RIS will focus the related IW viewer window. Switching between the PACS viewer windows will cause the tab focus in RIS to change, however the event coming from the viewer doesn't seem to be as reliable as it should be. Particularly in cases of minimizing and restoring the RIS does not always receive the event indicating that the viewer session is now active.

| User Action | eRAD PACS Behaviour | PACS IW Effect Behaviour |
|---|---|---|
| **User opens first study via:**<br>- **Right-click -> View Images on the main patient folder.** | Login attempt with RIS credentials. Upon failure, RIS prompts for additional credentials. On successful | Same |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | |
|---|---|---|
| - **View Images button on Tech window**<br>- **Opening Dictation window** | login, the attempt to open images continues. | |
| **Opening study via**<br>- **Right-click -> View Images on the main patient folder.**<br>- **View Images button on Tech window**<br>- **Opening Dictation window** | eRAD PACS is instructed to open images using the MRN+Accession number of the given study. Additional priors can be sent using their accession numbers as well.<br><br>eRAD PACS returns a list of opened accession numbers as well as data indicating which studies could be found but weren't opened(ie. In Archive). | PACS IW is instructed to open a study's images using NCDStudyID, which is an internal IW identifier. Addional NCDStudyIDs can be sent to load priors.<br><br>IW gives no indication on whether or not a study opened successfully. |
| **Adding priors after initial opening of a study via:**<br>- **Double click in the Reporting Patient Folder**<br>- **A second Right-click-> View images from main patient folder** | PACS provides a call to add priors to the open session based on MRN+Accession(s). It reports back on which studies were opened or at least found. | Instructing IW to add a prior to a given session results in all other priors being removed from the session. No result is returned and no query method is provided to see what is available. |
| **Opening a second PACS integrated window, ie. Tech, Patient Folder, or Dictation** | PACS bookmarks its currently opened study and then replaces it with the one associated to the new tab. | IW opens a new window with the new study and gives it focus. It is visible in the task bar and the previous window remains available. |
| **Switch between two PACS integrated tabs, ie. Some combination of patient folder, tech, and dictation windows.** | eRAD PACS bookmarks its currently opened study and replaces it with the one associated to the new tab. | IW will focus on the window associated to this form. |
| **Close the PACS associated window** | The open session in PACS is closed. If the RIS focuses on another PACS related form, PACS will load the related bookmarked images. | The PACS IW session will close. If the RIS focuses on another PACS related form, IW will focus on the related session window. |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | |
|---|---|---|
| **Switch between active sessions in the PACS.** | Action not possible in the PACS | IW raises an event to tell the RIS which window now has focus. This event is not entirely reliable, particularly in cases of Minimizing and Restoring the IW windows. Upon receiving the event RIS will switch its focus to the appropriate tab. |
| **Close the session in the PACS** | | |

**Table 5.1 – Actions in eRAD PACS compared to PACS IW.**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Meaningful Use - Image Medium Request Enhancements

There have been minor changes to the Image Request window. The “Copied” radio button had been relabelled “Ready”. When the “Ready” button is selected and the window is saved, it is also saved to the database.

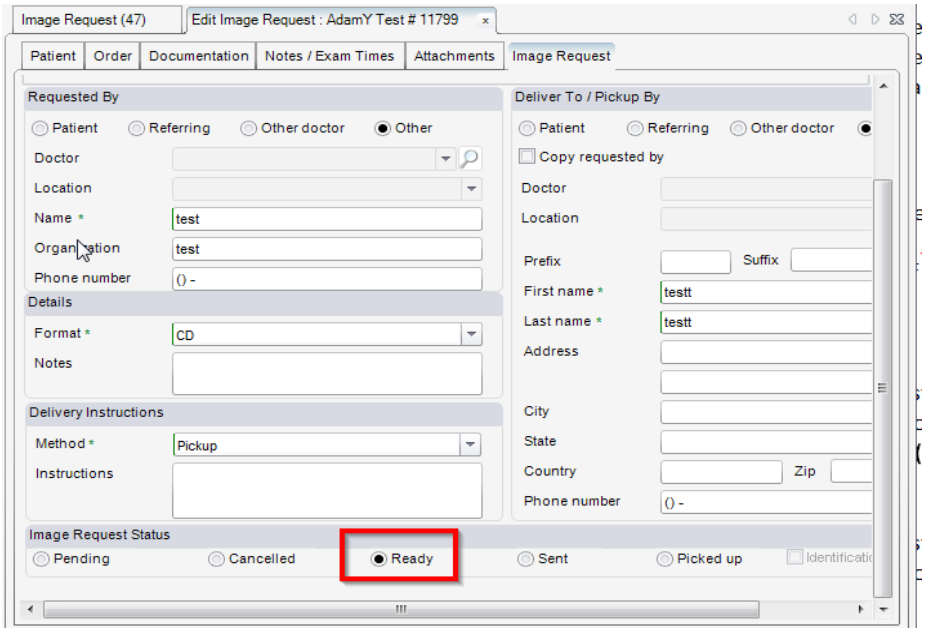



**Figure 5.45 – Image Request window**

We will report off this new date and if the patient does not return within 3 business days to pick up the request the statistic will not count.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Auto Resolving BI-RADS® 0 and 4/5 Exams

In previous versions of eRAD RIS we would auto-resolve whenever the follow up order was scheduled. This has been changed. Auto resolve for exams on the ACR Cat. 0 Follow-up WL will now occur when the scheduled study is Report Signed.

Exams on the ACR Cat. 4/5 follow-up work list will auto resolve when the user enters a biopsy and indicates "No Surgery Required".

## Manually Resolve BI-RADS® 0 and 4/5 Exams

The label for "Lost to Follow Up" has been renamed to "Follow Up Resolved". This checkbox appears on the mammography tab in View/Edit and on the Contact screen on the Follow Up screen.

When the user checks the checkbox, we check the permission Clinical.ManuallyResolveMammoFollowUp and if the user is authorized, we then show a dialog box prompting for a manual resolution reason:

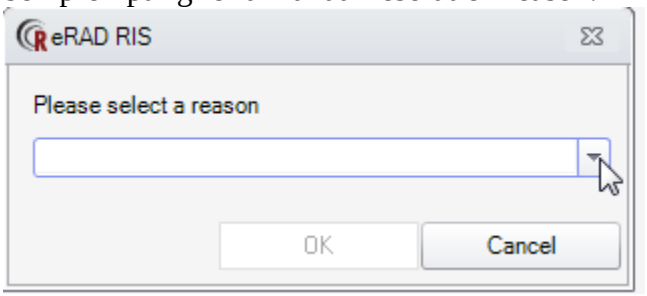



**Figure 5.46 – Follow up reason**

The list of reasons is specified in a new lookup table accessible from Administration > Configure > Mammography > FollowUpReason

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Management Report – Cancelled Reasons

The report has parameters to select the Date Range, Cancelled Reasons (default is Weather), and also if you'd like to see the ones that have been rescheduled or not (Default is to see both).

| Scheduled date | Procedure(s) | First Name | Last Name | Acc # | Rescheduled? |
|---|---|---|---|---|---|
| Reason: Employee Error | | | | | 1/6 |
| 12-26-12 10:00 AM | US Scrotal [76870] - Scrotum | [redacted] | | 109035 | N |
| 12-26-12 05:00 PM | MA Digital Screening Mammo [G0202] - Breast - B | [redacted] | | 97502 | N |
| 12-26-12 02:20 PM | MA Digital Diagnostic Mammo Bilat W Breast US [G0204BRUS] - Breast - B | [redacted] | | 126824 | N |
| 12-26-12 02:30 PM | US Breast Hold Code [76645HOLD] - Breast | [redacted] | | 126823 | N |
| 12-26-12 10:10 AM | CT Chest Abdomen and Pelvis WO [CT312] - Chest | [redacted] | | 129204 | N |
| 12-26-12 10:20 AM | CT Chest WO [71250] - Chest | [redacted] | | 129211 | Y |
| Reason: Inclement Weather | | | | | 26/38 |
| 12-26-12 01:00 PM | MR Cervical Spine WO [72141] - Cervical spine | [redacted] | | 129200 | Y |
| 12-26-12 01:30 PM | MR Lumbar Spine WO [72148] - Lumbar spine | [redacted] | | 129199 | Y |
| 12-26-12 01:00 PM | MR Hand WO [73218HAN] - Hand - L | [redacted] | | 130824 | Y |
| 12-26-12 09:50 AM | MA Digital Diagnostic Mammo Callback Unilat [G0206CB] - Breast - L | [redacted] | | 98264 | Y |
| 12-26-12 10:30 AM | US Breast Hold Code [76645HOLD] - Breast | [redacted] | | 98263 | Y |
| 12-26-12 03:30 PM | MR Neuroquant Brain WO [MR110] - Head | [redacted] | | 134421 | Y |
| 12-26-12 01:30 PM | MA Digital Screening Mammo [G0202] - Breast - B | [redacted] | | 104946 | Y |
| 12-26-12 02:10 PM | MA Digital Diagnostic Mammo Callback Unilat W Breast Us | [redacted] | | 132906 | N |

**Figure 5.47 – Cancelled Reasons Report**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Management Report – Unknown Referring Report Enhancements

Enhancements to the Unknown Referring report are

- Adding a date range based on scheduled date
- Add Void in the Ignored Status parameter

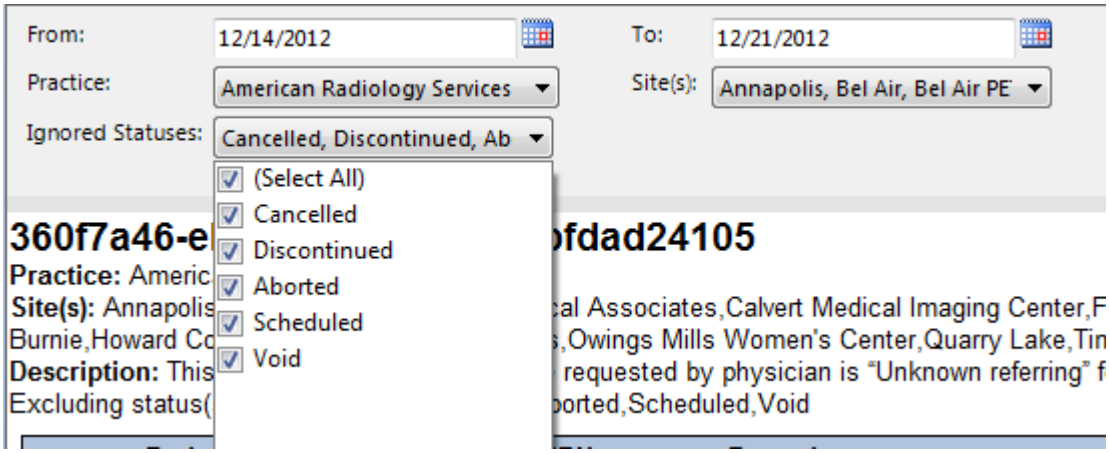



**Figure 5.48 – Unknown Referring report enhancements**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Management Report – Modality Duration Override Report

The parameters for the report are

- Practice(s)
- Site(s)

This report lists modality duration overrides for the selected location

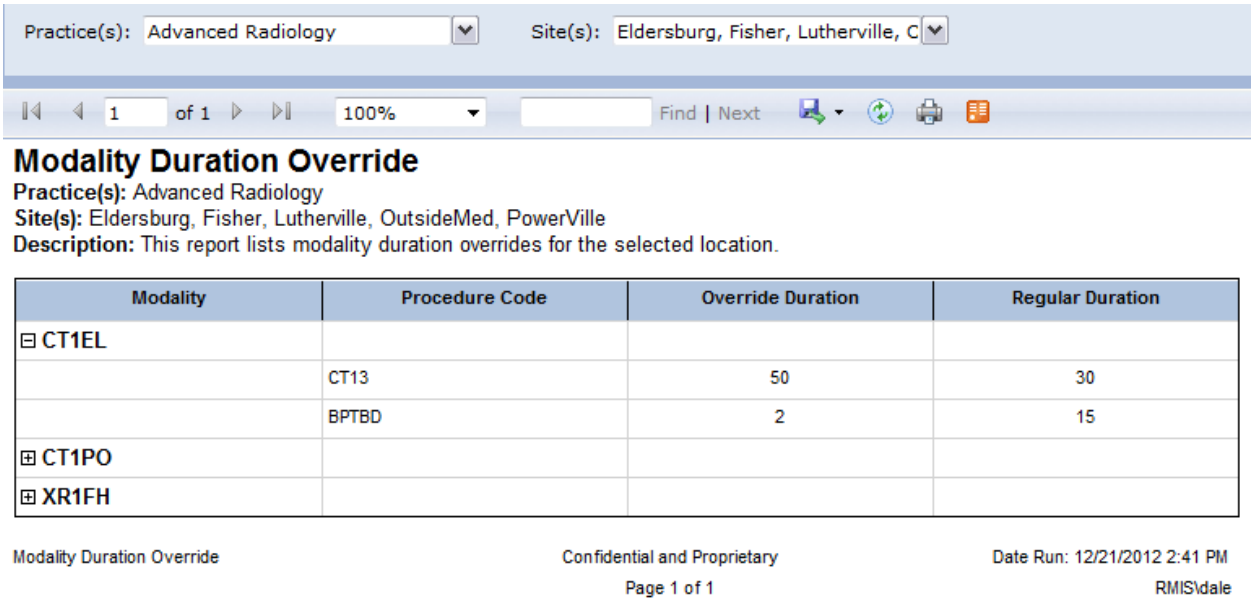



**Figure 5.49 – Modality Duration Override report**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Management Report – RTAT by Radiologist

This report displays report turnaround times for all practices within the RIS install for the procedure groups (*excluding mammo), and date range selected. There are three tables within this report that break down statistics of:

1. Radiologist: Pending Dictation - Pending Transcription (% of reports completed in < 3 hours)
2. 2. Radiologist: Pending Transcription - Pending Signature (% of reports completed in < 8 hours)
3. 3. Radiologist: Pending Dictation- Signed (% of reports completed in < 8 hours)

The report has groupings for each practice in the install and expands using the + symbol to show the accession numbers that are hitting the targets for each table within the report.

The report has parameters to select the practice(s), and site(s).

- RTAT dataset
- L_procedure_group_dataset
- Radiologist dataset

**RTAT by Radiologist**

**Date:** 2/28/2013
**Procedure Groups:** Diagnostic CT,DEXA,Evaluation Mgmt,Fluoroscopy,MRI and MRA,Nuclear Med,OTHER,EPET Procedures,PET,Diagnostic Imagt,Radiation Oncol,Intervntnl Rad,Intervntnl Surg,Ultrasound Vasc,Plain Film/Xray/CR
**Excluding exams signed on weekends**

| Pending Dictation - Pending Transcription (% of reports completed in < 3 hours) | | |
|---|---|---|
| **Radiologist** | **ADV** | **# Signed Exams** |
| ⊞ Kevin Lloyd Molyneaux | 0.00 % | 1 |
| **Total** | **0.00 %** | **1** |

| Pending Transcription - Pending Signature (% of reports completed in <= 8 hours) | | |
|---|---|---|
| **Radiologist** | **ADV** | **# Signed Exams** |
| ⊞ Kevin Lloyd Molyneaux | 100.00 % | 1 |
| **Total** | **100.00 %** | **1** |

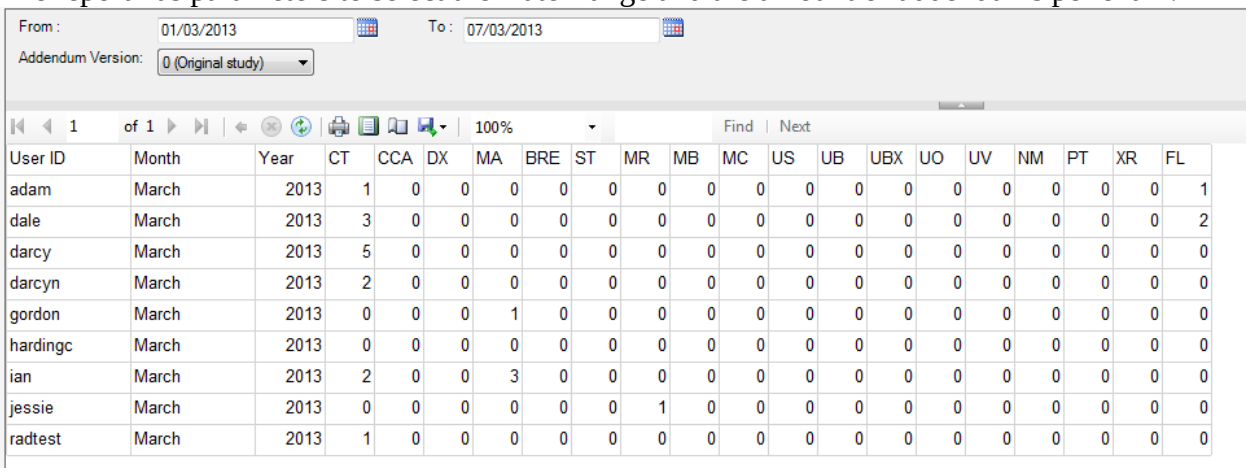
| Pending Signature - Signed (% of reports completed in <= 8 hours) | | |
|---|---|---|
| **Radiologist** | **ADV** | **# Signed Exams** |
| ⊞ Kevin Lloyd Molyneaux | 100.00 % | 1 |
| **Total** | **100.00 %** | **1** |

**Figure 5.50 – RTAT by Radiologist report**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Management Report – Continuing Experience Radiologist

The report has parameters to select the Date Range and the amount of addendums per exam.



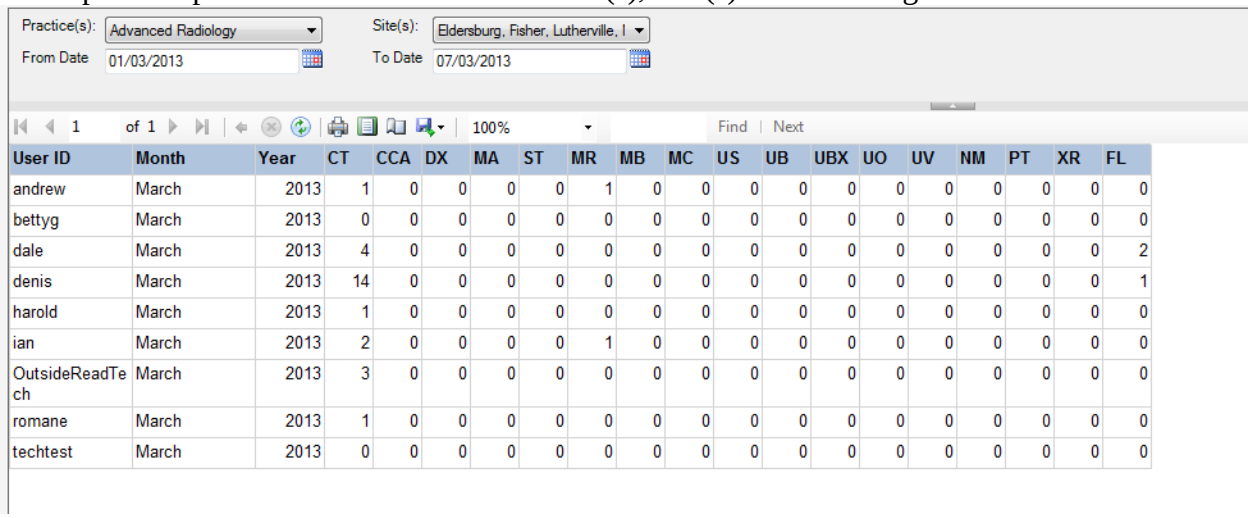

| User ID | Month | Year | CT | CCA | DX | MA | BRE | ST | MR | MB | MC | US | UB | UBX | UO | UV | NM | PT | XR | FL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| adam | March | 2013 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| dale | March | 2013 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| darcy | March | 2013 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| darcyn | March | 2013 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| gordon | March | 2013 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| hardingc | March | 2013 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ian | March | 2013 | 2 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| jessie | March | 2013 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| radtest | March | 2013 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

**Figure 5.51 – Continuing Experience Radiologist report**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# Management Report – Continuing Experience Technologist

The report has parameters to select the Practice(s), Site(s) and date range.




| User ID | Month | Year | CT | CCA | DX | MA | ST | MR | MB | MC | US | UB | UBX | UO | UV | NM | PT | XR | FL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| andrew | March | 2013 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| bettyg | March | 2013 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| dale | March | 2013 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| denis | March | 2013 | 14 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| harold | March | 2013 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ian | March | 2013 | 2 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| OutsideReadTech | March | 2013 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| romane | March | 2013 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| techtest | March | 2013 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

**Figure 5.52 – Continuing Experience Technologist report**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 6. RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 37 | - | 1.2.37.12843 | 1.2.37.12782 | 1.2.37.12843 | 1.2.37.12843 | Full version release. **Core install required.** |
| 37 | 1 | 1.2.37.13040 | 1.2.37.13040 | 1.2.37.13039 | 1.2.37.13003 | **Core install required**. GUI.zip, web service and database updates |
| 37 | 2 | 1.2.37.13069 | 1.2.37.13040 | 1.2.37.13069 | 1.2.37.13003 | GUI.zip and Web service updates |
| 37 | 3 | 1.2.37.13069 | 1.2.37.13040 | 1.2.37.13069 | 1.2.37.13003 | Just WebAPI updated, no version changes. . Web service updates |
| 37 | 4 | 1.2.37.13171 | 1.2.37.13040 | 1.2.37.13165 | 1.2.37.13171 | GUI.zip, web service, and database updates |
| 37 | 5 | 1.2.37.13347 | 1.2.37.13040 | 1.2.37.12979 | 1.2.37.12979 | Bug was discovered with version numbers, this is why it appears we went backwards in the version number but we really did not. |
| 37 | 6 | 1.2.37.13665 | 1.2.37.13040 | 1.2.37.13580 | 1.2.37.12979 | GUI.zip and Web service updates |
| 37 | 7 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13799 | 1.2.37.13807 | GUI.zip and Web service updates. Also MIRTH mapping changes |
| 37 | 8 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13827 | 1.2.37.13807 | Web service update |
| 37 | 9 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13839 | 1.2.37.13807 | Web service update |
| 37 | 10 | 1.2.37.13895 | 1.2.37.13040 | 1.2.37.13895 | 1.2.37.13895 | GUI.zip, Web service and database updates |
| 37 | 11 | 1.2.37.14161 | 1.2.37.13040 | 1.2.37.14161 | 1.2.37.14161 | GUI.zip, Web service, database updates and SQL Management reporting |
| 37 | 12 | 1.2.37.14267 | 1.2.37.13040 | 1.2.37.14161 | 1.2.37.14267 | GUI.zip, Web service and database updates |
| 37 | 13 | 1.2.37.14326 | 1.2.37.13040 | 1.2.37.14326 | 1.2.37.14326 | GUI.zip, Web service and database updates |
| 38 | - | 1.2.38.14486 | 1.2.38.14486 | 1.2.38.14486 | 1.2.38.14486 | Full version release. **Core install required.** |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | | | |
|---|---|---|---|---|---|---|
| 38 | 1 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | **Core install required** |
| 38 | 2 | 1.2.38.15182 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | GUI.zip update only |
| 38 | 3 | 1.2.38.15251 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | GUI.zip update only |
| 38 | 4 | 1.2.38.15327 | 1.2.38.14748 | 1.2.38.15290 | 1.2.38.14748 | GUI.zip and Web service updates |
| 38 | 5 | 1.2.38.15513 | 1.2.38.15513 | 1.2.38.15513 | 1.2.38.15451 | **Core install required**. GUI.zip, Web service and database updates. |
| 38 | 6 | 1.2.38.15618 | 1.2.38.15513 | 1.2.38.15513 | 1.2.38.15618 | GUI.zip and database updates |
| 38 | 7 | 1.2.38.15768 | 1.2.38.15513 | 1.2.38.15768 | 1.2.38.15618 | GUI.zip and Web Service updates |
| 39 | - | 1.3.39.15389 | 1.3.39.15389 | 1.3.39.15377 | 1.3.39.15355 | Full version release. **Core install required.** |
| 39 | 1 | 1.3.39.16026 | 1.3.39.15943 | 1.3.39.15943 | 1.3.39.15957 | **Core install required.** GUI.zip, Web service and database updates |
| 40 | - | 1.3.40.16659 | 1.3.40.16659 | 1.3.40.16659 | 1.3.40.16659 | **Core install required**. Full version release |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 7. Resolved Defects

Bugs Suggested Features and Support Issues resolved in build 1.40. The extract is taken from Redmine bug tracking system and only displays defects resolved in 1.40.

| Bug # | Priority | Subject | Category | Found Version |
|---|---|---|---|---|
| 3370 | Normal | Appointment Book not filter practices that the user is assigned to | Thick Client GUI | 1.39 |
| 2899 | Urgent | Fax Service is not using all of the available fax ports | Web Services/DB | 1.37 |
| 3007 | Urgent | Inbound Reporting bypasses Core business rules in GetData | Thick Client GUI | 1.38 |
| 1375 | High | hit eRx button on Patient tab get exception | Thick Client GUI | 1.38.14391 |
| 1620 | High | Error when scheduling an exam with an image request | Thin Client GUI | 1.37 |
| 1956 | High | IVT Verified/Approved. | Thick Client GUI | 1.37 |
| 1980 | High | Too many modality restrictions kills the appointment book. | | 1.37 |
| 2074 | High | Patient distribution history - New button throws exception | Thick Client GUI | 1.38 |
| 2101 | High | Index out of bound scheduling.. | Thick Client GUI | 37.11 |
| 2136 | High | Administration - lookup making changes ( refreshes you to the top of the grid) | | 37.12 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 2193 | High | Image request not saving "Same as requested by" | Thick Client GUI | 1.38.14426 |
| 2351 | High | When user reschedules an order that contains scans at the 'Exam' level, RIS is not carrying those scans over to the newly scheduled exam as it should be. | Thick Client GUI | 38.14486 |
| 2467 | High | When lab work for BUN or Creatine (maybe others too, but those were all I could find) tests are on the lab work worklist, orders placed after are bypassing the worklist regardless of the state of the 'skip lab worklist' check box. | | 38.14748 |
| 2478 | High | Title bar color does not change if Practice is set to transparent | Admin Tools | 1.39 |
| 2504 | High | Book X attachments for Order B are not associated with correct procedure at time of scheduling | Thick Client GUI | 1.38.002 |
| 2671 | High | Failure to "save as order" on a cancelled appointment. | Thick Client GUI | 1.39.15268 |
| 2699 | High | Inserting template is navigating all fields twice | Thick Client GUI | 1.39 |
| 2775 | High | Mammo letter config lookup active column values incorrect | Admin Tools | 1.39 |
| 2865 | High | PersonSearch does not properly use database indexes and triggers excessive load | Web Services/DB | 1.39 |
| 2883 | High | My Views - If view has hidden columns, a reset to does not restore hidden columns | Thick Client GUI | 1.39 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 2916 | High | Exception on logout | Thick Client GUI | 1.38.007 |
| 2948 | High | IVT - Remove insurance can throw error | Thick Client GUI | 1.39.001 |
| 2953 | High | ORDER PLACER or EMR order not showing up on Orders to Schedule worklist | Modality Worklist | 1.39.001 |
| 3006 | High | Not able to cancel an EMR / order | Thick Client GUI | 39.1 |
| 3092 | High | Unable to add new value to static lookup tables in an upgrade and get those values pushed to the client | Thick Client GUI | 1.38 |
| 3321 | High | referring portal returns order cc PERSON_KEYs instead of order cc person "IDs" | Web Services/DB | 1.39 |
| 956 | Normal | When in "pending signature" WL, there is no context menu option for "Sign Report" | Thin Client GUI | 1.35 |
| 1085 | Normal | Scheduling an aborted exam, removing a completed exam from the order and adding a new proceudre | Thick Client GUI | 1.35 |
| 1140 | Normal | Unknown referring billing exception not in billing notes | Thick Client GUI | 1.35 |
| 1154 | Normal | Removing procedure from study cell can throw exception if Scheduled Date field is selected. | Thick Client GUI | 1.36 |
| 1168 | Normal | User is able to add multiple procedures in one row. | Thick Client GUI | 1.36 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 1258 | Normal | Arriving multiple studies for one day, the Relation to Patient is not captured to the other studies | Thick Client GUI | 1.36 |
| 1329 | Normal | Procedures with mutliple billing codes can be orphaned if procedure row is removed | Thick Client GUI | 1.36 |
| 1754 | Normal | Entering / Editing Availability templates - object reference error | Admin Tools | 1.1.2.37.13347 |
| 1775 | Normal | Filter work list using Customer filter does not allow "is null" or "is not null" | Thick Client GUI | 1.1.2.37.13580 |
| 1804 | Normal | View / Edit a cancelled exam prompts for required fields on Documentation tab | Thick Client GUI | 1.2.38.13666 |
| 1844 | Normal | After patient merge, data nugget does not update correctly | | 1.37 |
| 1873 | Normal | Object error in system config lookup | Admin Tools | 1.1.2.38.13809 |
| 1882 | Normal | Image request > Referring Location is not saved from Image request WL > edit | Thick Client GUI | 1.1.2.37.13842 |
| 1887 | Normal | Patient History Control leaking memory | | 1.37 |
| 1958 | Normal | Carrier type and address information on IVT WL | | 1.37 |
| 2034 | Normal | Null exception when delivery address key is missing. | | 37.1 |
| 2073 | Normal | Error changing scan associations in perform exam window | Thick Client GUI | 1.2.37.14267 |
| 2080 | Normal | Modality Type lookup object reference error | Admin Tools | 1.2.37.14267 |
| 2125 | Normal | No Scheduling credit for entering Outside Reads | Thick Client GUI | 37.12 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 2178 | Normal | RED X appearing on Insurance Policies grid | Thick Client GUI | 1.2.38.14412 |
| 2194 | Normal | Tech Only - External Report Workflow | Thick Client GUI | 1.38.14426 |
| 2270 | Normal | Template configuration issue | Mgt Reports | 1.37 |
| 2280 | Normal | Scanning - errror import a scanned document on to multiple exams. (River Ranch) | | v38 |
| 2306 | Normal | Sales Marketing Dashboard | Mgt Reports | 1.37 |
| 2444 | Normal | Dataset Visualizer - copy function is available in the context menu, but the function does not work. | Thick Client GUI | 38.001 |
| 2470 | Normal | Reporting - CDS Management console mystery button removal | Thick Client GUI | 1.37 |
| 2484 | Normal | Resolve - inactive insurances are still showing on patients record although the user is not aware that it is no longer active | Thin Client GUI | 1.3 |
| 2491 | Normal | The way we extract report text from XML is expensive on the CPU | Web Services/DB | 1.38 |
| 2493 | Normal | Management Report - RTAT Summary Poor Performance | Mgt Reports | 1.39 |
| 2502 | Normal | Management Report - copay vs collected issue | Mgt Reports | 1.38 |
| 2505 | Normal | Outside Read procedure label partially hidden | Thick Client GUI | 1.38.002 |
| 2509 | Normal | Create/Edit Report not in context menu in Report Drafted WL | Thick Client GUI | 1.39 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 2512 | Normal | Verify Edits context missing on Edits Pending QA WL | Thick Client GUI | 1.39 |
| 2513 | Normal | Create Edit Report missing from context on Pending Review WL | Thick Client GUI | 1.39 |
| 2515 | Normal | Create/Edit Report not in context menu in Problem WL | Thick Client GUI | 1.39 |
| 2521 | Normal | Reporting - next/previous field or section | Thick Client GUI | 1.37 |
| 2540 | Normal | scan document association | Thick Client GUI | 1.39 |
| 2543 | Normal | When "Sedation" was added to the reception worklist, users were not able to see 'sedation' on the worklist or in the column chooser. | Thick Client GUI | 38.15182 |
| 2548 | Normal | When you double-click an outside read that is in cancelled status, RIS throws an error because the double click action is opening the reschedule window | Thick Client GUI | 38.001 |
| 2568 | Normal | View menu disappears | Thick Client GUI | 1.39 |
| 2646 | Normal | Reporting - field navigator using section headers are not navigating if report contains 0 fields | Thick Client GUI | 1.39 |
| 2648 | Normal | Reporting - Attachments are not realigned when the data pane is resized | Thick Client GUI | 1.39 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 2654 | Normal | Mammo Annual Radiologist Summary - data returned by querying the view is inconsistent with the data returned in the report. | Mgt Reports | 39.15226 |
| 2668 | Normal | Management report - Radiologist Dictation Activity is displaying an error message upon execution | Mgt Reports | 39.15226 |
| 2702 | Normal | SNOMED CT Concept IDs did not make the QE drop for B39 l_smoking_status table | Thick Client GUI | 39.1533 |
| 2709 | Normal | Configuration - Create Duplicate User - You are warned twice. | Admin Tools | 1.1.3.39.15330 |
| 2710 | Normal | Configuration - Create Duplicate User - Causes Error | Admin Tools | 1.1.3.39.15330 |
| 2713 | Normal | Report History tab name | Thick Client GUI | 1.39 |
| 2725 | Normal | Radiologist Dashboard - Completed Exams 7 Day trend is showing Dec. 8, even though it is not in the last 7 days. | Mgt Reports | 39.15355 |
| 2735 | Normal | Billing Exceptions WL - responsible party information problem | Thick Client GUI | 39.15355 |
| 2741 | Normal | Lookup Editor - Column Header Alignment is Messed up. | Admin Tools | 1.39 |
| 2743 | Normal | Personnel Editor - Tab/NewLine issues in notes fields | Admin Tools | 1.39 |
| 2746 | Normal | Organization Picker Problem | Thick Client GUI | 1.39 |
| 2747 | Normal | Reporting - Fields Navigator - Prevoius section does not highlight position in Fields tool window | Thick Client GUI | 1.39 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 2748 | Normal | When doing walk-in, and you scan a document at the order level, RIS is throwing an error upon check-in / Save / Arrive | Thick Client GUI | 39.15371 |
| 2752 | Normal | Patient Merge: ShowID Button does not auto select thumbnail | | 1.39 |
| 2753 | Normal | Image Request - Unable to send request when required field are populated | Thick Client GUI | 1.1.3.39.15371 |
| 2761 | Normal | Sales Mgmt Reports - 6 and 13 Mth Variance Data | Mgt Reports | 1.39 |
| 2762 | Normal | Scanning - Printing - Right Click - "Print Forms" item is misleading | Thick Client GUI | 1.1.3.39.15376 |
| 2763 | Normal | Reporting - deleting local dictation file prematurely when getting a save exception | Thick Client GUI | 1.37 |
| 2773 | Normal | carrier related forms not printing on checkin using right click change status to | Thick Client GUI | 1.38 |
| 2782 | Normal | ICM Dashboard - Need plan and Unknown Referring returning no results | Mgt Reports | 1.39 |
| 2785 | Normal | Reporting - Hide Titlebar for Fields tool window throws exception | Thick Client GUI | 1.3.39 |
| 2826 | Normal | carrier editor confusing | Thick Client GUI | 1.39 |
| 2849 | Normal | xKeys integration broken | Thick Client GUI | 39 |
| 2856 | Normal | dbnull error when processing outsidereadrules | Thick Client GUI | 1.38 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 2859 | Normal | c_audit table shows visit key as -1 or less when after scheduling a new exam | Web Services/DB | 1.39 |
| 2860 | Normal | c_audit table shows visit_key as null for study retrievals | Web Services/DB | 1.39 |
| 2867 | Normal | Mgmt Report Referring Physician Search Details | Mgt Reports | 1.39 |
| 2868 | Normal | Mgmt Reports - 6/13 Mth Variance Data | Mgt Reports | 1.39 |
| 2874 | Normal | c_businessdays procedure results | Web Services/DB | 1.39 |
| 2878 | Normal | MU Automated Measures Report | Mgt Reports | 1.39 |
| 2891 | Normal | Age is calculated wrong in Daily Schedule report | Mgt Reports | 38 |
| 2901 | Normal | Reporting - Macro explorer selection is selecting wrong template | Thick Client GUI | 1.38 |
| 2902 | Normal | unkown referring with no address throws exception on save | Web Services/DB | 1.39 |
| 2906 | Normal | Lock not immediately released if user receives a row out of date error when opening IVT | Thick Client GUI | 1.39 |
| 2909 | Normal | Billing codes are not showing in exams. | Thick Client GUI | 38 |
| 2933 | Normal | Patient Folder - Scroll wheel move through scan documents doesn't include report | Thick Client GUI | 1.39 |
| 2949 | Normal | Management Report - Transcription Dashboard | Mgt Reports | 1.38 |
| 3001 | Normal | multi sign - supervising dictations worklist shouldn't be chair enabled. | Thick Client GUI | 1.39.001 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 3094 | Normal | RIS sending status of DC to PACS for a discontinued study. PACS wants CA | HL7 | 1.38 |
| 3117 | Normal | tech worklist includes discontinued exams | Web Services/DB | 1.39 |
| 1236 | Low | Patient Folder Preview window issue on patient search | Thick Client GUI | 1.36 |
| 1482 | Low | Personnel editor - create new validates fields on search | Admin Tools | 1.37 |
| 1738 | Low | Prep Instructions Issue | Thick Client GUI | 1.37 |
| 1797 | Low | Perferred Language field is not marked as required when on the patient tab | Thick Client GUI | 1.1.2.38.13666 |
| 2003 | Low | Data Nuggets appear across monitors, or only show partial screen if.... | | 1.37 |
| 2032 | Low | Pinned billing codes disappear from view | Thick Client GUI | 1.2.37.14161 |
| 2070 | Low | Internal Person Search - Can search with blank criteria causing exception | Thick Client GUI | 1.1.2.38.14194 |
| 2075 | Low | Error when entering access strings for a user group | Admin Tools | 37.11 |
| 2089 | Low | Referring Search | Thick Client GUI | 1.38.14194 |
| 2091 | Low | Confirmation Review tab | Thick Client GUI | 1.38.14194 |
| 2169 | Low | UserGroupPermission - Able to enter non validate access strings | | 1.38 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 2173 | Low | Configure Save button | Thick Client GUI | 1.38.14391 |
| 2679 | Low | CDS Management Console | Thick Client GUI | 1.39 |
| 2703 | Low | Management Reports - IVT User Activity Report - hardcoded to filter out radiologists, which is not necessary | Mgt Reports | 39.1533 |
| 2721 | Low | printed scan docs have page numbers that start at 0 | Thick Client GUI | 39.1533 |
| 2722 | Low | plus and minus on the numeric keyboard should zoom in and out on document viewer | Thick Client GUI | 39.1533 |
| 2749 | Low | Reporting - Fields Navigator - Selecting section before field changes cursor selection | Thick Client GUI | 1.39 |
| 2779 | Low | Change Document Type window shouldn't have a minimize or maximize button. | | 1.1.3.39.15389 |
| 2784 | Low | Copy cell that is empty throws exception | Thick Client GUI | 1.3.39 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 8. Known Limitations

The following are Bugs Suggested Features and Support Issues found in build 1.40. Bugs reported in previous versions are not captured as Known Limitation in this document.

| # | Status | Priority | Subject | Resolved Build |
|---|---|---|---|---|
| 2775 | New | High | Mammo letter config lookup active column values incorrect | |
| 2727 | New | High | PACS errors flipping between open dictate windows | |
| 2699 | Resolved | High | Inserting template is navigating all fields twice | 40 |
| 2532 | New | High | access to changing the access strings needs to read only. | |
| 2478 | Resolved | High | Title bar color does not change if Practice is set to transparent | 40 |
| 2782 | Resolved | Normal | ICM Dashboard - Need plan and Unknown Referring returning no results | 40 |
| 2777 | New | Normal | Appointment book - double click on open time | |
| 2761 | Resolved | Normal | Sales Mgmt Reports - 6 and 13 Mth Variance Data | |
| 2759 | New | Normal | Distribution WL - Message box should display in the center of the screen | |
| 2757 | New | Normal | Problem with doing multiple Verify Externals in a row. | |
| 2754 | New | Normal | Patient Folder context menu for Report History | |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 2752 | Resolved | Normal | Patient Merge: ShowID Button does not auto select thumbnail | 40 |
| 2750 | New | Normal | Reporting - Select command does not work for words that are at the start or end of a field | |
| 2747 | Resolved | Normal | Reporting - Fields Navigator - Prevoius section does not highlight position in Fields tool window | 40 |
| 2746 | Resolved | Normal | Organization Picker Problem | 40 |
| 2744 | New | Normal | null exception when attempting to show/hide titlebars on report document | |
| 2743 | New | Normal | Personnel Editor - Tab/NewLine issues in notes fields | |
| 2741 | Resolved | Normal | Lookup Editor - Column Header Alignment is Messed up. | 40 |
| 2737 | New | Normal | Patient Folder - multiselect is true and it should be false | |
| 2734 | New | Normal | Reporting - Floating data panes do not stay on top | |
| 2728 | New | Normal | Study locked in PACS message on initial load | |
| 2713 | Resolved | Normal | Report History tab name | 40 |
| 2695 | New | Normal | parameter not specified error in preview report for tables | |
| 2690 | New | Normal | Show/Hide Titlebar issue | |
| 2683 | New | Normal | Patient folder > Study detail column color bleeds outside of row | |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 2677 | New | Normal | Create Report from Reset Open skipped rows | |
| 2676 | New | Normal | Reset open skipped rows - If you dictate and save, it does not remove skipped row from list | |
| 2672 | New | Normal | Appointment book cannot obtain lock error | |
| 2661 | New | Normal | Template Macro Editor - Double click template or macro | |
| 2660 | New | Normal | Template Macro Editor - Adv Assignment - user not defaulting | |
| 2648 | New | Normal | Reporting - Attachments are not realigned when the data pane is resized | |
| 2647 | New | Normal | Reproting window - can't save layout to default Attachments tab | |
| 2646 | New | Normal | Reporting - field navigator using section headers are not navigating if report contains 0 fields | |
| 2645 | New | Normal | Overbook Reason title change | |
| 2643 | New | Normal | Multiple loads of Selection Aware controls | |
| 2641 | New | Normal | Duplicating report fields | |
| 2637 | New | Normal | Next field command selecting multiple fields | |
| 2635 | New | Normal | Unchecking No Longer Menstruating doesnt enable pregnancy fields | |
| 2632 | New | Normal | Perform Exam window doesnt update with changes made in another window | |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 2630 | In Progress | Normal | PACS - Close call could fail if user has been logged off | |
| 2628 | New | Normal | Reporting screen not drawing in, if user make worklists active | |
| 2568 | In Progress | Normal | View menu disappears | |
| 2561 | New | Normal | reception WL retrieval time is slow | |
| 2540 | New | Normal | scan document association | |
| 2536 | New | Normal | Report Permissions, | |
| 2534 | New | Normal | Mammo followup - Newly entered data does not carry forward | |
| 2533 | New | Normal | Scheduling order from follow up mammo work list doesnt return to work list | |
| 2515 | Resolved | Normal | Create/Edit Report not in context menu in Problem WL | 40 |
| 2513 | Resolved | Normal | Create Edit Report missing from context on Pending Review WL | 40 |
| 2512 | Resolved | Normal | Verify Edits context missing on Edits Pending QA WL | 40 |
| 2511 | New | Normal | size and location information is not saved when client is close while minimized | |
| 2509 | Resolved | Normal | Create/Edit Report not in context menu in Report Drafted WL | 40 |
| 2493 | New | Normal | Management Report - RTAT Summary Poor Performance | |
| 2751 | New | Low | Object overlap on Order tab | |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 2749 | Resolved | Low | Reporting - Fields Navigator - Selecting section before field changes cursor selection | 40 |
| 2729 | New | Low | Able to bring up two menus at once | |
| 2679 | New | Low | CDS Management Console | |
| 2664 | New | Low | Billing Exception - Post button | |
| 2658 | New | Low | Stored function c_getcontrastrequiredflag could return wrong value if multiple study items exist | |
| 2652 | New | Low | administration -> management report screen doesn't show any folders if permissions aren't configured | |
| 2535 | New | Low | Region, unable to deactivate | |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# Server Update

For eRAD RIS
Version 1.0
Build 40
Update 40.001

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Defects resolved ..... 3
2. Package Contents ..... 4
3. Intended Audience ..... 6
4. Who is affected ..... 6
5. eRAD RIS Release Version Numbers ..... 7
6. Installing ..... 8

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# 1. Defects resolved

| Redmine # | Subject | Priority |
|---|---|---|
| 3407 | DDEngine reports a failed fax when the faxed was actually successful | Urgent |
| 3381 | The EMR order list is not appearing on a study that was imported from one order to another order | Normal |
| 3378 | EMR: Order Cancel message cancels studies in scheduled status | High |
| 3390 | Action queues hang whenever a queue entry has a null container | Normal |
| 2507 | Enhance Security for Practice level Mgt Report access | Normal |
| 3377 | Is Null filter causes error on refresh | High |
| 3417 | deleting the procedure from procedure picker row will delete study item cert row | Normal |
| 3418 | the "Show previous PreCert and CPT Codes" filter was showing the inactive PreCerts for inactive study items | Normal |
| 3423 | Specifying a CPT level PreCert rule was not being checked correctly at the point of selection | Normal |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 2. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains
   a) rRIS_1.3.40.16849.zip

2) RIS Service Updates folder contains
   a) CDSJobManager.pdb
   b) CDSJobManager.dll
   c) CommonLib.pdb
   d) CommonLib.dll
   e) DDEngine.pdb
   f) DDEngine.dll
   g) rRISServices.pdb
   h) rRISServices.exe
   i) rRISServices.vshost.exe
   j) ScheduledTaskManager.pdb
   k) ScheduledTaskManager.dll
   l) SignatureApprovalService.pdb
   m) SignatureApprovalService.exe
   n) WCFService.pdb
   o) WCFService.dll
   p) WebApi.pdb
   q) WebApi.dll
   r) Wedge.pdb
   s) Wedge.exe

3) SQL folder contains:
   a) B40_001.sql

4) SQLReporting folder contains 4 subfolders and 1 batch file:
   a) ParentFolder contains 6 subfolders

      i) Dashboards folder contains 10 .rdl files

      ii) Management Reports folder contains 6 subfolders each of the subfolder contains .rdl files. These are the main management reports accessed from the GUI

      iii) Marketing folder contains 6 .rdl files

      iv) Order Templates folder contains 1 .rdl file (default.rdl)

      v) Referring Portal folder contains 8 .rdl files

      vi) SubReports folder contains 11 .rdl files

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

b) Scripts folder contains 7 .rss files. These files are used by the DeployReports.bat file to install and deploy the management reports, dashboards, marketing, etc… reports

c) Upload Diagnostic Templates folder contains 1 subfolder titled SubReports. The SubReports folder is empty.

d) Upload Forms folder contains 1 subfolder titled SubReports. The SubReports folder is empty.

e) DeployReports.bat file is the batch file used to deploy the management reports.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 3. Intended Audience

This document is created by the RIS Development team for the RadNet RIS Implementation team.

## 4. Who is affected

Build 40 installs. This server update must be applied directly to the build 40 core install.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# 5. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 37 | - | 1.2.37.12843 | 1.2.37.12782 | 1.2.37.12843 | 1.2.37.12843 | Full version release |
| 37 | 1 | 1.2.37.13040 | 1.2.37.13040 | 1.2.37.13039 | 1.2.37.13003 | Core install, GUI.zip, web service and database updates |
| 37 | 2 | 1.2.37.13069 | 1.2.37.13040 | 1.2.37.13069 | 1.2.37.13003 | GUI.zip and Web service updates |
| 37 | 3 | 1.2.37.13069 | 1.2.37.13040 | 1.2.37.13069 | 1.2.37.13003 | WebAPI updated, no version changes |
| 37 | 4 | 1.2.37.13171 | 1.2.37.13040 | 1.2.37.13165 | 1.2.37.13171 | GUI.zip, web service, and database updates |
| 37 | 5 | 1.2.37.13347 | 1.2.37.13040 | 1.2.37.12979 | 1.2.37.12979 | Bug was discovered with version numbers, this is why it appears we went backwards in the version number but we did not. |
| 37 | 6 | 1.2.37.13665 | 1.2.37.13040 | 1.2.37.13580 | 1.2.37.12979 | GUI.zip and Web service updates |
| 37 | 7 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13799 | 1.2.37.13807 | GUI.zip and Web service updates. Also MIRTH mapping changes |
| 37 | 8 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13827 | 1.2.37.13807 | Web service update |
| 37 | 9 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13839 | 1.2.37.13807 | Web service update |
| 37 | 10 | 1.2.37.13895 | 1.2.37.13040 | 1.2.37.13895 | 1.2.37.13895 | GUI.zip, Web service and database updates |
| 37 | 11 | 1.2.37.14161 | 1.2.37.13040 | 1.2.37.14161 | 1.2.37.14161 | GUI.zip, Web service, database updates and SQL Management reporting |
| 37 | 12 | 1.2.37.14267 | 1.2.37.13040 | 1.2.37.14161 | 1.2.37.14267 | GUI.zip, Web service and database updates |
| 37 | 13 | 1.2.37.14326 | 1.2.37.13040 | 1.2.37.14326 | 1.2.37.14326 | GUI.zip, Web service and database updates |
| 38 | - | 1.2.38.14486 | 1.2.38.14486 | 1.2.38.14486 | 1.2.38.14486 | Full version release |
| 38 | 1 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | Core install required |
| 38 | 2 | 1.2.38.15182 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | GUI.zip update only |
| 38 | 3 | 1.2.38.15251 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | GUI.zip update only |
| 38 | 4 | 1.2.38.15327 | 1.2.38.14748 | 1.2.38.15290 | 1.2.38.14748 | GUI.zip and Web service updates |
| 38 | 5 | 1.2.38.15513 | 1.2.38.14748 | 1.2.38.15513 | 1.2.38.15451 | GUI.zip, Web service and database updates |
| 38 | 6 | 1.2.38.15618 | 1.2.38.14748 | 1.2.38.15513 | 1.2.38.15618 | GUI.zip and database updates |
| 38 | 7 | 1.2.38.15768 | 1.2.38.14748 | 1.2.38.15768 | 1.2.38.15618 | GUI.zip and Web Service updates |
| 39 | - | 1.3.39.15389 | 1.3.39.15389 | 1.3.39.15377 | 1.3.39.15355 | Full version release |
| 39 | 1 | 1.3.39.16026 | 1.3.39.15943 | 1.3.39.15943 | 1.3.39.15957 | Requires Core Install. GUI.zip, Web Service, and Database updates |
| 40 | - | 1.3.40.16628 | 1.3.40.16628 | 1.3.40.16628 | 1.3.40.16628 | Full version release |
| 40 | 1 | 1.3.40.16849 | 1.3.40.16659 | 1.3.40.16744 | 1.3.40.16727 | GUI.zip, Web service, database updates and SQL Management reporting |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# 6. Installing

1) Copy and replace the current rRIS…zip file with the rRIS_1.3.40.16849.zip file provided with this release. The previous GUI.zip should have been renamed to rRIS_1.3.40.16659. Be sure to make a backup of the ris.exe.config file contained within the .zip folder.

2) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService. Be sure to make backup of all files, but especially the rRISServices.exe.config and rRISServices.vshost.exe.config files.
   *rRISService directories include:*
   *a) rRISService*
   *b) CDS rRISService*
   *c) Wedge rRISService*
   *d) DDE rRISService*

   Restart each service.

3) Run the B40_001.sql file against the eRAD RIS database instance.

4) SQL Reporting. Please refer to the eRAD RIS Reporting Services Installation.docx supplied with the Build 40 release in the _Documentation\Installation folder.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

For eRAD RIS
Version 1.0
Build 40
Update 40.002

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Defects resolved ..... 3
2. Package Contents ..... 4
3. Intended Audience ..... 5
4. Who is affected ..... 5
5. eRAD RIS Release Version Numbers ..... 6
6. Installing ..... 7

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# 1. Defects resolved

| Redmine # | Subject | Priority |
|---|---|---|
| 3424 | null reference / object reference not set error when doing a check in + advanced scan | High |
| 3426 | web API / Yellow Sticker fails to update order notes if order lock fails | High |
| 3428 | IVT - When you reschedule a study that does not require any precert | Urgent |
| 3429 | Walk in error adding study that requires IV and PreCert | Normal |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 2. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains
   a) rRIS_1.3.40.16878.zip

2) RIS Service Updates folder contains
   a) CDSJobManager.pdb
   b) CDSJobManager.dll
   c) CommonLib.pdb
   d) CommonLib.dll
   e) DDEngine.pdb
   f) DDEngine.dll
   g) rRISServices.pdb
   h) rRISServices.exe
   i) rRISServices.vshost.exe
   j) ScheduledTaskManager.pdb
   k) ScheduledTaskManager.dll
   l) SignatureApprovalService.pdb
   m) SignatureApprovalService.exe
   n) WCFService.pdb
   o) WCFService.dll
   p) WebApi.pdb
   q) WebApi.dll
   r) Wedge.pdb
   s) Wedge.exe

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 3. Intended Audience

This document is created by the RIS Development team for the RadNet RIS Implementation team.

## 4. Who is affected

Build 40 installs. This server update must be applied directly to the build 40 core install.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# 5. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 37 | - | 1.2.37.12843 | 1.2.37.12782 | 1.2.37.12843 | 1.2.37.12843 | Full version release |
| 37 | 1 | 1.2.37.13040 | 1.2.37.13040 | 1.2.37.13039 | 1.2.37.13003 | Core install, GUI.zip, web service and database updates |
| 37 | 2 | 1.2.37.13069 | 1.2.37.13040 | 1.2.37.13069 | 1.2.37.13003 | GUI.zip and Web service updates |
| 37 | 3 | 1.2.37.13069 | 1.2.37.13040 | 1.2.37.13069 | 1.2.37.13003 | WebAPI updated, no version changes |
| 37 | 4 | 1.2.37.13171 | 1.2.37.13040 | 1.2.37.13165 | 1.2.37.13171 | GUI.zip, web service, and database updates |
| 37 | 5 | 1.2.37.13347 | 1.2.37.13040 | 1.2.37.12979 | 1.2.37.12979 | Bug was discovered with version numbers, this is why it appears we went backwards in the version number but we did not. |
| 37 | 6 | 1.2.37.13665 | 1.2.37.13040 | 1.2.37.13580 | 1.2.37.12979 | GUI.zip and Web service updates |
| 37 | 7 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13799 | 1.2.37.13807 | GUI.zip and Web service updates. Also MIRTH mapping changes |
| 37 | 8 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13827 | 1.2.37.13807 | Web service update |
| 37 | 9 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13839 | 1.2.37.13807 | Web service update |
| 37 | 10 | 1.2.37.13895 | 1.2.37.13040 | 1.2.37.13895 | 1.2.37.13895 | GUI.zip, Web service and database updates |
| 37 | 11 | 1.2.37.14161 | 1.2.37.13040 | 1.2.37.14161 | 1.2.37.14161 | GUI.zip, Web service, database updates and SQL Management reporting |
| 37 | 12 | 1.2.37.14267 | 1.2.37.13040 | 1.2.37.14161 | 1.2.37.14267 | GUI.zip, Web service and database updates |
| 37 | 13 | 1.2.37.14326 | 1.2.37.13040 | 1.2.37.14326 | 1.2.37.14326 | GUI.zip, Web service and database updates |
| 38 | - | 1.2.38.14486 | 1.2.38.14486 | 1.2.38.14486 | 1.2.38.14486 | Full version release |
| 38 | 1 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | Core install required |
| 38 | 2 | 1.2.38.15182 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | GUI.zip update only |
| 38 | 3 | 1.2.38.15251 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | GUI.zip update only |
| 38 | 4 | 1.2.38.15327 | 1.2.38.14748 | 1.2.38.15290 | 1.2.38.14748 | GUI.zip and Web service updates |
| 38 | 5 | 1.2.38.15513 | 1.2.38.14748 | 1.2.38.15513 | 1.2.38.15451 | GUI.zip, Web service and database updates |
| 38 | 6 | 1.2.38.15618 | 1.2.38.14748 | 1.2.38.15513 | 1.2.38.15618 | GUI.zip and database updates |
| 38 | 7 | 1.2.38.15768 | 1.2.38.14748 | 1.2.38.15768 | 1.2.38.15618 | GUI.zip and Web Service updates |
| 39 | - | 1.3.39.15389 | 1.3.39.15389 | 1.3.39.15377 | 1.3.39.15355 | Full version release |
| 39 | 1 | 1.3.39.16026 | 1.3.39.15943 | 1.3.39.15943 | 1.3.39.15957 | Requires Core Install. GUI.zip, Web Service, and Database updates |
| 40 | - | 1.3.40.16628 | 1.3.40.16628 | 1.3.40.16628 | 1.3.40.16628 | Full version release |
| 40 | 1 | 1.3.40.16849 | 1.3.40.16659 | 1.3.40.16744 | 1.3.40.16727 | GUI.zip, Web service, database updates and SQL Management reporting |
| 40 | 2 | 1.3.40.16868 | 1.3.40.16659 | 1.3.40.16868 | 1.3.40.16727 | GUI.zip and Web Service |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 6. Installing

1) Copy and replace the current rRIS…zip file with the rRIS_1.3.40.16878.zip file provided with this release. The previous GUI.zip should have been renamed to rRIS_1.3.40.16849. Be sure to make a backup of the ris.exe.config file contained within the .zip folder.

2) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService. Be sure to make backup of all files, but especially the rRISServices.exe.config and rRISServices.vshost.exe.config files.
   *rRISService directories include:*
   *a) rRISService*
   *b) CDS rRISService*
   *c) Wedge rRISService*
   *d) DDE rRISService*

   Restart each service.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

For eRAD RIS
Version 1.0
Build 40
Update 40.003

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Defects resolved ..... 3
2. Package Contents ..... 3
3. Intended Audience ..... 3
4. Who is affected ..... 3
5. eRAD RIS Release Version Numbers ..... 4
6. Installing ..... 5

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 1. Defects resolved

| Redmine # | Subject | Priority |
|---|---|---|
| 3456 | trigger c_action_insert needs to be disabled | Normal |

## 2. Package Contents

Files included for this server update:

1) SQL folder contains:
    a) B40_003.sql

## 3. Intended Audience

This document is created by the RIS Development team for the RadNet RIS Implementation team.

## 4. Who is affected

Build 40 installs. This server update must be applied directly to the build 40 core install.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# 5. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 37 | - | 1.2.37.12843 | 1.2.37.12782 | 1.2.37.12843 | 1.2.37.12843 | Full version release |
| 37 | 1 | 1.2.37.13040 | 1.2.37.13040 | 1.2.37.13039 | 1.2.37.13003 | Core install, GUI.zip, web service and database updates |
| 37 | 2 | 1.2.37.13069 | 1.2.37.13040 | 1.2.37.13069 | 1.2.37.13003 | GUI.zip and Web service updates |
| 37 | 3 | 1.2.37.13069 | 1.2.37.13040 | 1.2.37.13069 | 1.2.37.13003 | WebAPI updated, no version changes |
| 37 | 4 | 1.2.37.13171 | 1.2.37.13040 | 1.2.37.13165 | 1.2.37.13171 | GUI.zip, web service, and database updates |
| 37 | 5 | 1.2.37.13347 | 1.2.37.13040 | 1.2.37.12979 | 1.2.37.12979 | Bug was discovered with version numbers, this is why it appears we went backwards in the version number but we did not. |
| 37 | 6 | 1.2.37.13665 | 1.2.37.13040 | 1.2.37.13580 | 1.2.37.12979 | GUI.zip and Web service updates |
| 37 | 7 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13799 | 1.2.37.13807 | GUI.zip and Web service updates. Also MIRTH mapping changes |
| 37 | 8 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13827 | 1.2.37.13807 | Web service update |
| 37 | 9 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13839 | 1.2.37.13807 | Web service update |
| 37 | 10 | 1.2.37.13895 | 1.2.37.13040 | 1.2.37.13895 | 1.2.37.13895 | GUI.zip, Web service and database updates |
| 37 | 11 | 1.2.37.14161 | 1.2.37.13040 | 1.2.37.14161 | 1.2.37.14161 | GUI.zip, Web service, database updates and SQL Management reporting |
| 37 | 12 | 1.2.37.14267 | 1.2.37.13040 | 1.2.37.14161 | 1.2.37.14267 | GUI.zip, Web service and database updates |
| 37 | 13 | 1.2.37.14326 | 1.2.37.13040 | 1.2.37.14326 | 1.2.37.14326 | GUI.zip, Web service and database updates |
| 38 | - | 1.2.38.14486 | 1.2.38.14486 | 1.2.38.14486 | 1.2.38.14486 | Full version release |
| 38 | 1 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | Core install required |
| 38 | 2 | 1.2.38.15182 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | GUI.zip update only |
| 38 | 3 | 1.2.38.15251 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | GUI.zip update only |
| 38 | 4 | 1.2.38.15327 | 1.2.38.14748 | 1.2.38.15290 | 1.2.38.14748 | GUI.zip and Web service updates |
| 38 | 5 | 1.2.38.15513 | 1.2.38.14748 | 1.2.38.15513 | 1.2.38.15451 | GUI.zip, Web service and database updates |
| 38 | 6 | 1.2.38.15618 | 1.2.38.14748 | 1.2.38.15513 | 1.2.38.15618 | GUI.zip and database updates |
| 38 | 7 | 1.2.38.15768 | 1.2.38.14748 | 1.2.38.15768 | 1.2.38.15618 | GUI.zip and Web Service updates |
| 39 | - | 1.3.39.15389 | 1.3.39.15389 | 1.3.39.15377 | 1.3.39.15355 | Full version release |
| 39 | 1 | 1.3.39.16026 | 1.3.39.15943 | 1.3.39.15943 | 1.3.39.15957 | Requires Core Install. GUI.zip, Web Service, and Database updates |
| 40 | - | 1.3.40.16628 | 1.3.40.16628 | 1.3.40.16628 | 1.3.40.16628 | Full version release |
| 40 | 1 | 1.3.40.16849 | 1.3.40.16659 | 1.3.40.16744 | 1.3.40.16727 | GUI.zip, Web service, database updates and SQL Management reporting |
| 40 | 2 | 1.3.40.16868 | 1.3.40.16659 | 1.3.40.16868 | 1.3.40.16727 | GUI.zip and Web Service |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

| | | | | | | |
|---|---|---|---|---|---|---|
| 40 | 3 | 1.3.40.16868 | 1.3.40.16659 | | 1.3.40.16727 | DB updated only |

## 6. Installing

1) Run the B40_003.sql file against the eRAD RIS database instance.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

For eRAD RIS
Version 1.0
Build 40
Update 40.004

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Defects resolved ..... 3
2. Package Contents ..... 5
3. Intended Audience ..... 7
4. Who is affected ..... 7
5. eRAD RIS Release Version Numbers ..... 8
6. Installing ..... 9

**PLEASE READ** – This server release was created to support west coast operations with the addition of Order Level IVT (see new features). As development began on this server release additional issues were identified with east coast operations. The next server release of 1.40.005 (GUI file version 1.3.40.17087) has also been released with the additions made in this server release with additional features and bug fixes.

If you install this server release, proceed to install the 1.40.005. Keep in mind that .sql scripts are unique for each release and will have to be run on you eRAD RIS database.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# 1. New Features

## Order Level IVT

This patch release contains a new feature to have orders requiring Insurance Verification and/or PreCert approval. Essentially the IVT list will be the same, except now it will have the addition of procedures in Ordered status.

This is a configurable option that is controlled by a new systemconfig setting **OrderLevelIVT.** The default value is **False** (off).

| System Config Code | Value | Default | Description |
|---|---|---|---|
| Contains: | Contains: | Contains: | Contains: |
| Click here to add a new row | | | |
| OrderLevelIVT | | False | (value = true/false) Determines if IVT will first be calculated at order level |

**Figure 1.1 – SystemConfig lookup table displaying OrderLevelIVT code**

Once this setting is turned on, opening the IVT WL you will see the Ordered Status procedures on the work list. The procedures PreCert can be approved and insurance verified before the procedure is scheduled.

| Flags | Status | Procedures | Order Date | Scheduled Date |
|---|---|---|---|---|
| | Starts... order | | | |
| | Ordered | CT Abdomen W & Pelvis W & CTA Chest W/Wo [CT54] - Abdomen | 04-01-2013 2:08 PM | |
| | Ordered | CT Abdomen W & Pelvis W [CT9] - Abdomen | 03-28-2013 10:53 AM | |
| | Ordered | FL Arthrogram Elbow CT [FL9] - Elbow | 03-25-2013 3:29 PM | |
| | Ordered | XR ABDOMEN AP, KUB [74000] - Abdomen | 03-22-2013 1:55 PM | |
| | Ordered | CT Chest W & Abdomen W/Wo [CT42] - Chest | 03-18-2013 2:33 PM | 03-18-2013 1:55 PM |

**Figure 1.2 – IVT WL displaying Ordered status procedures**

Users may notice the Scheduled Date column is populated for procedures in Ordered status on the IVT work list. The reason for this is because EMR orders may have been scheduled and after the order is scheduled, the EMR order is cancelled because a new EMR order was required (missing information, procedure change, etc…). The cancelled EMR order remains in Ordered status until the new EMR order is matched with the scheduled study, thus the cancelled EMR order on the IVT WL shows a Scheduled Date.

The Status will update for the study on the IVT work list accordingly as the study proceeds through the work flow.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 2. Defects resolved

| Redmine # | Subject | Priority |
|---|---|---|
| 3421 | Spelling dictionaries not practice specific - cross contamination possible | High |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 3. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains
   a) rRIS_1.3.40.16967.zip

2) RIS Service Updates folder contains
   a) CDSJobManager.dll
   b) CDSJobManager.pdb
   c) CommonLib.dll
   d) CommonLib.pdb
   e) DDEngine.dll
   f) DDEngine.pdb
   g) Interop.FAXCOMEXLib.dll
   h) Microsoft.Practices.EnterpriseLibrary.Caching.dll
   i) Microsoft.Practices.EnterpriseLibrary.Caching.pdb
   j) Microsoft.Practices.EnterpriseLibrary.Common.dll
   k) Microsoft.Practices.EnterpriseLibrary.Common.pdb
   l) Microsoft.Practices.EnterpriseLibrary.Logging.dll
   m) Microsoft.Practices.EnterpriseLibrary.Logging.pdb
   n) Microsoft.Practices.ServiceLocation.dll
   o) Microsoft.Practices.ServiceLocation.pdb
   p) Microsoft.Practices.Unity.dll
   q) Microsoft.Practices.Unity.Interception.dll
   r) Microsoft.Practices.Unity.Interception.pdb
   s) Microsoft.Practices.Unity.pdb
   t) Microsoft.Web.Infrastructure.dll
   u) Newtonsoft.Json.dll
   v) Newtonsoft.Json.xml
   w) Ninject.dll
   x) Ninject.Web.Common.dll
   y) Ninject.Web.Common.xml
   z) Ninject.xml
   aa) O2S.Components.PDFRender4NET.dll
   bb) PDFToImages.exe
   cc) rRISServices.exe
   dd) rRISServices.pdb
   ee) rRISServices.vshost.exe
   ff) ScheduledTaskManager.dll
   gg) ScheduledTaskManager.pdb
   hh) SignatureApprovalService.exe
   ii) SignatureApprovalService.pdb
   jj) System.Net.Http.dll
   kk) System.Net.Http.Formatting.dll

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

ll) System.Net.Http.Formatting.xml
mm) System.Net.Http.xml
nn) System.Web.Helpers.dll
oo) System.Web.Helpers.xml
pp) System.Web.Http.dll
qq) System.Web.Http.SelfHost.dll
rr) System.Web.Http.SelfHost.xml
ss) System.Web.Http.WebHost.dll
tt) System.Web.Http.WebHost.xml
uu) System.Web.Http.xml
vv) System.Web.Mvc.dll
ww) System.Web.Mvc.xml
xx) System.Web.Optimization.dll
yy) System.Web.Providers.dll
zz) System.Web.Razor.dll
aaa) System.Web.Razor.xml
bbb) System.Web.WebPages.Deployment.dll
ccc) System.Web.WebPages.Deployment.xml
ddd) System.Web.WebPages.dll
eee) System.Web.WebPages.Razor.dll
fff) System.Web.WebPages.Razor.xml
ggg) System.Web.WebPages.xml
hhh) Tourreau.Gilles.FaxDotNet.dll
iii) Tourreau.Gilles.FaxDotNet.pdb
jjj) Tourreau.Gilles.FaxDotNet.xml
kkk) WCFService.dll
lll) WCFService.pdb
mmm) WebApi.dll
nnn) WebApi.pdb
ooo) Wedge.exe
ppp) Wedge.pdb

3) SQL folder contains:
    a) B40_004.sql

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 4. Intended Audience

This document is created by the RIS Development team for the RadNet RIS Implementation team.

## 5. Who is affected

Build 40 installs. This server update must be applied directly to the build 40 core install. Server updates are not cumulative. Any previous server updates must be applied before this one.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# 6. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 37 | - | 1.2.37.12843 | 1.2.37.12782 | 1.2.37.12843 | 1.2.37.12843 | Full version release |
| 37 | 1 | 1.2.37.13040 | 1.2.37.13040 | 1.2.37.13039 | 1.2.37.13003 | Core install, GUI.zip, web service and database updates |
| 37 | 2 | 1.2.37.13069 | 1.2.37.13040 | 1.2.37.13069 | 1.2.37.13003 | GUI.zip and Web service updates |
| 37 | 3 | 1.2.37.13069 | 1.2.37.13040 | 1.2.37.13069 | 1.2.37.13003 | WebAPI updated, no version changes |
| 37 | 4 | 1.2.37.13171 | 1.2.37.13040 | 1.2.37.13165 | 1.2.37.13171 | GUI.zip, web service, and database updates |
| 37 | 5 | 1.2.37.13347 | 1.2.37.13040 | 1.2.37.12979 | 1.2.37.12979 | Bug was discovered with version numbers, this is why it appears we went backwards in the version number but we did not. |
| 37 | 6 | 1.2.37.13665 | 1.2.37.13040 | 1.2.37.13580 | 1.2.37.12979 | GUI.zip and Web service updates |
| 37 | 7 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13799 | 1.2.37.13807 | GUI.zip and Web service updates. Also MIRTH mapping changes |
| 37 | 8 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13827 | 1.2.37.13807 | Web service update |
| 37 | 9 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13839 | 1.2.37.13807 | Web service update |
| 37 | 10 | 1.2.37.13895 | 1.2.37.13040 | 1.2.37.13895 | 1.2.37.13895 | GUI.zip, Web service and database updates |
| 37 | 11 | 1.2.37.14161 | 1.2.37.13040 | 1.2.37.14161 | 1.2.37.14161 | GUI.zip, Web service, database updates and SQL Management reporting |
| 37 | 12 | 1.2.37.14267 | 1.2.37.13040 | 1.2.37.14161 | 1.2.37.14267 | GUI.zip, Web service and database updates |
| 37 | 13 | 1.2.37.14326 | 1.2.37.13040 | 1.2.37.14326 | 1.2.37.14326 | GUI.zip, Web service and database updates |
| 38 | - | 1.2.38.14486 | 1.2.38.14486 | 1.2.38.14486 | 1.2.38.14486 | Full version release |
| 38 | 1 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | Core install required |
| 38 | 2 | 1.2.38.15182 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | GUI.zip update only |
| 38 | 3 | 1.2.38.15251 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | GUI.zip update only |
| 38 | 4 | 1.2.38.15327 | 1.2.38.14748 | 1.2.38.15290 | 1.2.38.14748 | GUI.zip and Web service updates |
| 38 | 5 | 1.2.38.15513 | 1.2.38.14748 | 1.2.38.15513 | 1.2.38.15451 | GUI.zip, Web service and database updates |
| 38 | 6 | 1.2.38.15618 | 1.2.38.14748 | 1.2.38.15513 | 1.2.38.15618 | GUI.zip and database updates |
| 38 | 7 | 1.2.38.15768 | 1.2.38.14748 | 1.2.38.15768 | 1.2.38.15618 | GUI.zip and Web Service updates |
| 39 | - | 1.3.39.15389 | 1.3.39.15389 | 1.3.39.15377 | 1.3.39.15355 | Full version release |
| 39 | 1 | 1.3.39.16026 | 1.3.39.15943 | 1.3.39.15943 | 1.3.39.15957 | Requires Core Install. GUI.zip, Web Service, and Database updates |
| 40 | - | 1.3.40.16628 | 1.3.40.16628 | 1.3.40.16628 | 1.3.40.16628 | Full version release |
| 40 | 1 | 1.3.40.16849 | 1.3.40.16659 | 1.3.40.16744 | 1.3.40.16727 | GUI.zip, Web service, database updates and SQL Management reporting |
| 40 | 2 | 1.3.40.16868 | 1.3.40.16659 | 1.3.40.16868 | 1.3.40.16727 | GUI.zip and Web Service |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

| | | | | | | |
|---|---|---|---|---|---|---|
| 40 | 3 | 1.3.40.16868 | 1.3.40.16659 | 1.3.40.16868 | 1.3.40.16727 | DB updated only |
| 40 | 4 | 1.3.40.16967 | 1.3.40.16659 | 1.3.40.16932 | 1.3.40.16961 | GUI.zip, Web Service, and Database updates |

# 7. Installing

1) Copy and replace the current rRIS…zip file with the rRIS_1.3.40.16967.zip file provided with this release.
   Be sure to make a backup of the ris.exe.config file contained within the .zip folder.

2) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService. Be sure to make backup of all files, but especially the rRISServices.exe.config and rRISServices.vshost.exe.config files.
   *rRISService directories include:*
   a) *rRISService*
   b) *CDS rRISService*
   c) *Wedge rRISService*
   d) *DDE rRISService*

   Restart each service.

3) Run the B40_004.sql file against the eRAD RIS database instance.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

For eRAD RIS
Version 1.0
Build 40
Update 40.005

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Defects resolved ..... 3
2. Package Contents ..... 7
3. Intended Audience ..... 9
4. Who is affected ..... 9
5. eRAD RIS Release Version Numbers ..... 10
6. Installing ..... 11

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# 1. New Features

## Order Level IVT

This patch release contains a new feature to have orders requiring Insurance Verification and/or PreCert approval. Essentially the IVT list will be the same, except now it will have the addition of procedures in Ordered status.

This is a configurable option that is controlled by a new systemconfig setting **OrderLevelIVT.** The default value is **False** (off).

| System Config Code | Value | Default | Description |
|---|---|---|---|
| Contains: | Contains: | Contains: | Contains: |
| Click here to add a new row | | | |
| OrderLevelIVT | | False | (value = true/false) Determines if IVT will first be calculated at order level |

**Figure 1.1 – SystemConfig lookup table displaying OrderLevelIVT code**

Once this setting is turned on, opening the IVT WL you will see the Ordered Status procedures on the work list. The procedures PreCert can be approved and insurance verified before the procedure is scheduled.

| Flags | Status | Procedures | Order Date | Scheduled Date |
|---|---|---|---|---|
| | Starts... order | | | |
| | Ordered | CT Abdomen W & Pelvis W & CTA Chest W/Wo [CT54] - Abdomen | 04-01-2013 2:08 PM | |
| | Ordered | CT Abdomen W & Pelvis W [CT9] - Abdomen | 03-28-2013 10:53 AM | |
| | Ordered | FL Arthrogram Elbow CT [FL9] - Elbow | 03-25-2013 3:29 PM | |
| | Ordered | XR ABDOMEN AP, KUB [74000] - Abdomen | 03-22-2013 1:55 PM | |
| | Ordered | CT Chest W & Abdomen W/Wo [CT42] - Chest | 03-18-2013 2:33 PM | 03-18-2013 1:55 PM |

**Figure 1.2 – IVT WL displaying Ordered status procedures**

Users may notice the Scheduled Date column is populated for procedures in Ordered status on the IVT work list. The reason for this is because EMR orders may have been scheduled and after the order is scheduled, the EMR order is cancelled because a new EMR order was required (missing information, procedure change, etc…). The cancelled EMR order remains in Ordered status until the new EMR order is matched with the scheduled study, thus the cancelled EMR order on the IVT WL shows a Scheduled Date.

The Status will update for the study on the IVT work list accordingly as the study proceeds through the work flow.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## Reporting – Lock Section Titles

In the past section titles could be inadvertently removed, edited, etc… as the section titles were not locked down from the user.

In Server Release 1.40.005 a user preference was added under the Report Editor tab called "Protect section headers".

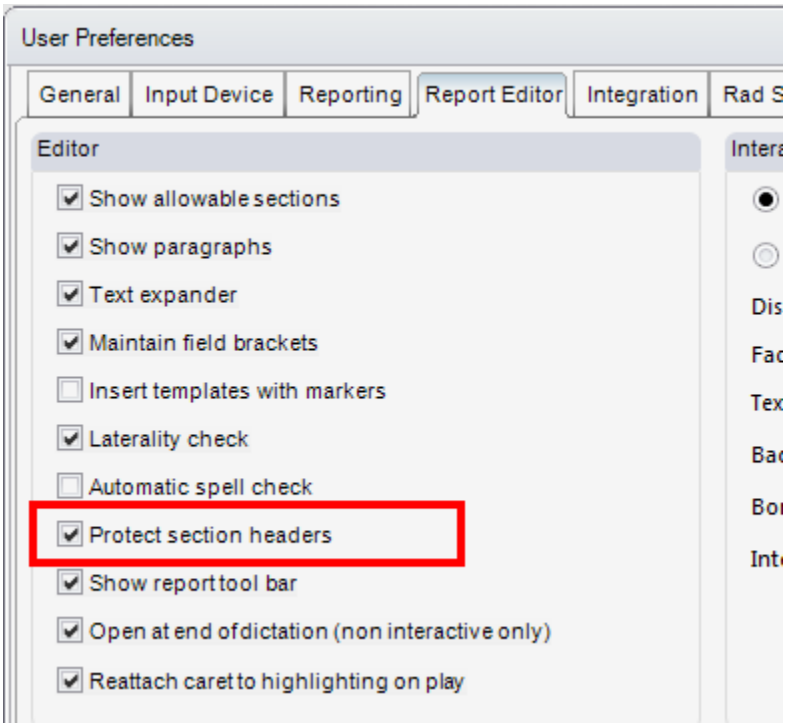



**Figure 1.3 – User preference "Protect section headers"**

When this User Preference is selected, the section titles in the reporting window will be "locked down". The user will not be able to add, edit, or remove section titles.

In addition to the new user preference, a new icon/toggle button called "Protect sections" has been added to the formatting toolbar in the reporting window. When the user preference is selected as shown in figure 1.3, the Protect section button will be toggled on.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

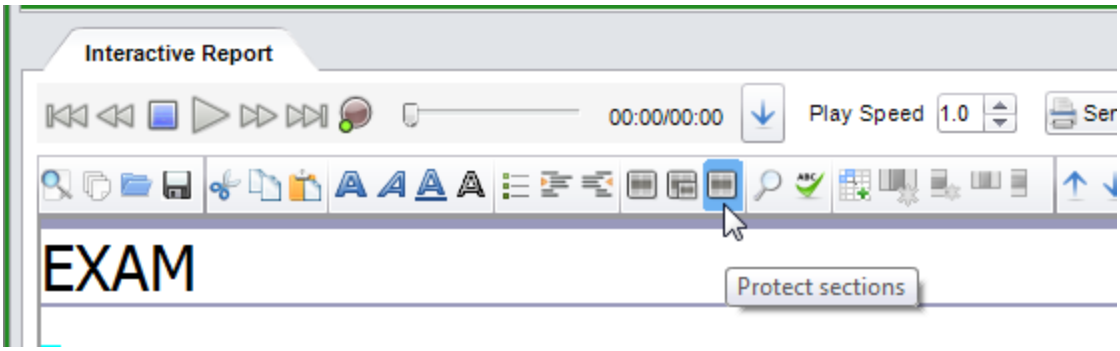



**Figure 1.4 – Protect sections button added to formatting toolbar in reporting window**

If the user does want to add, edit or remove a section title while in the reporting window, they can simply click on the Protect sections button to toggle off the lock of the section titles. Once they changes are made, they can toggle it back on if they so choose.

When the window is committed, closed or skipped, the next study that is opened in the reporting window will take the default action of the user preference.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 2. Defects Resolved

| Redmine # | Subject | Priority |
|---|---|---|
| 3506 | Precert rule on CPT code not working when more than one procedure scheduled | High |
| 3488 | PreCert - Add study that requires precert at time of reschedule, precert is not required | High |
| 3503 | Add procedure row at new appointment or at the time registration throws error. | High |
| 3515 | User preference for Locking Section Titles is not visible in User Preferences window | Normal |
| 3516 | IVT - Orders from cancelled studies don't have Precert and are not added to the IVT work list | High |
| 3511 | DTC exception when attempting to manually change status | High |
| 2397 | Reporting - ability to lock down section titles and not allow editing | Normal |
| 3517 | appointment book background not coloring | Normal |
| 3421 | Spelling dictionaries not practice specific - cross contamination possible | High |
| 3529 | Unread exams slow | Normal |
| 3512 | WL Filter not working when like "!breast!dexa!mammo" or like "!breast & !dexa & !mammo" | High |
| 3530 | Billing ORU files no longer formatted correctly | Immediate |
| 3536 | RADAR integration at SE resulted in a patient being called more than once | Immediate |
| 3557 | CC Physicians not getting reports | Immediate |
| 3523 | some columns not populated in worklist | High |
| 3528 | Magview reports come in via HL7 containing  | High |
| 3535 | object reference error in forms and labels editor and row selection issues | High |
| 3539 | My pending signature WL no show rows if transcribed studies are updated after they have been transcribed | High |
| 3552 | original_study_key not being set when scheduling a followUp order BIRADS 0 wl | High |
| 3520 | CC doctors were not getting faxes | Urgent |
| 3555 | SystemSkin Error in CDImport Grid | Normal |
| 3549 | Order from cancelled study does not have Billing code in IVT window | High |
| 3556 | ARS - SpeechMike issue with play/record - can lose dictation (Batch) | High |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 3. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains
   a) rRIS_1.3.40.17087.zip

2) RIS Service Updates folder contains
   a) CDSJobManager.dll
   b) CDSJobManager.pdb
   c) CommonLib.dll
   d) CommonLib.pdb
   e) DDEngine.dll
   f) DDEngine.pdb
   g) Interop.FAXCOMEXLib.dll
   h) Microsoft.Practices.EnterpriseLibrary.Caching.dll
   i) Microsoft.Practices.EnterpriseLibrary.Caching.pdb
   j) Microsoft.Practices.EnterpriseLibrary.Common.dll
   k) Microsoft.Practices.EnterpriseLibrary.Common.pdb
   l) Microsoft.Practices.EnterpriseLibrary.Logging.dll
   m) Microsoft.Practices.EnterpriseLibrary.Logging.pdb
   n) Microsoft.Practices.ServiceLocation.dll
   o) Microsoft.Practices.ServiceLocation.pdb
   p) Microsoft.Practices.Unity.dll
   q) Microsoft.Practices.Unity.Interception.dll
   r) Microsoft.Practices.Unity.Interception.pdb
   s) Microsoft.Practices.Unity.pdb
   t) Microsoft.Web.Infrastructure.dll
   u) Newtonsoft.Json.dll
   v) Newtonsoft.Json.xml
   w) Ninject.dll
   x) Ninject.Web.Common.dll
   y) Ninject.Web.Common.xml
   z) Ninject.xml
   aa) O2S.Components.PDFRender4NET.dll
   bb) PDFToImages.exe
   cc) rRISServices.exe
   dd) rRISServices.pdb
   ee) rRISServices.vshost.exe
   ff) ScheduledTaskManager.dll
   gg) ScheduledTaskManager.pdb
   hh) SignatureApprovalService.exe
   ii) SignatureApprovalService.pdb
   jj) System.Net.Http.dll
   kk) System.Net.Http.Formatting.dll

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

ll) System.Net.Http.Formatting.xml
mm) System.Net.Http.xml
nn) System.Web.Helpers.dll
oo) System.Web.Helpers.xml
pp) System.Web.Http.dll
qq) System.Web.Http.SelfHost.dll
rr) System.Web.Http.SelfHost.xml
ss) System.Web.Http.WebHost.dll
tt) System.Web.Http.WebHost.xml
uu) System.Web.Http.xml
vv) System.Web.Mvc.dll
ww) System.Web.Mvc.xml
xx) System.Web.Optimization.dll
yy) System.Web.Providers.dll
zz) System.Web.Razor.dll
aaa) System.Web.Razor.xml
bbb) System.Web.WebPages.Deployment.dll
ccc) System.Web.WebPages.Deployment.xml
ddd) System.Web.WebPages.dll
eee) System.Web.WebPages.Razor.dll
fff) System.Web.WebPages.Razor.xml
ggg) System.Web.WebPages.xml
hhh) Tourreau.Gilles.FaxDotNet.dll
iii) Tourreau.Gilles.FaxDotNet.pdb
jjj) Tourreau.Gilles.FaxDotNet.xml
kkk) WCFService.dll
lll) WCFService.pdb
mmm) WebApi.dll
nnn) WebApi.pdb
ooo) Wedge.exe
ppp) Wedge.pdb

3) SQL folder contains:
    a) B40_005.sql

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 4. Intended Audience

This document is created by the RIS Development team for the RadNet RIS Implementation team.

## 5. Who is affected

Build 40 installs. This server update must be applied directly to the build 40 core install. Server updates are not cumulative. Any previous server updates must be applied before this one.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# 6. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 37 | - | 1.2.37.12843 | 1.2.37.12782 | 1.2.37.12843 | 1.2.37.12843 | Full version release |
| 37 | 1 | 1.2.37.13040 | 1.2.37.13040 | 1.2.37.13039 | 1.2.37.13003 | Core install, GUI.zip, web service and database updates |
| 37 | 2 | 1.2.37.13069 | 1.2.37.13040 | 1.2.37.13069 | 1.2.37.13003 | GUI.zip and Web service updates |
| 37 | 3 | 1.2.37.13069 | 1.2.37.13040 | 1.2.37.13069 | 1.2.37.13003 | WebAPI updated, no version changes |
| 37 | 4 | 1.2.37.13171 | 1.2.37.13040 | 1.2.37.13165 | 1.2.37.13171 | GUI.zip, web service, and database updates |
| 37 | 5 | 1.2.37.13347 | 1.2.37.13040 | 1.2.37.12979 | 1.2.37.12979 | Bug was discovered with version numbers, this is why it appears we went backwards in the version number but we did not. |
| 37 | 6 | 1.2.37.13665 | 1.2.37.13040 | 1.2.37.13580 | 1.2.37.12979 | GUI.zip and Web service updates |
| 37 | 7 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13799 | 1.2.37.13807 | GUI.zip and Web service updates. Also MIRTH mapping changes |
| 37 | 8 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13827 | 1.2.37.13807 | Web service update |
| 37 | 9 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13839 | 1.2.37.13807 | Web service update |
| 37 | 10 | 1.2.37.13895 | 1.2.37.13040 | 1.2.37.13895 | 1.2.37.13895 | GUI.zip, Web service and database updates |
| 37 | 11 | 1.2.37.14161 | 1.2.37.13040 | 1.2.37.14161 | 1.2.37.14161 | GUI.zip, Web service, database updates and SQL Management reporting |
| 37 | 12 | 1.2.37.14267 | 1.2.37.13040 | 1.2.37.14161 | 1.2.37.14267 | GUI.zip, Web service and database updates |
| 37 | 13 | 1.2.37.14326 | 1.2.37.13040 | 1.2.37.14326 | 1.2.37.14326 | GUI.zip, Web service and database updates |
| 38 | - | 1.2.38.14486 | 1.2.38.14486 | 1.2.38.14486 | 1.2.38.14486 | Full version release |
| 38 | 1 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | Core install required |
| 38 | 2 | 1.2.38.15182 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | GUI.zip update only |
| 38 | 3 | 1.2.38.15251 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | GUI.zip update only |
| 38 | 4 | 1.2.38.15327 | 1.2.38.14748 | 1.2.38.15290 | 1.2.38.14748 | GUI.zip and Web service updates |
| 38 | 5 | 1.2.38.15513 | 1.2.38.14748 | 1.2.38.15513 | 1.2.38.15451 | GUI.zip, Web service and database updates |
| 38 | 6 | 1.2.38.15618 | 1.2.38.14748 | 1.2.38.15513 | 1.2.38.15618 | GUI.zip and database updates |
| 38 | 7 | 1.2.38.15768 | 1.2.38.14748 | 1.2.38.15768 | 1.2.38.15618 | GUI.zip and Web Service updates |
| 39 | - | 1.3.39.15389 | 1.3.39.15389 | 1.3.39.15377 | 1.3.39.15355 | Full version release |
| 39 | 1 | 1.3.39.16026 | 1.3.39.15943 | 1.3.39.15943 | 1.3.39.15957 | Requires Core Install. GUI.zip, Web Service, and Database updates |
| 40 | - | 1.3.40.16628 | 1.3.40.16628 | 1.3.40.16628 | 1.3.40.16628 | Full version release |
| 40 | 1 | 1.3.40.16849 | 1.3.40.16659 | 1.3.40.16744 | 1.3.40.16727 | GUI.zip, Web service, database updates and SQL Management reporting |
| 40 | 2 | 1.3.40.16868 | 1.3.40.16659 | 1.3.40.16868 | 1.3.40.16727 | GUI.zip and Web Service |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

| | | | | | | |
|---|---|---|---|---|---|---|
| 40 | 3 | 1.3.40.16868 | 1.3.40.16659 | 1.3.40.16868 | 1.3.40.16727 | DB updated only |
| 40 | 4 | 1.3.40.16967 | 1.3.40.16659 | 1.3.40.16932 | 1.3.40.16961 | GUI.zip, Web service, database updates |
| 40 | 5 | 1.3.40.17087 | 1.3.40.16659 | 1.3.40.17069 | 1.3.40.17087 | GUI.zip, Web service, database updates |

# 7. Installing

1) Copy and replace the current rRIS…zip file with the rRIS_1.3.40.17087.zip file provided with this release.
   Be sure to make a backup of the ris.exe.config file contained within the .zip folder.

2) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService. Be sure to make backup of all files, but especially the rRISServices.exe.config and rRISServices.vshost.exe.config files.
   *rRISService directories include:*
   a) *rRISService*
   b) *CDS rRISService*
   c) *Wedge rRISService*
   d) *DDE rRISService*

   Restart each service.

3) Run the B40_005.sql file against the eRAD RIS database instance.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

For eRAD RIS
Version 1.0
Build 40
Update 40.006

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Defects resolved ..... 3
2. Package Contents ..... 4
3. Intended Audience ..... 5
4. Who is affected ..... 5
5. eRAD RIS Release Version Numbers ..... 6
6. Installing ..... 7

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# 1. Defects Resolved

| Redmine # | Subject | Priority |
|---|---|---|
| 3540 | Historic Studies that are updated in view edit are re-running IVT and appearing on the IVT WI | Normal |
| 3567 | Historical studies throw exception on save of view/edit | Normal |
| 3568 | user is able to change the insurance priority but will not save changes | Normal |
| 3560 | red x error over grid on print forms dialog box | Normal |
| 3553 | object reference error when saving walkin with multiple exams | Normal |
| 3579 | Reporting - QA Edit text color not appearing after reopening an rejected report | High |
| 3583 | CDS Jobs not getting Finalized | Normal |
| 3588 | Inbound Reporting - Error loading XML file: c:\Dictaphone\exam.xml | High |
| 3589 | Issue where in Magview they doubleclick the VR icon | High |
| 3591 | Memory Leak in reporting window(s) | Normal |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 2. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains
   a) rRIS_1.3.40.17146.zip

2) RIS Service Updates folder contains
   a) CDSJobManager.dll
   b) CDSJobManager.pdb
   c) CommonLib.dll
   d) CommonLib.pdb
   e) DDEngine.dll
   f) DDEngine.pdb
   g) rRISServices.exe
   h) rRISServices.pdb
   i) rRISServices.vshost.exe
   j) ScheduledTaskManager.dll
   k) ScheduledTaskManager.pdb
   l) SignatureApprovalService.exe
   m) SignatureApprovalService.pdb
   n) WCFService.dll
   o) WCFService.pdb
   p) WebApi.dll
   q) WebApi.pdb
   r) Wedge.exe
   s) Wedge.pdb

3) SQL folder contains:
   a) B40_006.sql

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 3. Intended Audience

This document is created by the RIS Development team for the RadNet RIS Implementation team.

## 4. Who is affected

Build 40 installs. This server update must be applied directly to the build 40 core install. Server updates are not cumulative. Any previous server updates must be applied before this one.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# 5. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 37 | - | 1.2.37.12843 | 1.2.37.12782 | 1.2.37.12843 | 1.2.37.12843 | Full version release |
| 37 | 1 | 1.2.37.13040 | 1.2.37.13040 | 1.2.37.13039 | 1.2.37.13003 | Core install, GUI.zip, web service and database updates |
| 37 | 2 | 1.2.37.13069 | 1.2.37.13040 | 1.2.37.13069 | 1.2.37.13003 | GUI.zip and Web service updates |
| 37 | 3 | 1.2.37.13069 | 1.2.37.13040 | 1.2.37.13069 | 1.2.37.13003 | WebAPI updated, no version changes |
| 37 | 4 | 1.2.37.13171 | 1.2.37.13040 | 1.2.37.13165 | 1.2.37.13171 | GUI.zip, web service, and database updates |
| 37 | 5 | 1.2.37.13347 | 1.2.37.13040 | 1.2.37.12979 | 1.2.37.12979 | Bug was discovered with version numbers, this is why it appears we went backwards in the version number but we did not. |
| 37 | 6 | 1.2.37.13665 | 1.2.37.13040 | 1.2.37.13580 | 1.2.37.12979 | GUI.zip and Web service updates |
| 37 | 7 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13799 | 1.2.37.13807 | GUI.zip and Web service updates. Also MIRTH mapping changes |
| 37 | 8 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13827 | 1.2.37.13807 | Web service update |
| 37 | 9 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13839 | 1.2.37.13807 | Web service update |
| 37 | 10 | 1.2.37.13895 | 1.2.37.13040 | 1.2.37.13895 | 1.2.37.13895 | GUI.zip, Web service and database updates |
| 37 | 11 | 1.2.37.14161 | 1.2.37.13040 | 1.2.37.14161 | 1.2.37.14161 | GUI.zip, Web service, database updates and SQL Management reporting |
| 37 | 12 | 1.2.37.14267 | 1.2.37.13040 | 1.2.37.14161 | 1.2.37.14267 | GUI.zip, Web service and database updates |
| 37 | 13 | 1.2.37.14326 | 1.2.37.13040 | 1.2.37.14326 | 1.2.37.14326 | GUI.zip, Web service and database updates |
| 38 | - | 1.2.38.14486 | 1.2.38.14486 | 1.2.38.14486 | 1.2.38.14486 | Full version release |
| 38 | 1 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | Core install required |
| 38 | 2 | 1.2.38.15182 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | GUI.zip update only |
| 38 | 3 | 1.2.38.15251 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | GUI.zip update only |
| 38 | 4 | 1.2.38.15327 | 1.2.38.14748 | 1.2.38.15290 | 1.2.38.14748 | GUI.zip and Web service updates |
| 38 | 5 | 1.2.38.15513 | 1.2.38.14748 | 1.2.38.15513 | 1.2.38.15451 | GUI.zip, Web service and database updates |
| 38 | 6 | 1.2.38.15618 | 1.2.38.14748 | 1.2.38.15513 | 1.2.38.15618 | GUI.zip and database updates |
| 38 | 7 | 1.2.38.15768 | 1.2.38.14748 | 1.2.38.15768 | 1.2.38.15618 | GUI.zip and Web Service updates |
| 39 | - | 1.3.39.15389 | 1.3.39.15389 | 1.3.39.15377 | 1.3.39.15355 | Full version release |
| 39 | 1 | 1.3.39.16026 | 1.3.39.15943 | 1.3.39.15943 | 1.3.39.15957 | Requires Core Install. GUI.zip, Web Service, and Database updates |
| 40 | - | 1.3.40.16628 | 1.3.40.16628 | 1.3.40.16628 | 1.3.40.16628 | Full version release |
| 40 | 1 | 1.3.40.16849 | 1.3.40.16659 | 1.3.40.16744 | 1.3.40.16727 | GUI.zip, Web service, database updates and SQL Management reporting |
| 40 | 2 | 1.3.40.16868 | 1.3.40.16659 | 1.3.40.16868 | 1.3.40.16727 | GUI.zip and Web Service |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

| | | | | | | |
|---|---|---|---|---|---|---|
| 40 | 3 | 1.3.40.16868 | 1.3.40.16659 | 1.3.40.16868 | 1.3.40.16727 | DB updated only |
| 40 | 4 | 1.3.40.16967 | 1.3.40.16659 | 1.3.40.16932 | 1.3.40.16961 | GUI.zip, Web service, database updates |
| 40 | 5 | 1.3.40.17087 | 1.3.40.16659 | 1.3.40.17069 | 1.3.40.17087 | GUI.zip, Web service, database updates |
| 40 | 6 | 1.3.40.17146 | 1.3.40.16659 | 1.3.40.17146 | 1.3.40.17146 | GUI.zip, Web service, database updates |

# 6. Installing

1) Copy and replace the current rRIS…zip file with the rRIS_1.3.40.17146.zip file provided with this release.
   Be sure to make a backup of the ris.exe.config file contained within the .zip folder.

   A change has been made the ris.exe.config file. Edit the existing ris.exe.config file and change the following.
   BEFORE:

```
<startup>
    <supportedRuntime version="v4.0" sku=".NETFramework,Version=v4.0" />
</startup>
```

   AFTER:

```
<startup  useLegacyV2RuntimeActivationPolicy="true">
    <supportedRuntime version="v4.0" sku=".NETFramework,Version=v4.0" />
   </starup>
```

2) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService. Be sure to make backup of all files, but especially the rRISServices.exe.config and rRISServices.vshost.exe.config files.
   *rRISService directories include:*
   a) *rRISService*
   b) *CDS rRISService*
   c) *Wedge rRISService*
   d) *DDE rRISService*

   Restart each service.

3) Run the B40_006.sql file against the eRAD RIS database instance.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

For eRAD RIS
Version 1.0
Build 40
Update 40.007

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Defects resolved ..... 2
2. Package Contents ..... 5
3. Intended Audience ..... 6
4. Who is affected ..... 6
5. eRAD RIS Release Version Numbers ..... 7
6. Installing ..... 8

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# 1. New Features

## Patient DOB in Reporting Window

The patient's date of birth was requested to be displayed within the reporting window. This was added to the Summary panel of the Reporting window.

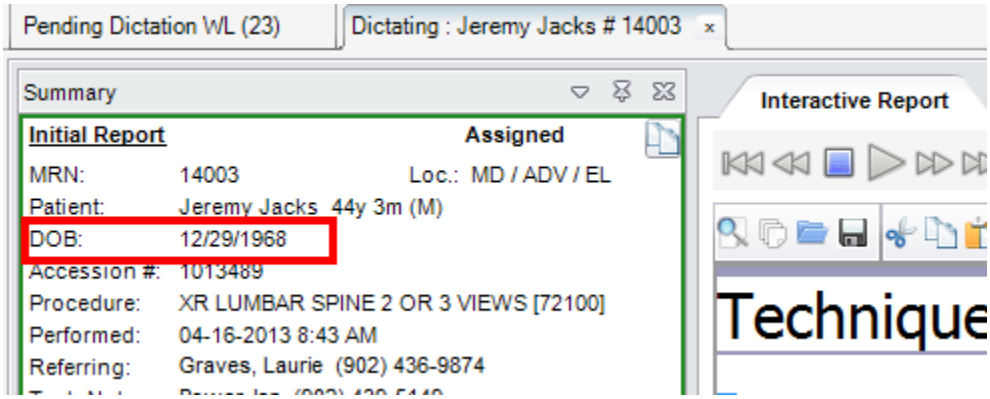



**Figure 1.1 – Patient's DOB added the Summary Panel of the Reporting window**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 2. Defects Resolved

| Redmine # | Subject | Priority |
|---|---|---|
| 3627 | Need to indicate to the billing system that a study is an external report | Immediate |
| 3650 | Studies flagged with External Report do not appear on pending signature work lists | Urgent |
| 3628 | Patient Folder - when a defautl view is applied and no relevant studies wrong report is selected. | High |
| 3643 | Scanning - Need to improve Not Responding Message | High |
| 3593 | Scroll wheel when zooming images is a bit jumpy. | Normal |
| 3594 | Patient Folder - Loading prior in PACS with double click not working | Normal |
| 3595 | Patient Folder - Legacy report not displaying signed by radiologist in the document viewer or nugget. | Normal |
| 3611 | Patient Folder - DOB should be somewhere in the patient folder. | Normal |
| 3626 | Need report to display multi sign data | Normal |
| 3634 | Error opening report for addendum from inbound reporting | Normal |
| 3638 | ambiguous column error when opening dictate from My Signed By Date WL | Normal |
| 3647 | memory leak in gridflagcellelement | Normal |
| 3649 | Memory management techniques may contribute to perceived performance issues | Normal |
| 3652 | Scanning - Not prompted to save when adding/modifying an image | Normal |
| 3654 | memory leak of dgridworklist | Normal |
| 3613 | Error on checking in/save - spliting order in registration | High |
| 3655 | UI_Interpretation_Verified not firing the UI_ReportReleased action | Urgent |
| 3657 | poor error logging when exception occurs disposing of a form | Normal |
| 3624 | CPT Modality column | High |
| 3666 | l_referring_practice_address_Add_person_address | Normal |
| 3660 | POST button does not enable on outside read studies | High |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 2. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains
   a) rRIS_1.3.40.17268.zip

2) RIS Service Updates folder contains
   a) CDSJobManager.dll
   b) CDSJobManager.pdb
   c) CommonLib.dll
   d) CommonLib.pdb
   e) DDEngine.dll
   f) DDEngine.pdb
   g) rRISServices.exe
   h) rRISServices.pdb
   i) rRISServices.vshost.exe
   j) ScheduledTaskManager.dll
   k) ScheduledTaskManager.pdb
   l) SignatureApprovalService.exe
   m) SignatureApprovalService.pdb
   n) WCFService.dll
   o) WCFService.pdb
   p) WebApi.dll
   q) WebApi.pdb
   r) Wedge.exe
   s) Wedge.pdb

3) SQL folder contains:
   a) B40_007.sql

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 3. Intended Audience

This document is created by the RIS Development team for the RadNet RIS Implementation team.

## 4. Who is affected

Build 40 installs. This server update must be applied directly to the build 40 core install. Server updates are not cumulative. Any previous server updates must be applied before this one.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# 5. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 37 | - | 1.2.37.12843 | 1.2.37.12782 | 1.2.37.12843 | 1.2.37.12843 | Full version release |
| 37 | 1 | 1.2.37.13040 | 1.2.37.13040 | 1.2.37.13039 | 1.2.37.13003 | Core install, GUI.zip, web service and database updates |
| 37 | 2 | 1.2.37.13069 | 1.2.37.13040 | 1.2.37.13069 | 1.2.37.13003 | GUI.zip and Web service updates |
| 37 | 3 | 1.2.37.13069 | 1.2.37.13040 | 1.2.37.13069 | 1.2.37.13003 | WebAPI updated, no version changes |
| 37 | 4 | 1.2.37.13171 | 1.2.37.13040 | 1.2.37.13165 | 1.2.37.13171 | GUI.zip, web service, and database updates |
| 37 | 5 | 1.2.37.13347 | 1.2.37.13040 | 1.2.37.12979 | 1.2.37.12979 | Bug was discovered with version numbers, this is why it appears we went backwards in the version number but we did not. |
| 37 | 6 | 1.2.37.13665 | 1.2.37.13040 | 1.2.37.13580 | 1.2.37.12979 | GUI.zip and Web service updates |
| 37 | 7 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13799 | 1.2.37.13807 | GUI.zip and Web service updates. Also MIRTH mapping changes |
| 37 | 8 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13827 | 1.2.37.13807 | Web service update |
| 37 | 9 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13839 | 1.2.37.13807 | Web service update |
| 37 | 10 | 1.2.37.13895 | 1.2.37.13040 | 1.2.37.13895 | 1.2.37.13895 | GUI.zip, Web service and database updates |
| 37 | 11 | 1.2.37.14161 | 1.2.37.13040 | 1.2.37.14161 | 1.2.37.14161 | GUI.zip, Web service, database updates and SQL Management reporting |
| 37 | 12 | 1.2.37.14267 | 1.2.37.13040 | 1.2.37.14161 | 1.2.37.14267 | GUI.zip, Web service and database updates |
| 37 | 13 | 1.2.37.14326 | 1.2.37.13040 | 1.2.37.14326 | 1.2.37.14326 | GUI.zip, Web service and database updates |
| 38 | - | 1.2.38.14486 | 1.2.38.14486 | 1.2.38.14486 | 1.2.38.14486 | Full version release |
| 38 | 1 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | Core install required |
| 38 | 2 | 1.2.38.15182 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | GUI.zip update only |
| 38 | 3 | 1.2.38.15251 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | GUI.zip update only |
| 38 | 4 | 1.2.38.15327 | 1.2.38.14748 | 1.2.38.15290 | 1.2.38.14748 | GUI.zip and Web service updates |
| 38 | 5 | 1.2.38.15513 | 1.2.38.14748 | 1.2.38.15513 | 1.2.38.15451 | GUI.zip, Web service and database updates |
| 38 | 6 | 1.2.38.15618 | 1.2.38.14748 | 1.2.38.15513 | 1.2.38.15618 | GUI.zip and database updates |
| 38 | 7 | 1.2.38.15768 | 1.2.38.14748 | 1.2.38.15768 | 1.2.38.15618 | GUI.zip and Web Service updates |
| 39 | - | 1.3.39.15389 | 1.3.39.15389 | 1.3.39.15377 | 1.3.39.15355 | Full version release |
| 39 | 1 | 1.3.39.16026 | 1.3.39.15943 | 1.3.39.15943 | 1.3.39.15957 | Requires Core Install. GUI.zip, Web Service, and Database updates |
| 40 | - | 1.3.40.16628 | 1.3.40.16628 | 1.3.40.16628 | 1.3.40.16628 | Full version release |
| 40 | 1 | 1.3.40.16849 | 1.3.40.16659 | 1.3.40.16744 | 1.3.40.16727 | GUI.zip, Web service, database updates and SQL Management reporting |
| 40 | 2 | 1.3.40.16868 | 1.3.40.16659 | 1.3.40.16868 | 1.3.40.16727 | GUI.zip and Web Service |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

| | | | | | | |
|---|---|---|---|---|---|---|
| 40 | 3 | 1.3.40.16868 | 1.3.40.16659 | 1.3.40.16868 | 1.3.40.16727 | DB updated only |
| 40 | 4 | 1.3.40.16967 | 1.3.40.16659 | 1.3.40.16932 | 1.3.40.16961 | GUI.zip, Web service, database updates |
| 40 | 5 | 1.3.40.17087 | 1.3.40.16659 | 1.3.40.17069 | 1.3.40.17087 | GUI.zip, Web service, database updates |
| 40 | 6 | 1.3.40.17146 | 1.3.40.16659 | 1.3.40.17146 | 1.3.40.17146 | GUI.zip, Web service, database updates |
| 40 | 7 | 1.3.40.17268 | 1.3.40.16659 | 1.3.40.17268 | 1.3.40.17259 | GUI.zip, Web service, database updates |

# 6. Installing

1) Copy and replace the current rRIS…zip file with the rRIS_1.3.40.17268.zip file provided with this release.
   Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

2) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService. Be sure to make backup of all files, but especially the rRISServices.exe.config and rRISServices.vshost.exe.config files.
   *rRISService directories include:*
   a) *rRISService*
   b) *CDS rRISService*
   c) *Wedge rRISService*
   d) *DDE rRISService*

   Restart each service.

3) Run the B40_007.sql file against the eRAD RIS database instance.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

For eRAD RIS
Version 1.0
Build 40
Update 40.008

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. New Features ..... 3
   Reporting - Order Notes Added To Exam Details Pane ..... 3
   Reporting – Alter and Save Default Layouts ..... 4
2. Defects Resolved ..... 6
2. Package Contents ..... 7
3. Intended Audience ..... 8
4. Who is affected ..... 8
5. eRAD RIS Release Version Numbers ..... 9
6. Installing ..... 10

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# 1. New Features

## Reporting - Order Notes Added To Exam Details Pane

Order Notes were missing from reporting window. Previously the users would have to access the Order Notes from the data nugget or the View / Edit window on the Patient Folder WL.

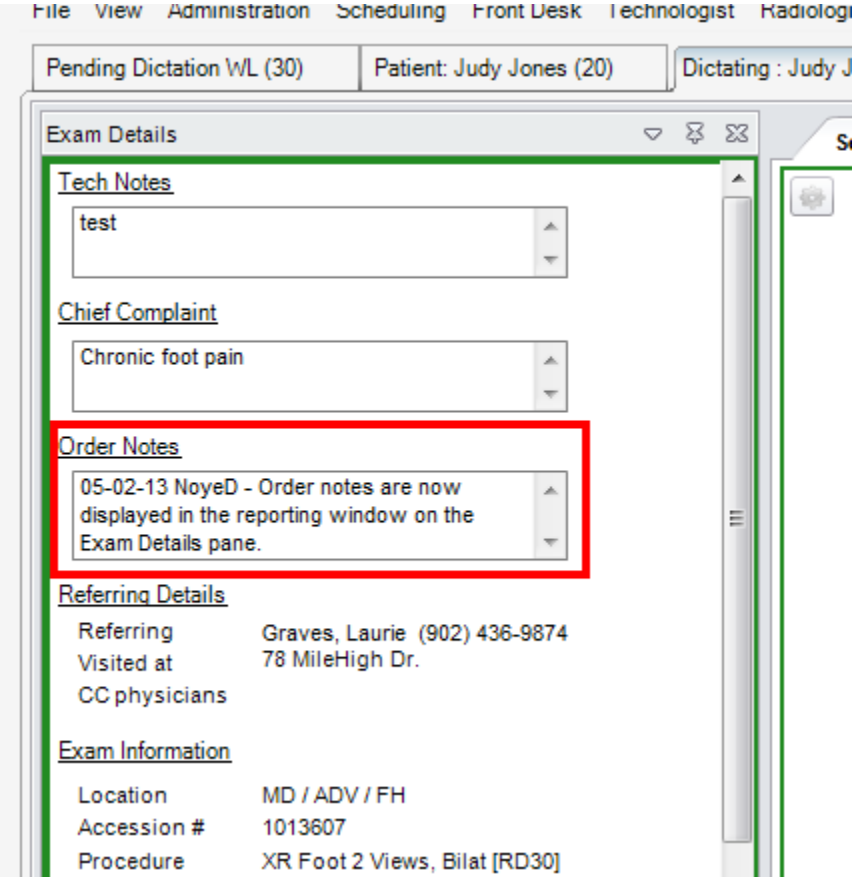



**Figure 1.1 – Order Notes in Exam Details pane**

In Server release 1.40.008, the Order notes have been added to the Exam Details data pane in the reporting window. Users must be aware that in order to view the Order notes they must dock the Exam Details data pane and save layout for it to display in future reporting window sessions.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Reporting – Alter and Save Default Layouts

In the reporting windows view menu users had the option to choose from of a list of default layouts. These layouts came "canned" with eRAD RIS and if changes were desired to the layout, they could not be saved.

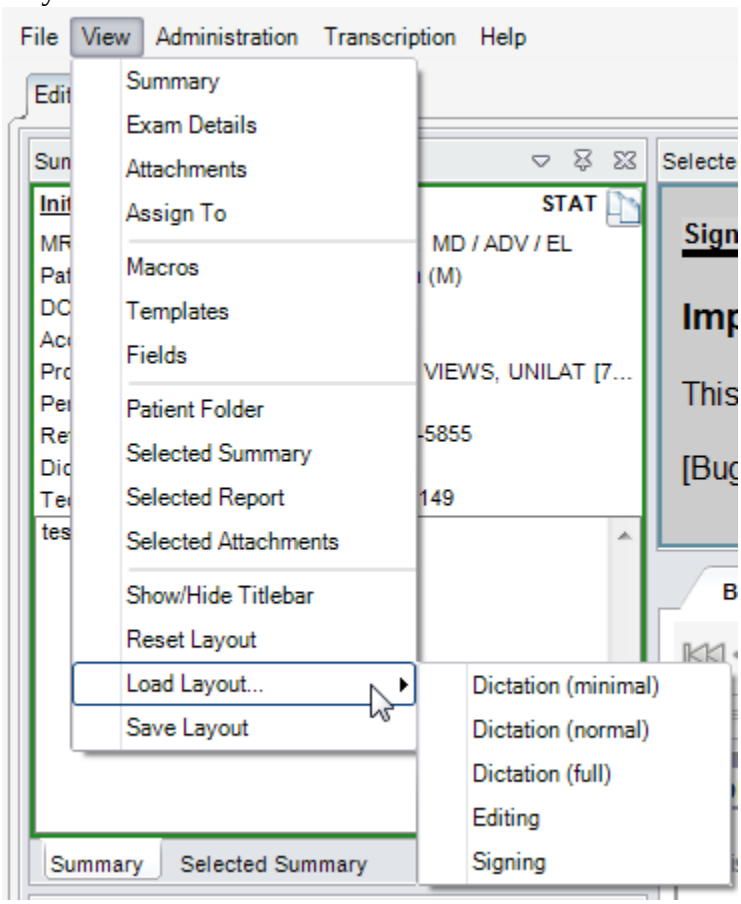



**Figure 1.2 – View Menu - Load Layout**

It was requested that these layouts could be altered and changes saved. We have added a new menu and sub-menu to the View menu. Under the report editor screens View menu, administrators will find a new menu item. **Administer Layouts…** this will lead to a **Save As** option for each of the standard layouts. The administrator simply designs an open screen as they desire then use this menu item to save to the database as one of the default layouts for all users. Aavailability of this set of menu items is based on a **new access string "View.Administration"**. Users must have full access to the mentioned access string in order to use this feature.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

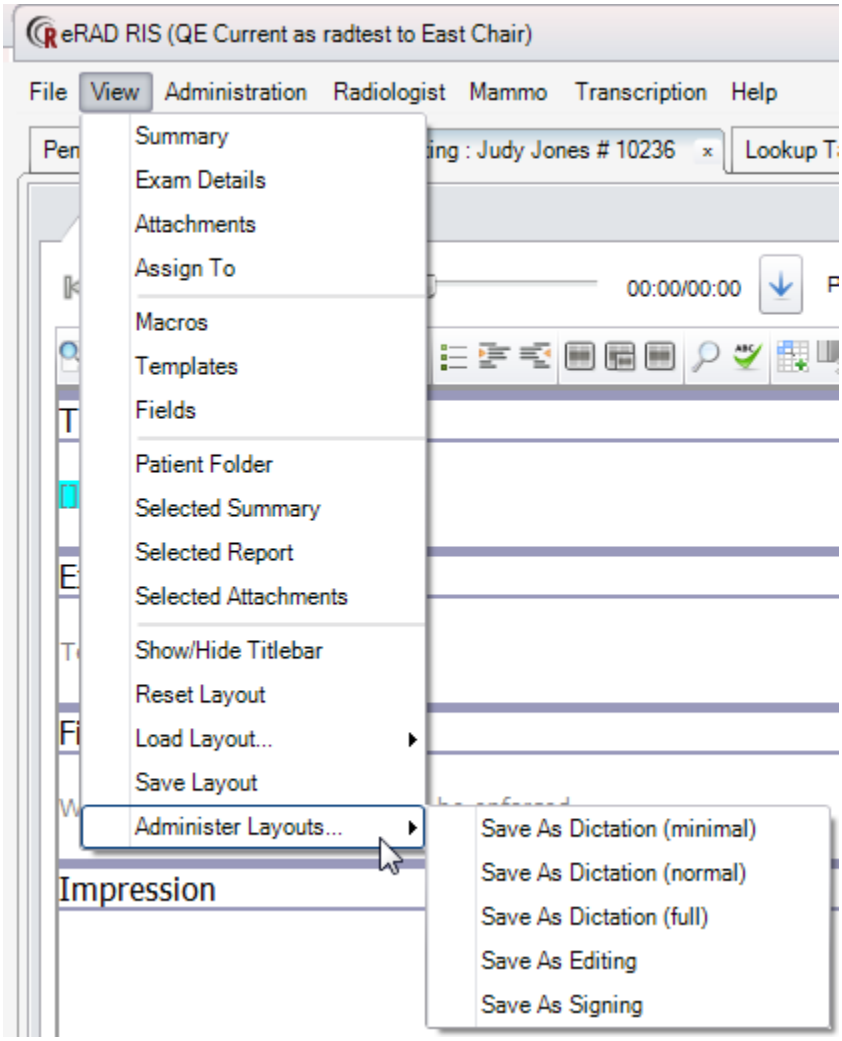



**Figure 1.3 – View Menu – Administer Layouts**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 2. Defects Resolved

| Redmine # | Subject | Priority |
|---|---|---|
| 3696 | Attachments - Wrong Patient Key Data | Urgent |
| 3422 | On the Order tab, "Visit location for" field value is incorrect for the physician that is highlighted | High |
| 3614 | Cancelled orders not appearing on Patient Folder | High |
| 3693 | Scheduling availability templates rules - times can appear as open in schedule search | High |
| 3713 | Open/Wide Board Modalitys are difficult to identify from search results | High |
| 3715 | Insert macro/template voice commands not working. | High |
| 3718 | Error applying default view to patient folder when patient folder is pinned. | High |
| 3720 | Prompt for more pages does cause issues if multiple documents are scanned before the prompt comes up | High |
| 3737 | the binary string truncated error | High |
| 3636 | IVT WL showing cancelled studies as scheduled | Normal |
| 3672 | External Report checkbox does not stay checked | Normal |
| 3673 | Reporting - reports of double dictation text intermitently | Normal |
| 3678 | Billing messages to correctly spedify the correct site code when the study is an outside read | Normal |
| 3694 | booking locks not released in b40 when cancelling studies in some cases | Normal |
| 3695 | booking locks not released when moving a study to a new order | Normal |
| 3702 | override tempaltes are not painting in calander control | Normal |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 2. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains
   a) rRIS_1.3.40.17364.zip

2) RIS Service Updates folder contains
   a) CDSJobManager.dll
   b) CDSJobManager.pdb
   c) CommonLib.dll
   d) CommonLib.pdb
   e) DDEngine.dll
   f) DDEngine.pdb
   g) rRISServices.exe
   h) rRISServices.pdb
   i) rRISServices.vshost.exe
   j) ScheduledTaskManager.dll
   k) ScheduledTaskManager.pdb
   l) SignatureApprovalService.exe
   m) SignatureApprovalService.pdb
   n) WCFService.dll
   o) WCFService.pdb
   p) WebApi.dll
   q) WebApi.pdb
   r) Wedge.exe
   s) Wedge.pdb

3) SQL folder contains:
   a) B40_008.sql

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 3. Intended Audience

This document is created by the RIS Development team for the RadNet RIS Implementation team.

## 4. Who is affected

Build 40 installs. This server update must be applied directly to the build 40 core install. Server updates are not cumulative. Any previous server updates must be applied before this one.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# 5. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 37 | - | 1.2.37.12843 | 1.2.37.12782 | 1.2.37.12843 | 1.2.37.12843 | Full version release |
| 37 | 1 | 1.2.37.13040 | 1.2.37.13040 | 1.2.37.13039 | 1.2.37.13003 | Core install, GUI.zip, web service and database updates |
| 37 | 2 | 1.2.37.13069 | 1.2.37.13040 | 1.2.37.13069 | 1.2.37.13003 | GUI.zip and Web service updates |
| 37 | 3 | 1.2.37.13069 | 1.2.37.13040 | 1.2.37.13069 | 1.2.37.13003 | WebAPI updated, no version changes |
| 37 | 4 | 1.2.37.13171 | 1.2.37.13040 | 1.2.37.13165 | 1.2.37.13171 | GUI.zip, web service, and database updates |
| 37 | 5 | 1.2.37.13347 | 1.2.37.13040 | 1.2.37.12979 | 1.2.37.12979 | Bug was discovered with version numbers, this is why it appears we went backwards in the version number but we did not. |
| 37 | 6 | 1.2.37.13665 | 1.2.37.13040 | 1.2.37.13580 | 1.2.37.12979 | GUI.zip and Web service updates |
| 37 | 7 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13799 | 1.2.37.13807 | GUI.zip and Web service updates. Also MIRTH mapping changes |
| 37 | 8 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13827 | 1.2.37.13807 | Web service update |
| 37 | 9 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13839 | 1.2.37.13807 | Web service update |
| 37 | 10 | 1.2.37.13895 | 1.2.37.13040 | 1.2.37.13895 | 1.2.37.13895 | GUI.zip, Web service and database updates |
| 37 | 11 | 1.2.37.14161 | 1.2.37.13040 | 1.2.37.14161 | 1.2.37.14161 | GUI.zip, Web service, database updates and SQL Management reporting |
| 37 | 12 | 1.2.37.14267 | 1.2.37.13040 | 1.2.37.14161 | 1.2.37.14267 | GUI.zip, Web service and database updates |
| 37 | 13 | 1.2.37.14326 | 1.2.37.13040 | 1.2.37.14326 | 1.2.37.14326 | GUI.zip, Web service and database updates |
| 38 | - | 1.2.38.14486 | 1.2.38.14486 | 1.2.38.14486 | 1.2.38.14486 | Full version release |
| 38 | 1 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | Core install required |
| 38 | 2 | 1.2.38.15182 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | GUI.zip update only |
| 38 | 3 | 1.2.38.15251 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | GUI.zip update only |
| 38 | 4 | 1.2.38.15327 | 1.2.38.14748 | 1.2.38.15290 | 1.2.38.14748 | GUI.zip and Web service updates |
| 38 | 5 | 1.2.38.15513 | 1.2.38.14748 | 1.2.38.15513 | 1.2.38.15451 | GUI.zip, Web service and database updates |
| 38 | 6 | 1.2.38.15618 | 1.2.38.14748 | 1.2.38.15513 | 1.2.38.15618 | GUI.zip and database updates |
| 38 | 7 | 1.2.38.15768 | 1.2.38.14748 | 1.2.38.15768 | 1.2.38.15618 | GUI.zip and Web Service updates |
| 39 | - | 1.3.39.15389 | 1.3.39.15389 | 1.3.39.15377 | 1.3.39.15355 | Full version release |
| 39 | 1 | 1.3.39.16026 | 1.3.39.15943 | 1.3.39.15943 | 1.3.39.15957 | Requires Core Install. GUI.zip, Web Service, and Database updates |
| 40 | - | 1.3.40.16628 | 1.3.40.16628 | 1.3.40.16628 | 1.3.40.16628 | Full version release |
| 40 | 1 | 1.3.40.16849 | 1.3.40.16659 | 1.3.40.16744 | 1.3.40.16727 | GUI.zip, Web service, database updates and SQL Management reporting |
| 40 | 2 | 1.3.40.16868 | 1.3.40.16659 | 1.3.40.16868 | 1.3.40.16727 | GUI.zip and Web Service |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

| | | | | | | |
|---|---|---|---|---|---|---|
| 40 | 3 | 1.3.40.16868 | 1.3.40.16659 | 1.3.40.16868 | 1.3.40.16727 | DB updated only |
| 40 | 4 | 1.3.40.16967 | 1.3.40.16659 | 1.3.40.16932 | 1.3.40.16961 | GUI.zip, Web service, database updates |
| 40 | 5 | 1.3.40.17087 | 1.3.40.16659 | 1.3.40.17069 | 1.3.40.17087 | GUI.zip, Web service, database updates |
| 40 | 6 | 1.3.40.17146 | 1.3.40.16659 | 1.3.40.17146 | 1.3.40.17146 | GUI.zip, Web service, database updates |
| 40 | 7 | 1.3.40.17268 | 1.3.40.16659 | 1.3.40.17268 | 1.3.40.17259 | GUI.zip, Web service, database updates |
| 40 | 8 | 1.3.40.17364 | 1.3.40.16659 | 1.3.40.17362 | 1.3.40.17343 | GUI.zip, Web service, database updates |

# 6. Installing

1) Copy and replace the current rRIS…zip file with the rRIS_1.3.40.17364.zip file provided with this release.
   Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

2) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService. Be sure to make backup of all files, but especially the rRISServices.exe.config and rRISServices.vshost.exe.config files.
   *rRISService directories include:*
   a) *rRISService*
   b) *CDS rRISService*
   c) *Wedge rRISService*
   d) *DDE rRISService*

   Restart each service.

3) Run the B40_008.sql file against the eRAD RIS database instance.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

For eRAD RIS
Version 1.0
Build 40
Update 40.009

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. New Features ..... 3
   Scheduling – Limit Search Results for Appointment Schedules ..... 3
2. Defects Resolved ..... 6
2. Package Contents ..... 7
3. Intended Audience ..... 8
4. Who is affected ..... 8
5. eRAD RIS Release Version Numbers ..... 9
6. Installing ..... 10

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# 1. New Features

## Scheduling – Limit Search Results for Appointment Schedules

This is feature 3844

Before this feature, users didn't have a restriction on the number of days that they could search for available times when scheduling a new appointment. If the search was repeatedly performed over an entire year, it is a waste of system resources.

A new system config variable was introduced to limit how many days users can search for time. The name of the variable is titled **"ScheduleMaxSearchDayRange"** and has a default of 30 days. The value column can override the default, so an administrator can reduce or extend the allowed days to search.

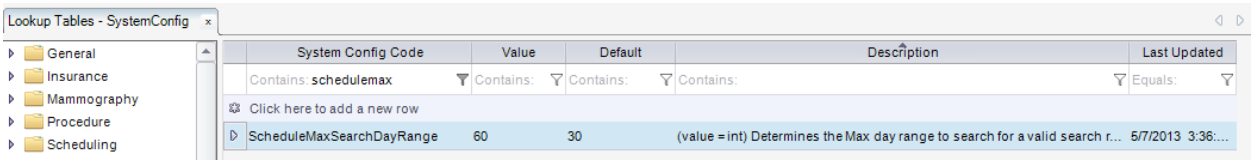



**Figure 1.1 – SystemConfig table displaying new config setting "ScheduleMaxSearchDayRange"**

In the example above the Value has been increased to 60 days.

When the user is creating a New Appointment, the Schedule Order window opens. On the Schedule tab we have the Search Options on the right of this tab.
The Search Range will default to the value set from an existing system config variable "ScheduleDefaultSearchDayRange". In my example below it is set for 7 days.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

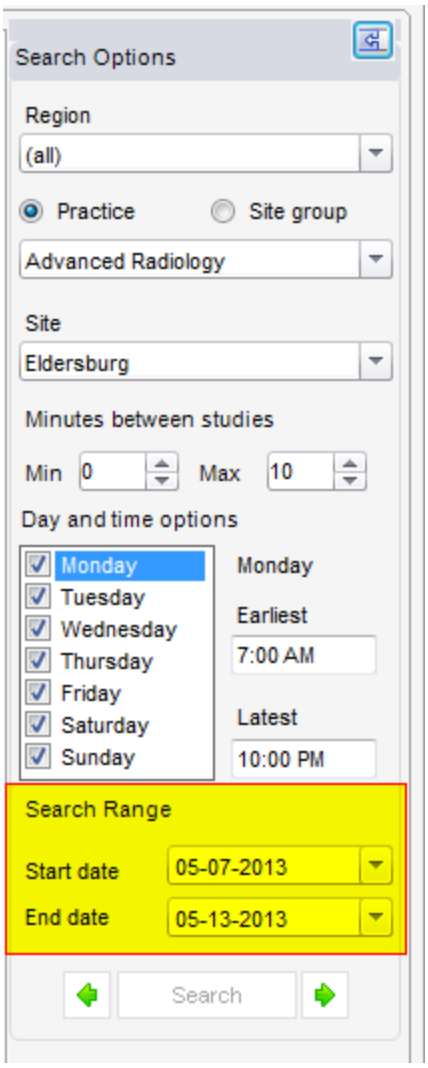



**Figure 1.2 – Search Range is defaulted to "ScheduleDefaultSearchDayRange"**

Since I have the system config setting for **"ScheduleMaxSearchDayRange"** = 60, if I change the end date of my search range to August 31, the start date will automatically change to July 2nd (end date minus 60)

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

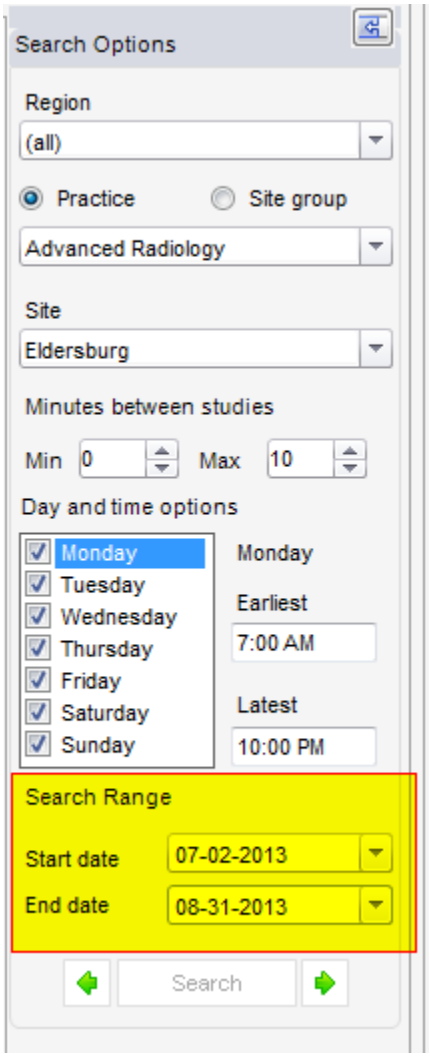



**Figure 1.3 – Search range end date set months ahead, the start date will change to equal that of new variable**

If the above start date Search Range is changed to June 1st, the End Date will automatically change to be that of the start date + 60 days.

However, if in the example above, the start date Search Range is changed to be after the end date (example September 1st), it will not move the end date to be Start Date + 60. It will instead use the value for the system config variable "ScheduleDefaultSearchDayRange" which in my case would be 7 days. So the end date would be September 7th.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 2. Defects Resolved

| Redmine # | Subject | Priority |
|---|---|---|
| 3843 | Appointment search was skipping available time slots because of appeared conflict | Normal |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 2. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains
   a) rRIS_1.3.40.17370.zip

2) RIS Service Updates folder contains
   a) CDSJobManager.dll
   b) CDSJobManager.pdb
   c) CommonLib.dll
   d) CommonLib.pdb
   e) DDEngine.dll
   f) DDEngine.pdb
   g) rRISServices.exe
   h) rRISServices.pdb
   i) rRISServices.vshost.exe
   j) ScheduledTaskManager.dll
   k) ScheduledTaskManager.pdb
   l) SignatureApprovalService.exe
   m) SignatureApprovalService.pdb
   n) WCFService.dll
   o) WCFService.pdb
   p) WebApi.dll
   q) WebApi.pdb
   r) Wedge.exe
   s) Wedge.pdb

3) SQL folder contains:
   a) B40_009.sql

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 3. Intended Audience

This document is created by the RIS Development team for the RadNet RIS Implementation team.

## 4. Who is affected

Build 40 installs. This server update must be applied directly to the build 40 core install. Server updates are not cumulative. Any previous server updates must be applied before this one.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# 5. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 37 | - | 1.2.37.12843 | 1.2.37.12782 | 1.2.37.12843 | 1.2.37.12843 | Full version release |
| 37 | 1 | 1.2.37.13040 | 1.2.37.13040 | 1.2.37.13039 | 1.2.37.13003 | Core install, GUI.zip, web service and database updates |
| 37 | 2 | 1.2.37.13069 | 1.2.37.13040 | 1.2.37.13069 | 1.2.37.13003 | GUI.zip and Web service updates |
| 37 | 3 | 1.2.37.13069 | 1.2.37.13040 | 1.2.37.13069 | 1.2.37.13003 | WebAPI updated, no version changes |
| 37 | 4 | 1.2.37.13171 | 1.2.37.13040 | 1.2.37.13165 | 1.2.37.13171 | GUI.zip, web service, and database updates |
| 37 | 5 | 1.2.37.13347 | 1.2.37.13040 | 1.2.37.12979 | 1.2.37.12979 | Bug was discovered with version numbers, this is why it appears we went backwards in the version number but we did not. |
| 37 | 6 | 1.2.37.13665 | 1.2.37.13040 | 1.2.37.13580 | 1.2.37.12979 | GUI.zip and Web service updates |
| 37 | 7 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13799 | 1.2.37.13807 | GUI.zip and Web service updates. Also MIRTH mapping changes |
| 37 | 8 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13827 | 1.2.37.13807 | Web service update |
| 37 | 9 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13839 | 1.2.37.13807 | Web service update |
| 37 | 10 | 1.2.37.13895 | 1.2.37.13040 | 1.2.37.13895 | 1.2.37.13895 | GUI.zip, Web service and database updates |
| 37 | 11 | 1.2.37.14161 | 1.2.37.13040 | 1.2.37.14161 | 1.2.37.14161 | GUI.zip, Web service, database updates and SQL Management reporting |
| 37 | 12 | 1.2.37.14267 | 1.2.37.13040 | 1.2.37.14161 | 1.2.37.14267 | GUI.zip, Web service and database updates |
| 37 | 13 | 1.2.37.14326 | 1.2.37.13040 | 1.2.37.14326 | 1.2.37.14326 | GUI.zip, Web service and database updates |
| 38 | - | 1.2.38.14486 | 1.2.38.14486 | 1.2.38.14486 | 1.2.38.14486 | Full version release |
| 38 | 1 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | Core install required |
| 38 | 2 | 1.2.38.15182 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | GUI.zip update only |
| 38 | 3 | 1.2.38.15251 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | GUI.zip update only |
| 38 | 4 | 1.2.38.15327 | 1.2.38.14748 | 1.2.38.15290 | 1.2.38.14748 | GUI.zip and Web service updates |
| 38 | 5 | 1.2.38.15513 | 1.2.38.14748 | 1.2.38.15513 | 1.2.38.15451 | GUI.zip, Web service and database updates |
| 38 | 6 | 1.2.38.15618 | 1.2.38.14748 | 1.2.38.15513 | 1.2.38.15618 | GUI.zip and database updates |
| 38 | 7 | 1.2.38.15768 | 1.2.38.14748 | 1.2.38.15768 | 1.2.38.15618 | GUI.zip and Web Service updates |
| 39 | - | 1.3.39.15389 | 1.3.39.15389 | 1.3.39.15377 | 1.3.39.15355 | Full version release |
| 39 | 1 | 1.3.39.16026 | 1.3.39.15943 | 1.3.39.15943 | 1.3.39.15957 | Requires Core Install. GUI.zip, Web Service, and Database updates |
| 40 | - | 1.3.40.16628 | 1.3.40.16628 | 1.3.40.16628 | 1.3.40.16628 | Full version release |
| 40 | 1 | 1.3.40.16849 | 1.3.40.16659 | 1.3.40.16744 | 1.3.40.16727 | GUI.zip, Web service, database updates and SQL Management reporting |
| 40 | 2 | 1.3.40.16868 | 1.3.40.16659 | 1.3.40.16868 | 1.3.40.16727 | GUI.zip and Web Service |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

| | | | | | | |
|---|---|---|---|---|---|---|
| 40 | 3 | 1.3.40.16868 | 1.3.40.16659 | 1.3.40.16868 | 1.3.40.16727 | DB updated only |
| 40 | 4 | 1.3.40.16967 | 1.3.40.16659 | 1.3.40.16932 | 1.3.40.16961 | GUI.zip, Web service, database updates |
| 40 | 5 | 1.3.40.17087 | 1.3.40.16659 | 1.3.40.17069 | 1.3.40.17087 | GUI.zip, Web service, database updates |
| 40 | 6 | 1.3.40.17146 | 1.3.40.16659 | 1.3.40.17146 | 1.3.40.17146 | GUI.zip, Web service, database updates |
| 40 | 7 | 1.3.40.17268 | 1.3.40.16659 | 1.3.40.17268 | 1.3.40.17259 | GUI.zip, Web service, database updates |
| 40 | 8 | 1.3.40.17364 | 1.3.40.16659 | 1.3.40.17362 | 1.3.40.17343 | GUI.zip, Web service, database updates |
| 40 | 9 | 1.3.40.17370 | 1.3.40.16659 | 1.3.40.17370 | 1.3.40.17370 | GUI.zip, Web service, database updates |

# 6. Installing

1) Copy and replace the current rRIS…zip file with the rRIS_1.3.40.17370.zip file provided with this release.
   Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

2) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService. Be sure to make backup of all files, but especially the rRISServices.exe.config and rRISServices.vshost.exe.config files.
   *rRISService directories include:*
   a) *rRISService*
   b) *CDS rRISService*
   c) *Wedge rRISService*
   d) *DDE rRISService*

   Restart each service.

3) Run the B40_009.sql file against the eRAD RIS database instance.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

For eRAD RIS
Version 1.0
Build 40
Update 40.010

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. New Features ..... 3
   64 Bit Web Service ..... 3
2. Defects Resolved ..... 4
2. Package Contents ..... 5
3. Intended Audience ..... 6
4. Who is affected ..... 6
5. eRAD RIS Release Version Numbers ..... 7
6. Installing ..... 9

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# 1. New Features

## 64 Bit Web Service

This server update includes new web service files for the Core RIS service, allowing it to utilize more of the server memory that 32 bit will not allow.

Included are 2 new files.

- rRISServicesx64.exe
- rRISServicesx64.exe.config

The 64 bit version is only to be used for the Core RIS Service. The CDS / SAPS, DD Engine, and Wedge services will continue to use the 32 bit version (rRISServices.exe).

For information on installing the 64 bit service for the Core RIS Service see section 6 of this document.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 2. Defects Resolved

| Redmine # | Subject | Priority |
|---|---|---|
| 1899 | outofmemory exceptions logged on ris services server | Urgent |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 2. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains
   a) rRIS_1.3.40.17435.zip

2) RIS Service Updates folder contains
   a) CDSJobManager.dll
   b) CDSJobManager.pdb
   c) CommonLib.dll
   d) CommonLib.pdb
   e) DDEngine.dll
   f) DDEngine.pdb
   g) rRISServices.exe
   **h) rRISServices.exe.config**
   i) rRISServices.pdb
   **j) rRISServicesx64.exe**
   **k) rRISServicesx64.exe.config**
   l) rRISServices.vshost.exe
   m) ScheduledTaskManager.dll
   n) ScheduledTaskManager.pdb
   o) SignatureApprovalService.exe
   p) SignatureApprovalService.pdb
   q) WCFService.dll
   r) WCFService.pdb
   s) WebApi.dll
   t) WebApi.pdb
   u) Wedge.exe
   v) Wedge.pdb

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 3. Intended Audience

This document is created by the RIS Development team for the RadNet RIS Implementation team.

## 4. Who is affected

Build 40 installs. This server update must be applied directly to the build 40 core install. Server updates are not cumulative. Any previous server updates must be applied before this one.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# 5. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 37 | - | 1.2.37.12843 | 1.2.37.12782 | 1.2.37.12843 | 1.2.37.12843 | Full version release |
| 37 | 1 | 1.2.37.13040 | 1.2.37.13040 | 1.2.37.13039 | 1.2.37.13003 | Core install, GUI.zip, web service and database updates |
| 37 | 2 | 1.2.37.13069 | 1.2.37.13040 | 1.2.37.13069 | 1.2.37.13003 | GUI.zip and Web service updates |
| 37 | 3 | 1.2.37.13069 | 1.2.37.13040 | 1.2.37.13069 | 1.2.37.13003 | WebAPI updated, no version changes |
| 37 | 4 | 1.2.37.13171 | 1.2.37.13040 | 1.2.37.13165 | 1.2.37.13171 | GUI.zip, web service, and database updates |
| 37 | 5 | 1.2.37.13347 | 1.2.37.13040 | 1.2.37.12979 | 1.2.37.12979 | Bug was discovered with version numbers, this is why it appears we went backwards in the version number but we did not. |
| 37 | 6 | 1.2.37.13665 | 1.2.37.13040 | 1.2.37.13580 | 1.2.37.12979 | GUI.zip and Web service updates |
| 37 | 7 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13799 | 1.2.37.13807 | GUI.zip and Web service updates. Also MIRTH mapping changes |
| 37 | 8 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13827 | 1.2.37.13807 | Web service update |
| 37 | 9 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13839 | 1.2.37.13807 | Web service update |
| 37 | 10 | 1.2.37.13895 | 1.2.37.13040 | 1.2.37.13895 | 1.2.37.13895 | GUI.zip, Web service and database updates |
| 37 | 11 | 1.2.37.14161 | 1.2.37.13040 | 1.2.37.14161 | 1.2.37.14161 | GUI.zip, Web service, database updates and SQL Management reporting |
| 37 | 12 | 1.2.37.14267 | 1.2.37.13040 | 1.2.37.14161 | 1.2.37.14267 | GUI.zip, Web service and database updates |
| 37 | 13 | 1.2.37.14326 | 1.2.37.13040 | 1.2.37.14326 | 1.2.37.14326 | GUI.zip, Web service and database updates |
| 38 | - | 1.2.38.14486 | 1.2.38.14486 | 1.2.38.14486 | 1.2.38.14486 | Full version release |
| 38 | 1 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | Core install required |
| 38 | 2 | 1.2.38.15182 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | GUI.zip update only |
| 38 | 3 | 1.2.38.15251 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | GUI.zip update only |
| 38 | 4 | 1.2.38.15327 | 1.2.38.14748 | 1.2.38.15290 | 1.2.38.14748 | GUI.zip and Web service updates |
| 38 | 5 | 1.2.38.15513 | 1.2.38.14748 | 1.2.38.15513 | 1.2.38.15451 | GUI.zip, Web service and database updates |
| 38 | 6 | 1.2.38.15618 | 1.2.38.14748 | 1.2.38.15513 | 1.2.38.15618 | GUI.zip and database updates |
| 38 | 7 | 1.2.38.15768 | 1.2.38.14748 | 1.2.38.15768 | 1.2.38.15618 | GUI.zip and Web Service updates |
| 39 | - | 1.3.39.15389 | 1.3.39.15389 | 1.3.39.15377 | 1.3.39.15355 | Full version release |
| 39 | 1 | 1.3.39.16026 | 1.3.39.15943 | 1.3.39.15943 | 1.3.39.15957 | Requires Core Install. GUI.zip, Web Service, and Database updates |
| 40 | - | 1.3.40.16628 | 1.3.40.16628 | 1.3.40.16628 | 1.3.40.16628 | Full version release |
| 40 | 1 | 1.3.40.16849 | 1.3.40.16659 | 1.3.40.16744 | 1.3.40.16727 | GUI.zip, Web service, database updates and SQL Management reporting |
| 40 | 2 | 1.3.40.16868 | 1.3.40.16659 | 1.3.40.16868 | 1.3.40.16727 | GUI.zip and Web Service |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

| | | | | | | |
|---|---|---|---|---|---|---|
| 40 | 3 | 1.3.40.16868 | 1.3.40.16659 | 1.3.40.16868 | 1.3.40.16727 | DB updated only |
| 40 | 4 | 1.3.40.16967 | 1.3.40.16659 | 1.3.40.16932 | 1.3.40.16961 | GUI.zip, Web service, database updates |
| 40 | 5 | 1.3.40.17087 | 1.3.40.16659 | 1.3.40.17069 | 1.3.40.17087 | GUI.zip, Web service, database updates |
| 40 | 6 | 1.3.40.17146 | 1.3.40.16659 | 1.3.40.17146 | 1.3.40.17146 | GUI.zip, Web service, database updates |
| 40 | 7 | 1.3.40.17268 | 1.3.40.16659 | 1.3.40.17268 | 1.3.40.17259 | GUI.zip, Web service, database updates |
| 40 | 8 | 1.3.40.17364 | 1.3.40.16659 | 1.3.40.17362 | 1.3.40.17343 | GUI.zip, Web service, database updates |
| 40 | 9 | 1.3.40.17370 | 1.3.40.16659 | 1.3.40.17370 | 1.3.40.17370 | GUI.zip, Web service, database updates |
| 40 | 10 | 1.3.40.17435 | 1.3.40.16659 | 1.3.40.17435 | 1.3.40.17370 | **64 BIT web service**. GUI.zip, Webservice. |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# 6. Installing

1) Copy and replace the current rRIS…zip file with the rRIS_1.3.40.17435.zip file provided with this release.
   Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

   **NOTE:** If any port changes are made to the rRISServices.exe.config or the rRISServicesx64.exe.config files because of the changes for X64 webservice, make sure these port number changes are also updated in the ris.exe.config file.

2) Build 40, patch 10 includes a 64 bit version for RIS Services. Only the Core Services should be configured to run the 64 bit version. The other services such as DD Engine, CDS Manager, SAPS, etc. are not validated to run the 64 bit version at this time. Specifically, the DD Engine needs to run in 32 bit and the 64 bit version will fail.

   In this package there are now 2 executable programs for the RISServices, namely rRISService.exe and rRISServicex64.exe. The rRISService.exe continues to be the 32 bit application. If you were to leave the services configured as is and you deploy the new RIS Services you will be running the 32 bit version.

   Similar to the 32 bit version, the 64 bit version, rRISServicex64.exe has a configuration file called rRISServicesx64.exe.config. The contents of this file is identical to the 32 bit version.Stop each service listed below.

   To run the 64 bit version for RIS Services you need to do the following (only the RIS Core Services are validated to use the 64 bit version):

   a. Configure the rRISServicex64.exe.config by copying the current rRISServices.exe.config to rRISServicesx64.exe.config
   b. Uninstall the RIS Service as "Windows Service".
   c. Install the RIS Services as "Windows Service" using the rRISServicesx64.exe application
   d. Start the service.
   e. Verify the service is running.

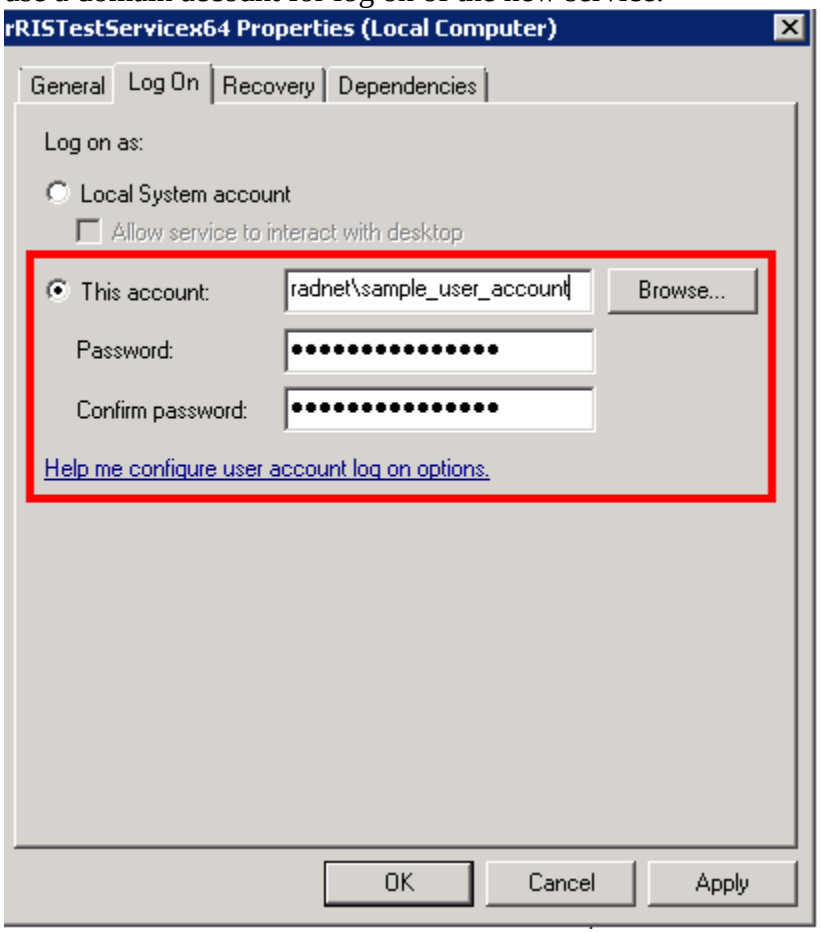
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

Copy the files from the RIS Service Updates folder to the directory for each rRISService. Be sure to make backup of all files, but especially the rRISServices.exe.config and rRISServices.vshost.exe.config files.
*rRISService directories include:*

i. rRISService
ii. CDS rRISService
iii. Wedge rRISService
iv. DDE rRISService

Restart each service.

**REMINDER:** After the new 64 bit service is installed for rRISServicesx64.exe, remember to use a domain account for log on of the new service.




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

For eRAD RIS
Version 1.0
Build 40
Update 40.011

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Defects Resolved ..... 3
2. Package Contents ..... 4
3. Intended Audience ..... 5
4. Who is affected ..... 5
5. eRAD RIS Release Version Numbers ..... 6
6. Installing ..... 7

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 1. Defects Resolved

| Redmine # | Subject | Priority |
|---|---|---|
| 3863 | errors getting/updating lookups can lead to deadlocks | Normal |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 2. Package Contents

Files included for this server update:

1) RIS Service Updates folder contains
   a) CDSJobManager.dll
   b) CDSJobManager.pdb
   c) CommonLib.dll
   d) CommonLib.pdb
   e) DDEngine.dll
   f) DDEngine.pdb
   g) rRISServices.exe
   h) rRISServices.pdb
   i) rRISServicesx64.exe
   j) ScheduledTaskManager.dll
   k) ScheduledTaskManager.pdb
   l) SignatureApprovalService.exe
   m) SignatureApprovalService.pdb
   n) WCFService.dll
   o) WCFService.pdb
   p) WebApi.dll
   q) WebApi.pdb
   r) Wedge.exe
   s) Wedge.pdb

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 3. Intended Audience

This document is created by the RIS Development team for the RadNet RIS Implementation team.

## 4. Who is affected

Build 40 installs. This server update must be applied directly to the build 40 core install. Server updates are not cumulative. Any previous server updates must be applied before this one.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 5. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 37 | - | 1.2.37.12843 | 1.2.37.12782 | 1.2.37.12843 | 1.2.37.12843 | Full version release |
| 37 | 1 | 1.2.37.13040 | 1.2.37.13040 | 1.2.37.13039 | 1.2.37.13003 | Core install, GUI.zip, web service and database updates |
| 37 | 2 | 1.2.37.13069 | 1.2.37.13040 | 1.2.37.13069 | 1.2.37.13003 | GUI.zip and Web service updates |
| 37 | 3 | 1.2.37.13069 | 1.2.37.13040 | 1.2.37.13069 | 1.2.37.13003 | WebAPI updated, no version changes |
| 37 | 4 | 1.2.37.13171 | 1.2.37.13040 | 1.2.37.13165 | 1.2.37.13171 | GUI.zip, web service, and database updates |
| 37 | 5 | 1.2.37.13347 | 1.2.37.13040 | 1.2.37.12979 | 1.2.37.12979 | Bug was discovered with version numbers, this is why it appears we went backwards in the version number but we did not. |
| 37 | 6 | 1.2.37.13665 | 1.2.37.13040 | 1.2.37.13580 | 1.2.37.12979 | GUI.zip and Web service updates |
| 37 | 7 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13799 | 1.2.37.13807 | GUI.zip and Web service updates. Also MIRTH mapping changes |
| 37 | 8 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13827 | 1.2.37.13807 | Web service update |
| 37 | 9 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13839 | 1.2.37.13807 | Web service update |
| 37 | 10 | 1.2.37.13895 | 1.2.37.13040 | 1.2.37.13895 | 1.2.37.13895 | GUI.zip, Web service and database updates |
| 37 | 11 | 1.2.37.14161 | 1.2.37.13040 | 1.2.37.14161 | 1.2.37.14161 | GUI.zip, Web service, database updates and SQL Management reporting |
| 37 | 12 | 1.2.37.14267 | 1.2.37.13040 | 1.2.37.14161 | 1.2.37.14267 | GUI.zip, Web service and database updates |
| 37 | 13 | 1.2.37.14326 | 1.2.37.13040 | 1.2.37.14326 | 1.2.37.14326 | GUI.zip, Web service and database updates |
| 38 | - | 1.2.38.14486 | 1.2.38.14486 | 1.2.38.14486 | 1.2.38.14486 | Full version release |
| 38 | 1 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | Core install required |
| 38 | 2 | 1.2.38.15182 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | GUI.zip update only |
| 38 | 3 | 1.2.38.15251 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | GUI.zip update only |
| 38 | 4 | 1.2.38.15327 | 1.2.38.14748 | 1.2.38.15290 | 1.2.38.14748 | GUI.zip and Web service updates |
| 38 | 5 | 1.2.38.15513 | 1.2.38.14748 | 1.2.38.15513 | 1.2.38.15451 | GUI.zip, Web service and database updates |
| 38 | 6 | 1.2.38.15618 | 1.2.38.14748 | 1.2.38.15513 | 1.2.38.15618 | GUI.zip and database updates |
| 38 | 7 | 1.2.38.15768 | 1.2.38.14748 | 1.2.38.15768 | 1.2.38.15618 | GUI.zip and Web Service updates |
| 39 | - | 1.3.39.15389 | 1.3.39.15389 | 1.3.39.15377 | 1.3.39.15355 | Full version release |
| 39 | 1 | 1.3.39.16026 | 1.3.39.15943 | 1.3.39.15943 | 1.3.39.15957 | Requires Core Install. GUI.zip, Web Service, and Database updates |
| 40 | - | 1.3.40.16628 | 1.3.40.16628 | 1.3.40.16628 | 1.3.40.16628 | Full version release |
| 40 | 1 | 1.3.40.16849 | 1.3.40.16659 | 1.3.40.16744 | 1.3.40.16727 | GUI.zip, Web service, database updates and SQL Management reporting |
| 40 | 2 | 1.3.40.16868 | 1.3.40.16659 | 1.3.40.16868 | 1.3.40.16727 | GUI.zip and Web Service |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

| | | | | | | |
|---|---|---|---|---|---|---|
| 40 | 3 | 1.3.40.16868 | 1.3.40.16659 | 1.3.40.16868 | 1.3.40.16727 | DB updated only |
| 40 | 4 | 1.3.40.16967 | 1.3.40.16659 | 1.3.40.16932 | 1.3.40.16961 | GUI.zip, Web service, database updates |
| 40 | 5 | 1.3.40.17087 | 1.3.40.16659 | 1.3.40.17069 | 1.3.40.17087 | GUI.zip, Web service, database updates |
| 40 | 6 | 1.3.40.17146 | 1.3.40.16659 | 1.3.40.17146 | 1.3.40.17146 | GUI.zip, Web service, database updates |
| 40 | 7 | 1.3.40.17268 | 1.3.40.16659 | 1.3.40.17268 | 1.3.40.17259 | GUI.zip, Web service, database updates |
| 40 | 8 | 1.3.40.17364 | 1.3.40.16659 | 1.3.40.17362 | 1.3.40.17343 | GUI.zip, Web service, database updates |
| 40 | 9 | 1.3.40.17370 | 1.3.40.16659 | 1.3.40.17370 | 1.3.40.17370 | GUI.zip, Web service, database updates |
| 40 | 10 | 1.3.40.17435 | 1.3.40.16659 | 1.3.40.17435 | 1.3.40.17370 | **64 BIT web service**. GUI.zip, Webservice. |
| 40 | 11 | 1.3.40.17435 | 1.3.40.16659 | 1.3.40.17525 | 1.3.40.17370 | Web service update |

## 6. Installing

1) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService. Be sure to make backup of all files, but especially the rRISServices.exe.config, rRISServicesx64.exe.config and rRISServices.vshost.exe.config files.
   *rRISService directories include:*
   a) *rRISService*
   b) *CDS rRISService*
   c) *Wedge rRISService*
   d) *DDE rRISService*

   Reminder: in the previous Server Update 40.010, the Core RIS service may have been converted to 64 bit. If this is the case with your installation, there will be a new service using created for the Core RIS service

   Restart each service.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

For eRAD RIS
Version 1.0
Build 40
Update 40.012

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. New Features ..... 3
   Configurable dataset retrieval interval ..... 3
   Technologist – Remove chair assignment when Assigned Radiologist changed ..... 5
   Reporting - Display selected attachments for current study ..... 6
2. New Configuration settings and Changes ..... 7
3. Defects Resolved ..... 8
4. Package Contents ..... 9
5. Intended Audience ..... 10
6. Who is affected ..... 10
7. eRAD RIS Release Version Numbers ..... 11
8. Installing ..... 13

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# 1. New Features

## Configurable dataset retrieval interval

When lookup tables are updated, the client was hard coded to look for dataset updates every 5 minutes. Also when logging in, the datasets would be retrieved.

In Build 40.012 the hard coded value has been removed. A new ris.exe.config entry has been created and the value, set in minutes will be set for all users.
<add key="LookupTableTimeToLiveInMinutes" value="5"/>

In the ris.exe.config file, this new key is to be added to the <appSettings> section.

Before:

```
<appSettings>
   <add key="defaultEndPointName" value="NetTcpBinding_IStudyService" />
   <add key="ClientSettingsProvider.ServiceUri" value="" />
   <!--<add key="RowLevelCacheDataSetNamesCSV" value="*"/> -->
 </appSettings>
```

After:

```
<appSettings>
   <add key="defaultEndPointName" value="NetTcpBinding_IStudyService" />
   <add key="ClientSettingsProvider.ServiceUri" value="" />
   <add key="LookupTableTimeToLiveInMinutes" value="5"/>
   <!--<add key="RowLevelCacheDataSetNamesCSV" value="*"/> -->
 </appSettings>
```

If a user wants to get the latest lookup table updates they can log out and back in. This will always download the lookup table changes. An alternative method has also been added. Under the Help Menu a new menu option titled "Refresh Configuration" has been added. When selected, the next time the user opens a data window, the latest lookup changes will be obtained.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

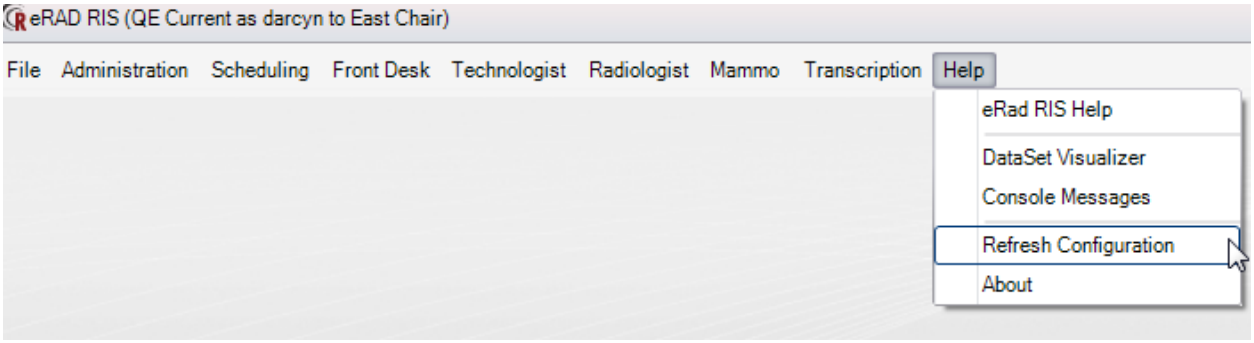


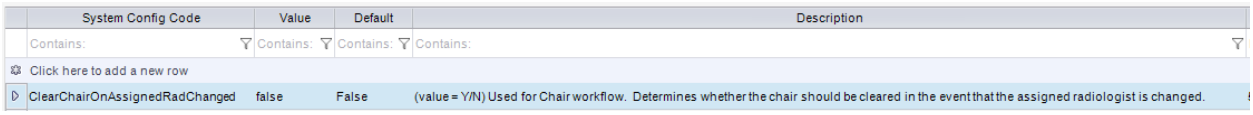

**Figure 1.1 – Refresh Configuration menu option.**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## Technologist – Remove chair assignment when Assigned Radiologist changed

In previous versions if the chair was assigned to the study in the Perform Exam window and saved, the next time the window was opened and a Radiologist was assigned, or the Assigned Radiologist was changed, this would remove the chair assignment.

In Build 40.012 a system configuration setting was added to have this behavior configurable. The SystemConfig setting of ClearChairOnAssignedRadChanged has been added with a default value of False, meaning that if the Assigned Radiologist is changed, the chair assignment will be retained. When a value of true is entered for the ClearChairOnAssignedRadChanged, it work as before.



| System Config Code | Value | Default | Description |
|---|---|---|---|
| Contains: | Contains: | Contains: | Contains: |
| Click here to add a new row | | | |
| ClearChairOnAssignedRadChanged | false | False | (value = Y/N) Used for Chair workflow. Determines whether the chair should be cleared in the event that the assigned radiologist is changed. |

**Figure 1.2 – New SystemConfig code of ClearChairOnAssignedRadChanged**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## Reporting - Display selected attachments for current study

Using the existing User Preference of "Select current study initially" under the Patient folder section on the Reporting tab of the User Preferences window, will now also control whether the attachments associated with the current study will be displayed in the Selected Attachments data pane.

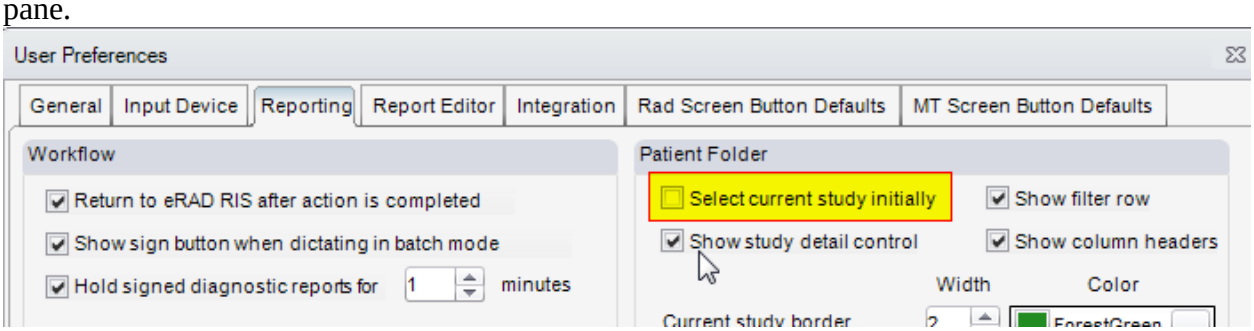



**Figure 1.2 – Existing User Preference "Select current study initially"**

A breakdown of how it will work:

- If the user preference "Select current study initially" is not selected and the study doesn't' have relevant priors, the selected attachment pane will be empty.

- If the user preference "Select current study initially" is not selected and the study does have relevant priors, the select attachment pane will display the attachment (most likely the report) for the most relevant study.

- If the user preference "Select current study initially" is selected and the study doesn't have relevant priors, the selected attachment pane will be of the current study.

- If the user preference "Select current study initially" is selected and the study does have relevant priors, the selected attachment pane will be of the current study.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 2. New Configuration settings and Changes

| Setting Placeholder | Setting | Default | Purpose / Controls Access to |
|---|---|---|---|
| SystemConfig lookup | ClearChairOnAssignedRadChanged | False | Controls if the Chair assignment is retained when if the Assigned Radiologist is added or changed in the Perform Exam window.<br>Possible values are True and False.<br>True = The Chair assignment will be removed.<br>False = The Chair assignment will be retained. |
| Ris.exe.config | Before:<br><appSettings><br><add key="defaultEndPointName" value="NetTcpBinding_IStudyService" /><br><add key="ClientSettingsProvider.ServiceUri" value="" /><br><!--<add key="RowLevelCacheDataSetNamesCSV" value="*"/> --><br></appSettings><br><br>After:<br><appSettings><br><add key="defaultEndPointName" value="NetTcpBinding_IStudyService" /><br><add key="ClientSettingsProvider.ServiceUri" value="" /><br><add key="LookupTableTimeToLiveInMinutes" value="5"/><br><!--<add key="RowLevelCacheDataSetNamesCSV" value="*"/> --><br></appSettings> | 5 | Controls the interval in which the application will retrieve dataset lookup updates. |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# 3. Defects Resolved

| Redmine # | Subject | Priority |
|---|---|---|
| 3698 | RIS Core Services are not configured to best utilize load balancers | Urgent |
| 3848 | Cancelled studies are appearing on the IVT worklist | Urgent |
| 3849 | IVT B40 upgrade script missing that updates Approved, to Verfiied | Urgent |
| 3963 | Creating template, when adding Procedures and Uses, clicking ALL button produces an error | Urgent |
| 3744 | RadNet - From ADV go-live - redesign the lookup editor for Scheduler Group | High |
| 3868 | Push signature service is getting hung up on some jobs | High |
| 3580 | View/Edit screen does not build interpretation body if not already built | Normal |
| 3629 | missing index slowing diagnostic report rendering | Normal |
| 3706 | Document Viewer | Normal |
| 3725 | Procedure code picker when creating macros/template | Normal |
| 3748 | Quality Review Rate | Normal |
| 3758 | Reporting - Shortcut popup message 50+ times. | Normal |
| 3861 | Reporting - cross thread exceptions if getdata take x amount of time (slower get) | Normal |
| 3924 | Scanning - Cannon scanning lookup when error is on the scanner when we click the scan button | Normal |
| 3943 | Scanning - Cropping on some scanners defaults to 8.5x14 instead of 8.5x11 | Normal |
| 3948 | rTwain build with optimized code to improve performance | Normal |
| 3952 | Patient Folder - new setting to not display current study in selected attachments | Normal |
| 3954 | Patient Folder Attachments - If there is an error getting the data we show the previously selected | Normal |
| 3956 | chair is nulled out when assigned rad is changed | Normal |
| 3957 | MU - Get Automated Measures | Normal |
| 3958 | IVT correction of casing of word, for migrated data | Normal |
| 3960 | Reporting - Floating windows flicker | Normal |
| 3962 | Lookup Tables are retrieved excessively during the day | Normal |
| 3964 | Create a new template, add 1 or more procedures, click Close then No to save prompt, error is produced. | Normal |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 4. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains
   a) rRIS_1.3.40.17685.zip

2) RIS Service Updates folder contains
   a) CDSJobManager.dll
   b) CDSJobManager.pdb
   c) CommonLib.dll
   d) CommonLib.pdb
   e) DDEngine.dll
   f) DDEngine.pdb
   g) rRISServices.exe
   h) rRISServices.pdb
   i) rRISServicesx64.exe
   j) ScheduledTaskManager.dll
   k) ScheduledTaskManager.pdb
   l) SignatureApprovalService.exe
   m) SignatureApprovalService.pdb
   n) WCFService.dll
   o) WCFService.pdb
   p) WebApi.dll
   q) WebApi.pdb
   r) Wedge.exe
   s) Wedge.pdb

3) SQL folder contains:
   a) B40_012.sql

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 5. Intended Audience

This document is created by the RIS Development team for the RadNet RIS Implementation team.

## 6. Who is affected

Build 40 installs. This server update must be applied directly to the build 40 core install. Server updates are not cumulative. Any previous server updates must be applied before this one.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# 7. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 37 | - | 1.2.37.12843 | 1.2.37.12782 | 1.2.37.12843 | 1.2.37.12843 | Full version release |
| 37 | 1 | 1.2.37.13040 | 1.2.37.13040 | 1.2.37.13039 | 1.2.37.13003 | Core install, GUI.zip, web service and database updates |
| 37 | 2 | 1.2.37.13069 | 1.2.37.13040 | 1.2.37.13069 | 1.2.37.13003 | GUI.zip and Web service updates |
| 37 | 3 | 1.2.37.13069 | 1.2.37.13040 | 1.2.37.13069 | 1.2.37.13003 | WebAPI updated, no version changes |
| 37 | 4 | 1.2.37.13171 | 1.2.37.13040 | 1.2.37.13165 | 1.2.37.13171 | GUI.zip, web service, and database updates |
| 37 | 5 | 1.2.37.13347 | 1.2.37.13040 | 1.2.37.12979 | 1.2.37.12979 | Bug was discovered with version numbers, this is why it appears we went backwards in the version number but we did not. |
| 37 | 6 | 1.2.37.13665 | 1.2.37.13040 | 1.2.37.13580 | 1.2.37.12979 | GUI.zip and Web service updates |
| 37 | 7 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13799 | 1.2.37.13807 | GUI.zip and Web service updates. Also MIRTH mapping changes |
| 37 | 8 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13827 | 1.2.37.13807 | Web service update |
| 37 | 9 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13839 | 1.2.37.13807 | Web service update |
| 37 | 10 | 1.2.37.13895 | 1.2.37.13040 | 1.2.37.13895 | 1.2.37.13895 | GUI.zip, Web service and database updates |
| 37 | 11 | 1.2.37.14161 | 1.2.37.13040 | 1.2.37.14161 | 1.2.37.14161 | GUI.zip, Web service, database updates and SQL Management reporting |
| 37 | 12 | 1.2.37.14267 | 1.2.37.13040 | 1.2.37.14161 | 1.2.37.14267 | GUI.zip, Web service and database updates |
| 37 | 13 | 1.2.37.14326 | 1.2.37.13040 | 1.2.37.14326 | 1.2.37.14326 | GUI.zip, Web service and database updates |
| 38 | - | 1.2.38.14486 | 1.2.38.14486 | 1.2.38.14486 | 1.2.38.14486 | Full version release |
| 38 | 1 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | Core install required |
| 38 | 2 | 1.2.38.15182 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | GUI.zip update only |
| 38 | 3 | 1.2.38.15251 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | GUI.zip update only |
| 38 | 4 | 1.2.38.15327 | 1.2.38.14748 | 1.2.38.15290 | 1.2.38.14748 | GUI.zip and Web service updates |
| 38 | 5 | 1.2.38.15513 | 1.2.38.14748 | 1.2.38.15513 | 1.2.38.15451 | GUI.zip, Web service and database updates |
| 38 | 6 | 1.2.38.15618 | 1.2.38.14748 | 1.2.38.15513 | 1.2.38.15618 | GUI.zip and database updates |
| 38 | 7 | 1.2.38.15768 | 1.2.38.14748 | 1.2.38.15768 | 1.2.38.15618 | GUI.zip and Web Service updates |
| 39 | - | 1.3.39.15389 | 1.3.39.15389 | 1.3.39.15377 | 1.3.39.15355 | Full version release |
| 39 | 1 | 1.3.39.16026 | 1.3.39.15943 | 1.3.39.15943 | 1.3.39.15957 | Requires Core Install. GUI.zip, Web Service, and Database updates |
| 40 | - | 1.3.40.16628 | 1.3.40.16628 | 1.3.40.16628 | 1.3.40.16628 | Full version release |
| 40 | 1 | 1.3.40.16849 | 1.3.40.16659 | 1.3.40.16744 | 1.3.40.16727 | GUI.zip, Web service, database updates and SQL Management reporting |
| 40 | 2 | 1.3.40.16868 | 1.3.40.16659 | 1.3.40.16868 | 1.3.40.16727 | GUI.zip and Web Service |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

| | | | | | | |
|---|---|---|---|---|---|---|
| 40 | 3 | 1.3.40.16868 | 1.3.40.16659 | 1.3.40.16868 | 1.3.40.16727 | DB updated only |
| 40 | 4 | 1.3.40.16967 | 1.3.40.16659 | 1.3.40.16932 | 1.3.40.16961 | GUI.zip, Web service, database updates |
| 40 | 5 | 1.3.40.17087 | 1.3.40.16659 | 1.3.40.17069 | 1.3.40.17087 | GUI.zip, Web service, database updates |
| 40 | 6 | 1.3.40.17146 | 1.3.40.16659 | 1.3.40.17146 | 1.3.40.17146 | GUI.zip, Web service, database updates |
| 40 | 7 | 1.3.40.17268 | 1.3.40.16659 | 1.3.40.17268 | 1.3.40.17259 | GUI.zip, Web service, database updates |
| 40 | 8 | 1.3.40.17364 | 1.3.40.16659 | 1.3.40.17362 | 1.3.40.17343 | GUI.zip, Web service, database updates |
| 40 | 9 | 1.3.40.17370 | 1.3.40.16659 | 1.3.40.17370 | 1.3.40.17370 | GUI.zip, Web service, database updates |
| 40 | 10 | 1.3.40.17435 | 1.3.40.16659 | 1.3.40.17435 | 1.3.40.17370 | **64 BIT web service**. GUI.zip, Webservice. |
| 40 | 11 | 1.3.40.17435 | 1.3.40.16659 | 1.3.40.17525 | 1.3.40.17370 | Web service update |
| 40 | 12 | 1.3.40.17685 | 1.3.40.16659 | 1.3.40.17685 | 1.3.40.17648 | GUI.zip, Web service, database updates |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# 8. Installing

1) Copy and replace the current rRIS…zip file with the rRIS_1.3.40.17685.zip file provided with this release.
   Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

   **NOTE:** there is a change to the ris.exe.config file.

   See Sections
   1 New Features - Configurable dataset retrieval interval and
   2 New Configuration settings and Changes

2) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService. Be sure to make backup of all files, but especially the rRISServices.exe.config and rRISServices.vshost.exe.config files.
   *rRISService directories include:*
   a) *rRISService*
   b) *CDS rRISService*
   c) *Wedge rRISService*
   d) *DDE rRISService*

   Restart each service.

3) Run the B40_012.sql file against the eRAD RIS database instance.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

For eRAD RIS
Version 1.0
Build 40
Update 40.013

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Defects Resolved ..... 3
2. Package Contents ..... 4
3. Intended Audience ..... 5
4. Who is affected ..... 5
5. eRAD RIS Release Version Numbers ..... 6
6. Installing ..... 8

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# 1. Defects Resolved

| Redmine # | Subject | Priority |
|---|---|---|
| 3803 | MU lab_order_received Error | Normal |
| 3966 | Telerik memory leak opening and closing Rad Screen | Normal |
| 4003 | Implementation of optimized code | Normal |
| 4004 | 3GB flag included in part of the release for everyone | Normal |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 2. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains
   a) rRIS_1.3.40.17776.zip

2) RIS Service Updates folder contains
   a) CDSJobManager.dll
   b) CDSJobManager.pdb
   c) CommonLib.dll
   d) CommonLib.pdb
   e) DDEngine.dll
   f) DDEngine.pdb
   g) rRISServices.exe
   h) rRISServices.pdb
   i) rRISServicesx64.exe
   j) ScheduledTaskManager.dll
   k) ScheduledTaskManager.pdb
   l) SignatureApprovalService.exe
   m) SignatureApprovalService.pdb
   n) WCFService.dll
   o) WCFService.pdb
   p) WebApi.dll
   q) WebApi.pdb
   r) Wedge.exe
   s) Wedge.pdb
   t) Tourreau.Gilles.FaxDotNet.dll
   u) Tourreau.Gilles.FaxDotNet.pdb
   v) Tourreau.Gilles.FaxDotNet.xml

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 3. Intended Audience

This document is created by the RIS Development team for the RadNet RIS Implementation team.

## 4. Who is affected

Build 40 installs. This server update must be applied directly to the build 40 core install. Server updates are not cumulative. Any previous server updates must be applied before this one.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# 5. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 37 | - | 1.2.37.12843 | 1.2.37.12782 | 1.2.37.12843 | 1.2.37.12843 | Full version release |
| 37 | 1 | 1.2.37.13040 | 1.2.37.13040 | 1.2.37.13039 | 1.2.37.13003 | Core install, GUI.zip, web service and database updates |
| 37 | 2 | 1.2.37.13069 | 1.2.37.13040 | 1.2.37.13069 | 1.2.37.13003 | GUI.zip and Web service updates |
| 37 | 3 | 1.2.37.13069 | 1.2.37.13040 | 1.2.37.13069 | 1.2.37.13003 | WebAPI updated, no version changes |
| 37 | 4 | 1.2.37.13171 | 1.2.37.13040 | 1.2.37.13165 | 1.2.37.13171 | GUI.zip, web service, and database updates |
| 37 | 5 | 1.2.37.13347 | 1.2.37.13040 | 1.2.37.12979 | 1.2.37.12979 | Bug was discovered with version numbers, this is why it appears we went backwards in the version number but we did not. |
| 37 | 6 | 1.2.37.13665 | 1.2.37.13040 | 1.2.37.13580 | 1.2.37.12979 | GUI.zip and Web service updates |
| 37 | 7 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13799 | 1.2.37.13807 | GUI.zip and Web service updates. Also MIRTH mapping changes |
| 37 | 8 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13827 | 1.2.37.13807 | Web service update |
| 37 | 9 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13839 | 1.2.37.13807 | Web service update |
| 37 | 10 | 1.2.37.13895 | 1.2.37.13040 | 1.2.37.13895 | 1.2.37.13895 | GUI.zip, Web service and database updates |
| 37 | 11 | 1.2.37.14161 | 1.2.37.13040 | 1.2.37.14161 | 1.2.37.14161 | GUI.zip, Web service, database updates and SQL Management reporting |
| 37 | 12 | 1.2.37.14267 | 1.2.37.13040 | 1.2.37.14161 | 1.2.37.14267 | GUI.zip, Web service and database updates |
| 37 | 13 | 1.2.37.14326 | 1.2.37.13040 | 1.2.37.14326 | 1.2.37.14326 | GUI.zip, Web service and database updates |
| 38 | - | 1.2.38.14486 | 1.2.38.14486 | 1.2.38.14486 | 1.2.38.14486 | Full version release |
| 38 | 1 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | Core install required |
| 38 | 2 | 1.2.38.15182 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | GUI.zip update only |
| 38 | 3 | 1.2.38.15251 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | GUI.zip update only |
| 38 | 4 | 1.2.38.15327 | 1.2.38.14748 | 1.2.38.15290 | 1.2.38.14748 | GUI.zip and Web service updates |
| 38 | 5 | 1.2.38.15513 | 1.2.38.14748 | 1.2.38.15513 | 1.2.38.15451 | GUI.zip, Web service and database updates |
| 38 | 6 | 1.2.38.15618 | 1.2.38.14748 | 1.2.38.15513 | 1.2.38.15618 | GUI.zip and database updates |
| 38 | 7 | 1.2.38.15768 | 1.2.38.14748 | 1.2.38.15768 | 1.2.38.15618 | GUI.zip and Web Service updates |
| 39 | - | 1.3.39.15389 | 1.3.39.15389 | 1.3.39.15377 | 1.3.39.15355 | Full version release |
| 39 | 1 | 1.3.39.16026 | 1.3.39.15943 | 1.3.39.15943 | 1.3.39.15957 | Requires Core Install. GUI.zip, Web Service, and Database updates |
| 40 | - | 1.3.40.16628 | 1.3.40.16628 | 1.3.40.16628 | 1.3.40.16628 | Full version release |
| 40 | 1 | 1.3.40.16849 | 1.3.40.16659 | 1.3.40.16744 | 1.3.40.16727 | GUI.zip, Web service, database updates and SQL Management reporting |
| 40 | 2 | 1.3.40.16868 | 1.3.40.16659 | 1.3.40.16868 | 1.3.40.16727 | GUI.zip and Web Service |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

| | | | | | | |
|---|---|---|---|---|---|---|
| 40 | 3 | 1.3.40.16868 | 1.3.40.16659 | 1.3.40.16868 | 1.3.40.16727 | DB updated only |
| 40 | 4 | 1.3.40.16967 | 1.3.40.16659 | 1.3.40.16932 | 1.3.40.16961 | GUI.zip, Web service, database updates |
| 40 | 5 | 1.3.40.17087 | 1.3.40.16659 | 1.3.40.17069 | 1.3.40.17087 | GUI.zip, Web service, database updates |
| 40 | 6 | 1.3.40.17146 | 1.3.40.16659 | 1.3.40.17146 | 1.3.40.17146 | GUI.zip, Web service, database updates |
| 40 | 7 | 1.3.40.17268 | 1.3.40.16659 | 1.3.40.17268 | 1.3.40.17259 | GUI.zip, Web service, database updates |
| 40 | 8 | 1.3.40.17364 | 1.3.40.16659 | 1.3.40.17362 | 1.3.40.17343 | GUI.zip, Web service, database updates |
| 40 | 9 | 1.3.40.17370 | 1.3.40.16659 | 1.3.40.17370 | 1.3.40.17370 | GUI.zip, Web service, database updates |
| 40 | 10 | 1.3.40.17435 | 1.3.40.16659 | 1.3.40.17435 | 1.3.40.17370 | **64 BIT web service**. GUI.zip, Webservice. |
| 40 | 11 | 1.3.40.17435 | 1.3.40.16659 | 1.3.40.17525 | 1.3.40.17370 | Web service update |
| 40 | 12 | 1.3.40.17685 | 1.3.40.16659 | 1.3.40.17685 | 1.3.40.17648 | GUI.zip, Web service, database updates |
| 40 | 13 | 1.3.40.17776 | 1.3.40.16659 | 1.3.40.17776 | 1.3.40.17648 | GUI.zip, Web service |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# 6. Installing

1) Copy and replace the current rRIS…zip file with the rRIS_1.3.40.17776.zip file provided with this release.
   Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

2) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService. Be sure to make backup of all files, but especially the rRISServices.exe.config and rRISServices.vshost.exe.config files.
   *rRISService directories include:*
   *a) rRISService*
   *b) CDS rRISService*
   *c) Wedge rRISService*
   *d) DDE rRISService*

   Restart each service.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

For eRAD RIS
Version 1.0
Build 40
Update 40.014

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. New Features ..... 3
   PACS Integration Update ..... 3
   Reporting – Pending Dictation WL to Omit Studies not Assigned to a Chair ..... 4
   Hide Report Contents on Suspended Studies ..... 5
2. New Configuration settings and Changes ..... 6
3. Defects Resolved ..... 7
4. Package Contents ..... 8
5. Intended Audience ..... 9
6. Who is affected ..... 9
7. eRAD RIS Release Version Numbers ..... 10
8. Installing ..... 12

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# 1. New Features

## PACS Integration Update

At times it is possible that the eRAD RIS application will see a delay in the Reporting window when PACS is waiting for the "close session" reply. To mitigate this delay we have introduced a new ris.exe.config application setting "ShouldCloseViewSessionOnThread". The default value is false, meaning the close session happens on the main application thread and we pause for reply, so the reporting window will see a delay loading next. When set to true it closes on a background task and the reporting window will not see the delay. The next study will load in dictate window, although the PACS may still be loading images.

A new ris.exe.config entry has been created with a default value of false.

```
<add key="ShouldCloseViewSessionOnThread" value="false"/>
```

**NOTE:** With a value of false, the behaviour will be unchanged compared to previous versions.

In the ris.exe.config file, this new key is to be added to the <appSettings> section.

Before:

```
<appSettings>
   <add key="defaultEndPointName" value="NetTcpBinding_IStudyService" />
   <add key="ClientSettingsProvider.ServiceUri" value="" />
   <!--<add key="RowLevelCacheDataSetNamesCSV" value="*"/> -->
 </appSettings>
```

After:

```
<appSettings>
   <add key="defaultEndPointName" value="NetTcpBinding_IStudyService" />
   <add key="ClientSettingsProvider.ServiceUri" value="" />
   <add key="LookupTableTimeToLiveInMinutes" value="5"/>
   <add key="ShouldCloseViewSessionOnThread" value="false"/>
   <!--<add key="RowLevelCacheDataSetNamesCSV" value="*"/>-->
  </appSettings>
```

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## Reporting – Pending Dictation WL to Omit Studies not Assigned to a Chair

The Pending Dictation WL content has been modified. Now if a study does not have chair assigned, and the study is not assigned to me (Radiologist user) I will not see the study on my work list. If the study is assigned to me, but is not assigned a chair, it will appear on my Pending Dictation WL. If the study is assigned to the chair I am currently accessing, but is not assigned to a user, it will appear on my work list. Finally, if the study is assigned to the chair I am currently accessing, but is assigned to a different user, it will not appear on my work list. The tables below describe this in better detail. The values in red are what has changed for this build.

If I am sitting in Chair1, then:

| **Chair** | **Assigned To** | **Include in My Pending Dictation WL** | | |
|---|---|---|---|---|
| | | <= B40.013 | >= B40.014 | |
| | | | Chair WF Enabled | Chair WF Disabled |
| <*null*> | <*null*> | Yes | **No** | Yes |
| <*null*> | Me | Yes | Yes | Yes |
| <*null*> | NotMe | No | No | No |
| | | | | |
| Chair1 | Me | Yes | Yes | Yes |
| Chair1 | <*null*> | Yes | Yes | Yes |
| Chair1 | NotMe | No | No | No |
| | | | | |
| Chair2 | <*null*> | No | No | **Yes** |
| Chair2 | Me | No | **Yes** | **Yes** |
| Chair2 | NotMe | No | No | No |

If my chair is not set (viewing all chairs), then:

| **Chair** | **Assigned To** | **Include in My Pending Dictation WL** | | |
|---|---|---|---|---|
| | | <= B40.013 | >= B40.014 | |
| | | | Chair WF Enabled | Chair WF Disabled |
| <*null*> | <*null*> | Yes | **No** | Yes |
| <*null*> | Me | Yes | Yes | Yes |
| <*null*> | NotMe | No | No | No |
| | | | | |
| Chair1 | Me | Yes | Yes | Yes |
| Chair1 | <*null*> | Yes | Yes | Yes |
| Chair1 | NotMe | No | No | No |
| | | | | |
| Chair2 | <*null*> | Yes | Yes | Yes |
| Chair2 | Me | Yes | Yes | Yes |
| Chair2 | NotMe | No | No | No |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## Hide Report Contents on Suspended Studies

The report template (when modified, this is a customization that is not packaged in the build) will not show the contents of the report for a study that is in suspended status. Looking at the screenshot below, you can see that the report contents are not displayed, but rather a message informing the viewer that the study is suspended. This will also be the case for suspended studies that may be inadvertently sent to print or fax.

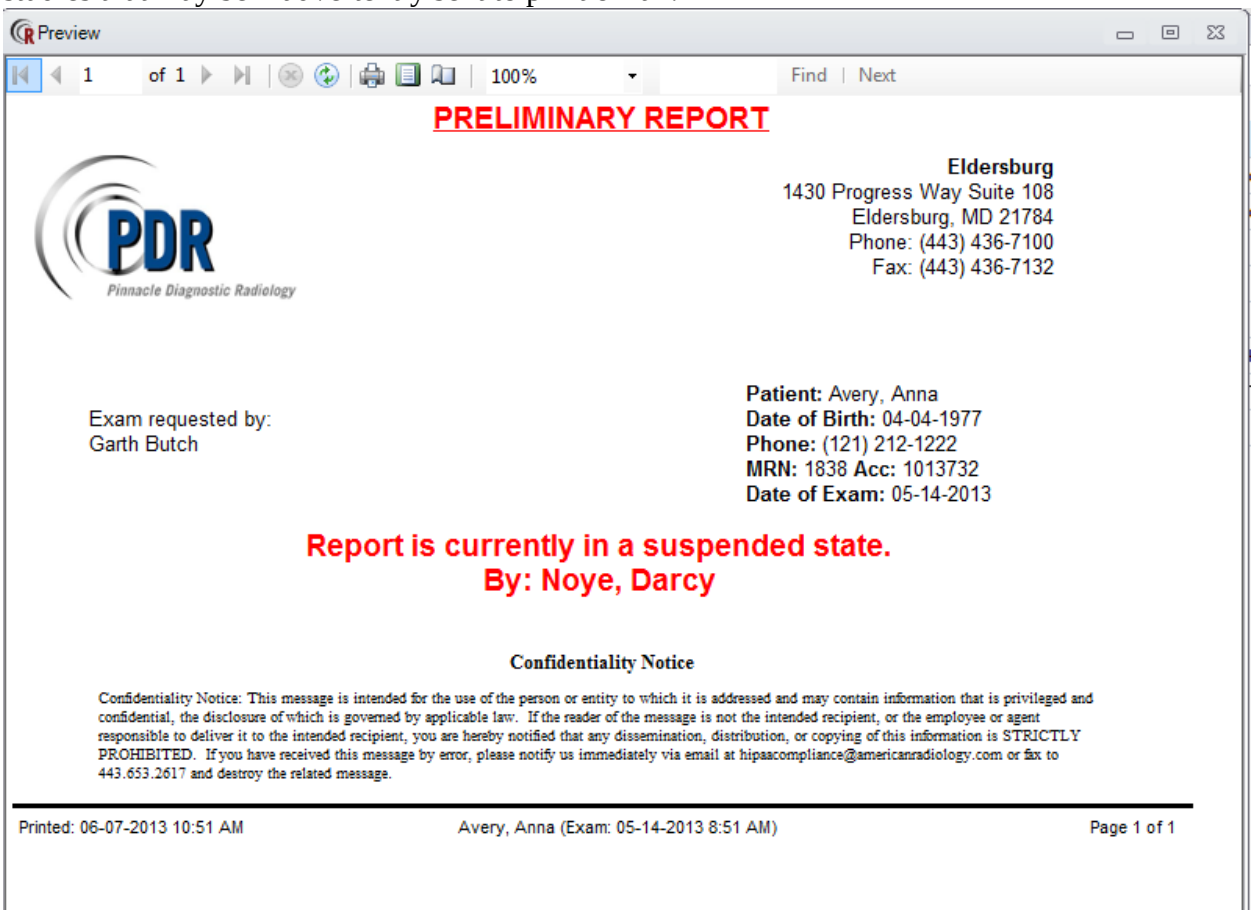



**Figure 1.1 – Preview of report in suspended status**

Also a new Access String "Clinical.PreviewSuspendedReport" has been added to control who has access to preview a report that has been suspended by another user. When a user that does not have this permission tries to preview the report, the option will not be available in the context menu. The data nugget for report will be disabled when the study is in suspended status. Lastly, like the Preview Report context menu option, Send To will not be available, thus removing the option for these users the ability to send the report to Document Distribution.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 2. New Configuration settings and Changes

| Setting Placeholder | Setting | Default | Purpose / Controls Access to |
|---|---|---|---|
| AccessString lookup<br><br>UserGroupPermission lookup | Clinical.PreviewSuspendedReport | None | Controls access to previewing reports that were suspended by another user |
| Ris.exe.config | Before:<br><appSettings><br><add key="defaultEndPointName" value="NetTcpBinding_IStudyService" /><br><add key="ClientSettingsProvider.ServiceUri" value="" /><br><!--<add key="RowLevelCacheDataSetNamesCSV" value="*"/> --><br></appSettings><br><br>After:<br><appSettings><br><add key="defaultEndPointName" value="NetTcpBinding_IStudyService" /><br><add key="ClientSettingsProvider.ServiceUri" value="" /><br><add key="LookupTableTimeToLiveInMinutes" value="5"/><br><add key="ShouldCloseViewSessionOnThread" value="false"/><br><!--<add key="RowLevelCacheDataSetNamesCSV" value="*"/>--><br></appSettings> </appSettings> | False | |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 3. Defects Resolved

| Redmine # | Subject | Priority |
|---|---|---|
| 4019 | Patient search error on patient who had multiple merges | Urgent |
| 4091 | (Stale cache issue) Can't open scan doc nugget if you have no prefence set... | Urgent |
| 3989 | Reporting - Error on submit and next | Urgent |
| 3919 | RadNet - Prevent users from distributing "SUSPENDED CASES" | Urgent |
| 4040 | RadNet - Chair - Don't show null chairs in pending dictation worklist | High |
| 3513 | DB showing expensive query on retrieve image of doctors signature for diagnostic report | High |
| 3518 | Procedure Plans may not appear correctly on IVT work list | High |
| 4080 | logging of failures to obtain a lock | Normal |
| 4075 | PACS integration can pause main application thread while waiting for a close session reply | Normal |
| 4069 | Memory Leak specific to Reporting and Break Lock | Normal |
| 4064 | YellowSticker XML notes sometimes fail and don't properly handle the error | Normal |
| 4059 | Reporting - Writing Yellow Sticker not writing exception | Normal |
| 4056 | Reporting - Activate/Deactivate errors. | Normal |
| 4050 | Reporting - Invoke begininvoke cannot be called... | Normal |
| 4032 | Scanning - Canon Flatbed scanners are locking up RIS | Normal |
| 4024 | Reporting - Reduce # of WS Calls | Normal |
| 3979 | Performance - recently accessed patients should only be saved on app exit | Normal |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 4. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains
   a) rRIS_1.3.40.18063.zip

2) RIS Service Updates folder contains
   a) CDSJobManager.dll
   b) CDSJobManager.pdb
   c) CommonLib.dll
   d) CommonLib.pdb
   e) DDEngine.dll
   f) DDEngine.pdb
   g) rRISServices.exe
   h) rRISServices.pdb
   i) rRISServicesx64.exe
   j) ScheduledTaskManager.dll
   k) ScheduledTaskManager.pdb
   l) SignatureApprovalService.exe
   m) SignatureApprovalService.pdb
   n) WCFService.dll
   o) WCFService.pdb
   p) WebApi.dll
   q) WebApi.pdb
   r) Wedge.exe
   s) Wedge.pdb

3) SQL folder contains:
   a) B40_014.sql

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 5. Intended Audience

This document is created by the RIS Development team for the RadNet RIS Implementation team.

## 6. Who is affected

Build 40 installs. This server update must be applied directly to the build 40 core install. Server updates are not cumulative. Any previous server updates must be applied before this one.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# 7. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 37 | - | 1.2.37.12843 | 1.2.37.12782 | 1.2.37.12843 | 1.2.37.12843 | Full version release |
| 37 | 1 | 1.2.37.13040 | 1.2.37.13040 | 1.2.37.13039 | 1.2.37.13003 | Core install, GUI.zip, web service and database updates |
| 37 | 2 | 1.2.37.13069 | 1.2.37.13040 | 1.2.37.13069 | 1.2.37.13003 | GUI.zip and Web service updates |
| 37 | 3 | 1.2.37.13069 | 1.2.37.13040 | 1.2.37.13069 | 1.2.37.13003 | WebAPI updated, no version changes |
| 37 | 4 | 1.2.37.13171 | 1.2.37.13040 | 1.2.37.13165 | 1.2.37.13171 | GUI.zip, web service, and database updates |
| 37 | 5 | 1.2.37.13347 | 1.2.37.13040 | 1.2.37.12979 | 1.2.37.12979 | Bug was discovered with version numbers, this is why it appears we went backwards in the version number but we did not. |
| 37 | 6 | 1.2.37.13665 | 1.2.37.13040 | 1.2.37.13580 | 1.2.37.12979 | GUI.zip and Web service updates |
| 37 | 7 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13799 | 1.2.37.13807 | GUI.zip and Web service updates. Also MIRTH mapping changes |
| 37 | 8 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13827 | 1.2.37.13807 | Web service update |
| 37 | 9 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13839 | 1.2.37.13807 | Web service update |
| 37 | 10 | 1.2.37.13895 | 1.2.37.13040 | 1.2.37.13895 | 1.2.37.13895 | GUI.zip, Web service and database updates |
| 37 | 11 | 1.2.37.14161 | 1.2.37.13040 | 1.2.37.14161 | 1.2.37.14161 | GUI.zip, Web service, database updates and SQL Management reporting |
| 37 | 12 | 1.2.37.14267 | 1.2.37.13040 | 1.2.37.14161 | 1.2.37.14267 | GUI.zip, Web service and database updates |
| 37 | 13 | 1.2.37.14326 | 1.2.37.13040 | 1.2.37.14326 | 1.2.37.14326 | GUI.zip, Web service and database updates |
| 38 | - | 1.2.38.14486 | 1.2.38.14486 | 1.2.38.14486 | 1.2.38.14486 | Full version release |
| 38 | 1 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | Core install required |
| 38 | 2 | 1.2.38.15182 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | GUI.zip update only |
| 38 | 3 | 1.2.38.15251 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | GUI.zip update only |
| 38 | 4 | 1.2.38.15327 | 1.2.38.14748 | 1.2.38.15290 | 1.2.38.14748 | GUI.zip and Web service updates |
| 38 | 5 | 1.2.38.15513 | 1.2.38.14748 | 1.2.38.15513 | 1.2.38.15451 | GUI.zip, Web service and database updates |
| 38 | 6 | 1.2.38.15618 | 1.2.38.14748 | 1.2.38.15513 | 1.2.38.15618 | GUI.zip and database updates |
| 38 | 7 | 1.2.38.15768 | 1.2.38.14748 | 1.2.38.15768 | 1.2.38.15618 | GUI.zip and Web Service updates |
| 39 | - | 1.3.39.15389 | 1.3.39.15389 | 1.3.39.15377 | 1.3.39.15355 | Full version release |
| 39 | 1 | 1.3.39.16026 | 1.3.39.15943 | 1.3.39.15943 | 1.3.39.15957 | Requires Core Install. GUI.zip, Web Service, and Database updates |
| 40 | - | 1.3.40.16628 | 1.3.40.16628 | 1.3.40.16628 | 1.3.40.16628 | Full version release |
| 40 | 1 | 1.3.40.16849 | 1.3.40.16659 | 1.3.40.16744 | 1.3.40.16727 | GUI.zip, Web service, database updates and SQL Management reporting |
| 40 | 2 | 1.3.40.16868 | 1.3.40.16659 | 1.3.40.16868 | 1.3.40.16727 | GUI.zip and Web Service |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

| | | | | | | |
|---|---|---|---|---|---|---|
| 40 | 3 | 1.3.40.16868 | 1.3.40.16659 | 1.3.40.16868 | 1.3.40.16727 | DB updated only |
| 40 | 4 | 1.3.40.16967 | 1.3.40.16659 | 1.3.40.16932 | 1.3.40.16961 | GUI.zip, Web service, database updates |
| 40 | 5 | 1.3.40.17087 | 1.3.40.16659 | 1.3.40.17069 | 1.3.40.17087 | GUI.zip, Web service, database updates |
| 40 | 6 | 1.3.40.17146 | 1.3.40.16659 | 1.3.40.17146 | 1.3.40.17146 | GUI.zip, Web service, database updates |
| 40 | 7 | 1.3.40.17268 | 1.3.40.16659 | 1.3.40.17268 | 1.3.40.17259 | GUI.zip, Web service, database updates |
| 40 | 8 | 1.3.40.17364 | 1.3.40.16659 | 1.3.40.17362 | 1.3.40.17343 | GUI.zip, Web service, database updates |
| 40 | 9 | 1.3.40.17370 | 1.3.40.16659 | 1.3.40.17370 | 1.3.40.17370 | GUI.zip, Web service, database updates |
| 40 | 10 | 1.3.40.17435 | 1.3.40.16659 | 1.3.40.17435 | 1.3.40.17370 | **64 BIT web service**. GUI.zip, Webservice. |
| 40 | 11 | 1.3.40.17435 | 1.3.40.16659 | 1.3.40.17525 | 1.3.40.17370 | Web service update |
| 40 | 12 | 1.3.40.17685 | 1.3.40.16659 | 1.3.40.17685 | 1.3.40.17648 | GUI.zip, Web service, database updates |
| 40 | 13 | 1.3.40.17776 | 1.3.40.16659 | 1.3.40.17776 | 1.3.40.17648 | GUI.zip, Web service |
| 40 | 14 | 1.3.40.18063(3GB) | 1.3.40.16659 | 1.3.40.18063 | 1.3.40.18063 | GUI.zip, Web service, database updates |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# 8. Installing

1) Copy and replace the current rRIS…zip file with the rRIS_1.3.40.18063.zip file provided with this release.
   Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

   **NOTE:** there is a change to the ris.exe.config file.

   See Sections
   1 New Features - Configurable dataset retrieval interval and
   2 New Configuration settings and Changes

2) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService. Be sure to make backup of all files, but especially the rRISServices.exe.config and rRISServices.vshost.exe.config files.
   *rRISService directories include:*
   a) *rRISService*
   b) *CDS rRISService*
   c) *Wedge rRISService*
   d) *DDE rRISService*

   Restart each service.

3) Run the B40_014.sql file against the eRAD RIS database instance.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

For eRAD RIS
Version 1.0
Build 40
Update 40.014.1

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Defects Resolved ..... 3
2. Package Contents ..... 3
3. Intended Audience ..... 4
4. Who is affected ..... 4
5. eRAD RIS Release Version Numbers ..... 4
6. Installing ..... 5

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 1. Defects Resolved

| Redmine # | Subject | Priority |
|---|---|---|
| 4121 | All signed studies falling to billing exceptions worklist in b40.14 | High |

## 2. Package Contents

Files included for this server update:

1) RIS Service Updates folder contains
   a) CDSJobManager.dll
   b) CDSJobManager.pdb
   c) CommonLib.dll
   d) CommonLib.pdb
   e) DDEngine.dll
   f) DDEngine.pdb
   g) rRISServices.exe
   h) rRISServices.pdb
   i) rRISServicesx64.exe
   j) ScheduledTaskManager.dll
   k) ScheduledTaskManager.pdb
   l) SignatureApprovalService.exe
   m) SignatureApprovalService.pdb
   n) WCFService.dll
   o) WCFService.pdb
   p) WebApi.dll
   q) WebApi.pdb
   r) Wedge.exe
   s) Wedge.pdb

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 3. Intended Audience

This document is created by the RIS Development team for the RadNet RIS Implementation team.

## 4. Who is affected

Build 40 installs. This server update must be applied directly to the build 40 core install. Server updates are not cumulative. Any previous server updates must be applied before this one.

## 5. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 37 | - | 1.2.37.12843 | 1.2.37.12782 | 1.2.37.12843 | 1.2.37.12843 | Full version release |
| 37 | 1 | 1.2.37.13040 | 1.2.37.13040 | 1.2.37.13039 | 1.2.37.13003 | Core install, GUI.zip, web service and database updates |
| 37 | 2 | 1.2.37.13069 | 1.2.37.13040 | 1.2.37.13069 | 1.2.37.13003 | GUI.zip and Web service updates |
| 37 | 3 | 1.2.37.13069 | 1.2.37.13040 | 1.2.37.13069 | 1.2.37.13003 | WebAPI updated, no version changes |
| 37 | 4 | 1.2.37.13171 | 1.2.37.13040 | 1.2.37.13165 | 1.2.37.13171 | GUI.zip, web service, and database updates |
| 37 | 5 | 1.2.37.13347 | 1.2.37.13040 | 1.2.37.12979 | 1.2.37.12979 | Bug was discovered with version numbers, this is why it appears we went backwards in the version number but we did not. |
| 37 | 6 | 1.2.37.13665 | 1.2.37.13040 | 1.2.37.13580 | 1.2.37.12979 | GUI.zip and Web service updates |
| 37 | 7 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13799 | 1.2.37.13807 | GUI.zip and Web service updates. Also MIRTH mapping changes |
| 37 | 8 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13827 | 1.2.37.13807 | Web service update |
| 37 | 9 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13839 | 1.2.37.13807 | Web service update |
| 37 | 10 | 1.2.37.13895 | 1.2.37.13040 | 1.2.37.13895 | 1.2.37.13895 | GUI.zip, Web service and database updates |
| 37 | 11 | 1.2.37.14161 | 1.2.37.13040 | 1.2.37.14161 | 1.2.37.14161 | GUI.zip, Web service, database updates and SQL Management reporting |
| 37 | 12 | 1.2.37.14267 | 1.2.37.13040 | 1.2.37.14161 | 1.2.37.14267 | GUI.zip, Web service and database updates |
| 37 | 13 | 1.2.37.14326 | 1.2.37.13040 | 1.2.37.14326 | 1.2.37.14326 | GUI.zip, Web service and database updates |
| 38 | - | 1.2.38.14486 | 1.2.38.14486 | 1.2.38.14486 | 1.2.38.14486 | Full version release |
| 38 | 1 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | Core install required |
| 38 | 2 | 1.2.38.15182 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | GUI.zip update only |
| 38 | 3 | 1.2.38.15251 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | GUI.zip update only |
| 38 | 4 | 1.2.38.15327 | 1.2.38.14748 | 1.2.38.15290 | 1.2.38.14748 | GUI.zip and Web service updates |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

| | | | | | | |
|---|---|---|---|---|---|---|
| 38 | 5 | 1.2.38.15513 | 1.2.38.14748 | 1.2.38.15513 | 1.2.38.15451 | GUI.zip, Web service and database updates |
| 38 | 6 | 1.2.38.15618 | 1.2.38.14748 | 1.2.38.15513 | 1.2.38.15618 | GUI.zip and database updates |
| 38 | 7 | 1.2.38.15768 | 1.2.38.14748 | 1.2.38.15768 | 1.2.38.15618 | GUI.zip and Web Service updates |
| 39 | - | 1.3.39.15389 | 1.3.39.15389 | 1.3.39.15377 | 1.3.39.15355 | Full version release |
| 39 | 1 | 1.3.39.16026 | 1.3.39.15943 | 1.3.39.15943 | 1.3.39.15957 | Requires Core Install. GUI.zip, Web Service, and Database updates |
| 40 | - | 1.3.40.16628 | 1.3.40.16628 | 1.3.40.16628 | 1.3.40.16628 | Full version release |
| 40 | 1 | 1.3.40.16849 | 1.3.40.16659 | 1.3.40.16744 | 1.3.40.16727 | GUI.zip, Web service, database updates and SQL Management reporting |
| 40 | 2 | 1.3.40.16868 | 1.3.40.16659 | 1.3.40.16868 | 1.3.40.16727 | GUI.zip and Web Service |
| 40 | 3 | 1.3.40.16868 | 1.3.40.16659 | 1.3.40.16868 | 1.3.40.16727 | DB updated only |
| 40 | 4 | 1.3.40.16967 | 1.3.40.16659 | 1.3.40.16932 | 1.3.40.16961 | GUI.zip, Web service, database updates |
| 40 | 5 | 1.3.40.17087 | 1.3.40.16659 | 1.3.40.17069 | 1.3.40.17087 | GUI.zip, Web service, database updates |
| 40 | 6 | 1.3.40.17146 | 1.3.40.16659 | 1.3.40.17146 | 1.3.40.17146 | GUI.zip, Web service, database updates |
| 40 | 7 | 1.3.40.17268 | 1.3.40.16659 | 1.3.40.17268 | 1.3.40.17259 | GUI.zip, Web service, database updates |
| 40 | 8 | 1.3.40.17364 | 1.3.40.16659 | 1.3.40.17362 | 1.3.40.17343 | GUI.zip, Web service, database updates |
| 40 | 9 | 1.3.40.17370 | 1.3.40.16659 | 1.3.40.17370 | 1.3.40.17370 | GUI.zip, Web service, database updates |
| 40 | 10 | 1.3.40.17435 | 1.3.40.16659 | 1.3.40.17435 | 1.3.40.17370 | **64 BIT web service**. GUI.zip, Webservice. |
| 40 | 11 | 1.3.40.17435 | 1.3.40.16659 | 1.3.40.17525 | 1.3.40.17370 | Web service update |
| 40 | 12 | 1.3.40.17685 | 1.3.40.16659 | 1.3.40.17685 | 1.3.40.17648 | GUI.zip, Web service, database updates |
| 40 | 13 | 1.3.40.17776 | 1.3.40.16659 | 1.3.40.17776 | 1.3.40.17648 | GUI.zip, Web service |
| 40 | 14 | 1.3.40.18063(3GB) | 1.3.40.16659 | 1.3.40.18063 | 1.3.40.18063 | GUI.zip, Web service, database updates |
| 40 | 14.1 | 1.3.40.18063(3GB) | 1.3.40.16659 | 1.3.40.18107 | 1.3.40.18063 | Web service |

# 6. Installing

1) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService. Be sure to make backup of all files, but especially the rRISServices.exe.config and rRISServices.vshost.exe.config files.
   *rRISService directories include:*
   a) *rRISService*
   b) *CDS rRISService*
   c) *Wedge rRISService*
   d) *DDE rRISService*

   Restart each service.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

For eRAD RIS
Version 1.0
Build 40
Update 40.015

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. New Configuration settings and Changes ..... 3
2. Defects Resolved ..... 4
3. Package Contents ..... 5
4. Intended Audience ..... 6
5. Who is affected ..... 6
6. eRAD RIS Release Version Numbers ..... 7
7. Installing ..... 9

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 1. New Configuration settings and Changes

| Setting Placeholder | Setting | Default | Purpose / Controls Access to |
|---|---|---|---|
| AccessString lookup<br><br>UserGroupPermission lookup | Clinical.PreviewSuspended Report | None | Controls access to previewing reports that were suspended by another user |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 2. Defects Resolved

| Redmine # | Subject | Priority |
|---|---|---|
| 4108 | Audio disapears when QA rejects/edits the study | High |
| 4103 | Report Attachment - Mouse Performance Issue | High |
| 4099 | Macros not always loading deeming them inoperable via voice command | High |
| 4015 | Missing access string in 40.014 for previewing suspended studies | High |
| 4124 | PACS IW: Often not closing images | High |
| 4121 | All signed studies falling to billing exceptions worklist in b40.14 | High |
| 4058 | Patient Folder - users getting exception in attachment viewer often | Normal |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 3. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains
   a) rRIS_1.3.40.18127 (3GB).zip

2) RIS Service Updates folder contains
   a) CDSJobManager.dll
   b) CDSJobManager.pdb
   c) CommonLib.dll
   d) CommonLib.pdb
   e) DDEngine.dll
   f) DDEngine.pdb
   g) rRISServices.exe
   h) rRISServices.pdb
   i) rRISServicesx64.exe
   j) ScheduledTaskManager.dll
   k) ScheduledTaskManager.pdb
   l) SignatureApprovalService.exe
   m) SignatureApprovalService.pdb
   n) WCFService.dll
   o) WCFService.pdb
   p) WebApi.dll
   q) WebApi.pdb
   r) Wedge.exe
   s) Wedge.pdb

3) SQL folder contains:
   a) B40_015.sql

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 4. Intended Audience

This document is created by the RIS Development team for the RadNet RIS Implementation team.

## 5. Who is affected

Build 40 installs. This server update must be applied directly to the build 40 core install. Server updates are not cumulative. Any previous server updates must be applied before this one.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# 6. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 37 | - | 1.2.37.12843 | 1.2.37.12782 | 1.2.37.12843 | 1.2.37.12843 | Full version release |
| 37 | 1 | 1.2.37.13040 | 1.2.37.13040 | 1.2.37.13039 | 1.2.37.13003 | Core install, GUI.zip, web service and database updates |
| 37 | 2 | 1.2.37.13069 | 1.2.37.13040 | 1.2.37.13069 | 1.2.37.13003 | GUI.zip and Web service updates |
| 37 | 3 | 1.2.37.13069 | 1.2.37.13040 | 1.2.37.13069 | 1.2.37.13003 | WebAPI updated, no version changes |
| 37 | 4 | 1.2.37.13171 | 1.2.37.13040 | 1.2.37.13165 | 1.2.37.13171 | GUI.zip, web service, and database updates |
| 37 | 5 | 1.2.37.13347 | 1.2.37.13040 | 1.2.37.12979 | 1.2.37.12979 | Bug was discovered with version numbers, this is why it appears we went backwards in the version number but we did not. |
| 37 | 6 | 1.2.37.13665 | 1.2.37.13040 | 1.2.37.13580 | 1.2.37.12979 | GUI.zip and Web service updates |
| 37 | 7 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13799 | 1.2.37.13807 | GUI.zip and Web service updates. Also MIRTH mapping changes |
| 37 | 8 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13827 | 1.2.37.13807 | Web service update |
| 37 | 9 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13839 | 1.2.37.13807 | Web service update |
| 37 | 10 | 1.2.37.13895 | 1.2.37.13040 | 1.2.37.13895 | 1.2.37.13895 | GUI.zip, Web service and database updates |
| 37 | 11 | 1.2.37.14161 | 1.2.37.13040 | 1.2.37.14161 | 1.2.37.14161 | GUI.zip, Web service, database updates and SQL Management reporting |
| 37 | 12 | 1.2.37.14267 | 1.2.37.13040 | 1.2.37.14161 | 1.2.37.14267 | GUI.zip, Web service and database updates |
| 37 | 13 | 1.2.37.14326 | 1.2.37.13040 | 1.2.37.14326 | 1.2.37.14326 | GUI.zip, Web service and database updates |
| 38 | - | 1.2.38.14486 | 1.2.38.14486 | 1.2.38.14486 | 1.2.38.14486 | Full version release |
| 38 | 1 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | Core install required |
| 38 | 2 | 1.2.38.15182 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | GUI.zip update only |
| 38 | 3 | 1.2.38.15251 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | GUI.zip update only |
| 38 | 4 | 1.2.38.15327 | 1.2.38.14748 | 1.2.38.15290 | 1.2.38.14748 | GUI.zip and Web service updates |
| 38 | 5 | 1.2.38.15513 | 1.2.38.14748 | 1.2.38.15513 | 1.2.38.15451 | GUI.zip, Web service and database updates |
| 38 | 6 | 1.2.38.15618 | 1.2.38.14748 | 1.2.38.15513 | 1.2.38.15618 | GUI.zip and database updates |
| 38 | 7 | 1.2.38.15768 | 1.2.38.14748 | 1.2.38.15768 | 1.2.38.15618 | GUI.zip and Web Service updates |
| 39 | - | 1.3.39.15389 | 1.3.39.15389 | 1.3.39.15377 | 1.3.39.15355 | Full version release |
| 39 | 1 | 1.3.39.16026 | 1.3.39.15943 | 1.3.39.15943 | 1.3.39.15957 | Requires Core Install. GUI.zip, Web Service, and Database updates |
| 40 | - | 1.3.40.16628 | 1.3.40.16628 | 1.3.40.16628 | 1.3.40.16628 | Full version release |
| 40 | 1 | 1.3.40.16849 | 1.3.40.16659 | 1.3.40.16744 | 1.3.40.16727 | GUI.zip, Web service, database updates and SQL Management reporting |
| 40 | 2 | 1.3.40.16868 | 1.3.40.16659 | 1.3.40.16868 | 1.3.40.16727 | GUI.zip and Web Service |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

| | | | | | | |
|---|---|---|---|---|---|---|
| 40 | 3 | 1.3.40.16868 | 1.3.40.16659 | 1.3.40.16868 | 1.3.40.16727 | DB updated only |
| 40 | 4 | 1.3.40.16967 | 1.3.40.16659 | 1.3.40.16932 | 1.3.40.16961 | GUI.zip, Web service, database updates |
| 40 | 5 | 1.3.40.17087 | 1.3.40.16659 | 1.3.40.17069 | 1.3.40.17087 | GUI.zip, Web service, database updates |
| 40 | 6 | 1.3.40.17146 | 1.3.40.16659 | 1.3.40.17146 | 1.3.40.17146 | GUI.zip, Web service, database updates |
| 40 | 7 | 1.3.40.17268 | 1.3.40.16659 | 1.3.40.17268 | 1.3.40.17259 | GUI.zip, Web service, database updates |
| 40 | 8 | 1.3.40.17364 | 1.3.40.16659 | 1.3.40.17362 | 1.3.40.17343 | GUI.zip, Web service, database updates |
| 40 | 9 | 1.3.40.17370 | 1.3.40.16659 | 1.3.40.17370 | 1.3.40.17370 | GUI.zip, Web service, database updates |
| 40 | 10 | 1.3.40.17435 | 1.3.40.16659 | 1.3.40.17435 | 1.3.40.17370 | **64 BIT web service**. GUI.zip, Webservice. |
| 40 | 11 | 1.3.40.17435 | 1.3.40.16659 | 1.3.40.17525 | 1.3.40.17370 | Web service update |
| 40 | 12 | 1.3.40.17685 | 1.3.40.16659 | 1.3.40.17685 | 1.3.40.17648 | GUI.zip, Web service, database updates |
| 40 | 13 | 1.3.40.17776 | 1.3.40.16659 | 1.3.40.17776 | 1.3.40.17648 | GUI.zip, Web service |
| 40 | 14 | 1.3.40.18063(3GB) | 1.3.40.16659 | 1.3.40.18063 | 1.3.40.18063 | GUI.zip, Web service, database updates |
| 40 | 14.1 | 1.3.40.18063(3GB) | 1.3.40.16659 | 1.3.40.18107 | 1.3.40.18063 | Web service |
| 40 | 15 | 1.3.40.18127(3GB) | 1.3.40.16659 | 1.3.40.18127 | 1.3.40.18127 | GUI.zip, Web service, database updates |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# 7. Installing

1) Copy and replace the current rRIS…zip file with the rRIS_1.3.40.18127 (3GB).zip file provided with this release.
   Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

2) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService. Be sure to make backup of all files, but especially the rRISServices.exe.config and rRISServices.vshost.exe.config files.
   *rRISService directories include:*
   a) *rRISService*
   b) *CDS rRISService*
   c) *Wedge rRISService*
   d) *DDE rRISService*

   Restart each service.

3) Run the B40_015.sql file against the eRAD RIS database instance.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

For eRAD RIS
Version 1.0
Build 40
Update 40.016

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. New Configuration settings and Changes ..... 3
2. Defects Resolved ..... 3
3. Package Contents ..... 4
4. Intended Audience ..... 5
5. Who is affected ..... 5
6. eRAD RIS Release Version Numbers ..... 5
7. Installing ..... 7

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 1. New Configuration settings and Changes

- None

## 2. Defects Resolved

| Redmine # | Subject | Priority |
|---|---|---|
| 4420 | Scanning - Cannot attach a scanned document when editing a patient | Immediate |
| 4268 | Patient Folder - Nugget not displaying data if there are no selected priors initially. | High |
| 4175 | MAMMO - BACK on TRACK workflow | High |
| 4345 | users are accidentally changing the referring's fax number from distribution worklist | Normal |
| 4297 | Sales - 13 Mth Variance Data Report | Normal |
| 4257 | description not displaying for restriction on appointment book | Normal |
| 4245 | Form x Printer logic is backward when form category not provided | Normal |
| 4244 | Configuring printing rules Foreign Key error | Normal |
| 4240 | Mammo Letters WL & Mammo Orders WL | Normal |
| 4236 | the call to show images in the RadScreen can cause RIS to crash if an error occurs | Normal |
| 4221 | Reporting - Signed using the hold pending release goes to QA before hold time expires | Normal |
| 4214 | configfilelist not cleared when user chews Help/Refresh Configuration | Normal |
| 4204 | Lookup - User doesn't get lookup table change | Normal |
| 4169 | Report - Legacy Reports Not Showing | Normal |
| 4021 | RadNet - fix Arbitration Signed checkbox | Normal |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 3. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains
   a) rRIS_1.3.40.18585 (3GB).zip

2) RIS Service Updates folder contains
   1. CDSJobManager.dll
   2. CDSJobManager.pdb
   3. CommonLib.dll
   4. CommonLib.pdb
   5. DDEngine.dll
   6. DDEngine.pdb
   7. rRISServices.exe
   8. rRISServices.pdb
   9. rRISServicesx64.exe
   10. ScheduledTaskManager.dll
   11. ScheduledTaskManager.pdb
   12. SignatureApprovalService.exe
   13. SignatureApprovalService.pdb
   14. WCFService.dll
   15. WCFService.pdb
   16. WebApi.dll
   17. WebApi.pdb
   18. Wedge.exe
   19. Wedge.pdb

3) SQL folder contains:
   a) B40_016.sql

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 4. Intended Audience

This document is created by the RIS Development team for the RadNet RIS Implementation team.

## 5. Who is affected

Build 40 installs. This server update must be applied directly to the build 40 core install. Server updates are not cumulative. Any previous server updates must be applied before this one.

## 6. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 37 | - | 1.2.37.12843 | 1.2.37.12782 | 1.2.37.12843 | 1.2.37.12843 | Full version release |
| 37 | 1 | 1.2.37.13040 | 1.2.37.13040 | 1.2.37.13039 | 1.2.37.13003 | Core install, GUI.zip, web service and database updates |
| 37 | 2 | 1.2.37.13069 | 1.2.37.13040 | 1.2.37.13069 | 1.2.37.13003 | GUI.zip and Web service updates |
| 37 | 3 | 1.2.37.13069 | 1.2.37.13040 | 1.2.37.13069 | 1.2.37.13003 | WebAPI updated, no version changes |
| 37 | 4 | 1.2.37.13171 | 1.2.37.13040 | 1.2.37.13165 | 1.2.37.13171 | GUI.zip, web service, and database updates |
| 37 | 5 | 1.2.37.13347 | 1.2.37.13040 | 1.2.37.12979 | 1.2.37.12979 | Bug was discovered with version numbers, this is why it appears we went backwards in the version number but we did not. |
| 37 | 6 | 1.2.37.13665 | 1.2.37.13040 | 1.2.37.13580 | 1.2.37.12979 | GUI.zip and Web service updates |
| 37 | 7 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13799 | 1.2.37.13807 | GUI.zip and Web service updates. Also MIRTH mapping changes |
| 37 | 8 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13827 | 1.2.37.13807 | Web service update |
| 37 | 9 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13839 | 1.2.37.13807 | Web service update |
| 37 | 10 | 1.2.37.13895 | 1.2.37.13040 | 1.2.37.13895 | 1.2.37.13895 | GUI.zip, Web service and database updates |
| 37 | 11 | 1.2.37.14161 | 1.2.37.13040 | 1.2.37.14161 | 1.2.37.14161 | GUI.zip, Web service, database updates and SQL Management reporting |
| 37 | 12 | 1.2.37.14267 | 1.2.37.13040 | 1.2.37.14161 | 1.2.37.14267 | GUI.zip, Web service and database updates |
| 37 | 13 | 1.2.37.14326 | 1.2.37.13040 | 1.2.37.14326 | 1.2.37.14326 | GUI.zip, Web service and database updates |
| 38 | - | 1.2.38.14486 | 1.2.38.14486 | 1.2.38.14486 | 1.2.38.14486 | Full version release |
| 38 | 1 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | Core install required |
| 38 | 2 | 1.2.38.15182 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | GUI.zip update only |
| 38 | 3 | 1.2.38.15251 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | GUI.zip update only |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

| | | | | | | |
|---|---|---|---|---|---|---|
| 38 | 4 | 1.2.38.15327 | 1.2.38.14748 | 1.2.38.15290 | 1.2.38.14748 | GUI.zip and Web service updates |
| 38 | 5 | 1.2.38.15513 | 1.2.38.14748 | 1.2.38.15513 | 1.2.38.15451 | GUI.zip, Web service and database updates |
| 38 | 6 | 1.2.38.15618 | 1.2.38.14748 | 1.2.38.15513 | 1.2.38.15618 | GUI.zip and database updates |
| 38 | 7 | 1.2.38.15768 | 1.2.38.14748 | 1.2.38.15768 | 1.2.38.15618 | GUI.zip and Web Service updates |
| 39 | - | 1.3.39.15389 | 1.3.39.15389 | 1.3.39.15377 | 1.3.39.15355 | Full version release |
| 39 | 1 | 1.3.39.16026 | 1.3.39.15943 | 1.3.39.15943 | 1.3.39.15957 | Requires Core Install. GUI.zip, Web Service, and Database updates |
| 40 | - | 1.3.40.16628 | 1.3.40.16628 | 1.3.40.16628 | 1.3.40.16628 | Full version release |
| 40 | 1 | 1.3.40.16849 | 1.3.40.16659 | 1.3.40.16744 | 1.3.40.16727 | GUI.zip, Web service, database updates and SQL Management reporting |
| 40 | 2 | 1.3.40.16868 | 1.3.40.16659 | 1.3.40.16868 | 1.3.40.16727 | GUI.zip and Web Service |
| 40 | 3 | 1.3.40.16868 | 1.3.40.16659 | 1.3.40.16868 | 1.3.40.16727 | DB updated only |
| 40 | 4 | 1.3.40.16967 | 1.3.40.16659 | 1.3.40.16932 | 1.3.40.16961 | GUI.zip, Web service, database updates |
| 40 | 5 | 1.3.40.17087 | 1.3.40.16659 | 1.3.40.17069 | 1.3.40.17087 | GUI.zip, Web service, database updates |
| 40 | 6 | 1.3.40.17146 | 1.3.40.16659 | 1.3.40.17146 | 1.3.40.17146 | GUI.zip, Web service, database updates |
| 40 | 7 | 1.3.40.17268 | 1.3.40.16659 | 1.3.40.17268 | 1.3.40.17259 | GUI.zip, Web service, database updates |
| 40 | 8 | 1.3.40.17364 | 1.3.40.16659 | 1.3.40.17362 | 1.3.40.17343 | GUI.zip, Web service, database updates |
| 40 | 9 | 1.3.40.17370 | 1.3.40.16659 | 1.3.40.17370 | 1.3.40.17370 | GUI.zip, Web service, database updates |
| 40 | 10 | 1.3.40.17435 | 1.3.40.16659 | 1.3.40.17435 | 1.3.40.17370 | **64 BIT web service**. GUI.zip, Webservice. |
| 40 | 11 | 1.3.40.17435 | 1.3.40.16659 | 1.3.40.17525 | 1.3.40.17370 | Web service update |
| 40 | 12 | 1.3.40.17685 | 1.3.40.16659 | 1.3.40.17685 | 1.3.40.17648 | GUI.zip, Web service, database updates |
| 40 | 13 | 1.3.40.17776 | 1.3.40.16659 | 1.3.40.17776 | 1.3.40.17648 | GUI.zip, Web service |
| 40 | 14 | 1.3.40.18063(3GB) | 1.3.40.16659 | 1.3.40.18063 | 1.3.40.18063 | GUI.zip, Web service, database updates |
| 40 | 14.1 | 1.3.40.18063(3GB) | 1.3.40.16659 | 1.3.40.18107 | 1.3.40.18063 | Web service |
| 40 | 15 | 1.3.40.18127(3GB) | 1.3.40.16659 | 1.3.40.18127 | 1.3.40.18127 | GUI.zip, Web service, database updates |
| 40 | 16 | 1.1.3.40.18585 (3GB) | 1.3.40.16659 | 1.3.40.18585 | 1.3.40.18646 | GUI.zip, Web service, database updates |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 7. Installing

1) Copy and replace the current rRIS…zip file with the rRIS_1.3.40.18585.zip file provided with this release.
   Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

2) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService. Be sure to make backup of all files, but especially the rRISServices.exe.config and rRISServices.vshost.exe.config files.
   *rRISService directories include:*
   a) *rRISService*
   b) *CDS rRISService*
   c) *Wedge rRISService*
   d) *DDE rRISService*

   Restart each service.

3) Run the B40_016.sql file against the eRAD RIS database instance.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

For eRAD RIS
Version 1.0
Build 40
Update 40.016.1

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. New Configuration settings and Changes ..... 3
2. Defects Resolved ..... 3
3. Package Contents ..... 3
4. Intended Audience ..... 3
5. Who is affected ..... 3
6. eRAD RIS Release Version Numbers ..... 4
7. Installing ..... 5

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 1. New Configuration settings and Changes

- None

## 2. Defects Resolved

| Redmine # | Subject | Priority |
|---|---|---|
| 4478 | Patient folder navigation | High |
| 4439 | Report Fields Control exception | Normal |

## 3. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains
   a) rRIS_1.3.40.18705 (3GB).zip

## 4. Intended Audience

This document is created by the RIS Development team for the RadNet RIS Implementation team.

## 5. Who is affected

Build 40 installs. This server update must be applied directly to the build 40 core install. Server updates are not cumulative. Any previous server updates must be applied before this one.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 6. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 37 | - | 1.2.37.12843 | 1.2.37.12782 | 1.2.37.12843 | 1.2.37.12843 | Full version release |
| 37 | 1 | 1.2.37.13040 | 1.2.37.13040 | 1.2.37.13039 | 1.2.37.13003 | Core install, GUI.zip, web service and database updates |
| 37 | 2 | 1.2.37.13069 | 1.2.37.13040 | 1.2.37.13069 | 1.2.37.13003 | GUI.zip and Web service updates |
| 37 | 3 | 1.2.37.13069 | 1.2.37.13040 | 1.2.37.13069 | 1.2.37.13003 | WebAPI updated, no version changes |
| 37 | 4 | 1.2.37.13171 | 1.2.37.13040 | 1.2.37.13165 | 1.2.37.13171 | GUI.zip, web service, and database updates |
| 37 | 5 | 1.2.37.13347 | 1.2.37.13040 | 1.2.37.12979 | 1.2.37.12979 | Bug was discovered with version numbers, this is why it appears we went backwards in the version number but we did not. |
| 37 | 6 | 1.2.37.13665 | 1.2.37.13040 | 1.2.37.13580 | 1.2.37.12979 | GUI.zip and Web service updates |
| 37 | 7 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13799 | 1.2.37.13807 | GUI.zip and Web service updates. Also MIRTH mapping changes |
| 37 | 8 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13827 | 1.2.37.13807 | Web service update |
| 37 | 9 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13839 | 1.2.37.13807 | Web service update |
| 37 | 10 | 1.2.37.13895 | 1.2.37.13040 | 1.2.37.13895 | 1.2.37.13895 | GUI.zip, Web service and database updates |
| 37 | 11 | 1.2.37.14161 | 1.2.37.13040 | 1.2.37.14161 | 1.2.37.14161 | GUI.zip, Web service, database updates and SQL Management reporting |
| 37 | 12 | 1.2.37.14267 | 1.2.37.13040 | 1.2.37.14161 | 1.2.37.14267 | GUI.zip, Web service and database updates |
| 37 | 13 | 1.2.37.14326 | 1.2.37.13040 | 1.2.37.14326 | 1.2.37.14326 | GUI.zip, Web service and database updates |
| 38 | - | 1.2.38.14486 | 1.2.38.14486 | 1.2.38.14486 | 1.2.38.14486 | Full version release |
| 38 | 1 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | Core install required |
| 38 | 2 | 1.2.38.15182 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | GUI.zip update only |
| 38 | 3 | 1.2.38.15251 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | GUI.zip update only |
| 38 | 4 | 1.2.38.15327 | 1.2.38.14748 | 1.2.38.15290 | 1.2.38.14748 | GUI.zip and Web service updates |
| 38 | 5 | 1.2.38.15513 | 1.2.38.14748 | 1.2.38.15513 | 1.2.38.15451 | GUI.zip, Web service and database updates |
| 38 | 6 | 1.2.38.15618 | 1.2.38.14748 | 1.2.38.15513 | 1.2.38.15618 | GUI.zip and database updates |
| 38 | 7 | 1.2.38.15768 | 1.2.38.14748 | 1.2.38.15768 | 1.2.38.15618 | GUI.zip and Web Service updates |
| 39 | - | 1.3.39.15389 | 1.3.39.15389 | 1.3.39.15377 | 1.3.39.15355 | Full version release |
| 39 | 1 | 1.3.39.16026 | 1.3.39.15943 | 1.3.39.15943 | 1.3.39.15957 | Requires Core Install. GUI.zip, Web Service, and Database updates |
| 40 | - | 1.3.40.16628 | 1.3.40.16628 | 1.3.40.16628 | 1.3.40.16628 | Full version release |
| 40 | 1 | 1.3.40.16849 | 1.3.40.16659 | 1.3.40.16744 | 1.3.40.16727 | GUI.zip, Web service, database updates and SQL Management reporting |
| 40 | 2 | 1.3.40.16868 | 1.3.40.16659 | 1.3.40.16868 | 1.3.40.16727 | GUI.zip and Web Service |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

| | | | | | | |
|---|---|---|---|---|---|---|
| 40 | 3 | 1.3.40.16868 | 1.3.40.16659 | 1.3.40.16868 | 1.3.40.16727 | DB updated only |
| 40 | 4 | 1.3.40.16967 | 1.3.40.16659 | 1.3.40.16932 | 1.3.40.16961 | GUI.zip, Web service, database updates |
| 40 | 5 | 1.3.40.17087 | 1.3.40.16659 | 1.3.40.17069 | 1.3.40.17087 | GUI.zip, Web service, database updates |
| 40 | 6 | 1.3.40.17146 | 1.3.40.16659 | 1.3.40.17146 | 1.3.40.17146 | GUI.zip, Web service, database updates |
| 40 | 7 | 1.3.40.17268 | 1.3.40.16659 | 1.3.40.17268 | 1.3.40.17259 | GUI.zip, Web service, database updates |
| 40 | 8 | 1.3.40.17364 | 1.3.40.16659 | 1.3.40.17362 | 1.3.40.17343 | GUI.zip, Web service, database updates |
| 40 | 9 | 1.3.40.17370 | 1.3.40.16659 | 1.3.40.17370 | 1.3.40.17370 | GUI.zip, Web service, database updates |
| 40 | 10 | 1.3.40.17435 | 1.3.40.16659 | 1.3.40.17435 | 1.3.40.17370 | **64 BIT web service**. GUI.zip, Webservice. |
| 40 | 11 | 1.3.40.17435 | 1.3.40.16659 | 1.3.40.17525 | 1.3.40.17370 | Web service update |
| 40 | 12 | 1.3.40.17685 | 1.3.40.16659 | 1.3.40.17685 | 1.3.40.17648 | GUI.zip, Web service, database updates |
| 40 | 13 | 1.3.40.17776 | 1.3.40.16659 | 1.3.40.17776 | 1.3.40.17648 | GUI.zip, Web service |
| 40 | 14 | 1.3.40.18063(3GB) | 1.3.40.16659 | 1.3.40.18063 | 1.3.40.18063 | GUI.zip, Web service, database updates |
| 40 | 14.1 | 1.3.40.18063(3GB) | 1.3.40.16659 | 1.3.40.18107 | 1.3.40.18063 | Web service |
| 40 | 15 | 1.3.40.18127(3GB) | 1.3.40.16659 | 1.3.40.18127 | 1.3.40.18127 | GUI.zip, Web service, database updates |
| 40 | 16 | 1.1.3.40.18585 (3GB) | 1.3.40.16659 | 1.3.40.18585 | 1.3.40.18646 | GUI.zip, Web service, database updates |
| 40 | 16.1 | 1.1.3.40.18705 (3GB) | 1.3.40.16659 | 1.3.40.18585 | 1.3.40.18646 | GUI.zip |

## 7. Installing

1) Copy and replace the current rRIS…zip file with the rRIS_1.3.40.18705.zip file provided with this release.
   Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

For eRAD RIS
Version 1.0
Build 40
Update 40.017

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. New Features ..... 3
   Optimize field navigation ..... 3
   Locking section titles enhanced ..... 5
   New M*Modal Recoginizer File ..... 5
   Reporting – Microphone wizard changes ..... 6
2. Defects Resolved ..... 9
3. Package Contents ..... 10
4. Intended Audience ..... 11
5. Who is affected ..... 11
6. eRAD RIS Release Version Numbers ..... 11
7. Installing ..... 13

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# 1. New Features

## Optimize field navigation

We have a concept of FFF (Form Filling Fields) and regular commands. Until now FFF were using the default M*Modal optimized field navigation. This is believed to be the cause of the second form of jumping. M*Modal is working on a solution but it will take some time before completion.
We have implemented a new user preference setting titled "Aggressive field navigation" that will turn off FFF navigation when unselected. The result will be less aggressive field navigation but it should result in less jumping. To accomplish this we had to create our own voice commands for each field in a similar manner as our macros and other RadNet commands.
To summerize:

- Added new method to ReportTemplateEditor.cs called CreateVoiceCommandsForFields
- Added the call to load the field commands in ReportingRadiologist activate method and to unload the commands in the unloadshortcuts method
- Had to move GetCurrentReportFields methods back to build 40.017 so I could use them to get field data
- Place a check in the CreateVoiceCommandsForFields method to look at the newly created user preference. If on, it will behave as it did before otherwise use our own RadNet commands to navigate.
- Overloaded the NavigateToField method to include by cue or by title
- Handled the new voice commands in ReportingRadiologist to raise the proper navigate to field

The new user preference "Aggressive field navigation" can be found in the Interactive Dictation section on the Reporting tab of the User Preferences window.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

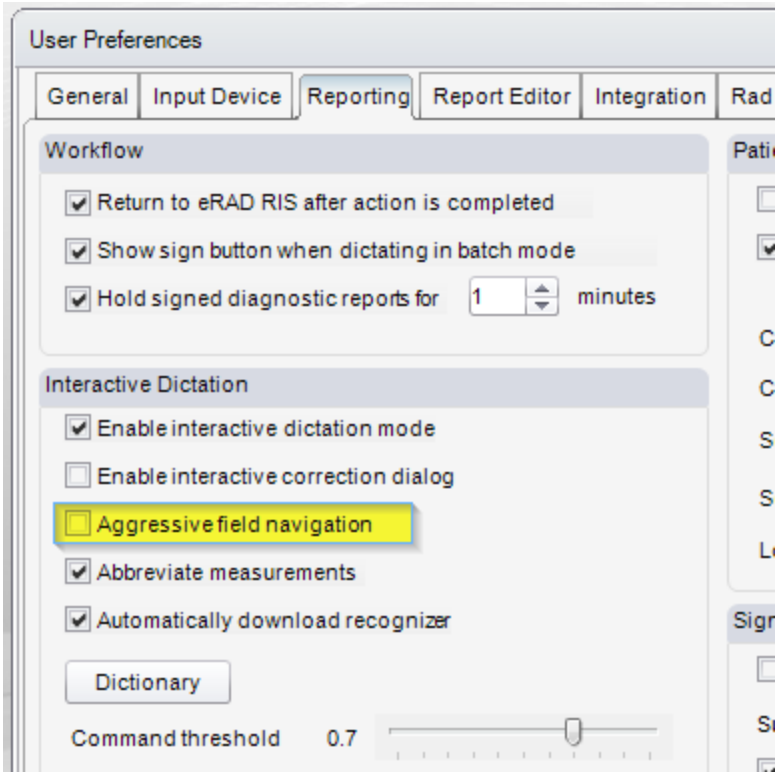



**Figure 1.1 – New user preference "Aggressive field navigation"**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## Locking section titles enhanced

In a previous build the user preference Protect section headers was added to lock the section title and header area to be locked so it could not be deleted or altered. Also within the reporting window a new button was added to toggle this feature on and off when needed. While this feature did not protect the section title completely it did add to the section title from being removed.

In this patch release the section title will also be protected when using interactive dictation. Users were finding the section title could be selected and altered via dictation. For instance, a range of text is completely selected that resided directly above or below a section title, empty spaces may be also selected which may include the start or beginning of the section title. When the user dictated to overwrite the selected text, it would inadvertently remove the section title as well. This has been improved, but is not perfect yet. We have discovered that inserting a macro over the selected text, or if the section title is completely selected, it can overwrite the section title. We have logged an additional bug for this issue.

## New M*Modal Recoginizer File

A new recognizer file has been supplied with this patch release. The new version is v13_v5_351.12341.

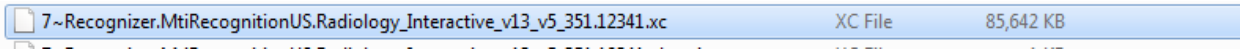



**Figure 1.2 – New M*Modal Recognizer file**

This file can be replaced manually or via the use of the User Preference on the Reporting tab titled "Automatically download recognizer" and at next login, the newest will be downloaded from M*Modal. If this **option** is selected, the user **must be aware** that the Recognizer could change at each login.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## Reporting – Microphone wizard changes

Accessing the microphone wizard has seen some changes in this patch release. First, you will no longer find the wizard in the user preferences section. It will only be accessible from the Reporting windows such as Dictate, or Sign Reports on the editor toolbar.
Secondly, there are now 2 icons for the SpeechMike wizard.

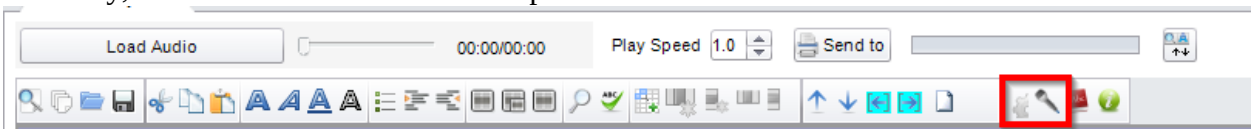



**Figure 1.3 – New icons for speechmike**

The first one is to select Microphone Setting. This window will show you recording devices attached and capturing sound. For instance in testing I was getting poor recognition and this window helped me determine that the internal mic on my laptop was also capturing speech.

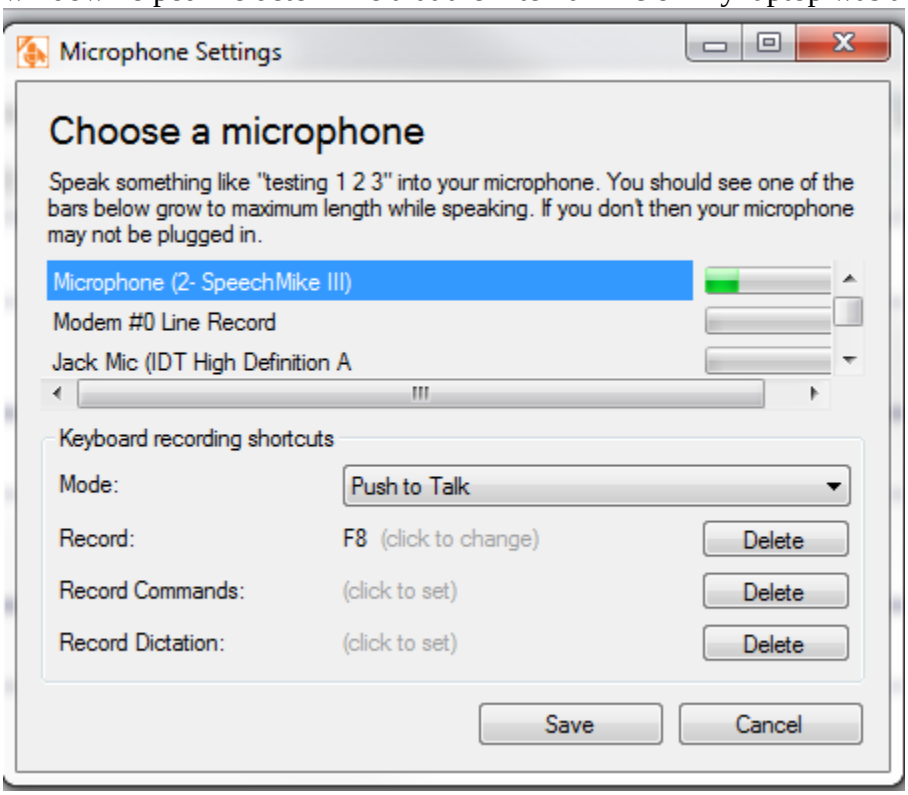



**Figure 1.4 – Microphone setting window**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

The second icon will open the Microphone Calibration window. This simple window will allow the user adjust the microphone by reading the text supplied within the window.

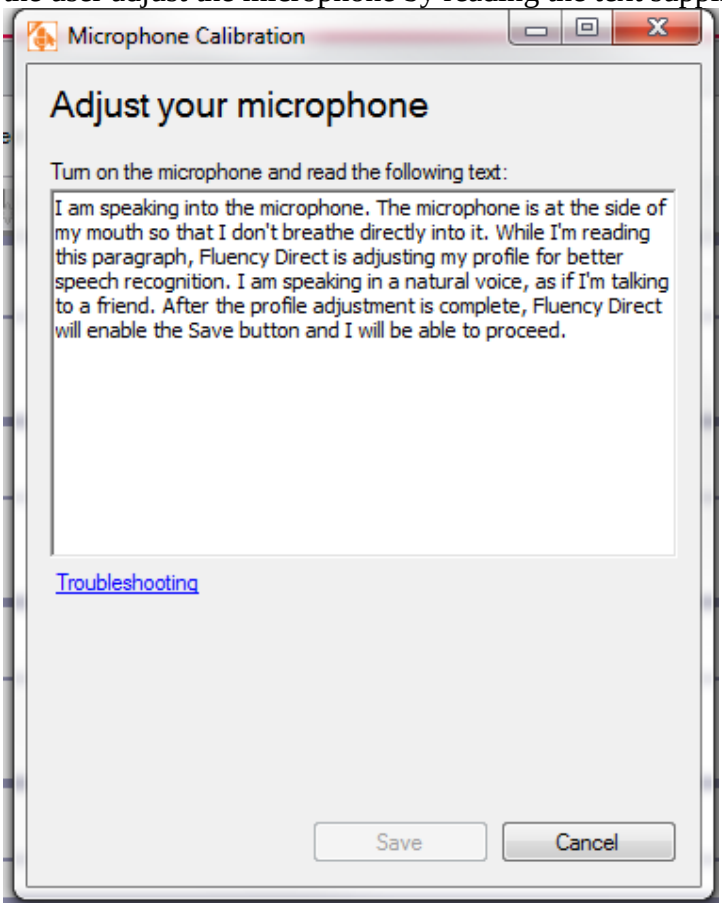



**Figure 1.5 – Microphone calibration window**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

Selecting the Troubleshooting link will give the user 2 options. After reading the text, you can play back what the system has picked up in the last 5 seconds. The second play button will play a prerecorded to verify the sound is being played back.

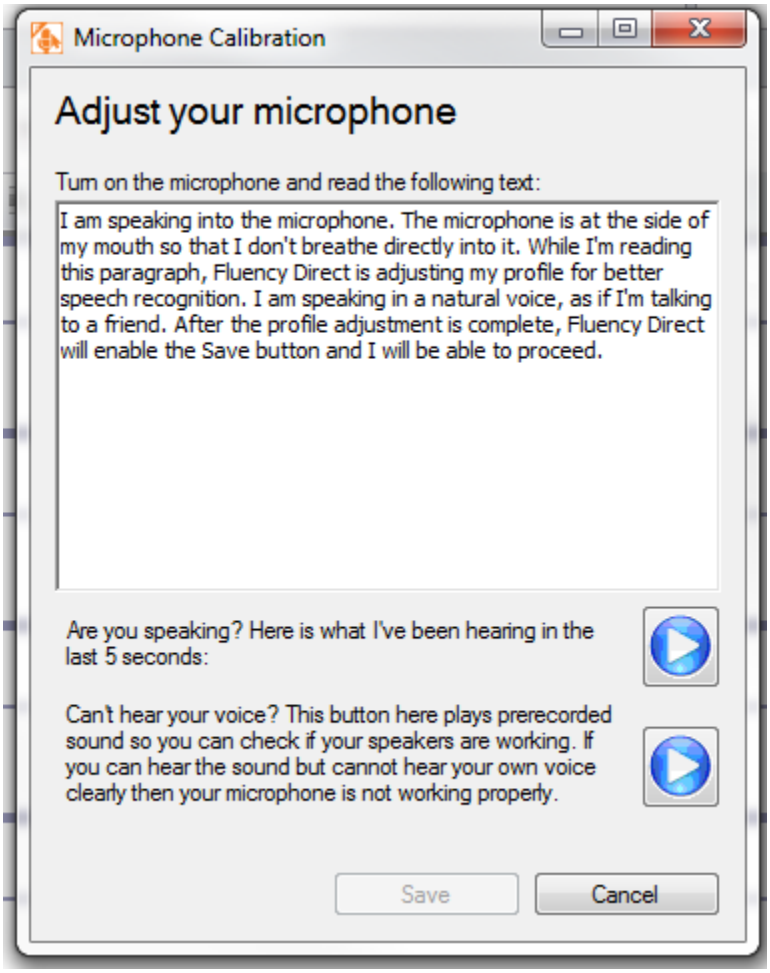



**Figure 1.6 – Troubleshooting options**

NOTE: for Build 40.017, the prerecorded message was not supplied. A message can be recorded and inserted into the appropriate directory with the file name gainWizardTroubleShooting.wav.

Selecting the Play ICON for "Can't hear your voice"… will inform the user that the file was not found and display the directory in which the .wav file should reside.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 2. Defects Resolved

| Redmine # | Subject | Priority |
|---|---|---|
| 4485 | CD Import - Fails with error unable to insert duplicate | Urgent |
| 4476 | CD Import - Crashes when the Date of Service on the CD is less than equal to the year 1753-01-01 | Urgent |
| 4493 | Error when testing 40.17 - Transcription Reort Drafted WL (Create Edit report) | HIgh |
| 4478 | Patient folder navigation | High |
| 4427 | Reporting - implement new M*Modal libraries and functionality 7.82 suite (Feature) | Normal |
| 4293 | Inappropriate activation of verbal cued field | Normal |
| 4226 | Reporting - Need microphone icon | Normal |
| 3734 | Reporting - protect section headers not working with interactive | Normal |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 3. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains
   a) rRIS_1.3.40.18780 (3GB).zip

2) Installer Updates folder contains 1 subfolder called _setup. This subfolder contains
   a) rRISSetup.msi
   b) setup.exe

3) RIS Service Updates folder contains the following files and 1 subfolder titled XSL
   1. CDSJobManager.dll
   2. CDSJobManager.pdb
   3. CdsLib.dll
   4. CdsLib.XmlSerializers.dll
   5. CdsLIb.xml
   6. CommonLib.dll
   7. CommonLib.pdb
   8. DDEngine.dll
   9. DDEngine.pdb
   10. rRISServices.exe
   11. rRISServices.pdb
   12. rRISServicesx64.exe
   13. ScheduledTaskManager.dll
   14. ScheduledTaskManager.pdb
   15. SignatureApprovalService.exe
   16. SignatureApprovalService.pdb
   17. WCFService.dll
   18. WCFService.pdb
   19. WebApi.dll
   20. WebApi.pdb
   21. Wedge.exe
   22. Wedge.pdb
   23. Tourreau.Gilles.FaxDotNet.xml
   24. XSL subfolder contains a stylesheets subfolder which contains
       a. CDAToHTMLCompleteReport.xslt
       b. CDAToHTMLImpressionSection.xslt
       c. CDATorRIS.xslt
       d. CDAToTxt.xslt
       e. DocumentModelReport.xslt
       f. DocumentModelReportAsXml.xslt

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 4. Intended Audience

This document is created by the RIS Development team for the RadNet RIS Implementation team.

## 5. Who is affected

Build 40 installs. This server update must be applied directly to the build 40 core install. Server updates are not cumulative. Any previous server updates must be applied before this one.

## 6. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 37 | - | 1.2.37.12843 | 1.2.37.12782 | 1.2.37.12843 | 1.2.37.12843 | Full version release |
| 37 | 1 | 1.2.37.13040 | 1.2.37.13040 | 1.2.37.13039 | 1.2.37.13003 | Core install, GUI.zip, web service and database updates |
| 37 | 2 | 1.2.37.13069 | 1.2.37.13040 | 1.2.37.13069 | 1.2.37.13003 | GUI.zip and Web service updates |
| 37 | 3 | 1.2.37.13069 | 1.2.37.13040 | 1.2.37.13069 | 1.2.37.13003 | WebAPI updated, no version changes |
| 37 | 4 | 1.2.37.13171 | 1.2.37.13040 | 1.2.37.13165 | 1.2.37.13171 | GUI.zip, web service, and database updates |
| 37 | 5 | 1.2.37.13347 | 1.2.37.13040 | 1.2.37.12979 | 1.2.37.12979 | Bug was discovered with version numbers, this is why it appears we went backwards in the version number but we did not. |
| 37 | 6 | 1.2.37.13665 | 1.2.37.13040 | 1.2.37.13580 | 1.2.37.12979 | GUI.zip and Web service updates |
| 37 | 7 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13799 | 1.2.37.13807 | GUI.zip and Web service updates. Also MIRTH mapping changes |
| 37 | 8 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13827 | 1.2.37.13807 | Web service update |
| 37 | 9 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13839 | 1.2.37.13807 | Web service update |
| 37 | 10 | 1.2.37.13895 | 1.2.37.13040 | 1.2.37.13895 | 1.2.37.13895 | GUI.zip, Web service and database updates |
| 37 | 11 | 1.2.37.14161 | 1.2.37.13040 | 1.2.37.14161 | 1.2.37.14161 | GUI.zip, Web service, database updates and SQL Management reporting |
| 37 | 12 | 1.2.37.14267 | 1.2.37.13040 | 1.2.37.14161 | 1.2.37.14267 | GUI.zip, Web service and database updates |
| 37 | 13 | 1.2.37.14326 | 1.2.37.13040 | 1.2.37.14326 | 1.2.37.14326 | GUI.zip, Web service and database updates |
| 38 | - | 1.2.38.14486 | 1.2.38.14486 | 1.2.38.14486 | 1.2.38.14486 | Full version release |
| 38 | 1 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | Core install required |
| 38 | 2 | 1.2.38.15182 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | GUI.zip update only |
| 38 | 3 | 1.2.38.15251 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | GUI.zip update only |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

| | | | | | | |
|---|---|---|---|---|---|---|
| 38 | 4 | 1.2.38.15327 | 1.2.38.14748 | 1.2.38.15290 | 1.2.38.14748 | GUI.zip and Web service updates |
| 38 | 5 | 1.2.38.15513 | 1.2.38.14748 | 1.2.38.15513 | 1.2.38.15451 | GUI.zip, Web service and database updates |
| 38 | 6 | 1.2.38.15618 | 1.2.38.14748 | 1.2.38.15513 | 1.2.38.15618 | GUI.zip and database updates |
| 38 | 7 | 1.2.38.15768 | 1.2.38.14748 | 1.2.38.15768 | 1.2.38.15618 | GUI.zip and Web Service updates |
| 39 | - | 1.3.39.15389 | 1.3.39.15389 | 1.3.39.15377 | 1.3.39.15355 | Full version release |
| 39 | 1 | 1.3.39.16026 | 1.3.39.15943 | 1.3.39.15943 | 1.3.39.15957 | Requires Core Install. GUI.zip, Web Service, and Database updates |
| 40 | - | 1.3.40.16628 | 1.3.40.16628 | 1.3.40.16628 | 1.3.40.16628 | Full version release |
| 40 | 1 | 1.3.40.16849 | 1.3.40.16659 | 1.3.40.16744 | 1.3.40.16727 | GUI.zip, Web service, database updates and SQL Management reporting |
| 40 | 2 | 1.3.40.16868 | 1.3.40.16659 | 1.3.40.16868 | 1.3.40.16727 | GUI.zip and Web Service |
| 40 | 3 | 1.3.40.16868 | 1.3.40.16659 | 1.3.40.16868 | 1.3.40.16727 | DB updated only |
| 40 | 4 | 1.3.40.16967 | 1.3.40.16659 | 1.3.40.16932 | 1.3.40.16961 | GUI.zip, Web service, database updates |
| 40 | 5 | 1.3.40.17087 | 1.3.40.16659 | 1.3.40.17069 | 1.3.40.17087 | GUI.zip, Web service, database updates |
| 40 | 6 | 1.3.40.17146 | 1.3.40.16659 | 1.3.40.17146 | 1.3.40.17146 | GUI.zip, Web service, database updates |
| 40 | 7 | 1.3.40.17268 | 1.3.40.16659 | 1.3.40.17268 | 1.3.40.17259 | GUI.zip, Web service, database updates |
| 40 | 8 | 1.3.40.17364 | 1.3.40.16659 | 1.3.40.17362 | 1.3.40.17343 | GUI.zip, Web service, database updates |
| 40 | 9 | 1.3.40.17370 | 1.3.40.16659 | 1.3.40.17370 | 1.3.40.17370 | GUI.zip, Web service, database updates |
| 40 | 10 | 1.3.40.17435 | 1.3.40.16659 | 1.3.40.17435 | 1.3.40.17370 | **64 BIT web service**. GUI.zip, Webservice. |
| 40 | 11 | 1.3.40.17435 | 1.3.40.16659 | 1.3.40.17525 | 1.3.40.17370 | Web service update |
| 40 | 12 | 1.3.40.17685 | 1.3.40.16659 | 1.3.40.17685 | 1.3.40.17648 | GUI.zip, Web service, database updates |
| 40 | 13 | 1.3.40.17776 | 1.3.40.16659 | 1.3.40.17776 | 1.3.40.17648 | GUI.zip, Web service |
| 40 | 14 | 1.3.40.18063(3GB) | 1.3.40.16659 | 1.3.40.18063 | 1.3.40.18063 | GUI.zip, Web service, database updates |
| 40 | 14.1 | 1.3.40.18063(3GB) | 1.3.40.16659 | 1.3.40.18107 | 1.3.40.18063 | Web service |
| 40 | 15 | 1.3.40.18127(3GB) | 1.3.40.16659 | 1.3.40.18127 | 1.3.40.18127 | GUI.zip, Web service, database updates |
| 40 | 16 | 1.1.3.40.18585 (3GB) | 1.3.40.16659 | 1.3.40.18585 | 1.3.40.18646 | GUI.zip, Web service, database updates |
| 40 | 16.1 | 1.3.40.18705 (3GB) | 1.3.40.16659 | 1.3.40.18585 | 1.3.40.18646 | GUI.zip |
| 40 | 17 | 1.3.40.18780 (3GB) | 1.3.40.18756 | 1.3.40.18756 | 1.3.40.18646 | **Core install required** for Radiologist User Group. GUI.zip, Core setup, and Web Service updates |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 7. Installing

1) Copy and replace the current rRIS…zip file with the rRIS_1.3.40.18780.zip file provided with this release.
   Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

2) Copy the _setup folder and its contents and replace the _setup folder and its contents. The _setup folder is located in the RISDeployment \Core folder.

   **NOTE:** Core install is required for radiologist users to register the new M*Modal .dll files provided with this build. Other users are not required to run the core install, but may do so if they wish to.

3) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService. Be sure to make backup of all files, but especially the rRISServices.exe.config and rRISServices.vshost.exe.config files.
   *rRISService directories include:*
   *a) rRISService*
   *b) CDS rRISService*
   *c) Wedge rRISService*
   *d) DDE rRISService*

   Restart each service.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

For eRAD RIS
Version 1.0
Build 40
Update 40.018

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. New Features ..... 3
   Optimize field navigation ..... 3
   Recognizer deployment ..... 4
2. Defects Resolved ..... 5
3. Package Contents ..... 6
4. Intended Audience ..... 6
5. Who is affected ..... 6
6. eRAD RIS Release Version Numbers ..... 7
7. Installing ..... 8

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# 1. New Features

## Optimize field navigation

In build 40.017 we introduced a change to the mic wizazrd. The selection of the recording device and Speechmike calibration. Missing in the GUI was the ability to select a playback device. (This can be accomplished in the windows control panel > sound option.) In build 18 we have replaced the Microphone Settings window, with the Recording and Playback Settings window displayed in Figure 1.1.

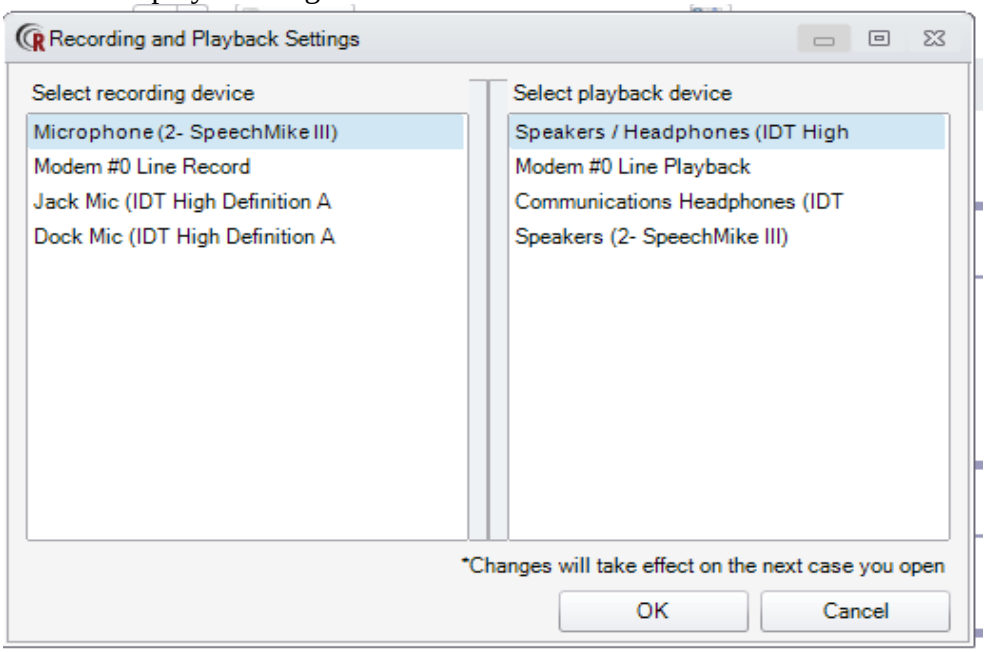



**Figure 1.1 – Recording and Playback Settings**

This window is accessed from within the Reporting window and selecting the Recording and playback settings option on the toolbar.

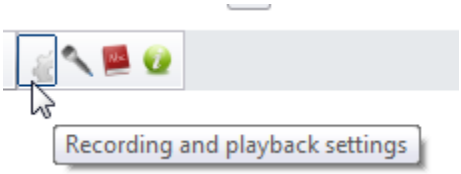



**Figure 1.2 – Recording and Playback Settings toolbar button**

In this window the recording and playback devices can be selected. As noted in the Recording and Playback Settings window the changes will take affect

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## Recognizer deployment

In previous builds the MModal Recognizer file was included with the install process. This has been removed from the install process.

This file can be replaced manually or via the use of the User Preference on the Reporting tab titled "Automatically download recognizer" and at next login, the newest will be downloaded from M*Modal. If this **option** is selected, the user **must be aware** that the Recognizer could change at each login.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 2. Defects Resolved

| Redmine # | Subject | Priority |
|---|---|---|
| 4564 | Batch users lost ability to run microphone wizard to set gain on the microphone | High |
| 4710 | Reporting - inserting a template or macro with interactive timestamps will cause playback corruption and confusion | Urgent |
| 4715 | Portions of reports are not showing in distributed report | Immediate |
| 4717 | Sections from incorrect practice loading into template editor | High |
| 4563 | Inability to change playback device for rads. | High |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 3. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains
   a) rRIS_1.3.40.19253 (3GB).zip

2) RIS Service Updates folder contains the following files and 1 subfolder titled XSL. The XSL folder also contains 1 subfolder titled Stylesheets. The following files are contained in the Stylesheets folder
   a) CDAToHTMLCompleteReport.xslt
   b) CDAToHTMLImpressionSection.xslt
   c) CDATorRIS.xslt
   d) CDAToTxt.xslt
   e) DocumentModelReport.xslt
   f) DocumentModelReportAsXml.xslt

3) SQL folder contains:
   a) B40_018.sql

## 4. Intended Audience

This document is created by the RIS Development team for the RadNet RIS Implementation team.

## 5. Who is affected

Build 40 installs. This server update must be applied directly to the build 40 core install. Server updates are not cumulative. Any previous server updates must be applied before this one.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 6. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 39 | - | 1.3.39.15389 | 1.3.39.15389 | 1.3.39.15377 | 1.3.39.15355 | Full version release |
| 39 | 1 | 1.3.39.16026 | 1.3.39.15943 | 1.3.39.15943 | 1.3.39.15957 | Requires Core Install. GUI.zip, Web Service, and Database updates |
| 40 | - | 1.3.40.16628 | 1.3.40.16628 | 1.3.40.16628 | 1.3.40.16628 | Full version release |
| 40 | 1 | 1.3.40.16849 | 1.3.40.16659 | 1.3.40.16744 | 1.3.40.16727 | GUI.zip, Web service, database updates and SQL Management reporting |
| 40 | 2 | 1.3.40.16868 | 1.3.40.16659 | 1.3.40.16868 | 1.3.40.16727 | GUI.zip and Web Service |
| 40 | 3 | 1.3.40.16868 | 1.3.40.16659 | 1.3.40.16868 | 1.3.40.16727 | DB updated only |
| 40 | 4 | 1.3.40.16967 | 1.3.40.16659 | 1.3.40.16932 | 1.3.40.16961 | GUI.zip, Web service, database updates |
| 40 | 5 | 1.3.40.17087 | 1.3.40.16659 | 1.3.40.17069 | 1.3.40.17087 | GUI.zip, Web service, database updates |
| 40 | 6 | 1.3.40.17146 | 1.3.40.16659 | 1.3.40.17146 | 1.3.40.17146 | GUI.zip, Web service, database updates |
| 40 | 7 | 1.3.40.17268 | 1.3.40.16659 | 1.3.40.17268 | 1.3.40.17259 | GUI.zip, Web service, database updates |
| 40 | 8 | 1.3.40.17364 | 1.3.40.16659 | 1.3.40.17362 | 1.3.40.17343 | GUI.zip, Web service, database updates |
| 40 | 9 | 1.3.40.17370 | 1.3.40.16659 | 1.3.40.17370 | 1.3.40.17370 | GUI.zip, Web service, database updates |
| 40 | 10 | 1.3.40.17435 | 1.3.40.16659 | 1.3.40.17435 | 1.3.40.17370 | **64 BIT web service**. GUI.zip, Webservice. |
| 40 | 11 | 1.3.40.17435 | 1.3.40.16659 | 1.3.40.17525 | 1.3.40.17370 | Web service update |
| 40 | 12 | 1.3.40.17685 | 1.3.40.16659 | 1.3.40.17685 | 1.3.40.17648 | GUI.zip, Web service, database updates |
| 40 | 13 | 1.3.40.17776 | 1.3.40.16659 | 1.3.40.17776 | 1.3.40.17648 | GUI.zip, Web service |
| 40 | 14 | 1.3.40.18063(3GB) | 1.3.40.16659 | 1.3.40.18063 | 1.3.40.18063 | GUI.zip, Web service, database updates |
| 40 | 14.1 | 1.3.40.18063(3GB) | 1.3.40.16659 | 1.3.40.18107 | 1.3.40.18063 | Web service |
| 40 | 15 | 1.3.40.18127(3GB) | 1.3.40.16659 | 1.3.40.18127 | 1.3.40.18127 | GUI.zip, Web service, database updates |
| 40 | 16 | 1.1.3.40.18585 (3GB) | 1.3.40.16659 | 1.3.40.18585 | 1.3.40.18646 | GUI.zip, Web service, database updates |
| 40 | 16.1 | 1.3.40.18705 (3GB) | 1.3.40.16659 | 1.3.40.18585 | 1.3.40.18646 | GUI.zip |
| 40 | 17 | 1.3.40.18780 (3GB) | 1.3.40.18756 | 1.3.40.18756 | 1.3.40.18646 | **Core install required** for Radiologist User Group. GUI.zip, Core setup, and Web Service updates |
| 40 | 18 | 1.3.40.19253(3GB) | 1.3.40.18756 | 1.3.40.18756 | 1.3.40.19253 | GUI.zip, Web Service and database updates |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 7. Installing

1) Copy and replace the current rRIS…zip file with the rRIS_1.3.40.19253.zip file provided with this release.
   Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

2) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService. Be sure to make backup of all files, but especially the rRISServices.exe.config and rRISServices.vshost.exe.config files.
   *rRISService directories include:*
   a) *rRISService*
   b) *CDS rRISService*
   c) *Wedge rRISService*
   d) *DDE rRISService*

   Restart each service.

3) Run the B40_018.sql file against the eRAD RIS database instance.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

## For eRAD RIS
## Version 1.0
## Build 40
## Update 40.019

Due to a few bugs discovered this software release will not be available for installation. The bugs fixes and new features listed in this document will be available in 40.020

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. New Features ..... 3
   Reporting - Limit or convert special characters in cue names, macros and templates ..... 3
   Reporting - Ability to map “delete last word” to input devices ..... 3
   Reporting - Ability to map “Redo” or “Undo” to input devices ..... 3
   Reporting - Radiologist edit text color ..... 3
   Reporting - field tooltips staying on top of other screens after displaying ..... 3
2. Defects Resolved ..... 5
3. Package Contents ..... 6
4. Intended Audience ..... 8
5. Who is affected ..... 8
6. eRAD RIS Release Version Numbers ..... 9
7. Installing ..... 10

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# 1. New Features

### Reporting - Limit or convert special characters in cue names, macros and templates

Conversion of special characters in cue names, macros and templates.
In a template if you have a field with a value in the cue like this "Technique :"
When you save the template and reopen it, the : is converted as follows "Technique %colon%".

This feature does the following, while dictating an exam and you say the words Technique colon, your cursor will be brought to the field that has a value of "Technique %colon%" in the cue.

NOTE: The user preference "Aggressive field navigation" must be checked for this feature to work, after checking this preference, a restart of RIS is required.

### Reporting - Ability to map "delete last word" to input devices

Mappings were added to delete last word functionality with keyboard, foot pedal and speechmike buttons.
This is User Preference > Input Device > SpeechMike Button Actions > DeleteWordLeftOfCursor

Known limitation: At some point we were able to delete last word multiple times, then redo each word individually. But if the input devices are set up to perform these actions, the Undo and Redo does nothing after executing this action.

### Reporting - Ability to map "Redo" and "Undo" to input devices

Mappings were added for Redo and Undo functionality with keyboard, foot pedal and speechmike buttons.
This is User Preference > Input Device > SpeechMike Button Actions > Redo or Undo

### Reporting - Radiologist edit text color

Added the ability to see what text was typed into the report by a radiologist. A new user preference was added to the editor appearance settings in Dictation window "Radiologist Typed Text". The editor will use the selected color.

### Reporting - field tooltips staying on top of other screens after displaying

When you hover the mouse over a field it will display the tooltip popup, this is great. Now when you alt+tab, so that another application comes up on top of the report editor, you will notice the tooltip popup is still there.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

A new user preference was added "Show report field tooltips", which will disable the tooltip feature.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 2. Defects Resolved

| Redmine # | Subject | Priority |
|---|---|---|
| 4857 | Wrong document model is loading in template editor | Urgent |
| 4952 | Reporting - ability to navigate cued fields without pausing | High |
| 4798 | Reporting - 7.82+ Numbering paragraphs creates an unwanted list | High |
| 4740 | Reporting - playback is not in order of dictated | High |
| 4717 | Sections from incorrect practice loading into template editor | High |
| 3767 | Using next field button while dictating (Fisher site visit) | High |
| 1441 | Interactive VR - Voice Commands not recognized efficiently | High |
| 5148 | Reporting - speech mics 3500 and 3600 showing incorrectly in Help>About | Normal |
| 5048 | Reporting - New recognizer for 7.88 | Normal |
| 4975 | Next field voice command, showing field popup for one field too far | Normal |
| 4961 | Reporting - improper capitalization of measurements outside of a field | Normal |
| 4960 | Reporting - structured lists splitting when dictating next item in the middle of an existing item | Normal |
| 4959 | Reporting - ability to dictate 'next item' without pausing | Normal |
| 4958 | Reporting - integrate M*Modal 7.88 release into 40.019 code stream. | Normal |
| 4957 | Reporting - negative two views rendering | Normal |
| 4954 | Reporting - ability to dictate negative or minus numbers | Normal |
| 4732 | Reporting - AudioReplacementEnabled on causes "undo that" to malfunction | Normal |
| 3838 | Improve performance of "next field" (CRA site visit) | Normal |
| 3072 | Reporting - Not a field exception causing application hang | Normal |
| 2981 | M*Modal - select command will not select first or last word in a field | Normal |
| 2520 | Reporting - interactive number lists are not consistent | Normal |
| 3840 | Unable to dictate "+" into a report (CRA site visit) | Low |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 3. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains
   a) rRIS_1.3.40.19909(3GB).zip

2) RIS Service Updates folder contains the following files and 2 subfolders titled config and XSL.
   a) CDSJobManager.dll
   b) CDSJobManager.pdb
   c) CdsLib.dll
   d) CdsLib.xml
   e) CdsLib.XmlSerializers.dll
   f) CommonLib.dll
   g) CommonLib.pdb
   h) DDEngine.dll
   i) DDEngine.pdb
   j) Interop.FAXCOMEXLib.dll
   k) Microsoft.Practices.EnterpriseLibrary.Caching.dll
   l) Microsoft.Practices.EnterpriseLibrary.Caching.pdb
   m) Microsoft.Practices.EnterpriseLibrary.Common.dll
   n) Microsoft.Practices.EnterpriseLibrary.Common.pdb
   o) Microsoft.Practices.EnterpriseLibrary.Logging.dll
   p) Microsoft.Practices.EnterpriseLibrary.Logging.pdb
   q) Microsoft.Practices.ServiceLocation.dll
   r) Microsoft.Practices.ServiceLocation.pdb
   s) Microsoft.Practices.Unity.dll
   t) Microsoft.Practices.Unity.Interception.dll
   u) Microsoft.Practices.Unity.Interception.pdb
   v) Microsoft.Practices.Unity.pdb
   w) Microsoft.ReportViewer.Common.dll
   x) Microsoft.ReportViewer.WinForms.dll
   y) Microsoft.ReportViewer.WinForms.dll
   z) Newtonsoft.Json.dll
   aa) Ninject.dll
   bb) Ninject.Web.Common.dll
   cc) Ninject.Web.Common.xml
   dd) Ninject.xml
   ee) O2S.Components.PDFRender4NET.dll
   ff) PDFToImages.exe
   gg) rRISServices.exe
   hh) rRISServices.exe.config

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

ii) rRISServices.pdb
jj) rRISServicesx64.exe
kk) rRISServicesx64.exe.config
ll) ScheduledTaskManager.dll
mm) ScheduledTaskManager.pdb
nn) SignatureApprovalService.exe
oo) SignatureApprovalService.pdb
pp) System.Net.Http.dll
qq) System.Net.Http.Formatting.dll
rr) System.Net.Http.WebRequest.dll
ss) System.Web.dll
tt) System.Web.Helpers.dll
uu) System.Web.Helpers.xml
vv) System.Web.Http.dll
ww) System.Web.Http.SelfHost.dll
xx) System.Web.Http.WebHost.dll
yy) System.Web.Http.WebHost.xml
zz) System.Web.Mvc.dll
aaa) System.Web.Mvc.xml
bbb) System.Web.Optimization.dll
ccc) System.Web.Providers.dll
ddd) System.Web.Razor.dll
eee) System.Web.Razor.xml
fff) System.Web.WebPages.Deployment.dll
ggg) System.Web.WebPages.Deployment.xml
hhh) System.Web.WebPages.dll
iii) System.Web.WebPages.Razor.dll
jjj) System.Web.WebPages.Razor.xml
kkk) System.Web.WebPages.xml
lll) Tourreau.Gilles.FaxDotNet.dll
mmm) Tourreau.Gilles.FaxDotNet.pdb
nnn) Tourreau.Gilles.FaxDotNet.xml
ooo) WCFService.dll
ppp) WCFService.pdb
qqq) WebApi.dll
rrr) WebApi.pdb
sss) Wedge.exe
ttt) Wedge.pdb

The config folder contains the following files:

a) Applicationsettings.config
b) Connectionstrings.config
c) Services.config

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

The XSL folder also contains 1 subfolder titled Stylesheets. The following files are contained in the Stylesheets folder

a) CDAToHTMLCompleteReport.xslt
b) CDAToHTMLImpressionSection.xslt
c) CDATorRIS.xslt
d) CDAToTxt.xslt
e) DocumentModelReport.xslt
f) DocumentModelReportAsXml.xslt

3) Recognizer folder contains:
   a) 7~Recognizer.MtiRecognitionUS.Radiology_Interactive_v13_v5_401.12893.xc
   b) 7~Recognizer.MtiRecognitionUS.Radiology_Interactive_v13_v5_401.12893-descriptor.xc

## 4. Intended Audience

This document is created by the RIS Development team for the RadNet RIS Implementation team.

## 5. Who is affected

Build 40 installs. This server update must be applied directly to the build 40 core install. Server updates are not cumulative. Any previous server updates must be applied before this one.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 6. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 39 | - | 1.3.39.15389 | 1.3.39.15389 | 1.3.39.15377 | 1.3.39.15355 | Full version release |
| 39 | 1 | 1.3.39.16026 | 1.3.39.15943 | 1.3.39.15943 | 1.3.39.15957 | Requires Core Install. GUI.zip, Web Service, and Database updates |
| 40 | - | 1.3.40.16628 | 1.3.40.16628 | 1.3.40.16628 | 1.3.40.16628 | Full version release |
| 40 | 1 | 1.3.40.16849 | 1.3.40.16659 | 1.3.40.16744 | 1.3.40.16727 | GUI.zip, Web service, database updates and SQL Management reporting |
| 40 | 2 | 1.3.40.16868 | 1.3.40.16659 | 1.3.40.16868 | 1.3.40.16727 | GUI.zip and Web Service |
| 40 | 3 | 1.3.40.16868 | 1.3.40.16659 | 1.3.40.16868 | 1.3.40.16727 | DB updated only |
| 40 | 4 | 1.3.40.16967 | 1.3.40.16659 | 1.3.40.16932 | 1.3.40.16961 | GUI.zip, Web service, database updates |
| 40 | 5 | 1.3.40.17087 | 1.3.40.16659 | 1.3.40.17069 | 1.3.40.17087 | GUI.zip, Web service, database updates |
| 40 | 6 | 1.3.40.17146 | 1.3.40.16659 | 1.3.40.17146 | 1.3.40.17146 | GUI.zip, Web service, database updates |
| 40 | 7 | 1.3.40.17268 | 1.3.40.16659 | 1.3.40.17268 | 1.3.40.17259 | GUI.zip, Web service, database updates |
| 40 | 8 | 1.3.40.17364 | 1.3.40.16659 | 1.3.40.17362 | 1.3.40.17343 | GUI.zip, Web service, database updates |
| 40 | 9 | 1.3.40.17370 | 1.3.40.16659 | 1.3.40.17370 | 1.3.40.17370 | GUI.zip, Web service, database updates |
| 40 | 10 | 1.3.40.17435 | 1.3.40.16659 | 1.3.40.17435 | 1.3.40.17370 | **64 BIT web service**. GUI.zip, Webservice. |
| 40 | 11 | 1.3.40.17435 | 1.3.40.16659 | 1.3.40.17525 | 1.3.40.17370 | Web service update |
| 40 | 12 | 1.3.40.17685 | 1.3.40.16659 | 1.3.40.17685 | 1.3.40.17648 | GUI.zip, Web service, database updates |
| 40 | 13 | 1.3.40.17776 | 1.3.40.16659 | 1.3.40.17776 | 1.3.40.17648 | GUI.zip, Web service |
| 40 | 14 | 1.3.40.18063(3GB) | 1.3.40.16659 | 1.3.40.18063 | 1.3.40.18063 | GUI.zip, Web service, database updates |
| 40 | 14.1 | 1.3.40.18063(3GB) | 1.3.40.16659 | 1.3.40.18107 | 1.3.40.18063 | Web service |
| 40 | 15 | 1.3.40.18127(3GB) | 1.3.40.16659 | 1.3.40.18127 | 1.3.40.18127 | GUI.zip, Web service, database updates |
| 40 | 16 | 1.1.3.40.18585 (3GB) | 1.3.40.16659 | 1.3.40.18585 | 1.3.40.18646 | GUI.zip, Web service, database updates |
| 40 | 16.1 | 1.3.40.18705 (3GB) | 1.3.40.16659 | 1.3.40.18585 | 1.3.40.18646 | GUI.zip |
| 40 | 17 | 1.3.40.18780 (3GB) | 1.3.40.18756 | 1.3.40.18756 | 1.3.40.18646 | **Core install required** for Radiologist User Group. GUI.zip, Core setup, and Web Service updates |
| 40 | 18 | 1.3.40.19253(3GB) | 1.3.40.18756 | 1.3.40.18756 | 1.3.40.19253 | GUI.zip, Web Service and database updates |
| 40 | 19 | 1.3.40.19909 (3GB) | 1.3.40.18756 | 1.3.40.19831 | 1.3.40.19253 | GUI.zip, Web services, Recognizer files |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 7. Installing

1) Copy and replace the current rRIS…zip file with the rRIS_1.3.40.19909.zip file provided with this release.
   Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

2) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService. Be sure to make backup of all files, but especially the rRISServices.exe.config and rRISServices.vshost.exe.config files.
   *rRISService directories include:*
   *a) rRISService*
   *b) CDS rRISService*
   *c) Wedge rRISService*
   *d) DDE rRISService*

   Restart each service.

3) Copy the Recognizer files to your local machine to the following folder.
   Note: this could be a hidden folder.
   C:\ProgramData\RadNet\Recognizer\2.16.840.1.113883.3.21\

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

For eRAD RIS
Version 1.0
Build 40
Update 40.020

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. New Features ..... 3
   Reporting - Limit or convert special characters in cue names, macros and templates ..... 3
   Reporting - Ability to map “delete last word” to input devices ..... 4
   Reporting - Ability to map “Redo” and “Undo” to input devices ..... 5
   Reporting - Radiologist edit text color ..... 6
   Reporting - field tooltips staying on top of other screens after displaying ..... 7
2. Defects Resolved ..... 8
3. Code Stream ..... 9
4. Package Contents ..... 10
5. Intended Audience ..... 11
6. Who is affected ..... 11
7. eRAD RIS Release Version Numbers ..... 12
8. Installing ..... 13
9. Known Limitations ..... 13

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# 1. New Features

## Reporting - Limit or convert special characters in cue names, macros and templates

Conversion of special characters in cue names, macros and templates.
In a template if you have a field with a value in the cue like this "Technique :"
When you save the template and reopen it, the : is converted as follows "Technique %colon%".

This feature does the following, while dictating an exam and you say the words Technique colon, your cursor will be brought to the field that has a value of "Technique %colon%" in the cue.

NOTE: The user preference "Aggressive field navigation" must be checked for this feature to work, after checking this preference, a restart of RIS is required.

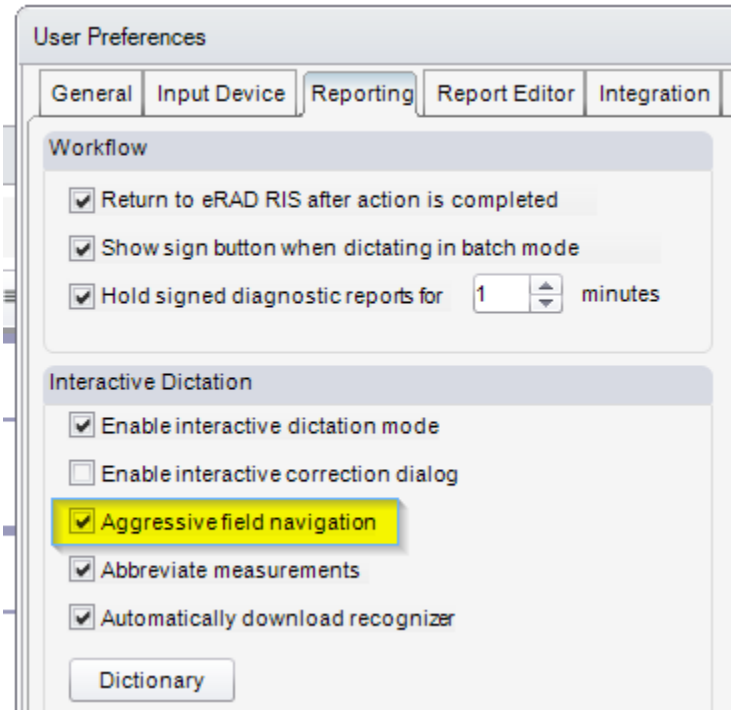



**Figure 1.1 – User preference "Aggressive field navigation"**

NOTE: the user preference "Aggressive field navigation" will need to be selected for "No Wait Navigate". We had issues in the past when dictating in Field 1 and before the text was inserted the command for next field was issued. The text that had not yet been inserted in Field 1 would appear in Field 2. This has been addressed, but as mentioned above the Aggressive field navigation user preference needs to be enabled.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## Reporting - Ability to map "delete last word" to input devices

This new feature titled "DeleteWordLeftOfCursor" can be mapped as SpeechMike button, keyboard left/right arrow key, Foot Pedal button and also implemented as an xKeys command manually using the preexisting xKeys set up.

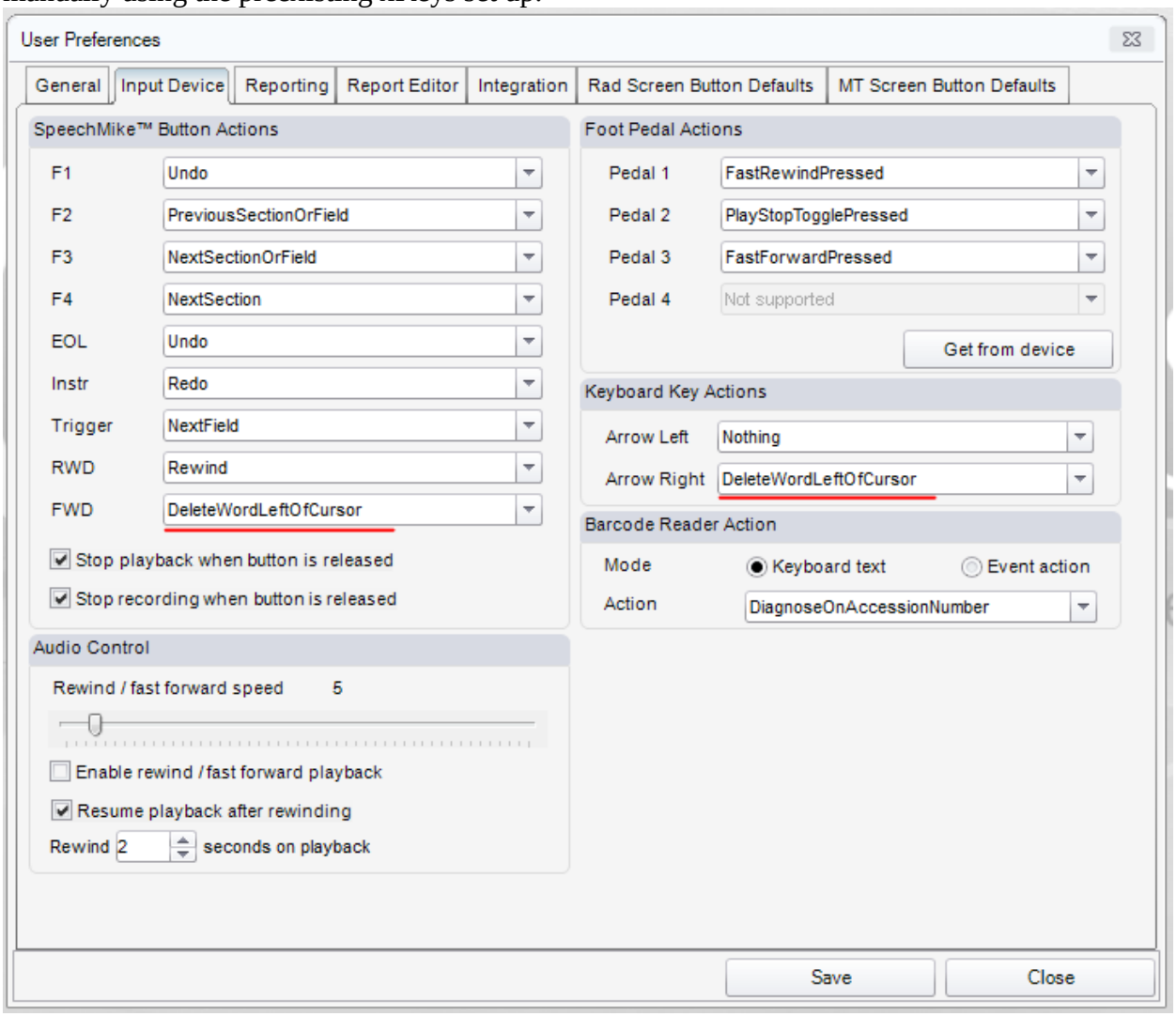



**Figure 1.2 - DeleteWordLeftOfCursor function in user preferences**

Support has been added for itemized lists. If you reach the end of a list item while deleting the last word, the empty item will be removed and the cursor will go to the end of the previous item.

Known limitation: At some point we were able to delete last word multiple times, then redo each word individually. But if the input devices are set up to perform these actions, the Undo and Redo does nothing after executing this action.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## Reporting - Ability to map "Redo" and "Undo" to input devices

We have added two new SpeechMike function key options that can be assigned. The options of Undo and Redo have been added. These new options can also be made the default action of the keyboards left and right arrow keys.

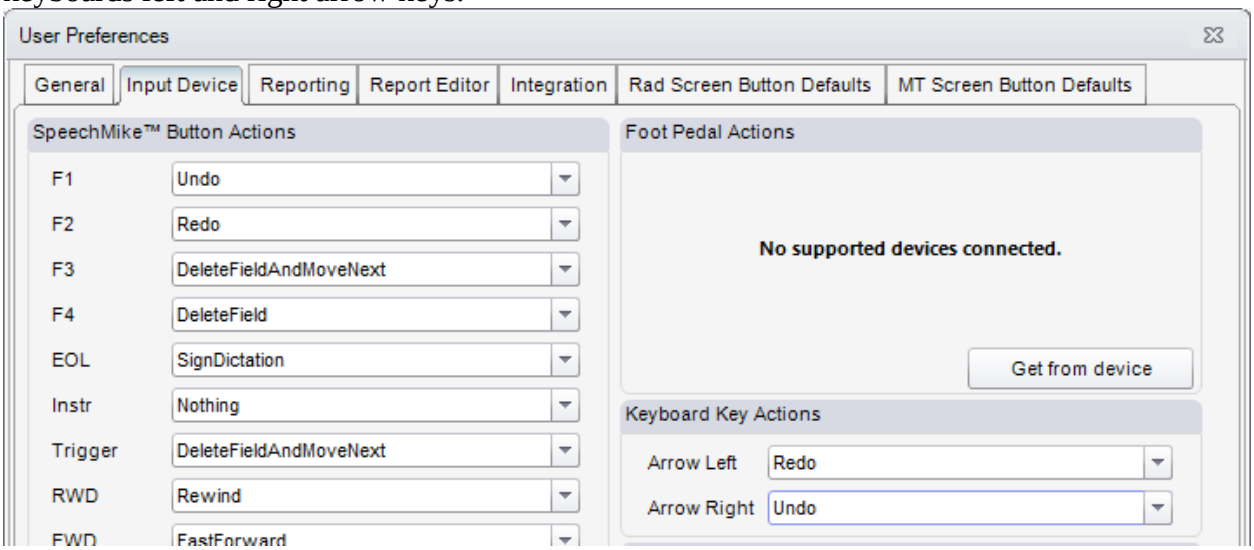



**Figure 1.3 – The Undo and Redo options added for SpeechMike buttons and Keyboard arrow actions**

It should be noted that these options can also be set as default Foot Pedal Actions and also mapped as an xKey command manually using the existing xKeys set up.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## Reporting - Radiologist edit text color

Within the reporting window, the user can open the context menu (right click) on the editor. This will present the user with a list of options. Selecting the "Editor Appearance" option will open the "Editor Appearance" window. A new option has been added.

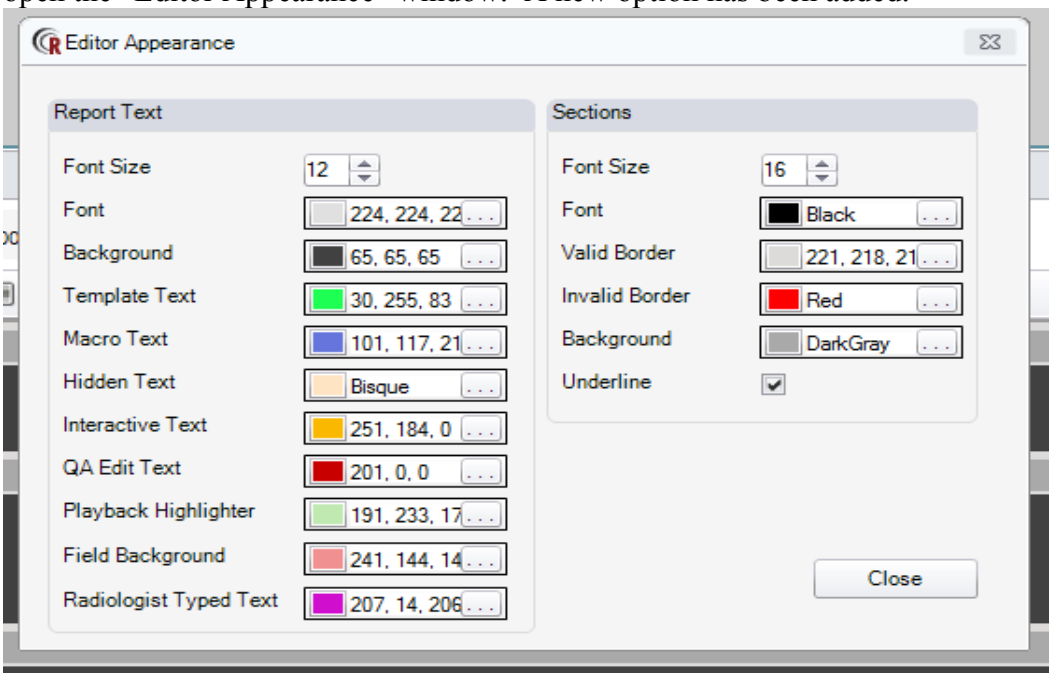



**Figure 1.4 – Editor Appearance window with new Radiologist Typed Text option**

This new option controls the color of the manually entered/edited text by the radiologist

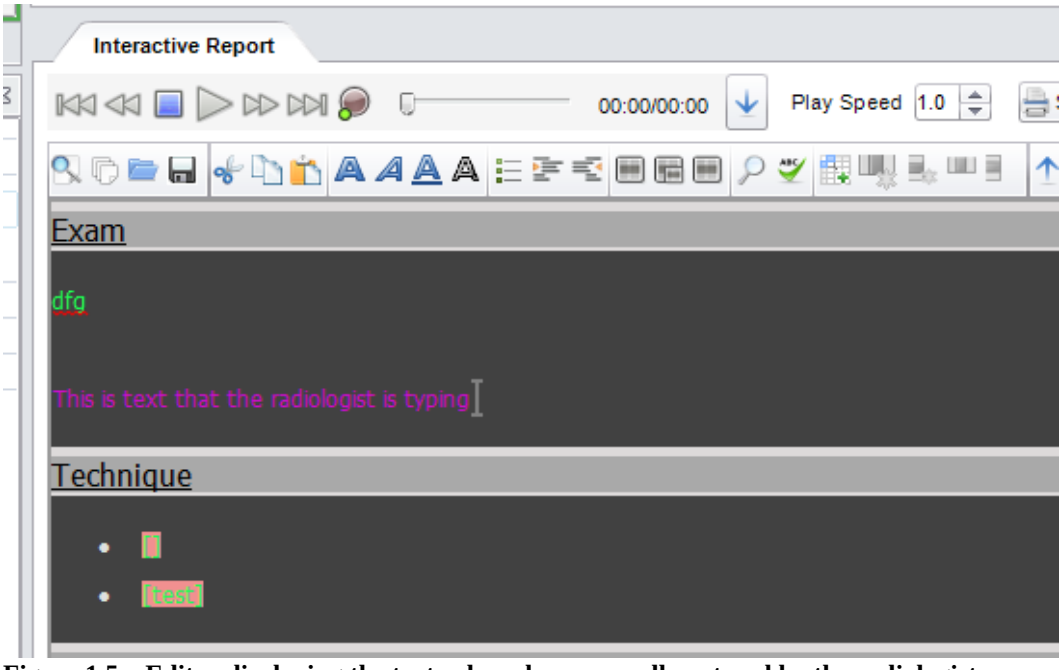



**Figure 1.5 – Editor displaying the text color when manually entered by the radiologist.**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## Reporting - field tooltips staying on top of other screens after displaying

Templates used in the reporting window can have navigational fields pre-defined in the template. Each of these fields has a name associated with it. If the mouse pointer hovers over a field it will display the field name in a tooltip.

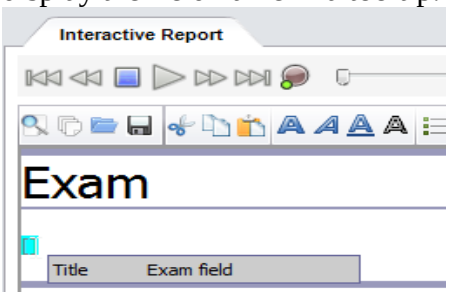



**Figure 1.6 – Reporting field tooltip.**

A new user preference on the Report Editor tab called "Show report field tooltips" will enable/disable the tooltip from displaying.

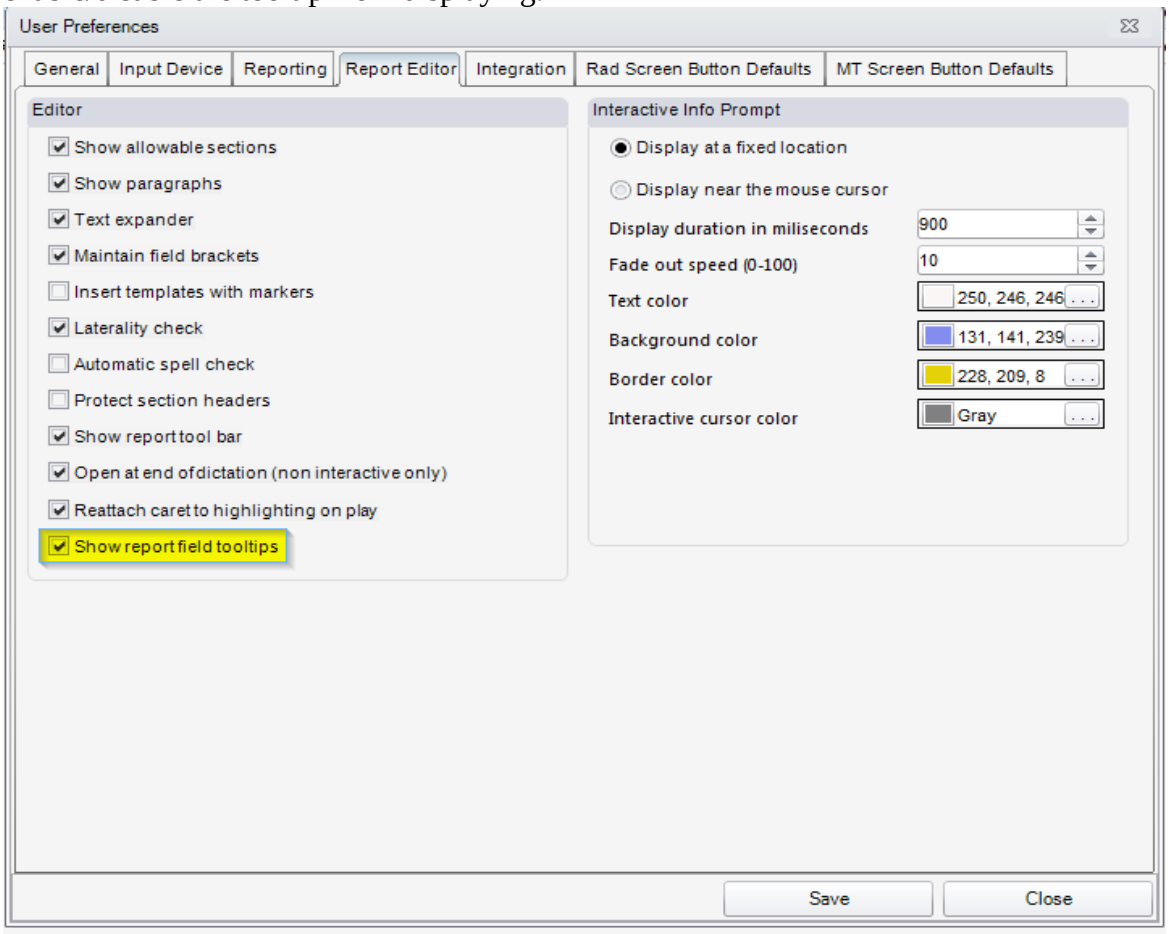



**Figure 1.7 – New User Preference "Show report field tooltips"**

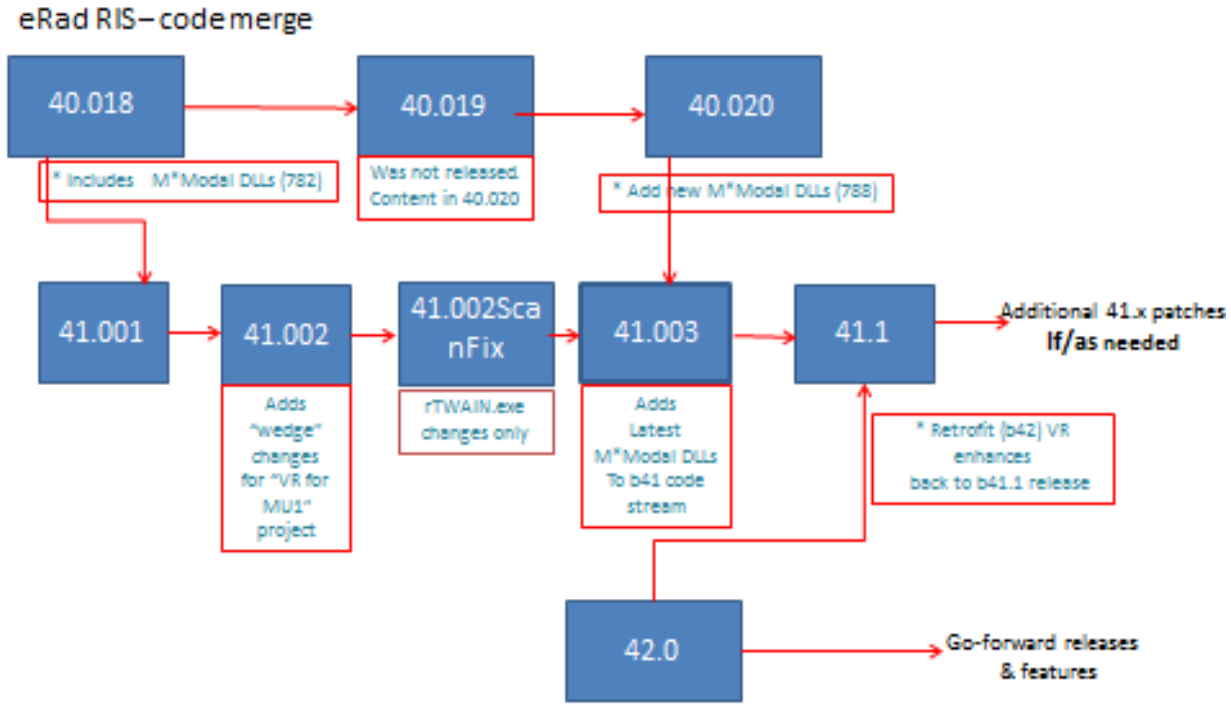
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 2. Defects Resolved

| Redmine # | Subject | Priority |
|---|---|---|
| 4857 | Wrong document model is loading in template editor | Urgent |
| 4952 | Reporting - ability to navigate cued fields without pausing | High |
| 4798 | Reporting - 7.82+ Numbering paragraphs creates an unwanted list | High |
| 4740 | Reporting - playback is not in order of dictated | High |
| 4717 | Sections from incorrect practice loading into template editor | High |
| 3767 | Using next field button while dictating (Fisher site visit) | High |
| 1441 | Interactive VR - Voice Commands not recognized efficiently | High |
| 5148 | Reporting - speech mics 3500 and 3600 showing incorrectly in Help>About | Normal |
| 5048 | Reporting - New recognizer for 7.88 | Normal |
| 4975 | Next field voice command, showing field popup for one field too far | Normal |
| 4961 | Reporting - improper capitalization of measurements outside of a field | Normal |
| 4960 | Reporting - structured lists splitting when dictating next item in the middle of an existing item | Normal |
| 4959 | Reporting - ability to dictate 'next item' without pausing | Normal |
| 4958 | Reporting - integrate M*Modal 7.88 release into 40.019 code stream. | Normal |
| 4957 | Reporting - negative two views rendering | Normal |
| 4954 | Reporting - ability to dictate negative or minus numbers | Normal |
| 4732 | Reporting - AudioReplacementEnabled on causes "undo that" to malfunction | Normal |
| 3838 | Improve performance of "next field" (CRA site visit) | Normal |
| 3072 | Reporting - Not a field exception causing application hang | Normal |
| 2981 | M*Modal - select command will not select first or last word in a field | Normal |
| 2520 | Reporting - interactive number lists are not consistent | Normal |
| 3840 | Unable to dictate "+" into a report (CRA site visit) | Low |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 3. Code Stream




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 4. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains
   a) rRIS_1.3.40.20086(3GB).zip

2) RIS Service Updates folder contains the following files.
   a) CDSJobManager.dll
   b) CDSJobManager.pdb
   c) CommonLib.dll
   d) CommonLib.pdb
   e) DDEngine.dll
   f) DDEngine.pdb
   g) rRISServices.exe
   h) rRISServices.pdb
   i) rRISServicesx64.exe
   j) ScheduledTaskManager.dll
   k) ScheduledTaskManager.pdb
   l) SignatureApprovalService.exe
   m) SignatureApprovalService.pdb
   n) WCFService.dll
   o) WCFService.pdb
   p) WebApi.dll
   q) WebApi.pdb
   r) Wedge.exe
   s) Wedge.pdb

3) Recognizer folder contains:
   a) 7~Recognizer.MtiRecognitionUS.Radiology_Interactive_v13_v5_401.12965.xc
   b) 7~Recognizer.MtiRecognitionUS.Radiology_Interactive_v13_v5_401.12965-descriptor.xc

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 5. Intended Audience

This document is created by the RIS Development team for the RadNet RIS Implementation team.

## 6. Who is affected

Build 40 installs. This server update must be applied directly to the build 40 core install. Server updates are not cumulative. Any previous server updates must be applied before this one.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 7. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 39 | - | 1.3.39.15389 | 1.3.39.15389 | 1.3.39.15377 | 1.3.39.15355 | Full version release |
| 39 | 1 | 1.3.39.16026 | 1.3.39.15943 | 1.3.39.15943 | 1.3.39.15957 | Requires Core Install. GUI.zip, Web Service, and Database updates |
| 40 | - | 1.3.40.16628 | 1.3.40.16628 | 1.3.40.16628 | 1.3.40.16628 | Full version release |
| 40 | 1 | 1.3.40.16849 | 1.3.40.16659 | 1.3.40.16744 | 1.3.40.16727 | GUI.zip, Web service, database updates and SQL Management reporting |
| 40 | 2 | 1.3.40.16868 | 1.3.40.16659 | 1.3.40.16868 | 1.3.40.16727 | GUI.zip and Web Service |
| 40 | 3 | 1.3.40.16868 | 1.3.40.16659 | 1.3.40.16868 | 1.3.40.16727 | DB updated only |
| 40 | 4 | 1.3.40.16967 | 1.3.40.16659 | 1.3.40.16932 | 1.3.40.16961 | GUI.zip, Web service, database updates |
| 40 | 5 | 1.3.40.17087 | 1.3.40.16659 | 1.3.40.17069 | 1.3.40.17087 | GUI.zip, Web service, database updates |
| 40 | 6 | 1.3.40.17146 | 1.3.40.16659 | 1.3.40.17146 | 1.3.40.17146 | GUI.zip, Web service, database updates |
| 40 | 7 | 1.3.40.17268 | 1.3.40.16659 | 1.3.40.17268 | 1.3.40.17259 | GUI.zip, Web service, database updates |
| 40 | 8 | 1.3.40.17364 | 1.3.40.16659 | 1.3.40.17362 | 1.3.40.17343 | GUI.zip, Web service, database updates |
| 40 | 9 | 1.3.40.17370 | 1.3.40.16659 | 1.3.40.17370 | 1.3.40.17370 | GUI.zip, Web service, database updates |
| 40 | 10 | 1.3.40.17435 | 1.3.40.16659 | 1.3.40.17435 | 1.3.40.17370 | **64 BIT web service**. GUI.zip, Webservice. |
| 40 | 11 | 1.3.40.17435 | 1.3.40.16659 | 1.3.40.17525 | 1.3.40.17370 | Web service update |
| 40 | 12 | 1.3.40.17685 | 1.3.40.16659 | 1.3.40.17685 | 1.3.40.17648 | GUI.zip, Web service, database updates |
| 40 | 13 | 1.3.40.17776 | 1.3.40.16659 | 1.3.40.17776 | 1.3.40.17648 | GUI.zip, Web service |
| 40 | 14 | 1.3.40.18063(3GB) | 1.3.40.16659 | 1.3.40.18063 | 1.3.40.18063 | GUI.zip, Web service, database updates |
| 40 | 14.1 | 1.3.40.18063(3GB) | 1.3.40.16659 | 1.3.40.18107 | 1.3.40.18063 | Web service |
| 40 | 15 | 1.3.40.18127(3GB) | 1.3.40.16659 | 1.3.40.18127 | 1.3.40.18127 | GUI.zip, Web service, database updates |
| 40 | 16 | 1.1.3.40.18585 (3GB) | 1.3.40.16659 | 1.3.40.18585 | 1.3.40.18646 | GUI.zip, Web service, database updates |
| 40 | 16.1 | 1.3.40.18705 (3GB) | 1.3.40.16659 | 1.3.40.18585 | 1.3.40.18646 | GUI.zip |
| 40 | 17 | 1.3.40.18780 (3GB) | 1.3.40.18756 | 1.3.40.18756 | 1.3.40.18646 | **Core install required** for Radiologist User Group. GUI.zip, Core setup, and Web Service updates |
| 40 | 18 | 1.3.40.19253(3GB) | 1.3.40.18756 | 1.3.40.18756 | 1.3.40.19253 | GUI.zip, Web Service and database updates |
| 40 | 19 | 1.3.40.19909 (3GB) | 1.3.40.18756 | 1.3.40.19831 | 1.3.40.19253 | GUI.zip, Web services, Recognizer files |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 8. Installing

1) Copy and replace the current rRIS…zip file with the rRIS_1.3.40.20086.zip file provided with this release.
   Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

2) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService. Be sure to make backup of all files, but especially the rRISServices.exe.config and rRISServices.vshost.exe.config files.
   *rRISService directories include:*
   a) *rRISService*
   b) *CDS rRISService*
   c) *Wedge rRISService*
   d) *DDE rRISService*

   Restart each service.

3) Copy the Recognizer files to your local machine to the following folder.
   Note: this could be a hidden folder.
   C:\ProgramData\RadNet\Recognizer\2.16.840.1.113883.3.21\

## 9. Known Limitations

Known limitations listed in this document may not have been introduced in 40.020, but have been discovered during testing of 40.020.

| Redmine # | Subject | Info |
|---|---|---|
| 5245 | Reporting - Spine navigational cues are not recognized | My cues were configured as<br>1. C two dash three colon<br>2. C three dash four colon<br>3. C four dash five colon<br><br>I changed them to be<br>1. C two colon<br>2. C three colon<br>3. C four colon<br>The change in cues names worked much better |
| 5248 | Reporting - Edit template from reporting window error | This was only occurring with one of my templates. If this occurs try “refresh configuration”. If that does not work |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

| | | |
|---|---|---|
| | | open the same template in the TemplateMacro editor and save. |
| 5249 | Reporting - Shift Tab in the template editor or reporting editor will return error | |
| 5219 | Reporting - Function key action DeleteWordLeftOfCursor will delete fields and section titles | If you continue to select the function key after the text has been removed it will jump to the section title and can also delete it as well |
| 5220 | Reporting - Interactive Info Prompt can show fields that have been jumped over when using Next Section command | If in a section that has multiple field with default text, issue the command Next Section, the interactive info prompt will display the text from the fields that were skipped. |
| 5254 | Reporting - using the undo feature, the cursor is not following the text that is being removed. | Seems to occur when the "undo" feature is used multiple times concurrently. |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

For eRAD RIS
Version 1.0
Build 40
Update 40.021

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Defects Resolved ..... 3
2. Code Stream ..... 4
3. Package Contents ..... 5
4. Intended Audience ..... 5
5. Who is affected ..... 5
6. eRAD RIS Release Version Numbers ..... 6
7. Installing ..... 7

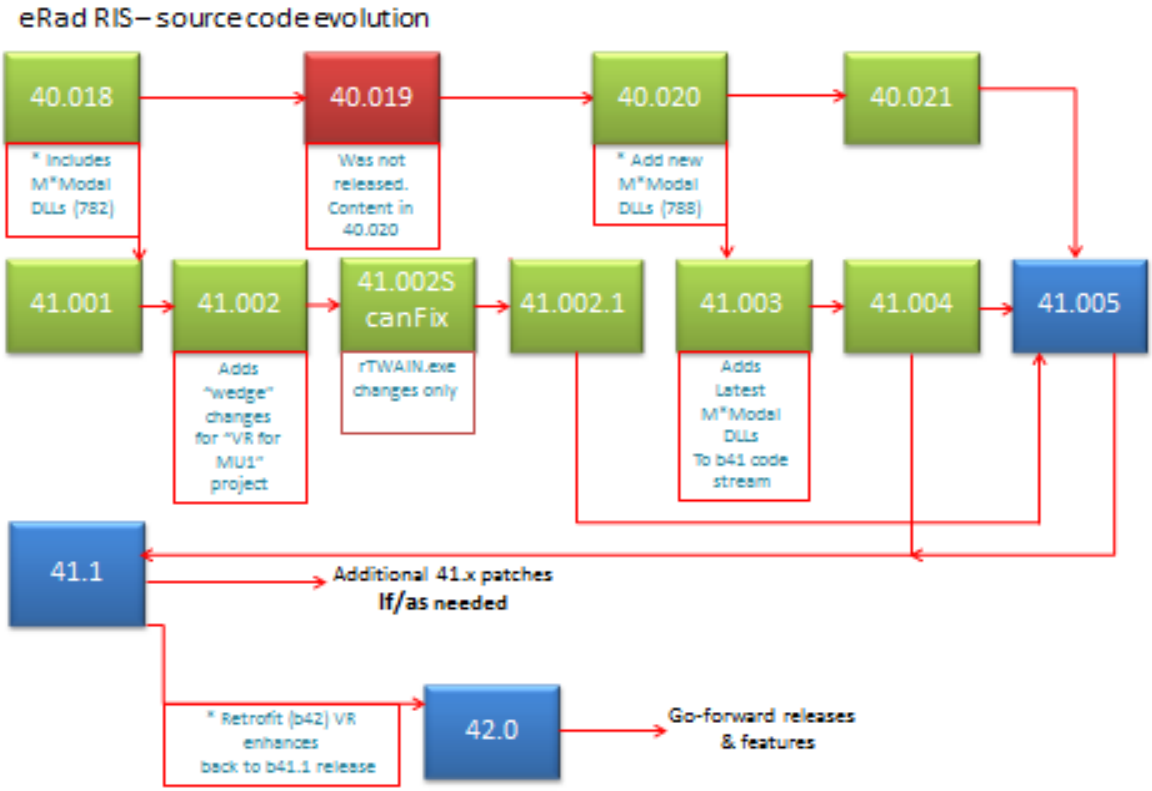
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 1. Defects Resolved

| Redmine # | Subject | Priority |
|---|---|---|
| 5306 | Reporting - Dictionary Add / Train changes | Urgent |
| 5435 | Reporting - possible wrong document model loading if more than one practice | High |
| 5431 | Reporting - dictating negative 5 percent will render the word percent not the symbol | Normal |
| 5390 | Reporting - rad edit text default color is yellow - should be "#810000" | Normal |
| 5314 | Reporting - Laterality check causing duplicate words | Normal |
| 5313 | Reporting - no wait navigate fails when dictating and then clicking next field > 1 time without pausing | Normal |
| 5312 | Dictating previous field moves two fields back instead of one. | Normal |
| 5267 | Reporting - Automatic spell check "on the fly" marks words as misspelled that are at the beginning of a field | Normal |
| 5215 | Playback with bouncing ball, preventing word selection with double click. | Normal |
| 4965 | Reporting - ability to configure the completeTimeout setting for interactive dictation | Normal |
| 4964 | Reporting - ability to configure the finalTimeout setting for interactive dictation | Normal |
| 4963 | Reporting - ability to configure the speedVsAccuracy setting for interactive dictation | Normal |
| 4764 | Reporting - interactive dictation of the word "through" appearing as "-" not ideal | Normal |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 2. Code Stream




**Legend:**

**Green = Released software**

**Red = Will not be released**

**Blue = Future release**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 3. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains
   a) rRIS_1.3.40.20703(3GB).zip

## 4. Intended Audience

This document is created by the RIS Development team for the RadNet RIS Implementation team.

## 5. Who is affected

Build 40 installs. This server update must be applied directly to the build 40 core install. Server updates are not cumulative. Any previous server updates must be applied before this one.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 6. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 39 | - | 1.3.39.15389 | 1.3.39.15389 | 1.3.39.15377 | 1.3.39.15355 | Full version release |
| 39 | 1 | 1.3.39.16026 | 1.3.39.15943 | 1.3.39.15943 | 1.3.39.15957 | Requires Core Install. GUI.zip, Web Service, and Database updates |
| 40 | - | 1.3.40.16628 | 1.3.40.16628 | 1.3.40.16628 | 1.3.40.16628 | Full version release |
| 40 | 1 | 1.3.40.16849 | 1.3.40.16659 | 1.3.40.16744 | 1.3.40.16727 | GUI.zip, Web service, database updates and SQL Management reporting |
| 40 | 2 | 1.3.40.16868 | 1.3.40.16659 | 1.3.40.16868 | 1.3.40.16727 | GUI.zip and Web Service |
| 40 | 3 | 1.3.40.16868 | 1.3.40.16659 | 1.3.40.16868 | 1.3.40.16727 | DB updated only |
| 40 | 4 | 1.3.40.16967 | 1.3.40.16659 | 1.3.40.16932 | 1.3.40.16961 | GUI.zip, Web service, database updates |
| 40 | 5 | 1.3.40.17087 | 1.3.40.16659 | 1.3.40.17069 | 1.3.40.17087 | GUI.zip, Web service, database updates |
| 40 | 6 | 1.3.40.17146 | 1.3.40.16659 | 1.3.40.17146 | 1.3.40.17146 | GUI.zip, Web service, database updates |
| 40 | 7 | 1.3.40.17268 | 1.3.40.16659 | 1.3.40.17268 | 1.3.40.17259 | GUI.zip, Web service, database updates |
| 40 | 8 | 1.3.40.17364 | 1.3.40.16659 | 1.3.40.17362 | 1.3.40.17343 | GUI.zip, Web service, database updates |
| 40 | 9 | 1.3.40.17370 | 1.3.40.16659 | 1.3.40.17370 | 1.3.40.17370 | GUI.zip, Web service, database updates |
| 40 | 10 | 1.3.40.17435 | 1.3.40.16659 | 1.3.40.17435 | 1.3.40.17370 | **64 BIT web service**. GUI.zip, Webservice. |
| 40 | 11 | 1.3.40.17435 | 1.3.40.16659 | 1.3.40.17525 | 1.3.40.17370 | Web service update |
| 40 | 12 | 1.3.40.17685 | 1.3.40.16659 | 1.3.40.17685 | 1.3.40.17648 | GUI.zip, Web service, database updates |
| 40 | 13 | 1.3.40.17776 | 1.3.40.16659 | 1.3.40.17776 | 1.3.40.17648 | GUI.zip, Web service |
| 40 | 14 | 1.3.40.18063(3GB) | 1.3.40.16659 | 1.3.40.18063 | 1.3.40.18063 | GUI.zip, Web service, database updates |
| 40 | 14.1 | 1.3.40.18063(3GB) | 1.3.40.16659 | 1.3.40.18107 | 1.3.40.18063 | Web service |
| 40 | 15 | 1.3.40.18127(3GB) | 1.3.40.16659 | 1.3.40.18127 | 1.3.40.18127 | GUI.zip, Web service, database updates |
| 40 | 16 | 1.1.3.40.18585 (3GB) | 1.3.40.16659 | 1.3.40.18585 | 1.3.40.18646 | GUI.zip, Web service, database updates |
| 40 | 16.1 | 1.3.40.18705 (3GB) | 1.3.40.16659 | 1.3.40.18585 | 1.3.40.18646 | GUI.zip |
| 40 | 17 | 1.3.40.18780 (3GB) | 1.3.40.18756 | 1.3.40.18756 | 1.3.40.18646 | **Core install required** for Radiologist User Group. GUI.zip, Core setup, and Web Service updates |
| 40 | 18 | 1.3.40.19253(3GB) | 1.3.40.18756 | 1.3.40.18756 | 1.3.40.19253 | GUI.zip, Web Service and database updates |
| 40 | 19 | 1.3.40.19909 (3GB) | 1.3.40.18756 | 1.3.40.19831 | 1.3.40.19253 | GUI.zip, Web services, Recognizer files. **NOT RELEASED** |
| 40 | 20 | 1.3.40.20086(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | GUI.zip, Web services, Recognizer files |
| 40 | 21 | 1.3.40.20703(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | GUI.zip |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 7. Installing

1) Copy and replace the current rRIS…zip file with the rRIS_1.3.40.20703.zip file provided with this release.
   Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

For eRAD RIS
Version 1.0
Build 40
Update 40.022

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Defects Resolved ..... 3
2. Code Stream ..... 4
3. Package Contents ..... 5
4. Intended Audience ..... 5
5. Who is affected ..... 5
6. eRAD RIS Release Version Numbers ..... 6
7. Installing ..... 7

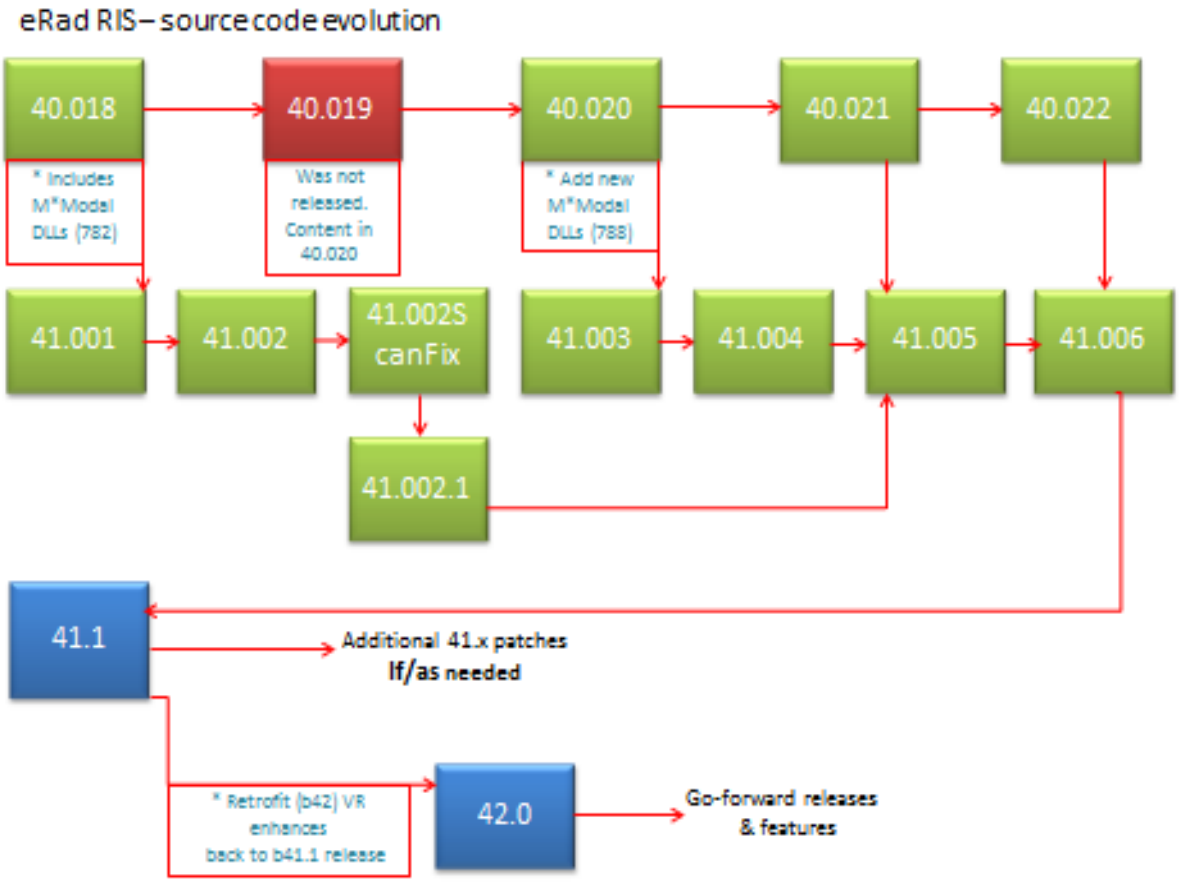
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 1. Defects Resolved

| Redmine # | Subject | Priority |
|---|---|---|
| 5556 | Transcription users will get null exceptions when trying to activate ReportTemplateEditor | Urgent |
| 5558 | Reporting - Transcription user error on first study opened in create report window | High |
| 5579 | Spell check on the fly no longer turned on. Squigly lines are not shown under misspelled words | Normal |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 2. Code Stream




**Legend:**

**Green = Released software**

**Red = Will not be released**

**Blue = Future release**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 3. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains
   a) rRIS_1.3.40.20898(3GB).zip

## 4. Intended Audience

This document is created by the RIS Development team for the RadNet RIS Implementation team.

## 5. Who is affected

Build 40 installs. This server update must be applied directly to the build 40 core install. Server updates are not cumulative. Any previous server updates must be applied before this one.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 6. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 40 | - | 1.3.40.16628 | 1.3.40.16628 | 1.3.40.16628 | 1.3.40.16628 | Full version release |
| 40 | 1 | 1.3.40.16849 | 1.3.40.16659 | 1.3.40.16744 | 1.3.40.16727 | GUI.zip, Web service, database updates and SQL Management reporting |
| 40 | 2 | 1.3.40.16868 | 1.3.40.16659 | 1.3.40.16868 | 1.3.40.16727 | GUI.zip and Web Service |
| 40 | 3 | 1.3.40.16868 | 1.3.40.16659 | 1.3.40.16868 | 1.3.40.16727 | DB updated only |
| 40 | 4 | 1.3.40.16967 | 1.3.40.16659 | 1.3.40.16932 | 1.3.40.16961 | GUI.zip, Web service, database updates |
| 40 | 5 | 1.3.40.17087 | 1.3.40.16659 | 1.3.40.17069 | 1.3.40.17087 | GUI.zip, Web service, database updates |
| 40 | 6 | 1.3.40.17146 | 1.3.40.16659 | 1.3.40.17146 | 1.3.40.17146 | GUI.zip, Web service, database updates |
| 40 | 7 | 1.3.40.17268 | 1.3.40.16659 | 1.3.40.17268 | 1.3.40.17259 | GUI.zip, Web service, database updates |
| 40 | 8 | 1.3.40.17364 | 1.3.40.16659 | 1.3.40.17362 | 1.3.40.17343 | GUI.zip, Web service, database updates |
| 40 | 9 | 1.3.40.17370 | 1.3.40.16659 | 1.3.40.17370 | 1.3.40.17370 | GUI.zip, Web service, database updates |
| 40 | 10 | 1.3.40.17435 | 1.3.40.16659 | 1.3.40.17435 | 1.3.40.17370 | **64 BIT web service**. GUI.zip, Webservice. |
| 40 | 11 | 1.3.40.17435 | 1.3.40.16659 | 1.3.40.17525 | 1.3.40.17370 | Web service update |
| 40 | 12 | 1.3.40.17685 | 1.3.40.16659 | 1.3.40.17685 | 1.3.40.17648 | GUI.zip, Web service, database updates |
| 40 | 13 | 1.3.40.17776 | 1.3.40.16659 | 1.3.40.17776 | 1.3.40.17648 | GUI.zip, Web service |
| 40 | 14 | 1.3.40.18063(3GB) | 1.3.40.16659 | 1.3.40.18063 | 1.3.40.18063 | GUI.zip, Web service, database updates |
| 40 | 14.1 | 1.3.40.18063(3GB) | 1.3.40.16659 | 1.3.40.18107 | 1.3.40.18063 | Web service |
| 40 | 15 | 1.3.40.18127(3GB) | 1.3.40.16659 | 1.3.40.18127 | 1.3.40.18127 | GUI.zip, Web service, database updates |
| 40 | 16 | 1.1.3.40.18585 (3GB) | 1.3.40.16659 | 1.3.40.18585 | 1.3.40.18646 | GUI.zip, Web service, database updates |
| 40 | 16.1 | 1.3.40.18705 (3GB) | 1.3.40.16659 | 1.3.40.18585 | 1.3.40.18646 | GUI.zip |
| 40 | 17 | 1.3.40.18780 (3GB) | 1.3.40.18756 | 1.3.40.18756 | 1.3.40.18646 | **Core install required** for Radiologist User Group. GUI.zip, Core setup, and Web Service updates |
| 40 | 18 | 1.3.40.19253(3GB) | 1.3.40.18756 | 1.3.40.18756 | 1.3.40.19253 | GUI.zip, Web Service and database updates |
| 40 | 19 | 1.3.40.19909 (3GB) | 1.3.40.18756 | 1.3.40.19831 | 1.3.40.19253 | GUI.zip, Web services, Recognizer files. **NOT RELEASED** |
| 40 | 20 | 1.3.40.20086(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | GUI.zip, Web services, Recognizer files |
| 40 | 21 | 1.3.40.20703(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | GUI.zip |
| 40 | 22 | 1.3.40.20898(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | GUI.zip |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 7. Installing

1) Copy and replace the current rRIS…zip file with the rRIS_1.3.40.20898.zip file provided with this release.
   Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

For eRAD RIS
Version 1.0
Build 40
Update 40.022.1

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Defects Resolved ..... 3
2. Code Stream ..... 4
3. Package Contents ..... 5
4. Intended Audience ..... 5
5. Who is affected ..... 5
6. eRAD RIS Release Version Numbers ..... 6
7. Installing ..... 7

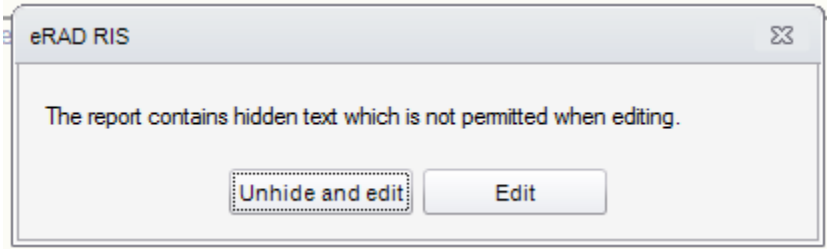
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 1. Defects Resolved

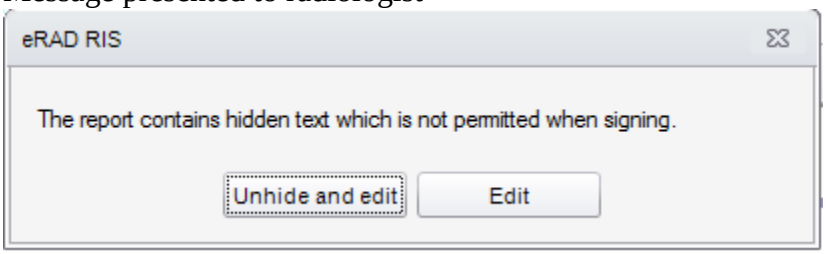
| Redmine # | Subject | Priority |
|---|---|---|
| 6190 | Hidden text in editor counts as text when validating fields and section | High |

The resolved bug listed above resolves an issue in which users had the option to hide text within the reporting window. This option was available to radiologist and transcription users. The workflow for this option has been altered. You can no longer hide text, only unhide. If there is hidden text in a report, transcription users cannot transcribe and radiologist users cannot sign. They will be presented with a message like the one displayed below.

Message presented to transcription

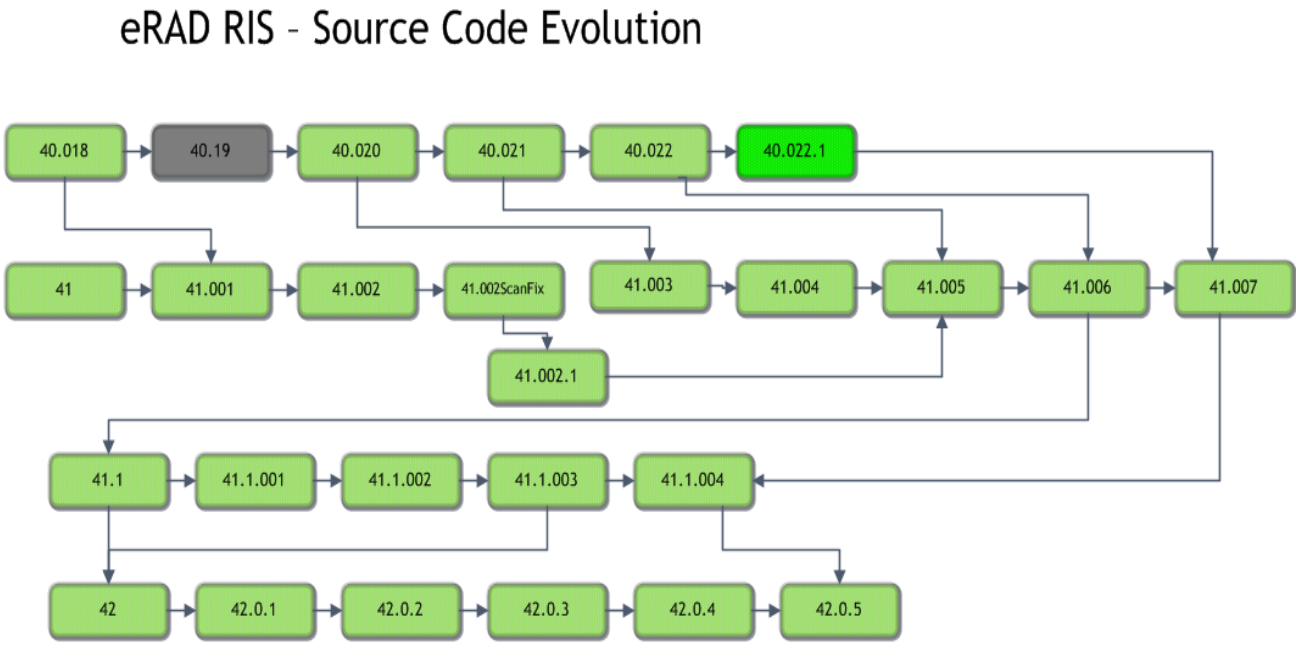



Message presented to radiologist




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 2. Code Stream




**Legend:**

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 3. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains
   a) rRIS_1.3.40.21936(3GB).zip

## 4. Intended Audience

This document is created by the RIS Development team for the RadNet RIS Implementation team.

## 5. Who is affected

Build 40 installs. This server update must be applied directly to the build 40.020.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 6. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 40 | 16 | 1.1.3.40.18585 (3GB) | 1.3.40.16659 | 1.3.40.18585 | 1.3.40.18646 | GUI.zip, Web service, database updates |
| 40 | 16.1 | 1.3.40.18705 (3GB) | 1.3.40.16659 | 1.3.40.18585 | 1.3.40.18646 | GUI.zip |
| 40 | 17 | 1.3.40.18780 (3GB) | 1.3.40.18756 | 1.3.40.18756 | 1.3.40.18646 | **Core install required** for Radiologist User Group. GUI.zip, Core setup, and Web Service updates |
| 40 | 18 | 1.3.40.19253(3GB) | 1.3.40.18756 | 1.3.40.18756 | 1.3.40.19253 | GUI.zip, Web Service and database updates |
| 40 | 19 | 1.3.40.19909(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | GUI.zip, Web Service |
| 40 | 20 | 1.3.40.20086(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | Gui.zip and Recognizer |
| 40 | 21 | 1.3.40.20703(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | Gui.zip |
| 40 | 22 | 1.3.40.20898(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | Gui.zip |
| **40** | **22.1** | **1.3.40.21936(3GB)** | **1.3.40.18756** | **1.3.40.19878** | **1.3.40.19253** | **Gui.zip** |
| 41 | - | 1.3.41.19135(3GB) | 1.3.41.19135 | 1.3.41.19135 | 1.3.41.19135 | Full version release |
| 41 | 1 | 1.3.41.19356(3GB) | 1.3.41.19135 | 1.3.41.19346 | 1.3.41.19346 | GUI.zip, Web Service and database updates |
| 41 | 2 | 1.3.41.19620(3GB) | 1.3.41.19135 | 1.3.41.19620 | 1.3.41.19346 | GUI.zip and Web Service |
| 41 | 2sf | 1.3.41.19620SF(3G) | 1.3.41.19135 | 1.3.41.19620 | 1.3.41.19346 | GUI.zip |
| 41 | 2.1 | 1.3.41.20622(3GB) | 1.3.41.19135 | 1.3.41.20617 | 1.3.41.19346 | GUI.zip and Web Service |
| 41 | 3 | 1.3.41.20171(3GB) | 1.3.41.19135 | 1.3.41.20171 | 1.3.41.19346 | GUI.zip , Web Service and Recognizer |
| 41 | 4 | 1.3.41.20285(3GB) | 1.3.41.19135 | 1.3.41.20171 | 1.3.41.19346 | GUI.zip |
| 41 | 5 | 1.3.41.20809(3GB) | 1.3.41.20708 | 1.3.41.20792 | 1.3.41.20738 | GUI.zip, Core install, Web Service and database updates |
| 41 | 6 | 1.3.41.20912(3GB) | 1.3.41.20708 | 1.3.41.20792 | 1.3.41.20738 | GUI.zip |
| 41 | 7 | 1.3.41.21963(3GB) | 1.3.41.20708 | 1.3.41.20792 | 1.3.41.20738 | GUI.zip |
| 41.1 | - | 1.3.41.20918(3GB) | 1.3.41.20791 | 1.3.41.20918 | 1.3.41.20739 | GUI.zip, Core install, Web Service and DB updates, Help files |
| 41.1 | 1 | 1.3.41.20987(3GB) | 1.3.41.20791 | 1.3.41.20918 | 1.3.41.20739 | GUI.zip |
| 41.1 | 2 | 1.3.41.21162(3GB) | 1.3.41.20791 | 1.3.41.21162 | 1.3.41.21150 | GUI.zip, Web Service and DB updates, |
| 41.1 | 3 | 1.3.41.21264(3GB) | 1.3.41.20791 | 1.3.41.21162 | 1.3.41.21150 | GUI.zip |
| 41.1 | 4 | 1.3.41.21931(3GB) | 1.3.41.20791 | 1.3.41.21162 | 1.3.41.21150 | GUI.zip |
| 42 | 1 | 2.42.0.0.21577 | 2.42.0.0.21261 | 2.42.0.0.21577 | 2.42.0.0.21187 | GUI and Web Service updates |
| 42 | 2 | 2.42.0.1.21702 | 2.42.0.0.21261 | 2.42.0.1.21702 | 2.42.0.0.21187 | GUI and Web Service updates |
| 42 | 3 | 2.42.0.2.21806 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.0.21187 | GUI and Web Service updates |
| 42 | 4 | 2.42.0.4.21862 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.4.21870 | GUI and Database updates |
| 42 | 5 | 2.42.0.5.21924 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.4.21870 | GUI |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 7. Installing

1) Copy and replace the current rRIS…zip file with the rRIS_1.3.40. 21936.zip file provided with this release.
   Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

**NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

For eRAD RIS
Version 1.0
Build 40
Update 40.024

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

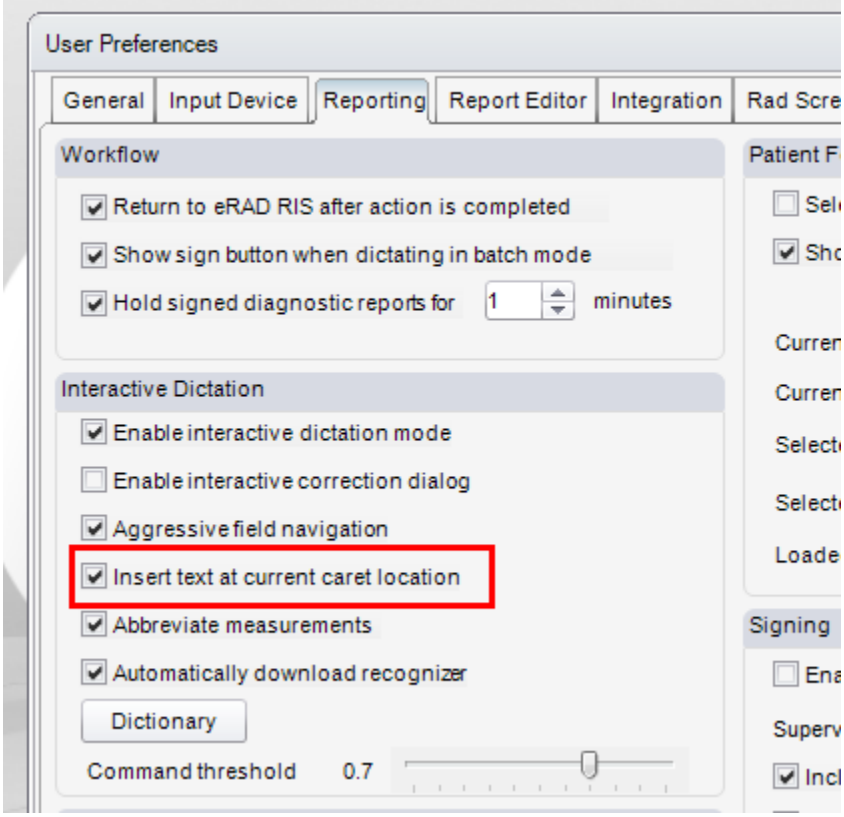
1. Defects Resolved ..... 3
2. Code Stream ..... 4
3. Package Contents ..... 5
4. Intended Audience ..... 5
5. Who is affected ..... 5
6. eRAD RIS Release Version Numbers ..... 6
7. Installing ..... 7

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 1. Defects Resolved

| Redmine # | Subject | Priority |
|---|---|---|
| 5823 | Hidden text in editor counts as text when validating fields and section | High |

With the above bug a new user preference has been added. The user preference titled "**Insert text at current caret location**" is located on the Reporting tab and is for use only with Interactive Dictation users.

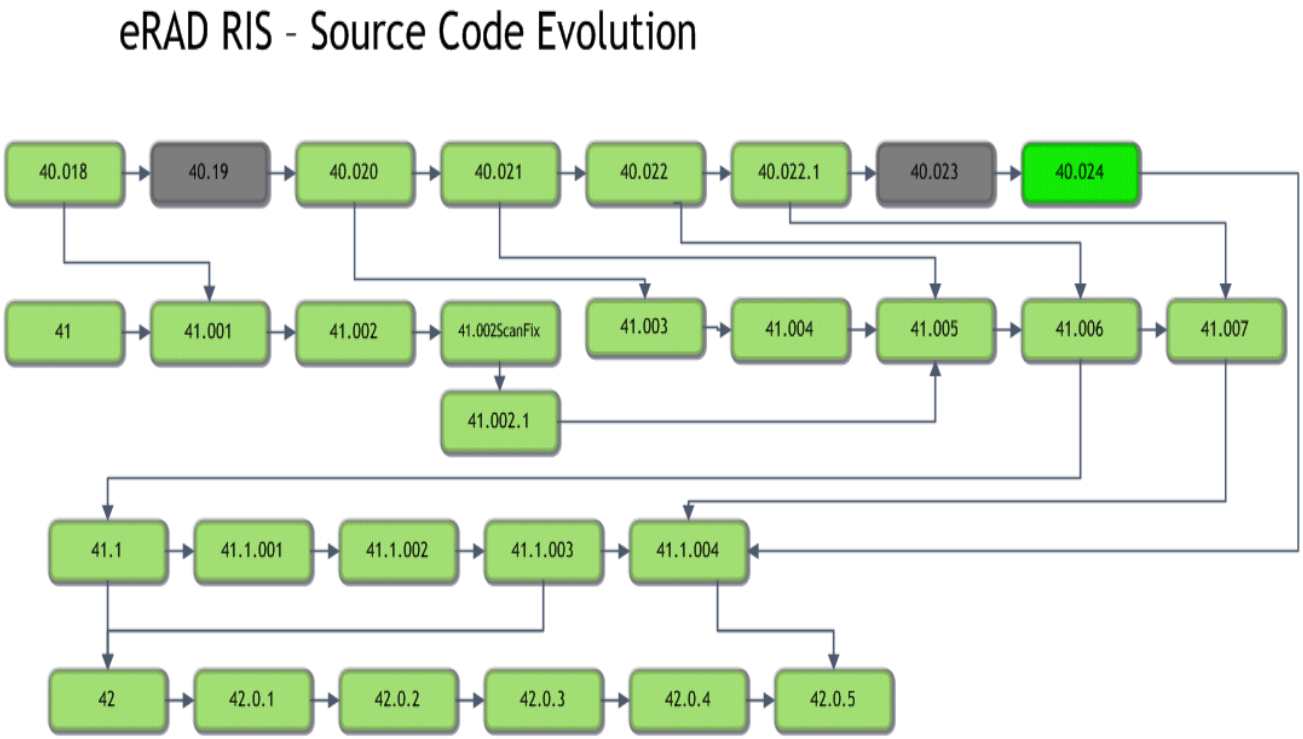



When selected, the dictated text will be inserted where the current cursor position is. Example: User starts dictation and then moves the cursor from point A to point B, the text will be inserted at point B

When un-selected it will put the text in the place where the cursor was when the dictation started. Example: User starts dictation and then moves the cursor from point A to point B, the text will be inserted at point A.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 2. Code Stream




**Legend:**

**Light Green = Released software**

**Gray = Will not be released**

**Bright Green = Current Release**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 3. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains
   a) rRIS_1.3.40.21976(3GB).zip

## 4. Intended Audience

This document is created by the RIS Development team for the RadNet RIS Implementation team.

## 5. Who is affected

Build 40 installs. This server update must be applied directly to the build 40.020.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 6. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 40 | 16 | 1.1.3.40.18585 (3GB) | 1.3.40.16659 | 1.3.40.18585 | 1.3.40.18646 | GUI.zip, Web service, database updates |
| 40 | 16.1 | 1.3.40.18705 (3GB) | 1.3.40.16659 | 1.3.40.18585 | 1.3.40.18646 | GUI.zip |
| 40 | 17 | 1.3.40.18780 (3GB) | 1.3.40.18756 | 1.3.40.18756 | 1.3.40.18646 | **Core install required** for Radiologist User Group. GUI.zip, Core setup, and Web Service updates |
| 40 | 18 | 1.3.40.19253(3GB) | 1.3.40.18756 | 1.3.40.18756 | 1.3.40.19253 | GUI.zip, Web Service and database updates |
| 40 | 19 | 1.3.40.19909(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | GUI.zip, Web Service |
| 40 | 20 | 1.3.40.20086(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | Gui.zip and Recognizer |
| 40 | 21 | 1.3.40.20703(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | Gui.zip |
| 40 | 22 | 1.3.40.20898(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | Gui.zip |
| 40 | 22.1 | 1.3.40.21936(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | Gui.zip |
| **40** | **24** | **1.3.40.21976(3GB)** | **1.3.40.18756** | **1.3.40.19878** | **1.3.40.19253** | **Gui.zip** |
| 41 | - | 1.3.41.19135(3GB) | 1.3.41.19135 | 1.3.41.19135 | 1.3.41.19135 | Full version release |
| 41 | 1 | 1.3.41.19356(3GB) | 1.3.41.19135 | 1.3.41.19346 | 1.3.41.19346 | GUI.zip, Web Service and database updates |
| 41 | 2 | 1.3.41.19620(3GB) | 1.3.41.19135 | 1.3.41.19620 | 1.3.41.19346 | GUI.zip and Web Service |
| 41 | 2sf | 1.3.41.19620SF(3G) | 1.3.41.19135 | 1.3.41.19620 | 1.3.41.19346 | GUI.zip |
| 41 | 2.1 | 1.3.41.20622(3GB) | 1.3.41.19135 | 1.3.41.20617 | 1.3.41.19346 | GUI.zip and Web Service |
| 41 | 3 | 1.3.41.20171(3GB) | 1.3.41.19135 | 1.3.41.20171 | 1.3.41.19346 | GUI.zip , Web Service and Recognizer |
| 41 | 4 | 1.3.41.20285(3GB) | 1.3.41.19135 | 1.3.41.20171 | 1.3.41.19346 | GUI.zip |
| 41 | 5 | 1.3.41.20809(3GB) | 1.3.41.20708 | 1.3.41.20792 | 1.3.41.20738 | GUI.zip, Core install, Web Service and database updates |
| 41 | 6 | 1.3.41.20912(3GB) | 1.3.41.20708 | 1.3.41.20792 | 1.3.41.20738 | GUI.zip |
| 41 | 7 | 1.3.41.21963(3GB) | 1.3.41.20708 | 1.3.41.20792 | 1.3.41.20738 | GUI.zip |
| 41.1 | - | 1.3.41.20918(3GB) | 1.3.41.20791 | 1.3.41.20918 | 1.3.41.20739 | GUI.zip, Core install, Web Service and DB updates, Help files |
| 41.1 | 1 | 1.3.41.20987(3GB) | 1.3.41.20791 | 1.3.41.20918 | 1.3.41.20739 | GUI.zip |
| 41.1 | 2 | 1.3.41.21162(3GB) | 1.3.41.20791 | 1.3.41.21162 | 1.3.41.21150 | GUI.zip, Web Service and DB updates, |
| 41.1 | 3 | 1.3.41.21264(3GB) | 1.3.41.20791 | 1.3.41.21162 | 1.3.41.21150 | GUI.zip |
| 41.1 | 4 | 1.3.41.21931(3GB) | 1.3.41.20791 | 1.3.41.21162 | 1.3.41.21150 | GUI.zip |
| 42 | 1 | 2.42.0.0.21577 | 2.42.0.0.21261 | 2.42.0.0.21577 | 2.42.0.0.21187 | GUI and Web Service updates |
| 42 | 2 | 2.42.0.1.21702 | 2.42.0.0.21261 | 2.42.0.1.21702 | 2.42.0.0.21187 | GUI and Web Service updates |
| 42 | 3 | 2.42.0.2.21806 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.0.21187 | GUI and Web Service updates |
| 42 | 4 | 2.42.0.4.21862 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.4.21870 | GUI and Database updates |
| 42 | 5 | 2.42.0.5.21924 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.4.21870 | GUI |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 7. Installing

1) Copy and replace the current rRIS…zip file with the rRIS_1.3.40. 21976.zip file provided with this release.
   Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

**NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# User Release Notes

for eRAD RIS
Version 1
Build 41

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# Table of Contents

1. Purpose ..... 4
2. Intended Audience ..... 4
3. Installing/Accessing the Application ..... 4
4. New Access Strings and Configuration Settings ..... 5
5. New Features and Enhancements ..... 9
Reporting – Radiologist Notifications ..... 9
Reporting - Dark Theme ..... 12
Reporting – Editor Field Background Color ..... 13
Reporting – Radiologist Edit Text Color ..... 14
Reporting – Editor Margins ..... 16
Reporting – New SpeechMike mapping options ..... 17
Reporting – Delete Last Word ..... 18
Reporting – Message Prompt on Submit ..... 19
Reporting – Addendum Show All Templates ..... 20
Reporting – Reject Addendum Request ..... 21
Reporting – Verify Report from All Signed Pending Release WL ..... 22
Reporting – Create Template from Current Report ..... 23
Reporting – Support Multiple Layouts ..... 24
Reporting – Set Problem Flag without Rejecting Report ..... 28
Reporting – Warn when Submitting From Sign Reports Window ..... 29
Reporting – Report Verification Checks on QA Windows ..... 30
Reporting – View Patient's Phone Number in Reporting Window ..... 30
Reporting - View Attachments in Full Screen Launched via Double Clicking ..... 31
Reporting – Document Model to be Stored in TemplateMacro Table ..... 32
Reporting – TemplateMacro Editor Enhancements ..... 33
Reporting – Verbose Trace Logging to a Flat File ..... 42
Reporting - Autosave ..... 43
Reporting - Bypass QA From Reporting Screen ..... 46
CTRM Integration Support ..... 47
Increase Weighting of Laterality in Relevancy Calculation ..... 50
Personnel Merge ..... 51
Auto Open Work List Tabs ..... 54
Enhance Work List Filtering ..... 57
Patient Merge Requests Work List Enhancement ..... 58
Remove Date Filter from Activity Work List ..... 59
IVT – Insurance Verification PreCert tab Enhancements ..... 60
Scheduling - MRN Added to Appointment Book ..... 60
Scheduling – Repeating Modality Restrictions ..... 61

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

Scheduling – Ability to Check-In Procedures Separately ..... 62
Scheduling – Enter Follow-Up Information ..... 63
Scheduling – Import EMR Scheduled Procedures Filtering ..... 64
Signs and Symptoms Field and Renaming Chief Complaint ..... 65
Direct Referral Enhancements ..... 67
Allow Cancellation of Outside Reads ..... 68
Abort Reason added To View/Edit ..... 69
Ability to Add Attachments and Check-In another Patient ..... 70
Print Diagnostic Report to Local Printer ..... 70
Mammography Enhancements ..... 71
Standalone Mammography Tracking ..... 74
Administration - Order Level Document Type (Scan Docs) ..... 77
Administration – Procedure Plan Duration Override ..... 78
Administration - Schedule Group Performance Enhancement ..... 79
Administration – Personnel Internal Notes ..... 79
Administration – Internal Person Search Enhancements ..... 79
Administration – Client IP Address Captured in Audit Table ..... 80
Administration – Add Support Phone # to Help About Window ..... 81
Administration – Process Events Service ..... 82
Administration – Hold Study on Activity Work List ..... 83
Management Reports – Dashboard Color Picker for Practice ..... 84
Management Report – ADA added to Special Accommodations ..... 85
Management Report – Modality to CPT to Procedure Mapping ..... 86
Management Report – BI-RAD to Recommendation Mapping ..... 87
Management Report – MR Breast Dictated ..... 88
Management Report – New Sales Mgmt Report for Referring Practice ..... 89
Management Report – Upload Custom Management Reports ..... 92
Management Report – Automate Backup of Management Report Deployment ..... 93
Management Report – Mammo Back on Track ..... 94
Management Report – User ID Parameter on Reports with Practice Code ..... 95
Meaningful Use – MU Administration > Configure Directory ..... 97
Meaningful Use – Vital Signs, BMI and Growth Chart ..... 98
Meaningful Use – Family Health History ..... 100
Meaningful Use – Immunization Updates ..... 102
Meaningful Use – CQM Filtered by Practice ..... 103
Lastname, Firstname ..... 103
6. RIS Release Version Numbers ..... 105
7. Resolved Defects ..... 108
8. Known Limitations ..... 122

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 1. Purpose

This document describes some of the new features and changes implemented in eRAD RIS as of the end of Sprint 40 and subsequent server releases. This version of eRAD RIS is referred to as Build 1.3.41.

Only features which can be visually demonstrated to the user will be outlined in this document.

# 2. Intended Audience

This document is created by the RIS Development team for the RadNet RIS management team.

# 3. Installing/Accessing the Application

The installation guide for the eRAD RIS client have been posted to the RadNet Wiki page at http://mdbal01rdtweb/Wiki/

Under the RIS menu click on the rRIS page. The credentials to access the page are:
Username: rRIS
Password: Summerside

*Please note that Build 1.41 is considered a new core release of the application and will require a reinstallation of eRAD RIS. This is accomplished by navigating to the eRAD RIS shared installation drive and running the CoreInstall.bat file (ex: I:\RISDeployment\CoreInstall.bat)*

If you experience difficulties accessing the application please do not hesitate to contact Darcy Noye with the PEI RIS Development Team.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 4. New Access Strings and Configuration Settings

| Setting Placeholder | Setting | Default | Purpose / Controls Access to |
|---|---|---|---|
| Access string / User Group Permission tables | Clinical.PersonMerge | None | Controls access to the Personnel Merge window access from the Administration menu. Allows the user to "Suggest" a person merge. |
| Access string / User Group Permission tables | Clinical.PersonMergeAdmin | None | Controls access to the options of Complete or Reject a Person merge. |
| Access string / User Group Permission tables | WL.PersonMergeRequest | None | Provides access to the Personnel Merge WL accessed under the Administration menu. |
| Access string / User Group Permission tables | View.Custom.Layout | None | Controls access to the View menu options of Save as Custom Layout and Delete Custom Layouts… |
| Access string / User Group Permission tables | WL.Rad.CriticalResults | None | Controls access to the All Critical Results work list menu item under the Radiologist Menu |
| Access string / User Group Permission tables | WL.Rad.MyCriticalResults | Full | Controls access to the Critical Results work list menu item under the Radiologist Menu |
| Access string / User Group Permission tables | Clinical.CTRNNotification | None | Controls access to the CTRN button in the reporting window |
| Access string / User Group Permission tables This access string has been removed. | View.Administration<br><br>**OBSOLETE** | n/a | This access string is no longer used and has been removed. The access string view.preset.administration has replaced this one. |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| Access string / User Group Permission tables | View.Preset.Administration | None | Access to preset layout administration submenu |
| Access string / User Group Permission tables | View.Preset.Administration.PresetSigning | None | Access to preset layout administration for Signing |
| Access string / User Group Permission tables | View.Preset.Administration.PresetEditing | None | Access to preset layout administration for Editing |
| Access string / User Group Permission tables | View.Preset.Administration.PresetDictationNormal | None | Access to preset layout administration for Dictation Normal |
| Access string / User Group Permission tables | View.Preset.Administration.PresetDictationMinimal | None | Access to preset layout administration for Dictation Minimal |
| Access string / User Group Permission tables | View.Preset.Administration.PresetDictationFull | None | Access to preset layout administration for Dictation Full |
| Access string / User Group Permission tables | UserPreference.Theme.AllowDarkMode | None | Controls if user has the 'enable dark mode' checkbox in user preferences screen |
| Access string / User Group Permission tables | Clinical.UserPreferences.ReportingAutoSave | None | Controls access to the user preference "Enable Autosave Reports" |
| Access string / User Group Permission tables | Clinical.PatientMergeMixer<br><br>**Replaces**<br><br>Clinical.PatientMerge | None | Controls access to the Patient Merge window |
| Access string / User Group Permission tables | DataNugget.Attachments<br><br>**Replaces**<br><br>DataNugget.Documents | None | Controls access to the nugget for attachments |
| Access string / User Group Permission tables | Flag.Allergy<br><br>**Replaces**<br><br>Flag.DrugAllergies | Full | Controls access to see the Allergy flag |
| Access string / User Group Permission tables | WL.Rad.PendingSignature<br><br>**Replaces**<br><br>WL.PendingSignature | None | Controls access to the Pending Signature menu option under the Radiologist menu |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| Access string / User Group Permission tables | WL.Rad.TentativelySigned<br><br>Replaces<br><br>WL.TentativelySigned | None | Controls access to the Signed, Pending Release |
| Access string / User Group Permission tables | MT.ReportDraftedProblem<br><br>Replaces<br><br>MT.ReportDraftedProblemAll | None | Controls access to the 'All Problem' menu option under the Transcription menu |
| The following access strings were added in B41 for work lists, buttons, etc… that existed in previous versions but missing access string to control function/accesss | | | |
| Access string / User Group Permission tables | WL.Rad.PendingEdit | None | Controls access to the Pending Edit menu option from the Radiologist menu |
| Access string / User Group Permission tables | Clinical.Confirmation | None | Controls access to the Confirmation button and context menu option of the Confirmation work list. |
| Access string / User Group Permission tables | Clinical.MarkForAddendum | None | Controls access to the context menu options of Request Addendum and Cancel Addendum Request |
| Access string / User Group Permission tables | Clinical.ChangeSupervisingRadiologist | None | Controls access to the context menu option for Change Supervising Radiologist |
| Access string / User Group Permission tables | Clinical.TemplateEditing | None | Controls access to the Edit Template option in the reporting window\template browser data pane |
| SystemConfig lookup | SignAndSymptomsRequiredByTech | False | Determines in the Signs and Symptoms text box in the Perform Exam window on Documentation tab is required.<br>Possible values: True or |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| | | | False. |
| SystemConfig lookup | HeightRequiredOnArrival | False | Determines if the Height field is required at the time of Arrival from the Registration window. Possible values: True and False |
| SystemConfig lookup | WeightRequiredOnArrival | False | Determines if the Weight field is required at the time of Arrival from the Registration window. Possible values: True and False |
| SystemConfig lookup | ProcessPostEventInterval | 60 | The number in seconds to sleep between each call to stored procedure c_ProcessPostEvent |
| Ris.exe.config | <add name="Rolling Flat File Trace Listener" type="Microsoft.Practices.EnterpriseLibrary.Logging.TraceListeners.RollingFlatFileTraceListener, Microsoft.Practices.EnterpriseLibrary.Logging, Version=5.0.414.0, Culture=neutral, PublicKeyToken=31bf3856ad364e35"<br><br>listenerDataType="Microsoft.Practices.EnterpriseLibrary.Logging.Configuration.RollingFlatFileTraceListenerData, Microsoft.Practices.EnterpriseLibrary.Logging, Version=5.0.414.0, Culture=neutral, PublicKeyToken=31bf3856ad364e35"<br><br>rollFileExistsBehavior="Increment" rollInterval="Hour"<br><br>fileName="verbose_log/trace.log" formatter="Text Formatter" /><br><br>**This is entered under <SpecialSources>**<br><allEvents switchValue="Verbose" name="All Events"><br><listeners><br><add name="Rolling Flat File Trace Listener" /><br></listeners> | None | See new feature "Verbose trace logging to a flat file"<br>For more details on this ris.exe config change.<br><br>This is not a required change. |
| | | | |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 5. New Features and Enhancements

## Reporting – Radiologist Notifications

Under User Preferences, we have renamed the configuration section to **Feedback**. Also we have divided the configuration into logical sections based on when, in the user's workflow the feedback occurs.

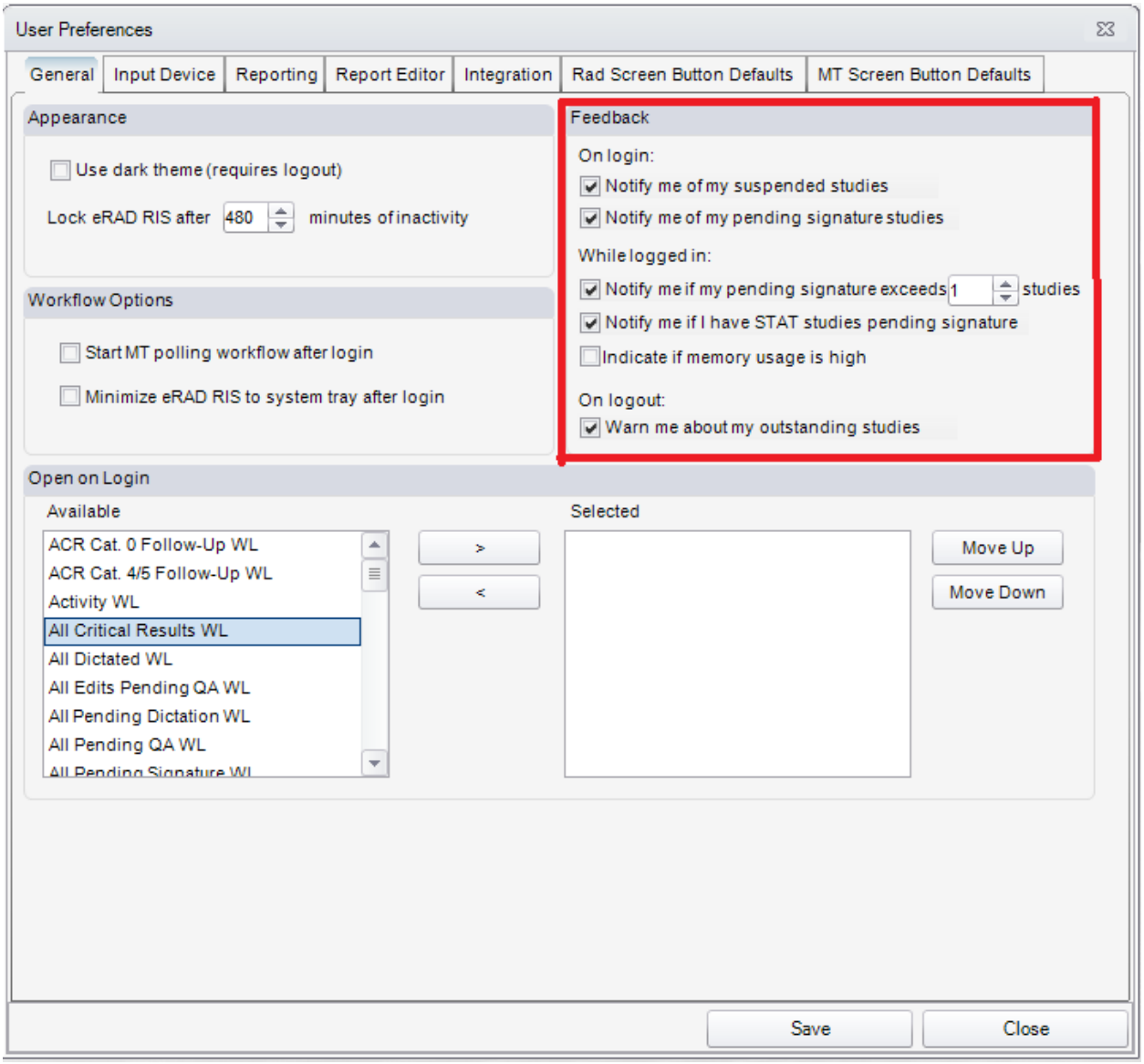



**Figure 5.1 – User Preferences\General Tab\Feedback options**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

### On Login

Users can now subscribe to two optional notifications that occur on login.

*Pending Signatures* - the notification will display the user's pending signature count. The action button will take the user to the pending signatures work-list.

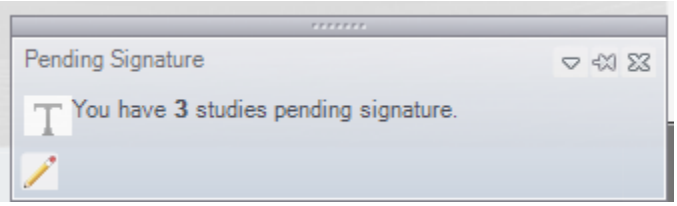



**Figure 5.2 – Prompt on login for outstanding reports to be signed**

*Suspended Studies* - the notification will display the user's suspended studies count. The action button will take the user to the suspended work-list.

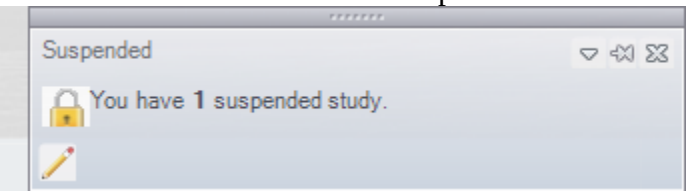



**Figure 5.3 – Prompt on login for exams you have in suspended status**

### While Logged In

Users can now subscribe to three feedback options that occur during their session.

*Pending Signatures* - the notification will display the user's pending signature count. The action button will take the user to the pending signatures work-list. This happens when the signature count exceeds the pre-set value. This notification is only executed with the pending signature work list open. The work-list can be open in a background tab.

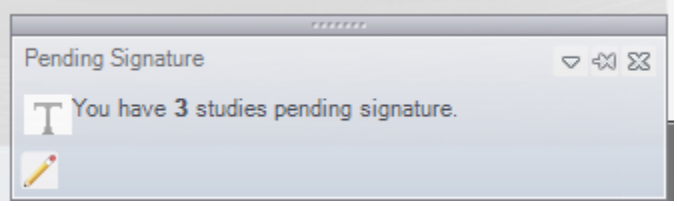



**Figure 5.4 – Prompt when pending signature count reaches defined threshold.**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

*STAT Pending Signature Studies* - the notification will display when the user has a STAT case enter their pending signature list. This notification is only executed with the pending signature work list open. The work-list can be open in a background tab.

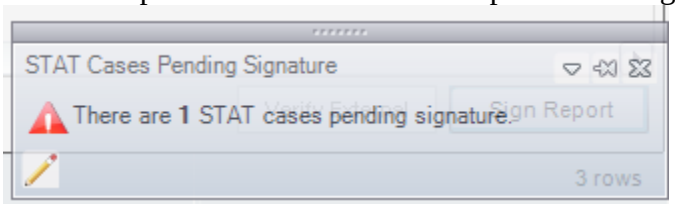



**Figure 5.5 – Prompt on STAT cases pending signature**

*High Memory Indicator* – If memory usage is high the user is displayed an indicator.

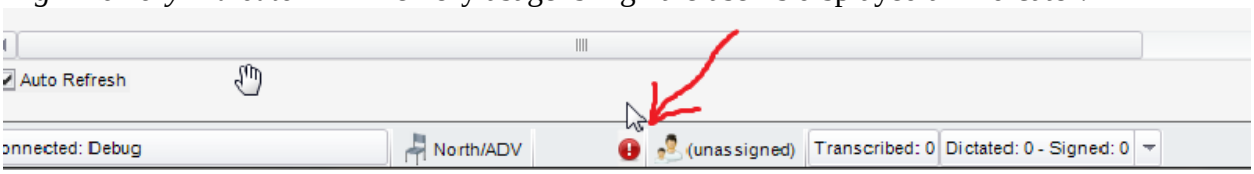



**Figure 5.6 – Status bar indicator**

Mouse over the indicator shows a message.

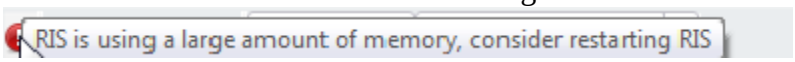



**Figure 5.6a – Message displayed on mouse hover**

## On Logout

Users can now subscribe to one optional warning that occurs on logout.

*Outstanding Studies* – the outstanding studies prompt will occur on log out if the user has any pending signature, pending release or suspended exams. The example below shows all 3, however if one of these counts is 0 the line will not be in the message.

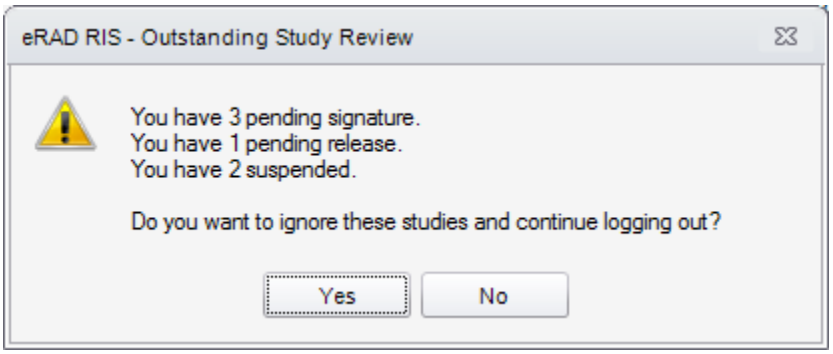



**Figure 5.7 – Notification on logout**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting - Dark Theme

There is now a darker theme that can be used by the radiologist. This is controlled by a new user preference titled "Use dark theme (requires logout)". The user preference itself is controlled by a new Access String titled **"UserPreference.Theme.AllowDarkMode"**

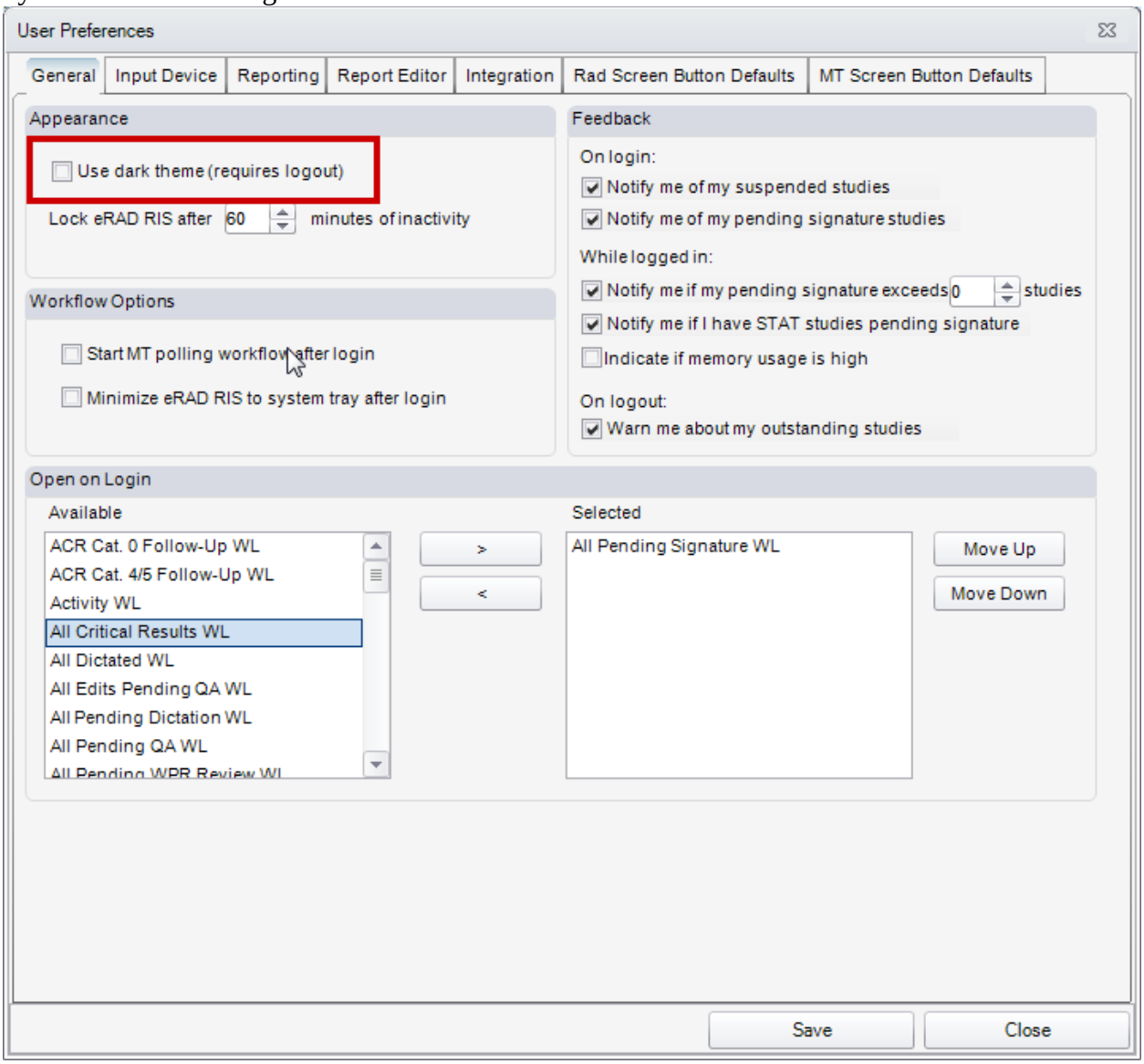



**Figure 5.8 – Preferences showing Dark Mode**

After selecting/unselecting the new user preference, the user must logout and login for it to take effect.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Editor Field Background Color

Within the reporting window, the user can open the context menu (right click) on the editor. This will present the user with a list of options. Selecting the "Editor Appearance" option will open the "Editor Appearance" window. A new option of "Field Background" color has been added. Adjusting this color will change the color of the fields within the editor template. This will apply to any fields that are inserted with a Macro too.

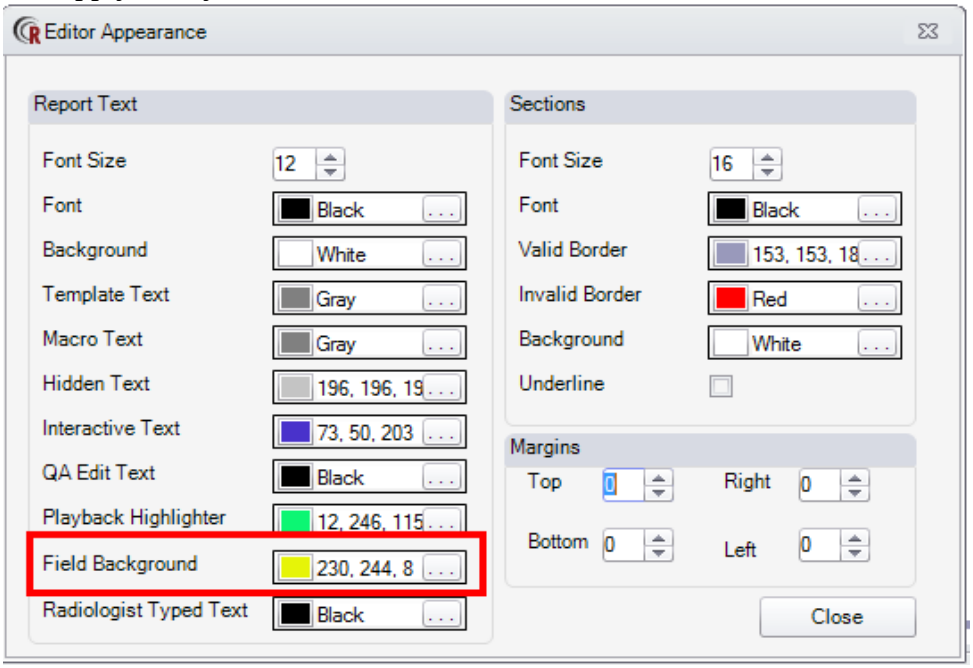



**Figure 5.9 – Editor Appearance window showing option for Field Color.**

With the color selected above for Field Background and fields within the template will appear in that color

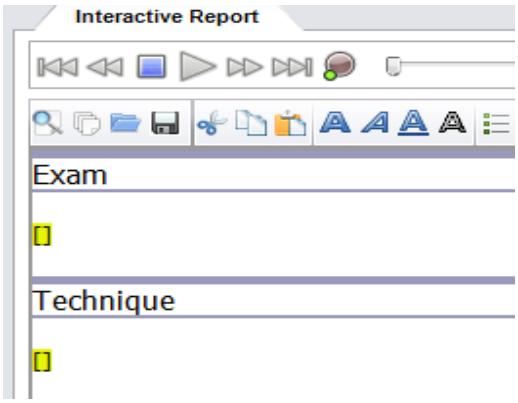



**Figure 5.10 – Field Color in editor**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Radiologist Edit Text Color

Within the reporting window, the user can open the context menu (right click) on the editor. This will present the user with a list of options. Selecting the "Editor Appearance" option will open the "Editor Appearance" window. A new option has been added.

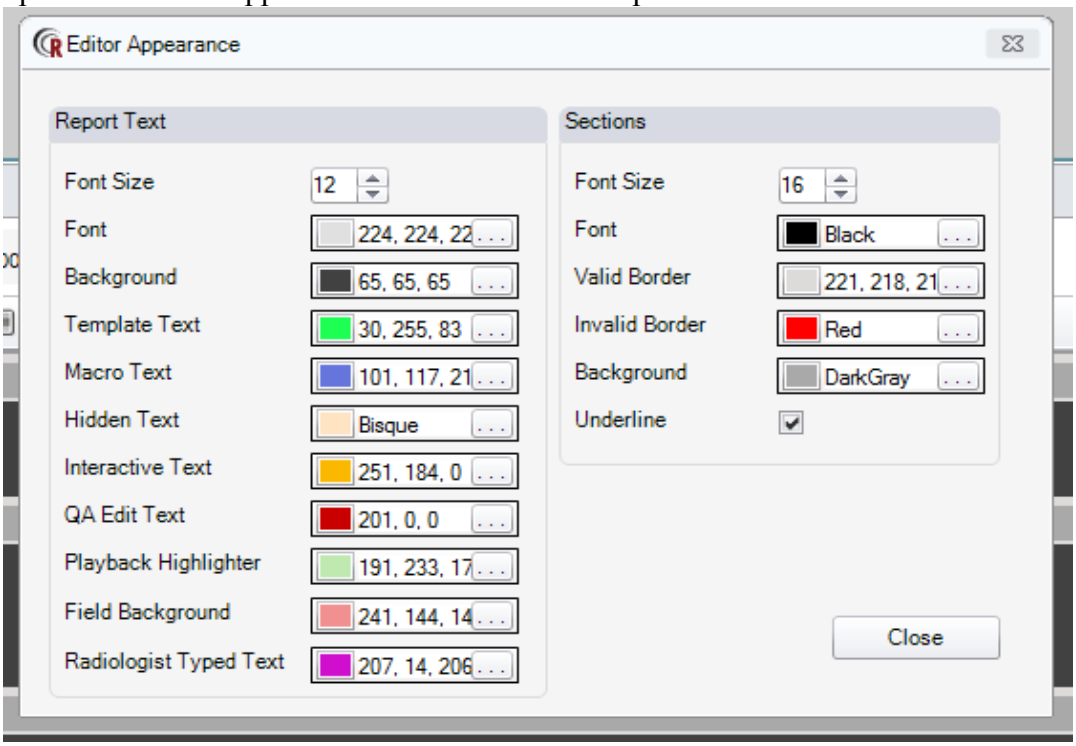



**Figure 5.11 – Editor Appearance window with new Radiologist Typed Text option**

This new option controls the color of the manually entered/edited text by the radiologist

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

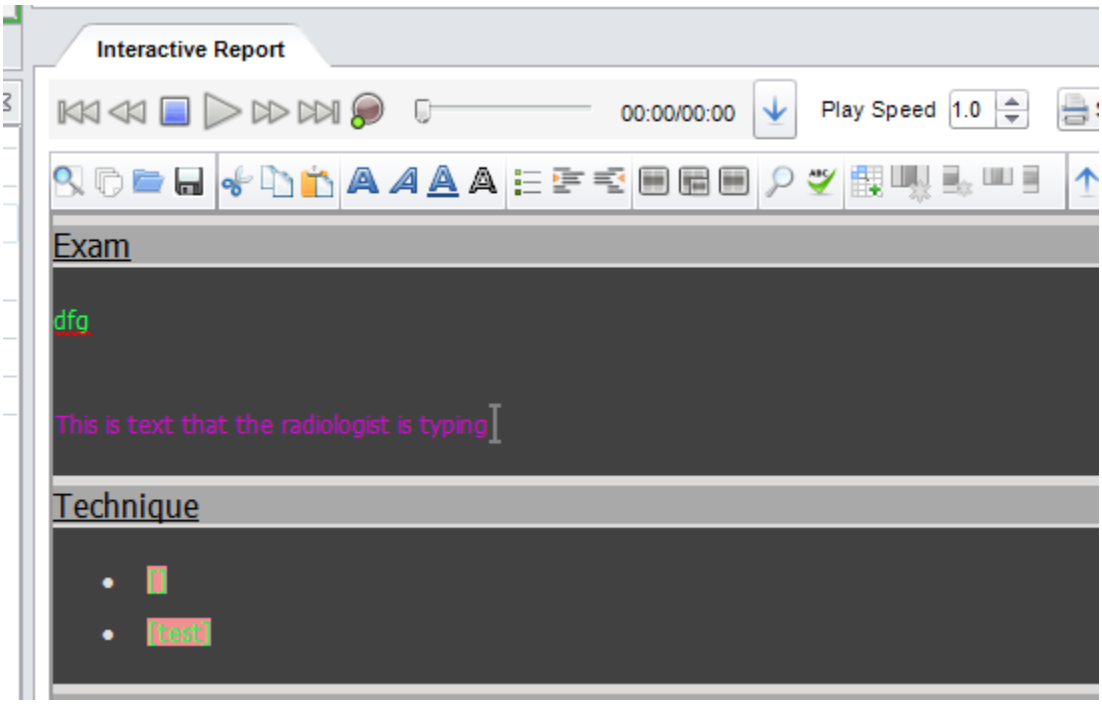



**Figure 5.12 – Editor displaying the text color when manually entered by the radiologist.**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Editor Margins

Within the reporting window, the user can open the context menu (right click) on the editor. This will present the user with a list of options. The "Margins" section of the Editor Appearance window has been added. This will allow the user to set their margins within the editor.

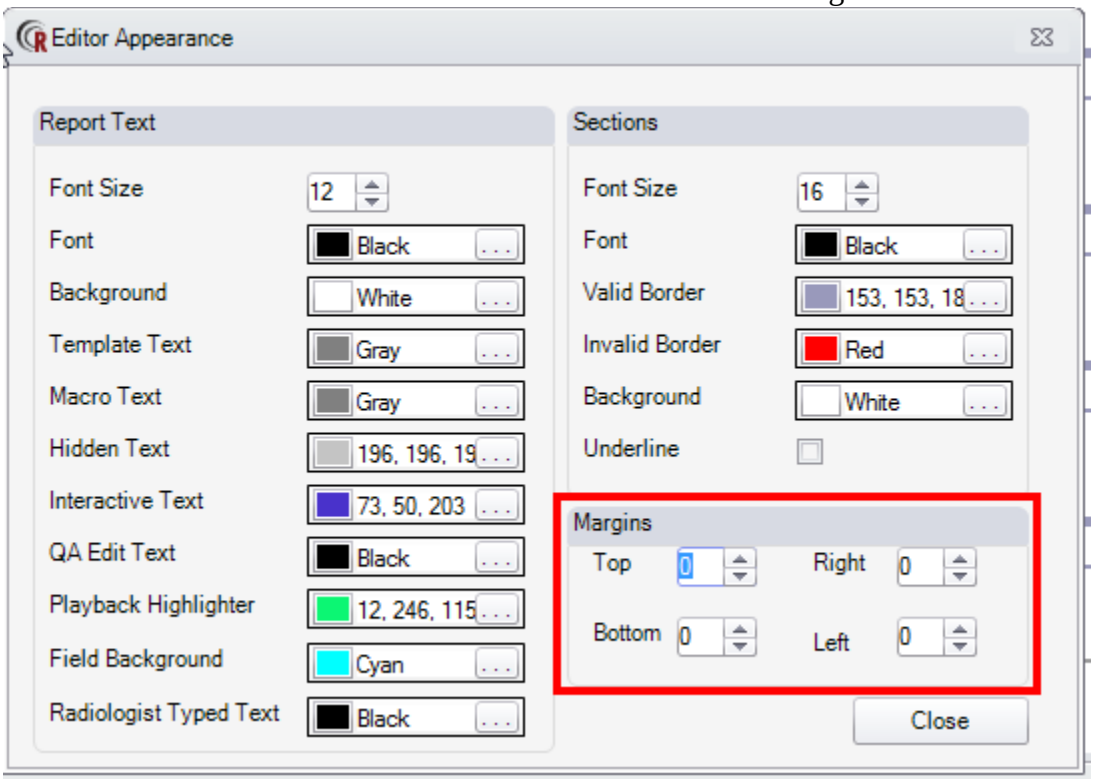



**Figure 5.13 – Editor Appearance window displaying new Margins options**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – New SpeechMike mapping options

We have added two new SpeechMike function key options that can be assigned. The options of Undo and Redo have been added. These new options can also be made the default action of the keyboards left and right arrow keys

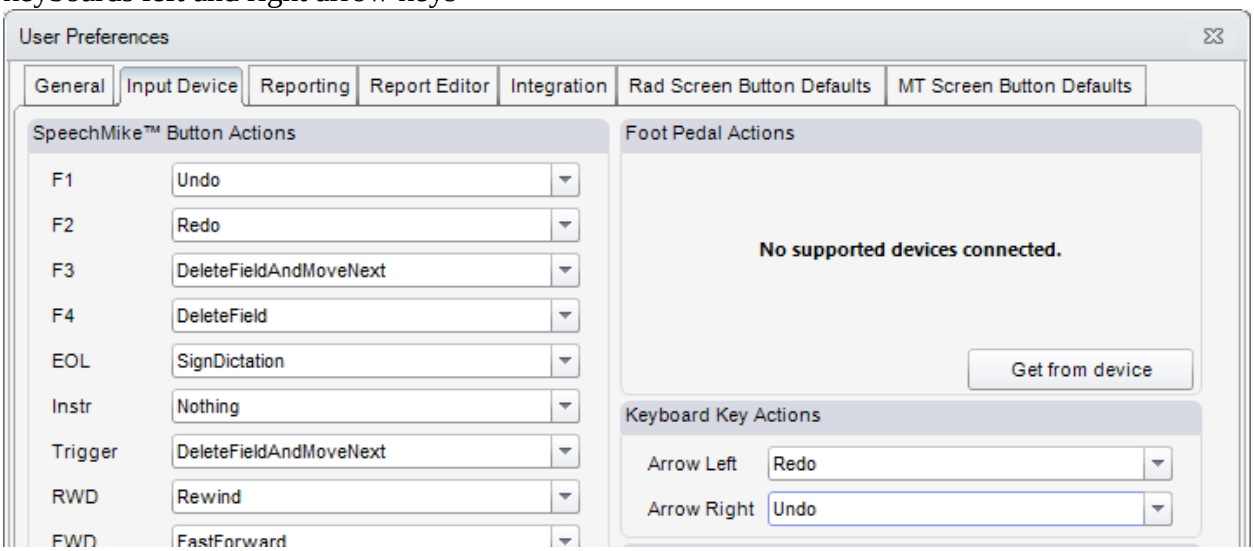



**Figure 5.14 – The Undo and Redo options added for SpeechMike buttons and Keyboard arrow actions**

It should be noted that these options can also be set as default Foot Pedal Actions and also mapped as an xKey command manually using the existing xKeys set up.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Delete Last Word

This new feature titled “DeleteWordLeftOfCursor” can be mapped as SpeechMike button, keyboard left/right arrow key, Foot Pedal button and also implemented as an xKeys command manually using the preexisting xKeys set up.

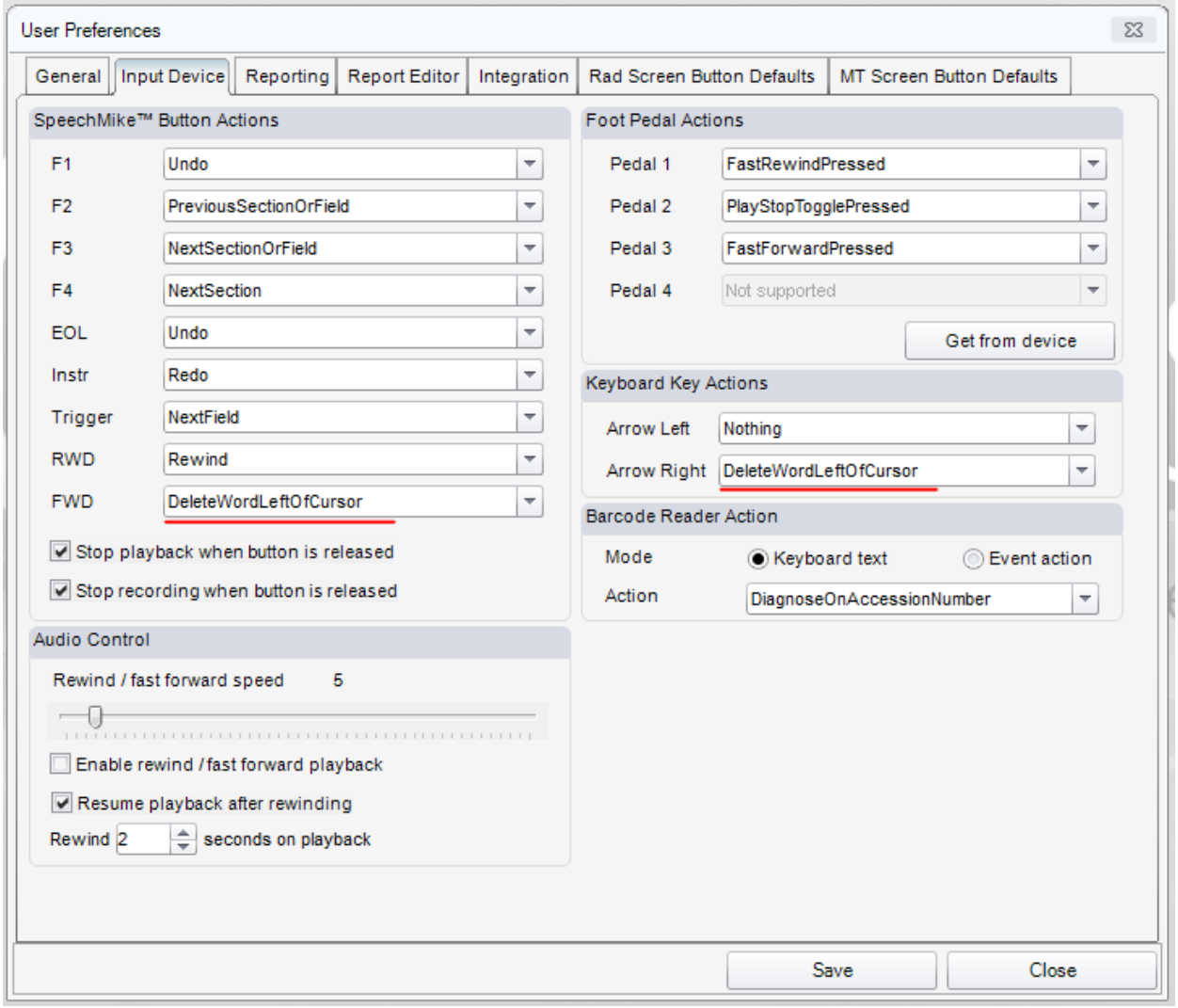



**Figure 5.15 – DeleteWordLeftOfCursor function in user preferences**

Support has been added for itemized lists. If you reach the end of a list item while deleting the last word, the empty item will be removed and the cursor will go to the end of the previous item.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Message Prompt on Submit

A new user preference option of "Enable submit warning" has been added under the Reporting tab of the User Preferences window.

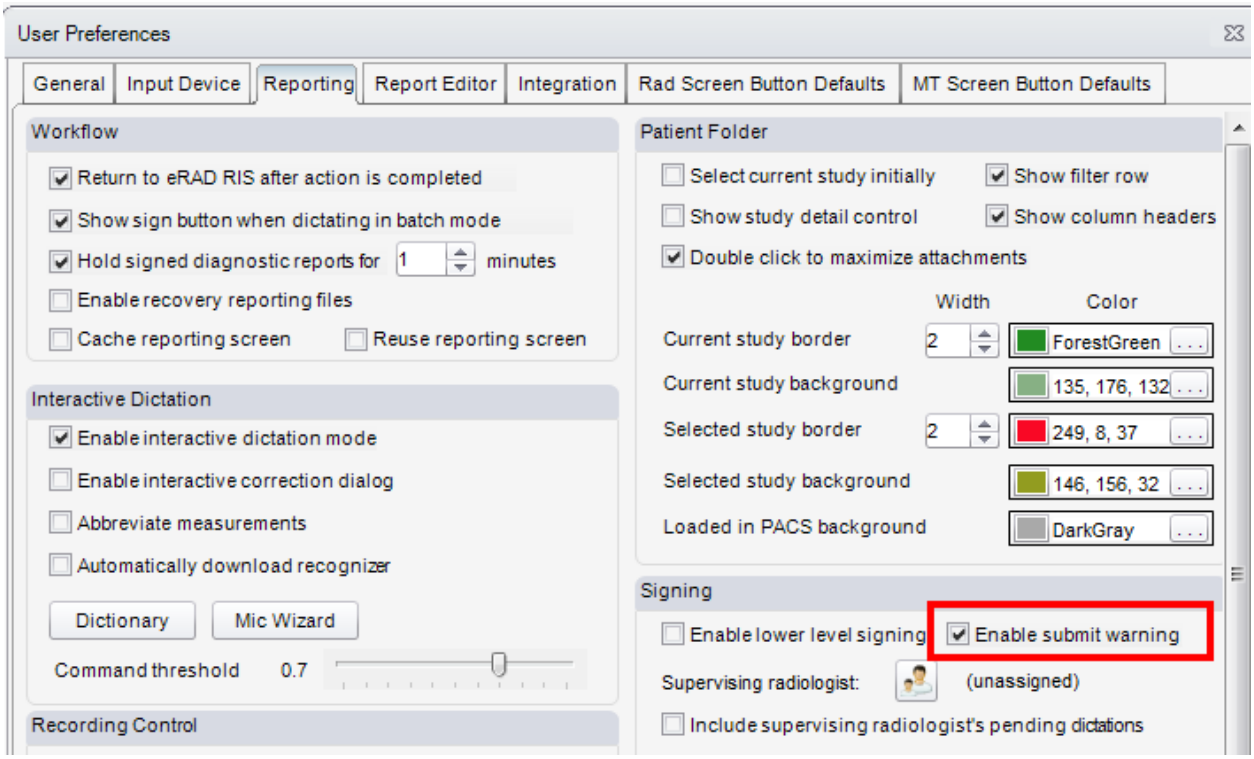



**Figure 5.16 – User Preference of "Enable submit warning"**

When enabled, and the user is in Signing mode and the Submit button is selected, they will receive a message prompt asking if this was the intended action.

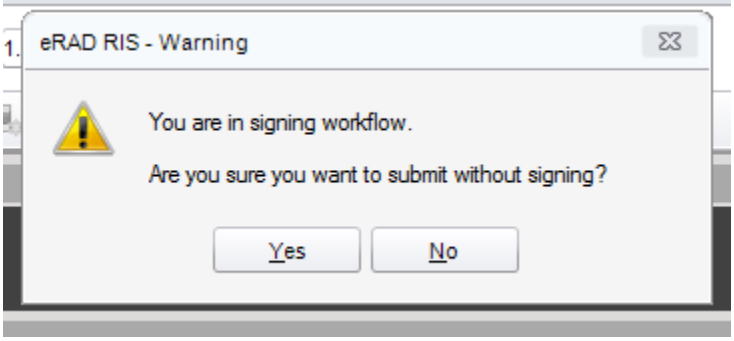



**Figure 5.17 – Submit warning message from signing workflow.**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Addendum Show All Templates

In previous versions of eRAD RIS when dictating an addendum, the user only had access to one template titled “Addendum”. We have added the “Show All Templates” option when creating an addendum. This was previous only available when creating the report initially.

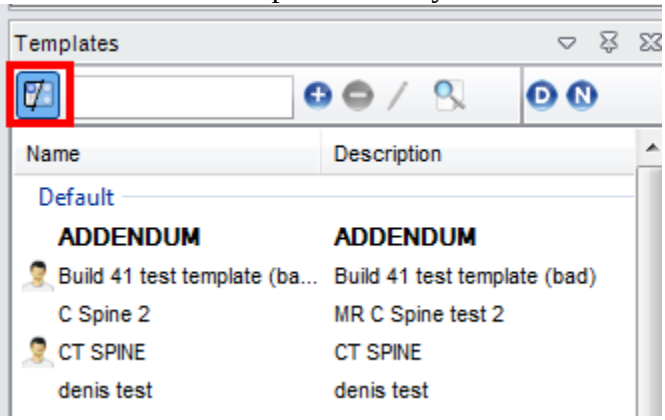



**Figure 5.18 – Show All available on Addendums**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Reject Addendum Request

It had been requested that the Radiologists wanted a way to reject addendum requests from within the reporting (dictate) window.
This is now possible. The last split button for Close/Skip now has 2 additional options that will be available if the current study open in the Dictate window is flagged as "*Request Addendum". The 2 new options are "*Reject addendum request and continue" and "Reject addendum request and close". These 2 new options are prefixed with an asterisk, which informs the user that they cannot be set as default.

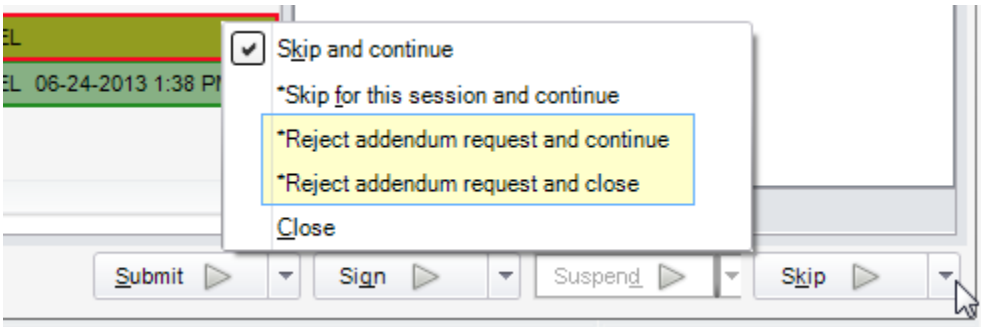



**Figure 5.19 – New options added to the Close split button in reporting window**

If one of these options is selected, the user will be prompted with the Reject Addendum window. In this window the user can enter in notes and reject the addendum or cancel the window

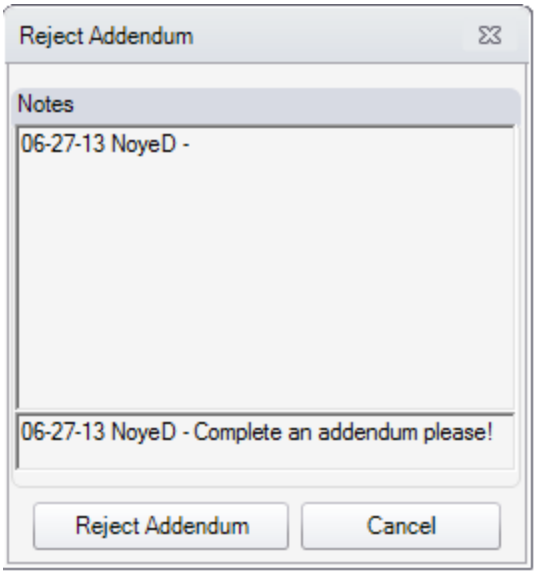



**Figure 5.20 – Reject Addendum window.**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# Reporting – Verify Report from All Signed Pending Release WL

The Verify Report button has been added to the All Signed, Pending Release WL.

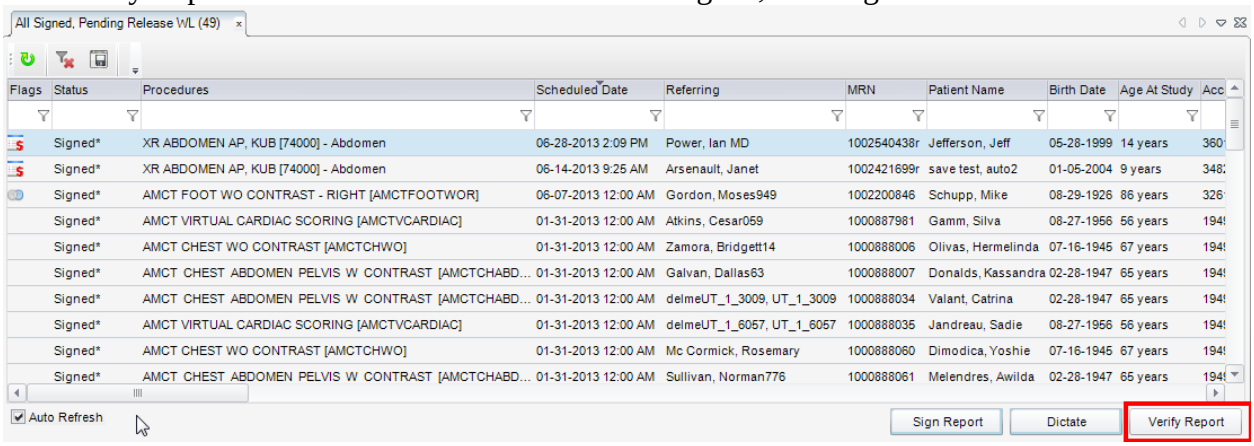



**Figure 5.21 – All Signed, Pending Release with Verify Report option**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Create Template from Current Report

In build 41 users can now create a Template from the current report in the reporting window.
This is similar to the existing feature of creating a macro from the selected text.
When the user has a template configured with desired text, formatting, macros inserted, etc…
they now have the option to create a template from this report.
From the context menu in the report editor select Create Template From…
This will open the Editing Template: New window

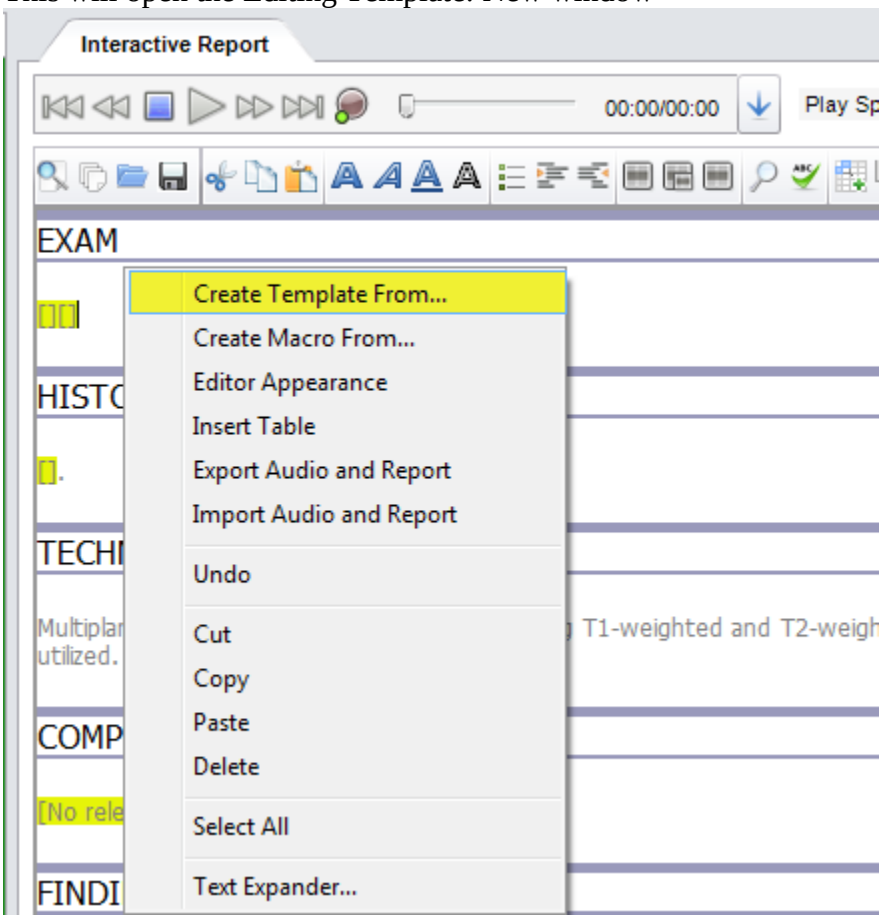



**Figure 5.22 – Create Template option in reporting window**

Once the edit template window is open, the user can create a new template as before.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Support Multiple Layouts

In build 40 we introduced the concept of having multiple default layouts. These layouts could not be altered and saved by the user or an admin.
We have taken this concept a step further in build 41 allowing the user to create a custom layout and save. Once the user has a desired layout, from the view menu select Save as Custom Layout. This feature is controlled by new access string "**View.Custom.Layouts**" with a default of None.

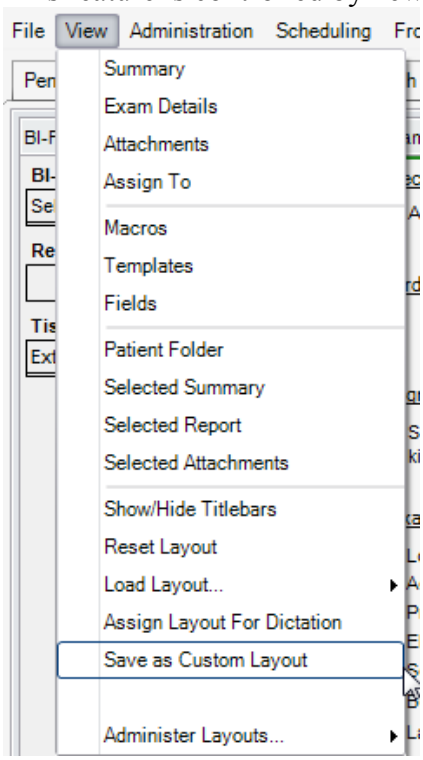



**Figure 5.23 – Saving custom layout**

Selecting the View menu option of "Save as Custom Layout" a new window will open allowing the user name this layout

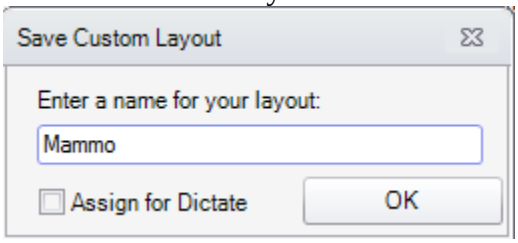



**Figure 5.24 – Save custom layout**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

The next the reporting window is accessed, the custom layout can be loaded from the current load layout menu; they appear below the standard admin pre-sets.

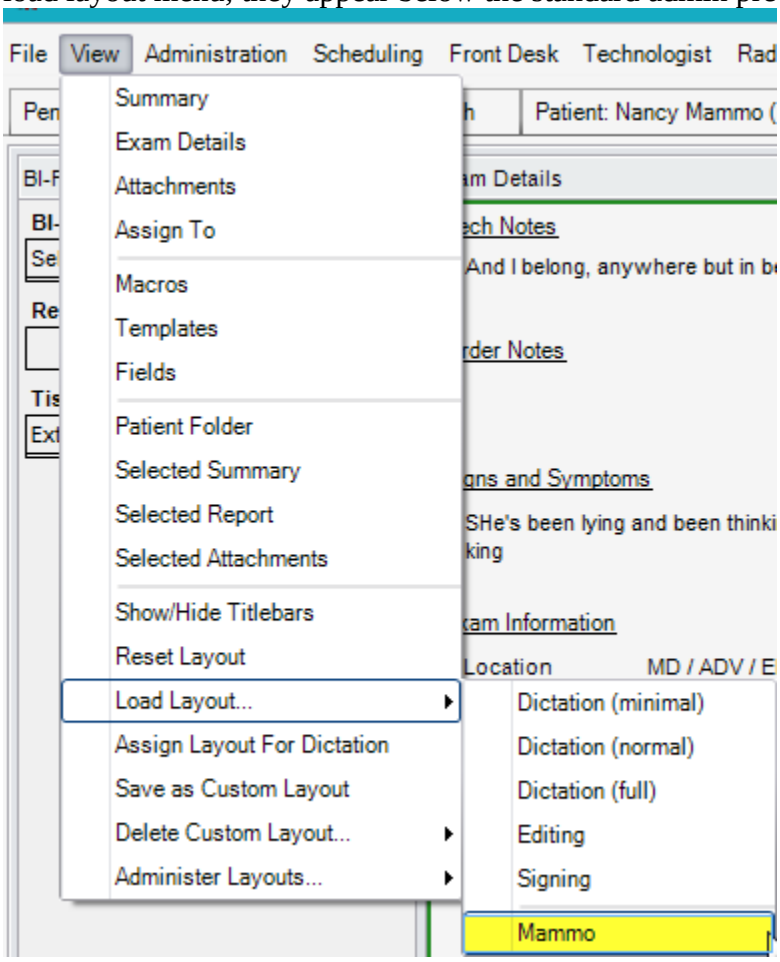



**Figure 5.25 – Displaying how to load a custom layout**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

Custom layouts can be removed using the View menu “Delete Custom Layout option.

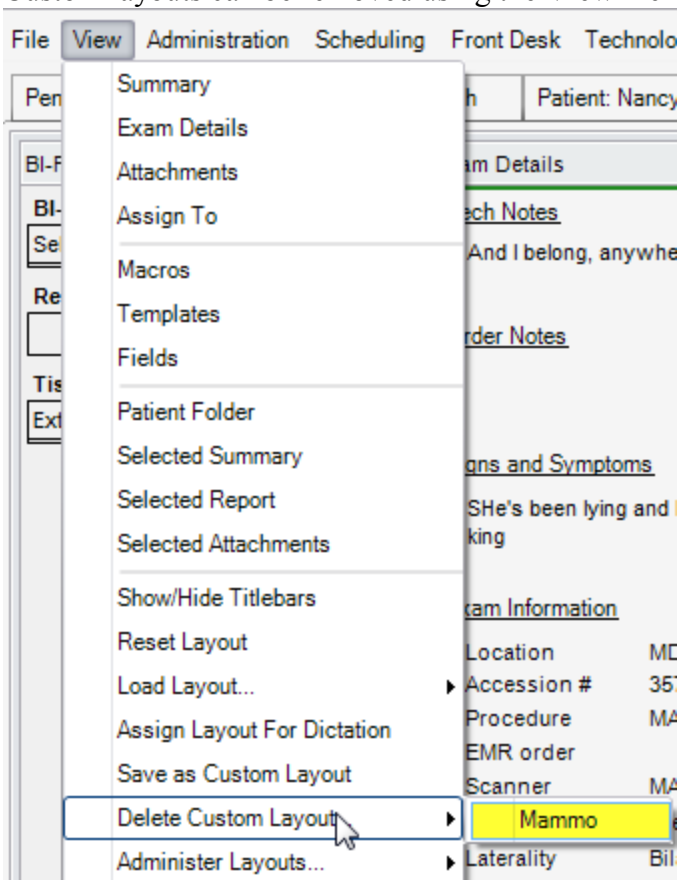



**Figure 5.26 – Displaying how to remove a custom layout.**

Before the layout is removed, the user is prompted with a confirmatory message.

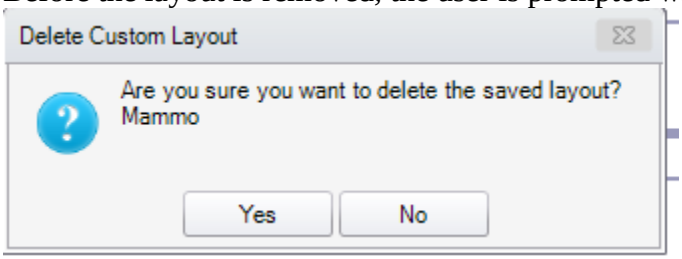



**Figure 5.27 – Confirmatory message displayed when deleting a custom layout**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

In addition to the Custom Layouts, in build 40.008 an administration user was given the ability to administer layouts, meaning they could configure a layout and save it as Dictation (minimal), Dictation (normal), Dictation (full), Save as Editing and Save as Signing.

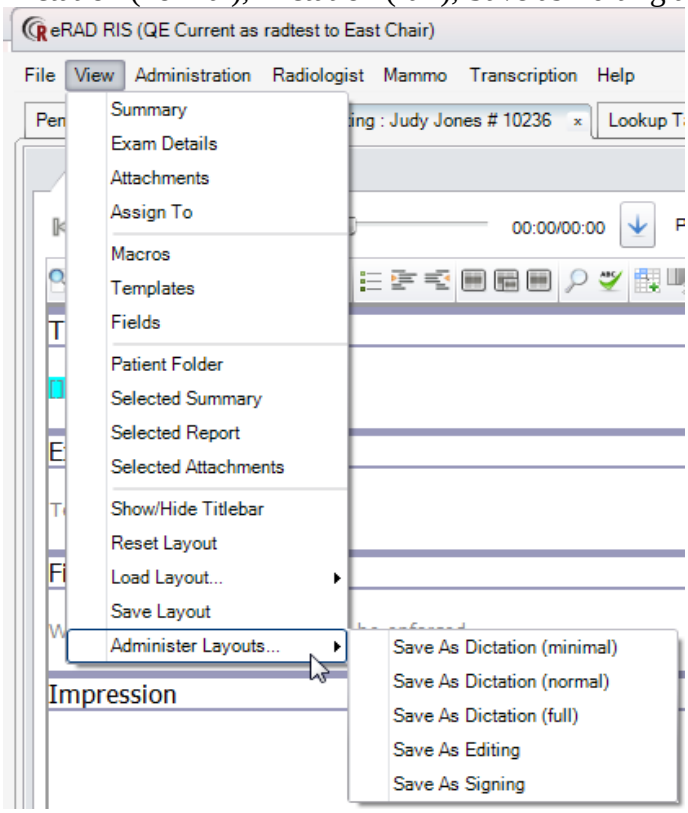



**Figure 5.28 – Administer Layouts…**

Access to all of these was controlled by one access string titled **View.Administration**. The View.Administration access string has been removed and replaced with the following

**View.Preset.Administration** - Access to preset layout administration submenu
**View.Preset.Administration.PresetSigning** - Access to preset layout administration for Signing
**View.Preset.Administration.PresetEditing** - Access to preset layout administration for Editing
**View.Preset.Administration.PresetDictationNormal** - Access to preset layout administration for Dictation Normal
**View.Preset.Administration.PresetDictationMinimal** - Access to preset layout administration for Dictation Minimal
**View.Preset.Administration.PresetDictationFull** - Access to preset layout administration for Dictation Full

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Set Problem Flag without Rejecting Report

The verify reports window in the QA work flow previously had all the on screen controls and forms locked down until your reject the report.
Now we have enabled the Problem radio button option, notes box and assign to drop down.

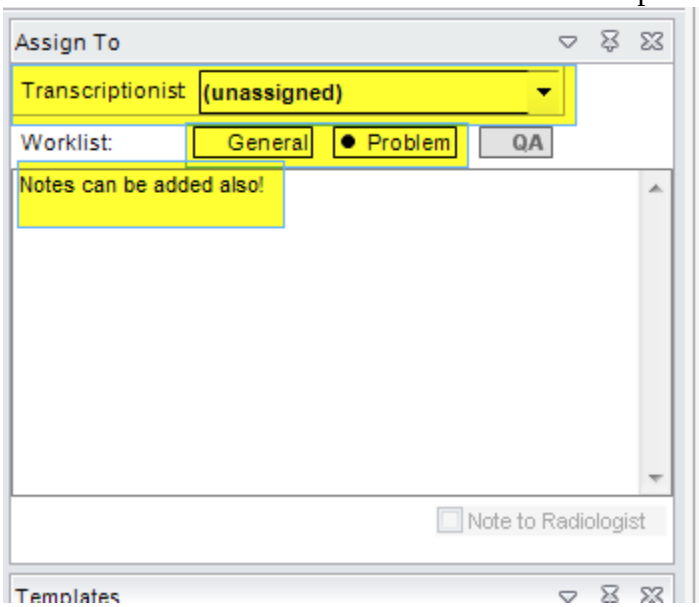



**Figure 5.29 – Set problem flag in QA window without rejecting the report**

This will allow the user to set a problem flag and note from the QA verify report work flow without having to reject the report.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Warn when Submitting From Sign Reports Window

When in the Sign Reports window, the user also has the option to submit the report and change the status to Report Drafted. It may happen on occasion that the Submit button is selected mistakenly instead of the Sign button. We have introduced a confirmatory message on the selection of the Submit button from the Sign Reports window. Selecting Yes will complete the Submit action, while selecting No will return the user to the Sign Reports window on the current study.

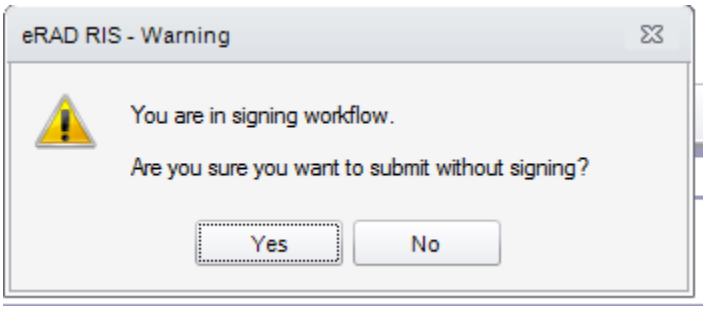



**Figure 5.30 – Submit confirmatory message from Sign Report window.**

This message is controlled by a new user preference. The user preference "Warn submit warning" which is located under the Reporting tab, when selected will ensure that the user is informed they have selected the Submit button.

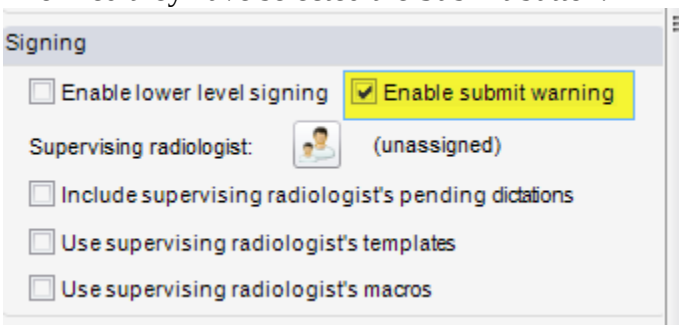



**Figure 5.31 – Enable submit warning user preference**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Report Verification Checks on QA Windows

When signing off a report a series of report checks are completed before the study can be advanced to "Signed" status. It has been requested that these report checks also happen when verifying reports in the QA work flow.
The report checks includes

- Section validation against document model.
- Report formatting (sections, fields, etc…)
- BI-RADS, Recommendation, and Tissue Density
- Auto spell check (this is optional driven by user preference)

## Reporting – View Patient's Phone Number in Reporting Window

The reporting window now has the patient's home and mobile phone numbers displayed under the Exam Details data pane > Patient Information section.

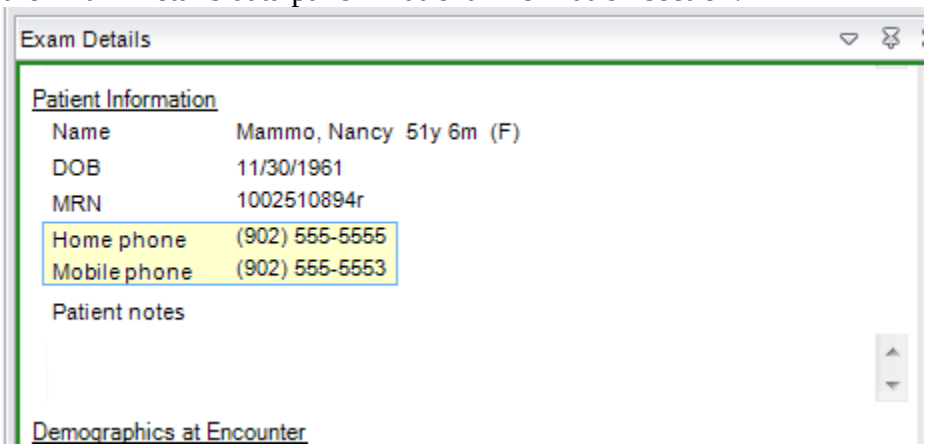



**Figure 5.32 – Patients home and mobile numbers displayed in the reporting window**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting - View Attachments in Full Screen Launched via Double Clicking

This new feature is driven by a new user preference titled “Double click to maximize attachments” located under the Reporting tab of the User Preferences window.

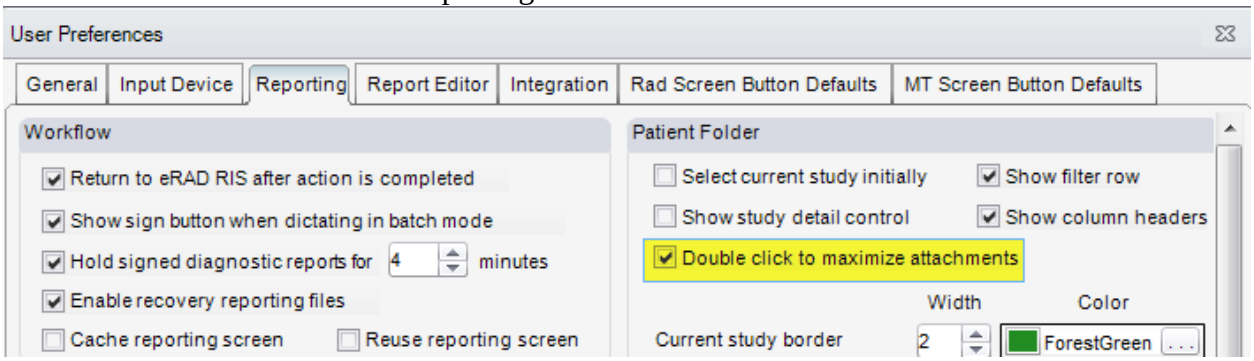



**Figure 5.33 – Displaying new user preference “Double click to maximize attachments”**

With this set double clicking on an attachment will maximize the tool window to the current screen. Once maximized you can double click to restore it to its previous location or in the case of a RAD Floating Dockable window you can close the window with the “X” in the top right corner (when in full screen maximized mode).
If you are to save your layout with this configuration, the full screen maximized toggle will not save with the layout manager.

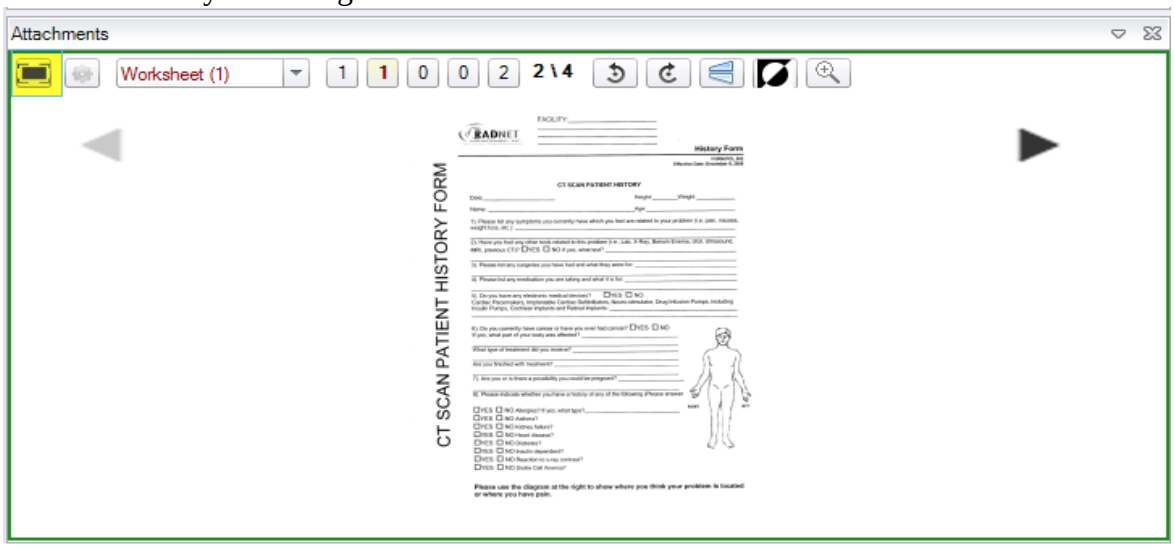



**Figure 5.34 – Attachment data pane displaying button open in Full view mode**

In addition to the double click to maximize the user can also click on the full screen icon shown in the above screen shot (top left).

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Document Model to be Stored in TemplateMacro Table

All along the document model has been stored in the template itself. In this build we will now be storing the document model in the Macro Template database table. If there happens to be a template that does not have a document model, the user will find a new context menu item in the TemplateMacro table titled *Load Document Model Value. Selecting this menu option will extract the document model from the template and insert the value in the new column of Base Template.

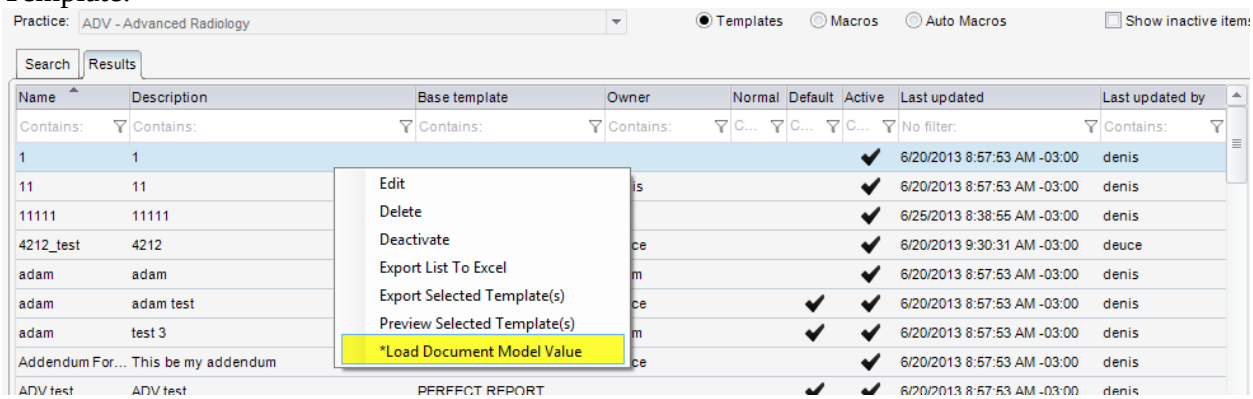



**Figure 5.35 – TemplateMacro table displaying context menu option of Load Document Model Value**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – TemplateMacro Editor Enhancements

The look and feel of this lookup table is quite different in build 41. First thing you may notice when opening the TemplateMacro lookup table is that there are now two tabs.
The First tab allows you to set criteria to search/filter on (Practice, Users, Procedures and Scanners) and the second tab is similar to the old worklist of template/macros. However in this new version, the worklist is filtered based on the criterion that was listed in the first tab. Also there is additional information on the templates and macros in the work list as well as visible below in a grid.
This should add exceptionally more control for the administrators when it pertains to finding and working with a set of macro/templates.
Filter tab shown here with no filters set (include ALL in the results)

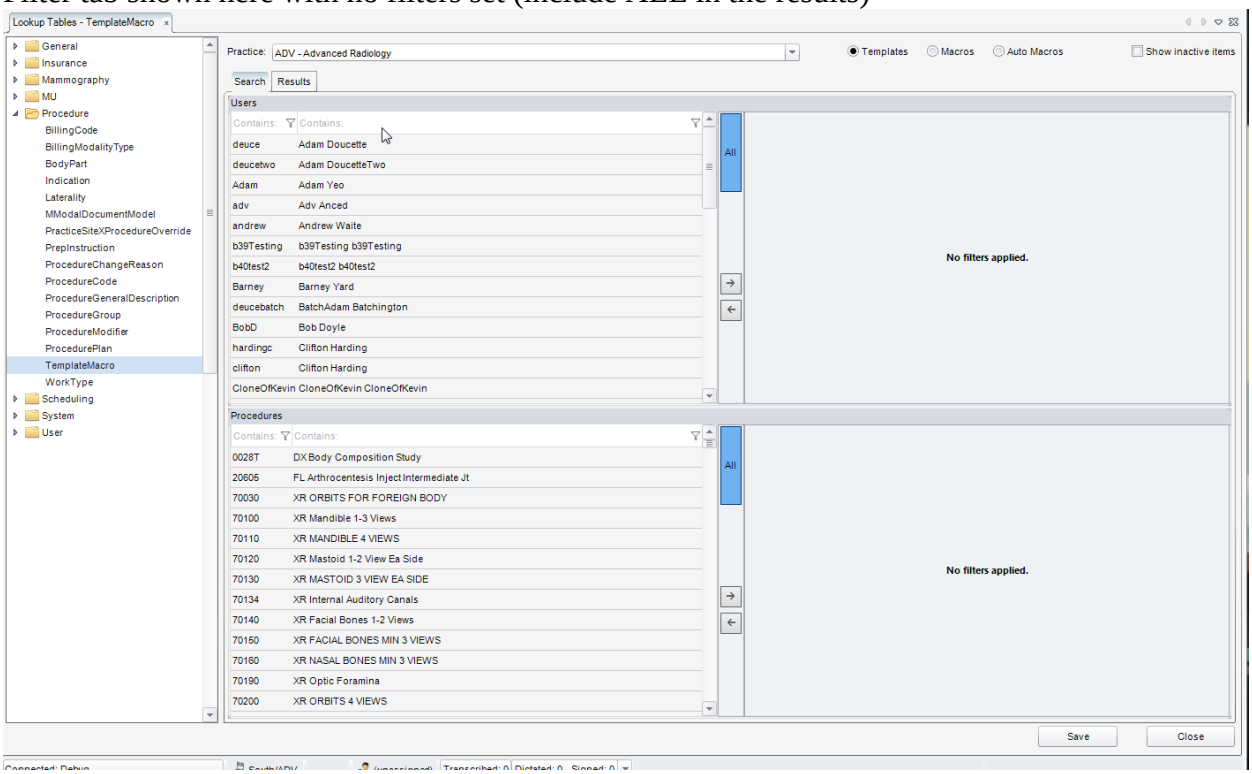



**Figure 5.36 – New and improved TemplateMacro lookup editor window**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

A look at the Results tab below you will see that additional columns have been added so the user can see the template row selected is a Normal or Default template. The others columns are like before with the Name and Description of the template, what the Base template is, the owner, if the template is active and last updated date and user.
Also notice the details section below where assignments are displayed in a quick view fashion.

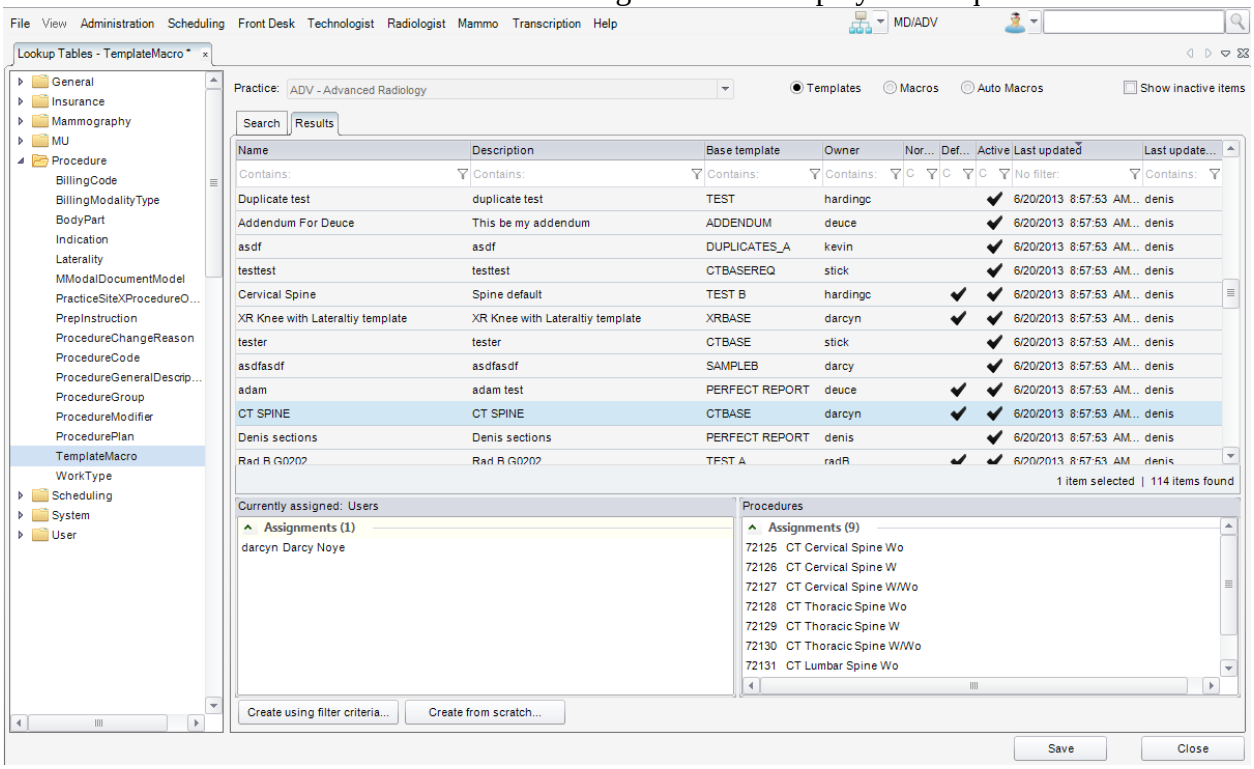



**Figure 5.37 – Results tab of the TemplateMacro lookup editor**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

When the Auto-Macros option is selected from the top radio button group, a Scanners grid is added to both the search and results sections.

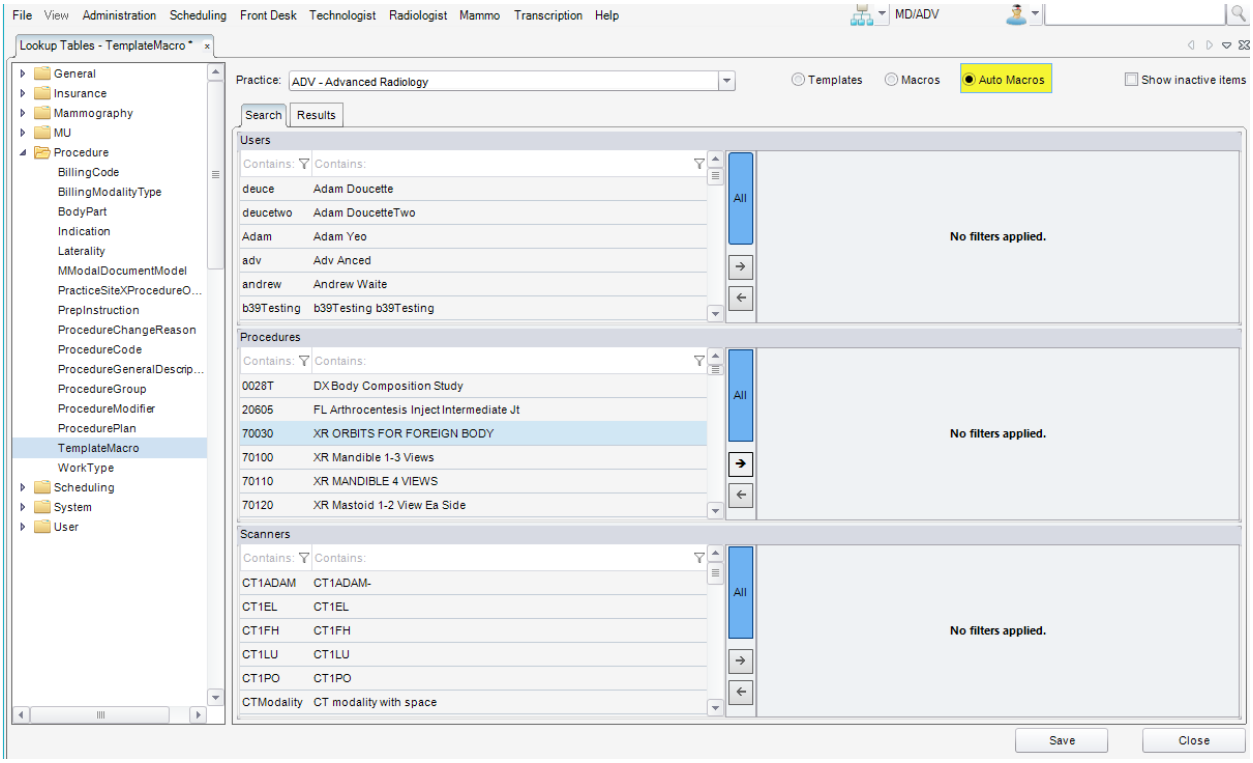



**Figure 5.38 – Auto Macros search tab**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

On the Results tab the Normals and Defaults columns do not appear as they are not relevant to Auto-Macros. Also the Scanners details are listed in the quick view area of the window.

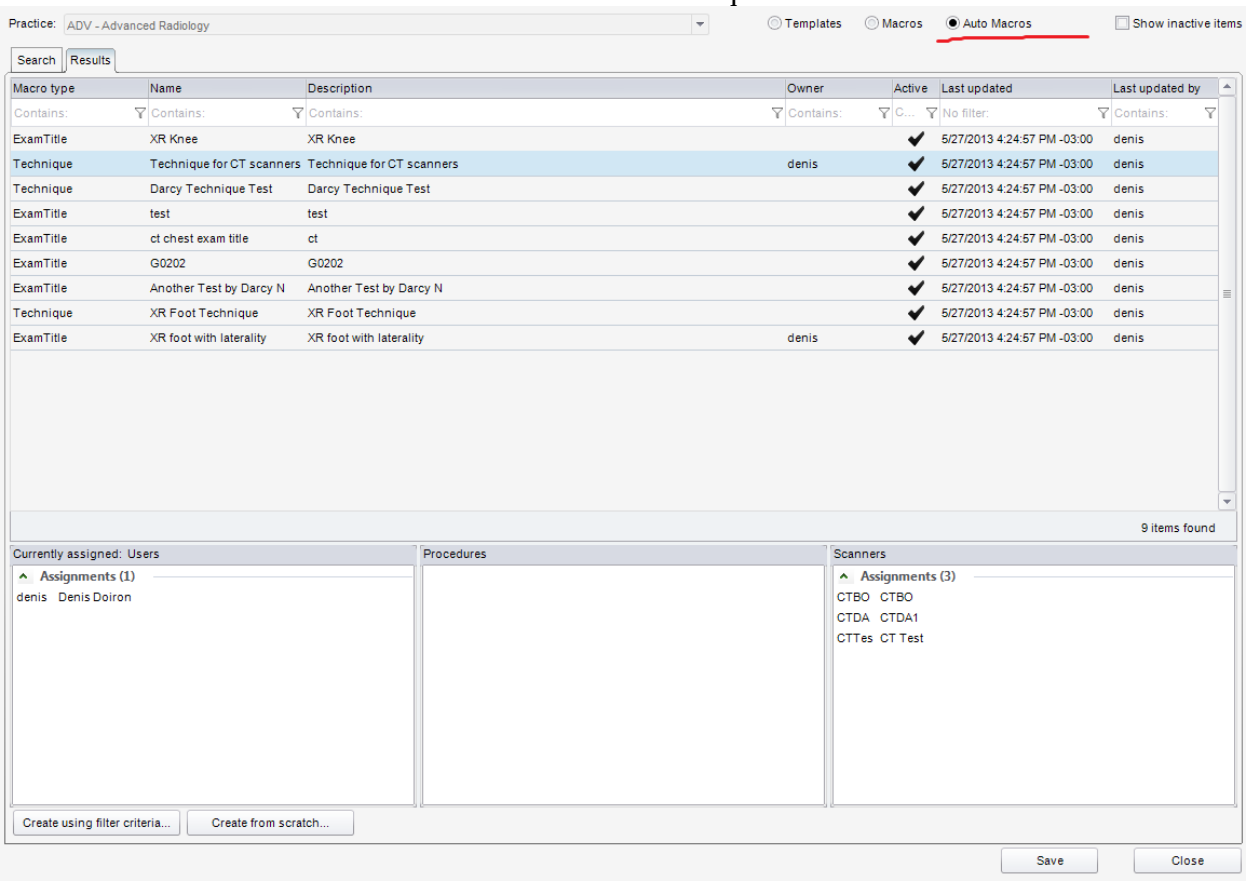



**Figure 5.39 – Auto-Macros Results tab**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

Filter/Search screen allows you to double click items to move them to the filter list as well as use the on screen arrow buttons. Items on the right will be used to filter on. If you select the **All** button, the filter is removed from use and the items are returned to the left. However if you select **All** again, the previously filtered on items will return. This will persist so long as you don't close the window or change types.

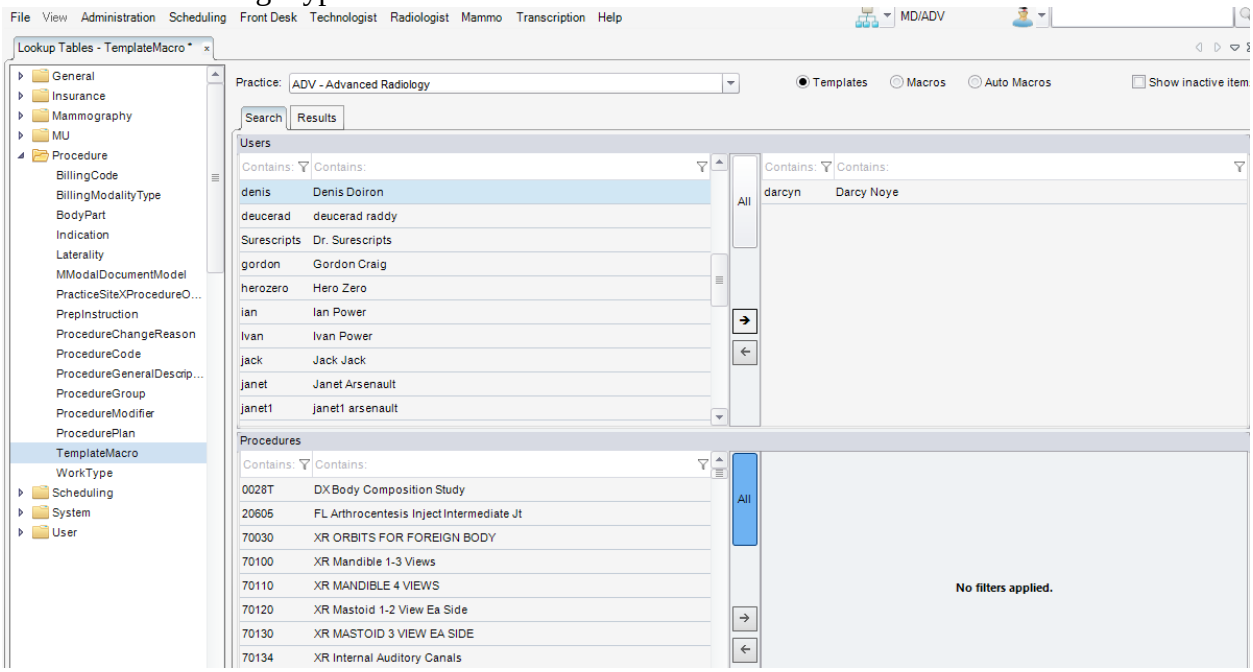



**Figure 5.40 – Displaying the search tab of TemplateMacro editor**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

Here we see the results screen using the above filters. The work list is filtered based on the one filter we applied in the figure above. Also notice the details section below lists the assignments on a template/macro in two groups. Matched assignments and assignments (like before). In his case if an assignment is a match to the criteria you searched on, then it is listed under Matched Assignments

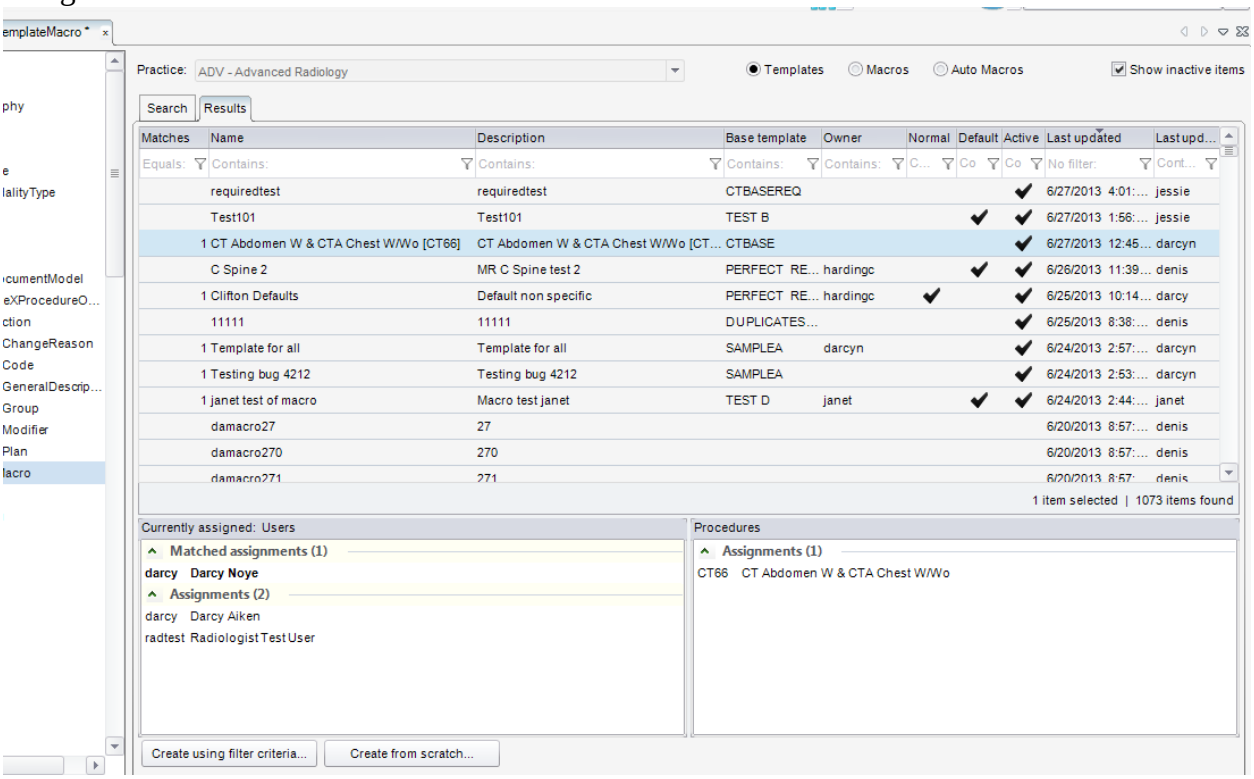



**Figure 5.41 – Results displayed on the entered filtered criteria of the Search tab.**

If the "Show Inactive items" check box is selected, the inactive templates will also appear in the results.

Loading the results screen based on a filtered criteria, you will have a "Create using filter criteria…" button as well as a "Create from scratch…" button. The "Create from scratch" option is the same as we had in previous versions. The "Create from filter criteria" button is new and uses the filter criteria to prepopulate assignments when creating a new template/macro.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

In addition to the new design of the TemplateMacro editor, some new context menu items have also been introduced.
The first is the ability to export the templates, preview the templates and export the list to excel.

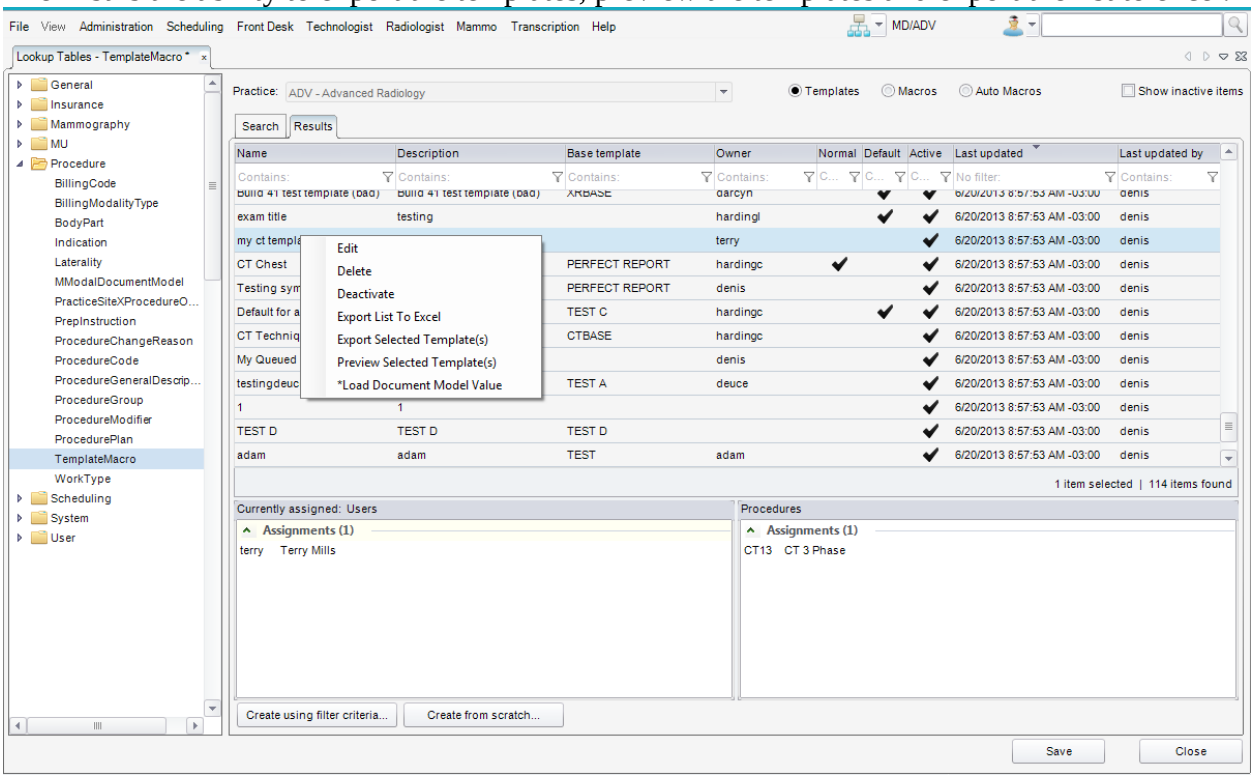



**Figure 5.42 – Context menu in the TemplateMacro lookup table window**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

The style sheet and the report were adjusted so that we would show empty sections and fields. Since we are previewing templates and macros, we want to show everything it contains.
The user can preview one or multiple reports.

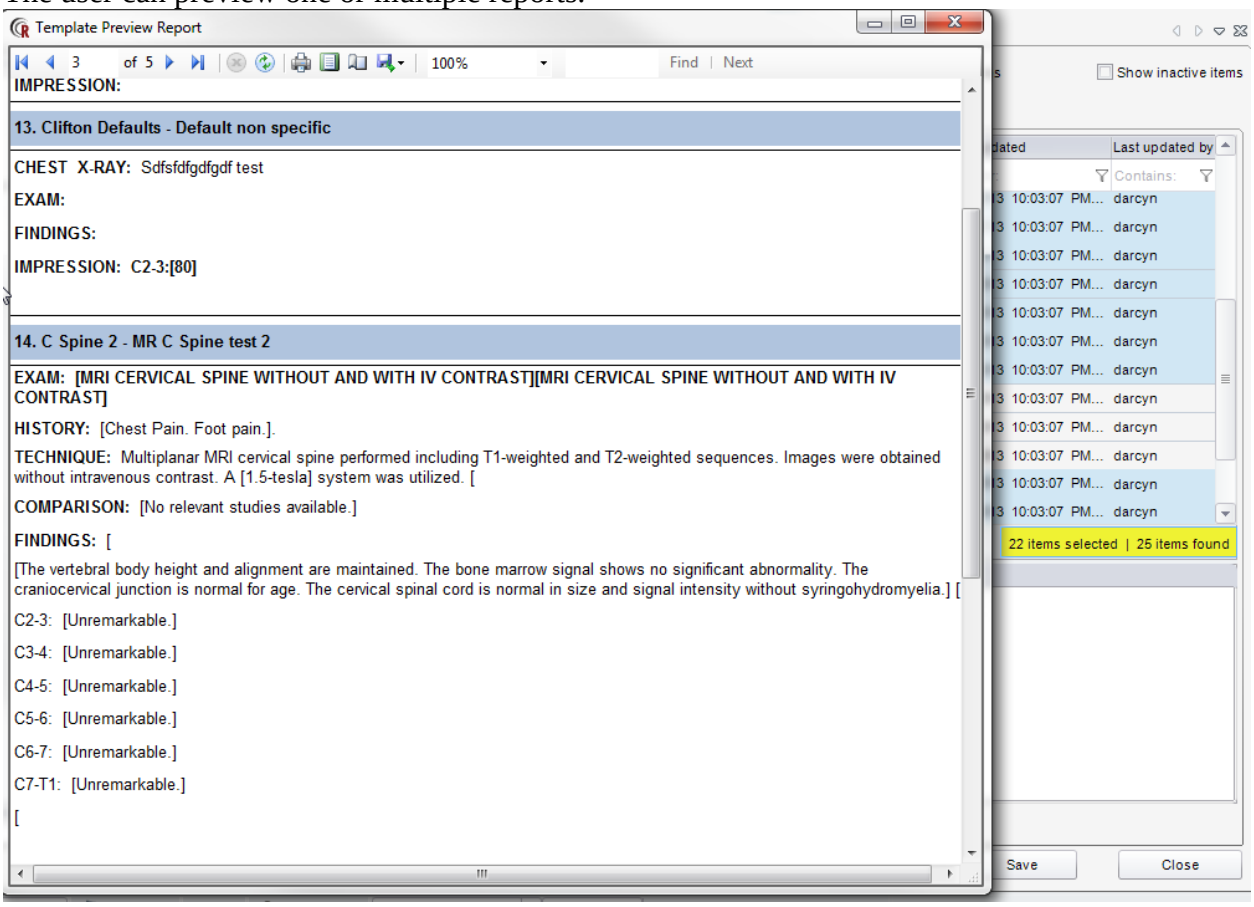



**Figure 5.43 – Template preview**

In the example above you can see that it tells me in the on the TemplateMacro lookup results tab how many rows I have selected compared with the total number of rows in my list (22 items selected | 25 items found)

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

For exports, users are prompted for a directory to save to, and then all files are saved in that location. In this case this exports the documents in their raw form, which is a CDA document, an XML representation of the document and all of its contents.

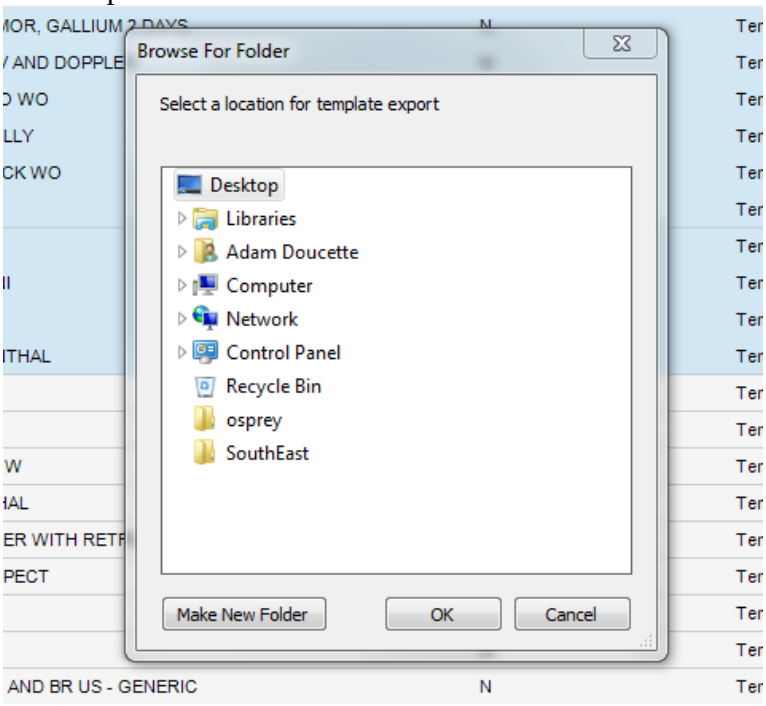



**Figure 5.44 – Exporting templates**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Verbose Trace Logging to a Flat File

We now log verbose log statements to a subdirectory entitled **verbose_log**. By default config, the files are named trace.log and when they are rolled hourly the names will get tagged with the date, such as **trace.2013-03-14.14.log.1**, **trace.2013-03-14.14.log.2**, etc.
They are configured in the ris.exe.config

```
      <add name="Rolling Flat File Trace Listener"
type="Microsoft.Practices.EnterpriseLibrary.Logging.TraceListeners.RollingFlatFileTraceLi
stener, Microsoft.Practices.EnterpriseLibrary.Logging, Version=5.0.414.0,
Culture=neutral, PublicKeyToken=31bf3856ad364e35"

listenerDataType="Microsoft.Practices.EnterpriseLibrary.Logging.Configuration.RollingFlat
FileTraceListenerData, Microsoft.Practices.EnterpriseLibrary.Logging, Version=5.0.414.0,
Culture=neutral, PublicKeyToken=31bf3856ad364e35"
          rollFileExistsBehavior="Increment" rollInterval="Hour"
          fileName="verbose_log/trace.log" formatter="Text Formatter" />
```

Also under the specialSources directive, we need to add the listener for use.

```
        <allEvents switchValue="Verbose" name="All Events">
          <listeners>
            <add name="Rolling Flat File Trace Listener" />
          </listeners>
        </allEvents>
```

The *rollInterval* can be changed to any of the following values:

| Member Name | Description |
|---|---|
| None | No Interval |
| Minute | Minute Interval |
| Hour | Hour Interval |
| Day | Day Interval |
| Week | Week Interval |
| Month | Month Interval |
| Year | Year Interval |
| Midnight | At Midnight |

**Table 5.1 – Possible rollInterval values**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting - Autosave

If a Radiologist user has a report open for dictate or signing, RIS has the ability to temporarily autosave the report and audio files.
This feature can be enabled or disabled via configuration. The new user preference is titled "Enable Autosave Reports" and is controlled by a new access string titled **"Clinical.UserPreferences.ReportingAutoSave"** that has a default of None

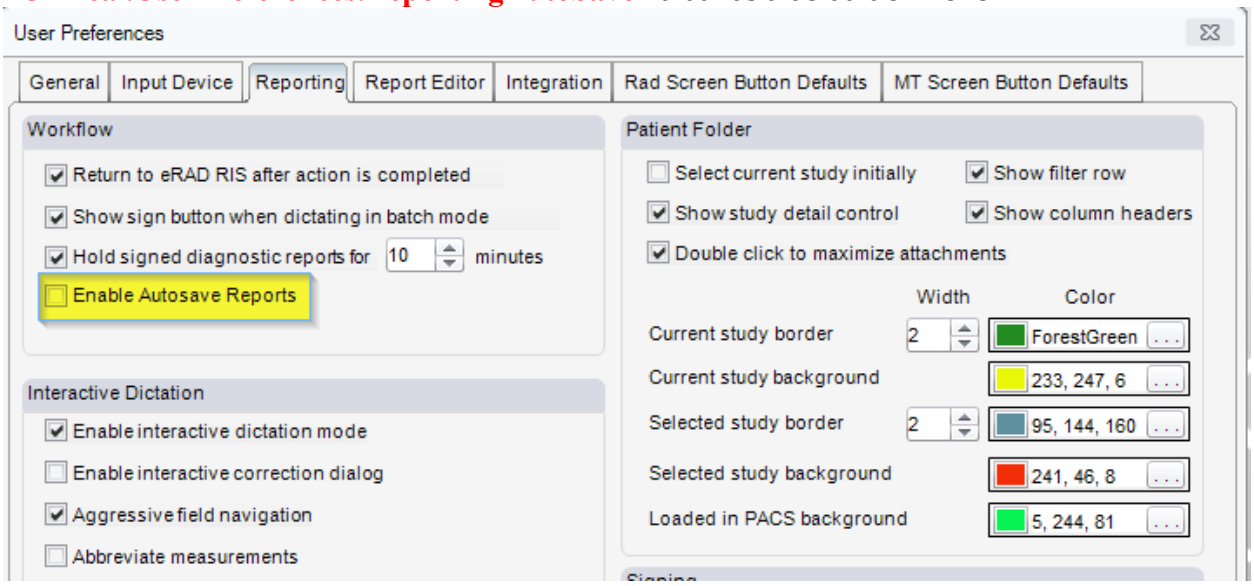



**Figure 5.45 – User preference "Enable Autosave Reports"**

The files are stored in the *application_path + /Reporting/autosave/**username**/* where **username** would be the logged in user's username.

The files have the following naming convention:
MODE-#-ACCESSION

Both audio and report files have the base filename. The report has no extension and the audio file has the extension of **.audio**.

The **MODE** is either DICT or SIGN, depending on the mode in which the report was open.
**-#-** is a delimiter used by the system

**ACCESSION** would be replaced with the accession number of the report in question.
Here is an example of an actual set of files:

**DICT-#-1070954**
**DICT-#-1070954.audio**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

When a radiologist opens an exam for dictation or signing the auto save fires up in the background and begins saving both the report file and dictation every 5 seconds. If the exam window is dismissed properly; application closed, action button, Xed out, basically as long as RIS doesn't crash, these files are cleaned up and deleted.

In the event that RIS crashes or does not get to properly close (killed from task manager) while a radiologist has the reporting window open, these files do not have the opportunity to clean up. As a result they remain saved.

When a user with saved recovery files logs into eRAD RIS, the Select Recovery Files window is presented to them:

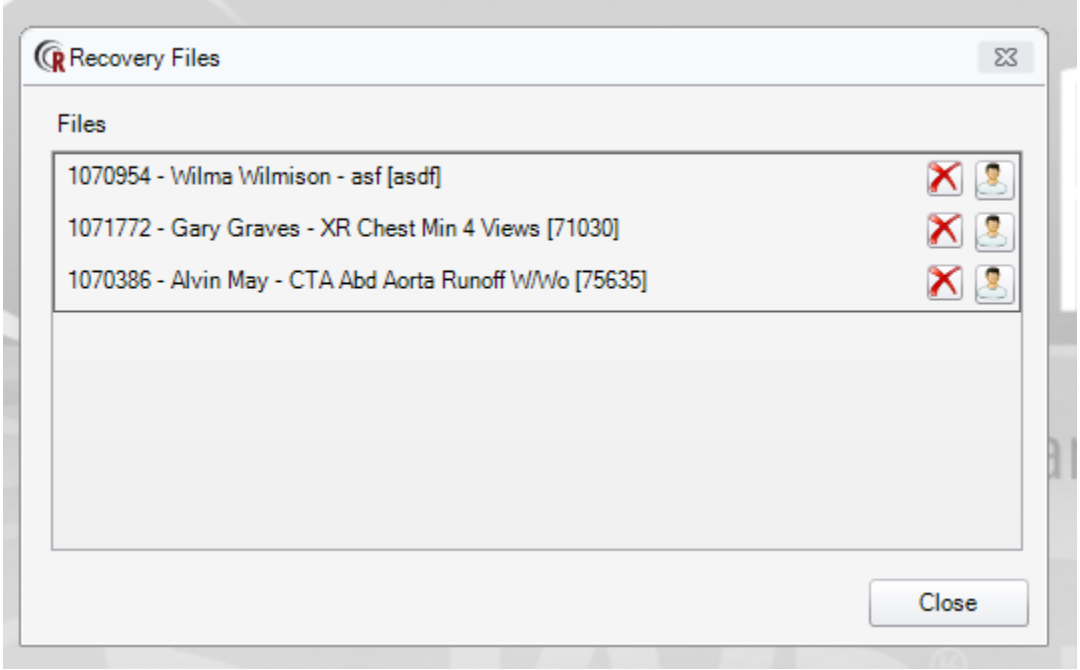



**Figure 5.46 – Recovery Files window on login**

Here the user is shown the accession number, patient name and exam type of each available recovery. They have two actions that can be taken on each recovery item. The X button will delete the files and remove the item from the current list. The Doctor button will launch the exam, restore the report and audio files from the save location as well as remove the item from the list.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

If the recovery files window is dismissed, it can be reopened from the main radiologist menu:

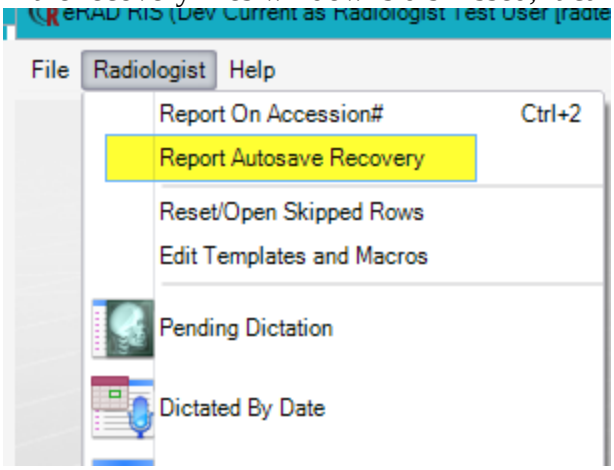



**Figure 5.47 – Autosave Recovery menu option**

In the event that another user has altered the interpretation (and committed it to the database) you will be presented the following while trying to recover your reading:

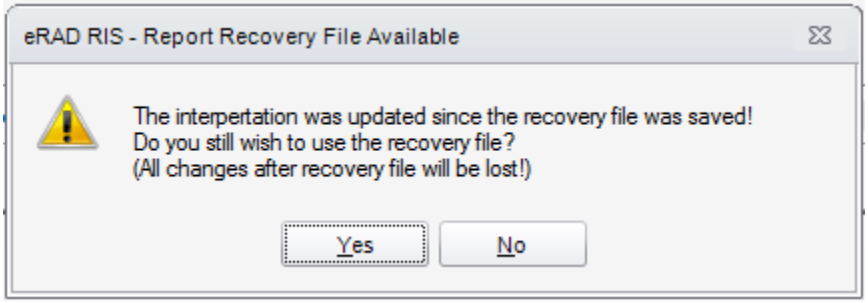



**Figure 5.48 – Confirmatory message presented if the study has already been updated**

If you chose to open the report with recover then the previous changes will be overwritten. If you do not SAVE during this session your override will be unwound, as it was not committed yet.
If you chose to not use the recovery file then you will open the report normally loading the most recent interpretation.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting - Bypass QA From Reporting Screen

The reporting window Sign split button has 2 new options that can be selected but not defaulted. When "*Sign for immediate release and continue" or "*Sign for immediate release and close" is selected the report will be moved directly to signed status bypassing QA workflow and bypassing Hold signed diagnostic reports.

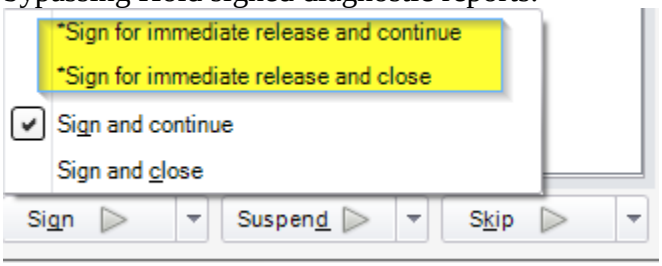



**Figure 5.48a – New options for Sign split button in reporting window**

A change was also made to the Quality Review Distribution editor.

a. Added ability to turn on/off QA at practice level, for stat and non-stat studies separately
   i. All/None option that will turn all practices to the relevant value.
b. Quality review distribution rows are now filtered by practice using a drop down.

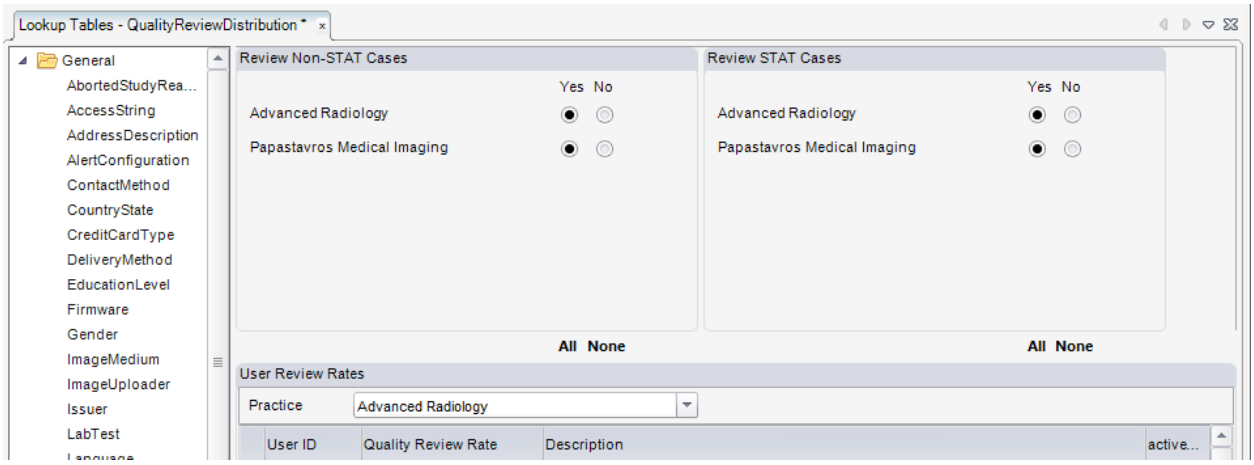



**Figure 5.48b – Additions to the Quality Review Distribution lookup table**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## CTRM Integration Support

A new button was created on the reporting screen located in the lower left, that will be available if the user has full access permission to the "**Clinical.CTRNNotification**" access string. The CTRN notification has two primary states, when the study does not have any notifications currently saved in the dataset it will appear greyed out; , if there is currently a notification that has been created it will be appeared pressed and with color; .

From within the notification screen the currently selected referring physician will be selected by default, with phone numbers and email address listed to be used. An additional referring can be selected, either from the dropdown or by searching from the available referring in the database.

When a referrer is selected the configured notification Phone Number, SMS (cell Phone) Number and email address will be used to populate the text box. If the referrer has chosen to be contacted by one of these options, it will be checked by default.

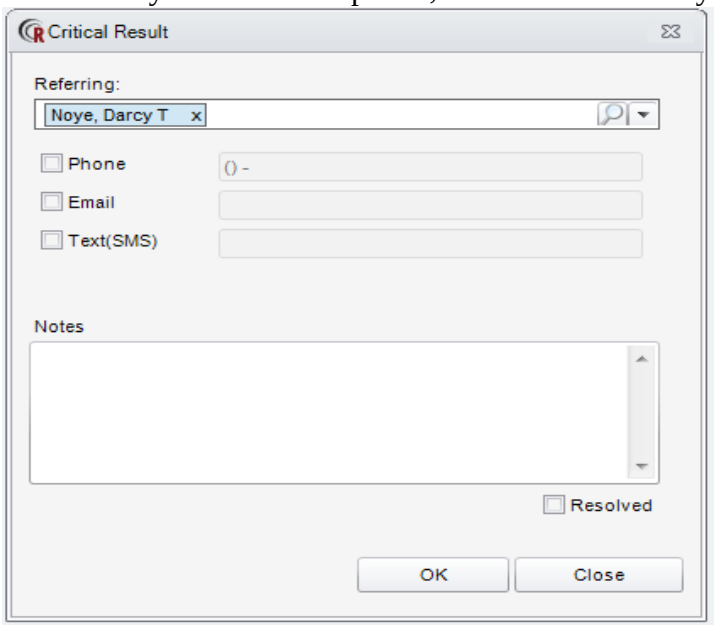



**Figure 5.49 – Critical Result window**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

We have also added to new work lists located under the Radiologist menu.

The first is titled **Critical Results**, controlled by access string **"WL.Rad.MyCriticalResults"**

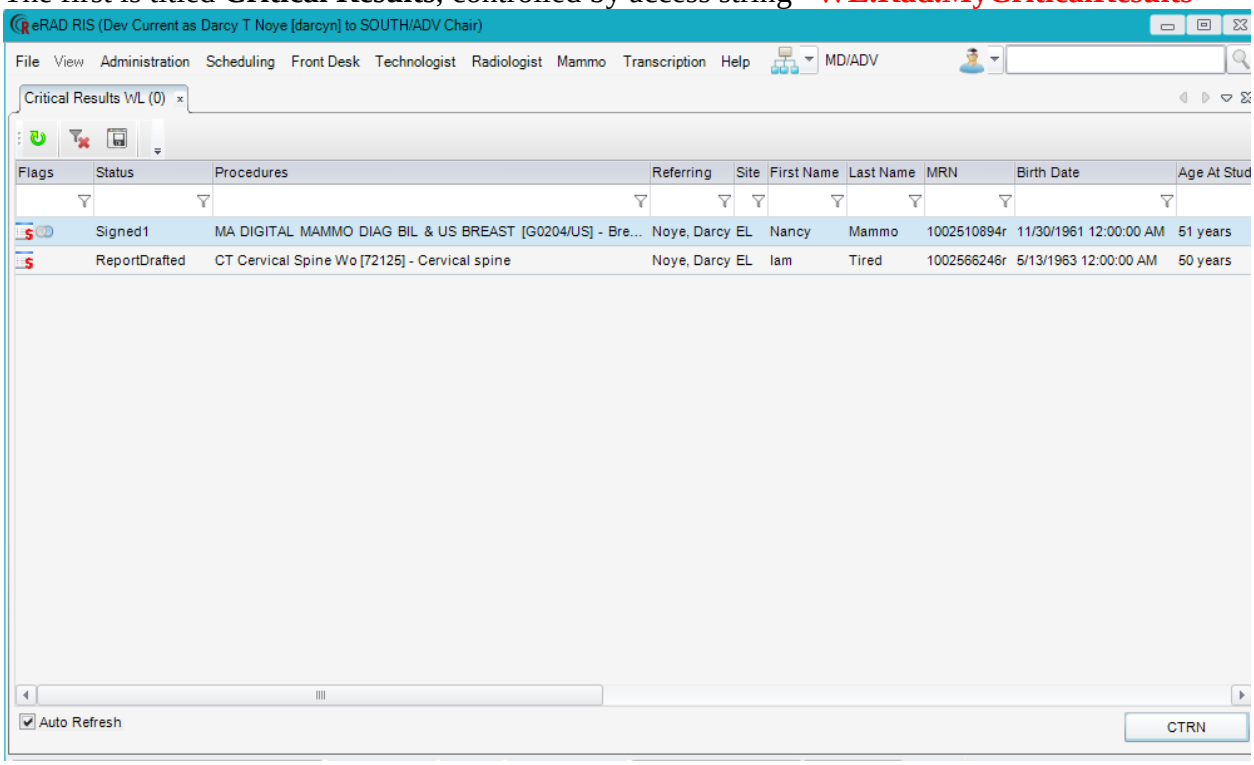



**Figure 5.50 – Critical Results WL**

The second is titled **All Critical Results**, controlled by access string **"WL.Rad.CriticalResults"**.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

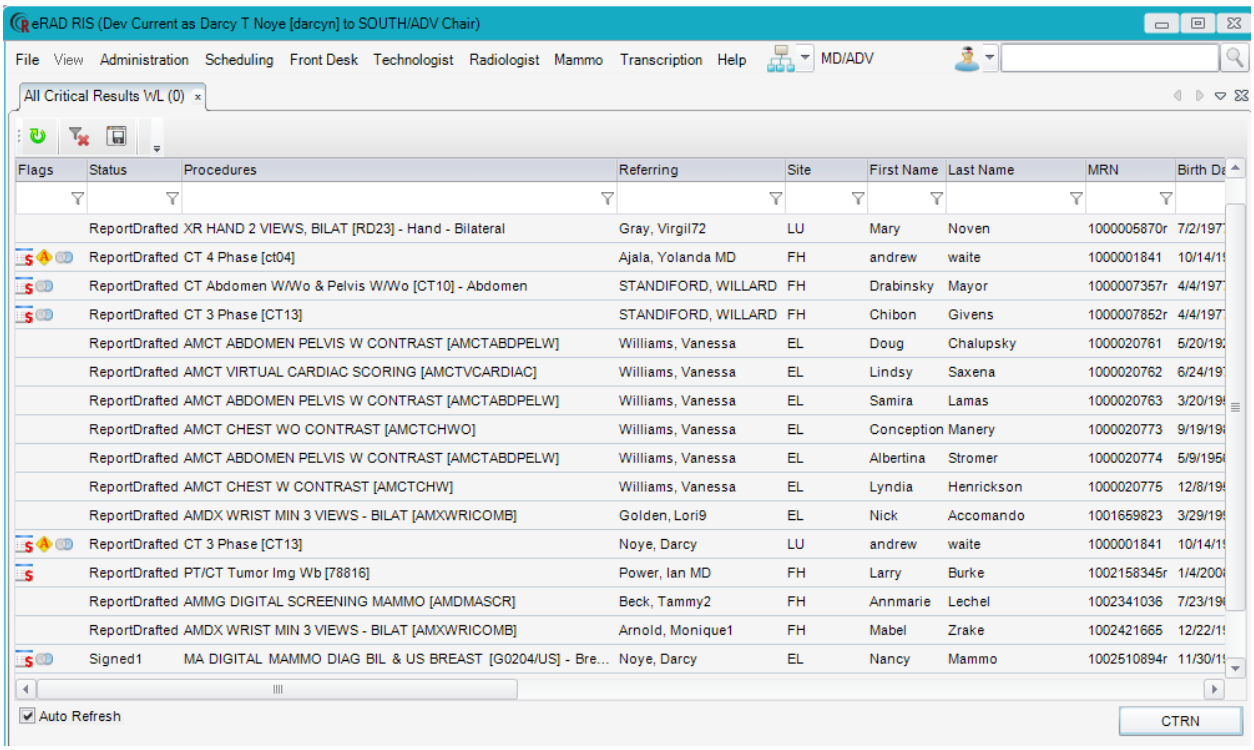



**Figure 5.51 – All Critical Results**

Each work list has a context menu that consists of CTRN and Audit History.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Increase Weighting of Laterality in Relevancy Calculation

Now placing more weight on the ordering of relevant studies if the matching study's laterality matches, as shown in the following example where the Right Knee, gets a score of 69 instead of 100.

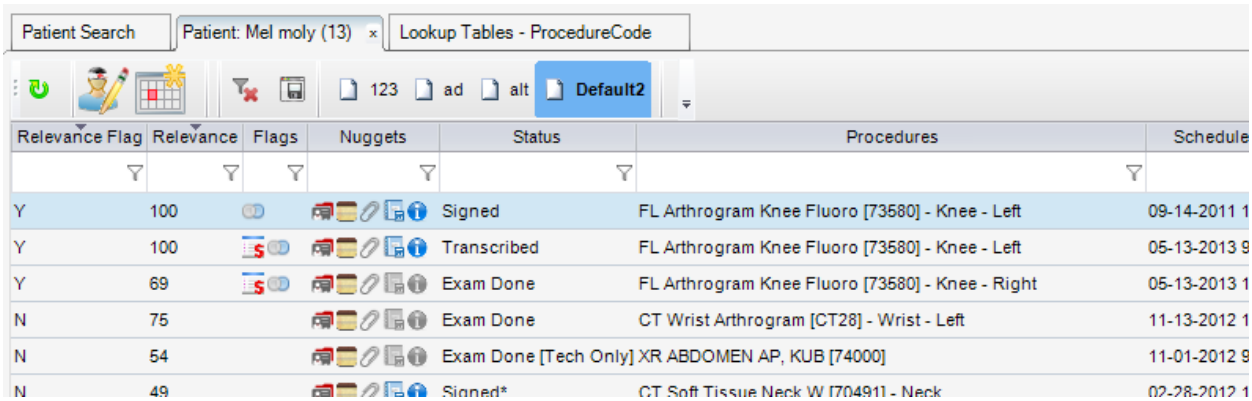



**Figure 5.52 – Relevancy calculation**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Personnel Merge

There is now a Personnel Merge option on the Administration menu. The new menu option is controlled by the access string "Clinical.PersonMerge". The Personnel Merge screen is modeled after the Patient Merge screen, in that the user can search for 2 people (e.g. referring physicians), choose which one is the Source (i.e. the person that will be marked as deleted), which one is the Destination (i.e. the person that will survive the merge), and there is also a limited ability to choose some criteria from the Source that will be used to update the destination (currently only the NPI can be retained from the source).

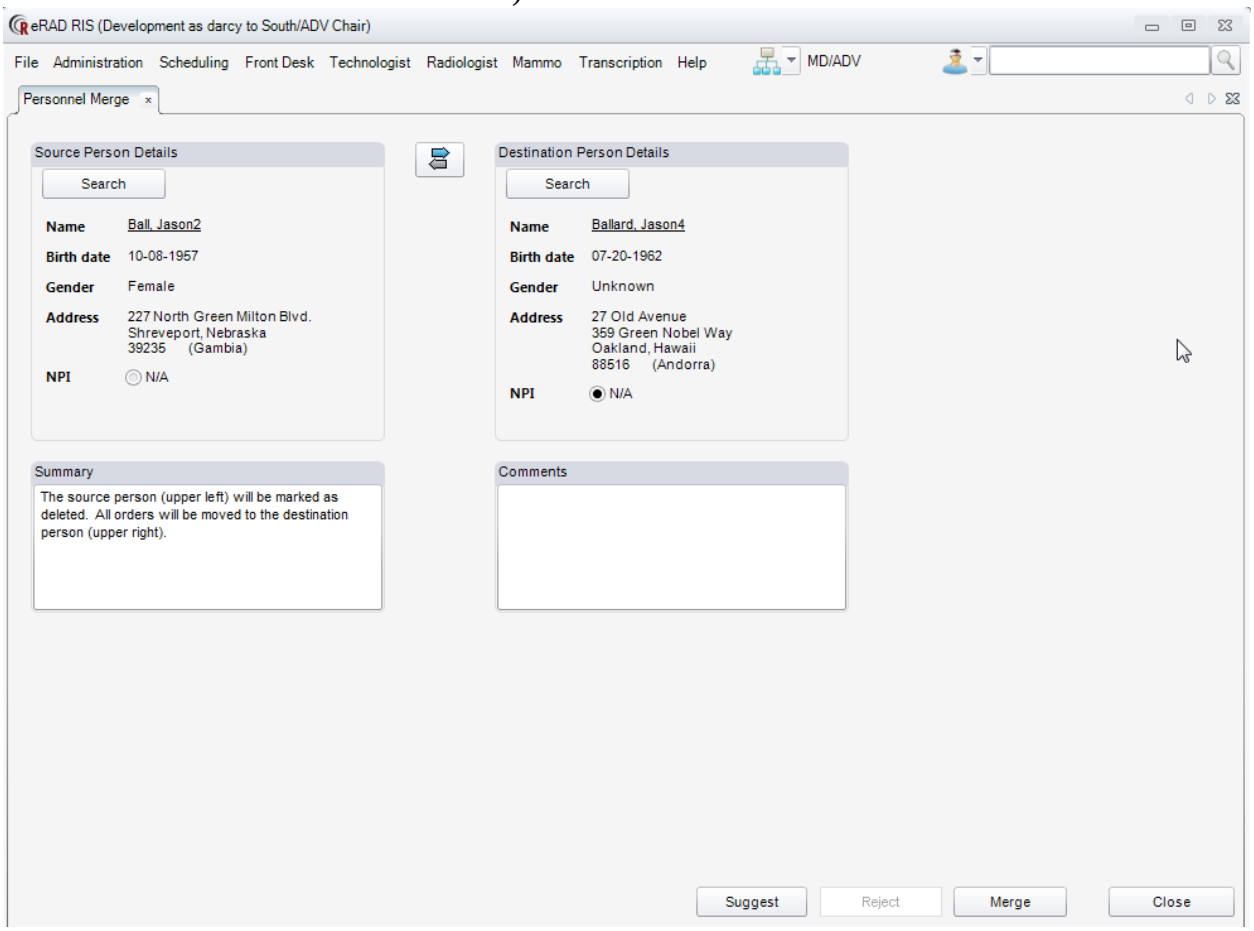



**Figure 5.53 – Personnel Merge window**

The Person Detail panels show the Name, Birth date, Gender, Address, NPI and User ID if applicable. As in the Patient Merge screen, there is a switch button located in between the two person detail panels that allows the user to swap the source person and the destination person.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Merge Suggestions

A comment section is designed for users that do not have sufficient authorization to perform a merge, but would like to leave a comment or detailed explanation for the RIS Administrator who will perform the merge at a later date. When the user clicks the Suggest button, the screen will save their suggestion and close. The details of the merge suggestion will then appear on the Personnel Merge Request Worklist.

## Personnel Merge Request Worklist

The Personnel Merge Request Worklist displays all of the outstanding Merge Suggestions. Access to this work list item is controlled by access string "WL.PersonMergeRequest". Items on this worklist will disappear when one of the following occurs:

a) The merge is performed
b) The merge is rejected
c) Any merge occurs that results in the source or destination person being marked as deleted (i.e. an alternate/conflicting merge took place)

The administrator who performs the action on the suggested merges will need the access string "Clinical.PersonMergeAdmin". These actions are to complete or reject the merge.

## Reject Merge Suggestions

A RIS Administrator or other authorized user can open the Personnel Merge Request worklist and then double-click any row (or click Personnel Merge) to open the Personnel Merge screen and see the details of the Suggested Merge. The administrator can Reject the Merge if it is felt that the suggestion was inappropriate, and the row will disappear from the worklist. The ability to reject a merge is controlled by access string "Clinical.PersonMergeAdmin".

## Effect of a Merge on Source Person Record

The source person will be marked as deleted, and no longer be returned in Internal Person Search results. Additionally, their NPI will be set to Null.
For a referring physician, all orders that are marked as being "Requested By" or "CC" for this physician, will be marked as "Requested By" or "CC" as the new physician (destination person of the merge).
The addresses associated with the source person will be moved to the Destination Person, but marked as inactive. A RIS Administrator or other authorized personnel can make the

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

determination as to which addresses should be set as active. We make no effort to determine which addresses may be duplicated between the source and the destination.

## Effect of a Merge on Destination Person Record

The destination person's internal notes will be updated to show that a person merge took place. The message will be similar to the following:

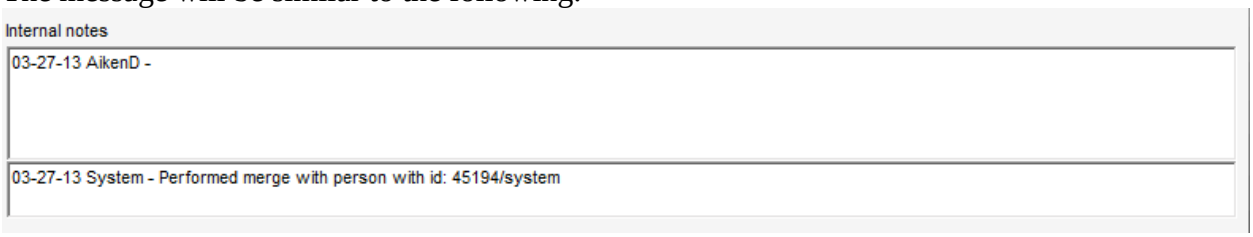



**Figure 5.54 – Destination person notes after person merge**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Auto Open Work List Tabs

This feature will allow the user to pre-set which worklists they would like to have automatically open at the time of login. The worklists to be open at login can be set up in 2 ways.

The first is from the context menu of the work list tab itself. The user can select the option to Open on Login. This context menu option will only be available for work list. If context menu of a data window is accessed, this menu option will be disabled.

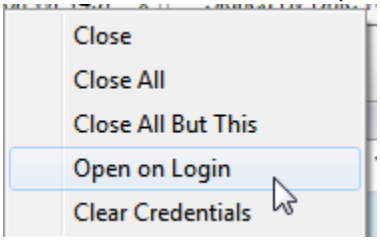



**Figure 5.55 – Open on Login context menu option**

Once selected, the menu item will become checked

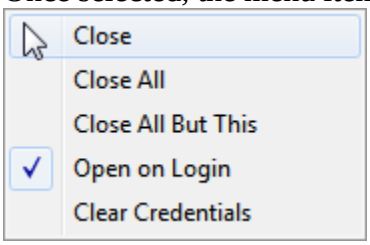



**Figure 5.56 – Open on Login selected**

This tab will then automatically open when the user launches eRAD RIS. This is identified by the small icon will appear in the tab header to indicate that it has been set to automatically open.

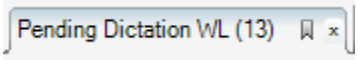



**Figure 5.57 – Work list tab displaying icon for Open on Login**

Multiple worklist tabs may be selected, although the system will limit you to approximately 7 tabs, based on the length of the tab name. The selected tabs are automatically saved to each user's preferences, so the same tabs will auto load on any workstation the user uses.
The user also has a new feature to allow all RIS tabs to be re-arranged by dragging them. When any auto-open tabs are re-arranged, their loading order is adjusted so that on re-loading, this order will be reflected. If the maximum number of tabs to Open on Login has been reached, the user will be informed with a pop up message.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

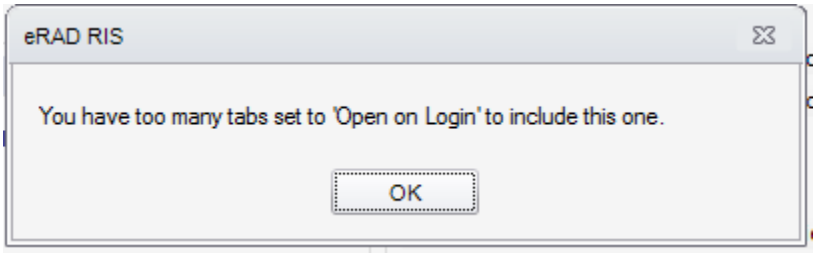



**Figure 5.58 – Message informing maximum number of tabs to open on login has been reached**

In addition, the ability to manipulate these screens has been added to the user preferences screen:

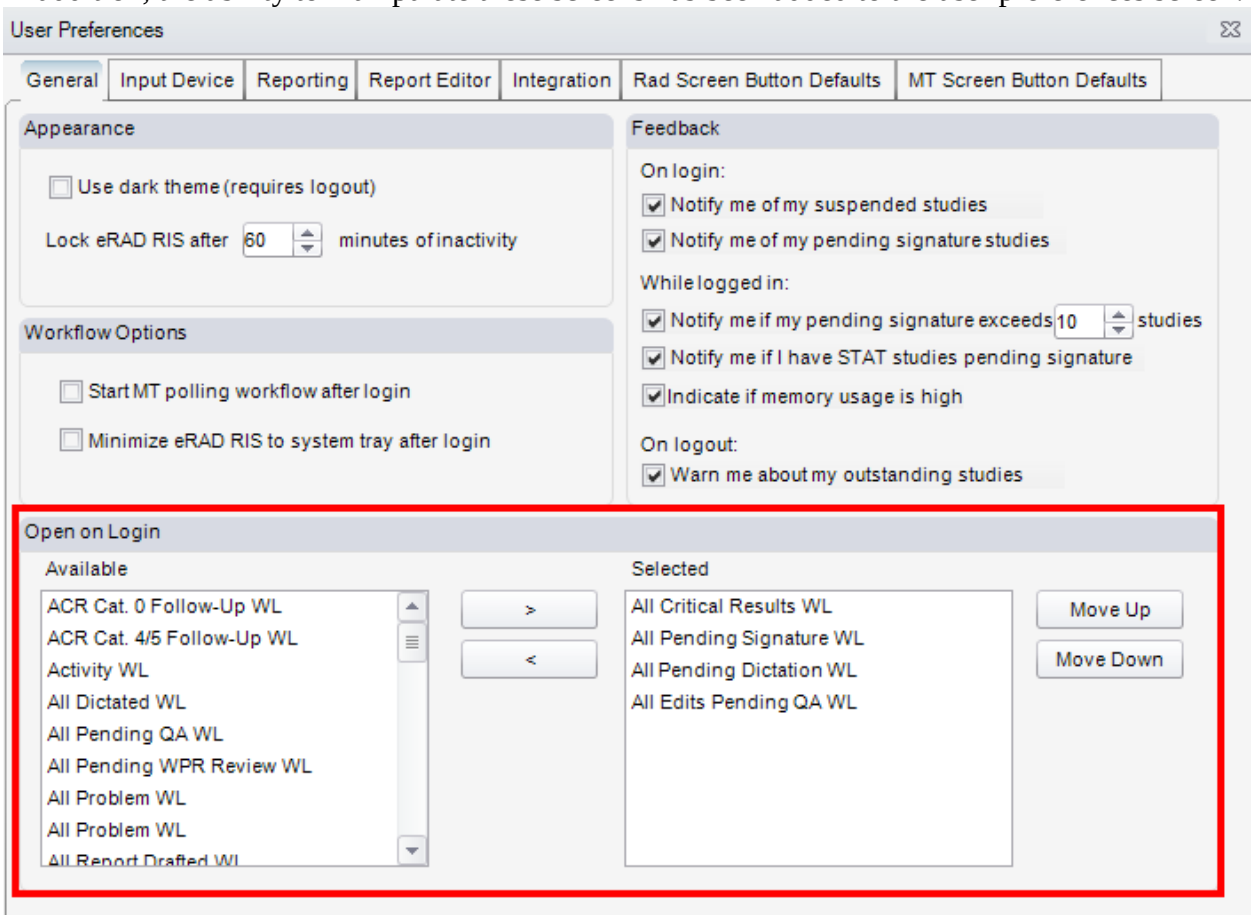



**Figure 5.59 – User preference window displaying Open on Login**

This screen allows the user to re-arrange the loading order for the tabs by using the up and down and also to add or remove tabs from the list of all available tabs that can auto-open. By design,

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

the list of available worklists is a complete set of all worklists, but if the user does not have permission to the worklist, it will not open on his/her workstation.

Lastly, if the user closes one or all of the work lists they have set to be Open at Login and they wish to load those work lists again, they can select the File menu option of Auto-Open Worklists. If the user has one of the four work lists open, the other 3 will load in their pre-defined order.

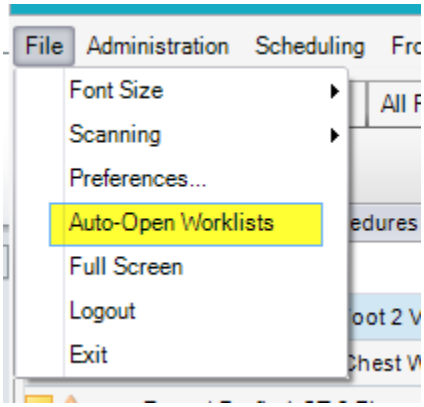



**Figure 5.60 – File menu option to Auto-Open Worklists**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Enhance Work List Filtering

Under the filter icon menu you will see a new option of "Select Values…" that will open the self-titled Select Values window. Columns such as Flags, Status, Procedures, and Modality Type to name a few will have this option.

**Figure 5.61 – Select values filter option**

Once the filter is applied, it defaults to contains, from Starts with.

The Procedures column is somewhat unique as this columns Select Values list will have the Modality Type, Body Part and Laterality values available for selection. A double click on the Possible Values / Selected Values item will move the value to opposite side. The arrows will also perform this action, but allow the user to multi select values to be moved to the opposing side.

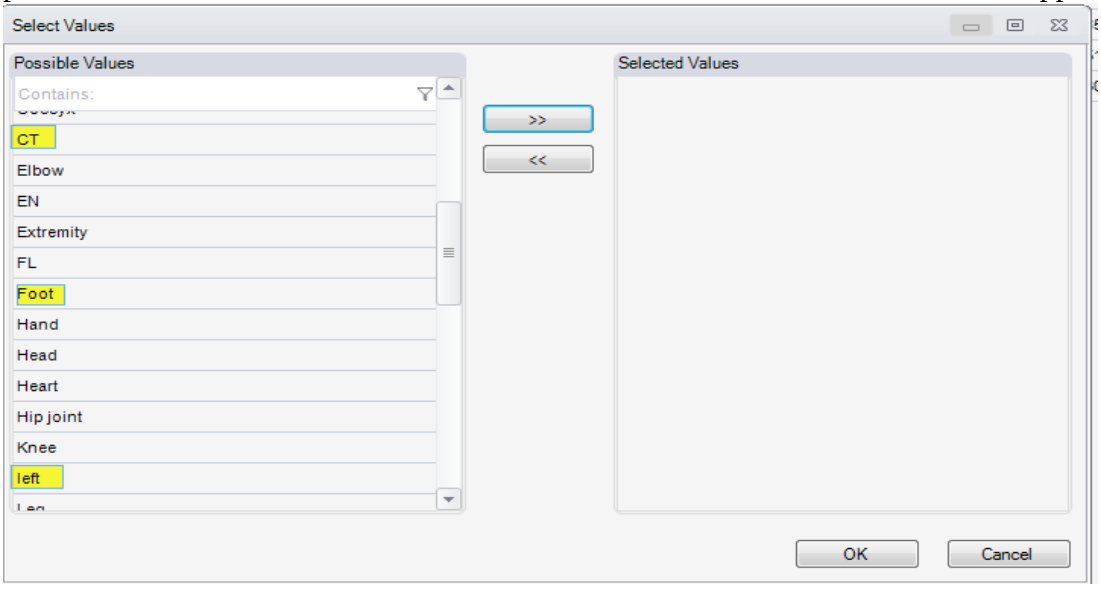



**Figure 5.62 – Select Values window**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Patient Merge Requests Work List Enhancement

An additional column titled “Duplicate” was added to the Patient Merge Request. If the Source Patient Id and Destination Patient Id are suggested more than once in the same merge request, this column will have a check mark to indicate that it is a duplicate entry.

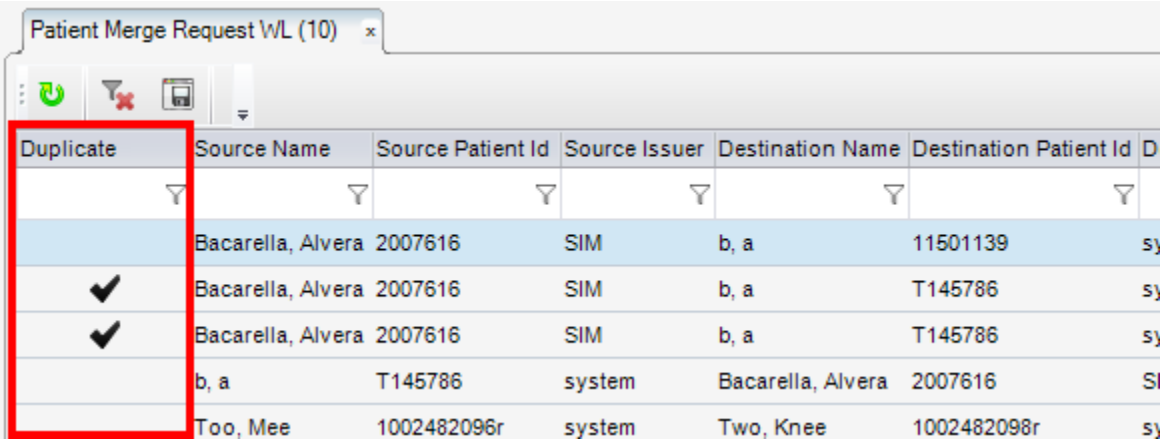



**Figure 5.63 – Patient Merge Requests WL**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Remove Date Filter from Activity Work List

In the previous build the Activity work list was controlled and displayed in a daily view. The user would be required to move from day to day to see what was on the Activity work list. This date control has been removed. The Activity work list will now display all studies that are not completed.

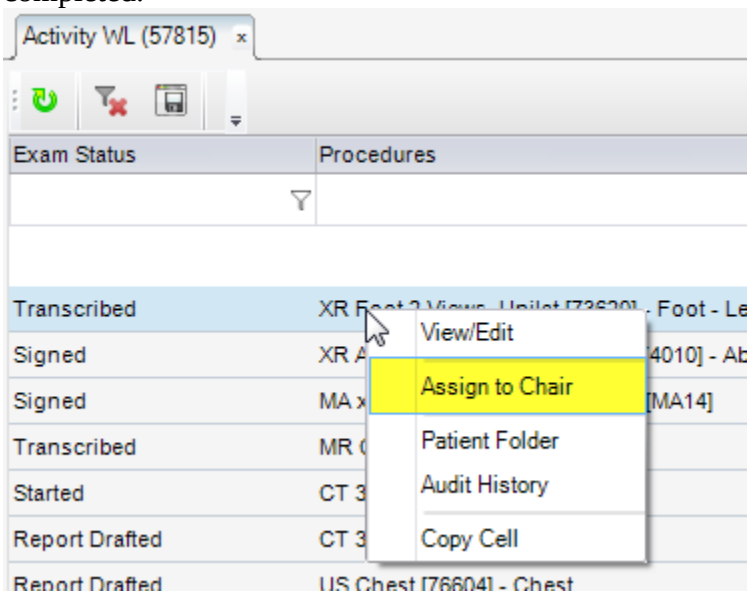



**Figure 5.64 – Activity WL**

Additionally, a new column was added to the Chair lookup table called "Hold_On_Activity_WL_Flag". When this flag is set to "Y", any updates to a study assigned to that chair will remain in the activity worklist until the study is removed from that chair. Note, any studies assigned to a chair that just had the "Hold_On_Activity_WL_Flag" changed will not be automatically added or removed to or from the activity WL. An update to the study row has to occur for it to recognize whether it should or should not appear on the activity WL.

All studies recently updated and assigned to a chair with this flag will appear on the activity WL until it is unassigned from the chair or its status changes from "Cancelled", "Discontinued" and "Void".

The Assign to Chair context menu option is also available.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## IVT – Insurance Verification PreCert tab Enhancements

At the top of the Insurance Verification PreCert tab will now have the Patients date of birth and the Referring physician.

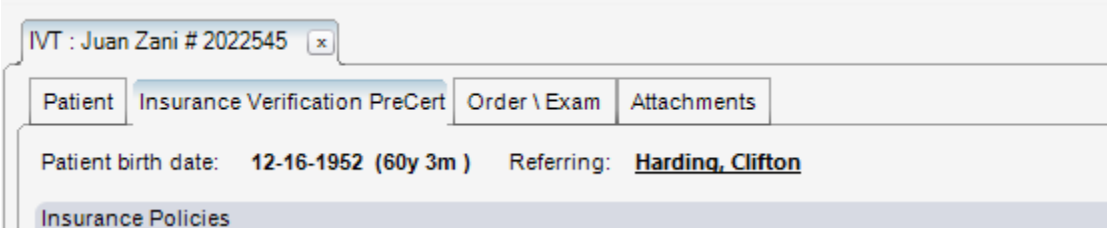



**Figure 5.65 – Insurance Verification PreCert enhancements**

## Scheduling - MRN Added to Appointment Book

From with the Appointment Book, if the user hovers over the study, it would display details of the study. The MRN has been included with this information that is presented to the user.

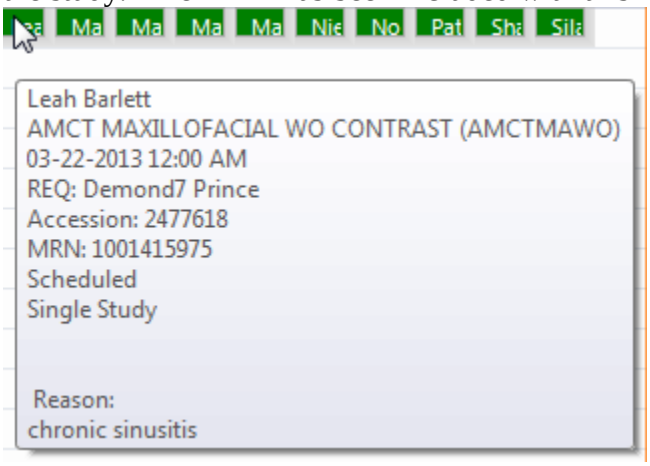



**Figure 5.66 – MRN included in the hover value in Appointment Book**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Scheduling – Repeating Modality Restrictions

The modality lookup table has an additional option added to the modality restriction grid. The Repeat column has a list of values that include days of the week, weekday, weekend, all week and full range.

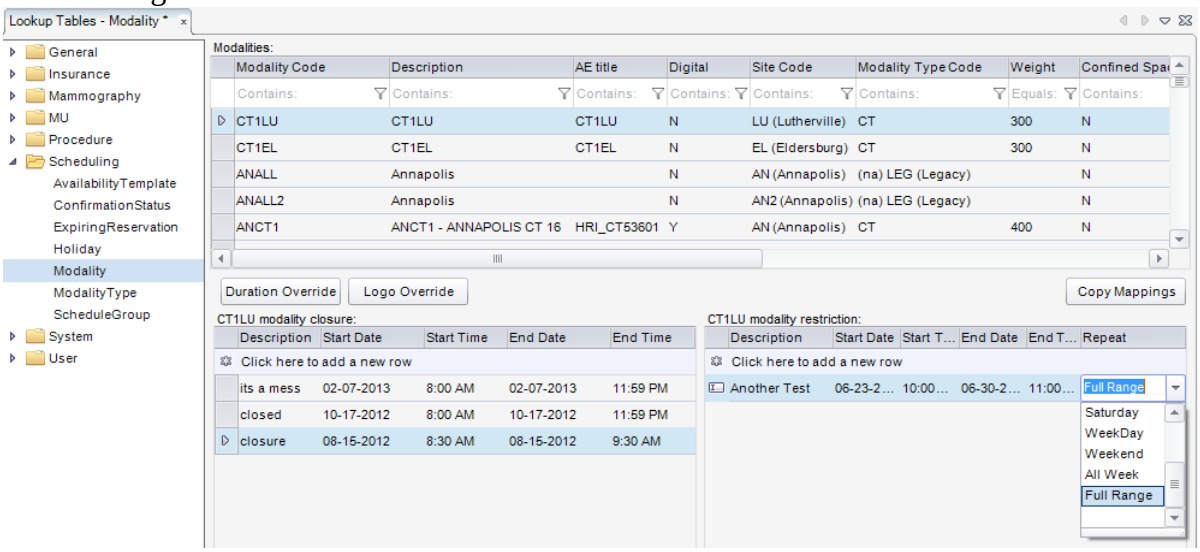



**Figure 5.67 – Modality repeat restriction**

An example of this would be restriction on the weekend between 7am – 5pm, selecting the Weekend option would apply the restriction to Saturdays and Sundays in your specified date range.

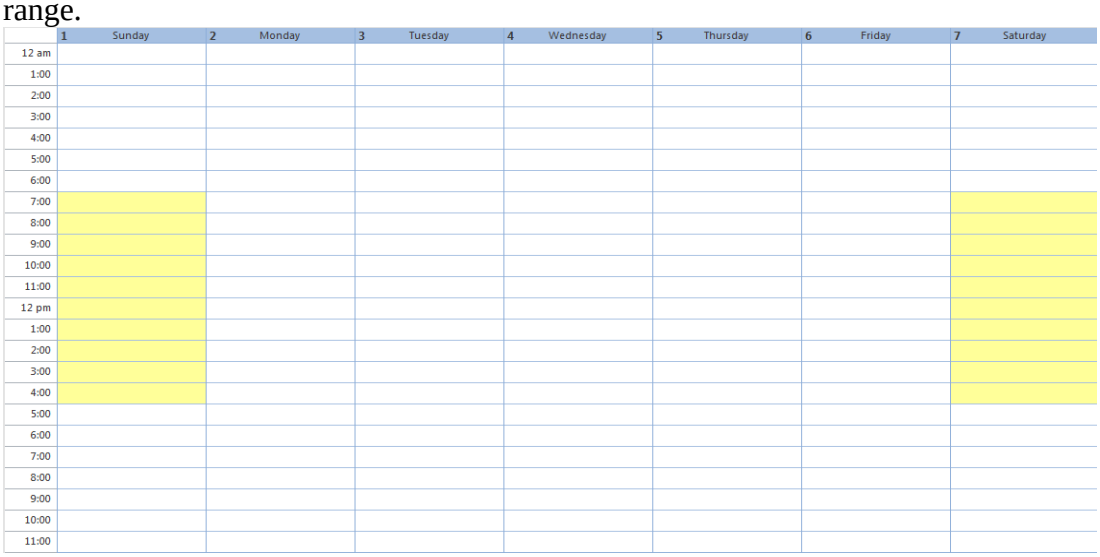



**Figure 5.68 – Calendar displaying the configured weekend restriction**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Scheduling – Ability to Check-In Procedures Separately

We will now scan for studies that span more than 3 hours between the end of one study and the start of the next and display a slightly modified version of the prompt to allow for the selection of individual studies; with the study that was opened from the WL would be a disabled checked box which does require that study to be opened.

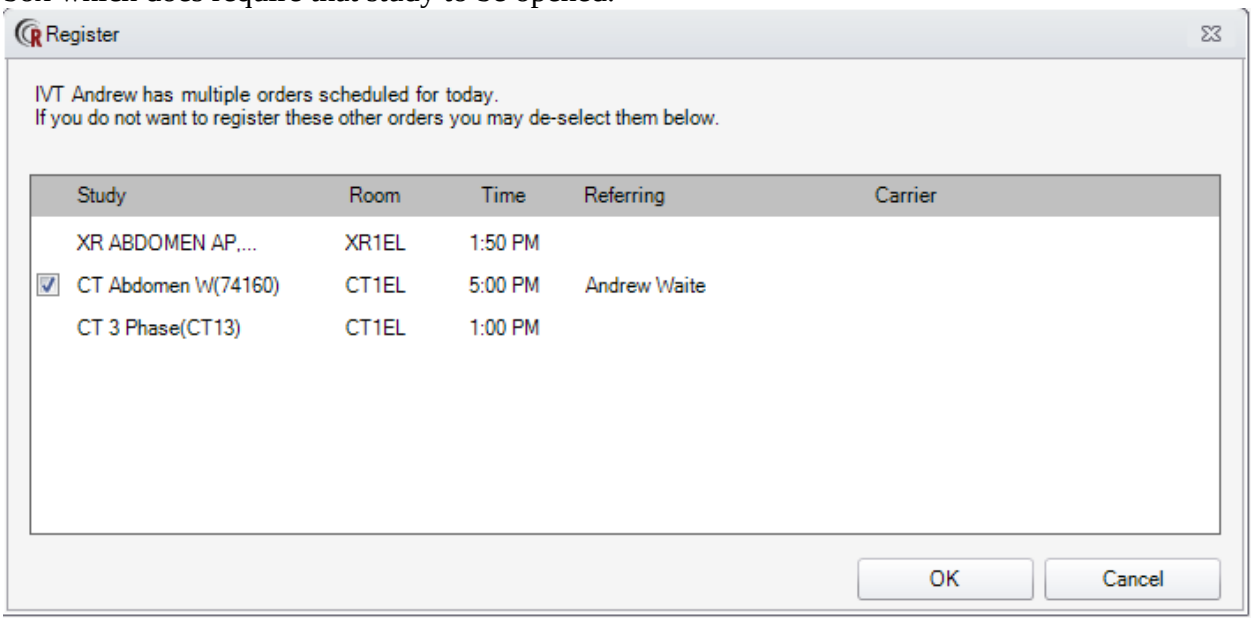



**Figure 5.69 – Ability to unselect order to be checked in.**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Scheduling – Enter Follow-Up Information

The scheduling windows, including Schedule Order, Confirmation, Register, etc… will now include the Contact Log tab. On this tab the user can add contact log information. Add new contact information the user can select a pre-defined contact type and notes pertaining to the contact. The tab will display each contact attempt with the date, Contact by, captures the logged in user, and the contact type. The first column will display a Notes icon to let the user know if there were notes entered in the Contact Details.

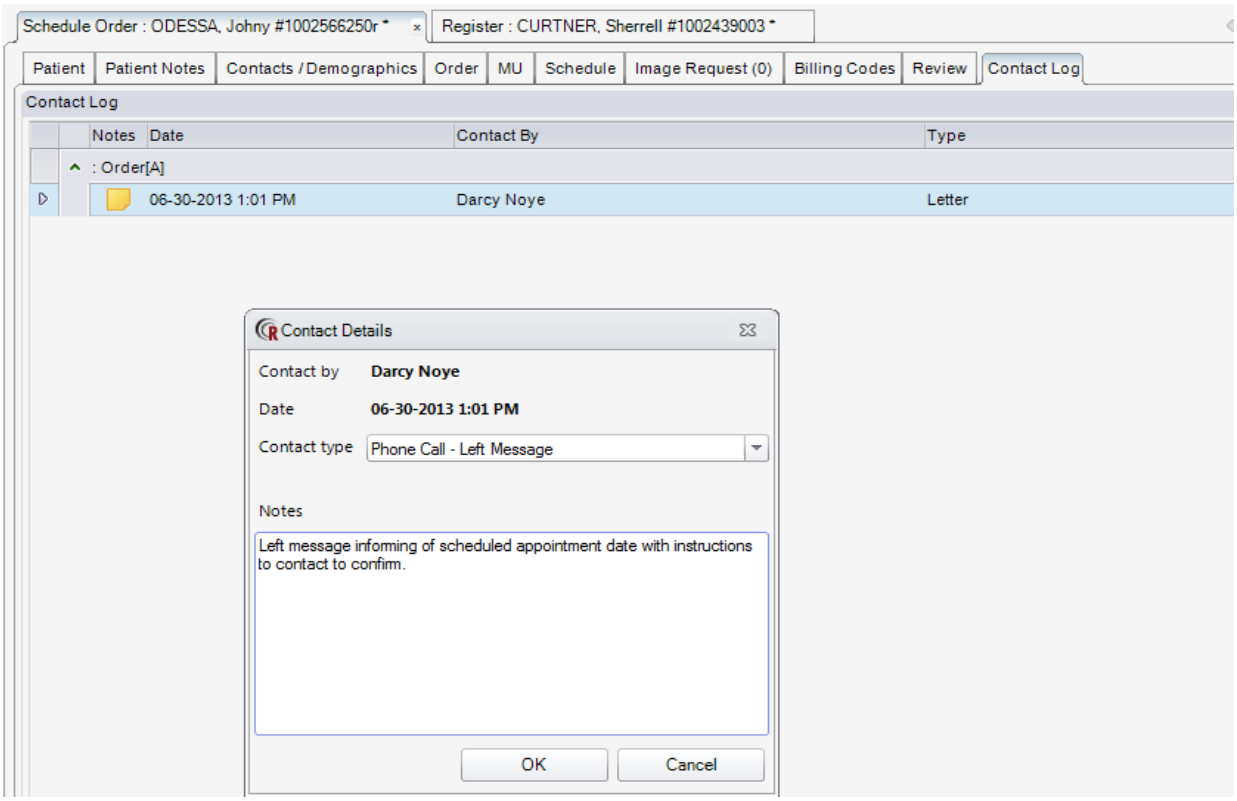



**Figure 5.70 – Contact log**

The Orders to Schedule WL and the IVT WL have two additional columns added to show Last Follow Up Date and Last Follow Up Type

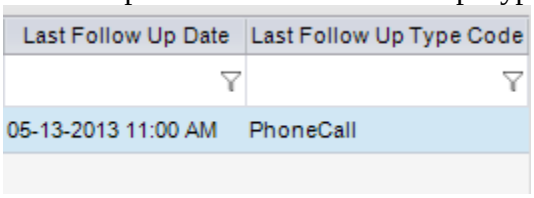



**Figure 5.71 – New columns added to Orders to Schedule and IVT WL's**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Scheduling – Import EMR Scheduled Procedures Filtering

Scheduling an order from and EMR, the ordered procedure will sometimes have to be matched up that ordered procedure with an eRAD RIS procedure.

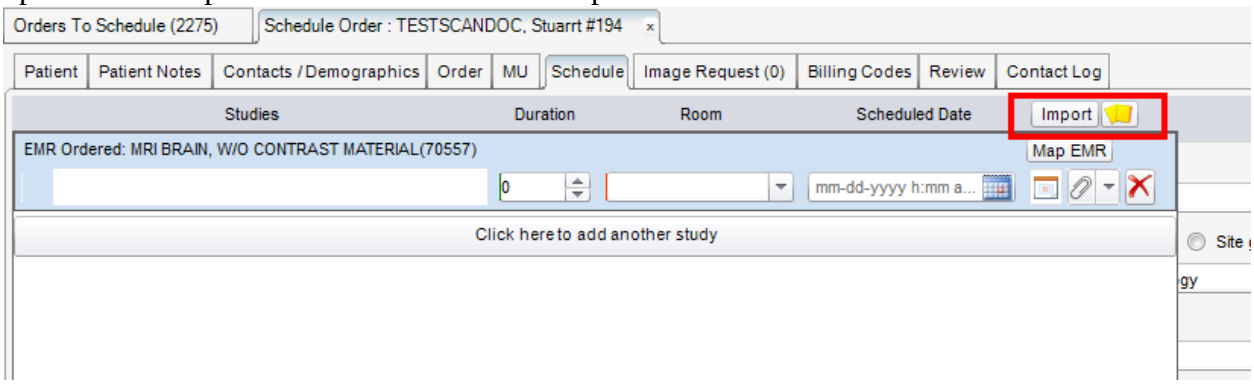



**Figure 5.72 – Import procedure**

This list could be extensive, showing too many rows in the Import Scheduled Procedures window. A checkbox has been added to the bottom of the import window.

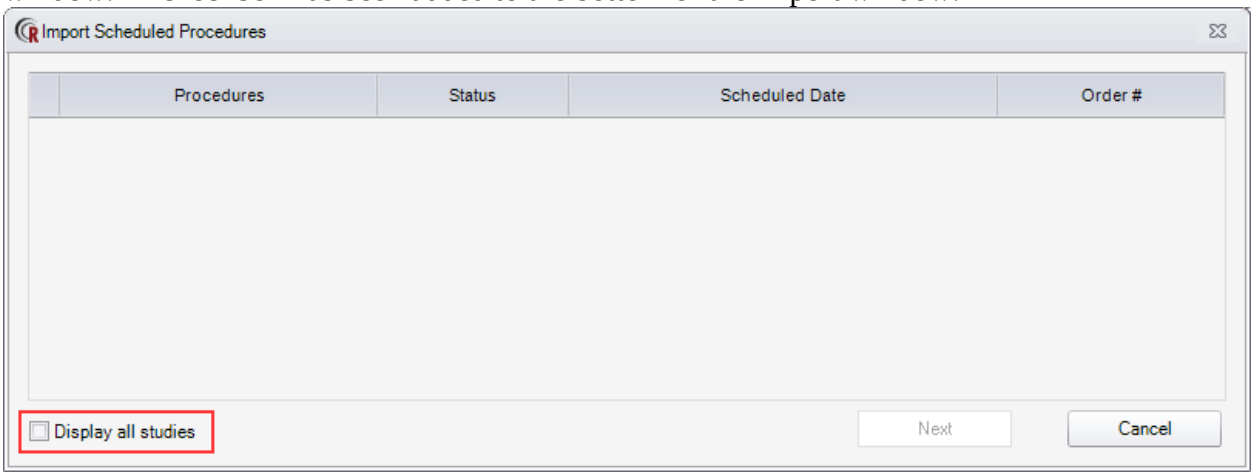



**Figure 5.73 – Import Scheduled Procedures window**

By default we will display studies that have occurred in the last 2 days, in the appropriate status. If there are more studies that to be displayed then the check box will be enabled to allow for a larger list of items.

Upon checking, the grid will display all studies in a valid status that have been performed in the 60 days or scheduled within the next year.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Signs and Symptoms Field and Renaming Chief Complaint

In previous versions a field titled Chief Complaint was present on all Order tabs. This fields name has been changed to “Reason for Exam”. An additional change has also been made to all Order tabs. A new field titled “Scheduling Notes” has been included, and is positioned to the right of Order Notes field.

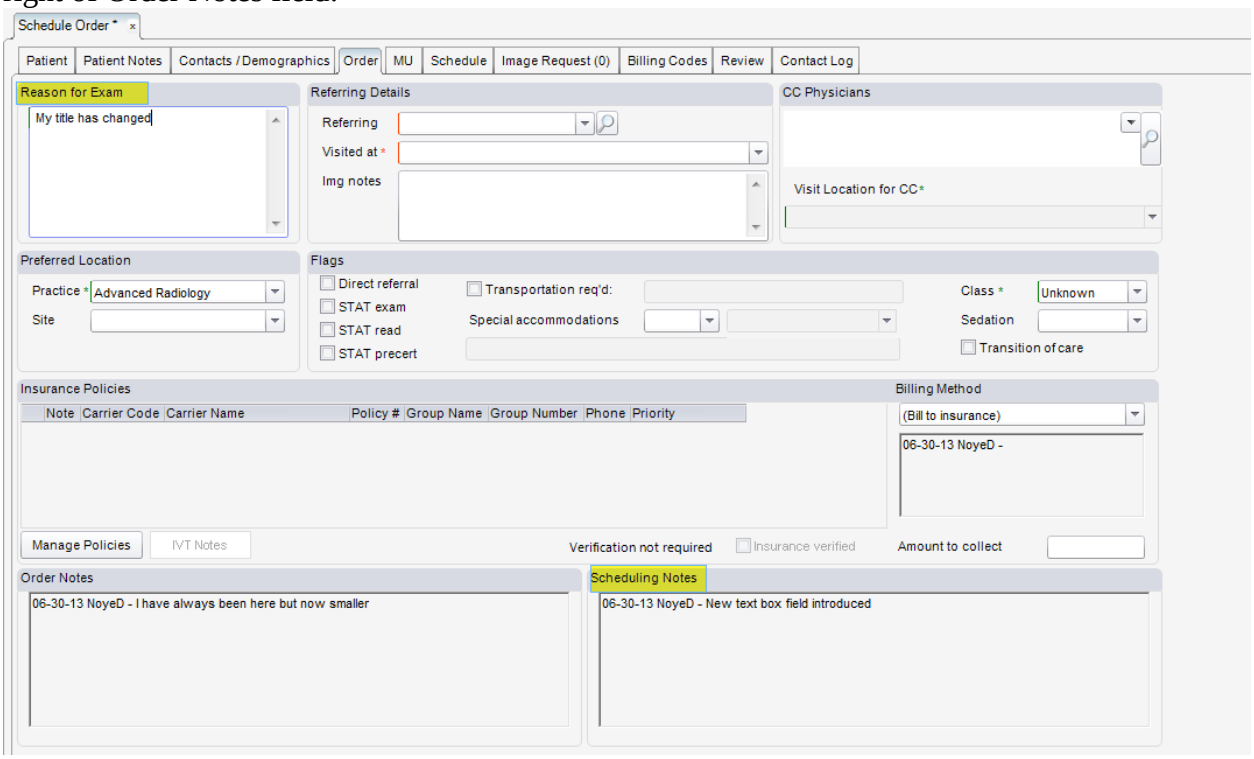



**Figure 5.74 – New Scheduling Notes field and Chief Complaint changed to Reason for Exam**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

Another new field titled "Signs & Symptoms" is being added to the Documentation tab of the Perform Exam window. If the Signs & Symptoms field is required will be determined by a new system configuration setting "**SignAndSymptomsRequiredByTech**" which has a default value of False (not required).

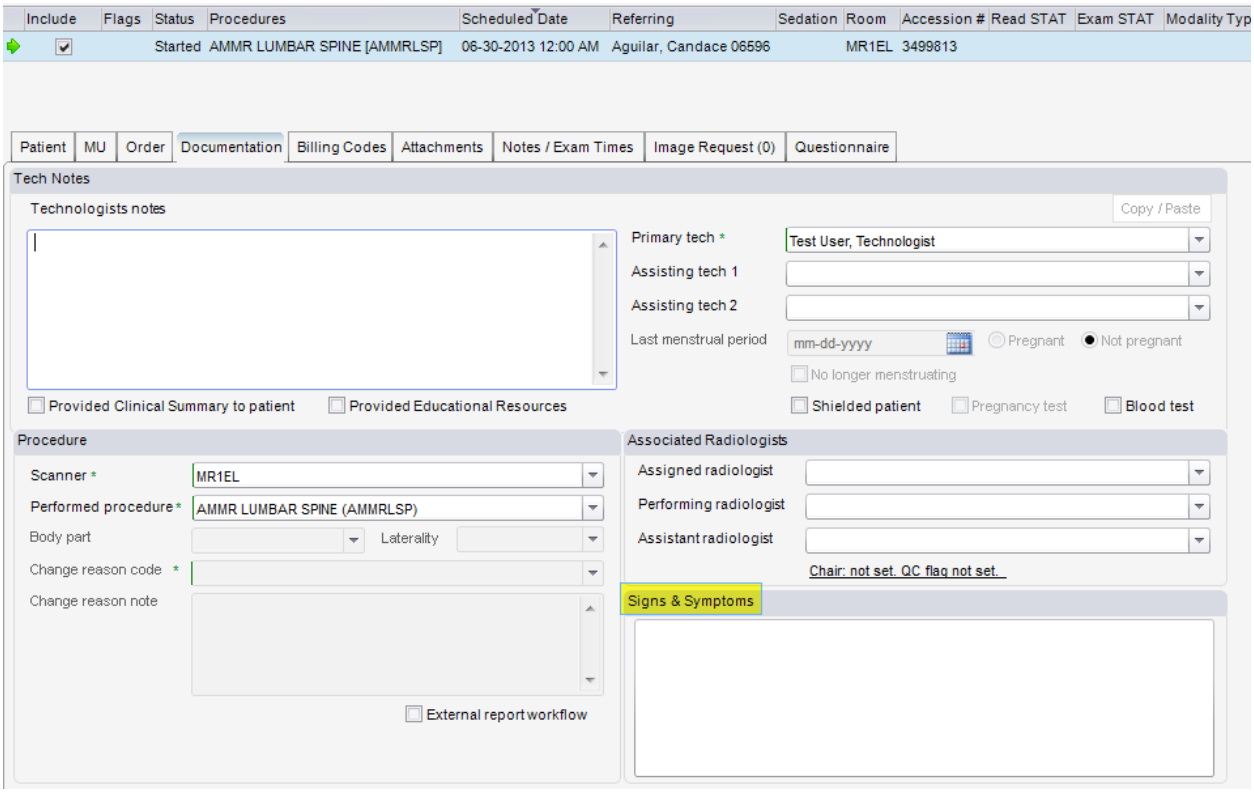



**Figure 5.75 – Signs & Symptoms field on Documentation tab**

**NOTE:**
Macro and report document templates will have to be manually changed if "Signs and Symptoms" are to be used in diagnostic reports.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Direct Referral Enhancements

In previous versions the Direct Referral flag was set on Referring Physician Personnel account. If the referrer selected on the Order tab had the Direct Referral flag, a label would appear next to the Referring field.

In build 41 this has changed. In addition to the referrer personnel account that may have the flag, a "Direct referral" check box has been added to the Order tab in the Flags section of this window that will always be present.

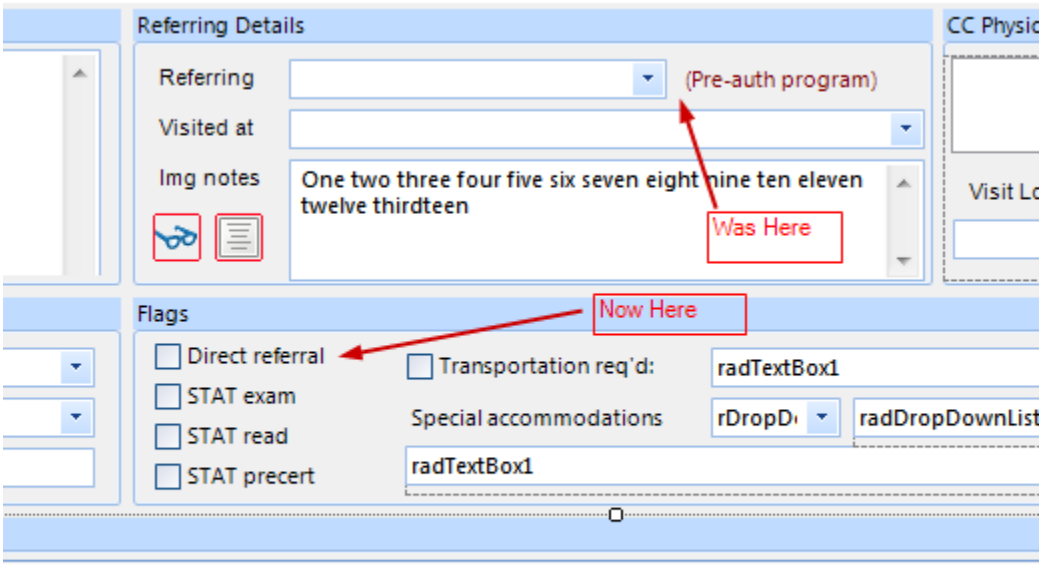



**Figure 5.76 – Direct referral flag added to the Order tab**

If the referrer selected for the order has the Direct referral flag set in the Personnel editor, the Direct referral label on the order tab will be bolded, but not required to be selected.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Allow Cancellation of Outside Reads

In previous versions the user did not have the ability to cancel the study if the study was an Outside Read. An appropriateness check was added for studies that are Exam Done status and area also an Outside Read.

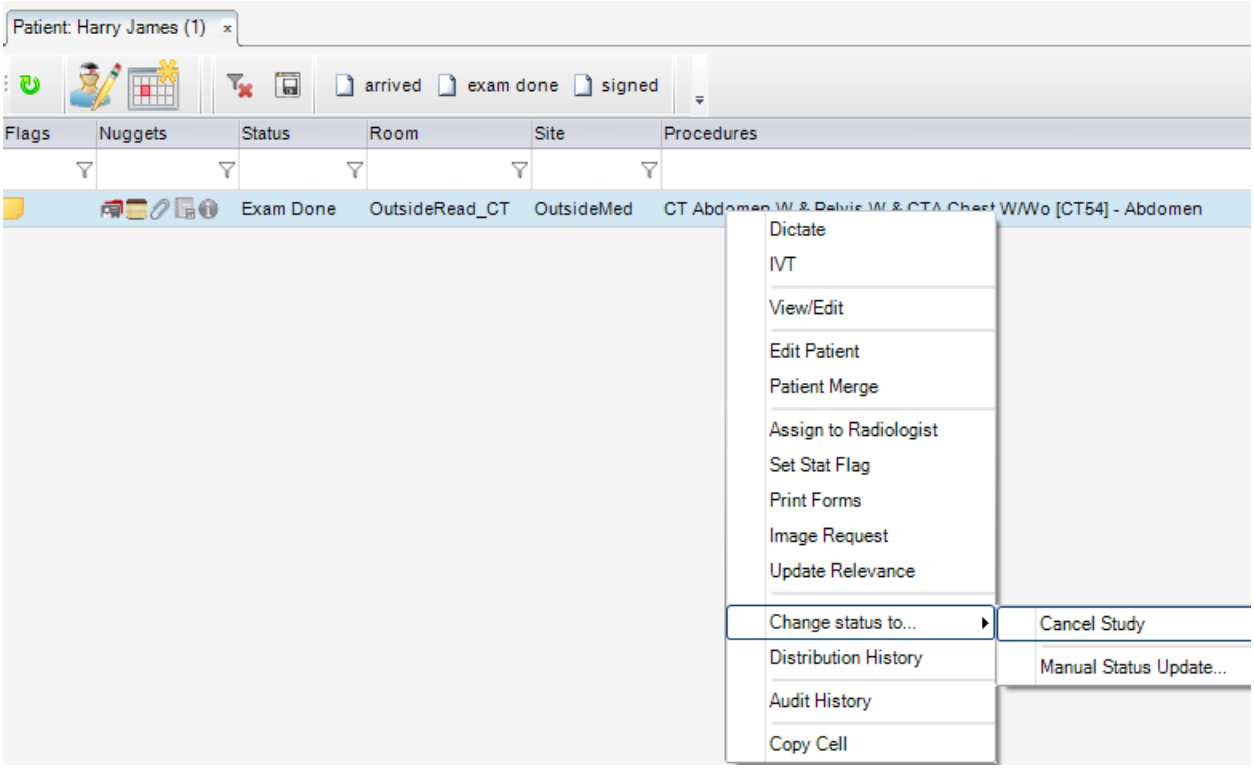



**Figure 5.77 – Cancelling and Outside Read**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Abort Reason added To View/Edit

In previous versions if the study was aborted from the Perform Exam window, the user would be prompted with the Abort Exam window and would be required to select a predefined reason for aborting the exam.
If the study was already completed, the user could abort the study from the view edit window, but they were not required to select a reason for aborting the study.
In build 41, we have added this to the View/Edit > Abort window and the user will be prompted with the same Abort Exam window that is produced in the Perform Exam window.

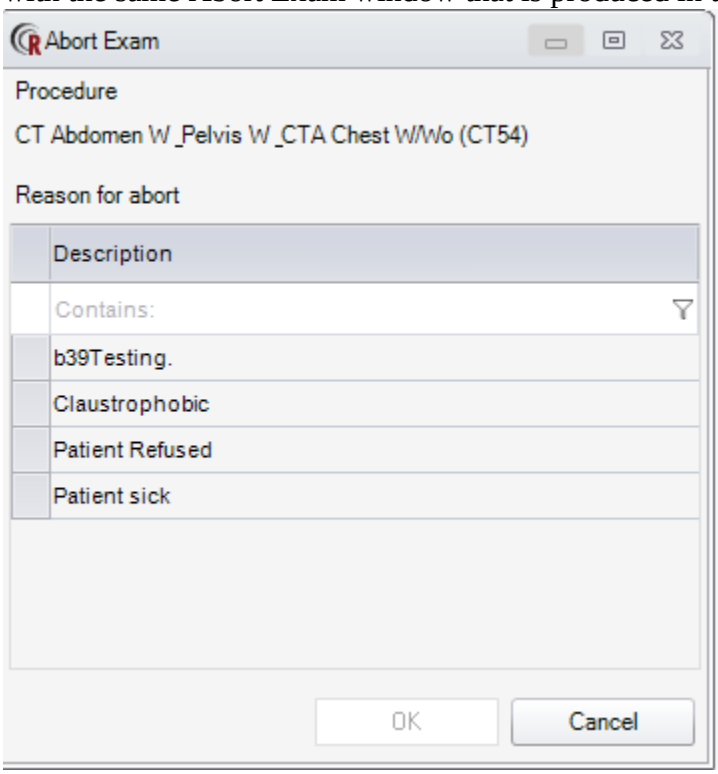



**Figure 5.78 – Abort exam reason**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Ability to Add Attachments and Check-In another Patient

The Attachment Viewer window is now a non-modal window, meaning that a user can have the be scanning attachments for patient A and have the ability to Check-In, Schedule, create Walk-In, etc… on patient B.
With the Attachment Viewer open the user can change tabs/enter information within the same study window or can access another patient in the Register window, patient search, etc…

## Print Diagnostic Report to Local Printer

Studies with a report now have a context menu "Report/Print Report", which can be used to print the report without having to preview the report.

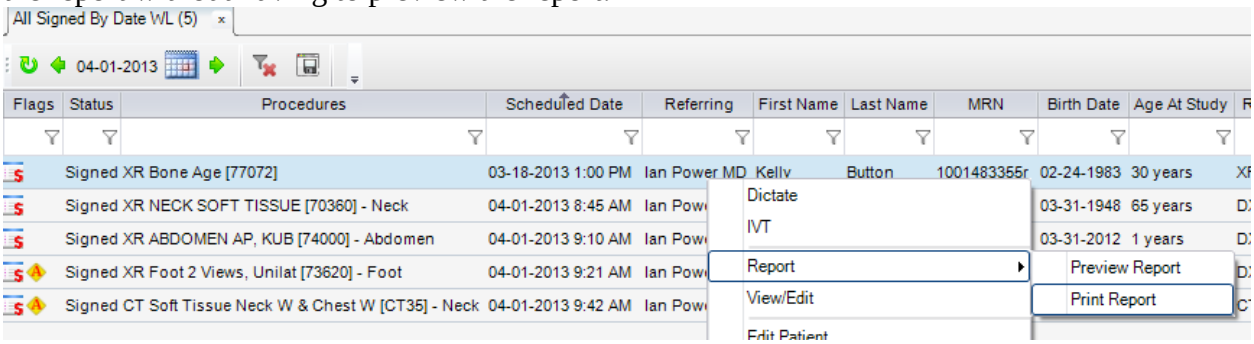



**Figure 5.79 – Report context menu and sub menu**

Also multi-select for this feature is supported so you can select multiple studies and print the reports for all of them at once.
When you select the "Print Report" feature you are prompted with a print dialog and your selection of printer for that first print dialog will apply to all documents that will be printed (in the multi select case).

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# Mammography Enhancements

**Item #1**

In the Follow Up window on the Contact Log tab, the check box labelled “Follow Up Resolved” has been relabelled “Resolved”.

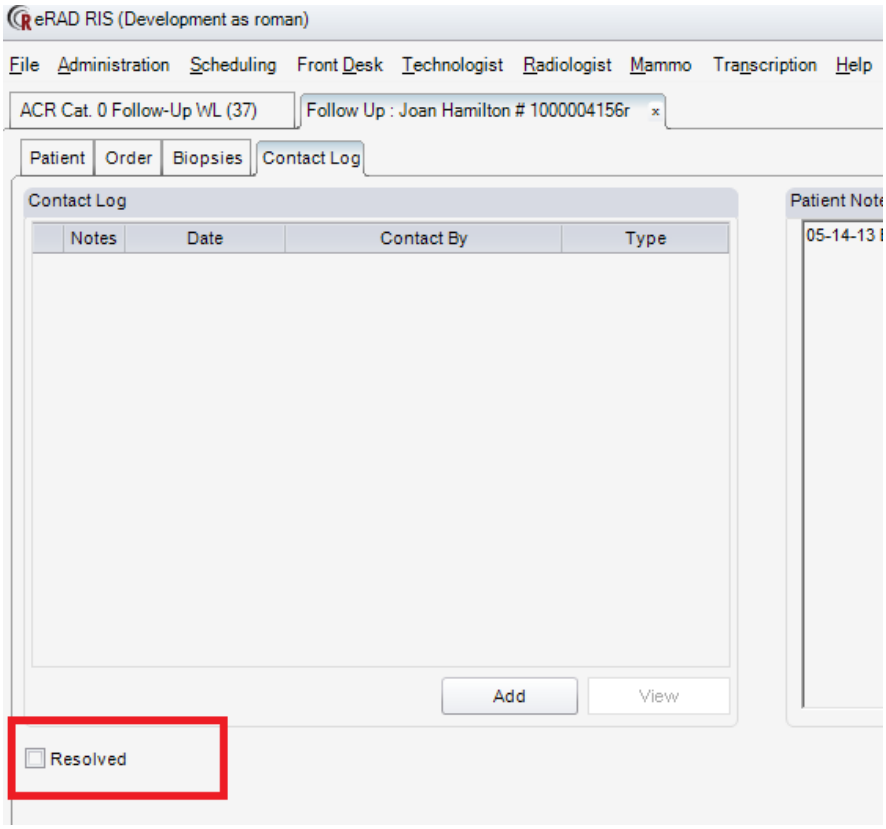



**Figure 5.80 – Check box renamed “Resolved”**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Item #2

Added "Breast Density Required Flag" to the procedure code lookup table ( if set to "N" Breast Density drop down will not be visible or required ). During upgrade to v41 all existing procedures that are BIRAD enabled will be set to "Y" for breast density required flag.

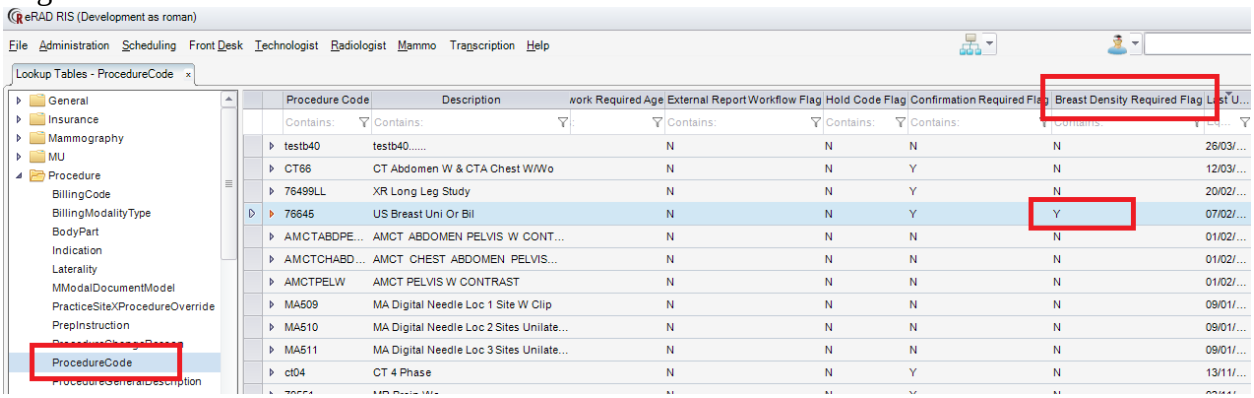



**Figure 5.81 – Breast Density Required Flag on Procedure codes**

## Item # 3

A permission already exists to control if user is allowed to manually "Resolve" a mammo follow-up **Clinical.ManuallyResolveMammoFollowUp**

## Item # 4

New management report has been created that will identify patients that have possible orphaned mammography orders. The report looks for any patient that in the system that has a mammography study advanced to a status of scheduled or further. (that still has an outstanding mammography order)

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Mammo Orphaned Orders

**Practice:** Advanced Radiology
**Description:** This report will identify patients that have possible orphaned mammography orders. The report looks for any patient that in the system that has a mammography studie(s) advanced to a status of scheduled or further. (that still have an outstanding mammography order). This report does not look at studies that are Signed as these studies normally have a mammography follow up order.

| Practice / Site | Patient ID | Study Status in Progress | Orphan Filler Order Number | Orphan Order Request Date | Orphan Order Procedure |
|---|---|---|---|---|---|
| ⊟ ADV | 3 | | | | |
| ⊟ EL | 1 | | | | |
| | 1000005490r | Started | 1070395 | 07-10-2012 | US Breast Uni Or Bil [76645] - Breast - Left |
| ⊞ FH | 1 | | | | |
| ⊞ LU | 1 | | | | |
| **Total Patients:** | **3** | | | | |

Mammo Orphaned Orders Advanced Radiology Confidential and Proprietary Date Run: 5/14/2013 12:45 PM
Page 1 of 1 RMIS\roman

**Figure 5.82 – Mammo Orphaned Orders**

## Item #5

Added RIS logic to bring back the Mammography order if study is Cancelled.

If a study that was generated from a mammography short term follow-up , callback or invitation has been cancelled a new order will be placed back on Mammography orders worklist for follow-up from the original mammo study info.

In case of Discontinued workflow user is given a manual choice to bring the order back for scheduling
via "Would you like to send this to the Orders To Schedule WL?" prompt

"Void" actions is designed to be end of workflow so no action is taken to bring back the Mammo order.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

**Item # 6**

Added functionality to allow per site Mammography Tracking.
If Mammography Tracking is enabled for a site (default = enabled)..RIS will generate layletters, follow-up orders, all follow-up letters, and will forward studies to the "Mammo Followup worklists".
If tracking is turned off. RIS will still capture the BIRADS, Recommendation and breast density data, but will not generate letters or any follow-up workflow (It is assumed that a third party product or system is responsible for follow-up at the site.)

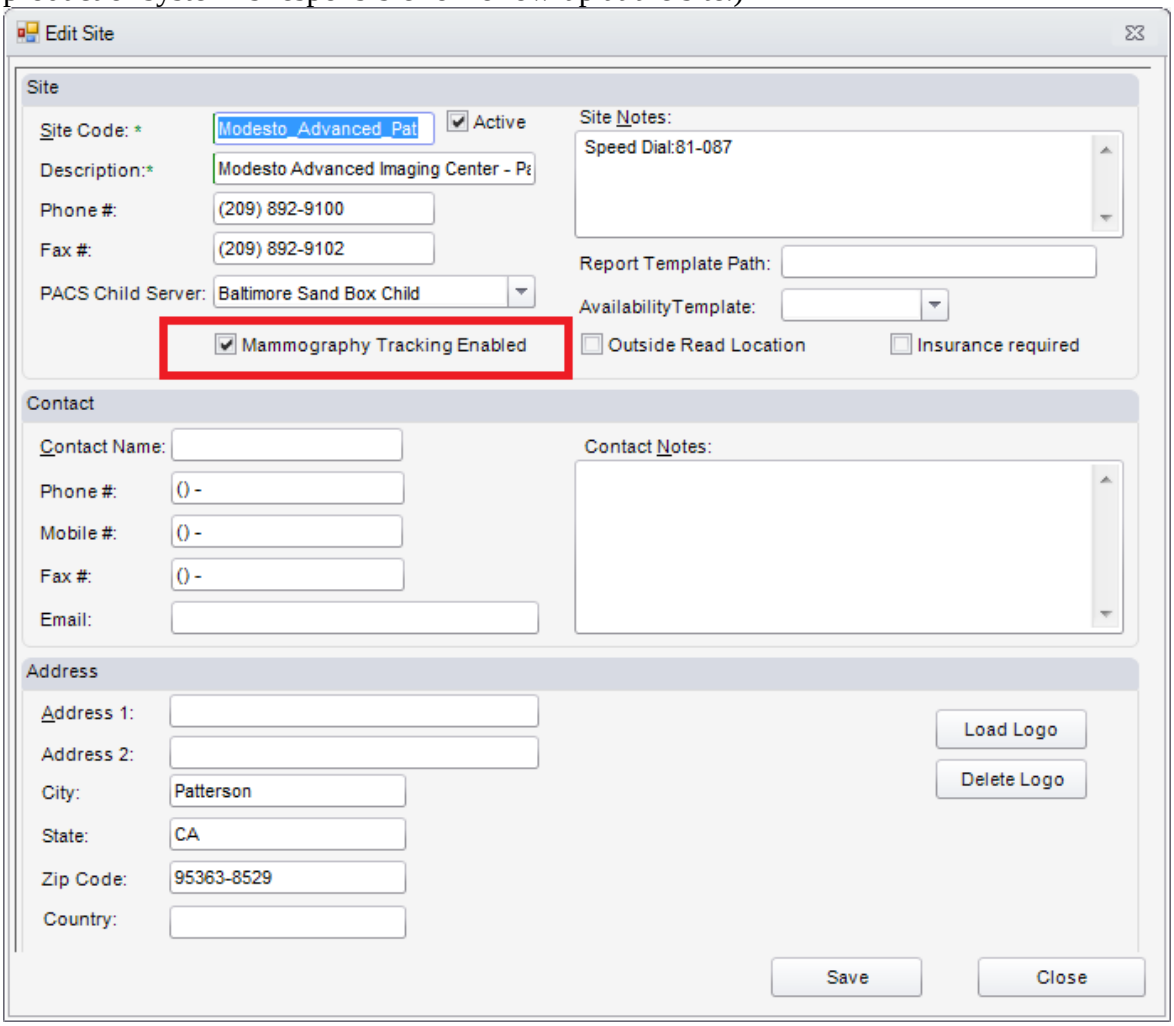



**Figure 5.83 – Mammography Tracking Enabled at Site level**

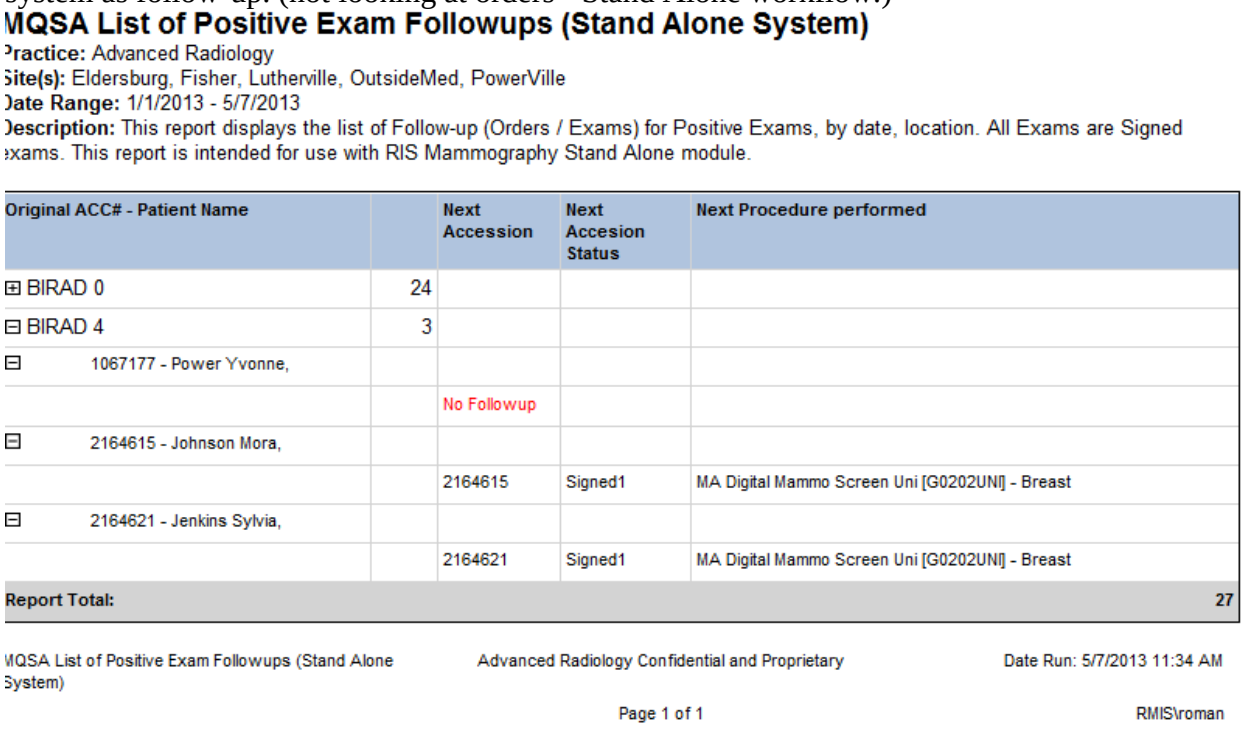
## Standalone Mammography Tracking

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

For Standalone mode: Only one management report had to be re-written to function in standalone.

(**Please Read Note**) for standard MQSA Tracking → The below report should be used for tracking standard follow-ups as well as Stand Alone Mode. This report will produce the same results as the standard RIS "MQSA List of Positive Exam Follow-ups" with one major difference. The report below does not look for the relationship to the system generated mammography follow up order. So for rear cases where mammography follow-up order was not used to schedule (user created a new order from scratch) for the mammography study. This report will catch these cases.

"**MQSA List of Positive Exam Follow-ups (Stand Alone System)**" is the new report. The report pulls back follow ups, NOT based on the follow-up order from original exam ( RIS Normal Workflow). This new report looks for additional exams/studies for the patient in the system as follow-up. (not looking at orders - Stand Alone workflow.)



**MQSA List of Positive Exam Followups (Stand Alone System)**

**Practice:** Advanced Radiology
**Site(s):** Eldersburg, Fisher, Lutherville, OutsideMed, PowerVille
**Date Range:** 1/1/2013 - 5/7/2013
**Description:** This report displays the list of Follow-up (Orders / Exams) for Positive Exams, by date, location. All Exams are Signed Exams. This report is intended for use with RIS Mammography Stand Alone module.

| Original ACC# - Patient Name | | Next Accession | Next Accesion Status | Next Procedure performed |
|---|---|---|---|---|
| ⊞ BIRAD 0 | 24 | | | |
| ⊟ BIRAD 4 | 3 | | | |
| ⊟ 1067177 - Power Yvonne, | | | | |
| | | No Followup | | |
| ⊟ 2164615 - Johnson Mora, | | | | |
| | | 2164615 | Signed1 | MA Digital Mammo Screen Uni [G0202UNI] - Breast |
| ⊟ 2164621 - Jenkins Sylvia, | | | | |
| | | 2164621 | Signed1 | MA Digital Mammo Screen Uni [G0202UNI] - Breast |
| **Report Total:** | | | | **27** |

MQSA List of Positive Exam Followups (Stand Alone System) Advanced Radiology Confidential and Proprietary Date Run: 5/7/2013 11:34 AM

Page 1 of 1 RMIS\roman

**Figure 5.84 – MQSA List of Positive Exam Followups (Stand Alone System) report**

Additional Notes:

Patient Correspondence should be tracked through Audit History in RIS / and mammo Follow-up Contact Log.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

New GENERAL MQSA report has been created to audit historic exams to make sure LAYLETTERS went out within 30 days.
"**MQSA Layletter Audit**" -> This report looks only at letter distribution via Document Distribution Engine.

## MQSA Layletter Audit

**Practice:** Advanced Radiology
**Site(s):** Eldersburg, Fisher, Lutherville, OutsideMed, PowerVille
**Date Range:** 1/1/2013 - 5/7/2013
**Description:** This report displays the list of mammography exams that LAYLETTERS were not distributed to via Document Distribution Engine within 30 days, by date, location. All Exams are Signed exams.

| BIRAD | Patient ID | Patient Name | Accession | Signed Date | DDE Status | DDE Last Updated Date | DDE Last Updated User |
|---|---|---|---|---|---|---|---|
| ⊟ BIRAD 0 | 1000815124r | Short Helen, | 1876920 | 01-09-2013 | Hold | 01-09-2013 | System |
| | 1001483355r | Button Kelly, | 2544984 | 03-15-2013 | Hold | 03-15-2013 | System |
| | | | | | | | |
| ⊟ BIRAD 2 | 1000002899 | Bones Bonnie, | 1068829 | 01-30-2013 | Cancelled | 07-12-2012 | STUART-LAPTOP |
| | | | | | | | |
| **Total:** | | | | | | | 3 |

MQSA Layletter Audit — Advanced Radiology Confidential and Proprietary — Date Run: 5/7/2013 11:32 AM
Page 1 of 1 — RMIS\roman

**Figure 5.85 – MQSA Layletter Audit report**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Administration - Order Level Document Type (Scan Docs)

In a previous sprint order level scanning was added in via the advanced section at the time of scanning but it wasn't possible to associate a default scan type with the order level, because the dropdown item for "OrderLevel" scanning wasn't available in the scantype lookup table. With this sprint that option is now available in the scan doc type lookup as shown in the following:

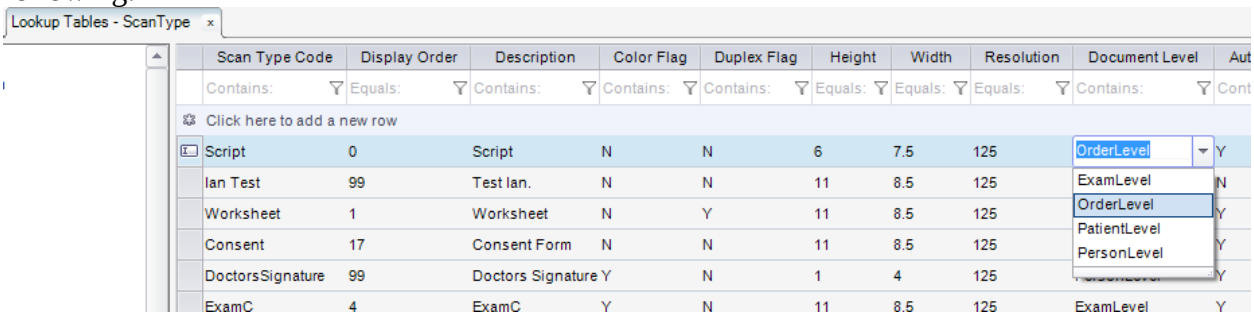



**Figure 5.86 – Order Level Document Type**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# Administration – Procedure Plan Duration Override

A new field was created in the procedure plan editor that will allow for the selection of a duration override:

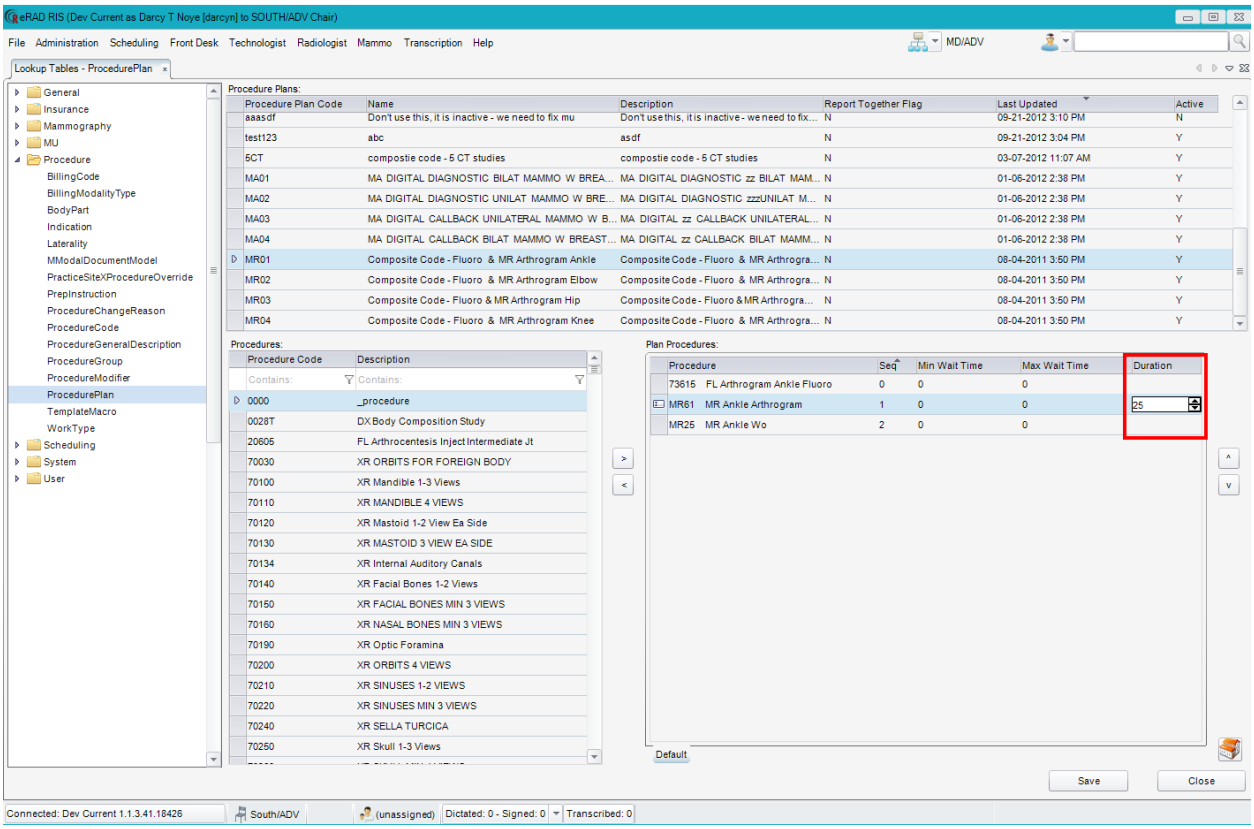



**Figure 5.87 – Procedure Plan Duration Override**

The default duration value is null, but can range anywhere from 0 and up.

If there are already pre-existing site overrides for the procedure plan then the duration will not propagate across the different sites when a value is provided, but when new site overrides are created then the default duration will be used on the new site overrides.

Currently the order of overrides for duration is

- Procedure duration
- Modality override
- Template time duration
- Procedure plan duration

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Administration - Schedule Group Performance Enhancement

Build 41 includes a Schedule Group lookup editor performance enhancement allowing users to switch and filter quicker between schedule groups.

## Administration – Personnel Internal Notes

The notes field text box has been changed to a text box control that will track the date and User ID for the Internal Notes field of the Personnel Editor. User will be familiar with this type of tracking as the notes fields such as Order Notes, Patient Notes, etc… have this tracking.

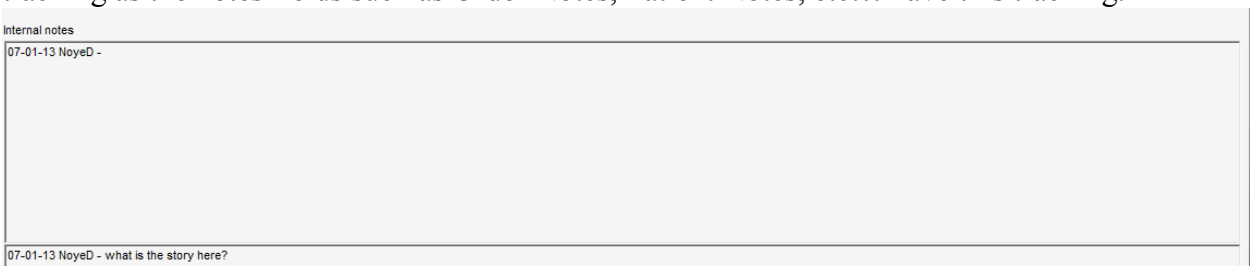



**Figure 5.88 – Internal Notes field tracking date and user ID**

## Administration – Internal Person Search Enhancements

Added middle name to the person search results and sorted the results by last_name, first_name as requested.
Removed the quick search by (City/State) feature.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Administration – Client IP Address Captured in Audit Table

Added client IP address for all new entries in the audit table for build 41 and going forward.

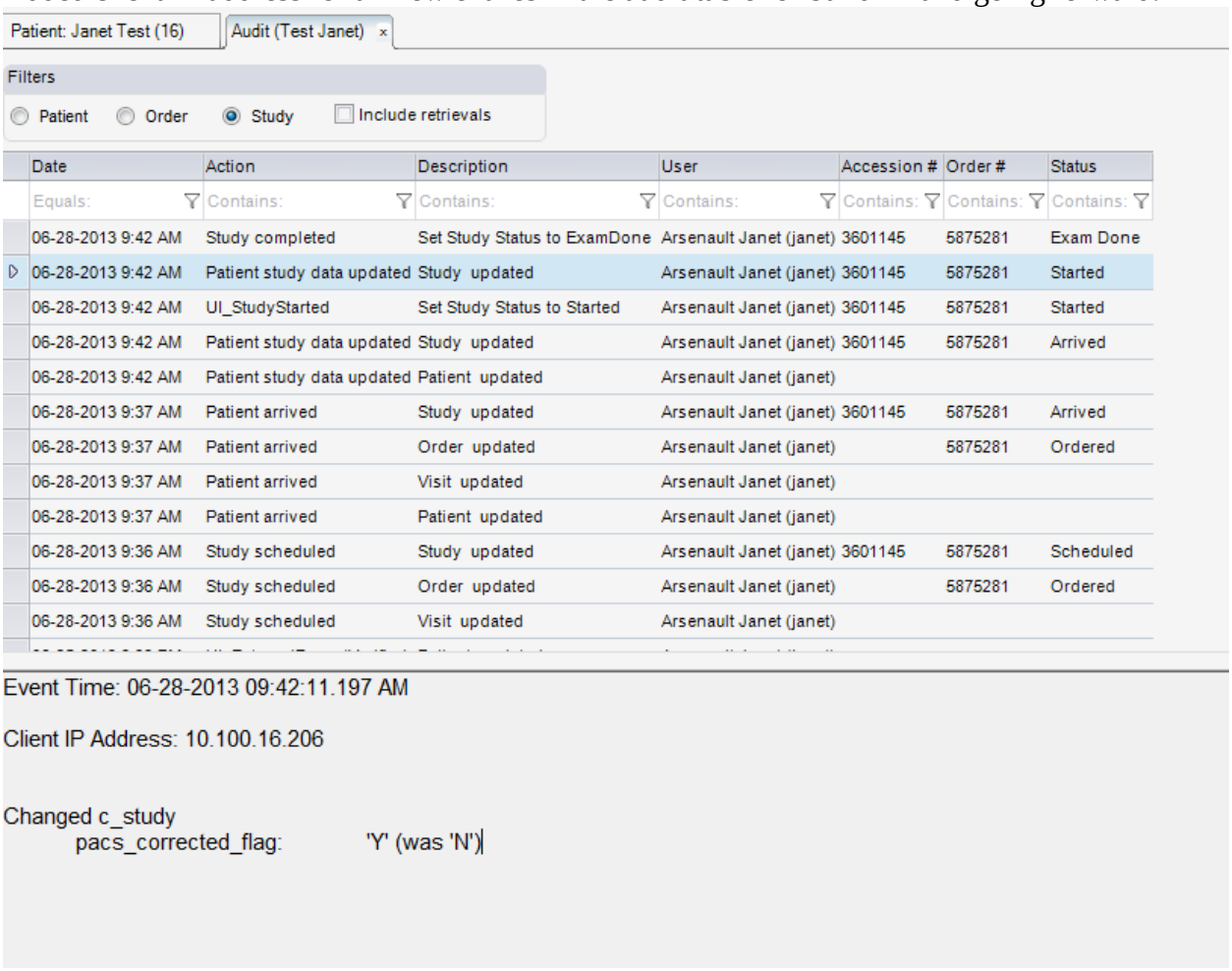



**Figure 5.89 – Audit history displaying entry that captured Client IP Address**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Administration – Add Support Phone # to Help About Window

Created a new configuration variable called **"HelpContactInfo"**, the default value for this is empty.

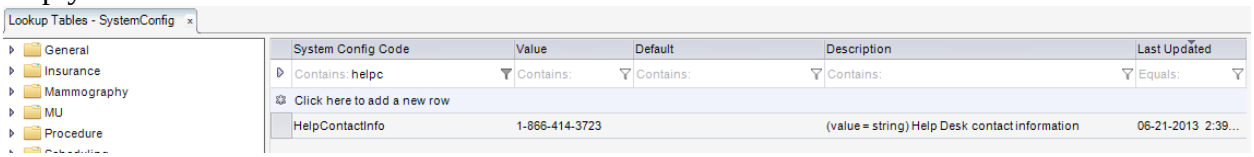



**Figure 5.90 – New system config setting HelpContactInfo**

The variable will allow for html text to be provided, this will allow for the formatting of the desired phone number, or allow for additional information to be provided also, such as a webpage or email link

Ex: Phone Number: 1-866-414-3723     <a href="mailto:help@radnet.com?Subject=RIS Help"> Contact Help</a>

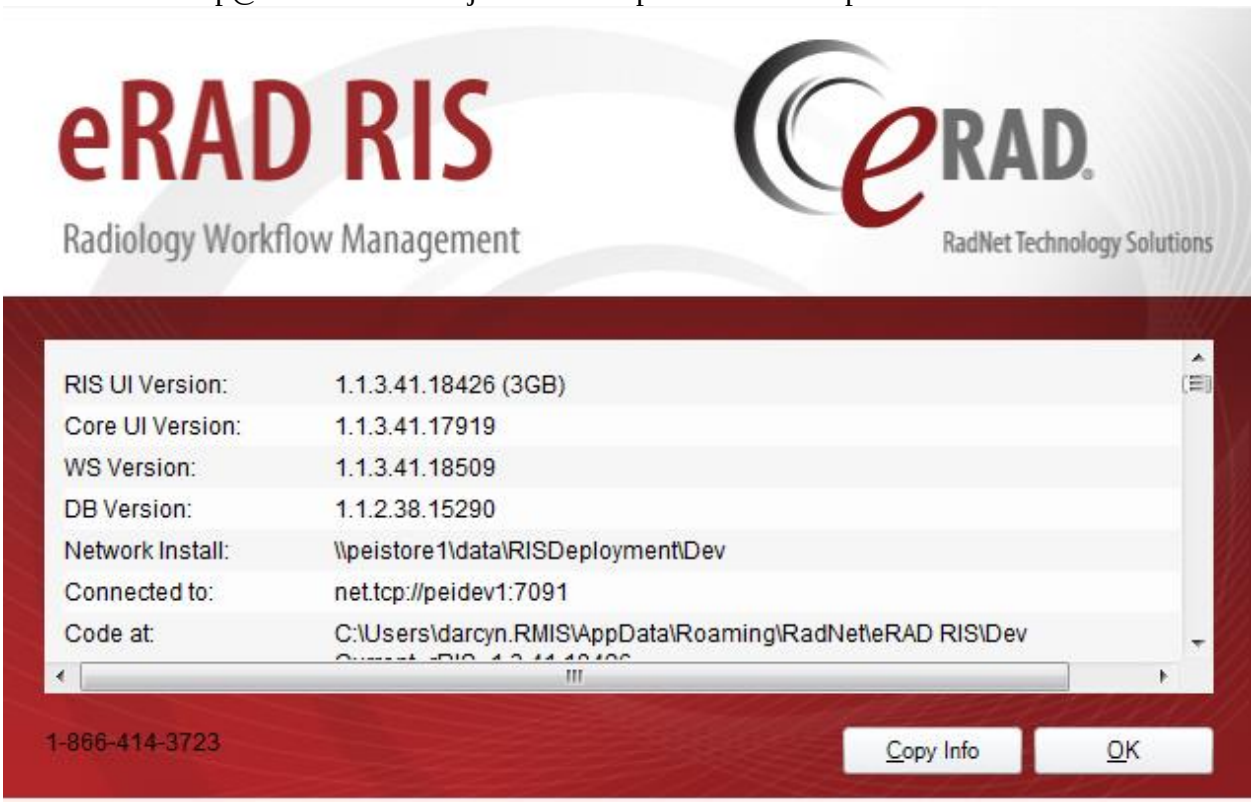



**Figure 5.91 – Support phone # added to Help About window**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Administration – Process Events Service

All studies that have been modified via the GUI are stored in c_study_post_processing table. We need the ability for the system to automatically call this procedure.

A sub services to the RIS Core Services was added to wake up every "X" seconds and call the c_ProcessPostEvents stored procedure.

This sub service starts with every RIS Core Service.

A new system configuration setting titled **"ProcessPostEventInterval"** was added to control the frequency of the call to c_ProcessPostEvent. The default is 60 seconds. A value of 0 will mean the events will not be processed.

The ProcessPostEvent sub service may take up to five minutes to detect any changes to the ProcessPostEventInterval configuration setting.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Administration – Hold Study on Activity Work List

A new column was added to the Chair lookup table called "Hold_On_Activity_WL_Flag". When this flag is set to "Y", any updates to a study assigned to that chair will remain in the activity worklist until the study is removed from that chair. Note, any studies assigned to a chair that just had the "Hold_On_Activity_WL_Flag" changed will not be automatically added or removed to or from the activity WL. An update to the study row has to occur for it to recognize whether it should or should not appear on the activity WL.

All studies recently updated and assigned to a chair with this flag will appear on the activity WL until it is unassigned from the chair or its status changes from "Cancelled", "Discontinued" and "Void".

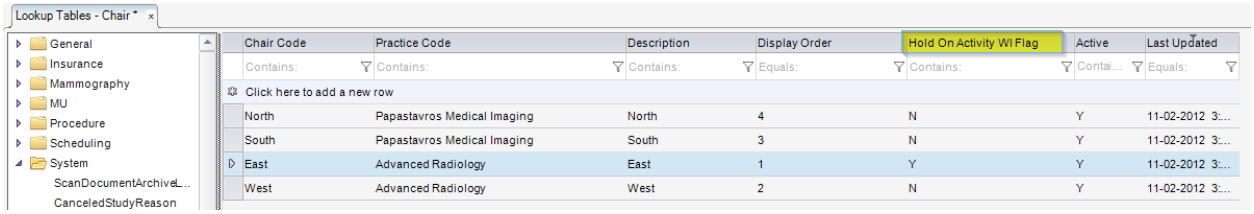



**Figure 5.91a – Hold on Activity WL Flag added to Chair lookup table**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Management Reports – Dashboard Color Picker for Practice

The eRAD RIS GUI will display a different color for a practice selected from the Organization picker. This is configured in the Organization lookup Editor on the Practice.
In build 41 we have also added the title bar color to the Dashboard.

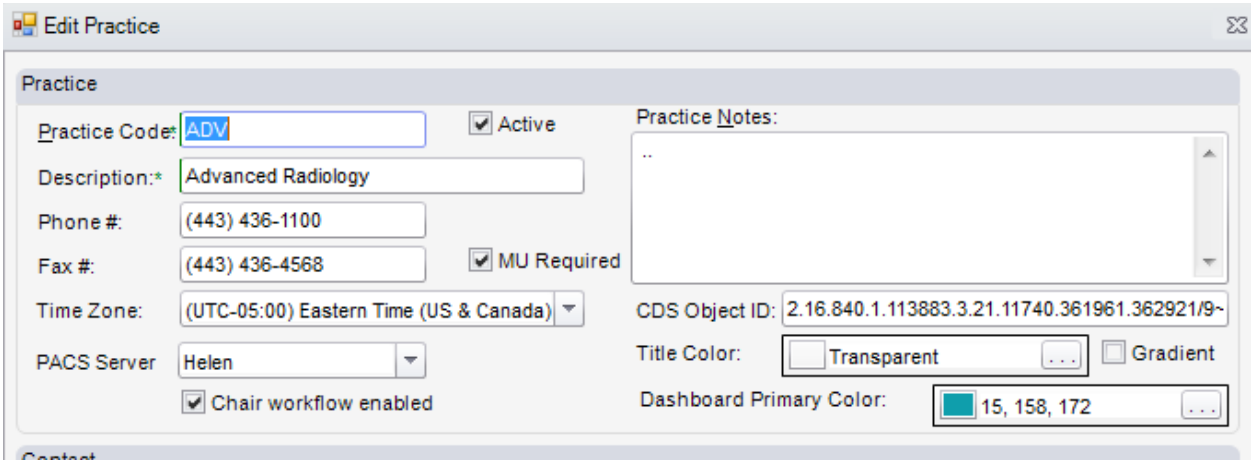



**Figure 5.92 – Edit Practice displaying Dashboard Primary Color selector.**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Management Report – ADA added to Special Accommodations

The Special Accommodation lookup table first had to have the flag added.

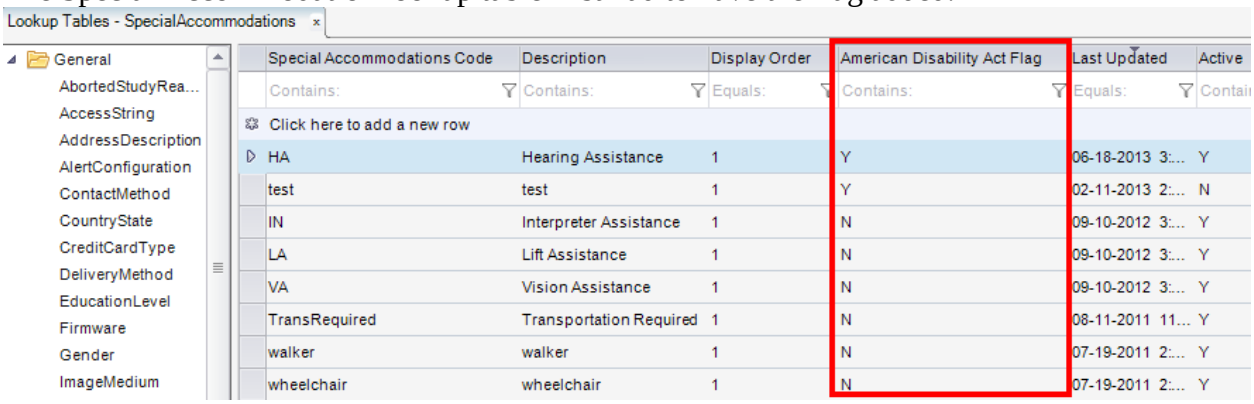



**Figure 5.93 – American Disability Act flag (ADA)**

When an appointment is created and a value for Special Accommodations is selected that is flagged as an ADA Special Accommodation code, the management report can reflect this flag. The report can be filtered to show only ADA, exclude ADA or both.

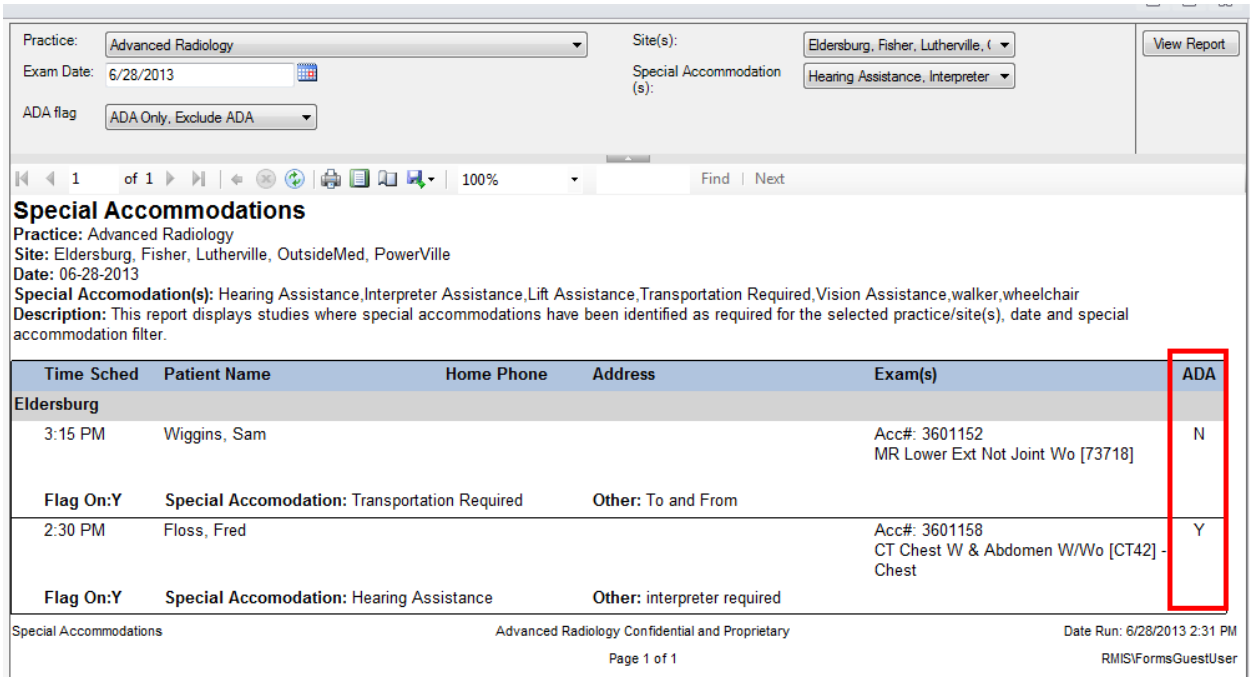
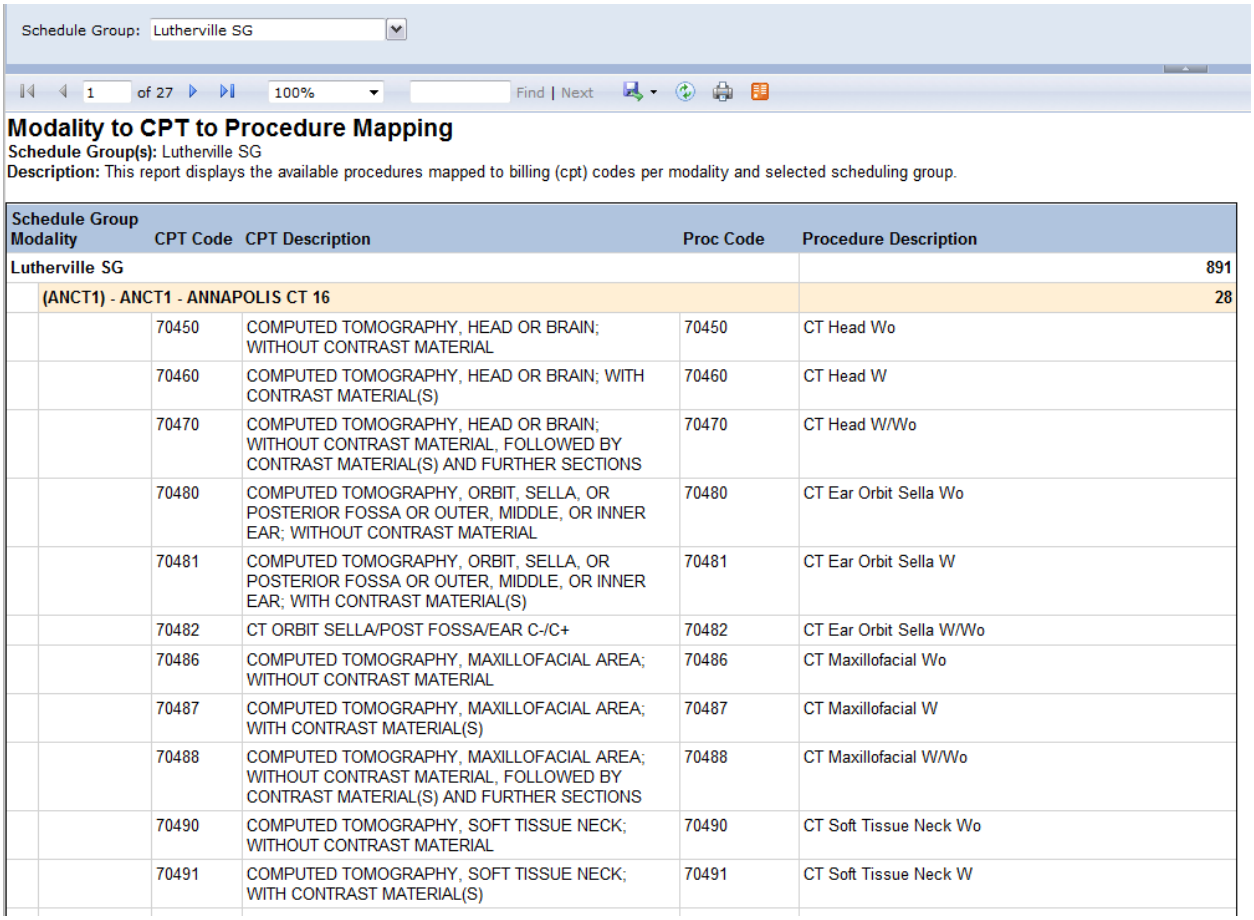



**Figure 5.94 – Special Accommodations management report with ADA column**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# Management Report – Modality to CPT to Procedure Mapping

This management report will identify the mappings to a schedule group to modality to procedure and associated CPT codes



Schedule Group: Lutherville SG

1 of 27 100% Find | Next

**Modality to CPT to Procedure Mapping**

**Schedule Group(s):** Lutherville SG

**Description:** This report displays the available procedures mapped to billing (cpt) codes per modality and selected scheduling group.

| Schedule Group Modality | CPT Code | CPT Description | Proc Code | Procedure Description |
|---|---|---|---|---|
| Lutherville SG | | | | 891 |
| (ANCT1) - ANCT1 - ANNAPOLIS CT 16 | | | | 28 |
| | 70450 | COMPUTED TOMOGRAPHY, HEAD OR BRAIN; WITHOUT CONTRAST MATERIAL | 70450 | CT Head Wo |
| | 70460 | COMPUTED TOMOGRAPHY, HEAD OR BRAIN; WITH CONTRAST MATERIAL(S) | 70460 | CT Head W |
| | 70470 | COMPUTED TOMOGRAPHY, HEAD OR BRAIN; WITHOUT CONTRAST MATERIAL, FOLLOWED BY CONTRAST MATERIAL(S) AND FURTHER SECTIONS | 70470 | CT Head W/Wo |
| | 70480 | COMPUTED TOMOGRAPHY, ORBIT, SELLA, OR POSTERIOR FOSSA OR OUTER, MIDDLE, OR INNER EAR; WITHOUT CONTRAST MATERIAL | 70480 | CT Ear Orbit Sella Wo |
| | 70481 | COMPUTED TOMOGRAPHY, ORBIT, SELLA, OR POSTERIOR FOSSA OR OUTER, MIDDLE, OR INNER EAR; WITH CONTRAST MATERIAL(S) | 70481 | CT Ear Orbit Sella W |
| | 70482 | CT ORBIT SELLA/POST FOSSA/EAR C-/C+ | 70482 | CT Ear Orbit Sella W/Wo |
| | 70486 | COMPUTED TOMOGRAPHY, MAXILLOFACIAL AREA; WITHOUT CONTRAST MATERIAL | 70486 | CT Maxillofacial Wo |
| | 70487 | COMPUTED TOMOGRAPHY, MAXILLOFACIAL AREA; WITH CONTRAST MATERIAL(S) | 70487 | CT Maxillofacial W |
| | 70488 | COMPUTED TOMOGRAPHY, MAXILLOFACIAL AREA; WITHOUT CONTRAST MATERIAL, FOLLOWED BY CONTRAST MATERIAL(S) AND FURTHER SECTIONS | 70488 | CT Maxillofacial W/Wo |
| | 70490 | COMPUTED TOMOGRAPHY, SOFT TISSUE NECK; WITHOUT CONTRAST MATERIAL | 70490 | CT Soft Tissue Neck Wo |
| | 70491 | COMPUTED TOMOGRAPHY, SOFT TISSUE NECK; WITH CONTRAST MATERIAL(S) | 70491 | CT Soft Tissue Neck W |

**Figure 5.95 – Modality to CPT to Procedure Mapping management report**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Management Report – BI-RAD to Recommendation Mapping

New report created that will show the BI-RAD and Recommendations assigned to that BI-RAD. There are no filters required for this management report

### Birad to Recommendation Mapping

**Description:** This report displays the Birad to recommendation mappings configured within the system.

| Birad | Recommendation | | Default Recommendation? |
|---|---|---|---|
| **Radnet Central** | | | |
| **0** | **Need additional imaging evaluation** | | |
| | P | Additional Projections | N |
| | U | Ultrasound | N |
| | O | Old films for comparison | N |
| | Z | Breast MRI | N |
| | PU | Additional Projections and Ultrasound | N |
| | PXIF | Additional Projections if no old films can be obtained | N |
| | UXIF | Additional Ultrasound if no old films can be obtained | N |
| | PUXIF | Additional Projections and Ultrasound if no old films can be obtained | N |
| | C0 | ADDENDUM FOR COMPARISION - NEED ADDITIONAL IMAGING | N |
| **1** | **Negative** | | |
| | N | Normal interval follow up | Y |
| | F-11M | 11 months | N |
| | F-10M | 10 months | N |
| | F-9M | 9 months | N |
| | F-8M | 8 months | N |
| | F-7M | 7 months | N |

**Figure 5.96 – BI-RAD to Recommendation Mapping management report.**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Management Report – MR Breast Dictated

The MR Breast Dictated report was created to monitor Breast MR. The parameters for the report are Practice, Site, To and From date and Procedure Code.

The report will display the Site, patient name, Procedure, date of service, dictated date, MRN and Accession number.

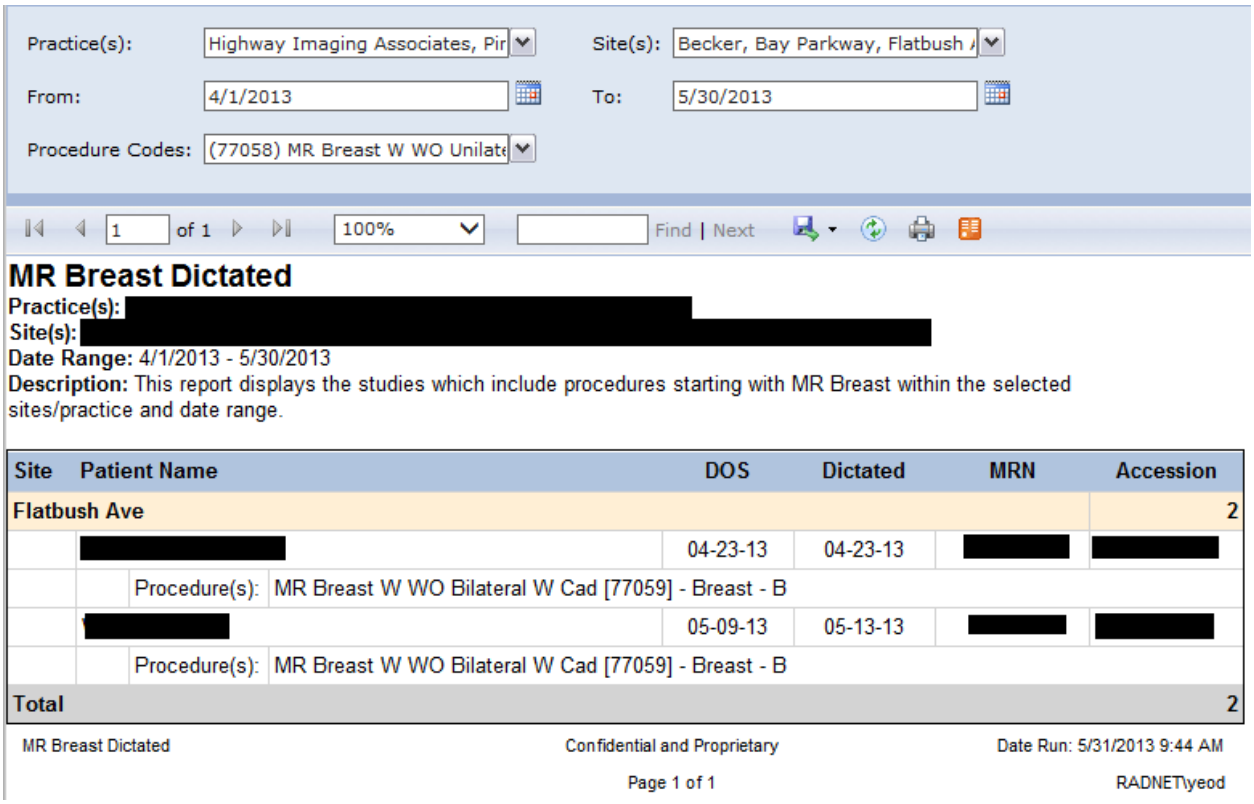



**Figure 5.97 – MR Breast Dictated management report**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Management Report – New Sales Mgmt Report for Referring Practice

We need to get all sales data into a rollup table and call this rollup data to improve performance for sales mgmt reports. To do this we created a stored procedure "c_SummaryMaster" that will be called nightly by a job. These new reports will report off this rollup data("c_summary_sales_trend"). I talked to Sean Clark and he is fine if we return 36 months of data only in this rollup table. I confirmed that counts will be based off cpt counts. I will add a note to **create a script** to create this job on the B41 build directory to call this new stored procedure "c_SummaryMaster".

Created a new management report "Sales Referring Practice Raw Data" where the results can be exported to either csv or excel based off the following parameters [a practice_code, multiple sites, multiple referring physician practice, multiple modalities, a monthly variance(6 or 13 variance), and a date. Note: if the report contains more than 65636 rows the report will not be able to export to excel.

| PHYSICIAN | MODALITY | LOCATION | SPECIALTIES | November | December | January | February | March | April | May | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Jacobson, Kyle8 35939 | XR | Lutherville | Accupuncturist \| Breast Surgery | | | 1 | | | 1 | | 2 |
| JONES, WHAY | CT | Eldersburg | General Practice | | | | 1 | | | | 1 |
| JONES, WHAY | CT | Fisher | General Practice | 1 | | | | | | | 1 |
| JONES, WHAY | CT | Lutherville | General Practice | | | | 1 | | | | 1 |
| JONES, WHAY | MA | Lutherville | General Practice | | | | 1 | | | | 1 |
| JONES, WHAY | MR | Eldersburg | General Practice | 1 | | | | | | | 1 |

**Figure 5.98 – Sales Referring Practice Raw Data**

Created a new mgmt. report "Sales Referring Practice Raw Quarter Data " the sales team can export to csv or excel based off the following parameters [a practice_code, multiple sites, multiple referring physician practice, multiple modalities, a monthly variance(6 or 13 variance), and a date.

| PRACTICE | PHYSICIAN | MODALITY | Qtr 1 2012 | Qtr 4 2012 | Qtr 1 2013 | Total | Qtr 2 2013 | Qtr 1 2012 Avg | Qtr 4 2012 Avg | Qtr 1 2013 Avg | Qtr 2 2013 Avg |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ADV | HODGSON, WESLEY | MA | 0 | 1 | 0 | 1 | 0 | 0.0 | 0.3 | 0.0 | 0.0 |
| ADV | HODGSON, WESLEY | MR | 0 | 1 | 0 | 1 | 0 | 0.0 | 0.3 | 0.0 | 0.0 |
| ADV | HODGSON, WESLEY | XR | 0 | 2 | 0 | 2 | 0 | 0.0 | 0.7 | 0.0 | 0.0 |
| ADV | Jacobson, Kyle8 35939 | XR | 0 | 0 | 1 | 1 | 1 | 0.0 | 0.0 | 0.3 | 0.3 |
| ADV | JONES, WHAY | CT | 4 | 1 | 2 | 7 | 0 | 1.3 | 0.3 | 0.7 | 0.0 |
| ADV | JONES, WHAY | MA | 0 | 0 | 1 | 1 | 0 | 0.0 | 0.0 | 0.3 | 0.0 |
| ADV | JONES, WHAY | MR | 0 | 1 | 0 | 1 | 0 | 0.0 | 0.3 | 0.0 | 0.0 |

**Figure 5.99 – Sales Referring Practice Raw Quarter Data**

Created a new mgmt. report "Monthly Variance Raw Data" replaces the previous 6/13Mth Variance Report and the sales team can export to csv or excel based off the following parameters [a practice_code, multiple sites, a monthly variance(6 or 13 variance), and a date.

| Physician | Physician Last Name | Physician First Name | NPI | Affiliation | Specialty | Location | Modality | Nov-12 | Dec-12 | Jan-13 | Feb-13 | Mar-13 | Apr-13 | Total | Mth Avg | May-13 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Abbott, Aaron 55833 | Abbott | Aaron | | | | Eldersburg | US | | | | | | | 0 | 0.00 | 1 |
| Abbott, Aaron 55833 | Abbott | Aaron | | | | Fisher | CT | | | | | | 2 | 2 | 0.33 | |
| Abbott, Aaron 55833 | Abbott | Aaron | | | | Fisher | XR | | | | | | 1 | 1 | 0.17 | |
| Abbott, Alberto3 24490 | Abbott | Alberto3 | | | | Fisher | NM | | | | | | | 0 | 0.00 | 1 |
| Abbott, Alberto3 24490 | Abbott | Alberto3 | | | | Lutherville | XR | | | | | | | 0 | 0.00 | 1 |

**Figure 5.100 – Monthly Variance Raw Data**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

Created a number of new management reports.
"Sales Referring Practice Data" where the sales team can view data without exporting to csv or excel based off the following parameters [a practice_code, multiple sites, multiple referring physician practice, multiple modalities, a monthly variance (6 or 13 variance), and a date.

| PHYSICIAN | May-12 | Jun-12 | Jul-12 | Aug-12 | Sep-12 | Oct-12 | Nov-12 | Dec-12 | Jan-13 | Feb-13 | Mar-13 | Apr-13 | Mth Avg | May-13 | Var/May 13 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HODGSON, WESLEY | 0 | 0 | 0 | 0 | 155 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | **13** | 0 | (13) |
| JONES, WHAY | 1 | 6 | 23 | 0 | 54 | 0 | 4 | 0 | 0 | 3 | 0 | 0 | **8** | 0 | (8) |
| Jacobson, Kyle8 35939 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | **0** | 0 | 0 |
| Power MD, Ian | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 7 | 135 | **12** | 67 | 55 |
| **Total** | **1** | **6** | **23** | **0** | **209** | **4** | **4** | **0** | **1** | **6** | **7** | **136** | **33** | **67** | **34** |

**Figure 5.101 – Sales Referring Practice Data**

"Sales Referring Practice Data by Affiliation" where the sales team can view data without exporting to csv or excel based off the following parameters [a practice_code, multiple sites, multiple referring physician practice, multiple modalities, a monthly variance(6 or 13 variance), and a date.

| PHYSICIAN | Affiliation | Nov-12 | Dec-12 | Jan-13 | Feb-13 | Mar-13 | Apr-13 | May-13 | Total |
|---|---|---|---|---|---|---|---|---|---|
| Power MD, Ian | chesapeake | 0 | 0 | 0 | 3 | 7 | 135 | 67 | 212 |
| JONES, WHAY | referrer | 4 | 0 | 0 | 3 | 0 | 0 | 0 | 7 |
| Jacobson, Kyle8 35939 | Borneo | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 2 |
| **Grand Total** | | **4** | **0** | **1** | **6** | **7** | **136** | **67** | **221** |

**Figure 5.102 - Sales Referring Practice Data by Affiliation**

"Sales Referring Practice Data by Modality" where the sales team can view data without exporting to csv or excel based off the following parameters [a practice_code, multiple sites, multiple referring physician practice, multiple modalities, a monthly variance(6 or 13 variance), and a date.

| Advanced Radiology By Modality May 2013 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| MODALITY | Nov-12 | Dec-12 | Jan-13 | Feb-13 | Mar-13 | Apr-13 | May-13 | May daily avg |
| CT | 1 | 0 | 0 | 2 | 1 | 108 | 54 | **5.40** |
| MA | 0 | 0 | 0 | 1 | 1 | 0 | 0 | **0.00** |
| MR | 1 | 0 | 0 | 0 | 0 | 0 | 0 | **0.00** |
| XR | 2 | 0 | 1 | 3 | 5 | 28 | 13 | **1.30** |
| **Total** | **4** | **0** | **1** | **6** | **7** | **136** | **67** | **6.70** |

**Figure 5.103 - Sales Referring Practice Data by Modality**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

"Sales Referring Practice Data by Specialty" where the sales team can view data without exporting to csv or excel based off the following parameters [a practice_code, multiple sites, multiple referring physician practice, multiple modalities, a monthly variance(6 or 13 variance), and a date.

| PHYSICIAN | Specialties | Nov-12 | Dec-12 | Jan-13 | Feb-13 | Mar-13 | Apr-13 | May-13 |
|---|---|---|---|---|---|---|---|---|
| JONES, WHAY | General Practice | 4 | 0 | 0 | 3 | 0 | 0 | 0 |
| Jacobson, Kyle8 35939 | Accupuncturist \| Breast Surgery | 0 | 0 | 1 | 0 | 0 | 1 | 0 |
| Power MD, Ian | Breast Surgery | 0 | 0 | 0 | 3 | 7 | 135 | 67 |
| **Grand Total** | | **4** | **0** | **1** | **6** | **7** | **136** | **67** |

**Figure 5.104 - Sales Referring Practice Data by Specialty**

"Sales Referring Practice Monthly Volume and Daily Avg" where the sales team can view data without exporting to csv or excel based off the following parameters [a practice_code, multiple sites, multiple referring physician practice, a modality. The volume is the number of cpt codes performed for a particular month. The Daily average is valoume /number of business Days.

| Year | Month | Volume | Daily Avg |
|---|---|---|---|
| 2011 | May | 3 | 0.1 |
| | June | 5 | 0.2 |
| | July | 5 | 0.2 |
| | August | 5 | 0.2 |
| | September | 2 | 0.1 |
| | October | 5 | 0.2 |
| | Total | 25 | 0.2 |
| 2012 | February | 2 | 0.1 |
| | March | 4 | 0.2 |
| | May | 2 | 0.1 |
| | June | 4 | 0.2 |
| | July | 24 | 1.2 |
| | August | 2 | 0.1 |
| | September | 16 | 0.8 |
| | November | 3 | 0.2 |
| | December | 19 | 1.0 |
| | Total | 76 | 0.4 |
| 2013 | January | 4 | 0.2 |
| | February | 12 | 0.7 |
| | March | 3 | 0.1 |
| | April | 10 | 0.5 |
| | May | 7 | 0.4 |
| | Total | 36 | 0.4 |

**Figure 5.105 - Sales Referring Practice Monthly Volume and Daily Avg**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Management Report – Upload Custom Management Reports

The DeployReports.bat tool has been modified to prompt the user if they would like to upload Custom Management reports. When the customer reports are uploaded the DeployReports.bat tool will create a sub folder called "Uploads" that will be created under the Custom folder. The uploaded custom reports will be placed in the "Uploads" folder. The user will then be responsible to move the report in the Custom folder.

To summarize:

1. In the deployment folder created a folder called Upload Custom Management Reports
2. Modified scripts to prompt: Do you wish to upload Custom Management Reports?
3. Modified scripts to upload from the Upload Custom Management Reports folder to create a folder below Custom called Uploads and Upload the reports there.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Management Report – Automate Backup of Management Report Deployment

When deploying the newest management reports a backup will now be created to ensure that no existing report that was to be kept. This backup will serve not only as a backup but an easy way to download forms\templates or custom reports to deploy to another installation.

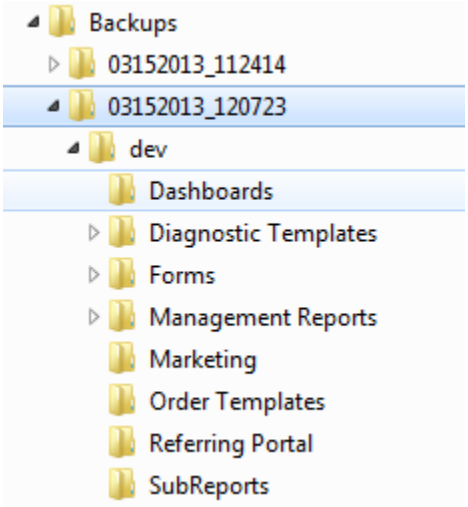



**Figure 5.106 – Displaying management report backups**

In the example above you can see it creates a folder called backups, below that a folder named the datetime of the backup and below that the report structure for the installation you are deploying to. In this example it backed up the dev deployment on Mar 15 2013 at 12:07.

- Do you wish to create a backup of the existing reports?
- Do you wish to deploy core management reports?
- Do you wish to upload Forms?
- Do you wish to upload Diagnostic Templates?
- Do you wish to upload Custom Management Reports?
- Do you wish to create a datasource?

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Management Report – Mammo Back on Track

This report has been created to allow the user to determine when the "Back on Track" date for the patient's next mammo screening is. Looking at all "ShortTermFollowup" and "CallBack" orders where recommendation is "BACK ON TRACK" ( target date cannot be manually adjusted. Staff can cancel the order and generate a new Mammo follow-up order with correct target date).

**Mammo Back on Track**

**Practice:** Radnet Central

**Site(s):** Modesto Advanced Imaging Center, Stockton Diagnostic, Stockton Diagnostic Outside Read, Outside CD

**Description:** The intention of this report is to identify any patient in the system that has order type of "CallBack" or "ShortTermFollowup" where the mammo orders have come for an original study with a diagnosis of "BIRAD 1 or 2".

| Patient | MRN | Study Status | Requested Date | Order Status | Original Accession | Recommendation | Birad |
|---|---|---|---|---|---|---|---|
| [redacted] | | Signed1 | 07-08-2013 | ShortTermFollowUp | 29172 | 4 months | 2-Benign finding |
| | | Signed1 | 04-05-2013 | ShortTermFollowUp | 10740 | 10 months | 2-Benign finding |
| | | Signed1 | 04-05-2013 | ShortTermFollowUp | 10751 | 11 months | 1-Negative |
| | | Signed1 | 04-07-2013 | ShortTermFollowUp | 11923 | 11 months | 1-Negative |
| | | Signed1 | 04-09-2013 | ShortTermFollowUp | 12458 | 10 months | 1-Negative |
| | | Signed1 | 06-26-2013 | ShortTermFollowUp | 24177 | 6 months | 1-Negative |
| | | Signed1 | 07-09-2013 | ShortTermFollowUp | 25744 | 5 months | 1-Negative |
| | | Signed1 | 06-26-2013 | ShortTermFollowUp | 27608 | 3 months | 2-Benign finding |
| | | Signed1 | 07-12-2013 | ShortTermFollowUp | 32782 | 5 months | 2-Benign finding |
| | | Signed1 | 07-05-2013 | ShortTermFollowUp | 27012 | 5 months | 1-Negative |
| | | Signed1 | 04-23-2013 | ShortTermFollowUp | 12040 | 8 months | 2-Benign finding |
| Total | | | | | | | 11 |

Mammo Back on Track | Confidential and Proprietary | Date Run: 7/16/2013 11:51 AM

Page 1 of 1 | RADNET\yeod

**Figure 5.160a – Mammo Back on Track management report**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Management Report – User ID Parameter on Reports with Practice Code

This feature affects the reports that can be viewed based on what Practices the user belongs to. If the user has access to Practice A and C, but not B when the view a report that is filtered on Practice, they will not be able to view it for Practice B.
Below is the list of reports that use the Practice parameter and were modified:

| | |
|---|---|
| Management Reports/Billing/Charge Audit Report | Management Reports/Billing/Charge Audit Report no header |
| Management Reports/Maintenance/Procedure Codes | Management Reports/Meaningful Use/Automated Measures |
| Management Reports/Meaningful Use/MU Automated Measures Details | Management Reports/Meaningful Use/MU Scorecard |
| Management Reports/Meaningful Use/Patient Reminder List | Management Reports/Meaningful Use/RRR Meaningful Use |
| Management Reports/MQSA/Mammo Annual Radiologist Summary | Management Reports/MQSA/Mammo Annual Technologist Summary |
| Management Reports/MQSA/Mammo Document_Distribution Status | Management Reports/MQSA/Mammo Ignored Reminder List |
| Management Reports/MQSA/Mammo Radiologist Summary | Management Reports/MQSA/Mammo Technologist Summary |
| Management Reports/MQSA/MQSA General Exam List | Management Reports/MQSA/MQSA List of Exams Performed by Technologist |
| Management Reports/MQSA/MQSA List of False Negative Exams | Management Reports/MQSA/MQSA List of False Positive Exams |
| Management Reports/MQSA/MQSA List of Positive Exam Followups | Management Reports/MQSA/MQSA List of Positive Exams with Outstanding Biopsies |
| Management Reports/MQSA/MQSA Location Summary Group By BIRAD | Management Reports/MQSA/MQSA Location Summary Group By Procedure |
| Management Reports/MQSA/MQSA Outcome Report | Management Reports/MQSA/MQSA Radiologist Reporting Summary |
| Management Reports/Operations/Aborted Exams | Management Reports/Operations/Addended Mammography Exams |
| Management Reports/Operations/Amount Collected By User | Management Reports/Operations/Appointment Schedule |
| Management Reports/Operations/Biopsy Results Pending Letter | Management Reports/Operations/Cancellations by Referring |
| Management Reports/Operations/Cancelled Exams | Management Reports/Operations/Cancelled Reasons |
| Management Reports/Operations/Check-in Counts | Management Reports/Operations/Chief Complaint Audit |
| Management Reports/Operations/Confirmation Status Cancelled or Rescheduled | Management Reports/Operations/Confirmed Appointments |
| Management Reports/Operations/Copay vs Collected | Management Reports/Operations/CPT Quantity |
| Management Reports/Operations/Daily Log by Status | Management Reports/Operations/Daily Schedule |
| Management Reports/Operations/Daily Schedule Add Ons | Management Reports/Operations/Front Desk Activity |
| Management Reports/Operations/Front Desk Trending by Hour | Management Reports/Operations/Image Request History |
| Management Reports/Operations/IVT 7 Day Trend | Management Reports/Operations/IVT Cancelled |
| Management Reports/Operations/IVT Idle Time | Management Reports/Operations/IVT Turnaround |
| Management Reports/Operations/IVT User Activity | Management Reports/Operations/Modality Duration Override |
| Management Reports/Operations/Need Plan | Management Reports/Operations/NM Therapy Patient Listing |
| Management Reports/Operations/No Shows | Management Reports/Operations/Open Capacity |
| Management Reports/Operations/Patient Wait By Room | Management Reports/Operations/Patient Wait Time Trending by Site |
| Management Reports/Operations/Patient Wait Times | Management Reports/Operations/Patients Without Insurance |
| Management Reports/Operations/Payments Details | Management Reports/Operations/Payments Received |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | |
|---|---|
| Management Reports/Operations/Performed Procedures and Patients | Management Reports/Operations/Performed Procedures Count |
| Management Reports/Operations/Pre-Auth Daily Count | Management Reports/Operations/Pre-Auth Referring Physician |
| Management Reports/Operations/Radiologist Queues | Management Reports/Operations/Referrals by Physician |
| Management Reports/Operations/Referrals by Physician Patient List | Management Reports/Operations/Referring Physician Volumes |
| Management Reports/Operations/Referring RTAT | Management Reports/Operations/Report Turnaround |
| Management Reports/Operations/Reschedules and Cancellations | Management Reports/Operations/Room Activity |
| Management Reports/Operations/Room Closures | Management Reports/Operations/Room Utilization |
| Management Reports/Operations/RTAT by Radiologist | Management Reports/Operations/RTAT Detail |
| Management Reports/Operations/RTAT Detail - Monthly | Management Reports/Operations/RTAT Detail Mammo |
| Management Reports/Operations/RTAT RAD Signing | Management Reports/Operations/RTAT Summary |
| Management Reports/Operations/Scheduled Counts by Site | Management Reports/Operations/Scheduled vs Completed |
| Management Reports/Operations/Scheduler Activity | Management Reports/Operations/Scheduler Activity By Hour |
| Management Reports/Operations/Scheduler Activity by Modality | Management Reports/Operations/Scheduling 7 Day Trend |
| Management Reports/Operations/Special Accommodations | Management Reports/Operations/Technologist Activity |
| Management Reports/Operations/Technologist Activity by Modality | Management Reports/Operations/Technologist Unfinished Exams |
| Management Reports/Operations/Time to Schedule (seconds) | Management Reports/Operations/Transportation Report |
| Management Reports/Operations/Unknown Referring | Management Reports/Operations/Unread Exams |
| Management Reports/Operations/Wait Room Times | Management Reports/Operations/Wait Room Turnover |
| Management Reports/Operations/Wrong Study Ordered | Management Reports/Statistics/Editors/Edited Jobs Activity Report |
| Management Reports/Statistics/Editors/Edited Jobs By User By Hour | Management Reports/Statistics/Editors/Edited Jobs By User Detail |
| Management Reports/Statistics/Editors/Editors Activity | Management Reports/Statistics/Radiologists/QA Radiologist Review |
| Management Reports/Statistics/Radiologists/Radiologist Dictation Activity | Management Reports/Statistics/Radiologists/Radiologist Dictation Activity by Date |
| Management Reports/Statistics/Radiologists/Radiologist Signing Activity | Management Reports/Statistics/Technologists/Continuing Experience Technologist |

**Table 5.2 – Management reports with Practice parameter**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Meaningful Use – MU Administration > Configure Directory

For ease of use and the MU lookups have been grouped together in the Configure window. As displayed in the figure below, the lookups grouped under MU are Allergy, FamilyHistory, FamilyRelation, Medication, SearchProviders, SmokingStatus, UnitOfMeasure, Vaccine and VaccineManufacter.

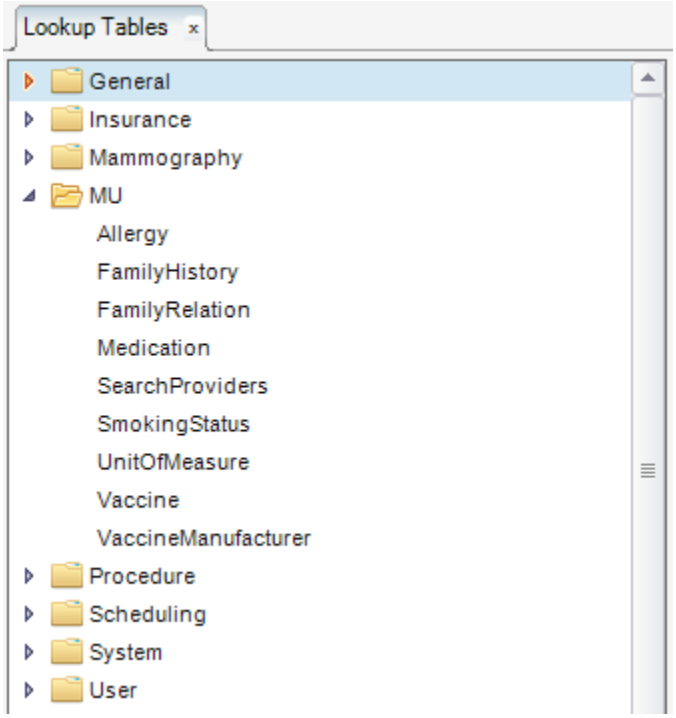



**Figure 5.107 – MU Category in containing lookup tables pertaining to MU**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Meaningful Use – Vital Signs, BMI and Growth Chart

Only numeric values can be entered for height/length, weight and blood pressure. These values can be changed on edit. The height/length, weight and blood pressure are all captured on the MU tab available in View/Edit, Scheduling, Registration and Perform Exam windows.

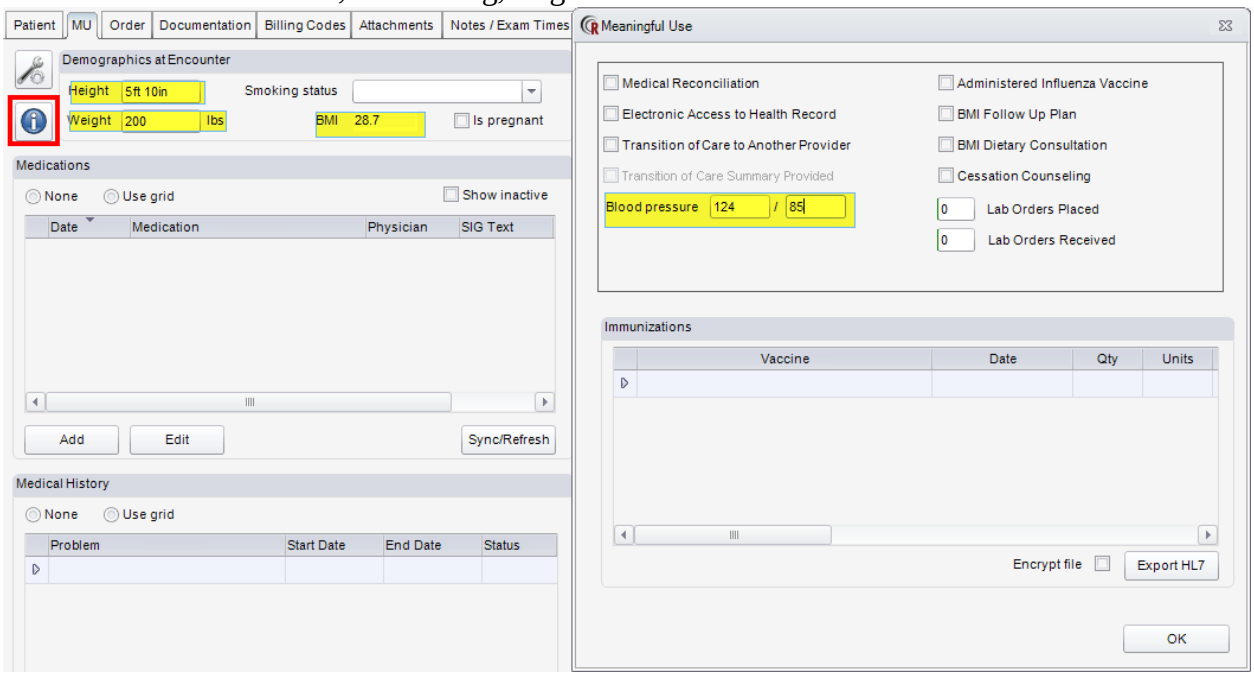
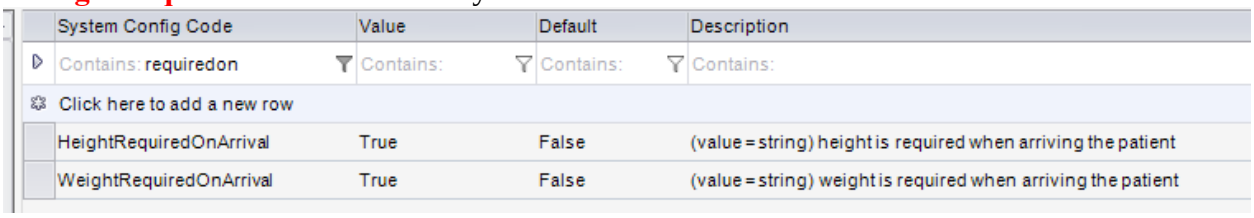



**Figure 5.108 – Height, weight, BMI and blood pressure captured**

In the figure about the BMI value is auto calculated based on the height and weight values entered. Blood pressure is entered in the Meaningful Use window and is accessed via the Meaningful Use Information button outlined in red.

The height and weight fields can also now be configured to be required on arrival. This is based on the value of two new system configuration settings **"HeightRequiredOnArrival"** and **"WeightRequiredOnArrival"**. They both have a default value of False



| System Config Code | Value | Default | Description |
|---|---|---|---|
| Contains: requiredon | Contains: | Contains: | Contains: |
| Click here to add a new row | | | |
| HeightRequiredOnArrival | True | False | (value = string) height is required when arriving the patient |
| WeightRequiredOnArrival | True | False | (value = string) weight is required when arriving the patient |

**Figure 5.109 – Displaying new SystemConfig settings**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

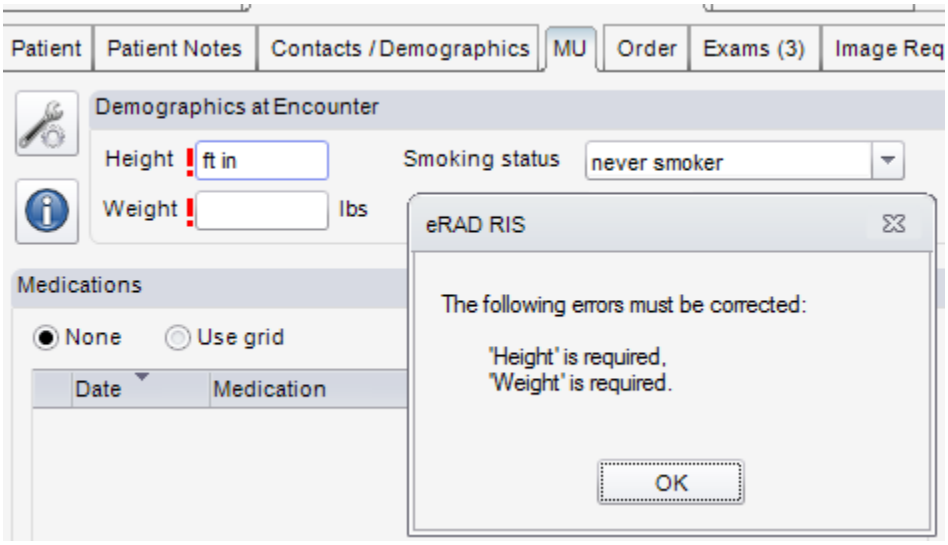



**Figure 5.110 – Height and Weight required on arrival**

If the patients Height and Smoking status was captured in a previous visit, this data will auto populate in the appropriate fields when the next study is registered.

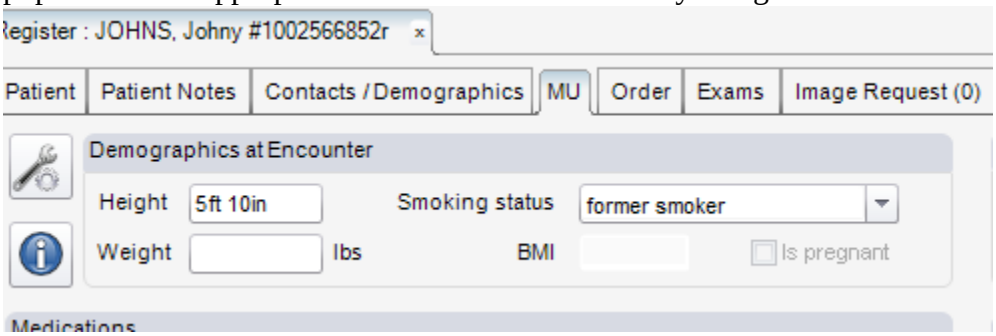



**Figure 5.111 – Height and Smoking status auto populates from previous visit**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Meaningful Use – Family Health History

Family health history is meaningful use requirement #170-314-a-13. The user needs to be able to record, access and edit patient's family health history.

To start, two new lookup tables have been introduced under the MU category on the Configure windows.

FamilyRelation lookup was added and is access is controlled by a new access string **"Config.LookupEditor.FamilyRelation"** with a default of none. This table contains the "first degree" relation options for the patient. This table will be pre-populated with build 41 and these values should not change or be altered.

| Family Relation Code | Description | Display Order | Last Updated | Active |
|---|---|---|---|---|
| Contains: | Contains: | Equals: | Contains: | Contains: |
| Click here to add a new row | | | | |
| Brother | Brother | 5 | 04-09-2013 2:24 PM | Y |
| Daughter | Daughter | 6 | 04-09-2013 2:24 PM | Y |
| Father | Father | 2 | 04-09-2013 2:24 PM | Y |
| Mother | Mother | 1 | 04-09-2013 2:24 PM | Y |
| Sister | Sister | 3 | 04-09-2013 2:24 PM | Y |
| Son | Son | 4 | 04-09-2013 2:24 PM | Y |

**Figure 5.112 – FamilyRelation lookup table**

The second new lookup table is the FamilyHistory table and access is controlled by **"Config.LookupEditor.FamilyRelation"** with a default of none. This table will also be pre-populated with snomed codes and descriptions. These values should not be altered.

| Family History Code | Description | Display Order | Last Updated | Active |
|---|---|---|---|---|
| Contains: | Contains: | Equals: | Contains: | Contains: |
| Click here to add a new row | | | | |
| 160302006 | Family history: Thyroid disorder | 1 | 04-08-2013 3:22 PM | Y |
| 160357008 | Family history: Hypertension | 1 | 04-08-2013 1:53 PM | Y |
| 160364005 | Family history: Congenital heart disease | 1 | 04-08-2013 1:53 PM | Y |
| 160377001 | Family history: Asthma | 1 | 04-08-2013 2:21 PM | Y |
| 275937001 | Family history of cancer | 1 | 04-08-2013 1:53 PM | Y |
| 429959009 | Family history of heart failure | 1 | 04-08-2013 3:22 PM | Y |

**Figure 5.113 – FamilyHistory lookup table**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

On the GUI side a new data pane titled “Family History” was added on the Patient tab. It replaces the Patient Notes data pane which has been moved to its own tab immediately following the Patient tab.

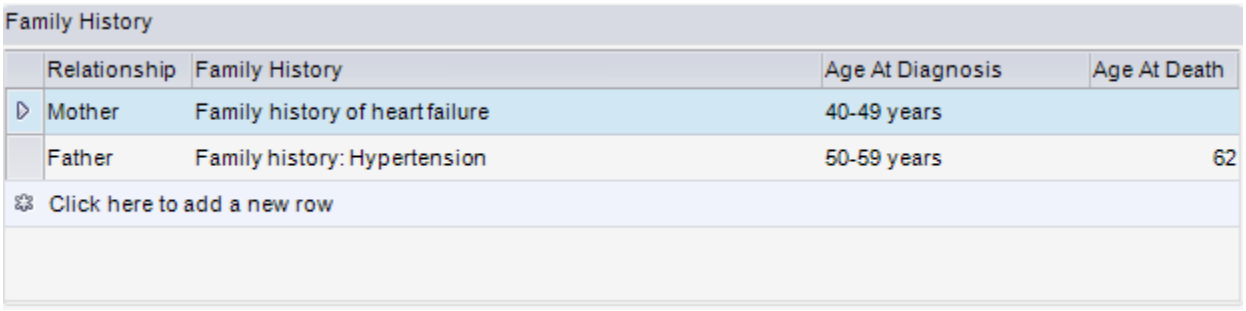



**Figure 5.114 – Family History data pane**

**Relationship** - is populated with a new lookup FamilyRelation and we will load with first degree relatives (“Brother”, “Daughter”, “Father”, “Mother”, “Sister”, “Son”).

**Family History** - is populated with a new lookup FamilyHistory and this table must contain valid snomed ct concept codes. With the build 41 upgrade the following will be marked as active (”Family history: Thyroid disorder”, “Family history: Hypertension”, “Family history: Congenital heart disease”, “Family history: Asthma”, “Family history of cancer”, “Family history of heart failure”).

**Age of Diagnosis** - Are hard coded with the following values ("Pre-Birth", "Newborn", "In Infancy", "In Childhood", "In Adolescence", "20-29 years", "30-39 years", "40-49 years", "50-59 years", "60 years and older, "Unknown"). Values were added based of the Surgeon General's Family Health History Initiative.

**Age of Death** - field will take a numeric value for the age the family member passed away.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Meaningful Use – Immunization Updates

Four new fields have been added to the Immunization data pane. Expiration Data, Route, Administration Site and a Notes field.

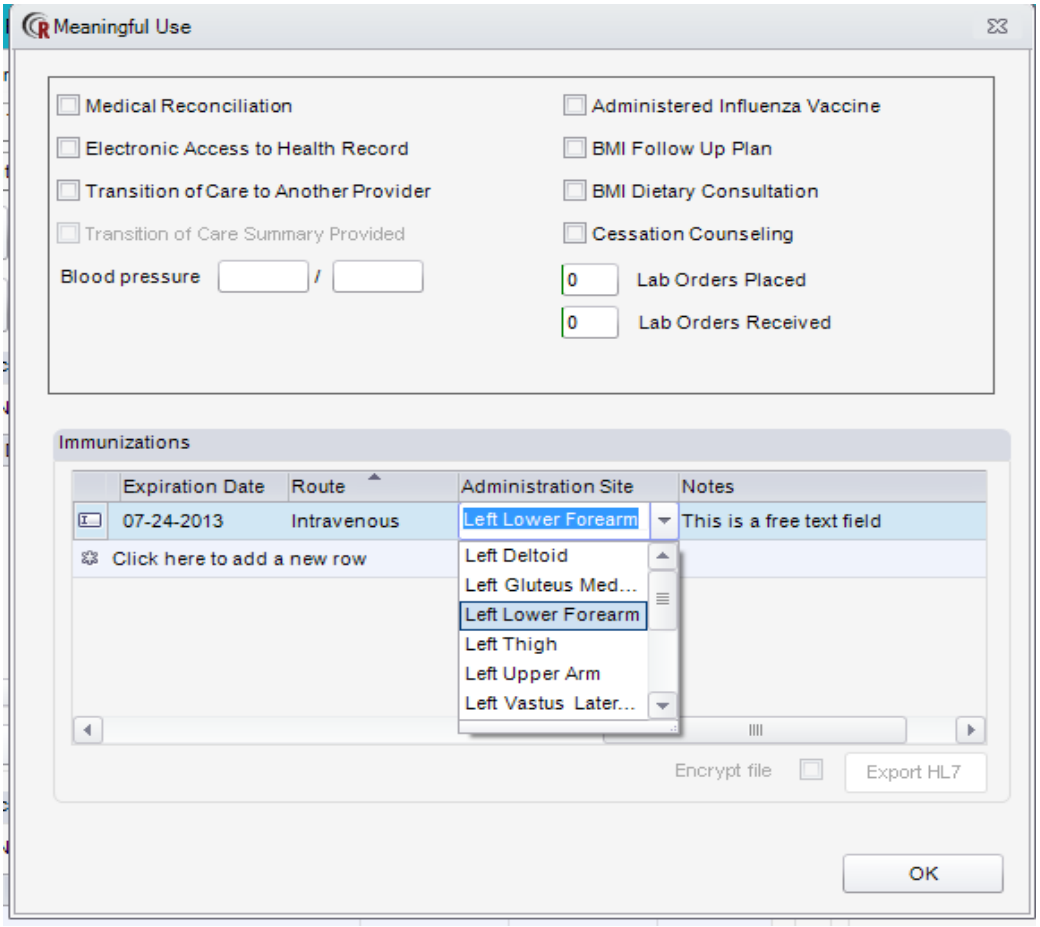



**Figure 5.115 – Immunizations data pane additions**

The values for Route and Administration Site are taken from hidden lookup tables that Admins will not be able to altered (hard coded values).

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Meaningful Use – CQM Filtered by Practice

In Build 41 we modified all meaningful use stored procedure for calculating cqm measures to pass in a practice code as a parameter so that users can only view data from practices they have access to see ( reason for change: B40 change on how management reports work. Management Reports are also filtered by practice the logged in user has access to.)

## Lastname, Firstname

It was requested that many fields in the application conform to Lastname, Firstname. Therefore, on all worklists, tabs, combo boxes and fields that refer to people, the names are now formatted Lastname, Firstname. If the person is a user of the RIS system, it will show as Lastname, Firstname (userid). In the case of referring doctors, it will show as Lastname, Firstname Middlename Suffix.

Throughout the code, the name format was changed as appropriate.
**User:**
The current user of this RIS will have their name in the titlebar of the application as First Middle Last [userid]

**RIS tabs (ie, Walk-in, Registration)**
RIS tab header will display LASTNAME, Firstname #accession for all work tabs.
**Order tab within a workflow tab set**
(unchanged) Referring doctor and CC doctors in the order tab for all roles is unchanged from 40:
**Last, First M**

**Perform exam window:**
In the mini-patient-history at the top of the screen, referring is: **Last,** (unchanged): **First Middle Suffix**
Assigned radiolgist, performing, assisting…
**(unchanged) Last, First**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

**Radioloigst Dictate Screen:**
Assign To Radiologist
**Last, First Middle**

**Audit screen**
Tab Title: Last, First #MRN
User who did the audit event:
**Last, First (userid)**

**Worklists columns:**
Virtually all worklists in RIS were updated to this new pattern. In most cases, there was dependant code on the _userid column, so these were left intact, and new columns were added to the worklist datasets to represent the names.
Referring column – now formatted to Last, First suffix
Radiologist, Tech, Transcriptionist, : Last, First Middle suffix (userid)
Patient: A new Patient name column was created which is Last, First

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 6. RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 37 | - | 1.2.37.12843 | 1.2.37.12782 | 1.2.37.12843 | 1.2.37.12843 | Full version release. **Core install required.** |
| 37 | 1 | 1.2.37.13040 | 1.2.37.13040 | 1.2.37.13039 | 1.2.37.13003 | **Core install required**. GUI.zip, web service and database updates |
| 37 | 2 | 1.2.37.13069 | 1.2.37.13040 | 1.2.37.13069 | 1.2.37.13003 | GUI.zip and Web service updates |
| 37 | 3 | 1.2.37.13069 | 1.2.37.13040 | 1.2.37.13069 | 1.2.37.13003 | Just WebAPI updated, no version changes. . Web service updates |
| 37 | 4 | 1.2.37.13171 | 1.2.37.13040 | 1.2.37.13165 | 1.2.37.13171 | GUI.zip, web service, and database updates |
| 37 | 5 | 1.2.37.13347 | 1.2.37.13040 | 1.2.37.12979 | 1.2.37.12979 | Bug was discovered with version numbers, this is why it appears we went backwards in the version number but we really did not. |
| 37 | 6 | 1.2.37.13665 | 1.2.37.13040 | 1.2.37.13580 | 1.2.37.12979 | GUI.zip and Web service updates |
| 37 | 7 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13799 | 1.2.37.13807 | GUI.zip and Web service updates. Also MIRTH mapping changes |
| 37 | 8 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13827 | 1.2.37.13807 | Web service update |
| 37 | 9 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13839 | 1.2.37.13807 | Web service update |
| 37 | 10 | 1.2.37.13895 | 1.2.37.13040 | 1.2.37.13895 | 1.2.37.13895 | GUI.zip, Web service and database updates |
| 37 | 11 | 1.2.37.14161 | 1.2.37.13040 | 1.2.37.14161 | 1.2.37.14161 | GUI.zip, Web service, database updates and SQL Management reporting |
| 37 | 12 | 1.2.37.14267 | 1.2.37.13040 | 1.2.37.14161 | 1.2.37.14267 | GUI.zip, Web service and database updates |
| 37 | 13 | 1.2.37.14326 | 1.2.37.13040 | 1.2.37.14326 | 1.2.37.14326 | GUI.zip, Web service and database updates |
| 38 | - | 1.2.38.14486 | 1.2.38.14486 | 1.2.38.14486 | 1.2.38.14486 | Full version release. **Core install required.** |
| 38 | 1 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | **Core install required** |
| 38 | 2 | 1.2.38.15182 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | GUI.zip update only |
| 38 | 3 | 1.2.38.15251 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | GUI.zip update only |
| 38 | 4 | 1.2.38.15327 | 1.2.38.14748 | 1.2.38.15290 | 1.2.38.14748 | GUI.zip and Web service updates |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | | | |
|---|---|---|---|---|---|---|
| 38 | 5 | 1.2.38.15513 | 1.2.38.15513 | 1.2.38.15513 | 1.2.38.15451 | **Core install required**. GUI.zip, Web service and database updates. |
| 38 | 6 | 1.2.38.15618 | 1.2.38.15513 | 1.2.38.15513 | 1.2.38.15618 | GUI.zip and database updates |
| 38 | 7 | 1.2.38.15768 | 1.2.38.15513 | 1.2.38.15768 | 1.2.38.15618 | GUI.zip and Web Service updates |
| 39 | - | 1.3.39.15389 | 1.3.39.15389 | 1.3.39.15377 | 1.3.39.15355 | Full version release. **Core install required.** |
| 39 | 1 | 1.3.39.16026 | 1.3.39.15943 | 1.3.39.15943 | 1.3.39.15957 | **Core install required.** GUI.zip, Web service and database updates |
| 40 | - | 1.3.40.16659 | 1.3.40.16659 | 1.3.40.16659 | 1.3.40.16659 | **Core install required**. Full version release |
| 40 | 1 | 1.3.40.16849 | 1.3.40.16659 | 1.3.40.16744 | 1.3.40.16727 | GUI.zip, Web service, database updates and SQL Management reporting |
| 40 | 2 | 1.3.40.16868 | 1.3.40.16659 | 1.3.40.16868 | 1.3.40.16727 | GUI.zip and Web Service |
| 40 | 3 | 1.3.40.16868 | 1.3.40.16659 | 1.3.40.16868 | 1.3.40.16727 | DB updated only |
| 40 | 4 | 1.3.40.16967 | 1.3.40.16659 | 1.3.40.16932 | 1.3.40.16961 | GUI.zip, Web service, database updates |
| 40 | 5 | 1.3.40.17087 | 1.3.40.16659 | 1.3.40.17069 | 1.3.40.17087 | GUI.zip, Web service, database updates |
| 40 | 6 | 1.3.40.17146 | 1.3.40.16659 | 1.3.40.17146 | 1.3.40.17146 | GUI.zip, Web service, database updates |
| 40 | 7 | 1.3.40.17268 | 1.3.40.16659 | 1.3.40.17268 | 1.3.40.17259 | GUI.zip, Web service, database updates |
| 40 | 8 | 1.3.40.17364 | 1.3.40.16659 | 1.3.40.17362 | 1.3.40.17343 | GUI.zip, Web service, database updates |
| 40 | 9 | 1.3.40.17370 | 1.3.40.16659 | 1.3.40.17370 | 1.3.40.17370 | GUI.zip, Web service, database updates |
| 40 | 10 | 1.3.40.17435 | 1.3.40.16659 | 1.3.40.17435 | 1.3.40.17370 | **64 BIT web service**. GUI.zip, Webservice. |
| 40 | 11 | 1.3.40.17435 | 1.3.40.16659 | 1.3.40.17525 | 1.3.40.17370 | Web service update |
| 40 | 12 | 1.3.40.17685 | 1.3.40.16659 | 1.3.40.17685 | 1.3.40.17648 | GUI.zip, Web service, database updates |
| 40 | 13 | 1.3.40.17776 | 1.3.40.16659 | 1.3.40.17776 | 1.3.40.17648 | GUI.zip, Web service |
| 40 | 14 | 1.3.40.18063(3GB) | 1.3.40.16659 | 1.3.40.18063 | 1.3.40.18063 | GUI.zip, Web service, database updates |
| 40 | 14.1 | 1.3.40.18063(3GB) | 1.3.40.16659 | 1.3.40.18107 | 1.3.40.18063 | Web service |
| 40 | 15 | 1.3.40.18127(3GB) | 1.3.40.16659 | 1.3.40.18127 | 1.3.40.18127 | GUI.zip, Web service, database updates |
| 40 | 16 | 1.1.3.40.18585 (3GB) | 1.3.40.16659 | 1.3.40.18585 | 1.3.40.18646 | GUI.zip, Web service, database updates |
| 40 | 16.1 | 1.3.40.18705 | 1.3.40.16659 | 1.3.40.18585 | 1.3.40.18646 | GUI.zip |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | | | |
|---|---|---|---|---|---|---|
| | | (3GB) | | | | |
| 40 | 17 | 1.3.40.18780 (3GB) | 1.3.40.18756 | 1.3.40.18756 | 1.3.40.18646 | Core install required for Radiologist User Group. GUI.zip, Core setup, and Web Service updates |
| 41 | - | 1.3.41.19135(3GB) | 1.3.41.19135 | 1.3.41.19135 | 1.3.41.19135 | Full version release |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 7. Resolved Defects

Bugs Suggested Features and Support Issues resolved in build 1.41. The extract is taken from Redmine bug tracking system and only displays defects resolved in 1.41.

| Bug # | Priority | Subject | Category | Found Version |
|---|---|---|---|---|
| 3664 | Immediate | Wedge-Mirth speed needs to be improved!!!! CRA CANNOT GO LIVE ON THIS SAME BOX BEFORE THIS IS ADDRESSED | HL7 | 1.40 |
| 4186 | Urgent | Multitab next workflow | Radiology Reporting | 1.40 |
| 4149 | Urgent | Reporting - Potiental hazard of loading/saving incorrect dictation | Thick Client GUI | 1.39.001 |
| 4094 | Urgent | RadNet - Support HP ScanJet 3000 s2 | Thick Client GUI | 1.40.11 |
| 3700 | Urgent | Billing detail table contains an unneeded copy of the study container | Web Services/DB | 1.40 |
| 3463 | Urgent | RIS Billing interface needs to send unique numeric MRN to MDIV | HL7 | 1.40 |
| 4461 | High | Patient Wait Times | Mgt Reports | 1.40 |
| 4305 | High | Get attached user id not populating properly when making addendum requests | Web Services/DB | 1.40 |
| 4213 | High | PACS Caching Framework Busted | PACS Integration | 1.40 |
| 4133 | High | View Edit - Change scan type when patient has study open in reporting window will throw error | Thick Client GUI | 1.40.014 |
| 4084 | High | RRR - Forms 'criteria' - insurance criteria not recognized by right-click print forms from work list | Thick Client GUI | 39.16 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 3871 | High | Magview reports need addendums to be signed in Magview | Thick Client GUI | 1.40 |
| 4125 | High | Scheduling - User not informed at time of scheduling if study doesn't have billing code | Thick Client GUI | 1.40 |
| 3810 | High | Patient folder notes text boxes autosizing. (Fisher site visit) | Thick Client GUI | 40.01 |
| 3690 | High | WCF Services can be enumerated using the http mex binding | Web Services/DB | 1.40 |
| 3689 | High | c_SelectReportBodyAddendums need to add multi-sign information | Web Services/DB | 1.40 |
| 3550 | High | Scheduled study can appear on IVT work list twice | Thick Client GUI | 1.40.005 |
| 3402 | High | Push signature service stops processing all jobs when performed_end_date is null | Web Services/DB | 1.38 |
| 3336 | High | Required sections not being enforced | Thick Client GUI | 1.40 |
| 2922 | High | Reporting - insert macro doesn't select first field in macro moves to first field in report | Thick Client GUI | 1.39 |
| 2824 | High | Reporting - rejected reports should never go back to QA after signing again | Thick Client GUI | 1.38 |
| 1691 | High | Perform Exam - Error on click of complete button: "error determining study keys for status update" | Thin Client GUI | 1.2.37.13040 |
| 4062 | High | DD: Default option on saving new address info should be No when changing fax number. | Document Distribution | 1.40 |
| 4500 | Normal | Reporting - Missing speechmike setup file on Microphone Calibration wizard | Radiology Reporting | 1.40.017 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 4496 | Normal | Management Reports - Cancelled Reasons too slow | Mgt Reports | 1.40 |
| 4490 | Normal | Protect section headers does not protect against macro insertions | Radiology Reporting | 1.40.017 |
| 4475 | Normal | c_mgmt_study_details date of service | Web Services/DB | 1.40 |
| 4362 | Normal | abort study is sending all procedures back to orders to schedule | Thick Client GUI | 1.40 |
| 4316 | Normal | Add access string "Clinical.ResolveRadProblem " | Radiology Reporting | 1.40 |
| 4306 | Normal | Scanning - able to modify scan types even if they don't have access to Config.LookupEditor.ScanType | | 1.40 |
| 4288 | Normal | having a ( ' ) single quote in a scan type description, causes the attachments data nugget from loading | | 1.40.15 |
| 4252 | Normal | Reporting - custom fields list not displayed in logical order | Radiology Reporting | 1.40 |
| 4217 | Normal | Caching - Performance Can Be Improved. | | 1.40 |
| 4206 | Normal | errors deserializing lookups when called by multiple threads | Thick Client GUI | 1.40.015 |
| 4178 | Normal | billing message will not build for tech only studies. | HL7 | 1.40 |
| 4156 | Normal | ActiveAudioControl.DictationModeCurrent not reflecting actual Dictation Mode | Radiology Reporting | 1.40 |
| 4131 | Normal | Need index on c_visit.insurance_verification_approved_on_date | Web Services/DB | 1.40 |
| 4089 | Normal | Payment Detail Report - does not run at SE | Mgt Reports | 1.40 |
| 4088 | Normal | Scanning - cropping too much for ID cards | | 1.40 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 3996 | Normal | HL7 Billing interface change the PID.18 to contain the accession number | HL7 | 1.40 |
| 3994 | Normal | Activity WL is showing non active studies | Web Services/DB | 1.40 |
| 3975 | Normal | Verify External - button is greyed out in Patient Folder, even if you have permission | Thick Client GUI | 39.10 |
| 3973 | Normal | Scanning - Color issues | Thick Client GUI | 1.40.012 |
| 3972 | Normal | Blank Modality Lookup --> new site Index out of Range | Thin Client GUI | 40.10 |
| 3971 | Normal | RIS Administrator - permissions | Web Services/DB | 39.10 |
| 3968 | Normal | Mammo - Recall, Call back, Shor term follwup letter configuration. | Thick Client GUI | 40.11 |
| 3967 | Normal | Mammo Letters --> Manual printing of letters | Thick Client GUI | 40.11 |
| 3965 | Normal | Management Reports - RTAT Detail too slow | Mgt Reports | 1.40 |
| 3959 | Normal | screen access counts are inflated | Thick Client GUI | 1.40.16638 |
| 3951 | Normal | MU - Duplicate records for Merge Patients | Thick Client GUI | 1.40 |
| 3950 | Normal | MU - Get the following error when View/Print CQM Measures from rRIS | Thick Client GUI | 1.40 |
| 3945 | Normal | Remove Edit Order | | 1.00 |
| 3929 | Normal | RadNet - Ranjan - fix MyView default issue | Thick Client GUI | 1.40 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 3925 | Normal | Reporting - Extra get config file not needed when opening a report. | Thick Client GUI | 1.40 |
| 3923 | Normal | Patch Updates - Unable to easily hide patch builds | Thick Client GUI | 1.40 |
| 3922 | Normal | RIS Referring Physician Search Details | Mgt Reports | 1.40 |
| 3921 | Normal | PatientWorkList - GetConfigFIle / GetConfigFileList are going to the WS too often. | | 1.40 |
| 3915 | Normal | ambiguous error on My Pending Signature WL | Web Services/DB | 1.40 |
| 3906 | Normal | Outside Reads: In viewedit the Assigned Radiologist dropdown doesn't have the Rad's for the "site_code" specified. | | 1.40 |
| 3897 | Normal | Billing to Modality Type | Thick Client GUI | 1.40 |
| 3864 | Normal | Error on opening attachment window of Schedule Order window | Thick Client GUI | 1.40.010 |
| 3859 | Normal | Mgmt Reports c_study needs a field to store the version of the original signed off reprot | Mgt Reports | 1.40 |
| 3855 | Normal | Remove 6 -Mth / 13 -Mth Variance Report | Mgt Reports | 1.40 |
| 3854 | Normal | CD Import - Cast exception if an image set does not have a study_instance_uid | | 1.40 |
| 3768 | Normal | Mammo - Ignored Reminder report - performance | Mgt Reports | 40.01 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 3760 | Normal | Management Report - Radiologist Dashboard | Mgt Reports | 1.40 |
| 3748 | Normal | Quality Review Rate | Thick Client GUI | 40.00 |
| 3746 | Normal | Scanning - Auto cropping needs to be improved | | 1.40 |
| 3736 | Normal | Management Reports - remove defaulting of the sites value | Mgt Reports | 1.40 |
| 3735 | Normal | Management Reports - Radiologist Dashboard | Mgt Reports | 1.40 |
| 3733 | Normal | Medication Reconciliation should be checked when medication rb checked | Thick Client GUI | 1.40 |
| 3726 | Normal | Procedure code picker when creating macros/template filter issue | Thick Client GUI | 1.40 |
| 3697 | Normal | ICM Dashboard - Add parameter for Unknown Referring ID | Mgt Reports | 1.40 |
| 3668 | Normal | Managememt Reports - Transcription Dashboard | Mgt Reports | 1.40 |
| 3653 | Normal | mgmt report performance - Edited Jobs By User By Hour | Mgt Reports | 1.40 |
| 3641 | Normal | Reporting - soft return characters showing in the report editor | Thick Client GUI | 1.40 |
| 3640 | Normal | Reporting - insert macro not adding space between period and captial letter. | | 1.40 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 3637 | Normal | Internal voice command not working. (next field, insert template/macro, etc) | Thick Client GUI | 1.40 |
| 3631 | Normal | 6 -Mth / 13 -Mth Variance Report | Mgt Reports | 1.40 |
| 3630 | Normal | Exam Details pane doesn't contain everything the Summary pane does. | Thick Client GUI | 1.40 |
| 3625 | Normal | Duplicate NPI | Thick Client GUI | 1.40 |
| 3620 | Normal | Reporting - ability to load interactive dictionaries from user management | Thick Client GUI | 1.38 |
| 3618 | Normal | Managememt Reports - QA Radiologist Review | Mgt Reports | 1.40 |
| 3601 | Normal | Opening and Closing Screens is slowed down by the Recently Accessed List | | 1.40 |
| 3599 | Normal | l_person_address clustered index | Thick Client GUI | 1.40 |
| 3596 | Normal | Reporting - summary panel not displaying legacy users | Thick Client GUI | 1.40 |
| 3581 | Normal | Report rendering with empty table tags causing a misleading message | Thick Client GUI | 1.40 |
| 3573 | Normal | Reporting - Laterality Check throwing "cannot insert bookmark error" | Thick Client GUI | 1.40 |
| 3564 | Normal | message: "an error occurred while printing forms" when printing some forms from patient history | Thick Client GUI | 1.40.16638 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 3561 | Normal | Missing Access String | Web Services/DB | 1.40 |
| 3558 | Normal | Addendum request generates a new c_interpretation row | Thick Client GUI | 1.40 |
| 3554 | Normal | Errors in the Procedure code table editor | | 1.40 |
| 3542 | Normal | Unclear error message thrown when you chose an invalid value for 'State' | Thick Client GUI | 39.10 |
| 3541 | Normal | front desk activity report performance issue | Mgt Reports | 1.40 |
| 3527 | Normal | Error from lookup tables when choosing not to save changes. | Admin Tools | 1.40.002 |
| 3509 | Normal | Notification popup box fade too slow when clicking the "x" | Thick Client GUI | 1.40 |
| 3453 | Normal | Create macro from... Not working if template or macro browser is closed. | Thick Client GUI | 1.40 |
| 3452 | Normal | Document Model Info popup not disabling parent content base | | 1.40 |
| 3442 | Normal | Exception filtering lookup | Admin Tools | 1.40 |
| 3441 | Normal | CaptureUIControlHelper not disabling parent form when showing popups | Thick Client GUI | 1.38 |
| 3430 | Normal | Scroll bar is either not displayed or when it is displayed is useless | Thick Client GUI | 1.1.3.40.16854 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 3414 | Normal | RRR - CCR Doc for MU is displaying 'Radnet User' beside the From: section | Thick Client GUI | 39.10 |
| 3392 | Normal | Alergy flag broken in Dev | | 1.40 |
| 3388 | Normal | Mgmt MU Reports | Mgt Reports | 1.39 |
| 3374 | Normal | RRR Image Request Worklist is still showing 'Patient Id' as a column header, which should be MRN | | 39.10 |
| 3372 | Normal | Bypass PACS correction does not release lock | | 1.40 |
| 3364 | Normal | Cancel Order Dialog + Cancel button does not release lock | Thick Client GUI | 1.40.16638 |
| 3362 | Normal | Admin - template macros work list loses filters when editing a template/macro | Thick Client GUI | 1.40 |
| 3352 | Normal | Activity WL - Clear all filters on empty wl will throw exception | Thick Client GUI | 1.40 |
| 3342 | Normal | Referring without a first name preventing study from being worked in rad/mt workflow. | Thick Client GUI | 1.40 |
| 3320 | Normal | Cast error when performing an image request from some Rad WL | Thick Client GUI | 1.40 |
| 3308 | Normal | issue on tech screen when documenting a procedure where the active_flag is N | Thick Client GUI | 1.40.16328 |
| 3305 | Normal | Image Request - Cannot choose referring physician | Thick Client GUI | 1.40 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 3249 | Normal | study item certifications are not using the user defined order item certification precert status values | | 1.40 |
| 3231 | Normal | Transcribe/Suspend button not loading defaults properly | Thick Client GUI | 1.40 |
| 3230 | Normal | Reset open skipped rows, open an addendum requested study throws an exception | Thick Client GUI | 1.40 |
| 3144 | Normal | Radiologist Dashboard - Completed Exams 7 Day trend is showing less than 7 days. | Mgt Reports | 1.40 |
| 3138 | Normal | tech can accidentally take exam out of exam done status when completing together | Thick Client GUI | 1.40.16328 |
| 3084 | Normal | Config setting default is rRIS Reports | Thick Client GUI | 1.40 |
| 3044 | Normal | Meaningful Use Close button realignment | Thick Client GUI | 1.40 |
| 3032 | Normal | Register Context menu shouldn't be available on Tentatively Signed studies. | Thick Client GUI | 1.40 |
| 3026 | Normal | Selected Attachments Tool Window | Thick Client GUI | 1.40 |
| 3022 | Normal | PersonHyperLink throws exception due to data received from HL7 | Thick Client GUI | 1.40 |
| 3008 | Normal | Poor performance on management report Front Desk Activity Report | Mgt Reports | 1.37 |
| 2989 | Normal | Attachment viewer - inverting resets zoom level | Thick Client GUI | 1.39 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 2986 | Normal | Reporting - WPR error attempting to create WPR dictation | Thick Client GUI | 1.39.001 |
| 2980 | Normal | Report nugget signed on verbiage | Thick Client GUI | 1.39 |
| 2956 | Normal | Reporting - transcribed count at the bottom of the app is not including tentatively signed studies | Thick Client GUI | 1.38 |
| 2954 | Normal | Reporting - WPR workflow suspend dictation does not show on my suspended worklist | Thick Client GUI | 1.38 |
| 2952 | Normal | Reporting - when signing a report and empty fields are present move to the first one | Thick Client GUI | 1.38 |
| 2912 | Normal | RRR - Tech able to enter IVT notes ( with no specific IVT permissions) | Thick Client GUI | 1.38.0 |
| 2688 | Normal | Voice navigation which moves the cursor/position in the document does not result in axCdsEditorCtrl1_CursorChangedEvent | Thick Client GUI | 1.39 |
| 2677 | Normal | Create Report from Reset Open skipped rows | Thick Client GUI | 1.39 |
| 2660 | Normal | Template Macro Editor - Adv Assignment - user not defaulting | Thick Client GUI | 1.39 |
| 2637 | Normal | Next field command selecting multiple fields | Thick Client GUI | 1.39 |
| 2628 | Normal | Reporting screen not drawing in, if user make worklists active | Thick Client GUI | 1.39 |
| 2544 | Normal | "Reset" function in worklists does not appear to be working | Thick Client GUI | 38.15 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 2469 | Normal | Red X and application hang in Administration UserGroupPermission | | 1.38 |
| 2426 | Normal | When scheduling (outside read, new appointment, walkin) and you enter the letter 'c' into the first name field, then press 'Patient Search' RIS throws an error. | Thick Client GUI | 38.14 |
| 1864 | Normal | BarCode font install not included in eRAD RIS Reporting Services Installation document | Thick Client GUI | 1.37 |
| 1524 | Normal | MU - Grids.. When saving auto select - Use Grid option if validation fails | | 1.2.37.12739 |
| 1248 | Normal | Reporting layout can fail to load, causing patient history to not localize correctly | Thick Client GUI | 1.35 |
| | | | | |
| 1530 | Normal | Macro editor | | 1.37 |
| 3846 | Normal | Change references to all persons (patients and doctors) to be Lastname, Firstname | | 1.40 |
| 3931 | Normal | RadNet - Ranjan - resolve "starts with" in Audit history | Thick Client GUI | 1.40 |
| 3940 | Normal | RadNet - Ranjan - fix arrow on next doc when the scanned doc is a report | Thick Client GUI | 1.40 |
| 3969 | Normal | Mammo Letters Worklist | Thick Client GUI | 40.11 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 3978 | Normal | WL Calculated columns missing in B40 | | 1.40 |
| 4016 | Normal | Performance - Turn off global animations | | 1.40 |
| 4130 | Normal | "collection was modified" or "datatable internal index is corrupted" error when opening a radiologist screen | Thick Client GUI | 1.40.18063 |
| 4408 | Normal | Inactive rooms are appearing on the Tech available rooms list | | 1.40 |
| 3870 | Normal | Reporting - Assing to Radiologist window | Thick Client GUI | 1.40.010 |
| 4098 | Low | View attachment from View/edit window | Thick Client GUI | 40.01 |
| 3680 | Low | Font size - not saving | Thick Client GUI | 1.40 |
| 3671 | Low | Weight field allows user to enter non-numerical values | Thick Client GUI | 1.40 |
| 3623 | Low | CD Import - better handle null PACS AE Title | PACS Integration | 1.40 |
| 3544 | Low | PatientContactTypeLookup should be hidden | Admin Tools | 1.40 |
| 3334 | Low | patient merge reject does not refresh merge worklist | Thick Client GUI | 1.40.16593 |
| 3322 | Low | View Edit should not be the default aciton on patient folder | | 1.40 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 3261 | Low | specialty read and referring protocol notes do not display new line characters | Thick Client GUI | 1.40.16328 |
| 3246 | Low | Date column filters AM/PM switching advances date. | Thick Client GUI | 1.40 |
| 3146 | Low | Required fields dropping there icon when leaving the control. | Thick Client GUI | 1.40 |
| 3087 | Low | Meaningful Use Dialog Close button position is off | Thick Client GUI | 1.40 |
| 2658 | Low | Stored function c_getcontrastrequiredflag could return wrong value if multiple study items exist | Web Services/DB | 1.39 |
| 2071 | Low | Window handle error from Dictate window | Thick Client GUI | 1.2.38.14194 |
| 1855 | Low | Reporting - Exam details - Procedure name my not display completely | Thick Client GUI | 1.1.2.38.13809 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 8. Known Limitations

The following are Bugs Suggested Features and Support Issues found in build 1.41. Bugs reported in previous versions are not captured as Known Limitation in this document.

| # | Status | Priority | Subject | Resolved Build |
|---|---|---|---|---|
| 4575 | New | Urgent | Critical Results - Resolving causes error when signing exams | |
| 4574 | New | High | Outside Reads - history field changed to signs and symptoms | |
| 4479 | Resolved | High | Reporting - using re-use causing confusion when getting a message box like "Addendum Requested" | 42 |
| 4411 | Resolved | High | WorkItemManager failes on reloading a addendum study after WS error | |
| 4379 | Resolved | High | All signed by date column sorts | 42 |
| 4366 | Resolved | High | Transcribe next workflow (beeps) | 42 |
| 4356 | QE Rejected | High | Critical Result - CTRN - Unknown referrers added in critical result window display as invalid | |
| 4354 | New | High | Long lookup time-to-live is causing problems | |
| 4090 | New | High | RIS/PACS desktop integration ( no default value on PACS Server type) | |
| 4577 | New | Normal | View Edit - open view edit window and save with no changes made logs entry to audit history | |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 4576 | New | Normal | Personnel - Internal person notes | |
| 4569 | New | Normal | suspend button is displayed on the bottom of the reporting screen after opening a suspended case | |
| 4567 | Resolved | Normal | Reporting - notifications need to be placed above action buttons. | 42 |
| 4566 | Resolved | Normal | Reporting Reuse - Next workflow loads cases that are pending saving. | 42 |
| 4560 | New | Normal | Some message boxes don't close when hitting X | |
| 4557 | Resolved | Normal | Read only mode hides recording button, but can still record using microphone | 42 |
| 4556 | Resolved | Normal | Read only mode not reflecting on minimized dictation controls | 42 |
| 4555 | Resolved | Normal | When opening a study in read only, user should get a prompt | 42 |
| 4551 | Resolved | Normal | Modified GoggleSearchAction to support Multiple passed in params | 42 |
| 4548 | New | Normal | CTRM - Notes field isn't read only | |
| 4547 | New | Normal | CTRM - Reopening the Critical Results window caused error | |
| 4544 | Resolved | Normal | Send-to button blanks out the reporting screen | 42 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 4543 | Resolved | Normal | RXNorm is not captured from NewCrop | 42 |
| 4542 | Resolved | Normal | Worklist refresh exception | 42 |
| 4541 | Resolved | Normal | autosave - button positions should be switched | 42 |
| 4540 | Resolved | Normal | Autosave - close should prompt to delete | 42 |
| 4539 | Resolved | Normal | Autosave - double click row does nothing | 42 |
| 4536 | Resolved | Normal | Reporting - Reuse enabled status area messages not populating for action buttons | 42 |
| 4533 | Resolved | Normal | Reporting - edit template > make changes > x to close > no prompt presented about changes | 42 |
| 4532 | Resolved | Normal | Reporting - edit template > esc > cancel will close the form instead of cancelling | 42 |
| 4527 | New | Normal | Attachments - Verbal button causing error | |
| 4525 | New | Normal | Pre-Auth required before I select my referrer | |
| 4522 | New | Normal | intermittent error: transaction was deadlocked on lock resources with another process and has been chosen as the deadlock victim | |
| 4521 | Resolved | Normal | Scanning - Editing Document width and height causing error on blanks | 42 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 4519 | New | Normal | if you get an exception while opening a recovered dictation that dictation is lost | |
| 4516 | Resolved | Normal | Reporting - MT polling enabled open RIS initially will result in messed up reporting screen | 42 |
| 4515 | New | Normal | If you get an exception while opening a dictation with floating windows the floating windows do not close when the tab closes | |
| 4512 | New | Normal | WPR workflow not working with screen reuse | |
| 4511 | New | Normal | CDA - ordered List vs unordered lists | |
| 4510 | Resolved | Normal | Reporting - editing reports MT's have the microphone selection option available | 42 |
| 4509 | New | Normal | Caching reporting screen - panels stay open after close | |
| 4508 | Resolved | Normal | Transcriptionist next workflow not properly skipping | 42 |
| 4503 | New | Normal | Perform Exam - Complete / Start can advance a study when it shouldn't | |
| 4497 | New | Normal | Deleting a table in a report leaves the tables but deletes the section header | |
| 4483 | New | Normal | Reporting - Add patient folder control to reporting window will not display history | |
| 4481 | Resolved | Normal | LogTextBox - Permission for an admin to edit previous log details isn't always available. | 42 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 4480 | Resolved | Normal | b41 Joe Testing - you can backspace in patient notes and erase the date and name | 42 |
| 4463 | New | Normal | Transparency on notifications | |
| 4457 | New | Normal | B41 Joe Testing - splitting order - wrong one gets precert | |
| 4450 | New | Normal | Auto-open worklist won't open if you cancel the chair selection prompt | |
| 4449 | New | Normal | Changes made to set up do not auto refresh appt book. Have to close and relaunch appt book. | |
| 4444 | New | Normal | Scanning - Order/Patient/Exam Level can change when re-viewing the document | |
| 4443 | Resolved | Normal | External Report Workflow - changing room/procedure resets external flag. | 42 |
| 4436 | New | Normal | Notification wording/layout | |
| 4434 | Resolved | Normal | Outside Reads do not fall into external workflow | 42 |
| 4431 | New | Normal | Forms in labels require a rule otherwise they will never be available | |
| 4429 | New | Normal | Opening report drafted study in Create/Edit Report marks study dirty on open | |
| 4426 | Resolved | Normal | Reports that should have site filter | 42 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 4423 | New | Normal | User preference need to restart application | |
| 4421 | New | Normal | Shortcut for Tables not working in report editor (CTRL + T) | |
| 4414 | Resolved | Normal | Importing multiples studies into one EMR order throws an already declared exception | |
| 4405 | New | Normal | Patient ID still appearing as columns on person merge request WL | |
| 4404 | New | Normal | Pending PACS correction WL contains Contributed A/B columns | |
| 4400 | New | Normal | EMR Patient Linking causes insurance error when printing forms. | |
| 4395 | New | Normal | Report  margins should indicate units. | |
| 4392 | New | Normal | alignments of MT screen buttons in user preferences are a little miss aligned | |
| 4389 | Resolved | Normal | Reporting - Addendum request make notes required on request and reject. | 42 |
| 4387 | QE Rejected | Normal | Reporting - auto save items not sizing appropriately in the list of files to recover | |
| 4386 | New | Normal | Report History Error | |
| 4383 | New | Normal | External Report Workflow check box looses value on open of view edit | |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 4382 | New | Normal | Opening Editing - patient name is lower case | |
| 4381 | New | Normal | Preview report issue where new changes to report config doesn't take | |
| 4378 | New | Normal | Canceling Unscheduled orders not appearing on Patient Folder | |
| 4377 | New | Normal | Procedure code picker when creating search macros/template filter issue | |
| 4374 | New | Normal | Delete Dictation/Report and Reset Status not available for exam done status with exsisting interpretation rows | |
| 4372 | New | Normal | Creating a new appointment from the patient search window causes error. | |
| 4359 | New | Normal | Ranjan - Need all dictated by date WL | |
| 4343 | New | Normal | Change password of a credential swap user while logged on, means can't swap | |
| 4341 | Resolved | Normal | QA worflow problem flag #2894 | 42 |
| 4326 | In Progress | Normal | Reporting - Multiple Pending Signature notifications raised | |
| 4322 | New | Normal | Dark Mode misses | |
| 4308 | New | Normal | Patient Folder - Selected Summary not resizing properly when dragging the pane | |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 4299 | New | Normal | Administration - MModal Document Model - error on right click preview of expanded rows | |
| 4298 | New | Normal | Reporting - Show all templates will bold a template that has no connection with current study | |
| 4274 | New | Normal | All Signed By Date WL missing context menu option for Patient Folder | |
| 4267 | Resolved | Normal | Report context menu item does not have access string | 42 |
| 4264 | New | Normal | Ris remembers it's position but not based on user login | |
| 4202 | New | Normal | Many user-id columns still in transcription worklist | |
| 4198 | New | Normal | patient folder doesn't load unless part of the initial layout on open of rad screen | |
| 4197 | Resolved | Normal | Hard to find patient first and last name in exam search | |
| 4193 | Resolved | Normal | Contact log tab - expanding the contact log to display all rows throughs error | |
| 4185 | In Progress | Normal | Login - After logging in as a Rad user the splash screen doesn't always repaint | |
| 4179 | New | Normal | Pending dictation WL showing locked items | |
| 4153 | Resolved | Normal | Sort on audio length throws error on worklist refresh | 42 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 4128 | New | Normal | Adding insurance policies on new patient | |
| 4118 | New | Normal | Reporting - TemplateMacro editor Hitting refresh can duplicate fields or inserted text | |
| 4101 | New | Normal | Birad picker, cannot select recommendation as it doesn't load. | |
| 4100 | New | Normal | Right click on reporting drop down buttons | |
| 4082 | New | Normal | Previewing unsaved addendums from the reporting screen. | |
| 4070 | New | Normal | Patient Merge - Patient history does not show orders | |
| 3949 | New | Normal | Encrypt audio files used in report recovery autosave | |
| 4435 | New | Low | Ranjan - Age format in worklist is different than in data panes - prefer data pane look | |
| 4385 | New | Low | Reception WL still refreshing while not on the screen | |
| 4358 | New | Low | Ranjan - Terminology updates | |
| 4357 | New | Low | B42 - Missing Access Strings | |
| 4324 | New | Low | Worklist Auto Open not auto opening | |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 4282 | New | Low | Template / macro - Create using filter criteria | |
| 4247 | New | Low | Open at login user preference (usability) | |
| 4163 | New | Low | Perform Exam - Cancelled studies in patient history list have buttons enabled | |
| 4028 | New | Low | Locking - not warned about stealing locks with pacs enabled | |
| 4672 | New | Normal | Auto Refresh Rate inconsistent | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# User Release Notes

for eRAD RIS
Version 1
Build 41.1

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# Table of Contents

1. Purpose ..... 3
2. Intended Audience ..... 3
3. Installing/Accessing the Application ..... 3
4. New Access Strings and Configuration Settings ..... 4
5. New Features and Enhancements ..... 5
   Reporting – Talked to Doctor Macro ..... 5
   Reporting – Open Patient Folder when Signing ..... 6
   Reporting – Add Laterality to the Patient Folder ..... 7
   Reporting – Laterality Check when Transcribing Reports ..... 8
   Reporting – Remove Content Tags from CDA when Creating Macros/Templates ..... 10
   Reporting – Ability to Configure MModal Transfer Task ..... 11
   Reporting – MT Edit Text Color ..... 12
   Double Click to Launch Attachments in Full Screen ..... 13
   Attachments "Show Me Everything" Option ..... 14
   Relevancy Calculation Adjustable via Configuration ..... 15
6. Code Stream ..... 18
7. RIS Release Version Numbers ..... 19
8. Resolved Defects ..... 22
9. Known Limitations ..... 31

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 1. Purpose

This document describes some of the new features and changes implemented in eRAD RIS as of the end of Sprint 41 and subsequent server releases. This version of eRAD RIS is referred to as Build 1.3.41.

Only features which can be visually demonstrated to the user will be outlined in this document.

# 2. Intended Audience

This document is created by the RIS Development team for the RadNet RIS management team.

# 3. Installing/Accessing the Application

The installation guide for the eRAD RIS client have been posted to the RadNet Wiki page at http://mdbal01rdtweb/Wiki/

Under the RIS menu click on the rRIS page. The credentials to access the page are:
Username: rRIS
Password: Summerside

*Please note that Build 1.41.1 is considered a new core release of the application and will require a reinstallation of eRAD RIS. This is accomplished by navigating to the eRAD RIS shared installation drive and running the CoreInstall.bat file (ex: I:\RISDeployment\CoreInstall.bat)*

If you experience difficulties accessing the application please do not hesitate to contact Darcy Noye with the PEI RIS Development Team.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 4. New Access Strings and Configuration Settings

| Setting Placeholder | Setting | Default | Purpose / Controls Access to |
|---|---|---|---|
| Ris.exe.config | **MModalDataTransferValue** | None | Override the user preference for M*Modal's Data Transfer.<br><br>See feature Reporting – Ability to Configure MModal Transfer Task in this document for more details |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 5. New Features and Enhancements

## Reporting – Talked to Doctor Macro

Radiologists often call the referring physicians office while reading cases with time sensitive findings. In these cases they contact the referrer to let them be notified and take any required actions before the report has been drafted, QAed, signed and distributed.

After contact with the referring office the radiologist add details to the report. To support such calls we have added custom fields in the Template/Macro editor to insert a "Talked to Doctor" statement in the report.

Fields added are (with examples)
**TimeStamp12** - 4:30pm
**TimeStamp24** – 16:30
**Today** - 11-20-2013
**ReferringShort** – Dr. Last
**ReferringLong** – Dr. First Last

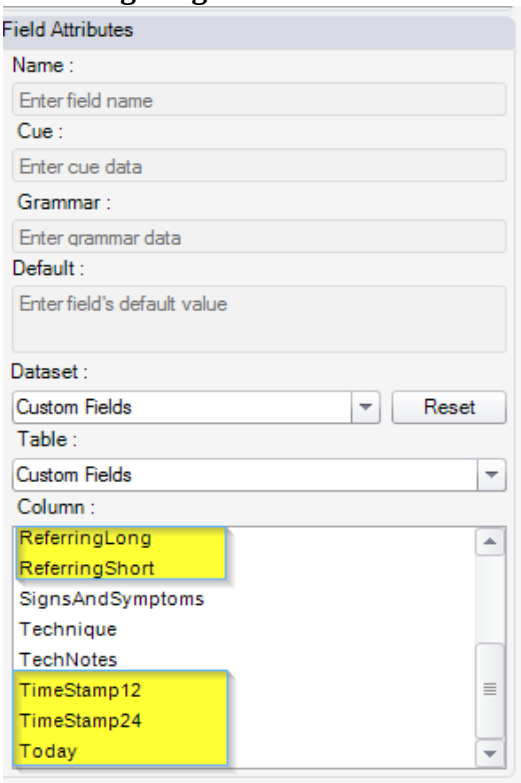



**Figure 5.1 – Custom fields added for creation of Talked to Doctor macro**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Open Patient Folder when Signing

Users currently have two main layouts. Either they are signing or dictating. Reason for this is that most signing task don't require the full patient folder detail, pacs images or dictation. So the signing layout is typically much smaller or less detailed then the dictation layout.

Users on occasion do want to display the Patient Folder and other detail similar to dictation when singing reports.

We now provide the user ability to load the dictation layout (patient folder) when signing reports. This is a manual click to load the dictating (patient folder) layout.

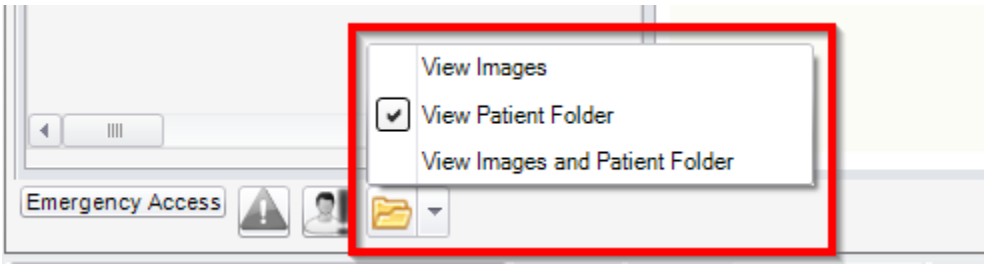



**Figure 5.2 – Signing mode layout options**

In the example above you can see that the Load Images button has been converted to be a split button with the additional options for "View Patient Folder" and "View Images and Patient Folder" with the "View Patient Folder" currently set as the default. This new dropdown button acts like other dropdown buttons for the reporting screen. Click the arrow to open other options and select option as desired. Holding the CTRL+<option> will render it the default and save in your user preferences.

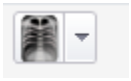
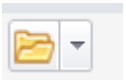
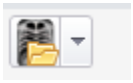
1.)  2.)  3.) 

**Figure 5.3 – Options available as default**

The three images above show the icon when set as default action for 1.) View Images 2.) View Patient Folder 3.) View Images and Patient Folder

When the Sign Report window is reloaded with the next study either from the work list or from the Submit/Sign/Suspend/Skip and Continue option the users Signing Layout will be used. What this means is that it will load the dictation layout when clicking Load Patient Folder but it won't be sticky.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Add Laterality to the Patient Folder

The patient folder within the reporting window had the laterality in the procedure description, but it was desired to have this in its own column. In 41.1this column has been added to the patient folder. The column can be filtered, sorted, removed from current view, etc… as other columns in the reporting patient folder.

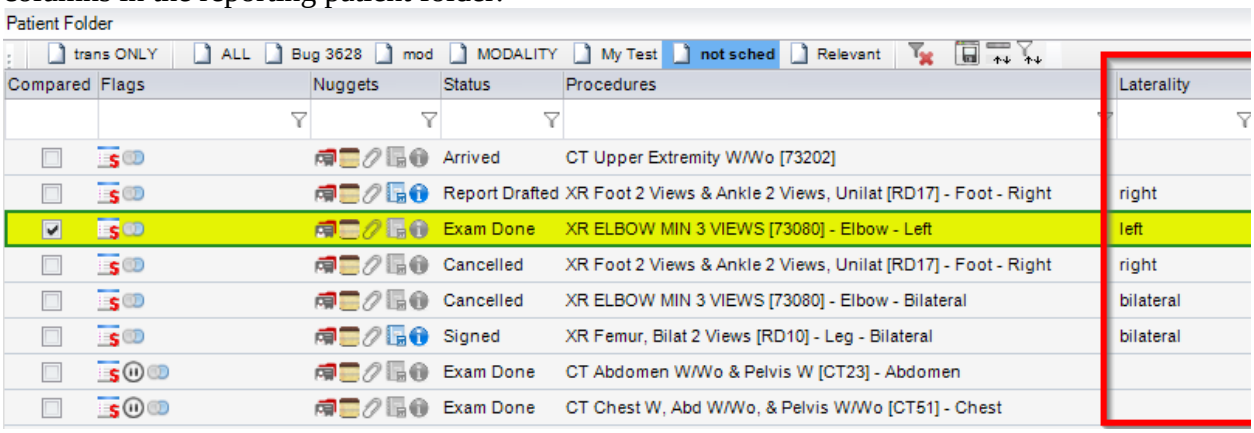



**Figure 5.4 – Reporting patient folder with new Laterality column**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Laterality Check when Transcribing Reports

In previous versions a laterality check was performed when signing and when verifying reports. In 41.1 the laterality check is performed for transcription as well as signing. Transcription users will need to have the User Preference Laterality Check selected to enable this feature.

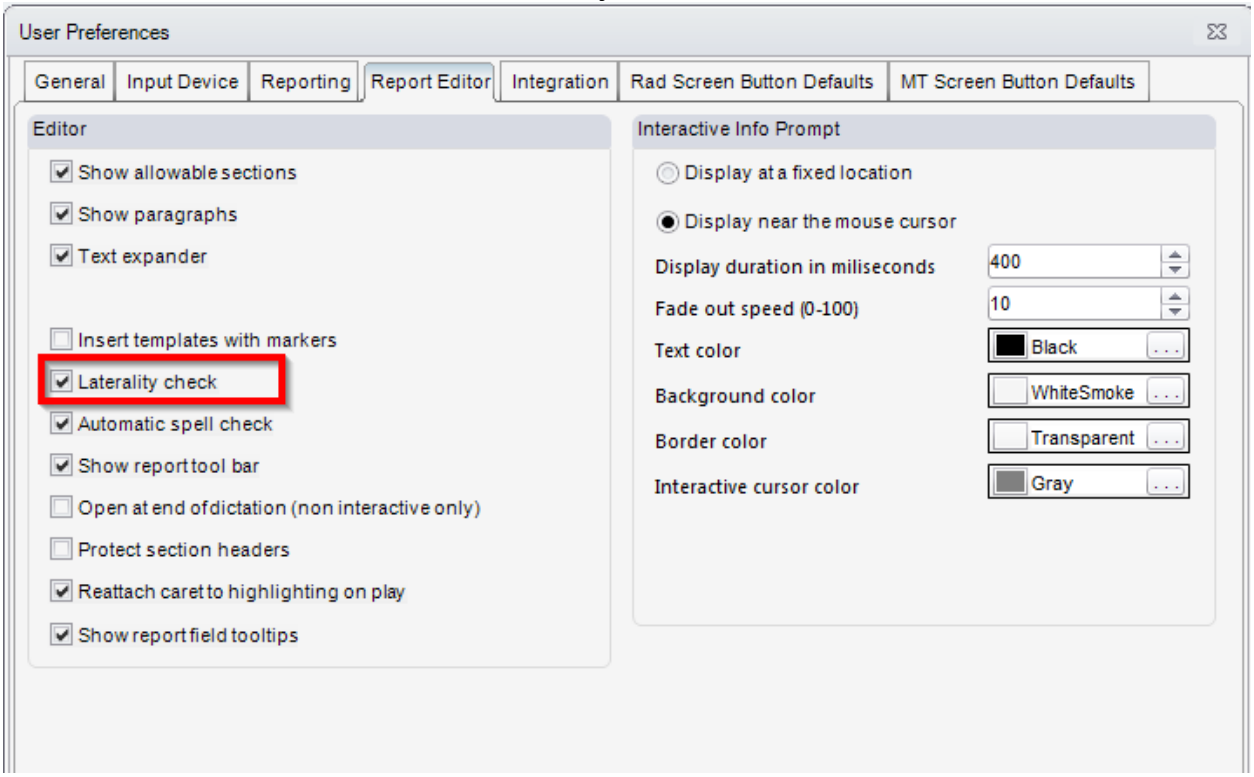



**Figure 5.5 – User Preference Laterality check**

If your procedure contains laterality and your report has a conflicting left or right the user will be informed via message on selecting the Transcribe button.

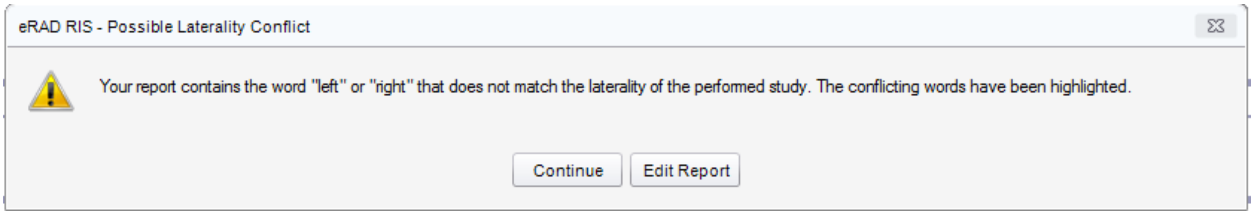



**Figure 5.6 – Laterality conflict on Transcribe message.**

Selecting Continue will ignore the conflict and complete transcription. The Edit Report button will leave the editor window open and highlight the conflicting and matching literalities.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

The report in my example was on a procedure with a left laterality in the screenshot below the conflicting laterality of "right" and matching laterality of 'left' are left highlighted in the report.

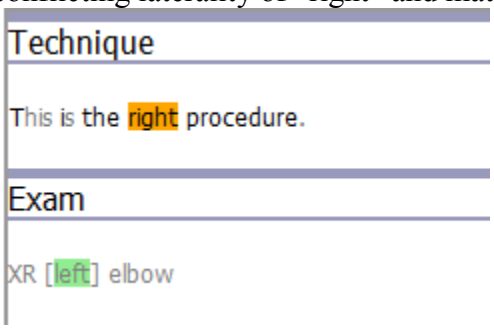



**Figure 5.7 – Conflicting and matching literalities are highlighted in report**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Remove Content Tags from CDA when Creating Macros/Templates

eRAD RIS offers the ability for a user to copy an existing report as a template for future reports. This functionality is inhibited by the fact that the new template they create contains mm:status and mm:part that should be stripped out.

As a result of the mm:status and mm:part still contained in the template, some of the jumping problems we have encountered on play back were related to time stamps being saved in templates and macros at the time of save. To correct this we found we could manually remove the time stamps from the underlying document.

We are now using the convertCdsToCda method to remove the time stamps and unneeded tags.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Ability to Configure MModal Transfer Task

The ris.exe.config now has an app setting to override the user preference for M*Modal's Data Transfer Config: **MModalDataTransferValue**

Acceptable values are any sum of the following options:

**SUBMIT_TRAINING_INFO:** Upload log of user interaction (including recorded audio) to server for profile building. Applicability: only for local recognition; ignored for remote recognition. constant value = **1**

**SUBMIT_ERROR_LOGS:** Whether to automatically submit an error report for debugging after an uncontrolled shutdown, or when encountering another non fatal error.
Applicability: all modes; requires storage manager for crash log uploads (non-fatal error reports can be submitted without). constant value = **2**

**STORE_USER_SETTINGS:** If set, store user preferences (including audio gain etc) on CDS server, and retrieve on next startup. Applicability: all modes. constant value = **4**

**UPDATE_PROFILES:** If set, checks at session creation whether an updated user profile is available on the server. If yes it is downloaded in a background thread and used as soon as it becomes available. Until then the recognizer would use either a speaker independent profile, or an older locally cached profile version (only if an IStorageManager is configured).
Applicability: local recognition; ignored for remote. constant value = **8**

**UPDATE_RECOGNIZER:** If set, check in regular intervals whether an updated compatible recognizer version is available on the server. If yes, the recognizer mode is downloaded in a background thread and used when the local recognizer is next instantiated (i.e. not switched out in a running session).
Applicability: local recognition; ignored for remote. Requires an IStorageManager, ignored if none is configured. constant value = **16**

**WRITE_DEBUG_LOG:** Like SUBMIT_TRAINING_INFO, but leaves information in a local IStorageManager for debug purposes instead of (or in addition to) uploading it to a server.
Applicability: local recognition; ignored for remote recognition constant value = **32**

If the value is not present or invalid, we resort to existing logic. This would be to check the user config for auto download, if present use 29 else 13

13 = SUBMIT_TRAINING_INFO, STORE_USER_SETTINGS, UPDATE_PROFILES
29 = SUBMIT_TRAINING_INFO, STORE_USER_SETTINGS, UPDATE_PROFILES, UPDATE_RECOGNIZER

0 (zero) is a valid option. Zero will disable the calls.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – MT Edit Text Color

MT edit text color has been set up as a user preference that is accessible in your editor preferences. Once a color is chosen it will take effect the next time the editor window is opened. (Doesn't take effect in current editor window)

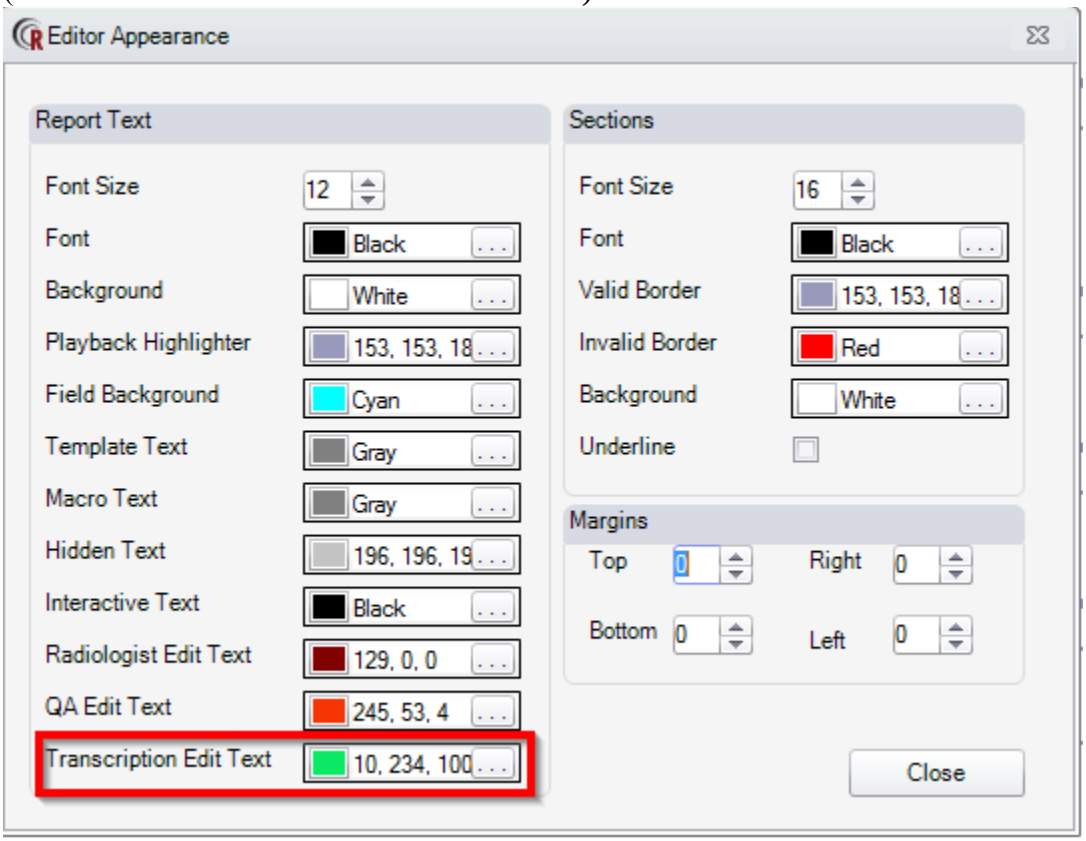



**Figure 5.8 – Transcription Edit Text color in Editor Appearance window**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Double Click to Launch Attachments in Full Screen

In the user preferences we have a setting for "Double click to maximize attachments". With this set double clicking on an attachment will maximize the tool window to the current screen. Once maximized you can double click to restore it to its previous location or in the case of a reporting floating window you can close the window with the "X" in the top right corner (when in full screen maximized mode).

If you are to save your layout with this configuration, the full screen maximized toggle will not save with the layout manager.

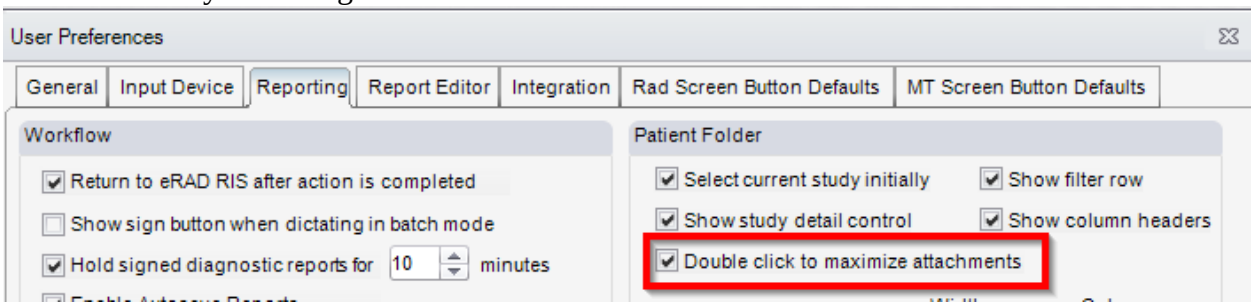



**Figure 5.9 – User preference to enable double click to maximize attachments**

In addition to the double click to maximize the user can also use the button in the upper left of the Attachments or Selected Attachments data pane to open in full screen.

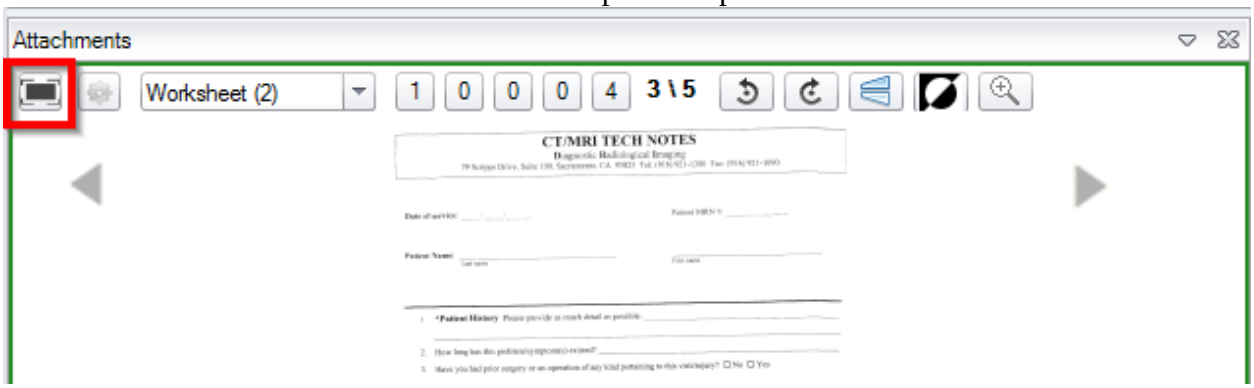



**Figure 5.10 – Button on Attachments data pane to launch in full screen.**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Attachments "Show Me Everything" Option

The attachment types dropdown can be configured to display only those attachments they want to see appear in the Attachments data pane or data nugget. We have added an option to enable the users to have access to the remaining attachments that may be associated with the patient.

Two new options will appear in the attachment types dropdown
+ Show More
- Show Less

By default the attachment data nugget opens with only the scan document types the user wants to see, which is configurable via the ' button'. By choosing "+ Show More" the attachment data nugget will reopen and display all attachment types regardless of user preference.

These options will not display if there are no additional attachments.

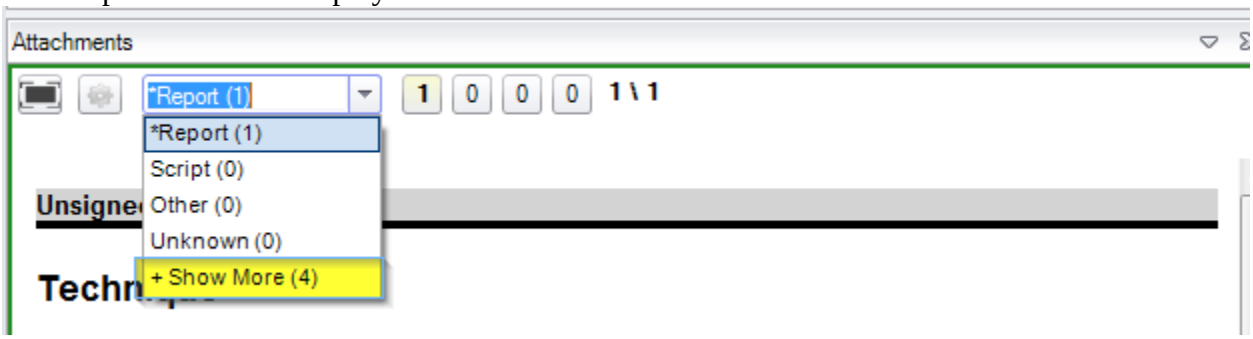



**Figure 5.11 – Show more attachments**

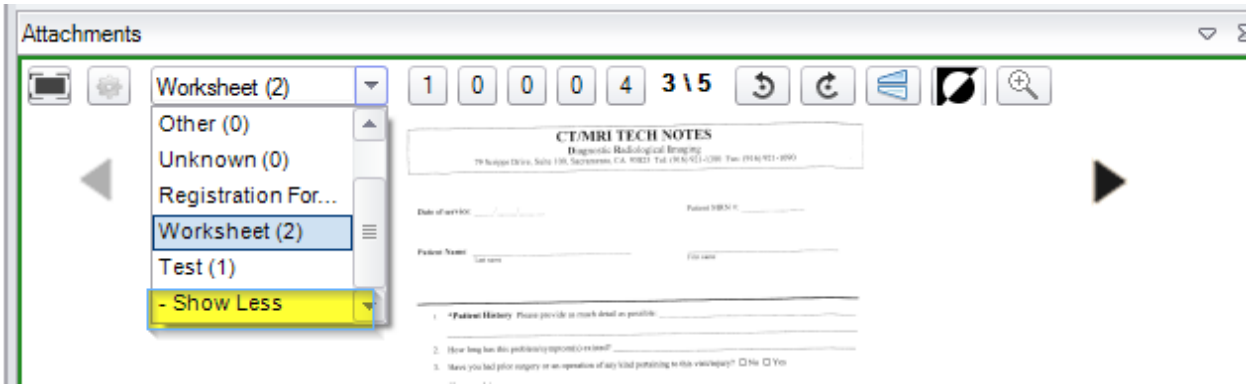



**Figure 5.12 – Show less attachment options.**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Relevancy Calculation Adjustable via Configuration

In production we have procedure codes that because of legacy data have very different names even on different modality types, but those procedures are actually exactly the same and should match exactly when assigned a relevancy score. Previous to B42 this was not possible because the relevance calculation was based entirely on word matching. A score was assigned based on the number of matching words and words that are modality type, body part or laterality are given great weight in the matching. Furthermore the administrator can setup the site so that only studies done on the same modality are considered relevant.

A new window titled Relevance Override has been added and is accessed from the "Override…" button on the Relevance lookup table.

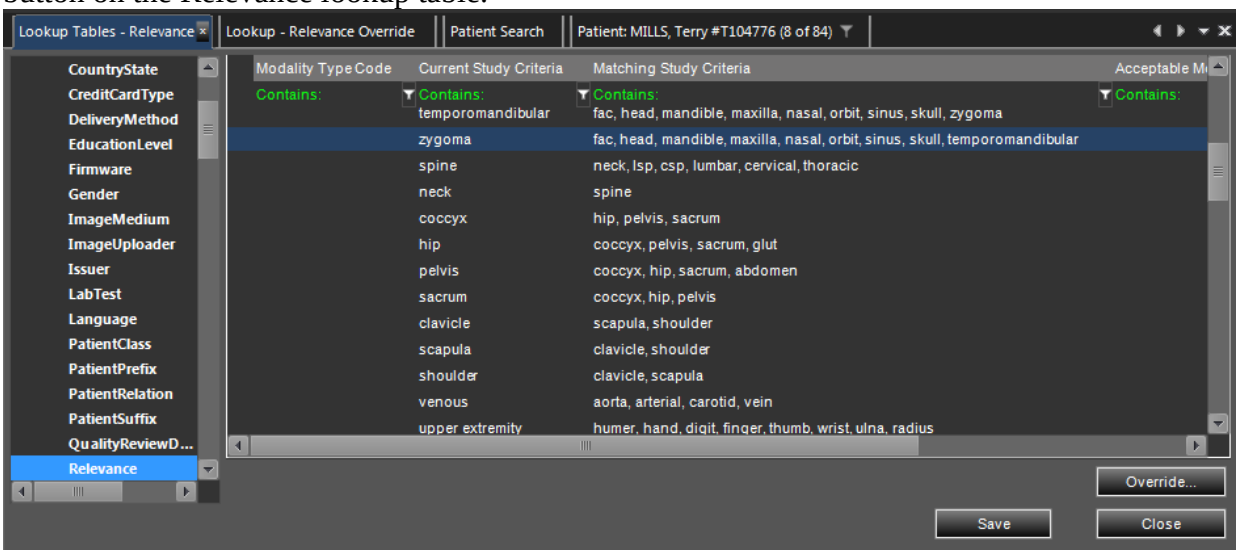



**Figure 5.13 – Accessing the Relevancy Override window**

When procedures in the patient's history have a matching relevancy override the configuration defines how much weight will be assigned as part of the procedure matching score (value between 0 and 100) and if the outcome will produce a Matching or Non-Matching Relevance Flag.

This solution also allows laterality to be an option part of the matching criteria. If the laterality is blank then it isn't considered as part of the matching criteria; however, if laterality is selected as "Same" then the rule only applies if the laterality of both procedures is identical. If the laterality is selected as "Different" then the rule only applies when the laterality differs and can be used to lower the score or make it Not Relevant, which could be useful when you want to give a high score when the laterality matches but a significantly lower score when the laterality is different.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

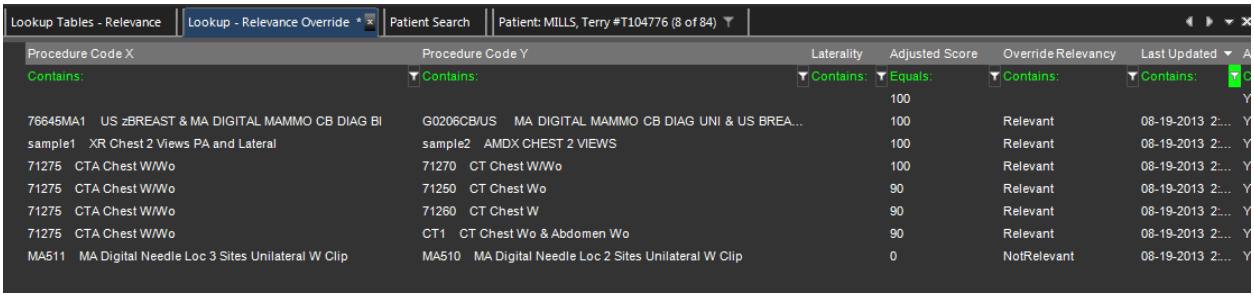
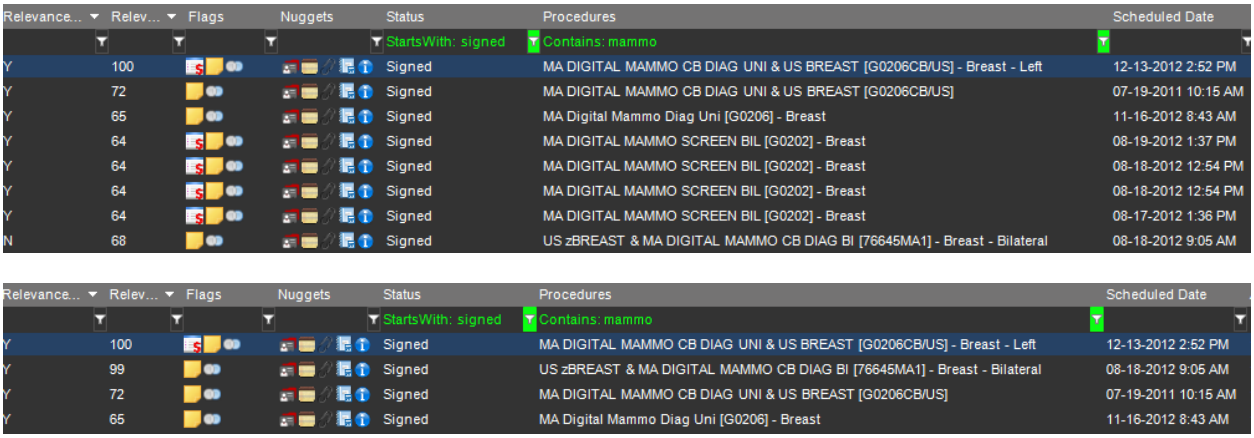



**Figure 5.14 – Relevance Override**

When the user clicks on the "Override…" button a tab opens up for the "Relevance Override" table, which allows you to specify two procedures (X and Y). When calculating relevancy if the studies match based on X and Y then the adjusted score will be applied and the relevancy flag will be set based on the selected value in the "Override Relevancy" column.

Note: The "Adjusted Score" and "Override Relevancy" columns are optional. If the "Adjusted Score" is blank then the score will remain as it was calculated without the override but the relevancy flag override would apply. Also, if the "Override Relevancy" column is blank only the score will be adjusted.

In the above Relevance Override configuration the procedures 76645MA1 and G0206CB/US are interesting. One is a US Breast & MA MAMMO CB and the other is a MA Mammo CB and US Breast. The default word matching produces a relevance score that is very close but not exact therefore some installations of RIS will want to correct for this. The following screen shots shows the relevancy results for a test patient's history – the first screen is with the override rule inactive and in the second screen shot the rule has been activated.



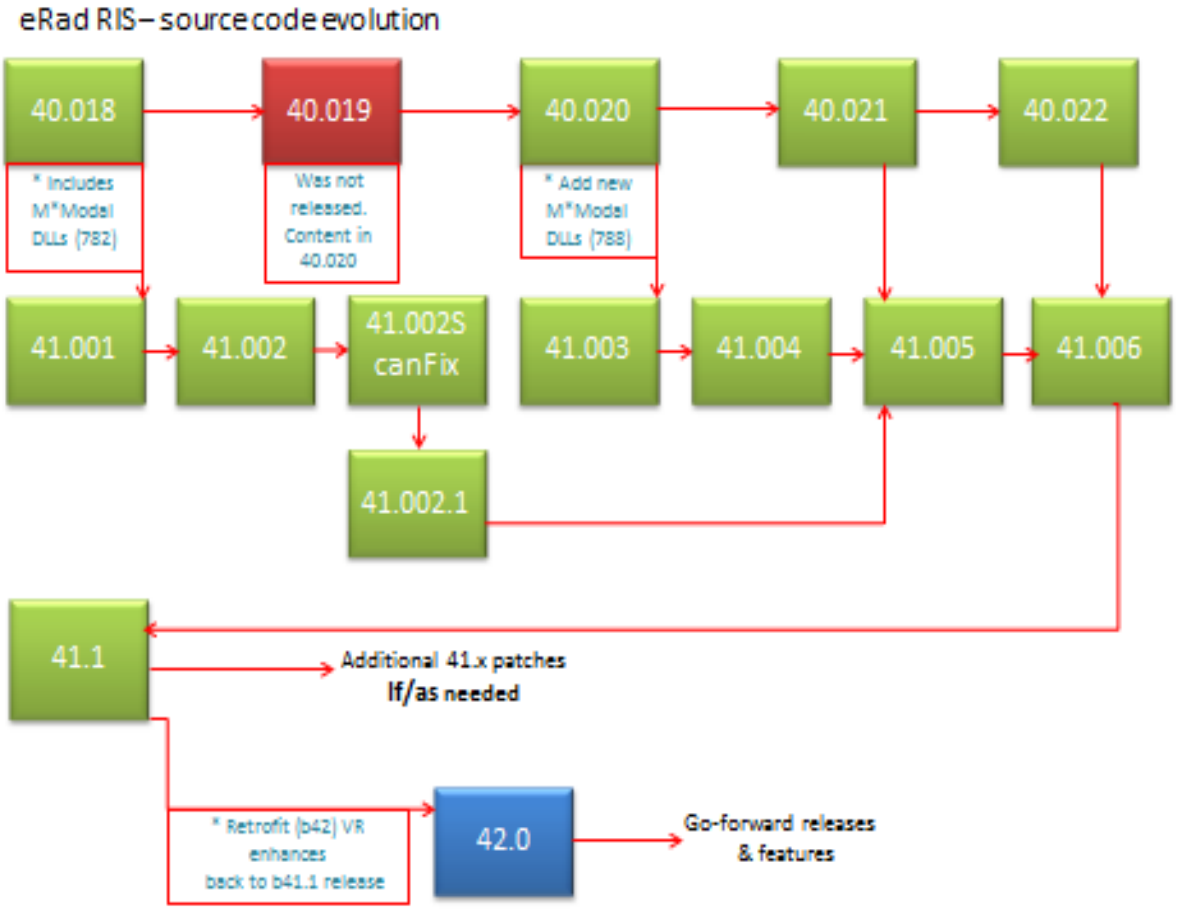

**Figure(s) 5.15 – Before and After Override applied**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

Note: that in the first screen shot without the Relevance Override, the 76645MA1 doesn't even show up as relevant because in the base relevancy rules there is a rule that says only MA modality type studies are relevant to MA studies. In the second screen shot the rule for 76645MA1 and G0206CB/US says the procedure matching will get a score of 100% but since the procedure matching only accounts for half of the total score (the other half is used to sort by date), therefore we see the score increase from 68 to 72 and 76645MA1 actually gets placed before the older G0206CB/US study because it's a recent prior.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 6. Code Stream




**Legend:**

**Green = Released software**

**Red = Will not be released**

**Blue = Future release**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 7. RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 37 | - | 1.2.37.12843 | 1.2.37.12782 | 1.2.37.12843 | 1.2.37.12843 | Full version release. **Core install required.** |
| 37 | 1 | 1.2.37.13040 | 1.2.37.13040 | 1.2.37.13039 | 1.2.37.13003 | **Core install required**. GUI.zip, web service and database updates |
| 37 | 2 | 1.2.37.13069 | 1.2.37.13040 | 1.2.37.13069 | 1.2.37.13003 | GUI.zip and Web service updates |
| 37 | 3 | 1.2.37.13069 | 1.2.37.13040 | 1.2.37.13069 | 1.2.37.13003 | Just WebAPI updated, no version changes. . Web service updates |
| 37 | 4 | 1.2.37.13171 | 1.2.37.13040 | 1.2.37.13165 | 1.2.37.13171 | GUI.zip, web service, and database updates |
| 37 | 5 | 1.2.37.13347 | 1.2.37.13040 | 1.2.37.12979 | 1.2.37.12979 | Bug was discovered with version numbers, this is why it appears we went backwards in the version number but we really did not. |
| 37 | 6 | 1.2.37.13665 | 1.2.37.13040 | 1.2.37.13580 | 1.2.37.12979 | GUI.zip and Web service updates |
| 37 | 7 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13799 | 1.2.37.13807 | GUI.zip and Web service updates. Also MIRTH mapping changes |
| 37 | 8 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13827 | 1.2.37.13807 | Web service update |
| 37 | 9 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13839 | 1.2.37.13807 | Web service update |
| 37 | 10 | 1.2.37.13895 | 1.2.37.13040 | 1.2.37.13895 | 1.2.37.13895 | GUI.zip, Web service and database updates |
| 37 | 11 | 1.2.37.14161 | 1.2.37.13040 | 1.2.37.14161 | 1.2.37.14161 | GUI.zip, Web service, database updates and SQL Management reporting |
| 37 | 12 | 1.2.37.14267 | 1.2.37.13040 | 1.2.37.14161 | 1.2.37.14267 | GUI.zip, Web service and database updates |
| 37 | 13 | 1.2.37.14326 | 1.2.37.13040 | 1.2.37.14326 | 1.2.37.14326 | GUI.zip, Web service and database updates |
| 38 | - | 1.2.38.14486 | 1.2.38.14486 | 1.2.38.14486 | 1.2.38.14486 | Full version release. **Core install required.** |
| 38 | 1 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | **Core install required** |
| 38 | 2 | 1.2.38.15182 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | GUI.zip update only |
| 38 | 3 | 1.2.38.15251 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | GUI.zip update only |
| 38 | 4 | 1.2.38.15327 | 1.2.38.14748 | 1.2.38.15290 | 1.2.38.14748 | GUI.zip and Web service updates |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | | | |
|---|---|---|---|---|---|---|
| 38 | 5 | 1.2.38.15513 | 1.2.38.15513 | 1.2.38.15513 | 1.2.38.15451 | **Core install required**. GUI.zip, Web service and database updates. |
| 38 | 6 | 1.2.38.15618 | 1.2.38.15513 | 1.2.38.15513 | 1.2.38.15618 | GUI.zip and database updates |
| 38 | 7 | 1.2.38.15768 | 1.2.38.15513 | 1.2.38.15768 | 1.2.38.15618 | GUI.zip and Web Service updates |
| 39 | - | 1.3.39.15389 | 1.3.39.15389 | 1.3.39.15377 | 1.3.39.15355 | Full version release. **Core install required.** |
| 39 | 1 | 1.3.39.16026 | 1.3.39.15943 | 1.3.39.15943 | 1.3.39.15957 | **Core install required.** GUI.zip, Web service and database updates |
| 40 | - | 1.3.40.16659 | 1.3.40.16659 | 1.3.40.16659 | 1.3.40.16659 | **Core install required**. Full version release |
| 40 | 1 | 1.3.40.16849 | 1.3.40.16659 | 1.3.40.16744 | 1.3.40.16727 | GUI.zip, Web service, database updates and SQL Management reporting |
| 40 | 2 | 1.3.40.16868 | 1.3.40.16659 | 1.3.40.16868 | 1.3.40.16727 | GUI.zip and Web Service |
| 40 | 3 | 1.3.40.16868 | 1.3.40.16659 | 1.3.40.16868 | 1.3.40.16727 | DB updated only |
| 40 | 4 | 1.3.40.16967 | 1.3.40.16659 | 1.3.40.16932 | 1.3.40.16961 | GUI.zip, Web service, database updates |
| 40 | 5 | 1.3.40.17087 | 1.3.40.16659 | 1.3.40.17069 | 1.3.40.17087 | GUI.zip, Web service, database updates |
| 40 | 6 | 1.3.40.17146 | 1.3.40.16659 | 1.3.40.17146 | 1.3.40.17146 | GUI.zip, Web service, database updates |
| 40 | 7 | 1.3.40.17268 | 1.3.40.16659 | 1.3.40.17268 | 1.3.40.17259 | GUI.zip, Web service, database updates |
| 40 | 8 | 1.3.40.17364 | 1.3.40.16659 | 1.3.40.17362 | 1.3.40.17343 | GUI.zip, Web service, database updates |
| 40 | 9 | 1.3.40.17370 | 1.3.40.16659 | 1.3.40.17370 | 1.3.40.17370 | GUI.zip, Web service, database updates |
| 40 | 10 | 1.3.40.17435 | 1.3.40.16659 | 1.3.40.17435 | 1.3.40.17370 | **64 BIT web service**. GUI.zip, Webservice. |
| 40 | 11 | 1.3.40.17435 | 1.3.40.16659 | 1.3.40.17525 | 1.3.40.17370 | Web service update |
| 40 | 12 | 1.3.40.17685 | 1.3.40.16659 | 1.3.40.17685 | 1.3.40.17648 | GUI.zip, Web service, database updates |
| 40 | 13 | 1.3.40.17776 | 1.3.40.16659 | 1.3.40.17776 | 1.3.40.17648 | GUI.zip, Web service |
| 40 | 14 | 1.3.40.18063(3GB) | 1.3.40.16659 | 1.3.40.18063 | 1.3.40.18063 | GUI.zip, Web service, database updates |
| 40 | 14.1 | 1.3.40.18063(3GB) | 1.3.40.16659 | 1.3.40.18107 | 1.3.40.18063 | Web service |
| 40 | 15 | 1.3.40.18127(3GB) | 1.3.40.16659 | 1.3.40.18127 | 1.3.40.18127 | GUI.zip, Web service, database updates |
| 40 | 16 | 1.1.3.40.18585 (3GB) | 1.3.40.16659 | 1.3.40.18585 | 1.3.40.18646 | GUI.zip, Web service, database updates |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | | | |
|---|---|---|---|---|---|---|
| 40 | 16.1 | 1.3.40.18705 (3GB) | 1.3.40.16659 | 1.3.40.18585 | 1.3.40.18646 | GUI.zip |
| 40 | 17 | 1.3.40.18780 (3GB) | 1.3.40.18756 | 1.3.40.18756 | 1.3.40.18646 | Core install required for Radiologist User Group. GUI.zip, Core setup, and Web Service updates |
| 40 | 18 | 1.3.40.19253(3GB) | 1.3.40.18756 | 1.3.40.18756 | 1.3.40.19253 | GUI.zip, Web Service and database updates |
| 40 | 19 | 1.3.40.19909(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | GUI.zip, Web Service, Recognizer files. **NOT RELEASED** |
| 40 | 20 | 1.3.40.20086(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | Gui.zip and Recognizer |
| 40 | 21 | 1.3.40.20703(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | Gui.zip |
| 40 | 22 | 1.3.40.20898(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | Gui.zip |
| 41 | - | 1.3.41.19135(3GB) | 1.3.41.19135 | 1.3.41.19135 | 1.3.41.19135 | Full version release |
| 41 | 1 | 1.3.41.19356(3GB) | 1.3.41.19135 | 1.3.41.19346 | 1.3.41.19346 | GUI.zip, Web Service and database updates |
| 41 | 2 | 1.3.41.19620(3GB) | 1.3.41.19135 | 1.3.41.19620 | 1.3.41.19346 | GUI.zip and Web Service |
| 41 | 2sf | 1.3.41.19620SF(3G) | 1.3.41.19135 | 1.3.41.19620 | 1.3.41.19346 | GUI.zip |
| 41 | 2.1 | 1.3.41.20622(3GB) | 1.3.41.19135 | 1.3.41.20617 | 1.3.41.19346 | GUI.zip and Web Service |
| 41 | 3 | 1.3.41.20171(3GB) | 1.3.41.19135 | 1.3.41.20171 | 1.3.41.19346 | GUI.zip , Web Service and Recognizer |
| 41 | 4 | 1.3.41.20285(3GB) | 1.3.41.19135 | 1.3.41.20171 | 1.3.41.19346 | GUI.zip |
| 41 | 5 | 1.3.41.20809(3GB) | 1.3.41.20708 | 1.3.41.20792 | 1.3.41.20738 | GUI.zip, Core install, Web Service and database updates |
| 41 | 6 | 1.3.41.20912(3GB) | 1.3.41.20708 | 1.3.41.20792 | 1.3.41.20738 | GUI.zip |
| 41.1 | - | 1.3.41.20918(3GB) | 1.3.41.20791 | 1.3.41.20918 | 1.3.41.20739 | GUI.zip, Core install, Web Service and DB updates, Help files |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 8. Resolved Defects

Bugs Suggested Features and Support Issues resolved in build 1.41.1. The extract is taken from Redmine bug tracking system and only displays defects resolved in 1.41.1

| Bug # | Priority | Subject | Category | Found Version |
|---|---|---|---|---|
| 5311 | Immediate | Insert macro can reset a field back to its default value | Radiology Reporting | 1.42 |
| 5164 | Immediate | Losing default value for fields when saving template/macro | Radiology Reporting | 40.02 |
| 5585 | Urgent | Maximize Attachments - does not close on deactivation of the reporting screen. | | 1.42 |
| 5550 | Urgent | DD: Printer rules do not take effect appropriately for outside read sites | Document Distribution | 1.41.002 |
| 5337 | Urgent | Reporting - Dictionary Add / Train changes | Radiology Reporting | 1.40.20 |
| 5571 | High | MERGE - Reporting - Transcription user error on first study opened in create report window | Radiology Reporting | 40.02 |
| 5542 | High | Null reference error when opening appointment book -- "LoadCascadingComboBoxes" | Thick Client GUI | 1.41.002.1 |
| 5437 | High | Reporting - possible wrong document model loading if more than one practice | Radiology Reporting | 1.40.20 |
| 5418 | High | Print Report - Timeout exception handling needed | | 1.42 |
| 5386 | High | Patient Folder work list relevancy error | Thick Client GUI | 1.41.1 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 5382 | High | RRR - Offering times that are not available for NucMed procedure plans | Thick Client GUI | 1.41.002 |
| 5381 | High | RRR - Procedure Plan Time Duration not correct | Thick Client GUI | 1.41.002 |
| 5375 | High | Exception when opening a locked studies for dictation and cancelling on the break lock message | Radiology Reporting | 41.10 |
| 5374 | High | Canceling Unscheduled orders not appearing on Patient Folder | Thick Client GUI | 1.41.18633 |
| 5328 | High | multi type ahead (procedure picker) control cuts off portion of text | | 1.38 |
| 5261 | High | RIS does not retrieve lookup tables / configuration changes under certain circumstances | Thin Client GUI | 1.40 |
| 5260 | High | Skip and Continue only loads images every other study | PACS Integration | 1.41.1 |
| 5243 | High | The client app config contains LookupTableTimeToLiveInMinutes=400 | Thick Client GUI | 1.41 |
| 5197 | High | Wedge processing notes ex. Visit Notes - overwrites existing notes. (MSK) | HL7 | 41.00 |
| 5187 | High | B41.002 Scanning errors (RRR) | | 41.00 |
| 5176 | High | Signs and Symptoms coming up required when setting is set to False (RRR) | Thick Client GUI | 41.00 |
| 5120 | High | Template / macro - create template from... doesn't retain custom fields | | 1.42 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 5118 | High | Concurrency violation on save for byte [] results in second save's data being rejected. | Web Services/DB | 1.42 |
| 5107 | High | patient folder doesn't load unless part of the initial layout on open of rad screen | Thick Client GUI | 1.41 |
| 5094 | High | Next workflow broken when using multiple tabs of different types | Radiology Reporting | 1.41 |
| 5089 | High | Able to sign a report when the field(s) in a template does not have a value. | Thick Client GUI | 1.41 |
| 5088 | High | Infinite loop when validating empty [] | Radiology Reporting | 1.42 |
| 5063 | High | Reporting - using re-use causing confusion when getting a message box like "Addendum Requested" | Radiology Reporting | 1.41 |
| 5060 | High | Transcribe next workflow (beeps) | Radiology Reporting | 1.41 |
| 5054 | High | Reporting Screens fail to load if unable to find a good description for the current procedure code | Thick Client GUI | 1.40 |
| 4983 | High | Search for appointment returns slot that should not be available due to room closure | | 1.40 |
| 5582 | Normal | Spell check on the fly no longer turned on. Squigly lines are not shown under misspelled words | Radiology Reporting | 1.40.21 |
| 5568 | Normal | Transcription users will get null exceptions when trying to activate ReportTemplateEditor | Radiology Reporting | 1.41.005 |
| 5533 | Normal | null reference in appointment book while painting in the appointments stack trace indicates SetStatusFill | Thick Client GUI | 1.40 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 5520 | Normal | timing issue can cause null reference error loading registration | Thick Client GUI | 1.41.002.1 |
| 5499 | Normal | duplicate "void" payment for the same payment | Thick Client GUI | 1.40 |
| 5491 | Normal | Birad picker either shows on non Birads studies or doesn't show on birad studies. | Radiology Reporting | 41.00 |
| 5489 | Normal | Procedure code assignment screen in template editor keeps button disabled | Radiology Reporting | 1.41.002 |
| 5473 | Normal | Reporting - Attachments data pane default is report | Radiology Reporting | 1.41 |
| 5442 | Normal | Reporting - rad edit text default color is yellow - should be "#810000" | Radiology Reporting | 1.40.20 |
| 5433 | Normal | Reporting - dictating negative 5 percent will render the word percent not the symbol | Radiology Reporting | 1.40.20 |
| 5370 | Normal | Error scheduling exam: "A follow up order already exists for this exam" | Web Services/DB | 1.41.003 |
| 5331 | Normal | Reporting - no wait navigate fails when dictating and then clicking next field > 1 time without pausing | Radiology Reporting | 1.40.019 |
| 5325 | Normal | Send Report -> Delivery Method "Print" does not default to the most appropriate printer | Thick Client GUI | 1.41.003 |
| 5316 | Normal | Reporting - Laterality check causing duplicate words | Radiology Reporting | 1.40.020 |
| 5270 | Normal | Reporting - Automatic spell check "on the fly" marks words as misspelled that are at the beginning of a field | Radiology Reporting | 1.40.020 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 5264 | Normal | MERGE - Report History Window | Thick Client GUI | 1.40 |
| 5263 | Normal | MERGE - Report History Error | Thick Client GUI | 1.41 |
| 5247 | Normal | Constraint error when trying to printing forms on a study that has been dictated | Thick Client GUI | 1.41 |
| 5228 | Normal | error on save: Invalid column name 'inverted_face' | Thick Client GUI | 1.41 |
| 5226 | Normal | object reference error after locking failure | Thick Client GUI | 1.41 |
| 5168 | Normal | Aggressive field cue navigation fails after editing a cue on a template. | Radiology Reporting | 1.40.019 |
| 5154 | Normal | Prompt when creating templates if the word colon is in a cue | | 1.40.019 |
| 5135 | Normal | Worklist refresh exception | | 1.41 |
| 5134 | Normal | Reporting - Reuse enabled status area messages not populating for action buttons | Radiology Reporting | 1.41 |
| 5133 | Normal | Reporting - MT polling enabled open RIS initially will result in messed up reporting screen | Radiology Reporting | 1.41 |
| 5132 | Normal | Attachments - wide documents that a small height cause an out of memory exception | | 1.40 |
| 5131 | Normal | Memory leak fixes discovered in B40 | | 1.40 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 5129 | Normal | Reporting buttons, when disabled, has a wider seperator. | Thick Client GUI | 1.40 |
| 5125 | Normal | Reporting screen not drawing in, if user make worklists active | Thick Client GUI | 1.39 |
| 5124 | Normal | Interactive "New paragraph" with protected sections headers | Radiology Reporting | 1.42 |
| 5123 | Normal | Ris hangs... For a long time in template editor. | Radiology Reporting | 1.41 |
| 5122 | Normal | Row-level caching - Error trying to save template | Radiology Reporting | 1.42 |
| 5117 | Normal | Reporting Reuse - Next workflow loads cases that are pending saving. | Thick Client GUI | 1.41 |
| 5115 | Normal | Reporting - template/macro editor cue text box too small | Radiology Reporting | 1.41 |
| 5111 | Normal | QA worflow problem flag #2894 | Radiology Reporting | 1.41 |
| 5108 | Normal | First chance exception when getting field description in report template editor. | Radiology Reporting | 1.40 |
| 5097 | Normal | xKeys integration - next and prev field doesnt spawn radiologist pop up text | | 1.42 |
| 5093 | Normal | Reporting - performance - require two raddocks to support signing and dictating | Radiology Reporting | 1.41 |
| 5092 | Normal | Reporting - reuse enabled and open a screen for signing, skip next will not populate the tab text | Radiology Reporting | 1.41 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 5090 | Normal | Reporting - reuse when skipping reports and there are change we don't get a prompt to save changes | Radiology Reporting | 1.41 |
| 5087 | Normal | Reporting - reuse selected report tool window keeping previous data | Radiology Reporting | 1.41 |
| 5085 | Normal | Reporting - SetAccountRules not called when opening an exam for the default template | Radiology Reporting | 1.41 |
| 5084 | Normal | Report fields control showing as a blank canvas | Radiology Reporting | 1.41 |
| 5082 | Normal | Dictating previous field moves two fields back instead of one. | Radiology Reporting | 1.41 |
| 5081 | Normal | Interactive fast forward light up play and fast forward | Radiology Reporting | 1.41 |
| 5080 | Normal | Audio control allows rewinding and fastforwarding to show at the same time as active. | Radiology Reporting | 1.41 |
| 5079 | Normal | RCW error closing reporting window | Radiology Reporting | 1.41 |
| 5078 | Normal | Recording rewinding in interactive mode falls into a playback/rewind loop. | Radiology Reporting | 1.41 |
| 5077 | Normal | Recording interactive and rewinding | Radiology Reporting | 1.41 |
| 5076 | Normal | Audio starts playing when recording | Radiology Reporting | 1.41 |
| 5075 | Normal | Switching from record to play in batch mode | Radiology Reporting | 1.41 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 5074 | Normal | Interactive record + playback at same time | Radiology Reporting | 1.41 |
| 5071 | Normal | Reporting - notifications need to be placed above action buttons. | | 1.41 |
| 5070 | Normal | Template editor, inserting a field into a section header throws an error. | Radiology Reporting | 1.40 |
| 5069 | Normal | Send-to button blanks out the reporting screen | Radiology Reporting | 1.41 |
| 5066 | Normal | Transcriptionist next workflow not properly skipping | Radiology Reporting | 1.41 |
| 5065 | Normal | Protect section headers does not protect against macro insertions | Radiology Reporting | 1.40.017 |
| 5064 | Normal | Reporting - Add patient folder control to reporting window will not display history | Thick Client GUI | 1.41 |
| 5059 | Normal | Reporting - next field navigating two fields when cursor immediately to the left of field | Radiology Reporting | 1.40 |
| 5056 | Normal | Known Limitation - Side by side registration broken from 40.016 - 40.017 | Thick Client GUI | 40.02 |
| 5055 | Normal | Reporting - reuse only - macros are not getting reset and old command are staying around on next workflow | Radiology Reporting | 1.41 |
| 3804 | Normal | Double click on patient folder header (Fisher site visit) | Thick Client GUI | 40.01 |
| 3800 | Normal | Pacs IW shortcut for measurement inserts "m" into our report. (Fisher site visit) | Thick Client GUI | 40.01 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 3774 | Normal | Dictating "Item one" in a field will hang the application (Fisher site visit) | Thick Client GUI | 40.01 |
| 5058 | Low | Template / macro - Create using filter criteria | Radiology Reporting | 1.41 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 9. Known Limitations

The following are Bugs Suggested Features and Support Issues found in build 1.41.1. Bugs reported in previous versions are not captured as Known Limitation in this document.

| # | Status | Priority | Subject | Resolved Build |
|---|---|---|---|---|
| 5601 | New | High | When opening an exam from All Suspended WL to sign the report, get an Error | |
| 5416 | New | High | Reporting - Switching between record / playback and playback / record has mixed results | |
| 5387 | MModal support | High | Reporting - Field is removed if SpellCheck finds error in default text | |
| 5660 | New | Normal | Reporting - Edited text selected does not highlight the same | |
| 5606 | New | Normal | When you do an import, in the Attached documents window, in the top left, the types of documents don't include types that are order level. | |
| 5403 | New | Normal | Reporting - cannot delete default text from a field in template macro editor | |
| 5401 | New | Normal | Cannot re-dock patient folder window because of exception on title bar right-click | |
| 5385 | New | Normal | Reporting - Selected summary and attachments are not initially populating | |
| 5368 | New | Normal | Reporting - Changing template in reporting window can rearrange sections | |
| 5365 | New | Normal | Reporting - Auto macro will be inserted multiple times when the same template is selected for use | |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 5358 | New | Normal | Reporting - dictated text in a field. Some text is highlighted and some is not. | |
| 5357 | New | Normal | MU- Patient Lists MU1, lists medications that were added then deleted in NewCrop | |
| 5350 | New | Normal | Reporting - Attachment viewer does not go back into place on double click of title bar | |
| 5330 | New | Normal | Reporting / Scanning - Viewing attachments in Attachments data pane rotate image twice and received error. | |
| 5320 | New | Normal | Reporting - Attachment viewer in reporting window - double click to open the report will change to the next scan doc. | |
| 5275 | New | Normal | Reporting - Adding empty space to field will allow user to sign | |
| 5274 | New | Normal | PACS - when viewing an image in patient folder, when you try and view the same image twice image is not displayed | |
| 4418 | New | Normal | Security token error on login ( after latest build update) | |
| 5546 | New | Low | Dark Theme - behavior inconsistent if color setting are not saved in Dictation window. | |
| 5482 | New | Low | Open on Login has duplicate WL in list | |
| 5334 | New | Low | Attachment data nugget doesn't auto select "+Show More" scan doc when selected | |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# Server Update

For eRAD RIS
Version 1.0
Build 41
Update 41.1.001

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Defects Resolved ..... 3
2. Code Stream ..... 4
3. Package Contents ..... 5
4. Intended Audience ..... 5
5. Who is affected ..... 5
6. eRAD RIS Release Version Numbers ..... 6
7. Installing ..... 7

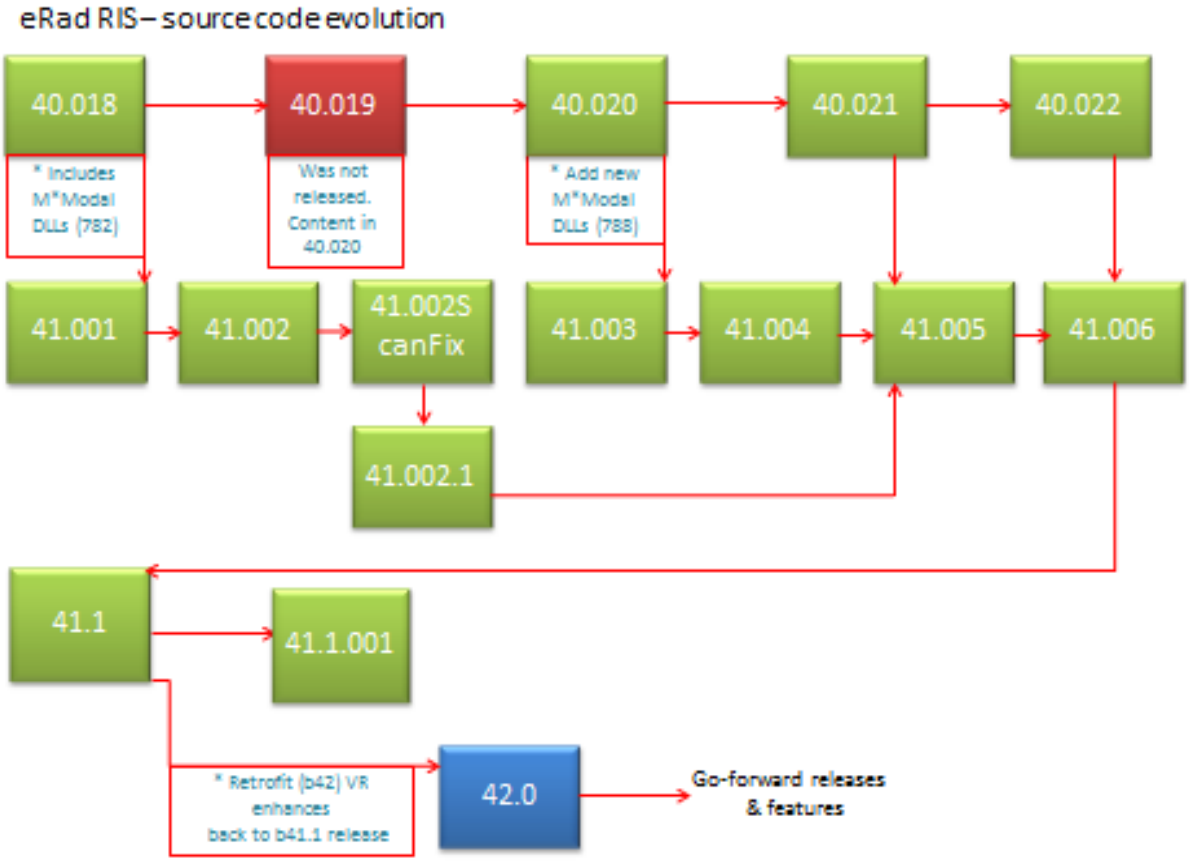
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 1. Defects Resolved

| Redmine # | Subject | Priority |
|---|---|---|
| 5781 | Signed Pending signature items won't move | High |
| 5782 | Automacros containing fields lose their field attributes | Immediate |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 2. Code Stream




**Legend:**

**Green = Released software**

**Red = Will not be released**

**Blue = Future release**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 3. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains
   a) rRIS_1.3.41.20987 (3GB).zip

## 4. Intended Audience

This document is created by the RIS Development team for the RadNet RIS Implementation team.

## 5. Who is affected

Build 41.1 installs. This server update must be applied directly to the build 41.1 core install. Server updates are not cumulative. Any previous server updates must be applied before this one.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 6. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 40 | 10 | 1.3.40.17435 | 1.3.40.16659 | 1.3.40.17435 | 1.3.40.17370 | **64 BIT web service**. GUI.zip, Webservice. |
| 40 | 11 | 1.3.40.17435 | 1.3.40.16659 | 1.3.40.17525 | 1.3.40.17370 | Web service update |
| 40 | 12 | 1.3.40.17685 | 1.3.40.16659 | 1.3.40.17685 | 1.3.40.17648 | GUI.zip, Web service, database updates |
| 40 | 13 | 1.3.40.17776 | 1.3.40.16659 | 1.3.40.17776 | 1.3.40.17648 | GUI.zip, Web service |
| 40 | 14 | 1.3.40.18063(3GB) | 1.3.40.16659 | 1.3.40.18063 | 1.3.40.18063 | GUI.zip, Web service, database updates |
| 40 | 14.1 | 1.3.40.18063(3GB) | 1.3.40.16659 | 1.3.40.18107 | 1.3.40.18063 | Web service |
| 40 | 15 | 1.3.40.18127(3GB) | 1.3.40.16659 | 1.3.40.18127 | 1.3.40.18127 | GUI.zip, Web service, database updates |
| 40 | 16 | 1.1.3.40.18585 (3GB) | 1.3.40.16659 | 1.3.40.18585 | 1.3.40.18646 | GUI.zip, Web service, database updates |
| 40 | 16.1 | 1.3.40.18705 (3GB) | 1.3.40.16659 | 1.3.40.18585 | 1.3.40.18646 | GUI.zip |
| 40 | 17 | 1.3.40.18780 (3GB) | 1.3.40.18756 | 1.3.40.18756 | 1.3.40.18646 | **Core install required** for Radiologist User Group. GUI.zip, Core setup, and Web Service updates |
| 40 | 18 | 1.3.40.19253(3GB) | 1.3.40.18756 | 1.3.40.18756 | 1.3.40.19253 | GUI.zip, Web Service and database updates |
| 40 | 19 | 1.3.40.19909(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | GUI.zip, Web Service |
| 40 | 20 | 1.3.40.20086(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | Gui.zip and Recognizer |
| 40 | 21 | 1.3.40.20703(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | Gui.zip |
| 40 | 22 | 1.3.40.20898(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | Gui.zip |
| 41 | - | 1.3.41.19135(3GB) | 1.3.41.19135 | 1.3.41.19135 | 1.3.41.19135 | Full version release |
| 41 | 1 | 1.3.41.19356(3GB) | 1.3.41.19135 | 1.3.41.19346 | 1.3.41.19346 | GUI.zip, Web Service and database updates |
| 41 | 2 | 1.3.41.19620(3GB) | 1.3.41.19135 | 1.3.41.19620 | 1.3.41.19346 | GUI.zip and Web Service |
| 41 | 2sf | 1.3.41.19620SF(3G) | 1.3.41.19135 | 1.3.41.19620 | 1.3.41.19346 | GUI.zip |
| 41 | 2.1 | 1.3.41.20622(3GB) | 1.3.41.19135 | 1.3.41.20617 | 1.3.41.19346 | GUI.zip and Web Service |
| 41 | 3 | 1.3.41.20171(3GB) | 1.3.41.19135 | 1.3.41.20171 | 1.3.41.19346 | GUI.zip , Web Service and Recognizer |
| 41 | 4 | 1.3.41.20285(3GB) | 1.3.41.19135 | 1.3.41.20171 | 1.3.41.19346 | GUI.zip |
| 41 | 5 | 1.3.41.20809(3GB) | 1.3.41.20708 | 1.3.41.20792 | 1.3.41.20738 | GUI.zip, Core install, Web Service and database updates |
| 41 | 6 | 1.3.41.20912(3GB) | 1.3.41.20708 | 1.3.41.20792 | 1.3.41.20738 | GUI.zip |
| 41.1 | - | 1.3.41.20918(3GB) | 1.3.41.20791 | 1.3.41.20918 | 1.3.41.20739 | GUI.zip, Core install, Web Service and DB updates, Help files |
| 41.1 | 1 | 1.3.41.20987(3GB) | 1.3.41.20791 | 1.3.41.20918 | 1.3.41.20739 | GUI.zip |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 7. Installing

1) Copy and replace the current rRIS…zip file with the rRIS_1.3.41.20987.zip file provided with this release.
   Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

For eRAD RIS
Version 1.0
Build 41
Update 41.1.002

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Defects Resolved ..... 3
2. Code Stream ..... 4
3. Package Contents ..... 5
4. Intended Audience ..... 6
5. Who is affected ..... 6
6. eRAD RIS Release Version Numbers ..... 7
7. Installing ..... 8

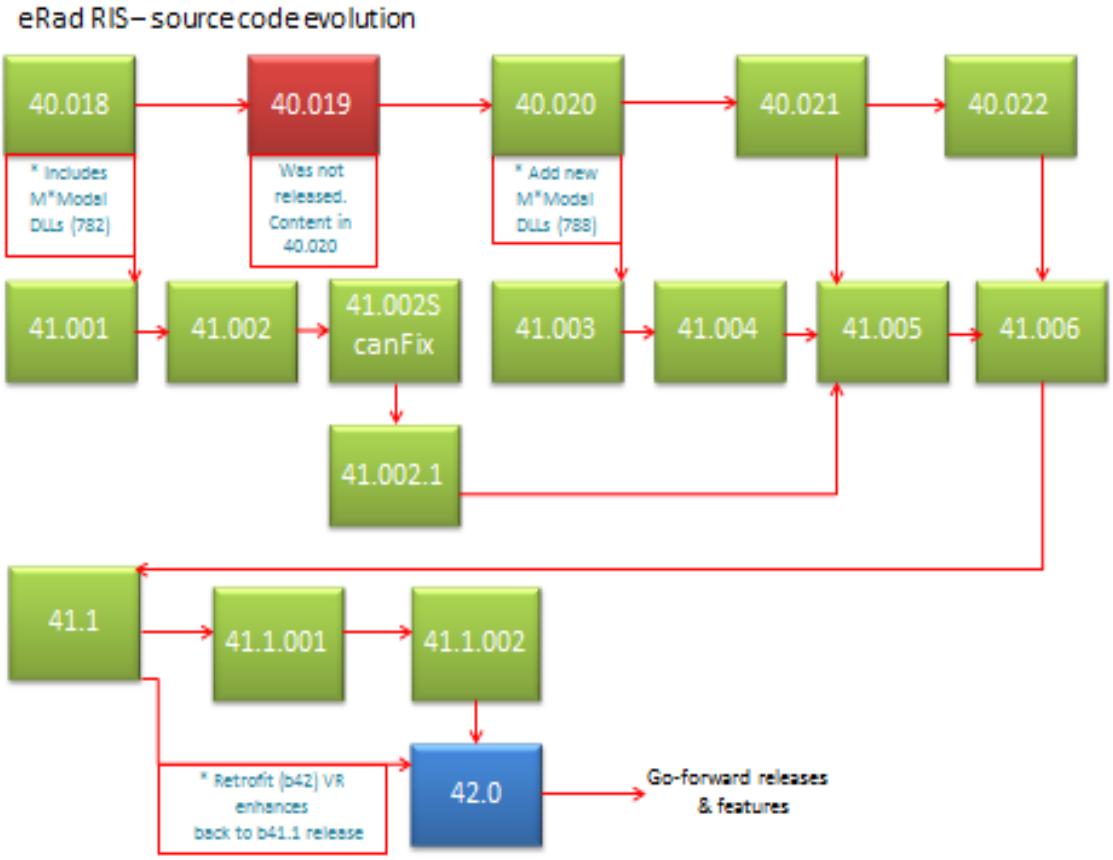
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 1. Defects Resolved

| Redmine # | Subject | Priority |
|---|---|---|
| 5778 | Mammo follow-up orders no longer included in the list of outstanding orders when scheduling | Urgent |
| 5776 | Error after login: nullable object must have a value | High |
| 5773 | Parameter is not valid error while loading thumbnail images in document viewer | High |
| 5772 | Patient Folder - can't sort relevance or relevant flag | High |
| 4978 | User is able to schedule to a closed room | High |
| 5775 | null reference error when opening administration / management reports | Normal |
| 5774 | foreign key error when adding follow-up / contact log entries | Normal |
| 5344 | Playback with bouncing ball, preventing word selection with double click. | Normal |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 2. Code Stream




**Legend:**

**Green = Released software**

**Red = Will not be released**

**Blue = Future release**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 3. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains
   a) rRIS_1.3.41.21162 (3GB).zip

2) SQL folder contains:
   a) B41_1_002.sql

3) RIS_Service_Updates
   a) ABCpdf.dll
   b) ABCpdf9-32.dll
   c) ABCpdf9-64.dll
   d) CDSJobManager.dll
   e) CDSJobManager.pdb
   f) CdsLib.dll
   g) CdsLib.xml
   h) CdsLib.XmlSerializers.dll
   i) CommonLib.dll
   j) CommonLib.pdb
   k) DDEngine.dll
   l) DDEngine.pdb
   m) Interop.FAXCOMEXLib.dll
   n) Microsoft.Practices.EnterpriseLibrary.Caching.dll
   o) Microsoft.Practices.EnterpriseLibrary.Caching.pdb
   p) Microsoft.Practices.EnterpriseLibrary.Common.dll
   q) Microsoft.Practices.EnterpriseLibrary.Common.pdb
   r) Microsoft.Practices.EnterpriseLibrary.Logging.dll
   s) Microsoft.Practices.EnterpriseLibrary.Logging.pdb
   t) Microsoft.Practices.ServiceLocation.dll
   u) Microsoft.Practices.ServiceLocation.pdb
   v) Microsoft.Practices.Unity.dll
   w) Microsoft.Practices.Unity.Interception.dll
   x) Microsoft.Practices.Unity.Interception.pdb
   y) Microsoft.Practices.Unity.pdb
   z) Microsoft.ReportViewer.Common.dll
   aa) Microsoft.ReportViewer.Common.pdb
   bb) Microsoft.ReportViewer.WinForms.xml
   cc) Newtonsoft.Json.dll
   dd) Newtonsoft.Json.xml
   ee) Ninject.dll
   ff) Ninject.Web.Common.dll
   gg) Ninject.Web.Common.xml
   hh) Ninject.xml
   ii) O2S.Components.PDFRender4NET.dll
   jj) PDFToImages.exe
   kk) rRISServices.exe
   ll) rRISServices.pdb
   mm) rRISServicesx64.exe
   nn) ScheduledTaskManager.dll
   oo) ScheduledTaskManager.pdb
   pp) ServicesConfigWizard.exe
   qq) ServicesConfigWizard.pdb
   rr) SignatureApprovalService.exe
   ss) SignatureApprovalService.pdb
   tt) System.Net.Http.dll
   uu) System.Net.Http.Formatting.dll
   vv) System.Net.Http.Formatting.xml
   ww) System.Net.Http.WebRequest.dll
   xx) System.Net.Http.WebRequest.xml
   yy) System.Net.Http.xml
   zz) System.Web.dll
   aaa) System.Web.Helpers.dll
   bbb) System.Web.Helpers.xml
   ccc) System.Web.Http.dll
   ddd) System.Web.Http.SelfHost.dll
   eee) System.Web.Http.SelfHost.xml
   fff) System.Web.Http.WebHost.dll
   ggg) System.Web.Http.WebHost.xml
   hhh) System.Web.Http.xml
   iii) System.Web.Mvc.dll
   jjj) System.Web.Mvc.xml
   kkk) System.Web.Optimization.dll
   lll) System.Web.Providers.dll
   mmm) System.Web.Razor.dll
   nnn) System.Web.Razor.xml

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

ooo) System.Web.WebPages.Deployment.dll
ppp) System.Web.WebPages.Deployment.xml
qqq) System.Web.WebPages.dll
rrr) System.Web.WebPages.Razor.dll
sss) System.Web.WebPages.Razor.xml
ttt) System.Web.WebPages.xml
uuu) Tourreau.Gilles.FaxDotNet.dll
vvv) Tourreau.Gilles.FaxDotNet.pdb
www) Tourreau.Gilles.FaxDotNet.xml
xxx) WCFService.dll
yyy) WCFService.pdb
zzz) WebApi.dll
aaaa) WebApi.pdb
bbbb) Wedge.exe
cccc) Wedge.pdb

## 4. Intended Audience

This document is created by the RIS Development team for the RadNet RIS Implementation team.

## 5. Who is affected

Build 41.1 installs. This server update must be applied directly to the build 41.1 core install. Server updates are not cumulative. Any previous server updates must be applied before this one.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 6. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 40 | 10 | 1.3.40.17435 | 1.3.40.16659 | 1.3.40.17435 | 1.3.40.17370 | **64 BIT web service**. GUI.zip, Webservice. |
| 40 | 11 | 1.3.40.17435 | 1.3.40.16659 | 1.3.40.17525 | 1.3.40.17370 | Web service update |
| 40 | 12 | 1.3.40.17685 | 1.3.40.16659 | 1.3.40.17685 | 1.3.40.17648 | GUI.zip, Web service, database updates |
| 40 | 13 | 1.3.40.17776 | 1.3.40.16659 | 1.3.40.17776 | 1.3.40.17648 | GUI.zip, Web service |
| 40 | 14 | 1.3.40.18063(3GB) | 1.3.40.16659 | 1.3.40.18063 | 1.3.40.18063 | GUI.zip, Web service, database updates |
| 40 | 14.1 | 1.3.40.18063(3GB) | 1.3.40.16659 | 1.3.40.18107 | 1.3.40.18063 | Web service |
| 40 | 15 | 1.3.40.18127(3GB) | 1.3.40.16659 | 1.3.40.18127 | 1.3.40.18127 | GUI.zip, Web service, database updates |
| 40 | 16 | 1.1.3.40.18585 (3GB) | 1.3.40.16659 | 1.3.40.18585 | 1.3.40.18646 | GUI.zip, Web service, database updates |
| 40 | 16.1 | 1.3.40.18705 (3GB) | 1.3.40.16659 | 1.3.40.18585 | 1.3.40.18646 | GUI.zip |
| 40 | 17 | 1.3.40.18780 (3GB) | 1.3.40.18756 | 1.3.40.18756 | 1.3.40.18646 | **Core install required** for Radiologist User Group. GUI.zip, Core setup, and Web Service updates |
| 40 | 18 | 1.3.40.19253(3GB) | 1.3.40.18756 | 1.3.40.18756 | 1.3.40.19253 | GUI.zip, Web Service and database updates |
| 40 | 19 | 1.3.40.19909(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | GUI.zip, Web Service |
| 40 | 20 | 1.3.40.20086(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | Gui.zip and Recognizer |
| 40 | 21 | 1.3.40.20703(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | Gui.zip |
| 40 | 22 | 1.3.40.20898(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | Gui.zip |
| 41 | - | 1.3.41.19135(3GB) | 1.3.41.19135 | 1.3.41.19135 | 1.3.41.19135 | Full version release |
| 41 | 1 | 1.3.41.19356(3GB) | 1.3.41.19135 | 1.3.41.19346 | 1.3.41.19346 | GUI.zip, Web Service and database updates |
| 41 | 2 | 1.3.41.19620(3GB) | 1.3.41.19135 | 1.3.41.19620 | 1.3.41.19346 | GUI.zip and Web Service |
| 41 | 2sf | 1.3.41.19620SF(3G) | 1.3.41.19135 | 1.3.41.19620 | 1.3.41.19346 | GUI.zip |
| 41 | 2.1 | 1.3.41.20622(3GB) | 1.3.41.19135 | 1.3.41.20617 | 1.3.41.19346 | GUI.zip and Web Service |
| 41 | 3 | 1.3.41.20171(3GB) | 1.3.41.19135 | 1.3.41.20171 | 1.3.41.19346 | GUI.zip , Web Service and Recognizer |
| 41 | 4 | 1.3.41.20285(3GB) | 1.3.41.19135 | 1.3.41.20171 | 1.3.41.19346 | GUI.zip |
| 41 | 5 | 1.3.41.20809(3GB) | 1.3.41.20708 | 1.3.41.20792 | 1.3.41.20738 | GUI.zip, Core install, Web Service and database updates |
| 41 | 6 | 1.3.41.20912(3GB) | 1.3.41.20708 | 1.3.41.20792 | 1.3.41.20738 | GUI.zip |
| 41.1 | - | 1.3.41.20918(3GB) | 1.3.41.20791 | 1.3.41.20918 | 1.3.41.20739 | GUI.zip, Core install, Web Service and DB updates, Help files |
| 41.1 | 1 | 1.3.41.20987(3GB) | 1.3.41.20791 | 1.3.41.20918 | 1.3.41.20739 | GUI.zip |
| 41.1 | 2 | 1.3.41.21162(3GB) | 1.3.41.20791 | 1.3.41.21162 | 1.3.41.21150 | GUI.zip, Web Service and DB updates, |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 7. Installing

1) Copy and replace the current rRIS…zip file with the rRIS_1.3.41.21162.zip file provided with this release.
   Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

2) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService. Be sure to make backup of all files, but especially the rRISServices.exe.config and rRISServices.vshost.exe.config files.
   *rRISService directories include:*
   a) *rRISService*
   b) *CDS rRISService*
   c) *Wedge rRISService*
   d) *DDE rRISService*

   Restart each service.

3) Run the B41_1_002.sql file against the eRAD RIS database instance.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

For eRAD RIS
Version 1.0
Build 41
Update 41.1.003

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Defects Resolved ..... 3
2. New Features ..... 4
3. Code Stream ..... 5
4. Package Contents ..... 6
5. Intended Audience ..... 6
6. Who is affected ..... 6
7. eRAD RIS Release Version Numbers ..... 7
8. Installing ..... 8

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 1. Defects Resolved

| Redmine # | Subject | Priority |
|---|---|---|
| 5823 | InsertTextAtPastCaretPositions is causing undesired behavior for rads when editing. | Urgent |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 2. New Features

This new feature is to resolve Redmine bug # 5823.
Some users were experiencing an issue during self-edit. If the text was highlighted after the dictation had started, the range of text selected to be corrected would leave the selected text intact and insert the new dictation before or after the selected text.

This was happening because when the dictation was started the caret position had already been detected at point A, but as the dictation had started, a range of text was then selected. Now the caret position is in point B. The dictation that supposed to be the corrected text does not overwrite the selected text but is inserted where caret position was initially.

We have created a new user preference titled "**Insert text at current caret location**". When this preference is selected it will correct the issue described above, meaning that if the dictation is started, a range of text is then selected, it will overwrite the range of text.

The previous way of working may be desirable for some users, so if the user preference is unselected, it will behave as before.

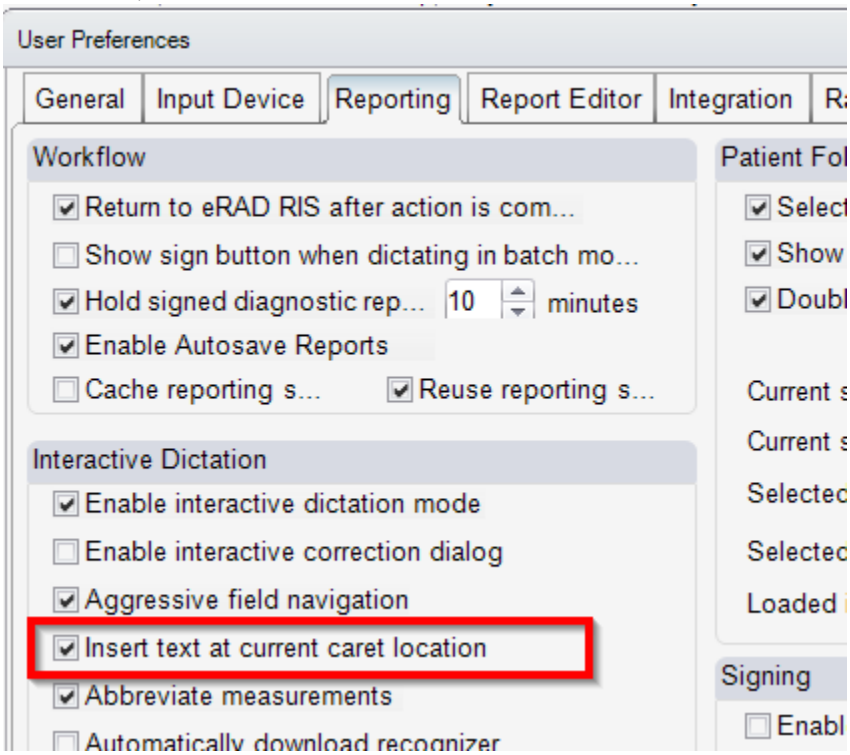
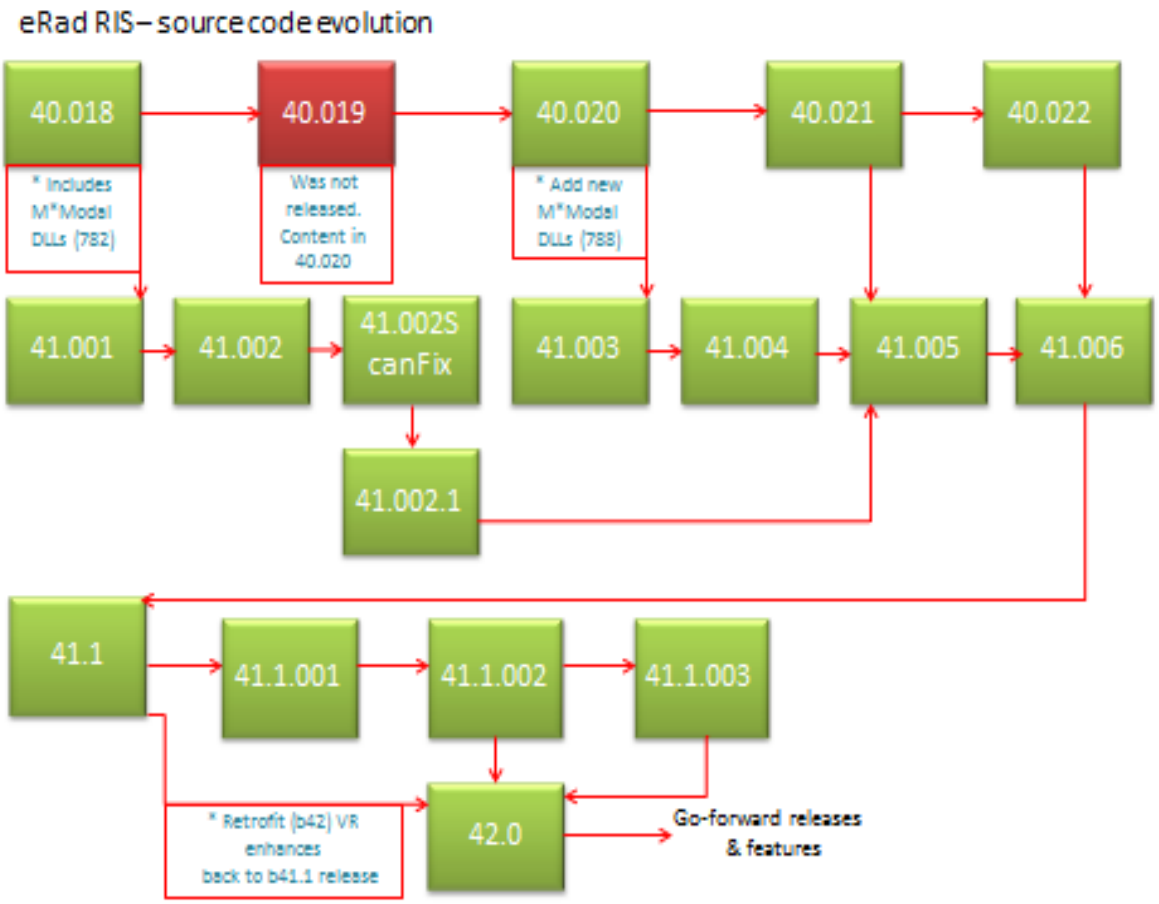



**Figure 2.1 – New User Preference "Insert text at current caret location"**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 3. Code Stream




**Legend:**

**Green = Released software**

**Red = Will not be released**

**Blue = Future release**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 4. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains
   a) rRIS_1.3.41.21264 (3GB).zip

## 5. Intended Audience

This document is created by the RIS Development team for the RadNet RIS Implementation team.

## 6. Who is affected

Build 41.1 installs. This server update must be applied directly to the build 41.1 core install. Server updates are not cumulative. Any previous server updates must be applied before this one.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 7. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 40 | 10 | 1.3.40.17435 | 1.3.40.16659 | 1.3.40.17435 | 1.3.40.17370 | **64 BIT web service**. GUI.zip, Webservice. |
| 40 | 11 | 1.3.40.17435 | 1.3.40.16659 | 1.3.40.17525 | 1.3.40.17370 | Web service update |
| 40 | 12 | 1.3.40.17685 | 1.3.40.16659 | 1.3.40.17685 | 1.3.40.17648 | GUI.zip, Web service, database updates |
| 40 | 13 | 1.3.40.17776 | 1.3.40.16659 | 1.3.40.17776 | 1.3.40.17648 | GUI.zip, Web service |
| 40 | 14 | 1.3.40.18063(3GB) | 1.3.40.16659 | 1.3.40.18063 | 1.3.40.18063 | GUI.zip, Web service, database updates |
| 40 | 14.1 | 1.3.40.18063(3GB) | 1.3.40.16659 | 1.3.40.18107 | 1.3.40.18063 | Web service |
| 40 | 15 | 1.3.40.18127(3GB) | 1.3.40.16659 | 1.3.40.18127 | 1.3.40.18127 | GUI.zip, Web service, database updates |
| 40 | 16 | 1.1.3.40.18585 (3GB) | 1.3.40.16659 | 1.3.40.18585 | 1.3.40.18646 | GUI.zip, Web service, database updates |
| 40 | 16.1 | 1.3.40.18705 (3GB) | 1.3.40.16659 | 1.3.40.18585 | 1.3.40.18646 | GUI.zip |
| 40 | 17 | 1.3.40.18780 (3GB) | 1.3.40.18756 | 1.3.40.18756 | 1.3.40.18646 | **Core install required** for Radiologist User Group. GUI.zip, Core setup, and Web Service updates |
| 40 | 18 | 1.3.40.19253(3GB) | 1.3.40.18756 | 1.3.40.18756 | 1.3.40.19253 | GUI.zip, Web Service and database updates |
| 40 | 19 | 1.3.40.19909(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | GUI.zip, Web Service |
| 40 | 20 | 1.3.40.20086(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | Gui.zip and Recognizer |
| 40 | 21 | 1.3.40.20703(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | Gui.zip |
| 40 | 22 | 1.3.40.20898(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | Gui.zip |
| 41 | - | 1.3.41.19135(3GB) | 1.3.41.19135 | 1.3.41.19135 | 1.3.41.19135 | Full version release |
| 41 | 1 | 1.3.41.19356(3GB) | 1.3.41.19135 | 1.3.41.19346 | 1.3.41.19346 | GUI.zip, Web Service and database updates |
| 41 | 2 | 1.3.41.19620(3GB) | 1.3.41.19135 | 1.3.41.19620 | 1.3.41.19346 | GUI.zip and Web Service |
| 41 | 2sf | 1.3.41.19620SF(3G) | 1.3.41.19135 | 1.3.41.19620 | 1.3.41.19346 | GUI.zip |
| 41 | 2.1 | 1.3.41.20622(3GB) | 1.3.41.19135 | 1.3.41.20617 | 1.3.41.19346 | GUI.zip and Web Service |
| 41 | 3 | 1.3.41.20171(3GB) | 1.3.41.19135 | 1.3.41.20171 | 1.3.41.19346 | GUI.zip , Web Service and Recognizer |
| 41 | 4 | 1.3.41.20285(3GB) | 1.3.41.19135 | 1.3.41.20171 | 1.3.41.19346 | GUI.zip |
| 41 | 5 | 1.3.41.20809(3GB) | 1.3.41.20708 | 1.3.41.20792 | 1.3.41.20738 | GUI.zip, Core install, Web Service and database updates |
| 41 | 6 | 1.3.41.20912(3GB) | 1.3.41.20708 | 1.3.41.20792 | 1.3.41.20738 | GUI.zip |
| 41.1 | - | 1.3.41.20918(3GB) | 1.3.41.20791 | 1.3.41.20918 | 1.3.41.20739 | GUI.zip, Core install, Web Service and DB updates, Help files |
| 41.1 | 1 | 1.3.41.20987(3GB) | 1.3.41.20791 | 1.3.41.20918 | 1.3.41.20739 | GUI.zip |
| 41.1 | 2 | 1.3.41.21162(3GB) | 1.3.41.20791 | 1.3.41.21162 | 1.3.41.21150 | GUI.zip, Web Service and DB updates, |
| 41.1 | 3 | 1.3.41.21264(3GB) | 1.3.41.20791 | 1.3.41.21162 | 1.3.41.21150 | GUI.zip |
| 42 | - | 2.42.0.0.21261(3GB) | 2.42.0.0.21261 | 2.42.0.0.21261 | 2.42.0.0.21187 | Full version release |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 8. Installing

1) Copy and replace the current rRIS…zip file with the rRIS_1.3.41.21264.zip file provided with this release.
   Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

   Core install is not required. Users will need to exit the application and re-launch and log back in to get the latest changes.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

For eRAD RIS
Version 1.0
Build 41
Update 41.1.004

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Defects Resolved ..... 3
2. Code Stream ..... 4
3. Package Contents ..... 5
4. Intended Audience ..... 5
5. Who is affected ..... 5
6. eRAD RIS Release Version Numbers ..... 6
7. Installing ..... 7

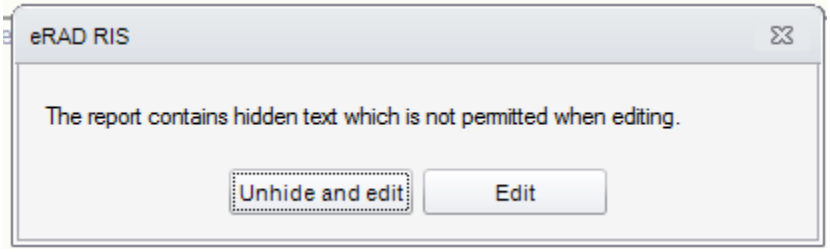
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 1. Defects Resolved

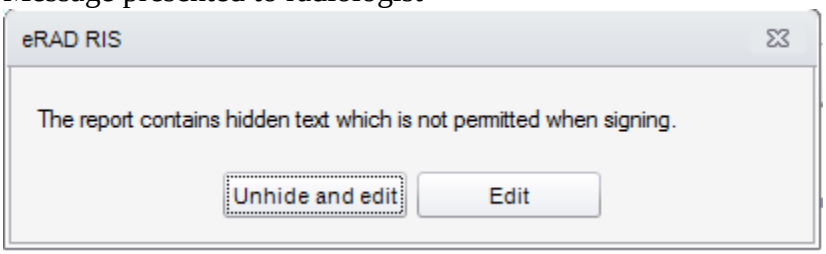
| Redmine # | Subject | Priority |
|---|---|---|
| 6192 | Hidden text in editor counts as text when validating fields and section | High |

The resolved bug listed above resolves an issue in which users had the option to hide text within the reporting window. This option was available to radiologist and transcription users. The workflow for this option has been altered. You can no longer hide text, only unhide. If there is hidden text in a report, transcription users cannot transcribe and radiologist users cannot sign. They will be presented with a message like the one displayed below.

Message presented to transcription

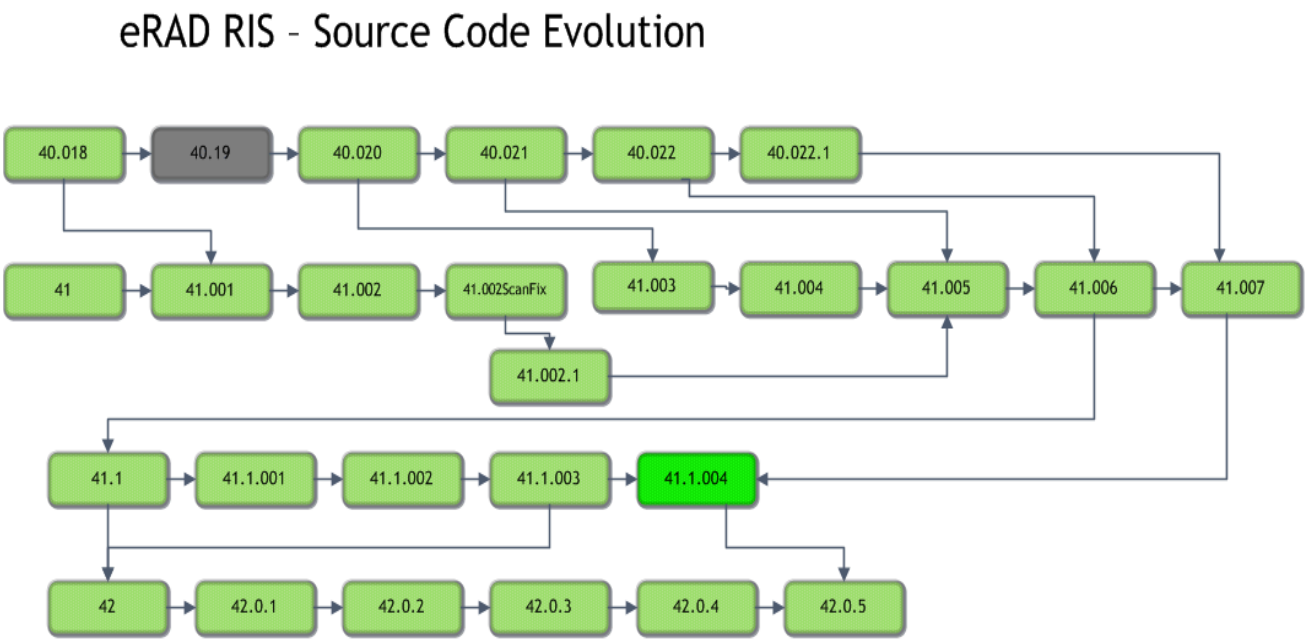



Message presented to radiologist




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 2. Code Stream




**Legend:**

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 3. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains
   a) rRIS_1.3.41.21931 (3GB).zip

## 4. Intended Audience

This document is created by the RIS Development team for the RadNet RIS Implementation team.

## 5. Who is affected

Build 41.1 installs. This server update must be applied directly to build 41.1.002 server update which included database and web service updates. The 41.1.003 server update included a GUI.zip update only.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 6. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 40 | 16 | 1.1.3.40.18585 (3GB) | 1.3.40.16659 | 1.3.40.18585 | 1.3.40.18646 | GUI.zip, Web service, database updates |
| 40 | 16.1 | 1.3.40.18705 (3GB) | 1.3.40.16659 | 1.3.40.18585 | 1.3.40.18646 | GUI.zip |
| 40 | 17 | 1.3.40.18780 (3GB) | 1.3.40.18756 | 1.3.40.18756 | 1.3.40.18646 | **Core install required** for Radiologist User Group. GUI.zip, Core setup, and Web Service updates |
| 40 | 18 | 1.3.40.19253(3GB) | 1.3.40.18756 | 1.3.40.18756 | 1.3.40.19253 | GUI.zip, Web Service and database updates |
| 40 | 19 | 1.3.40.19909(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | GUI.zip, Web Service |
| 40 | 20 | 1.3.40.20086(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | Gui.zip and Recognizer |
| 40 | 21 | 1.3.40.20703(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | Gui.zip |
| 40 | 22 | 1.3.40.20898(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | Gui.zip |
| 40 | 22.1 | 1.3.40.21936(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | Gui.zip |
| 41 | - | 1.3.41.19135(3GB) | 1.3.41.19135 | 1.3.41.19135 | 1.3.41.19135 | Full version release |
| 41 | 1 | 1.3.41.19356(3GB) | 1.3.41.19135 | 1.3.41.19346 | 1.3.41.19346 | GUI.zip, Web Service and database updates |
| 41 | 2 | 1.3.41.19620(3GB) | 1.3.41.19135 | 1.3.41.19620 | 1.3.41.19346 | GUI.zip and Web Service |
| 41 | 2sf | 1.3.41.19620SF(3G) | 1.3.41.19135 | 1.3.41.19620 | 1.3.41.19346 | GUI.zip |
| 41 | 2.1 | 1.3.41.20622(3GB) | 1.3.41.19135 | 1.3.41.20617 | 1.3.41.19346 | GUI.zip and Web Service |
| 41 | 3 | 1.3.41.20171(3GB) | 1.3.41.19135 | 1.3.41.20171 | 1.3.41.19346 | GUI.zip , Web Service and Recognizer |
| 41 | 4 | 1.3.41.20285(3GB) | 1.3.41.19135 | 1.3.41.20171 | 1.3.41.19346 | GUI.zip |
| 41 | 5 | 1.3.41.20809(3GB) | 1.3.41.20708 | 1.3.41.20792 | 1.3.41.20738 | GUI.zip, Core install, Web Service and database updates |
| 41 | 6 | 1.3.41.20912(3GB) | 1.3.41.20708 | 1.3.41.20792 | 1.3.41.20738 | GUI.zip |
| 41 | 7 | 1.3.41.21963(3GB) | 1.3.41.20708 | 1.3.41.20792 | 1.3.41.20738 | GUI.zip |
| 41.1 | - | 1.3.41.20918(3GB) | 1.3.41.20791 | 1.3.41.20918 | 1.3.41.20739 | GUI.zip, Core install, Web Service and DB updates, Help files |
| 41.1 | 1 | 1.3.41.20987(3GB) | 1.3.41.20791 | 1.3.41.20918 | 1.3.41.20739 | GUI.zip |
| 41.1 | 2 | 1.3.41.21162(3GB) | 1.3.41.20791 | 1.3.41.21162 | 1.3.41.21150 | GUI.zip, Web Service and DB updates, |
| 41.1 | 3 | 1.3.41.21264(3GB) | 1.3.41.20791 | 1.3.41.21162 | 1.3.41.21150 | GUI.zip |
| **41.1** | **4** | **1.3.41.21931(3GB)** | **1.3.41.20791** | **1.3.41.21162** | **1.3.41.21150** | **GUI.zip** |
| 42 | 1 | 2.42.0.0.21577 | 2.42.0.0.21261 | 2.42.0.0.21577 | 2.42.0.0.21187 | GUI and Web Service updates |
| 42 | 2 | 2.42.0.1.21702 | 2.42.0.0.21261 | 2.42.0.1.21702 | 2.42.0.0.21187 | GUI and Web Service updates |
| 42 | 3 | 2.42.0.2.21806 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.0.21187 | GUI and Web Service updates |
| 42 | 4 | 2.42.0.4.21862 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.4.21870 | GUI and Database updates |
| 42 | 5 | 2.42.0.5.21924 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.4.21870 | GUI |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 7. Installing

1) Copy and replace the current rRIS…zip file with the rRIS_1.3.41.21931.zip file provided with this release.
   Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

   Core install is not required. Users will need to exit the application and re-launch and log back in to get the latest changes.

**NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

For eRAD RIS
Version 1.0
Build 41
Update 41.001

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. New Features ..... 3
   PACS Server Override ..... 3
   Optimize field navigation ..... 4
   Recognizer deployment ..... 5
2. Defects Resolved ..... 6
3. Package Contents ..... 7
4. Intended Audience ..... 8
5. Who is affected ..... 8
6. eRAD RIS Release Version Numbers ..... 9
7. Installing ..... 10

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# 1. New Features

## 41.001 New Features

### PACS Server Override

It has been requested that radiologists be able to access images on eRAD PACS and PACS IW from the same work list without changing the practice selected in the Org picker. This is now possible with the selection of a new user preference.

On the Integration tab there is a new option titled PACS Server and associated list box. This list box will contain the available PACS systems configured in the PACSServer lookup table that are in Active status.

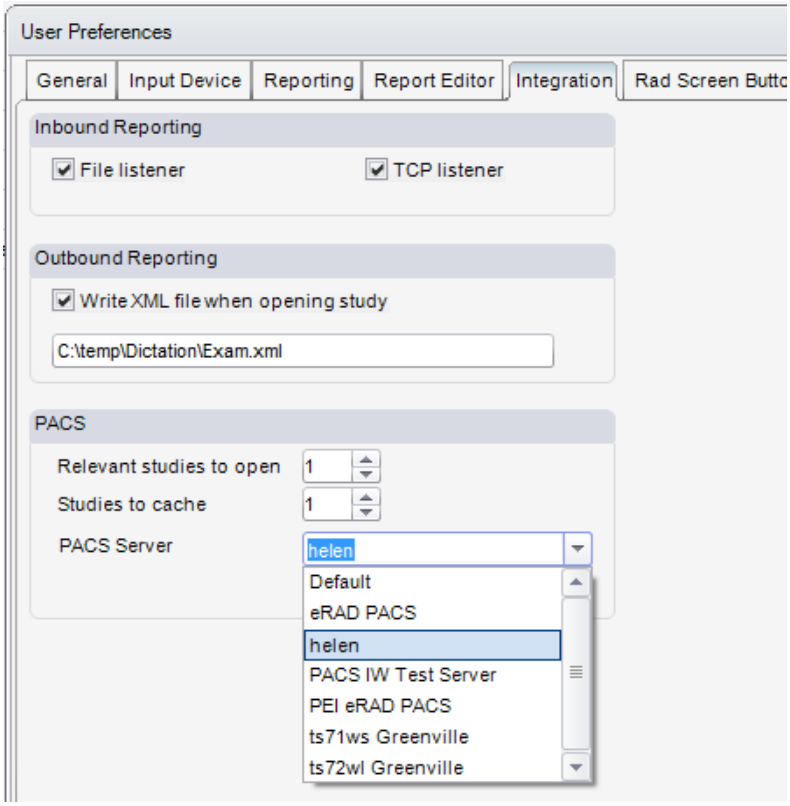



**Figure 1.1 – PACS Server user preference**

One of the PACS Server options is Default. If this is selected, the default PACS Server associated with your current practice selected in the Org picker will be used (same as before). If a specific server is selected, this will be the PACS that the images are displayed. For instance, if patient A has images on eRAD PACS and also PACS IW Test Server, when that server is selected the call for PACS will be made to that server and not the default for the practice.
**NOTE: If the PACS Server user preference selection is changed, the user will need to log out and back in again to pick up the changes. The user may encounter an error if they don't logout after changing the user preference.**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

**40.018 New Features –** The features in 40.018 were not included in the original build of 41. The new features and bug fixes have been included in this 41.001 build.

## Optimize field navigation

In build 40.017 we introduced a change to the mic wizazrd. The selection of the recording device and Speechmike calibration. Missing in the GUI was the ability to select a playback device. (This can be accomplished in the windows control panel > sound option.) In build 18 we have replaced the Microphone Settings window, with the Recording and Playback Settings window displayed in Figure 1.1.

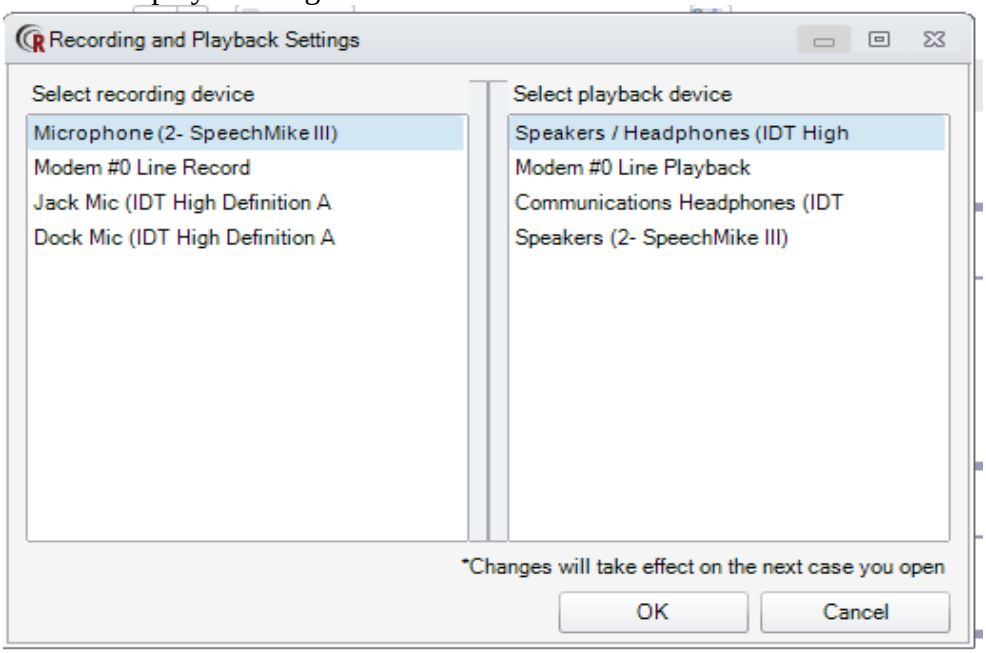



**Figure 1.2 – Recording and Playback Settings**

This window is accessed from within the Reporting window and selecting the Recording and playback settings option on the toolbar.

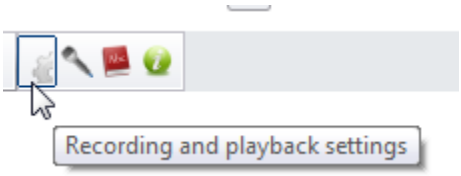



**Figure 1.3 – Recording and Playback Settings toolbar button**

In this window the recording and playback devices can be selected. As noted in the Recording and Playback Settings window the changes will take affect

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## Recognizer deployment

In previous builds the MModal Recognizer file was included with the install process. This has been removed from the install process.

This file can be replaced manually or via the use of the User Preference on the Reporting tab titled "Automatically download recognizer" and at next login, the newest will be downloaded from M*Modal. If this **option** is selected, the user **must be aware** that the Recognizer could change at each login.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 2. Defects Resolved

The following defects that have been resolved in the 41.001 server release

| Redmine # | Subject | Priority |
|---|---|---|
| 4622 | Message boxes inaccessible when dictating in minimized mode | High |
| 3871 | Magview reports need addendums to be signed in Magview | High |
| 4691 | RRR - IVT user activity issue | Normal |

The following defects were resolved in Build 41 but were missed in the release notes.

| Redmine # | Subject | Priority |
|---|---|---|
| 4471 | Mammo - Edit Mam Target Date is missing | Urgent |
| 4599 | Message: "an error occurred while retrieving patient history worklist" when opening the biopsy screen from the FollowUp window | High |
| 4592 | Patient Merge, Patient History not showing current Patient, Show license button still active | High |
| 4656 | Input string was not in a correct format error on clicking IVT button from the billing codes | Normal |

The following defects were resolved in 40.018 and added to the 41.001 server release

| Redmine # | Subject | Priority |
|---|---|---|
| 4564 | Batch users lost ability to run microphone wizard to set gain on the microphone | High |
| 4710 | Reporting - inserting a template or macro with interactive timestamps will cause playback corruption and confusion | Urgent |
| 4715 | Portions of reports are not showing in distributed report | Immediate |
| 4717 | Sections from incorrect practice loading into template editor | High |
| 4563 | Inability to change playback device for rads. | High |

The follow defects are listed as Known Limitations.

| Redmine # | Subject | Info |
|---|---|---|
| 4776 | PACS Server override user preference requires log-out, then log-in to take effect | This bug is regarding a new feature that enables a user to use the same work list in a practice but use more than one different PACS system. Users must log out and back in to get the user preference update for PACS Server. |
| 4780 | Known Limitation - Side by side registration broken from 40.016 - 40.017 | The core install must be used to move between build 40.016 and other previous versions of build 40 and 40.017, 40.018 and any version 41 builds. This is due to incompatibility with M*Modal dll's |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 3. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains
   a) rRIS_1.3.40.19356 (3GB).zip

2) RIS Service Updates folder contains the following 19 files and 1 subfolder titled XSL. The XSL folder also contains 1 subfolder titled Stylesheets. The following files are contained in the Stylesheets folder
   a) CDSJobManager.dll
   b) CDSJobManager.pdb
   c) CommonLib.dll
   d) CommonLib.pdb
   e) DDEngine.dll
   f) DDEngine.pdb
   g) rRISServices.exe
   h) rRISServices.pdb
   i) rRISServicesx64.exe
   j) ScheduledTaskManager.dll
   k) ScheduledTaskManager.pdb
   l) SignatureApprovalService.exe
   m) SignatureApprovalService.pdb
   n) WCFService.dll
   o) WCFService.pdb
   p) WebApi.dll
   q) WebApi.pdb
   r) Wedge.pdb
   s) Wedge.exe
   t) XSL folder contains a subfolder titled Stylesheets:
      i. CDAToHTMLCompleteReport.xslt
      ii. CDAToHTMLImpressionSection.xslt
      iii. CDATorRIS.xslt
      iv. CDAToTxt.xslt
      v. DocumentModelReport.xslt
      vi. DocumentModelReportAsXml.xslt

3) SQL folder contains:
   a) B41_001.sql

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 4. Intended Audience

This document is created by the RIS Development team for the RadNet RIS Implementation team.

## 5. Who is affected

Build 41 installs. This server update **must be applied directly to the build 41 core install**. Server updates are not cumulative. Any previous server updates must be applied before this one.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 6. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 39 | - | 1.3.39.15389 | 1.3.39.15389 | 1.3.39.15377 | 1.3.39.15355 | Full version release |
| 39 | 1 | 1.3.39.16026 | 1.3.39.15943 | 1.3.39.15943 | 1.3.39.15957 | Requires Core Install. GUI.zip, Web Service, and Database updates |
| 40 | - | 1.3.40.16628 | 1.3.40.16628 | 1.3.40.16628 | 1.3.40.16628 | Full version release |
| 40 | 1 | 1.3.40.16849 | 1.3.40.16659 | 1.3.40.16744 | 1.3.40.16727 | GUI.zip, Web service, database updates and SQL Management reporting |
| 40 | 2 | 1.3.40.16868 | 1.3.40.16659 | 1.3.40.16868 | 1.3.40.16727 | GUI.zip and Web Service |
| 40 | 3 | 1.3.40.16868 | 1.3.40.16659 | 1.3.40.16868 | 1.3.40.16727 | DB updated only |
| 40 | 4 | 1.3.40.16967 | 1.3.40.16659 | 1.3.40.16932 | 1.3.40.16961 | GUI.zip, Web service, database updates |
| 40 | 5 | 1.3.40.17087 | 1.3.40.16659 | 1.3.40.17069 | 1.3.40.17087 | GUI.zip, Web service, database updates |
| 40 | 6 | 1.3.40.17146 | 1.3.40.16659 | 1.3.40.17146 | 1.3.40.17146 | GUI.zip, Web service, database updates |
| 40 | 7 | 1.3.40.17268 | 1.3.40.16659 | 1.3.40.17268 | 1.3.40.17259 | GUI.zip, Web service, database updates |
| 40 | 8 | 1.3.40.17364 | 1.3.40.16659 | 1.3.40.17362 | 1.3.40.17343 | GUI.zip, Web service, database updates |
| 40 | 9 | 1.3.40.17370 | 1.3.40.16659 | 1.3.40.17370 | 1.3.40.17370 | GUI.zip, Web service, database updates |
| 40 | 10 | 1.3.40.17435 | 1.3.40.16659 | 1.3.40.17435 | 1.3.40.17370 | **64 BIT web service**. GUI.zip, Webservice. |
| 40 | 11 | 1.3.40.17435 | 1.3.40.16659 | 1.3.40.17525 | 1.3.40.17370 | Web service update |
| 40 | 12 | 1.3.40.17685 | 1.3.40.16659 | 1.3.40.17685 | 1.3.40.17648 | GUI.zip, Web service, database updates |
| 40 | 13 | 1.3.40.17776 | 1.3.40.16659 | 1.3.40.17776 | 1.3.40.17648 | GUI.zip, Web service |
| 40 | 14 | 1.3.40.18063(3GB) | 1.3.40.16659 | 1.3.40.18063 | 1.3.40.18063 | GUI.zip, Web service, database updates |
| 40 | 14.1 | 1.3.40.18063(3GB) | 1.3.40.16659 | 1.3.40.18107 | 1.3.40.18063 | Web service |
| 40 | 15 | 1.3.40.18127(3GB) | 1.3.40.16659 | 1.3.40.18127 | 1.3.40.18127 | GUI.zip, Web service, database updates |
| 40 | 16 | 1.1.3.40.18585 (3GB) | 1.3.40.16659 | 1.3.40.18585 | 1.3.40.18646 | GUI.zip, Web service, database updates |
| 40 | 16.1 | 1.3.40.18705 (3GB) | 1.3.40.16659 | 1.3.40.18585 | 1.3.40.18646 | GUI.zip |
| 40 | 17 | 1.3.40.18780 (3GB) | 1.3.40.18756 | 1.3.40.18756 | 1.3.40.18646 | **Core install required** for Radiologist User Group. GUI.zip, Core setup, and Web Service updates |
| 40 | 18 | 1.3.40.19253(3GB) | 1.3.40.18756 | 1.3.40.18756 | 1.3.40.19253 | GUI.zip, Web Service and database updates |
| 41 | - | 1.3.41.19135(3GB) | 1.3.41.19135 | 1.3.41.19135 | 1.3.41.19135 | Full version release |
| 41 | 1 | 1.3.41.19356(3GB) | 1.3.41.19135 | 1.3.41.19346 | 1.3.41.19346 | GUI.zip, Web Service and database updates |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 7. Installing

1) Copy and replace the current rRIS…zip file with the rRIS_1.3.40.19356.zip file provided with this release.
   Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

2) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService. Be sure to make backup of all files, but especially the rRISServices.exe.config and rRISServices.vshost.exe.config files.
   *rRISService directories include:*
   a) *rRISService*
   b) *CDS rRISService*
   c) *Wedge rRISService*
   d) *DDE rRISService*

   Restart each service.

3) Run the B41_001.sql file against the eRAD RIS database instance.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

For eRAD RIS
Version 1.0
Build 41
Update 41.002

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. New Features ..... 3
2. Defects Resolved ..... 4
3. Package Contents ..... 4
4. Intended Audience ..... 5
5. Who is affected ..... 5
6. eRAD RIS Release Version Numbers ..... 6
7. Installing ..... 7

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 1. New Features

The wedge has been updated to handle the c_patient_medication, c_patient_problem_list, and c_patient_drug_allergy tables in a special way. They now activate/inactivate based on the presence or absence of rows in the message as well as the value of the problem_list_flag, medication_flag, and drug_allergy_flag on the visit table.

The rest of the data on the MU form, such as ethnic type, race, height and weight were just fields on the visit table and required no modification to the wedge.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 2. Defects Resolved

The following defects that have been resolved in the 41.001 server release

| Redmine # | Subject | Priority |
|---|---|---|
| 4917 | (Feature) Feed of MU data into the Wedge | Normal |

## 3. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains
   a) rRIS_1.3.41.199620 (3GB).zip

2) RIS Service Updates folder contains the following 19 files and 1 subfolder titled XSL. The XSL folder also contains 1 subfolder titled Stylesheets. The following files are contained in the Stylesheets folder
   a) CDSJobManager.dll
   b) CDSJobManager.pdb
   c) CommonLib.dll
   d) CommonLib.pdb
   e) DDEngine.dll
   f) DDEngine.pdb
   g) rRISServices.exe
   h) rRISServices.pdb
   i) rRISServicesx64.exe
   j) ScheduledTaskManager.dll
   k) ScheduledTaskManager.pdb
   l) SignatureApprovalService.exe
   m) SignatureApprovalService.pdb
   n) WCFService.dll
   o) WCFService.pdb
   p) WebApi.dll
   q) WebApi.pdb
   r) Wedge.pdb
   s) Wedge.exe

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 4. Intended Audience

This document is created by the RIS Development team for the RadNet RIS Implementation team.

## 5. Who is affected

Build 41 installs. This server update **must be applied directly to the build 41 core install**. Server updates are not cumulative. Any previous server updates must be applied before this one.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 6. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 39 | - | 1.3.39.15389 | 1.3.39.15389 | 1.3.39.15377 | 1.3.39.15355 | Full version release |
| 39 | 1 | 1.3.39.16026 | 1.3.39.15943 | 1.3.39.15943 | 1.3.39.15957 | Requires Core Install. GUI.zip, Web Service, and Database updates |
| 40 | - | 1.3.40.16628 | 1.3.40.16628 | 1.3.40.16628 | 1.3.40.16628 | Full version release |
| 40 | 1 | 1.3.40.16849 | 1.3.40.16659 | 1.3.40.16744 | 1.3.40.16727 | GUI.zip, Web service, database updates and SQL Management reporting |
| 40 | 2 | 1.3.40.16868 | 1.3.40.16659 | 1.3.40.16868 | 1.3.40.16727 | GUI.zip and Web Service |
| 40 | 3 | 1.3.40.16868 | 1.3.40.16659 | 1.3.40.16868 | 1.3.40.16727 | DB updated only |
| 40 | 4 | 1.3.40.16967 | 1.3.40.16659 | 1.3.40.16932 | 1.3.40.16961 | GUI.zip, Web service, database updates |
| 40 | 5 | 1.3.40.17087 | 1.3.40.16659 | 1.3.40.17069 | 1.3.40.17087 | GUI.zip, Web service, database updates |
| 40 | 6 | 1.3.40.17146 | 1.3.40.16659 | 1.3.40.17146 | 1.3.40.17146 | GUI.zip, Web service, database updates |
| 40 | 7 | 1.3.40.17268 | 1.3.40.16659 | 1.3.40.17268 | 1.3.40.17259 | GUI.zip, Web service, database updates |
| 40 | 8 | 1.3.40.17364 | 1.3.40.16659 | 1.3.40.17362 | 1.3.40.17343 | GUI.zip, Web service, database updates |
| 40 | 9 | 1.3.40.17370 | 1.3.40.16659 | 1.3.40.17370 | 1.3.40.17370 | GUI.zip, Web service, database updates |
| 40 | 10 | 1.3.40.17435 | 1.3.40.16659 | 1.3.40.17435 | 1.3.40.17370 | **64 BIT web service**. GUI.zip, Webservice. |
| 40 | 11 | 1.3.40.17435 | 1.3.40.16659 | 1.3.40.17525 | 1.3.40.17370 | Web service update |
| 40 | 12 | 1.3.40.17685 | 1.3.40.16659 | 1.3.40.17685 | 1.3.40.17648 | GUI.zip, Web service, database updates |
| 40 | 13 | 1.3.40.17776 | 1.3.40.16659 | 1.3.40.17776 | 1.3.40.17648 | GUI.zip, Web service |
| 40 | 14 | 1.3.40.18063(3GB) | 1.3.40.16659 | 1.3.40.18063 | 1.3.40.18063 | GUI.zip, Web service, database updates |
| 40 | 14.1 | 1.3.40.18063(3GB) | 1.3.40.16659 | 1.3.40.18107 | 1.3.40.18063 | Web service |
| 40 | 15 | 1.3.40.18127(3GB) | 1.3.40.16659 | 1.3.40.18127 | 1.3.40.18127 | GUI.zip, Web service, database updates |
| 40 | 16 | 1.1.3.40.18585 (3GB) | 1.3.40.16659 | 1.3.40.18585 | 1.3.40.18646 | GUI.zip, Web service, database updates |
| 40 | 16.1 | 1.3.40.18705 (3GB) | 1.3.40.16659 | 1.3.40.18585 | 1.3.40.18646 | GUI.zip |
| 40 | 17 | 1.3.40.18780 (3GB) | 1.3.40.18756 | 1.3.40.18756 | 1.3.40.18646 | **Core install required** for Radiologist User Group. GUI.zip, Core setup, and Web Service updates |
| 40 | 18 | 1.3.40.19253(3GB) | 1.3.40.18756 | 1.3.40.18756 | 1.3.40.19253 | GUI.zip, Web Service and database updates |
| 41 | - | 1.3.41.19135(3GB) | 1.3.41.19135 | 1.3.41.19135 | 1.3.41.19135 | Full version release |
| 41 | 1 | 1.3.41.19356(3GB) | 1.3.41.19135 | 1.3.41.19346 | 1.3.41.19346 | GUI.zip, Web Service and database updates |
| 41 | 2 | 1.3.41.19620(3GB) | 1.3.41.19135 | 1.3.41.19620 | 1.3.41.19346 | GUI.zip and Web Service |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 7. Installing

1) Copy and replace the current rRIS…zip file with the rRIS_1.3.40.19620.zip file provided with this release.
   Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

2) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService. Be sure to make backup of all files, but especially the rRISServices.exe.config and rRISServices.vshost.exe.config files.
   *rRISService directories include:*
   a) *rRISService*
   b) *CDS rRISService*
   c) *Wedge rRISService*
   d) *DDE rRISService*

   Restart each service.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

For eRAD RIS
Version 1.0
Build 41
Update 41.002.1

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Defects Resolved ..... 3
2. Code Stream ..... 4
3. Package Contents ..... 5
4. Intended Audience ..... 6
5. Who is affected ..... 6
6. eRAD RIS Release Version Numbers ..... 7
7. Installing ..... 8
8. Known Limitations ..... 8

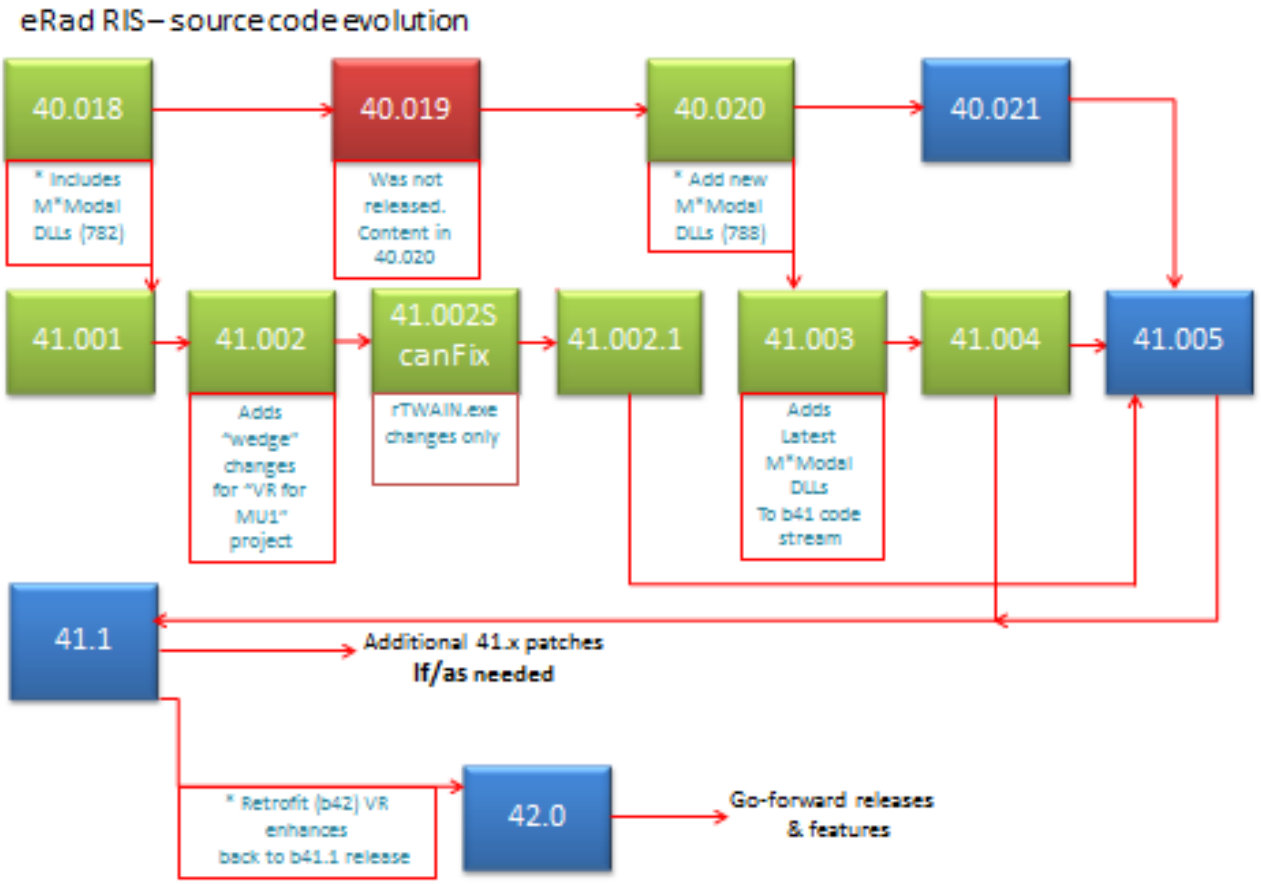
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 1. Defects Resolved

| Redmine # | Subject | Priority |
|---|---|---|
| 5415 | Document Distribution - EMR Sender functionality broke in B41 | Immediate |
| 5413 | RIS does not retrieve lookup tables / configuration changes under certain circumstances | High |
| 5411 | Constraint error when trying to printing forms on a study that has been dictated | Normal |
| 5414 | Scanner loads previous patients scans in preview after scanning (RRR) | Urgent |
| 5412 | User is losing practice association and getting error message | Normal |
| 5407 | Reporting - default recognizer getting picked up instead of the new one | Normal |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 2. Code Stream




**Legend:**

**Green = Released software**

**Red = software that will not be released**

**Blue = Future release**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 3. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains
   a) rRIS_1.3.41.20622 (3GB).zip

2) RIS Service Updates folder contains the following files and 1 folder.

1. CDSJobManager.dll
2. CDSJobManager.pdb
3. CommonLib.dll
4. CommonLib.pdb
5. DDEngine.dll
6. DDEngine.pdb
7. Interop.FAXCOMEXLib.dll
8. Microsoft.Practices.EnterpriseLibrary.Caching.dll
9. Microsoft.Practices.EnterpriseLibrary.Caching.pdb
10. Microsoft.Practices.EnterpriseLibrary.Common.dll
11. Microsoft.Practices.EnterpriseLibrary.Common.pdb
12. Microsoft.Practices.EnterpriseLibrary.Logging.dll
13. Microsoft.Practices.EnterpriseLibrary.Logging.pdb
14. Microsoft.Practices.ServiceLocation.dll
15. Microsoft.Practices.ServiceLocation.pdb
16. Microsoft.Practices.Unity.dll
17. Microsoft.Practices.Unity.Interception.dll
18. Microsoft.Practices.Unity.Interception.pdb
19. Microsoft.Practices.Unity.pdb
20. Newtonsoft.Json.dll
21. Newtonsoft.Json.xml
22. Ninject.dll
23. Ninject.Web.Common.dll
24. Ninject.Web.Common.xml
25. Ninject.xml
26. O2S.Components.PDFRender4NET.dll
27. PDFToImages.exe
28. rRISServices.exe
29. rRISServices.pdb
30. rRISServicesx64.exe
31. ScheduledTaskManager.dll
32. ScheduledTaskManager.pdb
33. ServicesConfigWizard.exe
34. 
35. SignatureApprovalService.exe
36. SignatureApprovalService.pdb
37. System.Net.Http.dll
38. System.Net.Http.Formatting.dll
39. System.Net.Http.Formatting.xml
40. System.Net.Http.WebRequest.dll
41. System.Net.Http.WebRequest.xml
42. System.Net.Http.xml
43. System.Web.Helpers.dll
44. System.Web.Helpers.xml
45. System.Web.Http.dll
46. System.Web.Http.SelfHost.dll
47. System.Web.Http.SelfHost.xml
48. System.Web.Http.WebHost.dll
49. System.Web.Http.WebHost.xml
50. System.Web.Http.xml
51. System.Web.Mvc.dll
52. System.Web.Mvc.xml
53. System.Web.Optimization.dll
54. System.Web.Providers.dll
55. System.Web.Razor.dll
56. System.Web.Razor.xml
57. System.Web.WebPages.Deployment.dll
58. System.Web.WebPages.Deployment.xml
59. System.Web.WebPages.dll
60. System.Web.WebPages.Razor.dll
61. System.Web.WebPages.Razor.xml
62. System.Web.WebPages.xml
63. Tourreau.Gilles.FaxDotNet.dll
64. Tourreau.Gilles.FaxDotNet.pdb
65. Tourreau.Gilles.FaxDotNet.xml
66. WCFService.dll
67. WCFService.pdb

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

68. WebApi.dll
69. WebApi.pdb
70. Wedge.exe
71. Wedge.pdb
72. XML folder contains and Sytlesheets subfolder. The subfolder contains:
    a. CDAToHTMLCompleteReport.xslt
    b. CDAToHTMLImpressionSection.xslt
    c. CDATorRIS.xslt
    d. CDAToTxt.xslt
    e. DocumentModelReport.xslt
    f. DocumentModelReportAsXml.xslt

## 4. Intended Audience

This document is created by the RIS Development team for the RadNet RIS Implementation team.

## 5. Who is affected

Build 41 installs. This server update must be applied directly to the build 41 core install. Server updates are not cumulative. Any previous server updates must be applied before this one.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 6. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 40 | - | 1.3.40.16628 | 1.3.40.16628 | 1.3.40.16628 | 1.3.40.16628 | Full version release |
| 40 | 1 | 1.3.40.16849 | 1.3.40.16659 | 1.3.40.16744 | 1.3.40.16727 | GUI.zip, Web service, database updates and SQL Management reporting |
| 40 | 2 | 1.3.40.16868 | 1.3.40.16659 | 1.3.40.16868 | 1.3.40.16727 | GUI.zip and Web Service |
| 40 | 3 | 1.3.40.16868 | 1.3.40.16659 | 1.3.40.16868 | 1.3.40.16727 | DB updated only |
| 40 | 4 | 1.3.40.16967 | 1.3.40.16659 | 1.3.40.16932 | 1.3.40.16961 | GUI.zip, Web service, database updates |
| 40 | 5 | 1.3.40.17087 | 1.3.40.16659 | 1.3.40.17069 | 1.3.40.17087 | GUI.zip, Web service, database updates |
| 40 | 6 | 1.3.40.17146 | 1.3.40.16659 | 1.3.40.17146 | 1.3.40.17146 | GUI.zip, Web service, database updates |
| 40 | 7 | 1.3.40.17268 | 1.3.40.16659 | 1.3.40.17268 | 1.3.40.17259 | GUI.zip, Web service, database updates |
| 40 | 8 | 1.3.40.17364 | 1.3.40.16659 | 1.3.40.17362 | 1.3.40.17343 | GUI.zip, Web service, database updates |
| 40 | 9 | 1.3.40.17370 | 1.3.40.16659 | 1.3.40.17370 | 1.3.40.17370 | GUI.zip, Web service, database updates |
| 40 | 10 | 1.3.40.17435 | 1.3.40.16659 | 1.3.40.17435 | 1.3.40.17370 | **64 BIT web service**. GUI.zip, Webservice. |
| 40 | 11 | 1.3.40.17435 | 1.3.40.16659 | 1.3.40.17525 | 1.3.40.17370 | Web service update |
| 40 | 12 | 1.3.40.17685 | 1.3.40.16659 | 1.3.40.17685 | 1.3.40.17648 | GUI.zip, Web service, database updates |
| 40 | 13 | 1.3.40.17776 | 1.3.40.16659 | 1.3.40.17776 | 1.3.40.17648 | GUI.zip, Web service |
| 40 | 14 | 1.3.40.18063(3GB) | 1.3.40.16659 | 1.3.40.18063 | 1.3.40.18063 | GUI.zip, Web service, database updates |
| 40 | 14.1 | 1.3.40.18063(3GB) | 1.3.40.16659 | 1.3.40.18107 | 1.3.40.18063 | Web service |
| 40 | 15 | 1.3.40.18127(3GB) | 1.3.40.16659 | 1.3.40.18127 | 1.3.40.18127 | GUI.zip, Web service, database updates |
| 40 | 16 | 1.1.3.40.18585 (3GB) | 1.3.40.16659 | 1.3.40.18585 | 1.3.40.18646 | GUI.zip, Web service, database updates |
| 40 | 16.1 | 1.3.40.18705 (3GB) | 1.3.40.16659 | 1.3.40.18585 | 1.3.40.18646 | GUI.zip |
| 40 | 17 | 1.3.40.18780 (3GB) | 1.3.40.18756 | 1.3.40.18756 | 1.3.40.18646 | **Core install required** for Radiologist User Group. GUI.zip, Core setup, and Web Service updates |
| 40 | 18 | 1.3.40.19253(3GB) | 1.3.40.18756 | 1.3.40.18756 | 1.3.40.19253 | GUI.zip, Web Service and database updates |
| 40 | 19 | 1.3.40.19909(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | GUI.zip, Web Service |
| 40 | 20 | 1.3.40.20086(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | Gui.zip and Recognizer |
| 41 | - | 1.3.41.19135(3GB) | 1.3.41.19135 | 1.3.41.19135 | 1.3.41.19135 | Full version release |
| 41 | 1 | 1.3.41.19356(3GB) | 1.3.41.19135 | 1.3.41.19346 | 1.3.41.19346 | GUI.zip, Web Service and database updates |
| 41 | 2 | 1.3.41.19620(3GB) | 1.3.41.19135 | 1.3.41.19620 | 1.3.41.19346 | GUI.zip and Web Service |
| 41 | 2sf | 1.3.41.19620SF(3G) | 1.3.41.19135 | 1.3.41.19620 | 1.3.41.19346 | GUI.zip |
| 41 | 2.1 | 1.3.41.20622(3GB) | 1.3.41.19135 | 1.3.41.20617 | 1.3.41.19346 | GUI.zip and Web Service |
| 41 | 3 | 1.3.41.20171(3GB) | 1.3.41.19135 | 1.3.41.20171 | 1.3.41.19346 | GUI.zip , Web Service and Recognizer |
| 41 | 4 | 1.3.41.20285(3GB) | 1.3.41.19135 | 1.3.41.20171 | 1.3.41.19346 | GUI.zip |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 7. Installing

1) Copy and replace the current rRIS…zip file with the rRIS_1.3.41.20622.zip file provided with this release.
   Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

2) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService. Be sure to make backup of all files, but especially the rRISServices.exe.config and rRISServices.vshost.exe.config files.
   *rRISService directories include:*
   *a) rRISService*
   *b) CDS rRISService*
   *c) Wedge rRISService*
   *d) DDE rRISService*

   Restart each service.

## 8. Known Limitations

Known limitations listed in this document may not have been introduced in 41.002.1, but have been discovered during testing of 41.002.1.

| Redmine # | Subject | Info |
|---|---|---|
| 5409 | Legacy PDF documents are not rendering in HTML | This is feature not completed not really a Known Limitation. Making note as it was communicated that Redmine item 5409 would be in this release. |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

For eRAD RIS
Version 1.0
Build 41
Update 41.002SF

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Defects Resolved ..... 3
2. Code Stream ..... 3
3. Package Contents ..... 4
4. Intended Audience ..... 4
5. Who is affected ..... 4
6. eRAD RIS Release Version Numbers ..... 5
7. Installing ..... 6

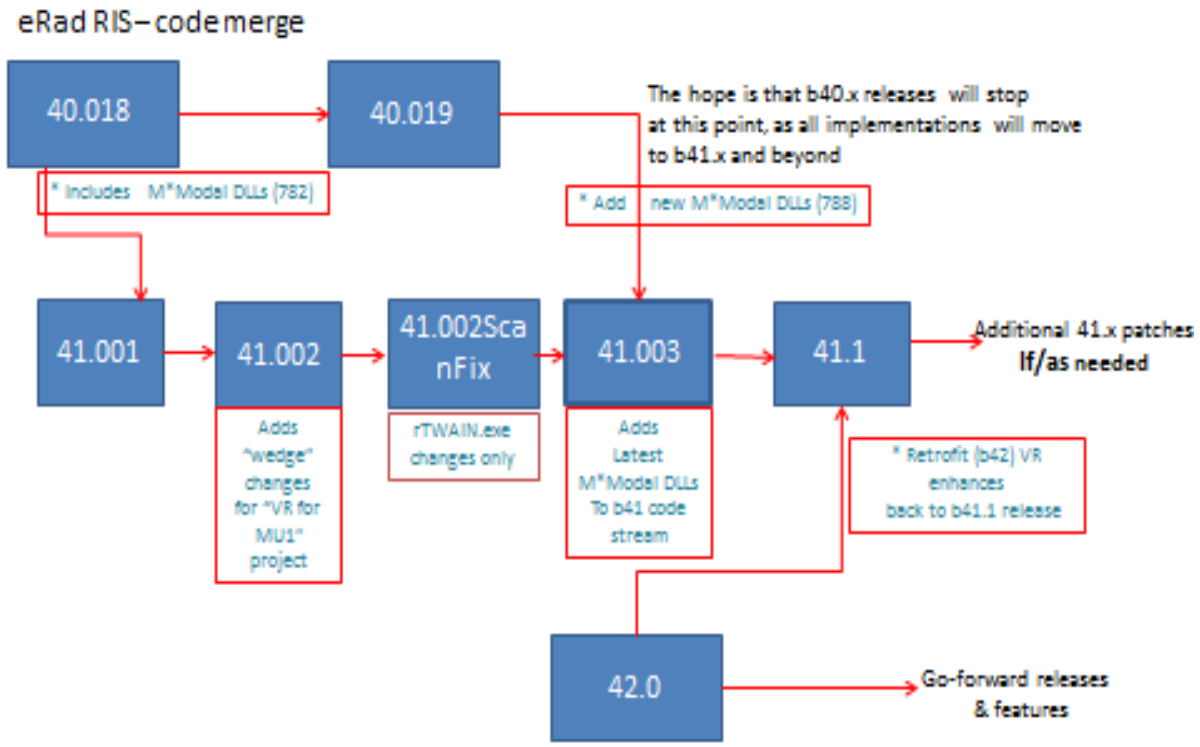
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 1. Defects Resolved

The following defects that have been resolved in the 41.001 server release

| Redmine # | Subject | Priority |
|---|---|---|
| 5212 | Scanner loads previous patients scans in preview after scanning | Urgent |

## 2. Code Stream




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 3. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains
   a) rRIS_1.3.41.199620SF (3GB).zip

## 4. Intended Audience

This document is created by the RIS Development team for the RadNet RIS Implementation team.

## 5. Who is affected

Build 41 installs. This server update **must be applied directly to the build 41 core install**. Server updates are not cumulative. Any previous server updates must be applied before this one.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 6. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 39 | - | 1.3.39.15389 | 1.3.39.15389 | 1.3.39.15377 | 1.3.39.15355 | Full version release |
| 39 | 1 | 1.3.39.16026 | 1.3.39.15943 | 1.3.39.15943 | 1.3.39.15957 | Requires Core Install. GUI.zip, Web Service, and Database updates |
| 40 | - | 1.3.40.16628 | 1.3.40.16628 | 1.3.40.16628 | 1.3.40.16628 | Full version release |
| 40 | 1 | 1.3.40.16849 | 1.3.40.16659 | 1.3.40.16744 | 1.3.40.16727 | GUI.zip, Web service, database updates and SQL Management reporting |
| 40 | 2 | 1.3.40.16868 | 1.3.40.16659 | 1.3.40.16868 | 1.3.40.16727 | GUI.zip and Web Service |
| 40 | 3 | 1.3.40.16868 | 1.3.40.16659 | 1.3.40.16868 | 1.3.40.16727 | DB updated only |
| 40 | 4 | 1.3.40.16967 | 1.3.40.16659 | 1.3.40.16932 | 1.3.40.16961 | GUI.zip, Web service, database updates |
| 40 | 5 | 1.3.40.17087 | 1.3.40.16659 | 1.3.40.17069 | 1.3.40.17087 | GUI.zip, Web service, database updates |
| 40 | 6 | 1.3.40.17146 | 1.3.40.16659 | 1.3.40.17146 | 1.3.40.17146 | GUI.zip, Web service, database updates |
| 40 | 7 | 1.3.40.17268 | 1.3.40.16659 | 1.3.40.17268 | 1.3.40.17259 | GUI.zip, Web service, database updates |
| 40 | 8 | 1.3.40.17364 | 1.3.40.16659 | 1.3.40.17362 | 1.3.40.17343 | GUI.zip, Web service, database updates |
| 40 | 9 | 1.3.40.17370 | 1.3.40.16659 | 1.3.40.17370 | 1.3.40.17370 | GUI.zip, Web service, database updates |
| 40 | 10 | 1.3.40.17435 | 1.3.40.16659 | 1.3.40.17435 | 1.3.40.17370 | **64 BIT web service**. GUI.zip, Webservice. |
| 40 | 11 | 1.3.40.17435 | 1.3.40.16659 | 1.3.40.17525 | 1.3.40.17370 | Web service update |
| 40 | 12 | 1.3.40.17685 | 1.3.40.16659 | 1.3.40.17685 | 1.3.40.17648 | GUI.zip, Web service, database updates |
| 40 | 13 | 1.3.40.17776 | 1.3.40.16659 | 1.3.40.17776 | 1.3.40.17648 | GUI.zip, Web service |
| 40 | 14 | 1.3.40.18063(3GB) | 1.3.40.16659 | 1.3.40.18063 | 1.3.40.18063 | GUI.zip, Web service, database updates |
| 40 | 14.1 | 1.3.40.18063(3GB) | 1.3.40.16659 | 1.3.40.18107 | 1.3.40.18063 | Web service |
| 40 | 15 | 1.3.40.18127(3GB) | 1.3.40.16659 | 1.3.40.18127 | 1.3.40.18127 | GUI.zip, Web service, database updates |
| 40 | 16 | 1.1.3.40.18585 (3GB) | 1.3.40.16659 | 1.3.40.18585 | 1.3.40.18646 | GUI.zip, Web service, database updates |
| 40 | 16.1 | 1.3.40.18705 (3GB) | 1.3.40.16659 | 1.3.40.18585 | 1.3.40.18646 | GUI.zip |
| 40 | 17 | 1.3.40.18780 (3GB) | 1.3.40.18756 | 1.3.40.18756 | 1.3.40.18646 | **Core install required** for Radiologist User Group. GUI.zip, Core setup, and Web Service updates |
| 40 | 18 | 1.3.40.19253(3GB) | 1.3.40.18756 | 1.3.40.18756 | 1.3.40.19253 | GUI.zip, Web Service and database updates |
| 41 | - | 1.3.41.19135(3GB) | 1.3.41.19135 | 1.3.41.19135 | 1.3.41.19135 | Full version release |
| 41 | 1 | 1.3.41.19356(3GB) | 1.3.41.19135 | 1.3.41.19346 | 1.3.41.19346 | GUI.zip, Web Service and database updates |
| 41 | 2 | 1.3.41.19620(3GB) | 1.3.41.19135 | 1.3.41.19620 | 1.3.41.19346 | GUI.zip and Web Service |
| 41 | 2SF | 1.3.41.19620SF(3GB) | 1.3.41.19135 | 1.3.41.19620 | 1.3.41.19346 | GUI.zip |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 7. Installing

1) Copy and replace the current rRIS…zip file with the rRIS_1.3.40.19620SF.zip file provided with this release.
   Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

For eRAD RIS
Version 1.0
Build 41
Update 41.003

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. New Features ..... 3
   Reporting - Limit or convert special characters in cue names, macros and templates ..... 3
   Reporting - Radiologist edit text color ..... 4
   Reporting - field tooltips staying on top of other screens after displaying ..... 5
2. Defects Resolved ..... 6
3. Code Stream ..... 7
4. Package Contents ..... 8
5. Intended Audience ..... 9
6. Who is affected ..... 9
7. eRAD RIS Release Version Numbers ..... 10
8. Installing ..... 11
9. Known Limitations ..... 11

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# 1. New Features

### Reporting - Limit or convert special characters in cue names, macros and templates

Conversion of special characters in cue names, macros and templates.
In a template if you have a field with a value in the cue like this "Technique :"
When you save the template and reopen it, the : is converted as follows "Technique %colon%".

This feature does the following, while dictating an exam and you say the words Technique colon, your cursor will be brought to the field that has a value of "Technique %colon%" in the cue.

NOTE: The user preference "Aggressive field navigation" must be checked for this feature to work, after checking this preference, a restart of RIS is required.

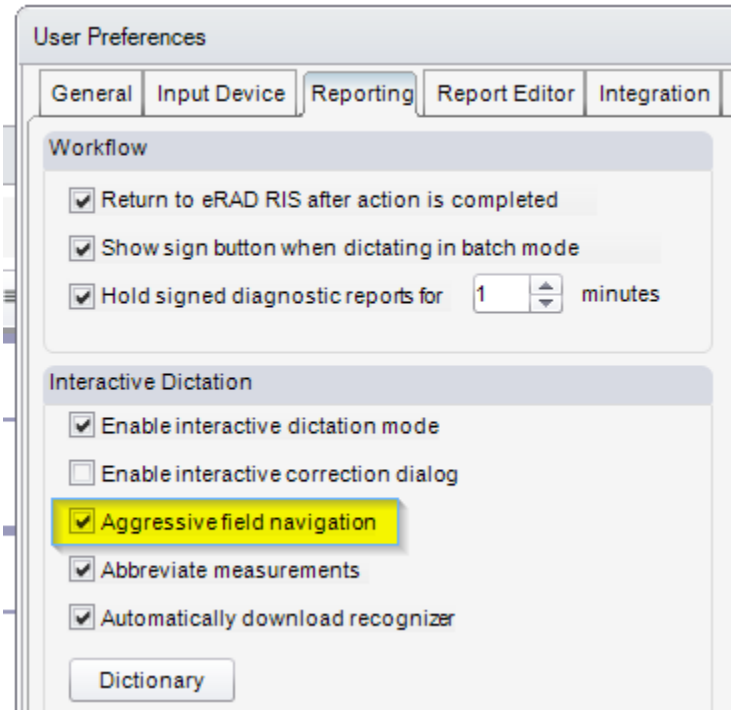



**Figure 1.1 – User preference "Aggressive field navigation"**

NOTE: the user preference "Aggressive field navigation" will need to be selected for "No Wait Navigate". We had issues in the past when dictating in Field 1 and before the text was inserted the command for next field was issued. The text that had not yet been inserted in Field 1 would appear in Field 2. This has been addressed, but as mentioned above the Aggressive field navigation user preference needs to be enabled.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## Reporting - Radiologist edit text color

Within the reporting window, the user can open the context menu (right click) on the editor. This will present the user with a list of options. Selecting the "Editor Appearance" option will open the "Editor Appearance" window. A new option has been added.

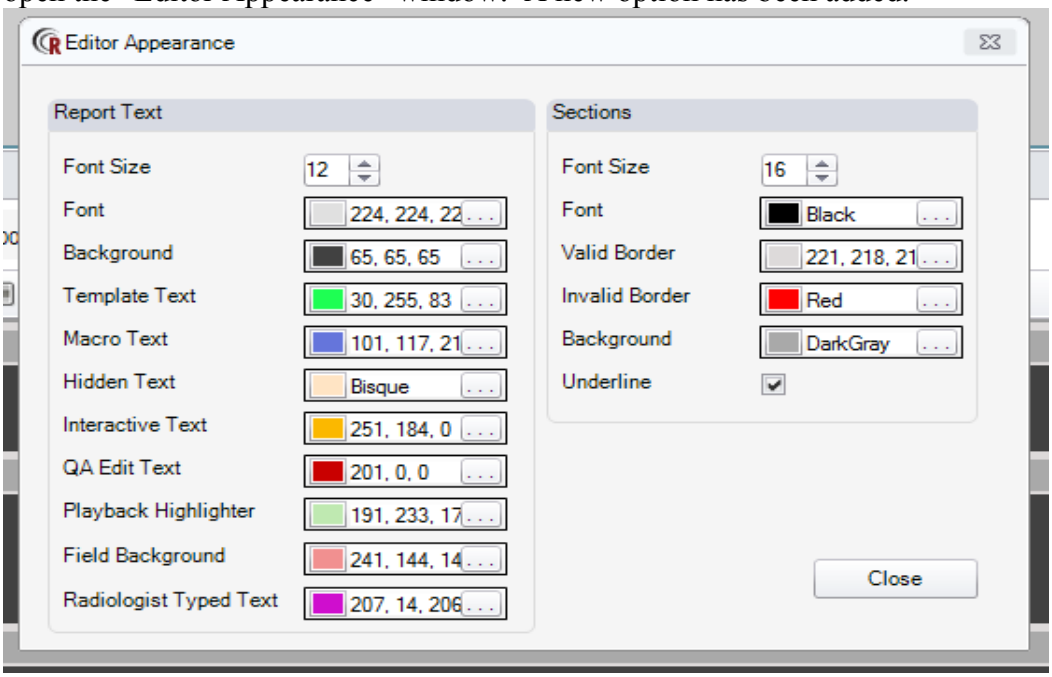



**Figure 1.2 – Editor Appearance window with new Radiologist Typed Text option**

This new option controls the color of the manually entered/edited text by the radiologist

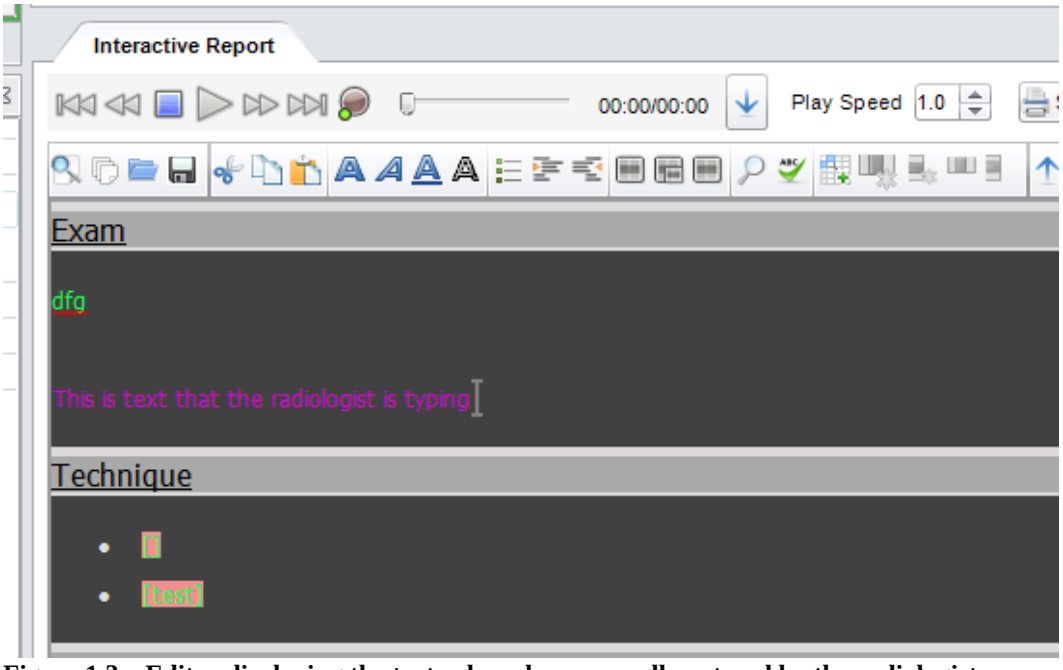



**Figure 1.3 – Editor displaying the text color when manually entered by the radiologist.**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## Reporting - field tooltips staying on top of other screens after displaying

Templates used in the reporting window can have navigational fields pre-defined in the template. Each of these fields has a name associated with it. If the mouse pointer hovers over a field it will display the field name in a tooltip.

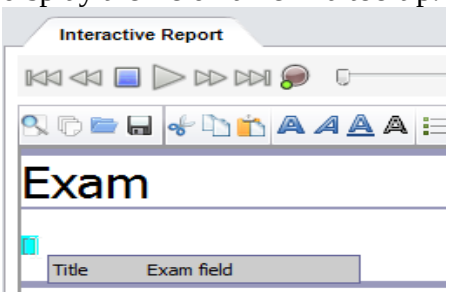



**Figure 1.4 – Reporting field tooltip.**

A new user preference on the Report Editor tab called "Show report field tooltips" will enable/disable the tooltip from displaying.

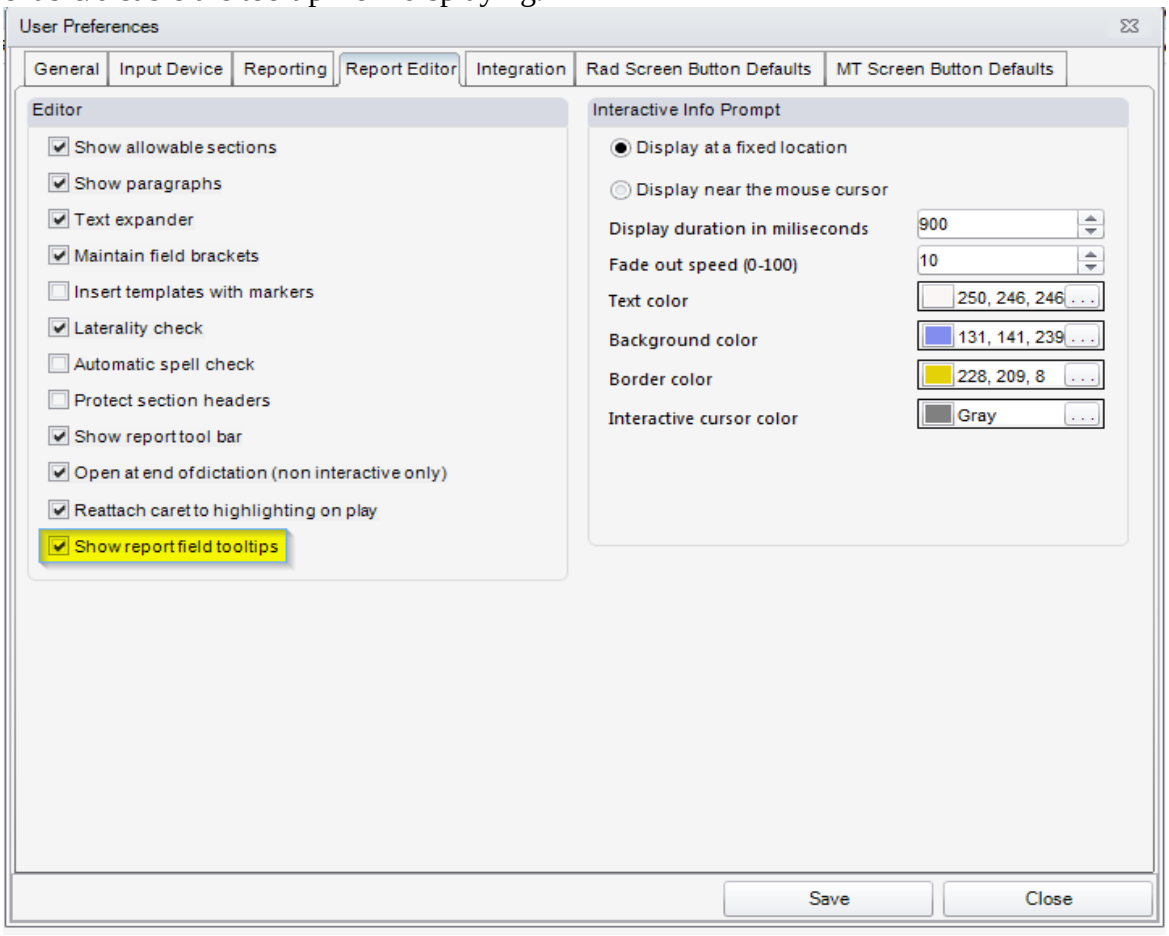



**Figure 1.5 – New User Preference "Show report field tooltips"**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

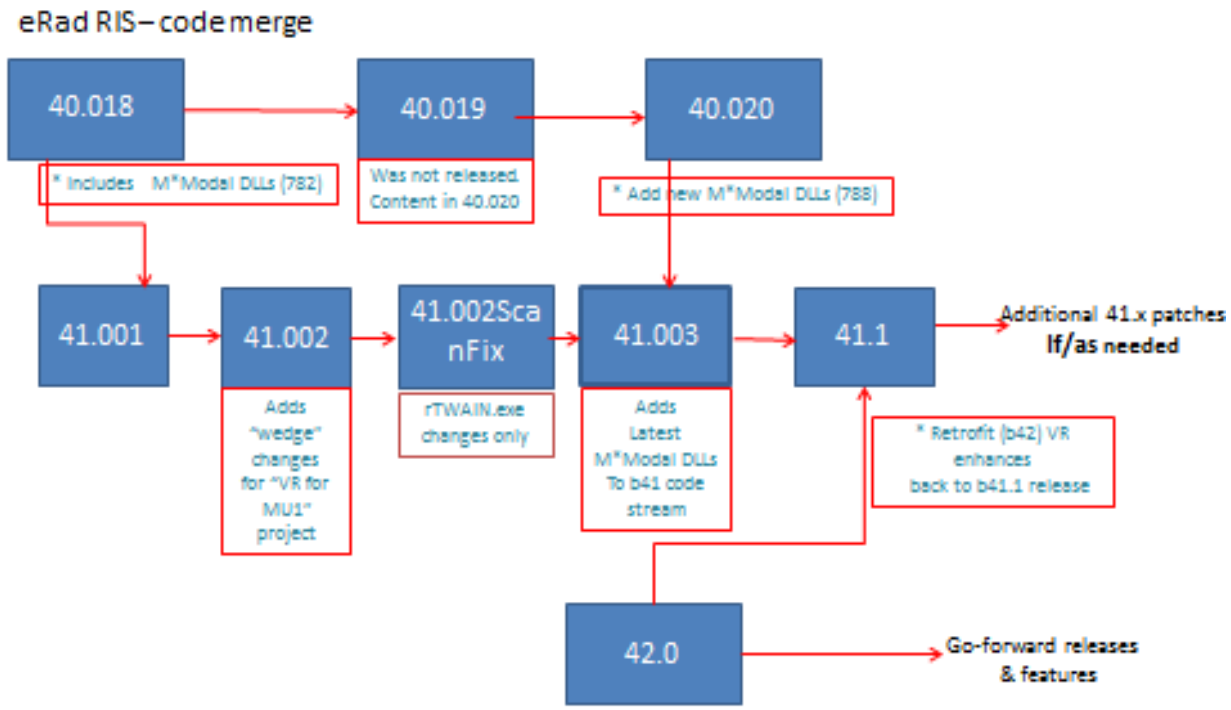
## 2. Defects Resolved

| Redmine # | Subject | Priority |
|---|---|---|
| 5251 | Document Distribution - EMR Sender functionality broke in B41 | Immediate |
| 5163 | Losing default value for fields when saving template/macro | Immediate |
| 5212 | Scanner loads previous patients scans in preview after scanning (RRR) | Urgent |
| 5184 | Arrive individual exams error (RRR) | Urgent |
| 5035 | Wrong document model is loading in template editor | Urgent |
| 5140 | Editing fields in template editor sometimes throws an exception | High |
| 5036 | Reporting - ability to navigate cued fields without pausing | High |
| 5034 | Reporting - 7.82+ Numbering paragraphs creates an unwanted list | High |
| 5032 | Reporting - playback is not in order of dictated | High |
| 5030 | Sections from incorrect practice loading into template editor | High |
| 5027 | Using next field button while dictating (Fisher site visit) | High |
| 5167 | Aggresive field cue navigation fails after editing a cue on a template. | Normal |
| 5149 | Reporting - speech mics 3500 and 3600 showing incorrectly in Help>About | Normal |
| 5049 | Reporting - New recognizer for 7.88 | Normal |
| 5047 | Next field voice command, showing field popup for one field too far. | Normal |
| 5046 | Reporting - ability to configure the completeTimeout setting for interactive dictation | Normal |
| 5045 | Reporting - ability to configure the finalTimeout setting for interactive dictation | Normal |
| 5044 | Reporting - ability to configure the speedVsAccuracy setting for interactive dictation | Normal |
| 5043 | Reporting - improper captialization of measurements outside of a field | Normal |
| 5042 | Reporting - structured lists splitting when dictating next item in the middle of an existing item | Normal |
| 5041 | Reporting - ability to dictate 'next item' without pausing | Normal |
| 5040 | Reporting - integrate M*MOdal 7.88 release into 41.1 code stream. | Normal |
| 5039 | Reporting - negative two views rendering | Normal |
| 5038 | Reporting - Limit or convert special characters in cue names, macros and templates | Normal |
| 5037 | Reporting - ability to dictate negative or minus numbers | Normal |
| 5033 | Reporting - interactive dictation of the word "through" appearing as "-" not ideal | Normal |
| 5031 | Reporting - AudioReplacementEnabled on causes "undo that" to malfunction | Normal |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

| | | |
|---|---|---|
| 5028 | Improve performance of "next field" (CRA site visit) | Normal |
| 5023 | Reporting - Not a field exception causing application hang | Normal |
| 5022 | MModal - select command will not select first or last word in a field | Normal |
| 5020 | Reporting - interactive number lists are not consistent | Normal |
| 5019 | Reporting - field tooltips staying on top of other screens after displaying | Normal |
| 4801 | NewCrop UPIN problem | Normal |
| 5029 | Unable to dictate "+" into a report (CRA site visit) | Low |

## 3. Code Stream




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 4. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains
   a) rRIS_1.3.41.20171 (3GB).zip

2) RIS Service Updates folder contains the following files.
   a) CDSJobManager.dll
   b) CDSJobManager.pdb
   c) CommonLib.dll
   d) CommonLib.pdb
   e) DDEngine.dll
   f) DDEngine.pdb
   g) rRISServices.exe
   h) rRISServices.pdb
   i) rRISServicesx64.exe
   j) ScheduledTaskManager.dll
   k) ScheduledTaskManager.pdb
   l) SignatureApprovalService.exe
   m) SignatureApprovalService.pdb
   n) WCFService.dll
   o) WCFService.pdb
   p) WebApi.dll
   q) WebApi.pdb
   r) Wedge.exe
   s) Wedge.pdb

3) Recognizer folder contains:
   a) 7~Recognizer.MtiRecognitionUS.Radiology_Interactive_v13_v5_401.12965.xc
   b) 7~Recognizer.MtiRecognitionUS.Radiology_Interactive_v13_v5_401.12965-descriptor.xc

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 5. Intended Audience

This document is created by the RIS Development team for the RadNet RIS Implementation team.

## 6. Who is affected

Build 41 installs. This server update must be applied directly to the build 41 core install. Server updates are not cumulative. Any previous server updates must be applied before this one.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 7. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 40 | - | 1.3.40.16628 | 1.3.40.16628 | 1.3.40.16628 | 1.3.40.16628 | Full version release |
| 40 | 1 | 1.3.40.16849 | 1.3.40.16659 | 1.3.40.16744 | 1.3.40.16727 | GUI.zip, Web service, database updates and SQL Management reporting |
| 40 | 2 | 1.3.40.16868 | 1.3.40.16659 | 1.3.40.16868 | 1.3.40.16727 | GUI.zip and Web Service |
| 40 | 3 | 1.3.40.16868 | 1.3.40.16659 | 1.3.40.16868 | 1.3.40.16727 | DB updated only |
| 40 | 4 | 1.3.40.16967 | 1.3.40.16659 | 1.3.40.16932 | 1.3.40.16961 | GUI.zip, Web service, database updates |
| 40 | 5 | 1.3.40.17087 | 1.3.40.16659 | 1.3.40.17069 | 1.3.40.17087 | GUI.zip, Web service, database updates |
| 40 | 6 | 1.3.40.17146 | 1.3.40.16659 | 1.3.40.17146 | 1.3.40.17146 | GUI.zip, Web service, database updates |
| 40 | 7 | 1.3.40.17268 | 1.3.40.16659 | 1.3.40.17268 | 1.3.40.17259 | GUI.zip, Web service, database updates |
| 40 | 8 | 1.3.40.17364 | 1.3.40.16659 | 1.3.40.17362 | 1.3.40.17343 | GUI.zip, Web service, database updates |
| 40 | 9 | 1.3.40.17370 | 1.3.40.16659 | 1.3.40.17370 | 1.3.40.17370 | GUI.zip, Web service, database updates |
| 40 | 10 | 1.3.40.17435 | 1.3.40.16659 | 1.3.40.17435 | 1.3.40.17370 | **64 BIT web service**. GUI.zip, Webservice. |
| 40 | 11 | 1.3.40.17435 | 1.3.40.16659 | 1.3.40.17525 | 1.3.40.17370 | Web service update |
| 40 | 12 | 1.3.40.17685 | 1.3.40.16659 | 1.3.40.17685 | 1.3.40.17648 | GUI.zip, Web service, database updates |
| 40 | 13 | 1.3.40.17776 | 1.3.40.16659 | 1.3.40.17776 | 1.3.40.17648 | GUI.zip, Web service |
| 40 | 14 | 1.3.40.18063(3GB) | 1.3.40.16659 | 1.3.40.18063 | 1.3.40.18063 | GUI.zip, Web service, database updates |
| 40 | 14.1 | 1.3.40.18063(3GB) | 1.3.40.16659 | 1.3.40.18107 | 1.3.40.18063 | Web service |
| 40 | 15 | 1.3.40.18127(3GB) | 1.3.40.16659 | 1.3.40.18127 | 1.3.40.18127 | GUI.zip, Web service, database updates |
| 40 | 16 | 1.1.3.40.18585 (3GB) | 1.3.40.16659 | 1.3.40.18585 | 1.3.40.18646 | GUI.zip, Web service, database updates |
| 40 | 16.1 | 1.3.40.18705 (3GB) | 1.3.40.16659 | 1.3.40.18585 | 1.3.40.18646 | GUI.zip |
| 40 | 17 | 1.3.40.18780 (3GB) | 1.3.40.18756 | 1.3.40.18756 | 1.3.40.18646 | **Core install required** for Radiologist User Group. GUI.zip, Core setup, and Web Service updates |
| 40 | 18 | 1.3.40.19253(3GB) | 1.3.40.18756 | 1.3.40.18756 | 1.3.40.19253 | GUI.zip, Web Service and database updates |
| 40 | 19 | 1.3.40.19909(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | GUI.zip, Web Service |
| 40 | 20 | 1.3.40.20086(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | Gui.zip and Recognizer |
| 41 | - | 1.3.41.19135(3GB) | 1.3.41.19135 | 1.3.41.19135 | 1.3.41.19135 | Full version release |
| 41 | 1 | 1.3.41.19356(3GB) | 1.3.41.19135 | 1.3.41.19346 | 1.3.41.19346 | GUI.zip, Web Service and database updates |
| 41 | 2 | 1.3.41.19620(3GB) | 1.3.41.19135 | 1.3.41.19620 | 1.3.41.19346 | GUI.zip and Web Service |
| 41 | 3 | 1.3.41.20171(3GB) | 1.3.41.19135 | 1.3.41.20171 | 1.3.41.19346 | GUI.zip , Web Service and Recognizer |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 8. Installing

1) Copy and replace the current rRIS…zip file with the rRIS_1.3.41.20171.zip file provided with this release.
   Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

2) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService. Be sure to make backup of all files, but especially the rRISServices.exe.config and rRISServices.vshost.exe.config files.
   *rRISService directories include:*
   a) *rRISService*
   b) *CDS rRISService*
   c) *Wedge rRISService*
   d) *DDE rRISService*

   Restart each service.

3) Copy the Recognizer files to your local machine to the following folder.
   Note: this could be a hidden folder.
   C:\ProgramData\RadNet\Recognizer\2.16.840.1.113883.3.21\

## 9. Known Limitations

Known limitations listed in this document may not have been introduced in 41.003, but have been discovered during testing of 41.003.

| Redmine # | Subject | Info |
|---|---|---|
| 5245 | Reporting - Spine navigational cues are not recognized | My cues were configured as<br>1. C two dash three colon<br>2. C three dash four colon<br>3. C four dash five colon<br><br>I changed them to be<br>1. C two colon<br>2. C three colon<br>3. C four colon<br>The change in cues names worked much better |
| 5248 | Reporting - Edit template from reporting window error | This was only occurring with one of my templates. If this occurs try “refresh configuration”. If that does not work |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

| | | |
|---|---|---|
| | | open the same template in the TemplateMacro editor and save. |
| 5249 | Reporting - Shift Tab in the template editor or reporting editor will return error | |
| 5219 | Reporting - Function key action DeleteWordLeftOfCursor will delete fields and section titles | If you continue to select the function key after the text has been removed it will jump to the section title and can also delete it as well |
| 5220 | Reporting - Interactive Info Prompt can show fields that have been jumped over when using Next Section command | If in a section that has multiple field with default text, issue the command Next Section, the interactive info prompt will display the text from the fields that were skipped. |
| 5254 | Reporting - using the undo feature, the cursor is not following the text that is being removed. | Seems to occur when the "undo" feature is used multiple times concurrently. |
| 5260 | Skip and Continue only loads images every other study | Two workarounds exist for this.<br>1. Turn off (unselect) user preference "Resuse reporting screen"<br>2. If using "Reuse reporting screen" select the Load images icon in the reporting window. |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

For eRAD RIS
Version 1.0
Build 41
Update 41.004

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

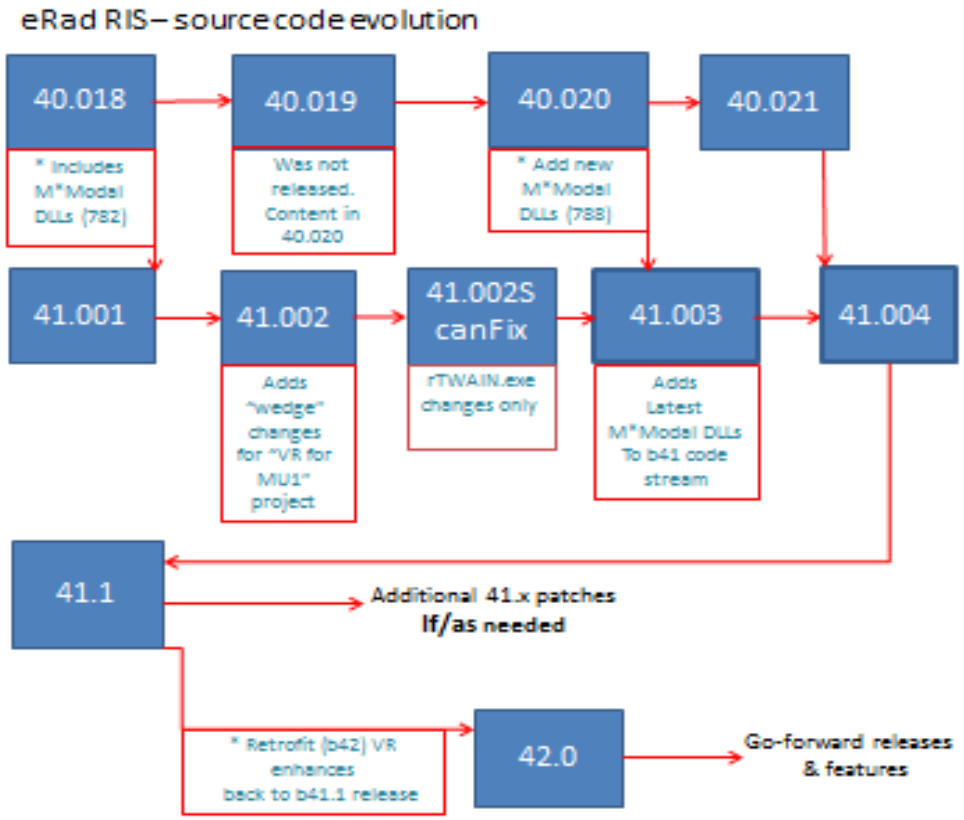
1. Defects Resolved ..... 3
2. Code Stream ..... 3
3. Package Contents ..... 4
4. Intended Audience ..... 4
5. Who is affected ..... 4
6. eRAD RIS Release Version Numbers ..... 5
7. Installing ..... 6
8. Known Limitations ..... 6

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 1. Defects Resolved

| Redmine # | Subject | Priority |
|---|---|---|
| 5503 | RIS does not retrieve lookup tables / configuration changes under certain circumstances | High |
| 5286 | Constraint error when trying to printing forms on a study that has been dictated | Normal |

## 2. Code Stream




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 3. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains
   a) rRIS_1.3.41.20285 (3GB).zip

## 4. Intended Audience

This document is created by the RIS Development team for the RadNet RIS Implementation team.

## 5. Who is affected

Build 41 installs. This server update must be applied directly to the build 41 core install. Server updates are not cumulative. Any previous server updates must be applied before this one.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 6. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 40 | - | 1.3.40.16628 | 1.3.40.16628 | 1.3.40.16628 | 1.3.40.16628 | Full version release |
| 40 | 1 | 1.3.40.16849 | 1.3.40.16659 | 1.3.40.16744 | 1.3.40.16727 | GUI.zip, Web service, database updates and SQL Management reporting |
| 40 | 2 | 1.3.40.16868 | 1.3.40.16659 | 1.3.40.16868 | 1.3.40.16727 | GUI.zip and Web Service |
| 40 | 3 | 1.3.40.16868 | 1.3.40.16659 | 1.3.40.16868 | 1.3.40.16727 | DB updated only |
| 40 | 4 | 1.3.40.16967 | 1.3.40.16659 | 1.3.40.16932 | 1.3.40.16961 | GUI.zip, Web service, database updates |
| 40 | 5 | 1.3.40.17087 | 1.3.40.16659 | 1.3.40.17069 | 1.3.40.17087 | GUI.zip, Web service, database updates |
| 40 | 6 | 1.3.40.17146 | 1.3.40.16659 | 1.3.40.17146 | 1.3.40.17146 | GUI.zip, Web service, database updates |
| 40 | 7 | 1.3.40.17268 | 1.3.40.16659 | 1.3.40.17268 | 1.3.40.17259 | GUI.zip, Web service, database updates |
| 40 | 8 | 1.3.40.17364 | 1.3.40.16659 | 1.3.40.17362 | 1.3.40.17343 | GUI.zip, Web service, database updates |
| 40 | 9 | 1.3.40.17370 | 1.3.40.16659 | 1.3.40.17370 | 1.3.40.17370 | GUI.zip, Web service, database updates |
| 40 | 10 | 1.3.40.17435 | 1.3.40.16659 | 1.3.40.17435 | 1.3.40.17370 | **64 BIT web service**. GUI.zip, Webservice. |
| 40 | 11 | 1.3.40.17435 | 1.3.40.16659 | 1.3.40.17525 | 1.3.40.17370 | Web service update |
| 40 | 12 | 1.3.40.17685 | 1.3.40.16659 | 1.3.40.17685 | 1.3.40.17648 | GUI.zip, Web service, database updates |
| 40 | 13 | 1.3.40.17776 | 1.3.40.16659 | 1.3.40.17776 | 1.3.40.17648 | GUI.zip, Web service |
| 40 | 14 | 1.3.40.18063(3GB) | 1.3.40.16659 | 1.3.40.18063 | 1.3.40.18063 | GUI.zip, Web service, database updates |
| 40 | 14.1 | 1.3.40.18063(3GB) | 1.3.40.16659 | 1.3.40.18107 | 1.3.40.18063 | Web service |
| 40 | 15 | 1.3.40.18127(3GB) | 1.3.40.16659 | 1.3.40.18127 | 1.3.40.18127 | GUI.zip, Web service, database updates |
| 40 | 16 | 1.1.3.40.18585 (3GB) | 1.3.40.16659 | 1.3.40.18585 | 1.3.40.18646 | GUI.zip, Web service, database updates |
| 40 | 16.1 | 1.3.40.18705 (3GB) | 1.3.40.16659 | 1.3.40.18585 | 1.3.40.18646 | GUI.zip |
| 40 | 17 | 1.3.40.18780 (3GB) | 1.3.40.18756 | 1.3.40.18756 | 1.3.40.18646 | **Core install required** for Radiologist User Group. GUI.zip, Core setup, and Web Service updates |
| 40 | 18 | 1.3.40.19253(3GB) | 1.3.40.18756 | 1.3.40.18756 | 1.3.40.19253 | GUI.zip, Web Service and database updates |
| 40 | 19 | 1.3.40.19909(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | GUI.zip, Web Service |
| 40 | 20 | 1.3.40.20086(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | Gui.zip and Recognizer |
| 40 | 21 | 1.3.40.20232(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | Gui.zip |
| 41 | - | 1.3.41.19135(3GB) | 1.3.41.19135 | 1.3.41.19135 | 1.3.41.19135 | Full version release |
| 41 | 1 | 1.3.41.19356(3GB) | 1.3.41.19135 | 1.3.41.19346 | 1.3.41.19346 | GUI.zip, Web Service and database updates |
| 41 | 2 | 1.3.41.19620(3GB) | 1.3.41.19135 | 1.3.41.19620 | 1.3.41.19346 | GUI.zip and Web Service |
| 41 | 3 | 1.3.41.20171(3GB) | 1.3.41.19135 | 1.3.41.20171 | 1.3.41.19346 | GUI.zip , Web Service and Recognizer |
| 41 | 4 | 1.3.41.20285(3GB) | 1.3.41.19135 | 1.3.41.20171 | 1.3.41.19346 | GUI.zip |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 7. Installing

1) Copy and replace the current rRIS…zip file with the rRIS_1.3.41.20285.zip file provided with this release.
   Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

## 8. Known Limitations

Known limitations listed in this document may not have been introduced in 41.004, but have been discovered during testing of 41.004.

| Redmine # | Subject | Info |
|---|---|---|
| 5268 | Reporting - Automatic spell check "on the fly" marks words as misspelled that are at the beginning of a field | With the user preference Automatic Spell Check on, words that are at the begging of a field will be recognized as spelling errors. Once the Radiologist selects the Sign button (transcribe for MT's) they are prompted with the Spell Check. Selecting Yes on this prompt will then determine that there were in fact no spelling mistakes.<br>If there are spelling errors it will still detect those and highlight and provide options to correct. |
| 5306 | Reporting - Dictionary Add / Train changes | This is behaving slightly different than before.<br>In previous versions the user opened the Dictionary window > Add / Train window, entered text, selected the Record Pronunciation once to capture the voice recording of the word entered and select the Record Pronunciation again to stop.<br><br>In 41.004 the user will open the Dictionary window > Add / Train window, enter text, NOW they must initiate the record on the SpeechMike, then select the Record Pronunciation button to capture the voice recording of the word entered. There are 2 different modes of using the record button.<br>If user preference "Stop recording when button is released" is selected the user must select and hold the record |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

| | | |
|---|---|---|
| | | button, select the Record Pronunciation button and to stop recording the pronunciation release the record button on the SpeechMike<br>If user preference "Stop recording when button is released" is not selected the user must select record on the SpeechMike, select Record Pronunciation in the Add/Train window, once the voice recording is complete select record button on the SpeechMike again to complete. |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

For eRAD RIS
Version 1.0
Build 41
Update 41.005

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Defects Resolved ..... 3
2. Code Stream ..... 4
3. Package Contents ..... 5
4. Intended Audience ..... 6
5. Who is affected ..... 6
6. eRAD RIS Release Version Numbers ..... 7
7. Installing ..... 8
8. Known Limitations ..... 8

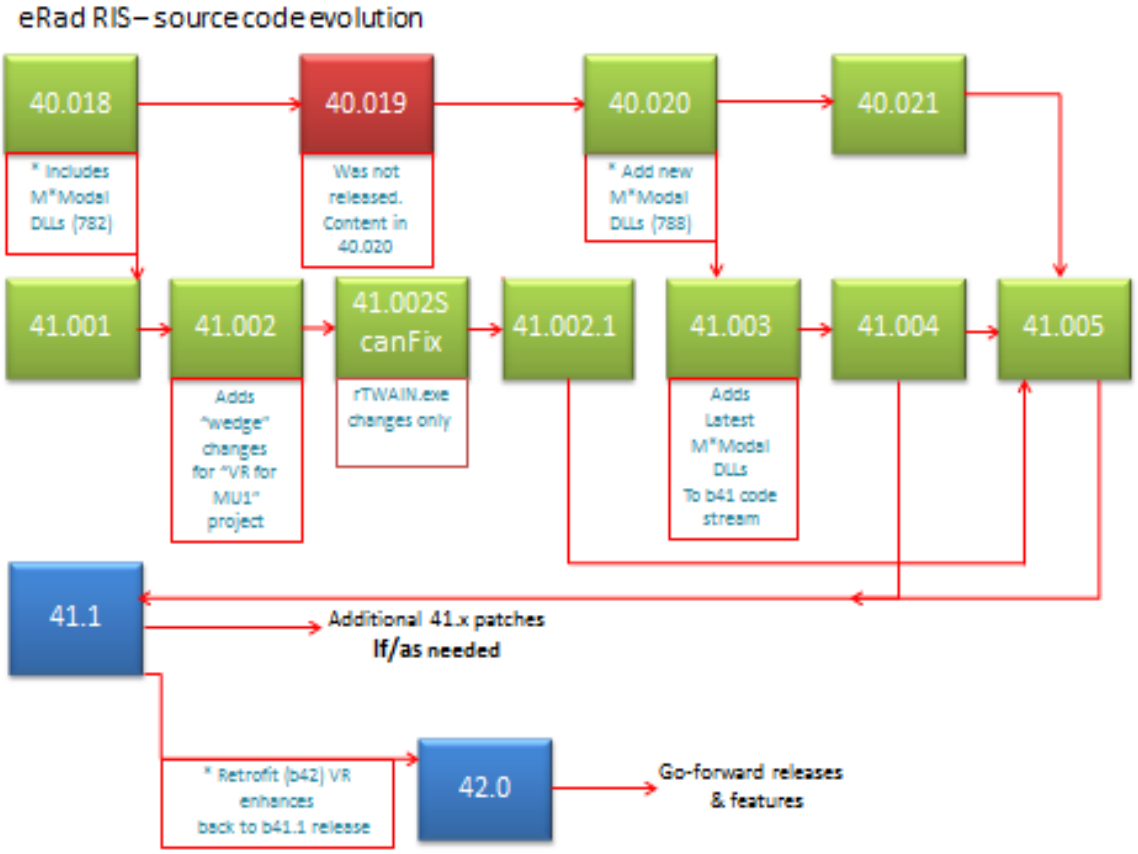
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 1. Defects Resolved

| Redmine # | Subject | Priority |
|---|---|---|
| 5315 | Insert macro can reset a field back to its default value | Immediate |
| 5457 | Merge to B41.1 - Enhance the relevancy calculation to be adjustable via configuraiton | Urgent |
| 5336 | Reporting - Dictionary Add / Train changes | Urgent |
| 5436 | Reporting - possible wrong document model loading if more than one practice | High |
| 5409 | Truxtun - Legacy PDF documents are not rendering in HTML | High |
| 5380 | RRR - Reschedule problem for procedure plans | High |
| 5369 | Canceling Unscheduled orders not appearing on Patient Folder | High |
| 5498 | duplicate "void" payment for the same payment | Normal |
| 5486 | Procedure code assignment screen in template editor keeps button disabled | Normal |
| 5477 | Birad picker either shows on non Birads studies or doesn't show on birad studies. | Normal |
| 5472 | Reporting - Attachments data pane default is report | Normal |
| 5470 | Reporting - default recognizer getting picked up instead of the new one | Normal |
| 5441 | Reporting - rad edit text default color is yellow - should be "#810000" | Normal |
| 5432 | Reporting - dictating negative 5 percent will render the word percent not the symbol | Normal |
| 5349 | Reporting - Laterality check causing duplicate words | Normal |
| 5343 | Playback with bouncing ball, preventing word selection with double click. | Normal |
| 5318 | Dictating previous field moves two fields back instead of one. | Normal |
| 5317 | Reporting - no wait navigate fails when dictating and then clicking next field > 1 time without pausing | Normal |
| 5268 | Reporting - Automatic spell check "on the fly" marks words as misspelled that are at the beginning of a field | Normal |
| 5046 | Reporting - ability to configure the completeTimeout setting for interactive dictation | Normal |
| 5045 | Reporting - ability to configure the finalTimeout setting for interactive dictation | Normal |
| 5044 | Reporting - ability to configure the speedVsAccuracy setting for interactive dictation | Normal |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 2. Code Stream




**Legend:**

**Green = Released software**

**Red = Will not be released**

**Blue = Future release**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 3. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains
   a) rRIS_1.3.41.20809 (3GB).zip

2) Core folder contains a subfolder titled _setup. This subfolder contains
   a) rRisSetup.msi
   b) setup.exe

3) SQL folder contains:
   a) B41_005.sql

4) RIS_Service_Updates
   a) ABCpdf.dll
   b) ABCpdf9-32.dll
   c) ABCpdf9-64.dll
   d) CDSJobManager.dll
   e) CDSJobManager.pdb
   f) CommonLib.dll
   g) CommonLib.pdb
   h) DDEngine.dll
   i) DDEngine.pdb
   j) Interop.FAXCOMEXLib.dll
   k) Microsoft.Practices.EnterpriseLibrary.Caching.dll
   l) Microsoft.Practices.EnterpriseLibrary.Caching.pdb
   m) Microsoft.Practices.EnterpriseLibrary.Common.dll
   n) Microsoft.Practices.EnterpriseLibrary.Common.pdb
   o) Microsoft.Practices.EnterpriseLibrary.Logging.dll
   p) Microsoft.Practices.EnterpriseLibrary.Logging.pdb
   q) Microsoft.Practices.ServiceLocation.dll
   r) Microsoft.Practices.ServiceLocation.pdb
   s) Microsoft.Practices.Unity.dll
   t) Microsoft.Practices.Unity.Interception.dll
   u) Microsoft.Practices.Unity.Interception.pdb
   v) Microsoft.Practices.Unity.pdb
   w) Microsoft.ReportViewer.WinForms.xml
   x) Newtonsoft.Json.dll
   y) Newtonsoft.Json.xml
   z) Ninject.dll
   aa) Ninject.Web.Common.dll
   bb) Ninject.Web.Common.xml
   cc) Ninject.xml
   dd) O2S.Components.PDFRender4NET.dll
   ee) PDFToImages.exe
   ff) rRISServices.exe
   gg) rRISServices.pdb
   hh) rRISServicesx64.exe
   ii) ScheduledTaskManager.dll
   jj) ScheduledTaskManager.pdb
   kk) ServicesConfigWizard.exe
   ll) ServicesConfigWizard.pdb
   mm) SignatureApprovalService.exe
   nn) SignatureApprovalService.pdb
   oo) System.Net.Http.dll
   pp) System.Net.Http.Formatting.dll
   qq) System.Net.Http.Formatting.xml
   rr) System.Net.Http.WebRequest.dll
   ss) System.Net.Http.WebRequest.xml
   tt) System.Net.Http.xml
   uu) System.Web.dll
   vv) System.Web.Helpers.dll
   ww) System.Web.Helpers.xml
   xx) System.Web.Http.dll
   yy) System.Web.Http.SelfHost.dll
   zz) System.Web.Http.SelfHost.xml
   aaa) System.Web.Http.WebHost.dll
   bbb) System.Web.Http.WebHost.xml
   ccc) System.Web.Http.xml
   ddd) System.Web.Mvc.dll
   eee) System.Web.Mvc.xml

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

fff) System.Web.Optimization.dll
ggg) System.Web.Providers.dll
hhh) System.Web.Razor.dll
iii) System.Web.Razor.xml
jjj) System.Web.WebPages.Deployment.dll
kkk) System.Web.WebPages.Deployment.xml
lll) System.Web.WebPages.dll
mmm) System.Web.WebPages.Razor.dll
nnn) System.Web.WebPages.Razor.xml
ooo) System.Web.WebPages.xml
ppp) Tourreau.Gilles.FaxDotNet.dll
qqq) Tourreau.Gilles.FaxDotNet.pdb
rrr) Tourreau.Gilles.FaxDotNet.xml
sss) WCFService.dll
ttt) WCFService.pdb
uuu) WebApi.dll
vvv) WebApi.pdb
www) Wedge.exe
xxx) Wedge.pdb

## 4. Intended Audience

This document is created by the RIS Development team for the RadNet RIS Implementation team.

## 5. Who is affected

Build 41 installs. This server update must be applied directly to the build 41 core install. Server updates are not cumulative. Any previous server updates must be applied before this one.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 6. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 40 | 10 | 1.3.40.17435 | 1.3.40.16659 | 1.3.40.17435 | 1.3.40.17370 | **64 BIT web service**. GUI.zip, Webservice. |
| 40 | 11 | 1.3.40.17435 | 1.3.40.16659 | 1.3.40.17525 | 1.3.40.17370 | Web service update |
| 40 | 12 | 1.3.40.17685 | 1.3.40.16659 | 1.3.40.17685 | 1.3.40.17648 | GUI.zip, Web service, database updates |
| 40 | 13 | 1.3.40.17776 | 1.3.40.16659 | 1.3.40.17776 | 1.3.40.17648 | GUI.zip, Web service |
| 40 | 14 | 1.3.40.18063(3GB) | 1.3.40.16659 | 1.3.40.18063 | 1.3.40.18063 | GUI.zip, Web service, database updates |
| 40 | 14.1 | 1.3.40.18063(3GB) | 1.3.40.16659 | 1.3.40.18107 | 1.3.40.18063 | Web service |
| 40 | 15 | 1.3.40.18127(3GB) | 1.3.40.16659 | 1.3.40.18127 | 1.3.40.18127 | GUI.zip, Web service, database updates |
| 40 | 16 | 1.1.3.40.18585 (3GB) | 1.3.40.16659 | 1.3.40.18585 | 1.3.40.18646 | GUI.zip, Web service, database updates |
| 40 | 16.1 | 1.3.40.18705 (3GB) | 1.3.40.16659 | 1.3.40.18585 | 1.3.40.18646 | GUI.zip |
| 40 | 17 | 1.3.40.18780 (3GB) | 1.3.40.18756 | 1.3.40.18756 | 1.3.40.18646 | **Core install required** for Radiologist User Group. GUI.zip, Core setup, and Web Service updates |
| 40 | 18 | 1.3.40.19253(3GB) | 1.3.40.18756 | 1.3.40.18756 | 1.3.40.19253 | GUI.zip, Web Service and database updates |
| 40 | 19 | 1.3.40.19909(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | GUI.zip, Web Service |
| 40 | 20 | 1.3.40.20086(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | Gui.zip and Recognizer |
| 40 | 21 | 1.3.40.20703(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | Gui.zip |
| 41 | - | 1.3.41.19135(3GB) | 1.3.41.19135 | 1.3.41.19135 | 1.3.41.19135 | Full version release |
| 41 | 1 | 1.3.41.19356(3GB) | 1.3.41.19135 | 1.3.41.19346 | 1.3.41.19346 | GUI.zip, Web Service and database updates |
| 41 | 2 | 1.3.41.19620(3GB) | 1.3.41.19135 | 1.3.41.19620 | 1.3.41.19346 | GUI.zip and Web Service |
| 41 | 2sf | 1.3.41.19620SF(3G) | 1.3.41.19135 | 1.3.41.19620 | 1.3.41.19346 | GUI.zip |
| 41 | 2.1 | 1.3.41.20622(3GB) | 1.3.41.19135 | 1.3.41.20617 | 1.3.41.19346 | GUI.zip and Web Service |
| 41 | 3 | 1.3.41.20171(3GB) | 1.3.41.19135 | 1.3.41.20171 | 1.3.41.19346 | GUI.zip , Web Service and Recognizer |
| 41 | 4 | 1.3.41.20285(3GB) | 1.3.41.19135 | 1.3.41.20171 | 1.3.41.19346 | GUI.zip |
| 41 | 5 | 1.3.41.20809(3GB) | 1.3.41.20708 | 1.3.41.20792 | 1.3.41.20738 | GUI.zip, Core install, Web Service and database updates |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 7. Installing

1) Copy and replace the current rRIS…zip file with the rRIS_1.3.41.20809.zip file provided with this release.
   Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

2) Copy the _setup folder and its contents and replace the _setup folder and its contents. The _setup folder is located in the RISDeployment \Core folder.

   NOTE: If your upgrade is coming from 40.016.1 or less a core install will be required.

3) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService. Be sure to make backup of all files, but especially the rRISServices.exe.config and rRISServices.vshost.exe.config files.
   *rRISService directories include:*
   a) *rRISService*
   b) *CDS rRISService*
   c) *Wedge rRISService*
   d) *DDE rRISService*

   Restart each service.

4) Run the B41_005.sql file against the eRAD RIS database instance.

## 8. Known Limitations

Known limitations listed in this document may not have been introduced in 41.005, but have been discovered during testing of 41.005.

| Redmine # | Subject | Info |
|---|---|---|
| 5535 | Issue with Void payment, can void the same payment from Register window and from View/edit window | Two different users can void the same payment resulting in one single payment being voided twice. |
| 5388 | error on save: Invalid column name 'inverted_face' | This bug is in previous versions. Although it has not been completely corrected, the occurrence will less frequent. This only occurs when the user preference “Use Dark Mode” is on. |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

For eRAD RIS
Version 1.0
Build 41
Update 41.006

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Defects Resolved ..... 3
2. Code Stream ..... 4
3. Package Contents ..... 5
4. Intended Audience ..... 5
5. Who is affected ..... 5
6. eRAD RIS Release Version Numbers ..... 6
7. Installing ..... 7

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

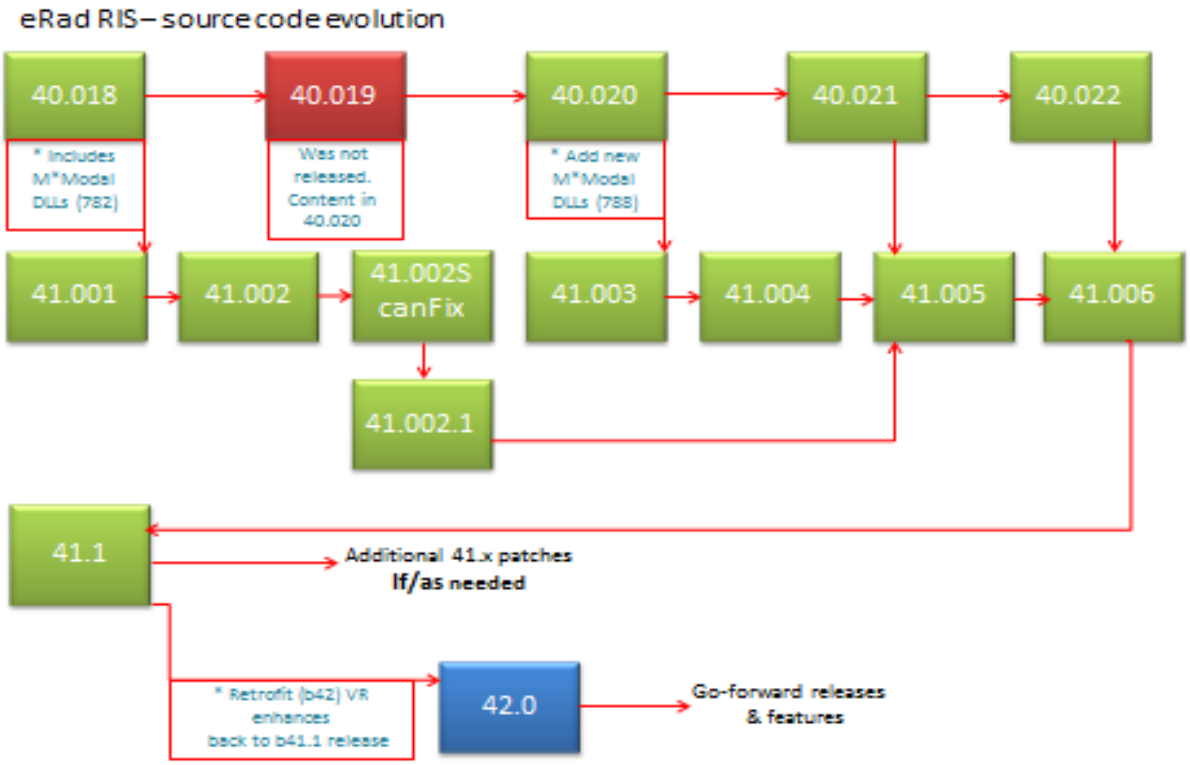
## 1. Defects Resolved

| Redmine # | Subject | Priority |
|---|---|---|
| 5584 | Maximize Attachments - does not close on deactivation of the reporting screen. | Urgent |
| 5555 | Transcription users will get null exceptions when trying to activate ReportTemplateEditor | Urgent |
| 5570 | MERGE - Reporting - Transcription user error on first study opened in create report window | High |
| 5581 | Spell check on the fly no longer turned on. Squigly lines are not shown under misspelled words | Normal |
| 5559 | user is losing practice association and getting error message. | Normal |
| 5388 | error on save: Invalid column name 'inverted_face' | Normal |

**NOTE:** For bug number 5581 the User Preference "Automatic Spell Check" must be selected for the squiggly lines to appear in the report editor.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 2. Code Stream




**Legend:**

**Green = Released software**

**Red = Will not be released**

**Blue = Future release**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 3. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains
   a) rRIS_1.3.41.20912 (3GB).zip

## 4. Intended Audience

This document is created by the RIS Development team for the RadNet RIS Implementation team.

## 5. Who is affected

Build 41 installs. This server update must be applied directly to the build 41 core install. Server updates are not cumulative. Any previous server updates must be applied before this one.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 6. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 40 | 10 | 1.3.40.17435 | 1.3.40.16659 | 1.3.40.17435 | 1.3.40.17370 | **64 BIT web service**. GUI.zip, Webservice. |
| 40 | 11 | 1.3.40.17435 | 1.3.40.16659 | 1.3.40.17525 | 1.3.40.17370 | Web service update |
| 40 | 12 | 1.3.40.17685 | 1.3.40.16659 | 1.3.40.17685 | 1.3.40.17648 | GUI.zip, Web service, database updates |
| 40 | 13 | 1.3.40.17776 | 1.3.40.16659 | 1.3.40.17776 | 1.3.40.17648 | GUI.zip, Web service |
| 40 | 14 | 1.3.40.18063(3GB) | 1.3.40.16659 | 1.3.40.18063 | 1.3.40.18063 | GUI.zip, Web service, database updates |
| 40 | 14.1 | 1.3.40.18063(3GB) | 1.3.40.16659 | 1.3.40.18107 | 1.3.40.18063 | Web service |
| 40 | 15 | 1.3.40.18127(3GB) | 1.3.40.16659 | 1.3.40.18127 | 1.3.40.18127 | GUI.zip, Web service, database updates |
| 40 | 16 | 1.1.3.40.18585 (3GB) | 1.3.40.16659 | 1.3.40.18585 | 1.3.40.18646 | GUI.zip, Web service, database updates |
| 40 | 16.1 | 1.3.40.18705 (3GB) | 1.3.40.16659 | 1.3.40.18585 | 1.3.40.18646 | GUI.zip |
| 40 | 17 | 1.3.40.18780 (3GB) | 1.3.40.18756 | 1.3.40.18756 | 1.3.40.18646 | **Core install required** for Radiologist User Group. GUI.zip, Core setup, and Web Service updates |
| 40 | 18 | 1.3.40.19253(3GB) | 1.3.40.18756 | 1.3.40.18756 | 1.3.40.19253 | GUI.zip, Web Service and database updates |
| 40 | 19 | 1.3.40.19909(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | GUI.zip, Web Service |
| 40 | 20 | 1.3.40.20086(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | Gui.zip and Recognizer |
| 40 | 21 | 1.3.40.20703(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | Gui.zip |
| 40 | 22 | | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | Gui.zip |
| 41 | - | 1.3.41.19135(3GB) | 1.3.41.19135 | 1.3.41.19135 | 1.3.41.19135 | Full version release |
| 41 | 1 | 1.3.41.19356(3GB) | 1.3.41.19135 | 1.3.41.19346 | 1.3.41.19346 | GUI.zip, Web Service and database updates |
| 41 | 2 | 1.3.41.19620(3GB) | 1.3.41.19135 | 1.3.41.19620 | 1.3.41.19346 | GUI.zip and Web Service |
| 41 | 2sf | 1.3.41.19620SF(3G) | 1.3.41.19135 | 1.3.41.19620 | 1.3.41.19346 | GUI.zip |
| 41 | 2.1 | 1.3.41.20622(3GB) | 1.3.41.19135 | 1.3.41.20617 | 1.3.41.19346 | GUI.zip and Web Service |
| 41 | 3 | 1.3.41.20171(3GB) | 1.3.41.19135 | 1.3.41.20171 | 1.3.41.19346 | GUI.zip , Web Service and Recognizer |
| 41 | 4 | 1.3.41.20285(3GB) | 1.3.41.19135 | 1.3.41.20171 | 1.3.41.19346 | GUI.zip |
| 41 | 5 | 1.3.41.20809(3GB) | 1.3.41.20708 | 1.3.41.20792 | 1.3.41.20738 | GUI.zip, Core install, Web Service and database updates |
| 41 | 6 | 1.3.41.20912(3GB) | 1.3.41.20708 | 1.3.41.20792 | 1.3.41.20738 | GUI.zip |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 7. Installing

1) Copy and replace the current rRIS…zip file with the rRIS_1.3.41.20912.zip file provided with this release.
   Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

For eRAD RIS
Version 1.0
Build 41
Update 41.007

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Defects Resolved ..... 3
2. Code Stream ..... 4
3. Package Contents ..... 5
4. Intended Audience ..... 5
5. Who is affected ..... 5
6. eRAD RIS Release Version Numbers ..... 6
7. Installing ..... 7

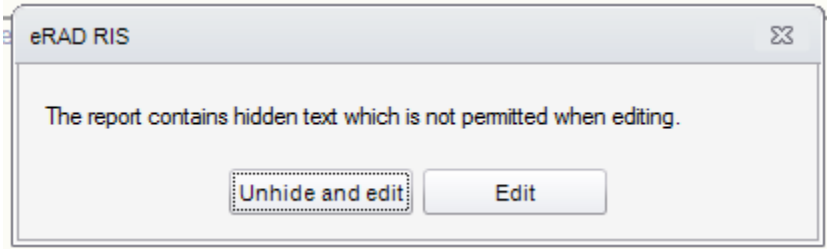
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 1. Defects Resolved

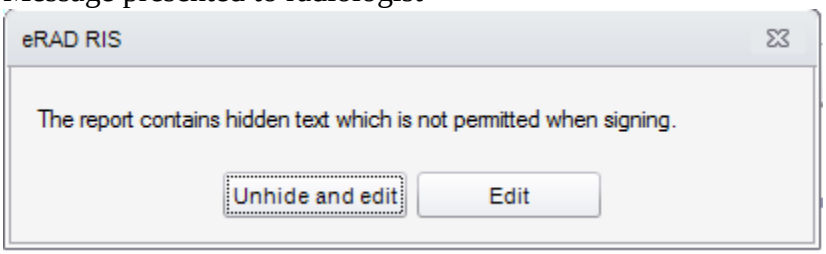
| Redmine # | Subject | Priority |
|---|---|---|
| 6191 | Hidden text in editor counts as text when validating fields and section | High |

The resolved bug listed above resolves an issue in which users had the option to hide text within the reporting window. This option was available to radiologist and transcription users. The workflow for this option has been altered. You can no longer hide text, only unhide. If there is hidden text in a report, transcription users cannot transcribe and radiologist users cannot sign. They will be presented with a message like the one displayed below.

Message presented to transcription

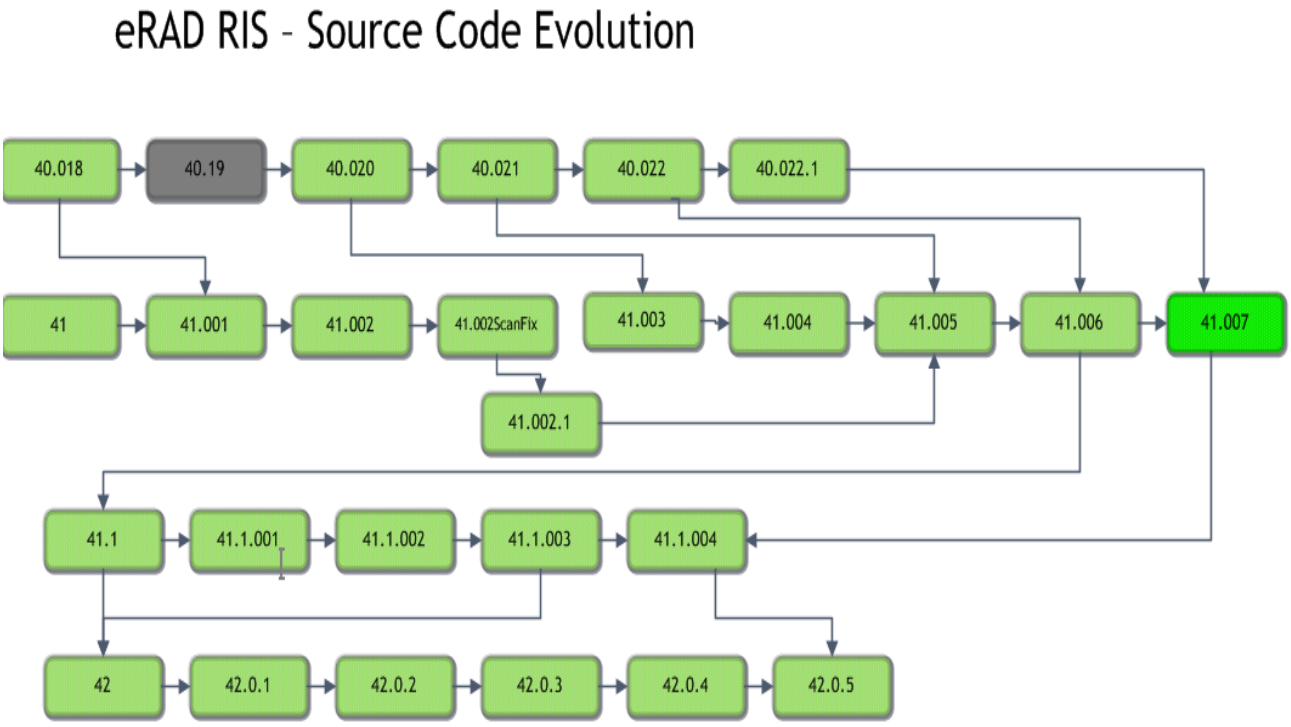



Message presented to radiologist




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 2. Code Stream




**Legend:**

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 3. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains
   a) rRIS_1.3.41.21963 (3GB).zip

## 4. Intended Audience

This document is created by the RIS Development team for the RadNet RIS Implementation team.

## 5. Who is affected

Build 41 installs. This server update must be applied directly to the build 41.005.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 6. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 40 | 16 | 1.1.3.40.18585 (3GB) | 1.3.40.16659 | 1.3.40.18585 | 1.3.40.18646 | GUI.zip, Web service, database updates |
| 40 | 16.1 | 1.3.40.18705 (3GB) | 1.3.40.16659 | 1.3.40.18585 | 1.3.40.18646 | GUI.zip |
| 40 | 17 | 1.3.40.18780 (3GB) | 1.3.40.18756 | 1.3.40.18756 | 1.3.40.18646 | **Core install required** for Radiologist User Group. GUI.zip, Core setup, and Web Service updates |
| 40 | 18 | 1.3.40.19253(3GB) | 1.3.40.18756 | 1.3.40.18756 | 1.3.40.19253 | GUI.zip, Web Service and database updates |
| 40 | 19 | 1.3.40.19909(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | GUI.zip, Web Service |
| 40 | 20 | 1.3.40.20086(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | Gui.zip and Recognizer |
| 40 | 21 | 1.3.40.20703(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | Gui.zip |
| 40 | 22 | 1.3.40.20898(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | Gui.zip |
| 40 | 22.1 | 1.3.40.21936(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | Gui.zip |
| 41 | - | 1.3.41.19135(3GB) | 1.3.41.19135 | 1.3.41.19135 | 1.3.41.19135 | Full version release |
| 41 | 1 | 1.3.41.19356(3GB) | 1.3.41.19135 | 1.3.41.19346 | 1.3.41.19346 | GUI.zip, Web Service and database updates |
| 41 | 2 | 1.3.41.19620(3GB) | 1.3.41.19135 | 1.3.41.19620 | 1.3.41.19346 | GUI.zip and Web Service |
| 41 | 2sf | 1.3.41.19620SF(3G) | 1.3.41.19135 | 1.3.41.19620 | 1.3.41.19346 | GUI.zip |
| 41 | 2.1 | 1.3.41.20622(3GB) | 1.3.41.19135 | 1.3.41.20617 | 1.3.41.19346 | GUI.zip and Web Service |
| 41 | 3 | 1.3.41.20171(3GB) | 1.3.41.19135 | 1.3.41.20171 | 1.3.41.19346 | GUI.zip , Web Service and Recognizer |
| 41 | 4 | 1.3.41.20285(3GB) | 1.3.41.19135 | 1.3.41.20171 | 1.3.41.19346 | GUI.zip |
| 41 | 5 | 1.3.41.20809(3GB) | 1.3.41.20708 | 1.3.41.20792 | 1.3.41.20738 | GUI.zip, Core install, Web Service and database updates |
| 41 | 6 | 1.3.41.20912(3GB) | 1.3.41.20708 | 1.3.41.20792 | 1.3.41.20738 | GUI.zip |
| **41** | **7** | **1.3.41.21963(3GB)** | **1.3.41.20708** | **1.3.41.20792** | **1.3.41.20738** | **GUI.zip** |
| 41.1 | - | 1.3.41.20918(3GB) | 1.3.41.20791 | 1.3.41.20918 | 1.3.41.20739 | GUI.zip, Core install, Web Service and DB updates, Help files |
| 41.1 | 1 | 1.3.41.20987(3GB) | 1.3.41.20791 | 1.3.41.20918 | 1.3.41.20739 | GUI.zip |
| 41.1 | 2 | 1.3.41.21162(3GB) | 1.3.41.20791 | 1.3.41.21162 | 1.3.41.21150 | GUI.zip, Web Service and DB updates, |
| 41.1 | 3 | 1.3.41.21264(3GB) | 1.3.41.20791 | 1.3.41.21162 | 1.3.41.21150 | GUI.zip |
| 41.1 | 4 | 1.3.41.21931(3GB) | 1.3.41.20791 | 1.3.41.21162 | 1.3.41.21150 | GUI.zip |
| 42 | 1 | 2.42.0.0.21577 | 2.42.0.0.21261 | 2.42.0.0.21577 | 2.42.0.0.21187 | GUI and Web Service updates |
| 42 | 2 | 2.42.0.1.21702 | 2.42.0.0.21261 | 2.42.0.1.21702 | 2.42.0.0.21187 | GUI and Web Service updates |
| 42 | 3 | 2.42.0.2.21806 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.0.21187 | GUI and Web Service updates |
| 42 | 4 | 2.42.0.4.21862 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.4.21870 | GUI and Database updates |
| 42 | 5 | 2.42.0.5.21924 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.4.21870 | GUI |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 7. Installing

1) Copy and replace the current rRIS…zip file with the rRIS_1.3.41.21963.zip file provided with this release.
   Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

**NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# User Release Notes

for eRAD RIS
Version 2
Build 42

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# Table of Contents

1. Purpose ..... 4
2. Intended Audience ..... 4
3. Installing/Accessing the Application ..... 4
4. New Access Strings and Configuration Settings ..... 5
5. New Features and Enhancements ..... 8
Reporting – Laterality Check when Transcribing Reports ..... 8
Reporting – Laterality added to Patient Folder ..... 10
Reporting – MT Edit Text Color ..... 11
Reporting – Available Speechmike Buttons for Mapped Commands and Input Device Redesigned and New Button Options ..... 12
Reporting – New Voice Commands for Reporting Windows ..... 14
Reporting – Voice Enabled Message Boxes ..... 15
Reporting – Support Tracking of Magnet Strength ..... 17
Reporting – Talked to Doctor Macro ..... 18
Reporting – No Wait Insert Macro ..... 19
Reporting – No Wait Undo/Redo that Voice Commands ..... 19
Reporting – Load Audio when Signing Reports ..... 20
Reporting – Make STAT Audible Alert Configurable ..... 21
Reporting – Displaying Report Field Tooltips Configurable ..... 22
Reporting – Load Dictation Layout in Supervised Radiologist Workflow ..... 23
Reporting – Open Patient Folder/Images when Signing ..... 24
Reporting – Lock Access to Preliminary Reports ..... 25
Reporting – Set Problem Flag without Rejecting Report ..... 26
Reporting – Remove Content Tags from CDA when Creating Macros/Templates ..... 28
Reporting – Ability to Configure MModal Transfer Task ..... 29
Reporting – Make Patient Name Stand Out in Reporting Windows ..... 30
Reporting – Create Backup of Capture Log ..... 31
Relevancy Calculation Adjustable via Configuration ..... 32
Reporting – Cached by Name Column ..... 35
Reporting – PACS Server Override ..... 37
Reporting – Noticeable Sign Button in Reporting Windows ..... 38
Reporting – Chair Workflow Enhancements ..... 39
Administration - Display Locked Items in Different Color on the Work List ..... 44
Attachments - “Show Me Everything” Option ..... 46
Attachments - Ability to Add Attachments from Worklist Context Menu ..... 47
IVT - Next Follow up Date ..... 48
Support Non Order Level Locking ..... 49
Administration - Multiple Person Ids ..... 55

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

Administration - Allow Editing of Billing Units ..... 56
Administration - Disable BI-RADS ® Per Site ..... 58
Administration - Ability to Add MRN and Accession Prefix and Suffix ..... 59
Administration - Privacy Message on Locked eRAD RIS ..... 60
Billing – Audit Log Capturing Billing Failure \ Reason ..... 61
External – View Legacy Report PDF's as HTML ..... 62
Management Report – Dictations by User ..... 63
Management Report – Direct Referrals ..... 64
Management Report – User List ..... 65
Management Report – Double Count CPT's ..... 65
MU – Management Report for Patient List Creation – MU Phase 2 ..... 66
MU – Auto Request Pathology and Follow Up with Lab Worklist ..... 68
MU - Race Field Allow for Multi Select ..... 70
MU – Improvement to How We Record Height ..... 71
MU – Retain Patients Smoking Status and Height ..... 71
MU – Problem List for MU Phase 2 ..... 72
MU – Medication List for MU Phase 2 ..... 73
MU – Image Results for MU Phase 2 ..... 74
MU – Audit Reports – MU Phase 2 ..... 75
MU – Goals and Condition ..... 76
MU – Patient Specific Education Resources ..... 78
MU – New Alert Rules – MU Phase 2 ..... 81
MU – CCDA ..... 83
MU – CCDA Generation ..... 84
MU – SNOMED CT ..... 85
HL7 Payments ..... 86
6. Code Stream ..... 87
7. RIS Release Version Numbers ..... 88
8. Resolved Defects ..... 93
9. Known Limitations ..... 111

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 1. Purpose

This document describes some of the new features and changes implemented in eRAD RIS as of the end of Sprint 42 and subsequent server releases. This version of eRAD RIS is referred to as Build 2.42.

Only features which can be visually demonstrated to the user will be outlined in this document.

# 2. Intended Audience

This document is created by the RIS Development team for the RadNet RIS management team.

# 3. Installing/Accessing the Application

The installation guide for the eRAD RIS client have been posted to the RadNet Wiki page at http://mdbal01rdtweb/Wiki/

Under the RIS menu click on the rRIS page. The credentials to access the page are:
Username: rRIS
Password: Summerside

*Please note that Build 2.42 is considered a new core release of the application and will require a reinstallation of eRAD RIS. This is accomplished by navigating to the eRAD RIS shared installation drive and running the CoreInstall.bat file (ex: I:\RISDeployment\CoreInstall.bat)*

If you experience difficulties accessing the application please do not hesitate to contact Darcy Noye with the PEI RIS Development Team.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 4. New Access Strings and Configuration Settings

| Setting Placeholder | Setting | Default | Purpose / Controls Access to |
|---|---|---|---|
| Access string / User Group Permission tables | Clinical.PreviewPreliminaryReport | None | Controls access to preview, print and faxing of unsigned (preliminary) reports |
| Access string / User Group Permission tables | Clinical.ResolveRadProblem | Full | Controls access to the Resolve Problem window for Transcription users from the All Problem WL |
| Access string / User Group Permission tables | Clinical.UserPreferences.PACSServerOverride | Disabled | Controls access to the User Preference PACS Server on the Integration tab. |
| Access string / User Group Permission tables | Clinical.ShowRVUs | None | Controls Access to see the RVUs on the chair selector report |
| SystemConfig lookup | MRNPrefix | | Value entered will be prefixed new MRN's created |
| SystemConfig lookup | MRNSuffix | | Value entered will be appended to new MRN's created |
| SystemConfig lookup | AccessionPrefix | | Value entered will be prefixed to new accession numbers |
| SystemConfig lookup | AccessionSuffix | | Value entered will be appended to new accession numbers |
| SystemConfig lookup | PrivacyMessageText | | Value entered will be displayed on a locked eRAD RIS login window |
| SystemConfig lookup | CPOELabTestCode | Pathology | Value of the Lab Test code that will be created when a procedure with the CPOE Pathology Flag = Y is signed |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| SystemConfig lookup | MUMedlinePlusConnectDebug | N | (value = Y/N) Adds prompt to UI for reviewing MedlinePlusConnect xml messages. |
| SystemConfig lookup | MUMedlinePlusConnectEnabled | N | (value = Y/N) Enable MedlinePlus Connect MU feature. |
| SystemConfig lookup | MUMedlinePlusConnectBaseUrl | http://apps.nlm.nih.gov/medlineplus/services/mpconnect_service.cfm | (value = string) MedlinePlus Connect Base URL. |
| SystemConfig lookup | MUMedlinePlusConnectDrugSearch | mainSearchCriteria.v.cs=2.16.840.1.113883.6.88 | (value = string) MedlinePlus Connect Drug RXCUI search specification. |
| SystemConfig lookup | MUMedlinePlusConnectLabSearch | mainSearchCriteria.v.cs=2.16.840.1.113883.6.1 | (value = string) MedlinePlus Connect Lab LOINC search specification. |
| SystemConfig lookup | MUMedlinePlusConnectProblemSearch | mainSearchCriteria.v.cs=2.16.840.1.113883.6.103 | (value = string) MedlinePlus Connect Problem ICD-9-CM search specification. |
| Ris.exe.config<br><br>Added in 41.1 | MModalDataTransferValue | None | Override the user preference for M*Modal's Data Transfer.<br><br>See feature Reporting – Ability to Configure MModal Transfer Task in this document for more details |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 5. New Features and Enhancements

## Reporting – Laterality Check when Transcribing Reports

Previous to build 42 the laterality check was performed when signing and verifying reports. Now this option is available in the transcription workflow as well.

As with the radiologist role, the user preference of "Laterality Check" must be selected to enable the feature for transcription users.

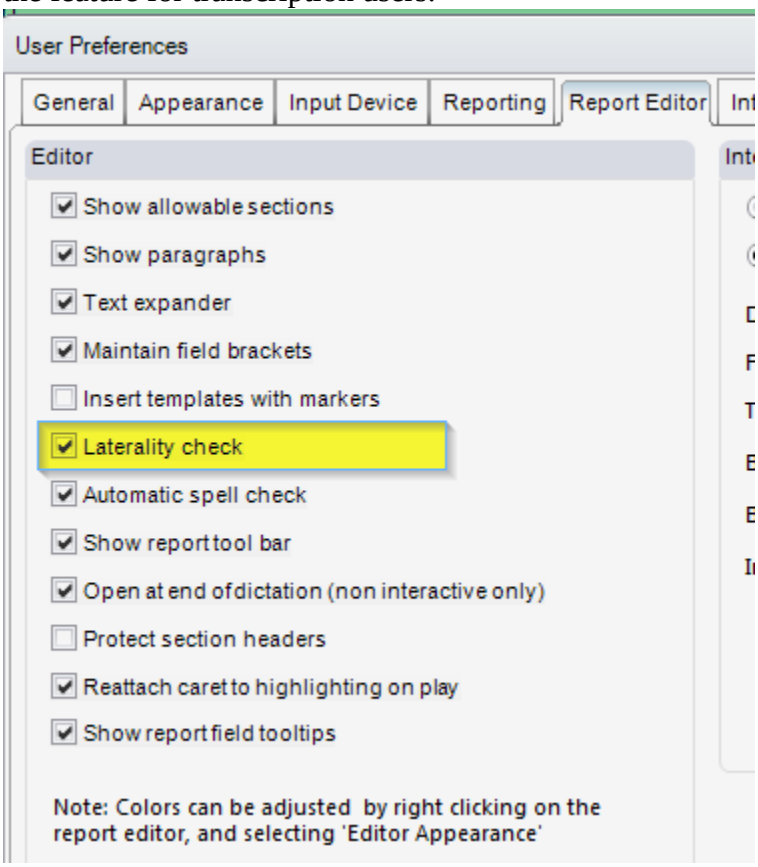



**Figure 5.1 – Laterality check user preference for transcription now as well!**

If the procedure being reported on has laterality and the report has conflicting left or right the transcriptionist will be presented with a pop up message and the literalities in the report will be highlighted.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

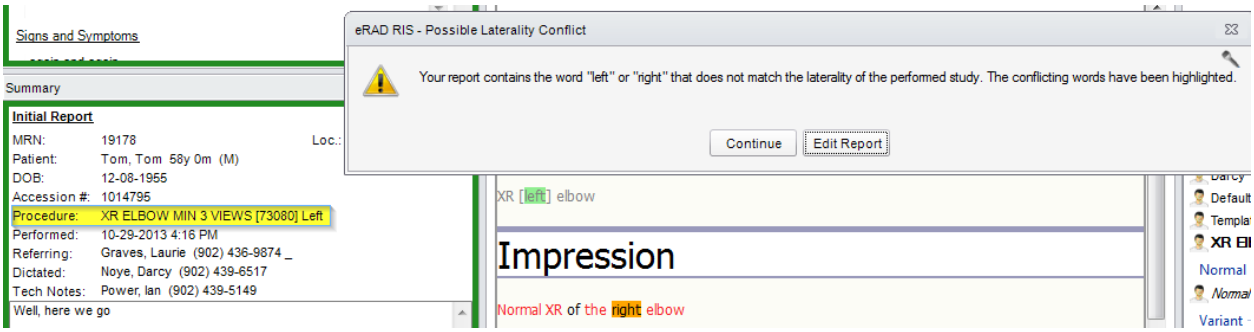


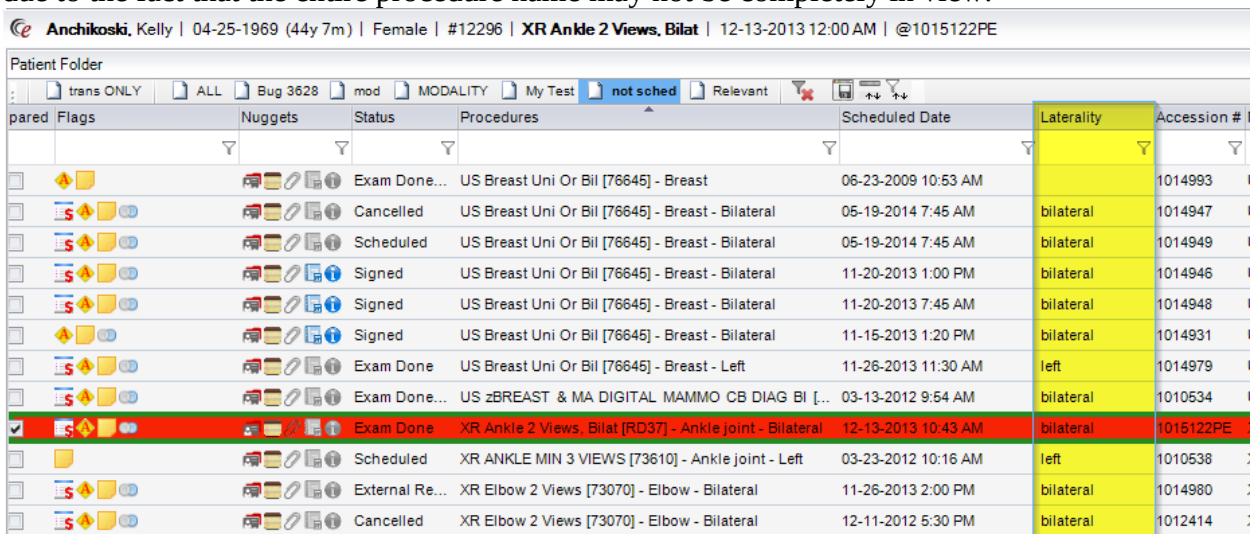

**Figure 5.2 – Message presented when conflicting laterality is detected.**

The user has the option to "Continue" if they believe the conflict is not valid, example the words left or right are detected in the report but are used in different context not related to the procedures laterality. The other option is "Edit Report", selecting this button with return the user to the editor window allowing them to make needed corrections if the conflict is related to the procedure laterality.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Laterality added to Patient Folder

The patient folder data pane that is available in the reporting windows now has the Laterality column added to its list of columns. In the screenshot below the procedure column may also have the laterality listed, but it was requested that a column specific to laterality also be added due to the fact that the entire procedure name may not be completely in view.




| pared | Flags | Nuggets | Status | Procedures | Scheduled Date | Laterality | Accession # |
|---|---|---|---|---|---|---|---|
| | | | Exam Done... | US Breast Uni Or Bil [76645] - Breast | 06-23-2009 10:53 AM | | 1014993 |
| | | | Cancelled | US Breast Uni Or Bil [76645] - Breast - Bilateral | 05-19-2014 7:45 AM | bilateral | 1014947 |
| | | | Scheduled | US Breast Uni Or Bil [76645] - Breast - Bilateral | 05-19-2014 7:45 AM | bilateral | 1014949 |
| | | | Signed | US Breast Uni Or Bil [76645] - Breast - Bilateral | 11-20-2013 1:00 PM | bilateral | 1014946 |
| | | | Signed | US Breast Uni Or Bil [76645] - Breast - Bilateral | 11-20-2013 7:45 AM | bilateral | 1014948 |
| | | | Signed | US Breast Uni Or Bil [76645] - Breast - Bilateral | 11-15-2013 1:20 PM | bilateral | 1014931 |
| | | | Exam Done | US Breast Uni Or Bil [76645] - Breast - Left | 11-26-2013 11:30 AM | left | 1014979 |
| | | | Exam Done... | US zBREAST & MA DIGITAL MAMMO CB DIAG BI [... | 03-13-2012 9:54 AM | bilateral | 1010534 |
| ☑ | | | Exam Done | XR Ankle 2 Views, Bilat [RD37] - Ankle joint - Bilateral | 12-13-2013 10:43 AM | bilateral | 1015122PE |
| | | | Scheduled | XR ANKLE MIN 3 VIEWS [73610] - Ankle joint - Left | 03-23-2012 10:16 AM | left | 1010538 |
| | | | External Re... | XR Elbow 2 Views [73070] - Elbow - Bilateral | 11-26-2013 2:00 PM | bilateral | 1014980 |
| | | | Cancelled | XR Elbow 2 Views [73070] - Elbow - Bilateral | 12-11-2012 5:30 PM | bilateral | 1012414 |

**Figure 5.3 – Laterality column added to the patient folder of the reporting windows.**

It should be noted that it is the Laterality description text that is being used from the Laterality lookup table and not the Laterality Code.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – MT Edit Text Color

Previous to build 42, Interactive Dictation users had the option to set color preference for edits made from the All Signed Pending QA worklist by setting the QA Edit Text color option. If the job was submitted (not signed) to transcription, any edits performed could not be colored in the same way as when edited via QA workflow.

We have added another option to the Editor Appearance window for possible edits made in transcription.

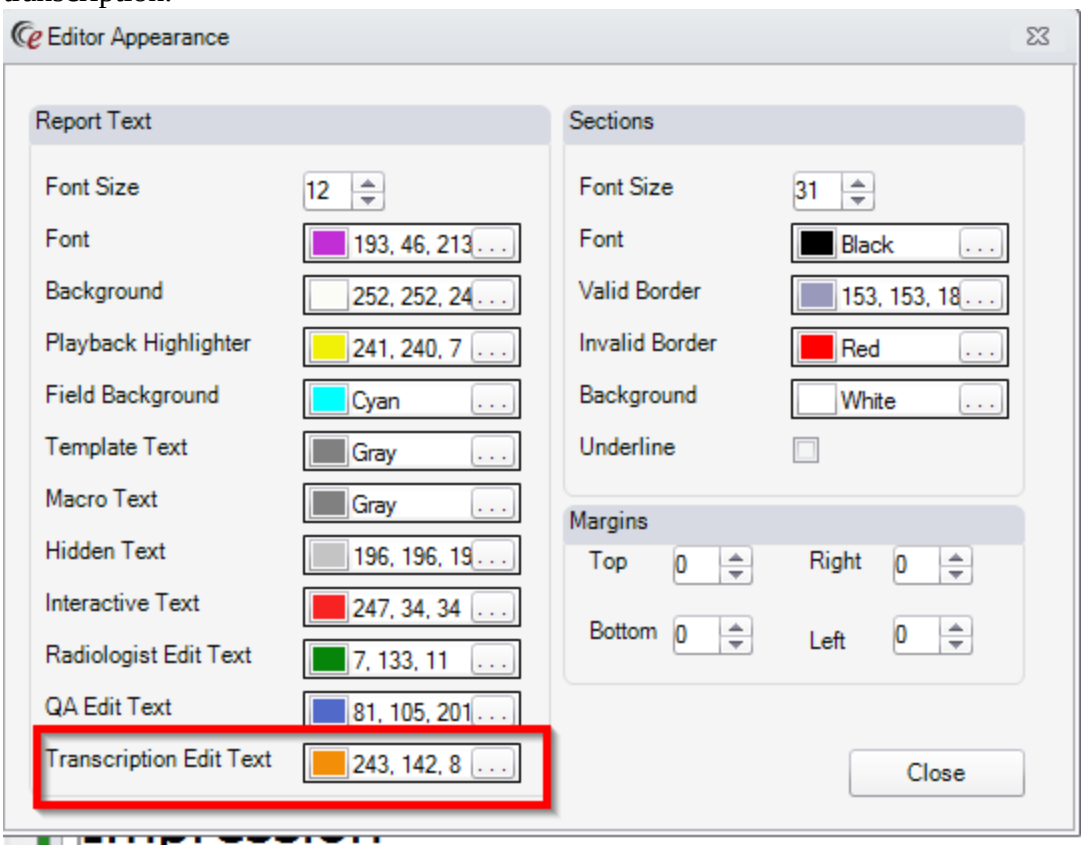



**Figure 5.4 – Transcription Edit Text color option in Editor Appearance window.**

This text color option is titled Transcription Edit Text and has a default value of black.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Available Speechmike Buttons for Mapped Commands and Input Device Redesigned and New Button Options

The Speechmike now has additional buttons that can be mapped to use commands within the reporting windows. The buttons for "Play, Record, and INS/OVR" have been added. In addition the layout of the Input Device tab has been changed to be more intuitive with the layout of the Speechmike.

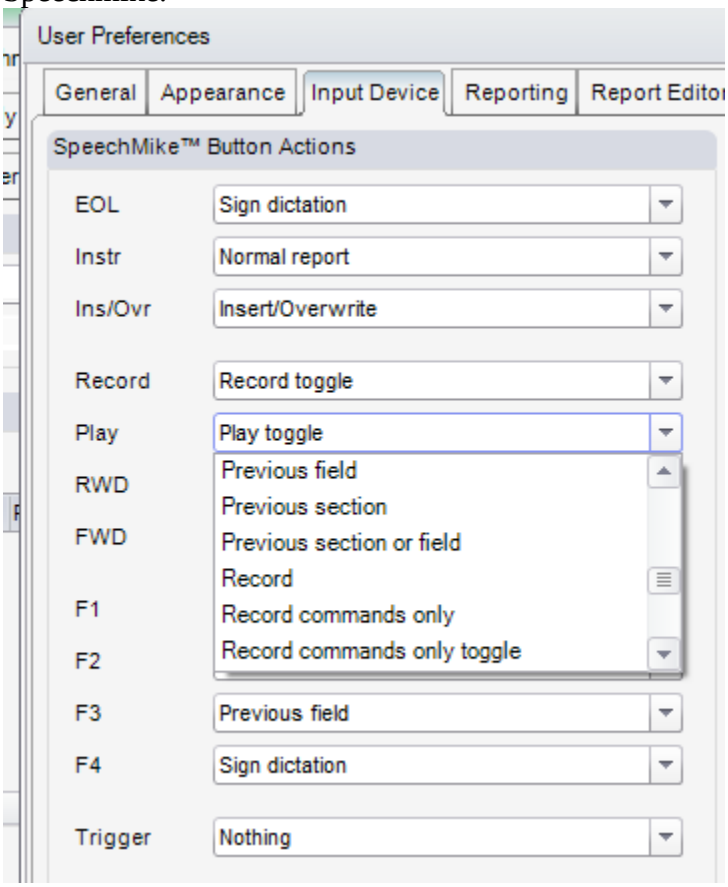



**Figure 5.5 – Input tab additions and redesign**

To accommodate the potential re-mapping of the play, record and Insert/Overwrite buttons their actions have also been added for use with other buttons.
Additional new commands added are:
**Play –** Enables play function to the assigned button
**Play toggle –** Start and stops play function with press/release of assigned button. This replaces the User Preference "Stop playback with button is released"
**Record –** Enable record function to the assigned button

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

**Record toggle** – Starts and stops record function with press/release of assigned button. This replaces the User Preference "Stop recording when button is released"
**Record commands only** – allow the user to issue commands without dictating in the report. This can make editing reports easier and increases voice command recognition.
**Record commands only toggle** – Same function as Record commands only with this command the function starts and stops with the button press/release
**Insert/Overwrite –** Enables insert/overwrite function to assigned button
**Cap that -** The first letter of each word in the selected range of text is capitalized.
Example:

results in


No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – New Voice Commands for Reporting Windows

Newly added voice commands added in build 42 are:

**Submit report –** voice command will perform submit button click
**Suspend report –** voice command will perform suspend button click
**Close report / Skip report –** voice command will perform the skip/close button click. Invokes the button click and will use the current assigned button click
**Cap that –** voice command that will capitalize the first letter of each word in the selected range of text.
**New line -** Now when dictating "new line" you get a new line and "new paragraph" will result in a new paragraph.
**Redo that –** If text is removed from report while dictating using undo that voice command or select a range of text and delete/overwrite selection, or by way of Speechmike button such as undo or delete word left of cursor, issuing the redo that command will reverse the change.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Voice Enabled Message Boxes

We added, to our base message box class, the ability to interact with the buttons on a given message box. Now when a message box is presented we load into our voice command options the following for each button.

**Value -** This is the value in code for the button. Most often it may equal the text but some instances it may not. For example a button that says "Close without saving" may have a value of "OK" or "Yes". Overtime a user will get accustomed to which command is more fluid for them.

**Text -** This is the visible text seen on the button. So a button that shows "Close without saving" will have a voice command of "Close without saving"

**Button # -** This position the button shows on the message box starting with the number one. So a message box with "YES" and "NO" would have voice commands of "button one" and "button two".

**Option # -** This position the button shows on the message box starting with the number one. So a message box with "YES" and "NO" would have voice commands of "option one" and "option two".

We also added a new icon to the message boxes to indicate they are voice enabled. This icon should show only for radiologists. Even batch users can interact with message boxes via voice command. This new icon has a tooltip that displays the voice command options to invoke each button.

There are some dialog boxes that are not voice enabled. The whole application is not at that state yet.
Spell check, mic wizard, dictionary and user preferences to name a few. Goal of this item was to get most common message boxes.

The image below shows the new icon and tooltip options.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

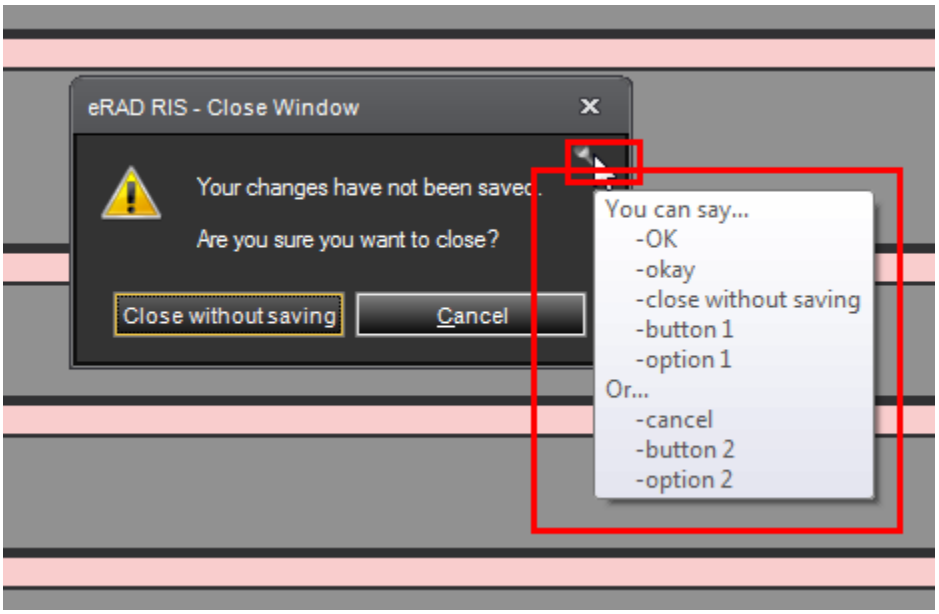



**Figure 5.6 – Voice enabled message boxes displaying available command options**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Support Tracking of Magnet Strength

To start the magnet strength column has been added to the Modality lookup table. The column has a max character length of 10.

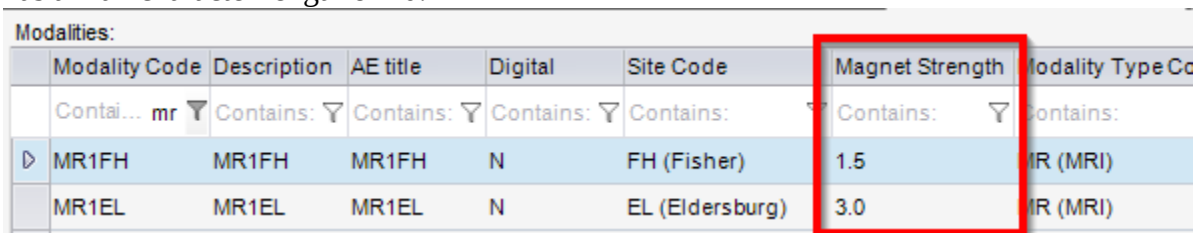



**Figure 5.7 – Magnet Strength column added to Modality lookup table.**

To have this value added to the template or macro a new custom field is now available in the Template/Macro editor.

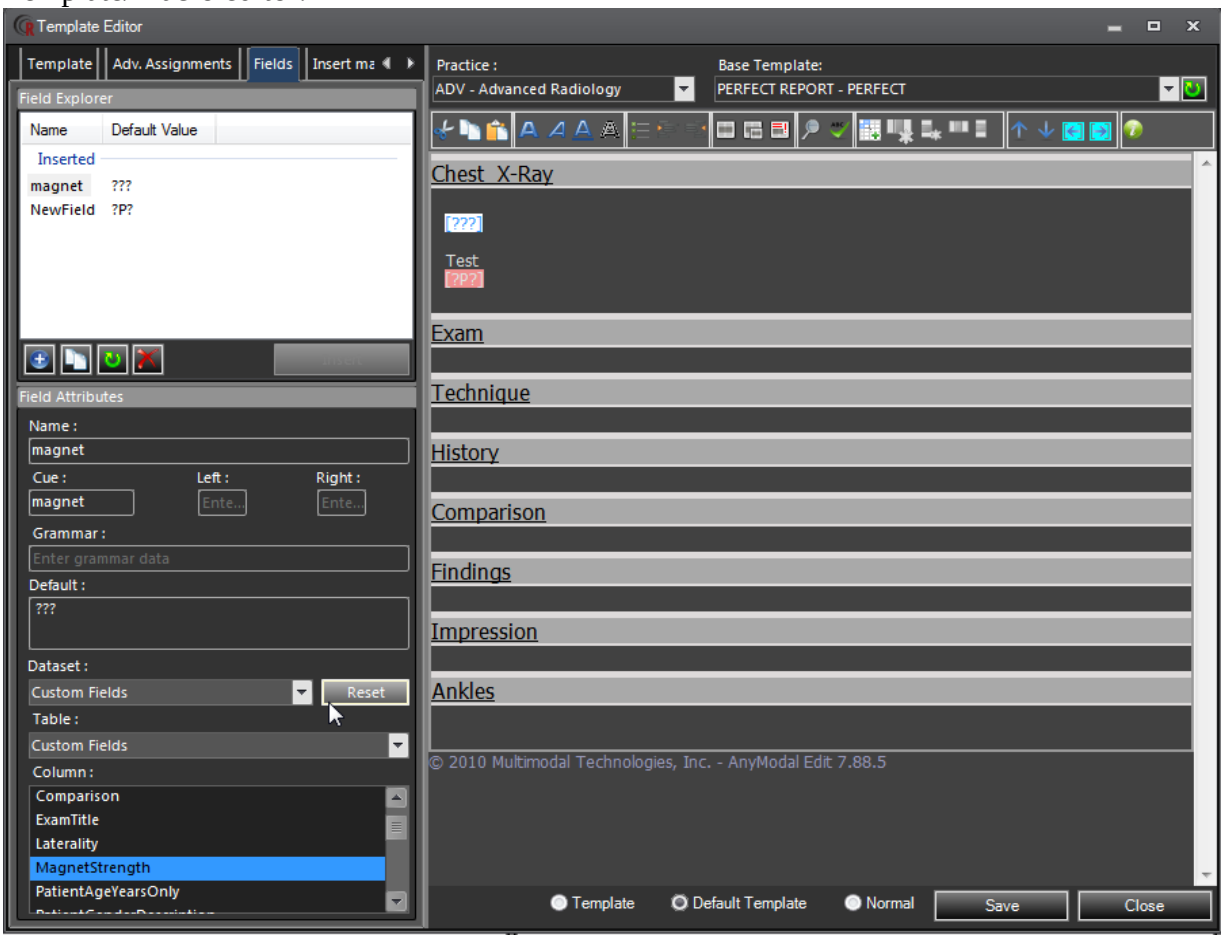



**Figure 5.8 – MagnetStrength added as a custom field**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Talked to Doctor Macro

Additional custom fields have been added to aid users in creating a "Talked to Doctor Macro". Below are the custom fields and examples of values for each field
**TimeStamp12** – 6:30pm
**TimeStamp24** – 18:30
**Today** – 08-13-2013
**ReferringShort** – Dr. Last
**ReferringLong** – Dr. First Last

In the Macro editor these custom fields can be used to create a the "Talked to Doctor Macro".

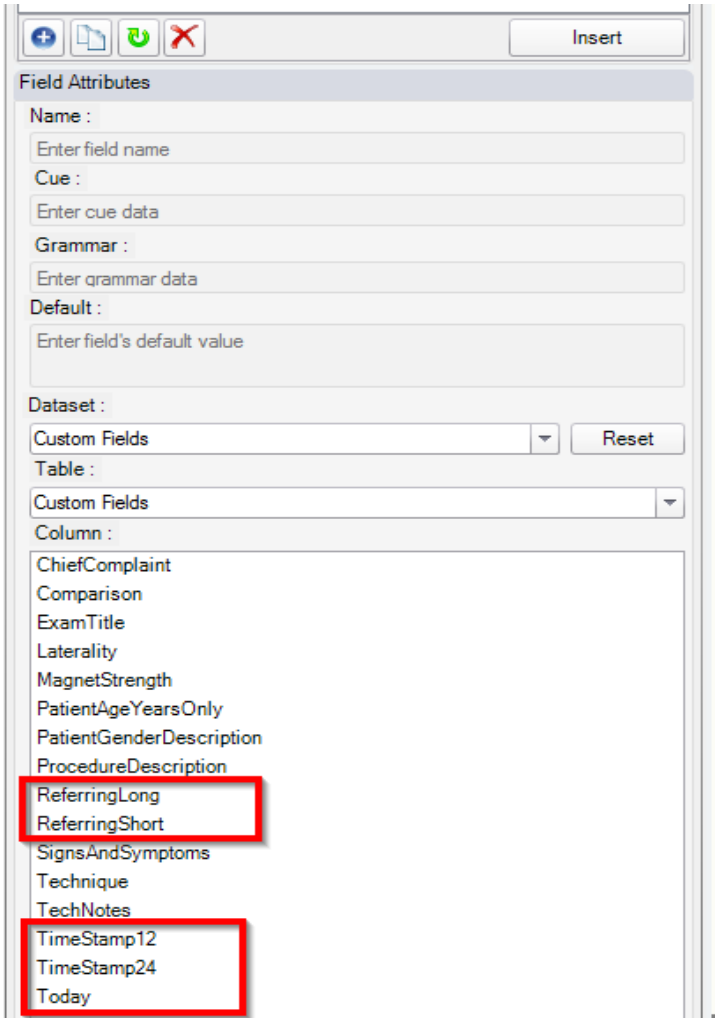



**Figure 5.9 – New custom fields to support talked to doctor macro**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

The results will look something like this

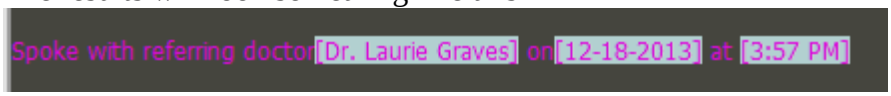



**Figure 5.10 – Talked to Doctor macro used in template**

## Reporting – No Wait Insert Macro

We have altered how we handle our 'insert macro' commands. You can now dictated and insert a macro without pausing. Once the macro is inserted a 'beep' (existing) will sound indicating dictation can progress. Users MUST wait for the macro to insert because there may be fields within the macro that direct report creation.

## Reporting – No Wait Undo/Redo that Voice Commands

Currently there is no option for "redo that" voice command. Also when using the "undo that" command it rarely is recognized on the initial attempt. It will render things like "underline" or "undo that" as text. We need "undo that" and "redo that" to work well without pausing or rendering the text into the editor.

Added in build 42 is the "Redo that" voice command. Also, we now have a concept of adding word to the recognizer and lowering the cost of these words. Think of it as increasing the possibility that these words will be spoken – resulting in better recognition of these particular words.

We now have "undo that" and "undo last" added in this category. These commands existed previously but are not low cost.

We added a completely new voice command(s) "redo that" and "redo last" which will undo the undo command.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Load Audio when Signing Reports

Using a user preference to enable and disable automatic loading of audio when signing. The user preference is "**Load audio in sign mode**". This can be accessed in the workflow section of the reporting tab in the user preferences window.

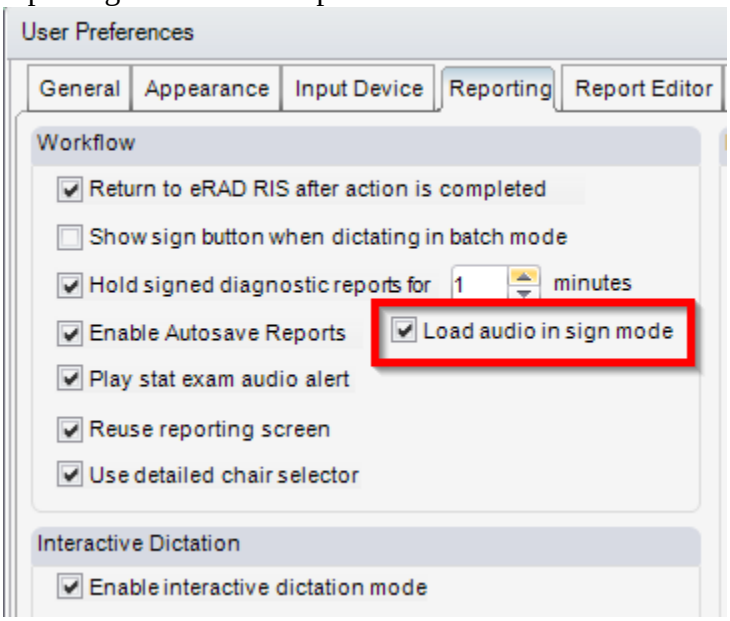



**Figure 5.11 – User preference Load audio in sign mode**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Make STAT Audible Alert Configurable

A new user preference has been added to the Reporting tab / Workflow section titled "**Play stat exam audio alert**". When selected it will work like is has in the past by informing the user when opening the study in reporting window that it is a STAT exam. When unselected the user will not be presenting with the audible message.

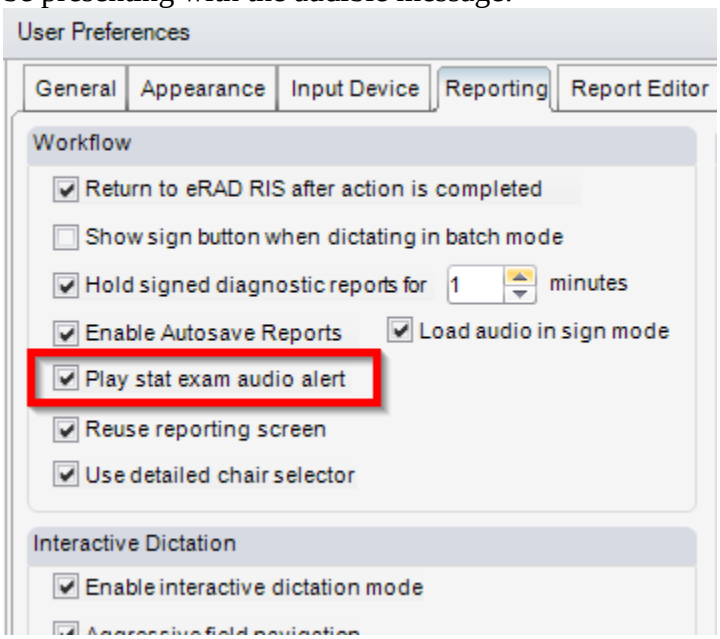



**Figure 5.12 – Play stat exam audio alert User Preference**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Displaying Report Field Tooltips Configurable

Yet another user preference has been added to enable/disable the field tooltips from displaying in the reporting editor. The user preference titled "**Show report field tooltips**" has been added the Report Editor tabs Editor Section.

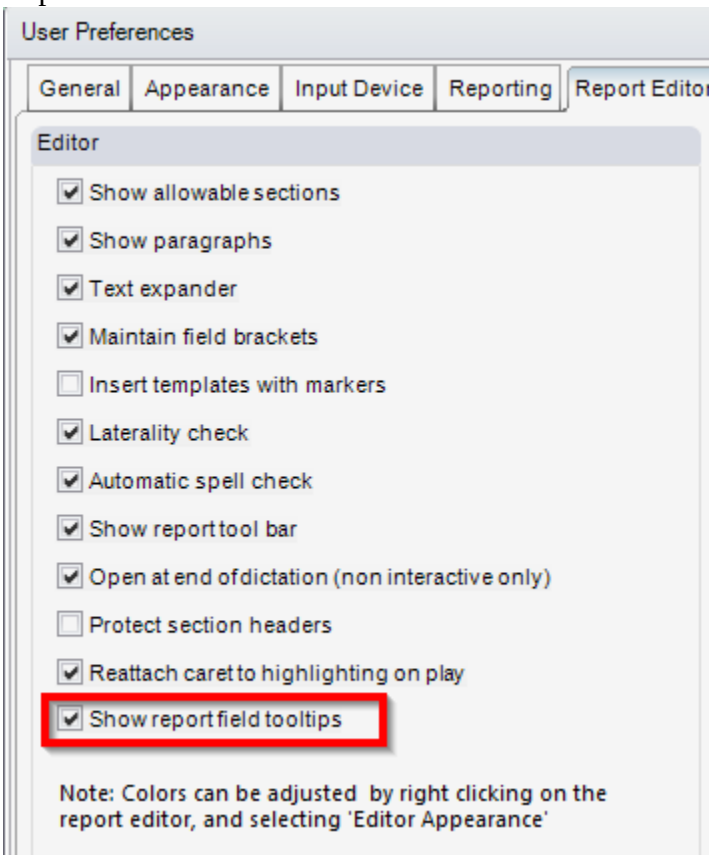



**Figure 5.13 – User preference Show report field tooltips**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Load Dictation Layout in Supervised Radiologist Workflow

In addition to new option in the Sign Report window to load images and patient folder (next feature in this document) we have also added a new user preference that will automatically load the Dictation layout when performing final signature during Supervising Radiologist workflow. The new user preference titled "**Use dictation layout when final signing supervised reports**" will automatically load the users Dictation layout instead of the

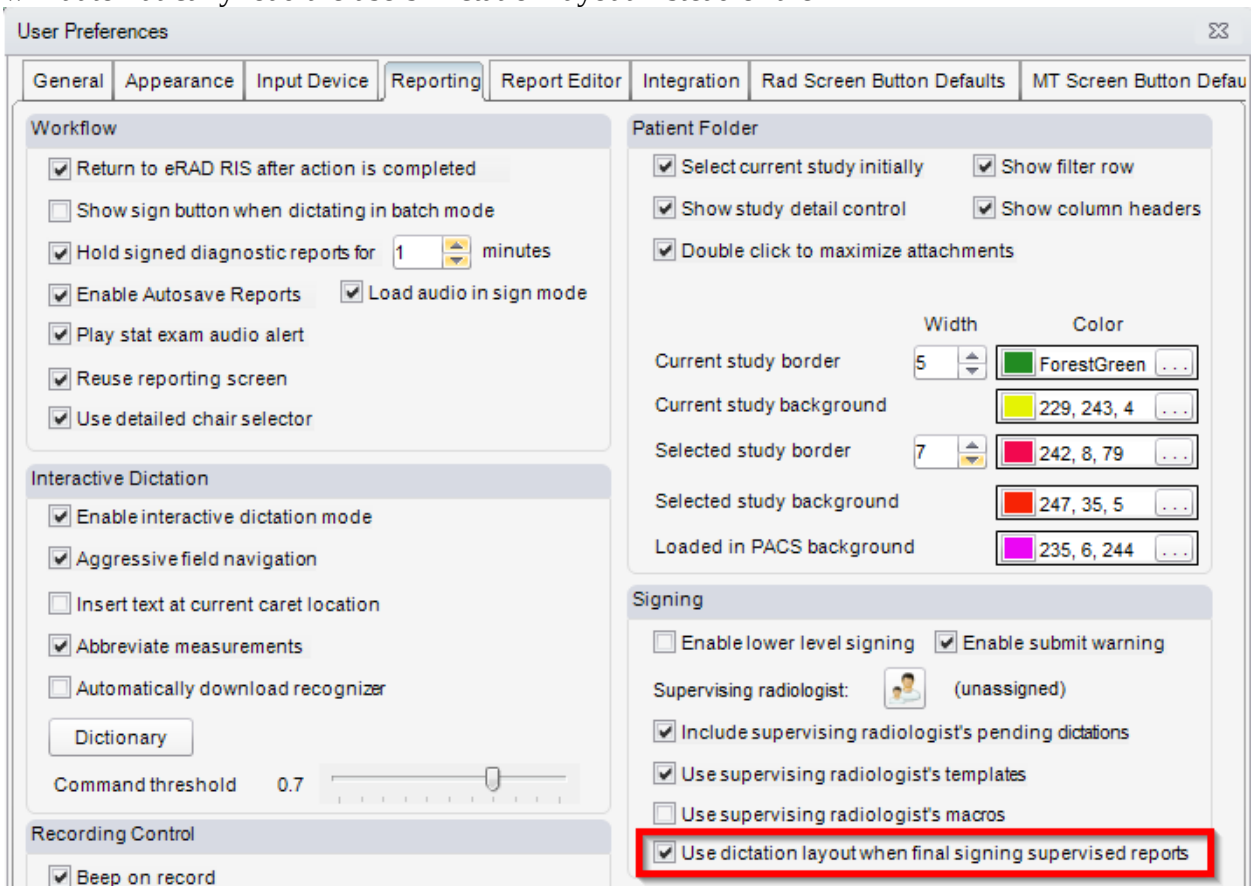



**Figure 5.14 – User preference Use dictation layout when final signing supervised reports**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Open Patient Folder/Images when Signing

Users currently have two main layouts. Either they are signing or dictating. Reason for this is that most signing task don't require the full patient folder detail, pacs images or dictation. So the signing layout is typically much smaller or less detailed then the dictation layout.

Users on occasion do want to display the Patient Folder and other detail similar to dictation when singing reports.

We now provide the user ability to load the dictation layout (patient folder) when signing reports. This is a manual click to load the dictating (patient folder) layout.

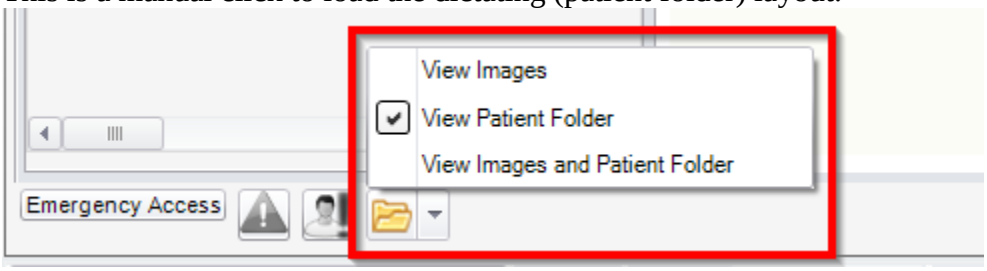



**Figure 5.15 – Signing mode layout options**

In the example above you can see that the Load Images button has been converted to be a split button with the additional options for "View Patient Folder" and "View Images and Patient Folder" with the "View Patient Folder" currently set as the default. This new dropdown button acts like other dropdown buttons for the reporting screen. Click the arrow to open other options and select option as desired. Holding the CTRL+<option> will render it the default and save in your user preferences.

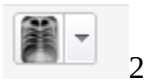
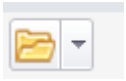
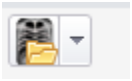
1.)  2.)  3.) 

**Figure 5.16 – Options available as default**

The three images above show the icon when set as default action for 1.) View Images 2.) View Patient Folder 3.) View Images and Patient Folder

When the Sign Report window is reloaded with the next study either from the work list or from the Submit/Sign/Suspend/Skip and Continue option the users Signing Layout will be used. What this means is that it will load the dictation layout when clicking Load Patient Folder but it won't be sticky.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Lock Access to Preliminary Reports

Unsigned reports can be previewed, printed and sent to distribution for faxing. To restrict users from distributing preliminary reports we have added a new access string titled "**Clinical.PreviewPreliminaryReport**"

If the user does not have this access string set to full, they will not be able to preview, print or fax preliminary reports from context menu within the RIS.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Set Problem Flag without Rejecting Report

In previous versions of eRAD RIS users would have to select the Reject/Edit button to enable the Assign to radio buttons. New in build 42 is the ability set the Problem flag without rejecting the report. Along with the Problem radio button, the Transcription list box and Notes fields are also enabled during QA verify report workflow.

Now the All Problem Worklist for MTs will show exams with problem flags set that are in TenativelySigned1 status.

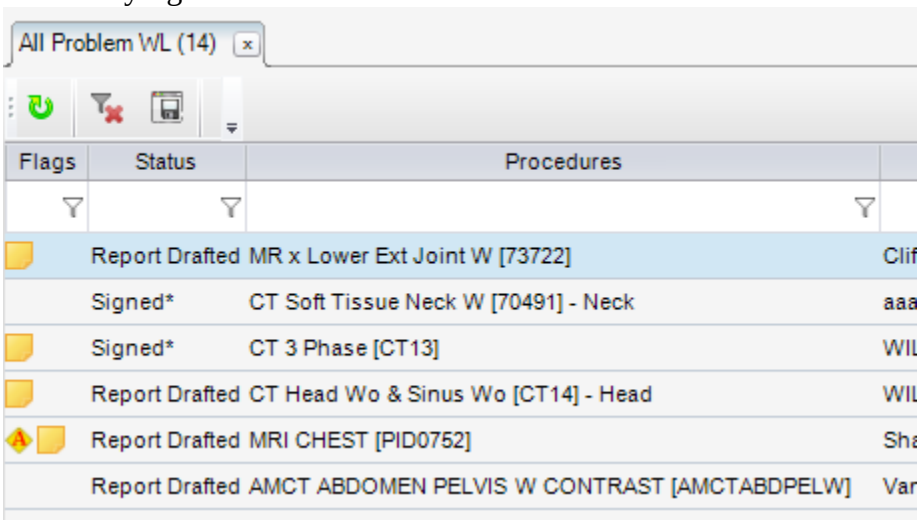



**Figure 5.17 – All Problem WL showing studies in Tentatively Signed status**

The Resolve problem window is now accessible in the MTs All Problem Worklist via the context menu. Please note this is dependent on the access string "**Clinical.ResolveRadProblem**".

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

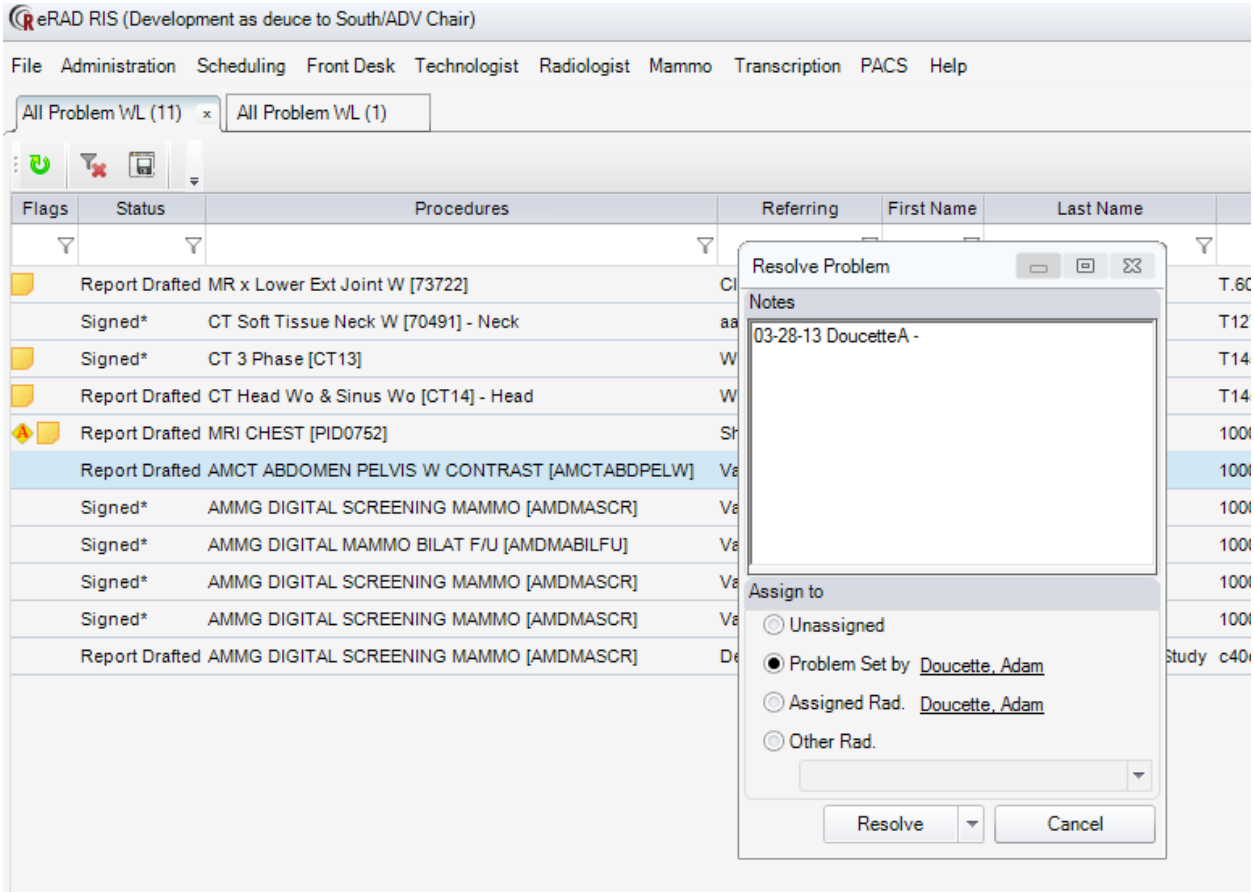



**Figure 5.18 – Resolve Problem window accessible from All Problem WL**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Remove Content Tags from CDA when Creating Macros/Templates

eRAD RIS offers the ability for a user to copy an existing report as a template for future reports. This functionality is inhibited by the fact that the new template they create contains mm:status and mm:part that should be stripped out.

As a result of the mm:status and mm:part still contained in the template, some of the jumping problems we have encountered on play back were related to time stamps being saved in templates and macros at the time of save. To correct this we found we could manually remove the time stamps from the underlying document.

We are now using the convertCdsToCda method to remove the time stamps and unneeded tags.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Ability to Configure MModal Transfer Task

The ris.exe.config now has an app setting to override the user preference for M*Modal's Data Transfer Config: **MModalDataTransferValue**

Acceptable values are any sum of the following options:

**SUBMIT_TRAINING_INFO:** Upload log of user interaction (including recorded audio) to server for profile building. Applicability: only for local recognition; ignored for remote recognition. constant value = **1**

**SUBMIT_ERROR_LOGS:** Whether to automatically submit an error report for debugging after an uncontrolled shutdown, or when encountering another non fatal error.
Applicability: all modes; requires storage manager for crash log uploads (non-fatal error reports can be submitted without). constant value = **2**

**STORE_USER_SETTINGS:** If set, store user preferences (including audio gain etc) on CDS server, and retrieve on next startup. Applicability: all modes. constant value = **4**

**UPDATE_PROFILES:** If set, checks at session creation whether an updated user profile is available on the server. If yes it is downloaded in a background thread and used as soon as it becomes available. Until then the recognizer would use either a speaker independent profile, or an older locally cached profile version (only if an IStorageManager is configured).
Applicability: local recognition; ignored for remote. constant value = **8**

**UPDATE_RECOGNIZER:** If set, check in regular intervals whether an updated compatible recognizer version is available on the server. If yes, the recognizer mode is downloaded in a background thread and used when the local recognizer is next instantiated (i.e. not switched out in a running session).
Applicability: local recognition; ignored for remote. Requires an IStorageManager, ignored if none is configured. constant value = **16**

**WRITE_DEBUG_LOG:** Like SUBMIT_TRAINING_INFO, but leaves information in a local IStorageManager for debug purposes instead of (or in addition to) uploading it to a server.
Applicability: local recognition; ignored for remote recognition constant value = **32**

If the value is not present or invalid, we resort to existing logic. This would be to check the user config for auto download, if present use 29 else 13

13 = SUBMIT_TRAINING_INFO, STORE_USER_SETTINGS, UPDATE_PROFILES
29 = SUBMIT_TRAINING_INFO, STORE_USER_SETTINGS, UPDATE_PROFILES, UPDATE_RECOGNIZER

0 (zero) is a valid option. Zero will disable the calls.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Make Patient Name Stand Out in Reporting Windows

The reporting windows now have additional optional patient and study information that can be displayed on the top of the main reporting window and also can display on the top of any floating data panes. If a multiple floating panes are grouped together, it will only appear on the title bar of the floating group.

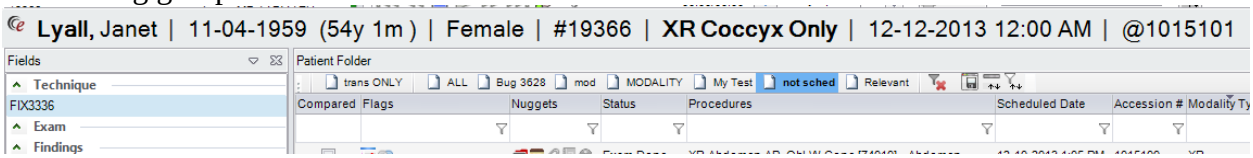



**Figure 5.19 – Patient and Study information in title bar**

Looking at the figure above I have the font size set to 16. The font size options are from 8-20. The context menu displayed above is accessed via a right click on the title bar. Under the Window Caption option the sub menu allows for font size change and option to display the Patient Information, Study information, both or neither.
Patient Information includes the patients name, DOB/age, gender, and MRN.
Study information includes the procedure, performed start date/time and the accession number

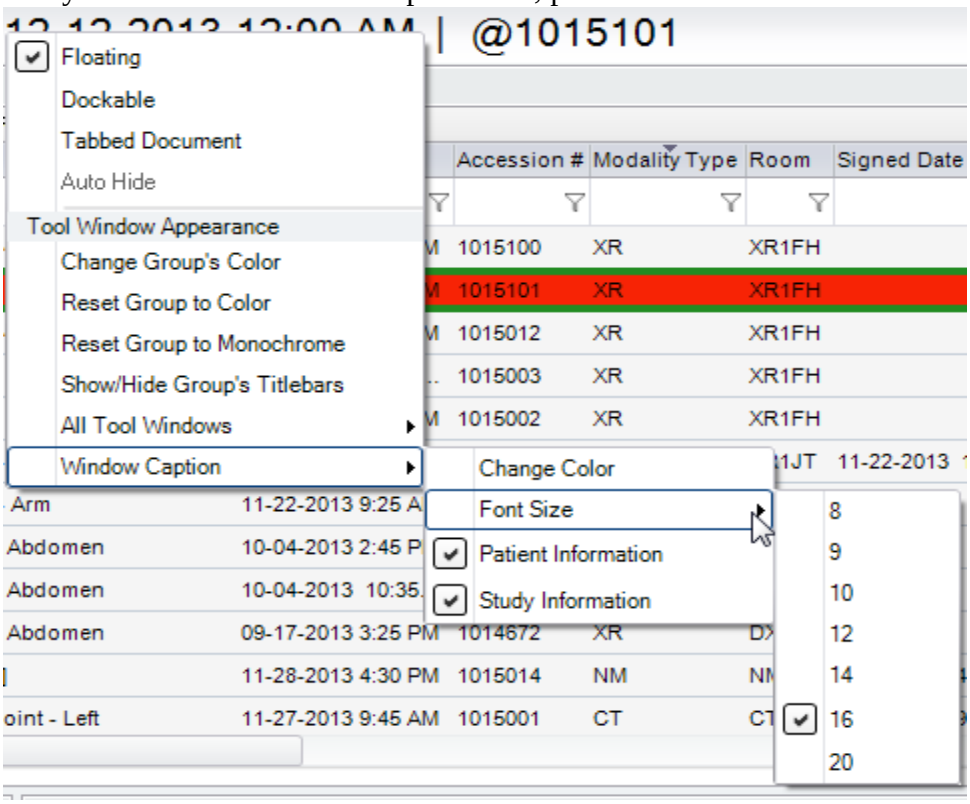



**Figure 5.20 – Context menu from title bar showing Window Caption options**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Create Backup of Capture Log

We now back up old capture logs.

On startup of Interactive, we check for existing capturelog file in $APP_PATH\captureLog.txt

If exists, we copy a backup to $APP_PATH\Reporting\CaptureLogs\$USER\captureLog-yyyy-MM-dd HH.mm.ss.log where yyyy-MM-dd HH.mm.ss is the LAST WRITTEN time on the current existing file.

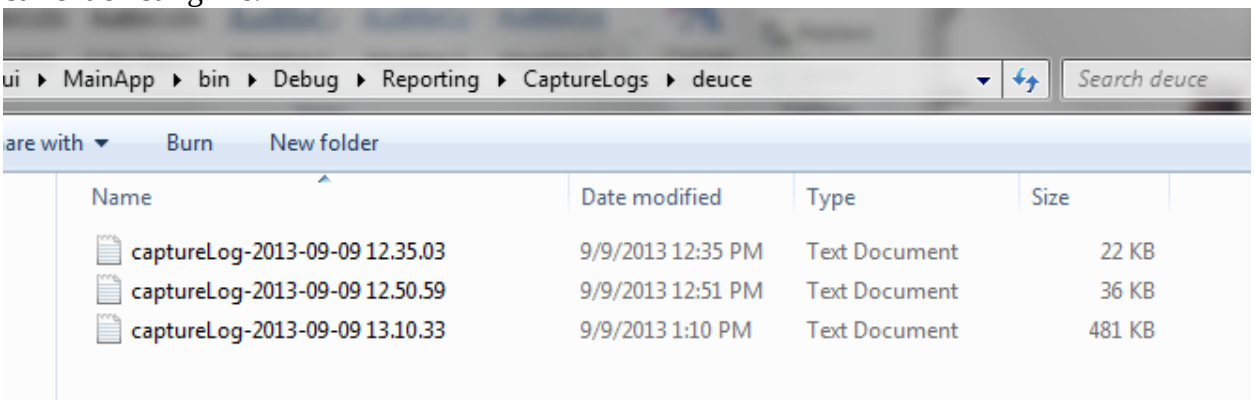



**Figure 5.21 – Showing CaptureLogs backup path**

Then we start up the new capture log which overwrites the old file location, as we always did.

So the current active capture log file name and location is unchanged. This will make for easy transition for support. Only the backed up logs are in a new location and file name.

Similar to the verbose logs, we check for outdated capture logs on login and delete ones that are older than two weeks and have not been accessed within the last day.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Relevancy Calculation Adjustable via Configuration

In production we have procedure codes that because of legacy data have very different names even on different modality types, but those procedures are actually exactly the same and should match exactly when assigned a relevancy score. Previous to B42 this was not possible because the relevance calculation was based entirely on word matching. A score was assigned based on the number of matching words and words that are modality type, body part or laterality are given great weight in the matching. Furthermore the administrator can setup the site so that only studies done on the same modality are considered relevant.

A new window titled Relevance Override has been added and is accessed from the "Override…" button on the Relevance lookup table.

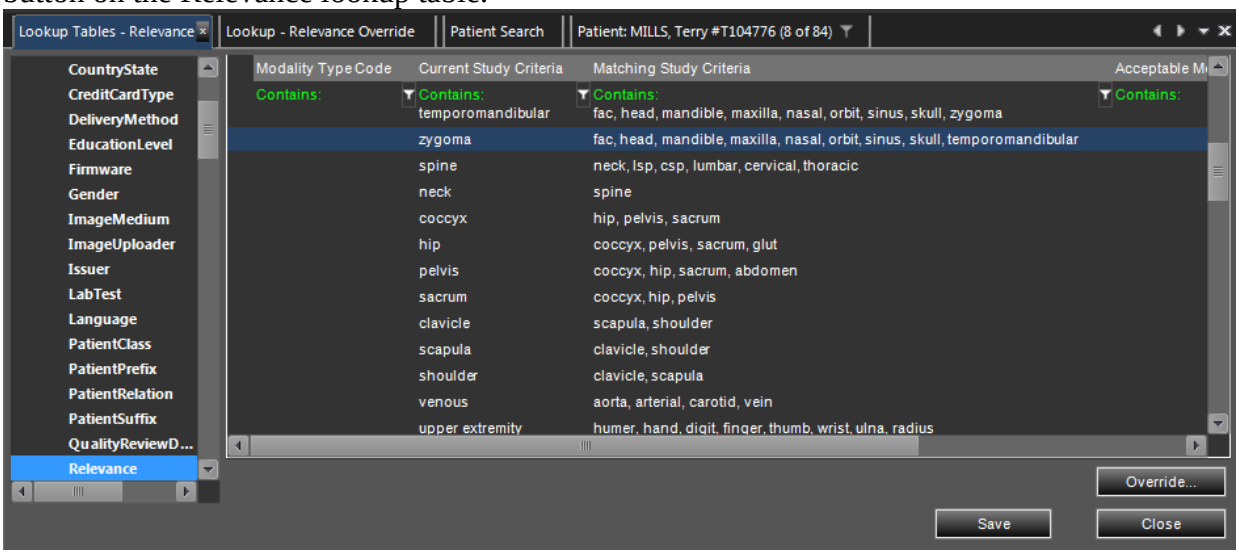



**Figure 5.22 – Accessing the Relevancy Override window**

When procedures in the patient's history have a matching relevancy override the configuration defines how much weight will be assigned as part of the procedure matching score (value between 0 and 100) and if the outcome will produce a Matching or Non-Matching Relevance Flag.

This solution also allows laterality to be an option part of the matching criteria. If the laterality is blank then it isn't considered as part of the matching criteria; however, if laterality is selected as "Same" then the rule only applies if the laterality of both procedures is identical. If the laterality is selected as "Different" then the rule only applies when the laterality differs and can be used to lower the score or make it Not Relevant, which could be useful when you want to give a high score when the laterality matches but a significantly lower score when the laterality is different.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

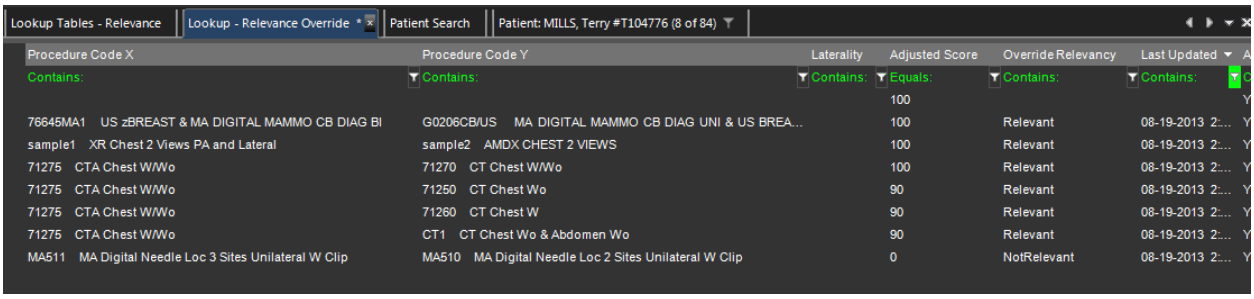
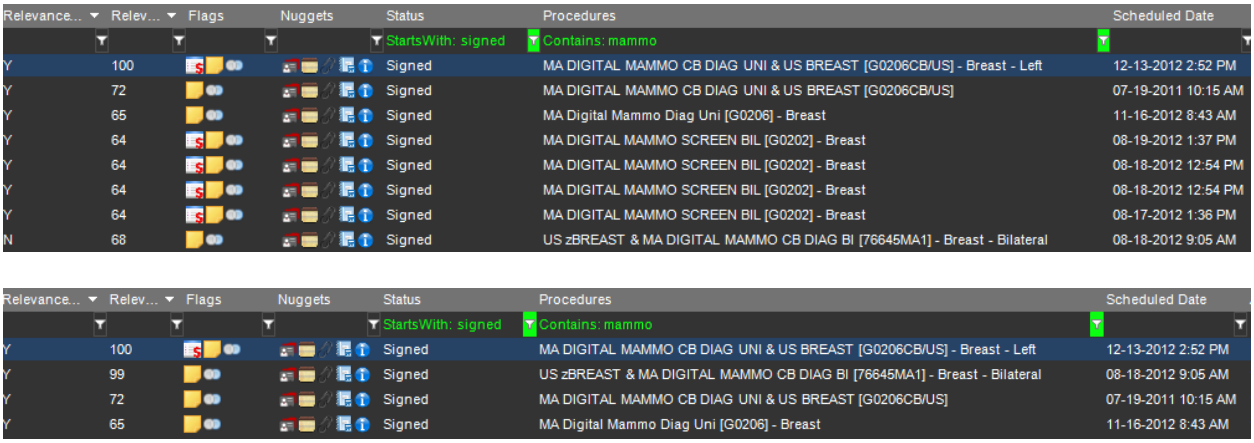



**Figure 5.23 – Relevance Override**

When the user clicks on the "Override…" button a tab opens up for the "Relevance Override" table, which allows you to specify two procedures (X and Y). When calculating relevancy if the studies match based on X and Y then the adjusted score will be applied and the relevancy flag will be set based on the selected value in the "Override Relevancy" column.

Note: The "Adjusted Score" and "Override Relevancy" columns are optional. If the "Adjusted Score" is blank then the score will remain as it was calculated without the override but the relevancy flag override would apply. Also, if the "Override Relevancy" column is blank only the score will be adjusted.

In the above Relevance Override configuration the procedures 76645MA1 and G0206CB/US are interesting. One is a US Breast & MA MAMMO CB and the other is a MA Mammo CB and US Breast. The default word matching produces a relevance score that is very close but not exact therefore some installations of RIS will want to correct for this. The following screen shots shows the relevancy results for a test patient's history – the first screen is with the override rule inactive and in the second screen shot the rule has been activated.




**Figure(s) 5.24 – Before and After Override applied**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

Note: that in the first screen shot without the Relevance Override, the 76645MA1 doesn't even show up as relevant because in the base relevancy rules there is a rule that says only MA modality type studies are relevant to MA studies. In the second screen shot the rule for 76645MA1 and G0206CB/US says the procedure matching will get a score of 100% but since the procedure matching only accounts for half of the total score (the other half is used to sort by date), therefore we see the score increase from 68 to 72 and 76645MA1 actually gets placed before the older G0206CB/US study because it's a recent prior.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Cached by Name Column

*Cached By Name* column has been added to the Pending Dictation Worklist. It shows the formatted name of the user who is caching the study. The logic behind which studies are cached follows the same criteria as the 'Next' logic of the Dictation window. That means it starts at the top of the sorted worklist. This is re-evaluated every time the worklist is refreshed. If you are the one that is marked for caching the study it will simply have "me" as the Cached by Name value.

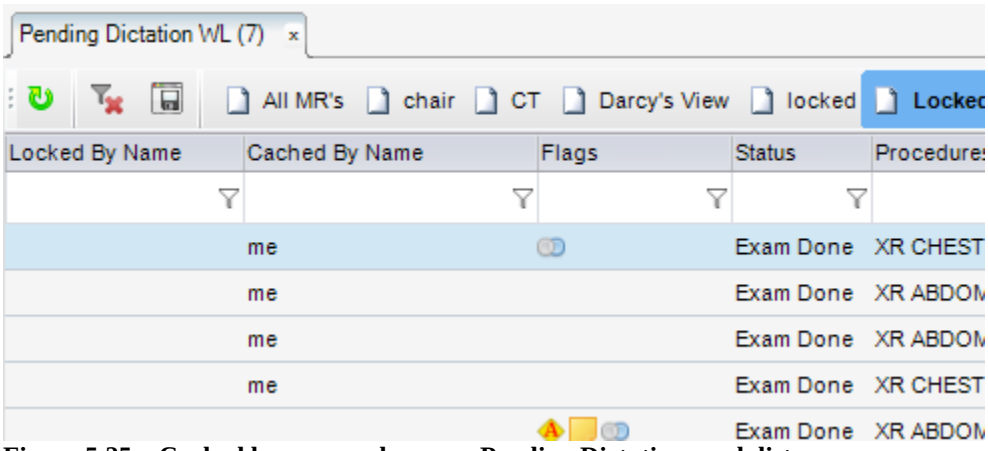



**Figure 5.25 – Cached by name column on Pending Dictation work list.**

Right-clicking on a study on the pending dictation worklist and selecting Add To Cache will cause that study to be cached regardless of its position in the worklist. This uses up one of the available cache slots as dictated by the Max Number to Cache user preference. Multi-selecting studies will cache studies up to this max number. Manually cached studies will be un-cached when either a different study (or set of studies) is selected to be manually cached or when they drop off the worklist due to a worklist sorting change or a change in the status of the study.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

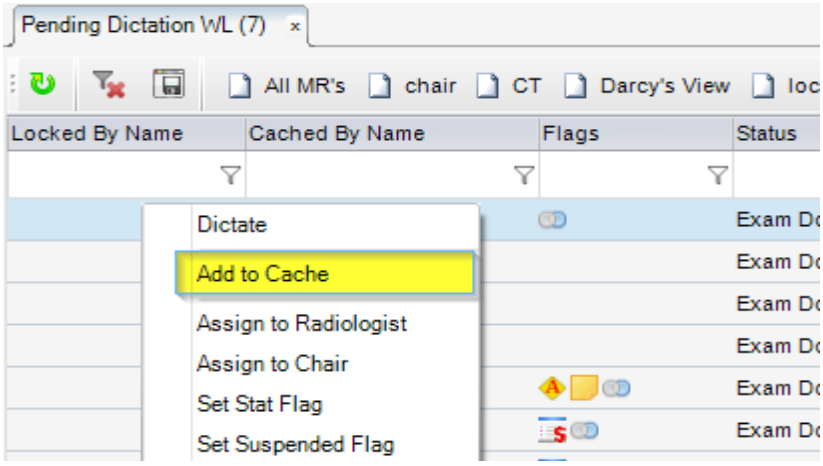



**Figure 5.25a – Add to Cache context menu option from Pending Dictation WL**

IW PACS "Caching" was attempted by actually opening the study. This has issues where studies that are "caching" sometimes pop up over top of images actually in use. This is probably suitable to be tested by a radiologist with warning they should be cautious and ensure that the images they are sync'd with the study they are reading.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – PACS Server Override

It has been requested that radiologists be able to access images on eRAD PACS and PACS IW from the same work list without changing the practice selected in the Org picker. This is now possible with the selection of a new user preference.

On the Integration tab there is a new option titled PACS Server and associated list box. This list box will contain the available PACS systems configured in the PACSServer lookup table that are in Active status. An access string named "**Clinical.UserPreferences.PACSServerOverride**" has been added for this preference with a default value of Disabled.

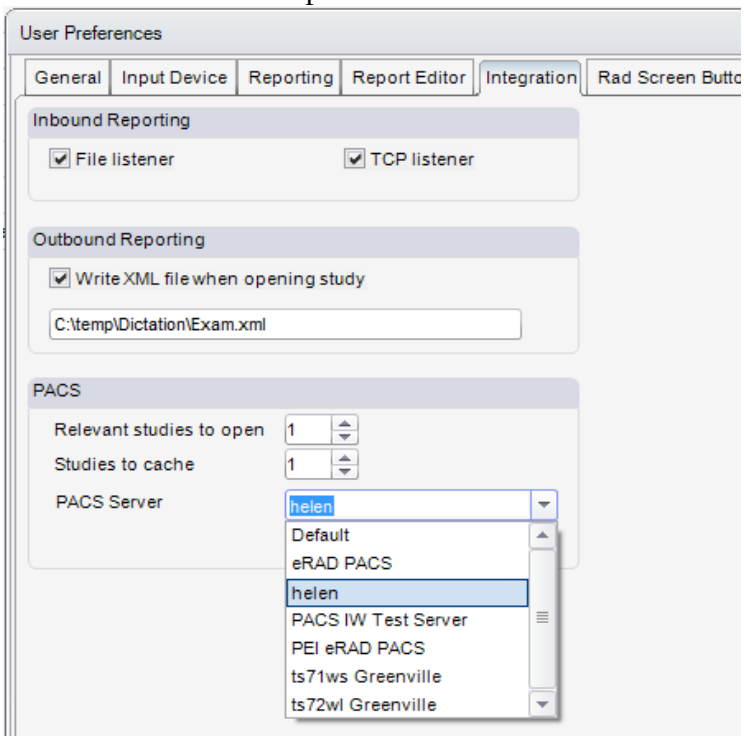



**Figure 5.26 – PACS Server user preference**

One of the PACS Server options is Default. If this is selected, the default PACS Server associated with your current practice selected in the Org picker will be used (same as before). If a specific server is selected, this will be the PACS that the images are displayed. For instance, if patient A has images on eRAD PACS and also PACS IW Test Server, when that server is selected the call for PACS will be made to that server and not the default for the practice.
**NOTE: If the PACS Server user preference selection is changed, the user will need to log out and back in again to pick up the changes. The user may encounter an error if they don't logout after changing the user preference.**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Noticeable Sign Button in Reporting Windows

To make the Sign button in the reporting windows easier to identify a new user preference was added add color to the background of the button and the option to change the font color.
The "**Visually enhance sign button**" user preference is located on the Appearance tab under the Radiologist Reporting Buttons section.

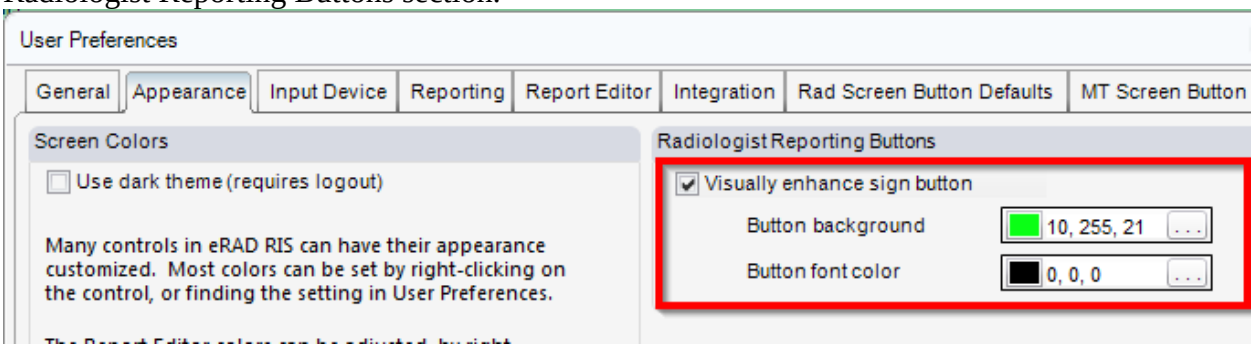



**Figure 5.27a – New user preference Visually enhance sign button**

With the preference selected and the above colors set the Sign button will look this in the reporting widow.

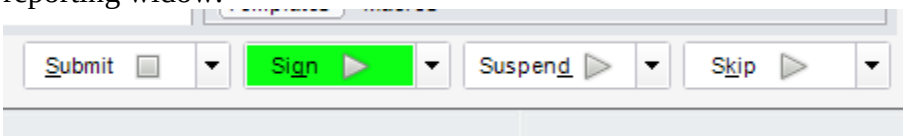
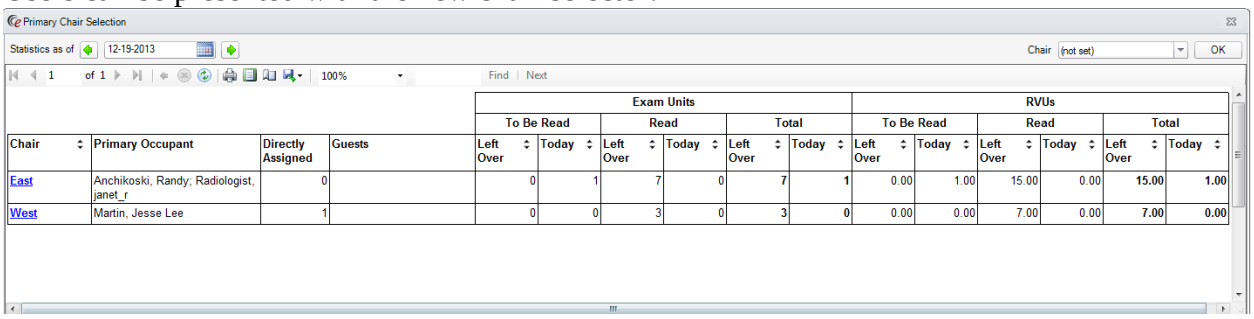



**Figure 5.27b – Noticeable Sign Button in Reporting window**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Chair Workflow Enhancements

You will first notice the Chair workflow enhancements upon login of eRAD RIS in build 42. Users can be presented with the new chair selector.




| | | | | Exam Units | | | | | | RVUs | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | To Be Read | | Read | | Total | | To Be Read | | Read | | Total | |
| Chair | Primary Occupant | Directly Assigned | Guests | Left Over | Today | Left Over | Today | Left Over | Today | Left Over | Today | Left Over | Today | Left Over | Today |
| East | Anchikoski, Randy; Radiologist, janet_r | 0 | | 0 | 1 | 7 | 0 | 7 | 1 | 0.00 | 1.00 | 15.00 | 0.00 | 15.00 | 1.00 |
| West | Martin, Jesse Lee | 1 | | 0 | 0 | 3 | 0 | 3 | 0 | 0.00 | 0.00 | 7.00 | 0.00 | 7.00 | 0.00 |

**Figure 5.27 – New Chair selector**

The original chair selector provided a simple drop down list of chairs and an OK and Cancel button. We have augmented this screen to show which radiologists are currently assigned to each chair, and we now describe the amount of work assigned to the chair for today and previous days. The old chair selector is still available and the user can choose "the old" or "the new" chair selector with a new User Preference "**Use detailed chair selector**". This is found under Reporting>Workflow.
The radiologist can select a chair either by clicking the blue hyperlink for the chair, or they can use a dropdown list if they prefer to make a selection with the keyboard. Once the radiologist selects a chair, the chair selector will disappear, and a chair filter will be applied to the My Pending Dictation WL.

The calendar control in the top left of the chair selector is used to determine the effective date for the statistics shown for each chair e.g. the stats for each chair break down the number of exams into "Today" and "Left Over". The calendar control defaults to "Today" when the chair selector is initially opened, so the "Today" column represents exams that were assigned to the chair today, while the "Left Over" column covers exams that were assigned in the previous 7 days. If the radiologist changes the date to reflect "Yesterday", the numbers in the "Today" column will instead reflect the exams assigned "Yesterday", while the "Left Over" column will again reflect the 7 days prior to "Yesterday". The calendar control also affects the numbers shown in the "Directly Assigned" column, we calculate the total number of exams assigned to the primary occupants of the chair based on the specified "chair assigned date."

For practices with a large number of chairs, we may find that there are too many choices to fit onto a single page. The tool strip has "next page / previous page" style controls that will allow the user to browse all of the chairs if desired. The "Find" control on the same tool strip can also be used to help jump to other pages.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

### Primary Chair vs "View Other Chairs"

The chair selector serves the dual purpose of allowing the radiologist to set their Primary Chair that they will be working for the day, while still allowing them to browse the worklist for other chairs. When the radiologist first logs in, they will be presented with the chair selector with the title "Primary Chair Selection"

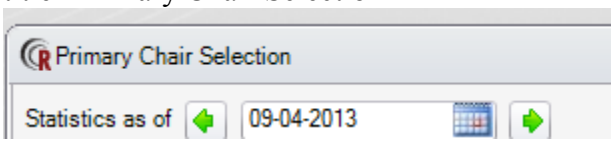



**Figure 5.28 – Primary Chair Selection window**

The primary chair selection will be used to ensure a particular chair is credited for the work done by the radiologist. We will assign an exam to the radiologist's primary chair once it is dictated or signed, provided it has not already been set.

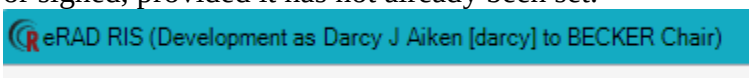



**Figure 5.29 – Primary chair displayed in the title bar**

After the radiologist selects a primary chair, they can bring up the chair selector by pressing the chair icon on the status bar at the bottom of RIS. The chair selector now has the title "View Other Chairs" and will be used for filtering worklists only, credit will not be assigned to this chair when the radiologist is dictating or signing exams.

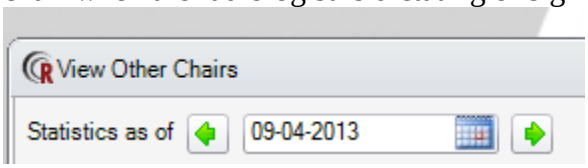



**Figure 5.30 – View other chair selector**

The figure below indicates that the "South" chair is occupied by Janet i.e. Janet's Primary Chair is "South" and that "Darcy" is currently filtering his worklist for the "South" chair via the "View Other Chairs" selection. In this case the 2 "Directly Assigned" refers only to the occupant of the chair (i.e. Janet).

**Figure 5.31 – Occupants and Guests displayed in chair selector**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

If a user tries to choose a chair that is already occupied by another user, they are presented with a prompt to confirm their choice:

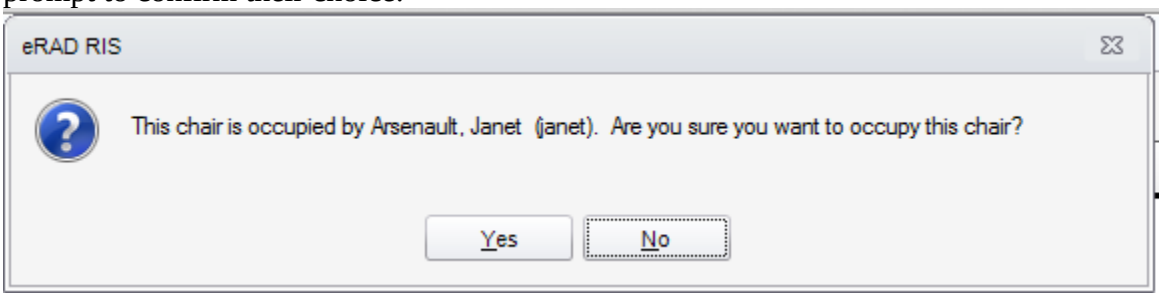
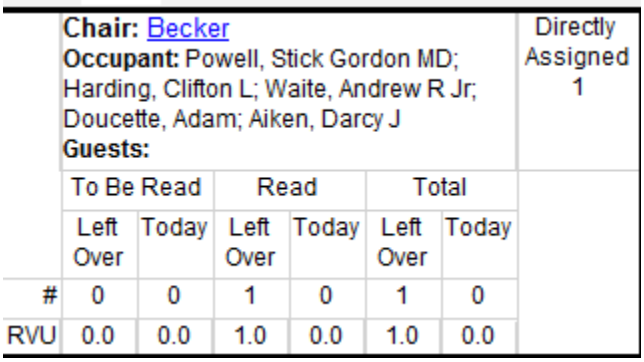



**Figure 5.32 – Prompt to confirm when the user selects a chair that is occupied by another user**

Previously the RIS back end services were agnostic of the user's Primary Chair selection, this was a detail managed solely by the client. We were required to save the user's choices to the database in order to be able to show occupants and guests on the new chair selector. We clear out these choices when the user logs out. In the event of an abnormal application termination (e.g. a power outage or crash), we do not have the opportunity to clear out the chairs. In this case, the chair occupants will remain in their chairs until they log back in and make a new selection, or their chair selection expires. RIS is presently set to occupy a chair for 2 hours or until the user logs out or makes a different selection, these 2 hour chair selections are renewed every hour.

### Descriptive Statistics for Chairs



| | **Chair:** Becker<br>**Occupant:** Powell, Stick Gordon MD; Harding, Clifton L; Waite, Andrew R Jr; Doucette, Adam; Aiken, Darcy J<br>**Guests:** | | | | Directly Assigned 1 | |
|---|---|---|---|---|---|---|
| | To Be Read | | Read | | Total | |
| | Left Over | Today | Left Over | Today | Left Over | Today |
| # | 0 | 0 | 1 | 0 | 1 | 0 |
| RVU | 0.0 | 0.0 | 1.0 | 0.0 | 1.0 | 0.0 |

**Figure 5.33 – Close-up of the statistics for a single chair**

The following logic was used to calculate the numbers in the chart above:

| Label | Definition |
|---|---|
| Directly Assigned | The total number of exams assigned to all primary occupants of the chair with a chair assigned date that matches the selection in the calendar control on the chair selector |
| To Be Read | Exams with a status of ExamDone or Signed with an addendum |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | |
|---|---|
| | requested |
| Read | Exams with a status of Dictated, Transcribed, Report Drafted, Tentatively Signed, or Signed (excluding Signed Exams with an addendum requested) |
| Today | Exams with a chair assigned date that matches the selection in the calendar control on the chair selector |
| Left Over | Exams with a chair assigned date that is within the 7 days prior to the selection in the calendar control on the chair selector |
| # | The number of exams |
| RVU | The sum of the weighted value for the exams. These weighted values can be configured by procedure code and practice, the configuration for these weights is discussed later in this document. |

**Table 5.1 – Detailed explanation on stats in chair selector**

### Chair Selection Management Report

The tables shown in the chair selector thus far have all been built within a management report. There is a new system configuration setting called "**ChairSelectionReport**". RIS will fall back to the previous chair selector if this entry is blank. A valid entry for this setting will describe the path to a management report on the report server (e.g. /dev/Management Reports/Custom/ChairSelection). The use of a configuration setting will help with the introduction of different versions of Chair Selection Reports – if the new version has issues, the configuration setting can be set to point back to another version of the report.

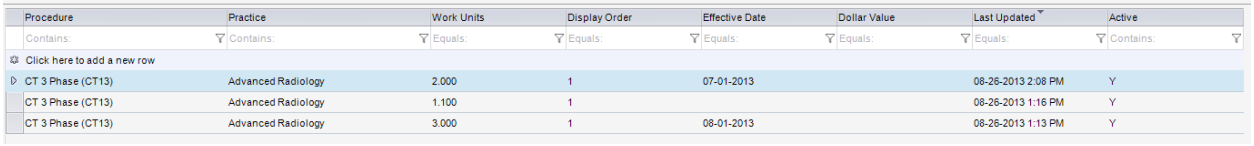
The hyperlinks in the chair selection report must be crafted in a particular way in order to be handled by RIS. This approach will initially be managed and refined by eRAD R&D and documented later for use in the field.

### Work Unit Configuration (aka RVUs or weights)

Procedures can now be assigned a relative weight to make it easier to ensure radiologists are given the appropriate credit for their work. Some procedures are significantly more involved than others, (e.g. Chest X-Ray vs PET/CT) so comparing just the number of exams is not meaningful. Access to see the RVUs option in the chair selector is configurable based on the new access string "**Clinical.ShowRVUs**"

There is now a new configuration option under Administration -> Configure -> Procedure -> WorkUnit that allows an administrator to assign weights to different procedures.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.



| Procedure | Practice | Work Units | Display Order | Effective Date | Dollar Value | Last Updated | Active |
|---|---|---|---|---|---|---|---|
| Contains: | Contains: | Equals: | Equals: | Equals: | Equals: | Equals: | Contains: |
| Click here to add a new row | | | | | | | |
| CT 3 Phase (CT13) | Advanced Radiology | 2.000 | 1 | 07-01-2013 | | 08-26-2013 2:08 PM | Y |
| CT 3 Phase (CT13) | Advanced Radiology | 1.100 | 1 | | | 08-26-2013 1:16 PM | Y |
| CT 3 Phase (CT13) | Advanced Radiology | 3.000 | 1 | 08-01-2013 | | 08-26-2013 1:13 PM | Y |

**Figure 5.34 – WorkUnit configuration lookup from Administration -> Configure**

Work units are designed to allow different practices to assign their own weights to the same procedure. Rather than require the administrators to map out rules for each procedure and practice, we have a default weight of 1.00 that will be used for any procedure that does not have a weight configured (for a given practice).

Because weights may be subjective, we have built in a date based versioning scheme. If an administrator decides that a Chest X-Ray should have a weight of 0.10 units, they can set the effective date to July 1, 2013 to make the new weight apply to all studies with a date of service greater than July 1, 2013. In the event that their opinion changes as to the relative weight of a Chest X-Ray, they have the option of changing the 0.10 to another value (e.g. 0.20) either by modifying the existing row, or creating a new row with a different effective date. If the new effective date is August 1st, 2013, it will apply only to exams performed after August 1st, while those performed in July will still use the original weight of 0.10. Modifying an existing weight and leaving the previous "effective date" intact will retroactively assign the new weight to exams performed after the effective date.

It is important to note that the default of 1.00 will apply to any exam performed before the earliest effective date for a given procedure and practice. If there is no rule for Chest X-Rays with an effective date earlier than July 1, 2013, then any Chest X-Rays performed in June would be the default 1.00 units. There is also a Dollar Value column that behaves the same as the weights themselves, but this may be removed if it does not add value.

### Chair Assigned Date

There is now a new attribute that is set when assigning an exam to a chair: chair assigned date. Whenever a user in the RIS client assigns an exam to a chair, we now set the chair assigned date to the current date and time. Although the "chair assigned date" has not been added to any worklists, the chair assigned date is factored into the statistics on the chair selector's statistics - "Left Over" vs "Today" is determined using the chair assigned date.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Administration - Display Locked Items in Different Color on the Work List

This requirement was almost achievable without code by using the existing "Conditional Formatting" telerik feature, except for one limitation. The user could have created a conditional format filter with a 'Contains' condition looking for their userID. However, this means the filter would have to be created by each radiologist independently and could not be shared since it is unique to each person's userid. Also, the conditional formatting tool is not a simple and intuitive feature for a novice user, therefore the effort of creating and maintaining these features would have fallen to implementation people to create and maintain for each radiologist. We deemed this too much work, and a feature could be built to support it instead.

The column/cell that will be colored is the locked_by_name column and the cached_by_name column.. Therefore, implicitly this column must be in the worklist you wish to add this feature to.

The user will be able to select the foreground and background colors simply and easily.
The user will be able to select either "Colour my rows" or "color other people rows" or both.
The system will have default colors that will be compatible with both light and dark mode.
The color filters will be part of the worklist views feature; therefore saving a worklist view implicitly saves the color filters.
To implement this, a new control was added to the right-click menu on the worklist.

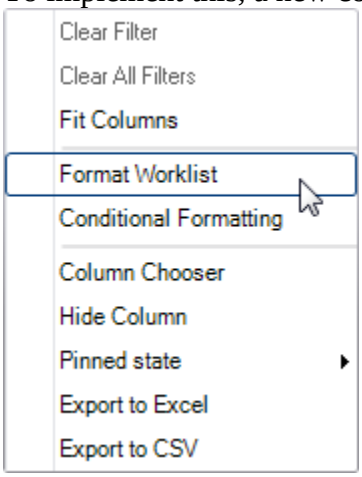



**Figure 5.35 – Context menu option to create colored columns for Locked By and Cached By**

Selecting Format Worklist from the context menu as displayed above will open the Formal Worklist window.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

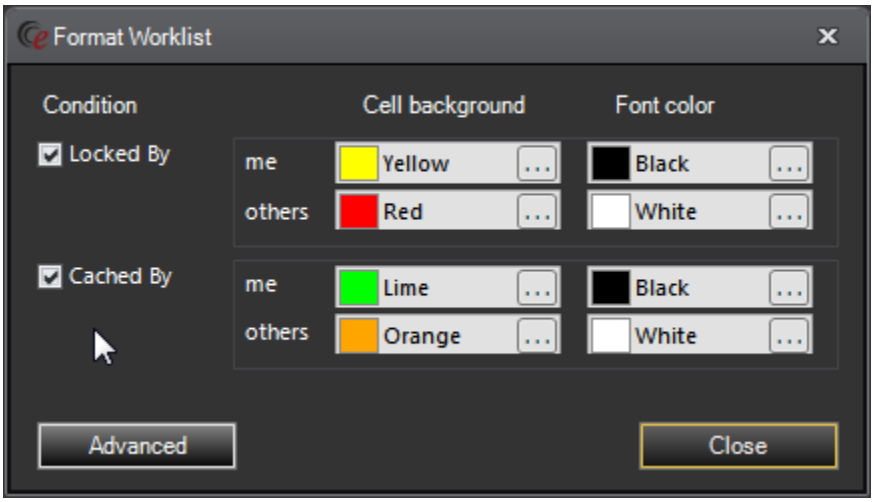



**Figure 5.36 – Format Worklist window**

This screen allows the user to configure their color filters.

The 'Advanced' button is provided as another way to access the Telerik Conditional Formatting feature. The Close button implicitly stores and invokes the color filters.

**NOTE:** ***Once color filters are set, they must be saved into a worklist view if the user would like to keep the selection.***

As well, it was mentioned that the user might like a filter condition which would show them only the worklist rows that they currently have locked.
While the user could just create a typical worklist filter condition, it was slightly complicated by the fact that the expected filter condition (ie, starts with 'me') would not work. In fact, it would have to be written as (contains me). To simplify this for the user, a new filter context menu option was added.

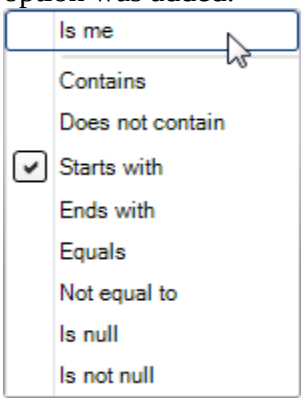



**Figure 5.37 – Filter option added**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Attachments - “Show Me Everything” Option

The attachment types dropdown can be configured to display only those attachments they want to see appear in the Attachments data pane or data nugget. We have added an option to enable the users to have access to the remaining attachments that may be associated with the patient.

Two new options will appear in the attachment types dropdown
+ Show More
- Show Less

By default the attachment data nugget opens with only the scan document types the user wants to see, which is configurable via the ' button'. By choosing "+ Show More" the attachment data nugget will reopen and display all attachment types regardless of user preference.

These options will not display if there are no additional attachments.

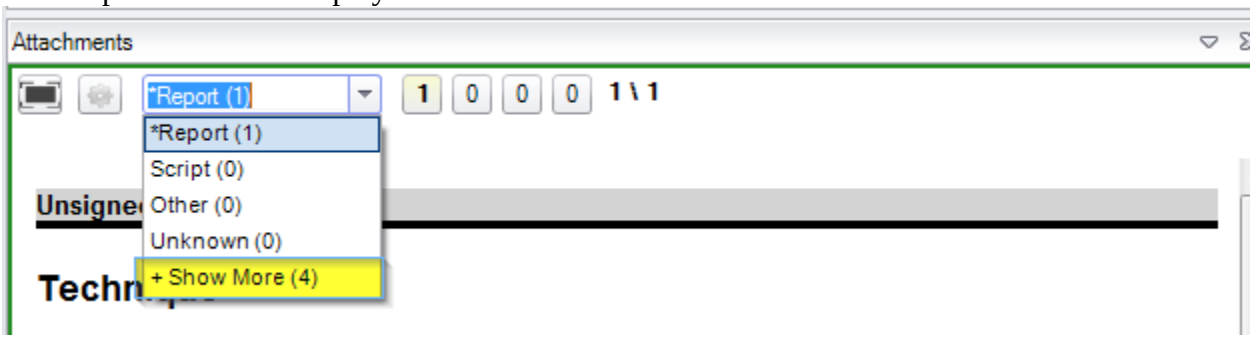



**Figure 5.38 – Show more attachments**

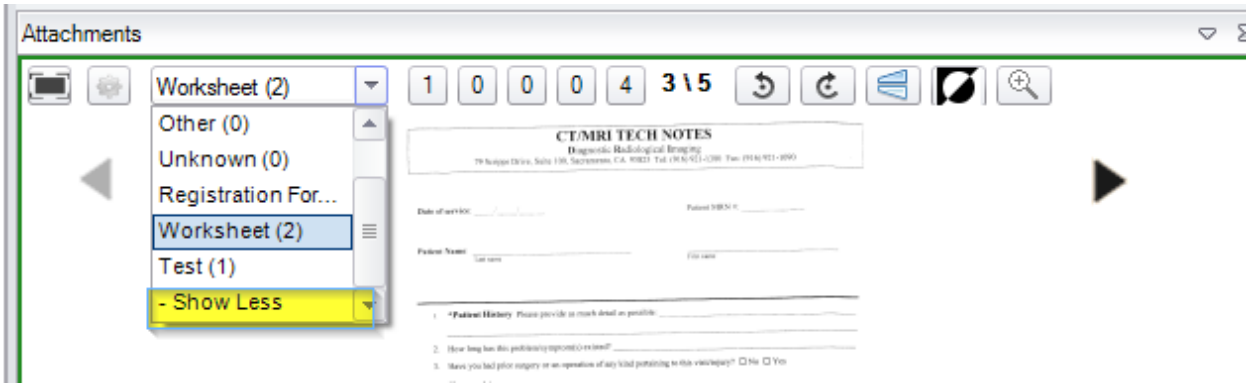



**Figure 5.39 – Show less attachment options**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Attachments - Ability to Add Attachments from Worklist Context Menu

The ability to add attachments from wordlist's context menus has been added in build 42. Wordlist's that allow for "Edit Patient" will now have the context menu option of "Attachments"

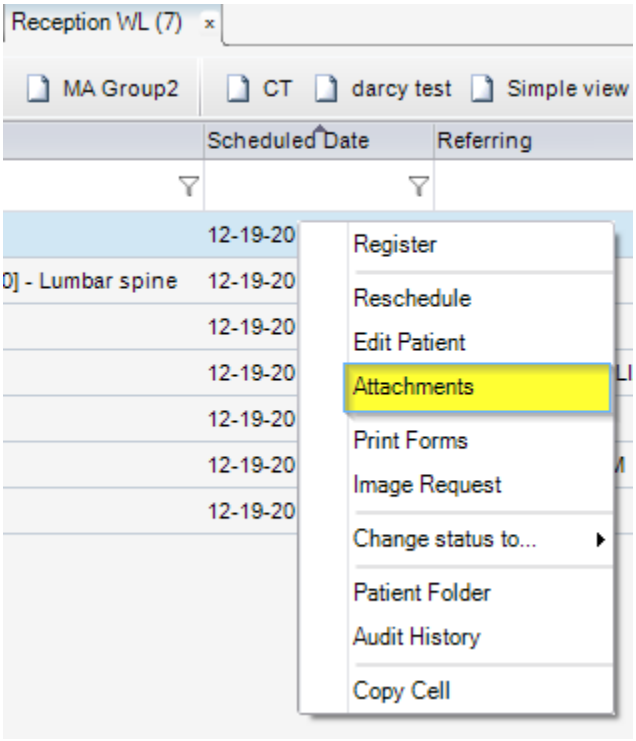



**Figure 5.40 – Attachments context menu option**

Also added were study details above the attachment list so we know exactly what the current study is.

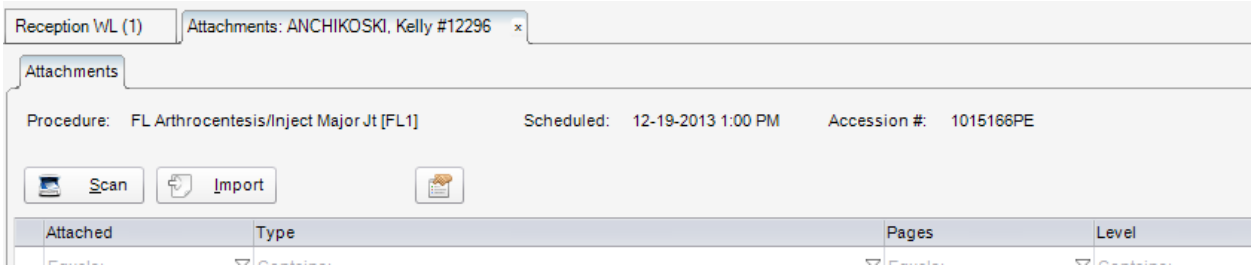



**Figure 5.41 – New Attachments window opened from context menu on work list**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## IVT - Next Follow up Date

Both IVT and Schedulers rely upon the contact log to show the follow-up activity (e.g. phone calls, letters, etc) for a particular patient/exam. The worklist for IVT and scheduling were modified to show the last follow-up type and the date of the last follow-up, but short of opening up the IVT screen or Scheduling screen to read notes, it can be difficult to know which patient/exam to "work" next. Ideally the schedulers and IVT team would have a means to record the "Next Follow Up Date" and/or "Next Follow Up Type" and have it show on the worklist for sorting/filtering purposes in order to reduce the need to open each row on the worklist.

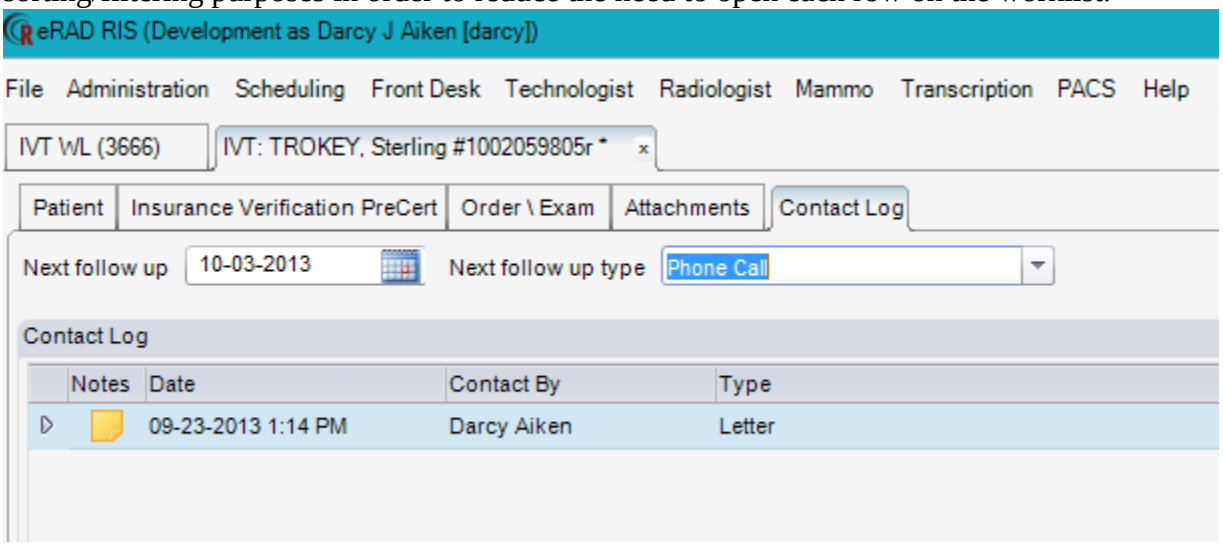



**Figure 5.42 – Contact Log on IVT window now includes a Next Follow Up Date**

In the above example the "Next Follow Up Date" is stored in a database field specific to IVT.

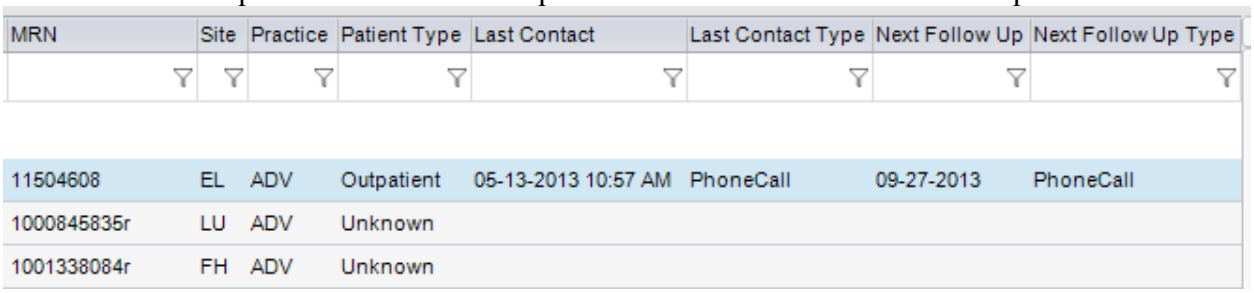



**Figure 5.43 – IVT Worklist now includes Next Follow Up / Next Follow Up Type that can be sorted/filtered**

The figures above are for IVT, but the Contact Log tab is the same in the Schedule Order window and columns on the Orders To Schedule work list also includes the Next Follow Up and Next Follow Up Type.

The values for the "Next follow up type drop down list are taken from the FollowUpType lookup table under Administration -> Configure -> Mammography -> FollowUpType.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Support Non Order Level Locking

Previous to build 42, RIS used Order Level application locks to reduce the risk of multiple users editing the same data at one time. If one user opens a particular exam, RIS will prevent other users from opening that exam (or any other exam that belongs to the same Order). This causes problems for our users by requiring the user to wait for the lock holder to close out before they can make their changes.

To refine the locking strategy such that we lock single studies instead of the entire order, (where appropriate) taking into consideration the action the user is attempting (e.g. Perform Exam). i.e. Two techs should not be allowed to perform an exam at the same time, but perhaps we should allow a Tech and a Rad to simultaneously have the same exam open. On the other hand, a Radiologist and a Transcriptionist should not be allowed to open the same exam at one time.

In build 42, this has become a reality. Changes to the lock tag generation will allow users to simultaneously make changes to the same study based on the following:

One of the keys to managing locks is that we generate a tag based on what we intend to lock, and if another user requests the same lock tag, we will return a lock failure message. As of build 41, we were generating these lock tags in the form of 123Order where 123 uniquely identifies the order that is locked.

The new approach is to build a 3 part lock: the identifier for the Order or Study being locked (either order_key or study_key), a lock suffix that indicates the type of action being performed e.g. IVT, PerformExam, and finally the word “Order” or “Study”.

Because some screens need to conflict with others (e.g. ReportingRadiologist and the Transcriptionist screens), we map different screens into buckets. In many cases a screen will have its own bucket e.g. IVT and PerformExam. There are a few screens that are report related that are given the same bucket “Report” in order to reduce the likelihood of conflicting changes.

A system table in the database (i.e. one that is not editable through Administration->Configuration in the RIS) assists with the mapping of screens to buckets, and helps determine if the screen will lock on the Order or on the Study.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | lock_hint | study_level_flag | lock_suffix |
|---|---|---|---|
| 1 | BillingConfirmation | Y | Billing |
| 2 | FollowUp | N | FollowUp |
| 3 | IVT | N | IVT |
| 4 | PerformExam | Y | Tech |
| 5 | ReportingRadiologist | Y | Report |
| 6 | ReportingTranscription | Y | Report |
| 7 | VerifyExternalReport | Y | Report |
| 8 | ViewEdit | Y | ViewEdit |

**Figure 5.44 – Mapping class names in RIS to lock**

Any screens or other functionality that is not included in the list above will continue to lock the Order. E.g. Scheduling and Register will lock the Order with a lock tag in the form of "123Order". Because of the lock tag design, Scheduling and Reception will not block anyone from opening any of the other screens above, but they will conflict with each other.

### Server Side Checks for Locks Prior to Saving

Immediately before we save an order or study on the server, a check is performed to see if the user holds a valid lock for the data in question. In the past we simply needed to check for the existence of a valid lock in the database with a lock tag that corresponded to the order being modified. If no valid lock were found, we would throw an error back to the client and not allow the user to save their changes. Under normal circumstances, the only way this would occur would be in the event that an authorized user used the Break Lock functionality.

The new approach is to check for a valid order level lock, if found we allow the save to continue. If there is no valid order level lock, we check for a valid study level lock for each study that is being passed in. If there are enough valid locks we throw an error back to the user, otherwise we allow the save to succeed.

Note that orders and studies that are being created do not require locks, so we exclude them from the lock checks above.

### Changes to Lock Management

Each screen that requires locking functionality makes use of a class called GUILockManager that is responsible for refreshing and releasing locks. Previously this class could manage only one lock at a time. We now generate a unique lock identifier that helps to uniquely identify the instance of the lock and can refresh or release multiple locks in a single service call.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

In some cases the user may attempt to acquire or refresh multiple locks and the call will be only partially successful – e.g. only two of three locks will be granted. In these cases the client will behave as though the entire lock request has failed.

### Changes to Worklists

The worklists that are designed for Radiologists and Transcriptionists include a column that identifies the user that holds a lock on that data. Because the lock tag is calculated differently, the worklist views were updated to filter for the type of locks that are used by Rads. If a Tech has an exam open, previously we would show the tech's name/userID in the "Locked By" column. Now that we are only interested in specific kinds of locks, we will only populate "Locked By" if it is a "Report" level lock (i.e. opened by another Rad, Transcriptionist, or someone using VerifyReport). Previously the worklists were parsing the lock_item_code in order to join to order, we now have a foreign key to Order and Study to assist with the join.

There are worklists that are not specific to Rads and Transcriptionists that have a locked by column e.g. the BI-RADS 0 and BI-RADS 4/5 worklists. Because the users working this list are not focused on the report, their worklist will only display the type of locks that pertain to them.

### Changes to Perform Exam

The Perform Exam screen generates a lock for each study within an Order. When the Perform Exam screen is initially opened, a single lock tag is generated. If the user clicks the include button, we attempt to acquire additional locks to prevent other techs from working on those studies simultaneously. In the event that there is a locking failure when the tech clicks the include button, we display a locking failure message to the tech, uncheck the "Include" box, and reselect the previous exam on the patient history grid. No "break-lock" functionality is planned for this case.

### Alerts for Similar Locks

A new alert was created (verbiage to be determined) to warn a user on Perform Exam or View Edit if a Rad or Transcriptionist has the same exam open.

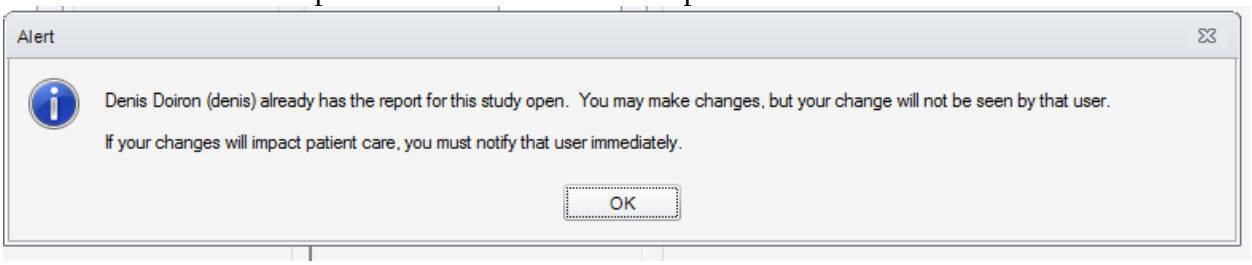



**Figure 5.45 – Alert on View Edit and Perform Exam when a Rad or Transcriptionist has the same exam open**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

We need to determine if these types of warnings will be sufficient, or if we need to have a locking mechanism that can acquire a fine grained lock that can prevent other users from making specific types of changes.

**Special Handling for Notes**

Our original implementation of "Notes" requires special handling. As users add new notes, we concatenate the new notes to the existing notes. In the case where two users update patient notes at the same time, the second saver wins and the first saver's notes are lost.

We have updated the concurrency handling to help reduce the risk of issues surrounding simultaneous updates to notes. If two users save changes at the same time, we detect the conflict on the server side and then extract the new notes from the second saver's update and then concatenate that with the existing notes in the database.

This was tested and works well for updates (i.e. adding new notes), but there is an outstanding issue with deletions. A typical user is not authorized to delete previously saved notes, but there is a permission that can allow an authorized user to edit existing notes. We did not build any handling for deleted notes – if two users update a row at the same time and the second saver deleted some notes, we simply allow the first saver to win.

A future sprint should address the current implementation of notes, possibly considering a design change so that each note is stored in its own row.

**Special Handling for Manage Policies**

When the user presses Manage Policies on a screen such as Registration, IVT, or ViewEdit, we now attempt to acquire a special insurance related lock. If the attempt to acquire the lock succeeds, the manage policies dialog will appear as before. If the lock acquisition is unsuccessful, the user will be presented with a lock failure message which identifies the lock holder and presents a "Read-Only", "Cancel", or "Break-Lock" option (the latter requires a lock override permission).

If a user's insurance lock is stolen, the GUILockManager will release all other related locks for that screen. E.g. if the user has ViewEdit open, they will lose the study level lock that they were granted when they opened the screen. Break lock for insurances should be used sparingly. Note that there is no enforcement of the insurance lock on the server, i.e. the user requires a lock to open the screen in the GUI, but the server will not reject an insurance update from a user that doesn't have a lock.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

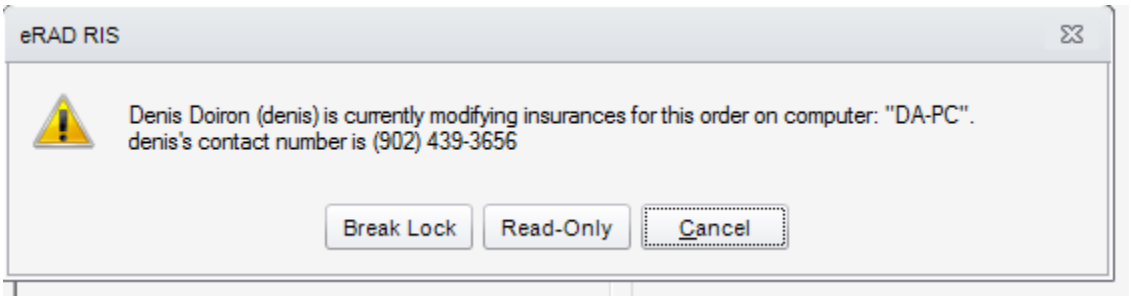



**Figure 5.46 – Break lock message**

## Special Handling for Patient Merge

When a Patient Merge is performed, there is a Source Patient and a Destination Patient. The Source Patient's visits, orders, studies, etc. are moved to the Destination Patient and the Source Patient is marked as Deleted. We have had cases where one user was actively working on the Source Patient during the merge process, and some studies were re-associated with the Source (i.e. deleted) Patient.

The Patient Merge screen has been updated to help reduce the chance of this happening in the future. When the user presses the Merge button on the Patient Merge screen, we now check for any locks on the source patient. If any locks are held for any of that patient's orders or studies, we identify the lock holders (userID and full name) and tell the user that the merge cannot be performed until those users' locks are released.

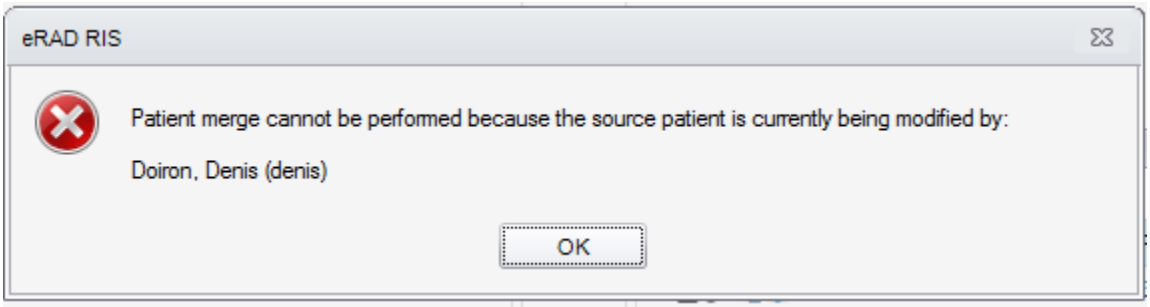



**Figure 5.47 – Message prompt on Patient Merge when Source patient is locked**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

### Change Status / Cancel Study / Manual Status Change

Change Status, Cancel Study, and Manual Status Change have been updated to include a check for locks on the same study. We first attempt to acquire a traditional order level lock, if that succeeds we do a secondary check for any locks on the given study. If either of those fail we show a message similar to the following:

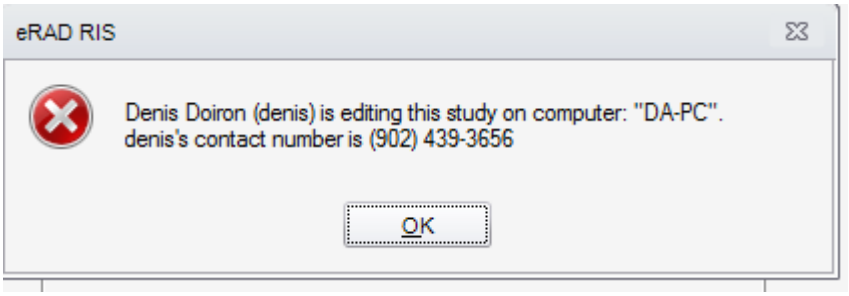



**Figure 5.48 – Message prompt from change status, cancel study, manual status change on locked study**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Administration - Multiple Person Ids

A grid has been added to the Account tab of the personnel editor. Users can add, edit, and delete alternate ids for the person as well as make them active/inactive. The idea is that a user can have multiple ids from a particular issuer, but only one of them *should* be active, but this is not enforced.

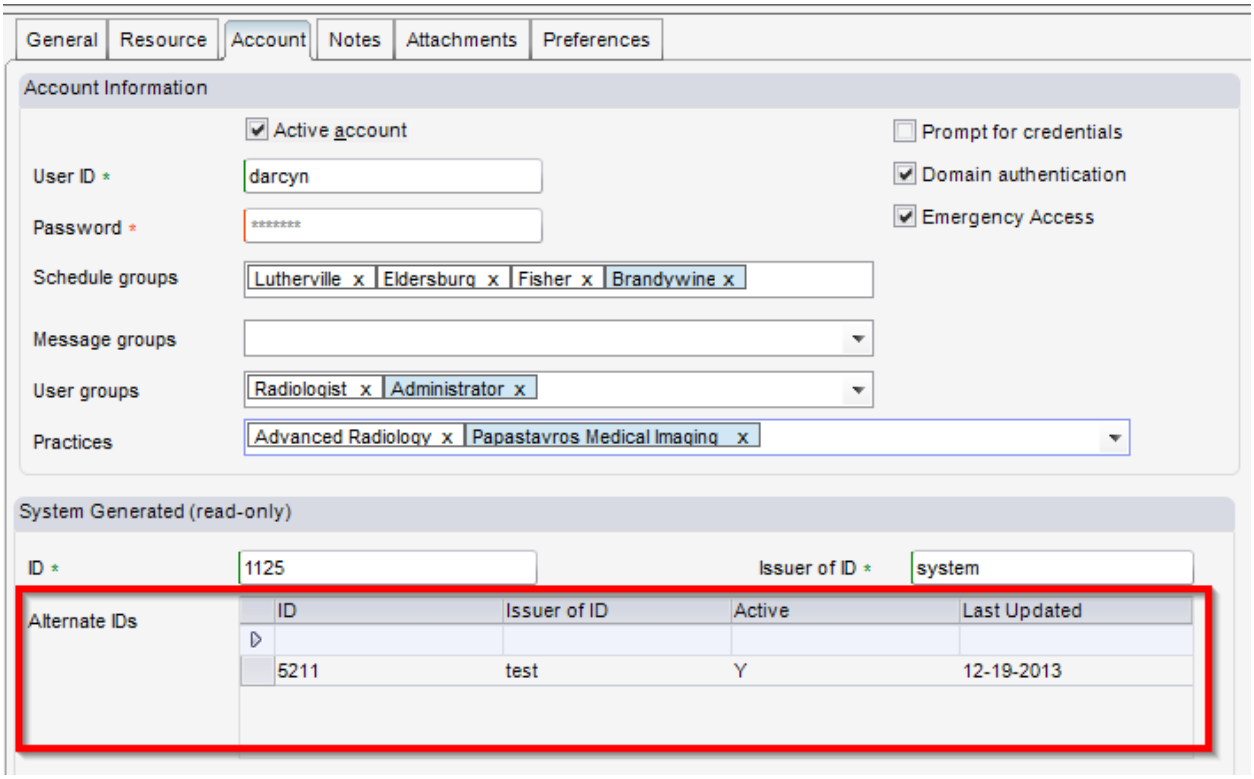



**Figure 5.49 – Alternate IDs can be added in Personnel Editor**

On inbound HL7 messages, the person will be resolved based on id/issuer of all primary and alternate ids and associated to the correct person.

On outbound messages, the wedge will expand the person_key and user_id nodes to include l_child_person nodes which contain the alternate ids. The mappings can then be made on a per-interface basis to select the correct alternate id to use based on the issuer. If multiple ids from that issuer exist, and they are both listed as active, then the mapping must pick one based on some other criteria ie. first one in the list or most recently updated.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Administration - Allow Editing of Billing Units

A new flag column has been added that will allow editing on the Billing Code / Procedure Code combination. In the Administration → Procedure Code lookup table → expand procedure code to view a new setting that allows the Billing Code / Procedure Code combination to be locked to users as far as ability to edit number of Units.

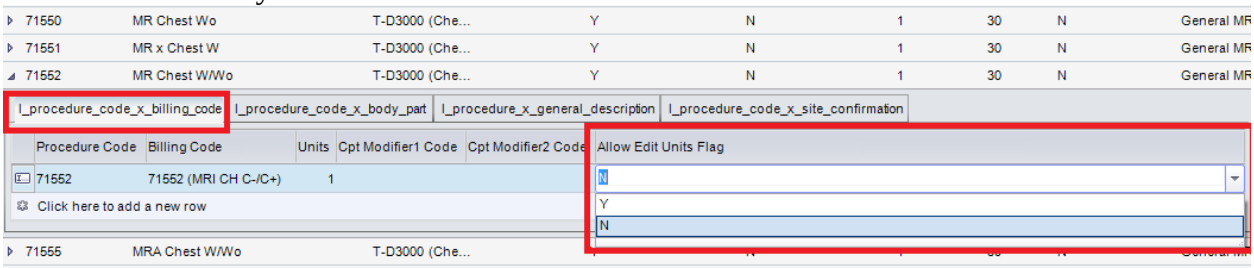



**Figure 5.50 – Allow Edit Units Flag**

By default editing is enabled to preserve pre-upgrade functionality. IF setting is set to "N" users will not be able to edit # of Units.

If set to N, in the billing code grid the user will not be able edit the number of units from the drop down for that particular procedure/cpt code.

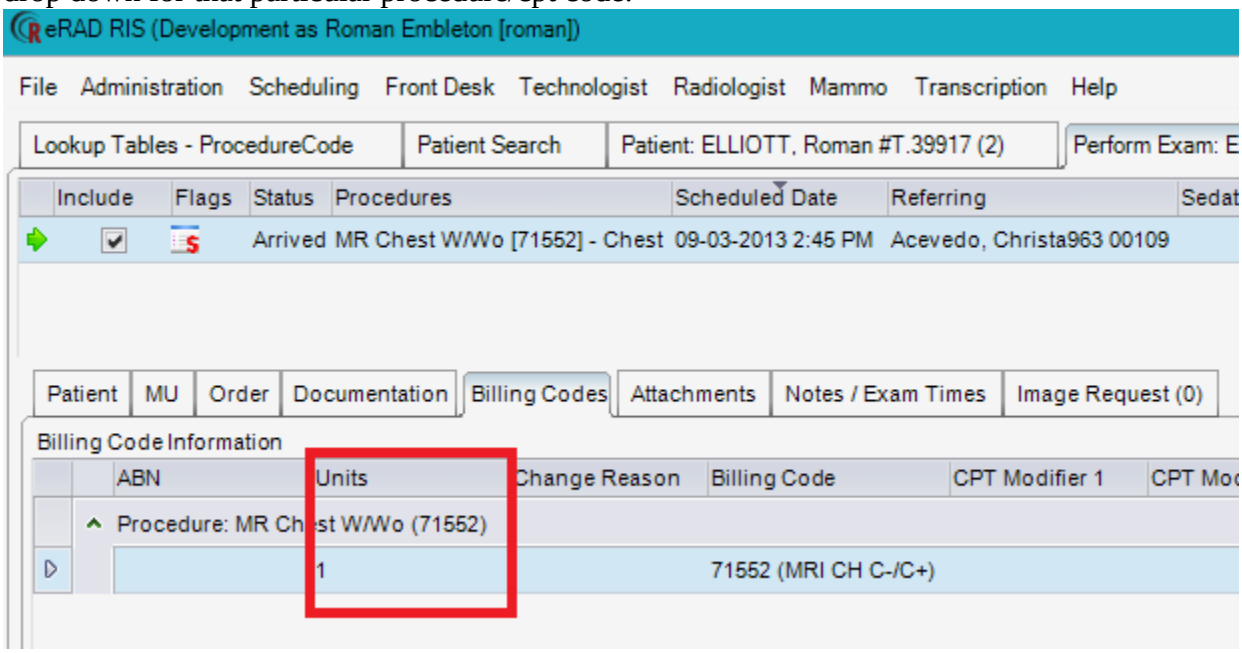



**Figure 5.51 – Units on billing code tab cannot be edited when set to N**

The user will still be able to add other billing codes that may (or may not) be edited.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

If the user attempts to add a billing code to the performed procedure and the value of "Allow Edit Units Flag" is set to N for that procedure, the Add Billing Code window will have the Units field disabled.

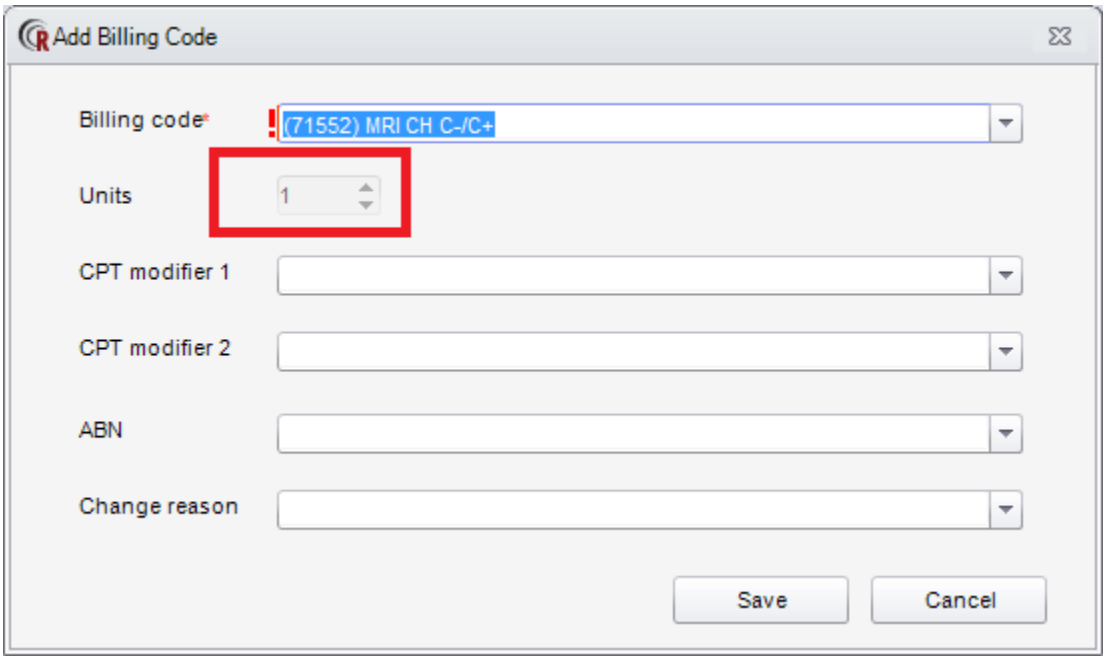



**Figure 5.51a – Add Billing Code window on billing code that the units cannot be edited**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Administration - Disable BI-RADS ® Per Site

In build 42 the ability to disable BI-RADS ® tracking can be turned off per site. The Organization Editor in Administration -> Configure has been updated to include a new checkbox to Disable BI-RADS Controls (verbiage may vary at time of release).

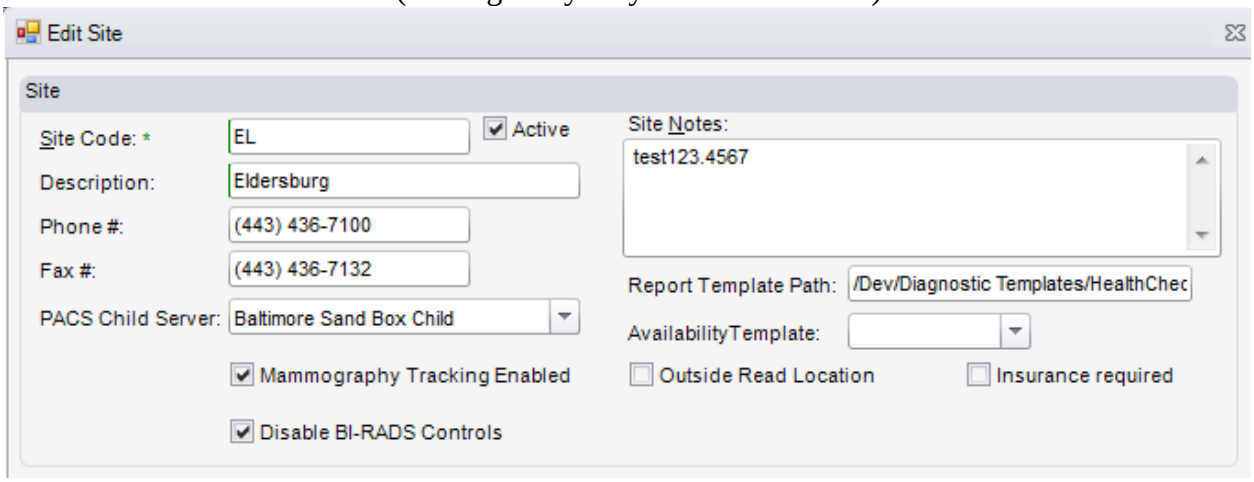



**Figure 5.52 – Ability to disable BI-RADS Controls per site.**

By default, "Disable BI-RADS Controls" will be unchecked when creating a new site. Mammography Tracking Enabled means that the site will generate follow-up orders, reminder letters, lay letters, etc. for any BI-RADS enabled mammo procedures.

Disable BI-RADS Controls means that the site will opt out of BI-RADS tracking altogether (in effect the setting for Mammography Tracking Enabled will be ignored if BI-RADS are disabled)

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Administration - Ability to Add MRN and Accession Prefix and Suffix

The ability to add and prefix and or suffix to the patients MRN and also to the Accession number has been added. This is controlled by two new system configuration settings.
For MRN they are:
"**MRNPrefix**" – Prefix that will be added to new MRN's
"**MRNSuffix**" – Suffix that will be appended to new MRN's
"**AccessionPrefix**" – Prefix that will be added to new accession numbers
"**AccessionSuffix**" – Suffix that will be added to new accession numbers

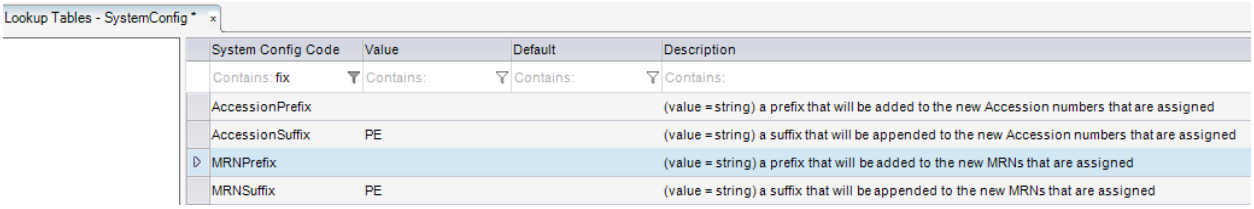



**Figure 5.53 – New systemconfig values**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Administration - Privacy Message on Locked eRAD RIS

A new system configuration setting "**PrivacyMessageText**" has been added to the system config lookup table. When this field has a string value, the string is displayed on the lock screen.

| System Config Code | Value | Default | Description |
|---|---|---|---|
| Contains: priva | Contains: | Contains: | Contains: |
| PrivacyReminderText | REMINDER: Do not snoop in patient records! | | (value = string) Defines the privacy string that will be displayed on the lock workstation screen. |

**Figure 5.54 – New system config setting PrivacyMessageText**

**Figure 5.55 – PrivacyMessageText value displayed on locked eRAD RIS**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

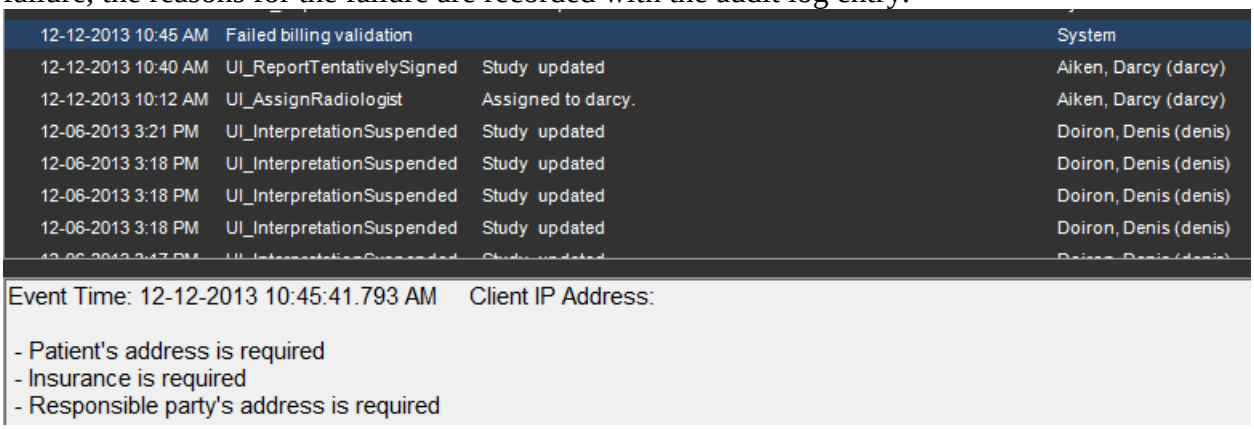
## Billing – Audit Log Capturing Billing Failure \ Reason

The audit table will now capture the success and failure of billing actions. If the billing action was successful the audit log will display "Posted to Billing"

| Date | Action | Description | User | Accession # | Order # | Status | Procedure |
|---|---|---|---|---|---|---|---|
| Equals: | Contains: | Contains: | Contains: | Contains: | Contains: | Contains: | Contains: |
| 12-12-2013 10:39 AM | UI_ReportSigned | Study updated | Aiken, Darcy (darcy) | 5131280 | 7405261 | Signed | Randy Test 02 |
| 12-12-2013 10:39 AM | UI_ReportSigned | Patient updated | Aiken, Darcy (darcy) | | | | |
| 12-12-2013 10:39 AM | Posted to billing | | Aiken, Darcy (darcy) | 5131280 | 7405261 | Exam Done | Randy Test 02 |

**Figure 5.56 – Successful billing action entry in audit log**

An unsuccessful attempt to bill will display "Failed billing validation". In the event of a billing failure, the reasons for the failure are recorded with the audit log entry.



| | | | |
|---|---|---|---|
| 12-12-2013 10:45 AM | Failed billing validation | | System |
| 12-12-2013 10:40 AM | UI_ReportTentativelySigned | Study updated | Aiken, Darcy (darcy) |
| 12-12-2013 10:12 AM | UI_AssignRadiologist | Assigned to darcy. | Aiken, Darcy (darcy) |
| 12-06-2013 3:21 PM | UI_InterpretationSuspended | Study updated | Doiron, Denis (denis) |
| 12-06-2013 3:18 PM | UI_InterpretationSuspended | Study updated | Doiron, Denis (denis) |
| 12-06-2013 3:18 PM | UI_InterpretationSuspended | Study updated | Doiron, Denis (denis) |
| 12-06-2013 3:18 PM | UI_InterpretationSuspended | Study updated | Doiron, Denis (denis) |

Event Time: 12-12-2013 10:45:41.793 AM Client IP Address:

- Patient's address is required
- Insurance is required
- Responsible party's address is required

**Figure 5.57 – Failed billing action reasons for failure**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## External – View Legacy Report PDF's as HTML

The web interfaces are unable to get an html version of the legacy reports, which were imported in the the RIS as PDFs. To solve this we are planning to integrate a PDF to html converter so that when we call the WebAPI interface we get the legacy PDF as html. The following is an example in the dev database of an accession number, which has a legacy PDF report.
http://localhost:9002/api/DiagnosticReport/1014129?format=HTML4.0

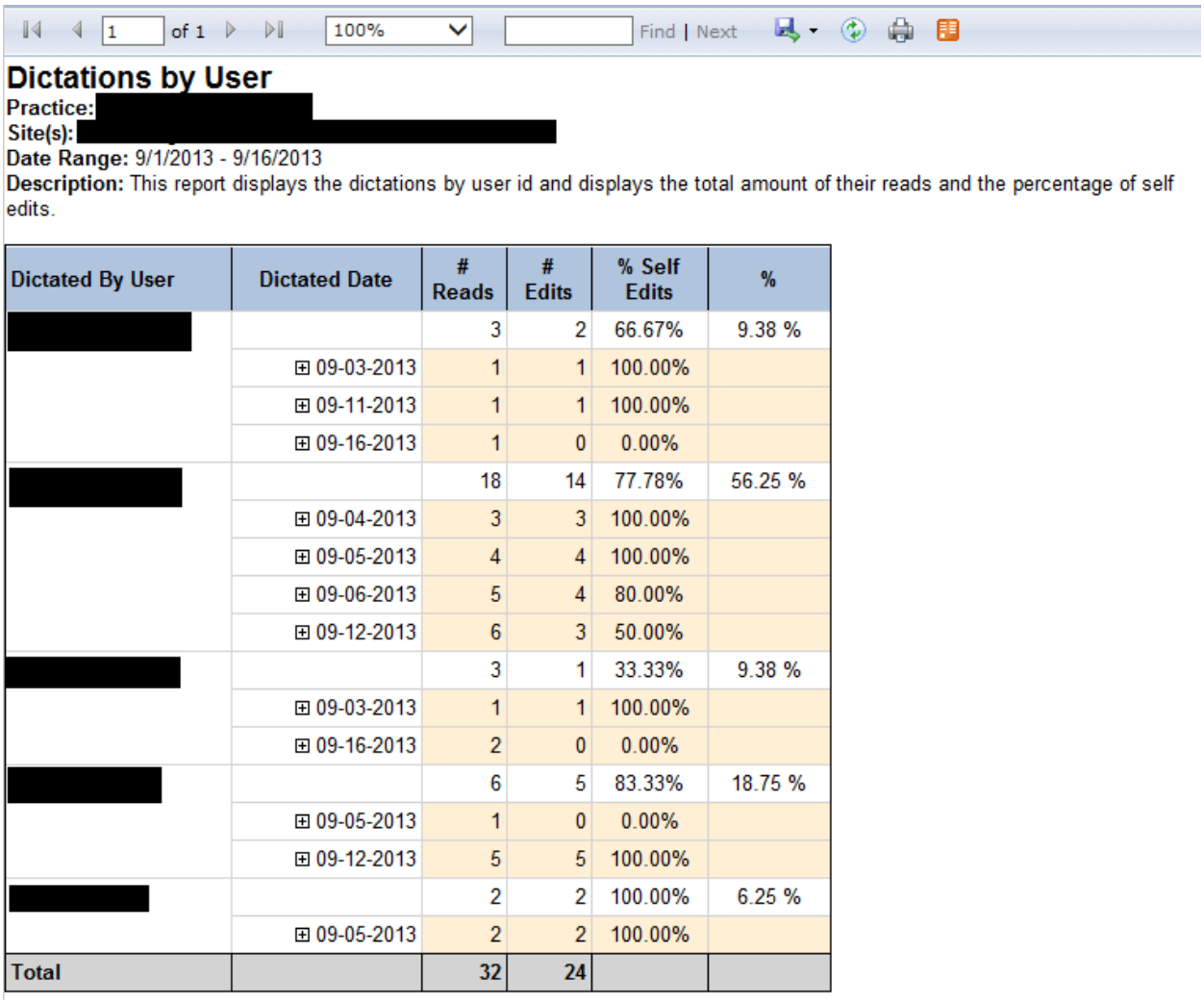
We decided to use a third party product to convert the legacy PDF documents to HTML so when you call the WebAPI url as described in the description of this issue, that the report will be returned as HTML.
The 3rd party API we are using is called AbcPDF.dll and must exist in the deployment directory for this to work.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Management Report – Dictations by User

Management report was created for displaying the dictation statistics for Radiologists broken down by

- number of reads
- number of edits
- % of their workload identified as a self-edit.
- % of the the total workload.



1 of 1 100% Find | Next

**Dictations by User**

**Practice:** [redacted]
**Site(s):** [redacted]
**Date Range:** 9/1/2013 - 9/16/2013
**Description:** This report displays the dictations by user id and displays the total amount of their reads and the percentage of self edits.

| Dictated By User | Dictated Date | # Reads | # Edits | % Self Edits | % |
|---|---|---|---|---|---|
| [redacted] | | 3 | 2 | 66.67% | 9.38 % |
| | ⊞ 09-03-2013 | 1 | 1 | 100.00% | |
| | ⊞ 09-11-2013 | 1 | 1 | 100.00% | |
| | ⊞ 09-16-2013 | 1 | 0 | 0.00% | |
| [redacted] | | 18 | 14 | 77.78% | 56.25 % |
| | ⊞ 09-04-2013 | 3 | 3 | 100.00% | |
| | ⊞ 09-05-2013 | 4 | 4 | 100.00% | |
| | ⊞ 09-06-2013 | 5 | 4 | 80.00% | |
| | ⊞ 09-12-2013 | 6 | 3 | 50.00% | |
| [redacted] | | 3 | 1 | 33.33% | 9.38 % |
| | ⊞ 09-03-2013 | 1 | 1 | 100.00% | |
| | ⊞ 09-16-2013 | 2 | 0 | 0.00% | |
| [redacted] | | 6 | 5 | 83.33% | 18.75 % |
| | ⊞ 09-05-2013 | 1 | 0 | 0.00% | |
| | ⊞ 09-12-2013 | 5 | 5 | 100.00% | |
| [redacted] | | 2 | 2 | 100.00% | 6.25 % |
| | ⊞ 09-05-2013 | 2 | 2 | 100.00% | |
| **Total** | | **32** | **24** | | |

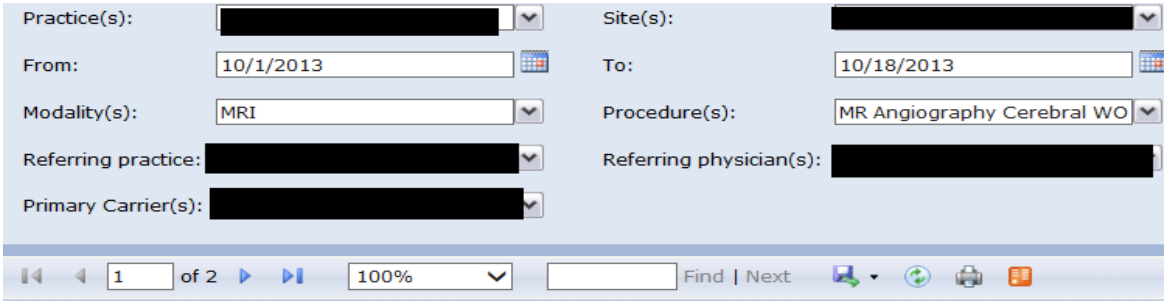
**Figure 5.58 – Dictation by User management report**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Management Report – Direct Referrals

Management report was created to identify all orders and studies identified as a Direct Referral on the order tab. Parameters used are:

- Practice(s)
- Site(s)
- From and to dates
- Modality(s)
- Procedures
- Referring Practice(s)
- Referring Physician(s)
- Primary Carrier(s)




**Direct referrals**
**Practice:** [redacted]
**Site(s):** [redacted]
**Modality(s):** MRI
**Date Range:** 10/1/2013 - 10/18/2013
**Description:** This report looks at orders with the direct referral flag set. It excludes cancelled orders, and studies that are cancelled or discontinued.

| Acc# | CPT | CPT Description | PreCert Status |
|---|---|---|---|
| **Modesto Advanced Imaging Center** | | | |
| 10-01-2013 | | | |
| MR | | | |
| Physician [redacted] | | | |
| Referring practice: **None** | | | |
| Accession: **not scheduled** | | Status: **OrderSigned** | |
| Primary Insurance: [redacted] | | | |
| | 70553 | MRI BRAIN BRAIN STEM W/O &W/CONTRAST MATERIAL | Approved |
| | A9579 | INJECTION, GADOLINIUM-BASED MAGNETIC RESONANCE CONTRAST AGENT, NOT OTHERWISE SPECIFIED (NOS), PER ML | N |

**Figure 5.59 – Direct Referral management report**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Management Report – User List

Management report was created to see the user and which practices and schedule groups the user is associated with.

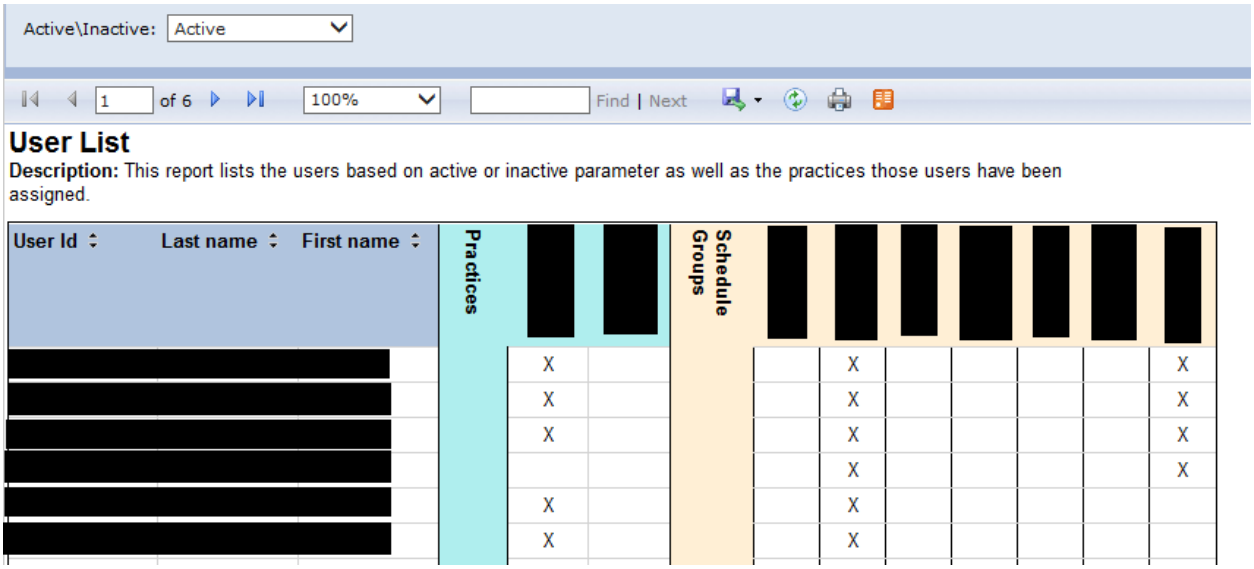



**Figure 5.60 – User List management report**

## Management Report – Double Count CPT's

We modified all sales management reports in the Marketing folder to double count cpt codes (74176, 74177, 74178).

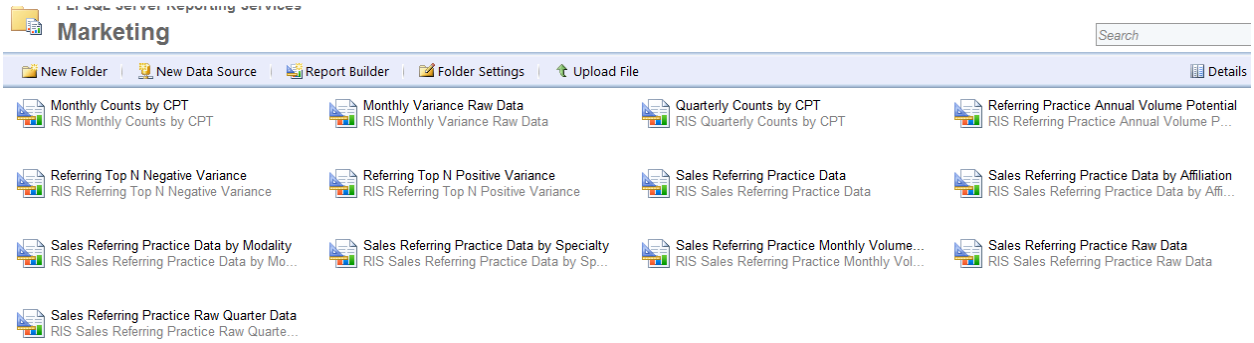



**Figure 5.61 – Double Count CPT's**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## MU – Management Report for Patient List Creation – MU Phase 2

Report Parameters are:

1. From age
2. To age
3. From date (nullable)
4. To date (nullable)
5. Primary language *(multi-select populated from lookup table)*
6. Sex *(multi-select populated from lookup table)*
7. Race *(multi-select populated from lookup table)*
8. Ethnicity *(multi-select populated from lookup table)*
9. Problems (ICD) *(multi-valued, free text expected the ICD code itself)*
10. Medications *(multi-valued, free text using the like syntax where you just need to enter the start of a medication name. ie: pen would look return all results where the medication name starts with pen. Wild cards are added behind the scene)*
11. Medication allergies *(multi-select populated from lookup table)*
12. Lab Test *(multi-select populated from lookup table)*
13. Lab Results *(single valued free text field expecting >, <, = or combination of those comparison operators and a value. Ie: >100) (nullable)*
14. Preferred Communication
15. Max Results *(defaulting to 5000 rows, this helps control the number of results returned in a search, but can be manually increased or decreased if desired)*

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

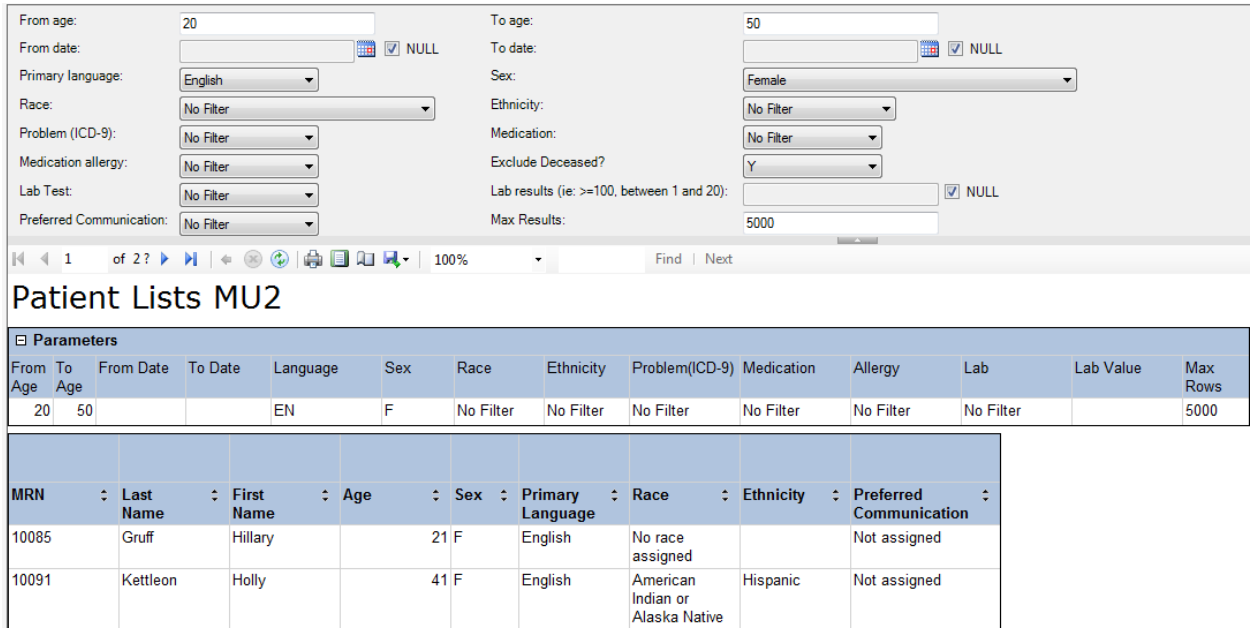



**Figure 5.62 – Patient Lists MU2 management report**

All parameters require a value to execute the report. The "No Filter" value in the parameters is just a placeholder that the stored procedure treats as a null. The No filter will be disregarded if you add values into the parameter, meaning there is no need to delete it out, or uncheck it.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## MU – Auto Request Pathology and Follow Up with Lab Worklist

For MU requirement 170.314.b.5, we needed to create a lab test for Pathology when a report is signed for procedures that are configured to require CPOE_Pathology . We then need to track those Pathology requests in the Lab WL.

To start the Cpoe Pathology Flag column was added to the Procedure Code lookup table

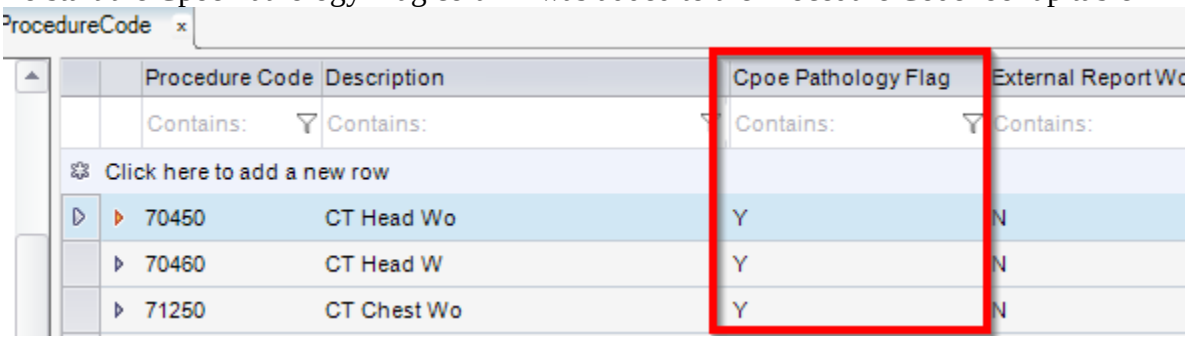



**Figure 5.63 – CPOE Pathology Flag added to the Procedure Code lookup table**

The Practice window from the Organization lookup table had the Track CPOE pathology results in Lab WL for <#> days

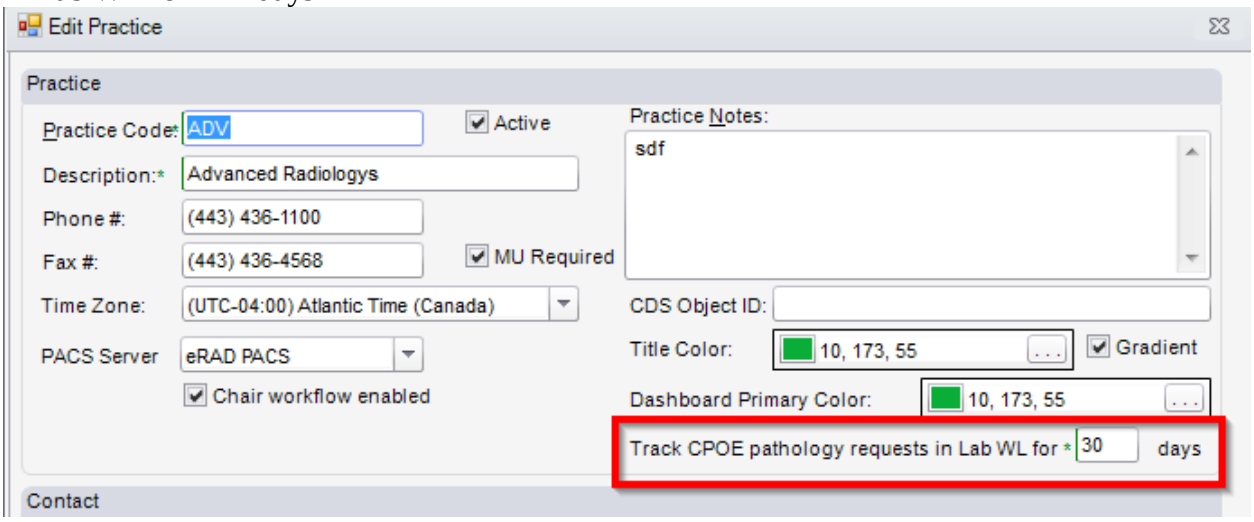



**Figure 5.64 – Practice displaying new field in days to be captured to Track CPOE pathology**

A new System Configuration setting "**CPOELabTestCode"** was added the system config lookup table with a default value of Pathology

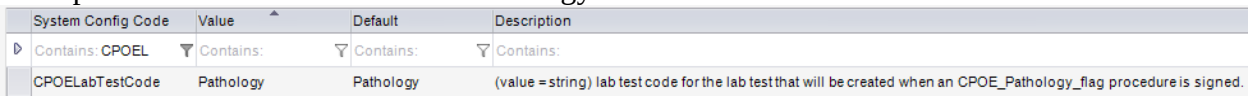



**Figure 5.65 – System configuration setting CPOELabTestCode**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

When report is signed, if its procedure has CPOE pathology flag = 'Y', and there are no active Lab Test Requests for CPOE pathology, then a lab test result row will be created. The lab test code will have a lab_requsted_by_user_id of the dictating rad and will have a requested date equal to the studies performed end date. The c_study.cpoe_request_expiry_date, will get assigned to today + l_practice.days_to_track_cpoe_requests.

The item will then appear in the Lab WL until:

1. User opens the study in View Edit and checks "Skip Lab WL"
2. User Opens the study in View Edit and records a value for the test
3. The current datetime is past cpoe_request_expiry_date
4. Or the lab test is set to the lab_order_status of “Discontinued” or “Active”, meaning we’ve made the call to the patient and have been notified that the pathology test has either been requested or is not going to be addressed.

**Note:** outside read studies will not show in the Lab WL, even if they are for a procedure that is configured with cpoe_pathology_flag='Y'.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## MU - Race Field Allow for Multi Select

Meaningful Use requirement 170.314.a.3.
Previous to build 42 the Race field on the Patient tab would only allow for one value to be selected. Now a user can select multiple values and save with the patient record.
The list box is not a multi select tool (expand the list and select multiple at once) the user will need to select a value one at a time or use the type ahead options
The race type can only be added once for the patient.

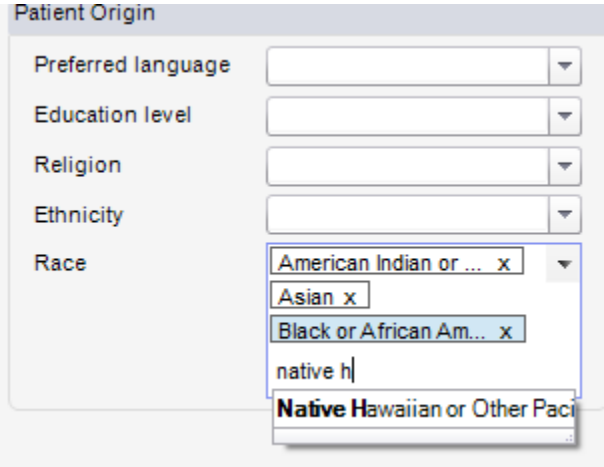



**Figure 5.66 – Race field is now multi select/type ahead field**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## MU – Improvement to How We Record Height

Meaningful Use requirement 170.314.a.4
For this requirement we needed to store the patients height as a single numeric value instead of a character string such as 5ft 7in.

A new column (height_value) was added to the visit table, which will store the height in inches. The height was previously stored in the old column (height) in the visit table.

The pervious character field (height) will continue to be populated for backwards compatibility with existing reports.

Also, the upgrade was created to backfill the new field in the visit table (height_value).

## MU – Retain Patients Smoking Status and Height

For existing patients that have previously had the smoking status and height captured in the previous visit, when scheduling a new procedure, these 2 values will be carried forward to the new visit. This is not a meaningful use requirement, but rather a request to try and speed up the scheduling process when capturing MU data.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## MU – Problem List for MU Phase 2

Meaningful Use requirement 170.314.a.5

**Record** - evaluates the capability to enter patient health problems into the EHR to create the patient problem list. The Tester enters the ONC-supplied patient problem test data. The Inspection Test Guide describes several methods by which the EHR can demonstrate conformance with the vocabulary requirement.

**Change –** evaluates the capability to change patient problem list data which have been previously entered into the EHR. The Tester displays the patient problem list data entered during the Record Patient Problems test
o The Tester changes the previously entered patient problems data using ONC-supplied patient problem list data.

**Access –** evaluates the capability to display the patient problem list data that have been previously entered into the EHR, including the capability to display the patient problem list as recorded during multiple ambulatory encounters with the same provider or during a single inpatient hospitalization.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## MU – Medication List for MU Phase 2

Meaningful Use requirement 170.314.a.6

**Record** - evaluates the capability to enter patient active medication data into the EHR to create the patient active medication list

**Change –** evaluates the capability to change patient medication data that have been previously entered into the EHR. The Tester displays the patient active medication list data entered during the Record Patient Active Medications test . The Tester changes the previously entered active medication data using ONC-supplied medication data, for example, changing a medication dose or frequency and discontinuing a medication

**Access –** evaluates the capability to display the patient medication list data that have been previously entered into the EHR, including the capability to display the patient medication list as recorded during multiple ambulatory encounters with the same provider or during the duration of an entire inpatient hospitalization

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## MU – Image Results for MU Phase 2

Meaningful Use requirement 170.314.a.12

This requirement is for eRAD RIS to prove that the images and report can be viewed in the RIS when in the appropriate status. Below is a list of the test cases to validate that fact.

- Create 2 patients IM-Patient-1 and IM-Patient-2 schedule an exam.
- Go to patient folder for IM-Patient-1
- Show in rRIS where imaging information will be for Patient #1(Right click on patient folder there is no option to view images).
- Update Record for IM-Patient-1 bring exam to (Exam Done status)
- Show in rRIS where imaging information will be for Patient #1(Right click on patient folder there is an option to View Images).
- Open IM-Patient-1 and dictate exam and bring to signed1 status.
- In patient folder right click on the patient. There is an option to view narrative interpretation (report>>preview/print report) and View Images.
- Go to patient folder for IM-Patient-2
- Show in rRIS where imaging information will be for Patient #2(no images)…Right click on patient folder there is no option to view images
- Update Record for IM-Patient-2 bring exam to (Exam Done status)
- In patient folder right click on the patient. There is no option to view narrative interpretation (report>>preview/print report) however, the user can View Images.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## MU – Audit Reports – MU Phase 2

Meaningful Use requirement 170.314.d.3
Enable a user to create an audit report for a specific time period and to sort entries in the audit log according to each of the data specified in the standards at § 170.210(e).

**Create Audit Report –** evaluates the capability of the EHR technology to enable a user to generate an audit report for a specific time period

- The Vendor provides the Tester with audit log information containing ten or more entries that was generated by the EHR technology
- Using the Vendor-provided audit log information and reporting functions, the Tester generates an audit report for a time period that includes the time at which the entries in the audit log information were recorded and verifies that the audit report is successfully created

**Sort Audit Log Entries –** evaluates the capability of the EHR technology to enable a user to sort entries in the audit log or in an audit report

- The Vendor provides the Tester with audit log information containing ten or more entries that was generated by the EHR technology. This could be provided through access to the audit log itself or audit reporting functions.
    - The audit report used in the previous test procedure step can be used for this test procedure step as long as the audit report entries contain the following data elements:
        - Date and time of event
        - Patient identification
        - User identification
        - Type of action (additions, deletions, changes, queries, print, copy)
        - Identification of the patient data that is accessed
- The Vendor identifies the EHR function(s) that are available to sort the audit log information by the previously described data elements

The Tester uses the Vendor-provided audit log information, sorts the audit log entries by each of the data elements listed above, and verifies that the entries were correctly sorted

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## MU – Goals and Condition

The Goals and Condition fields have been added to the Meaningful User Information window (hidden tab)

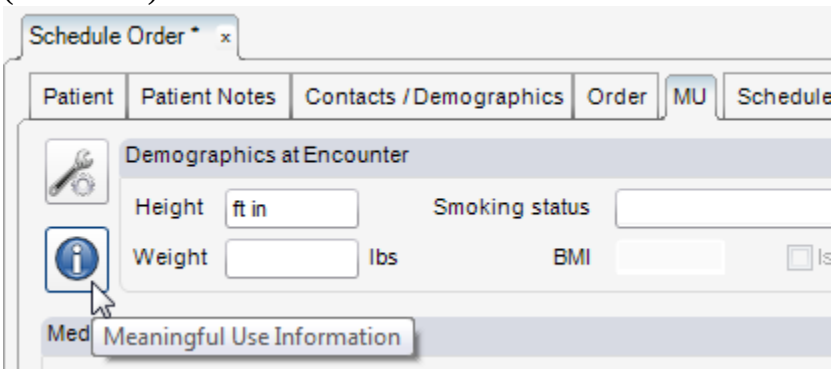



**Figure 5.67– Meaningful Use Information window access**

The Condition field is a type ahead/multi select field. The Goals option is a grid with 2 columns. The Goal column is list box and the Instructions column is a text field

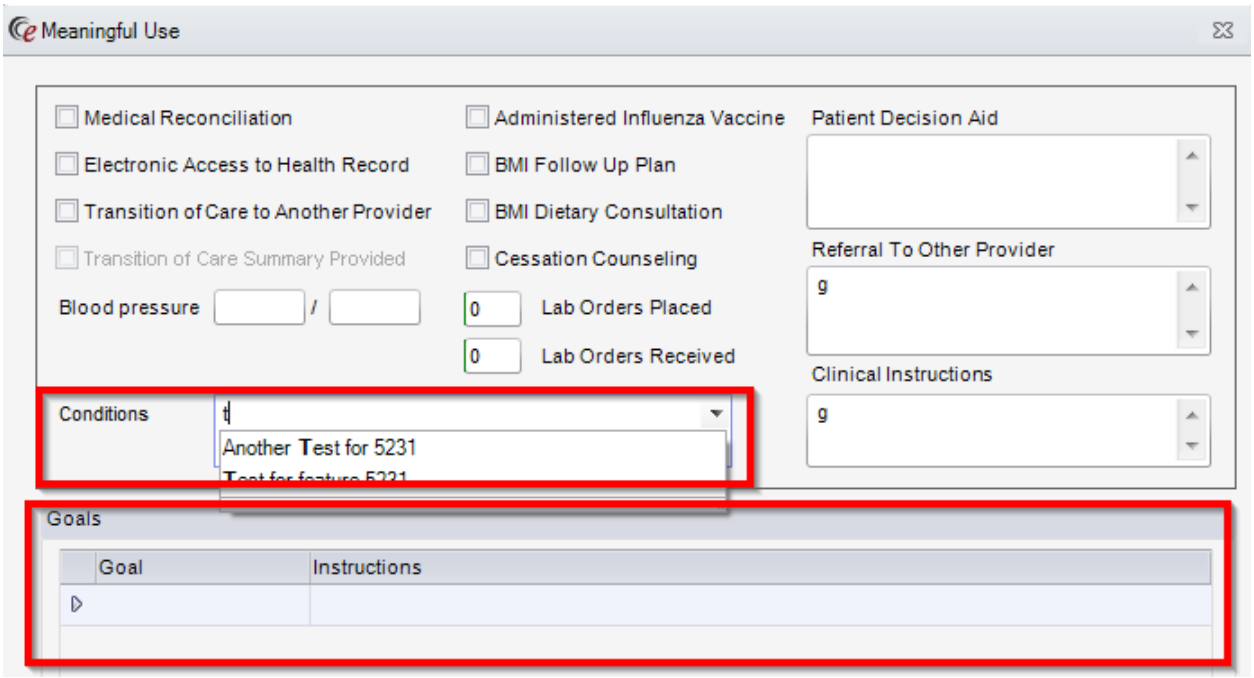



**Figure 5.68 – Displaying Conditions and Goals field in Meaningful Use Information window**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

The values for the Conditions field are from a new lookup table Administration>Configure>MU>Condition table. The Description is displayed in the eRAD RIS and the HL7 values are to be mapped to valid SNOMED CT codes used for structured data for generating CCDA.

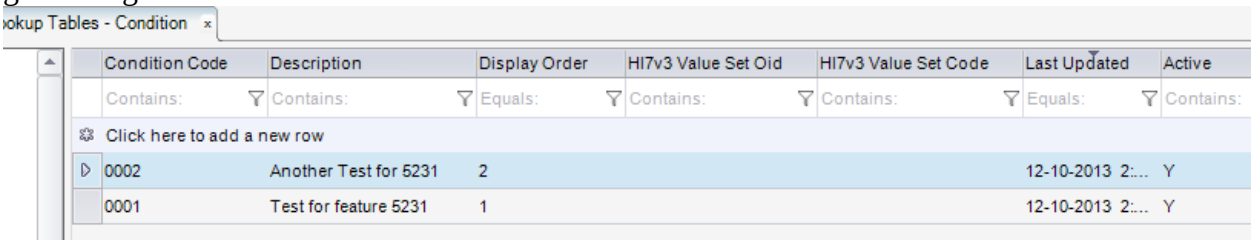



**Figure 5.69 – Condition lookup table.**

The values for Goals is from another new lookup table Administration>Configure>MU>Goals table. The Description is the value what will appear in the Goal field of the Meaningful Use Information window.

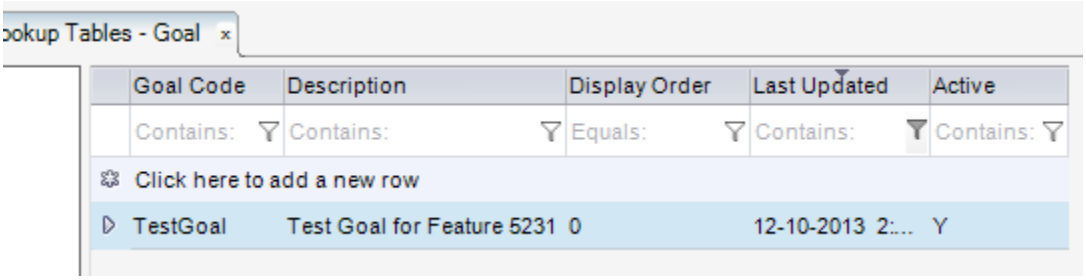



**Figure 5.70 – Goal lookup table**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## MU – Patient Specific Education Resources

For patient education resources we will be using Medline Plus. The Medline Plus info can be accessed from the context menu on the 3 grids of Medication, Medical History and Lab Results on the MU tab and select View Medline Plus Info.

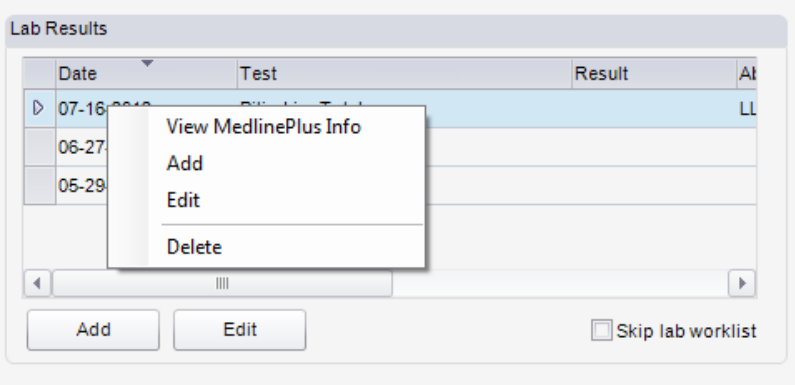



**Figure 5.71 – Accessing MedlinePlus Info**

Selecting the context menu option will open a modal browser window providing information on the topic selected in the grid you opened the context menu on.

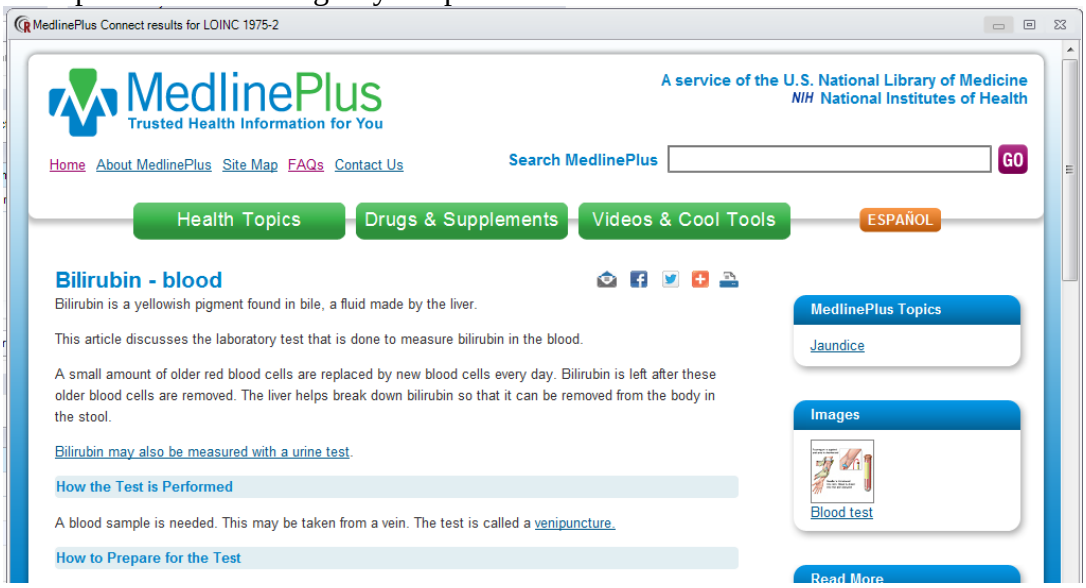



**Figure 5.72 – Web browser opens with search on MedlinePlus**

You can right click the window and print the information for the patient.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

If no results are returned from Medline a message like the following is presented to the user.

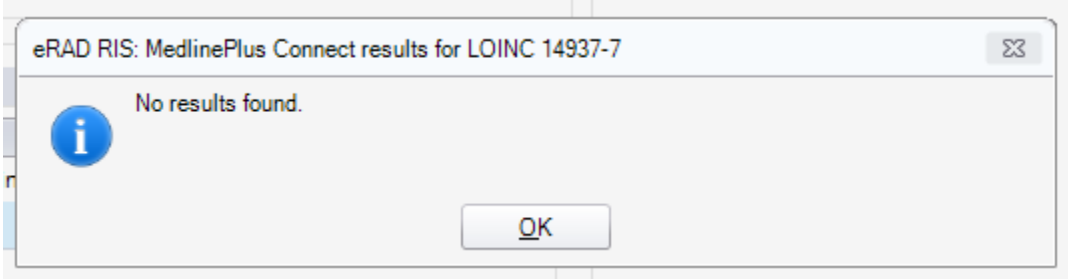



**Figure 5.73 – When search doesn't find topic**

When you close the browser control, you get prompted with this window to help capture the MU statistic.

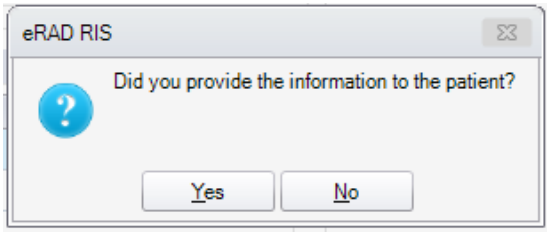



**Figure 5.74 – Prompt asking if information was provided to patient**

Clicking Yes is the same as checking the "Provided Education Resources" checkbox on the Documentation tab.

For this feature the following new system configuration settings have been added. The table below has the code and its default value.

| Code | Default value | Actions |
|---|---|---|
| MUMedlinePlusConnectDebug | N | Enables debug mode |
| MUMedlinePlusConnectEnabled | N | Enables if Medline Plus is on or off |
| MUMedlinePlusConnectBaseUrl | http://apps.nlm.nih.gov/medlineplus/services/mpconnect_service.cfm | URL path for browser |
| MUMedlinePlusConnectDrugSearch | mainSearchCriteria.v.cs=2.16.840.1.113883.6.88 | Search from Medications grid on MU tab |
| MUMedlinePlusConnectLabSearch | mainSearchCriteria.v.cs=2.16.840.1.113883.6.1 | Search from Lab Results grid on MU tab |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | |
|---|---|---|
| MUMedlinePlusConnectProblemSearch | mainSearchCriteria.v.cs=2.16.840.1.113883.6.103 | Search from Medical History grid on MU tab |

**Table 5.2 – MedlinePlus system config settings**

Additionally there is a new system configuration value called "**MUMedlinePlusConnectDebug**" which when set to Y puts it into debug mode and will prompt to save the XML returned from the web service when you perform a search.

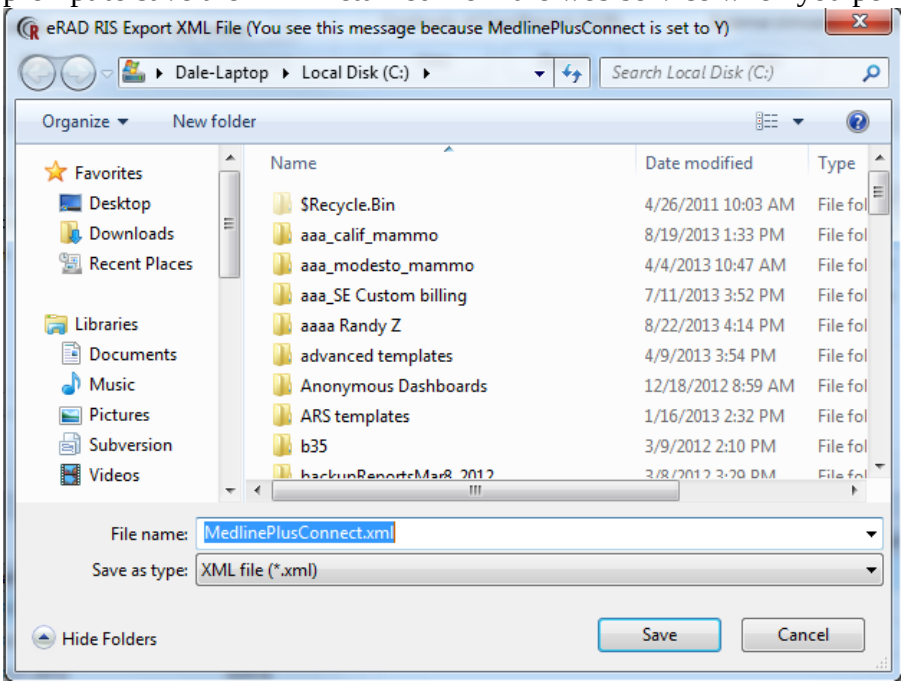



**Figure 5.75 – Generating Medline Plus xml**

The contents of which looks something like this…

```
<?xml version="1.0" encoding="UTF-8" ?>
- <feed xml:base="http://apps.nlm.nih.gov/medlineplus/services/" xml:lang="en" xmlns="http://www.w3.org/2005/Atom" xmlns:v3="urn:hl7-org:v3" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
    <title type="text">MedlinePlus Connect</title>
    <subtitle type="text">MedlinePlus Connect results for LOINC 1975-2</subtitle>
  - <author>
      <name>U.S. National Library of Medicine</name>
      <uri>http://www.nlm.nih.gov</uri>
    </author>
    <updated type="text">2013-09-12T06:09:33Z</updated>
  - <category scheme="REDS_MT010001UV" term="MATCHED">
    - <v3:mainSearchCriteria classCode="OBS" moodCode="DEF" xmlns:v3="urn:hl7-org:v3">
        <v3:code code="KSUBJ" codeSystem="2.16.840.1.113883.5.4" xmlns:v3="urn:hl7-org:v3" />
        <v3:value code="1975-2" codeSystem="2.16.840.1.113883.6.1" displayName="" xmlns:v3="urn:hl7-org:v3" />
      </v3:mainSearchCriteria>
    - <v3:informationRecipient typeCode="IRCP" xmlns:v3="urn:hl7-org:v3">
        <v3:patient classCode="PAT" xmlns:v3="urn:hl7-org:v3" />
      </v3:informationRecipient>
    </category>
    <id />
  - <entry>
      <title>Bilirubin - blood</title>
      <link href="http://www.nlm.nih.gov/medlineplus/ency/article/003479.htm" rel="alternate" />
      <id>tag: nlm.nih.gov, 2013-12-09:/medlineplus/ency/article/003479.htm</id>
      <updated>2013-09-12T06:09:33Z</updated>
      <summary />
    </entry>
  </feed>
```

**Figure 5.76 – xml file for Medline Plus when MUMedlinePlusConnectDebug = Y**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## MU – New Alert Rules – MU Phase 2

Here are the alerts that we have created

1. **NM Stress Test** – you can configure as many of these as you like. Typically one for each procedure_code you want the high blood pressure check on. It also allows you to configure the 200/100 to any value you like. Alert Generator name is "**ProcedureXAndHighBP**"

2. **Empty Lab Test** –This just looks over all lab tests for the patient and if any are blank will prompt with the alert. Note: the administrator isn't allowed to provide a custom description since the description of the alert is generated dynamically and will include the text of the lab tests that are missing. Alert Generator name is "**LabOrderWithEmptyValue**"

3. **CT Contrast Allergy** & 4. **MR Contrast Allergy** – Fire when the indication specified exists and the patient has the specified contrast allergy code. This alert is highly configurable so that the alert implementation isn't dependent on specific allergy, indication or modality type codes, which may differ depending on the customer implementation. Alert Generator name is "**IndicationAndSevereContrastAllergy**"

The following screen shot shows the above three generators configured for the 4 rules NM Stress, Empty Lab Test, CT Contrast and MR Contrast Allergies.

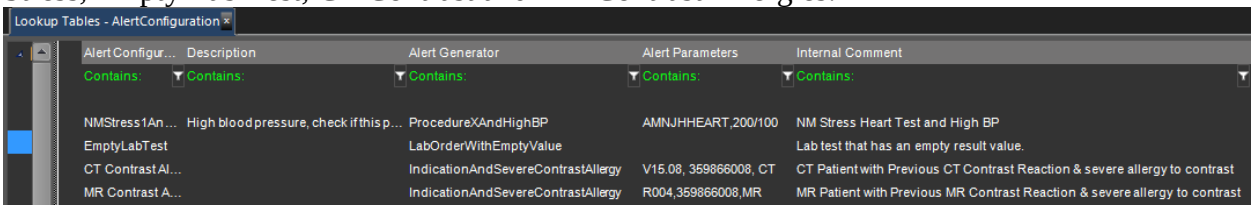



**Figure 5.77 – Alert Configuration table displaying new alerts**

In addition to the configuration column "Alert Parameters", the column "Internal Comments" has also been added, which can be used by the implementer to document the reasons they created or possibly disabled an alert.

The following lookup table validation error displays, if the alert parameters is blank for ProcedureXandHighBP:

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

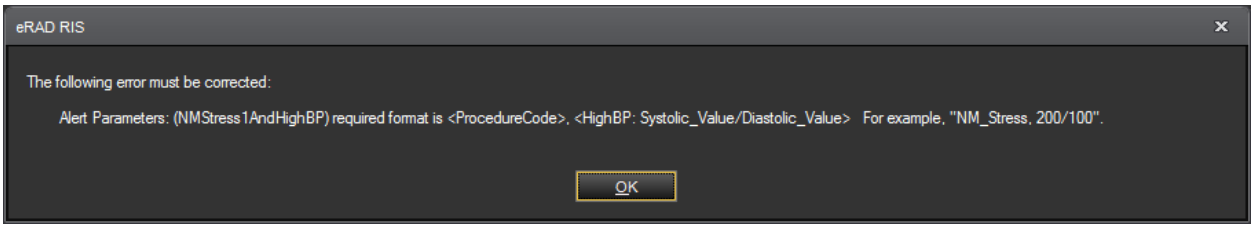



**Figure 5.78– Error message presented if ProcedureXandHighBP is blank**

The following lookup table validation error displays, if the alert parameters is blank for IndicationAndSevereContrastAlergy:

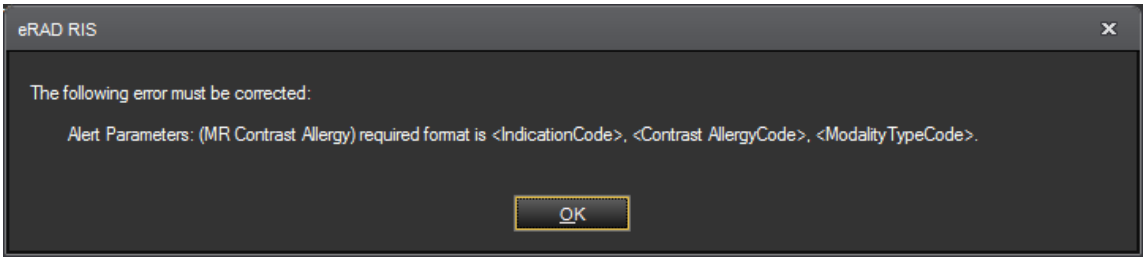



**Figure 5.79 – error message presented if alert IndicationAndSevereContrastAlergy is blank**

The following lookup table validation error displays, If a code is incorrect such as the Contrast AllergyCode:

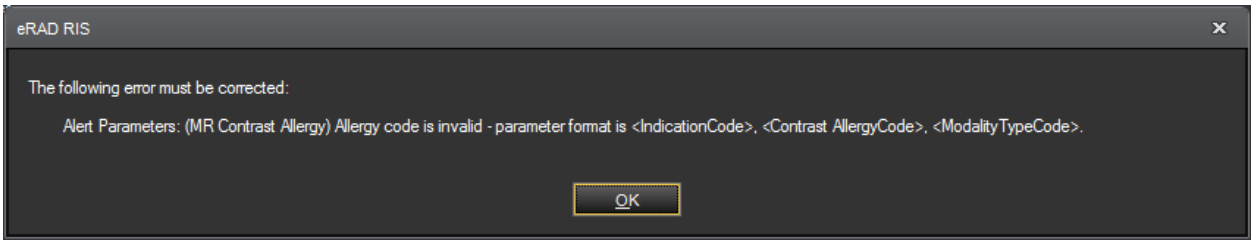



**Figure 5.80 – error message presented if Contrast Allergy code is incorrect**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## MU – CCDA

CCDA information is a lengthy document that can be reviewed from the following URL

http://www.hl7.org/implement/standards/product_brief.cfm?product_id=7

The CDA® Release 2 document can be downloaded from this site as well.

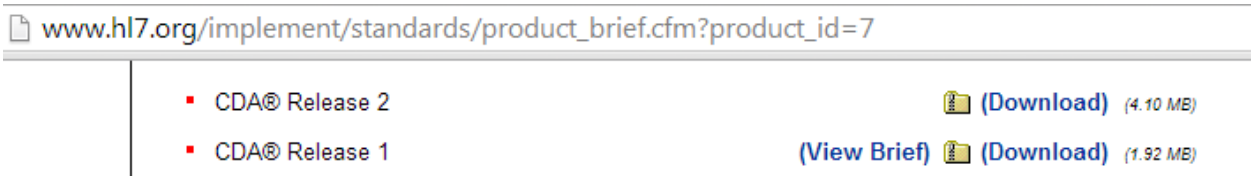



**Figure 5.81 – Download CDA Release 2**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## MU – CCDA Generation

To access the CCDA the user can select the View button under the Clinical Document (C-CDA) section on the MU tab. Selecting this button opens the View Clinical Document (C-CDA) window.

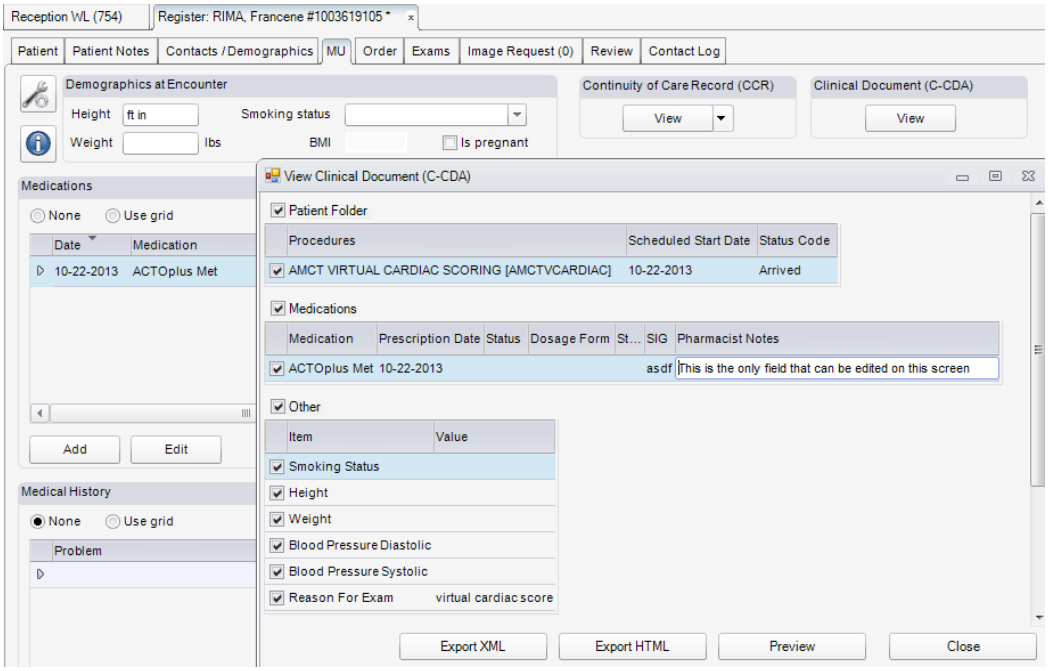



**Figure 5.82 – Accessing CCDA**

From the View Clinical Document (C-CDA) window the user can select the data elements that will be displayed in the C-CDA.

Options to Export XML, Export HTML, Preview the document and close.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## MU – SNOMED CT

Meaningful Use Stage 2 Problems must be recorded in SNOMED CT codes. However, these codes do not necessarily have to be displayed in the user entry but can be stored or mapped elsewhere in the EHR product such as a dictionary map or a database. The specific vocabulary standard is **US Extension to SNOMED CT.** Today, we are recording Problems using ICD9 codes and eventually moving to ICD10 codes by October 1, 2014. We will need to find a mapping table for ICD9 and eventually ICD10 codes to SNOMED CT codes. In order to use SNOMED CT codes in the application we will need a **License Agreement** with IHTSDO (International Health Terminology Standards Development Organisation).

The International Release is updated each year in January and July. The download contains SNOMED CT files in both Release Format 1 (RF1) and the **new Release Format 2 (RF2) versions which** eRAD / Radnet will use. Updates to the US Edition will be available approximately one month after publication of the International Release of SNOMED CT. eRAD / Radnet will use the US Edition of SNOMED CT codes to certify for Meaningful Use Stage 2 (2014). The US Edition of SNOMED CT is the official source of SNOMED CT for use in US healthcare systems. **Note: The March 2013 Release of the US Extension will mark the last time that NLM will make the standalone US Extension files available for download. For future releases, users must download the US Edition to obtain US Extension content.**

For Meaningful Use (2014) we will download Snomed ct codes into two new lookups (l_snomed_concept and l_snomed_description). These get populated with the Snapshot release of the US edition of SNOMED CT codes. We will have to come up with a strategy of populating these in a future release as the codes are released every six months. We also need to download the ICD9 and SNOMED CT mapping file to a new lookup (l_snomed_icd9_map). We will also have to come up with a strategy of populating this mapping table with future releases.

**NOTE:** these are hidden lookups and cannot be accessed via the GUI

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## HL7 Payments

In eRAD RIS we are currently able to attach payments manually, no problem.

If there is HL7 integration with a patient kiosk, where a patient can check-in and also make a payment.

Payment is sent to eRAD RIS via HL7 (FT1 - financial segment).

Currently there is a logic gap in Wedge that restricts us from being able to accept payments via HL7.

Current logic --> Delete all current records from c_payment table for visit.
Add new rows provided with Study update.

The issue is the "Delete" --> This would cause an issue if a payment was already entered in RIS, then a new transaction comes through.
Existing payment in RIS would be deleted, new payment added.

Created a new column in Visit.c_payment called external_payment_id as a varchar(50).
If a message comes in that contains a c_payment row with an empty external_payment_id the wedge will throw an exception and reject the message.

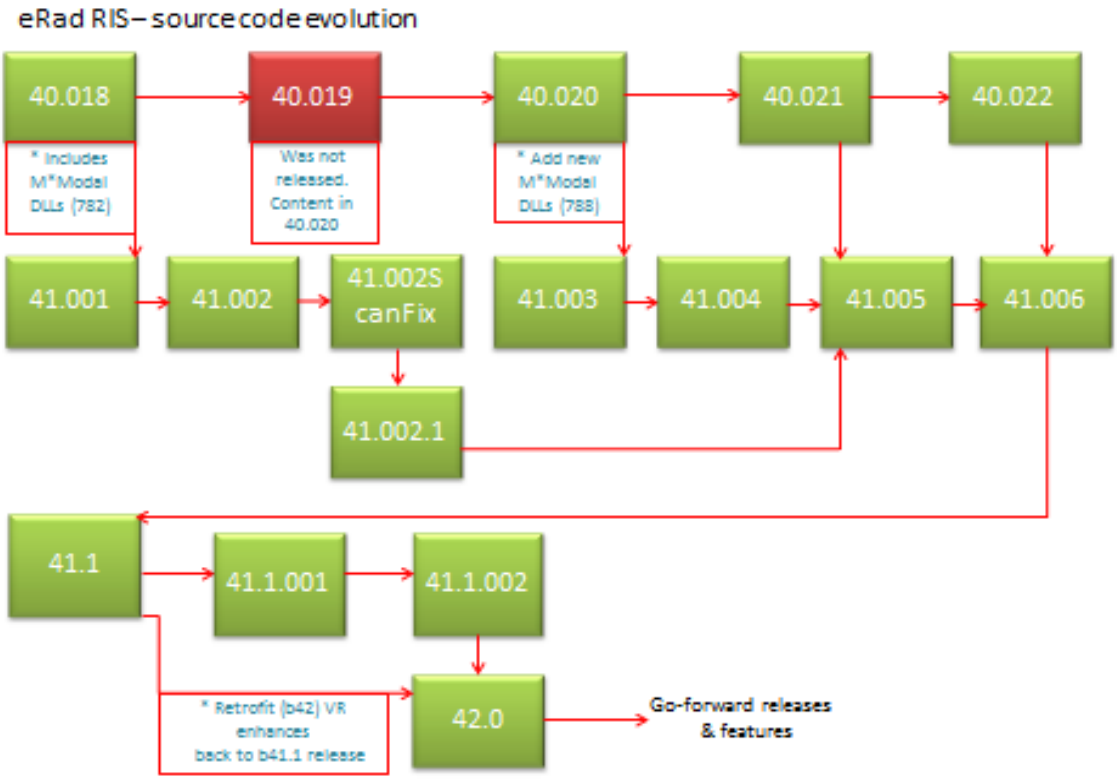
The receipt_number field needs to be populated with a value in the format "site_code-?", so in the example below I used "SS-?". The RIS core services handles generating a receipt number value based on this. This site_code value does not need to be a value from the l_site table, but it might be a good idea.

For testing purposes, I created a Mirth channel which simply reads an xml file from disk and sends it to the wedge. The export of the Mirth channel is attached to this bug in Redmine.

The file contained a very empty StudyContainer with only a c_payment row with the needed test data and a c_study row with an existing accession number.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 6. Code Stream




**Legend:**

**Green = Released software**

**Red = Will not be released**

**Blue = Future release**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 7. RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 37 | - | 1.2.37.12843 | 1.2.37.12782 | 1.2.37.12843 | 1.2.37.12843 | Full version release. **Core install required.** |
| 37 | 1 | 1.2.37.13040 | 1.2.37.13040 | 1.2.37.13039 | 1.2.37.13003 | **Core install required**. GUI.zip, web service and database updates |
| 37 | 2 | 1.2.37.13069 | 1.2.37.13040 | 1.2.37.13069 | 1.2.37.13003 | GUI.zip and Web service updates |
| 37 | 3 | 1.2.37.13069 | 1.2.37.13040 | 1.2.37.13069 | 1.2.37.13003 | Just WebAPI updated, no version changes. . Web service updates |
| 37 | 4 | 1.2.37.13171 | 1.2.37.13040 | 1.2.37.13165 | 1.2.37.13171 | GUI.zip, web service, and database updates |
| 37 | 5 | 1.2.37.13347 | 1.2.37.13040 | 1.2.37.12979 | 1.2.37.12979 | Bug was discovered with version numbers, this is why it appears we went backwards in the version number but we really did not. |
| 37 | 6 | 1.2.37.13665 | 1.2.37.13040 | 1.2.37.13580 | 1.2.37.12979 | GUI.zip and Web service updates |
| 37 | 7 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13799 | 1.2.37.13807 | GUI.zip and Web service updates. Also MIRTH mapping changes |
| 37 | 8 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13827 | 1.2.37.13807 | Web service update |
| 37 | 9 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13839 | 1.2.37.13807 | Web service update |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | | | |
|---|---|---|---|---|---|---|
| 37 | 10 | 1.2.37.13895 | 1.2.37.13040 | 1.2.37.13895 | 1.2.37.13895 | GUI.zip, Web service and database updates |
| 37 | 11 | 1.2.37.14161 | 1.2.37.13040 | 1.2.37.14161 | 1.2.37.14161 | GUI.zip, Web service, database updates and SQL Management reporting |
| 37 | 12 | 1.2.37.14267 | 1.2.37.13040 | 1.2.37.14161 | 1.2.37.14267 | GUI.zip, Web service and database updates |
| 37 | 13 | 1.2.37.14326 | 1.2.37.13040 | 1.2.37.14326 | 1.2.37.14326 | GUI.zip, Web service and database updates |
| 38 | - | 1.2.38.14486 | 1.2.38.14486 | 1.2.38.14486 | 1.2.38.14486 | Full version release. **Core install required.** |
| 38 | 1 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | **Core install required** |
| 38 | 2 | 1.2.38.15182 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | GUI.zip update only |
| 38 | 3 | 1.2.38.15251 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | GUI.zip update only |
| 38 | 4 | 1.2.38.15327 | 1.2.38.14748 | 1.2.38.15290 | 1.2.38.14748 | GUI.zip and Web service updates |
| 38 | 5 | 1.2.38.15513 | 1.2.38.15513 | 1.2.38.15513 | 1.2.38.15451 | **Core install required**. GUI.zip, Web service and database updates. |
| 38 | 6 | 1.2.38.15618 | 1.2.38.15513 | 1.2.38.15513 | 1.2.38.15618 | GUI.zip and database updates |
| 38 | 7 | 1.2.38.15768 | 1.2.38.15513 | 1.2.38.15768 | 1.2.38.15618 | GUI.zip and Web Service updates |
| 39 | - | 1.3.39.15389 | 1.3.39.15389 | 1.3.39.15377 | 1.3.39.15355 | Full version release. **Core install required.** |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | | | |
|---|---|---|---|---|---|---|
| 39 | 1 | 1.3.39.16026 | 1.3.39.15943 | 1.3.39.15943 | 1.3.39.15957 | **Core install required.** GUI.zip, Web service and database updates |
| 40 | - | 1.3.40.16659 | 1.3.40.16659 | 1.3.40.16659 | 1.3.40.16659 | **Core install required**. Full version release |
| 40 | 1 | 1.3.40.16849 | 1.3.40.16659 | 1.3.40.16744 | 1.3.40.16727 | GUI.zip, Web service, database updates and SQL Management reporting |
| 40 | 2 | 1.3.40.16868 | 1.3.40.16659 | 1.3.40.16868 | 1.3.40.16727 | GUI.zip and Web Service |
| 40 | 3 | 1.3.40.16868 | 1.3.40.16659 | 1.3.40.16868 | 1.3.40.16727 | DB updated only |
| 40 | 4 | 1.3.40.16967 | 1.3.40.16659 | 1.3.40.16932 | 1.3.40.16961 | GUI.zip, Web service, database updates |
| 40 | 5 | 1.3.40.17087 | 1.3.40.16659 | 1.3.40.17069 | 1.3.40.17087 | GUI.zip, Web service, database updates |
| 40 | 6 | 1.3.40.17146 | 1.3.40.16659 | 1.3.40.17146 | 1.3.40.17146 | GUI.zip, Web service, database updates |
| 40 | 7 | 1.3.40.17268 | 1.3.40.16659 | 1.3.40.17268 | 1.3.40.17259 | GUI.zip, Web service, database updates |
| 40 | 8 | 1.3.40.17364 | 1.3.40.16659 | 1.3.40.17362 | 1.3.40.17343 | GUI.zip, Web service, database updates |
| 40 | 9 | 1.3.40.17370 | 1.3.40.16659 | 1.3.40.17370 | 1.3.40.17370 | GUI.zip, Web service, database updates |
| 40 | 10 | 1.3.40.17435 | 1.3.40.16659 | 1.3.40.17435 | 1.3.40.17370 | **64 BIT web service**. GUI.zip, Webservice. |
| 40 | 11 | 1.3.40.17435 | 1.3.40.16659 | 1.3.40.17525 | 1.3.40.17370 | Web service update |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | | | |
|---|---|---|---|---|---|---|
| 40 | 12 | 1.3.40.17685 | 1.3.40.16659 | 1.3.40.17685 | 1.3.40.17648 | GUI.zip, Web service, database updates |
| 40 | 13 | 1.3.40.17776 | 1.3.40.16659 | 1.3.40.17776 | 1.3.40.17648 | GUI.zip, Web service |
| 40 | 14 | 1.3.40.18063(3GB) | 1.3.40.16659 | 1.3.40.18063 | 1.3.40.18063 | GUI.zip, Web service, database updates |
| 40 | 14.1 | 1.3.40.18063(3GB) | 1.3.40.16659 | 1.3.40.18107 | 1.3.40.18063 | Web service |
| 40 | 15 | 1.3.40.18127(3GB) | 1.3.40.16659 | 1.3.40.18127 | 1.3.40.18127 | GUI.zip, Web service, database updates |
| 40 | 16 | 1.1.3.40.18585 (3GB) | 1.3.40.16659 | 1.3.40.18585 | 1.3.40.18646 | GUI.zip, Web service, database updates |
| 40 | 16.1 | 1.3.40.18705 (3GB) | 1.3.40.16659 | 1.3.40.18585 | 1.3.40.18646 | GUI.zip |
| 40 | 17 | 1.3.40.18780 (3GB) | 1.3.40.18756 | 1.3.40.18756 | 1.3.40.18646 | Core install required for Radiologist User Group. GUI.zip, Core setup, and Web Service updates |
| 40 | 18 | 1.3.40.19253(3GB) | 1.3.40.18756 | 1.3.40.18756 | 1.3.40.19253 | GUI.zip, Web Service and database updates |
| 40 | 19 | 1.3.40.19909(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | GUI.zip, Web Service |
| 40 | 20 | 1.3.40.20086(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | Gui.zip and Recognizer |
| 40 | 21 | 1.3.40.20703(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | Gui.zip |
| 40 | 22 | 1.3.40.20898(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | Gui.zip |
| 41 | - | 1.3.41.19135(3GB) | 1.3.41.19135 | 1.3.41.19135 | 1.3.41.19135 | Full version release |
| 41 | 1 | 1.3.41.19256(3GB) | 1.3.41.19135 | 1.3.41.19256 | 1.3.41.19256 | GUI.zip, |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | | | | Web Service and database updates |
| 41 | 2 | 1.3.41.19620(3GB) | 1.3.41.19135 | 1.3.41.19620 | 1.3.41.19346 | GUI.zip and Web Service |
| 41 | 2sf | 1.3.41.19620SF(3G) | 1.3.41.19135 | 1.3.41.19620 | 1.3.41.19346 | GUI.zip |
| 41 | 2.1 | 1.3.41.20622(3GB) | 1.3.41.19135 | 1.3.41.20617 | 1.3.41.19346 | GUI.zip and Web Service |
| 41 | 3 | 1.3.41.20125(3GB) | 1.3.41.19135 | 1.3.41.20171 | 1.3.41.19346 | GUI.zip , Web Service and Recognizer |
| 41 | 4 | 1.3.41.20285(3GB) | 1.3.41.19135 | 1.3.41.20171 | 1.3.41.19346 | GUI.zip |
| 41 | 5 | 1.3.41.20809(3GB) | 1.3.41.20708 | 1.3.41.20792 | 1.3.41.20738 | GUI.zip, Core install, Web Service and database updates |
| 41 | 6 | 1.3.41.20912(3GB) | 1.3.41.20708 | 1.3.41.20792 | 1.3.41.20738 | GUI.zip |
| 41.1 | - | 1.3.41.20918(3GB) | 1.3.41.20791 | 1.3.41.20918 | 1.3.41.20739 | GUI.zip |
| 41.1 | 1 | 1.3.41.20987(3GB) | 1.3.41.20791 | 1.3.41.20918 | 1.3.41.20739 | GUI.zip |
| 41.1 | 2 | 1.3.41.21162(3GB) | 1.3.41.20791 | 1.3.41.21162 | 1.3.41.21150 | GUI.zip, Web Service and DB updates |
| 42 | - | 2.42.0.0.21261(3GB) | 2.42.0.0.21261 | 2.42.0.0.21261 | 2.42.0.0.21187 | Full version release |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 8. Resolved Defects

Bugs Suggested Features and Support Issues resolved in build 2.42. The extract is taken from Redmine bug tracking system and only displays defects resolved in 2.42.

| Bug # | Priority | Subject | Category | Found Version |
|---|---|---|---|---|
| 5785 | Immediate | Automacros containing fields lose their field attributes | Radiology Reporting | 1.41.1 |
| 5165 | Immediate | Losing default value for fields when saving template/macro | Radiology Reporting | 40.019 |
| 2972 | Immediate | multi sign - personnel search from administation will not populate the sign level saved with the user | Thick Client GUI | 1.39.001 |
| 5827 | Urgent | InsertTextAtPastCaretPositions is causing undesired behavior for rads when editing. | Radiology Reporting | 1.40.022 |
| 5758 | Urgent | Mammo follow-up orders no longer included in the list of outstanding orders when scheduling | Thick Client GUI | 1.41.006 |
| 5338 | Urgent | Reporting - Dictionary Add / Train changes | Radiology Reporting | 1.40.20 |
| 4972 | Urgent | RadNet - Sales Reports - Adjust all reports to CPT based | Mgt Reports | 1.4 |
| 4710 | Urgent | Reporting - inserting a template or macro with interactive timestamps will cause playback corruption and confusion | Radiology Reporting | 1.41 |
| 4641 | Urgent | RRR- support issue. Outside Read Bug | Thick Client GUI | 40.17 |
| 5604 | High | Error after login: nullable object must have a value (see alternative steps to reproduce) | Thick Client GUI | 1.41.002.1 |
| 5576 | High | Saving system layout saved signing layout as editing and vice versa. | Radiology Reporting | 1.40.21 |
| 5438 | High | Reporting - possible wrong document model loading if more than one practice | Radiology Reporting | 1.40.20 |
| 5348 | High | Reporting - ability to navigate cued fields without pausing | Radiology Reporting | 1.4 |
| 5298 | High | Next fields wraps document but previous field does not | Radiology Reporting | 1.40.020 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 5210 | High | Not able to arrive a patient (MSK) | Thick Client GUI | 41.002 |
| 5196 | High | Date filter not working correctly on - Last Followup Date column (RRR) | Thick Client GUI | 41.002 |
| 5171 | High | Cancelled by Reason Core management report fails to run (RRR) | DB | 41.002 |
| 5152 | High | Correction dialog can cause word duplication | Radiology Reporting | 1.40.018 |
| 5141 | High | Editing fields in template editor sometimes throws an exception | Radiology Reporting | 40.019 |
| 5137 | High | Management Reports - Modifications to reports in Operations Folder | Mgt Reports | 1.4 |
| 4987 | High | Tentatively signed studies that are suspended should be better protected | Radiology Reporting | 1.40.017 |
| 4984 | High | HL7 --> placer order number contains literal | | 41.001 |
| 4856 | High | Wedge fails to insert order and returns Patient and OrderPlacerNumber reference check failure The transaction ended in the trigger. The batch has been aborted. to Mirth | DB | 1.41 |
| 4823 | High | Reporting Screens fail to load if unable to find a good description for the current procedure code | Thick Client GUI | 1.4 |
| 4803 | High | Template/macro add ability to assign to Modality Type | Radiology Reporting | 1.4 |
| 4751 | High | Next workflow broken when using multiple tabs of different types | Radiology Reporting | 1.41 |
| 4681 | High | Able to sign a report when the field(s) in a template do not not have a value. | Thick Client GUI | 1.41 |
| 4671 | High | Unknown CC physician --> not displayed properly on Unknown reconsiliation WL (RRR) | Thick Client GUI | 40.17 |
| 4649 | High | Error adding a procedure plan for new appointment | Thick Client GUI | 1.41 |
| 4626 | High | Protect Section Headers - Two new cases to handle | Radiology Reporting | 1.41 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 4625 | High | Reporting - ability to open multiple dictations in batch mode | Radiology Reporting | 1.4 |
| 4597 | High | RRR - HTML Codes are breaking prep instructions | Thick Client GUI | 40.18127 |
| 4580 | High | Special Accommodations Flag does not get turned off if Special Accommodations is the only flag that is turned on and the user switches the Yes to a No | Web Services/DB | 1.4 |
| 4546 | High | Patient Merge event while another user has that patient open on a screen. | Thick Client GUI | 1.4 |
| 4545 | High | Referrings with No delivery preference in any address do not get their reports. | Document Distribution | 1.40.16 |
| 4479 | High | Reporting - using re-use causing confusion when getting a message box like "Addendum Requested" | Radiology Reporting | 1.41 |
| 4379 | High | All signed by date column sorts | Radiology Reporting | 1.41 |
| 4378 | High | Canceling Unscheduled orders not appearing on Patient Folder | Thick Client GUI | 1.41.18633 |
| 4375 | High | Patient Merge - Suggest button causes Index error when trying to add to the Patient Merge WL | Thick Client GUI | 1.41 |
| 4366 | High | Transcribe next workflow (beeps) | Radiology Reporting | 1.41 |
| 4281 | High | Template / macro user assignent screen slow to load. | Radiology Reporting | 1.4 |
| 4198 | High | patient folder doesn't load unless part of the initial layout on open of rad screen | Thick Client GUI | 1.41 |
| 4005 | High | Memory leak - Reporting - Resizing floating panes | Thick Client GUI | 1.40.013 |
| 3909 | High | Show / Hide titlebars from view menu throws exception | Thick Client GUI | 1.40.010 |
| 3845 | High | Lookup editor drop down won't must show existing values | Thick Client GUI | 40.006 |
| 3575 | High | RadNet - West Coast - Add Age as an Pre-Cert rule option | Thick Client GUI | 1.39 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 3570 | High | Reporting - Playback then record does not work with Interactive Dictation. | Thick Client GUI | 1.40.005 |
| 3528 | High | Magview reports come in via HL7 containing  | HL7 | 1.4 |
| 3036 | High | Reporting - Pending Signature worklist not obtaining lock for patients with multiple studies from same order | Thick Client GUI | 1.39.001 |
| 2941 | High | Request Addendum | Thick Client GUI | 1.37 |
| 2532 | High | access to changing the access strings needs to read only. | Thick Client GUI | 1.39 |
| 5788 | Normal | xkeys - insert template is not working | | 1.41 |
| 5779 | Normal | c_selectreporttable throwing error on report server when there is no table for the dx report | Web Services/DB | 1.41 |
| 5729 | Normal | Exam Search with Scheduled Date Range includes one extra day | Thick Client GUI | 1.41.006 |
| 5641 | Normal | Parameter is not valid error while loading thumbnail images in document viewer | Thick Client GUI | 1.41.005 |
| 5631 | Normal | Special Accommodations flag does not display properly | Thick Client GUI | 1.4 |
| 5623 | Normal | null reference error when opening administration / management reports | Thick Client GUI | 1.41.005 |
| 5612 | Normal | null reference error from CDImportManager | Thick Client GUI | 1.41.005 |
| 5600 | Normal | ICM Dashboard - outside read site code issue | Web Services/DB | 1.4 |
| 5599 | Normal | wrong data in c_study._site_code for outside read | Web Services/DB | 1.41 |
| 5583 | Normal | Spell check on the fly no longer turned on. Squigly lines are not shown under misspelled words | Radiology Reporting | 1.40.21 |
| 5577 | Normal | Report Fields do not update when you load a new layout | Radiology Reporting | 1.41 |
| 5561 | Normal | foreign key error when adding follow-up / contact log entries | Thick Client GUI | 1.41.005 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 5525 | Normal | Scanning - Performs scan but returns no pages. | | 1.41 |
| 5516 | Normal | Error when reprinting Receipts | Thick Client GUI | 1.41.002.1 |
| 5507 | Normal | Patient Folder - Null Scheduled Dates should show at top as most recent. | | 1.41 |
| 5487 | Normal | Procedure code assignment screen in template editor keeps button disabled | Radiology Reporting | 1.41.002 |
| 5478 | Normal | MERGE - Birad picker either shows on non Birads studies or doesn't show on birad studies. | Radiology Reporting | 41.002 |
| 5460 | Normal | When deleting, activating or deactivating items in the template/macro editor, all rows are updated | Radiology Reporting | 1.41 |
| 5443 | Normal | Reporting - rad edit text default color is yellow - should be "#810000" | Radiology Reporting | 1.40.20 |
| 5408 | Normal | Object Reference Error entering an OutsideRead 41.004 | Thick Client GUI | 41.004 |
| 5394 | Normal | missing index on c_summary_mu_history | DB | 1.41 |
| 5379 | Normal | right click Print Report should record an audit log entry | Thick Client GUI | 1.40.003 |
| 5377 | Normal | Stored procedure for Radar confirmations in core install is out of date in relation to SE | Web Services/DB | 1.4 |
| 5351 | Normal | Reporting - Laterality check causing duplicate words | Radiology Reporting | 1.40.020 |
| 5346 | Normal | Reporting - report history requires a lock and offers a read only mode that will not allow you to view anything | | 1.40.020 |
| 5345 | Normal | Playback with bouncing ball, preventing word selection with double click. | Radiology Reporting | 40.016 |
| 5332 | Normal | Reporting - no wait navigate fails when dictating and then clicking next field > 1 time without pausing | Radiology Reporting | 1.40.019 |
| 5327 | Normal | Problem with AME Spellcheck CP-14969 | | 1.40.020 |
| 5308 | Normal | Reporting - dictating negative 5 percent will render the word percent not the symbol | Radiology Reporting | 1.40.20 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 5273 | Normal | CD Import: import fails, if images don't have an accession number | | 1.41 |
| 5272 | Normal | Reporting - Automatic spell check "on the fly" marks words as misspelled that are at the beginning of a field | Radiology Reporting | 1.40.020 |
| 5271 | Normal | Field navigation popup not showing for FFF | Radiology Reporting | 40.02 |
| 5244 | Normal | Copy and pasting words into a report should add leading and trailing space as in MS Word | Radiology Reporting | 1.4 |
| 5242 | Normal | Input device invokable events need proper display text | Radiology Reporting | 9 |
| 5221 | Normal | Reporting - User preference for Redo needs to be selected twice to work | Radiology Reporting | 1.40.020 |
| 5219 | Normal | Reporting - Function key action DeleteWordLeftOfCursor will delete fields and section titles | Radiology Reporting | 1.40.020 |
| 5217 | Normal | Solution name is wrong in installer - and possibly icon for shortcuts. | | 1.38 |
| 5211 | Normal | Prompt when creating templates if the word colon is in a cue | | 1.40.019 |
| 5203 | Normal | Unable to dictate a new line (shift+enter). Always renders as a paragraph | Radiology Reporting | 1.40.019 |
| 5202 | Normal | Next/Previous section unusable due to inconsistant results | | 1.40.019 |
| 5201 | Normal | Rendering of spine levels have changed in 7.88 | | 1.40.019 |
| 5200 | Normal | First word in field persisting and will not overwrite | Radiology Reporting | 1.41 |
| 5179 | Normal | DEA blank vs Null | Thick Client GUI | 1.41 |
| 5178 | Normal | Template - cannot remove a value in either the Grammar or Default value fields | Thick Client GUI | 41.003 |
| 5170 | Normal | Reporting - template/macro editor cue text box too small | Radiology Reporting | 1.41 |
| 5169 | Normal | Aggresive field cue navigation fails after editing a cue on a template. | Radiology Reporting | 1.40.019 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 5160 | Normal | Prompt when creating templates if the word colon is in a cue | | 1.40.019 |
| 5145 | Normal | Next field voice command, showing field popup for one field too far. | Radiology Reporting | 40.18 |
| 5136 | Normal | Management Report updates - removals | Mgt Reports | 1.4 |
| 4979 | Normal | Advanced needs created date to appear on the dx template next to each addendum | Web Services/DB | 1.4 |
| 4977 | Normal | forms will not print for exams scheduled in closed rooms | Thick Client GUI | 1.4 |
| 4976 | Normal | Appliction icon is rris icon instead of eRAD icon - and is grainy / blocky in task bar | | 1.4 |
| 4974 | Normal | RadNet - Sales reports - add patient zip code report | Mgt Reports | 1.4 |
| 4940 | Normal | Multi-type ahead control not sufficient for replacement of Race/Ethnic combo box. | | 1.41 |
| 4939 | Normal | Type ahead for ICD codes on Medical History Grid does not handle decimal | Thick Client GUI | 1.41 |
| 4934 | Normal | Assign to Control can populates user list based on wrong practice | Radiology Reporting | 1.41 |
| 4875 | Normal | support row level caching for lookup tables | Web Services/DB | 1.4 |
| 4862 | Normal | null reference error in PatientGeneral constructor line 126 | Thick Client GUI | 1.41 |
| 4860 | Normal | Ris hangs... For a long time in template editor. | Radiology Reporting | 1.41 |
| 4850 | Normal | TypeError: The prefix "mm" for attribute "mm:major" associated with an element type "ClinicalDocument" is not bound | HL7 | 1.41 |
| 4839 | Normal | RRR - IVT - Managed Policies - billing code info goes blank | | 1.4 |
| 4828 | Normal | Report fields control throws exception when in minimized mode | Radiology Reporting | 1.41 |
| 4818 | Normal | Reporting - reuse only - macros are not getting reset and old command are staying around on next workflow | Radiology Reporting | 1.41 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 4817 | Normal | First chance exception when getting field description in report template editor. | Radiology Reporting | 1.4 |
| 4813 | Normal | First chance exception on SpeechMike Firrmware check | Radiology Reporting | 1.41 |
| 4812 | Normal | First chance exception on PacsCacheServer | Thick Client GUI | 1.41 |
| 4811 | Normal | First chance exception when loading reporting autosave screen. | Radiology Reporting | 1.41 |
| 4806 | Normal | Reporting - spell check on the fly user preference not working | Radiology Reporting | 1.41 |
| 4786 | Normal | Management Report - User Group Permissions is missing access string name | Mgt Reports | 1.41 |
| 4784 | Normal | Patient merge - recent history list - pulls up the deleted patient | Thick Client GUI | 1.4 |
| 4780 | Normal | Known Limitation - Side by side registration broken from 40.016 - 40.017 | Thick Client GUI | 40.017 |
| 4778 | Normal | duplicate "void" payment for the same payment | Thick Client GUI | 1.4 |
| 4776 | Normal | PACS Server override user preference requires log-out, then log-in to take effect | PACS Integration | 1.41.001 |
| 4775 | Normal | PACS Viewer 7.2.34 returns Success="1" with a view session id but empty openedaccessionnbs attribute. When RIS closes this view session PACS is unresponsive. | PACS Integration | 1.41.001 |
| 4758 | Normal | Invalid insurance policy saved to DB | Thick Client GUI | 40.016 |
| 4752 | Normal | Reporting - speech mics 3500 and 3600 showing incorrectly in Help>About | Radiology Reporting | 1.41 |
| 4748 | Normal | scan document archive "write check" fails when 2 or more processes run on the same server | Web Services/DB | 1.4 |
| 4746 | Normal | Reporting - performance - require two raddocks to support signing and dictating | Radiology Reporting | 1.41 |
| 4741 | Normal | Scan document archiving fails when the scan document page is null | Web Services/DB | 1.4 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 4739 | Normal | Reporting - reuse enabled and open a screen for signing, skip next will not populate the tab text | Radiology Reporting | 1.41 |
| 4725 | Normal | IVT Worklist - new field "Last Contact entry" | Thick Client GUI | 1.41 |
| 4723 | Normal | Dark mode watermark (eRad RIS logo) too bright | | 1.41 |
| 4720 | Normal | c_GetNameFromUserID still referencing c_format_name using format 1 | Web Services/DB | 1.4 |
| 4716 | Normal | Reporting - reuse when skipping reports and there are change we don't get a prompt to save changes | Radiology Reporting | 1.41 |
| 4714 | Normal | RRR - unknown reconsiliation - right click not available on HoldCodeCompleted | Thick Client GUI | 40.17 |
| 4683 | Normal | MU Ethnic HL7 codes | Web Services/DB | 1.41 |
| 4682 | Normal | MU - c_patient_medication is missing FK reference to l_medication.medicaiton_code | Thick Client GUI | 40.17 |
| 4676 | Normal | Reporting - reuse selected report tool window keeping previous data | Radiology Reporting | 1.41 |
| 4673 | Normal | Management Report - Appointment Schedule | Mgt Reports | 1.4 |
| 4665 | Normal | Numbered lists that aren't formatted as true ordered lists are wrapping up to the seciton line | Mgt Reports | 1.41 |
| 4662 | Normal | Reporting - SetAccountRules not called when opening an exam for the default template | Radiology Reporting | 1.41 |
| 4660 | Normal | Report fields control showing as a blank canvas | Radiology Reporting | 1.41 |
| 4654 | Normal | Dictating previous field moves two fields back instead of one. | Radiology Reporting | 1.41 |
| 4639 | Normal | Interactive fast forward light up play and fast forward | Radiology Reporting | 1.41 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 4638 | Normal | Audio control allow rewinding and fastforwarding to show at the same time as active. | Radiology Reporting | 1.41 |
| 4637 | Normal | RCW error closing reporting window | Radiology Reporting | 1.41 |
| 4636 | Normal | Recording rewinding in interactive mode falls into a playback/rewind loop. | Radiology Reporting | 1.41 |
| 4635 | Normal | Recording interactive and rewinding | Radiology Reporting | 1.41 |
| 4634 | Normal | Audio starts playing when recording | Radiology Reporting | 1.41 |
| 4633 | Normal | Switching from record to play in batch mode | Radiology Reporting | 1.41 |
| 4632 | Normal | Interactive record + playback at same time | Radiology Reporting | 1.41 |
| 4630 | Normal | Reporting - Edit Templates and Macros from the menu option is showing templates not soley owned by the radiologist | Radiology Reporting | 1.4 |
| 4628 | Normal | MU Height and Smoking Status should pre-populate for walk-in | Thick Client GUI | 1.41 |
| 4627 | Normal | RectangleDrawer timer throws exception | Radiology Reporting | 1.4 |
| 4624 | Normal | Reporting - Automacros do not use scanner in scoring which available macro should load | | 1.4 |
| 4621 | Normal | QA workflow, set to problem without rejecting | Radiology Reporting | 1.41 |
| 4607 | Normal | RadNet - Dark Theme - Within template/macro editor, forecolor is the same as backcolor | Thick Client GUI | 1.41 |
| 4588 | Normal | CD Import - Fails to import CDs from some hospitals that have "Screen Save" type images | | 1.4 |
| 4581 | Normal | Ampersand in template / macro field name can corrupt report | Radiology Reporting | 1.4 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 4577 | Normal | View Edit - open view edit window and save with no changes made logs entry to audit history | Thick Client GUI | 1.41 |
| 4567 | Normal | Reporting - notifications need to be placed above action buttons. | | 1.41 |
| 4566 | Normal | Reporting Reuse - Next workflow loads cases that are pending saving. | Thick Client GUI | 1.41 |
| 4562 | Normal | Template editor, inserting a field into a section header throws an error. | Radiology Reporting | 1.4 |
| 4560 | Normal | Some message boxes don't close when hitting X | Thick Client GUI | 1.41 |
| 4557 | Normal | Read only mode hides recording button, but can still record using microphone | Radiology Reporting | 1.41 |
| 4556 | Normal | Read only mode not reflecting on minimized dictation controls | Radiology Reporting | 1.41 |
| 4551 | Normal | Modified GoggleSearchAction to support Multiple passed in params | Thick Client GUI | 1.41 |
| 4549 | Normal | person search results does not correctly show specialties | Thick Client GUI | 1.4 |
| 4544 | Normal | Send-to button blanks out the reporting screen | Radiology Reporting | 1.41 |
| 4543 | Normal | RXNorm is not captured from NewCrop | Thick Client GUI | 1.41 |
| 4542 | Normal | Worklist refresh exception | | 1.41 |
| 4541 | Normal | autosave - button positions should be switched | | 1.41 |
| 4540 | Normal | Autosave - close should prompt to delete | | 1.41 |
| 4539 | Normal | Autosave - double click row does nothing | | 1.41 |
| 4536 | Normal | Reporting - Reuse enabled status area messages not populating for action buttons | Radiology Reporting | 1.41 |
| 4533 | Normal | Reporting - edit template > make changes > x to close > no prompt presented about changes | Radiology Reporting | 1.41 |
| 4532 | Normal | Reporting - edit template > esc > cancel will close the form instead of cancelling | Radiology Reporting | 1.41 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 4528 | Normal | WPR-000 | Radiology Reporting | 1.4 |
| 4527 | Normal | Attachments - Verbal button causing error | Thick Client GUI | 1.41 |
| 4522 | Normal | intermittent error: transaction was deadlocked on lock resources with another process and has been chosen as the deadlock victim | Web Services/DB | 1.41 |
| 4521 | Normal | Scanning - Editing Document width and height causing error on blanks | Thick Client GUI | 1.41 |
| 4516 | Normal | Reporting - MT polling enabled open RIS initially will result in messed up reporting screen | Radiology Reporting | 1.41 |
| 4514 | Normal | Attachments - wide documents that a small height cause an out of memory exception | | 1.4 |
| 4510 | Normal | Reporting - editing reports MT's have the microphone selection option available | Radiology Reporting | 1.41 |
| 4508 | Normal | Transcriptionist next workflow not properly skipping | Radiology Reporting | 1.41 |
| 4490 | Normal | Protect section headers does not protect against macro insertions | Radiology Reporting | 1.40.017 |
| 4489 | Normal | Inactive printers can still be selected in Send Report dialog | Document Distribution | 1.4 |
| 4488 | Normal | CD Import - add a button to access this feature from Patient Folder. | | 1.4 |
| 4487 | Normal | CD Import - Some customers have CD media without a DICOMDIR | | 1.4 |
| 4486 | Normal | dicom error while importing a CD | Thick Client GUI | 1.40.16328 |
| 4483 | Normal | Reporting - Add patient folder control to reporting window will not display history | Thick Client GUI | 1.41 |
| 4481 | Normal | LogTextBox - Permission for an admin to edit previous log details isn't always available. | | 1.41 |
| 4444 | Normal | Scanning - Order/Patient/Exam Level can change when re-viewing the document | | 1.41 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 4443 | Normal | External Report Workflow - changing room/procedure resets external flag. | | 1.41 |
| 4434 | Normal | Outside Reads do not fall into external workflow | | 1.41 |
| 4426 | Normal | Reports that should have site filter | Mgt Reports | 1.41 |
| 4392 | Normal | alignments of MT screen buttons in user preferences are a little miss aligned | Thick Client GUI | 1.41 |
| 4389 | Normal | Reporting - Addendum request make notes required on request and reject. | Radiology Reporting | 1.41 |
| 4386 | Normal | Report History Error | Thick Client GUI | 1.41 |
| 4383 | Normal | External Report Workflow check box looses value on open of view edit | | 1.41 |
| 4341 | Normal | QA worflow problem flag #2894 | Radiology Reporting | 1.41 |
| 4334 | Normal | Report History Window | Thick Client GUI | 1.4 |
| 4296 | Normal | RRR Modality Closures and Restrictions - when you delete a row after pressing 'enter' at the end of the column 'End Time' RIS does not seem to recognize the row is gone, and prompts user for 'Description' | Thick Client GUI | 40.15 |
| 4290 | Normal | Reporting - next field navigating two fields when cursor immediately to the left of field | Radiology Reporting | 1.4 |
| 4274 | Normal | All Signed By Date WL missing context menu option for Patient Folder | Thick Client GUI | 1.41 |
| 4267 | Normal | Report context menu item does not have access string | Web Services/DB | 1.41 |
| 4260 | Normal | RRR - Appointment book is not showing all outside read locations, only one. | Admin Tools | 40.15 |
| 4259 | Normal | RRR - Order of preferred radiologists in the Personnel editor or image notes, is not the same order it appears in the workflow within RIS | Thick Client GUI | 40.15 |
| 4227 | Normal | eRAD PACS: Often not closing images | PACS Integration | 1.40.012 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 4199 | Normal | Error thrown on refresh lock after just having closed reporting screen. | Thick Client GUI | 40.15 |
| 4185 | Normal | Login - After logging in as a Rad user the splash screen doesn't always repaint | Thick Client GUI | 1.41 |
| 4153 | Normal | Sort on audio lenght throws error on worklist refresh | Thick Client GUI | 1.41 |
| 4135 | Normal | Workstation locks do not reliably fire on workstations that have not been rebooted for 25+ days | Thick Client GUI | 1.40.16328 |
| 4096 | Normal | Send To button on Report History screen should be hidden | Radiology Reporting | 1.40.14 |
| 4093 | Normal | Assign to Radilogist from WL clears Chair when configured not to clear the chair. | Thick Client GUI | 1.40.012 |
| 4087 | Normal | Getting "Viewer is opening another view!" when trying to launch images in eRAD PACS | PACS Integration | 40.12 |
| 4086 | Normal | Scanning - HP Scanjet 3000 s2 does not work with Twain 2.0 | | 1.4 |
| 4085 | Normal | RRR reported 'painting' issue with scheduling window | | 40.18019 |
| 4068 | Normal | Reporting - next workflow excluding reports locked by the current user | Thick Client GUI | 1.4 |
| 4052 | Normal | Suspended reports can still be previewed in dictate screen using patient folder | | 1.4 |
| 4018 | Normal | Memory leak fixes discovered in B40 | | 1.4 |
| 4006 | Normal | Scan Documents from EMR | Thick Client GUI | 1.4 |
| 3976 | Normal | Reporting buttons, when disabled, has a wider seperator. | Thick Client GUI | 1.4 |
| 3975 | Normal | Verify External - button is greyed out in Patient Folder, even if you have permission | Thick Client GUI | 39.1 |
| 3971 | Normal | RIS Administrator - permissions | Web Services/DB | 39.1 |
| 3914 | Normal | order lock not released in some cases, refreshes continue until user logs out | Thick Client GUI | 1.4 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 3901 | Normal | Reporting - Chair assignment - Chair selection shows study assigned but work list doesn't have any studies assigned | Thick Client GUI | 1.40.010 |
| 3873 | Normal | Patient Merge - when you choose phone number details for a patient and suggest merge, then re-open, those details are not maintained. | Thick Client GUI | 1.1.3.40.17435 |
| 3872 | Normal | Signing contribution dates and userid missing in supervising dictation worklist | Thick Client GUI | 1.40.010 |
| 3866 | Normal | Installing Updates... - Two can run at the same time, which causes errors | | 1.4 |
| 3828 | Normal | Toggle record not stopping when pressed again (Fisher site visit) | Thick Client GUI | 40.006 |
| 3802 | Normal | RadNet - ADV defect - Blanking out the chair | Thick Client GUI | 1.40.006 |
| 3796 | Normal | RadNet - ADV Call Centre - Order level scanning support | Thick Client GUI | 1.40.006 |
| 3755 | Normal | RadNet - Call Centre - Preferred site not always populating | Thick Client GUI | 1.40.006 |
| 3753 | Normal | RadNet - Call Centre - IVT Attachment - advanced scanning pop-up issue | Thick Client GUI | 1.40.006 |
| 3732 | Normal | MU2 (2014) Requires Gender to Change to Sex | Thick Client GUI | 1.4 |
| 3708 | Normal | Inactive but currently used procedures are not apearing as an option in the performed procedure list on view edit | Thick Client GUI | 1.40.0007 |
| 3692 | Normal | Can't reschedule - strange error - | | 1.4 |
| 3683 | Normal | Rad Sign Level lookup exception | Admin Tools | 1.40.007 |
| 3662 | Normal | Schedule Group lookup table exception | Admin Tools | 1.40.006 |
| 3621 | Normal | RadNet - Resolve Audit log issues - resolve in b41 if time permits, else move to b42 | Thick Client GUI | 1.38 |
| 3587 | Normal | Administration --> cross_x_reference tables and Active column | Admin Tools | 1.1.3.40.17118 |
| 3586 | Normal | Administration --> BIRAD + Recommendation mapping change Active = object reference ERR | Admin Tools | 1.1.3.40.17118 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 3562 | Normal | L access string settings for Mammography worklists should default to "None" | Thick Client GUI | 1.4 |
| 3464 | Normal | Reporting - Increase the size of selected attachments data pane and the border doesn't repaint | Thick Client GUI | 1.4 |
| 3455 | Normal | Reporting - Indent / Outdent not working | Thick Client GUI | 1.4 |
| 3403 | Normal | IVT WL not showing the WL Row count as expected | Thick Client GUI | 1.4 |
| 3397 | Normal | RRR - scan doc types when marked inactive are still showing in the dropdown menus in the GUI | Thick Client GUI | 40.16659 |
| 3394 | Normal | problems with validation of "Visited at" for "unknown referring physicians" without an address | Thick Client GUI | 1.40.16328 |
| 3391 | Normal | User editor loading config values twice, causing errors | Thick Client GUI | 1.38 |
| 3373 | Normal | EMR order fails - sending in an unknown referring physician | Thick Client GUI | 1.4 |
| 3035 | Normal | Missing access string | Web Services/DB | 1.4 |
| 3010 | Normal | Multi-sign: When you have a preconfigured sign level overrides (RadSignLevel table), and you disable contribute a and contribute b, user cannot sign on the modality type in the override. | | 39.16026 |
| 2991 | Normal | Patient Folder - don't duplicate attachment viewers | Thick Client GUI | 1.39 |
| 2970 | Normal | Reporting - Report history - Does not always load and may return object reference error | Radiology Reporting | 1.39.001 |
| 2897 | Normal | Report History - from patient folder tab name is not correct | Thick Client GUI | 1.39 |
| 2823 | Normal | audit history does not provide sufficient detail for study data | Thick Client GUI | 1.39 |
| 2716 | Normal | System Config Lookup Editor | Thick Client GUI | 1.38 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 2690 | Normal | Show/Hide Titlebar issue | Thick Client GUI | 1.39 |
| 2628 | Normal | Reporting screen not drawing in, if user make worklists active | Thick Client GUI | 1.39 |
| 2453 | Normal | River Ranch - When you reschedule a study we set an internal flag on the study that was rescheduled, when we just cancel we are not clearing this flag if it was previously set. | Thick Client GUI | 38 |
| 2418 | Normal | River Ranch - When two users with similar names edit an order, there can be some confusion in who actually wrote notes that are stamped (ie: order notes) | Thick Client GUI | 38.14486 |
| 2163 | Normal | Studies in Edits Pending QA can be signed off | Thick Client GUI | 1.2.38.14350 |
| 2113 | Normal | error on patient search when formatted_first_name is null | Web Services/DB | 1.37.12 |
| 2072 | Normal | Reporting - Worklist refresh when worklist is not in focus. | Thick Client GUI | 1.37 |
| 2057 | Normal | Unknown Insurance reconsiliation - reload problem | Admin Tools | 37.11 |
| 1943 | Normal | No access string to prevent access to Unknown Carrier | | 1.37 |
| 1842 | Normal | Reporting - CdsInterctive Text Color not consitent | | 1.38 |
| 1487 | Normal | Worklist column does not refresh when exception thrown in Bulk Field Assignment | Thick Client GUI | 1.2.37.12644 |
| 1177 | Normal | Completing fields in report editor and using Back button < will return COM error. | Thick Client GUI | 1.36 |
| 4368 | Low | Ranjan - Date format | Radiology Reporting | 1.41 |
| 4282 | Low | Template / macro - Create using filter criteria | Radiology Reporting | 1.41 |
| 3889 | Low | Null reference exception in lookup | Admin Tools | 1.1.3.40.16659 |
| 3750 | Low | Reporting - Exam details pane layout | Thick Client GUI | 1.40.008 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 3680 | Low | Font size - not saving | Thick Client GUI | 1.4 |
| 3229 | Low | Patient search - folder preview feature - does not clear with reset button | | 1.4 |
| 3228 | Low | Patient Folder (Preview Mode) - docking\floating issue on Patient Search | Thick Client GUI | 1.4 |
| 1977 | Low | Birthdate search often defaults to dates in the future | | 1.37 |
| 1348 | Low | Special Accommodations required fields | Thick Client GUI | 1.37 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 9. Known Limitations

The following are Bugs Suggested Features and Support Issues found in build 2.42. Bugs reported in previous versions are not captured as Known Limitation in this document.

| # | Status | Priority | Subject |
|---|---|---|---|
| 5783 | New | High | Dark mode login box impossible to see |
| 5120 | QE Rejected | High | Template / macro - create template from... doesnt retain custom fields |
| 5861 | New | Normal | unhandled exception logging in as a rad but without permission to some WL. |
| 5860 | New | Normal | PACS Images not opening from Patient folder |
| 5857 | New | Normal | Critical Results worklist throws null exception |
| 5854 | New | Normal | PACS Caching - Sometimes possible to steal someone else's cache lock |
| 5851 | New | Normal | Reporting - Error on pending dictation work list |
| 5847 | New | Normal | Dark mode - BMI on MU tab is white on white and unreadable |
| 5843 | New | Normal | MU - When editing the date in Lab results get error. |
| 5839 | New | Normal | Edit Templates and Macros icons enabled toggle is backwards |
| 5837 | New | Normal | Reporting - Open study in dictate window and get C++ Exception |
| 5836 | New | Normal | Chair selector throws error after RIS locked due to inactivity |
| 5835 | New | Normal | interact with message boxes via voice commands - can dictate into the message itself |
| 5832 | New | Normal | Scheduling - Restriction displayed in advanced search on Schedule tab not always accurate |
| 5829 | New | Normal | Scheduling / Registration |
| 5822 | New | Normal | 'Assign' functionality throws error on report addendum |
| 5821 | MModal support | Normal | Redo That command needs to be uttered twice to work/catch up with undo that |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| 5814 | New | Normal | If lab test code matching systemconfig's CPOELabTestCode value doesn't exist for procedure who's CPOE Pathology flag is set, misleading exception occurs |
| 5812 | New | Normal | Orders to Schedule WL and IVT WL show last follow-up type code and the Mammo Worklists (0/4/5) show |
| 5811 | New | Normal | Suspended reports stops several voice commands from working |
| 5808 | New | Normal | Dark mode, very hard to read text in Recording and Playback settings |
| 5800 | New | Normal | parameter is not valid and/or out of memory error while viewing thumbnails |
| 5784 | New | Normal | Default attachment is order level, cant be changed to patient level |
| 5777 | New | Normal | Attatchment Veiwer "Show More/Show Less" option is switching when pressing the Ok Button in the Attachment Viewer Preferences |
| 5770 | New | Normal | Button label on "Report on Accession Number" prompt is incorrect. |
| 5768 | New | Normal | DeleteLeftWord |
| 5767 | New | Normal | Cannot save IVT screen due to undetermined required field ("! Is Required") |
| 5766 | New | Normal | potential performance issues with c_ctrn_dictation |
| 5762 | New | Normal | Unplugging then repluging in speech mic causes Ris to crash, need to reboot |
| 5754 | New | Normal | Open quotes become duplicated |
| 5745 | New | Normal | Lookup bug "Non-static method requires a target" |
| 5738 | New | Normal | patient folder will not load when saved as a secondary tab on another tool window |
| 5732 | New | Normal | issues with sorting exam search results when max row count is reached |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| 5726 | New | Normal | Management Reports - Many reports have new parameters, these fields should be returned on the report |
| 5712 | In Progress | Normal | C++ Exception when pressing the play button |
| 5711 | New | Normal | Using two procedures at scheduling, and patient is claustro - it is showing an option for a closed modality when it should not |
| 5700 | New | Normal | Template, cannot remove the dataset values |
| 5697 | New | Normal | RIS screen lock does not function properly when using minimize to tray mode |
| 5685 | New | Normal | Logout - after entering username and PWD error saying eRAD RIS is already running |
| 5682 | New | Normal | Inactivity message showing under ris error pop up |
| 5678 | New | Normal | View/Edit notes exam times tab marks as dirty |
| 5672 | New | Normal | Next Workflow on All_____ worklists, locked studies break work flow. |
| 5664 | New | Normal | When dictating, losing your lock, and save failed with screen recovered, you won't be able to save |
| 5657 | New | Normal | Cannot click 'OK' or 'Cancel' in PACSLoginDialog when running in 'Minimized' recording control mode |
| 5654 | In Progress | Normal | MU Lab Results Error |
| 5637 | New | Normal | Complete button on Report screen has misaligned formatting |
| 5625 | New | Normal | Reporting - cant exit minimized dictation screen with cancel button or close button |
| 5620 | New | Normal | Swap creditial user being used for user preference and lock screen |
| 5619 | New | Normal | Macro editor field "bleeds" into next line when field is at end of line and Enter pressed |
| 5610 | New | Normal | Clear Credentials is available from perform exam tab context menu |
| 5603 | New | Normal | recent activity message list shows Assign To as Dictated |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| 5597 | New | Normal | Reporting - delete next field speech mike option leaves a space after deleting |
| 5569 | New | Normal | Lookup tables->ProcedureCode - Missing null checks on new l_procedure_code_x_billing_code rows throws exception |
| 5563 | In Progress | Normal | Reporting - Field markers allowing normal spelling errors to pass |
| 5549 | New | Normal | Edit Image Request's "Previous Requests" grid shows only 2-3 previous requests , can't be sorted or scrolled to see more |
| 5526 | In Progress | Normal | Reporting - Delete previous n words and undo that resulting in wrong cursor location |
| 5519 | New | Normal | Reporting - pending signature on login and pending signature worklist notifications can be shown at the same time |
| 5515 | In Progress | Normal | Reporting - Setting DictationEnabled = false still allows dictated text into the report. |
| 5506 | In Progress | Normal | Reporting - lowercase selection voice command inoperable |
| 5469 | New | Normal | Alerts may not fire properly if screens are re-used in RIS |
| 5459 | New | Normal | right click change status to cancel does not refresh worklist afterwards |
| 5452 | New | Normal | Reporting - Spine level 'T seven eight' rendering incorrectly. |
| 5451 | New | Normal | Reporting - enable rewind/fast foward playback rename |
| 5446 | New | Normal | Radnet only: Multi-install dashboard |
| 5439 | In Progress | Normal | new practices can cause null ref errors when signing |
| 5420 | New | Normal | some messageboxes improperly sized |
| 5406 | New | Normal | concurrency violation on save of UserPrefs can crash RIS |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| 5305 | New | Normal | Report field control shows duplicate field if laterality check highlighted words exist in a field |
| 5259 | New | Normal | Multi-type ahead: down arrow does not open the dropdown |
| 5258 | New | Normal | Multi-type ahead: control is too tall |
| 5257 | New | Normal | Multi-type ahead: Dropdown button should have a ... in the icon |
| 5256 | New | Normal | Multi-type ahead: Dropdown button is doesn't have left and bottom border |
| 4830 | New | Normal | Carrier search error if carrier name is not found |
| 4810 | New | Normal | PACSCacheServer system config setting is no longer used and should go away |
| 4792 | New | Normal | Reporting - Open multiple autosaved reports at once can cause error |
| 4787 | New | Normal | Next field not going to next field when dictating paragraphs in field. |
| 4771 | New | Normal | insert multi paragraph macro into field ignores paragraphs |
| 4718 | In Progress | Normal | Reporting - AME 7.88.3 - extra paragraph when protect section headers is on |
| 4593 | New | Normal | WPR - Send To button causes error |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# Server Update

For eRAD RIS
Version 2.0
Build 42
Update 42.0.1

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Defects Resolved ..... 3
2. Code Stream ..... 4
3. Package Contents ..... 5
4. Intended Audience ..... 7
5. Who is affected ..... 7
6. eRAD RIS Release Version Numbers ..... 8
7. Installing ..... 9
8. Known Limitations ..... 9

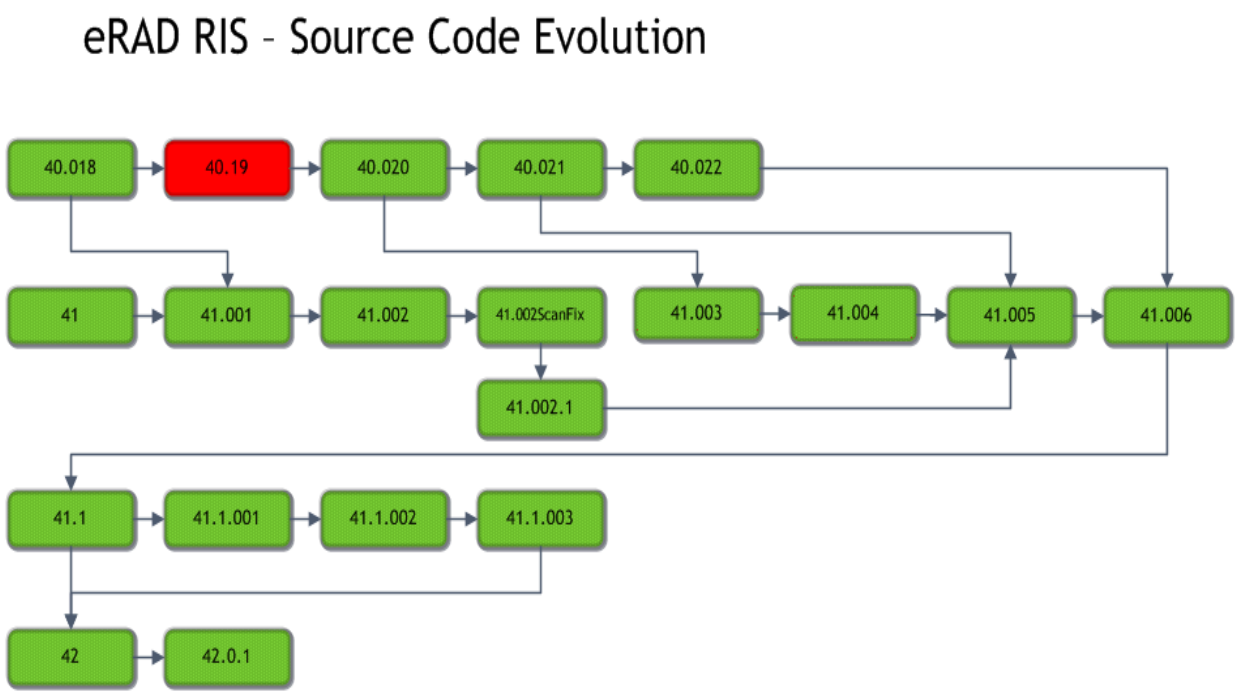
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 1. Defects Resolved

| Redmine # | Subject | Priority |
|---|---|---|
| 5980 | Faxes failing to submit to fax queue | Immediate |
| 6054 | Medications table displaying incorrectly | Urgent |
| 6030 | Problems and Allergies not populated on Reschedule | High |
| 6029 | Message when opening MU tab on Rescheduling: "open in another tab" | High |
| 6042 | Non-Insurance Verifiable Modalities (XR) are falling to worklist | Normal |
| 6041 | Mammo invitives can be rescheduled once but not a second time | Normal |
| 6040 | Reschedule-x obtaining locks and not releasing them | Normal |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 2. Code Stream




**Legend:**

**Green = Released software**

**Red = Will not be released**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 3. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains:
   a) rRIS_42.0.1.21597.zip

2) RIS_Service_Updates contains:
   - ABCpdf.dll
   - ABCpdf9-32.dll
   - ABCpdf9-64.dll
   - CDSJobManager.dll
   - CDSJobManager.pdb
   - CdsLib.dll
   - CdsLib.xml
   - CdsLib.XmlSerializers.dll
   - CommonLib.dll
   - CommonLib.pdb
   - contents.txt
   - DDEngine.dll
   - DDEngine.pdb
   - Interop.ANYMODALCAPTURECTRLLib.dll
   - Interop.FAXCOMEXLib.dll
   - Microsoft.Practices.EnterpriseLibrary.Caching.dll
   - Microsoft.Practices.EnterpriseLibrary.Caching.pdb
   - Microsoft.Practices.EnterpriseLibrary.Common.dll
   - Microsoft.Practices.EnterpriseLibrary.Common.pdb
   - Microsoft.Practices.EnterpriseLibrary.Logging.dll
   - Microsoft.Practices.EnterpriseLibrary.Logging.pdb
   - Microsoft.Practices.ServiceLocation.dll
   - Microsoft.Practices.ServiceLocation.pdb
   - Microsoft.Practices.Unity.dll
   - Microsoft.Practices.Unity.Interception.dll
   - Microsoft.Practices.Unity.Interception.pdb
   - Microsoft.Practices.Unity.pdb
   - Microsoft.ReportViewer.Common.dll
   - Microsoft.ReportViewer.WinForms.dll
   - Microsoft.ReportViewer.WinForms.xml
   - Newtonsoft.Json.dll
   - Newtonsoft.Json.xml
   - Ninject.dll
   - Ninject.Web.Common.dll
   - Ninject.Web.Common.xml
   - Ninject.xml
   - O2S.Components.PDFRender4NET.dll
   - PDFToImages.exe
   - rRISServices.exe
   - rRISServices.pdb
   - rRISServicesx64.exe
   - ScheduledTaskManager.dll
   - ScheduledTaskManager.pdb
   - ServicesConfigWizard.exe
   - ServicesConfigWizard.pdb
   - SignatureApprovalService.exe
   - SignatureApprovalService.pdb
   - System.Net.Http.dll
   - System.Net.Http.Formatting.dll
   - System.Net.Http.Formatting.xml
   - System.Net.Http.WebRequest.dll
   - System.Net.Http.WebRequest.xml
   - System.Net.Http.xml
   - System.Web.dll
   - System.Web.Helpers.dll

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

- System.Web.Helpers.xml
- System.Web.Http.dll
- System.Web.Http.SelfHost.dll
- System.Web.Http.SelfHost.xml
- System.Web.Http.WebHost.dll
- System.Web.Http.WebHost.xml
- System.Web.Http.xml
- System.Web.Mvc.dll
- System.Web.Mvc.xml
- System.Web.Optimization.dll
- System.Web.Providers.dll
- System.Web.Razor.dll
- System.Web.Razor.xml
- System.Web.WebPages.Deployment.dll
- System.Web.WebPages.Deployment.xml
- System.Web.WebPages.dll
- System.Web.WebPages.Razor.dll
- System.Web.WebPages.Razor.xml
- System.Web.WebPages.xml
- Tourreau.Gilles.FaxDotNet.dll
- Tourreau.Gilles.FaxDotNet.pdb
- Tourreau.Gilles.FaxDotNet.xml
- WCFService.dll
- WCFService.pdb
- WCFServiceTests.dll
- WCFServiceTests.pdb
- WebApi.dll
- WebApi.pdb
- Wedge.exe
- Wedge.pdb

The rRIS_Service_Updates also contains to subfolders:

A. Deploy folder contains
    a. Applicationsettings
    b. ReleaseVersion-connectionstrings
    c. rRISServices.exe
    d. services
B. XSL subfolder contains:
    a. Subfolder titled “Stylesheets”
        i. CCDA Subfolder contains
            a. sectionImmunizations.xsl
            b. sectionInstructions.xsl
            c. C-CDA.xsl
            d. sectionMedications.xsl
            e. sectionPlanOfCare.xsl
            f. eRadStylesheet.xsl
            g. sectionProblemList.xsl
            h. generalTemplates.xsl
            i. sectionProcedures.xsl
            j. header.xsl
            k. sectionReasonForVisit.xsl
            l. sectionAdministeredMedications.xsl
            m. sectionResults.xsl
            n. sectionAllergies.xsl
            o. sectionSocialHistory.xsl
            p. sectionEncounters.xsl
            q. sectionVitalSigns.xsl
            r. sectionFuncCogStatus.xsl

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

ii. CDAToHTMLCompleteReport.xslt
iii. CDAToHTMLImpressionSection.xslt
iv. CDATorRIS.xslt
v. CDAToTxt.xslt
vi. DocumentModelReport.xslt
vii. DocumentModelReportAsXml.xslt

## 4. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

## 5. Who is affected

Build 42 installs. Server updates are not cumulative. Any previous server updates must be applied before this one.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 6. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 40 | 17 | 1.3.40.18780 (3GB) | 1.3.40.18756 | 1.3.40.18756 | 1.3.40.18646 | Core install required for Radiologist User Group. GUI.zip, Core setup, and Web Service updates |
| 40 | 18 | 1.3.40.19253(3GB) | 1.3.40.18756 | 1.3.40.18756 | 1.3.40.19253 | GUI.zip, Web Service and database updates |
| 40 | 19 | 1.3.40.19909(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | GUI.zip, Web Service |
| 40 | 20 | 1.3.40.20086(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | Gui.zip and Recognizer |
| 40 | 21 | 1.3.40.20703(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | Gui.zip |
| 40 | 22 | 1.3.40.20898(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | Gui.zip |
| 41 | - | 1.3.41.19135(3GB) | 1.3.41.19135 | 1.3.41.19135 | 1.3.41.19135 | Full version release |
| 41 | 1 | 1.3.41.19256(3GB) | 1.3.41.19135 | 1.3.41.19256 | 1.3.41.19256 | GUI.zip, Web Service and database updates |
| 41 | 2 | 1.3.41.19620(3GB) | 1.3.41.19135 | 1.3.41.19620 | 1.3.41.19346 | GUI.zip and Web Service |
| 41 | 2sf | 1.3.41.19620SF(3G) | 1.3.41.19135 | 1.3.41.19620 | 1.3.41.19346 | GUI.zip |
| 41 | 2.1 | 1.3.41.20622(3GB) | 1.3.41.19135 | 1.3.41.20617 | 1.3.41.19346 | GUI.zip and Web Service |
| 41 | 3 | 1.3.41.20125(3GB) | 1.3.41.19135 | 1.3.41.20171 | 1.3.41.19346 | GUI.zip , Web Service and Recognizer |
| 41 | 4 | 1.3.41.20285(3GB) | 1.3.41.19135 | 1.3.41.20171 | 1.3.41.19346 | GUI.zip |
| 41 | 5 | 1.3.41.20809(3GB) | 1.3.41.20708 | 1.3.41.20792 | 1.3.41.20738 | GUI.zip, Core install, Web Service and database updates |
| 41 | 6 | 1.3.41.20912(3GB) | 1.3.41.20708 | 1.3.41.20792 | 1.3.41.20738 | GUI.zip |
| 41.1 | - | 1.3.41.20918(3GB) | 1.3.41.20791 | 1.3.41.20918 | 1.3.41.20739 | GUI.zip, Core install, Web Service and DB updates, Help files |
| 41.1 | 1 | 1.3.41.20987(3GB) | 1.3.41.20791 | 1.3.41.20918 | 1.3.41.20739 | GUI.zip |
| 41.1 | 2 | 1.3.41.21162(3GB) | 1.3.41.20791 | 1.3.41.21162 | 1.3.41.21150 | GUI.zip, Web Service and DB updates, |
| 41.1 | 3 | 1.3.41.21264(3GB) | 1.3.41.20791 | 1.3.41.21162 | 1.3.41.21150 | GUI.zip |
| 42 | - | 2.42.0.0.21261(3GB) | 2.42.0.0.21261 | 2.42.0.0.21261 | 2.42.0.0.21187 | Full version release |
| 42 | 1 | 42.0.1.21597 | 2.42.0.0.21261 | 42.0.1.21597 | 2.42.0.0.21187 | GUI and Web Service updates |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 7. Installing

1) Copy and replace the current rRIS…zip file with the rRIS_42.0.1.21597.zip file provided with this release.
   Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

   NOTE: If your upgrade is coming from 40.016.1 or less a core install will be required.

2) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService. Be sure to make backup of all files, but especially the rRISServices.exe.config and rRISServices.vshost.exe.config files.
   *rRISService directories include:*
   *a) rRISService*
   *b) CDS rRISService*
   *c) Wedge rRISService*
   *d) DDE rRISService*

   Restart each service.

## 8. Known Limitations

Known limitations listed in this document may not have been introduced in 42.0.1, but have been discovered during testing of 42.0.1.

| Redmine # | Subject | Info |
|---|---|---|
| 6043 | Mammo follow up reschedule – schedule later creates order and short term follow-up | In this case the user can continue to use the Short Term Follow-Up study and cancel the order. Reason for this is if the order is used to schedule again and on reschedule again select Schedule Later it will not let the user save as a Follow Up Order already exists |
| 6072 | Document Distribution - Jobs for Print can be added to distribution with no default printer | Referrers may not have report delivery preferences (although they have address(s)). In this case the report will be sent to Document Distribution for print but without a default printer. A user will have to edit job and select printer |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

For eRAD RIS
Version 2.0
Build 42
Update 42.0.2

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Defects Resolved ..... 3
2. Code Stream ..... 4
3. Package Contents ..... 5
4. Intended Audience ..... 7
5. Who is affected ..... 7
6. eRAD RIS Release Version Numbers ..... 8
7. Installing ..... 9
8. Known Limitations ..... 10

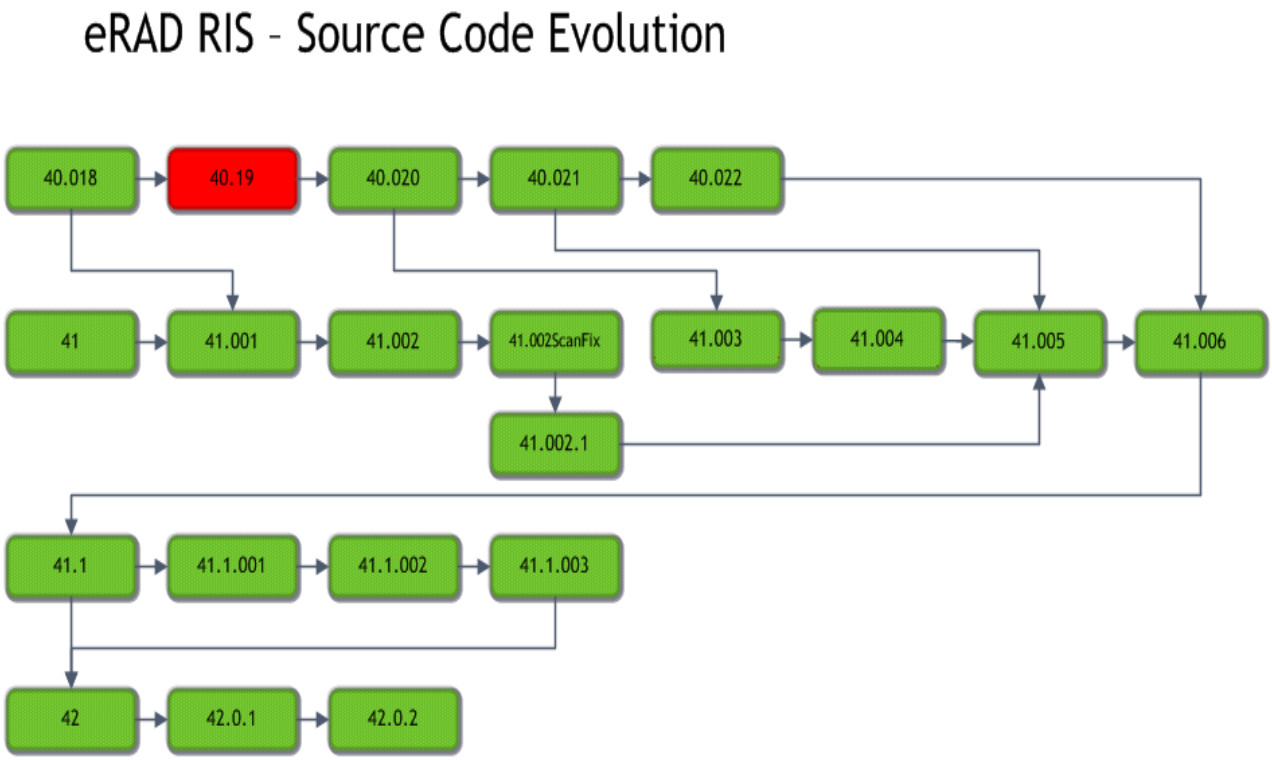
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 1. Defects Resolved

| Redmine # | Subject | Priority |
|---|---|---|
| 6096 | Exception thrown on reschedule of study with illegal XML character in notes field | High |
| 6085 | Patient tab - tab order - Cannot tab to Patient Origin fields, stuck in Family History | High |
| 6038 | Wedge stopps processing messages ( illegal XML) | High |
| 6092 | CD Import via patient folder can match with the wrong patient. | Normal |
| 6076 | RIS Wedge x64 ( stopps processing + spikes CPU when error in c_action_queue) | Normal |
| 6043 | mammo follow up reschedule - rescheduling second time - select schedule later creates order and short term followup | Normal |
| 6036 | RadNet - error in Radiologist message box | Normal |
| 5987 | Scanning - Keep Scanner Connection Open (doesn't work on all scanner models) | Normal |
| 5966 | Scanning - Keep Scanner Connection Open is causing scans to fail | Normal |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 2. Code Stream




**Legend:**

**Green = Released software**

**Red = Will not be released**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 3. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains:
   a) rRIS_1.3.42.0.2.21702.zip

2) RIS_Service_Updates contains:
   - ABCpdf.dll
   - ABCpdf9-32.dll
   - ABCpdf9-64.dll
   - CDSJobManager.dll
   - CDSJobManager.pdb
   - CdsLib.dll
   - CdsLib.xml
   - CdsLib.XmlSerializers.dll
   - CommonLib.dll
   - CommonLib.pdb
   - content.txt
   - DDEngine.dll
   - DDEngine.pdb
   - Interop.ANYMODALCAPTURECTRLLib.dll
   - Interop.FAXCOMEXLib.dll
   - Microsoft.Practices.EnterpriseLibrary.Caching.dll
   - Microsoft.Practices.EnterpriseLibrary.Caching.pdb
   - Microsoft.Practices.EnterpriseLibrary.Common.dll
   - Microsoft.Practices.EnterpriseLibrary.Common.pdb
   - Microsoft.Practices.EnterpriseLibrary.Logging.dll
   - Microsoft.Practices.EnterpriseLibrary.Logging.pdb
   - Microsoft.Practices.ServiceLocation.dll
   - Microsoft.Practices.ServiceLocation.pdb
   - Microsoft.Practices.Unity.dll
   - Microsoft.Practices.Unity.Interception.dll
   - Microsoft.Practices.Unity.Interception.pdb
   - Microsoft.Practices.Unity.pdb
   - Microsoft.ReportViewer.Common.dll
   - Microsoft.ReportViewer.WinForms.dll
   - Microsoft.ReportViewer.WinForms.xml
   - Newtonsoft.Json.dll
   - Newtonsoft.Json.xml
   - Ninject.dll
   - Ninject.Web.Common.dll
   - Ninject.Web.Common.xml
   - Ninject.xml
   - O2S.Components.PDFRender4NET.dll
   - PDFToImages.exe
   - rRISServices.exe
   - rRISServices.pdb
   - rRISServicesx64.exe
   - ScheduledTaskManager.dll
   - ScheduledTaskManager.pdb
   - ServicesConfigWizard.exe
   - ServicesConfigWizard.pdb
   - SignatureApprovalService.exe
   - SignatureApprovalService.pdb
   - System.Net.Http.dll
   - System.Net.Http.Formatting.dll
   - System.Net.Http.Formatting.xml
   - System.Net.Http.WebRequest.dll
   - System.Net.Http.WebRequest.xml
   - System.Net.Http.xml
   - System.Web.dll
   - System.Web.Helpers.dll

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

- System.Web.Helpers.xml
- System.Web.Http.dll
- System.Web.Http.SelfHost.dll
- System.Web.Http.SelfHost.xml
- System.Web.Http.WebHost.dll
- System.Web.Http.WebHost.xml
- System.Web.Http.xml
- System.Web.Mvc.dll
- System.Web.Mvc.xml
- System.Web.Optimization.dll
- System.Web.Providers.dll
- System.Web.Razor.dll
- System.Web.Razor.xml
- System.Web.WebPages.Deployment.dll
- System.Web.WebPages.Deployment.xml
- System.Web.WebPages.dll
- System.Web.WebPages.Razor.dll
- System.Web.WebPages.Razor.xml
- System.Web.WebPages.xml
- Tourreau.Gilles.FaxDotNet.dll
- Tourreau.Gilles.FaxDotNet.pdb
- Tourreau.Gilles.FaxDotNet.xml
- WCFService.dll
- WCFService.pdb
- WCFServiceTests.dll
- WCFServiceTests.pdb
- WebApi.dll
- WebApi.pdb
- Wedge.exe
- Wedge.pdb

The rRIS_Service_Updates also contains to subfolders:

A. Deploy folder contains
    a. Applicationsettings
    b. ReleaseVersion-connectionstrings
    c. rRISServices.exe
    d. services
B. XSL subfolder contains:
    a. Subfolder titled “Stylesheets”
        i. CCDA Subfolder contains
            a. sectionImmunizations.xsl
            b. sectionInstructions.xsl
            c. C-CDA.xsl
            d. sectionMedications.xsl
            e. sectionPlanOfCare.xsl
            f. eRadStylesheet.xsl
            g. sectionProblemList.xsl
            h. generalTemplates.xsl
            i. sectionProcedures.xsl
            j. header.xsl
            k. sectionReasonForVisit.xsl
            l. sectionAdministeredMedications.xsl
            m. sectionResults.xsl
            n. sectionAllergies.xsl
            o. sectionSocialHistory.xsl
            p. sectionEncounters.xsl
            q. sectionVitalSigns.xsl
            r. sectionFuncCogStatus.xsl

        ii. CDAToHTMLCompleteReport.xslt
        iii. CDAToHTMLImpressionSection.xslt
        iv. CDATorRIS.xslt
        v. CDAToTxt.xslt
        vi. DocumentModelReport.xslt
        vii. DocumentModelReportAsXml.xslt

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 4. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

## 5. Who is affected

Build 42 installs. Server updates are not cumulative. Any previous server updates must be applied before this one.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

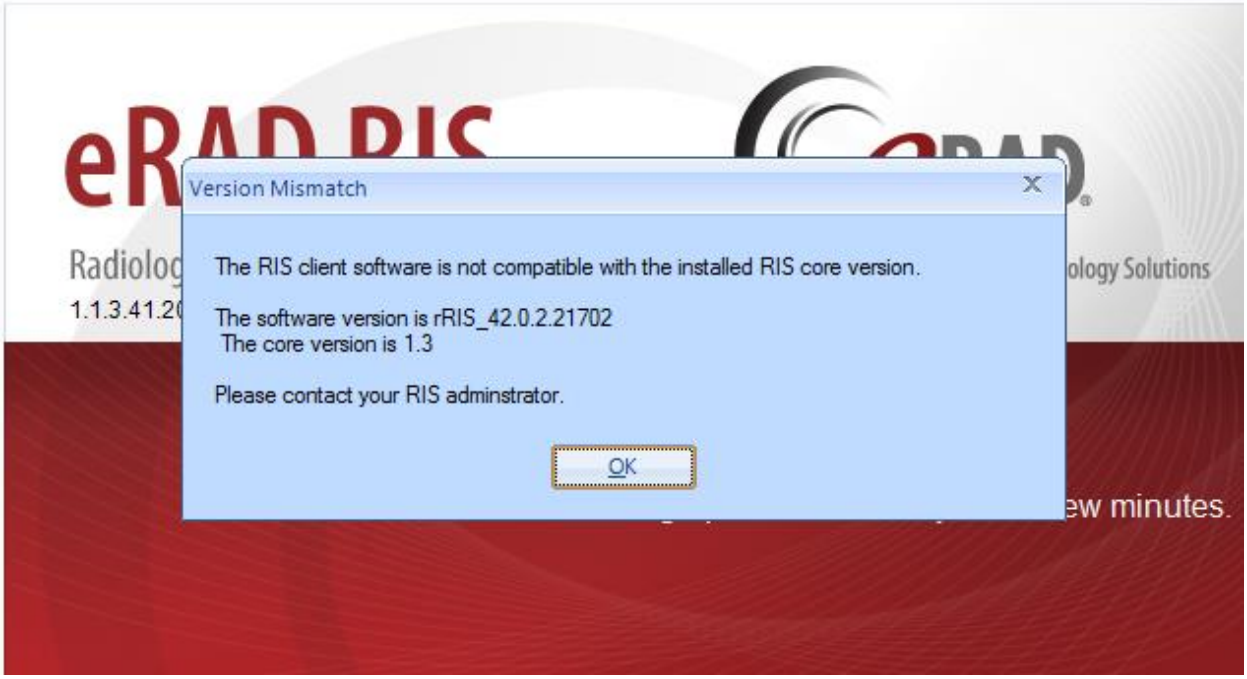
## 6. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 40 | 17 | 1.3.40.18780 (3GB) | 1.3.40.18756 | 1.3.40.18756 | 1.3.40.18646 | Core install required for Radiologist User Group. GUI.zip, Core setup, and Web Service updates |
| 40 | 18 | 1.3.40.19253(3GB) | 1.3.40.18756 | 1.3.40.18756 | 1.3.40.19253 | GUI.zip, Web Service and database updates |
| 40 | 19 | 1.3.40.19909(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | GUI.zip, Web Service |
| 40 | 20 | 1.3.40.20086(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | Gui.zip and Recognizer |
| 40 | 21 | 1.3.40.20703(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | Gui.zip |
| 40 | 22 | 1.3.40.20898(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | Gui.zip |
| 41 | - | 1.3.41.19135(3GB) | 1.3.41.19135 | 1.3.41.19135 | 1.3.41.19135 | Full version release |
| 41 | 1 | 1.3.41.19256(3GB) | 1.3.41.19135 | 1.3.41.19256 | 1.3.41.19256 | GUI.zip, Web Service and database updates |
| 41 | 2 | 1.3.41.19620(3GB) | 1.3.41.19135 | 1.3.41.19620 | 1.3.41.19346 | GUI.zip and Web Service |
| 41 | 2sf | 1.3.41.19620SF(3G) | 1.3.41.19135 | 1.3.41.19620 | 1.3.41.19346 | GUI.zip |
| 41 | 2.1 | 1.3.41.20622(3GB) | 1.3.41.19135 | 1.3.41.20617 | 1.3.41.19346 | GUI.zip and Web Service |
| 41 | 3 | 1.3.41.20125(3GB) | 1.3.41.19135 | 1.3.41.20171 | 1.3.41.19346 | GUI.zip , Web Service and Recognizer |
| 41 | 4 | 1.3.41.20285(3GB) | 1.3.41.19135 | 1.3.41.20171 | 1.3.41.19346 | GUI.zip |
| 41 | 5 | 1.3.41.20809(3GB) | 1.3.41.20708 | 1.3.41.20792 | 1.3.41.20738 | GUI.zip, Core install, Web Service and database updates |
| 41 | 6 | 1.3.41.20912(3GB) | 1.3.41.20708 | 1.3.41.20792 | 1.3.41.20738 | GUI.zip |
| 41.1 | - | 1.3.41.20918(3GB) | 1.3.41.20791 | 1.3.41.20918 | 1.3.41.20739 | GUI.zip, Core install, Web Service and DB updates, Help files |
| 41.1 | 1 | 1.3.41.20987(3GB) | 1.3.41.20791 | 1.3.41.20918 | 1.3.41.20739 | GUI.zip |
| 41.1 | 2 | 1.3.41.21162(3GB) | 1.3.41.20791 | 1.3.41.21162 | 1.3.41.21150 | GUI.zip, Web Service and DB updates, |
| 41.1 | 3 | 1.3.41.21264(3GB) | 1.3.41.20791 | 1.3.41.21162 | 1.3.41.21150 | GUI.zip |
| 42 | - | 2.42.0.0.21261(3GB) | 2.42.0.0.21261 | 2.42.0.0.21261 | 2.42.0.0.21187 | Full version release |
| 42 | 1 | 2.42.0.1.21597 | 2.42.0.0.21261 | 2.42.0.1.21597 | 2.42.0.0.21187 | GUI and Web Service updates |
| 42 | 2 | 2.42.0.2.21702 | 2.42.0.0.21261 | 2.42.0.2.21702 | 2.42.0.0.21187 | GUI and Web Service updates |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 7. Installing

1) Copy and replace the current rRIS…zip file with the rRIS_1.3.42.0.2.21702.zip file provided with this release.
   Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.




If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_42.0.2.21702 → rRIS_1.3.42.0.2.21702. NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

NOTE: If your upgrade is coming from 40.016.1 or less a core install will be required.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

2) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService. Be sure to make backup of all files, but especially the rRISServices.exe.config and rRISServices.vshost.exe.config files.
   *rRISService directories include:*
   a) *rRISService*
   b) *CDS rRISService*
   c) *Wedge rRISService*
   d) *DDE rRISService*

   **Restart each service.**

## 8. Known Limitations

Known limitations listed in this document may not have been introduced in 42.0.2, but have been discovered during testing of 42.0.2.

| Redmine # | Subject | Info |
|---|---|---|
| 6105 | Exception thrown from Family History grid | The issue occurs when a user tabs into the Family History grid and attempts to enter data into the first field. If the user presses the spacebar first, it will enable the list box in the Relationship column. They can also use the mouse to enable the list. The user can then select from the list or enter value |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

For eRAD RIS
Version 2.0
Build 42
Update 42.0.3

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Defects Resolved ..... 3
2. Code Stream ..... 4
3. Package Contents ..... 5
4. Intended Audience ..... 7
5. Who is affected ..... 7
6. eRAD RIS Release Version Numbers ..... 8
7. Installing ..... 9

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 1. Defects Resolved

| Redmine # | Subject | Priority |
|---|---|---|
| 6133 | Filter by schedule date (calendar control) in IVT WL does not work properly | Immediate |
| 6132 | Error opening IVT with CheckUnitEditFlag | Immediate |
| 6142 | Reporting - users may not get properly assigned default templates | Urgent |
| 6146 | insurances locked by the current user | High |
| 6135 | c_Calculate_BMI error when height or weight entererd without the mask | High |
| 6149 | Mammo Biopsy cannot be saved in View/Edit window | Normal |

## Change to Configuration

A configuration change to the ris.exe.config file was introduced in build 2.42 this setting was designed to lessen the delays when retrieving lookup tables that are larger in size.
This config setting, as mentioned, is located in the ris.exe.config file located in the <appSettings> section of the file

This setting is:
<add key="RowLevelCacheDataSetNamesCSV" value="ProcedureCode,TemplateMacro,Indication"/>

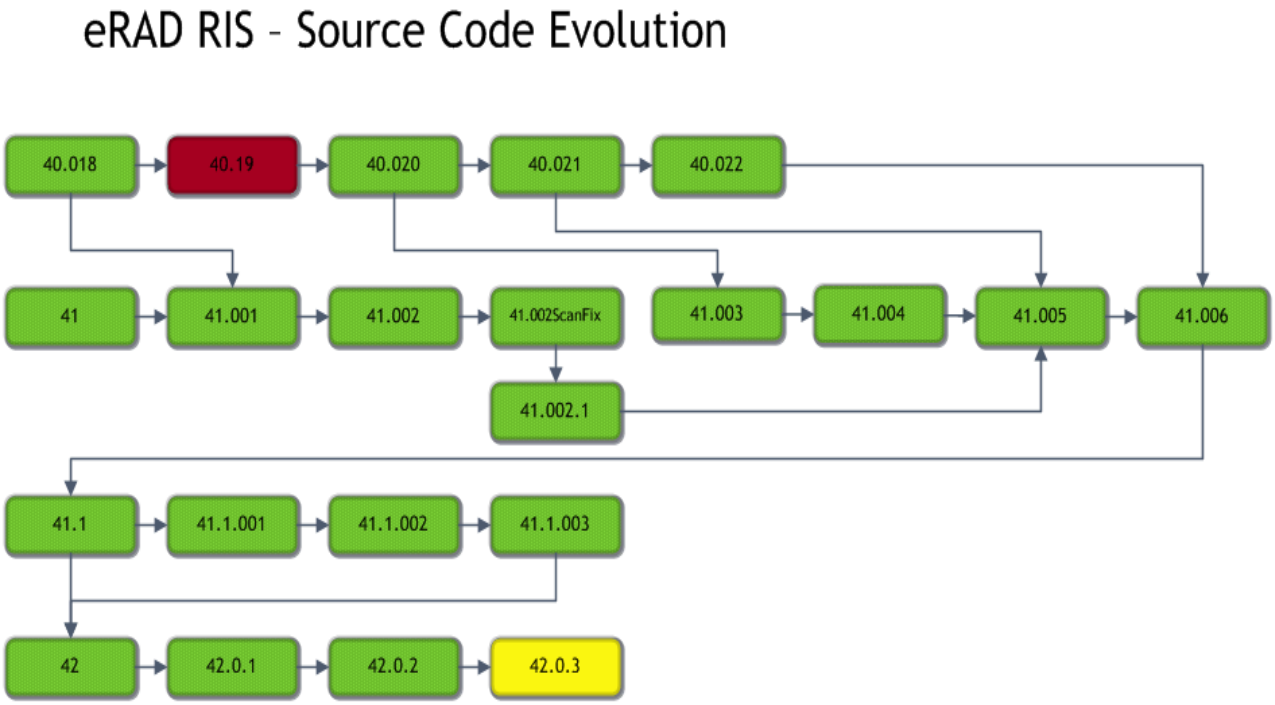
Where the value can be any lookup table, and a value=”*”, will retrieve all lookups.

The setting has resulted in undesired results of possible slowness, depending on the lookup table, and possibly additional bugs. Because of this, we are requesting that all sites comment out this line in the ris.exe.config table. The commented line will look like

<!--<add key="RowLevelCacheDataSetNamesCSV" value="ProcedureCode,TemplateMacro,Indication"/> -->

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 2. Code Stream




**Legend:**

**Green = Released software**

**Burgundy = Will not be released**

**Yellow = Current Release**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 3. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains:
   a) rRIS_1.3.42.0.2.21806.zip

2) RIS_Service_Updates contains:
   - ABCpdf.dll
   - ABCpdf9-32.dll
   - ABCpdf9-64.dll
   - CDSJobManager.dll
   - CDSJobManager.pdb
   - CdsLib.dll
   - CdsLib.xml
   - CdsLib.XmlSerializers.dll
   - CommonLib.dll
   - CommonLib.pdb
   - DDEngine.dll
   - DDEngine.pdb
   - Interop.ANYMODALCAPTURECTRLLib.dll
   - Interop.FAXCOMEXLib.dll
   - Microsoft.Practices.EnterpriseLibrary.Caching.dll
   - Microsoft.Practices.EnterpriseLibrary.Caching.pdb
   - Microsoft.Practices.EnterpriseLibrary.Common.dll
   - Microsoft.Practices.EnterpriseLibrary.Common.pdb
   - Microsoft.Practices.EnterpriseLibrary.Logging.dll
   - Microsoft.Practices.EnterpriseLibrary.Logging.pdb
   - Microsoft.Practices.ServiceLocation.dll
   - Microsoft.Practices.ServiceLocation.pdb
   - Microsoft.Practices.Unity.dll
   - Microsoft.Practices.Unity.Interception.dll
   - Microsoft.Practices.Unity.Interception.pdb
   - Microsoft.Practices.Unity.pdb
   - Microsoft.ReportViewer.Common.dll
   - Microsoft.ReportViewer.WinForms.dll
   - Microsoft.ReportViewer.WinForms.xml
   - Newtonsoft.Json.dll
   - Newtonsoft.Json.xml
   - Ninject.dll
   - Ninject.Web.Common.dll
   - Ninject.Web.Common.xml
   - Ninject.xml
   - O2S.Components.PDFRender4NET.dll
   - PDFToImages.exe
   - rRISServices.exe
   - rRISServices.pdb
   - rRISServicesx64.exe
   - ScheduledTaskManager.dll
   - ScheduledTaskManager.pdb
   - ServicesConfigWizard.exe
   - ServicesConfigWizard.pdb
   - SignatureApprovalService.exe
   - SignatureApprovalService.pdb
   - System.Net.Http.dll
   - System.Net.Http.Formatting.dll
   - System.Net.Http.Formatting.xml
   - System.Net.Http.WebRequest.dll
   - System.Net.Http.WebRequest.xml
   - System.Net.Http.xml
   - System.Web.dll
   - System.Web.Helpers.dll

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

- System.Web.Helpers.xml
- System.Web.Http.dll
- System.Web.Http.SelfHost.dll
- System.Web.Http.SelfHost.xml
- System.Web.Http.WebHost.dll
- System.Web.Http.WebHost.xml
- System.Web.Http.xml
- System.Web.Mvc.dll
- System.Web.Mvc.xml
- System.Web.Optimization.dll
- System.Web.Providers.dll
- System.Web.Razor.dll
- System.Web.Razor.xml
- System.Web.WebPages.Deployment.dll
- System.Web.WebPages.Deployment.xml
- System.Web.WebPages.dll
- System.Web.WebPages.Razor.dll
- System.Web.WebPages.Razor.xml
- System.Web.WebPages.xml
- Tourreau.Gilles.FaxDotNet.dll
- Tourreau.Gilles.FaxDotNet.pdb
- Tourreau.Gilles.FaxDotNet.xml
- WCFService.dll
- WCFService.pdb
- WCFServiceTests.dll
- WCFServiceTests.pdb
- WebApi.dll
- WebApi.pdb
- Wedge.exe
- Wedge.pdb

The rRIS_Service_Updates also contains to subfolders:

A. Deploy folder contains
    a. Applicationsettings
    b. ReleaseVersion-connectionstrings
    c. rRISServices.exe
    d. services
B. XSL subfolder contains:
    a. Subfolder titled “Stylesheets”
        i. CCDA Subfolder contains
            a. sectionImmunizations.xsl
            b. sectionInstructions.xsl
            c. C-CDA.xsl
            d. sectionMedications.xsl
            e. sectionPlanOfCare.xsl
            f. eRadStylesheet.xsl
            g. sectionProblemList.xsl
            h. generalTemplates.xsl
            i. sectionProcedures.xsl
            j. header.xsl
            k. sectionReasonForVisit.xsl
            l. sectionAdministeredMedications.xsl
            m. sectionResults.xsl
            n. sectionAllergies.xsl
            o. sectionSocialHistory.xsl
            p. sectionEncounters.xsl
            q. sectionVitalSigns.xsl
            r. sectionFuncCogStatus.xsl

        ii. CDAToHTMLCompleteReport.xslt
        iii. CDAToHTMLImpressionSection.xslt
        iv. CDATorRIS.xslt
        v. CDAToTxt.xslt
        vi. DocumentModelReport.xslt
        vii. DocumentModelReportAsXml.xslt

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 4. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

## 5. Who is affected

Build 42 installs. Server updates are not cumulative. Any previous server updates must be applied before this one.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

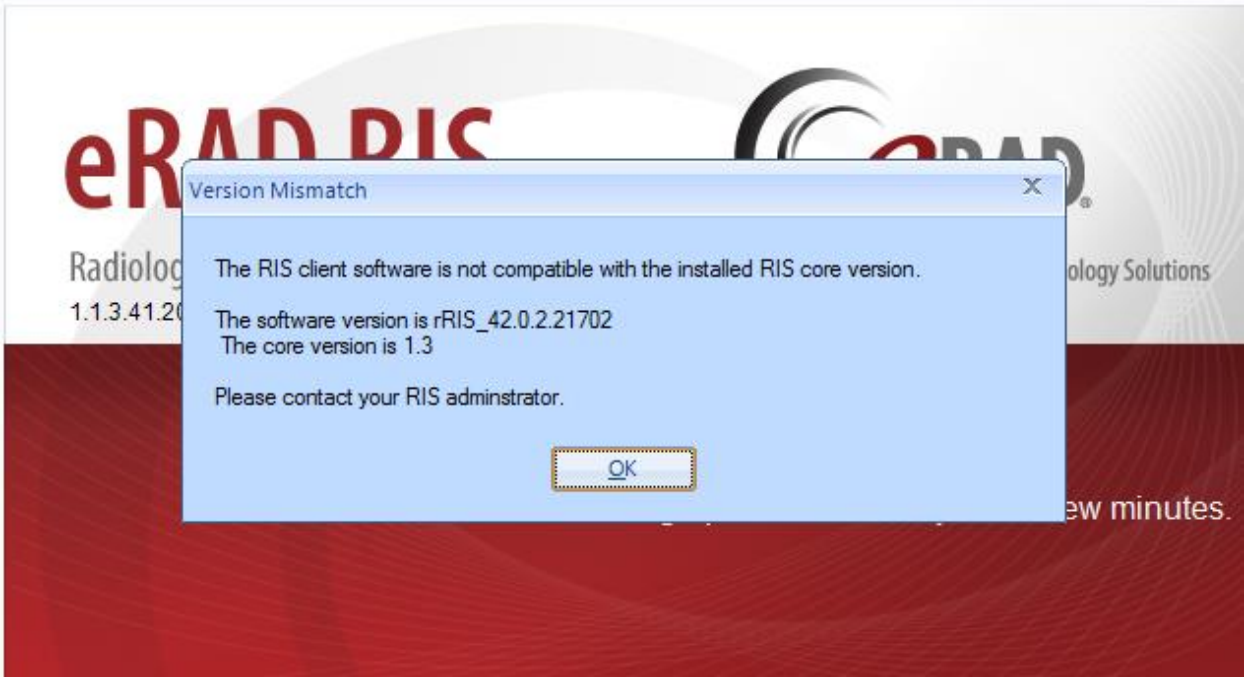
## 6. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 40 | 17 | 1.3.40.18780 (3GB) | 1.3.40.18756 | 1.3.40.18756 | 1.3.40.18646 | Core install required for Radiologist User Group. GUI.zip, Core setup, and Web Service updates |
| 40 | 18 | 1.3.40.19253(3GB) | 1.3.40.18756 | 1.3.40.18756 | 1.3.40.19253 | GUI.zip, Web Service and database updates |
| 40 | 19 | 1.3.40.19909(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | GUI.zip, Web Service |
| 40 | 20 | 1.3.40.20086(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | Gui.zip and Recognizer |
| 40 | 21 | 1.3.40.20703(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | Gui.zip |
| 40 | 22 | 1.3.40.20898(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | Gui.zip |
| 41 | - | 1.3.41.19135(3GB) | 1.3.41.19135 | 1.3.41.19135 | 1.3.41.19135 | Full version release |
| 41 | 1 | 1.3.41.19256(3GB) | 1.3.41.19135 | 1.3.41.19256 | 1.3.41.19256 | GUI.zip, Web Service and database updates |
| 41 | 2 | 1.3.41.19620(3GB) | 1.3.41.19135 | 1.3.41.19620 | 1.3.41.19346 | GUI.zip and Web Service |
| 41 | 2sf | 1.3.41.19620SF(3G) | 1.3.41.19135 | 1.3.41.19620 | 1.3.41.19346 | GUI.zip |
| 41 | 2.1 | 1.3.41.20622(3GB) | 1.3.41.19135 | 1.3.41.20617 | 1.3.41.19346 | GUI.zip and Web Service |
| 41 | 3 | 1.3.41.20125(3GB) | 1.3.41.19135 | 1.3.41.20171 | 1.3.41.19346 | GUI.zip , Web Service and Recognizer |
| 41 | 4 | 1.3.41.20285(3GB) | 1.3.41.19135 | 1.3.41.20171 | 1.3.41.19346 | GUI.zip |
| 41 | 5 | 1.3.41.20809(3GB) | 1.3.41.20708 | 1.3.41.20792 | 1.3.41.20738 | GUI.zip, Core install, Web Service and database updates |
| 41 | 6 | 1.3.41.20912(3GB) | 1.3.41.20708 | 1.3.41.20792 | 1.3.41.20738 | GUI.zip |
| 41.1 | - | 1.3.41.20918(3GB) | 1.3.41.20791 | 1.3.41.20918 | 1.3.41.20739 | GUI.zip, Core install, Web Service and DB updates, Help files |
| 41.1 | 1 | 1.3.41.20987(3GB) | 1.3.41.20791 | 1.3.41.20918 | 1.3.41.20739 | GUI.zip |
| 41.1 | 2 | 1.3.41.21162(3GB) | 1.3.41.20791 | 1.3.41.21162 | 1.3.41.21150 | GUI.zip, Web Service and DB updates, |
| 41.1 | 3 | 1.3.41.21264(3GB) | 1.3.41.20791 | 1.3.41.21162 | 1.3.41.21150 | GUI.zip |
| 42 | - | 2.42.0.0.21261(3GB) | 2.42.0.0.21261 | 2.42.0.0.21261 | 2.42.0.0.21187 | Full version release |
| 42 | 1 | 2.42.0.1.21597 | 2.42.0.0.21261 | 2.42.0.1.21597 | 2.42.0.0.21187 | GUI and Web Service updates |
| 42 | 2 | 2.42.0.2.21702 | 2.42.0.0.21261 | 2.42.0.2.21702 | 2.42.0.0.21187 | GUI and Web Service updates |
| 43 | 3 | 2.42.0.2.21806 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.0.21187 | GUI and Web Service updates |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 7. Installing

1) Copy and replace the current rRIS…zip file with the rRIS_1.3.42.0.2.21806.zip file provided with this release.
   Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.




If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_42.0.2.21806 → rRIS_1.3.42.0.2.21806. NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

**NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

2) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService. Be sure to make backup of all files, but especially the rRISServices.exe.config and rRISServices.vshost.exe.config files.
   *rRISService directories include:*
   a) *rRISService*
   b) *CDS rRISService*
   c) *Wedge rRISService*
   d) *DDE rRISService*

   **Restart each service.**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

For eRAD RIS
Version 2.0
Build 42
Update 42.0.4

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Defects Resolved ..... 3
2. Code Stream ..... 4
3. Package Contents ..... 5
4. Intended Audience ..... 5
5. Who is affected ..... 5
6. eRAD RIS Release Version Numbers ..... 6
7. Installing ..... 7
8. Known Limitations ..... 8

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 1. Defects Resolved

| Redmine # | Subject | Priority |
|---|---|---|
| 6173 | Reporting - Worklists not refreshing when reporting screen is open is causing worklist count problems | High |
| 6172 | Locking issue where next workflow might fetch a study that was already locked by another user | Normal |
| 6141 | Radiologist screen reuse causes detault template errror | Normal |

## Change to Configuration

A configuration change to the ris.exe.config file was introduced in build 2.42 this setting was designed to lessen the delays when retrieving lookup tables that are larger in size.
This config setting, as mentioned, is located in the ris.exe.config file located in the <appSettings> section of the file

This setting is:
<add key="RowLevelCacheDataSetNamesCSV" value="ProcedureCode,TemplateMacro,Indication"/>

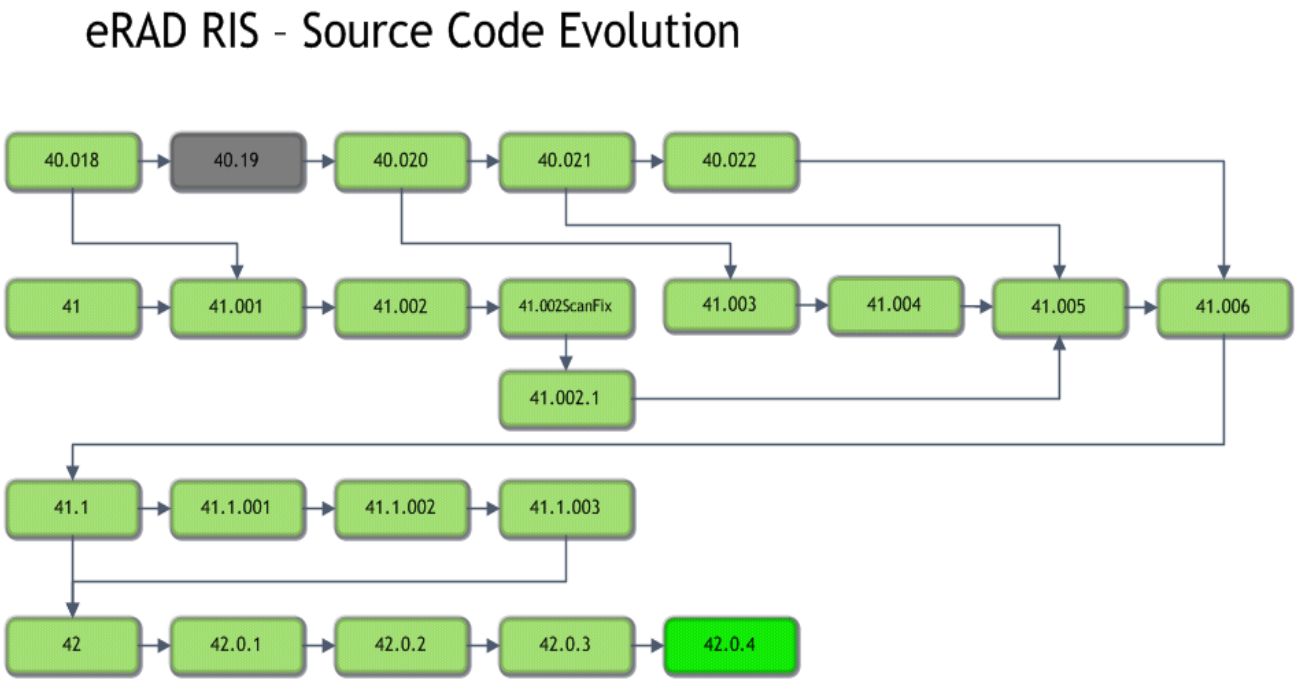
Where the value can be any lookup table, and a value=”*”, will retrieve all lookups.

The setting has resulted in undesired results of possible slowness, depending on the lookup table, and possibly additional bugs. Because of this, we are requesting that all sites comment out this line in the ris.exe.config table. The commented line will look like

<!--<add key="RowLevelCacheDataSetNamesCSV" value="ProcedureCode,TemplateMacro,Indication"/> -->

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 2. Code Stream




**Legend:**

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 3. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains:
   a) rRIS_1.3.42.0.4.21862.zip

2) SQL folder contains:
   a) 42.0.4

## 4. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

## 5. Who is affected

Build 42 installs. Server updates are not cumulative. Any previous server updates must be applied before this one.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

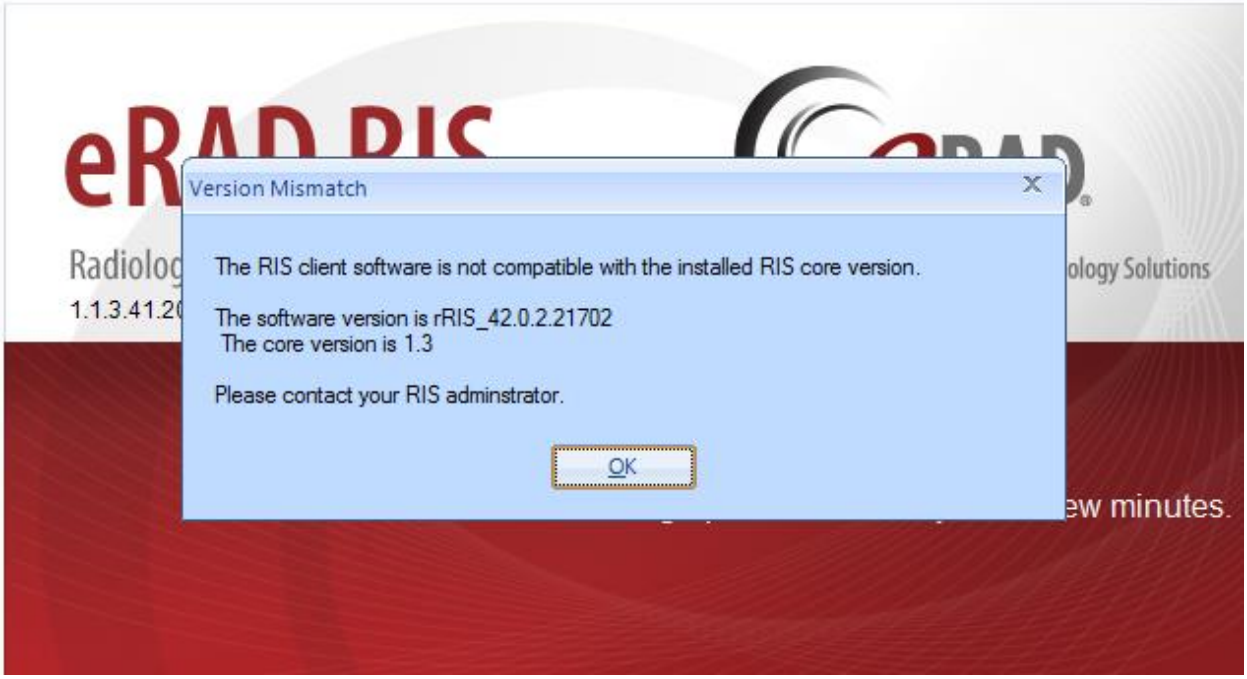
## 6. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 40 | 17 | 1.3.40.18780 (3GB) | 1.3.40.18756 | 1.3.40.18756 | 1.3.40.18646 | Core install required for Radiologist User Group. GUI.zip, Core setup, and Web Service updates |
| 40 | 18 | 1.3.40.19253(3GB) | 1.3.40.18756 | 1.3.40.18756 | 1.3.40.19253 | GUI.zip, Web Service and database updates |
| 40 | 19 | 1.3.40.19909(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | GUI.zip, Web Service |
| 40 | 20 | 1.3.40.20086(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | Gui.zip and Recognizer |
| 40 | 21 | 1.3.40.20703(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | Gui.zip |
| 40 | 22 | 1.3.40.20898(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | Gui.zip |
| 41 | - | 1.3.41.19135(3GB) | 1.3.41.19135 | 1.3.41.19135 | 1.3.41.19135 | Full version release |
| 41 | 1 | 1.3.41.19256(3GB) | 1.3.41.19135 | 1.3.41.19256 | 1.3.41.19256 | GUI.zip, Web Service and database updates |
| 41 | 2 | 1.3.41.19620(3GB) | 1.3.41.19135 | 1.3.41.19620 | 1.3.41.19346 | GUI.zip and Web Service |
| 41 | 2sf | 1.3.41.19620SF(3G) | 1.3.41.19135 | 1.3.41.19620 | 1.3.41.19346 | GUI.zip |
| 41 | 2.1 | 1.3.41.20622(3GB) | 1.3.41.19135 | 1.3.41.20617 | 1.3.41.19346 | GUI.zip and Web Service |
| 41 | 3 | 1.3.41.20125(3GB) | 1.3.41.19135 | 1.3.41.20171 | 1.3.41.19346 | GUI.zip , Web Service and Recognizer |
| 41 | 4 | 1.3.41.20285(3GB) | 1.3.41.19135 | 1.3.41.20171 | 1.3.41.19346 | GUI.zip |
| 41 | 5 | 1.3.41.20809(3GB) | 1.3.41.20708 | 1.3.41.20792 | 1.3.41.20738 | GUI.zip, Core install, Web Service and database updates |
| 41 | 6 | 1.3.41.20912(3GB) | 1.3.41.20708 | 1.3.41.20792 | 1.3.41.20738 | GUI.zip |
| 41.1 | - | 1.3.41.20918(3GB) | 1.3.41.20791 | 1.3.41.20918 | 1.3.41.20739 | GUI.zip, Core install, Web Service and DB updates, Help files |
| 41.1 | 1 | 1.3.41.20987(3GB) | 1.3.41.20791 | 1.3.41.20918 | 1.3.41.20739 | GUI.zip |
| 41.1 | 2 | 1.3.41.21162(3GB) | 1.3.41.20791 | 1.3.41.21162 | 1.3.41.21150 | GUI.zip, Web Service and DB updates, |
| 41.1 | 3 | 1.3.41.21264(3GB) | 1.3.41.20791 | 1.3.41.21162 | 1.3.41.21150 | GUI.zip |
| 42 | - | 2.42.0.0.21261(3GB) | 2.42.0.0.21261 | 2.42.0.0.21261 | 2.42.0.0.21187 | Full version release |
| 42 | 1 | 2.42.0.1.21597 | 2.42.0.0.21261 | 2.42.0.1.21597 | 2.42.0.0.21187 | GUI and Web Service updates |
| 42 | 2 | 2.42.0.2.21702 | 2.42.0.0.21261 | 2.42.0.2.21702 | 2.42.0.0.21187 | GUI and Web Service updates |
| 43 | 3 | 2.42.0.2.21806 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.0.21187 | GUI and Web Service updates |
| 43 | 4 | 2.42.0.2.21862 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.4.21870 | GUI and Database updates |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 7. Installing

1) Copy and replace the current rRIS…zip file with the rRIS_1.3.42.0.4.21862.zip file provided with this release.
   Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.




If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_42.0.4.21862 → rRIS_1.3.42.0.4.21862. NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

**NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

2) Run the B42.04.sql file against the eRAD RIS database instance.

## 8. Known Limitations

Known limitations listed in this document may not have been introduced in 42.0.4, but have been discovered during testing of 42.0.4.

| Redmine # | Subject | Info |
|---|---|---|
| 6186 | RADNET - Reporting - My pending dictation - worklist counts display differently | This does not affect work list refreshing, study access or the count on the work list. When a refresh of the work list is completed it will show correctly. Example: the count on the work list tab may show 9 of 10, where 9 is the correct study count on the work list, but another user has the other study open in the dictate window (locked by that user). |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

For eRAD RIS
Version 2.0
Build 42
Update 42.0.5

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Defects Resolved ..... 3
2. Code Stream ..... 4
3. Package Contents ..... 5
4. Intended Audience ..... 5
5. Who is affected ..... 5
6. eRAD RIS Release Version Numbers ..... 6
7. Installing ..... 7

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 1. Defects Resolved

| Redmine # | Subject | Priority |
|---|---|---|
| 6188 | Hidden text in editor counts as text when validating fields and section | High |

## Change to Configuration

A configuration change to the ris.exe.config file was introduced in build 2.42 this setting was designed to lessen the delays when retrieving lookup tables that are larger in size.
This config setting, as mentioned, is located in the ris.exe.config file located in the <appSettings> section of the file

This setting is:
<add key="RowLevelCacheDataSetNamesCSV" value="ProcedureCode,TemplateMacro,Indication"/>

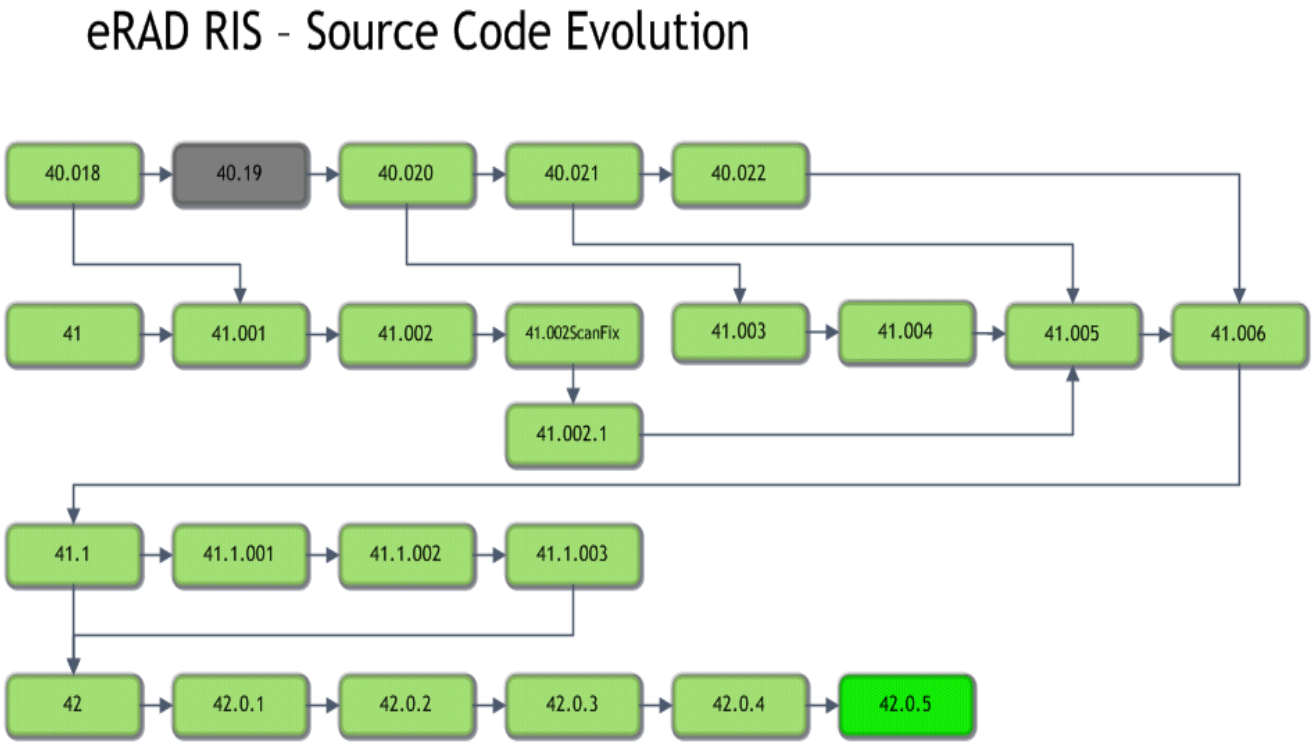
Where the value can be any lookup table, and a value=”*”, will retrieve all lookups.

The setting has resulted in undesired results of possible slowness, depending on the lookup table, and possibly additional bugs. Because of this, we are requesting that all sites comment out this line in the ris.exe.config table. The commented line will look like

<!--<add key="RowLevelCacheDataSetNamesCSV" value="ProcedureCode,TemplateMacro,Indication"/> -->

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 2. Code Stream




**Legend:**

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 3. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains:
   a) rRIS_1.3.42.0.5.21924.zip

## 4. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

## 5. Who is affected

Build 42 installs. Server updates are not cumulative. Any previous server updates must be applied before this one.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

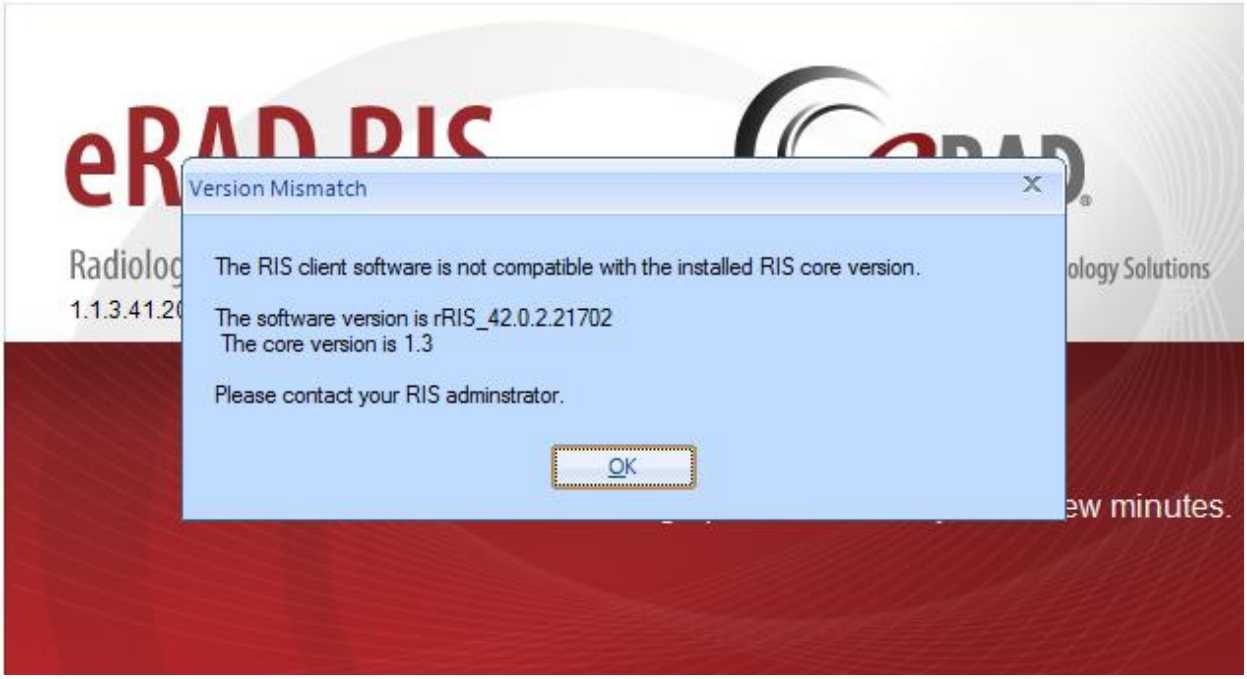
## 6. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 40 | 17 | 1.3.40.18780 (3GB) | 1.3.40.18756 | 1.3.40.18756 | 1.3.40.18646 | Core install required for Radiologist User Group. GUI.zip, Core setup, and Web Service updates |
| 40 | 18 | 1.3.40.19253(3GB) | 1.3.40.18756 | 1.3.40.18756 | 1.3.40.19253 | GUI.zip, Web Service and database updates |
| 40 | 19 | 1.3.40.19909(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | GUI.zip, Web Service |
| 40 | 20 | 1.3.40.20086(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | Gui.zip and Recognizer |
| 40 | 21 | 1.3.40.20703(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | Gui.zip |
| 40 | 22 | 1.3.40.20898(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | Gui.zip |
| 41 | - | 1.3.41.19135(3GB) | 1.3.41.19135 | 1.3.41.19135 | 1.3.41.19135 | Full version release |
| 41 | 1 | 1.3.41.19256(3GB) | 1.3.41.19135 | 1.3.41.19256 | 1.3.41.19256 | GUI.zip, Web Service and database updates |
| 41 | 2 | 1.3.41.19620(3GB) | 1.3.41.19135 | 1.3.41.19620 | 1.3.41.19346 | GUI.zip and Web Service |
| 41 | 2sf | 1.3.41.19620SF(3G) | 1.3.41.19135 | 1.3.41.19620 | 1.3.41.19346 | GUI.zip |
| 41 | 2.1 | 1.3.41.20622(3GB) | 1.3.41.19135 | 1.3.41.20617 | 1.3.41.19346 | GUI.zip and Web Service |
| 41 | 3 | 1.3.41.20125(3GB) | 1.3.41.19135 | 1.3.41.20171 | 1.3.41.19346 | GUI.zip , Web Service and Recognizer |
| 41 | 4 | 1.3.41.20285(3GB) | 1.3.41.19135 | 1.3.41.20171 | 1.3.41.19346 | GUI.zip |
| 41 | 5 | 1.3.41.20809(3GB) | 1.3.41.20708 | 1.3.41.20792 | 1.3.41.20738 | GUI.zip, Core install, Web Service and database updates |
| 41 | 6 | 1.3.41.20912(3GB) | 1.3.41.20708 | 1.3.41.20792 | 1.3.41.20738 | GUI.zip |
| 41.1 | - | 1.3.41.20918(3GB) | 1.3.41.20791 | 1.3.41.20918 | 1.3.41.20739 | GUI.zip, Core install, Web Service and DB updates, Help files |
| 41.1 | 1 | 1.3.41.20987(3GB) | 1.3.41.20791 | 1.3.41.20918 | 1.3.41.20739 | GUI.zip |
| 41.1 | 2 | 1.3.41.21162(3GB) | 1.3.41.20791 | 1.3.41.21162 | 1.3.41.21150 | GUI.zip, Web Service and DB updates, |
| 41.1 | 3 | 1.3.41.21264(3GB) | 1.3.41.20791 | 1.3.41.21162 | 1.3.41.21150 | GUI.zip |
| 42 | - | 2.42.0.0.21261(3GB) | 2.42.0.0.21261 | 2.42.0.0.21261 | 2.42.0.0.21187 | Full version release |
| 42 | 1 | 2.42.0.1.21597 | 2.42.0.0.21261 | 2.42.0.1.21597 | 2.42.0.0.21187 | GUI and Web Service updates |
| 42 | 2 | 2.42.0.2.21702 | 2.42.0.0.21261 | 2.42.0.2.21702 | 2.42.0.0.21187 | GUI and Web Service updates |
| 43 | 3 | 2.42.0.2.21806 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.0.21187 | GUI and Web Service updates |
| 43 | 4 | 2.42.0.2.21862 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.4.21870 | GUI and Database updates |
| 43 | 5 | 2.42.0.5.21924 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.4.21870 | GUI |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 7. Installing

1) Copy and replace the current rRIS…zip file with the rRIS_1.3.42.0.5.21924.zip file provided with this release.
   Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.




If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_42.0. 5.21924→ rRIS_1.3.42.0. 5.21924. NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

**NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

For eRAD RIS
Version 2.0
Build 42
Update 42.0.6

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Defects Resolved ..... 3
2. Code Stream ..... 4
3. Package Contents ..... 5
4. Intended Audience ..... 7
5. Who is affected ..... 7
6. eRAD RIS Release Version Numbers ..... 8
7. Installing ..... 9

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 1. Defects Resolved

| Redmine # | Subject | Priority |
|---|---|---|
| 6215 | Ability to include Procedure Code General Description in the wedge and include in HL7 mappings | High |
| 6217 | Cannot manually create new Document Distribution jobs for Outside Read studies in B42. | Normal |
| 6048 | RadNet - Race - tab to Race put focus on dropdown instead of textbox | Low |

Quick note on 6048: this bug is partially resolved. The issue was a user couldn't tab out of the race field once on it. Now a user can tab out of this field, but must select tab twice. This will be fixed in later release.

## Change to Configuration

A configuration change to the ris.exe.config file was introduced in build 2.42 this setting was designed to lessen the delays when retrieving lookup tables that are larger in size.
This config setting, as mentioned, is located in the ris.exe.config file located in the <appSettings> section of the file

This setting is:
<add key="RowLevelCacheDataSetNamesCSV" value="ProcedureCode,TemplateMacro,Indication"/>

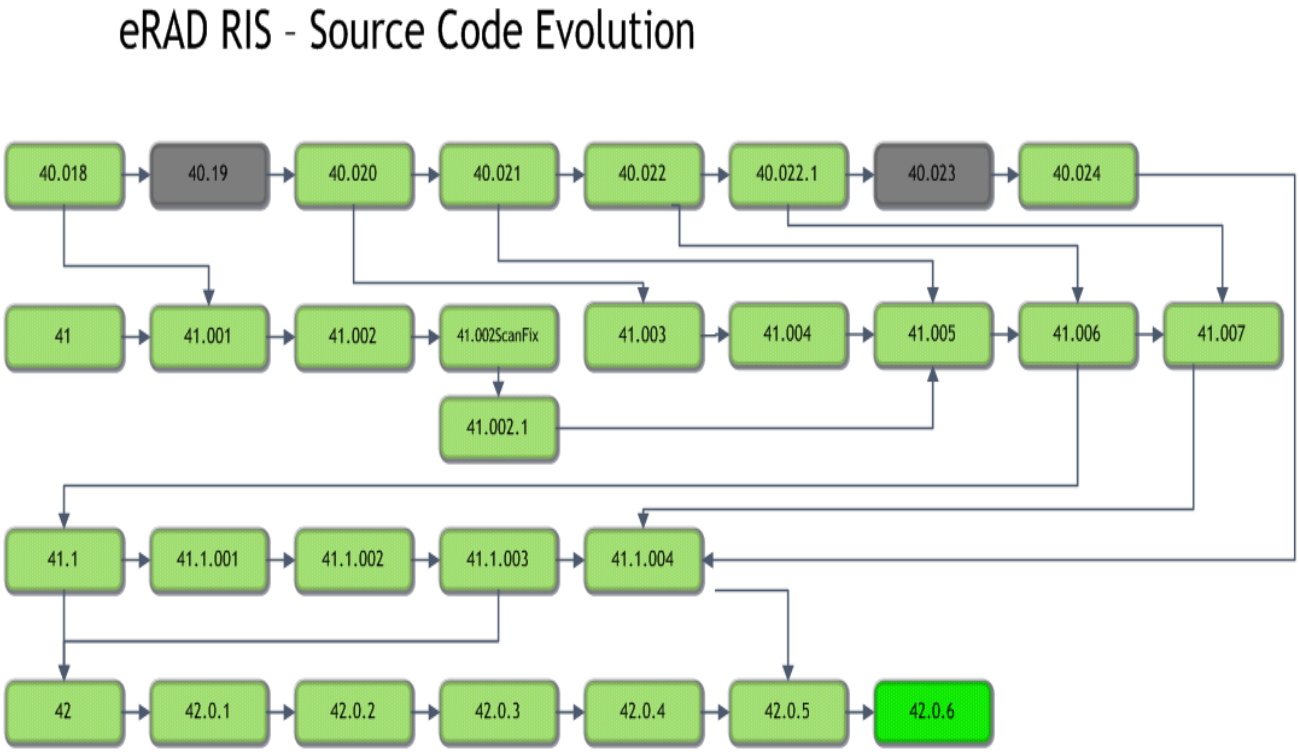
Where the value can be any lookup table, and a value="*", will retrieve all lookups.

The setting has resulted in undesired results of possible slowness, depending on the lookup table, and possibly additional bugs. Because of this, we are requesting that all sites comment out this line in the ris.exe.config table. The commented line will look like

<!--<add key="RowLevelCacheDataSetNamesCSV" value="ProcedureCode,TemplateMacro,Indication"/> -->

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 2. Code Stream




**Legend:**

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 3. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains:
   - rRIS_1.3.42.0.6.22009.zip

2) RIS_Service_Updates contains:
   - ABCpdf.dll
   - ABCpdf9-32.dll
   - ABCpdf9-64.dll
   - CDSJobManager.dll
   - CDSJobManager.pdb
   - CdsLib.dll
   - CdsLib.xml
   - CdsLib.XmlSerializers.dll
   - CommonLib.dll
   - CommonLib.pdb
   - contents.txt
   - DDEngine.dll
   - DDEngine.pdb
   - Interop.ANYMODALCAPTURECTRLLib.dll
   - Interop.FAXCOMEXLib.dll
   - Microsoft.Practices.EnterpriseLibrary.Caching.dll
   - Microsoft.Practices.EnterpriseLibrary.Caching.pdb
   - Microsoft.Practices.EnterpriseLibrary.Common.dll
   - Microsoft.Practices.EnterpriseLibrary.Common.pdb
   - Microsoft.Practices.EnterpriseLibrary.Logging.dll
   - Microsoft.Practices.EnterpriseLibrary.Logging.pdb
   - Microsoft.Practices.ServiceLocation.dll
   - Microsoft.Practices.ServiceLocation.pdb
   - Microsoft.Practices.Unity.dll
   - Microsoft.Practices.Unity.Interception.dll
   - Microsoft.Practices.Unity.Interception.pdb
   - Microsoft.Practices.Unity.pdb
   - Microsoft.ReportViewer.Common.dll
   - Microsoft.ReportViewer.WinForms.dll
   - Microsoft.ReportViewer.WinForms.xml
   - Newtonsoft.Json.dll
   - Newtonsoft.Json.xml
   - Ninject.dll
   - Ninject.Web.Common.dll
   - Ninject.Web.Common.xml
   - Ninject.xml
   - O2S.Components.PDFRender4NET.dll
   - PDFToImages.exe
   - rRISServices.exe
   - rRISServices.pdb
   - rRISServicesx64.exe
   - ScheduledTaskManager.dll
   - ScheduledTaskManager.pdb
   - ServicesConfigWizard.exe
   - ServicesConfigWizard.pdb
   - SignatureApprovalService.exe
   - SignatureApprovalService.pdb
   - System.Net.Http.dll
   - System.Net.Http.Formatting.dll
   - System.Net.Http.Formatting.xml
   - System.Net.Http.WebRequest.dll
   - System.Net.Http.WebRequest.xml
   - System.Net.Http.xml
   - System.Web.dll
   - System.Web.Helpers.dll
   - System.Web.Helpers.xml
   - System.Web.Http.dll
   - System.Web.Http.SelfHost.dll
   - System.Web.Http.SelfHost.xml
   - System.Web.Http.WebHost.dll
   - System.Web.Http.WebHost.xml
   - System.Web.Http.xml
   - System.Web.Mvc.dll
   - System.Web.Mvc.xml
   - System.Web.Optimization.dll
   - System.Web.Providers.dll
   - System.Web.Razor.dll
   - System.Web.Razor.xml
   - System.Web.WebPages.Deployment.dll
   - System.Web.WebPages.Deployment.xml
   - System.Web.WebPages.dll
   - System.Web.WebPages.Razor.dll
   - System.Web.WebPages.Razor.xml
   - System.Web.WebPages.xml
   - Tourreau.Gilles.FaxDotNet.dll
   - Tourreau.Gilles.FaxDotNet.pdb
   - Tourreau.Gilles.FaxDotNet.xml
   - WCFService.dll
   - WCFService.pdb
   - WCFServiceTests.dll
   - WCFServiceTests.pdb
   - WebApi.dll
   - WebApi.pdb
   - Wedge.exe
   - Wedge.pdb

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

The rRIS_Service_Updates also contains to subfolders:

A. Deploy folder contains
   a. Applicationsettings
   b. ReleaseVersion-connectionstrings
   c. rRISServices.exe
   d. services

B. XSL subfolder contains:
   Subfolder titled "Stylesheets" which contains:
   a. CDAToHTMLCompleteReport.xslt
   b. CDAToHTMLImpressionSection.xslt
   c. CDATorRIS.xslt
   d. CDAToTxt.xslt
   e. DocumentModelReport.xslt
   f. DocumentModelReportAsXml.xslt

   g. CCDA Subfolder contains
      a. sectionImmunizations.xsl
      b. sectionInstructions.xsl
      c. C-CDA.xsl
      d. sectionMedications.xsl
      e. sectionPlanOfCare.xsl
      f. eRadStylesheet.xsl
      g. sectionProblemList.xsl
      h. generalTemplates.xsl
      i. sectionProcedures.xsl
      j. header.xsl
      k. sectionReasonForVisit.xsl
      l. sectionAdministeredMedications.xsl
      m. sectionResults.xsl
      n. sectionAllergies.xsl
      o. sectionSocialHistory.xsl
      p. sectionEncounters.xsl
      q. sectionVitalSigns.xsl
      r. sectionFuncCogStatus.xsl

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 4. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

## 5. Who is affected

Build 42 installs. Server updates are not cumulative. This server update must be applied to 42.0.4

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

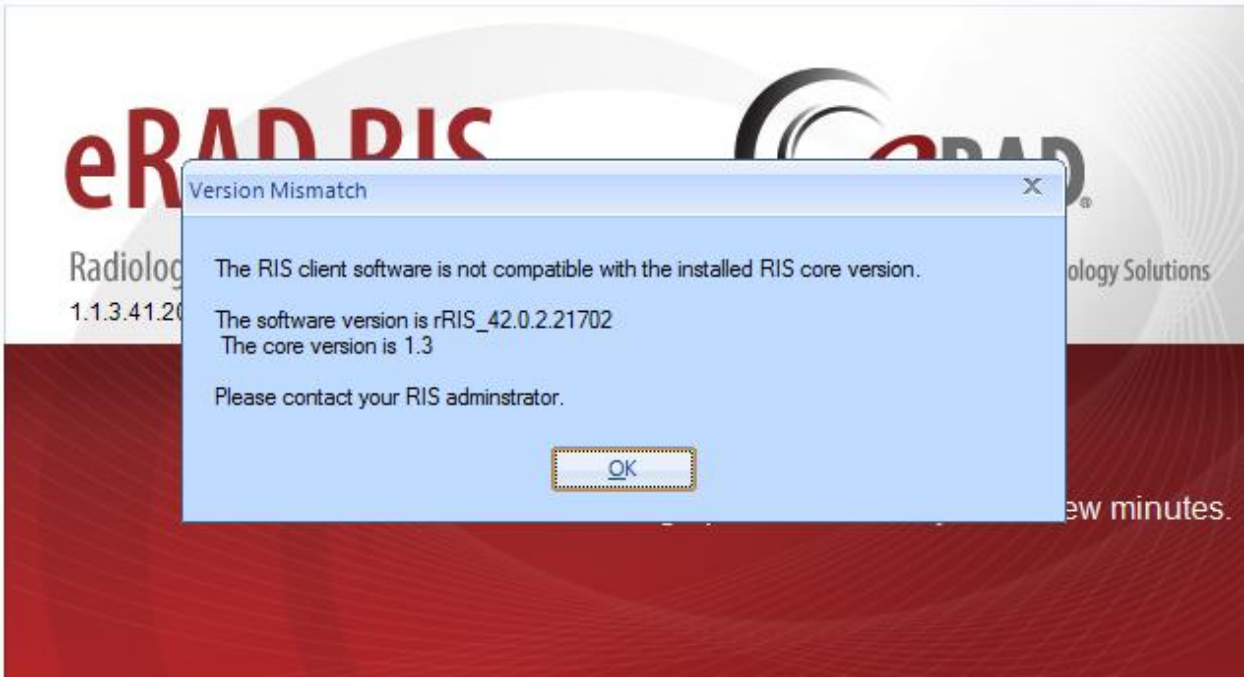
## 6. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 40 | 17 | 1.3.40.18780 (3GB) | 1.3.40.18756 | 1.3.40.18756 | 1.3.40.18646 | Core install required for Radiologist User Group. GUI.zip, Core setup, and Web Service updates |
| 40 | 18 | 1.3.40.19253(3GB) | 1.3.40.18756 | 1.3.40.18756 | 1.3.40.19253 | GUI.zip, Web Service and database updates |
| 40 | 19 | 1.3.40.19909(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | GUI.zip, Web Service |
| 40 | 20 | 1.3.40.20086(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | Gui.zip and Recognizer |
| 40 | 21 | 1.3.40.20703(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | Gui.zip |
| 40 | 22 | 1.3.40.20898(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | Gui.zip |
| 41 | - | 1.3.41.19135(3GB) | 1.3.41.19135 | 1.3.41.19135 | 1.3.41.19135 | Full version release |
| 41 | 1 | 1.3.41.19256(3GB) | 1.3.41.19135 | 1.3.41.19256 | 1.3.41.19256 | GUI.zip, Web Service and database updates |
| 41 | 2 | 1.3.41.19620(3GB) | 1.3.41.19135 | 1.3.41.19620 | 1.3.41.19346 | GUI.zip and Web Service |
| 41 | 2sf | 1.3.41.19620SF(3G) | 1.3.41.19135 | 1.3.41.19620 | 1.3.41.19346 | GUI.zip |
| 41 | 2.1 | 1.3.41.20622(3GB) | 1.3.41.19135 | 1.3.41.20617 | 1.3.41.19346 | GUI.zip and Web Service |
| 41 | 3 | 1.3.41.20125(3GB) | 1.3.41.19135 | 1.3.41.20171 | 1.3.41.19346 | GUI.zip , Web Service and Recognizer |
| 41 | 4 | 1.3.41.20285(3GB) | 1.3.41.19135 | 1.3.41.20171 | 1.3.41.19346 | GUI.zip |
| 41 | 5 | 1.3.41.20809(3GB) | 1.3.41.20708 | 1.3.41.20792 | 1.3.41.20738 | GUI.zip, Core install, Web Service and database updates |
| 41 | 6 | 1.3.41.20912(3GB) | 1.3.41.20708 | 1.3.41.20792 | 1.3.41.20738 | GUI.zip |
| 41.1 | - | 1.3.41.20918(3GB) | 1.3.41.20791 | 1.3.41.20918 | 1.3.41.20739 | GUI.zip, Core install, Web Service and DB updates, Help files |
| 41.1 | 1 | 1.3.41.20987(3GB) | 1.3.41.20791 | 1.3.41.20918 | 1.3.41.20739 | GUI.zip |
| 41.1 | 2 | 1.3.41.21162(3GB) | 1.3.41.20791 | 1.3.41.21162 | 1.3.41.21150 | GUI.zip, Web Service and DB updates, |
| 41.1 | 3 | 1.3.41.21264(3GB) | 1.3.41.20791 | 1.3.41.21162 | 1.3.41.21150 | GUI.zip |
| 42 | - | 2.42.0.0.21261(3GB) | 2.42.0.0.21261 | 2.42.0.0.21261 | 2.42.0.0.21187 | Full version release |
| 42 | 1 | 2.42.0.1.21597 | 2.42.0.0.21261 | 2.42.0.1.21597 | 2.42.0.0.21187 | GUI and Web Service updates |
| 42 | 2 | 2.42.0.2.21702 | 2.42.0.0.21261 | 2.42.0.2.21702 | 2.42.0.0.21187 | GUI and Web Service updates |
| 42 | 3 | 2.42.0.2.21806 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.0.21187 | GUI and Web Service updates |
| 42 | 4 | 2.42.0.2.21862 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.4.21870 | GUI and Database updates |
| 42 | 5 | 2.42.0.5.21924 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.4.21870 | GUI |
| **42** | **6** | **2.42.0.5.22009** | **2.42.0.0.21261** | **2.42.0.5.22009** | **2.42.0.4.21870** | **GUI and Web Service updates** |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 7. Installing

1) Copy and replace the current rRIS…zip file with the rRIS_1.3.42.0.5.22209.zip file provided with this release.
   Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.




If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_42.0. 5.22009→ rRIS_1.3.42.0. 5.22009. NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

**NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

2) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService. Be sure to make backup of all files, but especially the rRISServices.exe.config and rRISServices.vshost.exe.config files.
   *rRISService directories include:*
   a) *rRISService*
   b) *CDS rRISService*
   c) *Wedge rRISService*
   d) *DDE rRISService*

   **Restart each service.**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

For eRAD RIS
Version 2.0
Build 42
Update 42.0.7

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Defects Resolved ..... 3
2. Code Stream ..... 4
3. Package Contents ..... 5
4. Intended Audience ..... 5
5. Who is affected ..... 5
6. eRAD RIS Release Version Numbers ..... 6
7. Installing ..... 7

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 1. Defects Resolved

| Redmine # | Subject | Priority |
|---|---|---|
| 6241 | Error on reschedule and schedule from orders when CC physician is used | Normal |

## Change to Configuration

A configuration change to the ris.exe.config file was introduced in build 2.42 this setting was designed to lessen the delays when retrieving lookup tables that are larger in size.
This config setting, as mentioned, is located in the ris.exe.config file located in the <appSettings> section of the file

This setting is:
<add key="RowLevelCacheDataSetNamesCSV" value="ProcedureCode,TemplateMacro,Indication"/>

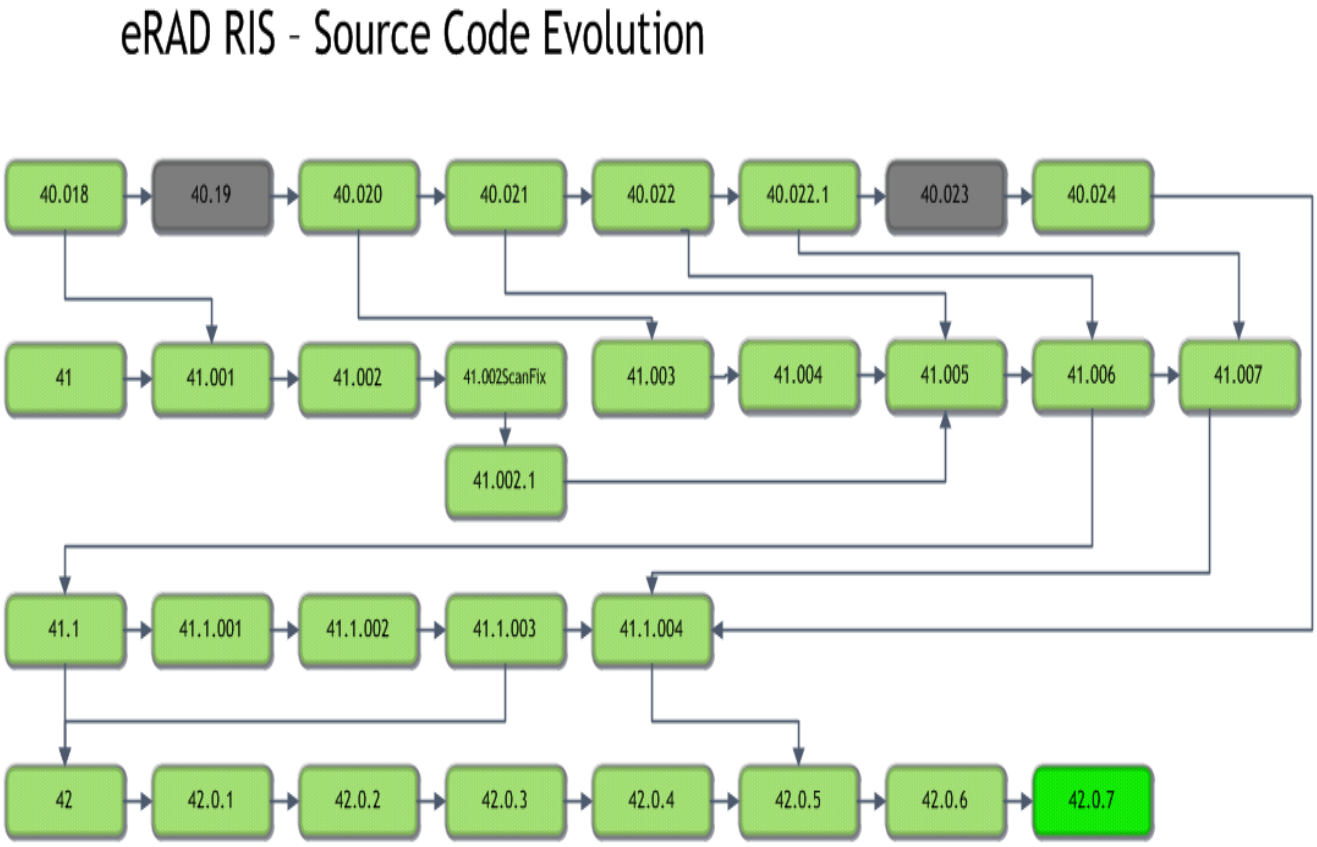
Where the value can be any lookup table, and a value=”*”, will retrieve all lookups.

The setting has resulted in undesired results of possible slowness, depending on the lookup table, and possibly additional bugs. Because of this, we are requesting that all sites comment out this line in the ris.exe.config table. The commented line will look like

<!--<add key="RowLevelCacheDataSetNamesCSV" value="ProcedureCode,TemplateMacro,Indication"/> -->

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 2. Code Stream




**Legend:**

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 3. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains:
   - rRIS_1.3.42.0.7.22090.zip

## 4. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

## 5. Who is affected

Build 42 installs. Server updates are not cumulative. This server update must be applied to 42.0.6

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

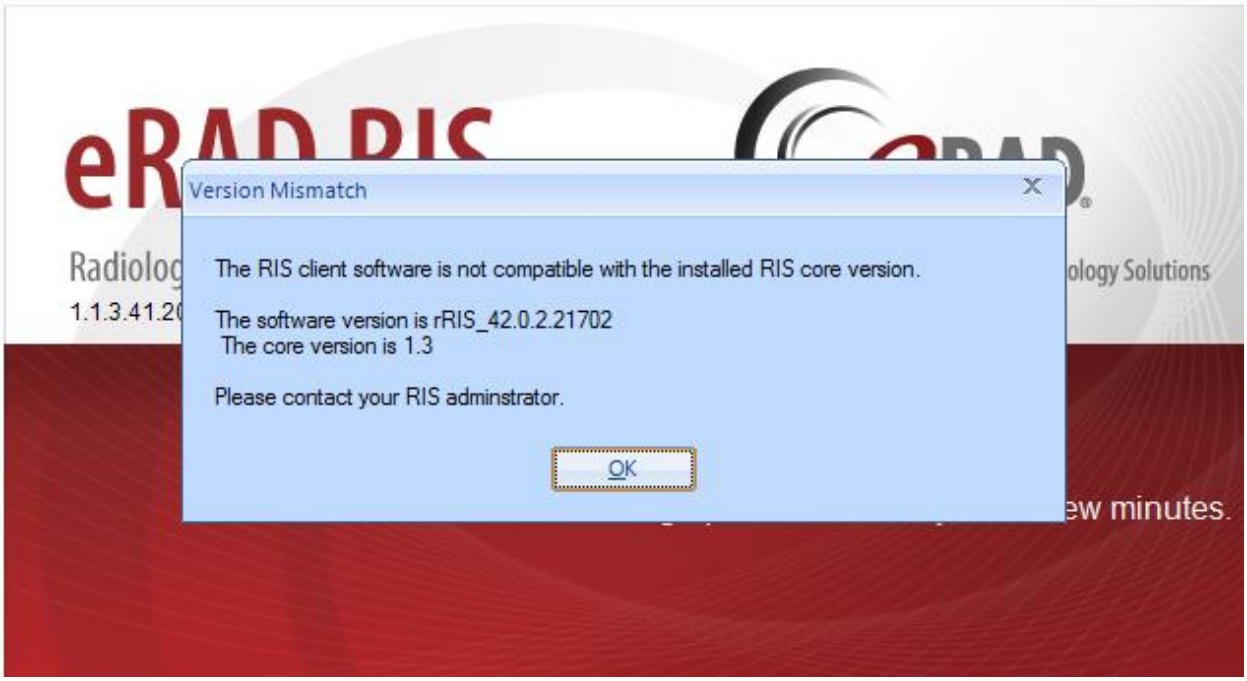
## 6. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 40 | 17 | 1.3.40.18780 (3GB) | 1.3.40.18756 | 1.3.40.18756 | 1.3.40.18646 | Core install required for Radiologist User Group. GUI.zip, Core setup, and Web Service updates |
| 40 | 18 | 1.3.40.19253(3GB) | 1.3.40.18756 | 1.3.40.18756 | 1.3.40.19253 | GUI.zip, Web Service and database updates |
| 40 | 19 | 1.3.40.19909(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | GUI.zip, Web Service |
| 40 | 20 | 1.3.40.20086(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | Gui.zip and Recognizer |
| 40 | 21 | 1.3.40.20703(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | Gui.zip |
| 40 | 22 | 1.3.40.20898(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | Gui.zip |
| 41 | - | 1.3.41.19135(3GB) | 1.3.41.19135 | 1.3.41.19135 | 1.3.41.19135 | Full version release |
| 41 | 1 | 1.3.41.19256(3GB) | 1.3.41.19135 | 1.3.41.19256 | 1.3.41.19256 | GUI.zip, Web Service and database updates |
| 41 | 2 | 1.3.41.19620(3GB) | 1.3.41.19135 | 1.3.41.19620 | 1.3.41.19346 | GUI.zip and Web Service |
| 41 | 2sf | 1.3.41.19620SF(3G) | 1.3.41.19135 | 1.3.41.19620 | 1.3.41.19346 | GUI.zip |
| 41 | 2.1 | 1.3.41.20622(3GB) | 1.3.41.19135 | 1.3.41.20617 | 1.3.41.19346 | GUI.zip and Web Service |
| 41 | 3 | 1.3.41.20125(3GB) | 1.3.41.19135 | 1.3.41.20171 | 1.3.41.19346 | GUI.zip , Web Service and Recognizer |
| 41 | 4 | 1.3.41.20285(3GB) | 1.3.41.19135 | 1.3.41.20171 | 1.3.41.19346 | GUI.zip |
| 41 | 5 | 1.3.41.20809(3GB) | 1.3.41.20708 | 1.3.41.20792 | 1.3.41.20738 | GUI.zip, Core install, Web Service and database updates |
| 41 | 6 | 1.3.41.20912(3GB) | 1.3.41.20708 | 1.3.41.20792 | 1.3.41.20738 | GUI.zip |
| 41.1 | - | 1.3.41.20918(3GB) | 1.3.41.20791 | 1.3.41.20918 | 1.3.41.20739 | GUI.zip, Core install, Web Service and DB updates, Help files |
| 41.1 | 1 | 1.3.41.20987(3GB) | 1.3.41.20791 | 1.3.41.20918 | 1.3.41.20739 | GUI.zip |
| 41.1 | 2 | 1.3.41.21162(3GB) | 1.3.41.20791 | 1.3.41.21162 | 1.3.41.21150 | GUI.zip, Web Service and DB updates, |
| 41.1 | 3 | 1.3.41.21264(3GB) | 1.3.41.20791 | 1.3.41.21162 | 1.3.41.21150 | GUI.zip |
| 42 | - | 2.42.0.0.21261(3GB) | 2.42.0.0.21261 | 2.42.0.0.21261 | 2.42.0.0.21187 | Full version release |
| 42 | 1 | 2.42.0.1.21597 | 2.42.0.0.21261 | 2.42.0.1.21597 | 2.42.0.0.21187 | GUI and Web Service updates |
| 42 | 2 | 2.42.0.2.21702 | 2.42.0.0.21261 | 2.42.0.2.21702 | 2.42.0.0.21187 | GUI and Web Service updates |
| 42 | 3 | 2.42.0.2.21806 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.0.21187 | GUI and Web Service updates |
| 42 | 4 | 2.42.0.2.21862 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.4.21870 | GUI and Database updates |
| 42 | 5 | 2.42.0.5.21924 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.4.21870 | GUI |
| 42 | 6 | 2.42.0.6.22009 | 2.42.0.0.21261 | 2.42.0.6.22009 | 2.42.0.4.21870 | GUI and Web Service updates |
| **42** | **7** | **2.42.0.7.22090** | **2.42.0.0.21261** | **2.42.0.6.22009** | **2.42.0.4.21870** | **GUI.zip updates** |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 7. Installing

1) Copy and replace the current rRIS…zip file with the rRIS_1.3.42.0.7.22090.zip file provided with this release.
   Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.




If you receive a Version Mismatch error similar to the one above, the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_42.0. 7.22090→ rRIS_1.3.42.0. 7.22090. NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

**NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

For eRAD RIS
Version 2.0
Build 42
Update 42.0.8

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Defects Resolved ..... 3
2. Code Stream ..... 4
3. Package Contents ..... 5
4. Intended Audience ..... 7
5. Who is affected ..... 7
6. eRAD RIS Release Version Numbers ..... 8
7. Installing ..... 9

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 1. Defects Resolved

| Redmine # | Subject | Priority |
|---|---|---|
| 6196 | Tech Status Change is not applied if the front desk has the study open | High |

## Change to Configuration

A configuration change to the ris.exe.config file was introduced in build 2.42 this setting was designed to lessen the delays when retrieving lookup tables that are larger in size.
This config setting, as mentioned, is located in the ris.exe.config file located in the <appSettings> section of the file

This setting is:
<add key="RowLevelCacheDataSetNamesCSV" value="ProcedureCode,TemplateMacro,Indication"/>

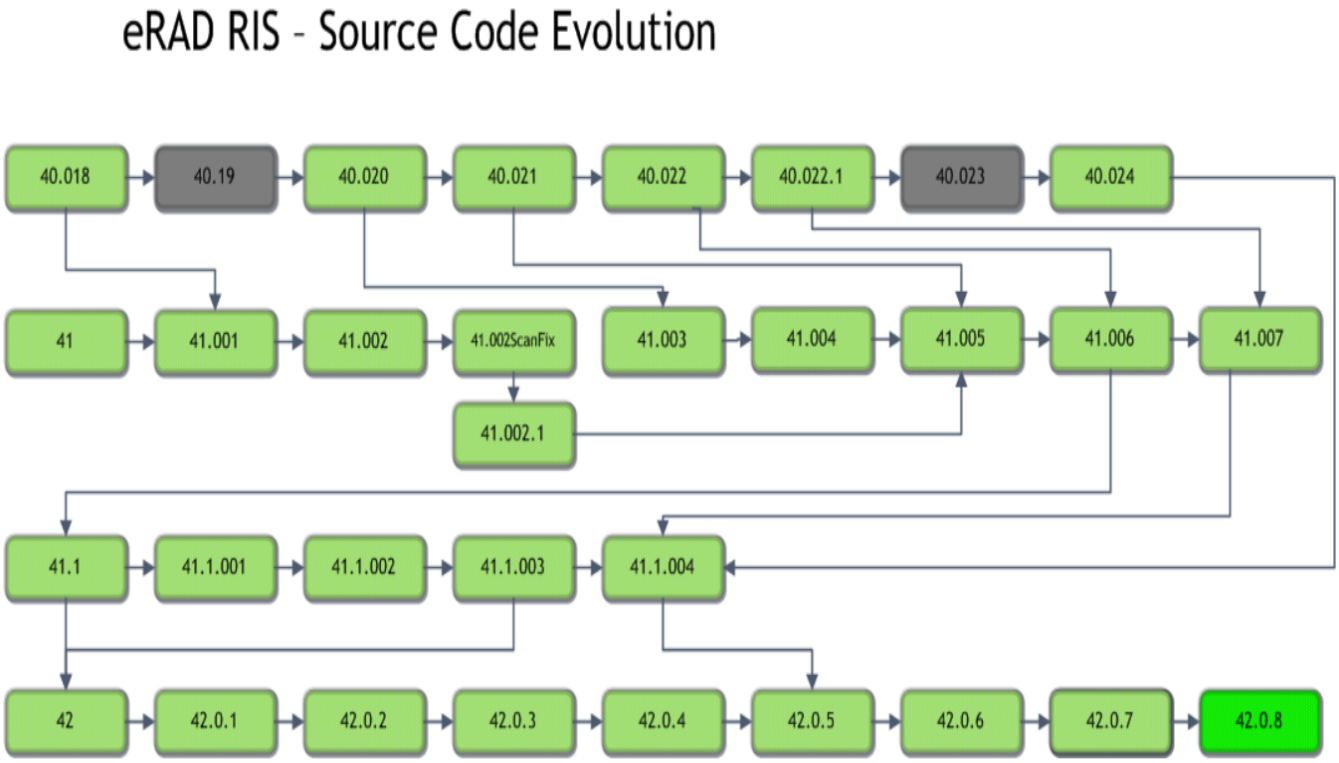
Where the value can be any lookup table, and a value=”*”, will retrieve all lookups.

The setting has resulted in undesired results of possible slowness, depending on the lookup table, and possibly additional bugs. Because of this, we are requesting that all sites comment out this line in the ris.exe.config table. The commented line will look like

<!--<add key="RowLevelCacheDataSetNamesCSV" value="ProcedureCode,TemplateMacro,Indication"/> -->

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 2. Code Stream




**Legend:**

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 3. Package Contents

Files included for this server update:

1) RIS_Service_Updates contains:
   - ABCpdf.dll
   - ABCpdf9-32.dll
   - ABCpdf9-64.dll
   - CDSJobManager.dll
   - CDSJobManager.pdb
   - CdsLib.dll
   - CdsLib.xml
   - CdsLib.XmlSerializers.dll
   - CommonLib.dll
   - CommonLib.pdb
   - DDEngine.dll
   - DDEngine.pdb
   - Interop.ANYMODALCAPTURECTRLLib.dll
   - Interop.FAXCOMEXLib.dll
   - Microsoft.Practices.EnterpriseLibrary.Caching.dll
   - Microsoft.Practices.EnterpriseLibrary.Caching.pdb
   - Microsoft.Practices.EnterpriseLibrary.Common.dll
   - Microsoft.Practices.EnterpriseLibrary.Common.pdb
   - Microsoft.Practices.EnterpriseLibrary.Logging.dll
   - Microsoft.Practices.EnterpriseLibrary.Logging.pdb
   - Microsoft.Practices.ServiceLocation.dll
   - Microsoft.Practices.ServiceLocation.pdb
   - Microsoft.Practices.Unity.dll
   - Microsoft.Practices.Unity.Interception.dll
   - Microsoft.Practices.Unity.Interception.pdb
   - Microsoft.Practices.Unity.pdb
   - Microsoft.ReportViewer.Common.dll
   - Microsoft.ReportViewer.WinForms.dll
   - Microsoft.ReportViewer.WinForms.xml
   - Newtonsoft.Json.dll
   - Newtonsoft.Json.xml
   - Ninject.dll
   - Ninject.Web.Common.dll
   - Ninject.Web.Common.xml
   - Ninject.xml
   - O2S.Components.PDFRender4NET.dll
   - PDFToImages.exe
   - rRISServices.exe
   - rRISServices.pdb
   - rRISServicesx64.exe
   - ScheduledTaskManager.dll
   - ScheduledTaskManager.pdb
   - ServicesConfigWizard.exe
   - ServicesConfigWizard.pdb
   - SignatureApprovalService.exe
   - SignatureApprovalService.pdb
   - System.Net.Http.dll
   - System.Net.Http.Formatting.dll
   - System.Net.Http.Formatting.xml
   - System.Net.Http.WebRequest.dll
   - System.Net.Http.WebRequest.xml
   - System.Net.Http.xml
   - System.Web.dll
   - System.Web.Helpers.dll
   - System.Web.Helpers.xml
   - System.Web.Http.dll
   - System.Web.Http.SelfHost.dll
   - System.Web.Http.SelfHost.xml
   - System.Web.Http.WebHost.dll
   - System.Web.Http.WebHost.xml
   - System.Web.Http.xml
   - System.Web.Mvc.dll
   - System.Web.Mvc.xml
   - System.Web.Optimization.dll
   - System.Web.Providers.dll
   - System.Web.Razor.dll
   - System.Web.Razor.xml
   - System.Web.WebPages.Deployment.dll
   - System.Web.WebPages.Deployment.xml
   - System.Web.WebPages.dll
   - System.Web.WebPages.Razor.dll
   - System.Web.WebPages.Razor.xml
   - System.Web.WebPages.xml
   - Tourreau.Gilles.FaxDotNet.dll
   - Tourreau.Gilles.FaxDotNet.pdb
   - Tourreau.Gilles.FaxDotNet.xml
   - WCFService.dll
   - WCFService.pdb
   - WCFServiceTests.dll
   - WCFServiceTests.pdb
   - WebApi.dll
   - WebApi.pdb
   - Wedge.exe
   - Wedge.pdb

The rRIS_Service_Updates also contains to subfolders:

A. Deploy folder contains
   a. Applicationsettings
   b. ReleaseVersion-connectionstrings
   c. rRISServices.exe

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

d. services
e. rRISServicesx64.exe

B. XSL subfolder contains:
Subfolder titled "Stylesheets" which contains:
a. CDAToHTMLCompleteReport.xslt
b. CDAToHTMLImpressionSection.xslt
c. CDATorRIS.xslt
d. CDAToTxt.xslt
e. DocumentModelReport.xslt
f. DocumentModelReportAsXml.xslt

g. CCDA Subfolder contains
a. sectionImmunizations.xsl
b. sectionInstructions.xsl
c. C-CDA.xsl
d. sectionMedications.xsl
e. sectionPlanOfCare.xsl
f. eRadStylesheet.xsl
g. sectionProblemList.xsl
h. generalTemplates.xsl
i. sectionProcedures.xsl
j. header.xsl
k. sectionReasonForVisit.xsl
l. sectionAdministeredMedications.xsl
m. sectionResults.xsl
n. sectionAllergies.xsl
o. sectionSocialHistory.xsl
p. sectionEncounters.xsl
q. sectionVitalSigns.xsl
r. sectionFuncCogStatus.xsl

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 4. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

## 5. Who is affected

Build 42 installs. Server updates are not cumulative. This server update must be applied to 42.0.7

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 6. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 40 | 17 | 1.3.40.18780 (3GB) | 1.3.40.18756 | 1.3.40.18756 | 1.3.40.18646 | Core install required for Radiologist User Group. GUI.zip, Core setup, and Web Service updates |
| 40 | 18 | 1.3.40.19253(3GB) | 1.3.40.18756 | 1.3.40.18756 | 1.3.40.19253 | GUI.zip, Web Service and database updates |
| 40 | 19 | 1.3.40.19909(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | GUI.zip, Web Service |
| 40 | 20 | 1.3.40.20086(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | Gui.zip and Recognizer |
| 40 | 21 | 1.3.40.20703(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | Gui.zip |
| 40 | 22 | 1.3.40.20898(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | Gui.zip |
| 41 | - | 1.3.41.19135(3GB) | 1.3.41.19135 | 1.3.41.19135 | 1.3.41.19135 | Full version release |
| 41 | 1 | 1.3.41.19256(3GB) | 1.3.41.19135 | 1.3.41.19256 | 1.3.41.19256 | GUI.zip, Web Service and database updates |
| 41 | 2 | 1.3.41.19620(3GB) | 1.3.41.19135 | 1.3.41.19620 | 1.3.41.19346 | GUI.zip and Web Service |
| 41 | 2sf | 1.3.41.19620SF(3G) | 1.3.41.19135 | 1.3.41.19620 | 1.3.41.19346 | GUI.zip |
| 41 | 2.1 | 1.3.41.20622(3GB) | 1.3.41.19135 | 1.3.41.20617 | 1.3.41.19346 | GUI.zip and Web Service |
| 41 | 3 | 1.3.41.20125(3GB) | 1.3.41.19135 | 1.3.41.20171 | 1.3.41.19346 | GUI.zip , Web Service and Recognizer |
| 41 | 4 | 1.3.41.20285(3GB) | 1.3.41.19135 | 1.3.41.20171 | 1.3.41.19346 | GUI.zip |
| 41 | 5 | 1.3.41.20809(3GB) | 1.3.41.20708 | 1.3.41.20792 | 1.3.41.20738 | GUI.zip, Core install, Web Service and database updates |
| 41 | 6 | 1.3.41.20912(3GB) | 1.3.41.20708 | 1.3.41.20792 | 1.3.41.20738 | GUI.zip |
| 41.1 | - | 1.3.41.20918(3GB) | 1.3.41.20791 | 1.3.41.20918 | 1.3.41.20739 | GUI.zip, Core install, Web Service and DB updates, Help files |
| 41.1 | 1 | 1.3.41.20987(3GB) | 1.3.41.20791 | 1.3.41.20918 | 1.3.41.20739 | GUI.zip |
| 41.1 | 2 | 1.3.41.21162(3GB) | 1.3.41.20791 | 1.3.41.21162 | 1.3.41.21150 | GUI.zip, Web Service and DB updates, |
| 41.1 | 3 | 1.3.41.21264(3GB) | 1.3.41.20791 | 1.3.41.21162 | 1.3.41.21150 | GUI.zip |
| 42 | - | 2.42.0.0.21261(3GB) | 2.42.0.0.21261 | 2.42.0.0.21261 | 2.42.0.0.21187 | Full version release |
| 42 | 1 | 2.42.0.1.21597 | 2.42.0.0.21261 | 2.42.0.1.21597 | 2.42.0.0.21187 | GUI and Web Service updates |
| 42 | 2 | 2.42.0.2.21702 | 2.42.0.0.21261 | 2.42.0.2.21702 | 2.42.0.0.21187 | GUI and Web Service updates |
| 42 | 3 | 2.42.0.2.21806 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.0.21187 | GUI and Web Service updates |
| 42 | 4 | 2.42.0.2.21862 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.4.21870 | GUI and Database updates |
| 42 | 5 | 2.42.0.5.21924 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.4.21870 | GUI |
| 42 | 6 | 2.42.0.5.22009 | 2.42.0.0.21261 | 2.42.0.5.22009 | 2.42.0.4.21870 | GUI and Web Service updates |
| 42 | 7 | 2.42.0.7.22090 | 2.42.0.0.21261 | 2.42.0.6.22009 | 2.42.0.4.21870 | GUI.zip updates |
| **42** | **8** | **2.42.0.7.22090** | **2.42.0.7.22150** | **2.42.0.6.22009** | **2.42.0.4.21870** | **Web Service updates** |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 7. Installing

1) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService. Be sure to make backup of all files, but especially the rRISServices.exe.config and rRISServices.vshost.exe.config files.
   *rRISService directories include:*
   *a) rRISService*
   *b) CDS rRISService*
   *c) Wedge rRISService*
   *d) DDE rRISService*

   **Restart each service.**

**NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

For eRAD RIS
Version 2.0
Build 42
Update 42.0.9

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Defects Resolved ..... 3
2. Code Stream ..... 4
3. Package Contents ..... 5
4. Intended Audience ..... 7
5. Who is affected ..... 7
6. eRAD RIS Release Version Numbers ..... 8
7. Installing ..... 9

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 1. Defects Resolved

| Redmine # | Subject | Priority |
|---|---|---|
| 6209 | Reporting - cannot reopen suspended studies (user id case problem) | High |
| 6179 | Error when saving "Only the latest interpretation can be modified" after CDS service updates an interpretation | High |
| 4446 | Cancelling a locked order causes error | High |
| 6212 | Reporting - Next Section Or Field - if you have only one field in the template, it stops checking for sections after reaching field | Normal |
| 3224 | Billing constraint violation when open/saving the same order on Tech + Registration | Normal |

## Change to Configuration

A configuration change to the ris.exe.config file was introduced in build 2.42 this setting was designed to lessen the delays when retrieving lookup tables that are larger in size.
This config setting, as mentioned, is located in the ris.exe.config file located in the <appSettings> section of the file

This setting is:
<add key="RowLevelCacheDataSetNamesCSV" value="ProcedureCode,TemplateMacro,Indication"/>

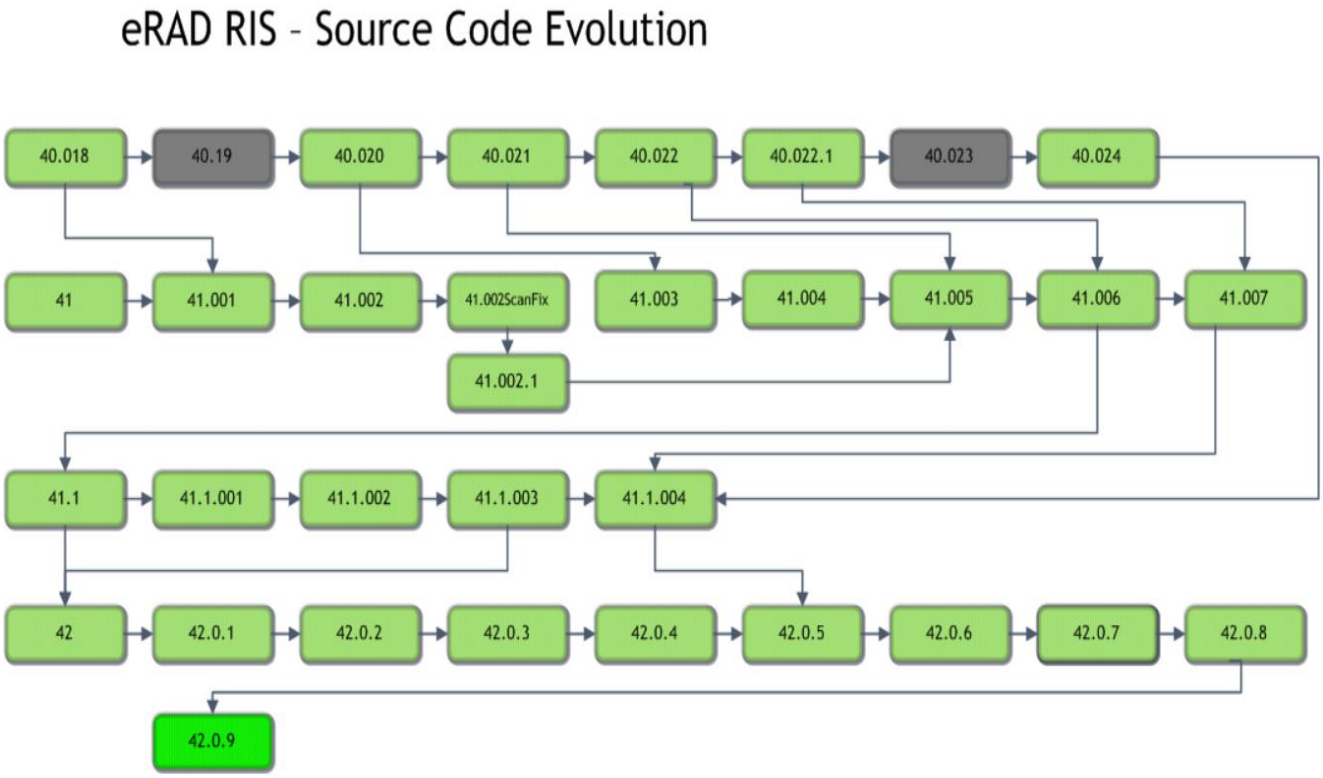
Where the value can be any lookup table, and a value=”*”, will retrieve all lookups.

The setting has resulted in undesired results of possible slowness, depending on the lookup table, and possibly additional bugs. Because of this, we are requesting that all sites comment out this line in the ris.exe.config table. The commented line will look like

<!--<add key="RowLevelCacheDataSetNamesCSV" value="ProcedureCode,TemplateMacro,Indication"/> -->

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 2. Code Stream




**Legend:**

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 3. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains:
   - rRIS_1.3.42.0.9.22203.zip

2) RIS_Service_Updates contains:
   - ABCpdf.dll
   - ABCpdf9-32.dll
   - ABCpdf9-64.dll
   - CDSJobManager.dll
   - CDSJobManager.pdb
   - CdsLib.dll
   - CdsLib.xml
   - CdsLib.XmlSerializers.dll
   - CommonLib.dll
   - CommonLib.pdb
   - contents.txt
   - DDEngine.dll
   - DDEngine.pdb
   - Interop.ANYMODALCAPTURECTRLLib.dll
   - Interop.FAXCOMEXLib.dll
   - Microsoft.Practices.EnterpriseLibrary.Caching.dll
   - Microsoft.Practices.EnterpriseLibrary.Caching.pdb
   - Microsoft.Practices.EnterpriseLibrary.Common.dll
   - Microsoft.Practices.EnterpriseLibrary.Common.pdb
   - Microsoft.Practices.EnterpriseLibrary.Logging.dll
   - Microsoft.Practices.EnterpriseLibrary.Logging.pdb
   - Microsoft.Practices.ServiceLocation.dll
   - Microsoft.Practices.ServiceLocation.pdb
   - Microsoft.Practices.Unity.dll
   - Microsoft.Practices.Unity.Interception.dll
   - Microsoft.Practices.Unity.Interception.pdb
   - Microsoft.Practices.Unity.pdb
   - Microsoft.ReportViewer.Common.dll
   - Microsoft.ReportViewer.WinForms.dll
   - Microsoft.ReportViewer.WinForms.xml
   - Newtonsoft.Json.dll
   - Newtonsoft.Json.xml
   - Ninject.dll
   - Ninject.Web.Common.dll
   - Ninject.Web.Common.xml
   - Ninject.xml
   - O2S.Components.PDFRender4NET.dll
   - PDFToImages.exe
   - rRISServices.exe
   - rRISServices.pdb
   - rRISServicesx64.exe
   - ScheduledTaskManager.dll
   - ScheduledTaskManager.pdb
   - ServicesConfigWizard.exe
   - ServicesConfigWizard.pdb
   - SignatureApprovalService.exe
   - SignatureApprovalService.pdb
   - System.Net.Http.dll
   - System.Net.Http.Formatting.dll
   - System.Net.Http.Formatting.xml
   - System.Net.Http.WebRequest.dll
   - System.Net.Http.WebRequest.xml
   - System.Net.Http.xml
   - System.Web.dll
   - System.Web.Helpers.dll
   - System.Web.Helpers.xml
   - System.Web.Http.dll
   - System.Web.Http.SelfHost.dll
   - System.Web.Http.SelfHost.xml
   - System.Web.Http.WebHost.dll
   - System.Web.Http.WebHost.xml
   - System.Web.Http.xml
   - System.Web.Mvc.dll
   - System.Web.Mvc.xml
   - System.Web.Optimization.dll
   - System.Web.Providers.dll
   - System.Web.Razor.dll
   - System.Web.Razor.xml
   - System.Web.WebPages.Deployment.dll
   - System.Web.WebPages.Deployment.xml
   - System.Web.WebPages.dll
   - System.Web.WebPages.Razor.dll
   - System.Web.WebPages.Razor.xml
   - System.Web.WebPages.xml
   - Tourreau.Gilles.FaxDotNet.dll
   - Tourreau.Gilles.FaxDotNet.pdb
   - Tourreau.Gilles.FaxDotNet.xml
   - WCFService.dll
   - WCFService.pdb
   - WCFServiceTests.dll
   - WCFServiceTests.pdb
   - WebApi.dll
   - WebApi.pdb
   - Wedge.exe
   - Wedge.pdb

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

The rRIS_Service_Updates also contains to subfolders:

A. Deploy folder contains
   a. Applicationsettings
   b. ReleaseVersion-connectionstrings
   c. rRISServices.exe
   d. services

B. XSL subfolder contains:
   Subfolder titled "Stylesheets" which contains:
   a. CDAToHTMLCompleteReport.xslt
   b. CDAToHTMLImpressionSection.xslt
   c. CDATorRIS.xslt
   d. CDAToTxt.xslt
   e. DocumentModelReport.xslt
   f. DocumentModelReportAsXml.xslt

   g. CCDA Subfolder contains
      a. sectionImmunizations.xsl
      b. sectionInstructions.xsl
      c. C-CDA.xsl
      d. sectionMedications.xsl
      e. sectionPlanOfCare.xsl
      f. eRadStylesheet.xsl
      g. sectionProblemList.xsl
      h. generalTemplates.xsl
      i. sectionProcedures.xsl
      j. header.xsl
      k. sectionReasonForVisit.xsl
      l. sectionAdministeredMedications.xsl
      m. sectionResults.xsl
      n. sectionAllergies.xsl
      o. sectionSocialHistory.xsl
      p. sectionEncounters.xsl
      q. sectionVitalSigns.xsl
      r. sectionFuncCogStatus.xsl

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 4. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

## 5. Who is affected

Build 42 installs. Server updates are not cumulative. This server update must be applied to 42.0.4

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

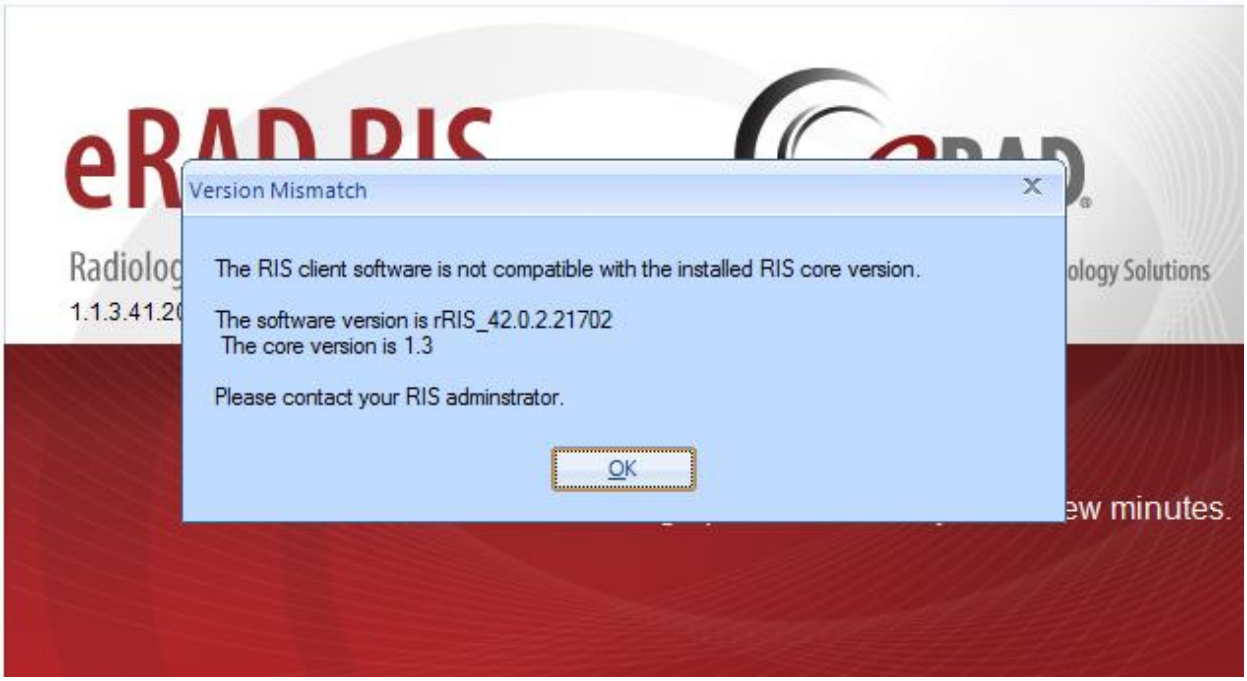
## 6. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 40 | 17 | 1.3.40.18780 (3GB) | 1.3.40.18756 | 1.3.40.18756 | 1.3.40.18646 | Core install required for Radiologist User Group. GUI.zip, Core setup, and Web Service updates |
| 40 | 18 | 1.3.40.19253(3GB) | 1.3.40.18756 | 1.3.40.18756 | 1.3.40.19253 | GUI.zip, Web Service and database updates |
| 40 | 19 | 1.3.40.19909(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | GUI.zip, Web Service |
| 40 | 20 | 1.3.40.20086(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | Gui.zip and Recognizer |
| 40 | 21 | 1.3.40.20703(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | Gui.zip |
| 40 | 22 | 1.3.40.20898(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | Gui.zip |
| 41 | - | 1.3.41.19135(3GB) | 1.3.41.19135 | 1.3.41.19135 | 1.3.41.19135 | Full version release |
| 41 | 1 | 1.3.41.19256(3GB) | 1.3.41.19135 | 1.3.41.19256 | 1.3.41.19256 | GUI.zip, Web Service and database updates |
| 41 | 2 | 1.3.41.19620(3GB) | 1.3.41.19135 | 1.3.41.19620 | 1.3.41.19346 | GUI.zip and Web Service |
| 41 | 2sf | 1.3.41.19620SF(3G) | 1.3.41.19135 | 1.3.41.19620 | 1.3.41.19346 | GUI.zip |
| 41 | 2.1 | 1.3.41.20622(3GB) | 1.3.41.19135 | 1.3.41.20617 | 1.3.41.19346 | GUI.zip and Web Service |
| 41 | 3 | 1.3.41.20125(3GB) | 1.3.41.19135 | 1.3.41.20171 | 1.3.41.19346 | GUI.zip , Web Service and Recognizer |
| 41 | 4 | 1.3.41.20285(3GB) | 1.3.41.19135 | 1.3.41.20171 | 1.3.41.19346 | GUI.zip |
| 41 | 5 | 1.3.41.20809(3GB) | 1.3.41.20708 | 1.3.41.20792 | 1.3.41.20738 | GUI.zip, Core install, Web Service and database updates |
| 41 | 6 | 1.3.41.20912(3GB) | 1.3.41.20708 | 1.3.41.20792 | 1.3.41.20738 | GUI.zip |
| 41.1 | - | 1.3.41.20918(3GB) | 1.3.41.20791 | 1.3.41.20918 | 1.3.41.20739 | GUI.zip, Core install, Web Service and DB updates, Help files |
| 41.1 | 1 | 1.3.41.20987(3GB) | 1.3.41.20791 | 1.3.41.20918 | 1.3.41.20739 | GUI.zip |
| 41.1 | 2 | 1.3.41.21162(3GB) | 1.3.41.20791 | 1.3.41.21162 | 1.3.41.21150 | GUI.zip, Web Service and DB updates, |
| 41.1 | 3 | 1.3.41.21264(3GB) | 1.3.41.20791 | 1.3.41.21162 | 1.3.41.21150 | GUI.zip |
| 42 | - | 2.42.0.0.21261(3GB) | 2.42.0.0.21261 | 2.42.0.0.21261 | 2.42.0.0.21187 | Full version release |
| 42 | 1 | 2.42.0.1.21597 | 2.42.0.0.21261 | 2.42.0.1.21597 | 2.42.0.0.21187 | GUI and Web Service updates |
| 42 | 2 | 2.42.0.2.21702 | 2.42.0.0.21261 | 2.42.0.2.21702 | 2.42.0.0.21187 | GUI and Web Service updates |
| 42 | 3 | 2.42.0.2.21806 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.0.21187 | GUI and Web Service updates |
| 42 | 4 | 2.42.0.2.21862 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.4.21870 | GUI and Database updates |
| 42 | 5 | 2.42.0.5.21924 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.4.21870 | GUI |
| 42 | 6 | 2.42.0.5.22009 | 2.42.0.0.21261 | 2.42.0.5.22009 | 2.42.0.4.21870 | GUI and Web Service updates |
| 42 | 7 | 2.42.0.7.22090 | 2.42.0.0.21261 | 2.42.0.6.22009 | 2.42.0.4.21870 | GUI.zip updates |
| 42 | 8 | 2.42.0.7.22090 | 2.42.0.7.22150 | 2.42.0.6.22009 | 2.42.0.4.21870 | Web Service updates |
| **42** | **9** | **2.42.0.9.22203** | **2.42.0.0.21261** | **2.42.0.9.22203** | **2.42.0.4.21870** | **GUI and Web Service updates** |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 7. Installing

1) Copy and replace the current rRIS…zip file with the rRIS_1.3.42.0.9.22203.zip file provided with this release.
   Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.




If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_42.0. 9.22203→ rRIS_1.3.42.0. 9.22203. NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

**NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

2) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService. Be sure to make backup of all files, but especially the rRISServices.exe.config and rRISServices.vshost.exe.config files.
   *rRISService directories include:*
   a) *rRISService*
   b) *CDS rRISService*
   c) *Wedge rRISService*
   d) *DDE rRISService*

   **Restart each service.**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

For eRAD RIS
Version 2.0
Build 42
Update 42.0.9.1

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Defects Resolved ..... 3
2. Code Stream ..... 4
3. Package Contents ..... 5
4. Intended Audience ..... 7
5. Who is affected ..... 7
6. eRAD RIS Release Version Numbers ..... 8
7. Installing ..... 9

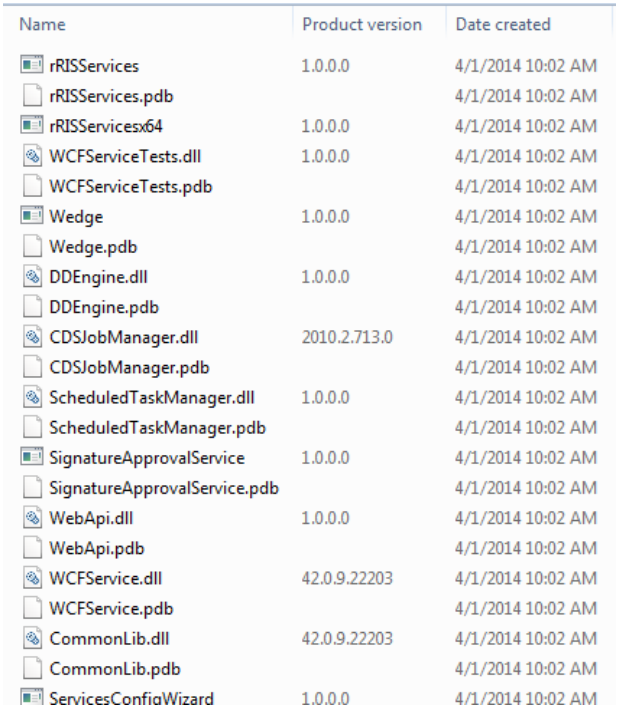
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 1. Defects Resolved

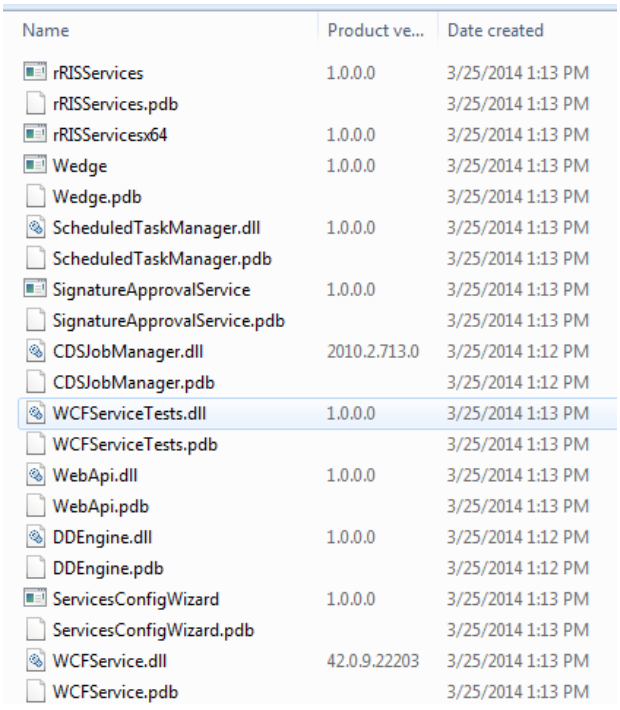
| Redmine # | Subject | Priority |
|---|---|---|
| 6288 | Error starting CDS service | Urgent |

The files produced for this software patch have the same build and version number of 42.0.9. To differentiate between the two you can look at the date created column in windows explorer.

In the screenshots below the image on the left are files that are released with this Server Update with the date of 4/1/2014. The image on the right displays the previous release of 42.0.9 has a Date Created date of 3/25/2014.



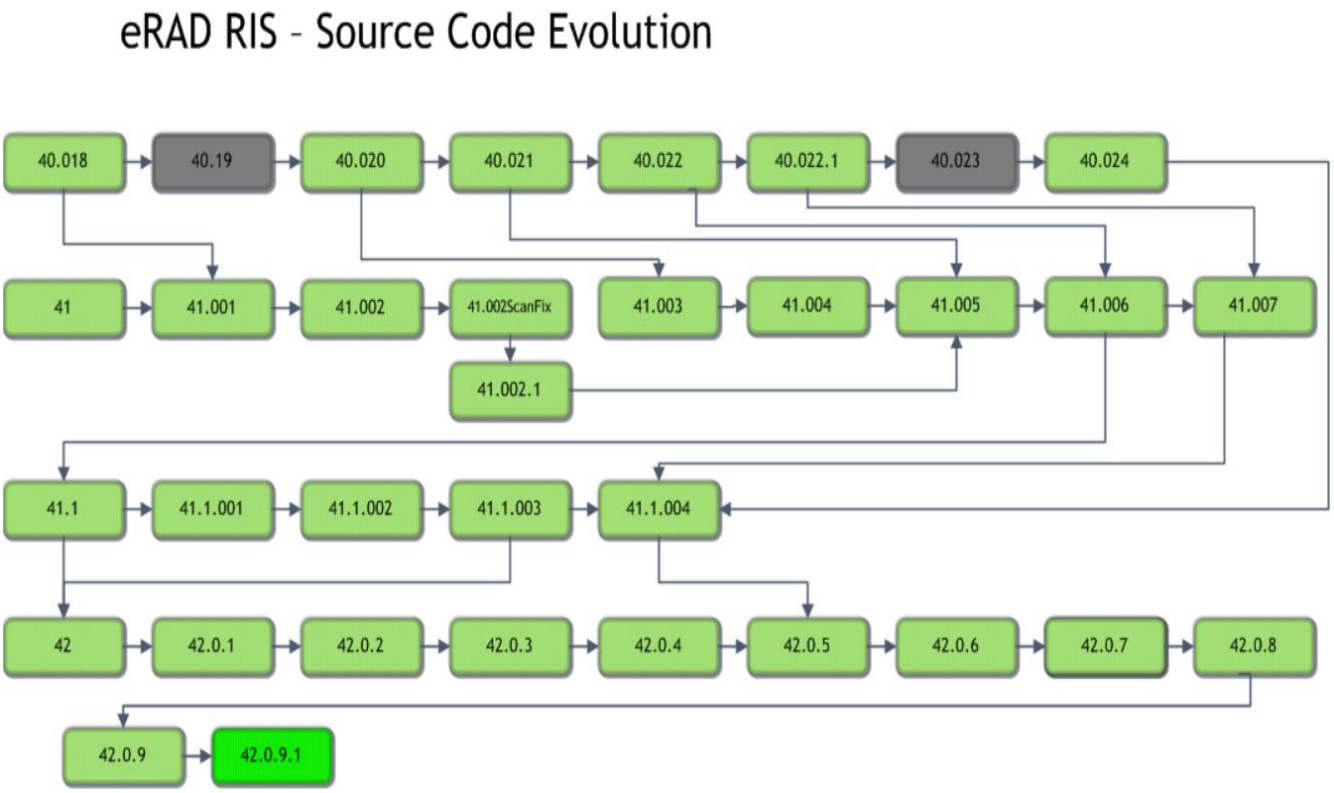
| Name | Product version | Date created |
|---|---|---|
| rRISServices | 1.0.0.0 | 4/1/2014 10:02 AM |
| rRISServices.pdb | | 4/1/2014 10:02 AM |
| rRISServicesx64 | 1.0.0.0 | 4/1/2014 10:02 AM |
| WCFServiceTests.dll | 1.0.0.0 | 4/1/2014 10:02 AM |
| WCFServiceTests.pdb | | 4/1/2014 10:02 AM |
| Wedge | 1.0.0.0 | 4/1/2014 10:02 AM |
| Wedge.pdb | | 4/1/2014 10:02 AM |
| DDEngine.dll | 1.0.0.0 | 4/1/2014 10:02 AM |
| DDEngine.pdb | | 4/1/2014 10:02 AM |
| CDSJobManager.dll | 2010.2.713.0 | 4/1/2014 10:02 AM |
| CDSJobManager.pdb | | 4/1/2014 10:02 AM |
| ScheduledTaskManager.dll | 1.0.0.0 | 4/1/2014 10:02 AM |
| ScheduledTaskManager.pdb | | 4/1/2014 10:02 AM |
| SignatureApprovalService | 1.0.0.0 | 4/1/2014 10:02 AM |
| SignatureApprovalService.pdb | | 4/1/2014 10:02 AM |
| WebApi.dll | 1.0.0.0 | 4/1/2014 10:02 AM |
| WebApi.pdb | | 4/1/2014 10:02 AM |
| WCFService.dll | 42.0.9.22203 | 4/1/2014 10:02 AM |
| WCFService.pdb | | 4/1/2014 10:02 AM |
| CommonLib.dll | 42.0.9.22203 | 4/1/2014 10:02 AM |
| CommonLib.pdb | | 4/1/2014 10:02 AM |
| ServicesConfigWizard | 1.0.0.0 | 4/1/2014 10:02 AM |



| Name | Product ve... | Date created |
|---|---|---|
| rRISServices | 1.0.0.0 | 3/25/2014 1:13 PM |
| rRISServices.pdb | | 3/25/2014 1:13 PM |
| rRISServicesx64 | 1.0.0.0 | 3/25/2014 1:13 PM |
| Wedge | 1.0.0.0 | 3/25/2014 1:13 PM |
| Wedge.pdb | | 3/25/2014 1:13 PM |
| ScheduledTaskManager.dll | 1.0.0.0 | 3/25/2014 1:13 PM |
| ScheduledTaskManager.pdb | | 3/25/2014 1:13 PM |
| SignatureApprovalService | 1.0.0.0 | 3/25/2014 1:13 PM |
| SignatureApprovalService.pdb | | 3/25/2014 1:13 PM |
| CDSJobManager.dll | 2010.2.713.0 | 3/25/2014 1:12 PM |
| CDSJobManager.pdb | | 3/25/2014 1:12 PM |
| WCFServiceTests.dll | 1.0.0.0 | 3/25/2014 1:13 PM |
| WCFServiceTests.pdb | | 3/25/2014 1:13 PM |
| WebApi.dll | 1.0.0.0 | 3/25/2014 1:13 PM |
| WebApi.pdb | | 3/25/2014 1:13 PM |
| DDEngine.dll | 1.0.0.0 | 3/25/2014 1:12 PM |
| DDEngine.pdb | | 3/25/2014 1:12 PM |
| ServicesConfigWizard | 1.0.0.0 | 3/25/2014 1:13 PM |
| ServicesConfigWizard.pdb | | 3/25/2014 1:13 PM |
| WCFService.dll | 42.0.9.22203 | 3/25/2014 1:13 PM |
| WCFService.pdb | | 3/25/2014 1:13 PM |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 2. Code Stream




**Legend:**

**Light Green = Released software**

**Gray = Will not be released**

**Bright Green = Current Release**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 3. Package Contents

Files included for this server update:

1) RIS_Service_Updates contains:
   - ABCpdf.dll
   - ABCpdf9-32.dll
   - ABCpdf9-64.dll
   - CDSJobManager.dll
   - CDSJobManager.pdb
   - CdsLib.dll
   - CdsLib.xml
   - CdsLib.XmlSerializers.dll
   - CommonLib.dll
   - CommonLib.pdb
   - contents.txt
   - DDEngine.dll
   - DDEngine.pdb
   - Interop.ANYMODALCAPTURECTRLLib.dll
   - Interop.FAXCOMEXLib.dll
   - Microsoft.Practices.EnterpriseLibrary.Caching.dll
   - Microsoft.Practices.EnterpriseLibrary.Caching.pdb
   - Microsoft.Practices.EnterpriseLibrary.Common.dll
   - Microsoft.Practices.EnterpriseLibrary.Common.pdb
   - Microsoft.Practices.EnterpriseLibrary.Logging.dll
   - Microsoft.Practices.EnterpriseLibrary.Logging.pdb
   - Microsoft.Practices.ServiceLocation.dll
   - Microsoft.Practices.ServiceLocation.pdb
   - Microsoft.Practices.Unity.dll
   - Microsoft.Practices.Unity.Interception.dll
   - Microsoft.Practices.Unity.Interception.pdb
   - Microsoft.Practices.Unity.pdb
   - Microsoft.ReportViewer.Common.dll
   - Microsoft.ReportViewer.WinForms.dll
   - Microsoft.ReportViewer.WinForms.xml
   - Newtonsoft.Json.dll
   - Newtonsoft.Json.xml
   - Ninject.dll
   - Ninject.Web.Common.dll
   - Ninject.Web.Common.xml
   - Ninject.xml
   - O2S.Components.PDFRender4NET.dll
   - PDFToImages.exe
   - rRISServices.exe
   - rRISServices.pdb
   - rRISServicesx64.exe
   - ScheduledTaskManager.dll
   - ScheduledTaskManager.pdb
   - ServicesConfigWizard.exe
   - ServicesConfigWizard.pdb
   - SignatureApprovalService.exe
   - SignatureApprovalService.pdb
   - System.Net.Http.dll
   - System.Net.Http.Formatting.dll
   - System.Net.Http.Formatting.xml
   - System.Net.Http.WebRequest.dll
   - System.Net.Http.WebRequest.xml
   - System.Net.Http.xml
   - System.Web.dll
   - System.Web.Helpers.dll
   - System.Web.Helpers.xml
   - System.Web.Http.dll
   - System.Web.Http.SelfHost.dll
   - System.Web.Http.SelfHost.xml
   - System.Web.Http.WebHost.dll
   - System.Web.Http.WebHost.xml
   - System.Web.Http.xml
   - System.Web.Mvc.dll
   - System.Web.Mvc.xml
   - System.Web.Optimization.dll
   - System.Web.Providers.dll
   - System.Web.Razor.dll
   - System.Web.Razor.xml
   - System.Web.WebPages.Deployment.dll
   - System.Web.WebPages.Deployment.xml
   - System.Web.WebPages.dll
   - System.Web.WebPages.Razor.dll
   - System.Web.WebPages.Razor.xml
   - System.Web.WebPages.xml
   - Tourreau.Gilles.FaxDotNet.dll
   - Tourreau.Gilles.FaxDotNet.pdb
   - Tourreau.Gilles.FaxDotNet.xml
   - WCFService.dll
   - WCFService.pdb
   - WCFServiceTests.dll
   - WCFServiceTests.pdb
   - WebApi.dll
   - WebApi.pdb
   - Wedge.exe
   - Wedge.pdb

The rRIS_Service_Updates also contains to subfolders:

A. Deploy folder contains
   a. Applicationsettings
   b. ReleaseVersion-connectionstrings
   c. rRISServices.exe
   d. services

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

B. XSL subfolder contains:
Subfolder titled "Stylesheets" which contains:
   a. CDAToHTMLCompleteReport.xslt
   b. CDAToHTMLImpressionSection.xslt
   c. CDATorRIS.xslt
   d. CDAToTxt.xslt
   e. DocumentModelReport.xslt
   f. DocumentModelReportAsXml.xslt

   g. CCDA Subfolder contains
      a. sectionImmunizations.xsl
      b. sectionInstructions.xsl
      c. C-CDA.xsl
      d. sectionMedications.xsl
      e. sectionPlanOfCare.xsl
      f. eRadStylesheet.xsl
      g. sectionProblemList.xsl
      h. generalTemplates.xsl
      i. sectionProcedures.xsl
      j. header.xsl
      k. sectionReasonForVisit.xsl
      l. sectionAdministeredMedications.xsl
      m. sectionResults.xsl
      n. sectionAllergies.xsl
      o. sectionSocialHistory.xsl
      p. sectionEncounters.xsl
      q. sectionVitalSigns.xsl
      r. sectionFuncCogStatus.xsl

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 4. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

## 5. Who is affected

Build 42 installs. Server updates are not cumulative. This server update must be applied to 42.0.9

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 6. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 40 | 17 | 1.3.40.18780 (3GB) | 1.3.40.18756 | 1.3.40.18756 | 1.3.40.18646 | Core install required for Radiologist User Group. GUI.zip, Core setup, and Web Service updates |
| 40 | 18 | 1.3.40.19253(3GB) | 1.3.40.18756 | 1.3.40.18756 | 1.3.40.19253 | GUI.zip, Web Service and database updates |
| 40 | 19 | 1.3.40.19909(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | GUI.zip, Web Service |
| 40 | 20 | 1.3.40.20086(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | Gui.zip and Recognizer |
| 40 | 21 | 1.3.40.20703(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | Gui.zip |
| 40 | 22 | 1.3.40.20898(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | Gui.zip |
| 41 | - | 1.3.41.19135(3GB) | 1.3.41.19135 | 1.3.41.19135 | 1.3.41.19135 | Full version release |
| 41 | 1 | 1.3.41.19256(3GB) | 1.3.41.19135 | 1.3.41.19256 | 1.3.41.19256 | GUI.zip, Web Service and database updates |
| 41 | 2 | 1.3.41.19620(3GB) | 1.3.41.19135 | 1.3.41.19620 | 1.3.41.19346 | GUI.zip and Web Service |
| 41 | 2sf | 1.3.41.19620SF(3G) | 1.3.41.19135 | 1.3.41.19620 | 1.3.41.19346 | GUI.zip |
| 41 | 2.1 | 1.3.41.20622(3GB) | 1.3.41.19135 | 1.3.41.20617 | 1.3.41.19346 | GUI.zip and Web Service |
| 41 | 3 | 1.3.41.20125(3GB) | 1.3.41.19135 | 1.3.41.20171 | 1.3.41.19346 | GUI.zip , Web Service and Recognizer |
| 41 | 4 | 1.3.41.20285(3GB) | 1.3.41.19135 | 1.3.41.20171 | 1.3.41.19346 | GUI.zip |
| 41 | 5 | 1.3.41.20809(3GB) | 1.3.41.20708 | 1.3.41.20792 | 1.3.41.20738 | GUI.zip, Core install, Web Service and database updates |
| 41 | 6 | 1.3.41.20912(3GB) | 1.3.41.20708 | 1.3.41.20792 | 1.3.41.20738 | GUI.zip |
| 41.1 | - | 1.3.41.20918(3GB) | 1.3.41.20791 | 1.3.41.20918 | 1.3.41.20739 | GUI.zip, Core install, Web Service and DB updates, Help files |
| 41.1 | 1 | 1.3.41.20987(3GB) | 1.3.41.20791 | 1.3.41.20918 | 1.3.41.20739 | GUI.zip |
| 41.1 | 2 | 1.3.41.21162(3GB) | 1.3.41.20791 | 1.3.41.21162 | 1.3.41.21150 | GUI.zip, Web Service and DB updates, |
| 41.1 | 3 | 1.3.41.21264(3GB) | 1.3.41.20791 | 1.3.41.21162 | 1.3.41.21150 | GUI.zip |
| 42 | - | 2.42.0.0.21261(3GB) | 2.42.0.0.21261 | 2.42.0.0.21261 | 2.42.0.0.21187 | Full version release |
| 42 | 1 | 2.42.0.1.21597 | 2.42.0.0.21261 | 2.42.0.1.21597 | 2.42.0.0.21187 | GUI and Web Service updates |
| 42 | 2 | 2.42.0.2.21702 | 2.42.0.0.21261 | 2.42.0.2.21702 | 2.42.0.0.21187 | GUI and Web Service updates |
| 42 | 3 | 2.42.0.2.21806 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.0.21187 | GUI and Web Service updates |
| 42 | 4 | 2.42.0.2.21862 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.4.21870 | GUI and Database updates |
| 42 | 5 | 2.42.0.5.21924 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.4.21870 | GUI |
| 42 | 6 | 2.42.0.5.22009 | 2.42.0.0.21261 | 2.42.0.5.22009 | 2.42.0.4.21870 | GUI and Web Service updates |
| 42 | 7 | 2.42.0.7.22090 | 2.42.0.0.21261 | 2.42.0.6.22009 | 2.42.0.4.21870 | GUI.zip updates |
| 42 | 8 | 2.42.0.7.22090 | 2.42.0.7.22150 | 2.42.0.6.22009 | 2.42.0.4.21870 | Web Service updates |
| 42 | 9 | 2.42.0.9.22203 | 2.42.0.0.21261 | 2.42.0.9.22203 | 2.42.0.4.21870 | GUI and Web Service updates |
| **42** | **9.1** | **2.42.0.9.22203** | **2.42.0.0.21261** | **2.42.0.9.22203** | **2.42.0.4.21870** | **Web Service updates** |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 7. Installing

1) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService. Be sure to make backup of all files, but especially the rRISServices.exe.config and rRISServices.vshost.exe.config files.
   *rRISService directories include:*
   a) *rRISService*
   b) *CDS rRISService*
   c) *Wedge rRISService*
   d) *DDE rRISService*

   **Restart each service.**

   **NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

For eRAD RIS
Version 2.0
Build 42
Update 42.0.10

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Defects Resolved ..... 3
2. Code Stream ..... 4
3. Package Contents ..... 5
4. Intended Audience ..... 5
5. Who is affected ..... 5
6. eRAD RIS Release Version Numbers ..... 6
7. Installing ..... 7

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 1. Defects Resolved

| Redmine # | Subject | Priority |
|---|---|---|
| 6275 | excessive logging contributing to performance issues | High |
| 6274 | RIS does not make optimal use of connections to the server | High |
| 4354 | Long lookup time-to-live is causing problems | High |
| 6161 | RIS Hang after entering partial or invalid height | Normal |

## Change to Configuration

This server update includes 1 new entry and 1 edit for the ris.exe.config file. The new entry and the edit are located in the <appSettings> section .

The new setting added is:
**<add key="EnableHighPriorityLookupStrategy" value="true"/>**

The edit is on the appSetting key for LookupTableTimeToLiveInMinutes. The change only applies for systems that have a value of less than 60. For example if the current setting is:

<add key="LookupTableTimeToLiveInMinutes" value="5"/>

Change the value of 5 to 60. The key will now look like:

**<add key="LookupTableTimeToLiveInMinutes" value="60"/>**

==========

The following change to the <appSettings> section of the ris.exe.config file was introduced in Server Update 42.0.3.
A configuration change to the ris.exe.config file was introduced in build 2.42 this setting was designed to lessen the delays when retrieving lookup tables that are larger in size.
This config setting, as mentioned, is located in the ris.exe.config file located in the <appSettings> section of the file

This setting is:
<add key="RowLevelCacheDataSetNamesCSV" value="ProcedureCode,TemplateMacro,Indication"/>

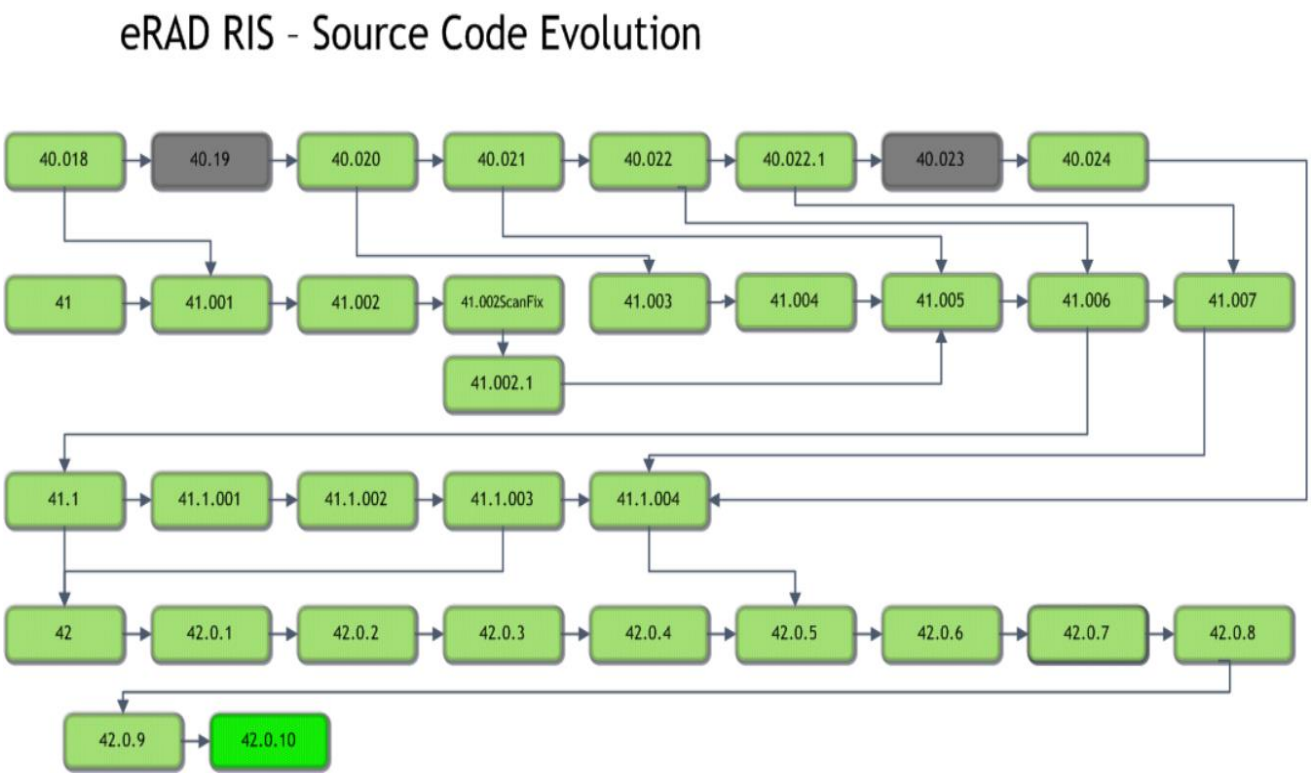
Where the value can be any lookup table, and a value="*", will retrieve all lookups.

The setting has resulted in undesired results of possible slowness, depending on the lookup table, and possibly additional bugs. Because of this, we are requesting that all sites comment out this line in the ris.exe.config table. The commented line will look like

<!--<add key="RowLevelCacheDataSetNamesCSV" value="ProcedureCode,TemplateMacro,Indication"/> -->

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 2. Code Stream




**Legend:**

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 3. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains:
    - rRIS_1.3.42.0.10.22232.zip

## 4. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

## 5. Who is affected

Build 42 installs. Server updates are not cumulative. This server update must be applied to 42.0.9

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

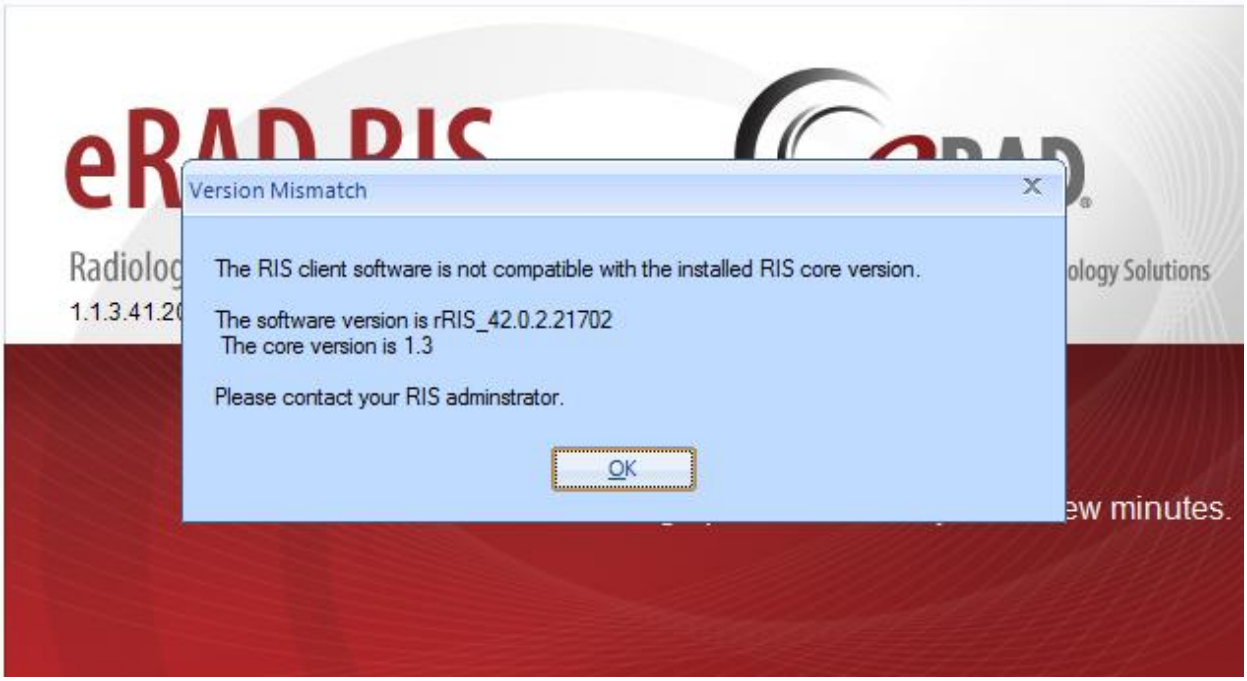
## 6. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 40 | 17 | 1.3.40.18780 (3GB) | 1.3.40.18756 | 1.3.40.18756 | 1.3.40.18646 | Core install required for Radiologist User Group. GUI.zip, Core setup, and Web Service updates |
| 40 | 18 | 1.3.40.19253(3GB) | 1.3.40.18756 | 1.3.40.18756 | 1.3.40.19253 | GUI.zip, Web Service and database updates |
| 40 | 19 | 1.3.40.19909(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | GUI.zip, Web Service |
| 40 | 20 | 1.3.40.20086(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | Gui.zip and Recognizer |
| 40 | 21 | 1.3.40.20703(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | Gui.zip |
| 40 | 22 | 1.3.40.20898(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | Gui.zip |
| 41 | - | 1.3.41.19135(3GB) | 1.3.41.19135 | 1.3.41.19135 | 1.3.41.19135 | Full version release |
| 41 | 1 | 1.3.41.19256(3GB) | 1.3.41.19135 | 1.3.41.19256 | 1.3.41.19256 | GUI.zip, Web Service and database updates |
| 41 | 2 | 1.3.41.19620(3GB) | 1.3.41.19135 | 1.3.41.19620 | 1.3.41.19346 | GUI.zip and Web Service |
| 41 | 2sf | 1.3.41.19620SF(3G) | 1.3.41.19135 | 1.3.41.19620 | 1.3.41.19346 | GUI.zip |
| 41 | 2.1 | 1.3.41.20622(3GB) | 1.3.41.19135 | 1.3.41.20617 | 1.3.41.19346 | GUI.zip and Web Service |
| 41 | 3 | 1.3.41.20125(3GB) | 1.3.41.19135 | 1.3.41.20171 | 1.3.41.19346 | GUI.zip , Web Service and Recognizer |
| 41 | 4 | 1.3.41.20285(3GB) | 1.3.41.19135 | 1.3.41.20171 | 1.3.41.19346 | GUI.zip |
| 41 | 5 | 1.3.41.20809(3GB) | 1.3.41.20708 | 1.3.41.20792 | 1.3.41.20738 | GUI.zip, Core install, Web Service and database updates |
| 41 | 6 | 1.3.41.20912(3GB) | 1.3.41.20708 | 1.3.41.20792 | 1.3.41.20738 | GUI.zip |
| 41.1 | - | 1.3.41.20918(3GB) | 1.3.41.20791 | 1.3.41.20918 | 1.3.41.20739 | GUI.zip, Core install, Web Service and DB updates, Help files |
| 41.1 | 1 | 1.3.41.20987(3GB) | 1.3.41.20791 | 1.3.41.20918 | 1.3.41.20739 | GUI.zip |
| 41.1 | 2 | 1.3.41.21162(3GB) | 1.3.41.20791 | 1.3.41.21162 | 1.3.41.21150 | GUI.zip, Web Service and DB updates, |
| 41.1 | 3 | 1.3.41.21264(3GB) | 1.3.41.20791 | 1.3.41.21162 | 1.3.41.21150 | GUI.zip |
| 42 | - | 2.42.0.0.21261(3GB) | 2.42.0.0.21261 | 2.42.0.0.21261 | 2.42.0.0.21187 | Full version release |
| 42 | 1 | 2.42.0.1.21597 | 2.42.0.0.21261 | 2.42.0.1.21597 | 2.42.0.0.21187 | GUI and Web Service updates |
| 42 | 2 | 2.42.0.2.21702 | 2.42.0.0.21261 | 2.42.0.2.21702 | 2.42.0.0.21187 | GUI and Web Service updates |
| 42 | 3 | 2.42.0.2.21806 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.0.21187 | GUI and Web Service updates |
| 42 | 4 | 2.42.0.2.21862 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.4.21870 | GUI and Database updates |
| 42 | 5 | 2.42.0.5.21924 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.4.21870 | GUI |
| 42 | 6 | 2.42.0.5.22009 | 2.42.0.0.21261 | 2.42.0.5.22009 | 2.42.0.4.21870 | GUI and Web Service updates |
| 42 | 7 | 2.42.0.7.22090 | 2.42.0.0.21261 | 2.42.0.6.22009 | 2.42.0.4.21870 | GUI.zip updates |
| 42 | 8 | 2.42.0.7.22090 | 2.42.0.7.22150 | 2.42.0.6.22009 | 2.42.0.4.21870 | Web Service updates |
| 42 | 9 | 2.42.0.9.22203 | 2.42.0.0.21261 | 2.42.0.9.22203 | 2.42.0.4.21870 | GUI and Web Service updates |
| **42** | **10** | **2.42.0.10.22232** | **2.42.0.0.21261** | **2.42.0.9.22203** | **2.42.0.4.21870** | **GUI.zip updates** |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 7. Installing

1) Copy and replace the current rRIS…zip file with the rRIS_1.3.42.0.10.22232.zip file provided with this release.
   Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.




If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_42.0.10.22232→ rRIS_1.3.42.0. 10.22232. NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

**NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

For eRAD RIS
Version 2.0
Build 42
Update 42.0.10.1

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Defects Resolved ..... 3
2. Change to Configuration ..... 4
3. Code Stream ..... 6
4. Package Contents ..... 7
5. Intended Audience ..... 7
6. Who is affected ..... 7
7. eRAD RIS Release Version Numbers ..... 8
8. Installing ..... 9

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 1. Defects Resolved

| Redmine # | Subject | Priority |
|---|---|---|
| 6275 | Excessive logging contributing to performance issues | High |
| 6274 | RIS does not make optimal use of connections to the server | High |
| 4354 | Long lookup time-to-live is causing problems | High |
| 6161 | RIS Hang after entering partial or invalid height | Normal |
| 6451 | SearchResults Constructor slows screen load of New Appointment screen on older hardware | Normal |
| 6450 | Binding to billing codes can slow New Appointment screen load, particularly on older machines | Normal |
| 6449 | Slow building valid sites table on schedule order screen | Normal |
| 6443 | New Appointment Performance: Style code in LogTextBox | Normal |
| 6442 | New Appointment Performance: Extra NewCrop WS Calls | Normal |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 2. Change to Configuration

This server update includes 1 new entry and 1 edit for the ris.exe.config file. The new entry and the edit are located in the <appSettings> section .

The new setting added is:
**<add key="EnableHighPriorityLookupStrategy" value="true"/>**

The edit is on the appSetting key for LookupTableTimeToLiveInMinutes. **The change only applies for systems that have a value of less than 60**. For example if the current setting is:

<add key="LookupTableTimeToLiveInMinutes" value="5"/>

Change the value of 5 to 60. The key will now look like:

**<add key="LookupTableTimeToLiveInMinutes" value="60"/>**

Since the Time to Live will be increased to 60 minutes, the cache will be updated every 60 minutes if changes were made. With the High Priority lookups the client will still check every 5 minutes. When the lookup list is retrieved we will mark any updated lookups as Dirty, which will result in the lookup being served up stale initially while a back ground thread will go get a fresh copy.

The High Priority Lookup is different by role. If someone opens scheduling (or appointmentbook), we add Modality, ProcedureCode, AvailabilityTemplate, and ScheduleGroup to the High Priority List. If someone opens Reporting or Transcription, we add QualityReviewDistribution to the High Priority List.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

**From Server Update 42.0.3**

The following change to the <appSettings> section of the ris.exe.config file was introduced in Server Update 42.0.3.

A configuration change to the ris.exe.config file was introduced in build 2.42 this setting was designed to lessen the delays when retrieving lookup tables that are larger in size.

This config setting, as mentioned, is located in the ris.exe.config file located in the <appSettings> section of the file

This setting is:

<add key="RowLevelCacheDataSetNamesCSV" value="ProcedureCode,TemplateMacro,Indication"/>

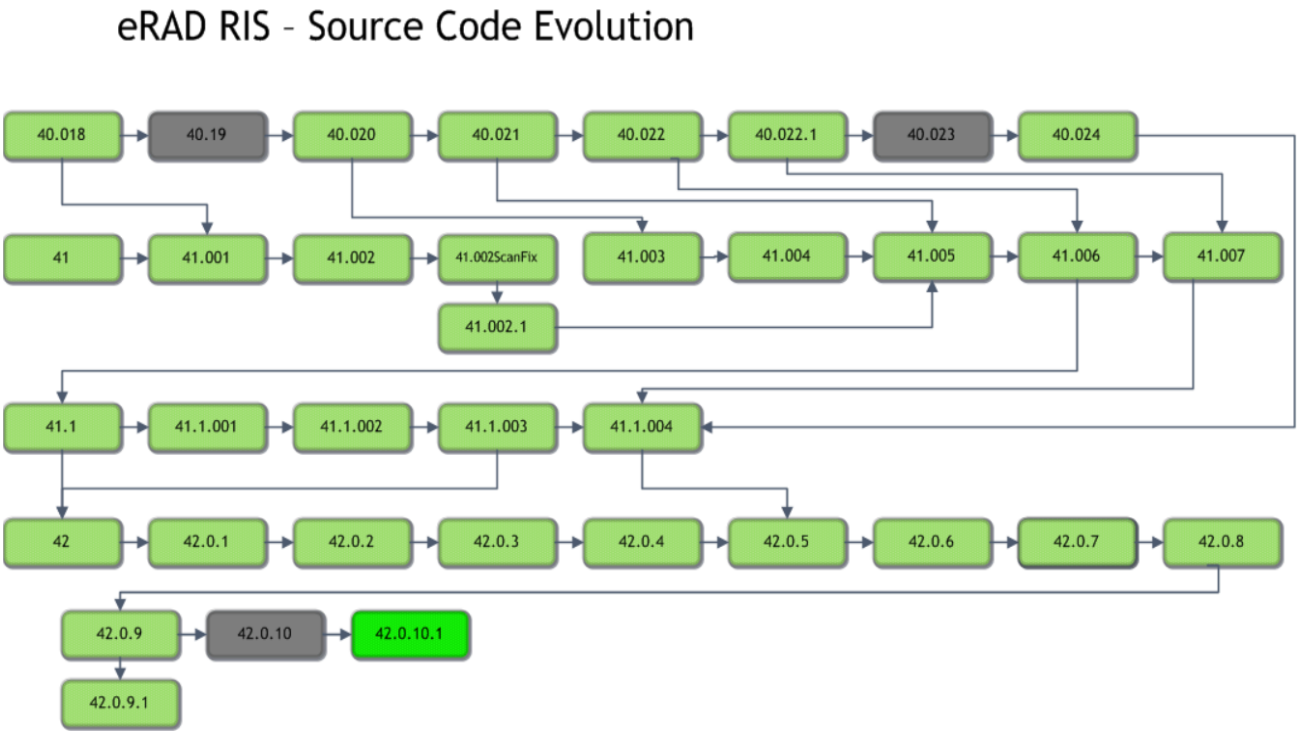
Where the value can be any lookup table, and a value=”*”, will retrieve all lookups.

The setting has resulted in undesired results of possible slowness, depending on the lookup table, and possibly additional bugs. Because of this, we are requesting that all sites comment out this line in the ris.exe.config table. The commented line will look like

<!--<add key="RowLevelCacheDataSetNamesCSV" value="ProcedureCode,TemplateMacro,Indication"/> -->

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 3. Code Stream




**Legend:**

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 4. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains:
    - rRIS_1.3.42.0.10.22420.zip

## 5. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

## 6. Who is affected

Build 42 installs. Server updates are not cumulative. This server update must be applied to 42.0.9.1

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

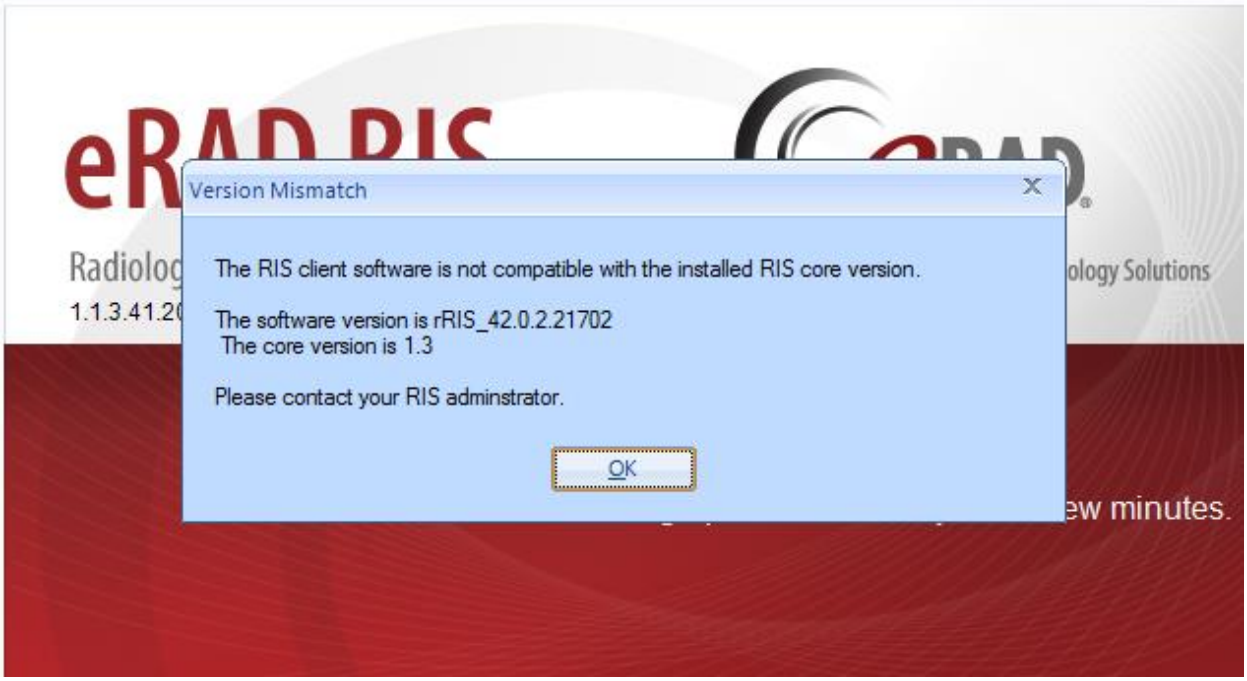
## 7. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 40 | 17 | 1.3.40.18780 (3GB) | 1.3.40.18756 | 1.3.40.18756 | 1.3.40.18646 | Core install required for Radiologist User Group. GUI.zip, Core setup, and Web Service updates |
| 40 | 18 | 1.3.40.19253(3GB) | 1.3.40.18756 | 1.3.40.18756 | 1.3.40.19253 | GUI.zip, Web Service and database updates |
| 40 | 19 | 1.3.40.19909(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | GUI.zip, Web Service |
| 40 | 20 | 1.3.40.20086(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | Gui.zip and Recognizer |
| 40 | 21 | 1.3.40.20703(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | Gui.zip |
| 40 | 22 | 1.3.40.20898(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | Gui.zip |
| 41 | - | 1.3.41.19135(3GB) | 1.3.41.19135 | 1.3.41.19135 | 1.3.41.19135 | Full version release |
| 41 | 1 | 1.3.41.19256(3GB) | 1.3.41.19135 | 1.3.41.19256 | 1.3.41.19256 | GUI.zip, Web Service and database updates |
| 41 | 2 | 1.3.41.19620(3GB) | 1.3.41.19135 | 1.3.41.19620 | 1.3.41.19346 | GUI.zip and Web Service |
| 41 | 2sf | 1.3.41.19620SF(3G) | 1.3.41.19135 | 1.3.41.19620 | 1.3.41.19346 | GUI.zip |
| 41 | 2.1 | 1.3.41.20622(3GB) | 1.3.41.19135 | 1.3.41.20617 | 1.3.41.19346 | GUI.zip and Web Service |
| 41 | 3 | 1.3.41.20125(3GB) | 1.3.41.19135 | 1.3.41.20171 | 1.3.41.19346 | GUI.zip , Web Service and Recognizer |
| 41 | 4 | 1.3.41.20285(3GB) | 1.3.41.19135 | 1.3.41.20171 | 1.3.41.19346 | GUI.zip |
| 41 | 5 | 1.3.41.20809(3GB) | 1.3.41.20708 | 1.3.41.20792 | 1.3.41.20738 | GUI.zip, Core install, Web Service and database updates |
| 41 | 6 | 1.3.41.20912(3GB) | 1.3.41.20708 | 1.3.41.20792 | 1.3.41.20738 | GUI.zip |
| 41.1 | - | 1.3.41.20918(3GB) | 1.3.41.20791 | 1.3.41.20918 | 1.3.41.20739 | GUI.zip, Core install, Web Service and DB updates, Help files |
| 41.1 | 1 | 1.3.41.20987(3GB) | 1.3.41.20791 | 1.3.41.20918 | 1.3.41.20739 | GUI.zip |
| 41.1 | 2 | 1.3.41.21162(3GB) | 1.3.41.20791 | 1.3.41.21162 | 1.3.41.21150 | GUI.zip, Web Service and DB updates, |
| 41.1 | 3 | 1.3.41.21264(3GB) | 1.3.41.20791 | 1.3.41.21162 | 1.3.41.21150 | GUI.zip |
| 42 | - | 2.42.0.0.21261(3GB) | 2.42.0.0.21261 | 2.42.0.0.21261 | 2.42.0.0.21187 | Full version release |
| 42 | 1 | 2.42.0.1.21597 | 2.42.0.0.21261 | 2.42.0.1.21597 | 2.42.0.0.21187 | GUI and Web Service updates |
| 42 | 2 | 2.42.0.2.21702 | 2.42.0.0.21261 | 2.42.0.2.21702 | 2.42.0.0.21187 | GUI and Web Service updates |
| 42 | 3 | 2.42.0.2.21806 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.0.21187 | GUI and Web Service updates |
| 42 | 4 | 2.42.0.2.21862 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.4.21870 | GUI and Database updates |
| 42 | 5 | 2.42.0.5.21924 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.4.21870 | GUI |
| 42 | 6 | 2.42.0.5.22009 | 2.42.0.0.21261 | 2.42.0.5.22009 | 2.42.0.4.21870 | GUI and Web Service updates |
| 42 | 7 | 2.42.0.7.22090 | 2.42.0.0.21261 | 2.42.0.6.22009 | 2.42.0.4.21870 | GUI.zip updates |
| 42 | 8 | 2.42.0.7.22090 | 2.42.0.7.22150 | 2.42.0.6.22009 | 2.42.0.4.21870 | Web Service updates |
| 42 | 9 | 2.42.0.9.22203 | 2.42.0.0.21261 | 2.42.0.9.22203 | 2.42.0.4.21870 | GUI and Web Service updates |
| 42 | 9.1 | 2.42.0.9.22203 | 2.42.0.0.21261 | 2.42.0.9.22203 | 2.42.0.4.21870 | Web Service updates |
| 42 | 10 | 2.42.0.10.22232 | 2.42.0.0.21261 | 2.42.0.9.22203 | 2.42.0.4.21870 | GUI.zip updates |
| **42** | **10.1** | **2.42.0.10.22420** | **2.42.0.0.21261** | **2.42.0.9.22203** | **2.42.0.4.21870** | **GUI.zip updates** |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 8. Installing

1) Copy and replace the current rRIS…zip file with the rRIS_1.3.42.0.10. 22420.zip file provided with this release.
   Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.




If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_42.0.10. 22420→ rRIS_1.3.42.0. 10. 22420. NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

**NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

For eRAD RIS
Version 2.0
Build 42
Update 42.0.11

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Defects Resolved ..... 3
2. Changes to Configuration ..... 4
3. New Features and Enhancements ..... 5
   Studies from Inactive Sites Included at Practice Level ..... 5
   Performed Date Added to Transcription WL's ..... 5
   Table Creation for Diagnostic Reports Now Configurable ..... 6
4. Code Stream ..... 7
5. Package Contents ..... 8
6. Intended Audience ..... 10
7. Who is affected ..... 10
8. eRAD RIS Release Version Numbers ..... 11
9. Installing ..... 12

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 1. Defects Resolved

| Redmine # | Subject | Priority |
|---|---|---|
| 6370 | Error starting CDS service | Urgent |
| 6307 | Potential for studies to be orphaned in a way as they won't appear on worklists | Urgent |
| 6276 | Reporting - Error thrown when suspend, dictate, then suspend or submit again | High |
| 6238 | EMR Orders with multiple procedures - in some cases the order does not appear in the Map EMR screen | High |
| 6214 | _max_interpretation_version does not update when an addendum is deleted | High |
| 6131 | Reschedule Order - Contact/Demographics Changes Not Saving | High |
| 6130 | Reschedule Order - Race Changes Not Saving | High |
| 6129 | Reschedule Order - Family History Changes Not Saving | High |
| 6445 | Person Merge improperly invalidates Quality Review Distribution dataset | Normal |
| 6428 | Payment Detail (Now OTC QA) pulling incorrect site if site gets changed | Normal |
| 6424 | Radiologist Dashboard - Activity by Radiologist counts off | Normal |
| 6422 | Typo in report name CTP Count - Performed Procedures | Normal |
| 6411 | RTAT Detail Mammo report | Normal |
| 6402 | Scanned Document version of EMR Orders has address line duplicated and is missing phone number and reason for visit | Normal |
| 6372 | MU - dgridLabResults failed with: System.NullReferenceException: Object reference not set to an instance of an object. | Normal |
| 6337 | Modality Logo Override Issue | Normal |
| 6329 | Mgmt Report issue - Edited Jobs By User Detail | Normal |
| 6316 | RTAT by Radiologist - returning incorrect results | Normal |
| 6315 | Radiologist Signing Activity Report - pulling in addended exams | Normal |
| 6313 | Radiologist Dictation Activity by Date - pulling incorrect site\practice for outside reads | Normal |
| 6248 | Billing exception screen no displaying Patient Race | Normal |
| 6219 | locking failure after changing status | Normal |
| 6216 | Value cannot be null error when using Release Form on Image Request | Normal |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 2. Changes to Configuration

New Access Strings and Configuration Settings

| Setting Placeholder | Setting | Default | Purpose / Controls Access to |
|---|---|---|---|
| Access string / User Group Permission tables | Clinical.CreateTableInReport | Full | Grants access to creating tables in diagnostic reports |

A configuration change to the ris.exe.config file was introduced in build 2.42 this setting was designed to lessen the delays when retrieving lookup tables that are larger in size.
This config setting, as mentioned, is located in the ris.exe.config file located in the <appSettings> section of the file

This setting is:
<add key="RowLevelCacheDataSetNamesCSV" value="ProcedureCode,TemplateMacro,Indication"/>

Where the value can be any lookup table, and a value=”*”, will retrieve all lookups.

The setting has resulted in undesired results of possible slowness, depending on the lookup table, and possibly additional bugs. Because of this, we are requesting that all sites comment out this line in the ris.exe.config table. The commented line will look like

<!--<add key="RowLevelCacheDataSetNamesCSV" value="ProcedureCode,TemplateMacro,Indication"/> -->

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 3. New Features and Enhancements

### Studies from Inactive Sites Included at Practice Level

The behavior of the org picker has changed when a user picks a practice. Now all sites, active and inactive are included in filter for the WL. Note that when a user attempts to pick a specific site within a practice on the org picker that only "active" sites are shown. The difference here is when a user picks an item at the practice level the WL will include all sites regardless if they are active/inactive status.

Note: this solution does not allow you to see items in WL where the scope of the WL is limited to a site, such as the reception and technologist WL.

### Performed Date Added to Transcription WL's

Prior to this patch release the Performed Start Date and the Performed End Date columns were not available on Transcription WL's. With patch release 42.0.11 they are now included in all Transcription WL's with the exception of Pending Review WL and All Pending Review WL.

In addition, the columns Performed Start Date and Performed End Date have also been added to the Dictated By Date and All Dictated WL's under the Radiologists menu.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## Table Creation for Diagnostic Reports Now Configurable

In patch release 42.0.11 we have added a new access string titled "**Clinical.CreateTableInReport**". Default access is "Full". When set to "None" in the User Group Permissions table, the user(s) that belong to this user group will no longer have the Toolbar option or Context Menu option to insert tables into diagnostic reports.

In this figure, the toolbar buttons outlined in red are for creating tables and inserting/removing rows and columns.

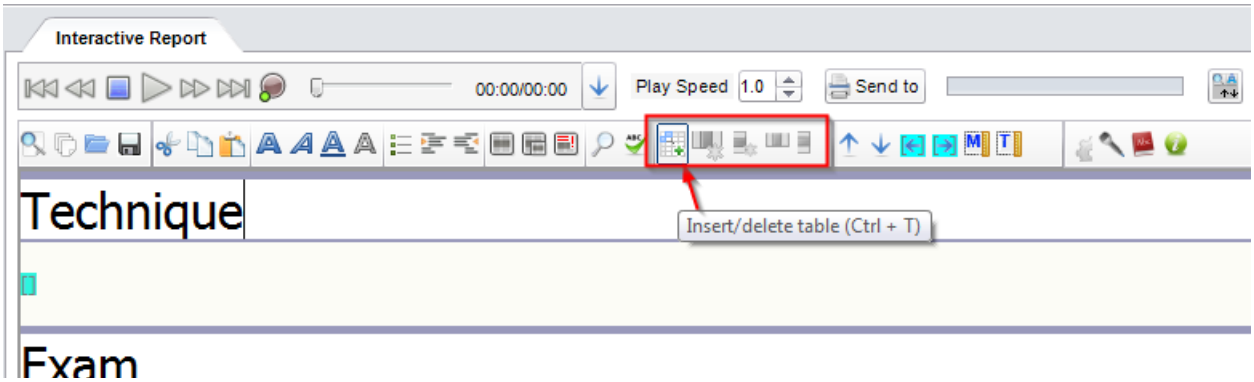



**Figure 3.1 – Toolbar options for tables in reporting window**

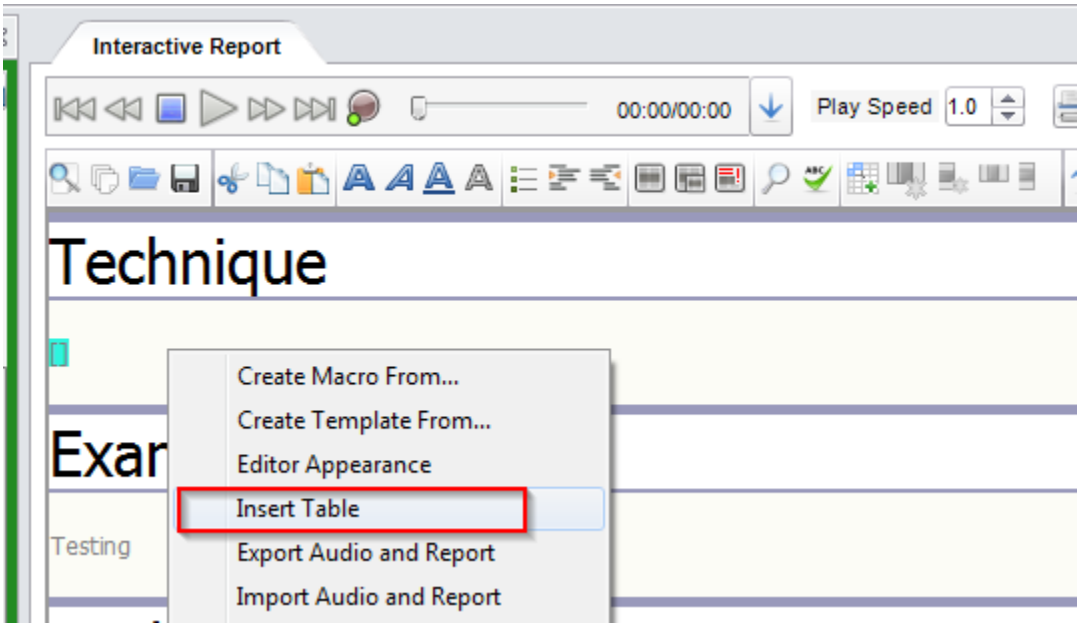
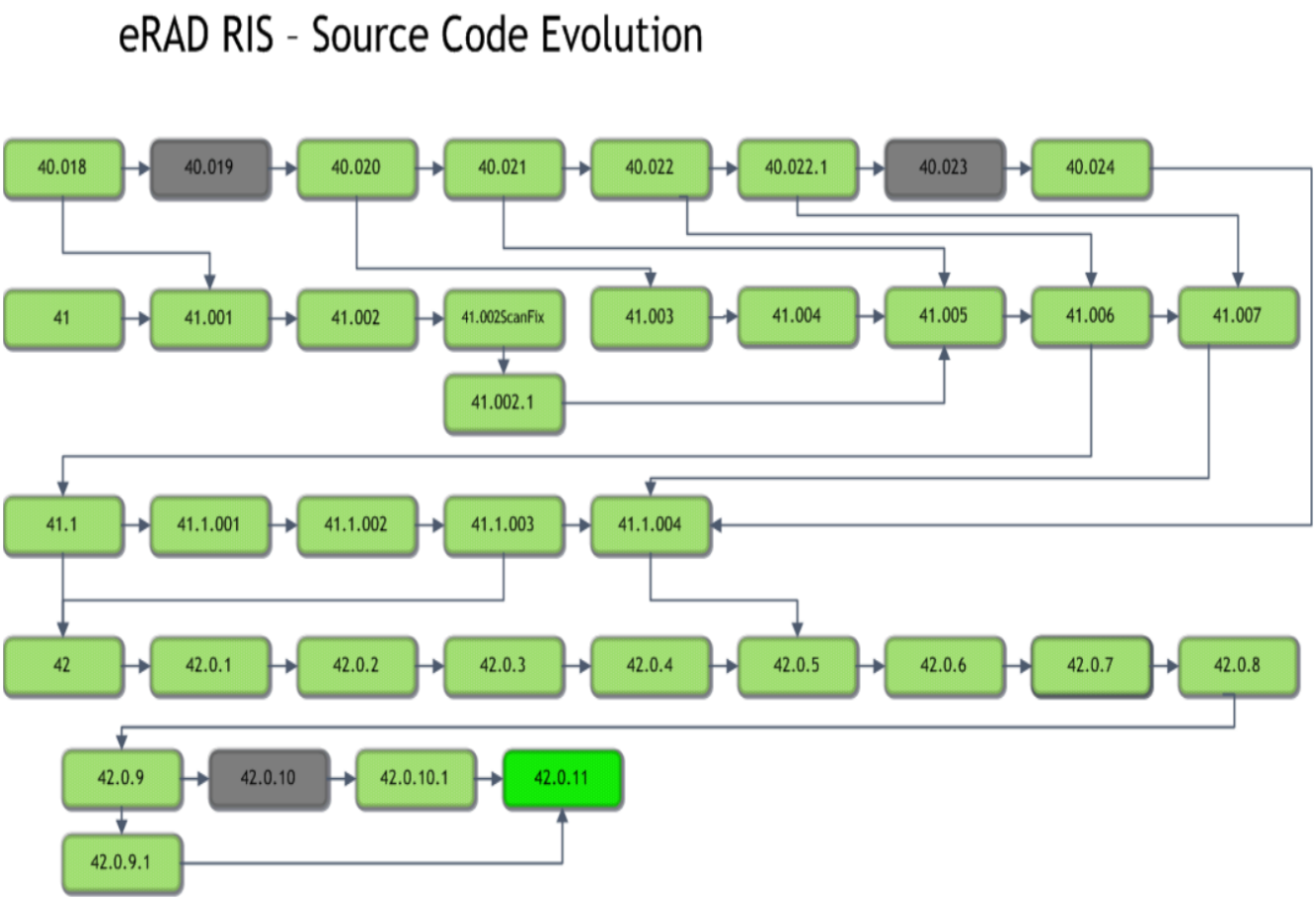



**Figure 3.2 – Context menu option to Insert Table**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 4. Code Stream




**Legend:**

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 5. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains:
   - rRIS_1.3.42.0.11.22495a.zip

2) RIS_Service_Updates contains:
   - ABCpdf.dll
   - ABCpdf9-32.dll
   - ABCpdf9-64.dll
   - CDSJobManager.dll
   - CDSJobManager.pdb
   - CdsLib.dll
   - CdsLib.xml
   - CdsLib.XmlSerializers.dll
   - CommonLib.dll
   - CommonLib.pdb
   - contents.txt
   - DDEngine.dll
   - DDEngine.pdb
   - Interop.ANYMODALCAPTURECTRLLib.dll
   - Interop.FAXCOMEXLib.dll
   - Microsoft.Practices.EnterpriseLibrary.Caching.dll
   - Microsoft.Practices.EnterpriseLibrary.Caching.pdb
   - Microsoft.Practices.EnterpriseLibrary.Common.dll
   - Microsoft.Practices.EnterpriseLibrary.Common.pdb
   - Microsoft.Practices.EnterpriseLibrary.Logging.dll
   - Microsoft.Practices.EnterpriseLibrary.Logging.pdb
   - Microsoft.Practices.ServiceLocation.dll
   - Microsoft.Practices.ServiceLocation.pdb
   - Microsoft.Practices.Unity.dll
   - Microsoft.Practices.Unity.Interception.dll
   - Microsoft.Practices.Unity.Interception.pdb
   - Microsoft.Practices.Unity.pdb
   - Microsoft.ReportViewer.Common.dll
   - Microsoft.ReportViewer.WinForms.dll
   - Microsoft.ReportViewer.WinForms.xml
   - Newtonsoft.Json.dll
   - Newtonsoft.Json.xml
   - Ninject.dll
   - Ninject.Web.Common.dll
   - Ninject.Web.Common.xml
   - Ninject.xml
   - O2S.Components.PDFRender4NET.dll
   - PDFToImages.exe
   - rRISServices.exe
   - rRISServices.pdb
   - rRISServicesx64.exe
   - ScheduledTaskManager.dll
   - ScheduledTaskManager.pdb
   - ServicesConfigWizard.exe
   - ServicesConfigWizard.pdb
   - SignatureApprovalService.exe
   - SignatureApprovalService.pdb
   - System.Net.Http.dll
   - System.Net.Http.Formatting.dll
   - System.Net.Http.Formatting.xml
   - System.Net.Http.WebRequest.dll
   - System.Net.Http.WebRequest.xml
   - System.Net.Http.xml
   - System.Web.dll
   - System.Web.Helpers.dll
   - System.Web.Helpers.xml
   - System.Web.Http.dll
   - System.Web.Http.SelfHost.dll
   - System.Web.Http.SelfHost.xml
   - System.Web.Http.WebHost.dll
   - System.Web.Http.WebHost.xml
   - System.Web.Http.xml
   - System.Web.Mvc.dll
   - System.Web.Mvc.xml
   - System.Web.Optimization.dll
   - System.Web.Providers.dll
   - System.Web.Razor.dll
   - System.Web.Razor.xml
   - System.Web.WebPages.Deployment.dll
   - System.Web.WebPages.Deployment.xml
   - System.Web.WebPages.dll
   - System.Web.WebPages.Razor.dll
   - System.Web.WebPages.Razor.xml
   - System.Web.WebPages.xml
   - Tourreau.Gilles.FaxDotNet.dll
   - Tourreau.Gilles.FaxDotNet.pdb
   - Tourreau.Gilles.FaxDotNet.xml
   - WCFService.dll
   - WCFService.pdb
   - WCFServiceTests.dll
   - WCFServiceTests.pdb
   - WebApi.dll
   - WebApi.pdb
   - Wedge.exe
   - Wedge.pdb

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

The rRIS_Service_Updates also contains to subfolders:

A. Deploy folder contains
   a. Applicationsettings
   b. ReleaseVersion-connectionstrings
   c. rRISServices.exe
   d. services

B. XSL subfolder contains:
   Subfolder titled "Stylesheets" which contains:
   a. CDAToHTMLCompleteReport.xslt
   b. CDAToHTMLImpressionSection.xslt
   c. CDATorRIS.xslt
   d. CDAToTxt.xslt
   e. DocumentModelReport.xslt
   f. DocumentModelReportAsXml.xslt

   g. CCDA Subfolder contains
      a. C-CDA.xsl
      b. eRadStylesheet.xsl
      c. generalTemplates.xsl
      d. header.xsl
      e. sectionAdministeredMedications.xsl
      f. sectionAllergies.xsl
      g. sectionEncounters.xsl
      h. sectionFuncCogStatus.xsl
      i. sectionImmunizations.xsl
      j. sectionInstructions.xsl
      k. sectionMedications.xsl
      l. sectionPlanOfCare.xsl
      m. sectionProblemList.xsl
      n. sectionProcedures.xsl
      o. sectionReasonForVisit.xsl
      p. sectionResults.xsl
      q. sectionSocialHistory.xsl
      r. sectionVitalSigns.xsl

3) SQL folder contains:
   - 42.0.11

4) SSRSDeployment folder contains the deployment tools and files/folders required to installing/updating the management reports.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 6. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

## 7. Who is affected

Build 42 installs. Server updates are not cumulative. This server update must be applied to 42.0.4

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

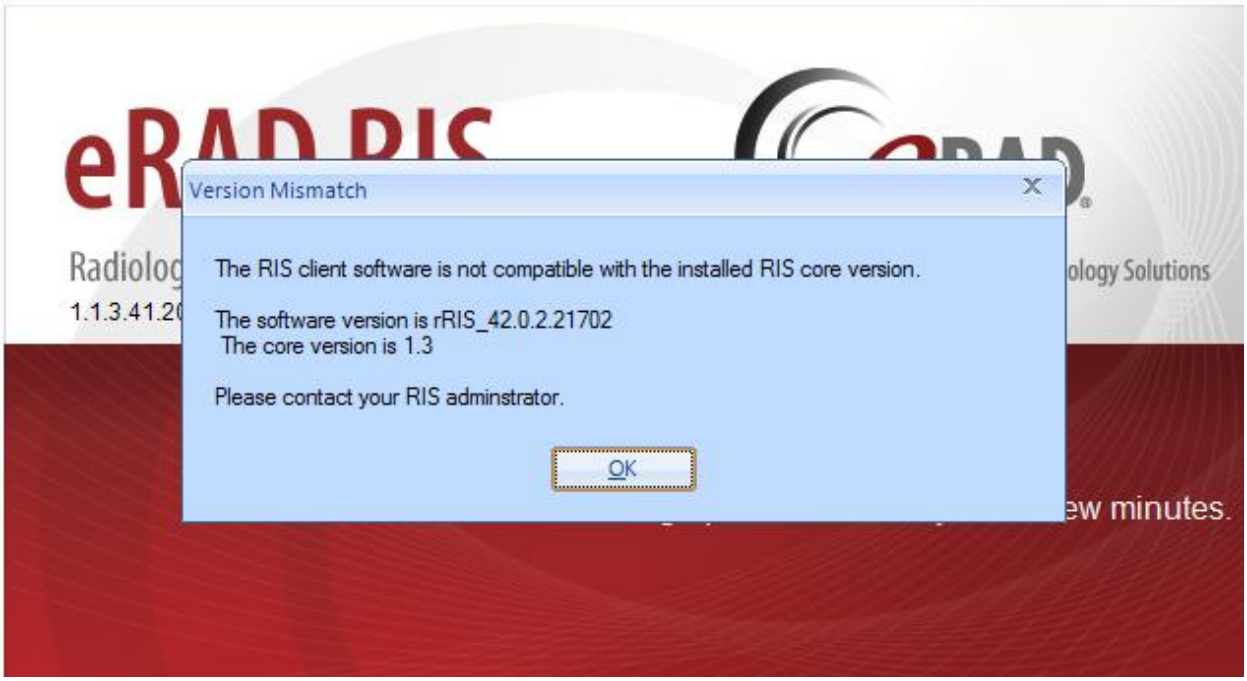
## 8. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 41 | - | 1.3.41.19135(3GB) | 1.3.41.19135 | 1.3.41.19135 | 1.3.41.19135 | Full version release |
| 41 | 1 | 1.3.41.19256(3GB) | 1.3.41.19135 | 1.3.41.19256 | 1.3.41.19256 | GUI.zip, Web Service and database updates |
| 41 | 2 | 1.3.41.19620(3GB) | 1.3.41.19135 | 1.3.41.19620 | 1.3.41.19346 | GUI.zip and Web Service |
| 41 | 2sf | 1.3.41.19620SF(3G) | 1.3.41.19135 | 1.3.41.19620 | 1.3.41.19346 | GUI.zip |
| 41 | 2.1 | 1.3.41.20622(3GB) | 1.3.41.19135 | 1.3.41.20617 | 1.3.41.19346 | GUI.zip and Web Service |
| 41 | 3 | 1.3.41.20125(3GB) | 1.3.41.19135 | 1.3.41.20171 | 1.3.41.19346 | GUI.zip , Web Service and Recognizer |
| 41 | 4 | 1.3.41.20285(3GB) | 1.3.41.19135 | 1.3.41.20171 | 1.3.41.19346 | GUI.zip |
| 41 | 5 | 1.3.41.20809(3GB) | 1.3.41.20708 | 1.3.41.20792 | 1.3.41.20738 | GUI.zip, Core install, Web Service and database updates |
| 41 | 6 | 1.3.41.20912(3GB) | 1.3.41.20708 | 1.3.41.20792 | 1.3.41.20738 | GUI.zip |
| 41.1 | - | 1.3.41.20918(3GB) | 1.3.41.20791 | 1.3.41.20918 | 1.3.41.20739 | GUI.zip, Core install, Web Service and DB updates, Help files |
| 41.1 | 1 | 1.3.41.20987(3GB) | 1.3.41.20791 | 1.3.41.20918 | 1.3.41.20739 | GUI.zip |
| 41.1 | 2 | 1.3.41.21162(3GB) | 1.3.41.20791 | 1.3.41.21162 | 1.3.41.21150 | GUI.zip, Web Service and DB updates, |
| 41.1 | 3 | 1.3.41.21264(3GB) | 1.3.41.20791 | 1.3.41.21162 | 1.3.41.21150 | GUI.zip |
| 42 | - | 2.42.0.0.21261(3GB) | 2.42.0.0.21261 | 2.42.0.0.21261 | 2.42.0.0.21187 | Full version release |
| 42 | 1 | 2.42.0.1.21597 | 2.42.0.0.21261 | 2.42.0.1.21597 | 2.42.0.0.21187 | GUI and Web Service updates |
| 42 | 2 | 2.42.0.2.21702 | 2.42.0.0.21261 | 2.42.0.2.21702 | 2.42.0.0.21187 | GUI and Web Service updates |
| 42 | 3 | 2.42.0.2.21806 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.0.21187 | GUI and Web Service updates |
| 42 | 4 | 2.42.0.2.21862 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.4.21870 | GUI and Database updates |
| 42 | 5 | 2.42.0.5.21924 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.4.21870 | GUI |
| 42 | 6 | 2.42.0.5.22009 | 2.42.0.0.21261 | 2.42.0.5.22009 | 2.42.0.4.21870 | GUI and Web Service updates |
| 42 | 7 | 2.42.0.7.22090 | 2.42.0.0.21261 | 2.42.0.6.22009 | 2.42.0.4.21870 | GUI.zip updates |
| 42 | 8 | 2.42.0.7.22090 | 2.42.0.7.22150 | 2.42.0.6.22009 | 2.42.0.4.21870 | Web Service updates |
| 42 | 9 | 2.42.0.9.22203 | 2.42.0.0.21261 | 2.42.0.9.22203 | 2.42.0.4.21870 | GUI and Web Service updates |
| 42 | 9.1 | 2.42.0.9.22203 | 2.42.0.0.21261 | 2.42.0.9.22203 | 2.42.0.4.21870 | Web Service updates |
| 42 | 10 | 2.42.0.10.22232 | 2.42.0.0.21261 | 2.42.0.9.22203 | 2.42.0.4.21870 | GUI.zip |
| 42 | 10.1 | 2.42.0.10.22420 | 2.42.0.0.21261 | 2.42.0.9.22203 | 2.42.0.4.21870 | GUI.zip updates |
| **42** | **11** | **2.42.0.11.22495a** | **2.42.0.0.21261** | **2.42.0.11.22471** | **2.42.0.11.22527** | **GUI.zip, Web Service, Database updates. Management Report Deployment** |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 9. Installing

1) Copy and replace the current rRIS…zip file with the rRIS_1.3.42.0.11.22495a.zip file provided with this release.
   Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.




If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_42.0. 11.22495a→ rRIS_1.3.42.0. 11.22495a. NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

**NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

2) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService. Be sure to make backup of all files, but especially the rRISServices.exe.config and rRISServices.vshost.exe.config files.
*rRISService directories include:*
   a) *rRISService*
   b) *CDS rRISService*
   c) *Wedge rRISService*
   d) *DDE rRISService*

   **Restart each service.**

3) Run the B42.0.11.sql file against the eRAD RIS database instance

4) SQL Reporting - Deploying eRAD RIS Reporting Services:

There is a utility called **DeployReports.bat** that will deploy the reports to a SQL Server Report Service. This utility is found in the **Build X\SSRSDeployment** folder. Below are the steps on how to use this utility.

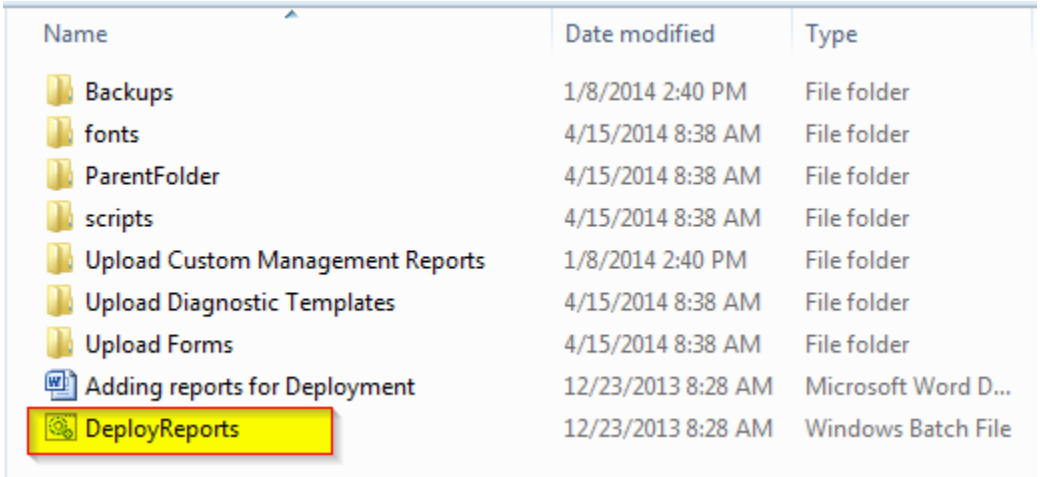



**Figure 9.1 – DeployReports.bat file in the SSRSDeployment folder**

1. Launch the DeployReports.bat file.
2. ***Enter report server name [default:<computer_name>]:***
   a. A script will run against the server and return a list of all the root folders on that report server
   **By Default this will pull the computer_name environmental variable from the machine running the script. I suggest running this from the report server for performance anyway.
3. **Enter root folder to deploy reports [default: production]**:

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

   a. This will create a new root if the name you give doesn't exist, or it will simply publish below the root of the folder if it does already exist. We typically will use "production" for the installation folder. Note: The script forces the root name to be lowercase.
   **Default is suggested to be production, but you may need to change it based on the environment you are deploying to. Ie: testserver might be called something else.

4. **Do you wish to create a backup of the existing reports?**:
   a. This will create a file backup of the report directory specified in the same directory deploy.bat is being run from inside a folder called Backups where it will create a folder based on datetime of backup. Ie: 04172014_110605 (MMDDYYYY_HHMISS).
5. **Do you wish to deploy core management reports**?
   a. If you enter "y", it will redeploy the core management reports
6. **Do you wish to upload Forms**?
   a. If you enter "y", the script will deploy any .rdl files into the installations Forms folder that you have previously saved into the script folder called "Upload Forms" including the folder below it called SubReports.
7. **Do you wish to upload Diagnostic Templates**?
   a. If you enter "y", the script will deploy any .rdl files into the installations Diagnostic Templates folder that you have previously saved into the script folder called "Upload Diagnostic Templates" including the folder below it called SubReports.
8. **Do you wish to upload Custom Management Reports?**
   a. Entering "Y" will copy any .rdl files you've copied under the deployment folder called Upload Custom Management Reports onto the server under Management Reports\Custom\Uploads directory
9. **Do you wish to create a datasource**?
   a. If you select "y" you will get prompted for more information about the datasource you wish to create. You only need to create a datasource, if this is a new installation. No need to do this if you are upgrading an existing installation. The datasource gets created in the root of the folder from step 3. The datasource will be called RISDataSource.

If you chose to create a datasource, the following steps will be requested to complete the connection string.

1. **Enter database server name**:
   a. This is the name of the physical database server
   ex. MYSERVER-1
2. **Enter database name**:

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

   a. This is the name of the database on the database server
      ex. rRIS_Site
3. **Enter report schema user name**: ex. The account that the datasource will use to connect to the database ie: SA. (For security reasons "sa" is not recommended)
4. **Enter report schema password**:

The results of deployment will be written to log.txt in the same folder as the DeployReports.bat file.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

For eRAD RIS
Version 2.0
Build 42
Update 42.0.12

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Defects Resolved ..... 3
2. Changes to Configuration ..... 4
3. New Features and Enhancements ..... 5
   Allow Billing Codes Edits Controlled from Billing Codes Lookup ..... 5
   PACS Caching - Query to see what is being cached by a particular user is a contains query and is expensive ..... 7
   PLEASE NOTE IMPORTANT CHANGE ..... 7
   PACS Cache Improvement - New field to determine priority/order of studies for the PACS to cache ..... 8
4. Code Stream ..... 9
5. Package Contents ..... 10
6. Intended Audience ..... 12
7. Who is affected ..... 12
8. eRAD RIS Release Version Numbers ..... 13
9. Installing ..... 14

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 1. Defects Resolved

| Redmine # | Subject | Priority | Found Version |
|---|---|---|---|
| 6598 | PAC IW Out of sync problem | Urgent | 2.42.0.9 |
| 6311 | Verbal order is hard-coded to associate to a known scan document type - this should be configurable | High | 1.40 |
| 6594 | referring physician "visited at" drop down list contains only numbers, not human readable addresses | High | 2.42.0.11 |
| 6566 | ReportTemplateEditor not being cleaned up when ReportingRadiologist closes | High | 2.42.09 |
| 6548 | bi-rads info not reset when using screen re-use on dictate screen. | High | 2.42.11 |
| 6543 | Reporting - screen reuse and pending save items may hang around on the worklist | Normal | 2.42.0.11 |
| 6441 | PACS images are loaded even if reporting window ultimately does not open. | Normal | 2.42 |
| 6644 | PACS Caching - The RIS is failing to clear out the cache field properly when it is to no longer be cached. | Normal | 2.42.0 |
| 5401 | Cannot re-dock patient folder window because of exception on title bar right-click | Normal | 1.41.1 |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

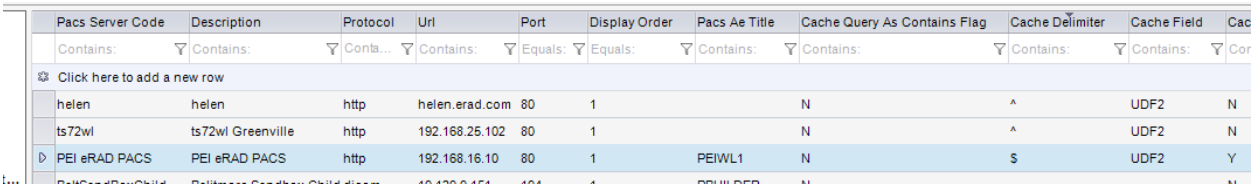
## 2. Changes to Configuration

New Access Strings and Configuration Settings

| Setting Placeholder | Setting | Default | Purpose / Controls Access to |
|---|---|---|---|
| Access string / User Group Permission tables | Clinical.CreateTableInReport | Full | Grants access to creating tables in diagnostic reports |
| SystemConfig lookup | VerbalOrderScanDocumentType | Script | Default scan document type for a verbal order. Note if this scan document type doesn't exist, the first scan document type will be chosen. |
| SystemConfig lookup | ElectronicOrderScanDocumentType | Script | Default scan document type for a Electronic/HL7 order. |

# PLEASE NOTE IMPORTANT CHANGE

**NOTE: During testing of these new PACS features, it was discovered that using ^ as a cache delimiter does not work with an "equals" style query. Recommended character is now $. The delimiter is set in the PACSServer lookup table. In the figure below notice the caret ^ is replaced with a dollar sign $ for the PEI eRAD PACS server.**



| Pacs Server Code | Description | Protocol | Url | Port | Display Order | Pacs Ae Title | Cache Query As Contains Flag | Cache Delimiter | Cache Field | Cac |
|---|---|---|---|---|---|---|---|---|---|---|
| Contains: | Contains: | Conta... | Contains: | Equals: | Equals: | Contains: | Contains: | Contains: | Contains: | Cor |
| Click here to add a new row | | | | | | | | | | |
| helen | helen | http | helen.erad.com | 80 | 1 | | N | ^ | UDF2 | N |
| ts72wl | ts72wl Greenville | http | 192.168.25.102 | 80 | 1 | | N | ^ | UDF2 | N |
| PEI eRAD PACS | PEI eRAD PACS | http | 192.168.16.10 | 80 | 1 | PEIWL1 | N | $ | UDF2 | Y |

**Figure 2.1 – PACSServer lookup displaying new cache delimiter**

++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++

A configuration change to the ris.exe.config file was introduced in build 2.42 this setting was designed to lessen the delays when retrieving lookup tables that are larger in size.
This config setting, as mentioned, is located in the ris.exe.config file located in the <appSettings> section of the file

This setting is:
<add key="RowLevelCacheDataSetNamesCSV" value="ProcedureCode,TemplateMacro,Indication"/>

Where the value can be any lookup table, and a value=”*”, will retrieve all lookups.

The setting has resulted in undesired results of possible slowness, depending on the lookup table, and possibly additional bugs. Because of this, we are requesting that all sites comment out this line in the ris.exe.config table. The commented line will look like

<!--<add key="RowLevelCacheDataSetNamesCSV" value="ProcedureCode,TemplateMacro,Indication"/> -->

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 3. New Features and Enhancements

### Allow Billing Codes Edits Controlled from Billing Codes Lookup

This relates to a feature that was released in Build 42 titled "Allow Edit Billing Units". Users were able to add additional billing codes to the study that were not associated with the procedure. While this in itself is not an issue, the fact that users could then increase/decrease the amount units for the billing code is.

What we have done is added a new column to the BillingCode lookup table titled "Allow Edits Units Flag" that has possible values of Y or N.

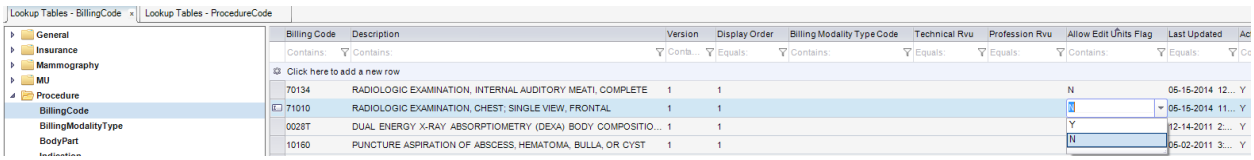



**Figure 3.1 – BillingCode lookup displaying new column**

If the value on the billing code for Allow Edit Units Flag = N, when a user adds this billing code to a study from the Technologist's Perform Exam window, the View Edit window or the Billing Exception window, they will not be able to edit the unit value for that Billing Code.

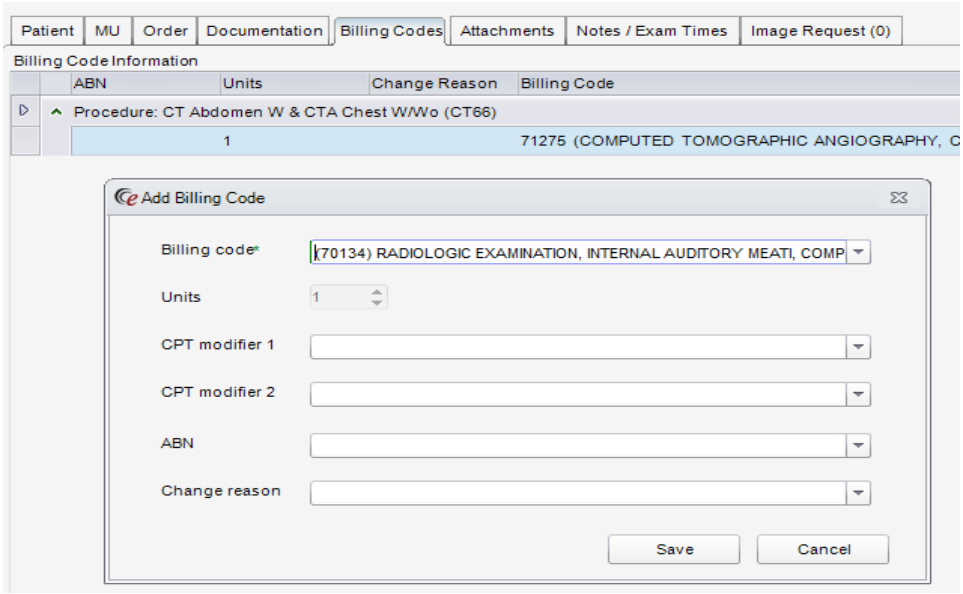



**Figure 3.2 – Add billing code not associated with procedure that units cannot be edited**

If the billing code doesn't allow for the edit of Units, but when associated to a procedure code in the ProcedureCode lookup table and it is desired to allow the edit of units for this particular procedure, it can be overridden by using the method to add the billing code described in the original feature of 42.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

The procedure code row can be expanded in the lookup table. Under the l_procedure_code_x_billing_code tab the user added the billing code and can select if the billing code should have the option to Allow Edit Units.

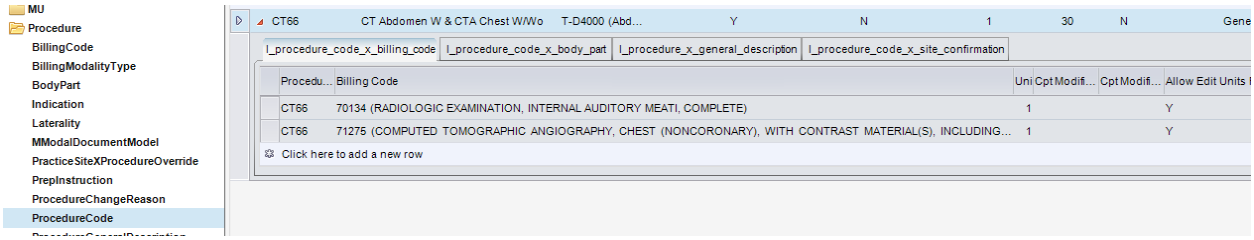



**Figure 3.3 – Override for default Allow Edit Units flag at Procedure Code level**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## PACS Caching - Query to see what is being cached by a particular user is a contains query and is expensive

On every refresh of the Pending Dictation worklist the RIS initiates a URL call to the PACS to retrieve the list of studies being cached by the user. This call is done using * as a wildcard before and after the filter value. This is an expensive operation on the PACS database. Since changes in 42 prevent more than one user from caching a study anyway, these wildcards are no longer necessary.

We have introduced a new caching option for PACS calls of the images to be cached for a user.

A new column added to the PACSService lookup table titled “Cache Query As Contains Flag” has been added with possible values of Y or N.

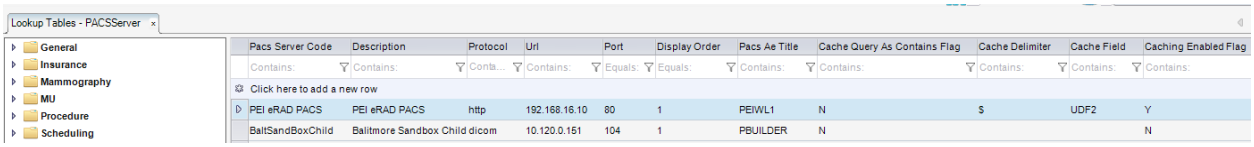



**Figure 3.4 – PACSServer lookup displaying new column of Cache Query As Contains Flag.**

When set to Y, it works as before, using the wildcard to find the user to cache for. When set to N it will not use the wildcards before and after the username, thus doing an exact search on the username, instead of a “is like”.

The default value of this setting is off and is not recommended to be turned on.

## PLEASE NOTE IMPORTANT CHANGE

**NOTE: During testing of these new PACS features, it was discovered that using ^ as a cache delimiter does not work with an "equals" style query. Recommended character is now $. The delimiter is set in the PACSServer lookup table. In the figure below notice the caret ^ is replaced with a dollar sign $ for the PEI eRAD PACS server.**

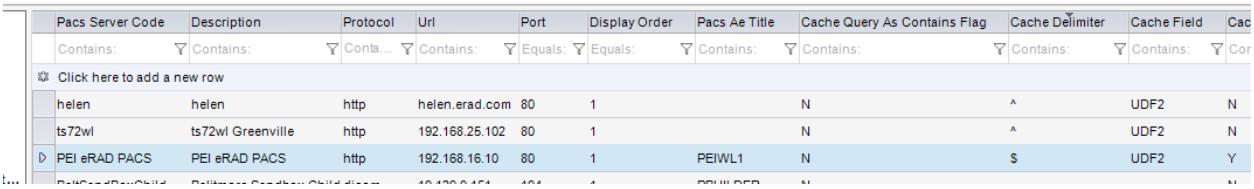



**Figure 3.5 – PACSServer lookup displaying new cache delimiter**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## PACS Cache Improvement - New field to determine priority/order of studies for the PACS to cache

The current method by which the RIS controls the PACS caching mechanism has no way to provide a priority for the PACS. This means that if there are a large number of studies to cache the first ones that are needed by the user may not be the first ones that the PACS viewer retrieves.

Added new columns to the PACSServer lookup table called Cache Order Field.

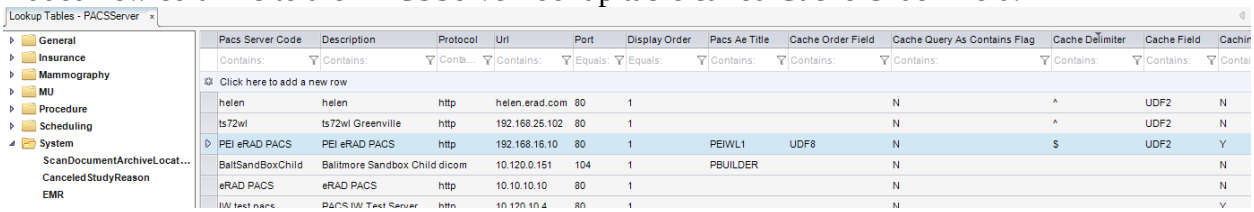
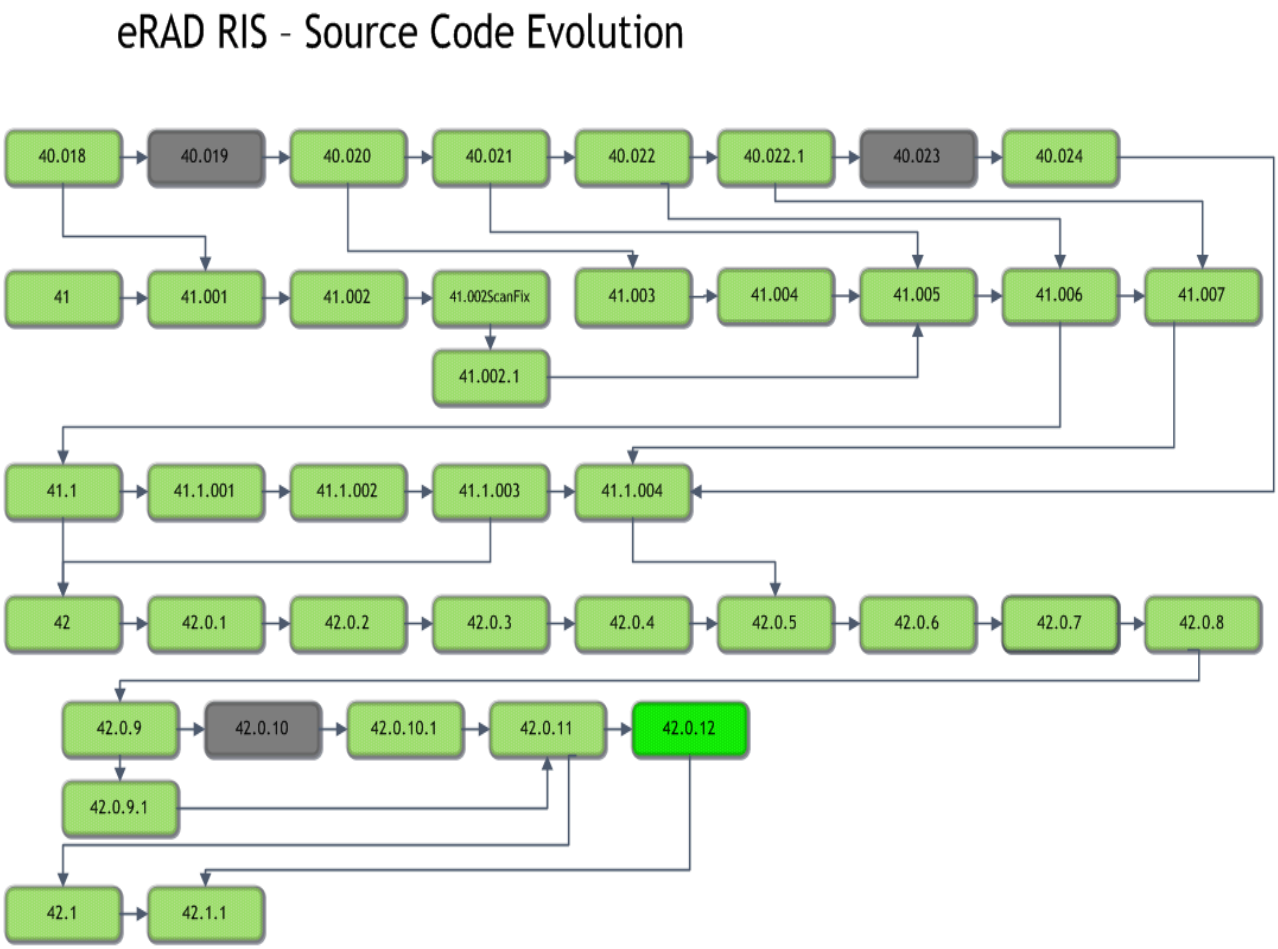



**Figure 3.6 – PACSServer lookup displaying new column of Cache Order Field**

The cache order field is used to determine the priority of the cache job and is filled with a datetime and a set id.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 4. Code Stream




**Legend:**

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 5. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains:
   - rRIS_1.3.42.0.12.22982.zip

2) RIS_Service_Updates contains:
   - ABCpdf.dll
   - ABCpdf9-32.dll
   - ABCpdf9-64.dll
   - CDSJobManager.dll
   - CDSJobManager.pdb
   - CdsLib.dll
   - CdsLib.xml
   - CdsLib.XmlSerializers.dll
   - CommonLib.dll
   - CommonLib.pdb
   - contents.txt
   - DDEngine.dll
   - DDEngine.pdb
   - Interop.ANYMODALCAPTURECTRLLib.dll
   - Interop.FAXCOMEXLib.dll
   - Microsoft.Practices.EnterpriseLibrary.Caching.dll
   - Microsoft.Practices.EnterpriseLibrary.Caching.pdb
   - Microsoft.Practices.EnterpriseLibrary.Common.dll
   - Microsoft.Practices.EnterpriseLibrary.Common.pdb
   - Microsoft.Practices.EnterpriseLibrary.Logging.dll
   - Microsoft.Practices.EnterpriseLibrary.Logging.pdb
   - Microsoft.Practices.ServiceLocation.dll
   - Microsoft.Practices.ServiceLocation.pdb
   - Microsoft.Practices.Unity.dll
   - Microsoft.Practices.Unity.Interception.dll
   - Microsoft.Practices.Unity.Interception.pdb
   - Microsoft.Practices.Unity.pdb
   - Microsoft.ReportViewer.Common.dll
   - Microsoft.ReportViewer.WinForms.dll
   - Microsoft.ReportViewer.WinForms.xml
   - Newtonsoft.Json.dll
   - Newtonsoft.Json.xml
   - Ninject.dll
   - Ninject.Web.Common.dll
   - Ninject.Web.Common.xml
   - Ninject.xml
   - O2S.Components.PDFRender4NET.dll
   - PDFToImages.exe
   - rRISServices.exe
   - rRISServices.pdb
   - rRISServicesx64.exe
   - ScheduledTaskManager.dll
   - ScheduledTaskManager.pdb
   - ServicesConfigWizard.exe
   - ServicesConfigWizard.pdb
   - SignatureApprovalService.exe
   - SignatureApprovalService.pdb
   - System.Net.Http.dll
   - System.Net.Http.Formatting.dll
   - System.Net.Http.Formatting.xml
   - System.Net.Http.WebRequest.dll
   - System.Net.Http.WebRequest.xml
   - System.Net.Http.xml
   - System.Web.dll
   - System.Web.Helpers.dll
   - System.Web.Helpers.xml
   - System.Web.Http.dll
   - System.Web.Http.SelfHost.dll
   - System.Web.Http.SelfHost.xml
   - System.Web.Http.WebHost.dll
   - System.Web.Http.WebHost.xml
   - System.Web.Http.xml
   - System.Web.Mvc.dll
   - System.Web.Mvc.xml
   - System.Web.Optimization.dll
   - System.Web.Providers.dll
   - System.Web.Razor.dll
   - System.Web.Razor.xml
   - System.Web.WebPages.Deployment.dll
   - System.Web.WebPages.Deployment.xml
   - System.Web.WebPages.dll
   - System.Web.WebPages.Razor.dll
   - System.Web.WebPages.Razor.xml
   - System.Web.WebPages.xml
   - Tourreau.Gilles.FaxDotNet.dll
   - Tourreau.Gilles.FaxDotNet.pdb
   - Tourreau.Gilles.FaxDotNet.xml
   - WCFService.dll
   - WCFService.pdb
   - WCFServiceTests.dll
   - WCFServiceTests.pdb
   - WebApi.dll
   - WebApi.pdb
   - Wedge.exe
   - Wedge.pdb

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

The rRIS_Service_Updates also contains to subfolders:

A. Deploy folder contains
   a. Applicationsettings
   b. ReleaseVersion-connectionstrings
   c. rRISServices.exe
   d. services

B. XSL subfolder contains:
   Subfolder titled "Stylesheets" which contains:
   a. CDAToHTMLCompleteReport.xslt
   b. CDAToHTMLImpressionSection.xslt
   c. CDATorRIS.xslt
   d. CDAToTxt.xslt
   e. DocumentModelReport.xslt
   f. DocumentModelReportAsXml.xslt

   g. CCDA Subfolder contains
      a. C-CDA.xsl
      b. eRadStylesheet.xsl
      c. generalTemplates.xsl
      d. header.xsl
      e. sectionAdministeredMedications.xsl
      f. sectionAllergies.xsl
      g. sectionEncounters.xsl
      h. sectionFuncCogStatus.xsl
      i. sectionImmunizations.xsl
      j. sectionInstructions.xsl
      k. sectionMedications.xsl
      l. sectionPlanOfCare.xsl
      m. sectionProblemList.xsl
      n. sectionProcedures.xsl
      o. sectionReasonForVisit.xsl
      p. sectionResults.xsl
      q. sectionSocialHistory.xsl
      r. sectionVitalSigns.xsl

3) SQL folder contains:
   - 42.0.12.sql

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 6. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

## 7. Who is affected

Build 42 installs. Server updates are not cumulative. This server update must be applied to 42.0.11

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

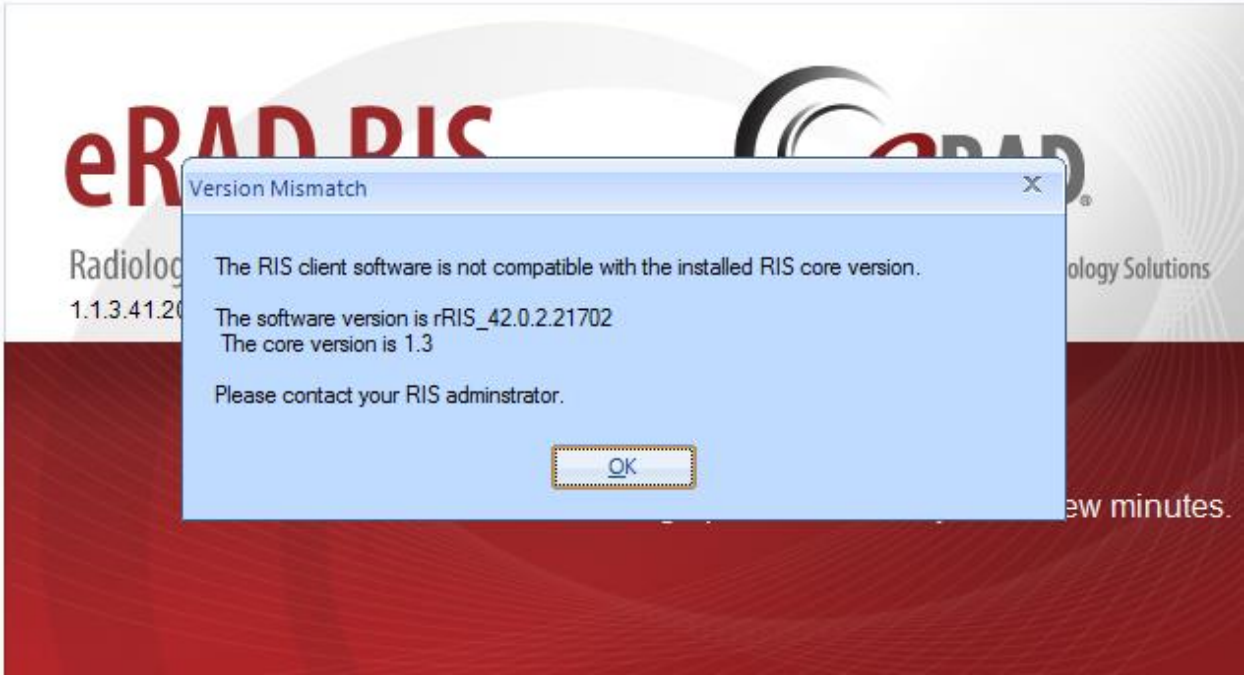
## 8. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 41 | - | 1.3.41.19135(3GB) | 1.3.41.19135 | 1.3.41.19135 | 1.3.41.19135 | Full version release |
| 41 | 1 | 1.3.41.19256(3GB) | 1.3.41.19135 | 1.3.41.19256 | 1.3.41.19256 | GUI.zip, Web Service and database updates |
| 41 | 2 | 1.3.41.19620(3GB) | 1.3.41.19135 | 1.3.41.19620 | 1.3.41.19346 | GUI.zip and Web Service |
| 41 | 2sf | 1.3.41.19620SF(3G) | 1.3.41.19135 | 1.3.41.19620 | 1.3.41.19346 | GUI.zip |
| 41 | 2.1 | 1.3.41.20622(3GB) | 1.3.41.19135 | 1.3.41.20617 | 1.3.41.19346 | GUI.zip and Web Service |
| 41 | 3 | 1.3.41.20125(3GB) | 1.3.41.19135 | 1.3.41.20171 | 1.3.41.19346 | GUI.zip , Web Service and Recognizer |
| 41 | 4 | 1.3.41.20285(3GB) | 1.3.41.19135 | 1.3.41.20171 | 1.3.41.19346 | GUI.zip |
| 41 | 5 | 1.3.41.20809(3GB) | 1.3.41.20708 | 1.3.41.20792 | 1.3.41.20738 | GUI.zip, Core install, Web Service and database updates |
| 41 | 6 | 1.3.41.20912(3GB) | 1.3.41.20708 | 1.3.41.20792 | 1.3.41.20738 | GUI.zip |
| 41.1 | - | 1.3.41.20918(3GB) | 1.3.41.20791 | 1.3.41.20918 | 1.3.41.20739 | GUI.zip, Core install, Web Service and DB updates, Help files |
| 41.1 | 1 | 1.3.41.20987(3GB) | 1.3.41.20791 | 1.3.41.20918 | 1.3.41.20739 | GUI.zip |
| 41.1 | 2 | 1.3.41.21162(3GB) | 1.3.41.20791 | 1.3.41.21162 | 1.3.41.21150 | GUI.zip, Web Service and DB updates, |
| 41.1 | 3 | 1.3.41.21264(3GB) | 1.3.41.20791 | 1.3.41.21162 | 1.3.41.21150 | GUI.zip |
| 42 | - | 2.42.0.0.21261(3GB) | 2.42.0.0.21261 | 2.42.0.0.21261 | 2.42.0.0.21187 | Full version release |
| 42 | 1 | 2.42.0.1.21597 | 2.42.0.0.21261 | 2.42.0.1.21597 | 2.42.0.0.21187 | GUI and Web Service updates |
| 42 | 2 | 2.42.0.2.21702 | 2.42.0.0.21261 | 2.42.0.2.21702 | 2.42.0.0.21187 | GUI and Web Service updates |
| 42 | 3 | 2.42.0.2.21806 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.0.21187 | GUI and Web Service updates |
| 42 | 4 | 2.42.0.2.21862 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.4.21870 | GUI and Database updates |
| 42 | 5 | 2.42.0.5.21924 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.4.21870 | GUI |
| 42 | 6 | 2.42.0.5.22009 | 2.42.0.0.21261 | 2.42.0.5.22009 | 2.42.0.4.21870 | GUI and Web Service updates |
| 42 | 7 | 2.42.0.7.22090 | 2.42.0.0.21261 | 2.42.0.6.22009 | 2.42.0.4.21870 | GUI.zip updates |
| 42 | 8 | 2.42.0.7.22090 | 2.42.0.7.22161 | 2.42.0.6.22009 | 2.42.0.4.21870 | Web Service updates |
| 42 | 9 | 2.42.0.9.22203 | 2.42.0.0.21261 | 2.42.0.9.22203 | 2.42.0.4.21870 | GUI and Web Service updates |
| 42 | 9.1 | 2.42.0.9.22203 | 2.42.0.0.21261 | 2.42.0.9.22203 | 2.42.0.4.21870 | Web Service updates |
| 42 | 10 | 2.42.0.10.22232 | 2.42.0.0.21261 | 2.42.0.9.22203 | 2.42.0.4.21870 | GUI.zip |
| 42 | 10.1 | 2.42.0.10.22420 | 2.42.0.0.21261 | 2.42.0.9.22203 | 2.42.0.4.21870 | GUI.zip updates |
| 42 | 11 | 2.42.0.11.22495a | 2.42.0.0.21261 | 2.42.0.11.22471 | 2.42.0.11.22527 | GUI.zip, Web Service, Database updates. Management Report Deployment |
| **42** | **12** | **2.42.0.12.22982** | **2.42.0.0.21261** | **2.42.0.12.22982** | **2.42.0.12.22911** | **GUI.zip, Web Service, Database updates.** |
| 42.1 | - | 2.42.1.0.22744 | 2.42.0.0.21261 | 2.42.1.0.22744 | 2.42.1.0.22736 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 42.1 | 1 | 2.42.1.1.22963 | 2.42.0.0.21261 | 2.42.1.1.22963 | 2.42.1.1.22864 | GUI.zip, Web Service, DB updates |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 9. Installing

1) Copy and replace the current rRIS…zip file with the rRIS_1.3.42.0.12.22982.zip file provided with this release.
   Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.




If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_42.0.12.22982→ rRIS_1.3.42.0.12.22982. NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

**NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

2) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService. Be sure to make backup of all files, but especially the rRISServices.exe.config and rRISServices.vshost.exe.config files.
   *rRISService directories include:*
   a) *rRISService*
   b) *CDS rRISService*
   c) *Wedge rRISService*
   d) *DDE rRISService*

   **Restart each service.**

3) Run the B42.0.12.sql file against the eRAD RIS database instance

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# User Release Notes

for eRAD RIS
Version 2
Build 42.1

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# Table of Contents

1. Purpose ..... 3
2. Intended Audience ..... 3
3. Installing/Accessing the Application ..... 3
4. New Access Strings and Configuration Settings 42.1 ..... 4
5. New Features and Enhancements ..... 6
   Reporting – Reporting Mode User Preference option added. ..... 6
   Reporting – Non Essential View menu items removed from Reporting window when user is not in M*Modal mode. ..... 8
   Reporting – Non-essential Tool windows removed from the PowerScribe Reporting window. 9
   Reporting – BI-RADS control disabled for Reporting Integration Type that is not M*Modal. 10
   Reporting – SpeechMike - ability to bypass activation of the speech mike ..... 10
   Reporting – Report Recovery disabled for Reporting Integration Type that is not M*Modal. 10
   Reporting – "CDS Management Console" option removed when not in M*Modal mode. ..... 11
   Reporting – Report History - ability to support non M*Modal reporting ..... 12
   Reporting – Added Powerscribe 360 to the available Interpretation Types. ..... 13
   Reporting – User prevented from opening a study when interpretation type conflict with current Reporting Mode. ..... 14
   Reporting – WPR workflow button disabled for Reporting Integration Type that is not M*Modal ..... 16
   Reporting – Added the ability to drop an XML file to open PowerScribe reports. ..... 17
   Reporting – Reporting Integration None – advance status flag. ..... 19
   Reporting – Added the ability to limit the number of reporting windows open. ..... 21
   Reporting – Added User Preference Autofeed studies for PowerScribe users. ..... 22
   Reporting – Added menu option to Enable or Disable PowerScribe 360. ..... 24
   Reporting – Access string added for M*Modal reporting mode. ..... 26
6. Code Stream ..... 27
7. RIS Release Version Numbers ..... 28
8. Resolved Defects ..... 29
9. Known Limitations ..... 30

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 1. Purpose

This document describes some of the new features and changes implemented in eRAD RIS as of the end of Sprint 42.1 and subsequent server releases. This version of eRAD RIS is referred to as Build 2.42.1.

Only features which can be visually demonstrated to the user will be outlined in this document.

# 2. Intended Audience

This document is created by the RIS Development team for the RadNet RIS management team.

# 3. Installing/Accessing the Application

The installation guide for the eRAD RIS client have been posted to the RadNet Wiki page at http://mdbal01rdtweb/Wiki/

Under the RIS menu click on the rRIS page. The credentials to access the page are:
Username: rRIS
Password: Summerside

*Please note that Build 2.42.1 is considered a new core release of the application and will require a reinstallation of eRAD RIS. This is accomplished by navigating to the eRAD RIS shared installation drive and running the CoreInstall.bat file (ex: I:\RISDeployment\CoreInstall.bat)*

If you experience difficulties accessing the application please do not hesitate to contact Darcy Noye with the PEI RIS Development Team.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 4. New Access Strings and Configuration Settings 42.1

| Setting Placeholder | Setting | Default | Purpose / Controls Access to |
|---|---|---|---|
| Access string / User Group Permission tables | Config.AllowMModalConfig | None | Allows users access to turning on M*Modal workflow for themselves or other users if the current user has admin access |
| Access string / User Group Permission tables | Config.AllowPowerScribeConfig | None | Allows users access to turning on PowerScribe workflow for themselves or other users if the current user has admin access |
| Access string / User Group Permission tables | PowerScribe360.AllowAutofeed | None | Allows users access to the PowerScribe autofeed next study functionality |
| Access string / User Group Permission tables | PowerScribe360.Enable | Full | Controls Access to the PowerScribe 360 menu item. Under this menu item are 2 options - enable and disable .When set to Disabled messages will not be sent to Powerscribe 360 via API integration |
| Access string / User Group Permission tables | Clinical.SetMarkAsReadFlag | None | Allows access to right click menu to Mark As Read or Unmark As Read |
| SystemConfig lookup | LimitOpenReportingWithPowerscribeCount | 0 | Determines the number of reporting windows that can be opened at one time by a given user with Powerscribe integration. 0 or negative values result in no defined limit. |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

New access strings from 42.0.3

| Setting Placeholder | Setting | Default | Purpose / Controls Access to |
|---|---|---|---|
| Ris.exe.config | <add key="RowLevelCacheDataSetNamesCSV" value="ProcedureCode,TemplateMacro,Indication"/><br><br>**Changes to**<br><br><!--<add key="RowLevelCacheDataSetNamesCSV" value="ProcedureCode,TemplateMacro,Indication"/> --> | | The setting has resulted in undesired results of possible slowness, depending on the lookup table, and possibly additional bugs. Because of this, we are requesting that all sites comment out this line in the ris.exe.config table. |

New access strings from 42.0.10

| Setting Placeholder | Setting | Default | Purpose / Controls Access to |
|---|---|---|---|
| Ris.exe.config | <add key="EnableHighPriorityLookupStrategy" value="true"/> | | New setting added. The High Priority Lookup is different by role.<br>If someone opens scheduling (or appointmentbook), we add Modality, ProcedureCode, AvailabilityTemplate, and ScheduleGroup to the High Priority List. If someone opens Reporting or Transcription, we add QualityReviewDistribution to the High Priority List |
| Ris.exe.config | <add key="LookupTableTimeToLiveInMinutes" value="5"/><br><br>**Changes to**<br><br><add key="LookupTableTimeToLiveInMinutes" value="60"/> | | The change **only applies for systems that have a value of less than 60**. For example: Change the value of 5 to 60. Since the Time to Live will be increased to 60 minutes, the cache will be updated every 60 minutes if changes were made. |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 5. New Features and Enhancements

## Reporting – Reporting Mode User Preference option added.

There is an additional user preference accessible from the administrative personnel area and also in the User Preferences, to turn off embedded reporting and turn on PowerScribe reporting. The new Reporting Integration user preference is set up in the User Preference on the General tab under the Workflow Options section and is labeled as "Reporting mode". The preference is set with a drop down list.

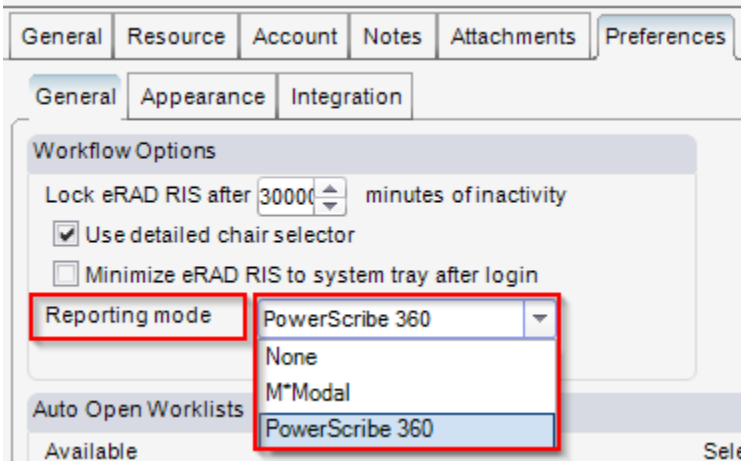



**Figure 5.1 – Reporting mode selection dropdown list**

The available reporting integration options available are described below:

*None*

This mode will disable the embedded or closely integrated reporting solutions. Radiologist worklists and screens do exist but do not include a report editor, dictation control or any other tool windows that would otherwise interact or depend on the report or the dictation existing within RIS.

If PACS integration is enabled, this will remain. It is possible in *None* mode to have PACS drive a third party reporting solution. However RIS will not communicate directly with such reporting solution.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

*M*Modal*

The *M*Modal* mode will use the traditional eRad RIS embedded reporting solution with M*Modal.

A new access string named "**Config.AllowMModalConfig**" controls access to the M*Modal option in the Reporting Mode list box. The default value for this access string is None.

*PowerScribe*

The PowerScribe mode will enable system integration with PowerScribe 360s reporting solution. This option will allow for reporting to be done externally with PowerScribe 360 however will support direct application communication/interaction between eRad RIS and PowerScribe 360.

An access string named "**Config.AllowPowerScribeConfig**" has been added for this preference with a default value of 'None'. This ensures only admins have access to enable/disable the preference, or users who have access via this could also enable/disable this preference for themselves.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Non Essential View menu items removed from Reporting window when user is not in M*Modal mode.

While a user is working in the Reporting window and is in "PowerScribe" mode or "None" mode, the view menu options will only display relevant patient folder tool windows. "Templates", "Macros", and "Fields" are no longer available to the user. These options are still available for an M*Modal user.

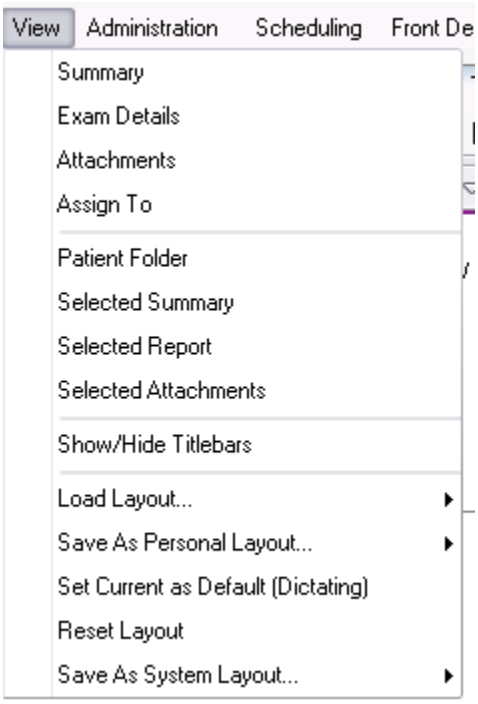



**Figure 5.2 – Reporting View menu when PowerScribe or None mode is enabled**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Non-essential Tool windows removed from the PowerScribe Reporting window

While a user is working in the Reporting window and is in "PowerScribe" mode or "None" mode, the non-essential tool windows will not be displayed. The tool windows removed includes "Templates", "Macros", and "Fields".

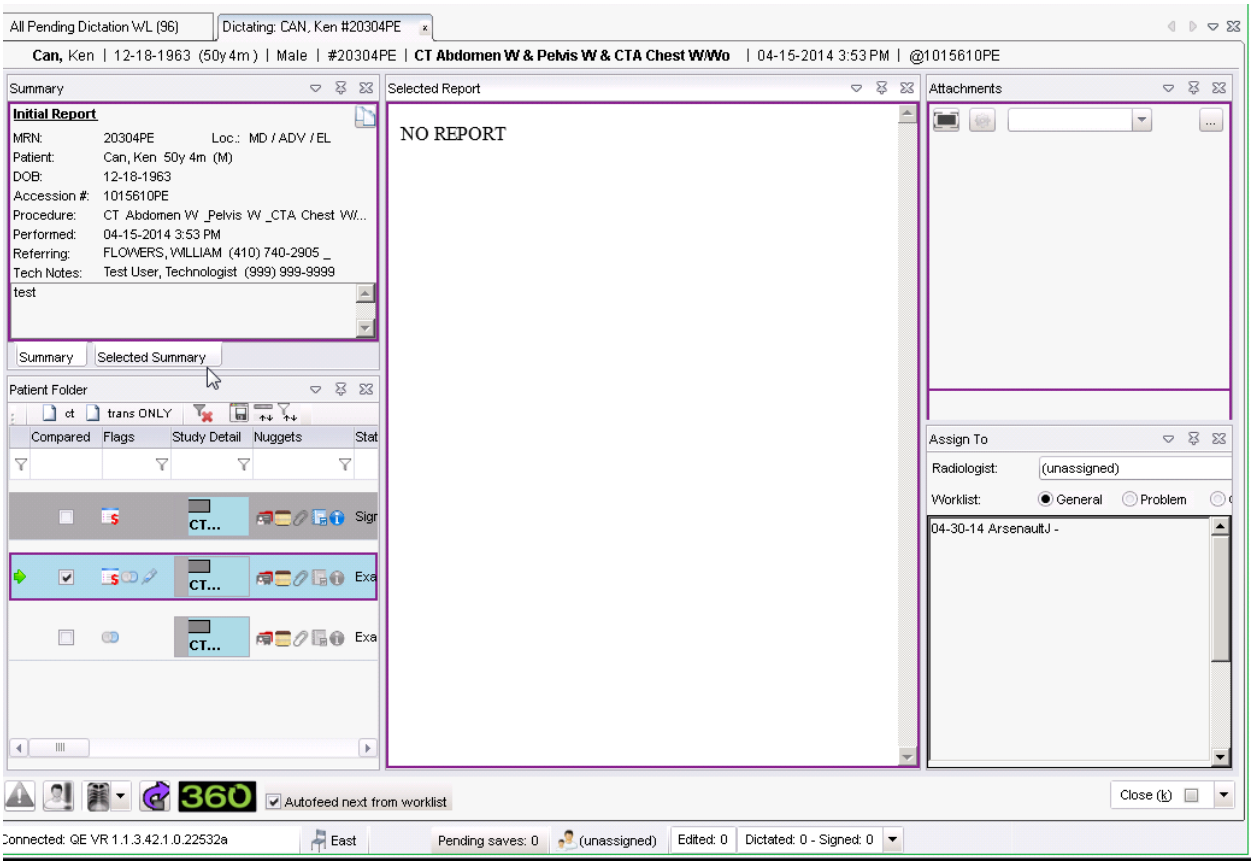



**Figure 5.3 – Reporting window displaying only the essential tool windows.**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – BI-RADS control disabled for Reporting Integration Type that is not M*Modal.

The BI-RADs control is no longer available for non M*Modal reporting integration types. The control now is hidden and disabled.

## Reporting – SpeechMike - ability to bypass activation of the speech mike

If the user is not in M*Modal mode, the speech mike initialization routines will be bypassed, leaving the speech mike non-functional other than as an audio input/output device as configured in Windows.

## Reporting – Report Recovery disabled for Reporting Integration Type that is not M*Modal.

For M*Modal ReportIntegrationType you can enable autosave on your user preference, and the feature will be available to you. Autosave/report recovery work flow does not run if you are not using M_MODAL as your ReportingIntegrationType. Now we have created a convenience method for the system to use which tells the system whether report recovery is enabled. It checks the ReportingInterpertationType first, if not M_MODAL then the recovery feature is disabled regardless of user preference for autosaving.

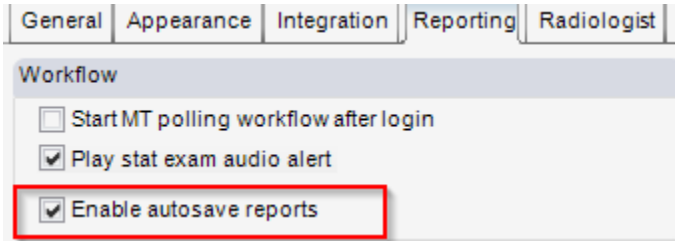



**Figure 5.4 – Enable autosave reports from User Preferences**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – "CDS Management Console" option removed when not in M*Modal mode.

The system currently relies on an MModal connection for radiologists. We need to be able to open the dictate screen cleanly without prompts or errors and without CDS configuration values present in the system config table.

The ability to launch the application and open dictate screen without CDS system configuration variables is now available. The "CDS Management Console" option in the "Administration" menu is now hidden when not in M*Modal mode.

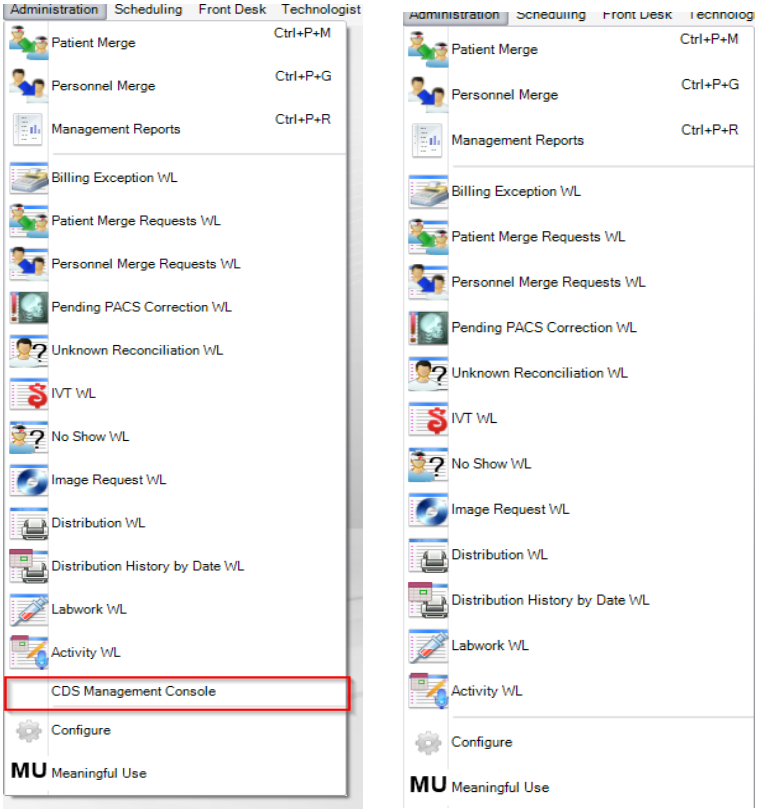



**Figure 5.5 - Administration menu with and without M*Modal enabled**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Report History - ability to support non M*Modal reporting

If you are using reporting integration mode that is not M*Modal or you are using M*Modal but looking to preview a report that was not created via M*Modal integration, the report history window will load an HTML version of the report. This differs from M*Modal integration that loads the full editor and dictation control in read only modes.

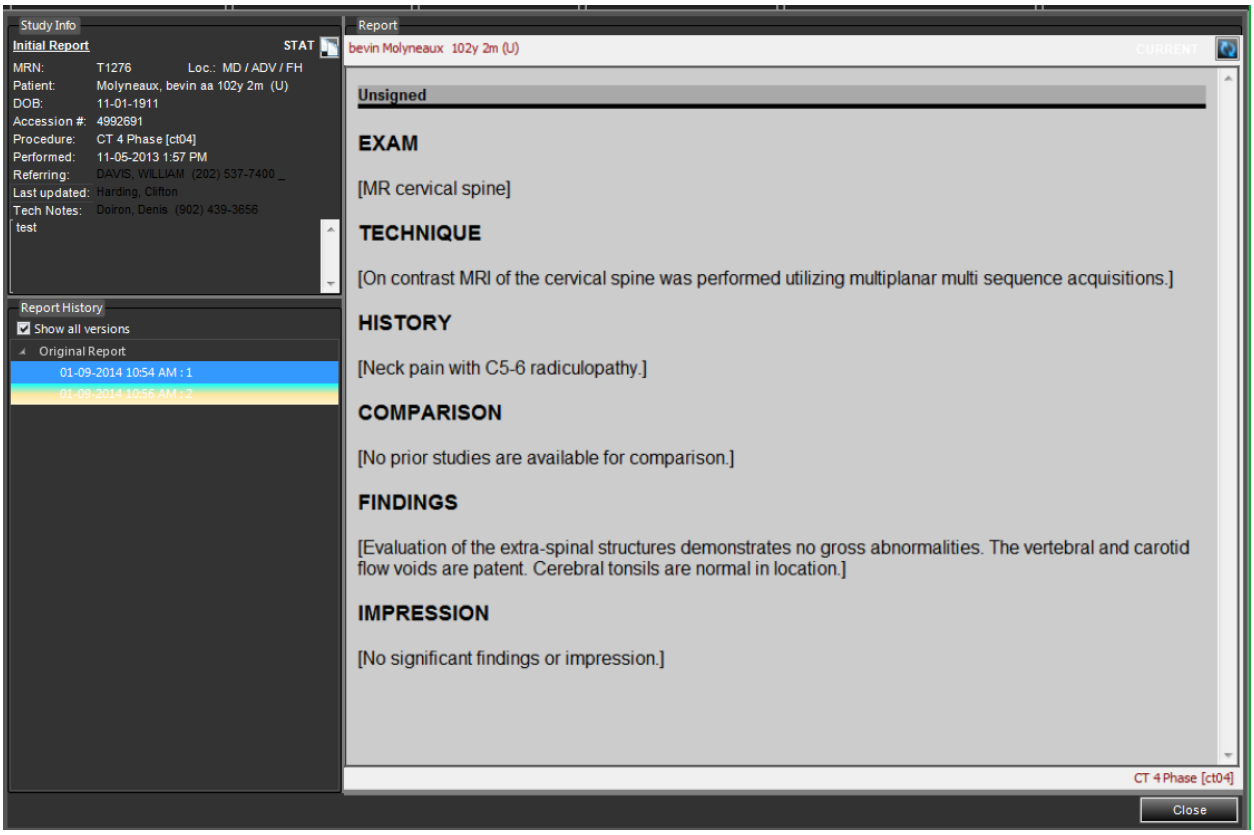



**Figure 5.6 – HTML version of the report without the audio components.**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Added Powerscribe 360 to the available Interpretation Types.

Powerscribe360 was added to the available InterpretationTypes in the s_interpretation_type database table as well as the InterpretationTypes enumeration type within the client code.

What does this mean? Previous to Build 42.1 we had to Interpretation Types of Interactive and Batch. These interpretation types were assigned to studies that were dictated on in eRAD RIS using the M*Modal reporting solution. The interpretation type assigned depended on the users dictation type setting (if they had the user preference "Enable Interactive" selected or not)

With the introduction of PowerScribe 360 as a reporting solution to be used with eRAD RIS we created a new interpretation type of PowerScribe 360. If the user has a Reporting mode of PowerScribe 360 and they action a study in PowerScribe 360, the study will be given an interpretation type of PowerScribe 360.

During the transition period between the 2 reporting systems, users will have to complete all studies that currently have been reported on using M*Modal and is not in a status of Signed.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – User prevented from opening a study when interpretation type conflict with current Reporting Mode.

If a user is set up as using "NONE" as his reporting integration, then that user will not be able to open M*Modal or PowerScribe studies. User can only open studies of the same type as their reporting integration mode. If a user tries to open an unsupported study, a message prompt is displayed and the study will abort loading.
When using next workflow, items on the worklist that are not compatible, with the current reporting integration will be skipped.

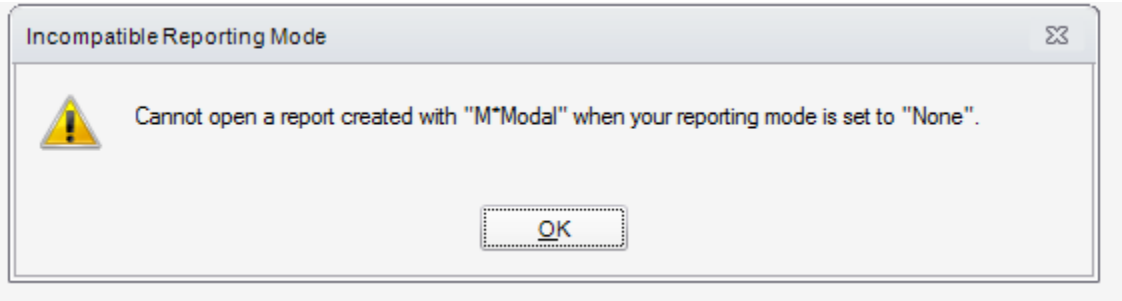



**Figure 5.7 – Message prompt for user trying to open unsupported study.**

Any study that has an interpretation type of Interactive or Batch cannot be opened in PowerScribe 360 until the study is in Signed status, in which at that point the user will be able to open for Addendum in PowerScribe 360.

If a PowerScribe 360 user attempts to open a study that is not signed and has interpretation type of Interactive or Batch they will receive a message.

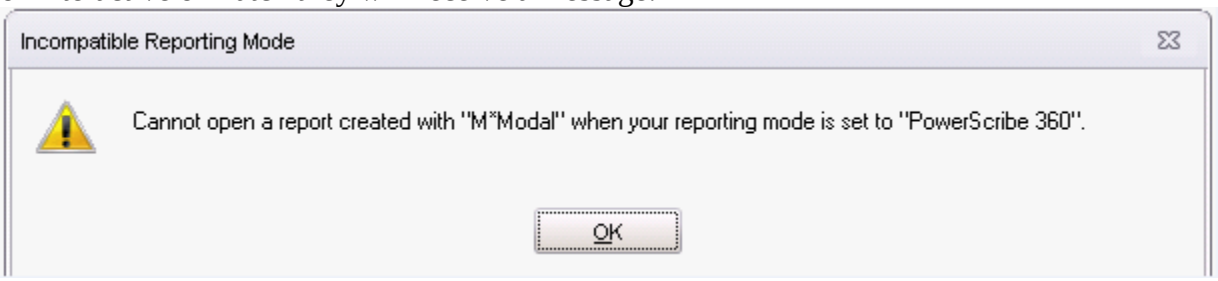



**Figure 5.8 – Message to PowerScribe 360 users from mismatched interpretation type**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

For users that will continue to use M*Modal and also for previous studies that were actioned in eRAD RIS using the M*Modal reporting option they will assigned an interpretation type of Interactive or Batch, depending on the user's M*Modal dictation option.

As well, M*Modal users are prevented from opening studies in reporting window that have an interpretation type of PowerScribe 360.

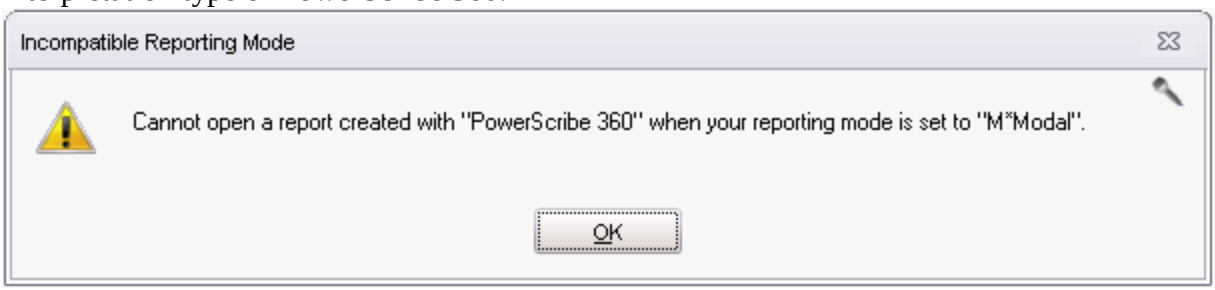



**Figure 5.9 – Message to M*Modal users from mismatched interpretation type**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – WPR workflow button disabled for Reporting Integration Type that is not M*Modal.

When using non-M_MODAL ReportingIntegrationType, users no longer have the WPR-000 workflow button available to create new reports that do not have an accession number associated with it.
Users can still use report on accession to load valid exams.

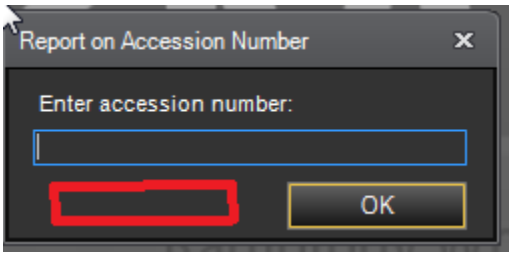



**Figure 5.10 – Updated Report on Accession Number display.**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Added the ability to drop an XML file to open PowerScribe reports.

The ability to drop an XML file to open PowerScribe reports has been added as a User Preference. The ability to provide a path to write the XML file has also been added. These are available in the Outbound Reporting Section under the Integration tab. This new file will be dropped when we open or focus a reporting tab in RIS. When the file is dropped PowerScribe reads the file and attempts to open the study.

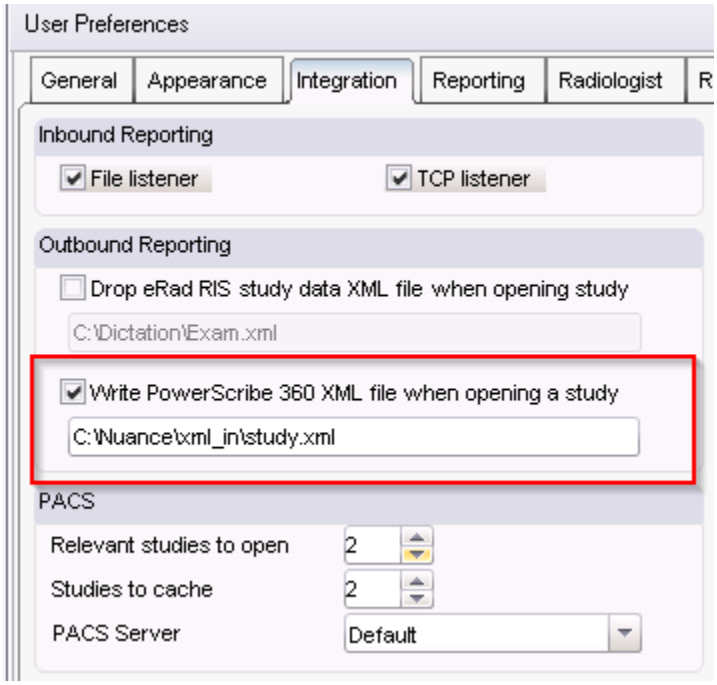



**Figure 5.11 – New Integration User Preferences in Outbound Reporting**

If these are enabled and configured, when opening exams to dictate, RIS will now save an xml file formatted to be read by PowerScribe to trigger opening a study.

If the study fails to load in PowerScribe there will be a trigger button on the rad screen. This can be pressed to re-drop the XML file and try to get PowerScribe to load the file.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

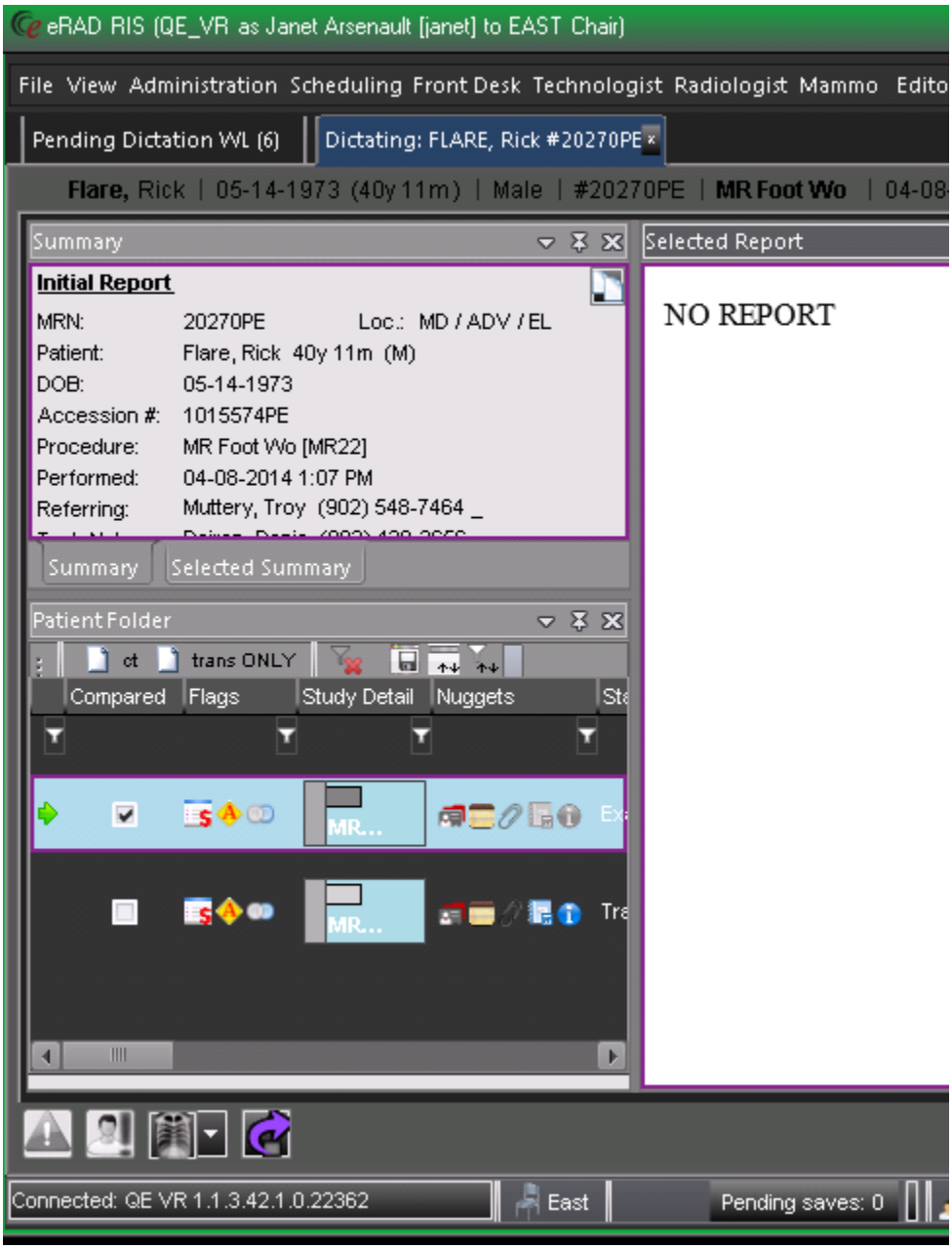



**Figure 5.12 –Trigger button to re-drop XML file shown as purple arrow.**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Reporting Integration None – advance status flag.

The advanced status flag is called “Marked Read” and is indicated on the work list with a new flag that will appear under the Flags column in all work lists that have the Flags column. There is also a new column added to the My Pending Dictation, All Pending Dictation, My Pending Signature and All Pending Signature work lists. The column name is “Marked Read” that will display a check mark if the study has the flag applied. This flag is only relevant for reporting integration mode being set to NONE.

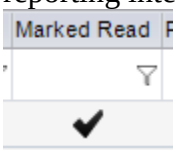



**Figure 5.13 – Marked Read column**

While using Reporting Mode of NONE (as opposed to MModal or PowerScribe 360), RIS does not advance the status of the exam until the outside reading system tells RIS to do so (such as HL7). This new flag is used to indicate that a study which has been on a pending work list has been actioned on. When set, the flag removes the study in question from the My Pending work lists, however leaves it on the All Pending work lists.

New context menu options have been added to add / remove the Marked As Read flag. These options from the context menu (right click menu) are available on the My Pending Dictation, All Pending Dictation, My Pending Signature, All Pending Signature work lists and the Patient Folder.

The menu option names are “Mark As Read” which is available when the study does not have the flag applied. Once it is applied the context menu option will be ‘Unmark As Read”. See figures below.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

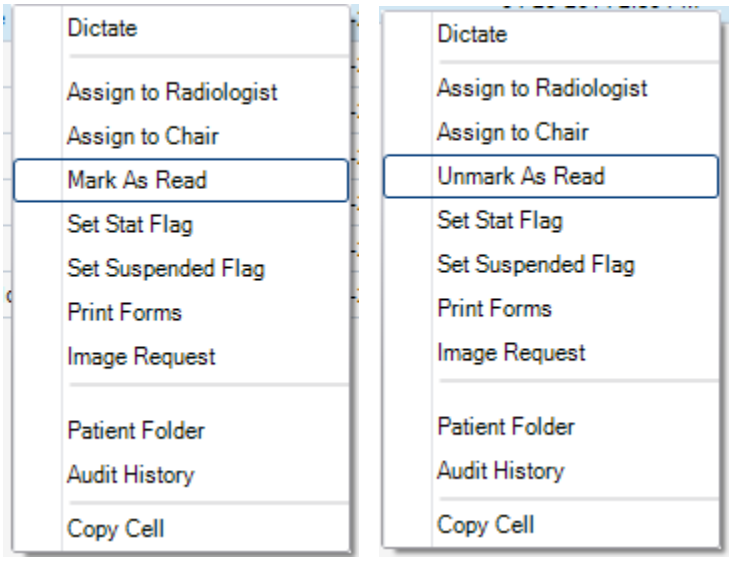



**Figure 5.14 – Mark/Unmark As Read context menu options**

Access to these new context menu options are controlled by a new access string titled "**Clinical.SetMarkAsReadFlag**" that has a default value of None. User groups will need to have this access string added to the user group permissions to gain access to the menu option.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Added the ability to limit the number of reporting windows open.

We now can limit the number of reporting screens that a user can open while using ReportingIntegrationType of PowerScribe 360. There is a new system configuration variable named "**LimitOpenReportingWithPowerscribeCount**" which is to be used by the administrator to set how many reporting windows can be open. The default value for this setting is 0 (zero).

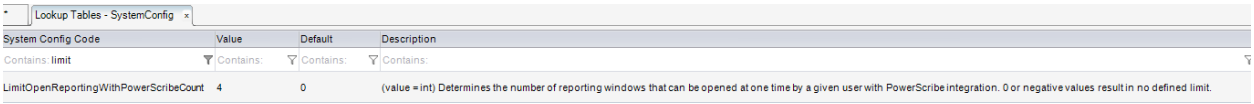



**Figure 5.15 – New system config table setting**

While using PowerScribe 360 mode, if the user tries to open a new reporting window which would exceed the predefined count, they will be notified to close some tabs before opening a new one.

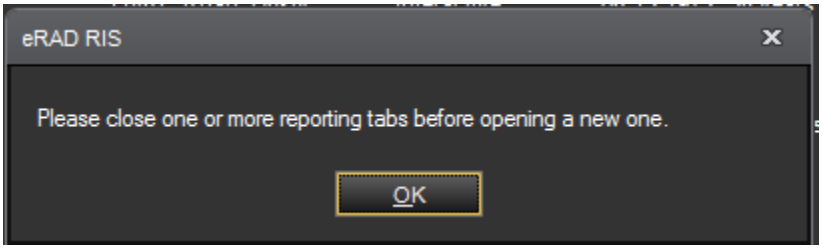



**Figure 5.16 – Prompt to notify user they will have to close one or more tabs.**

This new setting will override the User Group setting.

As a reminder, the User Group setting value is set in the UserGroup lookup table under the column Maximum Open Tabs.

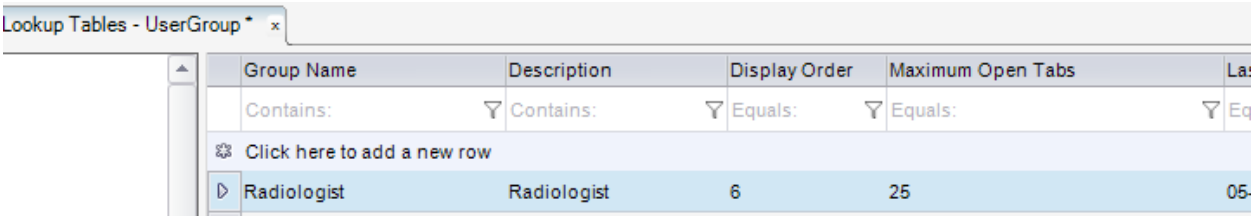



**Figure 5.17 – Usergroup lookup displaying Maximum Open Tabs column**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Added User Preference Autofeed studies for PowerScribe users.

The new user preference "Autofeed studies from worklist" was added to the Reporting tab under the PowerScribe section, which is only available in the PowerScribe 360 reporting integration mode. This determines if this user wishes to have the next study in their worklist auto-fed after completing a study in PowerScribe.

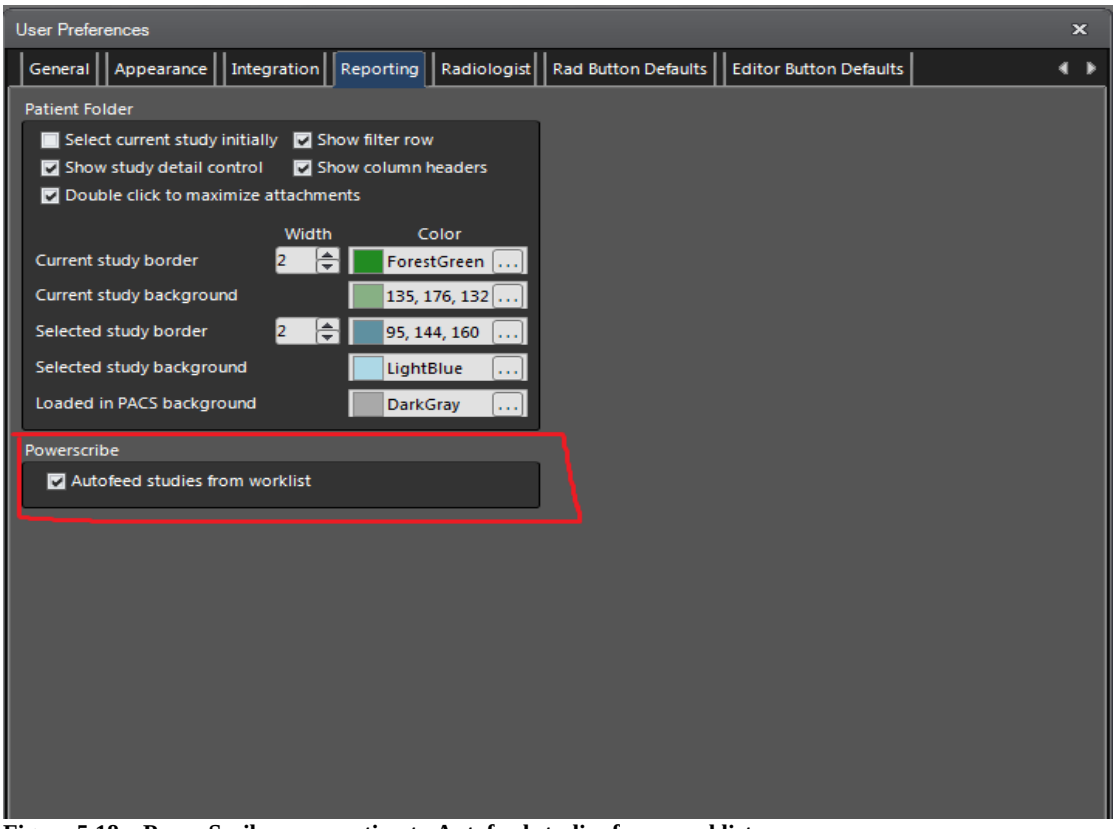



**Figure 5.18 – PowerScribe users option to Autofeed studies from worklist.**

The user preference also shows up as a check box in lower left corner of reporting screens. So a user can change it mid-way through workflow. The checkbox in the reporting windows is controlled by a new access string titled "**PowerScribe360.AllowAutofeed**". Default for this setting is None. The User Preference is always available

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

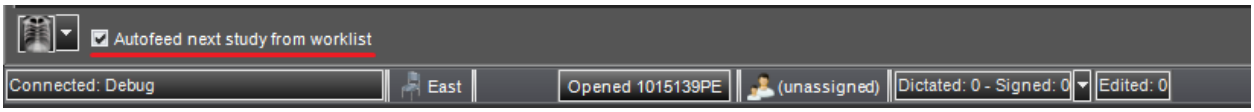



**Figure 5.19 – Option to Autofeed studies from reporting screen.**

Changing the setting "on the fly" via the check box on the reporting screen does not change the actual user preference. It just adjusts/overrides that setting for the current session. When checked, the preference tells RIS to open the next study in your work list after closing/completing the current study. This is enables a "next" workflow of sorts.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Added menu option to Enable or Disable PowerScribe 360.

A new main menu option for PowerScribe 360 has been added that is only displayed when the reporting integration mode is set to PowerScribe 360. The menu item is displayed when the user is logged in using PowerScribe 360. This new menu option will be used to house any PowerScribe 360 specific main menu options in the future. The PowerScribe 360 menu item also has a new access string titled "**PowerScribe360.Enable**" that will control access to the menu item. Default value is Full.

**Figure 5.20 – New Menu option for PowerScribe 360 users.**

For now it will simply have options for Enable and Disable, which will operate similar to the PACS menu options. By default, each session will begin with the menu item set to Enabled.

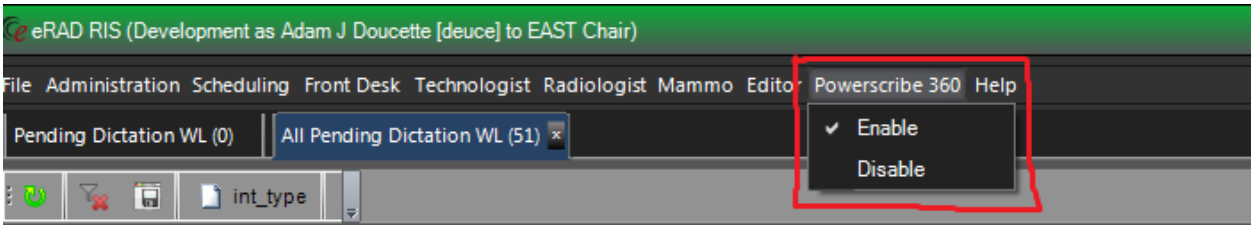



**Figure 5.21 – Dropdown list options for PowerScribe 360 menu option.**

**Figure 5.22 –PowerScribe 360 menu option set to Disable.**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

When PowerScribe 360 is set to Disable, the reporting window will open with the same format and style as it usually does with reporting integration mode set to PowerScribe 360. See image below. However the study is not launched in PowerScribe.

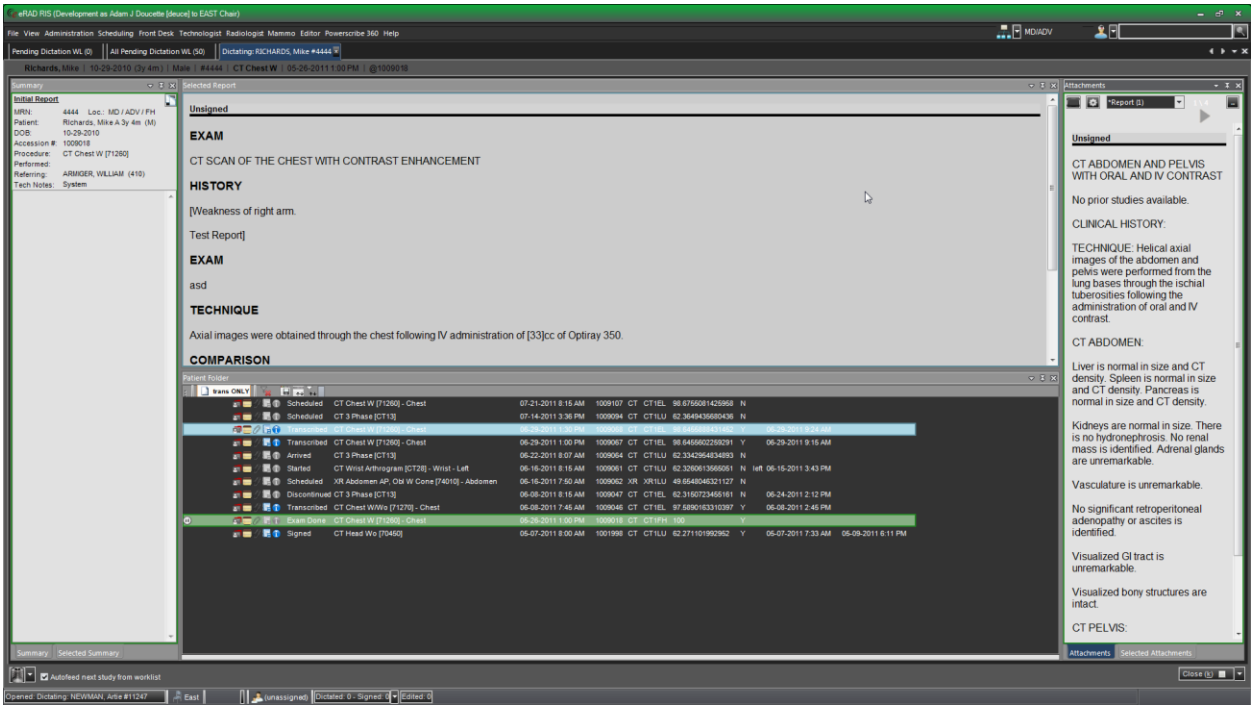



**Figure 5.23 – The reporting window view with PowerScribe 360 disabled.**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Access string added for M*Modal reporting mode.

A new Access String "**Config.AllowMModalConfig**" has been added. This allows users access to turning on M*Modal workflow for themselves or other users if the current user has admin access.
If a user has access, then M*Modal will be a reporting mode available in their user preferences.

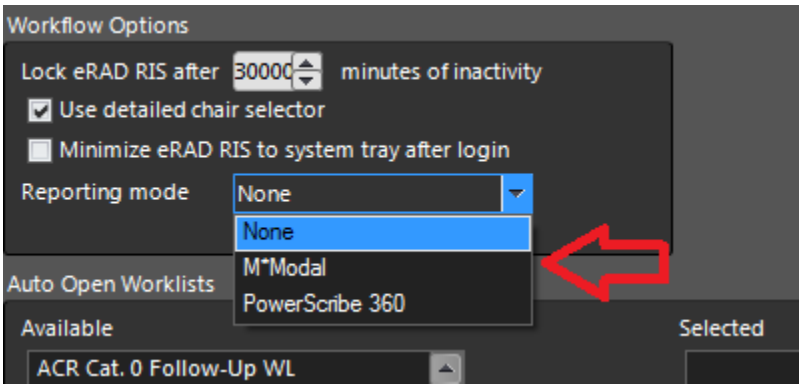
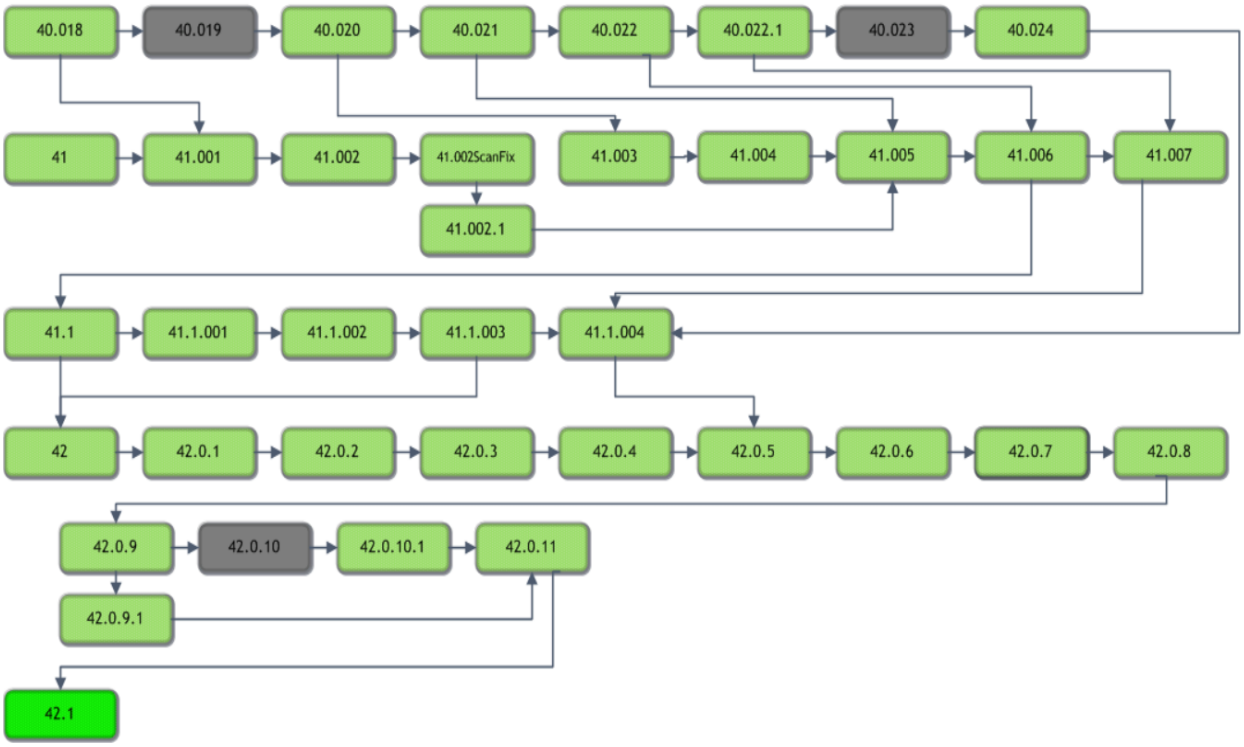



**Figure 5.24 – Reporting mode list of options including M*Modal.**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 6. Code Stream

eRAD RIS - Source Code Evolution




**Legend:**

**Light Green = Released software**

**Gray = Will not be released**

**Bright Green = Current Release**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 7. RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 41 | - | 1.3.41.19135(3GB) | 1.3.41.19135 | 1.3.41.19135 | 1.3.41.19135 | Full version release |
| 41 | 1 | 1.3.41.19256(3GB) | 1.3.41.19135 | 1.3.41.19256 | 1.3.41.19256 | GUI.zip, Web Service and database updates |
| 41 | 2 | 1.3.41.19620(3GB) | 1.3.41.19135 | 1.3.41.19620 | 1.3.41.19346 | GUI.zip and Web Service |
| 41 | 2sf | 1.3.41.19620SF(3G) | 1.3.41.19135 | 1.3.41.19620 | 1.3.41.19346 | GUI.zip |
| 41 | 2.1 | 1.3.41.20622(3GB) | 1.3.41.19135 | 1.3.41.20617 | 1.3.41.19346 | GUI.zip and Web Service |
| 41 | 3 | 1.3.41.20125(3GB) | 1.3.41.19135 | 1.3.41.20171 | 1.3.41.19346 | GUI.zip , Web Service and Recognizer |
| 41 | 4 | 1.3.41.20285(3GB) | 1.3.41.19135 | 1.3.41.20171 | 1.3.41.19346 | GUI.zip |
| 41 | 5 | 1.3.41.20809(3GB) | 1.3.41.20708 | 1.3.41.20792 | 1.3.41.20738 | GUI.zip, Core install, Web Service and DB updates |
| 41 | 6 | 1.3.41.20912(3GB) | 1.3.41.20708 | 1.3.41.20792 | 1.3.41.20738 | GUI.zip |
| 41 | 7 | 1.3.41.21963(3GB) | 1.3.41.20708 | 1.3.41.20792 | 1.3.41.20738 | GUI.zip |
| 41.1 | - | 1.3.41.20918(3GB) | 1.3.41.20791 | 1.3.41.20918 | 1.3.41.20739 | GUI.zip |
| 41.1 | 1 | 1.3.41.20987(3GB) | 1.3.41.20791 | 1.3.41.20918 | 1.3.41.20739 | GUI.zip |
| 41.1 | 2 | 1.3.41.21162(3GB) | 1.3.41.20791 | 1.3.41.21162 | 1.3.41.21150 | GUI.zip, WS and DB updates |
| 41.1 | 3 | 1.3.41.21264(3GB) | 1.3.41.20791 | 1.3.41.21162 | 1.3.41.21150 | GUI.zip |
| 41.1 | 4 | 1.3.41.21931(3GB) | 1.3.41.20791 | 1.3.41.21162 | 1.3.41.21150 | GUI.zip |
| 42 | - | 2.42.0.0.21261(3GB) | 2.42.0.0.21261 | 2.42.0.0.21261 | 2.42.0.0.21187 | Full version release |
| | 1 | 2.42.0.1.21597 | 2.42.0.0.21261 | 2.42.0.1.21597 | 2.42.0.0.21187 | GUI and Web Service updates |
| | 2 | 2.42.0.2.21702 | 2.42.0.0.21261 | 2.42.0.2.21702 | 2.42.0.0.21187 | GUI and Web Service updates |
| | 3 | 2.42.0.2.21806 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.0.21187 | GUI and Web Service updates |
| | 4 | 2.42.0.2.21862 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.4.21870 | GUI and Database updates |
| | 5 | 2.42.0.5.21924 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.4.21870 | GUI |
| | 6 | 2.42.0.5.22009 | 2.42.0.0.21261 | 2.42.0.5.22009 | 2.42.0.4.21870 | GUI and Web Service updates |
| | 7 | 2.42.0.7.22090 | 2.42.0.0.21261 | 2.42.0.6.22009 | 2.42.0.4.21870 | GUI.zip updates |
| | 8 | 2.42.0.7.22090 | 2.42.0.7.22150 | 2.42.0.6.22009 | 2.42.0.4.21870 | Web Service updates |
| | 9 | 2.42.0.9.22203 | 2.42.0.0.21261 | 2.42.0.9.22203 | 2.42.0.4.21870 | GUI and Web Service updates |
| | 9.1 | 2.42.0.9.22203 | 2.42.0.0.21261 | 2.42.0.9.22203 | 2.42.0.4.21870 | Web Service updates |
| | 10 | 2.42.0.10.22232 | 2.42.0.0.21261 | 2.42.0.9.22203 | 2.42.0.4.21870 | GUI.zip updates |
| | 10.1 | 2.42.0.10.22420 | 2.42.0.0.21261 | 2.42.0.9.22203 | 2.42.0.4.21870 | GUI.zip updates |
| | 11 | 2.42.0.11.22495a | 2.42.0.0.21261 | 2.42.0.11.22471 | 2.42.0.11.22527 | GUI.zip, Web service and database updates |
| **42.1** | **-** | **2.42.1.0.22744(3GB)** | **2.42.0.0.21261** | **2.42.1.0.22744** | **2.42.1.0.22736** | **GUI.zip, Web Service, DB updates and Management Report Deployment** |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 8. Resolved Defects

Bugs Suggested Features and Support Issues resolved in build 2.42.1. The extract is taken from Redmine bug tracking system and only displays defects resolved in 2.42.1.

| Bug # | Priority | Subject | Category | Found Version |
|---|---|---|---|---|
| 6426 | Immediate | Faxes failing to submit to fax queue | Document Distribution | 1.42 |
| 6427 | Urgent | Medications table displaying incorrectly | Thick Client GUI | 1.42 |
| 6148 | Urgent | Reporting - users may not get properly assigned default templates | Radiology Reporting | 2.42 |
| 6567 | High | ReportTemplateEditor not being cleaned up with ReportingRadiologist closes | Radiology Reporting | 2.42.0.9 |
| 6446 | High | _max_interpretation_version does not update when an addendum is deleted | Radiology Reporting | 2.42 |
| 6390 | High | HL7 report signed not removing addendum flag | HL7 | 2.42.0.9 |
| 6213 | High | Reporting - cannot reopen suspended studies (user id case problem) | Radiology Reporting | 1.42 |
| 6114 | High | Hidden text in editor counts as text when validating fields and section. | Radiology Reporting | 1.4 |
| 6270 | Normal | Reporting - images not loading automatically when user preference use dictating layout when signing supervised reports is set | Radiology Reporting | 2.42 |
| 6210 | Normal | Reporting - Next Section Or Field - if you have only one field in the template, it stops checking for sections after reaching field | | 1.41 |
| 6202 | Normal | When showing message boxes we should be passing in the parent control. | Thick Client GUI | 1.4 |
| 6184 | Normal | Reporting - delete dictation and report doesn't remove suspended data | Web Services/DB | 1.42 |
| 6027 | Normal | PersonHyperlink for referring is not visible after hitting one with a null address row | Radiology Reporting | 1.42 |
| 6020 | Normal | view images/patient folder button should not be disabled in read only mode | Powerscribe Integration | 1.42 |
| 6018 | Normal | disable critical results in read only | Radiology Reporting | 1.42 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 9. Known Limitations

The following are Bugs Suggested Features and Support Issues found in build 2.42.1. Bugs reported in previous versions are not captured as Known Limitation in this document.

| # | Status | Priority | Subject |
|---|---|---|---|
| 6574 | New | Normal | Worklist Notifications memory leak |
| 6545 | In Progress | Normal | Reporting - Access string PowerScribe360.AllowAutofeed doesn't control user preference |
| 6544 | New | Normal | Reporting - Access string required to control access to User Preference Reporting Mode. |
| 6538 | New | Normal | Reporting - PowerScribe - Limit the number of open dictation tabs - UserGroup - Maximum is not adhered |
| 6537 | New | Normal | Reporting - Select Supervising Radiologist window has Unassign button enabled when no-one has been assigned |
| 6467 | New | Normal | PACS - disable via menu item will become enabled after user preference or org change |
| 6335 | New | Normal | Interactive dictation in suspended status will open in dictate window at start of dictation should be the end |
| 6235 | New | Normal | multiple pop ups at the same time can result in wrongly labeled buttons |
| 6530 | New | Low | Modality lookup - Logo Override will not accept procedure code number |
| 6524 | New | Low | Reporting - None. Close reporting window receive error |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# Server Update

For eRAD RIS
Version 2.0
Build 42
Update 42.1.1

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Defects Resolved ..... 3
2. Changes to Configuration ..... 4
3. New Features and Enhancements ..... 5

Allow Billing Codes Edits Controlled from Billing Codes Lookup ..... 5

PACS Caching - Query to see what is being cached by a particular user is a contains query and is expensive ..... 7

PLEASE NOTE IMPORTANT CHANGE ..... 7

PACS Cache Improvement - New field to determine priority/order of studies for the PACS to cache ..... 8

4. Code Stream ..... 9
5. Package Contents ..... 10
6. Intended Audience ..... 12
7. Who is affected ..... 12
8. eRAD RIS Release Version Numbers ..... 13
9. Installing ..... 14

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 1. Defects Resolved

**The following defects were resolved in 42.1.1**

| Redmine # | Subject | Priority |
|---|---|---|
| 6668 | Problem workflow radiologists - ends up suspending studies | Normal |
| 6645 | Object reference error when opening transcription screens in read only mode | High |
| 6631 | Referring physician "visited at" drop down list contains only numbers, not human readable addresses | High |
| 6630 | Reporting mode default access string is None - should be full to not interupt anyone upgrading. | High |
| 6294 | Scanner - users are having to re-scan documents | Normal |

**The following defects were resolved in 42.0.12 and merged to 42.1.1**

| Redmine # | Subject | Priority | Found Version |
|---|---|---|---|
| 6598 | PAC IW Out of sync problem | Urgent | 2.42.0.9 |
| 6311 | Verbal order is hard-coded to associate to a known scan document type - this should be configurable | High | 1.40 |
| 6594 | referring physician "visited at" drop down list contains only numbers, not human readable addresses | High | 2.42.0.11 |
| 6566 | ReportTemplateEditor not being cleaned up when ReportingRadiologist closes | High | 2.42.09 |
| 6548 | bi-rads info not reset when using screen re-use on dictate screen. | High | 2.42.11 |
| 6543 | Reporting - screen reuse and pending save items may hang around on the worklist | Normal | 2.42.0.11 |
| 6441 | PACS images are loaded even if reporting window ultimately does not open. | Normal | 2.42 |
| 6644 | PACS Caching - The RIS is failing to clear out the cache field properly when it is to no longer be cached. | Normal | 2.42.0 |
| 5401 | Cannot re-dock patient folder window because of exception on title bar right-click | Normal | 1.41.1 |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

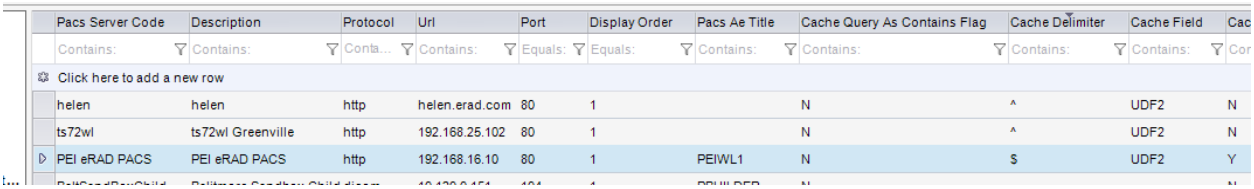
## 2. Changes to Configuration

New Access Strings and Configuration Settings

| Setting Placeholder | Setting | Default | Purpose / Controls Access to |
|---|---|---|---|
| Access string / User Group Permission tables | Clinical.CreateTableInReport | Full | Grants access to creating tables in diagnostic reports |
| SystemConfig lookup | VerbalOrderScanDocumentType | Script | Default scan document type for a verbal order. Note if this scan document type doesn't exist, the first scan document type will be chosen. |
| SystemConfig lookup | ElectronicOrderScanDocumentType | Script | Default scan document type for a Electronic/HL7 order. |

# PLEASE NOTE IMPORTANT CHANGE

**NOTE: During testing of these new PACS features, it was discovered that using ^ as a cache delimiter does not work with an "equals" style query. Recommended character is now $. The delimiter is set in the PACSServer lookup table. In the figure below notice the caret ^ is replaced with a dollar sign $ for the PEI eRAD PACS server.**



| Pacs Server Code | Description | Protocol | Url | Port | Display Order | Pacs Ae Title | Cache Query As Contains Flag | Cache Delimiter | Cache Field | Cac |
|---|---|---|---|---|---|---|---|---|---|---|
| Contains: | Contains: | Conta... | Contains: | Equals: | Equals: | Contains: | Contains: | Contains: | Contains: | Cor |
| Click here to add a new row | | | | | | | | | | |
| helen | helen | http | helen.erad.com | 80 | 1 | | N | ^ | UDF2 | N |
| ts72wl | ts72wl Greenville | http | 192.168.25.102 | 80 | 1 | | N | ^ | UDF2 | N |
| PEI eRAD PACS | PEI eRAD PACS | http | 192.168.16.10 | 80 | 1 | PEIWL1 | N | $ | UDF2 | Y |

**Figure 2.1 – PACSServer lookup displaying new cache delimiter**

++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++

A configuration change to the ris.exe.config file was introduced in build 2.42 this setting was designed to lessen the delays when retrieving lookup tables that are larger in size.
This config setting, as mentioned, is located in the ris.exe.config file located in the <appSettings> section of the file

This setting is:
<add key="RowLevelCacheDataSetNamesCSV" value="ProcedureCode,TemplateMacro,Indication"/>

Where the value can be any lookup table, and a value=”*”, will retrieve all lookups.

The setting has resulted in undesired results of possible slowness, depending on the lookup table, and possibly additional bugs. Because of this, we are requesting that all sites comment out this line in the ris.exe.config table. The commented line will look like

<!--<add key="RowLevelCacheDataSetNamesCSV" value="ProcedureCode,TemplateMacro,Indication"/> -->

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 3. New Features and Enhancements

### Allow Billing Codes Edits Controlled from Billing Codes Lookup

This relates to a feature that was released in Build 42 titled "Allow Edit Billing Units". Users were able to add additional billing codes to the study that were not associated with the procedure. While this in itself is not an issue, the fact that users could then increase/decrease the amount units for the billing code is.

What we have done is added a new column to the BillingCode lookup table titled "Allow Edits Units Flag" that has possible values of Y or N.

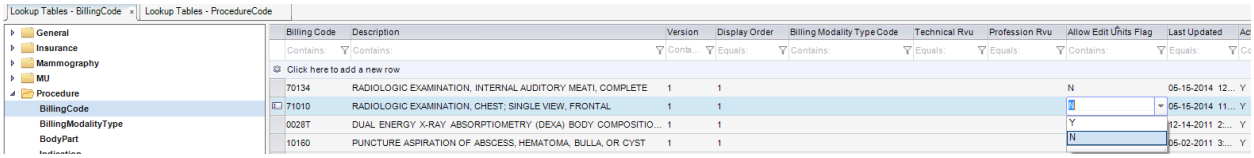



**Figure 3.1 – BillingCode lookup displaying new column**

If the value on the billing code for Allow Edit Units Flag = N, when a user adds this billing code to a study from the Technologist's Perform Exam window, the View Edit window or the Billing Exception window, they will not be able to edit the unit value for that Billing Code.

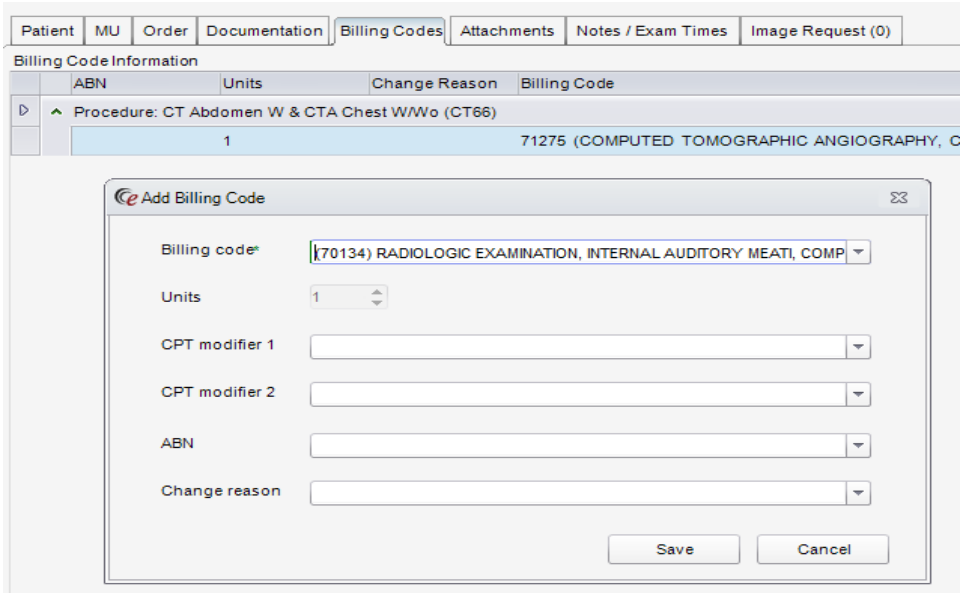



**Figure 3.2 – Add billing code not associated with procedure that units cannot be edited**

If the billing code doesn't allow for the edit of Units, but when associated to a procedure code in the ProcedureCode lookup table and it is desired to allow the edit of units for this particular procedure, it can be overridden by using the method to add the billing code described in the original feature of 42.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

The procedure code row can be expanded in the lookup table. Under the l_procedure_code_x_billing_code tab the user added the billing code and can select if the billing code should have the option to Allow Edit Units.

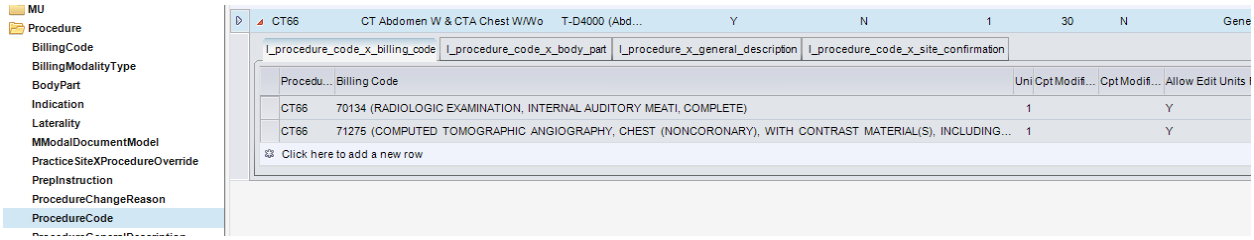



**Figure 3.3 – Override for default Allow Edit Units flag at Procedure Code level**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## PACS Caching - Query to see what is being cached by a particular user is a contains query and is expensive

On every refresh of the Pending Dictation worklist the RIS initiates a URL call to the PACS to retrieve the list of studies being cached by the user. This call is done using * as a wildcard before and after the filter value. This is an expensive operation on the PACS database. Since changes in 42 prevent more than one user from caching a study anyway, these wildcards are no longer necessary.

We have introduced a new caching option for PACS calls of the images to be cached for a user.

A new column added to the PACSService lookup table titled “Cache Query As Contains Flag” has been added with possible values of Y or N.

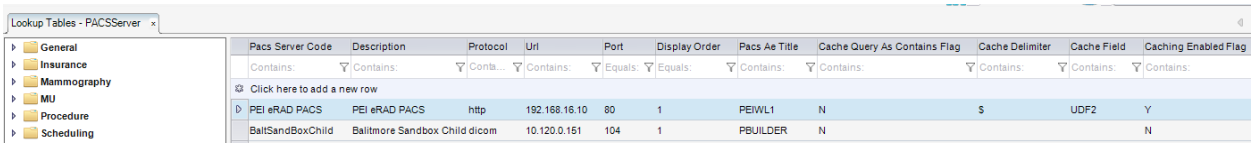



**Figure 3.4 – PACSServer lookup displaying new column of Cache Query As Contains Flag.**

When set to Y, it works as before, using the wildcard to find the user to cache for. When set to N it will not use the wildcards before and after the username, thus doing an exact search on the username, instead of a “is like”.

The default value of this setting is off and is not recommended to be turned on.

## PLEASE NOTE IMPORTANT CHANGE

**NOTE: During testing of these new PACS features, it was discovered that using ^ as a cache delimiter does not work with an "equals" style query. Recommended character is now $. The delimiter is set in the PACSServer lookup table. In the figure below notice the caret ^ is replaced with a dollar sign $ for the PEI eRAD PACS server.**

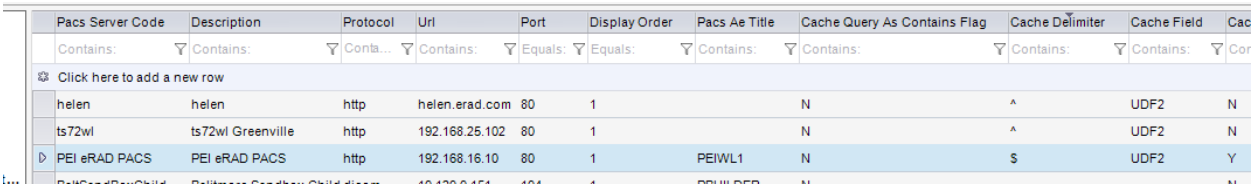



**Figure 3.5 – PACSServer lookup displaying new cache delimiter**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## PACS Cache Improvement - New field to determine priority/order of studies for the PACS to cache

The current method by which the RIS controls the PACS caching mechanism has no way to provide a priority for the PACS. This means that if there are a large number of studies to cache the first ones that are needed by the user may not be the first ones that the PACS viewer retrieves.

Added new columns to the PACSServer lookup table called Cache Order Field.

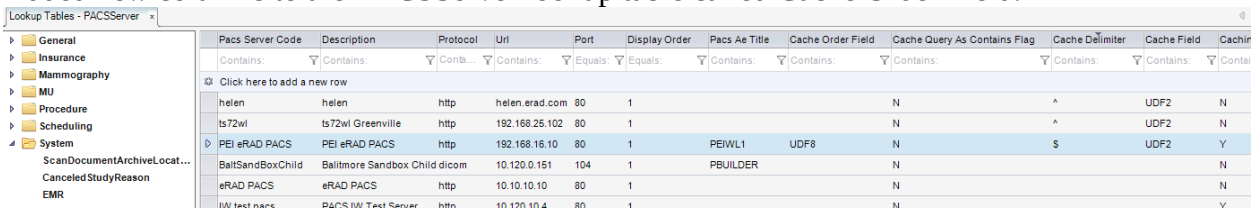
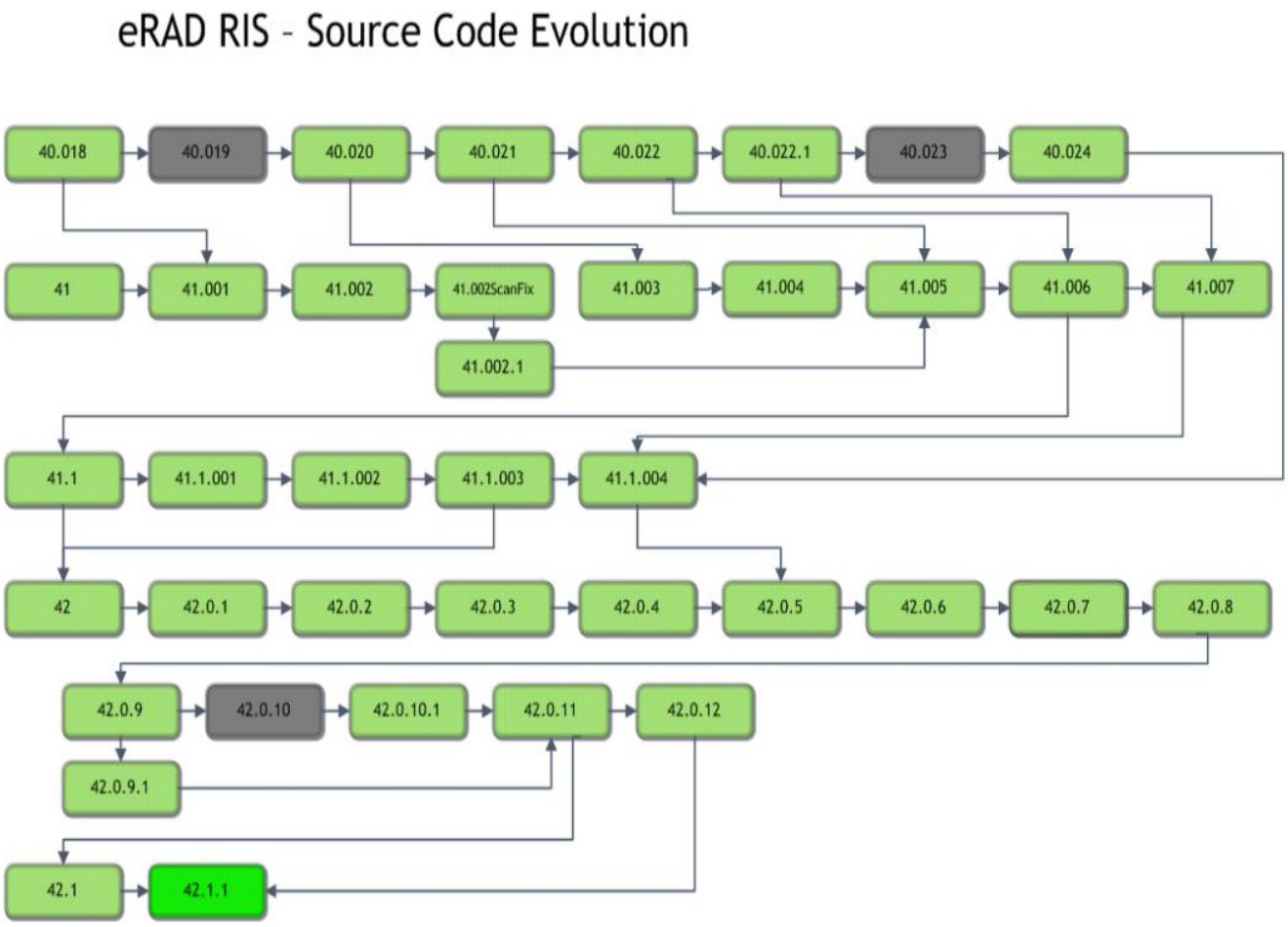



**Figure 3.6 – PACSServer lookup displaying new column of Cache Order Field**

The cache order field is used to determine the priority of the cache job and is filled with a datetime and a set id.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 4. Code Stream




**Legend:**

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 5. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains:
   - rRIS_1.3.42.1.1.22963.zip

2) RIS_Service_Updates contains:
   - ABCpdf.dll
   - ABCpdf9-32.dll
   - ABCpdf9-64.dll
   - CDSJobManager.dll
   - CDSJobManager.pdb
   - CdsLib.dll
   - CdsLib.xml
   - CdsLib.XmlSerializers.dll
   - CommonLib.dll
   - CommonLib.pdb
   - contents.txt
   - DDEngine.dll
   - DDEngine.pdb
   - Interop.ANYMODALCAPTURECTRLLib.dll
   - Interop.FAXCOMEXLib.dll
   - Microsoft.Practices.EnterpriseLibrary.Caching.dll
   - Microsoft.Practices.EnterpriseLibrary.Caching.pdb
   - Microsoft.Practices.EnterpriseLibrary.Common.dll
   - Microsoft.Practices.EnterpriseLibrary.Common.pdb
   - Microsoft.Practices.EnterpriseLibrary.Logging.dll
   - Microsoft.Practices.EnterpriseLibrary.Logging.pdb
   - Microsoft.Practices.ServiceLocation.dll
   - Microsoft.Practices.ServiceLocation.pdb
   - Microsoft.Practices.Unity.dll
   - Microsoft.Practices.Unity.Interception.dll
   - Microsoft.Practices.Unity.Interception.pdb
   - Microsoft.Practices.Unity.pdb
   - Microsoft.ReportViewer.Common.dll
   - Microsoft.ReportViewer.WinForms.dll
   - Microsoft.ReportViewer.WinForms.xml
   - Newtonsoft.Json.dll
   - Newtonsoft.Json.xml
   - Ninject.dll
   - Ninject.Web.Common.dll
   - Ninject.Web.Common.xml
   - Ninject.xml
   - O2S.Components.PDFRender4NET.dll
   - PDFToImages.exe
   - rRISServices.exe
   - rRISServices.pdb
   - rRISServicesx64.exe
   - ScheduledTaskManager.dll
   - ScheduledTaskManager.pdb
   - ServicesConfigWizard.exe
   - ServicesConfigWizard.pdb
   - SignatureApprovalService.exe
   - SignatureApprovalService.pdb
   - System.Net.Http.dll
   - System.Net.Http.Formatting.dll
   - System.Net.Http.Formatting.xml
   - System.Net.Http.WebRequest.dll
   - System.Net.Http.WebRequest.xml
   - System.Net.Http.xml
   - System.Web.dll
   - System.Web.Helpers.dll
   - System.Web.Helpers.xml
   - System.Web.Http.dll
   - System.Web.Http.SelfHost.dll
   - System.Web.Http.SelfHost.xml
   - System.Web.Http.WebHost.dll
   - System.Web.Http.WebHost.xml
   - System.Web.Http.xml
   - System.Web.Mvc.dll
   - System.Web.Mvc.xml
   - System.Web.Optimization.dll
   - System.Web.Providers.dll
   - System.Web.Razor.dll
   - System.Web.Razor.xml
   - System.Web.WebPages.Deployment.dll
   - System.Web.WebPages.Deployment.xml
   - System.Web.WebPages.dll
   - System.Web.WebPages.Razor.dll
   - System.Web.WebPages.Razor.xml
   - System.Web.WebPages.xml
   - Tourreau.Gilles.FaxDotNet.dll
   - Tourreau.Gilles.FaxDotNet.pdb
   - Tourreau.Gilles.FaxDotNet.xml
   - WCFService.dll
   - WCFService.pdb
   - WCFServiceTests.dll
   - WCFServiceTests.pdb
   - WebApi.dll
   - WebApi.pdb
   - Wedge.exe
   - Wedge.pdb

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

The rRIS_Service_Updates also contains to subfolders:

A. Deploy folder contains
   a. Applicationsettings
   b. ReleaseVersion-connectionstrings
   c. rRISServices.exe
   d. services

B. XSL subfolder contains:
   Subfolder titled "Stylesheets" which contains:
   a. CDAToHTMLCompleteReport.xslt
   b. CDAToHTMLImpressionSection.xslt
   c. CDATorRIS.xslt
   d. CDAToTxt.xslt
   e. DocumentModelReport.xslt
   f. DocumentModelReportAsXml.xslt

   g. CCDA Subfolder contains
      a. C-CDA.xsl
      b. eRadStylesheet.xsl
      c. generalTemplates.xsl
      d. header.xsl
      e. sectionAdministeredMedications.xsl
      f. sectionAllergies.xsl
      g. sectionEncounters.xsl
      h. sectionFuncCogStatus.xsl
      i. sectionImmunizations.xsl
      j. sectionInstructions.xsl
      k. sectionMedications.xsl
      l. sectionPlanOfCare.xsl
      m. sectionProblemList.xsl
      n. sectionProcedures.xsl
      o. sectionReasonForVisit.xsl
      p. sectionResults.xsl
      q. sectionSocialHistory.xsl
      r. sectionVitalSigns.xsl

3) SQL folder contains:
   - B42.1.1.sql

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 6. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

## 7. Who is affected

Build 42 installs. Server updates are not cumulative. This server update must be applied to 42.1

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

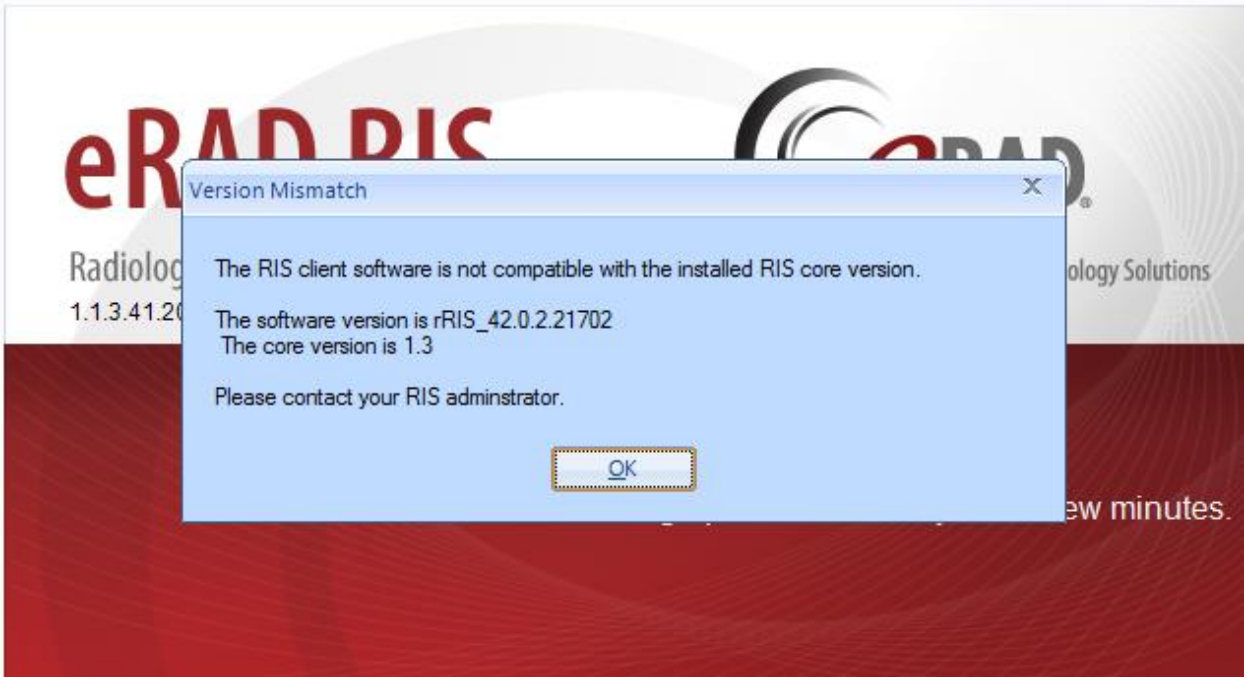
## 8. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 41 | - | 1.3.41.19135(3GB) | 1.3.41.19135 | 1.3.41.19135 | 1.3.41.19135 | Full version release |
| 41 | 1 | 1.3.41.19256(3GB) | 1.3.41.19135 | 1.3.41.19256 | 1.3.41.19256 | GUI.zip, Web Service and database updates |
| 41 | 2 | 1.3.41.19620(3GB) | 1.3.41.19135 | 1.3.41.19620 | 1.3.41.19346 | GUI.zip and Web Service |
| 41 | 2sf | 1.3.41.19620SF(3G) | 1.3.41.19135 | 1.3.41.19620 | 1.3.41.19346 | GUI.zip |
| 41 | 2.1 | 1.3.41.20622(3GB) | 1.3.41.19135 | 1.3.41.20617 | 1.3.41.19346 | GUI.zip and Web Service |
| 41 | 3 | 1.3.41.20125(3GB) | 1.3.41.19135 | 1.3.41.20171 | 1.3.41.19346 | GUI.zip , Web Service and Recognizer |
| 41 | 4 | 1.3.41.20285(3GB) | 1.3.41.19135 | 1.3.41.20171 | 1.3.41.19346 | GUI.zip |
| 41 | 5 | 1.3.41.20809(3GB) | 1.3.41.20708 | 1.3.41.20792 | 1.3.41.20738 | GUI.zip, Core install, Web Service and database updates |
| 41 | 6 | 1.3.41.20912(3GB) | 1.3.41.20708 | 1.3.41.20792 | 1.3.41.20738 | GUI.zip |
| 41.1 | - | 1.3.41.20918(3GB) | 1.3.41.20791 | 1.3.41.20918 | 1.3.41.20739 | GUI.zip, Core install, Web Service and DB updates, Help files |
| 41.1 | 1 | 1.3.41.20987(3GB) | 1.3.41.20791 | 1.3.41.20918 | 1.3.41.20739 | GUI.zip |
| 41.1 | 2 | 1.3.41.21162(3GB) | 1.3.41.20791 | 1.3.41.21162 | 1.3.41.21150 | GUI.zip, Web Service and DB updates, |
| 41.1 | 3 | 1.3.41.21264(3GB) | 1.3.41.20791 | 1.3.41.21162 | 1.3.41.21150 | GUI.zip |
| 42 | - | 2.42.0.0.21261(3GB) | 2.42.0.0.21261 | 2.42.0.0.21261 | 2.42.0.0.21187 | Full version release |
| 42 | 1 | 2.42.0.1.21597 | 2.42.0.0.21261 | 2.42.0.1.21597 | 2.42.0.0.21187 | GUI and Web Service updates |
| 42 | 2 | 2.42.0.2.21702 | 2.42.0.0.21261 | 2.42.0.2.21702 | 2.42.0.0.21187 | GUI and Web Service updates |
| 42 | 3 | 2.42.0.2.21806 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.0.21187 | GUI and Web Service updates |
| 42 | 4 | 2.42.0.2.21862 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.4.21870 | GUI and Database updates |
| 42 | 5 | 2.42.0.5.21924 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.4.21870 | GUI |
| 42 | 6 | 2.42.0.5.22009 | 2.42.0.0.21261 | 2.42.0.5.22009 | 2.42.0.4.21870 | GUI and Web Service updates |
| 42 | 7 | 2.42.0.7.22090 | 2.42.0.0.21261 | 2.42.0.6.22009 | 2.42.0.4.21870 | GUI.zip updates |
| 42 | 8 | 2.42.0.7.22090 | 2.42.0.7.22150 | 2.42.0.6.22009 | 2.42.0.4.21870 | Web Service updates |
| 42 | 9 | 2.42.0.9.22203 | 2.42.0.0.21261 | 2.42.0.9.22203 | 2.42.0.4.21870 | GUI and Web Service updates |
| 42 | 9.1 | 2.42.0.9.22203 | 2.42.0.0.21261 | 2.42.0.9.22203 | 2.42.0.4.21870 | Web Service updates |
| 42 | 10 | 2.42.0.10.22232 | 2.42.0.0.21261 | 2.42.0.9.22203 | 2.42.0.4.21870 | GUI.zip |
| 42 | 10.1 | 2.42.0.10.22420 | 2.42.0.0.21261 | 2.42.0.9.22203 | 2.42.0.4.21870 | GUI.zip updates |
| 42 | 11 | 2.42.0.11.22495a | 2.42.0.0.21261 | 2.42.0.11.22471 | 2.42.0.11.22527 | GUI.zip, Web Service, Database updates. Management Report Deployment |
| 42 | 12 | 2.42.0.12.22982 | 2.42.0.0.21261 | 2.42.0.12.22982 | 2.42.0.12.22911 | GUI.zip, Web Service, Database updates. |
| 42.1 | - | 2.42.1.0.22744(3GB) | 2.42.0.0.21261 | 2.42.1.0.22744 | 2.42.1.0.22736 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| **42.1** | **1** | **2.42.1.1.22963GB)** | **2.42.0.0.21261** | **2.42.1.1.22963** | **2.42.1.1.22864** | **GUI.zip, Web Service, DB updates** |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 9. Installing

1) Copy and replace the current rRIS…zip file with the rRIS_1.3.42.1.1.22963.zip file provided with this release.
   Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.




If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_42.1.1.22963→ rRIS_1.3.42.1.1.22963. NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

**NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

2) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService. Be sure to make backup of all files, but especially the rRISServices.exe.config and rRISServices.vshost.exe.config files.
   *rRISService directories include:*
   a) *rRISService*
   b) *CDS rRISService*
   c) *Wedge rRISService*
   d) *DDE rRISService*

   **Restart each service.**

3) Run the B42.1.1.sql file against the eRAD RIS database instance

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

For eRAD RIS
Version 2.0
Build 42
Update 42.1.2

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Defects Resolved ..... 3
2. Changes to Configuration ..... 4
3. Code Stream ..... 5
4. Package Contents ..... 6
5. Intended Audience ..... 8
6. Who is affected ..... 8
7. eRAD RIS Release Version Numbers ..... 9
8. Installing ..... 10

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 1. Defects Resolved

| Redmine # | Subject | Priority |
|---|---|---|
| 6713 | Once an external patient is matched to a new or existing internal patient, it cannot be found by searching for external MRN | Urgent |
| 6721 | Lock is not being released when the message "The study was updated moments ago. It is no longer on the worklist" is displayed. | Normal |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

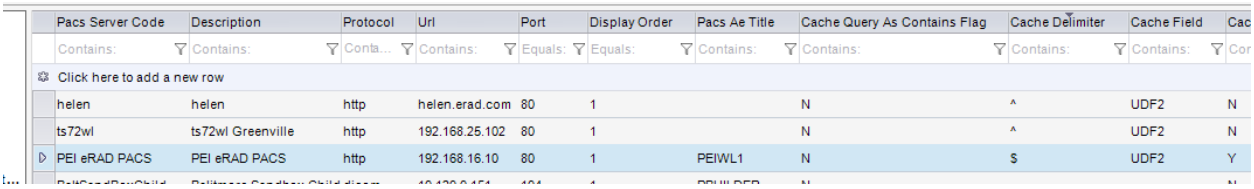
## 2. Changes to Configuration

**The following changes were introduced in 42.1.1**. For more information on the access strings and system configuration lookup table changes, please refer to the eRAD RIS Build 42 Server Update **42.1.1** document.

| Setting Placeholder | Setting | Default | Purpose / Controls Access to |
|---|---|---|---|
| Access string / User Group Permission tables | Clinical.CreateTableInReport | Full | Grants access to creating tables in diagnostic reports |
| SystemConfig lookup | VerbalOrderScanDocumentType | Script | Default scan document type for a verbal order. Note if this scan document type doesn't exist, the first scan document type will be chosen. |
| SystemConfig lookup | ElectronicOrderScanDocumentType | Script | Default scan document type for a Electronic/HL7 order. |

# PLEASE NOTE IMPORTANT CHANGE

**NOTE: During testing of these new PACS features, it was discovered that using ^ as a cache delimiter does not work with an "equals" style query. Recommended character is now $. The delimiter is set in the PACSServer lookup table. In the figure below notice the caret ^ is replaced with a dollar sign $ for the PEI eRAD PACS server.**



| Pacs Server Code | Description | Protocol | Url | Port | Display Order | Pacs Ae Title | Cache Query As Contains Flag | Cache Delimiter | Cache Field | Cac |
|---|---|---|---|---|---|---|---|---|---|---|
| Contains: | Contains: | Conta... | Contains: | Equals: | Equals: | Contains: | Contains: | Contains: | Contains: | Cor |
| Click here to add a new row | | | | | | | | | | |
| helen | helen | http | helen.erad.com | 80 | 1 | | N | ^ | UDF2 | N |
| ts72wl | ts72wl Greenville | http | 192.168.25.102 | 80 | 1 | | N | ^ | UDF2 | N |
| PEI eRAD PACS | PEI eRAD PACS | http | 192.168.16.10 | 80 | 1 | PEIWL1 | N | $ | UDF2 | Y |

**Figure 2.1 – PACSServer lookup displaying new cache delimiter**

++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++

A configuration change to the ris.exe.config file was introduced in build 2.42 this setting was designed to lessen the delays when retrieving lookup tables that are larger in size.
This config setting, as mentioned, is located in the ris.exe.config file located in the <appSettings> section of the file

This setting is:
<add key="RowLevelCacheDataSetNamesCSV" value="ProcedureCode,TemplateMacro,Indication"/>

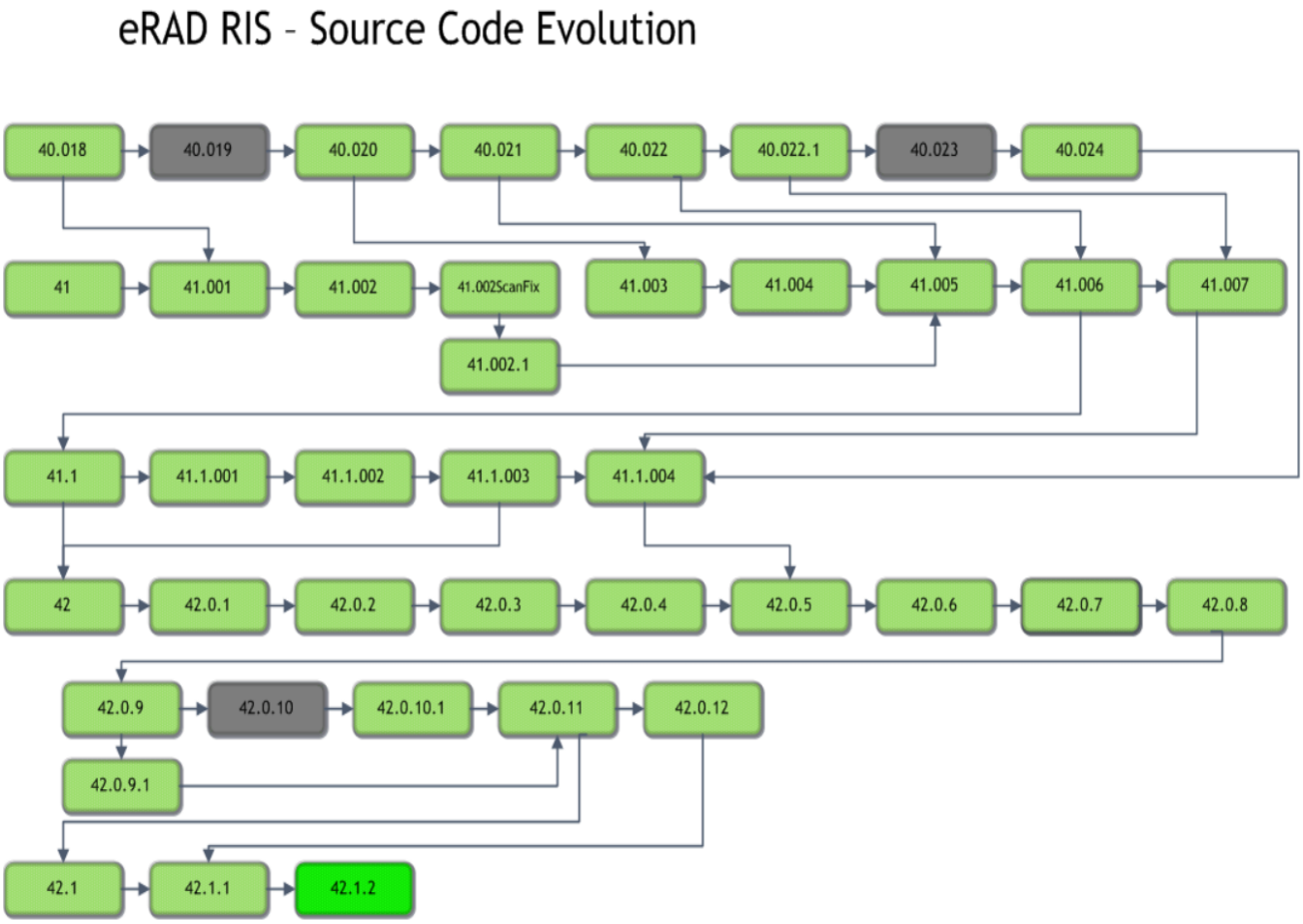
Where the value can be any lookup table, and a value=”*”, will retrieve all lookups.

The setting has resulted in undesired results of possible slowness, depending on the lookup table, and possibly additional bugs. Because of this, we are requesting that all sites comment out this line in the ris.exe.config table. The commented line will look like

<!--<add key="RowLevelCacheDataSetNamesCSV" value="ProcedureCode,TemplateMacro,Indication"/> -->

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 3. Code Stream




**Legend:**

Light Green = Released software

Gray = Will not be released

**Bright Green = Current Release**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 4. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains:
   - rRIS_1.3.42.1.2.23007.zip

2) RIS_Service_Updates contains:
   - ABCpdf.dll
   - ABCpdf9-32.dll
   - ABCpdf9-64.dll
   - CDSJobManager.dll
   - CDSJobManager.pdb
   - CdsLib.dll
   - CdsLib.xml
   - CdsLib.XmlSerializers.dll
   - CommonLib.dll
   - CommonLib.pdb
   - contents.txt
   - DDEngine.dll
   - DDEngine.pdb
   - Interop.ANYMODALCAPTURECTRLLib.dll
   - Interop.FAXCOMEXLib.dll
   - Microsoft.Practices.EnterpriseLibrary.Caching.dll
   - Microsoft.Practices.EnterpriseLibrary.Caching.pdb
   - Microsoft.Practices.EnterpriseLibrary.Common.dll
   - Microsoft.Practices.EnterpriseLibrary.Common.pdb
   - Microsoft.Practices.EnterpriseLibrary.Logging.dll
   - Microsoft.Practices.EnterpriseLibrary.Logging.pdb
   - Microsoft.Practices.ServiceLocation.dll
   - Microsoft.Practices.ServiceLocation.pdb
   - Microsoft.Practices.Unity.dll
   - Microsoft.Practices.Unity.Interception.dll
   - Microsoft.Practices.Unity.Interception.pdb
   - Microsoft.Practices.Unity.pdb
   - Microsoft.ReportViewer.Common.dll
   - Microsoft.ReportViewer.WinForms.dll
   - Microsoft.ReportViewer.WinForms.xml
   - Newtonsoft.Json.dll
   - Newtonsoft.Json.xml
   - Ninject.dll
   - Ninject.Web.Common.dll
   - Ninject.Web.Common.xml
   - Ninject.xml
   - O2S.Components.PDFRender4NET.dll
   - PDFToImages.exe
   - rRISServices.exe
   - rRISServices.pdb
   - rRISServicesx64.exe
   - ScheduledTaskManager.dll
   - ScheduledTaskManager.pdb
   - ServicesConfigWizard.exe
   - ServicesConfigWizard.pdb
   - SignatureApprovalService.exe
   - SignatureApprovalService.pdb
   - System.Net.Http.dll
   - System.Net.Http.Formatting.dll
   - System.Net.Http.Formatting.xml
   - System.Net.Http.WebRequest.dll
   - System.Net.Http.WebRequest.xml
   - System.Net.Http.xml
   - System.Web.dll
   - System.Web.Helpers.dll
   - System.Web.Helpers.xml
   - System.Web.Http.dll
   - System.Web.Http.SelfHost.dll
   - System.Web.Http.SelfHost.xml
   - System.Web.Http.WebHost.dll
   - System.Web.Http.WebHost.xml
   - System.Web.Http.xml
   - System.Web.Mvc.dll
   - System.Web.Mvc.xml
   - System.Web.Optimization.dll
   - System.Web.Providers.dll
   - System.Web.Razor.dll
   - System.Web.Razor.xml
   - System.Web.WebPages.Deployment.dll
   - System.Web.WebPages.Deployment.xml
   - System.Web.WebPages.dll
   - System.Web.WebPages.Razor.dll
   - System.Web.WebPages.Razor.xml
   - System.Web.WebPages.xml
   - Tourreau.Gilles.FaxDotNet.dll
   - Tourreau.Gilles.FaxDotNet.pdb
   - Tourreau.Gilles.FaxDotNet.xml
   - WCFService.dll
   - WCFService.pdb
   - WCFServiceTests.dll
   - WCFServiceTests.pdb
   - WebApi.dll
   - WebApi.pdb
   - Wedge.exe
   - Wedge.pdb

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

The rRIS_Service_Updates also contains to subfolders:

A. Deploy folder contains
   a. Applicationsettings
   b. ReleaseVersion-connectionstrings
   c. rRISServices.exe
   d. services

B. XSL subfolder contains:
   Subfolder titled "Stylesheets" which contains:
   a. CDAToHTMLCompleteReport.xslt
   b. CDAToHTMLImpressionSection.xslt
   c. CDATorRIS.xslt
   d. CDAToTxt.xslt
   e. DocumentModelReport.xslt
   f. DocumentModelReportAsXml.xslt

   g. CCDA Subfolder contains
      a. C-CDA.xsl
      b. eRadStylesheet.xsl
      c. generalTemplates.xsl
      d. header.xsl
      e. sectionAdministeredMedications.xsl
      f. sectionAllergies.xsl
      g. sectionEncounters.xsl
      h. sectionFuncCogStatus.xsl
      i. sectionImmunizations.xsl
      j. sectionInstructions.xsl
      k. sectionMedications.xsl
      l. sectionPlanOfCare.xsl
      m. sectionProblemList.xsl
      n. sectionProcedures.xsl
      o. sectionReasonForVisit.xsl
      p. sectionResults.xsl
      q. sectionSocialHistory.xsl
      r. sectionVitalSigns.xsl

3) SQL folder contains:
   - B42.1.2.sql

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 5. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

## 6. Who is affected

Build 42 installs. Server updates are not cumulative. This server update must be applied to 42.1.1

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

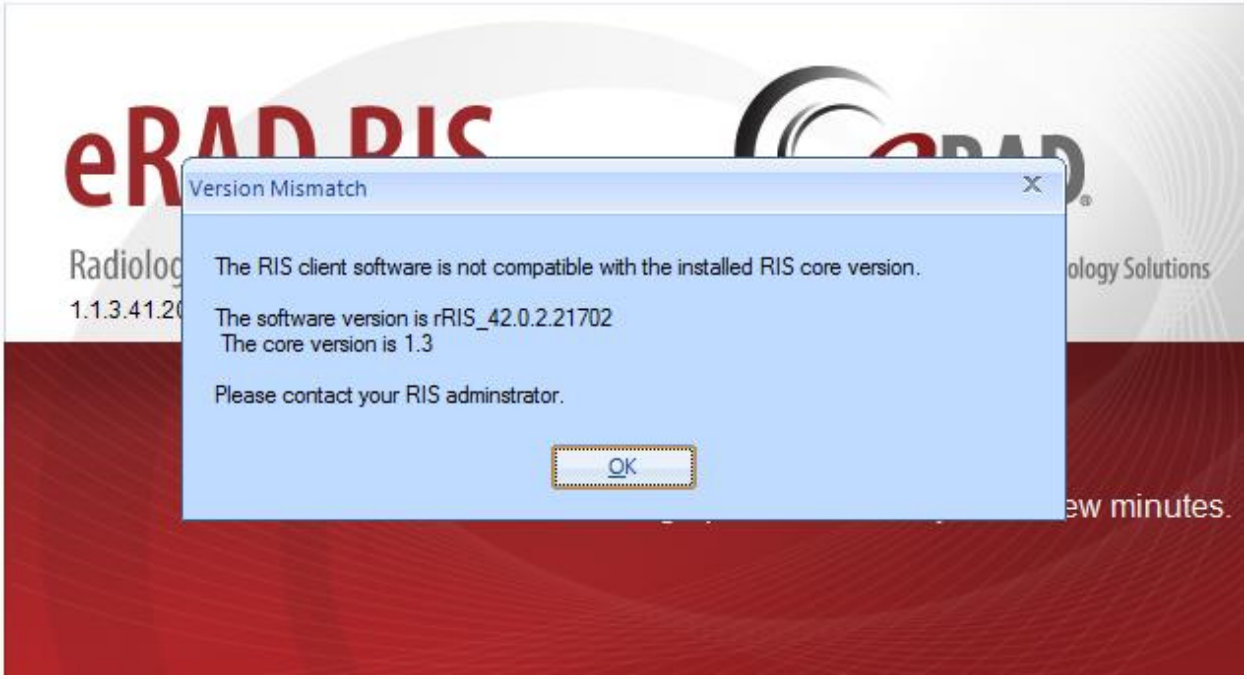
## 7. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 41 | - | 1.3.41.19135(3GB) | 1.3.41.19135 | 1.3.41.19135 | 1.3.41.19135 | Full version release |
| 41 | 1 | 1.3.41.19256(3GB) | 1.3.41.19135 | 1.3.41.19256 | 1.3.41.19256 | GUI.zip, Web Service and database updates |
| 41 | 2 | 1.3.41.19620(3GB) | 1.3.41.19135 | 1.3.41.19620 | 1.3.41.19346 | GUI.zip and Web Service |
| 41 | 2sf | 1.3.41.19620SF(3G) | 1.3.41.19135 | 1.3.41.19620 | 1.3.41.19346 | GUI.zip |
| 41 | 2.1 | 1.3.41.20622(3GB) | 1.3.41.19135 | 1.3.41.20617 | 1.3.41.19346 | GUI.zip and Web Service |
| 41 | 3 | 1.3.41.20125(3GB) | 1.3.41.19135 | 1.3.41.20171 | 1.3.41.19346 | GUI.zip , Web Service and Recognizer |
| 41 | 4 | 1.3.41.20285(3GB) | 1.3.41.19135 | 1.3.41.20171 | 1.3.41.19346 | GUI.zip |
| 41 | 5 | 1.3.41.20809(3GB) | 1.3.41.20708 | 1.3.41.20792 | 1.3.41.20738 | GUI.zip, Core install, Web Service and database updates |
| 41 | 6 | 1.3.41.20912(3GB) | 1.3.41.20708 | 1.3.41.20792 | 1.3.41.20738 | GUI.zip |
| 41.1 | - | 1.3.41.20918(3GB) | 1.3.41.20791 | 1.3.41.20918 | 1.3.41.20739 | GUI.zip, Core install, Web Service and DB updates, Help files |
| 41.1 | 1 | 1.3.41.20987(3GB) | 1.3.41.20791 | 1.3.41.20918 | 1.3.41.20739 | GUI.zip |
| 41.1 | 2 | 1.3.41.21162(3GB) | 1.3.41.20791 | 1.3.41.21162 | 1.3.41.21150 | GUI.zip, Web Service and DB updates, |
| 41.1 | 3 | 1.3.41.21264(3GB) | 1.3.41.20791 | 1.3.41.21162 | 1.3.41.21150 | GUI.zip |
| 42 | - | 2.42.0.0.21261(3GB) | 2.42.0.0.21261 | 2.42.0.0.21261 | 2.42.0.0.21187 | Full version release |
| 42 | 1 | 2.42.0.1.21597 | 2.42.0.0.21261 | 2.42.0.1.21597 | 2.42.0.0.21187 | GUI and Web Service updates |
| 42 | 2 | 2.42.0.2.21702 | 2.42.0.0.21261 | 2.42.0.2.21702 | 2.42.0.0.21187 | GUI and Web Service updates |
| 42 | 3 | 2.42.0.2.21806 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.0.21187 | GUI and Web Service updates |
| 42 | 4 | 2.42.0.2.21862 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.4.21870 | GUI and Database updates |
| 42 | 5 | 2.42.0.5.21924 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.4.21870 | GUI |
| 42 | 6 | 2.42.0.5.22009 | 2.42.0.0.21261 | 2.42.0.5.22009 | 2.42.0.4.21870 | GUI and Web Service updates |
| 42 | 7 | 2.42.0.7.22090 | 2.42.0.0.21261 | 2.42.0.6.22009 | 2.42.0.4.21870 | GUI.zip updates |
| 42 | 8 | 2.42.0.7.22090 | 2.42.0.7.22150 | 2.42.0.6.22009 | 2.42.0.4.21870 | Web Service updates |
| 42 | 9 | 2.42.0.9.22203 | 2.42.0.0.21261 | 2.42.0.9.22203 | 2.42.0.4.21870 | GUI and Web Service updates |
| 42 | 9.1 | 2.42.0.9.22203 | 2.42.0.0.21261 | 2.42.0.9.22203 | 2.42.0.4.21870 | Web Service updates |
| 42 | 10 | 2.42.0.10.22232 | 2.42.0.0.21261 | 2.42.0.9.22203 | 2.42.0.4.21870 | GUI.zip |
| 42 | 10.1 | 2.42.0.10.22420 | 2.42.0.0.21261 | 2.42.0.9.22203 | 2.42.0.4.21870 | GUI.zip updates |
| 42 | 11 | 2.42.0.11.22495a | 2.42.0.0.21261 | 2.42.0.11.22471 | 2.42.0.11.22527 | GUI.zip, Web Service, Database updates. Management Report Deployment |
| 42 | 12 | 2.42.0.12.22982 | 2.42.0.0.21261 | 2.42.0.12.22982 | 2.42.0.12.22911 | GUI.zip, Web Service, Database updates. |
| 42.1 | - | 2.42.1.0.22744(3GB) | 2.42.0.0.21261 | 2.42.1.0.22744 | 2.42.1.0.22736 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| **42.1** | **1** | **2.42.1.1.2296(3GB)** | **2.42.0.0.21261** | **2.42.1.1.22963** | **2.42.1.1.22864** | **GUI.zip, Web Service, DB updates** |
| **42.1** | **2** | **2.42.1.2.23007(3GB)** | **2.42.0.0.21261** | **2.42.1.2.23007** | **2.42.1.1.23007** | **GUI.zip, Web Service, DB updates** |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 8. Installing

1) Copy and replace the current rRIS…zip file with the rRIS_1.3.42.1.1.23007.zip file provided with this release.
   Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.




If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_42.1.1.23007→ rRIS_1.3.42.1.1.23007. NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

**NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

2) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService. Be sure to make backup of all files, but especially the rRISServices.exe.config and rRISServices.vshost.exe.config files.
   *rRISService directories include:*
   a) *rRISService*
   b) *CDS rRISService*
   c) *Wedge rRISService*
   d) *DDE rRISService*

   **Restart each service.**

3) Run the B42.1.2.sql file against the eRAD RIS database instance

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

For eRAD RIS
Version 2.0
Build 42
Update 42.1.3

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Defects Resolved ..... 3
2. Changes to Configuration ..... 4
3. Code Stream ..... 5
4. Package Contents ..... 6
5. Intended Audience ..... 8
6. Who is affected ..... 8
7. eRAD RIS Release Version Numbers ..... 9
8. Installing ..... 10

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 1. Defects Resolved

| Redmine # | Subject | Priority |
|---|---|---|
| 6631 | Referring physician "visited at" drop down list contains only numbers, not human readable addresses | High |
| 6182 | Mulitple scanned images do not get sent to PACS | High |
| 6758 | Discontinued Transaction does not include extended tables in CLOB | Normal |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 2. Changes to Configuration

A configuration change to the ris.exe.config file was introduced in build 2.42 this setting was designed to lessen the delays when retrieving lookup tables that are larger in size.
This config setting, as mentioned, is located in the ris.exe.config file located in the <appSettings> section of the file

This setting is:
<add key="RowLevelCacheDataSetNamesCSV" value="ProcedureCode,TemplateMacro,Indication"/>

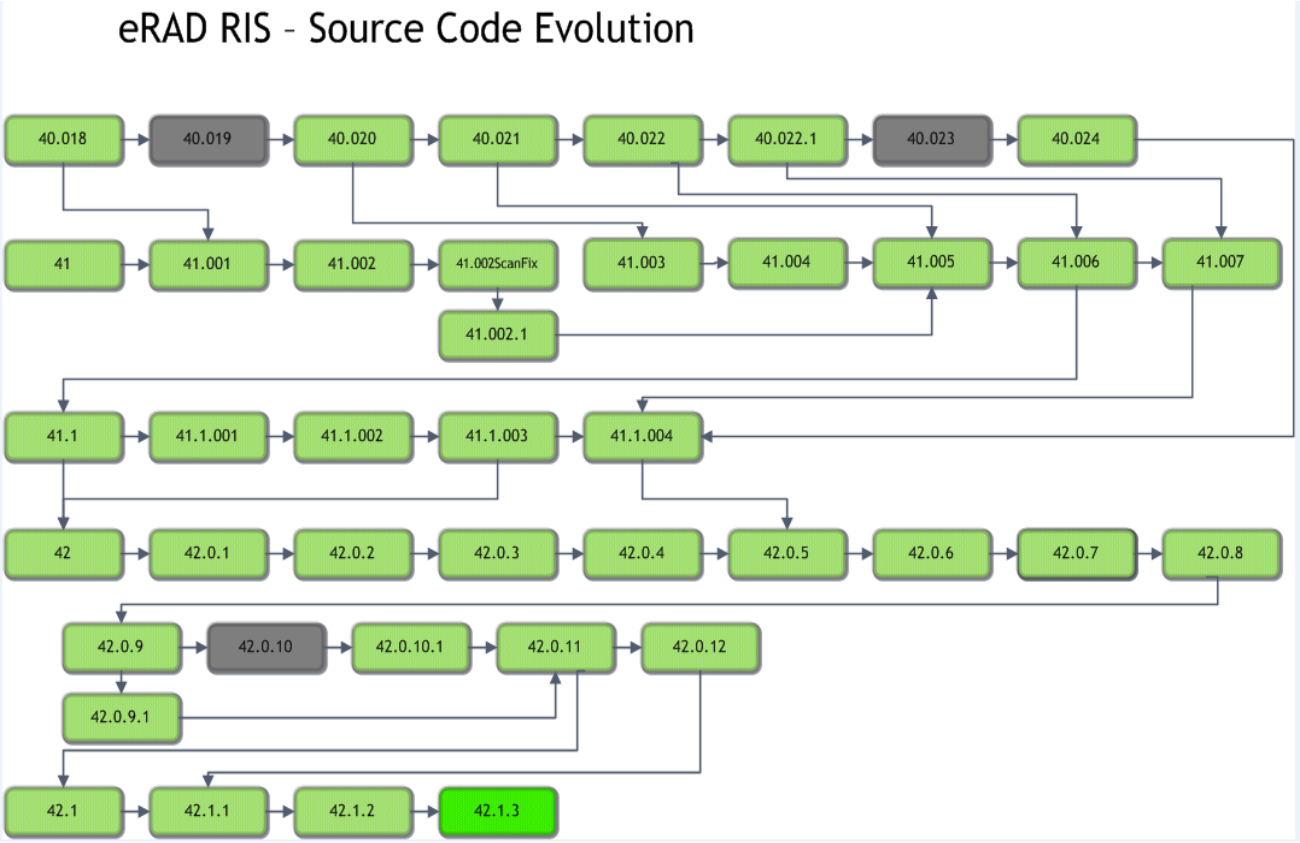
Where the value can be any lookup table, and a value="*", will retrieve all lookups.

The setting has resulted in undesired results of possible slowness, depending on the lookup table, and possibly additional bugs. Because of this, we are requesting that all sites comment out this line in the ris.exe.config table. The commented line will look like

<!--<add key="RowLevelCacheDataSetNamesCSV" value="ProcedureCode,TemplateMacro,Indication"/> -->

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 3. Code Stream




**Legend:**

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 4. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains:
   - rRIS_1.3.42.1.2.23237.zip

2) RIS_Service_Updates contains:
   - ABCpdf.dll
   - ABCpdf9-32.dll
   - ABCpdf9-64.dll
   - CDSJobManager.dll
   - CDSJobManager.pdb
   - CdsLib.dll
   - CdsLib.xml
   - CdsLib.XmlSerializers.dll
   - CommonLib.dll
   - CommonLib.pdb
   - DDEngine.dll
   - DDEngine.pdb
   - Interop.ANYMODALCAPTURECTRLLib.dll
   - Interop.FAXCOMEXLib.dll
   - Microsoft.Practices.EnterpriseLibrary.Caching.dll
   - Microsoft.Practices.EnterpriseLibrary.Caching.pdb
   - Microsoft.Practices.EnterpriseLibrary.Common.dll
   - Microsoft.Practices.EnterpriseLibrary.Common.pdb
   - Microsoft.Practices.EnterpriseLibrary.Logging.dll
   - Microsoft.Practices.EnterpriseLibrary.Logging.pdb
   - Microsoft.Practices.ServiceLocation.dll
   - Microsoft.Practices.ServiceLocation.pdb
   - Microsoft.Practices.Unity.dll
   - Microsoft.Practices.Unity.Interception.dll
   - Microsoft.Practices.Unity.Interception.pdb
   - Microsoft.Practices.Unity.pdb
   - Microsoft.ReportViewer.Common.dll
   - Microsoft.ReportViewer.WinForms.dll
   - Microsoft.ReportViewer.WinForms.xml
   - Newtonsoft.Json.dll
   - Newtonsoft.Json.xml
   - Ninject.dll
   - Ninject.Web.Common.dll
   - Ninject.Web.Common.xml
   - Ninject.xml
   - O2S.Components.PDFRender4NET.dll
   - PDFToImages.exe
   - rRISServices.exe
   - rRISServices.pdb
   - rRISServicesx64.exe
   - ScheduledTaskManager.dll
   - ScheduledTaskManager.pdb
   - ServicesConfigWizard.exe
   - ServicesConfigWizard.pdb
   - SignatureApprovalService.exe
   - SignatureApprovalService.pdb
   - System.Net.Http.dll
   - System.Net.Http.Formatting.dll
   - System.Net.Http.Formatting.xml
   - System.Net.Http.WebRequest.dll
   - System.Net.Http.WebRequest.xml
   - System.Net.Http.xml
   - System.Web.dll
   - System.Web.Helpers.dll
   - System.Web.Helpers.xml
   - System.Web.Http.dll
   - System.Web.Http.SelfHost.dll
   - System.Web.Http.SelfHost.xml
   - System.Web.Http.WebHost.dll
   - System.Web.Http.WebHost.xml
   - System.Web.Http.xml
   - System.Web.Mvc.dll
   - System.Web.Mvc.xml
   - System.Web.Optimization.dll
   - System.Web.Providers.dll
   - System.Web.Razor.dll
   - System.Web.Razor.xml
   - System.Web.WebPages.Deployment.dll
   - System.Web.WebPages.Deployment.xml
   - System.Web.WebPages.dll
   - System.Web.WebPages.Razor.dll
   - System.Web.WebPages.Razor.xml
   - System.Web.WebPages.xml
   - Tourreau.Gilles.FaxDotNet.dll
   - Tourreau.Gilles.FaxDotNet.pdb
   - Tourreau.Gilles.FaxDotNet.xml
   - WCFService.dll
   - WCFService.pdb
   - WCFServiceTests.dll
   - WCFServiceTests.pdb
   - WebApi.dll
   - WebApi.pdb
   - Wedge.exe
   - Wedge.pdb

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

The rRIS_Service_Updates also contains to subfolders:

A. Deploy folder contains
   a. Applicationsettings
   b. ReleaseVersion-connectionstrings
   c. rRISServices.exe
   d. services

B. XSL subfolder contains:
   Subfolder titled "Stylesheets" which contains:
   a. CDAToHTMLCompleteReport.xslt
   b. CDAToHTMLImpressionSection.xslt
   c. CDATorRIS.xslt
   d. CDAToTxt.xslt
   e. DocumentModelReport.xslt
   f. DocumentModelReportAsXml.xslt

   g. CCDA Subfolder contains
      a. C-CDA.xsl
      b. eRadStylesheet.xsl
      c. generalTemplates.xsl
      d. header.xsl
      e. sectionAdministeredMedications.xsl
      f. sectionAllergies.xsl
      g. sectionEncounters.xsl
      h. sectionFuncCogStatus.xsl
      i. sectionImmunizations.xsl
      j. sectionInstructions.xsl
      k. sectionMedications.xsl
      l. sectionPlanOfCare.xsl
      m. sectionProblemList.xsl
      n. sectionProcedures.xsl
      o. sectionReasonForVisit.xsl
      p. sectionResults.xsl
      q. sectionSocialHistory.xsl
      r. sectionVitalSigns.xsl

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 5. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

## 6. Who is affected

Build 42 installs. Server updates are not cumulative. This server update must be applied to 42.1.2

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

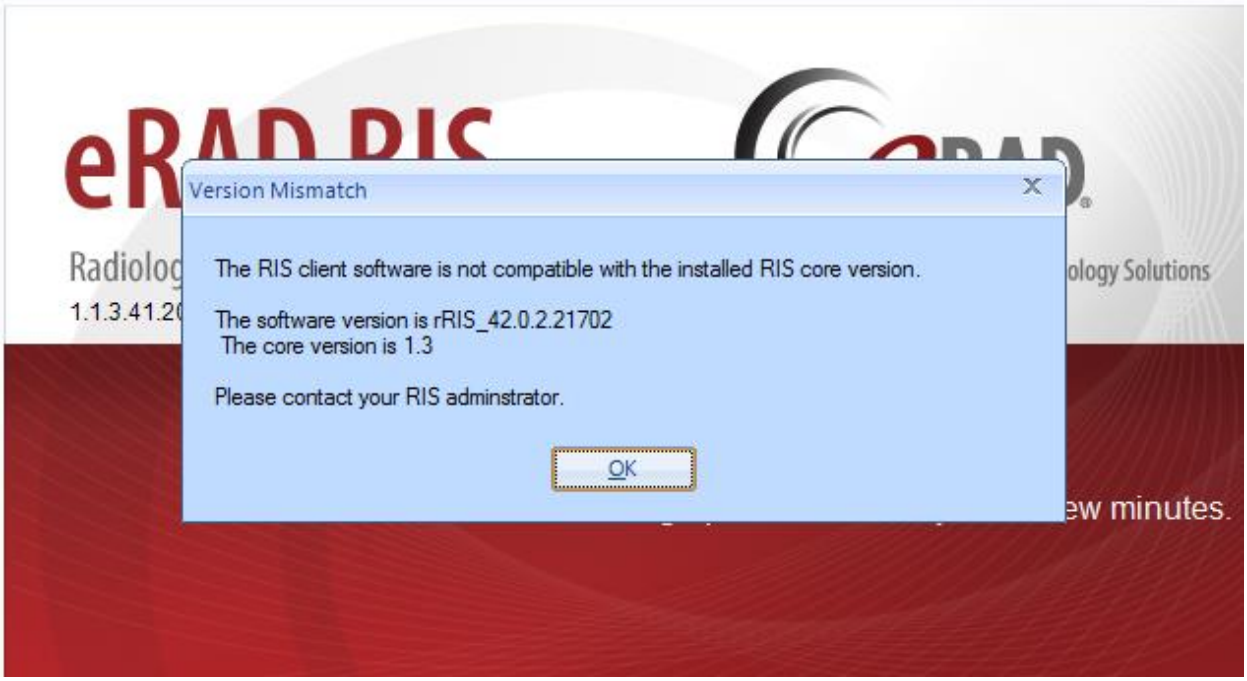
## 7. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 41.1 | - | 1.3.41.20918(3GB) | 1.3.41.20791 | 1.3.41.20918 | 1.3.41.20739 | GUI.zip, Core install, Web Service and DB updates, Help files |
| 41.1 | 1 | 1.3.41.20987(3GB) | 1.3.41.20791 | 1.3.41.20918 | 1.3.41.20739 | GUI.zip |
| 41.1 | 2 | 1.3.41.21162(3GB) | 1.3.41.20791 | 1.3.41.21162 | 1.3.41.21150 | GUI.zip, Web Service and DB updates, |
| 41.1 | 3 | 1.3.41.21264(3GB) | 1.3.41.20791 | 1.3.41.21162 | 1.3.41.21150 | GUI.zip |
| 42 | - | 2.42.0.0.21261(3GB) | 2.42.0.0.21261 | 2.42.0.0.21261 | 2.42.0.0.21187 | Full version release |
| 42 | 1 | 2.42.0.1.21597 | 2.42.0.0.21261 | 2.42.0.1.21597 | 2.42.0.0.21187 | GUI and Web Service updates |
| 42 | 2 | 2.42.0.2.21702 | 2.42.0.0.21261 | 2.42.0.2.21702 | 2.42.0.0.21187 | GUI and Web Service updates |
| 42 | 3 | 2.42.0.2.21806 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.0.21187 | GUI and Web Service updates |
| 42 | 4 | 2.42.0.2.21862 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.4.21870 | GUI and Database updates |
| 42 | 5 | 2.42.0.5.21924 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.4.21870 | GUI |
| 42 | 6 | 2.42.0.5.22009 | 2.42.0.0.21261 | 2.42.0.5.22009 | 2.42.0.4.21870 | GUI and Web Service updates |
| 42 | 7 | 2.42.0.7.22090 | 2.42.0.0.21261 | 2.42.0.6.22009 | 2.42.0.4.21870 | GUI.zip updates |
| 42 | 8 | 2.42.0.7.22090 | 2.42.0.7.22150 | 2.42.0.6.22009 | 2.42.0.4.21870 | Web Service updates |
| 42 | 9 | 2.42.0.9.22203 | 2.42.0.0.21261 | 2.42.0.9.22203 | 2.42.0.4.21870 | GUI and Web Service updates |
| 42 | 9.1 | 2.42.0.9.22203 | 2.42.0.0.21261 | 2.42.0.9.22203 | 2.42.0.4.21870 | Web Service updates |
| 42 | 10 | 2.42.0.10.22232 | 2.42.0.0.21261 | 2.42.0.9.22203 | 2.42.0.4.21870 | GUI.zip |
| 42 | 10.1 | 2.42.0.10.22420 | 2.42.0.0.21261 | 2.42.0.9.22203 | 2.42.0.4.21870 | GUI.zip updates |
| 42 | 11 | 2.42.0.11.22495a | 2.42.0.0.21261 | 2.42.0.11.22471 | 2.42.0.11.22527 | GUI.zip, Web Service, Database updates. Management Report Deployment |
| 42 | 12 | 2.42.0.12.22982 | 2.42.0.0.21261 | 2.42.0.12.22982 | 2.42.0.12.22911 | GUI.zip, Web Service, Database updates. |
| 42.1 | - | 2.42.1.0.22744(3GB) | 2.42.0.0.21261 | 2.42.1.0.22744 | 2.42.1.0.22736 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 42.1 | 1 | 2.42.1.1.2296(3GB) | 2.42.0.0.21261 | 2.42.1.1.22963 | 2.42.1.1.22864 | GUI.zip, Web Service, DB updates |
| 42.1 | 2 | 2.42.1.2.23007(3GB) | 2.42.0.0.21261 | 2.42.1.2.23007 | 2.42.1.1.23007 | GUI.zip, Web Service, DB updates |
| **42.1** | **3** | **2.42.1.2.23237(3GB)** | **2.42.0.0.21261** | **2.42.1.2.23237** | **2.42.1.1.23007** | **GUI.zip, Web Services** |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 8. Installing

1) Copy and replace the current rRIS…zip file with the rRIS_1.3.42.1.1.23237.zip file provided with this release.
   Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.




If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_42.1.1.23237→ rRIS_1.3.42.1.1.23237. NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

**NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

2) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService. Be sure to make backup of all files, but especially the rRISServices.exe.config and rRISServices.vshost.exe.config files.
   *rRISService directories include:*
   a) *rRISService*
   b) *CDS rRISService*
   c) *Wedge rRISService*
   d) *DDE rRISService*

   **Restart each service.**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

For eRAD RIS
Version 2.0
Build 42
Update 42.1.4

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Defects Resolved ..... 3
2. Changes to Configuration ..... 4
3. Code Stream ..... 5
4. Package Contents ..... 6
5. Intended Audience ..... 8
6. Who is affected ..... 8
7. eRAD RIS Release Version Numbers ..... 9
8. Installing ..... 10

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 1. Defects Resolved

| Redmine # | Subject | Priority |
|---|---|---|
| 6873 | Settings missing from ris.exe.config file | High |
| 3376 | Patient folder for previously unlinked external patient does not get re-associated when the patient is mapped. | High |
| 6903 | There is no way to register individual studies at different sites that are on one order. | Normal |
| 6871 | Appointment book cannot be accessed if user doesn't have scheduling group assigned. | Normal |
| 6714 | Scheduling using external MRN ( does not consistently display alternate MRN in grid) | Normal |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 2. Changes to Configuration

We had noticed that there were some settings missing from the standard ris.exe.config file that is supplied with the GUI.zip file. The following settings had been introduced in previous builds, but now reside in the file. Settings starting with <! -- are commented out. These settings are located in the <appsettings> section of the ris.exe.config file. Please do a compare with your current one.

<add key="ShouldCloseViewSessionOnThread" value="true"/>
<add key="LookupTableTimeToLiveInMinutes" value="60"/>
<add key="EnableHighPriorityLookupStrategy" value="true"/>
<!--<add key="RowLevelCacheDataSetNamesCSV"
value="ProcedureCode,TemplateMacro,Indication"/> -->
<!-- <add key="MModalDataTransferValue" value="0"/> -->

A configuration change to the ris.exe.config file was introduced in build 2.42 this setting was designed to lessen the delays when retrieving lookup tables that are larger in size.
This config setting, as mentioned, is located in the ris.exe.config file located in the <appSettings> section of the file

This setting is:
<add key="RowLevelCacheDataSetNamesCSV" value="ProcedureCode,TemplateMacro,Indication"/>

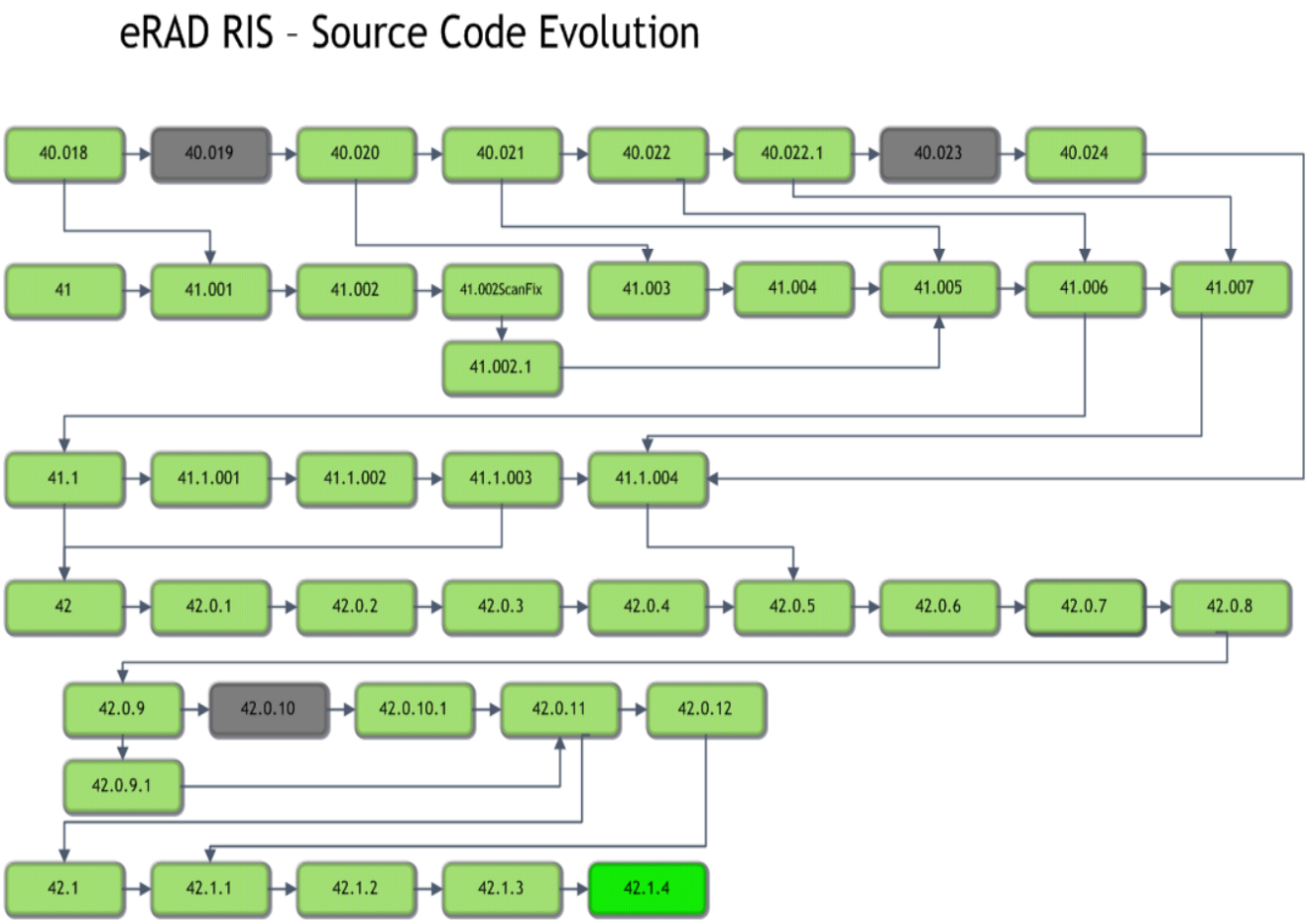
Where the value can be any lookup table, and a value=”*”, will retrieve all lookups.

The setting has resulted in undesired results of possible slowness, depending on the lookup table, and possibly additional bugs. Because of this, we are requesting that all sites comment out this line in the ris.exe.config table. The commented line will look like

<!--<add key="RowLevelCacheDataSetNamesCSV" value="ProcedureCode,TemplateMacro,Indication"/> -->

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 3. Code Stream




**Legend:**

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 4. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains:
   - rRIS_1.3.42.1.4.23348.zip

2) RIS_Service_Updates contains:
   - ABCpdf.dll
   - ABCpdf9-32.dll
   - ABCpdf9-64.dll
   - CDSJobManager.dll
   - CDSJobManager.pdb
   - CdsLib.dll
   - CdsLib.xml
   - CdsLib.XmlSerializers.dll
   - CommonLib.dll
   - CommonLib.pdb
   - DDEngine.dll
   - DDEngine.pdb
   - Interop.ANYMODALCAPTURECTRLLib.dll
   - Interop.FAXCOMEXLib.dll
   - Microsoft.Practices.EnterpriseLibrary.Caching.dll
   - Microsoft.Practices.EnterpriseLibrary.Caching.pdb
   - Microsoft.Practices.EnterpriseLibrary.Common.dll
   - Microsoft.Practices.EnterpriseLibrary.Common.pdb
   - Microsoft.Practices.EnterpriseLibrary.Logging.dll
   - Microsoft.Practices.EnterpriseLibrary.Logging.pdb
   - Microsoft.Practices.ServiceLocation.dll
   - Microsoft.Practices.ServiceLocation.pdb
   - Microsoft.Practices.Unity.dll
   - Microsoft.Practices.Unity.Interception.dll
   - Microsoft.Practices.Unity.Interception.pdb
   - Microsoft.Practices.Unity.pdb
   - Microsoft.ReportViewer.Common.dll
   - Microsoft.ReportViewer.WinForms.dll
   - Microsoft.ReportViewer.WinForms.xml
   - Newtonsoft.Json.dll
   - Newtonsoft.Json.xml
   - Ninject.dll
   - Ninject.Web.Common.dll
   - Ninject.Web.Common.xml
   - Ninject.xml
   - O2S.Components.PDFRender4NET.dll
   - PDFToImages.exe
   - rRISServices.exe
   - rRISServices.pdb
   - rRISServicesx64.exe
   - ScheduledTaskManager.dll
   - ScheduledTaskManager.pdb
   - ServicesConfigWizard.exe
   - ServicesConfigWizard.pdb
   - SignatureApprovalService.exe
   - SignatureApprovalService.pdb
   - System.Net.Http.dll
   - System.Net.Http.Formatting.dll
   - System.Net.Http.Formatting.xml
   - System.Net.Http.WebRequest.dll
   - System.Net.Http.WebRequest.xml
   - System.Net.Http.xml
   - System.Web.dll
   - System.Web.Helpers.dll
   - System.Web.Helpers.xml
   - System.Web.Http.dll
   - System.Web.Http.SelfHost.dll
   - System.Web.Http.SelfHost.xml
   - System.Web.Http.WebHost.dll
   - System.Web.Http.WebHost.xml
   - System.Web.Http.xml
   - System.Web.Mvc.dll
   - System.Web.Mvc.xml
   - System.Web.Optimization.dll
   - System.Web.Providers.dll
   - System.Web.Razor.dll
   - System.Web.Razor.xml
   - System.Web.WebPages.Deployment.dll
   - System.Web.WebPages.Deployment.xml
   - System.Web.WebPages.dll
   - System.Web.WebPages.Razor.dll
   - System.Web.WebPages.Razor.xml
   - System.Web.WebPages.xml
   - Tourreau.Gilles.FaxDotNet.dll
   - Tourreau.Gilles.FaxDotNet.pdb
   - Tourreau.Gilles.FaxDotNet.xml
   - WCFService.dll
   - WCFService.pdb
   - WCFServiceTests.dll
   - WCFServiceTests.pdb
   - WebApi.dll
   - WebApi.pdb
   - Wedge.exe
   - Wedge.pdb

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

The rRIS_Service_Updates also contains to subfolders:

A. Deploy folder contains
   a. Applicationsettings
   b. ReleaseVersion-connectionstrings
   c. rRISServices.exe
   d. services

B. XSL subfolder contains:
   Subfolder titled "Stylesheets" which contains:
   a. CDAToHTMLCompleteReport.xslt
   b. CDAToHTMLImpressionSection.xslt
   c. CDATorRIS.xslt
   d. CDAToTxt.xslt
   e. DocumentModelReport.xslt
   f. DocumentModelReportAsXml.xslt

   g. CCDA Subfolder contains
      a. C-CDA.xsl
      b. eRadStylesheet.xsl
      c. generalTemplates.xsl
      d. header.xsl
      e. sectionAdministeredMedications.xsl
      f. sectionAllergies.xsl
      g. sectionEncounters.xsl
      h. sectionFuncCogStatus.xsl
      i. sectionImmunizations.xsl
      j. sectionInstructions.xsl
      k. sectionMedications.xsl
      l. sectionPlanOfCare.xsl
      m. sectionProblemList.xsl
      n. sectionProcedures.xsl
      o. sectionReasonForVisit.xsl
      p. sectionResults.xsl
      q. sectionSocialHistory.xsl
      r. sectionVitalSigns.xsl

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 5. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

## 6. Who is affected

Build 42 installs. Server updates are not cumulative. This server update must be applied to 42.1.2

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

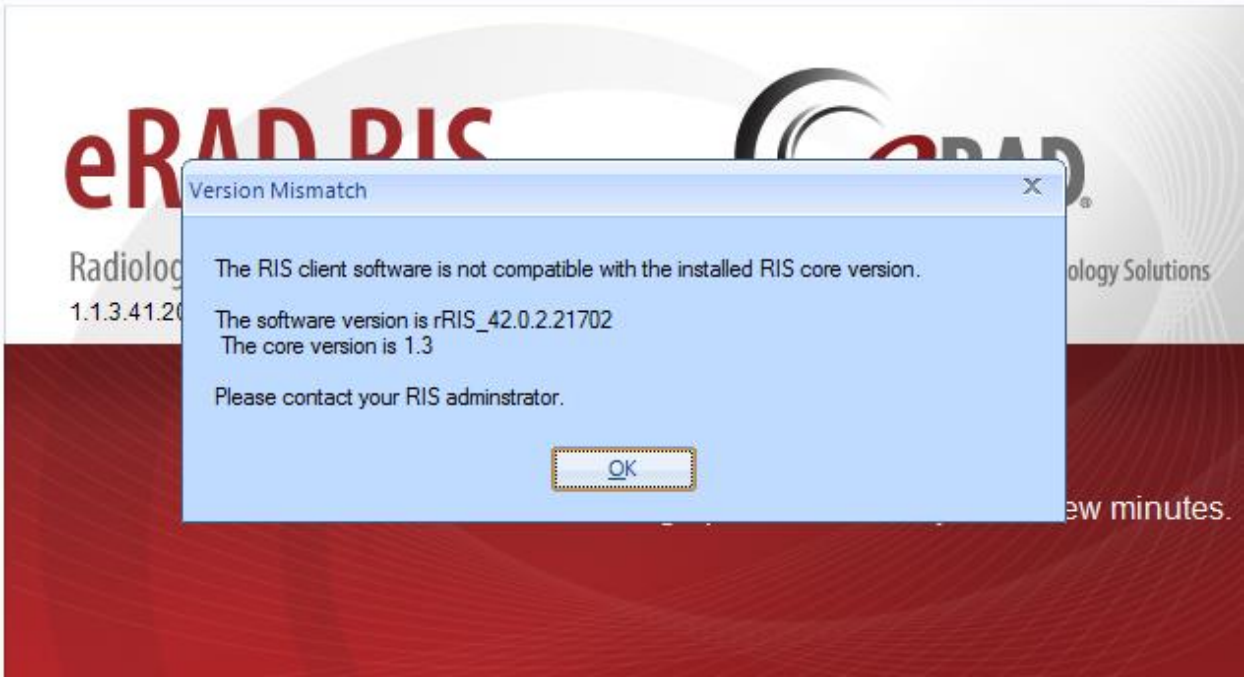
## 7. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 41.1 | - | 1.3.41.20918(3GB) | 1.3.41.20791 | 1.3.41.20918 | 1.3.41.20739 | GUI.zip, Core install, Web Service and DB updates, Help files |
| 41.1 | 1 | 1.3.41.20987(3GB) | 1.3.41.20791 | 1.3.41.20918 | 1.3.41.20739 | GUI.zip |
| 41.1 | 2 | 1.3.41.21162(3GB) | 1.3.41.20791 | 1.3.41.21162 | 1.3.41.21150 | GUI.zip, Web Service and DB updates, |
| 41.1 | 3 | 1.3.41.21264(3GB) | 1.3.41.20791 | 1.3.41.21162 | 1.3.41.21150 | GUI.zip |
| 42 | - | 2.42.0.0.21261(3GB) | 2.42.0.0.21261 | 2.42.0.0.21261 | 2.42.0.0.21187 | Full version release |
| 42 | 1 | 2.42.0.1.21597 | 2.42.0.0.21261 | 2.42.0.1.21597 | 2.42.0.0.21187 | GUI and Web Service updates |
| 42 | 2 | 2.42.0.2.21702 | 2.42.0.0.21261 | 2.42.0.2.21702 | 2.42.0.0.21187 | GUI and Web Service updates |
| 42 | 3 | 2.42.0.2.21806 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.0.21187 | GUI and Web Service updates |
| 42 | 4 | 2.42.0.2.21862 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.4.21870 | GUI and Database updates |
| 42 | 5 | 2.42.0.5.21924 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.4.21870 | GUI |
| 42 | 6 | 2.42.0.5.22009 | 2.42.0.0.21261 | 2.42.0.5.22009 | 2.42.0.4.21870 | GUI and Web Service updates |
| 42 | 7 | 2.42.0.7.22090 | 2.42.0.0.21261 | 2.42.0.6.22009 | 2.42.0.4.21870 | GUI.zip updates |
| 42 | 8 | 2.42.0.7.22090 | 2.42.0.7.22150 | 2.42.0.6.22009 | 2.42.0.4.21870 | Web Service updates |
| 42 | 9 | 2.42.0.9.22203 | 2.42.0.0.21261 | 2.42.0.9.22203 | 2.42.0.4.21870 | GUI and Web Service updates |
| 42 | 9.1 | 2.42.0.9.22203 | 2.42.0.0.21261 | 2.42.0.9.22203 | 2.42.0.4.21870 | Web Service updates |
| 42 | 10 | 2.42.0.10.22232 | 2.42.0.0.21261 | 2.42.0.9.22203 | 2.42.0.4.21870 | GUI.zip |
| 42 | 10.1 | 2.42.0.10.22420 | 2.42.0.0.21261 | 2.42.0.9.22203 | 2.42.0.4.21870 | GUI.zip updates |
| 42 | 11 | 2.42.0.11.22495a | 2.42.0.0.21261 | 2.42.0.11.22471 | 2.42.0.11.22527 | GUI.zip, Web Service, Database updates. Management Report Deployment |
| 42 | 12 | 2.42.0.12.22982 | 2.42.0.0.21261 | 2.42.0.12.22982 | 2.42.0.12.22911 | GUI.zip, Web Service, Database updates. |
| 42.1 | - | 2.42.1.0.22744(3GB) | 2.42.0.0.21261 | 2.42.1.0.22744 | 2.42.1.0.22736 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 42.1 | 1 | 2.42.1.1.2296(3GB) | 2.42.0.0.21261 | 2.42.1.1.22963 | 2.42.1.1.22864 | GUI.zip, Web Service, DB updates |
| 42.1 | 2 | 2.42.1.2.23007(3GB) | 2.42.0.0.21261 | 2.42.1.2.23007 | 2.42.1.2.23007 | GUI.zip, Web Service, DB updates |
| 42.1 | 3 | 2.42.1.2.23237(3GB) | 2.42.0.0.21261 | 2.42.1.2.23237 | 2.42.1.2.23007 | GUI.zip, Web Services |
| **42.1** | **4** | **2.42.1.4.23348(3GB)** | **2.42.0.0.21261** | **2.42.1.4.23348** | **2.42.1.2.23007** | **GUI.zip, Web Services** |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 8. Installing

1) Copy and replace the current rRIS…zip file with the rRIS_1.3.42.1.4.23338.zip file provided with this release.
   Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.




If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_42.1.4.23348→ rRIS_1.3.42.1.4.23348. NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

**NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

2) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService. Be sure to make backup of all files, but especially the rRISServices.exe.config and rRISServices.vshost.exe.config files.
   *rRISService directories include:*
   a) *rRISService*
   b) *CDS rRISService*
   c) *Wedge rRISService*
   d) *DDE rRISService*

   **Restart each service.**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

For eRAD RIS
Version 2.0
Build 42
Update 42.1.5

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Defects Resolved ..... 3
2. Changes to Configuration ..... 4
3. Code Stream ..... 5
4. Package Contents ..... 6
5. Intended Audience ..... 8
6. Who is affected ..... 8
7. eRAD RIS Release Version Numbers ..... 9
8. Installing ..... 10

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 1. Defects Resolved

| Redmine # | Subject | Priority |
|---|---|---|
| 6956 | CD Import - PACS Send fails due to compression | High |
| 6921 | Reporting - insert report template with automacros will remove the technique section | High |
| 6950 | User Preference - "Write Powerscribe 360 XML file when opening a study" and "Drop eRAD RIS study data XML file when opening study" - the xml files are not updated when skipping thru studies. | Normal |
| 6936 | Cross site prompt at registration is occurring when the studies as scheduled at different modalites | Normal |
| 6925 | Reporting - create template from when the current template has automacros will raise an exception | Normal |
| 6928 | Reporting - apply style formatting to automacro inserted text will break create template from | Low |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 2. Changes to Configuration

**The following configuration changes were corrected\included in 42.1.4**

We had noticed that there were some settings missing from the standard ris.exe.config file that is supplied with the GUI.zip file. The following settings had been introduced in previous builds, but now reside in the file. Settings starting with <! -- are commented out. These settings are located in the <appsettings> section of the ris.exe.config file. Please do a compare with your current one.

<add key="ShouldCloseViewSessionOnThread" value="true"/>
<add key="LookupTableTimeToLiveInMinutes" value="60"/>
<add key="EnableHighPriorityLookupStrategy" value="true"/>
<!--<add key="RowLevelCacheDataSetNamesCSV"
value="ProcedureCode,TemplateMacro,Indication"/> -->
<!-- <add key="MModalDataTransferValue" value="0"/> -->

A configuration change to the ris.exe.config file was introduced in build 2.42 this setting was designed to lessen the delays when retrieving lookup tables that are larger in size.
This config setting, as mentioned, is located in the ris.exe.config file located in the <appSettings> section of the file

This setting is:
<add key="RowLevelCacheDataSetNamesCSV" value="ProcedureCode,TemplateMacro,Indication"/>

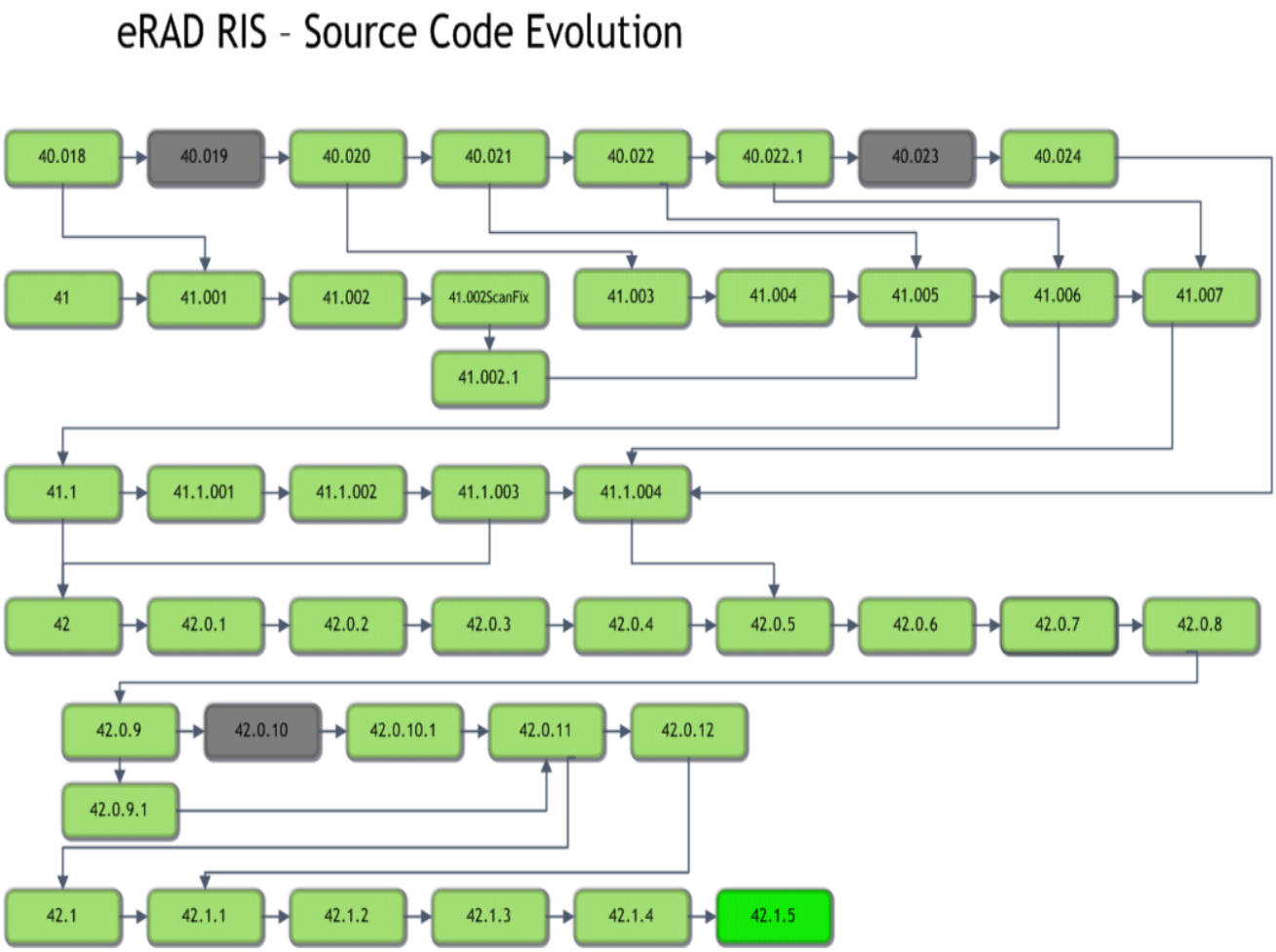
Where the value can be any lookup table, and a value="*", will retrieve all lookups.

The setting has resulted in undesired results of possible slowness, depending on the lookup table, and possibly additional bugs. Because of this, we are requesting that all sites comment out this line in the ris.exe.config table. The commented line will look like

<!--<add key="RowLevelCacheDataSetNamesCSV" value="ProcedureCode,TemplateMacro,Indication"/> -->

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 3. Code Stream




**Legend:**

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 4. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains:
   - rRIS_1.3.42.1.5.23406.zip

2) RIS_Service_Updates contains:
   - ABCpdf.dll
   - ABCpdf9-32.dll
   - ABCpdf9-64.dll
   - CDSJobManager.dll
   - CDSJobManager.pdb
   - CdsLib.dll
   - CdsLib.xml
   - CdsLib.XmlSerializers.dll
   - CommonLib.dll
   - CommonLib.pdb
   - DDEngine.dll
   - DDEngine.pdb
   - Interop.ANYMODALCAPTURECTRLLib.dll
   - Interop.FAXCOMEXLib.dll
   - Microsoft.Practices.EnterpriseLibrary.Caching.dll
   - Microsoft.Practices.EnterpriseLibrary.Caching.pdb
   - Microsoft.Practices.EnterpriseLibrary.Common.dll
   - Microsoft.Practices.EnterpriseLibrary.Common.pdb
   - Microsoft.Practices.EnterpriseLibrary.Logging.dll
   - Microsoft.Practices.EnterpriseLibrary.Logging.pdb
   - Microsoft.Practices.ServiceLocation.dll
   - Microsoft.Practices.ServiceLocation.pdb
   - Microsoft.Practices.Unity.dll
   - Microsoft.Practices.Unity.Interception.dll
   - Microsoft.Practices.Unity.Interception.pdb
   - Microsoft.Practices.Unity.pdb
   - Microsoft.ReportViewer.Common.dll
   - Microsoft.ReportViewer.WinForms.dll
   - Microsoft.ReportViewer.WinForms.xml
   - Newtonsoft.Json.dll
   - Newtonsoft.Json.xml
   - Ninject.dll
   - Ninject.Web.Common.dll
   - Ninject.Web.Common.xml
   - Ninject.xml
   - O2S.Components.PDFRender4NET.dll
   - PDFToImages.exe
   - rRISServices.exe
   - rRISServices.pdb
   - rRISServicesx64.exe
   - ScheduledTaskManager.dll
   - ScheduledTaskManager.pdb
   - ServicesConfigWizard.exe
   - ServicesConfigWizard.pdb
   - SignatureApprovalService.exe
   - SignatureApprovalService.pdb
   - System.Net.Http.dll
   - System.Net.Http.Formatting.dll
   - System.Net.Http.Formatting.xml
   - System.Net.Http.WebRequest.dll
   - System.Net.Http.WebRequest.xml
   - System.Net.Http.xml
   - System.Web.dll
   - System.Web.Helpers.dll
   - System.Web.Helpers.xml
   - System.Web.Http.dll
   - System.Web.Http.SelfHost.dll
   - System.Web.Http.SelfHost.xml
   - System.Web.Http.WebHost.dll
   - System.Web.Http.WebHost.xml
   - System.Web.Http.xml
   - System.Web.Mvc.dll
   - System.Web.Mvc.xml
   - System.Web.Optimization.dll
   - System.Web.Providers.dll
   - System.Web.Razor.dll
   - System.Web.Razor.xml
   - System.Web.WebPages.Deployment.dll
   - System.Web.WebPages.Deployment.xml
   - System.Web.WebPages.dll
   - System.Web.WebPages.Razor.dll
   - System.Web.WebPages.Razor.xml
   - System.Web.WebPages.xml
   - Tourreau.Gilles.FaxDotNet.dll
   - Tourreau.Gilles.FaxDotNet.pdb
   - Tourreau.Gilles.FaxDotNet.xml
   - WCFService.dll
   - WCFService.pdb
   - WCFServiceTests.dll
   - WCFServiceTests.pdb
   - WebApi.dll
   - WebApi.pdb
   - Wedge.exe
   - Wedge.pdb

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

The rRIS_Service_Updates also contains to subfolders:

A. Deploy folder contains
   a. Applicationsettings
   b. ReleaseVersion-connectionstrings
   c. rRISServices.exe
   d. services

B. XSL subfolder contains:
   Subfolder titled "Stylesheets" which contains:
   a. CDAToHTMLCompleteReport.xslt
   b. CDAToHTMLImpressionSection.xslt
   c. CDATorRIS.xslt
   d. CDAToTxt.xslt
   e. DocumentModelReport.xslt
   f. DocumentModelReportAsXml.xslt

   g. CCDA Subfolder contains
      a. C-CDA.xsl
      b. eRadStylesheet.xsl
      c. generalTemplates.xsl
      d. header.xsl
      e. sectionAdministeredMedications.xsl
      f. sectionAllergies.xsl
      g. sectionEncounters.xsl
      h. sectionFuncCogStatus.xsl
      i. sectionImmunizations.xsl
      j. sectionInstructions.xsl
      k. sectionMedications.xsl
      l. sectionPlanOfCare.xsl
      m. sectionProblemList.xsl
      n. sectionProcedures.xsl
      o. sectionReasonForVisit.xsl
      p. sectionResults.xsl
      q. sectionSocialHistory.xsl
      r. sectionVitalSigns.xsl

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 5. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

## 6. Who is affected

Build 42 installs. Server updates are not cumulative. This server update must be applied to 42.1.2

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

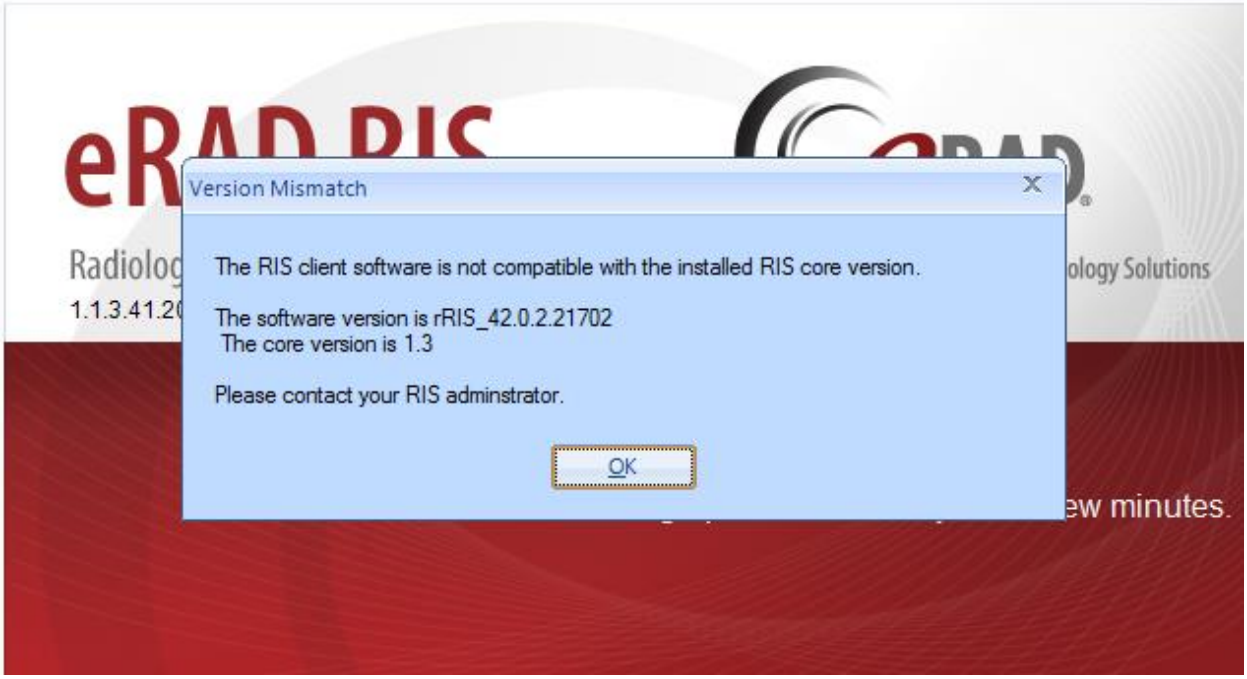
## 7. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 41.1 | - | 1.3.41.20918(3GB) | 1.3.41.20791 | 1.3.41.20918 | 1.3.41.20739 | GUI.zip, Core install, Web Service and DB updates, Help files |
| 41.1 | 1 | 1.3.41.20987(3GB) | 1.3.41.20791 | 1.3.41.20918 | 1.3.41.20739 | GUI.zip |
| 41.1 | 2 | 1.3.41.21162(3GB) | 1.3.41.20791 | 1.3.41.21162 | 1.3.41.21150 | GUI.zip, Web Service and DB updates, |
| 41.1 | 3 | 1.3.41.21264(3GB) | 1.3.41.20791 | 1.3.41.21162 | 1.3.41.21150 | GUI.zip |
| 42 | - | 2.42.0.0.21261(3GB) | 2.42.0.0.21261 | 2.42.0.0.21261 | 2.42.0.0.21187 | Full version release |
| 42 | 1 | 2.42.0.1.21597 | 2.42.0.0.21261 | 2.42.0.1.21597 | 2.42.0.0.21187 | GUI and Web Service updates |
| 42 | 2 | 2.42.0.2.21702 | 2.42.0.0.21261 | 2.42.0.2.21702 | 2.42.0.0.21187 | GUI and Web Service updates |
| 42 | 3 | 2.42.0.2.21806 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.0.21187 | GUI and Web Service updates |
| 42 | 4 | 2.42.0.2.21862 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.4.21870 | GUI and Database updates |
| 42 | 5 | 2.42.0.5.21924 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.4.21870 | GUI |
| 42 | 6 | 2.42.0.5.22009 | 2.42.0.0.21261 | 2.42.0.5.22009 | 2.42.0.4.21870 | GUI and Web Service updates |
| 42 | 7 | 2.42.0.7.22090 | 2.42.0.0.21261 | 2.42.0.6.22009 | 2.42.0.4.21870 | GUI.zip updates |
| 42 | 8 | 2.42.0.7.22090 | 2.42.0.7.22150 | 2.42.0.6.22009 | 2.42.0.4.21870 | Web Service updates |
| 42 | 9 | 2.42.0.9.22203 | 2.42.0.0.21261 | 2.42.0.9.22203 | 2.42.0.4.21870 | GUI and Web Service updates |
| 42 | 9.1 | 2.42.0.9.22203 | 2.42.0.0.21261 | 2.42.0.9.22203 | 2.42.0.4.21870 | Web Service updates |
| 42 | 10 | 2.42.0.10.22232 | 2.42.0.0.21261 | 2.42.0.9.22203 | 2.42.0.4.21870 | GUI.zip |
| 42 | 10.1 | 2.42.0.10.22420 | 2.42.0.0.21261 | 2.42.0.9.22203 | 2.42.0.4.21870 | GUI.zip updates |
| 42 | 11 | 2.42.0.11.22495a | 2.42.0.0.21261 | 2.42.0.11.22471 | 2.42.0.11.22527 | GUI.zip, Web Service, Database updates. Management Report Deployment |
| 42 | 12 | 2.42.0.12.22982 | 2.42.0.0.21261 | 2.42.0.12.22982 | 2.42.0.12.22911 | GUI.zip, Web Service, Database updates. |
| 42.1 | - | 2.42.1.0.22744(3GB) | 2.42.0.0.21261 | 2.42.1.0.22744 | 2.42.1.0.22736 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 42.1 | 1 | 2.42.1.1.2296(3GB) | 2.42.0.0.21261 | 2.42.1.1.22963 | 2.42.1.1.22864 | GUI.zip, Web Service, DB updates |
| 42.1 | 2 | 2.42.1.2.23007(3GB) | 2.42.0.0.21261 | 2.42.1.2.23007 | 2.42.1.2.23007 | GUI.zip, Web Service, DB updates |
| 42.1 | 3 | 2.42.1.2.23237(3GB) | 2.42.0.0.21261 | 2.42.1.2.23237 | 2.42.1.2.23007 | GUI.zip, Web Services |
| 42.1 | 4 | 2.42.1.4.23348(3GB) | 2.42.0.0.21261 | 2.42.1.4.23348 | 2.42.1.2.23007 | GUI.zip, Web Services |
| **42.1** | **5** | **2.42.1.5.23406(3GB)** | **2.42.0.0.21261** | **2.42.1.5.23406** | **2.42.1.2.23007** | **GUI.zip, Web Services** |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 8. Installing

1) Copy and replace the current rRIS…zip file with the rRIS_1.3.42.1.5.23406.zip file provided with this release.
   Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.




If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_42.1.5.23406→ rRIS_1.3.42.1.5.23406. NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

**NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

2) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService. Be sure to make backup of all files, but especially the rRISServices.exe.config and rRISServices.vshost.exe.config files.
   *rRISService directories include:*
   a) *rRISService*
   b) *CDS rRISService*
   c) *Wedge rRISService*
   d) *DDE rRISService*

   **Restart each service.**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# User Release Notes

for eRAD RIS
Version 2
Build 42

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# Table of Contents

1. Purpose ..... 4
2. Intended Audience ..... 4
3. Installing/Accessing the Application ..... 4
4. New Access Strings and Configuration Settings ..... 5
5. New Features and Enhancements ..... 8
Reporting – Laterality Check when Transcribing Reports ..... 8
Reporting – Laterality added to Patient Folder ..... 10
Reporting – MT Edit Text Color ..... 11
Reporting – Available Speechmike Buttons for Mapped Commands and Input Device Redesigned and New Button Options ..... 12
Reporting – New Voice Commands for Reporting Windows ..... 14
Reporting – Voice Enabled Message Boxes ..... 15
Reporting – Support Tracking of Magnet Strength ..... 17
Reporting – Talked to Doctor Macro ..... 18
Reporting – No Wait Insert Macro ..... 19
Reporting – No Wait Undo/Redo that Voice Commands ..... 19
Reporting – Load Audio when Signing Reports ..... 20
Reporting – Make STAT Audible Alert Configurable ..... 21
Reporting – Displaying Report Field Tooltips Configurable ..... 22
Reporting – Load Dictation Layout in Supervised Radiologist Workflow ..... 23
Reporting – Open Patient Folder/Images when Signing ..... 24
Reporting – Lock Access to Preliminary Reports ..... 25
Reporting – Set Problem Flag without Rejecting Report ..... 26
Reporting – Remove Content Tags from CDA when Creating Macros/Templates ..... 28
Reporting – Ability to Configure MModal Transfer Task ..... 29
Reporting – Make Patient Name Stand Out in Reporting Windows ..... 30
Reporting – Create Backup of Capture Log ..... 31
Relevancy Calculation Adjustable via Configuration ..... 32
Reporting – Cached by Name Column ..... 35
Reporting – PACS Server Override ..... 37
Reporting – Noticeable Sign Button in Reporting Windows ..... 38
Reporting – Chair Workflow Enhancements ..... 39
Administration - Display Locked Items in Different Color on the Work List ..... 44
Attachments - “Show Me Everything” Option ..... 46
Attachments - Ability to Add Attachments from Worklist Context Menu ..... 47
IVT - Next Follow up Date ..... 48
Support Non Order Level Locking ..... 49
Administration - Multiple Person Ids ..... 55

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

Administration - Allow Editing of Billing Units ..... 56
Administration - Disable BI-RADS ® Per Site ..... 58
Administration - Ability to Add MRN and Accession Prefix and Suffix ..... 59
Administration - Privacy Message on Locked eRAD RIS ..... 60
Billing – Audit Log Capturing Billing Failure \ Reason ..... 61
External – View Legacy Report PDF's as HTML ..... 62
Management Report – Dictations by User ..... 63
Management Report – Direct Referrals ..... 64
Management Report – User List ..... 65
Management Report – Double Count CPT's ..... 65
MU – Management Report for Patient List Creation – MU Phase 2 ..... 66
MU – Auto Request Pathology and Follow Up with Lab Worklist ..... 68
MU - Race Field Allow for Multi Select ..... 70
MU – Improvement to How We Record Height ..... 71
MU – Retain Patients Smoking Status and Height ..... 71
MU – Problem List for MU Phase 2 ..... 72
MU – Medication List for MU Phase 2 ..... 73
MU – Image Results for MU Phase 2 ..... 74
MU – Audit Reports – MU Phase 2 ..... 75
MU – Goals and Condition ..... 76
MU – Patient Specific Education Resources ..... 78
MU – New Alert Rules – MU Phase 2 ..... 81
MU – CCDA ..... 83
MU – CCDA Generation ..... 84
MU – SNOMED CT ..... 85
HL7 Payments ..... 86
6. Code Stream ..... 87
7. RIS Release Version Numbers ..... 88
8. Resolved Defects ..... 93
9. Known Limitations ..... 111

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 1. Purpose

This document describes some of the new features and changes implemented in eRAD RIS as of the end of Sprint 42 and subsequent server releases. This version of eRAD RIS is referred to as Build 2.42.

Only features which can be visually demonstrated to the user will be outlined in this document.

# 2. Intended Audience

This document is created by the RIS Development team for the RadNet RIS management team.

# 3. Installing/Accessing the Application

The installation guide for the eRAD RIS client have been posted to the RadNet Wiki page at http://mdbal01rdtweb/Wiki/

Under the RIS menu click on the rRIS page. The credentials to access the page are:
Username: rRIS
Password: Summerside

*Please note that Build 2.42 is considered a new core release of the application and will require a reinstallation of eRAD RIS. This is accomplished by navigating to the eRAD RIS shared installation drive and running the CoreInstall.bat file (ex: I:\RISDeployment\CoreInstall.bat)*

If you experience difficulties accessing the application please do not hesitate to contact Darcy Noye with the PEI RIS Development Team.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 4. New Access Strings and Configuration Settings

| Setting Placeholder | Setting | Default | Purpose / Controls Access to |
|---|---|---|---|
| Access string / User Group Permission tables | Clinical.PreviewPreliminaryReport | None | Controls access to preview, print and faxing of unsigned (preliminary) reports |
| Access string / User Group Permission tables | Clinical.ResolveRadProblem | Full | Controls access to the Resolve Problem window for Transcription users from the All Problem WL |
| Access string / User Group Permission tables | Clinical.UserPreferences.PACSServerOverride | Disabled | Controls access to the User Preference PACS Server on the Integration tab. |
| Access string / User Group Permission tables | Clinical.ShowRVUs | None | Controls Access to see the RVUs on the chair selector report |
| SystemConfig lookup | MRNPrefix | | Value entered will be prefixed new MRN's created |
| SystemConfig lookup | MRNSuffix | | Value entered will be appended to new MRN's created |
| SystemConfig lookup | AccessionPrefix | | Value entered will be prefixed to new accession numbers |
| SystemConfig lookup | AccessionSuffix | | Value entered will be appended to new accession numbers |
| SystemConfig lookup | PrivacyMessageText | | Value entered will be displayed on a locked eRAD RIS login window |
| SystemConfig lookup | CPOELabTestCode | Pathology | Value of the Lab Test code that will be created when a procedure with the CPOE Pathology Flag = Y is signed |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| SystemConfig lookup | MUMedlinePlusConnectDebug | N | (value = Y/N) Adds prompt to UI for reviewing MedlinePlusConnect xml messages. |
| SystemConfig lookup | MUMedlinePlusConnectEnabled | N | (value = Y/N) Enable MedlinePlus Connect MU feature. |
| SystemConfig lookup | MUMedlinePlusConnectBaseUrl | http://apps.nlm.nih.gov/medlineplus/services/mpconnect_service.cfm | (value = string) MedlinePlus Connect Base URL. |
| SystemConfig lookup | MUMedlinePlusConnectDrugSearch | mainSearchCriteria.v.cs=2.16.840.1.113883.6.88 | (value = string) MedlinePlus Connect Drug RXCUI search specification. |
| SystemConfig lookup | MUMedlinePlusConnectLabSearch | mainSearchCriteria.v.cs=2.16.840.1.113883.6.1 | (value = string) MedlinePlus Connect Lab LOINC search specification. |
| SystemConfig lookup | MUMedlinePlusConnectProblemSearch | mainSearchCriteria.v.cs=2.16.840.1.113883.6.103 | (value = string) MedlinePlus Connect Problem ICD-9-CM search specification. |
| Ris.exe.config<br><br>Added in 41.1 | MModalDataTransferValue | None | Override the user preference for M*Modal's Data Transfer.<br><br>See feature Reporting – Ability to Configure MModal Transfer Task in this document for more details |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 5. New Features and Enhancements

## Reporting – Laterality Check when Transcribing Reports

Previous to build 42 the laterality check was performed when signing and verifying reports. Now this option is available in the transcription workflow as well.

As with the radiologist role, the user preference of "Laterality Check" must be selected to enable the feature for transcription users.

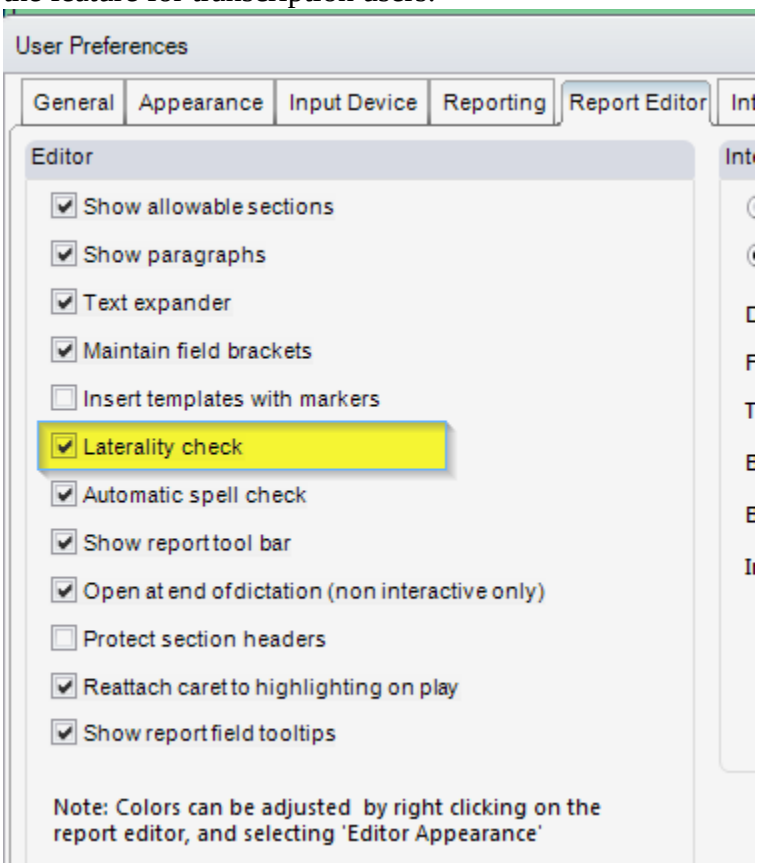



**Figure 5.1 – Laterality check user preference for transcription now as well!**

If the procedure being reported on has laterality and the report has conflicting left or right the transcriptionist will be presented with a pop up message and the literalities in the report will be highlighted.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

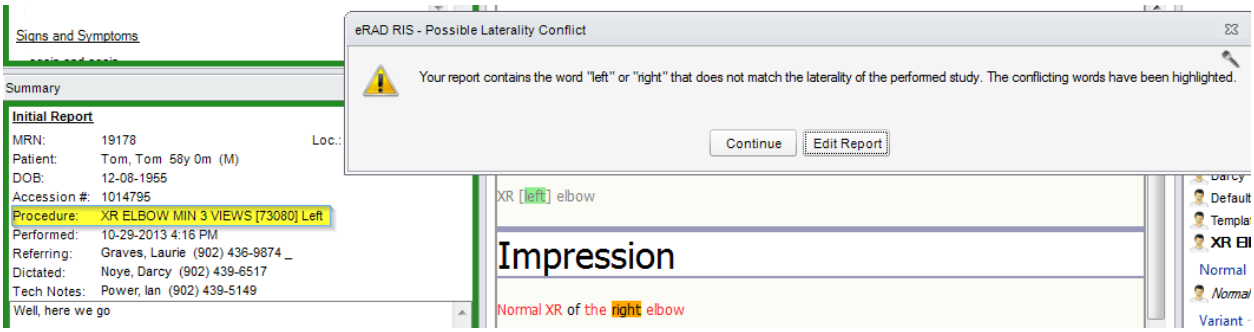


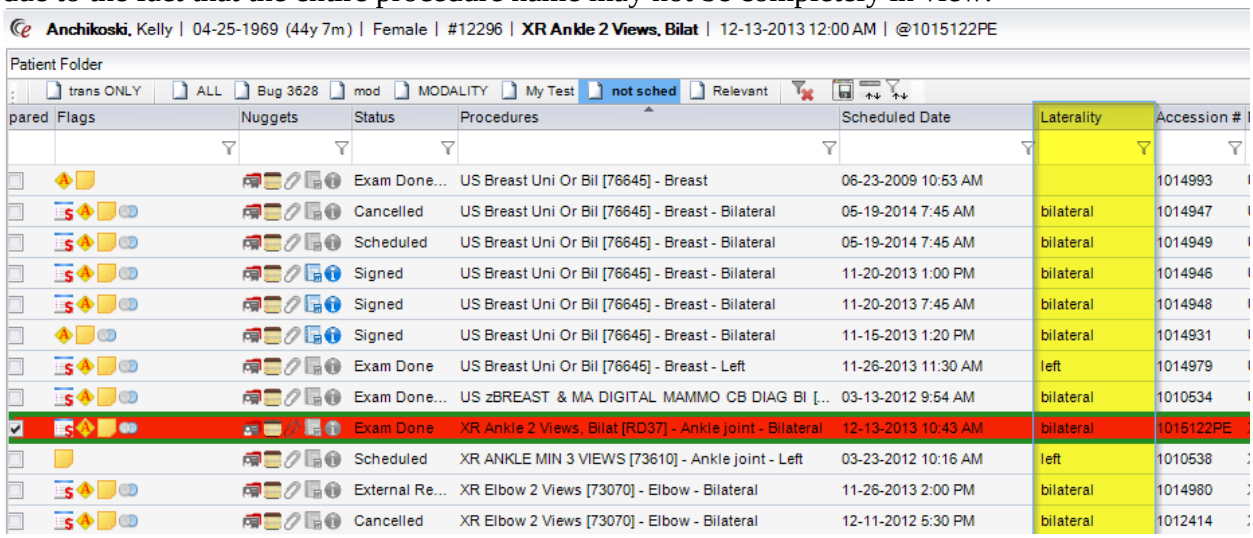

**Figure 5.2 – Message presented when conflicting laterality is detected.**

The user has the option to "Continue" if they believe the conflict is not valid, example the words left or right are detected in the report but are used in different context not related to the procedures laterality. The other option is "Edit Report", selecting this button with return the user to the editor window allowing them to make needed corrections if the conflict is related to the procedure laterality.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Laterality added to Patient Folder

The patient folder data pane that is available in the reporting windows now has the Laterality column added to its list of columns. In the screenshot below the procedure column may also have the laterality listed, but it was requested that a column specific to laterality also be added due to the fact that the entire procedure name may not be completely in view.




| pared | Flags | Nuggets | Status | Procedures | Scheduled Date | Laterality | Accession # |
|---|---|---|---|---|---|---|---|
| | | | Exam Done... | US Breast Uni Or Bil [76645] - Breast | 06-23-2009 10:53 AM | | 1014993 |
| | | | Cancelled | US Breast Uni Or Bil [76645] - Breast - Bilateral | 05-19-2014 7:45 AM | bilateral | 1014947 |
| | | | Scheduled | US Breast Uni Or Bil [76645] - Breast - Bilateral | 05-19-2014 7:45 AM | bilateral | 1014949 |
| | | | Signed | US Breast Uni Or Bil [76645] - Breast - Bilateral | 11-20-2013 1:00 PM | bilateral | 1014946 |
| | | | Signed | US Breast Uni Or Bil [76645] - Breast - Bilateral | 11-20-2013 7:45 AM | bilateral | 1014948 |
| | | | Signed | US Breast Uni Or Bil [76645] - Breast - Bilateral | 11-15-2013 1:20 PM | bilateral | 1014931 |
| | | | Exam Done | US Breast Uni Or Bil [76645] - Breast - Left | 11-26-2013 11:30 AM | left | 1014979 |
| | | | Exam Done... | US zBREAST & MA DIGITAL MAMMO CB DIAG BI [... | 03-13-2012 9:54 AM | bilateral | 1010534 |
| ☑ | | | Exam Done | XR Ankle 2 Views, Bilat [RD37] - Ankle joint - Bilateral | 12-13-2013 10:43 AM | bilateral | 1015122PE |
| | | | Scheduled | XR ANKLE MIN 3 VIEWS [73610] - Ankle joint - Left | 03-23-2012 10:16 AM | left | 1010538 |
| | | | External Re... | XR Elbow 2 Views [73070] - Elbow - Bilateral | 11-26-2013 2:00 PM | bilateral | 1014980 |
| | | | Cancelled | XR Elbow 2 Views [73070] - Elbow - Bilateral | 12-11-2012 5:30 PM | bilateral | 1012414 |

**Figure 5.3 – Laterality column added to the patient folder of the reporting windows.**

It should be noted that it is the Laterality description text that is being used from the Laterality lookup table and not the Laterality Code.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – MT Edit Text Color

Previous to build 42, Interactive Dictation users had the option to set color preference for edits made from the All Signed Pending QA worklist by setting the QA Edit Text color option. If the job was submitted (not signed) to transcription, any edits performed could not be colored in the same way as when edited via QA workflow.

We have added another option to the Editor Appearance window for possible edits made in transcription.

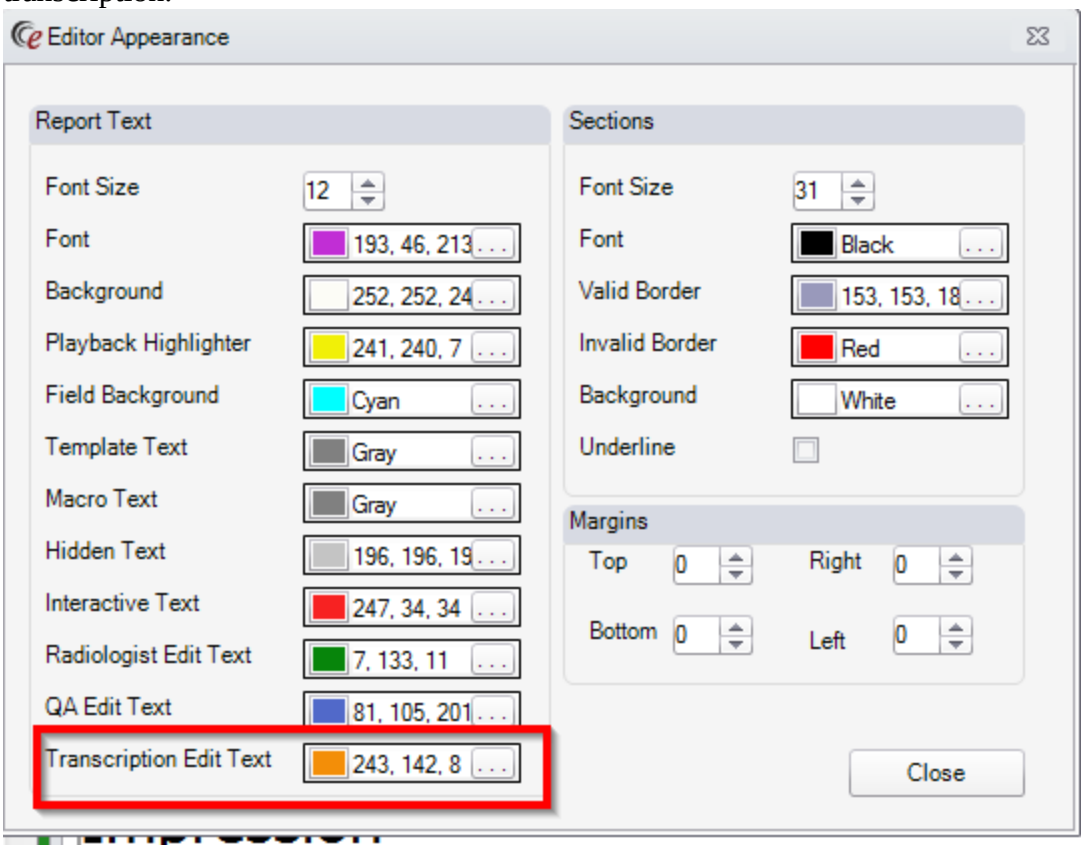



**Figure 5.4 – Transcription Edit Text color option in Editor Appearance window.**

This text color option is titled Transcription Edit Text and has a default value of black.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Available Speechmike Buttons for Mapped Commands and Input Device Redesigned and New Button Options

The Speechmike now has additional buttons that can be mapped to use commands within the reporting windows. The buttons for "Play, Record, and INS/OVR" have been added. In addition the layout of the Input Device tab has been changed to be more intuitive with the layout of the Speechmike.

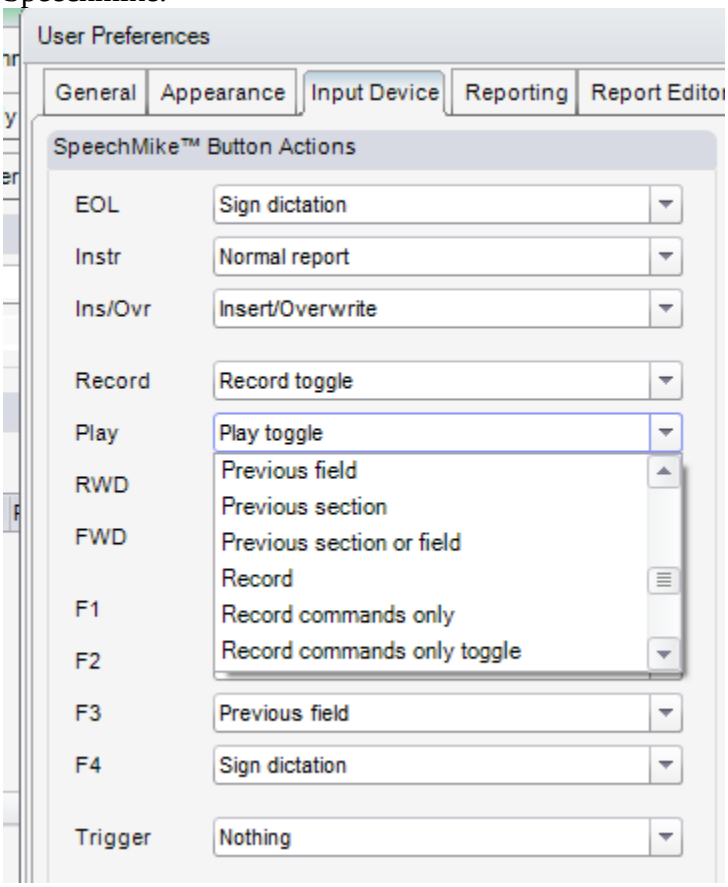



**Figure 5.5 – Input tab additions and redesign**

To accommodate the potential re-mapping of the play, record and Insert/Overwrite buttons their actions have also been added for use with other buttons.
Additional new commands added are:
**Play –** Enables play function to the assigned button
**Play toggle –** Start and stops play function with press/release of assigned button. This replaces the User Preference "Stop playback with button is released"
**Record –** Enable record function to the assigned button

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

**Record toggle** – Starts and stops record function with press/release of assigned button. This replaces the User Preference "Stop recording when button is released"
**Record commands only** – allow the user to issue commands without dictating in the report. This can make editing reports easier and increases voice command recognition.
**Record commands only toggle** – Same function as Record commands only with this command the function starts and stops with the button press/release
**Insert/Overwrite –** Enables insert/overwrite function to assigned button
**Cap that -** The first letter of each word in the selected range of text is capitalized.
Example:

results in


No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – New Voice Commands for Reporting Windows

Newly added voice commands added in build 42 are:

**Submit report –** voice command will perform submit button click
**Suspend report –** voice command will perform suspend button click
**Close report / Skip report –** voice command will perform the skip/close button click. Invokes the button click and will use the current assigned button click
**Cap that –** voice command that will capitalize the first letter of each word in the selected range of text.
**New line -** Now when dictating "new line" you get a new line and "new paragraph" will result in a new paragraph.
**Redo that –** If text is removed from report while dictating using undo that voice command or select a range of text and delete/overwrite selection, or by way of Speechmike button such as undo or delete word left of cursor, issuing the redo that command will reverse the change.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Voice Enabled Message Boxes

We added, to our base message box class, the ability to interact with the buttons on a given message box. Now when a message box is presented we load into our voice command options the following for each button.

**Value -** This is the value in code for the button. Most often it may equal the text but some instances it may not. For example a button that says "Close without saving" may have a value of "OK" or "Yes". Overtime a user will get accustomed to which command is more fluid for them.

**Text -** This is the visible text seen on the button. So a button that shows "Close without saving" will have a voice command of "Close without saving"

**Button # -** This position the button shows on the message box starting with the number one. So a message box with "YES" and "NO" would have voice commands of "button one" and "button two".

**Option # -** This position the button shows on the message box starting with the number one. So a message box with "YES" and "NO" would have voice commands of "option one" and "option two".

We also added a new icon to the message boxes to indicate they are voice enabled. This icon should show only for radiologists. Even batch users can interact with message boxes via voice command. This new icon has a tooltip that displays the voice command options to invoke each button.

There are some dialog boxes that are not voice enabled. The whole application is not at that state yet.
Spell check, mic wizard, dictionary and user preferences to name a few. Goal of this item was to get most common message boxes.

The image below shows the new icon and tooltip options.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

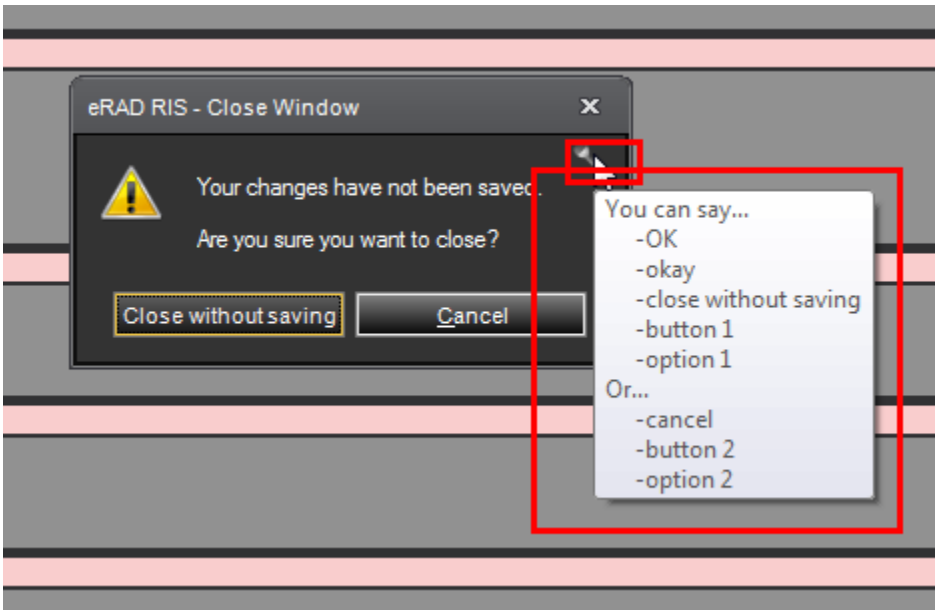



**Figure 5.6 – Voice enabled message boxes displaying available command options**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Support Tracking of Magnet Strength

To start the magnet strength column has been added to the Modality lookup table. The column has a max character length of 10.

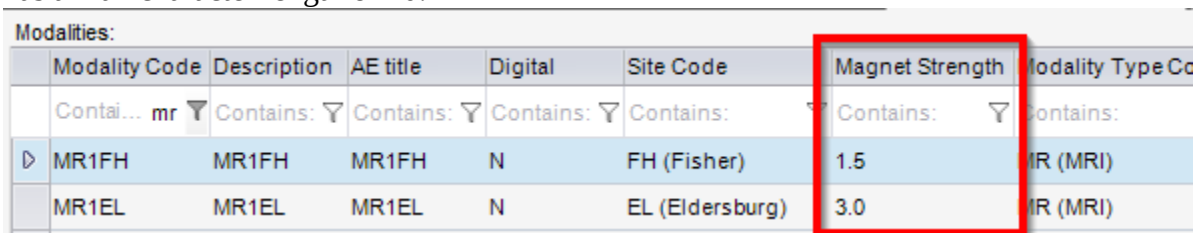



**Figure 5.7 – Magnet Strength column added to Modality lookup table.**

To have this value added to the template or macro a new custom field is now available in the Template/Macro editor.

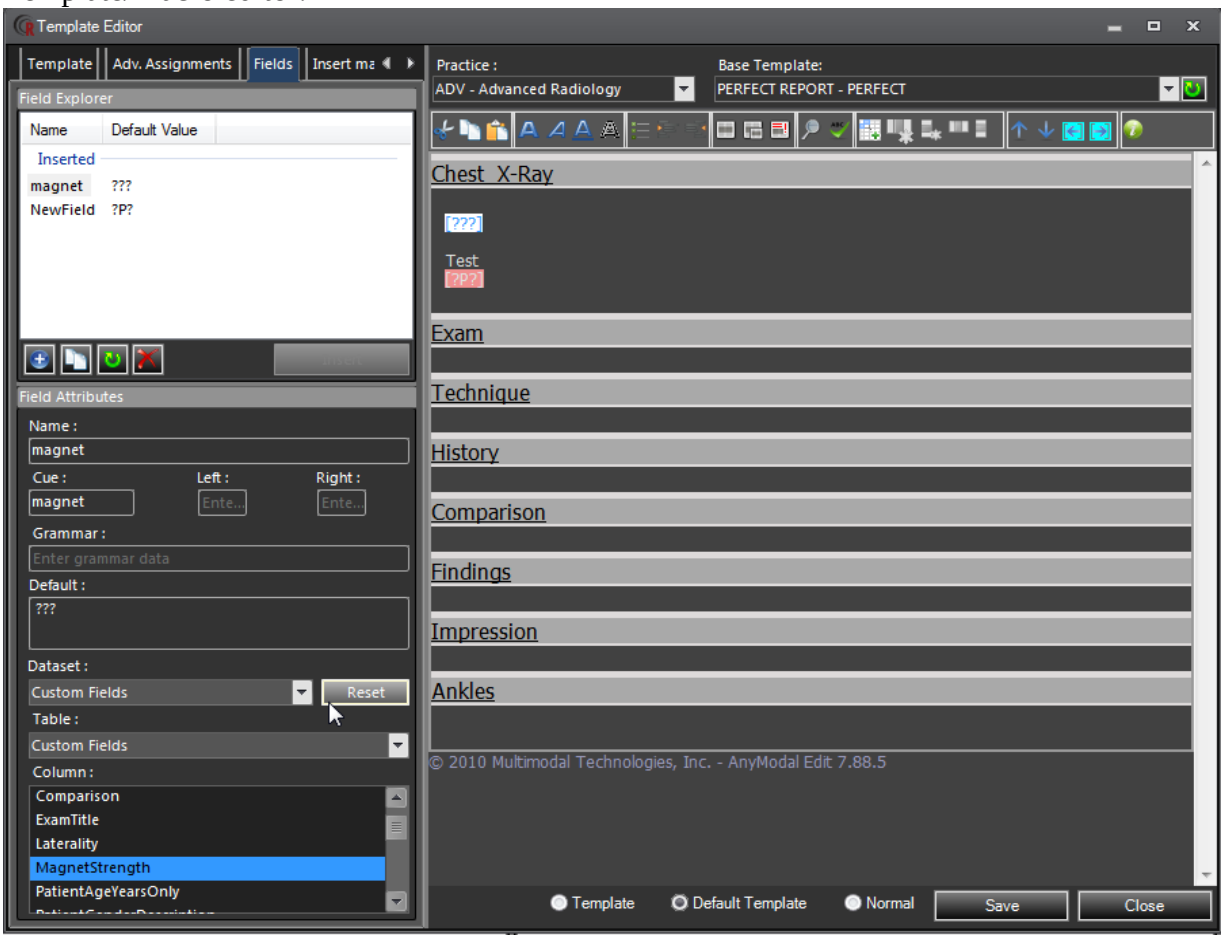



**Figure 5.8 – MagnetStrength added as a custom field**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Talked to Doctor Macro

Additional custom fields have been added to aid users in creating a "Talked to Doctor Macro". Below are the custom fields and examples of values for each field
**TimeStamp12** – 6:30pm
**TimeStamp24** – 18:30
**Today** – 08-13-2013
**ReferringShort** – Dr. Last
**ReferringLong** – Dr. First Last

In the Macro editor these custom fields can be used to create a the "Talked to Doctor Macro".

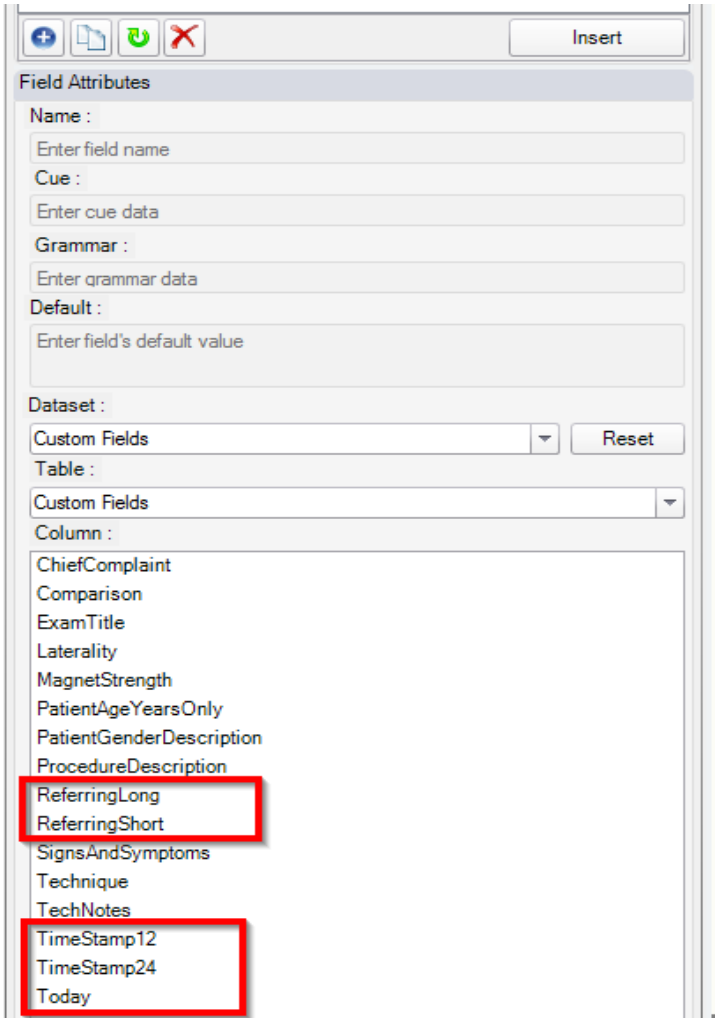



**Figure 5.9 – New custom fields to support talked to doctor macro**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

The results will look something like this

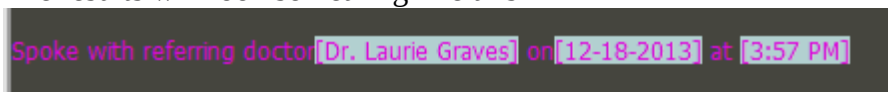



**Figure 5.10 – Talked to Doctor macro used in template**

## Reporting – No Wait Insert Macro

We have altered how we handle our 'insert macro' commands. You can now dictated and insert a macro without pausing. Once the macro is inserted a 'beep' (existing) will sound indicating dictation can progress. Users MUST wait for the macro to insert because there may be fields within the macro that direct report creation.

## Reporting – No Wait Undo/Redo that Voice Commands

Currently there is no option for "redo that" voice command. Also when using the "undo that" command it rarely is recognized on the initial attempt. It will render things like "underline" or "undo that" as text. We need "undo that" and "redo that" to work well without pausing or rendering the text into the editor.

Added in build 42 is the "Redo that" voice command. Also, we now have a concept of adding word to the recognizer and lowering the cost of these words. Think of it as increasing the possibility that these words will be spoken – resulting in better recognition of these particular words.

We now have "undo that" and "undo last" added in this category. These commands existed previously but are not low cost.

We added a completely new voice command(s) "redo that" and "redo last" which will undo the undo command.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Load Audio when Signing Reports

Using a user preference to enable and disable automatic loading of audio when signing. The user preference is "**Load audio in sign mode**". This can be accessed in the workflow section of the reporting tab in the user preferences window.

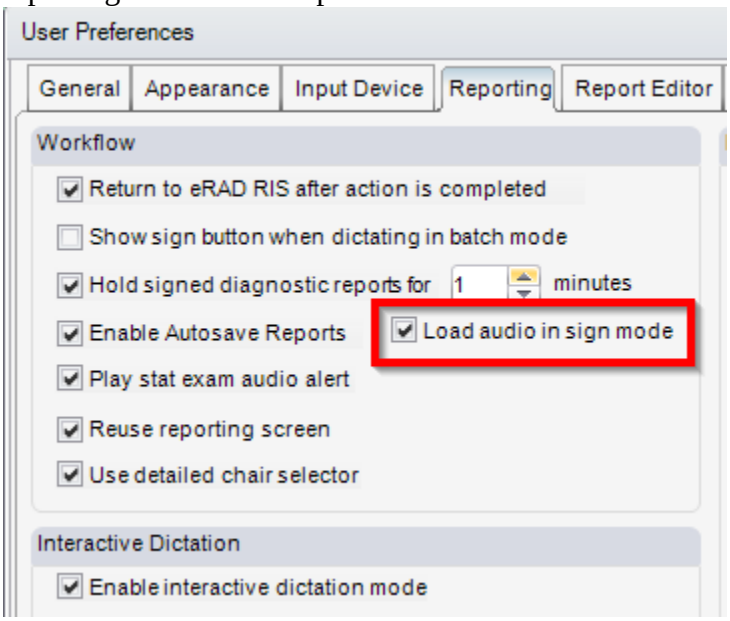



**Figure 5.11 – User preference Load audio in sign mode**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Make STAT Audible Alert Configurable

A new user preference has been added to the Reporting tab / Workflow section titled "**Play stat exam audio alert**". When selected it will work like is has in the past by informing the user when opening the study in reporting window that it is a STAT exam. When unselected the user will not be presenting with the audible message.

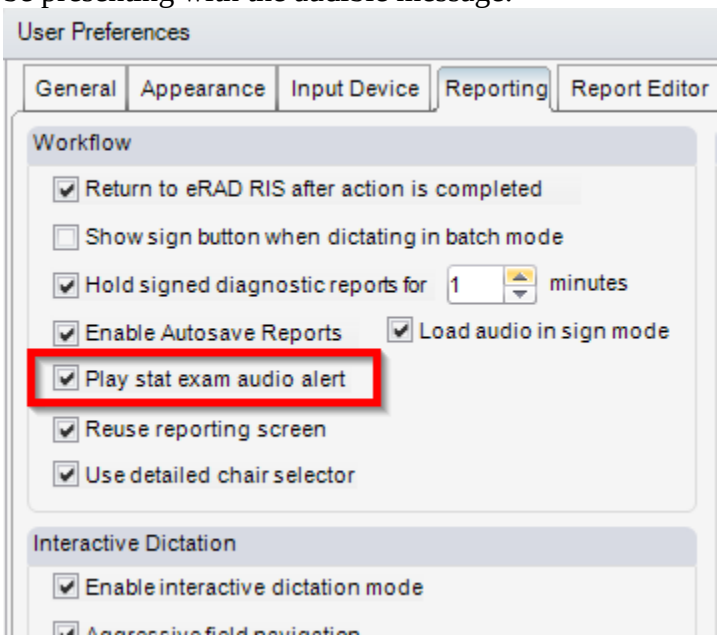



**Figure 5.12 – Play stat exam audio alert User Preference**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Displaying Report Field Tooltips Configurable

Yet another user preference has been added to enable/disable the field tooltips from displaying in the reporting editor. The user preference titled "**Show report field tooltips**" has been added the Report Editor tabs Editor Section.

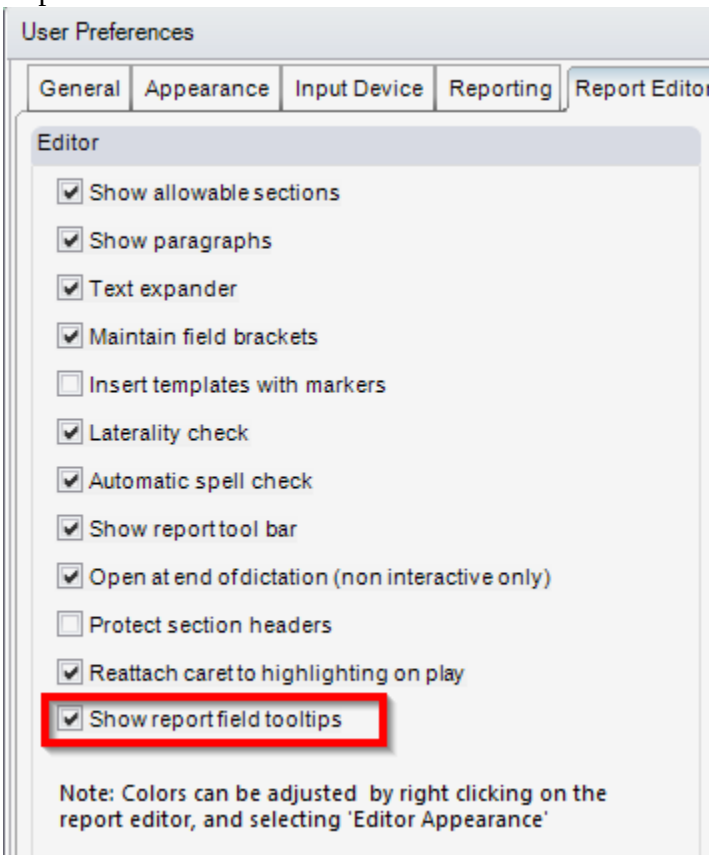



**Figure 5.13 – User preference Show report field tooltips**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Load Dictation Layout in Supervised Radiologist Workflow

In addition to new option in the Sign Report window to load images and patient folder (next feature in this document) we have also added a new user preference that will automatically load the Dictation layout when performing final signature during Supervising Radiologist workflow. The new user preference titled "**Use dictation layout when final signing supervised reports**" will automatically load the users Dictation layout instead of the

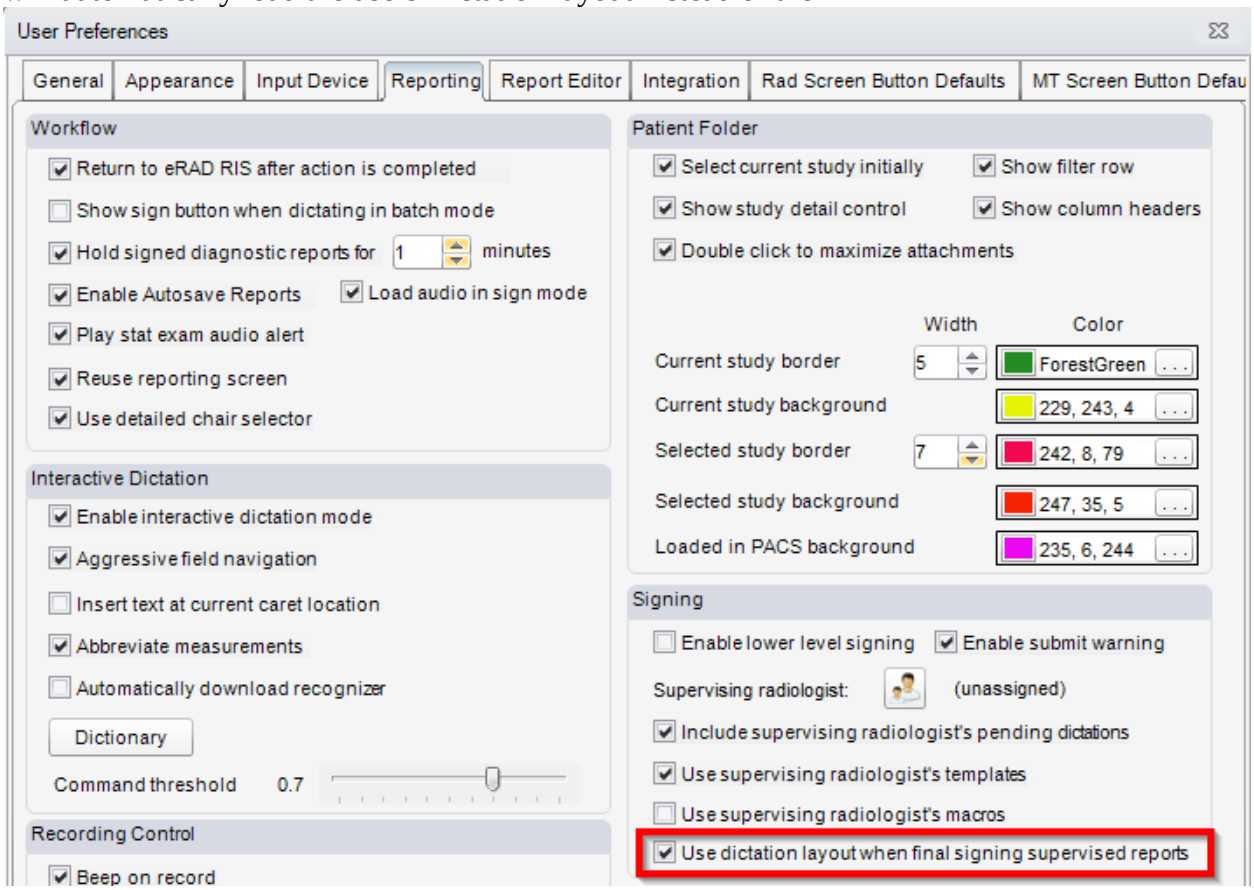



**Figure 5.14 – User preference Use dictation layout when final signing supervised reports**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Open Patient Folder/Images when Signing

Users currently have two main layouts. Either they are signing or dictating. Reason for this is that most signing task don't require the full patient folder detail, pacs images or dictation. So the signing layout is typically much smaller or less detailed then the dictation layout.

Users on occasion do want to display the Patient Folder and other detail similar to dictation when singing reports.

We now provide the user ability to load the dictation layout (patient folder) when signing reports. This is a manual click to load the dictating (patient folder) layout.

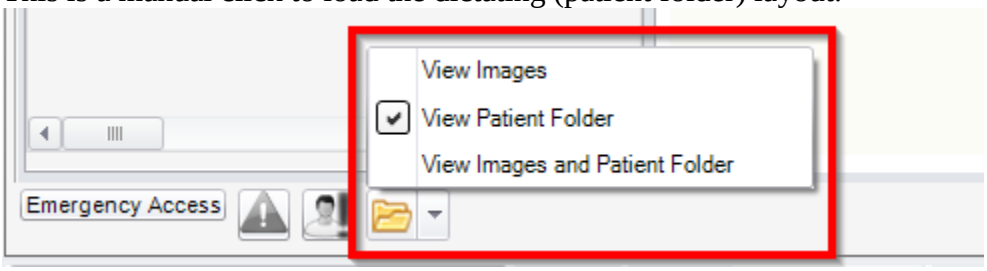



**Figure 5.15 – Signing mode layout options**

In the example above you can see that the Load Images button has been converted to be a split button with the additional options for "View Patient Folder" and "View Images and Patient Folder" with the "View Patient Folder" currently set as the default. This new dropdown button acts like other dropdown buttons for the reporting screen. Click the arrow to open other options and select option as desired. Holding the CTRL+<option> will render it the default and save in your user preferences.

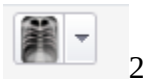
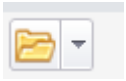
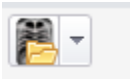
1.)  2.)  3.) 

**Figure 5.16 – Options available as default**

The three images above show the icon when set as default action for 1.) View Images 2.) View Patient Folder 3.) View Images and Patient Folder

When the Sign Report window is reloaded with the next study either from the work list or from the Submit/Sign/Suspend/Skip and Continue option the users Signing Layout will be used. What this means is that it will load the dictation layout when clicking Load Patient Folder but it won't be sticky.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Lock Access to Preliminary Reports

Unsigned reports can be previewed, printed and sent to distribution for faxing. To restrict users from distributing preliminary reports we have added a new access string titled "**Clinical.PreviewPreliminaryReport**"

If the user does not have this access string set to full, they will not be able to preview, print or fax preliminary reports from context menu within the RIS.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Set Problem Flag without Rejecting Report

In previous versions of eRAD RIS users would have to select the Reject/Edit button to enable the Assign to radio buttons. New in build 42 is the ability set the Problem flag without rejecting the report. Along with the Problem radio button, the Transcription list box and Notes fields are also enabled during QA verify report workflow.

Now the All Problem Worklist for MTs will show exams with problem flags set that are in TenativelySigned1 status.

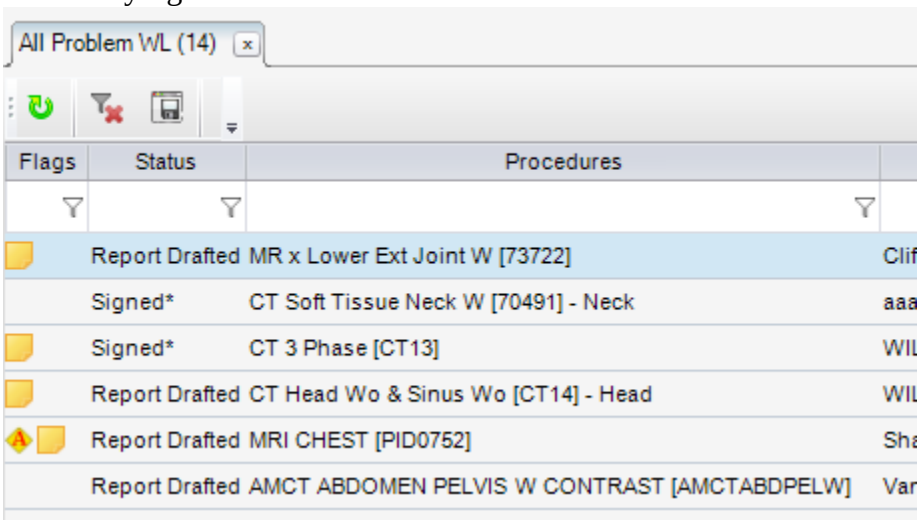



**Figure 5.17 – All Problem WL showing studies in Tentatively Signed status**

The Resolve problem window is now accessible in the MTs All Problem Worklist via the context menu. Please note this is dependent on the access string "**Clinical.ResolveRadProblem**".

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

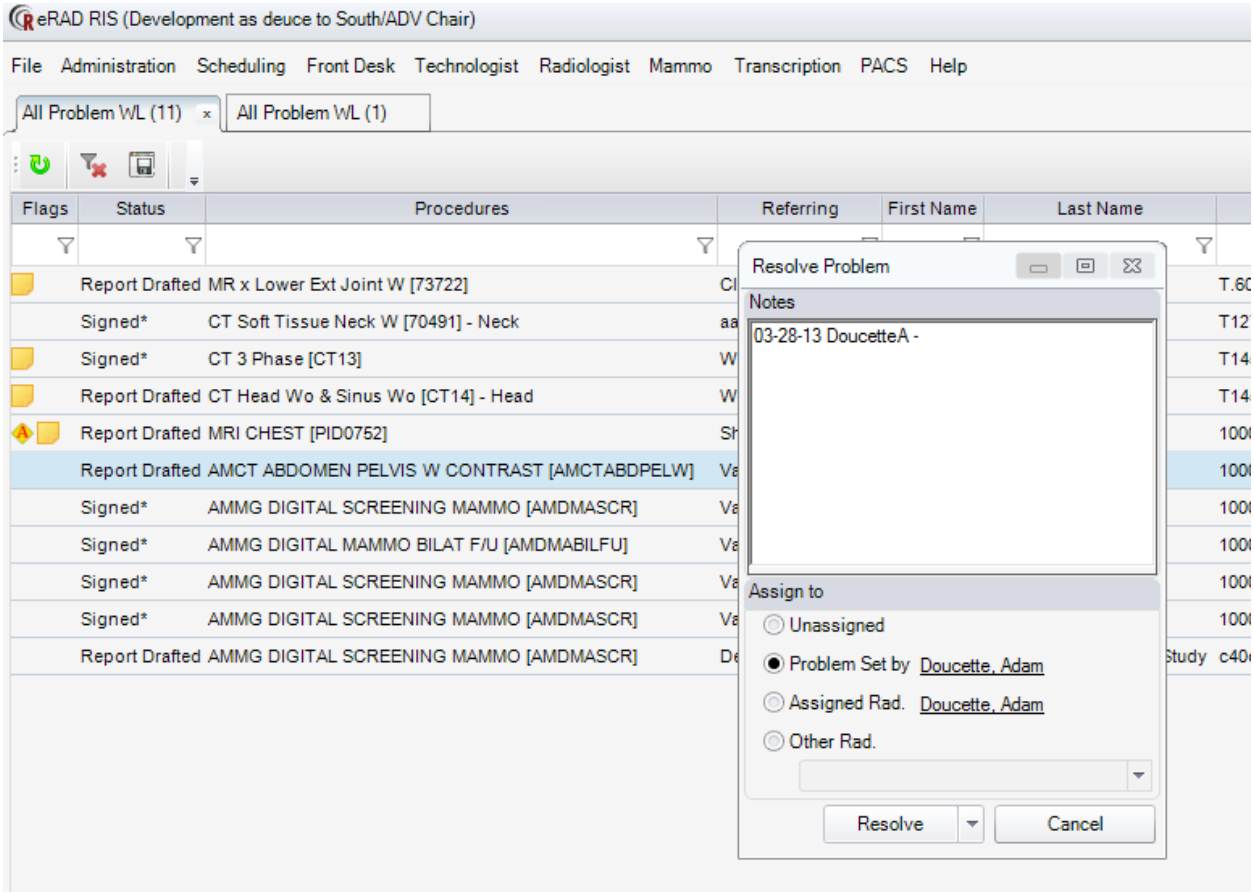



**Figure 5.18 – Resolve Problem window accessible from All Problem WL**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Remove Content Tags from CDA when Creating Macros/Templates

eRAD RIS offers the ability for a user to copy an existing report as a template for future reports. This functionality is inhibited by the fact that the new template they create contains mm:status and mm:part that should be stripped out.

As a result of the mm:status and mm:part still contained in the template, some of the jumping problems we have encountered on play back were related to time stamps being saved in templates and macros at the time of save. To correct this we found we could manually remove the time stamps from the underlying document.

We are now using the convertCdsToCda method to remove the time stamps and unneeded tags.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Ability to Configure MModal Transfer Task

The ris.exe.config now has an app setting to override the user preference for M*Modal's Data Transfer Config: **MModalDataTransferValue**

Acceptable values are any sum of the following options:

**SUBMIT_TRAINING_INFO:** Upload log of user interaction (including recorded audio) to server for profile building. Applicability: only for local recognition; ignored for remote recognition. constant value = **1**

**SUBMIT_ERROR_LOGS:** Whether to automatically submit an error report for debugging after an uncontrolled shutdown, or when encountering another non fatal error.
Applicability: all modes; requires storage manager for crash log uploads (non-fatal error reports can be submitted without). constant value = **2**

**STORE_USER_SETTINGS:** If set, store user preferences (including audio gain etc) on CDS server, and retrieve on next startup. Applicability: all modes. constant value = **4**

**UPDATE_PROFILES:** If set, checks at session creation whether an updated user profile is available on the server. If yes it is downloaded in a background thread and used as soon as it becomes available. Until then the recognizer would use either a speaker independent profile, or an older locally cached profile version (only if an IStorageManager is configured).
Applicability: local recognition; ignored for remote. constant value = **8**

**UPDATE_RECOGNIZER:** If set, check in regular intervals whether an updated compatible recognizer version is available on the server. If yes, the recognizer mode is downloaded in a background thread and used when the local recognizer is next instantiated (i.e. not switched out in a running session).
Applicability: local recognition; ignored for remote. Requires an IStorageManager, ignored if none is configured. constant value = **16**

**WRITE_DEBUG_LOG:** Like SUBMIT_TRAINING_INFO, but leaves information in a local IStorageManager for debug purposes instead of (or in addition to) uploading it to a server.
Applicability: local recognition; ignored for remote recognition constant value = **32**

If the value is not present or invalid, we resort to existing logic. This would be to check the user config for auto download, if present use 29 else 13

13 = SUBMIT_TRAINING_INFO, STORE_USER_SETTINGS, UPDATE_PROFILES
29 = SUBMIT_TRAINING_INFO, STORE_USER_SETTINGS, UPDATE_PROFILES, UPDATE_RECOGNIZER

0 (zero) is a valid option. Zero will disable the calls.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Make Patient Name Stand Out in Reporting Windows

The reporting windows now have additional optional patient and study information that can be displayed on the top of the main reporting window and also can display on the top of any floating data panes. If a multiple floating panes are grouped together, it will only appear on the title bar of the floating group.

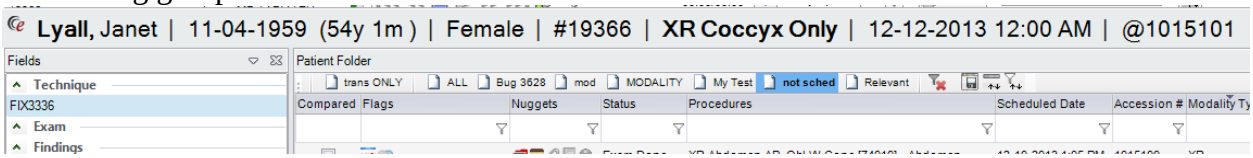



**Figure 5.19 – Patient and Study information in title bar**

Looking at the figure above I have the font size set to 16. The font size options are from 8-20. The context menu displayed above is accessed via a right click on the title bar. Under the Window Caption option the sub menu allows for font size change and option to display the Patient Information, Study information, both or neither.
Patient Information includes the patients name, DOB/age, gender, and MRN.
Study information includes the procedure, performed start date/time and the accession number

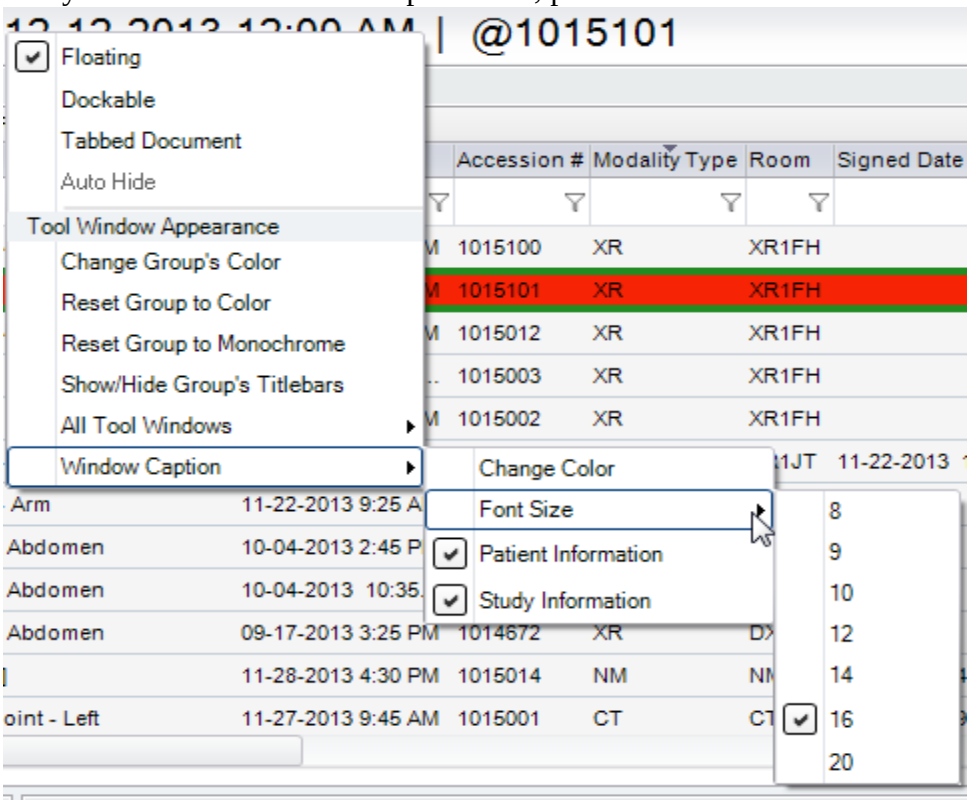



**Figure 5.20 – Context menu from title bar showing Window Caption options**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Create Backup of Capture Log

We now back up old capture logs.

On startup of Interactive, we check for existing capturelog file in $APP_PATH\captureLog.txt

If exists, we copy a backup to $APP_PATH\Reporting\CaptureLogs\$USER\captureLog-yyyy-MM-dd HH.mm.ss.log where yyyy-MM-dd HH.mm.ss is the LAST WRITTEN time on the current existing file.

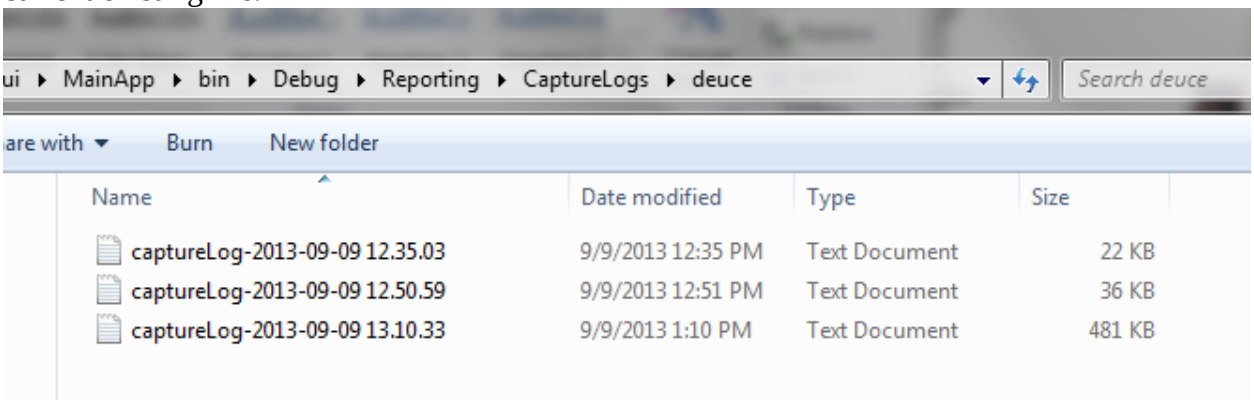



**Figure 5.21 – Showing CaptureLogs backup path**

Then we start up the new capture log which overwrites the old file location, as we always did.

So the current active capture log file name and location is unchanged. This will make for easy transition for support. Only the backed up logs are in a new location and file name.

Similar to the verbose logs, we check for outdated capture logs on login and delete ones that are older than two weeks and have not been accessed within the last day.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Relevancy Calculation Adjustable via Configuration

In production we have procedure codes that because of legacy data have very different names even on different modality types, but those procedures are actually exactly the same and should match exactly when assigned a relevancy score. Previous to B42 this was not possible because the relevance calculation was based entirely on word matching. A score was assigned based on the number of matching words and words that are modality type, body part or laterality are given great weight in the matching. Furthermore the administrator can setup the site so that only studies done on the same modality are considered relevant.

A new window titled Relevance Override has been added and is accessed from the "Override…" button on the Relevance lookup table.

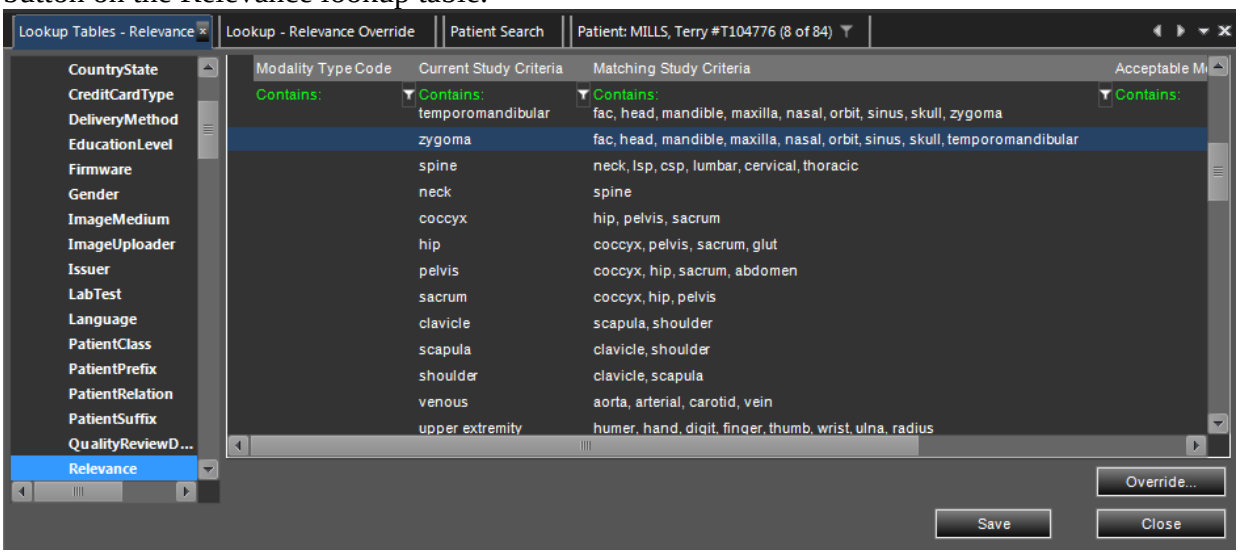



**Figure 5.22 – Accessing the Relevancy Override window**

When procedures in the patient's history have a matching relevancy override the configuration defines how much weight will be assigned as part of the procedure matching score (value between 0 and 100) and if the outcome will produce a Matching or Non-Matching Relevance Flag.

This solution also allows laterality to be an option part of the matching criteria. If the laterality is blank then it isn't considered as part of the matching criteria; however, if laterality is selected as "Same" then the rule only applies if the laterality of both procedures is identical. If the laterality is selected as "Different" then the rule only applies when the laterality differs and can be used to lower the score or make it Not Relevant, which could be useful when you want to give a high score when the laterality matches but a significantly lower score when the laterality is different.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

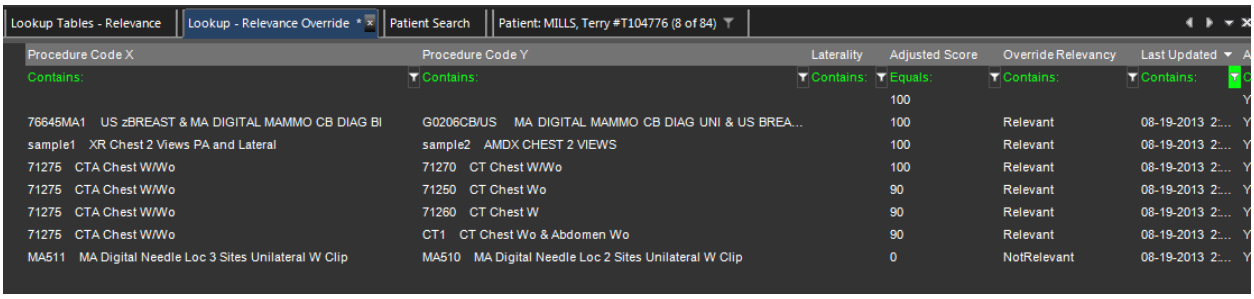
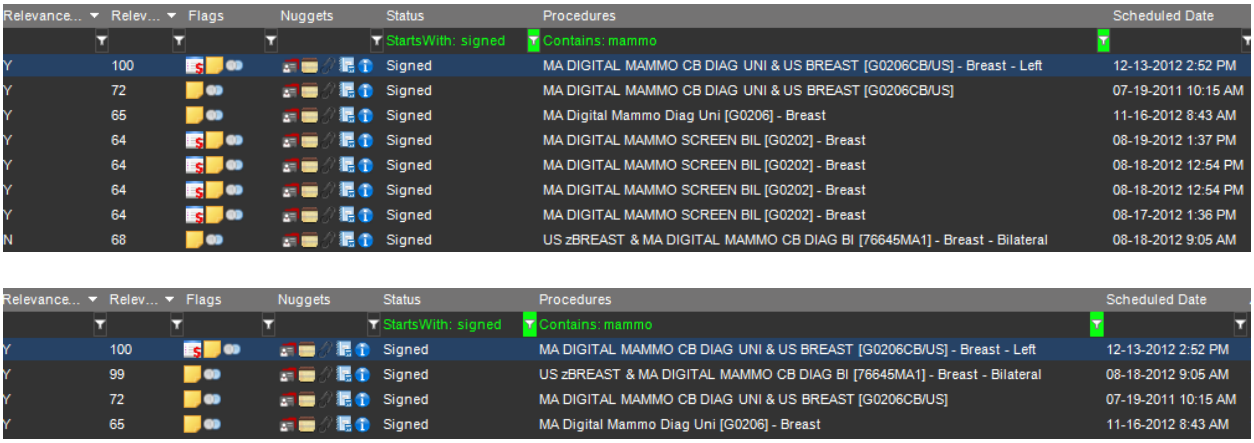



**Figure 5.23 – Relevance Override**

When the user clicks on the "Override…" button a tab opens up for the "Relevance Override" table, which allows you to specify two procedures (X and Y). When calculating relevancy if the studies match based on X and Y then the adjusted score will be applied and the relevancy flag will be set based on the selected value in the "Override Relevancy" column.

Note: The "Adjusted Score" and "Override Relevancy" columns are optional. If the "Adjusted Score" is blank then the score will remain as it was calculated without the override but the relevancy flag override would apply. Also, if the "Override Relevancy" column is blank only the score will be adjusted.

In the above Relevance Override configuration the procedures 76645MA1 and G0206CB/US are interesting. One is a US Breast & MA MAMMO CB and the other is a MA Mammo CB and US Breast. The default word matching produces a relevance score that is very close but not exact therefore some installations of RIS will want to correct for this. The following screen shots shows the relevancy results for a test patient's history – the first screen is with the override rule inactive and in the second screen shot the rule has been activated.




**Figure(s) 5.24 – Before and After Override applied**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

Note: that in the first screen shot without the Relevance Override, the 76645MA1 doesn't even show up as relevant because in the base relevancy rules there is a rule that says only MA modality type studies are relevant to MA studies. In the second screen shot the rule for 76645MA1 and G0206CB/US says the procedure matching will get a score of 100% but since the procedure matching only accounts for half of the total score (the other half is used to sort by date), therefore we see the score increase from 68 to 72 and 76645MA1 actually gets placed before the older G0206CB/US study because it's a recent prior.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Cached by Name Column

*Cached By Name* column has been added to the Pending Dictation Worklist. It shows the formatted name of the user who is caching the study. The logic behind which studies are cached follows the same criteria as the 'Next' logic of the Dictation window. That means it starts at the top of the sorted worklist. This is re-evaluated every time the worklist is refreshed. If you are the one that is marked for caching the study it will simply have "me" as the Cached by Name value.

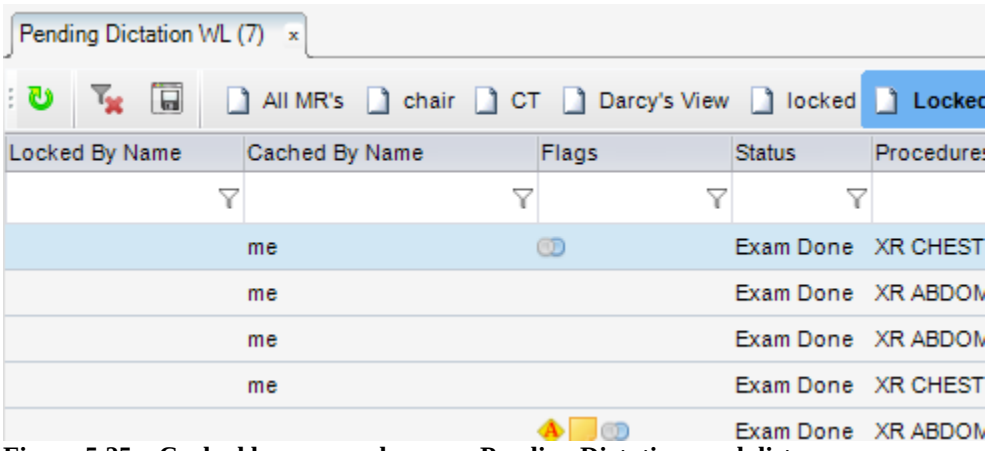



**Figure 5.25 – Cached by name column on Pending Dictation work list.**

Right-clicking on a study on the pending dictation worklist and selecting Add To Cache will cause that study to be cached regardless of its position in the worklist. This uses up one of the available cache slots as dictated by the Max Number to Cache user preference. Multi-selecting studies will cache studies up to this max number. Manually cached studies will be un-cached when either a different study (or set of studies) is selected to be manually cached or when they drop off the worklist due to a worklist sorting change or a change in the status of the study.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

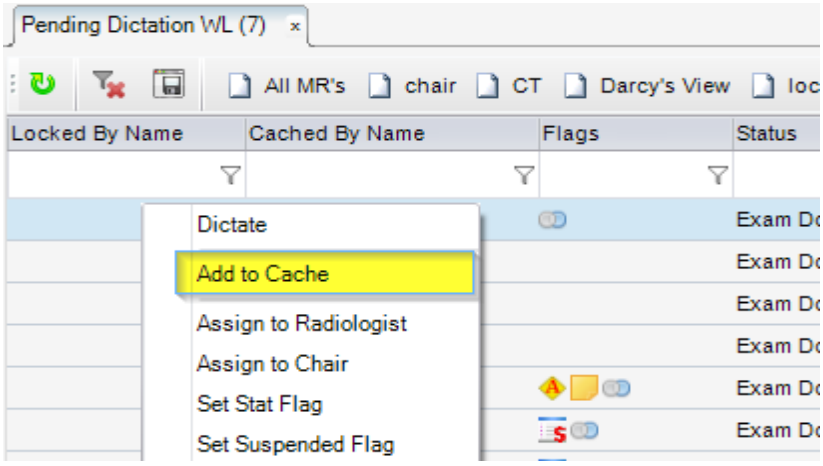



**Figure 5.25a – Add to Cache context menu option from Pending Dictation WL**

IW PACS "Caching" was attempted by actually opening the study. This has issues where studies that are "caching" sometimes pop up over top of images actually in use. This is probably suitable to be tested by a radiologist with warning they should be cautious and ensure that the images they are sync'd with the study they are reading.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – PACS Server Override

It has been requested that radiologists be able to access images on eRAD PACS and PACS IW from the same work list without changing the practice selected in the Org picker. This is now possible with the selection of a new user preference.

On the Integration tab there is a new option titled PACS Server and associated list box. This list box will contain the available PACS systems configured in the PACSServer lookup table that are in Active status. An access string named "**Clinical.UserPreferences.PACSServerOverride**" has been added for this preference with a default value of Disabled.

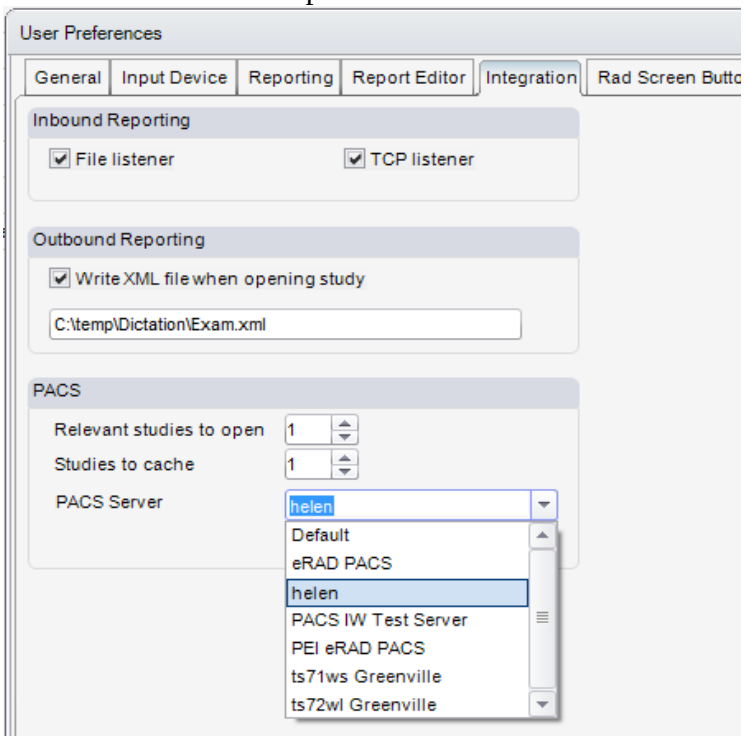



**Figure 5.26 – PACS Server user preference**

One of the PACS Server options is Default. If this is selected, the default PACS Server associated with your current practice selected in the Org picker will be used (same as before). If a specific server is selected, this will be the PACS that the images are displayed. For instance, if patient A has images on eRAD PACS and also PACS IW Test Server, when that server is selected the call for PACS will be made to that server and not the default for the practice.
**NOTE: If the PACS Server user preference selection is changed, the user will need to log out and back in again to pick up the changes. The user may encounter an error if they don't logout after changing the user preference.**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Noticeable Sign Button in Reporting Windows

To make the Sign button in the reporting windows easier to identify a new user preference was added add color to the background of the button and the option to change the font color.
The "**Visually enhance sign button**" user preference is located on the Appearance tab under the Radiologist Reporting Buttons section.

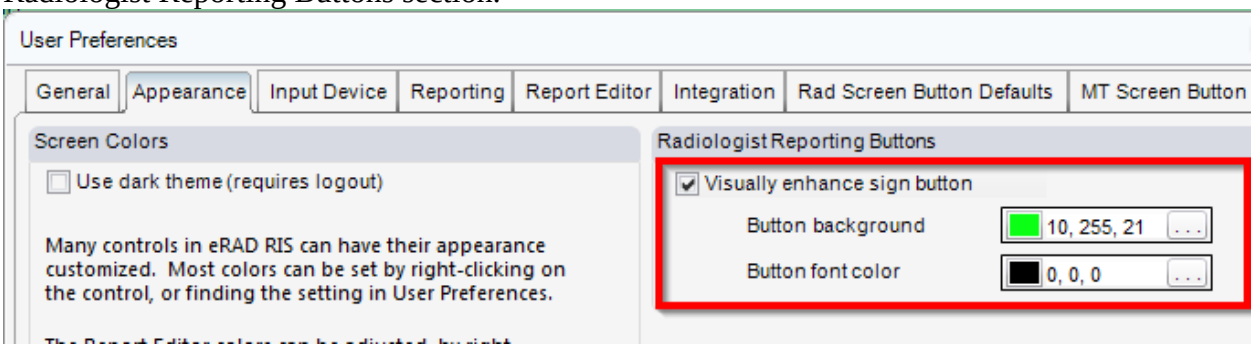



**Figure 5.27a – New user preference Visually enhance sign button**

With the preference selected and the above colors set the Sign button will look this in the reporting widow.

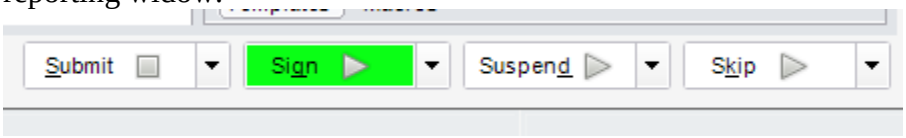
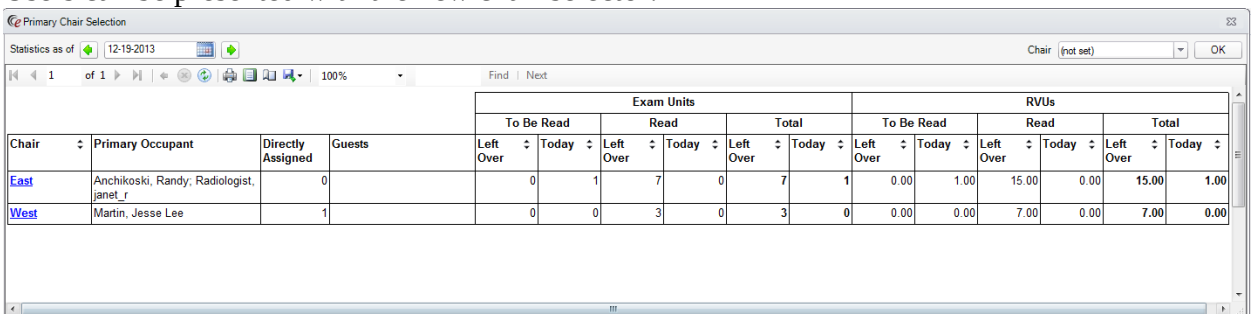



**Figure 5.27b – Noticeable Sign Button in Reporting window**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Chair Workflow Enhancements

You will first notice the Chair workflow enhancements upon login of eRAD RIS in build 42. Users can be presented with the new chair selector.




| | | | | Exam Units | | | | | | RVUs | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | To Be Read | | Read | | Total | | To Be Read | | Read | | Total | |
| Chair | Primary Occupant | Directly Assigned | Guests | Left Over | Today | Left Over | Today | Left Over | Today | Left Over | Today | Left Over | Today | Left Over | Today |
| East | Anchikoski, Randy; Radiologist, janet_r | 0 | | 0 | 1 | 7 | 0 | 7 | 1 | 0.00 | 1.00 | 15.00 | 0.00 | 15.00 | 1.00 |
| West | Martin, Jesse Lee | 1 | | 0 | 0 | 3 | 0 | 3 | 0 | 0.00 | 0.00 | 7.00 | 0.00 | 7.00 | 0.00 |

**Figure 5.27 – New Chair selector**

The original chair selector provided a simple drop down list of chairs and an OK and Cancel button. We have augmented this screen to show which radiologists are currently assigned to each chair, and we now describe the amount of work assigned to the chair for today and previous days. The old chair selector is still available and the user can choose "the old" or "the new" chair selector with a new User Preference "**Use detailed chair selector**". This is found under Reporting>Workflow.
The radiologist can select a chair either by clicking the blue hyperlink for the chair, or they can use a dropdown list if they prefer to make a selection with the keyboard. Once the radiologist selects a chair, the chair selector will disappear, and a chair filter will be applied to the My Pending Dictation WL.

The calendar control in the top left of the chair selector is used to determine the effective date for the statistics shown for each chair e.g. the stats for each chair break down the number of exams into "Today" and "Left Over". The calendar control defaults to "Today" when the chair selector is initially opened, so the "Today" column represents exams that were assigned to the chair today, while the "Left Over" column covers exams that were assigned in the previous 7 days. If the radiologist changes the date to reflect "Yesterday", the numbers in the "Today" column will instead reflect the exams assigned "Yesterday", while the "Left Over" column will again reflect the 7 days prior to "Yesterday". The calendar control also affects the numbers shown in the "Directly Assigned" column, we calculate the total number of exams assigned to the primary occupants of the chair based on the specified "chair assigned date."

For practices with a large number of chairs, we may find that there are too many choices to fit onto a single page. The tool strip has "next page / previous page" style controls that will allow the user to browse all of the chairs if desired. The "Find" control on the same tool strip can also be used to help jump to other pages.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

### Primary Chair vs "View Other Chairs"

The chair selector serves the dual purpose of allowing the radiologist to set their Primary Chair that they will be working for the day, while still allowing them to browse the worklist for other chairs. When the radiologist first logs in, they will be presented with the chair selector with the title "Primary Chair Selection"

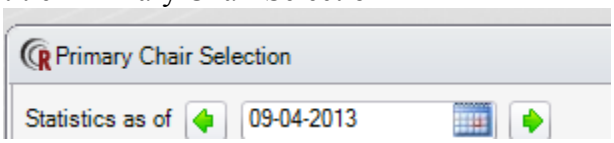



**Figure 5.28 – Primary Chair Selection window**

The primary chair selection will be used to ensure a particular chair is credited for the work done by the radiologist. We will assign an exam to the radiologist's primary chair once it is dictated or signed, provided it has not already been set.

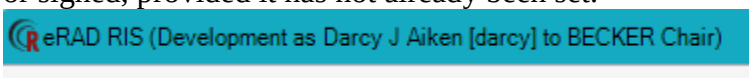



**Figure 5.29 – Primary chair displayed in the title bar**

After the radiologist selects a primary chair, they can bring up the chair selector by pressing the chair icon on the status bar at the bottom of RIS. The chair selector now has the title "View Other Chairs" and will be used for filtering worklists only, credit will not be assigned to this chair when the radiologist is dictating or signing exams.

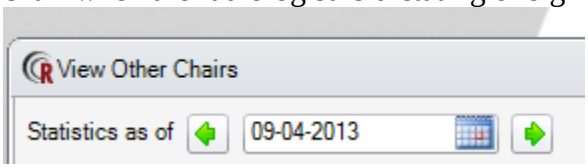



**Figure 5.30 – View other chair selector**

The figure below indicates that the "South" chair is occupied by Janet i.e. Janet's Primary Chair is "South" and that "Darcy" is currently filtering his worklist for the "South" chair via the "View Other Chairs" selection. In this case the 2 "Directly Assigned" refers only to the occupant of the chair (i.e. Janet).

**Figure 5.31 – Occupants and Guests displayed in chair selector**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

If a user tries to choose a chair that is already occupied by another user, they are presented with a prompt to confirm their choice:

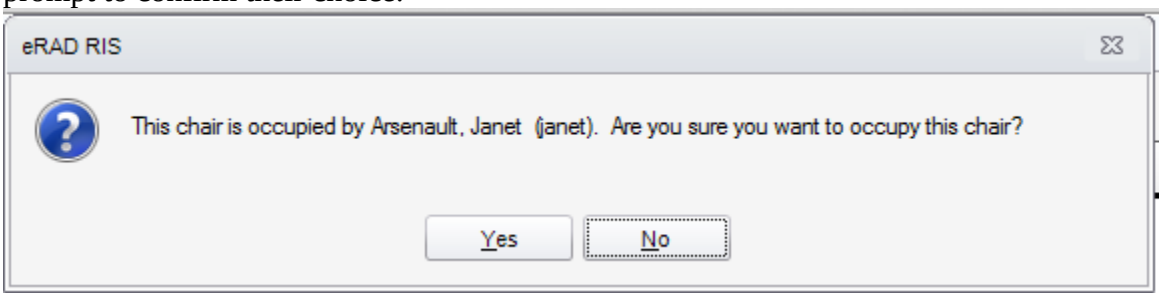
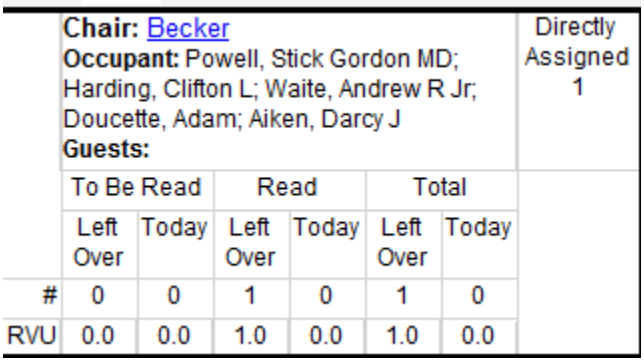



**Figure 5.32 – Prompt to confirm when the user selects a chair that is occupied by another user**

Previously the RIS back end services were agnostic of the user's Primary Chair selection, this was a detail managed solely by the client. We were required to save the user's choices to the database in order to be able to show occupants and guests on the new chair selector. We clear out these choices when the user logs out. In the event of an abnormal application termination (e.g. a power outage or crash), we do not have the opportunity to clear out the chairs. In this case, the chair occupants will remain in their chairs until they log back in and make a new selection, or their chair selection expires. RIS is presently set to occupy a chair for 2 hours or until the user logs out or makes a different selection, these 2 hour chair selections are renewed every hour.

### Descriptive Statistics for Chairs



| | **Chair:** Becker<br>**Occupant:** Powell, Stick Gordon MD; Harding, Clifton L; Waite, Andrew R Jr; Doucette, Adam; Aiken, Darcy J<br>**Guests:** | | | | Directly Assigned 1 | |
|---|---|---|---|---|---|---|
| | To Be Read | | Read | | Total | |
| | Left Over | Today | Left Over | Today | Left Over | Today |
| # | 0 | 0 | 1 | 0 | 1 | 0 |
| RVU | 0.0 | 0.0 | 1.0 | 0.0 | 1.0 | 0.0 |

**Figure 5.33 – Close-up of the statistics for a single chair**

The following logic was used to calculate the numbers in the chart above:

| Label | Definition |
|---|---|
| Directly Assigned | The total number of exams assigned to all primary occupants of the chair with a chair assigned date that matches the selection in the calendar control on the chair selector |
| To Be Read | Exams with a status of ExamDone or Signed with an addendum |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | |
|---|---|
| | requested |
| Read | Exams with a status of Dictated, Transcribed, Report Drafted, Tentatively Signed, or Signed (excluding Signed Exams with an addendum requested) |
| Today | Exams with a chair assigned date that matches the selection in the calendar control on the chair selector |
| Left Over | Exams with a chair assigned date that is within the 7 days prior to the selection in the calendar control on the chair selector |
| # | The number of exams |
| RVU | The sum of the weighted value for the exams. These weighted values can be configured by procedure code and practice, the configuration for these weights is discussed later in this document. |

**Table 5.1 – Detailed explanation on stats in chair selector**

### Chair Selection Management Report

The tables shown in the chair selector thus far have all been built within a management report. There is a new system configuration setting called "**ChairSelectionReport**". RIS will fall back to the previous chair selector if this entry is blank. A valid entry for this setting will describe the path to a management report on the report server (e.g. /dev/Management Reports/Custom/ChairSelection). The use of a configuration setting will help with the introduction of different versions of Chair Selection Reports – if the new version has issues, the configuration setting can be set to point back to another version of the report.

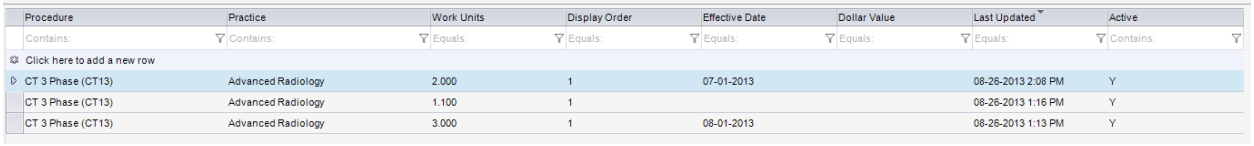
The hyperlinks in the chair selection report must be crafted in a particular way in order to be handled by RIS. This approach will initially be managed and refined by eRAD R&D and documented later for use in the field.

### Work Unit Configuration (aka RVUs or weights)

Procedures can now be assigned a relative weight to make it easier to ensure radiologists are given the appropriate credit for their work. Some procedures are significantly more involved than others, (e.g. Chest X-Ray vs PET/CT) so comparing just the number of exams is not meaningful. Access to see the RVUs option in the chair selector is configurable based on the new access string "**Clinical.ShowRVUs**"

There is now a new configuration option under Administration -> Configure -> Procedure -> WorkUnit that allows an administrator to assign weights to different procedures.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.



| Procedure | Practice | Work Units | Display Order | Effective Date | Dollar Value | Last Updated | Active |
|---|---|---|---|---|---|---|---|
| Contains: | Contains: | Equals: | Equals: | Equals: | Equals: | Equals: | Contains: |
| Click here to add a new row | | | | | | | |
| CT 3 Phase (CT13) | Advanced Radiology | 2.000 | 1 | 07-01-2013 | | 08-26-2013 2:08 PM | Y |
| CT 3 Phase (CT13) | Advanced Radiology | 1.100 | 1 | | | 08-26-2013 1:16 PM | Y |
| CT 3 Phase (CT13) | Advanced Radiology | 3.000 | 1 | 08-01-2013 | | 08-26-2013 1:13 PM | Y |

**Figure 5.34 – WorkUnit configuration lookup from Administration -> Configure**

Work units are designed to allow different practices to assign their own weights to the same procedure. Rather than require the administrators to map out rules for each procedure and practice, we have a default weight of 1.00 that will be used for any procedure that does not have a weight configured (for a given practice).

Because weights may be subjective, we have built in a date based versioning scheme. If an administrator decides that a Chest X-Ray should have a weight of 0.10 units, they can set the effective date to July 1, 2013 to make the new weight apply to all studies with a date of service greater than July 1, 2013. In the event that their opinion changes as to the relative weight of a Chest X-Ray, they have the option of changing the 0.10 to another value (e.g. 0.20) either by modifying the existing row, or creating a new row with a different effective date. If the new effective date is August 1st, 2013, it will apply only to exams performed after August 1st, while those performed in July will still use the original weight of 0.10. Modifying an existing weight and leaving the previous "effective date" intact will retroactively assign the new weight to exams performed after the effective date.

It is important to note that the default of 1.00 will apply to any exam performed before the earliest effective date for a given procedure and practice. If there is no rule for Chest X-Rays with an effective date earlier than July 1, 2013, then any Chest X-Rays performed in June would be the default 1.00 units. There is also a Dollar Value column that behaves the same as the weights themselves, but this may be removed if it does not add value.

### Chair Assigned Date

There is now a new attribute that is set when assigning an exam to a chair: chair assigned date. Whenever a user in the RIS client assigns an exam to a chair, we now set the chair assigned date to the current date and time. Although the "chair assigned date" has not been added to any worklists, the chair assigned date is factored into the statistics on the chair selector's statistics - "Left Over" vs "Today" is determined using the chair assigned date.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Administration - Display Locked Items in Different Color on the Work List

This requirement was almost achievable without code by using the existing "Conditional Formatting" telerik feature, except for one limitation. The user could have created a conditional format filter with a 'Contains' condition looking for their userID. However, this means the filter would have to be created by each radiologist independently and could not be shared since it is unique to each person's userid. Also, the conditional formatting tool is not a simple and intuitive feature for a novice user, therefore the effort of creating and maintaining these features would have fallen to implementation people to create and maintain for each radiologist. We deemed this too much work, and a feature could be built to support it instead.

The column/cell that will be colored is the locked_by_name column and the cached_by_name column.. Therefore, implicitly this column must be in the worklist you wish to add this feature to.

The user will be able to select the foreground and background colors simply and easily.
The user will be able to select either "Colour my rows" or "color other people rows" or both.
The system will have default colors that will be compatible with both light and dark mode.
The color filters will be part of the worklist views feature; therefore saving a worklist view implicitly saves the color filters.
To implement this, a new control was added to the right-click menu on the worklist.

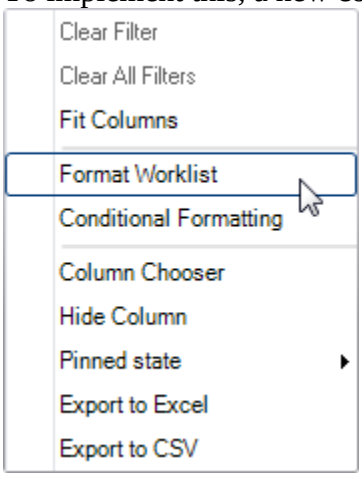



**Figure 5.35 – Context menu option to create colored columns for Locked By and Cached By**

Selecting Format Worklist from the context menu as displayed above will open the Formal Worklist window.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

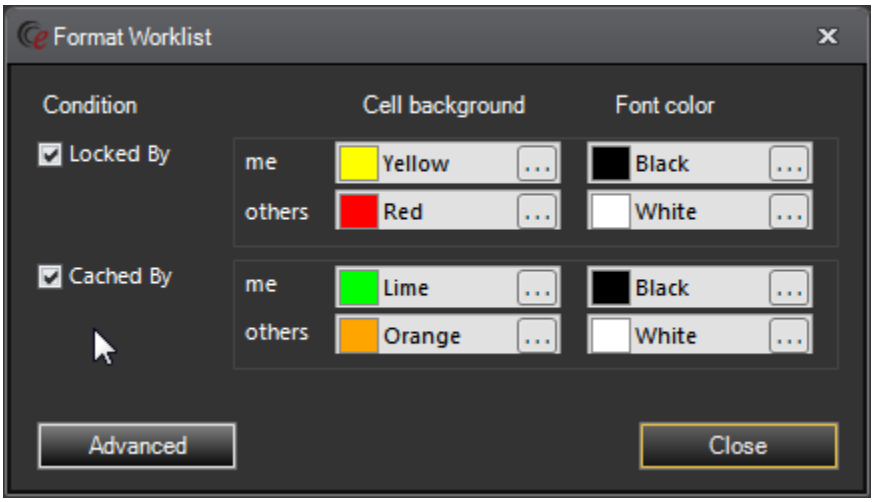



**Figure 5.36 – Format Worklist window**

This screen allows the user to configure their color filters.

The 'Advanced' button is provided as another way to access the Telerik Conditional Formatting feature. The Close button implicitly stores and invokes the color filters.

**NOTE:** ***Once color filters are set, they must be saved into a worklist view if the user would like to keep the selection.***

As well, it was mentioned that the user might like a filter condition which would show them only the worklist rows that they currently have locked.
While the user could just create a typical worklist filter condition, it was slightly complicated by the fact that the expected filter condition (ie, starts with 'me') would not work. In fact, it would have to be written as (contains me). To simplify this for the user, a new filter context menu option was added.

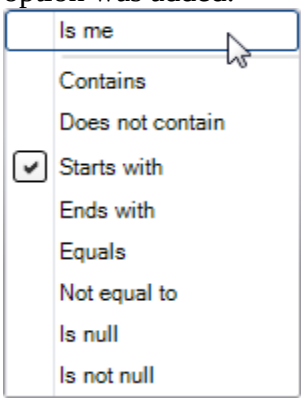



**Figure 5.37 – Filter option added**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Attachments - “Show Me Everything” Option

The attachment types dropdown can be configured to display only those attachments they want to see appear in the Attachments data pane or data nugget. We have added an option to enable the users to have access to the remaining attachments that may be associated with the patient.

Two new options will appear in the attachment types dropdown
+ Show More
- Show Less

By default the attachment data nugget opens with only the scan document types the user wants to see, which is configurable via the ' button'. By choosing "+ Show More" the attachment data nugget will reopen and display all attachment types regardless of user preference.

These options will not display if there are no additional attachments.

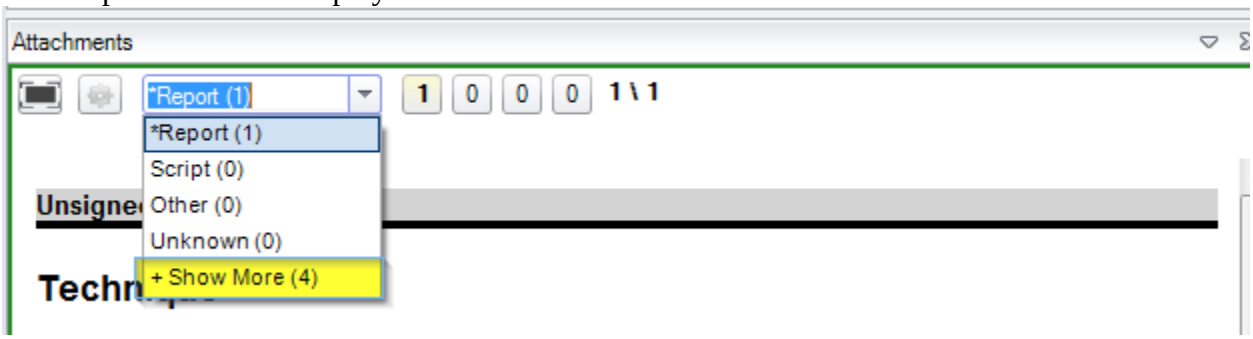



**Figure 5.38 – Show more attachments**

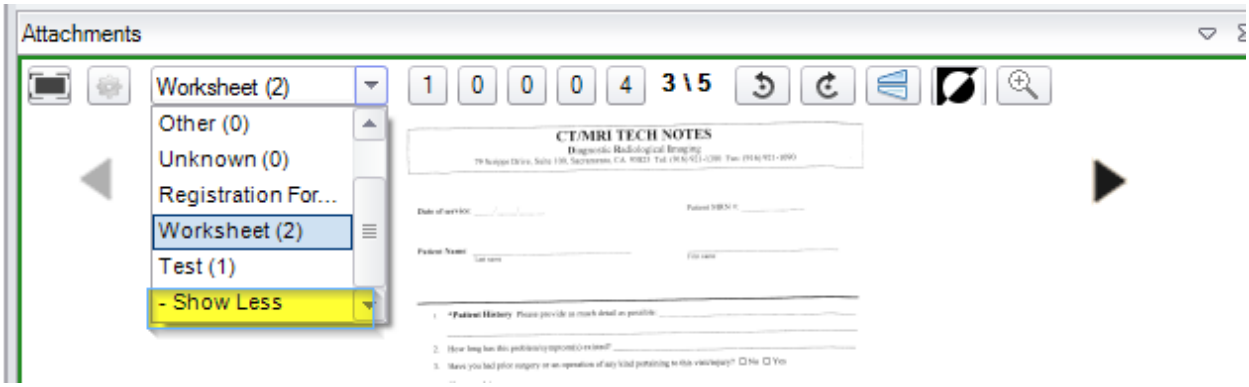



**Figure 5.39 – Show less attachment options**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Attachments - Ability to Add Attachments from Worklist Context Menu

The ability to add attachments from wordlist's context menus has been added in build 42. Wordlist's that allow for "Edit Patient" will now have the context menu option of "Attachments"

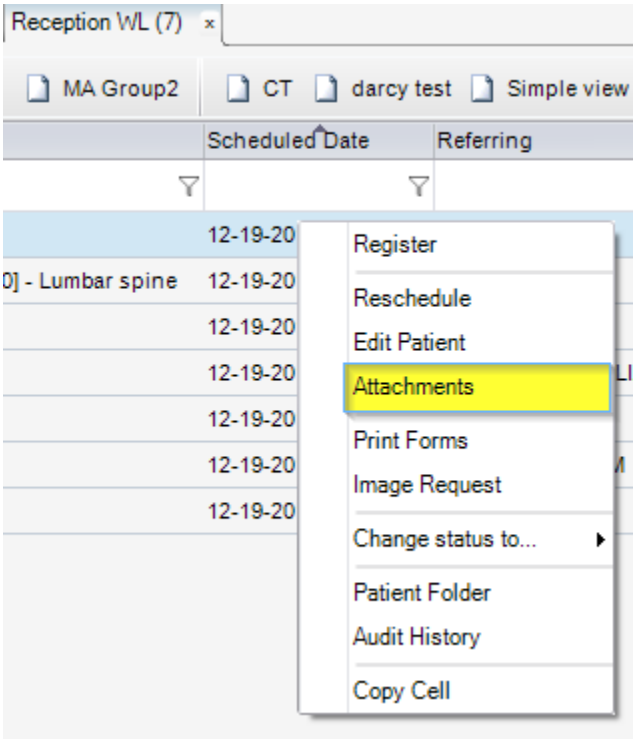



**Figure 5.40 – Attachments context menu option**

Also added were study details above the attachment list so we know exactly what the current study is.

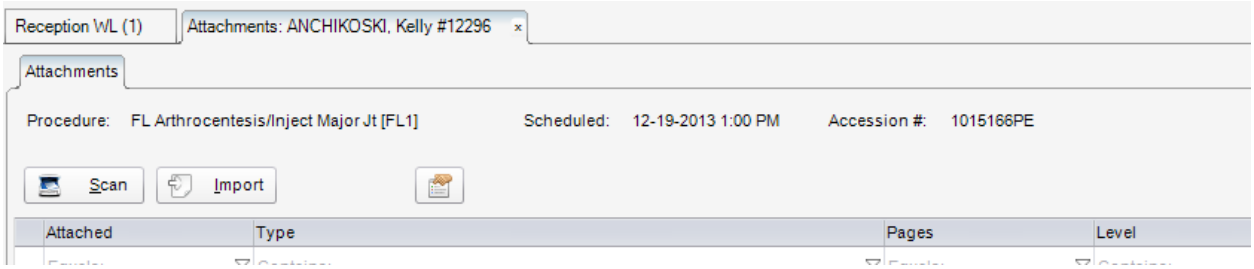



**Figure 5.41 – New Attachments window opened from context menu on work list**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## IVT - Next Follow up Date

Both IVT and Schedulers rely upon the contact log to show the follow-up activity (e.g. phone calls, letters, etc) for a particular patient/exam. The worklist for IVT and scheduling were modified to show the last follow-up type and the date of the last follow-up, but short of opening up the IVT screen or Scheduling screen to read notes, it can be difficult to know which patient/exam to "work" next. Ideally the schedulers and IVT team would have a means to record the "Next Follow Up Date" and/or "Next Follow Up Type" and have it show on the worklist for sorting/filtering purposes in order to reduce the need to open each row on the worklist.

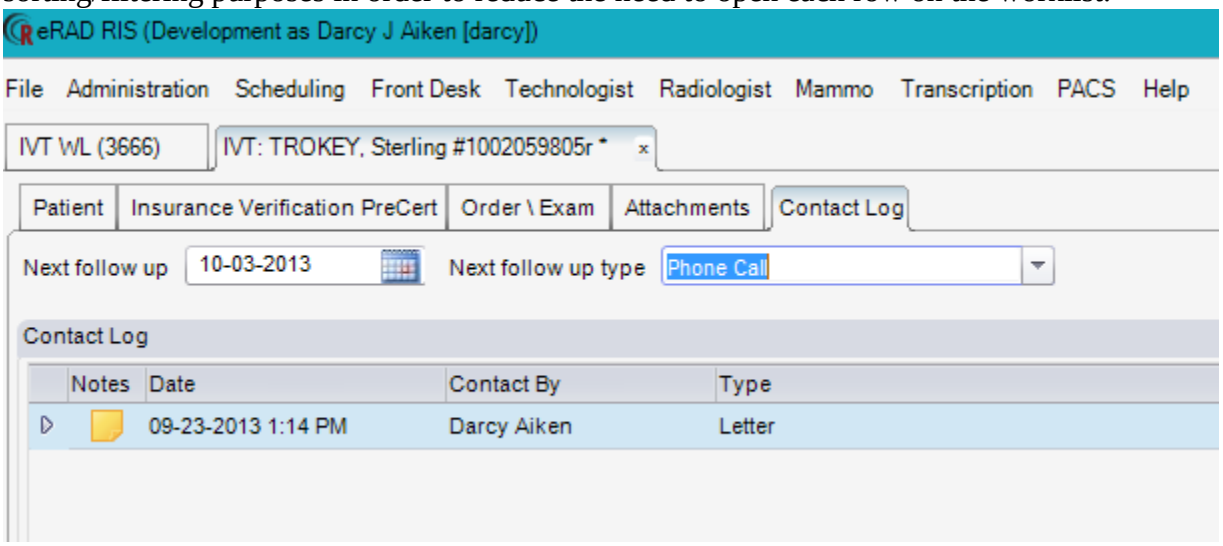



**Figure 5.42 – Contact Log on IVT window now includes a Next Follow Up Date**

In the above example the "Next Follow Up Date" is stored in a database field specific to IVT.

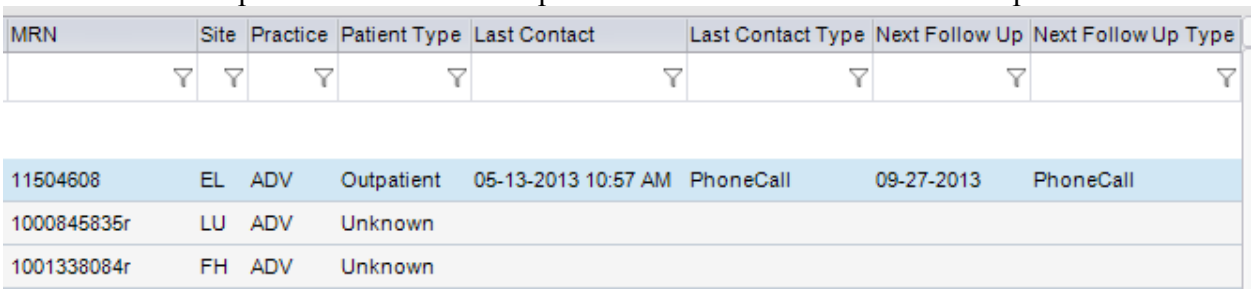



**Figure 5.43 – IVT Worklist now includes Next Follow Up / Next Follow Up Type that can be sorted/filtered**

The figures above are for IVT, but the Contact Log tab is the same in the Schedule Order window and columns on the Orders To Schedule work list also includes the Next Follow Up and Next Follow Up Type.

The values for the "Next follow up type drop down list are taken from the FollowUpType lookup table under Administration -> Configure -> Mammography -> FollowUpType.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Support Non Order Level Locking

Previous to build 42, RIS used Order Level application locks to reduce the risk of multiple users editing the same data at one time. If one user opens a particular exam, RIS will prevent other users from opening that exam (or any other exam that belongs to the same Order). This causes problems for our users by requiring the user to wait for the lock holder to close out before they can make their changes.

To refine the locking strategy such that we lock single studies instead of the entire order, (where appropriate) taking into consideration the action the user is attempting (e.g. Perform Exam). i.e. Two techs should not be allowed to perform an exam at the same time, but perhaps we should allow a Tech and a Rad to simultaneously have the same exam open. On the other hand, a Radiologist and a Transcriptionist should not be allowed to open the same exam at one time.

In build 42, this has become a reality. Changes to the lock tag generation will allow users to simultaneously make changes to the same study based on the following:

One of the keys to managing locks is that we generate a tag based on what we intend to lock, and if another user requests the same lock tag, we will return a lock failure message. As of build 41, we were generating these lock tags in the form of 123Order where 123 uniquely identifies the order that is locked.

The new approach is to build a 3 part lock: the identifier for the Order or Study being locked (either order_key or study_key), a lock suffix that indicates the type of action being performed e.g. IVT, PerformExam, and finally the word “Order” or “Study”.

Because some screens need to conflict with others (e.g. ReportingRadiologist and the Transcriptionist screens), we map different screens into buckets. In many cases a screen will have its own bucket e.g. IVT and PerformExam. There are a few screens that are report related that are given the same bucket “Report” in order to reduce the likelihood of conflicting changes.

A system table in the database (i.e. one that is not editable through Administration->Configuration in the RIS) assists with the mapping of screens to buckets, and helps determine if the screen will lock on the Order or on the Study.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | lock_hint | study_level_flag | lock_suffix |
|---|---|---|---|
| 1 | BillingConfirmation | Y | Billing |
| 2 | FollowUp | N | FollowUp |
| 3 | IVT | N | IVT |
| 4 | PerformExam | Y | Tech |
| 5 | ReportingRadiologist | Y | Report |
| 6 | ReportingTranscription | Y | Report |
| 7 | VerifyExternalReport | Y | Report |
| 8 | ViewEdit | Y | ViewEdit |

**Figure 5.44 – Mapping class names in RIS to lock**

Any screens or other functionality that is not included in the list above will continue to lock the Order. E.g. Scheduling and Register will lock the Order with a lock tag in the form of "123Order". Because of the lock tag design, Scheduling and Reception will not block anyone from opening any of the other screens above, but they will conflict with each other.

### Server Side Checks for Locks Prior to Saving

Immediately before we save an order or study on the server, a check is performed to see if the user holds a valid lock for the data in question. In the past we simply needed to check for the existence of a valid lock in the database with a lock tag that corresponded to the order being modified. If no valid lock were found, we would throw an error back to the client and not allow the user to save their changes. Under normal circumstances, the only way this would occur would be in the event that an authorized user used the Break Lock functionality.

The new approach is to check for a valid order level lock, if found we allow the save to continue. If there is no valid order level lock, we check for a valid study level lock for each study that is being passed in. If there are enough valid locks we throw an error back to the user, otherwise we allow the save to succeed.

Note that orders and studies that are being created do not require locks, so we exclude them from the lock checks above.

### Changes to Lock Management

Each screen that requires locking functionality makes use of a class called GUILockManager that is responsible for refreshing and releasing locks. Previously this class could manage only one lock at a time. We now generate a unique lock identifier that helps to uniquely identify the instance of the lock and can refresh or release multiple locks in a single service call.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

In some cases the user may attempt to acquire or refresh multiple locks and the call will be only partially successful – e.g. only two of three locks will be granted. In these cases the client will behave as though the entire lock request has failed.

### Changes to Worklists

The worklists that are designed for Radiologists and Transcriptionists include a column that identifies the user that holds a lock on that data. Because the lock tag is calculated differently, the worklist views were updated to filter for the type of locks that are used by Rads. If a Tech has an exam open, previously we would show the tech's name/userID in the "Locked By" column. Now that we are only interested in specific kinds of locks, we will only populate "Locked By" if it is a "Report" level lock (i.e. opened by another Rad, Transcriptionist, or someone using VerifyReport). Previously the worklists were parsing the lock_item_code in order to join to order, we now have a foreign key to Order and Study to assist with the join.

There are worklists that are not specific to Rads and Transcriptionists that have a locked by column e.g. the BI-RADS 0 and BI-RADS 4/5 worklists. Because the users working this list are not focused on the report, their worklist will only display the type of locks that pertain to them.

### Changes to Perform Exam

The Perform Exam screen generates a lock for each study within an Order. When the Perform Exam screen is initially opened, a single lock tag is generated. If the user clicks the include button, we attempt to acquire additional locks to prevent other techs from working on those studies simultaneously. In the event that there is a locking failure when the tech clicks the include button, we display a locking failure message to the tech, uncheck the "Include" box, and reselect the previous exam on the patient history grid. No "break-lock" functionality is planned for this case.

### Alerts for Similar Locks

A new alert was created (verbiage to be determined) to warn a user on Perform Exam or View Edit if a Rad or Transcriptionist has the same exam open.

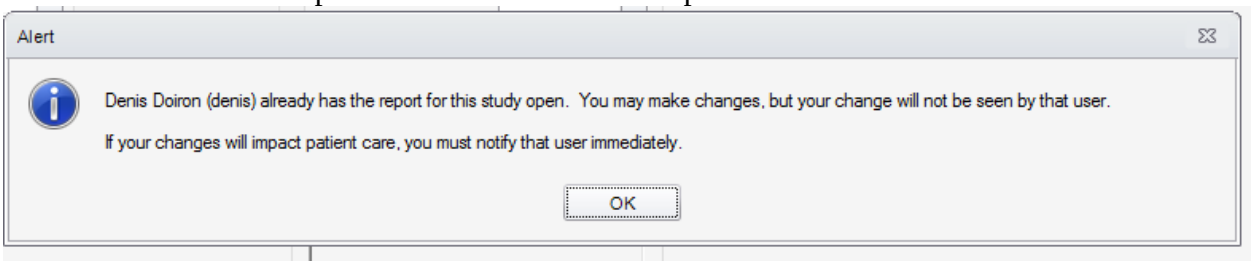



**Figure 5.45 – Alert on View Edit and Perform Exam when a Rad or Transcriptionist has the same exam open**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

We need to determine if these types of warnings will be sufficient, or if we need to have a locking mechanism that can acquire a fine grained lock that can prevent other users from making specific types of changes.

**Special Handling for Notes**

Our original implementation of "Notes" requires special handling. As users add new notes, we concatenate the new notes to the existing notes. In the case where two users update patient notes at the same time, the second saver wins and the first saver's notes are lost.

We have updated the concurrency handling to help reduce the risk of issues surrounding simultaneous updates to notes. If two users save changes at the same time, we detect the conflict on the server side and then extract the new notes from the second saver's update and then concatenate that with the existing notes in the database.

This was tested and works well for updates (i.e. adding new notes), but there is an outstanding issue with deletions. A typical user is not authorized to delete previously saved notes, but there is a permission that can allow an authorized user to edit existing notes. We did not build any handling for deleted notes – if two users update a row at the same time and the second saver deleted some notes, we simply allow the first saver to win.

A future sprint should address the current implementation of notes, possibly considering a design change so that each note is stored in its own row.

**Special Handling for Manage Policies**

When the user presses Manage Policies on a screen such as Registration, IVT, or ViewEdit, we now attempt to acquire a special insurance related lock. If the attempt to acquire the lock succeeds, the manage policies dialog will appear as before. If the lock acquisition is unsuccessful, the user will be presented with a lock failure message which identifies the lock holder and presents a "Read-Only", "Cancel", or "Break-Lock" option (the latter requires a lock override permission).

If a user's insurance lock is stolen, the GUILockManager will release all other related locks for that screen. E.g. if the user has ViewEdit open, they will lose the study level lock that they were granted when they opened the screen. Break lock for insurances should be used sparingly. Note that there is no enforcement of the insurance lock on the server, i.e. the user requires a lock to open the screen in the GUI, but the server will not reject an insurance update from a user that doesn't have a lock.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

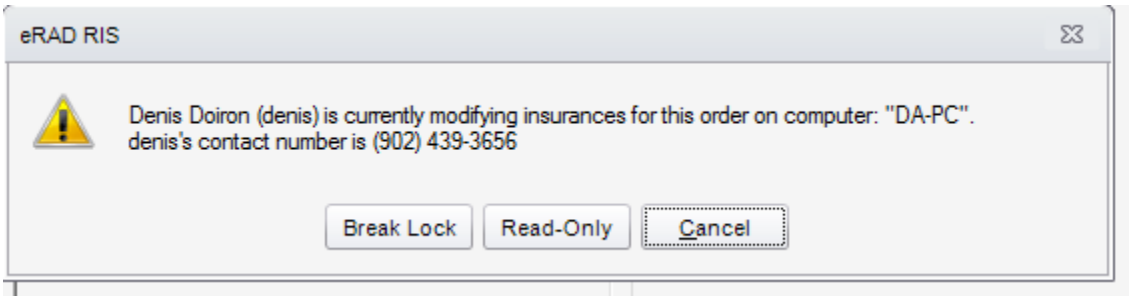



**Figure 5.46 – Break lock message**

## Special Handling for Patient Merge

When a Patient Merge is performed, there is a Source Patient and a Destination Patient. The Source Patient's visits, orders, studies, etc. are moved to the Destination Patient and the Source Patient is marked as Deleted. We have had cases where one user was actively working on the Source Patient during the merge process, and some studies were re-associated with the Source (i.e. deleted) Patient.

The Patient Merge screen has been updated to help reduce the chance of this happening in the future. When the user presses the Merge button on the Patient Merge screen, we now check for any locks on the source patient. If any locks are held for any of that patient's orders or studies, we identify the lock holders (userID and full name) and tell the user that the merge cannot be performed until those users' locks are released.

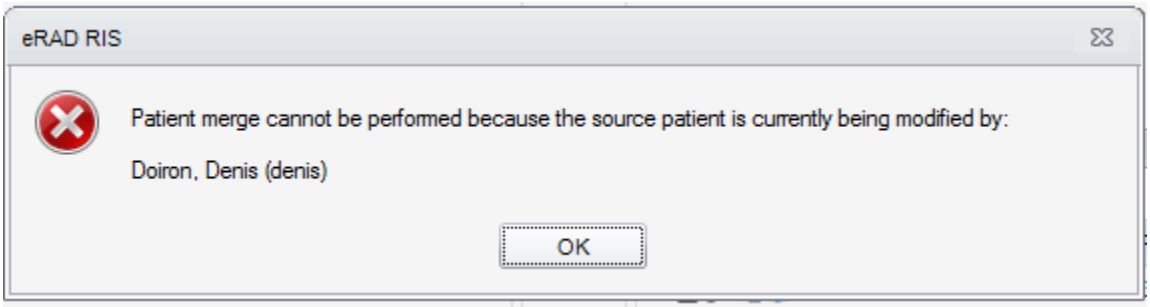



**Figure 5.47 – Message prompt on Patient Merge when Source patient is locked**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

### Change Status / Cancel Study / Manual Status Change

Change Status, Cancel Study, and Manual Status Change have been updated to include a check for locks on the same study. We first attempt to acquire a traditional order level lock, if that succeeds we do a secondary check for any locks on the given study. If either of those fail we show a message similar to the following:

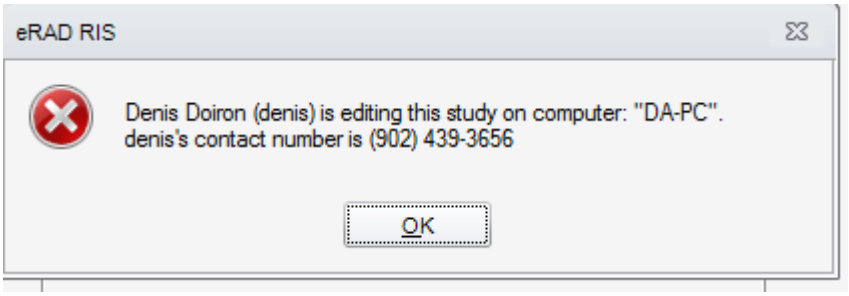



**Figure 5.48 – Message prompt from change status, cancel study, manual status change on locked study**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Administration - Multiple Person Ids

A grid has been added to the Account tab of the personnel editor. Users can add, edit, and delete alternate ids for the person as well as make them active/inactive. The idea is that a user can have multiple ids from a particular issuer, but only one of them *should* be active, but this is not enforced.

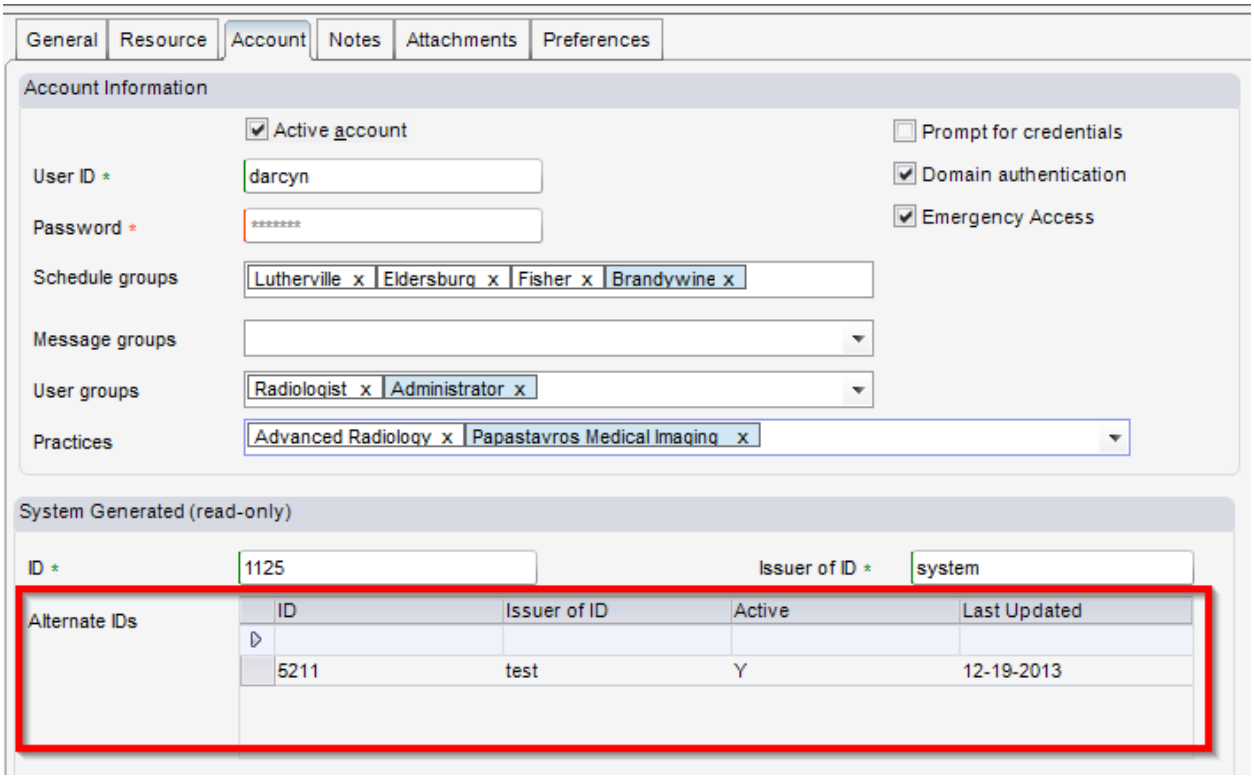



**Figure 5.49 – Alternate IDs can be added in Personnel Editor**

On inbound HL7 messages, the person will be resolved based on id/issuer of all primary and alternate ids and associated to the correct person.

On outbound messages, the wedge will expand the person_key and user_id nodes to include l_child_person nodes which contain the alternate ids. The mappings can then be made on a per-interface basis to select the correct alternate id to use based on the issuer. If multiple ids from that issuer exist, and they are both listed as active, then the mapping must pick one based on some other criteria ie. first one in the list or most recently updated.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Administration - Allow Editing of Billing Units

A new flag column has been added that will allow editing on the Billing Code / Procedure Code combination. In the Administration → Procedure Code lookup table → expand procedure code to view a new setting that allows the Billing Code / Procedure Code combination to be locked to users as far as ability to edit number of Units.

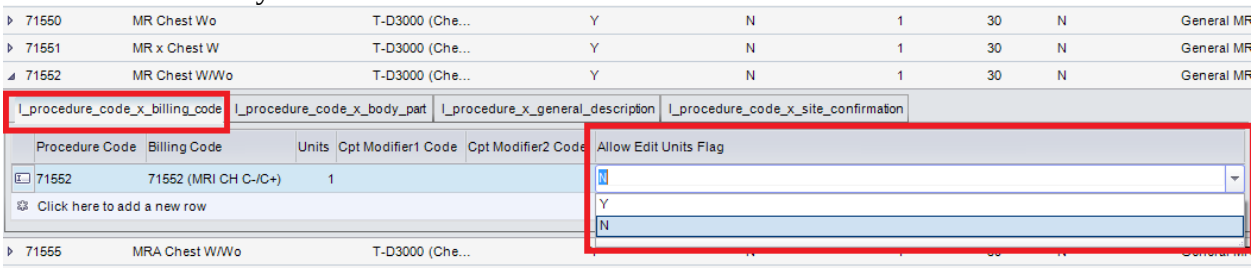



**Figure 5.50 – Allow Edit Units Flag**

By default editing is enabled to preserve pre-upgrade functionality. IF setting is set to "N" users will not be able to edit # of Units.

If set to N, in the billing code grid the user will not be able edit the number of units from the drop down for that particular procedure/cpt code.

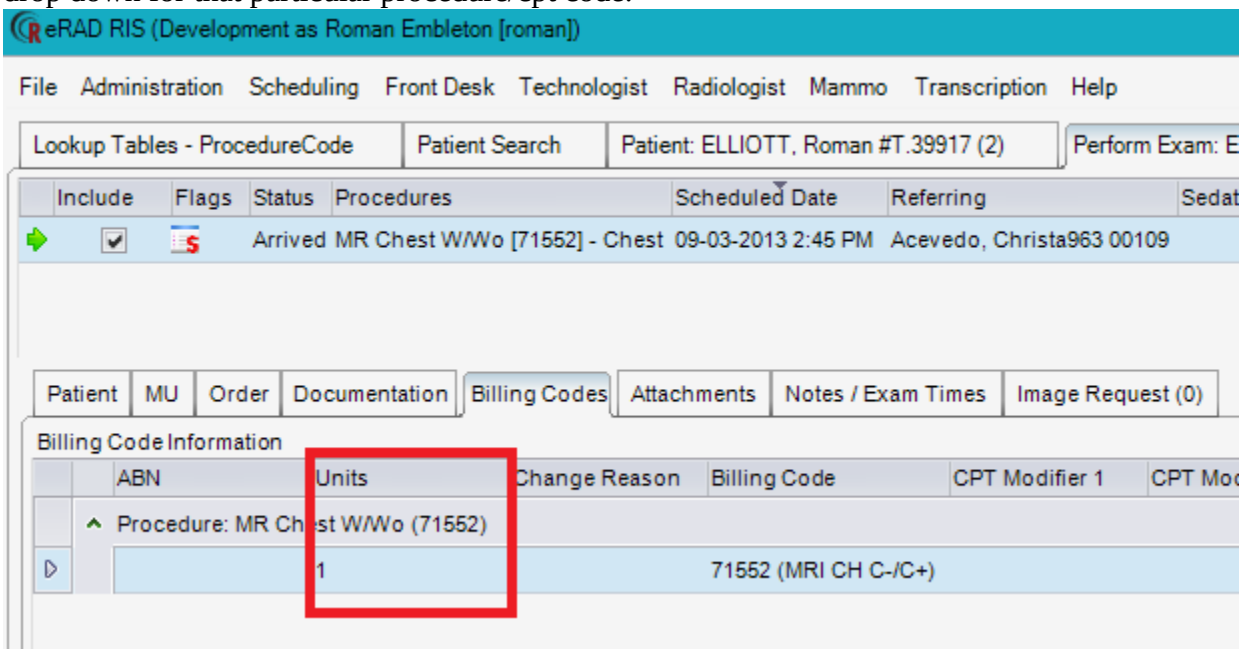



**Figure 5.51 – Units on billing code tab cannot be edited when set to N**

The user will still be able to add other billing codes that may (or may not) be edited.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

If the user attempts to add a billing code to the performed procedure and the value of "Allow Edit Units Flag" is set to N for that procedure, the Add Billing Code window will have the Units field disabled.

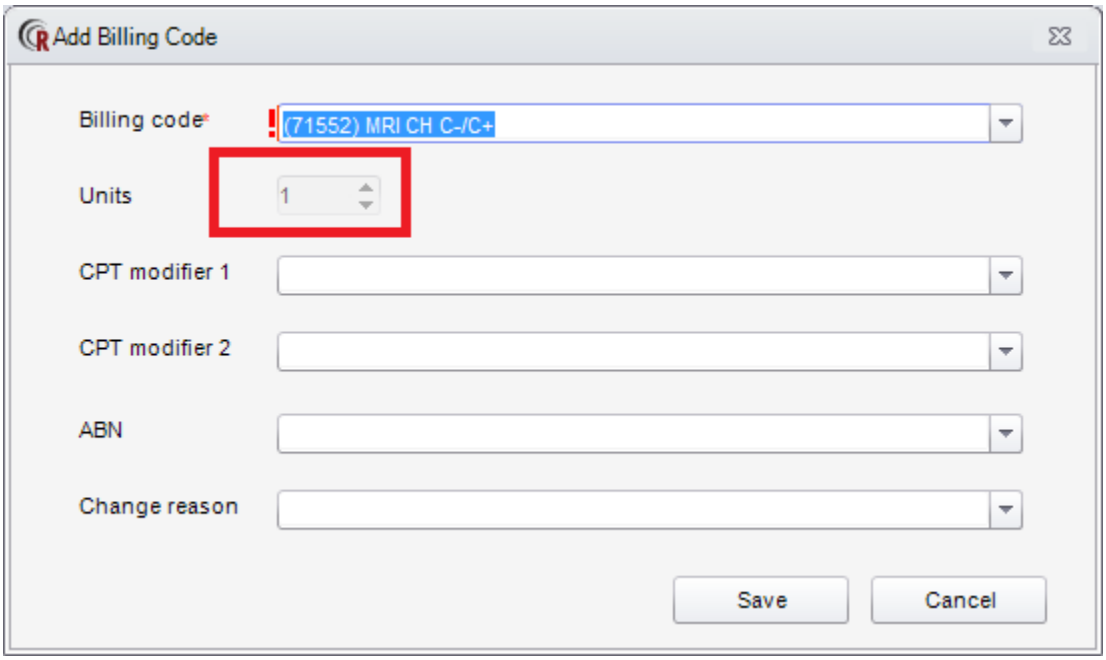



**Figure 5.51a – Add Billing Code window on billing code that the units cannot be edited**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Administration - Disable BI-RADS ® Per Site

In build 42 the ability to disable BI-RADS ® tracking can be turned off per site. The Organization Editor in Administration -> Configure has been updated to include a new checkbox to Disable BI-RADS Controls (verbiage may vary at time of release).

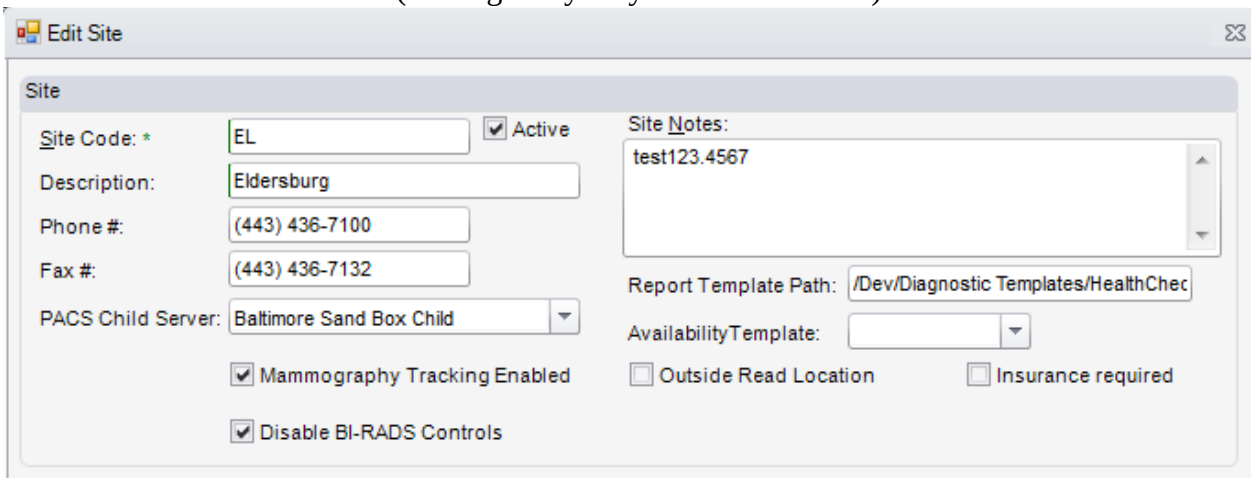



**Figure 5.52 – Ability to disable BI-RADS Controls per site.**

By default, "Disable BI-RADS Controls" will be unchecked when creating a new site. Mammography Tracking Enabled means that the site will generate follow-up orders, reminder letters, lay letters, etc. for any BI-RADS enabled mammo procedures.

Disable BI-RADS Controls means that the site will opt out of BI-RADS tracking altogether (in effect the setting for Mammography Tracking Enabled will be ignored if BI-RADS are disabled)

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Administration - Ability to Add MRN and Accession Prefix and Suffix

The ability to add and prefix and or suffix to the patients MRN and also to the Accession number has been added. This is controlled by two new system configuration settings.
For MRN they are:
"**MRNPrefix**" – Prefix that will be added to new MRN's
"**MRNSuffix**" – Suffix that will be appended to new MRN's
"**AccessionPrefix**" – Prefix that will be added to new accession numbers
"**AccessionSuffix**" – Suffix that will be added to new accession numbers

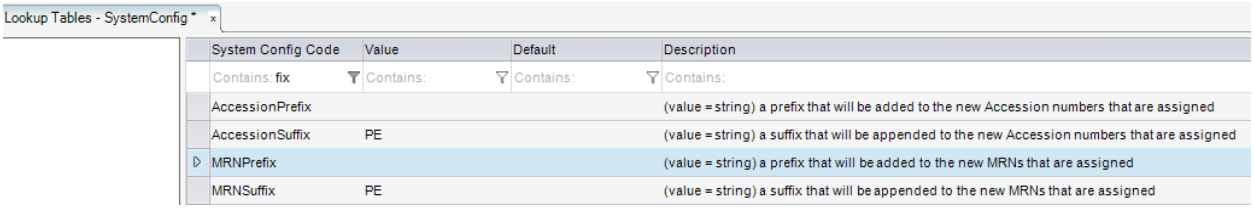



**Figure 5.53 – New systemconfig values**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Administration - Privacy Message on Locked eRAD RIS

A new system configuration setting "**PrivacyMessageText**" has been added to the system config lookup table. When this field has a string value, the string is displayed on the lock screen.

| System Config Code | Value | Default | Description |
|---|---|---|---|
| Contains: priva | Contains: | Contains: | Contains: |
| PrivacyReminderText | REMINDER: Do not snoop in patient records! | | (value = string) Defines the privacy string that will be displayed on the lock workstation screen. |

**Figure 5.54 – New system config setting PrivacyMessageText**

**Figure 5.55 – PrivacyMessageText value displayed on locked eRAD RIS**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

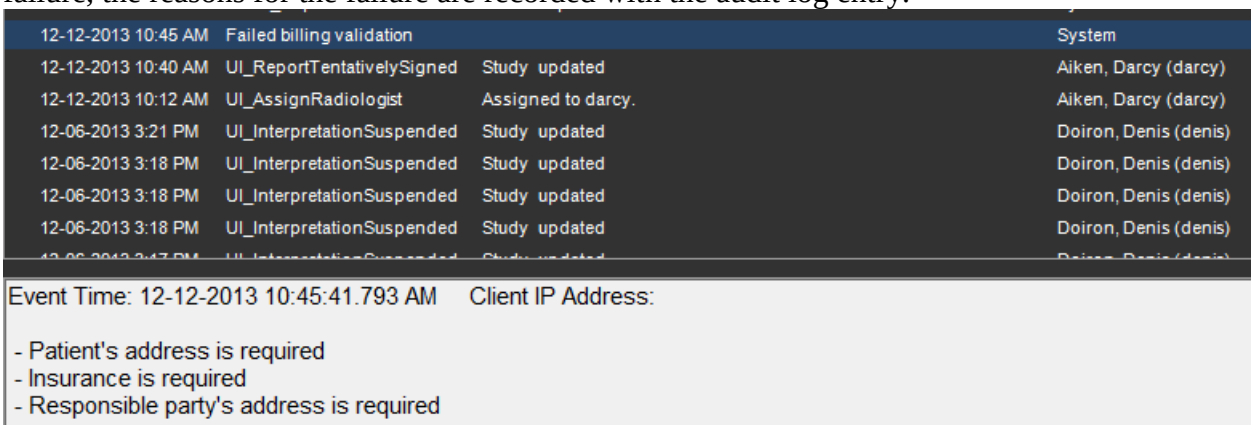
## Billing – Audit Log Capturing Billing Failure \ Reason

The audit table will now capture the success and failure of billing actions. If the billing action was successful the audit log will display "Posted to Billing"

| Date | Action | Description | User | Accession # | Order # | Status | Procedure |
|---|---|---|---|---|---|---|---|
| Equals: | Contains: | Contains: | Contains: | Contains: | Contains: | Contains: | Contains: |
| 12-12-2013 10:39 AM | UI_ReportSigned | Study updated | Aiken, Darcy (darcy) | 5131280 | 7405261 | Signed | Randy Test 02 |
| 12-12-2013 10:39 AM | UI_ReportSigned | Patient updated | Aiken, Darcy (darcy) | | | | |
| 12-12-2013 10:39 AM | Posted to billing | | Aiken, Darcy (darcy) | 5131280 | 7405261 | Exam Done | Randy Test 02 |

**Figure 5.56 – Successful billing action entry in audit log**

An unsuccessful attempt to bill will display "Failed billing validation". In the event of a billing failure, the reasons for the failure are recorded with the audit log entry.



| | | | |
|---|---|---|---|
| 12-12-2013 10:45 AM | Failed billing validation | | System |
| 12-12-2013 10:40 AM | UI_ReportTentativelySigned | Study updated | Aiken, Darcy (darcy) |
| 12-12-2013 10:12 AM | UI_AssignRadiologist | Assigned to darcy. | Aiken, Darcy (darcy) |
| 12-06-2013 3:21 PM | UI_InterpretationSuspended | Study updated | Doiron, Denis (denis) |
| 12-06-2013 3:18 PM | UI_InterpretationSuspended | Study updated | Doiron, Denis (denis) |
| 12-06-2013 3:18 PM | UI_InterpretationSuspended | Study updated | Doiron, Denis (denis) |
| 12-06-2013 3:18 PM | UI_InterpretationSuspended | Study updated | Doiron, Denis (denis) |

Event Time: 12-12-2013 10:45:41.793 AM Client IP Address:

- Patient's address is required
- Insurance is required
- Responsible party's address is required

**Figure 5.57 – Failed billing action reasons for failure**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## External – View Legacy Report PDF's as HTML

The web interfaces are unable to get an html version of the legacy reports, which were imported in the the RIS as PDFs. To solve this we are planning to integrate a PDF to html converter so that when we call the WebAPI interface we get the legacy PDF as html. The following is an example in the dev database of an accession number, which has a legacy PDF report.
http://localhost:9002/api/DiagnosticReport/1014129?format=HTML4.0

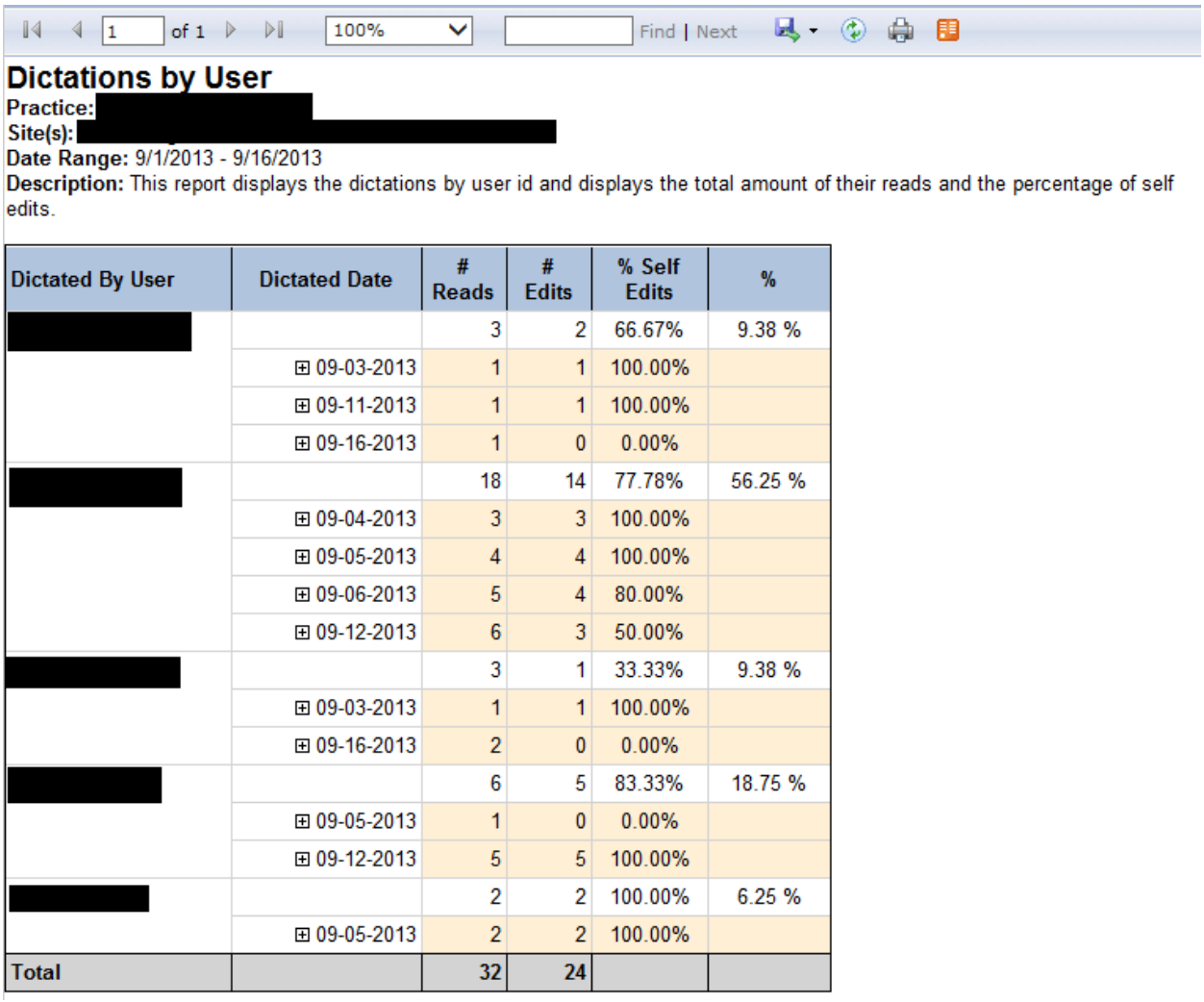
We decided to use a third party product to convert the legacy PDF documents to HTML so when you call the WebAPI url as described in the description of this issue, that the report will be returned as HTML.
The 3rd party API we are using is called AbcPDF.dll and must exist in the deployment directory for this to work.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Management Report – Dictations by User

Management report was created for displaying the dictation statistics for Radiologists broken down by

- number of reads
- number of edits
- % of their workload identified as a self-edit.
- % of the the total workload.



1 of 1 100% Find | Next

**Dictations by User**

**Practice:** [redacted]
**Site(s):** [redacted]
**Date Range:** 9/1/2013 - 9/16/2013
**Description:** This report displays the dictations by user id and displays the total amount of their reads and the percentage of self edits.

| Dictated By User | Dictated Date | # Reads | # Edits | % Self Edits | % |
|---|---|---|---|---|---|
| [redacted] | | 3 | 2 | 66.67% | 9.38 % |
| | ⊞ 09-03-2013 | 1 | 1 | 100.00% | |
| | ⊞ 09-11-2013 | 1 | 1 | 100.00% | |
| | ⊞ 09-16-2013 | 1 | 0 | 0.00% | |
| [redacted] | | 18 | 14 | 77.78% | 56.25 % |
| | ⊞ 09-04-2013 | 3 | 3 | 100.00% | |
| | ⊞ 09-05-2013 | 4 | 4 | 100.00% | |
| | ⊞ 09-06-2013 | 5 | 4 | 80.00% | |
| | ⊞ 09-12-2013 | 6 | 3 | 50.00% | |
| [redacted] | | 3 | 1 | 33.33% | 9.38 % |
| | ⊞ 09-03-2013 | 1 | 1 | 100.00% | |
| | ⊞ 09-16-2013 | 2 | 0 | 0.00% | |
| [redacted] | | 6 | 5 | 83.33% | 18.75 % |
| | ⊞ 09-05-2013 | 1 | 0 | 0.00% | |
| | ⊞ 09-12-2013 | 5 | 5 | 100.00% | |
| [redacted] | | 2 | 2 | 100.00% | 6.25 % |
| | ⊞ 09-05-2013 | 2 | 2 | 100.00% | |
| **Total** | | **32** | **24** | | |

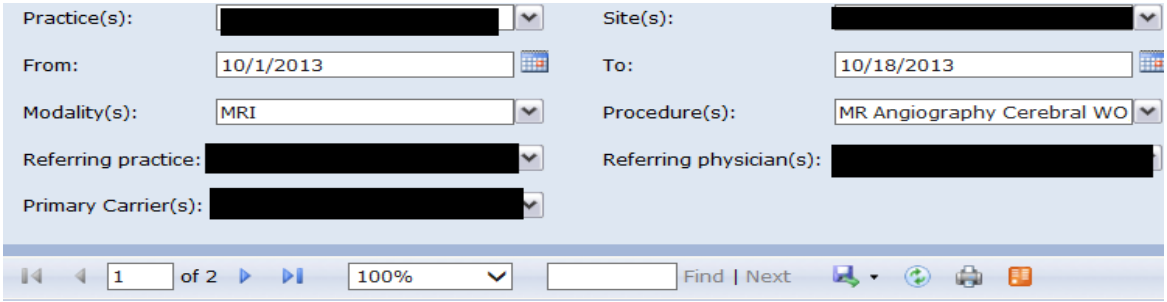
**Figure 5.58 – Dictation by User management report**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Management Report – Direct Referrals

Management report was created to identify all orders and studies identified as a Direct Referral on the order tab. Parameters used are:

- Practice(s)
- Site(s)
- From and to dates
- Modality(s)
- Procedures
- Referring Practice(s)
- Referring Physician(s)
- Primary Carrier(s)




**Direct referrals**
**Practice:** [redacted]
**Site(s):** [redacted]
**Modality(s):** MRI
**Date Range:** 10/1/2013 - 10/18/2013
**Description:** This report looks at orders with the direct referral flag set. It excludes cancelled orders, and studies that are cancelled or discontinued.

| Acc# | CPT | CPT Description | PreCert Status |
|---|---|---|---|
| **Modesto Advanced Imaging Center** | | | |
| 10-01-2013 | | | |
| MR | | | |
| Physician [redacted] | | | |
| Referring practice: **None** | | | |
| Accession: **not scheduled** | | Status: **OrderSigned** | |
| Primary Insurance: [redacted] | | | |
| | 70553 | MRI BRAIN BRAIN STEM W/O &W/CONTRAST MATERIAL | Approved |
| | A9579 | INJECTION, GADOLINIUM-BASED MAGNETIC RESONANCE CONTRAST AGENT, NOT OTHERWISE SPECIFIED (NOS), PER ML | N |

**Figure 5.59 – Direct Referral management report**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Management Report – User List

Management report was created to see the user and which practices and schedule groups the user is associated with.

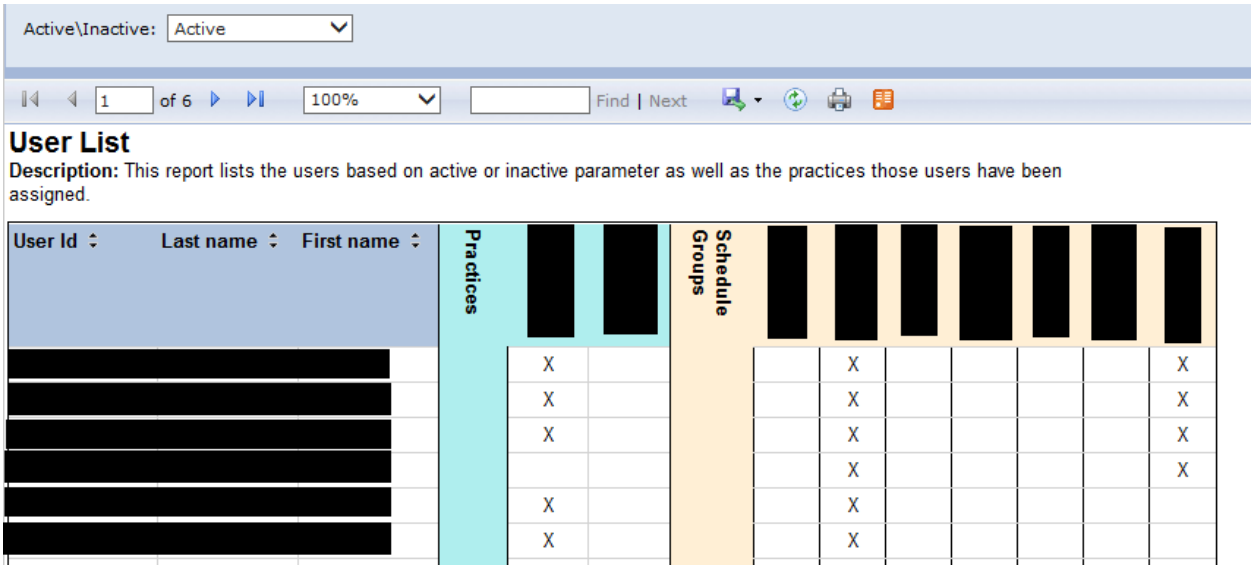



**Figure 5.60 – User List management report**

## Management Report – Double Count CPT's

We modified all sales management reports in the Marketing folder to double count cpt codes (74176, 74177, 74178).

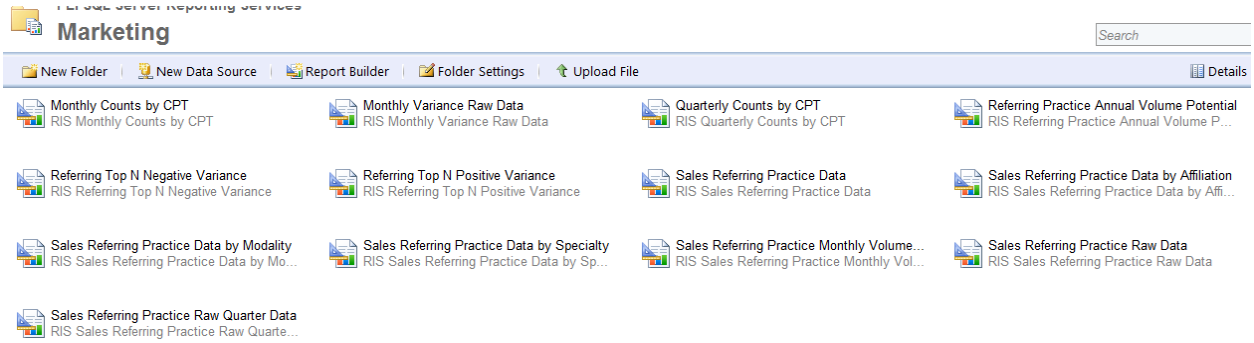



**Figure 5.61 – Double Count CPT's**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## MU – Management Report for Patient List Creation – MU Phase 2

Report Parameters are:

1. From age
2. To age
3. From date (nullable)
4. To date (nullable)
5. Primary language *(multi-select populated from lookup table)*
6. Sex *(multi-select populated from lookup table)*
7. Race *(multi-select populated from lookup table)*
8. Ethnicity *(multi-select populated from lookup table)*
9. Problems (ICD) *(multi-valued, free text expected the ICD code itself)*
10. Medications *(multi-valued, free text using the like syntax where you just need to enter the start of a medication name. ie: pen would look return all results where the medication name starts with pen. Wild cards are added behind the scene)*
11. Medication allergies *(multi-select populated from lookup table)*
12. Lab Test *(multi-select populated from lookup table)*
13. Lab Results *(single valued free text field expecting >, <, = or combination of those comparison operators and a value. Ie: >100) (nullable)*
14. Preferred Communication
15. Max Results *(defaulting to 5000 rows, this helps control the number of results returned in a search, but can be manually increased or decreased if desired)*

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

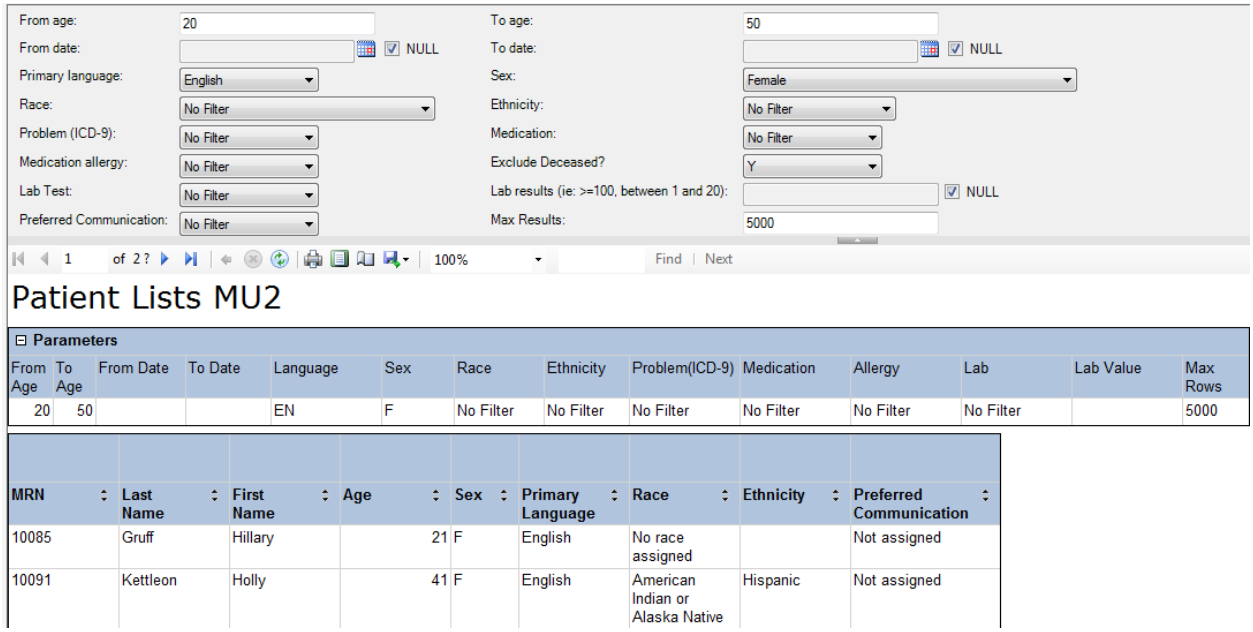



**Figure 5.62 – Patient Lists MU2 management report**

All parameters require a value to execute the report. The "No Filter" value in the parameters is just a placeholder that the stored procedure treats as a null. The No filter will be disregarded if you add values into the parameter, meaning there is no need to delete it out, or uncheck it.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## MU – Auto Request Pathology and Follow Up with Lab Worklist

For MU requirement 170.314.b.5, we needed to create a lab test for Pathology when a report is signed for procedures that are configured to require CPOE_Pathology . We then need to track those Pathology requests in the Lab WL.

To start the Cpoe Pathology Flag column was added to the Procedure Code lookup table

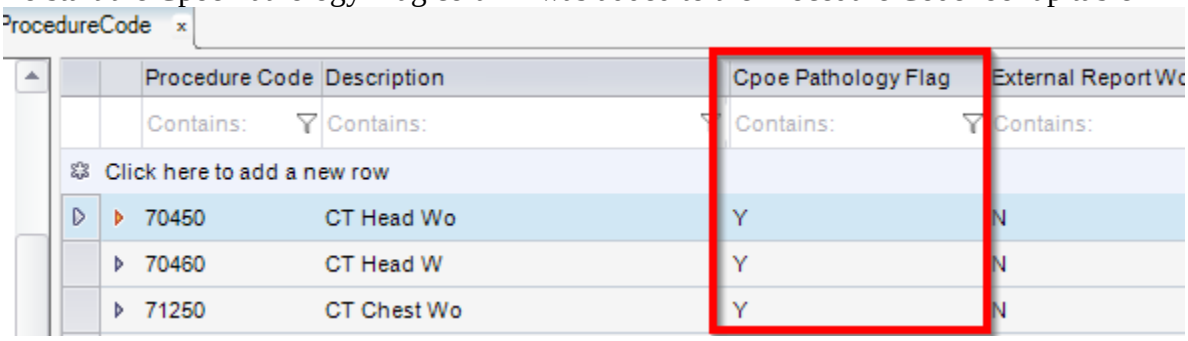



**Figure 5.63 – CPOE Pathology Flag added to the Procedure Code lookup table**

The Practice window from the Organization lookup table had the Track CPOE pathology results in Lab WL for <#> days

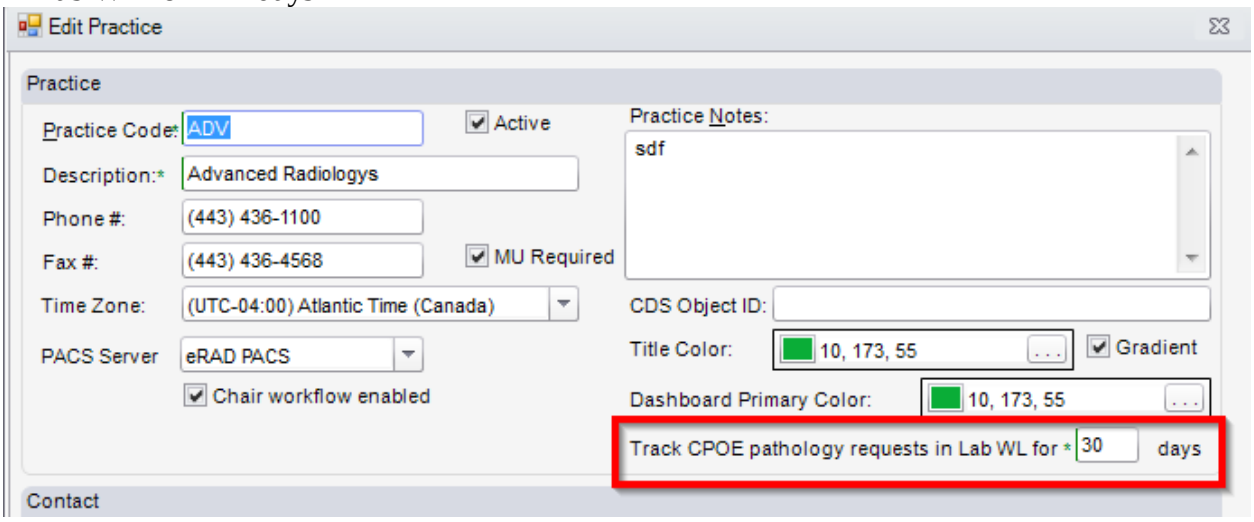



**Figure 5.64 – Practice displaying new field in days to be captured to Track CPOE pathology**

A new System Configuration setting "**CPOELabTestCode"** was added the system config lookup table with a default value of Pathology

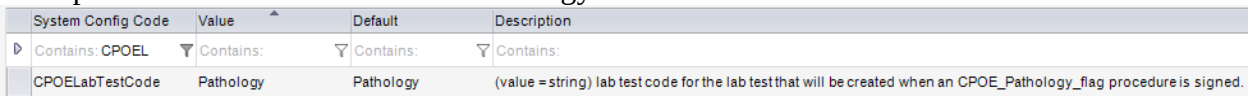



**Figure 5.65 – System configuration setting CPOELabTestCode**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

When report is signed, if its procedure has CPOE pathology flag = 'Y', and there are no active Lab Test Requests for CPOE pathology, then a lab test result row will be created. The lab test code will have a lab_requsted_by_user_id of the dictating rad and will have a requested date equal to the studies performed end date. The c_study.cpoe_request_expiry_date, will get assigned to today + l_practice.days_to_track_cpoe_requests.

The item will then appear in the Lab WL until:

1. User opens the study in View Edit and checks "Skip Lab WL"
2. User Opens the study in View Edit and records a value for the test
3. The current datetime is past cpoe_request_expiry_date
4. Or the lab test is set to the lab_order_status of “Discontinued” or “Active”, meaning we’ve made the call to the patient and have been notified that the pathology test has either been requested or is not going to be addressed.

**Note:** outside read studies will not show in the Lab WL, even if they are for a procedure that is configured with cpoe_pathology_flag='Y'.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## MU - Race Field Allow for Multi Select

Meaningful Use requirement 170.314.a.3.
Previous to build 42 the Race field on the Patient tab would only allow for one value to be selected. Now a user can select multiple values and save with the patient record.
The list box is not a multi select tool (expand the list and select multiple at once) the user will need to select a value one at a time or use the type ahead options
The race type can only be added once for the patient.

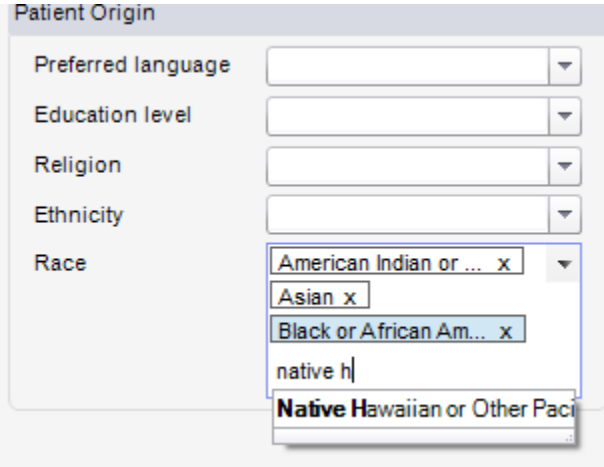



**Figure 5.66 – Race field is now multi select/type ahead field**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## MU – Improvement to How We Record Height

Meaningful Use requirement 170.314.a.4
For this requirement we needed to store the patients height as a single numeric value instead of a character string such as 5ft 7in.

A new column (height_value) was added to the visit table, which will store the height in inches. The height was previously stored in the old column (height) in the visit table.

The pervious character field (height) will continue to be populated for backwards compatibility with existing reports.

Also, the upgrade was created to backfill the new field in the visit table (height_value).

## MU – Retain Patients Smoking Status and Height

For existing patients that have previously had the smoking status and height captured in the previous visit, when scheduling a new procedure, these 2 values will be carried forward to the new visit. This is not a meaningful use requirement, but rather a request to try and speed up the scheduling process when capturing MU data.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## MU – Problem List for MU Phase 2

Meaningful Use requirement 170.314.a.5

**Record** - evaluates the capability to enter patient health problems into the EHR to create the patient problem list. The Tester enters the ONC-supplied patient problem test data. The Inspection Test Guide describes several methods by which the EHR can demonstrate conformance with the vocabulary requirement.

**Change –** evaluates the capability to change patient problem list data which have been previously entered into the EHR. The Tester displays the patient problem list data entered during the Record Patient Problems test
o The Tester changes the previously entered patient problems data using ONC-supplied patient problem list data.

**Access –** evaluates the capability to display the patient problem list data that have been previously entered into the EHR, including the capability to display the patient problem list as recorded during multiple ambulatory encounters with the same provider or during a single inpatient hospitalization.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## MU – Medication List for MU Phase 2

Meaningful Use requirement 170.314.a.6

**Record** - evaluates the capability to enter patient active medication data into the EHR to create the patient active medication list

**Change –** evaluates the capability to change patient medication data that have been previously entered into the EHR. The Tester displays the patient active medication list data entered during the Record Patient Active Medications test . The Tester changes the previously entered active medication data using ONC-supplied medication data, for example, changing a medication dose or frequency and discontinuing a medication

**Access –** evaluates the capability to display the patient medication list data that have been previously entered into the EHR, including the capability to display the patient medication list as recorded during multiple ambulatory encounters with the same provider or during the duration of an entire inpatient hospitalization

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## MU – Image Results for MU Phase 2

Meaningful Use requirement 170.314.a.12

This requirement is for eRAD RIS to prove that the images and report can be viewed in the RIS when in the appropriate status. Below is a list of the test cases to validate that fact.

- Create 2 patients IM-Patient-1 and IM-Patient-2 schedule an exam.
- Go to patient folder for IM-Patient-1
- Show in rRIS where imaging information will be for Patient #1(Right click on patient folder there is no option to view images).
- Update Record for IM-Patient-1 bring exam to (Exam Done status)
- Show in rRIS where imaging information will be for Patient #1(Right click on patient folder there is an option to View Images).
- Open IM-Patient-1 and dictate exam and bring to signed1 status.
- In patient folder right click on the patient. There is an option to view narrative interpretation (report>>preview/print report) and View Images.
- Go to patient folder for IM-Patient-2
- Show in rRIS where imaging information will be for Patient #2(no images)…Right click on patient folder there is no option to view images
- Update Record for IM-Patient-2 bring exam to (Exam Done status)
- In patient folder right click on the patient. There is no option to view narrative interpretation (report>>preview/print report) however, the user can View Images.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## MU – Audit Reports – MU Phase 2

Meaningful Use requirement 170.314.d.3
Enable a user to create an audit report for a specific time period and to sort entries in the audit log according to each of the data specified in the standards at § 170.210(e).

**Create Audit Report –** evaluates the capability of the EHR technology to enable a user to generate an audit report for a specific time period

- The Vendor provides the Tester with audit log information containing ten or more entries that was generated by the EHR technology
- Using the Vendor-provided audit log information and reporting functions, the Tester generates an audit report for a time period that includes the time at which the entries in the audit log information were recorded and verifies that the audit report is successfully created

**Sort Audit Log Entries –** evaluates the capability of the EHR technology to enable a user to sort entries in the audit log or in an audit report

- The Vendor provides the Tester with audit log information containing ten or more entries that was generated by the EHR technology. This could be provided through access to the audit log itself or audit reporting functions.
    - The audit report used in the previous test procedure step can be used for this test procedure step as long as the audit report entries contain the following data elements:
        - Date and time of event
        - Patient identification
        - User identification
        - Type of action (additions, deletions, changes, queries, print, copy)
        - Identification of the patient data that is accessed
- The Vendor identifies the EHR function(s) that are available to sort the audit log information by the previously described data elements

The Tester uses the Vendor-provided audit log information, sorts the audit log entries by each of the data elements listed above, and verifies that the entries were correctly sorted

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## MU – Goals and Condition

The Goals and Condition fields have been added to the Meaningful User Information window (hidden tab)

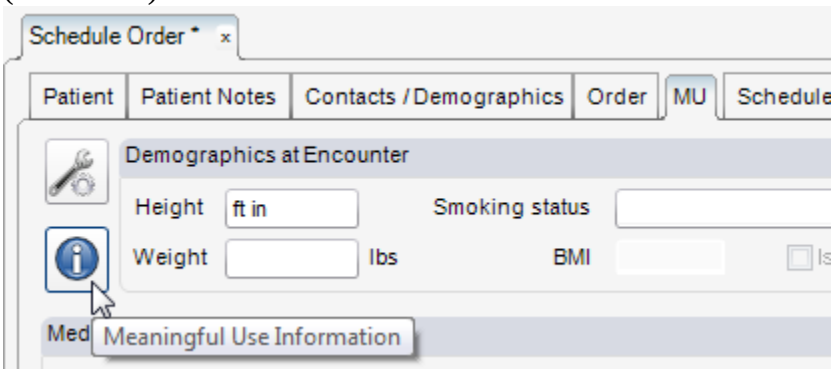



**Figure 5.67– Meaningful Use Information window access**

The Condition field is a type ahead/multi select field. The Goals option is a grid with 2 columns. The Goal column is list box and the Instructions column is a text field

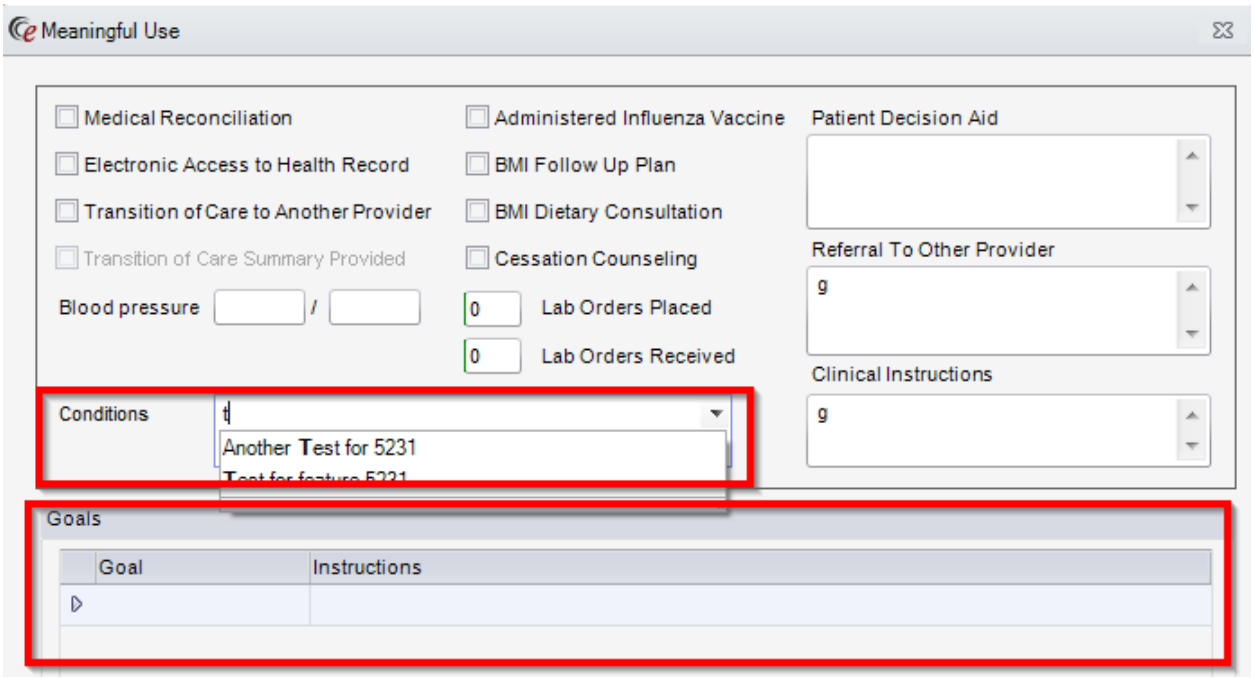



**Figure 5.68 – Displaying Conditions and Goals field in Meaningful Use Information window**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

The values for the Conditions field are from a new lookup table Administration>Configure>MU>Condition table. The Description is displayed in the eRAD RIS and the HL7 values are to be mapped to valid SNOMED CT codes used for structured data for generating CCDA.

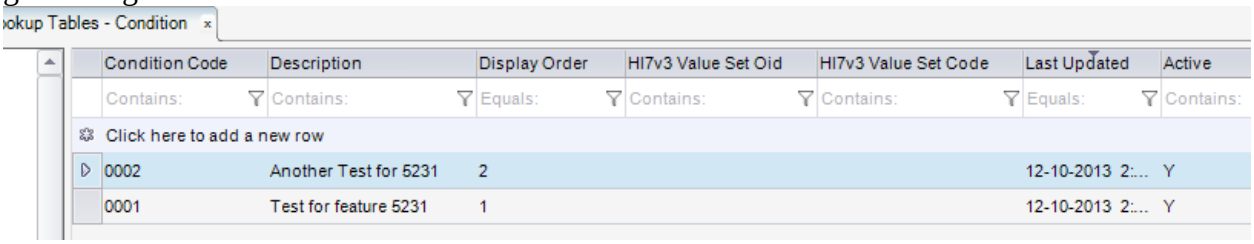



**Figure 5.69 – Condition lookup table.**

The values for Goals is from another new lookup table Administration>Configure>MU>Goals table. The Description is the value what will appear in the Goal field of the Meaningful Use Information window.

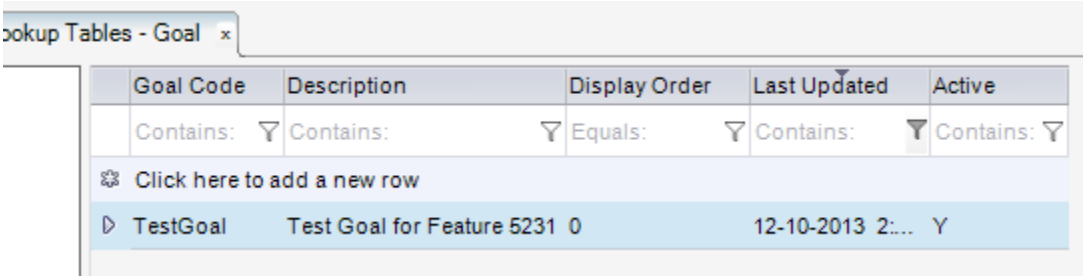



**Figure 5.70 – Goal lookup table**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## MU – Patient Specific Education Resources

For patient education resources we will be using Medline Plus. The Medline Plus info can be accessed from the context menu on the 3 grids of Medication, Medical History and Lab Results on the MU tab and select View Medline Plus Info.

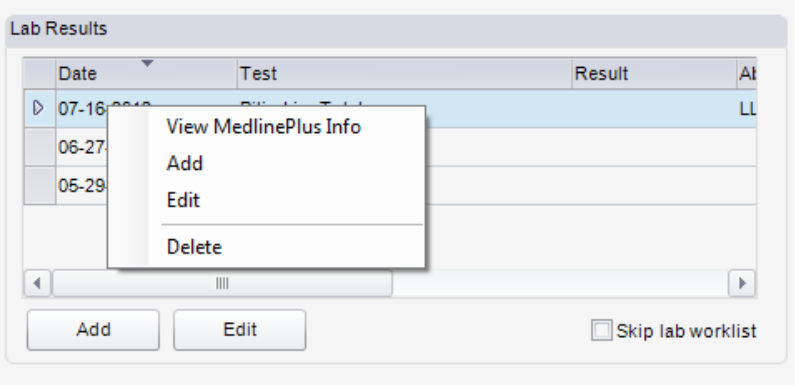



**Figure 5.71 – Accessing MedlinePlus Info**

Selecting the context menu option will open a modal browser window providing information on the topic selected in the grid you opened the context menu on.

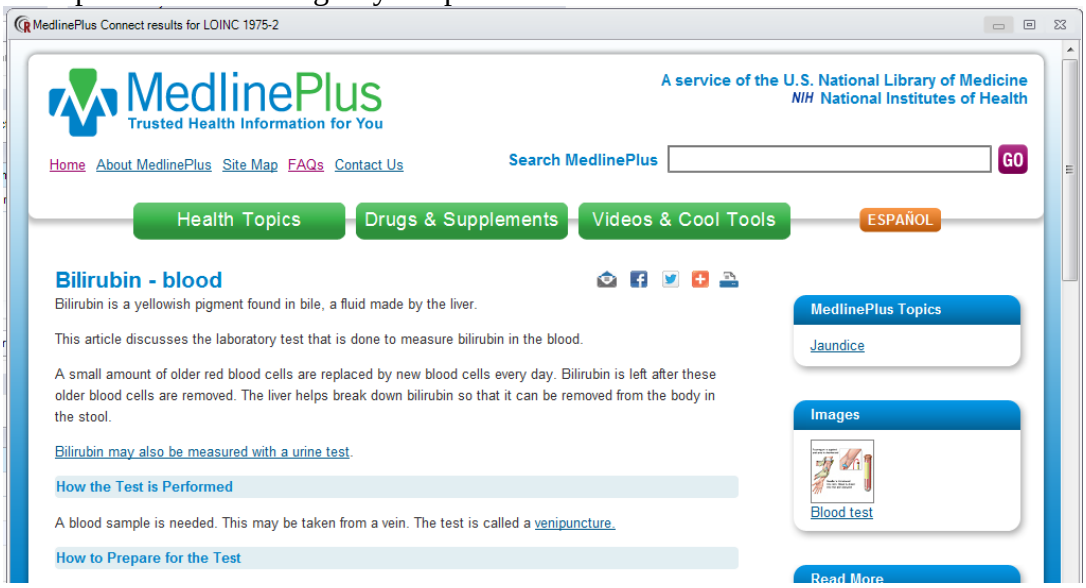



**Figure 5.72 – Web browser opens with search on MedlinePlus**

You can right click the window and print the information for the patient.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

If no results are returned from Medline a message like the following is presented to the user.

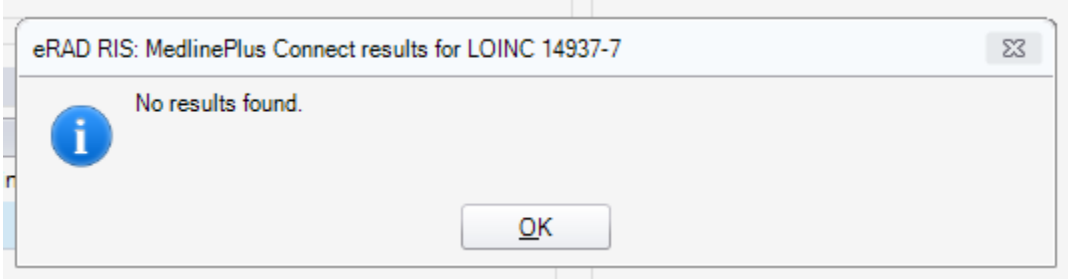



**Figure 5.73 – When search doesn't find topic**

When you close the browser control, you get prompted with this window to help capture the MU statistic.

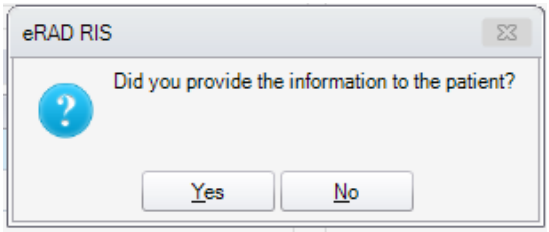



**Figure 5.74 – Prompt asking if information was provided to patient**

Clicking Yes is the same as checking the "Provided Education Resources" checkbox on the Documentation tab.

For this feature the following new system configuration settings have been added. The table below has the code and its default value.

| Code | Default value | Actions |
|---|---|---|
| MUMedlinePlusConnectDebug | N | Enables debug mode |
| MUMedlinePlusConnectEnabled | N | Enables if Medline Plus is on or off |
| MUMedlinePlusConnectBaseUrl | http://apps.nlm.nih.gov/medlineplus/services/mpconnect_service.cfm | URL path for browser |
| MUMedlinePlusConnectDrugSearch | mainSearchCriteria.v.cs=2.16.840.1.113883.6.88 | Search from Medications grid on MU tab |
| MUMedlinePlusConnectLabSearch | mainSearchCriteria.v.cs=2.16.840.1.113883.6.1 | Search from Lab Results grid on MU tab |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | |
|---|---|---|
| MUMedlinePlusConnectProblemSearch | mainSearchCriteria.v.cs=2.16.840.1.113883.6.103 | Search from Medical History grid on MU tab |

**Table 5.2 – MedlinePlus system config settings**

Additionally there is a new system configuration value called "**MUMedlinePlusConnectDebug**" which when set to Y puts it into debug mode and will prompt to save the XML returned from the web service when you perform a search.

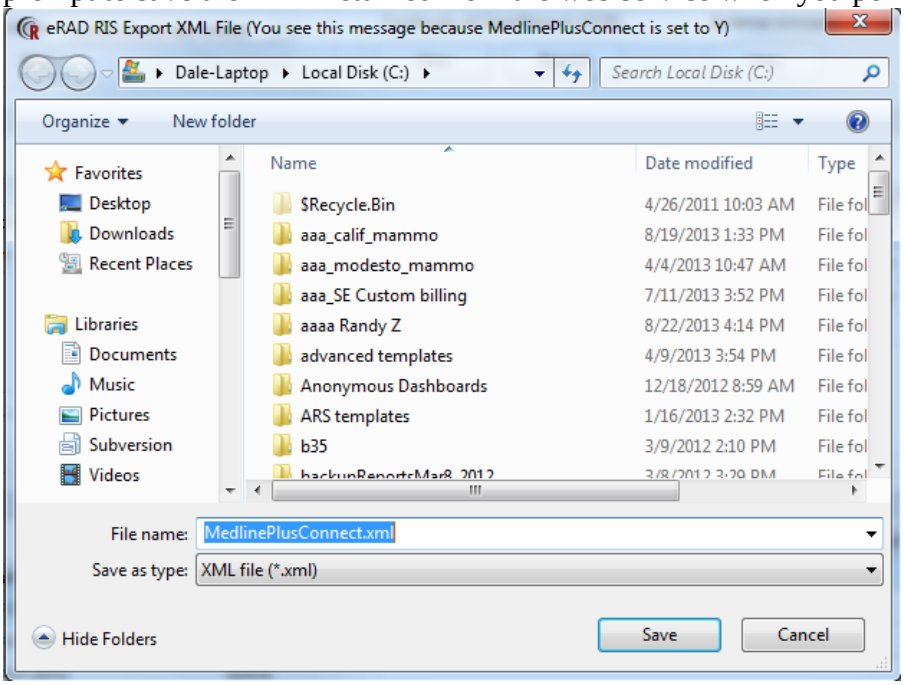



**Figure 5.75 – Generating Medline Plus xml**

The contents of which looks something like this…

```
<?xml version="1.0" encoding="UTF-8" ?>
- <feed xml:base="http://apps.nlm.nih.gov/medlineplus/services/" xml:lang="en" xmlns="http://www.w3.org/2005/Atom" xmlns:v3="urn:hl7-org:v3" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
    <title type="text">MedlinePlus Connect</title>
    <subtitle type="text">MedlinePlus Connect results for LOINC 1975-2</subtitle>
  - <author>
      <name>U.S. National Library of Medicine</name>
      <uri>http://www.nlm.nih.gov</uri>
    </author>
    <updated type="text">2013-09-12T06:09:33Z</updated>
  - <category scheme="REDS_MT010001UV" term="MATCHED">
    - <v3:mainSearchCriteria classCode="OBS" moodCode="DEF" xmlns:v3="urn:hl7-org:v3">
        <v3:code code="KSUBJ" codeSystem="2.16.840.1.113883.5.4" xmlns:v3="urn:hl7-org:v3" />
        <v3:value code="1975-2" codeSystem="2.16.840.1.113883.6.1" displayName="" xmlns:v3="urn:hl7-org:v3" />
      </v3:mainSearchCriteria>
    - <v3:informationRecipient typeCode="IRCP" xmlns:v3="urn:hl7-org:v3">
        <v3:patient classCode="PAT" xmlns:v3="urn:hl7-org:v3" />
      </v3:informationRecipient>
    </category>
    <id />
  - <entry>
      <title>Bilirubin - blood</title>
      <link href="http://www.nlm.nih.gov/medlineplus/ency/article/003479.htm" rel="alternate" />
      <id>tag: nlm.nih.gov, 2013-12-09:/medlineplus/ency/article/003479.htm</id>
      <updated>2013-09-12T06:09:33Z</updated>
      <summary />
    </entry>
  </feed>
```

**Figure 5.76 – xml file for Medline Plus when MUMedlinePlusConnectDebug = Y**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## MU – New Alert Rules – MU Phase 2

Here are the alerts that we have created

1. **NM Stress Test** – you can configure as many of these as you like. Typically one for each procedure_code you want the high blood pressure check on. It also allows you to configure the 200/100 to any value you like. Alert Generator name is "**ProcedureXAndHighBP**"

2. **Empty Lab Test** –This just looks over all lab tests for the patient and if any are blank will prompt with the alert. Note: the administrator isn't allowed to provide a custom description since the description of the alert is generated dynamically and will include the text of the lab tests that are missing. Alert Generator name is "**LabOrderWithEmptyValue**"

3. **CT Contrast Allergy** & 4. **MR Contrast Allergy** – Fire when the indication specified exists and the patient has the specified contrast allergy code. This alert is highly configurable so that the alert implementation isn't dependent on specific allergy, indication or modality type codes, which may differ depending on the customer implementation. Alert Generator name is "**IndicationAndSevereContrastAllergy**"

The following screen shot shows the above three generators configured for the 4 rules NM Stress, Empty Lab Test, CT Contrast and MR Contrast Allergies.

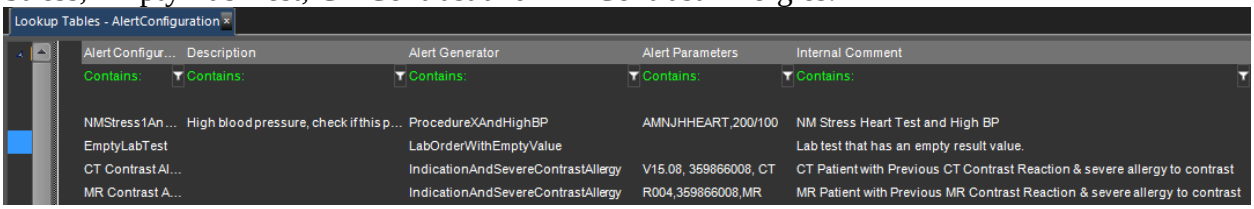



**Figure 5.77 – Alert Configuration table displaying new alerts**

In addition to the configuration column "Alert Parameters", the column "Internal Comments" has also been added, which can be used by the implementer to document the reasons they created or possibly disabled an alert.

The following lookup table validation error displays, if the alert parameters is blank for ProcedureXandHighBP:

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

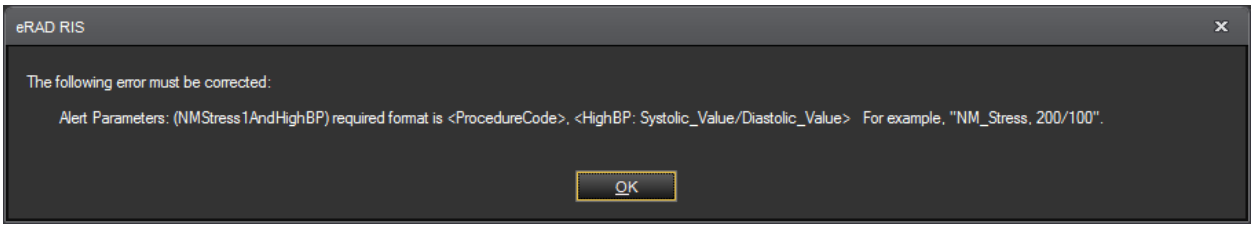



**Figure 5.78– Error message presented if ProcedureXandHighBP is blank**

The following lookup table validation error displays, if the alert parameters is blank for IndicationAndSevereContrastAlergy:

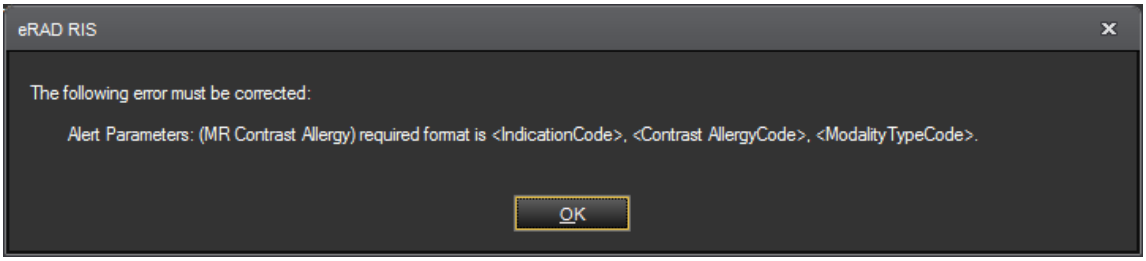



**Figure 5.79 – error message presented if alert IndicationAndSevereContrastAlergy is blank**

The following lookup table validation error displays, If a code is incorrect such as the Contrast AllergyCode:

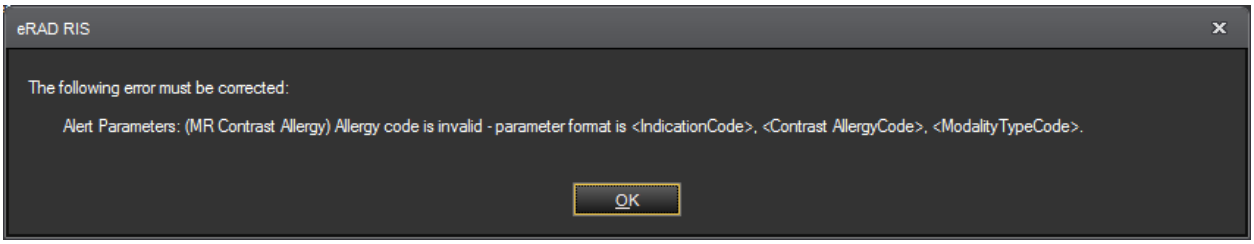



**Figure 5.80 – error message presented if Contrast Allergy code is incorrect**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## MU – CCDA

CCDA information is a lengthy document that can be reviewed from the following URL

http://www.hl7.org/implement/standards/product_brief.cfm?product_id=7

The CDA® Release 2 document can be downloaded from this site as well.

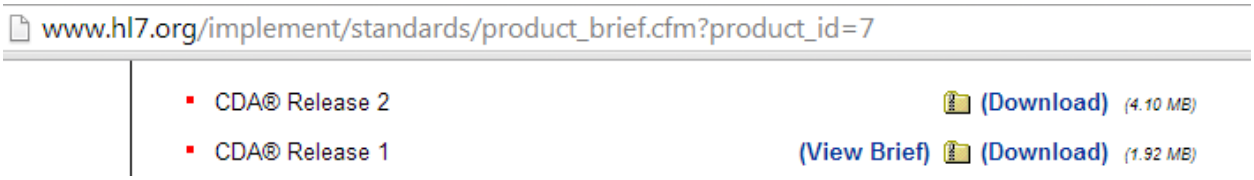



**Figure 5.81 – Download CDA Release 2**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## MU – CCDA Generation

To access the CCDA the user can select the View button under the Clinical Document (C-CDA) section on the MU tab. Selecting this button opens the View Clinical Document (C-CDA) window.

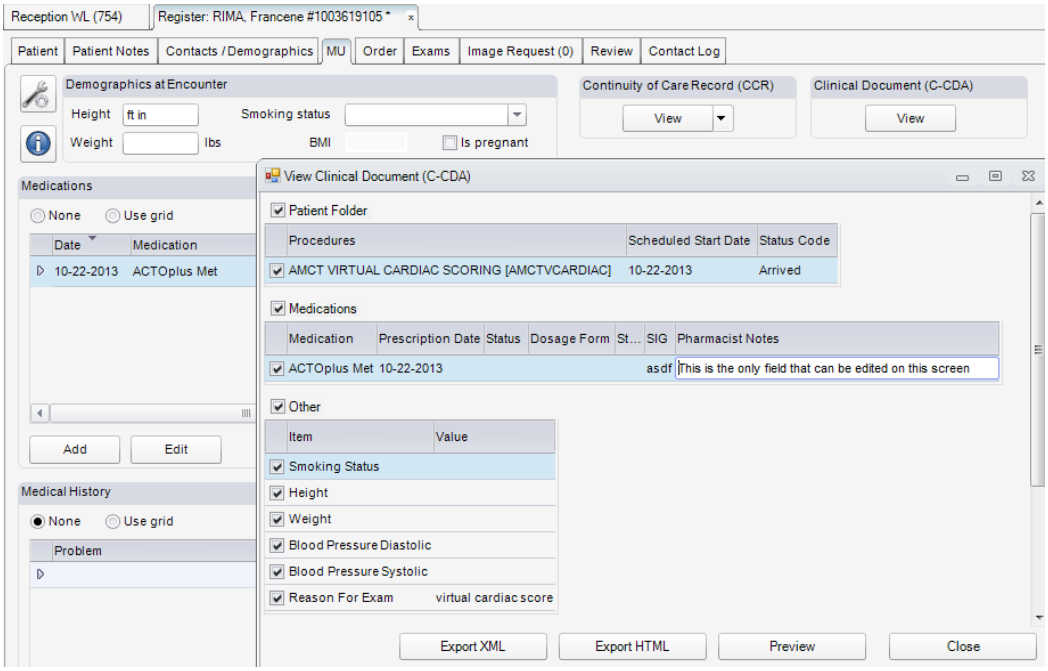



**Figure 5.82 – Accessing CCDA**

From the View Clinical Document (C-CDA) window the user can select the data elements that will be displayed in the C-CDA.

Options to Export XML, Export HTML, Preview the document and close.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## MU – SNOMED CT

Meaningful Use Stage 2 Problems must be recorded in SNOMED CT codes. However, these codes do not necessarily have to be displayed in the user entry but can be stored or mapped elsewhere in the EHR product such as a dictionary map or a database. The specific vocabulary standard is **US Extension to SNOMED CT.** Today, we are recording Problems using ICD9 codes and eventually moving to ICD10 codes by October 1, 2014. We will need to find a mapping table for ICD9 and eventually ICD10 codes to SNOMED CT codes. In order to use SNOMED CT codes in the application we will need a **License Agreement** with IHTSDO (International Health Terminology Standards Development Organisation).

The International Release is updated each year in January and July. The download contains SNOMED CT files in both Release Format 1 (RF1) and the **new Release Format 2 (RF2) versions which** eRAD / Radnet will use. Updates to the US Edition will be available approximately one month after publication of the International Release of SNOMED CT. eRAD / Radnet will use the US Edition of SNOMED CT codes to certify for Meaningful Use Stage 2 (2014). The US Edition of SNOMED CT is the official source of SNOMED CT for use in US healthcare systems. **Note: The March 2013 Release of the US Extension will mark the last time that NLM will make the standalone US Extension files available for download. For future releases, users must download the US Edition to obtain US Extension content.**

For Meaningful Use (2014) we will download Snomed ct codes into two new lookups (l_snomed_concept and l_snomed_description). These get populated with the Snapshot release of the US edition of SNOMED CT codes. We will have to come up with a strategy of populating these in a future release as the codes are released every six months. We also need to download the ICD9 and SNOMED CT mapping file to a new lookup (l_snomed_icd9_map). We will also have to come up with a strategy of populating this mapping table with future releases.

**NOTE:** these are hidden lookups and cannot be accessed via the GUI

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## HL7 Payments

In eRAD RIS we are currently able to attach payments manually, no problem.

If there is HL7 integration with a patient kiosk, where a patient can check-in and also make a payment.

Payment is sent to eRAD RIS via HL7 (FT1 - financial segment).

Currently there is a logic gap in Wedge that restricts us from being able to accept payments via HL7.

Current logic --> Delete all current records from c_payment table for visit.
Add new rows provided with Study update.

The issue is the "Delete" --> This would cause an issue if a payment was already entered in RIS, then a new transaction comes through.
Existing payment in RIS would be deleted, new payment added.

Created a new column in Visit.c_payment called external_payment_id as a varchar(50).
If a message comes in that contains a c_payment row with an empty external_payment_id the wedge will throw an exception and reject the message.

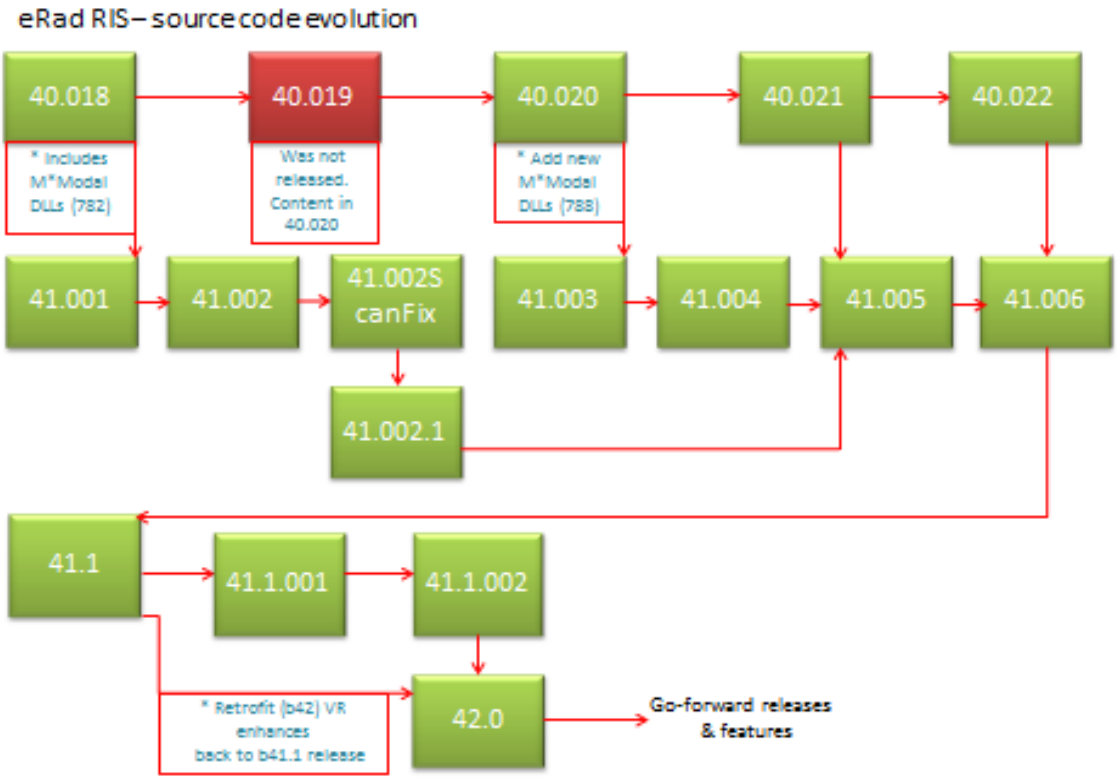
The receipt_number field needs to be populated with a value in the format "site_code-?", so in the example below I used "SS-?". The RIS core services handles generating a receipt number value based on this. This site_code value does not need to be a value from the l_site table, but it might be a good idea.

For testing purposes, I created a Mirth channel which simply reads an xml file from disk and sends it to the wedge. The export of the Mirth channel is attached to this bug in Redmine.

The file contained a very empty StudyContainer with only a c_payment row with the needed test data and a c_study row with an existing accession number.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 6. Code Stream




**Legend:**

**Green = Released software**

**Red = Will not be released**

**Blue = Future release**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 7. RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 37 | - | 1.2.37.12843 | 1.2.37.12782 | 1.2.37.12843 | 1.2.37.12843 | Full version release. **Core install required.** |
| 37 | 1 | 1.2.37.13040 | 1.2.37.13040 | 1.2.37.13039 | 1.2.37.13003 | **Core install required**. GUI.zip, web service and database updates |
| 37 | 2 | 1.2.37.13069 | 1.2.37.13040 | 1.2.37.13069 | 1.2.37.13003 | GUI.zip and Web service updates |
| 37 | 3 | 1.2.37.13069 | 1.2.37.13040 | 1.2.37.13069 | 1.2.37.13003 | Just WebAPI updated, no version changes. . Web service updates |
| 37 | 4 | 1.2.37.13171 | 1.2.37.13040 | 1.2.37.13165 | 1.2.37.13171 | GUI.zip, web service, and database updates |
| 37 | 5 | 1.2.37.13347 | 1.2.37.13040 | 1.2.37.12979 | 1.2.37.12979 | Bug was discovered with version numbers, this is why it appears we went backwards in the version number but we really did not. |
| 37 | 6 | 1.2.37.13665 | 1.2.37.13040 | 1.2.37.13580 | 1.2.37.12979 | GUI.zip and Web service updates |
| 37 | 7 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13799 | 1.2.37.13807 | GUI.zip and Web service updates. Also MIRTH mapping changes |
| 37 | 8 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13827 | 1.2.37.13807 | Web service update |
| 37 | 9 | 1.2.37.13807 | 1.2.37.13040 | 1.2.37.13839 | 1.2.37.13807 | Web service update |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | | | |
|---|---|---|---|---|---|---|
| 37 | 10 | 1.2.37.13895 | 1.2.37.13040 | 1.2.37.13895 | 1.2.37.13895 | GUI.zip, Web service and database updates |
| 37 | 11 | 1.2.37.14161 | 1.2.37.13040 | 1.2.37.14161 | 1.2.37.14161 | GUI.zip, Web service, database updates and SQL Management reporting |
| 37 | 12 | 1.2.37.14267 | 1.2.37.13040 | 1.2.37.14161 | 1.2.37.14267 | GUI.zip, Web service and database updates |
| 37 | 13 | 1.2.37.14326 | 1.2.37.13040 | 1.2.37.14326 | 1.2.37.14326 | GUI.zip, Web service and database updates |
| 38 | - | 1.2.38.14486 | 1.2.38.14486 | 1.2.38.14486 | 1.2.38.14486 | Full version release. **Core install required.** |
| 38 | 1 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | **Core install required** |
| 38 | 2 | 1.2.38.15182 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | GUI.zip update only |
| 38 | 3 | 1.2.38.15251 | 1.2.38.14748 | 1.2.38.14748 | 1.2.38.14748 | GUI.zip update only |
| 38 | 4 | 1.2.38.15327 | 1.2.38.14748 | 1.2.38.15290 | 1.2.38.14748 | GUI.zip and Web service updates |
| 38 | 5 | 1.2.38.15513 | 1.2.38.15513 | 1.2.38.15513 | 1.2.38.15451 | **Core install required**. GUI.zip, Web service and database updates. |
| 38 | 6 | 1.2.38.15618 | 1.2.38.15513 | 1.2.38.15513 | 1.2.38.15618 | GUI.zip and database updates |
| 38 | 7 | 1.2.38.15768 | 1.2.38.15513 | 1.2.38.15768 | 1.2.38.15618 | GUI.zip and Web Service updates |
| 39 | - | 1.3.39.15389 | 1.3.39.15389 | 1.3.39.15377 | 1.3.39.15355 | Full version release. **Core install required.** |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | | | |
|---|---|---|---|---|---|---|
| 39 | 1 | 1.3.39.16026 | 1.3.39.15943 | 1.3.39.15943 | 1.3.39.15957 | **Core install required.** GUI.zip, Web service and database updates |
| 40 | - | 1.3.40.16659 | 1.3.40.16659 | 1.3.40.16659 | 1.3.40.16659 | **Core install required**. Full version release |
| 40 | 1 | 1.3.40.16849 | 1.3.40.16659 | 1.3.40.16744 | 1.3.40.16727 | GUI.zip, Web service, database updates and SQL Management reporting |
| 40 | 2 | 1.3.40.16868 | 1.3.40.16659 | 1.3.40.16868 | 1.3.40.16727 | GUI.zip and Web Service |
| 40 | 3 | 1.3.40.16868 | 1.3.40.16659 | 1.3.40.16868 | 1.3.40.16727 | DB updated only |
| 40 | 4 | 1.3.40.16967 | 1.3.40.16659 | 1.3.40.16932 | 1.3.40.16961 | GUI.zip, Web service, database updates |
| 40 | 5 | 1.3.40.17087 | 1.3.40.16659 | 1.3.40.17069 | 1.3.40.17087 | GUI.zip, Web service, database updates |
| 40 | 6 | 1.3.40.17146 | 1.3.40.16659 | 1.3.40.17146 | 1.3.40.17146 | GUI.zip, Web service, database updates |
| 40 | 7 | 1.3.40.17268 | 1.3.40.16659 | 1.3.40.17268 | 1.3.40.17259 | GUI.zip, Web service, database updates |
| 40 | 8 | 1.3.40.17364 | 1.3.40.16659 | 1.3.40.17362 | 1.3.40.17343 | GUI.zip, Web service, database updates |
| 40 | 9 | 1.3.40.17370 | 1.3.40.16659 | 1.3.40.17370 | 1.3.40.17370 | GUI.zip, Web service, database updates |
| 40 | 10 | 1.3.40.17435 | 1.3.40.16659 | 1.3.40.17435 | 1.3.40.17370 | **64 BIT web service**. GUI.zip, Webservice. |
| 40 | 11 | 1.3.40.17435 | 1.3.40.16659 | 1.3.40.17525 | 1.3.40.17370 | Web service update |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | | | |
|---|---|---|---|---|---|---|
| 40 | 12 | 1.3.40.17685 | 1.3.40.16659 | 1.3.40.17685 | 1.3.40.17648 | GUI.zip, Web service, database updates |
| 40 | 13 | 1.3.40.17776 | 1.3.40.16659 | 1.3.40.17776 | 1.3.40.17648 | GUI.zip, Web service |
| 40 | 14 | 1.3.40.18063(3GB) | 1.3.40.16659 | 1.3.40.18063 | 1.3.40.18063 | GUI.zip, Web service, database updates |
| 40 | 14.1 | 1.3.40.18063(3GB) | 1.3.40.16659 | 1.3.40.18107 | 1.3.40.18063 | Web service |
| 40 | 15 | 1.3.40.18127(3GB) | 1.3.40.16659 | 1.3.40.18127 | 1.3.40.18127 | GUI.zip, Web service, database updates |
| 40 | 16 | 1.1.3.40.18585 (3GB) | 1.3.40.16659 | 1.3.40.18585 | 1.3.40.18646 | GUI.zip, Web service, database updates |
| 40 | 16.1 | 1.3.40.18705 (3GB) | 1.3.40.16659 | 1.3.40.18585 | 1.3.40.18646 | GUI.zip |
| 40 | 17 | 1.3.40.18780 (3GB) | 1.3.40.18756 | 1.3.40.18756 | 1.3.40.18646 | Core install required for Radiologist User Group. GUI.zip, Core setup, and Web Service updates |
| 40 | 18 | 1.3.40.19253(3GB) | 1.3.40.18756 | 1.3.40.18756 | 1.3.40.19253 | GUI.zip, Web Service and database updates |
| 40 | 19 | 1.3.40.19909(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | GUI.zip, Web Service |
| 40 | 20 | 1.3.40.20086(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | Gui.zip and Recognizer |
| 40 | 21 | 1.3.40.20703(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | Gui.zip |
| 40 | 22 | 1.3.40.20898(3GB) | 1.3.40.18756 | 1.3.40.19878 | 1.3.40.19253 | Gui.zip |
| 41 | - | 1.3.41.19135(3GB) | 1.3.41.19135 | 1.3.41.19135 | 1.3.41.19135 | Full version release |
| 41 | 1 | 1.3.41.19256(3GB) | 1.3.41.19135 | 1.3.41.19256 | 1.3.41.19256 | GUI.zip, |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | | | | Web Service and database updates |
| 41 | 2 | 1.3.41.19620(3GB) | 1.3.41.19135 | 1.3.41.19620 | 1.3.41.19346 | GUI.zip and Web Service |
| 41 | 2sf | 1.3.41.19620SF(3G) | 1.3.41.19135 | 1.3.41.19620 | 1.3.41.19346 | GUI.zip |
| 41 | 2.1 | 1.3.41.20622(3GB) | 1.3.41.19135 | 1.3.41.20617 | 1.3.41.19346 | GUI.zip and Web Service |
| 41 | 3 | 1.3.41.20125(3GB) | 1.3.41.19135 | 1.3.41.20171 | 1.3.41.19346 | GUI.zip , Web Service and Recognizer |
| 41 | 4 | 1.3.41.20285(3GB) | 1.3.41.19135 | 1.3.41.20171 | 1.3.41.19346 | GUI.zip |
| 41 | 5 | 1.3.41.20809(3GB) | 1.3.41.20708 | 1.3.41.20792 | 1.3.41.20738 | GUI.zip, Core install, Web Service and database updates |
| 41 | 6 | 1.3.41.20912(3GB) | 1.3.41.20708 | 1.3.41.20792 | 1.3.41.20738 | GUI.zip |
| 41.1 | - | 1.3.41.20918(3GB) | 1.3.41.20791 | 1.3.41.20918 | 1.3.41.20739 | GUI.zip |
| 41.1 | 1 | 1.3.41.20987(3GB) | 1.3.41.20791 | 1.3.41.20918 | 1.3.41.20739 | GUI.zip |
| 41.1 | 2 | 1.3.41.21162(3GB) | 1.3.41.20791 | 1.3.41.21162 | 1.3.41.21150 | GUI.zip, Web Service and DB updates |
| 42 | - | 2.42.0.0.21261(3GB) | 2.42.0.0.21261 | 2.42.0.0.21261 | 2.42.0.0.21187 | Full version release |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 8. Resolved Defects

Bugs Suggested Features and Support Issues resolved in build 2.42. The extract is taken from Redmine bug tracking system and only displays defects resolved in 2.42.

| Bug # | Priority | Subject | Category | Found Version |
|---|---|---|---|---|
| 5785 | Immediate | Automacros containing fields lose their field attributes | Radiology Reporting | 1.41.1 |
| 5165 | Immediate | Losing default value for fields when saving template/macro | Radiology Reporting | 40.019 |
| 2972 | Immediate | multi sign - personnel search from administation will not populate the sign level saved with the user | Thick Client GUI | 1.39.001 |
| 5827 | Urgent | InsertTextAtPastCaretPositions is causing undesired behavior for rads when editing. | Radiology Reporting | 1.40.022 |
| 5758 | Urgent | Mammo follow-up orders no longer included in the list of outstanding orders when scheduling | Thick Client GUI | 1.41.006 |
| 5338 | Urgent | Reporting - Dictionary Add / Train changes | Radiology Reporting | 1.40.20 |
| 4972 | Urgent | RadNet - Sales Reports - Adjust all reports to CPT based | Mgt Reports | 1.4 |
| 4710 | Urgent | Reporting - inserting a template or macro with interactive timestamps will cause playback corruption and confusion | Radiology Reporting | 1.41 |
| 4641 | Urgent | RRR- support issue. Outside Read Bug | Thick Client GUI | 40.17 |
| 5604 | High | Error after login: nullable object must have a value (see alternative steps to reproduce) | Thick Client GUI | 1.41.002.1 |
| 5576 | High | Saving system layout saved signing layout as editing and vice versa. | Radiology Reporting | 1.40.21 |
| 5438 | High | Reporting - possible wrong document model loading if more than one practice | Radiology Reporting | 1.40.20 |
| 5348 | High | Reporting - ability to navigate cued fields without pausing | Radiology Reporting | 1.4 |
| 5298 | High | Next fields wraps document but previous field does not | Radiology Reporting | 1.40.020 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 5210 | High | Not able to arrive a patient (MSK) | Thick Client GUI | 41.002 |
| 5196 | High | Date filter not working correctly on - Last Followup Date column (RRR) | Thick Client GUI | 41.002 |
| 5171 | High | Cancelled by Reason Core management report fails to run (RRR) | DB | 41.002 |
| 5152 | High | Correction dialog can cause word duplication | Radiology Reporting | 1.40.018 |
| 5141 | High | Editing fields in template editor sometimes throws an exception | Radiology Reporting | 40.019 |
| 5137 | High | Management Reports - Modifications to reports in Operations Folder | Mgt Reports | 1.4 |
| 4987 | High | Tentatively signed studies that are suspended should be better protected | Radiology Reporting | 1.40.017 |
| 4984 | High | HL7 --> placer order number contains literal | | 41.001 |
| 4856 | High | Wedge fails to insert order and returns Patient and OrderPlacerNumber reference check failure The transaction ended in the trigger. The batch has been aborted. to Mirth | DB | 1.41 |
| 4823 | High | Reporting Screens fail to load if unable to find a good description for the current procedure code | Thick Client GUI | 1.4 |
| 4803 | High | Template/macro add ability to assign to Modality Type | Radiology Reporting | 1.4 |
| 4751 | High | Next workflow broken when using multiple tabs of different types | Radiology Reporting | 1.41 |
| 4681 | High | Able to sign a report when the field(s) in a template do not not have a value. | Thick Client GUI | 1.41 |
| 4671 | High | Unknown CC physician --> not displayed properly on Unknown reconsiliation WL (RRR) | Thick Client GUI | 40.17 |
| 4649 | High | Error adding a procedure plan for new appointment | Thick Client GUI | 1.41 |
| 4626 | High | Protect Section Headers - Two new cases to handle | Radiology Reporting | 1.41 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 4625 | High | Reporting - ability to open multiple dictations in batch mode | Radiology Reporting | 1.4 |
| 4597 | High | RRR - HTML Codes are breaking prep instructions | Thick Client GUI | 40.18127 |
| 4580 | High | Special Accommodations Flag does not get turned off if Special Accommodations is the only flag that is turned on and the user switches the Yes to a No | Web Services/DB | 1.4 |
| 4546 | High | Patient Merge event while another user has that patient open on a screen. | Thick Client GUI | 1.4 |
| 4545 | High | Referrings with No delivery preference in any address do not get their reports. | Document Distribution | 1.40.16 |
| 4479 | High | Reporting - using re-use causing confusion when getting a message box like "Addendum Requested" | Radiology Reporting | 1.41 |
| 4379 | High | All signed by date column sorts | Radiology Reporting | 1.41 |
| 4378 | High | Canceling Unscheduled orders not appearing on Patient Folder | Thick Client GUI | 1.41.18633 |
| 4375 | High | Patient Merge - Suggest button causes Index error when trying to add to the Patient Merge WL | Thick Client GUI | 1.41 |
| 4366 | High | Transcribe next workflow (beeps) | Radiology Reporting | 1.41 |
| 4281 | High | Template / macro user assignent screen slow to load. | Radiology Reporting | 1.4 |
| 4198 | High | patient folder doesn't load unless part of the initial layout on open of rad screen | Thick Client GUI | 1.41 |
| 4005 | High | Memory leak - Reporting - Resizing floating panes | Thick Client GUI | 1.40.013 |
| 3909 | High | Show / Hide titlebars from view menu throws exception | Thick Client GUI | 1.40.010 |
| 3845 | High | Lookup editor drop down won't must show existing values | Thick Client GUI | 40.006 |
| 3575 | High | RadNet - West Coast - Add Age as an Pre-Cert rule option | Thick Client GUI | 1.39 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 3570 | High | Reporting - Playback then record does not work with Interactive Dictation. | Thick Client GUI | 1.40.005 |
| 3528 | High | Magview reports come in via HL7 containing  | HL7 | 1.4 |
| 3036 | High | Reporting - Pending Signature worklist not obtaining lock for patients with multiple studies from same order | Thick Client GUI | 1.39.001 |
| 2941 | High | Request Addendum | Thick Client GUI | 1.37 |
| 2532 | High | access to changing the access strings needs to read only. | Thick Client GUI | 1.39 |
| 5788 | Normal | xkeys - insert template is not working | | 1.41 |
| 5779 | Normal | c_selectreporttable throwing error on report server when there is no table for the dx report | Web Services/DB | 1.41 |
| 5729 | Normal | Exam Search with Scheduled Date Range includes one extra day | Thick Client GUI | 1.41.006 |
| 5641 | Normal | Parameter is not valid error while loading thumbnail images in document viewer | Thick Client GUI | 1.41.005 |
| 5631 | Normal | Special Accommodations flag does not display properly | Thick Client GUI | 1.4 |
| 5623 | Normal | null reference error when opening administration / management reports | Thick Client GUI | 1.41.005 |
| 5612 | Normal | null reference error from CDImportManager | Thick Client GUI | 1.41.005 |
| 5600 | Normal | ICM Dashboard - outside read site code issue | Web Services/DB | 1.4 |
| 5599 | Normal | wrong data in c_study._site_code for outside read | Web Services/DB | 1.41 |
| 5583 | Normal | Spell check on the fly no longer turned on. Squigly lines are not shown under misspelled words | Radiology Reporting | 1.40.21 |
| 5577 | Normal | Report Fields do not update when you load a new layout | Radiology Reporting | 1.41 |
| 5561 | Normal | foreign key error when adding follow-up / contact log entries | Thick Client GUI | 1.41.005 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 5525 | Normal | Scanning - Performs scan but returns no pages. | | 1.41 |
| 5516 | Normal | Error when reprinting Receipts | Thick Client GUI | 1.41.002.1 |
| 5507 | Normal | Patient Folder - Null Scheduled Dates should show at top as most recent. | | 1.41 |
| 5487 | Normal | Procedure code assignment screen in template editor keeps button disabled | Radiology Reporting | 1.41.002 |
| 5478 | Normal | MERGE - Birad picker either shows on non Birads studies or doesn't show on birad studies. | Radiology Reporting | 41.002 |
| 5460 | Normal | When deleting, activating or deactivating items in the template/macro editor, all rows are updated | Radiology Reporting | 1.41 |
| 5443 | Normal | Reporting - rad edit text default color is yellow - should be "#810000" | Radiology Reporting | 1.40.20 |
| 5408 | Normal | Object Reference Error entering an OutsideRead 41.004 | Thick Client GUI | 41.004 |
| 5394 | Normal | missing index on c_summary_mu_history | DB | 1.41 |
| 5379 | Normal | right click Print Report should record an audit log entry | Thick Client GUI | 1.40.003 |
| 5377 | Normal | Stored procedure for Radar confirmations in core install is out of date in relation to SE | Web Services/DB | 1.4 |
| 5351 | Normal | Reporting - Laterality check causing duplicate words | Radiology Reporting | 1.40.020 |
| 5346 | Normal | Reporting - report history requires a lock and offers a read only mode that will not allow you to view anything | | 1.40.020 |
| 5345 | Normal | Playback with bouncing ball, preventing word selection with double click. | Radiology Reporting | 40.016 |
| 5332 | Normal | Reporting - no wait navigate fails when dictating and then clicking next field > 1 time without pausing | Radiology Reporting | 1.40.019 |
| 5327 | Normal | Problem with AME Spellcheck CP-14969 | | 1.40.020 |
| 5308 | Normal | Reporting - dictating negative 5 percent will render the word percent not the symbol | Radiology Reporting | 1.40.20 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 5273 | Normal | CD Import: import fails, if images don't have an accession number | | 1.41 |
| 5272 | Normal | Reporting - Automatic spell check "on the fly" marks words as misspelled that are at the beginning of a field | Radiology Reporting | 1.40.020 |
| 5271 | Normal | Field navigation popup not showing for FFF | Radiology Reporting | 40.02 |
| 5244 | Normal | Copy and pasting words into a report should add leading and trailing space as in MS Word | Radiology Reporting | 1.4 |
| 5242 | Normal | Input device invokable events need proper display text | Radiology Reporting | 9 |
| 5221 | Normal | Reporting - User preference for Redo needs to be selected twice to work | Radiology Reporting | 1.40.020 |
| 5219 | Normal | Reporting - Function key action DeleteWordLeftOfCursor will delete fields and section titles | Radiology Reporting | 1.40.020 |
| 5217 | Normal | Solution name is wrong in installer - and possibly icon for shortcuts. | | 1.38 |
| 5211 | Normal | Prompt when creating templates if the word colon is in a cue | | 1.40.019 |
| 5203 | Normal | Unable to dictate a new line (shift+enter). Always renders as a paragraph | Radiology Reporting | 1.40.019 |
| 5202 | Normal | Next/Previous section unusable due to inconsistant results | | 1.40.019 |
| 5201 | Normal | Rendering of spine levels have changed in 7.88 | | 1.40.019 |
| 5200 | Normal | First word in field persisting and will not overwrite | Radiology Reporting | 1.41 |
| 5179 | Normal | DEA blank vs Null | Thick Client GUI | 1.41 |
| 5178 | Normal | Template - cannot remove a value in either the Grammar or Default value fields | Thick Client GUI | 41.003 |
| 5170 | Normal | Reporting - template/macro editor cue text box too small | Radiology Reporting | 1.41 |
| 5169 | Normal | Aggresive field cue navigation fails after editing a cue on a template. | Radiology Reporting | 1.40.019 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 5160 | Normal | Prompt when creating templates if the word colon is in a cue | | 1.40.019 |
| 5145 | Normal | Next field voice command, showing field popup for one field too far. | Radiology Reporting | 40.18 |
| 5136 | Normal | Management Report updates - removals | Mgt Reports | 1.4 |
| 4979 | Normal | Advanced needs created date to appear on the dx template next to each addendum | Web Services/DB | 1.4 |
| 4977 | Normal | forms will not print for exams scheduled in closed rooms | Thick Client GUI | 1.4 |
| 4976 | Normal | Appliction icon is rris icon instead of eRAD icon - and is grainy / blocky in task bar | | 1.4 |
| 4974 | Normal | RadNet - Sales reports - add patient zip code report | Mgt Reports | 1.4 |
| 4940 | Normal | Multi-type ahead control not sufficient for replacement of Race/Ethnic combo box. | | 1.41 |
| 4939 | Normal | Type ahead for ICD codes on Medical History Grid does not handle decimal | Thick Client GUI | 1.41 |
| 4934 | Normal | Assign to Control can populates user list based on wrong practice | Radiology Reporting | 1.41 |
| 4875 | Normal | support row level caching for lookup tables | Web Services/DB | 1.4 |
| 4862 | Normal | null reference error in PatientGeneral constructor line 126 | Thick Client GUI | 1.41 |
| 4860 | Normal | Ris hangs... For a long time in template editor. | Radiology Reporting | 1.41 |
| 4850 | Normal | TypeError: The prefix "mm" for attribute "mm:major" associated with an element type "ClinicalDocument" is not bound | HL7 | 1.41 |
| 4839 | Normal | RRR - IVT - Managed Policies - billing code info goes blank | | 1.4 |
| 4828 | Normal | Report fields control throws exception when in minimized mode | Radiology Reporting | 1.41 |
| 4818 | Normal | Reporting - reuse only - macros are not getting reset and old command are staying around on next workflow | Radiology Reporting | 1.41 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 4817 | Normal | First chance exception when getting field description in report template editor. | Radiology Reporting | 1.4 |
| 4813 | Normal | First chance exception on SpeechMike Firrmware check | Radiology Reporting | 1.41 |
| 4812 | Normal | First chance exception on PacsCacheServer | Thick Client GUI | 1.41 |
| 4811 | Normal | First chance exception when loading reporting autosave screen. | Radiology Reporting | 1.41 |
| 4806 | Normal | Reporting - spell check on the fly user preference not working | Radiology Reporting | 1.41 |
| 4786 | Normal | Management Report - User Group Permissions is missing access string name | Mgt Reports | 1.41 |
| 4784 | Normal | Patient merge - recent history list - pulls up the deleted patient | Thick Client GUI | 1.4 |
| 4780 | Normal | Known Limitation - Side by side registration broken from 40.016 - 40.017 | Thick Client GUI | 40.017 |
| 4778 | Normal | duplicate "void" payment for the same payment | Thick Client GUI | 1.4 |
| 4776 | Normal | PACS Server override user preference requires log-out, then log-in to take effect | PACS Integration | 1.41.001 |
| 4775 | Normal | PACS Viewer 7.2.34 returns Success="1" with a view session id but empty openedaccessionnbs attribute. When RIS closes this view session PACS is unresponsive. | PACS Integration | 1.41.001 |
| 4758 | Normal | Invalid insurance policy saved to DB | Thick Client GUI | 40.016 |
| 4752 | Normal | Reporting - speech mics 3500 and 3600 showing incorrectly in Help>About | Radiology Reporting | 1.41 |
| 4748 | Normal | scan document archive "write check" fails when 2 or more processes run on the same server | Web Services/DB | 1.4 |
| 4746 | Normal | Reporting - performance - require two raddocks to support signing and dictating | Radiology Reporting | 1.41 |
| 4741 | Normal | Scan document archiving fails when the scan document page is null | Web Services/DB | 1.4 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 4739 | Normal | Reporting - reuse enabled and open a screen for signing, skip next will not populate the tab text | Radiology Reporting | 1.41 |
| 4725 | Normal | IVT Worklist - new field "Last Contact entry" | Thick Client GUI | 1.41 |
| 4723 | Normal | Dark mode watermark (eRad RIS logo) too bright | | 1.41 |
| 4720 | Normal | c_GetNameFromUserID still referencing c_format_name using format 1 | Web Services/DB | 1.4 |
| 4716 | Normal | Reporting - reuse when skipping reports and there are change we don't get a prompt to save changes | Radiology Reporting | 1.41 |
| 4714 | Normal | RRR - unknown reconsiliation - right click not available on HoldCodeCompleted | Thick Client GUI | 40.17 |
| 4683 | Normal | MU Ethnic HL7 codes | Web Services/DB | 1.41 |
| 4682 | Normal | MU - c_patient_medication is missing FK reference to l_medication.medicaiton_code | Thick Client GUI | 40.17 |
| 4676 | Normal | Reporting - reuse selected report tool window keeping previous data | Radiology Reporting | 1.41 |
| 4673 | Normal | Management Report - Appointment Schedule | Mgt Reports | 1.4 |
| 4665 | Normal | Numbered lists that aren't formatted as true ordered lists are wrapping up to the seciton line | Mgt Reports | 1.41 |
| 4662 | Normal | Reporting - SetAccountRules not called when opening an exam for the default template | Radiology Reporting | 1.41 |
| 4660 | Normal | Report fields control showing as a blank canvas | Radiology Reporting | 1.41 |
| 4654 | Normal | Dictating previous field moves two fields back instead of one. | Radiology Reporting | 1.41 |
| 4639 | Normal | Interactive fast forward light up play and fast forward | Radiology Reporting | 1.41 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 4638 | Normal | Audio control allow rewinding and fastforwarding to show at the same time as active. | Radiology Reporting | 1.41 |
| 4637 | Normal | RCW error closing reporting window | Radiology Reporting | 1.41 |
| 4636 | Normal | Recording rewinding in interactive mode falls into a playback/rewind loop. | Radiology Reporting | 1.41 |
| 4635 | Normal | Recording interactive and rewinding | Radiology Reporting | 1.41 |
| 4634 | Normal | Audio starts playing when recording | Radiology Reporting | 1.41 |
| 4633 | Normal | Switching from record to play in batch mode | Radiology Reporting | 1.41 |
| 4632 | Normal | Interactive record + playback at same time | Radiology Reporting | 1.41 |
| 4630 | Normal | Reporting - Edit Templates and Macros from the menu option is showing templates not soley owned by the radiologist | Radiology Reporting | 1.4 |
| 4628 | Normal | MU Height and Smoking Status should pre-populate for walk-in | Thick Client GUI | 1.41 |
| 4627 | Normal | RectangleDrawer timer throws exception | Radiology Reporting | 1.4 |
| 4624 | Normal | Reporting - Automacros do not use scanner in scoring which available macro should load | | 1.4 |
| 4621 | Normal | QA workflow, set to problem without rejecting | Radiology Reporting | 1.41 |
| 4607 | Normal | RadNet - Dark Theme - Within template/macro editor, forecolor is the same as backcolor | Thick Client GUI | 1.41 |
| 4588 | Normal | CD Import - Fails to import CDs from some hospitals that have "Screen Save" type images | | 1.4 |
| 4581 | Normal | Ampersand in template / macro field name can corrupt report | Radiology Reporting | 1.4 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 4577 | Normal | View Edit - open view edit window and save with no changes made logs entry to audit history | Thick Client GUI | 1.41 |
| 4567 | Normal | Reporting - notifications need to be placed above action buttons. | | 1.41 |
| 4566 | Normal | Reporting Reuse - Next workflow loads cases that are pending saving. | Thick Client GUI | 1.41 |
| 4562 | Normal | Template editor, inserting a field into a section header throws an error. | Radiology Reporting | 1.4 |
| 4560 | Normal | Some message boxes don't close when hitting X | Thick Client GUI | 1.41 |
| 4557 | Normal | Read only mode hides recording button, but can still record using microphone | Radiology Reporting | 1.41 |
| 4556 | Normal | Read only mode not reflecting on minimized dictation controls | Radiology Reporting | 1.41 |
| 4551 | Normal | Modified GoggleSearchAction to support Multiple passed in params | Thick Client GUI | 1.41 |
| 4549 | Normal | person search results does not correctly show specialties | Thick Client GUI | 1.4 |
| 4544 | Normal | Send-to button blanks out the reporting screen | Radiology Reporting | 1.41 |
| 4543 | Normal | RXNorm is not captured from NewCrop | Thick Client GUI | 1.41 |
| 4542 | Normal | Worklist refresh exception | | 1.41 |
| 4541 | Normal | autosave - button positions should be switched | | 1.41 |
| 4540 | Normal | Autosave - close should prompt to delete | | 1.41 |
| 4539 | Normal | Autosave - double click row does nothing | | 1.41 |
| 4536 | Normal | Reporting - Reuse enabled status area messages not populating for action buttons | Radiology Reporting | 1.41 |
| 4533 | Normal | Reporting - edit template > make changes > x to close > no prompt presented about changes | Radiology Reporting | 1.41 |
| 4532 | Normal | Reporting - edit template > esc > cancel will close the form instead of cancelling | Radiology Reporting | 1.41 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 4528 | Normal | WPR-000 | Radiology Reporting | 1.4 |
| 4527 | Normal | Attachments - Verbal button causing error | Thick Client GUI | 1.41 |
| 4522 | Normal | intermittent error: transaction was deadlocked on lock resources with another process and has been chosen as the deadlock victim | Web Services/DB | 1.41 |
| 4521 | Normal | Scanning - Editing Document width and height causing error on blanks | Thick Client GUI | 1.41 |
| 4516 | Normal | Reporting - MT polling enabled open RIS initially will result in messed up reporting screen | Radiology Reporting | 1.41 |
| 4514 | Normal | Attachments - wide documents that a small height cause an out of memory exception | | 1.4 |
| 4510 | Normal | Reporting - editing reports MT's have the microphone selection option available | Radiology Reporting | 1.41 |
| 4508 | Normal | Transcriptionist next workflow not properly skipping | Radiology Reporting | 1.41 |
| 4490 | Normal | Protect section headers does not protect against macro insertions | Radiology Reporting | 1.40.017 |
| 4489 | Normal | Inactive printers can still be selected in Send Report dialog | Document Distribution | 1.4 |
| 4488 | Normal | CD Import - add a button to access this feature from Patient Folder. | | 1.4 |
| 4487 | Normal | CD Import - Some customers have CD media without a DICOMDIR | | 1.4 |
| 4486 | Normal | dicom error while importing a CD | Thick Client GUI | 1.40.16328 |
| 4483 | Normal | Reporting - Add patient folder control to reporting window will not display history | Thick Client GUI | 1.41 |
| 4481 | Normal | LogTextBox - Permission for an admin to edit previous log details isn't always available. | | 1.41 |
| 4444 | Normal | Scanning - Order/Patient/Exam Level can change when re-viewing the document | | 1.41 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 4443 | Normal | External Report Workflow - changing room/procedure resets external flag. | | 1.41 |
| 4434 | Normal | Outside Reads do not fall into external workflow | | 1.41 |
| 4426 | Normal | Reports that should have site filter | Mgt Reports | 1.41 |
| 4392 | Normal | alignments of MT screen buttons in user preferences are a little miss aligned | Thick Client GUI | 1.41 |
| 4389 | Normal | Reporting - Addendum request make notes required on request and reject. | Radiology Reporting | 1.41 |
| 4386 | Normal | Report History Error | Thick Client GUI | 1.41 |
| 4383 | Normal | External Report Workflow check box looses value on open of view edit | | 1.41 |
| 4341 | Normal | QA worflow problem flag #2894 | Radiology Reporting | 1.41 |
| 4334 | Normal | Report History Window | Thick Client GUI | 1.4 |
| 4296 | Normal | RRR Modality Closures and Restrictions - when you delete a row after pressing 'enter' at the end of the column 'End Time' RIS does not seem to recognize the row is gone, and prompts user for 'Description' | Thick Client GUI | 40.15 |
| 4290 | Normal | Reporting - next field navigating two fields when cursor immediately to the left of field | Radiology Reporting | 1.4 |
| 4274 | Normal | All Signed By Date WL missing context menu option for Patient Folder | Thick Client GUI | 1.41 |
| 4267 | Normal | Report context menu item does not have access string | Web Services/DB | 1.41 |
| 4260 | Normal | RRR - Appointment book is not showing all outside read locations, only one. | Admin Tools | 40.15 |
| 4259 | Normal | RRR - Order of preferred radiologists in the Personnel editor or image notes, is not the same order it appears in the workflow within RIS | Thick Client GUI | 40.15 |
| 4227 | Normal | eRAD PACS: Often not closing images | PACS Integration | 1.40.012 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 4199 | Normal | Error thrown on refresh lock after just having closed reporting screen. | Thick Client GUI | 40.15 |
| 4185 | Normal | Login - After logging in as a Rad user the splash screen doesn't always repaint | Thick Client GUI | 1.41 |
| 4153 | Normal | Sort on audio lenght throws error on worklist refresh | Thick Client GUI | 1.41 |
| 4135 | Normal | Workstation locks do not reliably fire on workstations that have not been rebooted for 25+ days | Thick Client GUI | 1.40.16328 |
| 4096 | Normal | Send To button on Report History screen should be hidden | Radiology Reporting | 1.40.14 |
| 4093 | Normal | Assign to Radilogist from WL clears Chair when configured not to clear the chair. | Thick Client GUI | 1.40.012 |
| 4087 | Normal | Getting "Viewer is opening another view!" when trying to launch images in eRAD PACS | PACS Integration | 40.12 |
| 4086 | Normal | Scanning - HP Scanjet 3000 s2 does not work with Twain 2.0 | | 1.4 |
| 4085 | Normal | RRR reported 'painting' issue with scheduling window | | 40.18019 |
| 4068 | Normal | Reporting - next workflow excluding reports locked by the current user | Thick Client GUI | 1.4 |
| 4052 | Normal | Suspended reports can still be previewed in dictate screen using patient folder | | 1.4 |
| 4018 | Normal | Memory leak fixes discovered in B40 | | 1.4 |
| 4006 | Normal | Scan Documents from EMR | Thick Client GUI | 1.4 |
| 3976 | Normal | Reporting buttons, when disabled, has a wider seperator. | Thick Client GUI | 1.4 |
| 3975 | Normal | Verify External - button is greyed out in Patient Folder, even if you have permission | Thick Client GUI | 39.1 |
| 3971 | Normal | RIS Administrator - permissions | Web Services/DB | 39.1 |
| 3914 | Normal | order lock not released in some cases, refreshes continue until user logs out | Thick Client GUI | 1.4 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 3901 | Normal | Reporting - Chair assignment - Chair selection shows study assigned but work list doesn't have any studies assigned | Thick Client GUI | 1.40.010 |
| 3873 | Normal | Patient Merge - when you choose phone number details for a patient and suggest merge, then re-open, those details are not maintained. | Thick Client GUI | 1.1.3.40.17435 |
| 3872 | Normal | Signing contribution dates and userid missing in supervising dictation worklist | Thick Client GUI | 1.40.010 |
| 3866 | Normal | Installing Updates... - Two can run at the same time, which causes errors | | 1.4 |
| 3828 | Normal | Toggle record not stopping when pressed again (Fisher site visit) | Thick Client GUI | 40.006 |
| 3802 | Normal | RadNet - ADV defect - Blanking out the chair | Thick Client GUI | 1.40.006 |
| 3796 | Normal | RadNet - ADV Call Centre - Order level scanning support | Thick Client GUI | 1.40.006 |
| 3755 | Normal | RadNet - Call Centre - Preferred site not always populating | Thick Client GUI | 1.40.006 |
| 3753 | Normal | RadNet - Call Centre - IVT Attachment - advanced scanning pop-up issue | Thick Client GUI | 1.40.006 |
| 3732 | Normal | MU2 (2014) Requires Gender to Change to Sex | Thick Client GUI | 1.4 |
| 3708 | Normal | Inactive but currently used procedures are not apearing as an option in the performed procedure list on view edit | Thick Client GUI | 1.40.0007 |
| 3692 | Normal | Can't reschedule - strange error - | | 1.4 |
| 3683 | Normal | Rad Sign Level lookup exception | Admin Tools | 1.40.007 |
| 3662 | Normal | Schedule Group lookup table exception | Admin Tools | 1.40.006 |
| 3621 | Normal | RadNet - Resolve Audit log issues - resolve in b41 if time permits, else move to b42 | Thick Client GUI | 1.38 |
| 3587 | Normal | Administration --> cross_x_reference tables and Active column | Admin Tools | 1.1.3.40.17118 |
| 3586 | Normal | Administration --> BIRAD + Recommendation mapping change Active = object reference ERR | Admin Tools | 1.1.3.40.17118 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 3562 | Normal | L access string settings for Mammography worklists should default to "None" | Thick Client GUI | 1.4 |
| 3464 | Normal | Reporting - Increase the size of selected attachments data pane and the border doesn't repaint | Thick Client GUI | 1.4 |
| 3455 | Normal | Reporting - Indent / Outdent not working | Thick Client GUI | 1.4 |
| 3403 | Normal | IVT WL not showing the WL Row count as expected | Thick Client GUI | 1.4 |
| 3397 | Normal | RRR - scan doc types when marked inactive are still showing in the dropdown menus in the GUI | Thick Client GUI | 40.16659 |
| 3394 | Normal | problems with validation of "Visited at" for "unknown referring physicians" without an address | Thick Client GUI | 1.40.16328 |
| 3391 | Normal | User editor loading config values twice, causing errors | Thick Client GUI | 1.38 |
| 3373 | Normal | EMR order fails - sending in an unknown referring physician | Thick Client GUI | 1.4 |
| 3035 | Normal | Missing access string | Web Services/DB | 1.4 |
| 3010 | Normal | Multi-sign: When you have a preconfigured sign level overrides (RadSignLevel table), and you disable contribute a and contribute b, user cannot sign on the modality type in the override. | | 39.16026 |
| 2991 | Normal | Patient Folder - don't duplicate attachment viewers | Thick Client GUI | 1.39 |
| 2970 | Normal | Reporting - Report history - Does not always load and may return object reference error | Radiology Reporting | 1.39.001 |
| 2897 | Normal | Report History - from patient folder tab name is not correct | Thick Client GUI | 1.39 |
| 2823 | Normal | audit history does not provide sufficient detail for study data | Thick Client GUI | 1.39 |
| 2716 | Normal | System Config Lookup Editor | Thick Client GUI | 1.38 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 2690 | Normal | Show/Hide Titlebar issue | Thick Client GUI | 1.39 |
| 2628 | Normal | Reporting screen not drawing in, if user make worklists active | Thick Client GUI | 1.39 |
| 2453 | Normal | River Ranch - When you reschedule a study we set an internal flag on the study that was rescheduled, when we just cancel we are not clearing this flag if it was previously set. | Thick Client GUI | 38 |
| 2418 | Normal | River Ranch - When two users with similar names edit an order, there can be some confusion in who actually wrote notes that are stamped (ie: order notes) | Thick Client GUI | 38.14486 |
| 2163 | Normal | Studies in Edits Pending QA can be signed off | Thick Client GUI | 1.2.38.14350 |
| 2113 | Normal | error on patient search when formatted_first_name is null | Web Services/DB | 1.37.12 |
| 2072 | Normal | Reporting - Worklist refresh when worklist is not in focus. | Thick Client GUI | 1.37 |
| 2057 | Normal | Unknown Insurance reconsiliation - reload problem | Admin Tools | 37.11 |
| 1943 | Normal | No access string to prevent access to Unknown Carrier | | 1.37 |
| 1842 | Normal | Reporting - CdsInterctive Text Color not consitent | | 1.38 |
| 1487 | Normal | Worklist column does not refresh when exception thrown in Bulk Field Assignment | Thick Client GUI | 1.2.37.12644 |
| 1177 | Normal | Completing fields in report editor and using Back button < will return COM error. | Thick Client GUI | 1.36 |
| 4368 | Low | Ranjan - Date format | Radiology Reporting | 1.41 |
| 4282 | Low | Template / macro - Create using filter criteria | Radiology Reporting | 1.41 |
| 3889 | Low | Null reference exception in lookup | Admin Tools | 1.1.3.40.16659 |
| 3750 | Low | Reporting - Exam details pane layout | Thick Client GUI | 1.40.008 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 3680 | Low | Font size - not saving | Thick Client GUI | 1.4 |
| 3229 | Low | Patient search - folder preview feature - does not clear with reset button | | 1.4 |
| 3228 | Low | Patient Folder (Preview Mode) - docking\floating issue on Patient Search | Thick Client GUI | 1.4 |
| 1977 | Low | Birthdate search often defaults to dates in the future | | 1.37 |
| 1348 | Low | Special Accommodations required fields | Thick Client GUI | 1.37 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 9. Known Limitations

The following are Bugs Suggested Features and Support Issues found in build 2.42. Bugs reported in previous versions are not captured as Known Limitation in this document.

| # | Status | Priority | Subject |
|---|---|---|---|
| 5783 | New | High | Dark mode login box impossible to see |
| 5120 | QE Rejected | High | Template / macro - create template from... doesnt retain custom fields |
| 5861 | New | Normal | unhandled exception logging in as a rad but without permission to some WL. |
| 5860 | New | Normal | PACS Images not opening from Patient folder |
| 5857 | New | Normal | Critical Results worklist throws null exception |
| 5854 | New | Normal | PACS Caching - Sometimes possible to steal someone else's cache lock |
| 5851 | New | Normal | Reporting - Error on pending dictation work list |
| 5847 | New | Normal | Dark mode - BMI on MU tab is white on white and unreadable |
| 5843 | New | Normal | MU - When editing the date in Lab results get error. |
| 5839 | New | Normal | Edit Templates and Macros icons enabled toggle is backwards |
| 5837 | New | Normal | Reporting - Open study in dictate window and get C++ Exception |
| 5836 | New | Normal | Chair selector throws error after RIS locked due to inactivity |
| 5835 | New | Normal | interact with message boxes via voice commands - can dictate into the message itself |
| 5832 | New | Normal | Scheduling - Restriction displayed in advanced search on Schedule tab not always accurate |
| 5829 | New | Normal | Scheduling / Registration |
| 5822 | New | Normal | 'Assign' functionality throws error on report addendum |
| 5821 | MModal support | Normal | Redo That command needs to be uttered twice to work/catch up with undo that |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| 5814 | New | Normal | If lab test code matching systemconfig's CPOELabTestCode value doesn't exist for procedure who's CPOE Pathology flag is set, misleading exception occurs |
| 5812 | New | Normal | Orders to Schedule WL and IVT WL show last follow-up type code and the Mammo Worklists (0/4/5) show |
| 5811 | New | Normal | Suspended reports stops several voice commands from working |
| 5808 | New | Normal | Dark mode, very hard to read text in Recording and Playback settings |
| 5800 | New | Normal | parameter is not valid and/or out of memory error while viewing thumbnails |
| 5784 | New | Normal | Default attachment is order level, cant be changed to patient level |
| 5777 | New | Normal | Attatchment Veiwer "Show More/Show Less" option is switching when pressing the Ok Button in the Attachment Viewer Preferences |
| 5770 | New | Normal | Button label on "Report on Accession Number" prompt is incorrect. |
| 5768 | New | Normal | DeleteLeftWord |
| 5767 | New | Normal | Cannot save IVT screen due to undetermined required field ("! Is Required") |
| 5766 | New | Normal | potential performance issues with c_ctrn_dictation |
| 5762 | New | Normal | Unplugging then repluging in speech mic causes Ris to crash, need to reboot |
| 5754 | New | Normal | Open quotes become duplicated |
| 5745 | New | Normal | Lookup bug "Non-static method requires a target" |
| 5738 | New | Normal | patient folder will not load when saved as a secondary tab on another tool window |
| 5732 | New | Normal | issues with sorting exam search results when max row count is reached |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| 5726 | New | Normal | Management Reports - Many reports have new parameters, these fields should be returned on the report |
| 5712 | In Progress | Normal | C++ Exception when pressing the play button |
| 5711 | New | Normal | Using two procedures at scheduling, and patient is claustro - it is showing an option for a closed modality when it should not |
| 5700 | New | Normal | Template, cannot remove the dataset values |
| 5697 | New | Normal | RIS screen lock does not function properly when using minimize to tray mode |
| 5685 | New | Normal | Logout - after entering username and PWD error saying eRAD RIS is already running |
| 5682 | New | Normal | Inactivity message showing under ris error pop up |
| 5678 | New | Normal | View/Edit notes exam times tab marks as dirty |
| 5672 | New | Normal | Next Workflow on All_____ worklists, locked studies break work flow. |
| 5664 | New | Normal | When dictating, losing your lock, and save failed with screen recovered, you won't be able to save |
| 5657 | New | Normal | Cannot click 'OK' or 'Cancel' in PACSLoginDialog when running in 'Minimized' recording control mode |
| 5654 | In Progress | Normal | MU Lab Results Error |
| 5637 | New | Normal | Complete button on Report screen has misaligned formatting |
| 5625 | New | Normal | Reporting - cant exit minimized dictation screen with cancel button or close button |
| 5620 | New | Normal | Swap creditial user being used for user preference and lock screen |
| 5619 | New | Normal | Macro editor field "bleeds" into next line when field is at end of line and Enter pressed |
| 5610 | New | Normal | Clear Credentials is available from perform exam tab context menu |
| 5603 | New | Normal | recent activity message list shows Assign To as Dictated |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| 5597 | New | Normal | Reporting - delete next field speech mike option leaves a space after deleting |
| 5569 | New | Normal | Lookup tables->ProcedureCode - Missing null checks on new l_procedure_code_x_billing_code rows throws exception |
| 5563 | In Progress | Normal | Reporting - Field markers allowing normal spelling errors to pass |
| 5549 | New | Normal | Edit Image Request's "Previous Requests" grid shows only 2-3 previous requests , can't be sorted or scrolled to see more |
| 5526 | In Progress | Normal | Reporting - Delete previous n words and undo that resulting in wrong cursor location |
| 5519 | New | Normal | Reporting - pending signature on login and pending signature worklist notifications can be shown at the same time |
| 5515 | In Progress | Normal | Reporting - Setting DictationEnabled = false still allows dictated text into the report. |
| 5506 | In Progress | Normal | Reporting - lowercase selection voice command inoperable |
| 5469 | New | Normal | Alerts may not fire properly if screens are re-used in RIS |
| 5459 | New | Normal | right click change status to cancel does not refresh worklist afterwards |
| 5452 | New | Normal | Reporting - Spine level 'T seven eight' rendering incorrectly. |
| 5451 | New | Normal | Reporting - enable rewind/fast foward playback rename |
| 5446 | New | Normal | Radnet only: Multi-install dashboard |
| 5439 | In Progress | Normal | new practices can cause null ref errors when signing |
| 5420 | New | Normal | some messageboxes improperly sized |
| 5406 | New | Normal | concurrency violation on save of UserPrefs can crash RIS |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| 5305 | New | Normal | Report field control shows duplicate field if laterality check highlighted words exist in a field |
| 5259 | New | Normal | Multi-type ahead: down arrow does not open the dropdown |
| 5258 | New | Normal | Multi-type ahead: control is too tall |
| 5257 | New | Normal | Multi-type ahead: Dropdown button should have a ... in the icon |
| 5256 | New | Normal | Multi-type ahead: Dropdown button is doesn't have left and bottom border |
| 4830 | New | Normal | Carrier search error if carrier name is not found |
| 4810 | New | Normal | PACSCacheServer system config setting is no longer used and should go away |
| 4792 | New | Normal | Reporting - Open multiple autosaved reports at once can cause error |
| 4787 | New | Normal | Next field not going to next field when dictating paragraphs in field. |
| 4771 | New | Normal | insert multi paragraph macro into field ignores paragraphs |
| 4718 | In Progress | Normal | Reporting - AME 7.88.3 - extra paragraph when protect section headers is on |
| 4593 | New | Normal | WPR - Send To button causes error |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# User Release Notes

for eRAD RIS
Version 2
Build 43

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# Table of Contents

1. Purpose ..... 4
2. Intended Audience ..... 4
3. Installing/Accessing the Application ..... 4
4. New Access Strings and Configuration Settings 43 ..... 5
5. New Features and Enhancements ..... 16
Reporting – Peer Review (Phase 1) ..... 16
Export Images (Burn CD) ..... 22
County Option for Radiologist Signing Location ..... 32
IVT – Ability to Edit Patient Information ..... 35
ICD10 Support ..... 36
IMPORTANT: Radiologist ICD Support Uncomplete ..... 41
Secure Messaging ..... 43
Patient Portal Legal Documents ..... 47
Mammography – Suggest Manual Review ..... 49
Option to Not Allow Editing of Billing Codes by Technicians ..... 50
Patient "Not Yet Menstruating" Flag ..... 51
Exam Search Filter of BI-RADS ..... 52
Patient Search – New Patient Split Button Added ..... 53
Responsible Party MRN ..... 54
Scheduling – Patients Height and Weight Required at Time of Scheduling ..... 55
Patients Weight and Room Added to Weight Limit Message ..... 56
Ability to Add Longer Room Names ..... 57
Ability to Use a Closed Room from Registration Window ..... 58
Scheduling – Repeating Modality Closures ..... 59
Last Contact and Last Contacted Type Added to Work Lists ..... 60
Additional Columns Added to the Confirmation WL ..... 61
Additional Columns added to the Orders to Schedule WL ..... 61
Columns added to the Image Request WL ..... 62
Locked By Column Added to the CTRM WL ..... 62
Ability to Select Date Range for Confirmation WL ..... 63
Problem and QA Flags Added to Patient Folder WL ..... 64
Personnel Editor – Have City Populated by Zip Code ..... 65
Ability to Define Primary Specialty for Referring Physician ..... 66
Referring Practice Address Changes ..... 67
Management Report – Appointment Schedule by Procedure Group ..... 71
Management Report – Users in Usergroups ..... 72
Management Reports – Radiologist Productivity by User – Mammo ..... 73
Utilization Management – Addition of Medical Group Lookup Table ..... 74

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

Utilization Management – Support Medical Group Contact Types ..... 76
Utilization Management – Support UM Coverage Type ..... 77
Utilization Management – Support UM Common Language ..... 78
Utilization Management – Support Default Review Times ..... 78
Utilization Management – Support UM Status ..... 79
Utilization Management – Authorization Rules for Medical Groups ..... 80
Utilization Management – Support Capitated Carriers ..... 81
Utilization Management – Mapping Carriers to Medical Groups ..... 82
Utilization Management – Addition of Utilization Management User Group ..... 82
Meaningful Use – Site Level MU Override ..... 83
Meaningful Use – Direct Messaging ..... 84
Meaningful Use – Additional Options for MU Fields ..... 90
Meaningful Use – Additional Medications for Quick Add Edit Window ..... 91
Meaningful Use – Laboratory Tests and Values / Results ..... 92
Meaningful Use – Office Visit ..... 93
Meaningful Use – Clinical Summaries ..... 94
Meaningful Use – Data Portability ..... 95
Meaningful Use – Alerts and Clinical Decision Support ..... 97
Meaningful Use – Clinical Quality Measures ..... 103
Meaningful Use – Preventative Care ..... 105
Meaningful Use – Automated Measures Management Report ..... 107
Meaningful Use – Reports by Radiologist Management Report ..... 110
Meaningful Use – Stage 2 Management Reports ..... 111
6. Code Stream ..... 113
7. RIS Release Version Numbers ..... 114
8. Resolved Defects ..... 115
9. Known Limitations ..... 127

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 1. Purpose

This document describes some of the new features and changes implemented in eRAD RIS as of the end of Sprint 43 and subsequent server releases. This version of eRAD RIS is referred to as Build 2.43.

Only features which can be visually demonstrated to the user will be outlined in this document.

# 2. Intended Audience

This document is created by the RIS Development team for the RadNet RIS management team.

# 3. Installing/Accessing the Application

The installation guide for the eRAD RIS client have been posted to the RadNet Wiki page at http://mdbal01rdtweb/Wiki/

Under the RIS menu click on the rRIS page. The credentials to access the page are:
Username: rRIS
Password: Summerside

*Please note that Build 2.43 is considered a new core release of the application and will require a reinstallation of eRAD RIS. This is accomplished by navigating to the eRAD RIS shared installation drive and running the CoreInstall.bat file (ex: I:\RISDeployment\CoreInstall.bat)*

If you experience difficulties accessing the application please do not hesitate to contact Darcy Noye with the PEI RIS Development Team.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 4. New Access Strings and Configuration Settings 43

| Setting Placeholder | Setting | Default | Purpose / Controls Access to |
|---|---|---|---|
| Access string / User Group Permission tables | Alert.AgeGreaterThan | Full | full access to this enables users to see the alert of the "AgeGreaterThan" type when it is evaluated to be true |
| Access string / User Group Permission tables | Alert.CDS_01_HighBP | Full | full access to this enables users to see the alert |
| Access string / User Group Permission tables | Alert.CDS_02_HighCholesteral | Full | full access to this enables users to see the alert |
| Access string / User Group Permission tables | Alert.CDS_03_PossibleReaction | Full | full access to this enables users to see the alert |
| Access string / User Group Permission tables | Alert.CDS_04_TobaccoUser | Full | full access to this enables users to see the alert |
| Access string / User Group Permission tables | Alert.CDS_05_PneumoniaBooster | Full | full access to this enables users to see the alert |
| Access string / User Group Permission tables | Alert.ExpiredInsurance | Full | full access to this enables users to see the alert of the "ExpiredInsurance" type when it is evaluated to be true |
| Access string / User Group Permission tables | Alert.HasAllergy | Full | full access to this enables users to see the alert of the "HasAllergy" type when it is evaluated to be true |
| Access string / User Group Permission tables | Alert.HasProblem | Full | full access to this enables users to see the alert of the "HasProblem" type when it is evaluated to be true |
| Access string / User Group Permission tables | Alert.InactiveCarrierAppliedToVisit | Full | full access to this enables users to see the alert of the "InactiveCarrierAppliedToVisit" type when it is evaluated to be true |
| Access string / User Group Permission tables | Alert.IndicationAndMedication | Full | full access to this enables users to see the alert of the "IndicationAndMedication" type when it is evaluated |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| | | | to be true |
| Access string / User Group Permission tables | Alert.IndicationAndSevereContrastAllergy | Full | full access to this enables users to see the alert of the "IndicationAndSevereContrastAllergy" type when it is evaluated to be true |
| Access string / User Group Permission tables | Alert.LabOrderWithEmptyValue | Full | full access to this enables users to see the alert of the "LabOrderWithEmptyValue " type when it is evaluated to be true |
| Access string / User Group Permission tables | Alert.MRI65PlusHeartDiseaseLipitorAndLDL100Plus | Full | full access to this enables users to see the alert of the "MRI65PlusHeartDiseaseLipitorAndLDL100Plus" type when it is evaluated to be true |
| Access string / User Group Permission tables | Alert.OnMedication | Full | full access to this enables users to see the alert of the "OnMedication" type when it is evaluated to be true |
| Access string / User Group Permission tables | Alert.PatientBirthChanged | Full | full access to this enables users to see the alert of the "PatientBirthChanged" type when it is evaluated to be true |
| Access string / User Group Permission tables | Alert.PatientDeceased | Full | full access to this enables users to see the alert of the "PatientDeceased" type when it is evaluated to be true |
| Access string / User Group Permission tables | Alert.PatientDrugAllergyWhenArrivedOrStarted | Full | full access to this enables users to see the alert of the "PatientDrugAllergyWhenArrivedOrStarted" type when it is evaluated to be true |
| Access string / User Group Permission tables | Alert.PatientFirstNameChanged | Full | full access to this enables users to see the alert of the "PatientFirstNameChanged " type when it is evaluated |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| | | | to be true |
| Access string / User Group Permission tables | Alert.PatientLastNameChanged | Full | full access to this enables users to see the alert of the "PatientLastNameChanged " type when it is evaluated to be true |
| Access string / User Group Permission tables | Alert.PatientMissingPhoneInfo | Full | full access to this enables users to see the alert of the "PatientMissingPhoneInfo" type when it is evaluated to be true |
| Access string / User Group Permission tables | Alert.ProcedureXAndHighBP | Full | full access to this enables users to see the alert of the "ProcedureXAndHighBP" type when it is evaluated to be true |
| | Clinical.AlertFramework | Full | Allows the user to see alerts, which by default should be set to full access. Added this to pass an MU test case which requires us to show we can configure alerts not to fire for a specific user group. |
| Access string / User Group Permission tables | Config.LookupEditor.AllergySeverity | Full | allows the user to see alerts, which by default should be enabled full for all users. Added this to pass an MU test case which requires us to show we can configure alerts not to fire for a specific user group. |
| Access string / User Group Permission tables | Clinical.Attachments | Full | Controls access to the standalown Attachments screen accessable in a worklist via Right Click / Attachments |
| Access string / User Group Permission tables | Clinical.BurnCD | None | Controls access to the "Burn CD" Image Request context menu, the "Burn CD" from the tech's Perform Exam screen and |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| | | | the patient folder's Burn CD menu items |
| Access string / User Group Permission tables | Clinical.DataField.Patient.Notes | None | Controls if the user has access to change previous patient notes |
| Access string / User Group Permission tables | Clinical.DeleteDictationAndResetStatus.ExternalReportVerified | None | When a external report is verified, this permission will allow the verified report to be reverted back to exam done so it can be either re-verified or changed to a non-external report. |
| Access string / User Group Permission tables | Clinical.DiagnosisCodes | None | Controls access for users to enter ICD Codes in the MU Tab's MU Extra Info Screen. |
| Access string / User Group Permission tables | Clinical.InfoButton | Full | allows user access to the MU Info button feature accessabel in the MU tab's grids for Medications, Medical History or Lab Results via a Right Click / View Medline Plus Info. |
| Access string / User Group Permission tables | Clinical.Insurance.Override | None | controls access to override Eligiblity/Eligible API results |
| Access string / User Group Permission tables | Clinical.Insurance.Reverify | None | Controls access to the Reverify button in the Manage Insurance groupbox |
| Access string / User Group Permission tables | Clinical.Labwork.AddEdit | None | limits users ability to add or edit labwork |
| Access string / User Group Permission tables | Clinical.Labwork.Request | None | limits users ability to request labwork |
| Access string / User Group Permission tables | Clinical.PeerReview | None | Access to Peer Review context menu item and buttons |
| Access string / User Group Permission tables | Clinical.Schedule.AssignIcdCode | None | Controls whether ICD codes can be assigned during scheduling, ordering, registering |
| Access string / User | Clinical.Schedule.Calendar | None | Schedule Calendar control |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| Group Permission tables | This is not a new access string but the default value has changed from **full to none** | | |
| Access string / User Group Permission tables | Clinical.ViewEditCanChangeDiagIndications | None | In View/Edit, the indications defined by the radiologist can be edited |
| Access string / User Group Permission tables | Clinical.ViewEditCanChangeTechIndications | None | In View/Edit, the indications defined up to the technologist workflow can be edited |
| Access string / User Group Permission tables | Config.AllowMModalConfig<br><br>This is not a new access string but the default value has changed from **none to full** | Full | Allows users access to turning on M*Modal workflow for themselves or other users if the current user has admin access |
| Access string / User Group Permission tables | Config.CreateMessage | None | Gives ability to create a new secure message for comunication between Patient Portal and RIS |
| Access string / User Group Permission tables | Config.LookupEditor.AllergySeverity | None | lookup table access for Allergy Severity |
| Access string / User Group Permission tables | Config.LookupEditor.EligibleConfig | None | controls access in the lookup table editor |
| Access string / User Group Permission tables | Config.LookupEditor.HL7v3Vocabulary | None | controls access in the lookup table editor |
| Access string / User Group Permission tables | Config.LookupEditor.InsuranceServiceType | None | Controls access to the lookup table editor |
| Access string / User Group Permission tables | Config.LookupEditor.LabObservation | None | Controls access to the lookup table editor |
| Access string / User Group Permission tables | Config.LookupEditor.LabProvider | None | Controls access to the lookup table editor |
| Access string / User Group Permission tables | Config.LookupEditor.LegalAuthenticator | None | controls access in the lookup table editor |
| Access string / User Group Permission tables | Config.LookupEditor.LegalDocument | None | Controls access to lookup table legal document |
| Access string / User Group Permission tables | Config.LookupEditor.MedicalGroup | None | lookup table access for Medical Group |
| Access string / User Group Permission tables | Config.LookupEditor.MedicalGroupContactType | None | lookup table access for Medical Group Contact Type. |
| Access string / User | Config.LookupEditor.MessageGrou | None | Controls access to the |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| Group Permission tables | p | | Message Group lookup table |
| Access string / User Group Permission tables | Config.LookupEditor.ObservationResult | None | Controls access to the lookup table editor |
| Access string / User Group Permission tables | Config.LookupEditor.ReferringAddresses | None | limits users ability to view or edit the Lookup editor for Referring Addresses. To have access users will also need to have access to the Config.LookupEditor.Personnel item. |
| Access string / User Group Permission tables | Config.LookupEditor.SpecimenAction | None | Controls access to the lookup table editor |
| Access string / User Group Permission tables | Config.LookupEditor.SpecimenCondition | None | Controls access to the lookup table editor |
| Access string / User Group Permission tables | Config.LookupEditor.SpecimenQuality | None | Controls access to the lookup table editor |
| Access string / User Group Permission tables | Config.LookupEditor.SpecimenType | None | Controls access to the lookup table editor |
| Access string / User Group Permission tables | Config.LookupEditor.UMCommonLanguage | None | lookup table access for UM Common Language |
| Access string / User Group Permission tables | Config.LookupEditor.UMCoverage | None | lookup table access for UM Coverage |
| Access string / User Group Permission tables | Config.LookupEditor.UMResolution | None | lookup table access for UM Resolution |
| Access string / User Group Permission tables | Config.LookupEditor.UMStatus | None | lookup table access for UM Status |
| Access string / User Group Permission tables | Config.MessageInbox | None | Gives ability to access the Secure message inbox |
| Access string / User Group Permission tables | ContentEnum.Reschedule | None | Reschedule Studies |
| Access string / User Group Permission tables | Flag.EligibilityApproved | Full | Access to see the flag |
| Access string / User Group Permission tables | Flag.EligibilityDenied | Full | Access to see the flag |
| Access string / User Group Permission tables | Flag.EligibilityError | Full | Access to see the flag |
| Access string / User Group Permission tables | Flag.EligibilityInProgress | Full | Access to see the flag |
| Access string / User Group Permission tables | Flag.EligibilityWarnings | Full | Access to see the flag |
| Access string / User | Flag.Problem | Full | Access to see the Problem |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| Group Permission tables | | | flag |
| Access string / User Group Permission tables | Flag.QA | Full | Access to see the QA flag |
| Access string / User Group Permission tables | MU.ExportAll | None | controls access for administrators to export all CCDA Data to the system config location MU_ExportALL_Path |
| Access string / User Group Permission tables | WL.DirectMessage | None | Gives ability to access the Direct message inbox |
| Access string / User Group Permission tables | WL.LabworkAdvisedWL | None | WL access for the LabworkAdvice context menu item. |
| Access string / User Group Permission tables | WL.LabworkRequestedWL | None | WL access for the Labwork Requested context menu item. |
| Access string / User Group Permission tables | WL.MT.PeerReviewPendingAction All | None | WL access to All Peer Reviews Pending QA under the Editor menu |
| Access string / User Group Permission tables | WL.Rad.PeerReviewPendingAction All | None | WL access to All Peer Reviews Pending QA under the Radiologist menu |
| Access string / User Group Permission tables | PowerScribe360.AllowAutofeed<br><br>This access string has been removed | removed | This access string has been removed. |
| SystemConfig lookup | APIServerUrl | | the URL for Webservice API services (ie: http://<your rRisService server><API Port>/API) |
| SystemConfig lookup | AuthorizationPrefix | | A prefix that will be added to the new Authorization numbers that are assigned |
| SystemConfig lookup | CallbackDeclinedValue | | The key in Follow Up Type system config table to be considered as 'Declined Callback Letter' |
| SystemConfig lookup | DDRemoveErroredFaxJobs | True | Determines if the Document Distribution Engine removes failed fax jobs after recording their status |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| SystemConfig lookup | DefaultAgeofMinor | 18 | The maximum number that would define a patient as being a minor |
| SystemConfig lookup | EnableContrastBillingRelation | True | Enables billing and contrast code syncing in the tech window |
| SystemConfig lookup | EnforceCountySelection | False | To force user to select a county for signing |
| SystemConfig lookup | HeightRequiredOnSchedule | False | Height is required when scheduling the patient |
| SystemConfig lookup | Icd10EffectiveDate | 07-16-2014 | (value = DateTime mm-dd-yyyy) The date on which ICD10 is effective. ICD9 will be used prior to this date. |
| SystemConfig lookup | InsuranceEligibleAPIString | | Verification account for billing. |
| SystemConfig lookup | InsuranceReVerifyInterval | 10 | (value = int in days) Determines how often we will reverify a patients insurance, before the study is preformed. Note: we will also re-verify on the day of service |
| SystemConfig lookup | InsuranceVerificationGroupNPI | | NPI for server initiated insurance eligiblity requests |
| SystemConfig lookup | MUExportAllPath | | Path where the MU feature to export all patient CCDA will be stored (Ex: c:\temp\muexport) |
| SystemConfig lookup | PeerReviewScoreToStartRequiringNotes | 2b | Determines the score at which we will start to require they enter notes. Possible values are - 1, 2a, 2b, 3a, 3b, 4a or 4b. |
| SystemConfig lookup | PeerReviewScoreToStartSendingToQa | 2b | Determines the score at which we will start to mark them as pending Qa. Possible values are - 1, 2a, 2b, 3a, 3b, 4a or 4b |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| SystemConfig lookup | RadarAPIURL | https://api.myradarconnect.com/v1/ | (value = URL) Determines the start of day to jump the calendar too. |
| SystemConfig lookup | RadMustProvideIcdCode | False | To force radiologist to provide diagnosis ICD code prior to signing. |
| SystemConfig lookup | TechMustProvideIcdCode | False | To force technologist to provide diagnosis ICD code prior to exam done. |
| SystemConfig lookup | UMRoutineReview | 30 | The maximum number of UM hours for a routine exam. |
| SystemConfig lookup | UMStatReview | 4 | The maximum number of UM hours for a STAT exam. |
| SystemConfig lookup | UMUrgentReview | 10 | The maximum number of UM hours for an urgent exam. |
| SystemConfig lookup | WeightRequiredOnSchedule | False | weight is required when scheduling the patient (value = True/False) |
| SystemConfig lookup | WeightUnitsAbbreviation | lbs | An abbreviation of the system's weight measurement unit (i.e. kg or lbs) Default is lbs. |
| SystemConfig lookup | WorklistDateRangeDays | 10 | Maximum number of days to filter date enabled worklists by. |
| rRISService.exe.config **and** rRISServicex64.exe.config | Setting <serviceThrottling> has been increased.<br><br>**Before**:<br><serviceThrottling maxConcurrentCalls="2000" maxConcurrentSessions="4000" maxConcurrentInstances="4000" /><br><br>**After**:<br><serviceThrottling maxConcurrentCalls="3000" maxConcurrentSessions="5000" maxConcurrentInstances="5000" /> | | This increase was added for larger implemenations.<br><br>The changes can be found in the deploy folder > rRISService.exe.config file. Compare with your current file in your rRISService folder. This applies to the rRISService.exe.config and the rRISServicex64.exe.config files<br><br>Manual edit required. |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| rRISService.exe.config **and** rRISServicex64.exe.config | Change to the <system.serviceModel> section of the rRISServices.exe.config and rRISServicesx64.exe.config file<br><br>**Before:**<br><binding name="netTCPBinding" maxReceivedMessageSize="50000000" maxBufferSize="50000000" maxBufferPoolSize="50000000"><br><br>**After:**<br><binding name="netTCPBinding" maxReceivedMessageSize="50000000" maxBufferSize="50000000" maxBufferPoolSize="50000000" **maxConnections="3000" listenBacklog="3000"**> | | Changes are made under the <system.serviceModel> section of the file. Changes to be made in 2 places in the file<br><br>The changes can be found in the deploy folder > rRISService.exe.config file. Compare with your current file in your rRISService folder. This applies to the rRISService.exe.config and the rRISServicex64.exe.config files<br><br>Manual edit required. |
| rRISService.exe.config **and** rRISServicex64.exe.config | Change to the <system.serviceModel> section of the rRISServices.exe.config and rRISServicesx64.exe.config file<br><br>**Before:**<br><readerQuotas maxStringContentLength="10240000" maxArrayLength="10240000" /><br><br>**After:**<br><readerQuotas maxStringContentLength="10240000" maxArrayLength="10240000" **maxNameTableCharCount="32768"** /> | | Changes are made under the <system.serviceModel> section of the file. Changes to be made in 2 places in the file<br><br>The changes can be found in the deploy folder > rRISService.exe.config file. Compare with your current file in your rRISService folder. This applies to the rRISService.exe.config and the rRISServicex64.exe.config files<br><br>Manual edit required. |
| rRISService.exe.config and rRISServicex64.exe.config | <runtime><br><gcServer enabled="true"/><br></runtime> | true | Added to the base rrisservices.config file. Possible values are true and false.<br><br>Manual edit required. |
| rRISService.exe.config **and** rRISServicex64.exe.config | **Before:**<br><serviceThrottling maxConcurrentCalls="2000" maxConcurrentSessions="4000" maxConcurrentInstances="4000" /><br><br>**After:** | | Changes are made under the <behaviors> section of the file.<br><br>The changes can be found in the deploy folder > rRISService.exe.config file. |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| | <serviceThrottling maxConcurrentCalls="3000" maxConcurrentSessions="5000" maxConcurrentInstances="5000" /> | | Compare with your current file in your rRISService folder. This applies to the rRISService.exe.config and the rRISServicex64.exe.config files<br><br>Manual edit required. |
| Applicationsettings.config | UsePerCallInstanceContextMode | False | Will use PerSession mode by default but if UsePerCallInstanceContext Mode is True we use PerCall instead.<br><br>**PerCall** = the service creates resources, processes the client call, and then destroys the resources. This provides greater scalability as the resources are released sooner, but each call may experience more latency<br><br>**PerSession** = the service creates resources for a session which are then kept alive and re-used from one user call to the next. May provide less latency. |
| Applicationsettings.config | StartInsuranceEligibilityService | False | This is not completely implemented in this build and should remain as false. |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 5. New Features and Enhancements

## Reporting – Peer Review (Phase 1)

In build 43 peer review options have been added to the Patient Folder and also from the Reporting windows Patient History data pane.

From the Patient Folder the study can be peer reviewed by selecting the Peer Review option from the context menu. The option will display for studies not signed by "you" and are in signed status.

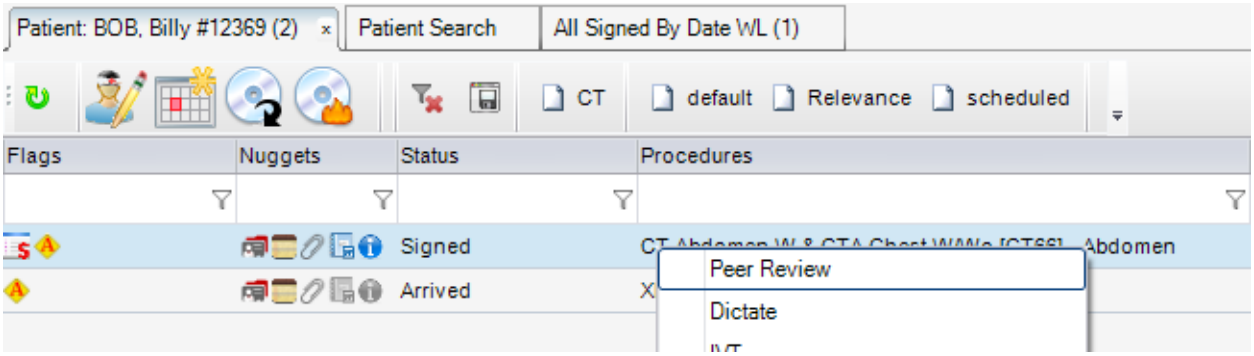



**Figure 5.1 – Peer Review context menu option from Patient Folder**

From the Reporting windows Patient History control the Peer Review button will be displayed in the "My Views" column.

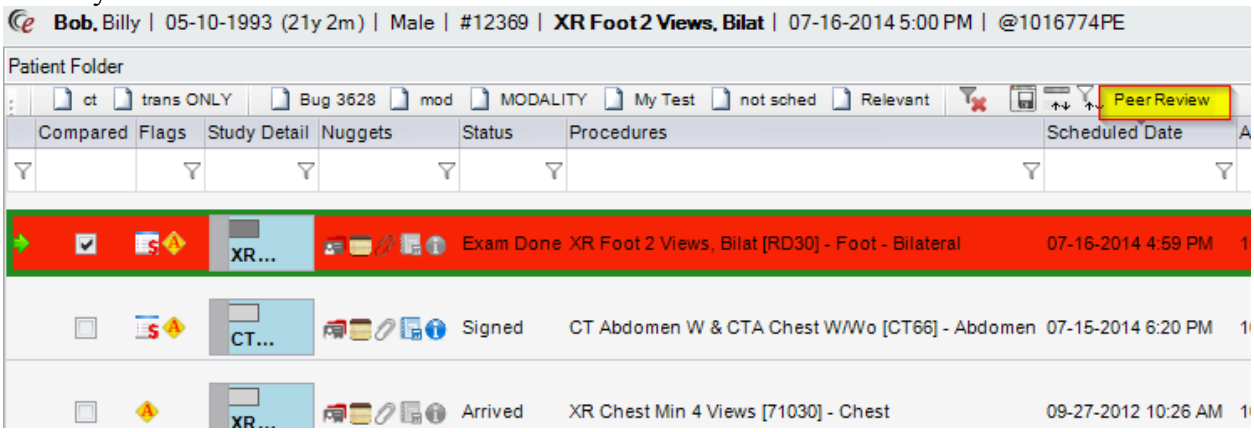



**Figure 5.2 – Peer Review button on Patient History control of reporting window.**

Again, only the studies in signed status that were not signed by you can be reviewed. Selecting a study in a status other than signed with inform the user that the current study status cannot be peer reviewed

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

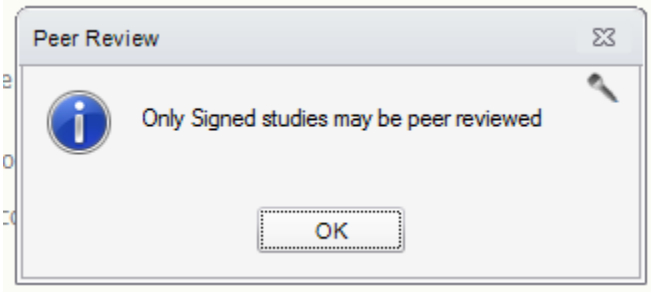



**Figure 5.3 – Attempt to peer review a study in status other than signed**

The options for peer review are controlled by an access string titled **"Clinical.PeerReview"** with a default level of None.

Upon selecting one of the options for peer review the Peer Review window will open. From this window the user can see the performed data, accession number, procedure performed, patients name, MRN and date of birth.

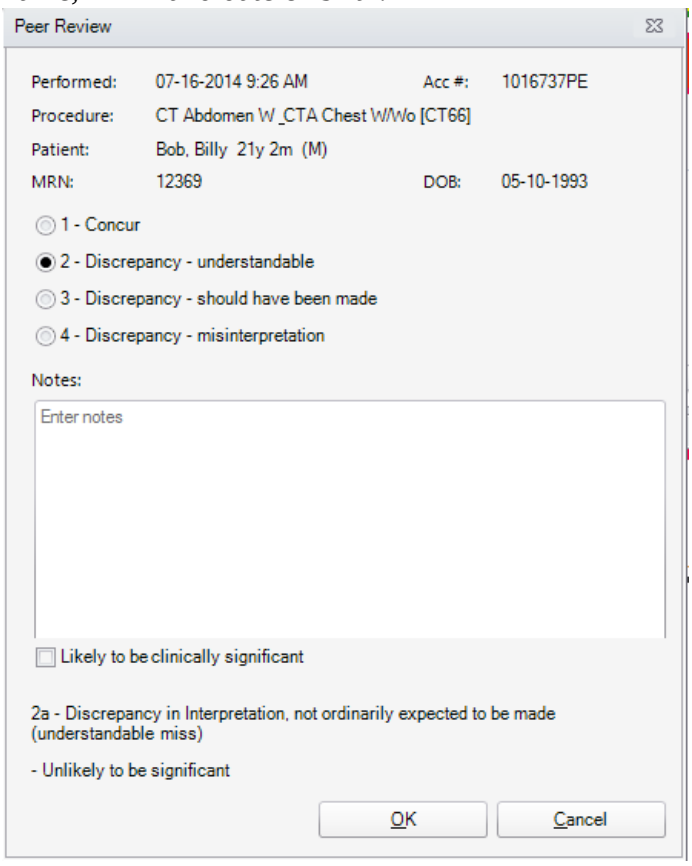



**Figure 5.3 – Peer Review window**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

The Peer Reviewer will have 7 scoring options. The values are 1-4 with the option to select the check box "Likely to be clinically significant". Selecting this check box if the difference of the study to be Unlikely significant and Likely significant, changing the score from 2a to 2b for example.
The scoring would look like this:

| Peer review score code | Description |
|---|---|
| 1 | Concur with interpretation |
| 2a | Discrepancy in Interpretation/not ordinarily expected to be made (understandable miss) - Unlikely to be significant |
| 2b | Discrepancy in Interpretation/not ordinarily expected to be made (understandable miss) - Likely to be significant |
| 3a | Discrepancy in Interpretation/should be made most of time - Unlikely to be significant |
| 3b | Discrepancy in Interpretation/should be made most of time - Likely to be significant |
| 4a | Discrepancy in Interpretation/should be made almost every time (misinterpretation of findings) - Unlikely to be significant |
| 4b | Discrepancy in Interpretation/should be made almost every time (misinterpretation of findings) - Likely to be significant |

**Table 5.1 – Peer review scores**

There is also a notes field for the user to add any notes pertaining to the studies peer review. Notes are required when the score passes a certain threshold, that threshold is configurable at the system and the practice level. The practice level overrides the system configuration setting if it is configured. This threshold identifies the score at which notes will start to be required. When notes are required, the OK button will be disabled until notes are entered. This is also set at the system and practice level. The system configuration setting it titled **"PeerReviewScoreToStartRequiringNotes"** with a default value of 2b.

The Add/Edit Practice window has been redesigned. To access the optional settings for Peer Review, select the appropriate tab as shown in the screenshot below.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

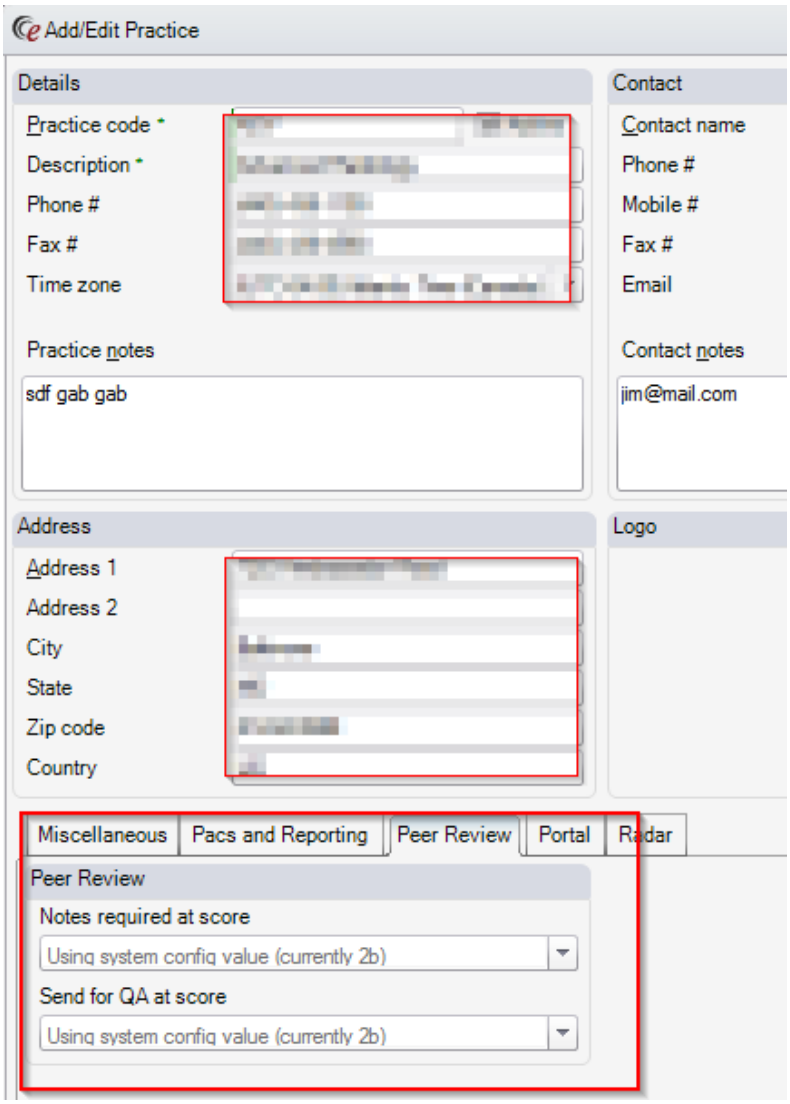



**Figure 5.4 – Peer Review tab of the Add/Edit Practice window**

Similar to the system configuration setting for notes, we have another setting titled **"PeerReviewScoreToStartSendinfToQA"** with a default value of 2b that determines if a peer review will then go to a "post peer review work list" where it can then be reviewed, or entered in an external system and marked as completed. This is also set at the system and practice level with the practice level overriding the system configuration setting.

Once a study is peer reviewed, if it meets the **"PeerReviewScoreToStartSendinfToQA"** settings, the peer review will be went to the "All Peer Review Pending Action WL". This worklist can be accessed from the Radiologist and Editor menus and each is controlled by its

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

own new access string. The All Peer Review Pending Action WL under the Radiologist menu is controlled by access string **"WL.Rad.PeerReviewPendingActionAll"** with a default of none. Access to the work list option under the Editor menu is controlled by access string **"WL.MT.PeerReviewPendingActionAll"** which also has a default of none.

This work list will show the score and score description along with some details attached to the peer review and the study itself. From this worklist, the user will have the option to "Mark as Completed" which will remove the item from the worklist, or "Open".

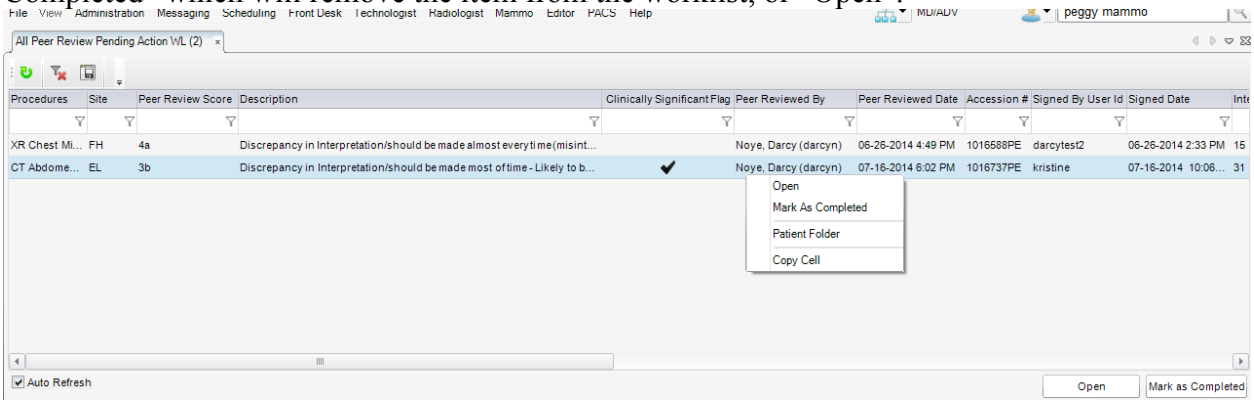



**Figure 5.5 – All Peer Review Pending Action WL**

Selecting Open will present the user with a read only version of the Peer Review window. The user can see the notes and score given by the peer reviewer. Options in this window are to Mark As Completed and Cancel. There is also an ICON in the upper right corner that will allow the user to copy and paste the details of the peer review. Data can also be copied from each row in the peer review window via a right click on the snippet of information.
Example of the text:

Reviewed by: Noye, Darcy (darcyn)
Date: 07-16-2014 6:02 PM

Performed: 07-16-2014 9:26 AM
Acc #: 1016737PE
Procedure: CT Abdomen W & CTA Chest W/Wo [CT66]
Patient: Bob, Billy 21y 2m (M)
MRN: 12369
DOB: 05-10-1993

Notes:
I have entered my notes

Score:
3b - Discrepancy in Interpretation, should be made most of time
- Likely to be significant

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

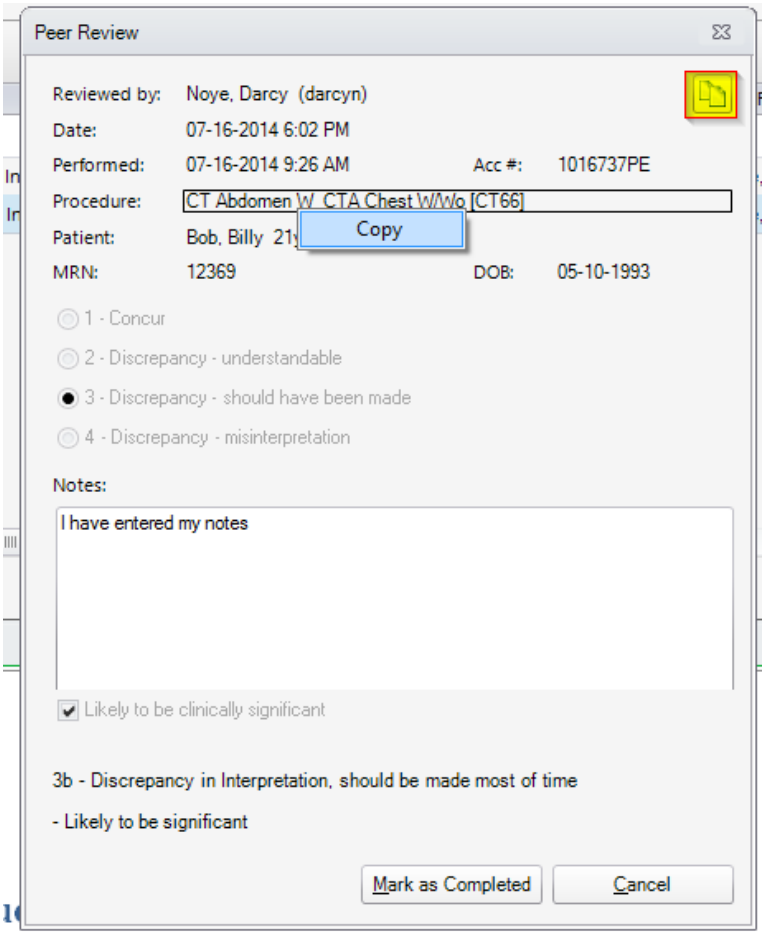



**Figure 5.6 – Peer Review window displaying score from peer reviewer and copy options.**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Export Images (Burn CD)

Burn CD option in eRAD RIS will be available from 3 locations in the application, the Image Request work list, the Patient Folder work list and the Technologists Perform Exam window. Access to Burn CD from all 3 locations is controlled by the access string tilted **"Clinical.BurnCD"** with a default value of Full.

Access from Image Request work list:
Image request work list now has the option to group requests. Default grouping is: Site, Media Type and Deliver To. This grouping makes it easier to multi select the items and completes the "Burn CD" in one step as shown in the following "Burn CD" context menu selection. Multiple studies can be selected from the Image request work list to be burned. From the Burn CD window the user can choose to include or not the studies for the CD. The Deliver To information in the Burn CD window will automatically be populated from the data entered on the Image Request. If there are different deliver to addresses, the user will be required to select one or can cancel and reselect the studies from the work list.

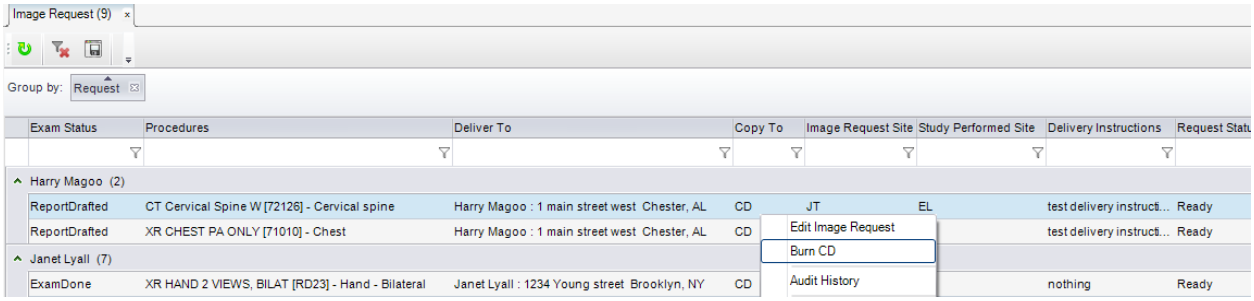



**Figure 5.7 – Image Request work list**

Access from Patient Folder work list:
From the Patient Folder work list the user can select a single or multiple studies. The Burn CD option is also in the context menu. When the Burn CD window opens the Deliver To information will be blank. These fields are not required to be completed. Again the user can decide in the Burn CD window if they want to include all of the studies that were selected.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

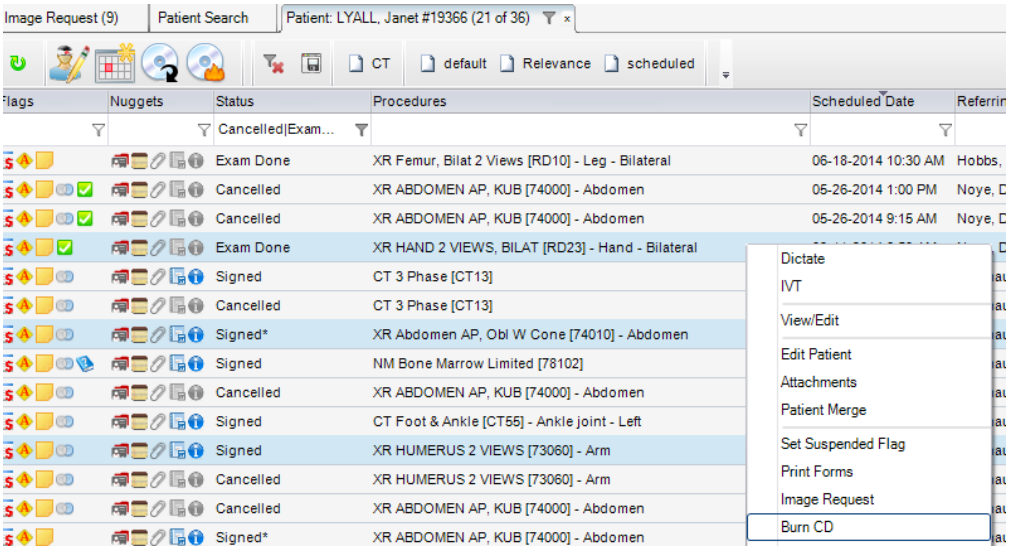



**Figure 5.8 – Patient Folder work list**

Access from Technologist's Perform Exam window:

The Perform Exam window will have access to the Burn CD window via the button of the same name in the lower left corner of the data window.

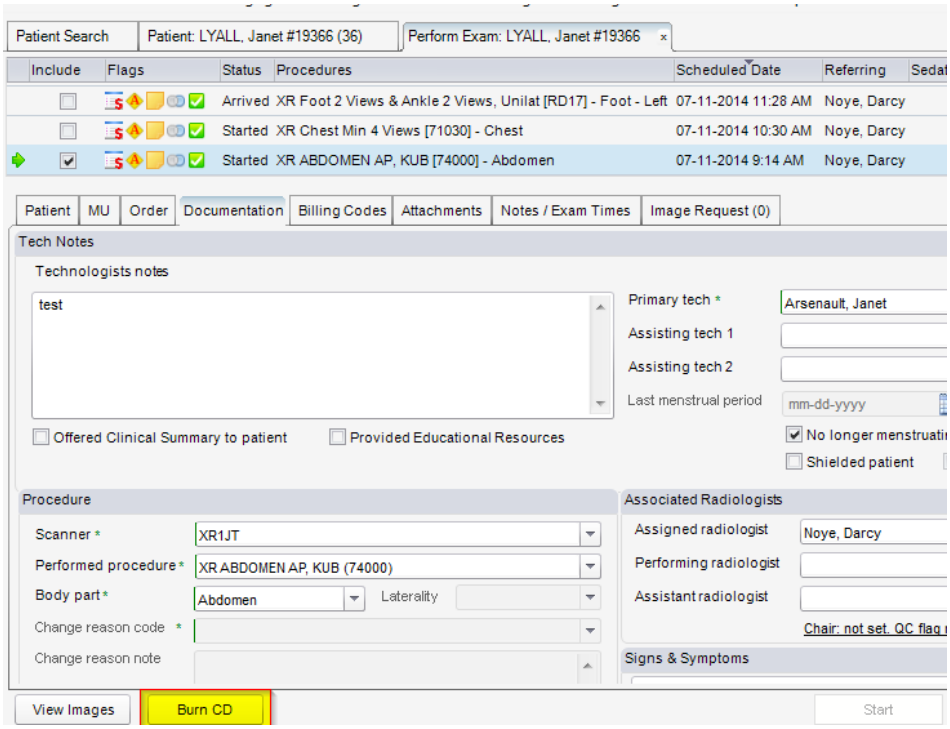



**Figure 5.9 – Perform Exam window**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

As a precaution the user will be prompted with a message from the Perform Exam window to ensure all of the images have been uploaded to PACS.

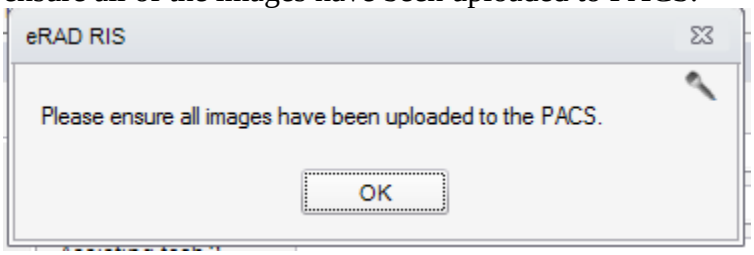



**Figure 5.10 – Message displayed from Perform Exam window when Burn CD is selected**

When the Burn CD window opens the Deliver To information will be blank. The user will have the option to select additional studies to burn that have been completed for that day.

Burn CD window:

The Burn CD window is the main dialog for this feature. It shows all the studies that were selected in the Image Request WL or Patient Folder WL (the exception is the Burn CD from Perform Exam) and allows you to uncheck items to exclude them from the CD. The checked items are included in an Image Request level lock so that if another user tries to export the same Image Requests they will be notified that another user is processing that request.

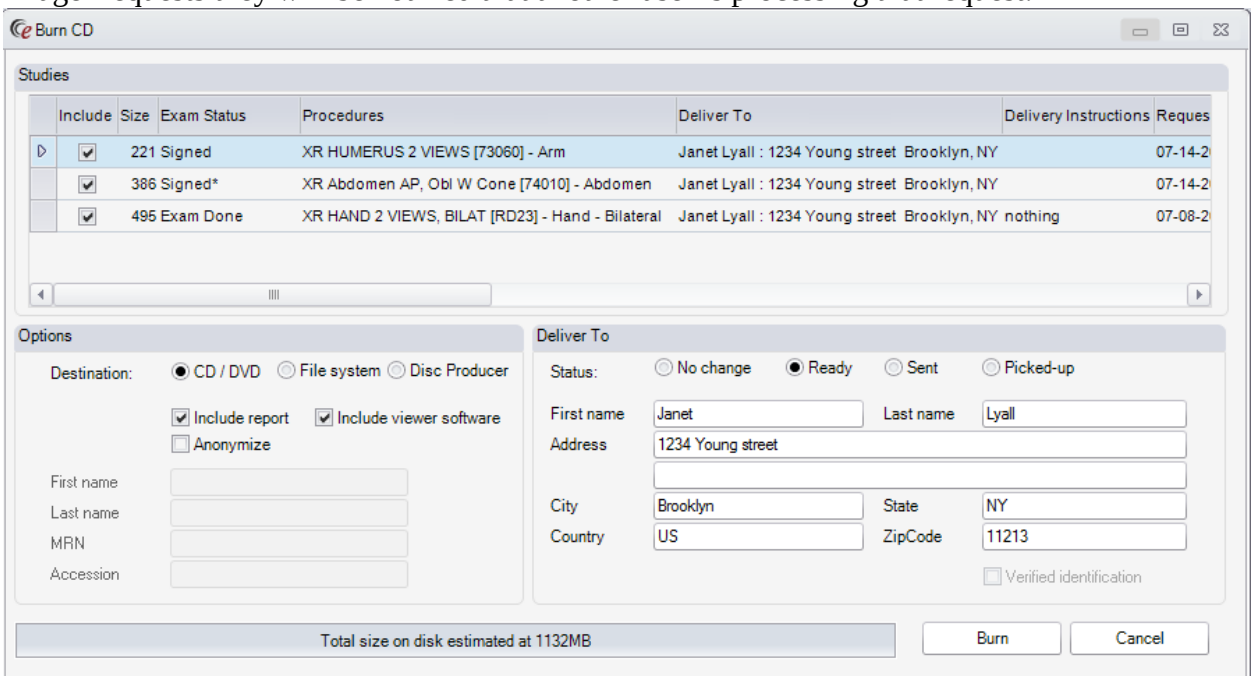



**Figure 5.11 – Burn CD window**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

If actioned from the Image Request WL, successful burns will remove the selected studies requests from the WL.

Images for the selected studies are requested from PACS and the contents are written to the specified media type. If the media type is "CD/DVD", the contents will be written to the local burner. If the media type is Filesytem or Disc Producer, the contents will be written to the directory chosen. For disc producer the file format written is specific to the Epson JDF file format. After the JDF file is created, the progress can be monitored via the Epson TD Bridge software. The RIS will do an estimated size of the images to be burned.
When the Burn CD window opens, it queries each of the Requesting Site's local child PACS servers. If it does not have the study, it then queries the Practice's PACS WL server. The goal of this query is:

1. To obtain an approximate size of the study data
2. To identify which server has the images

The figure above of the Burn CD window shows the approximate sizes and in the progress bar area a total estimate of the size on disc.

If it exceeds 680MB it will present the user will message informing that the estimated size may not fit on one CD.

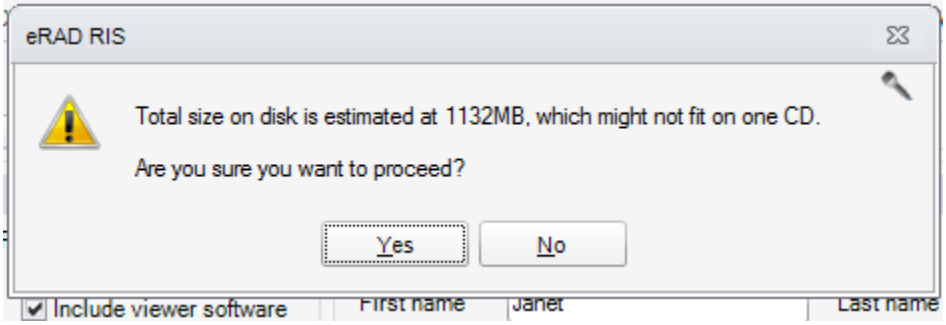



**Figure 5.12 – Are you sure?**

If they are actually burning to a DVD media, they should ignore this message and click "Yes" but if they only have CD's then they will need to click "NO" and include fewer studies.
If all of the selected studies are on the local child PACS server then the request for the CD contents will be made local. But if one or more of the studies are not local the request will be made to the practices PACS WL server.

When the media is successfully burned, the status and deliver to information for the "included" image requests will be updated. And before and after audit messages are written to the Audit log. The description in the audit entry is basically the entire contents of the CD's Readme file, which includes unique identifiers and even the CD's checksum.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

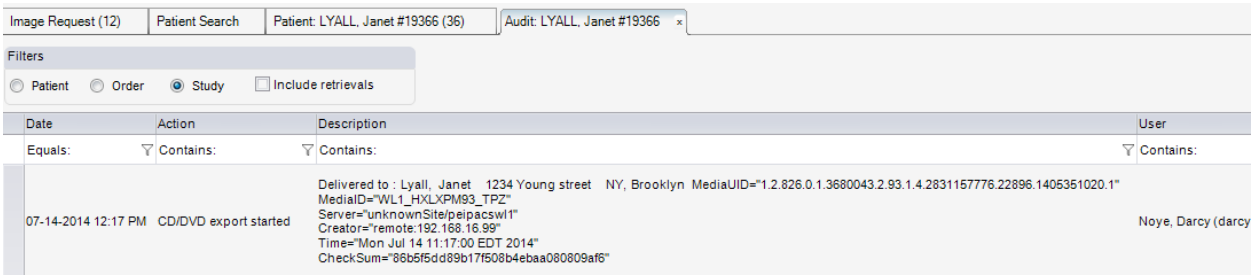



**Figure 5.13 – Audit history**

Change to Image Request:

With B43, when creating an image request there is a new required field "Requesting site".

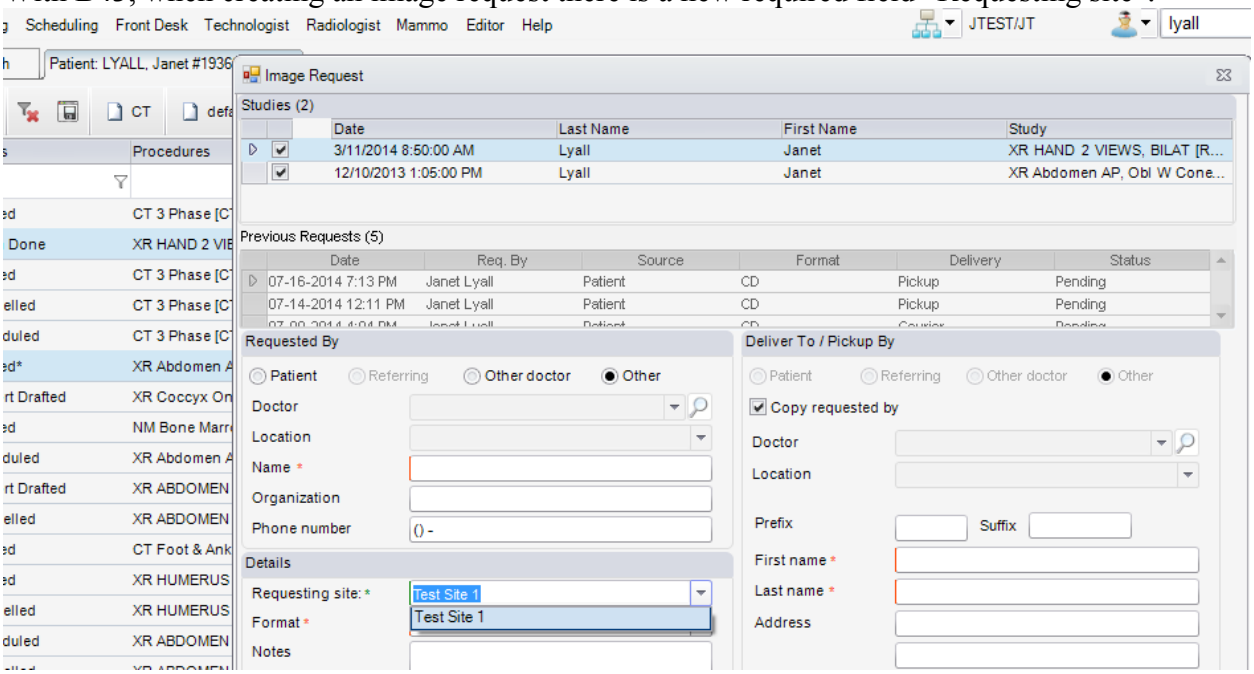



**Figure 5.14 – Image request has new required field of Requesting site**

The "Requesting Site" value is the site used when showing the Image Request WL. So when looking at the JTEST/JT WL as shown in the following screen shot, you see all the image requests that need to be completed at JT. Previous to B43, the JT WL would only show the image request's needed at a site such as JT if they were performed at JT.

We also changed the work list so (by default) it groups Requests by Patient, Meida Format and Deliver To. In the following screen you can see the default "Request" grouping. If the user clicks on the "Group by:" button the sorting changes between Ascending and Descending (by image request date).

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

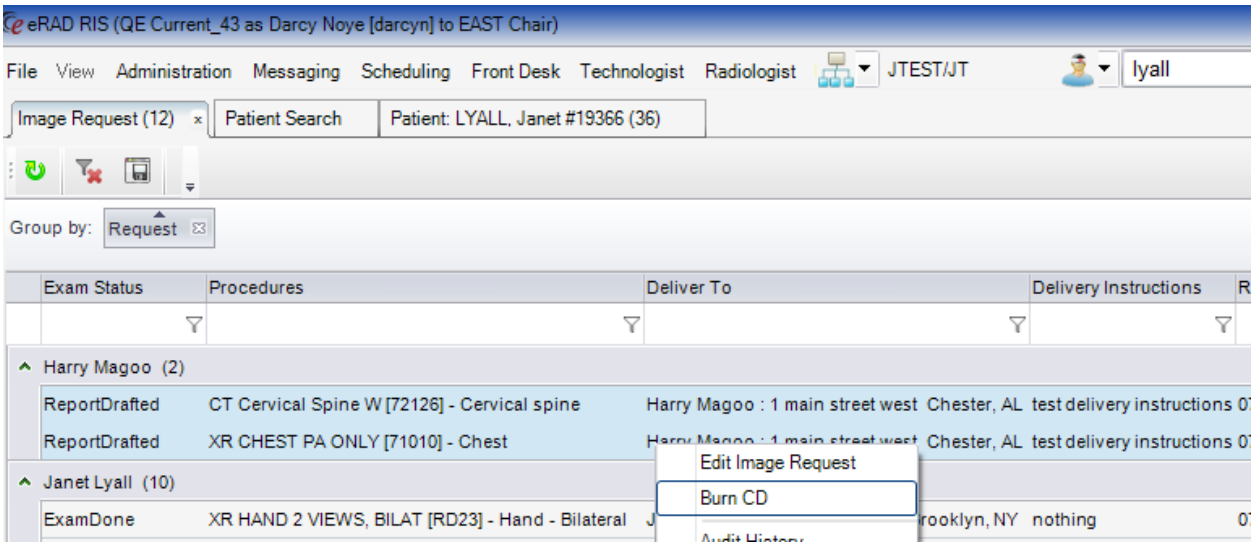



**Figure 5.15 – Image request work list group by Request**

**The remaining will explain how to set up the Disc Producers Epson TD Bridge Server**

When using an Epson Disc Producer you will need to dedicate a PC to host the hardware. On that PC you will need to install the EPSON TD Bridge software. The TD Bridge software and documentation is available at:

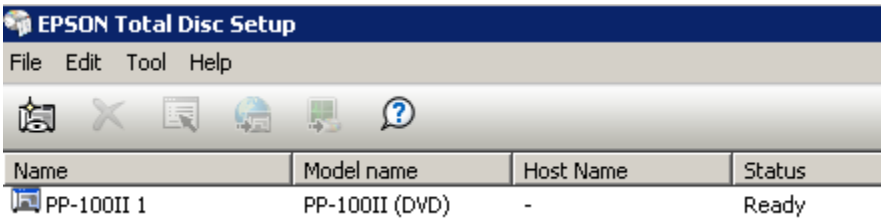
https://www.epsonexpert.com/login

https://www.epsonexpert.com/ee/techRes/index.htm?ProductId=598

In addition to the typical install you will need to:

1. Install the Epson Total Disc Maker Software, either download the latest from Epson or use the install disc that came with the burner.

2. Launch the "Epson Total Disc Setup" utility, which is in your "start/program" menu after the install. Add the local "PP-100" burner as shown in the following:



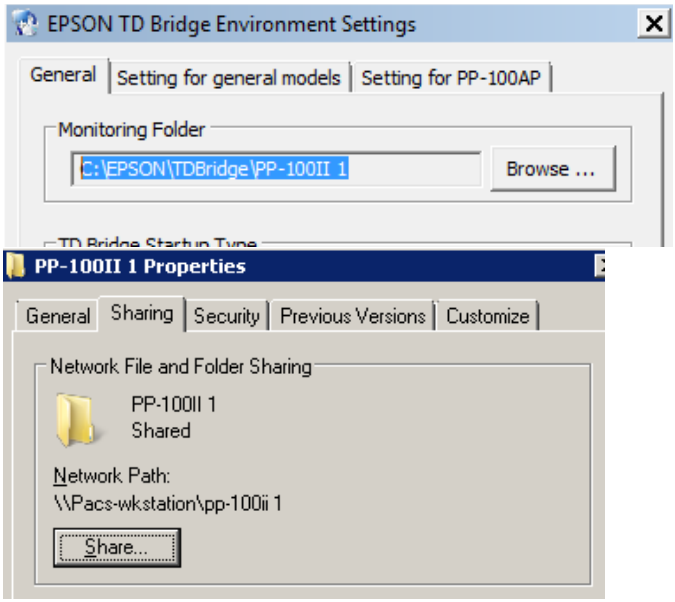

3. Install the TD Bridge software.

4. Launch the program "EPSON TD Bridge Environment Settings"

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

5. Setup the TD Bridge monitoring folder to use a network share, which users will have write access for submitting JDF files and data. Unfortunately, the monitoring folder must be on the host system's hard drive; therefore, will need to share the folder on the Epson Disc Publisher host.

6. **Make sure the subfolder name for that share location is the name of the EPSON Disc Publisher Instance**. For example, in my installation the hardware's name is "PP-100II 1" so:

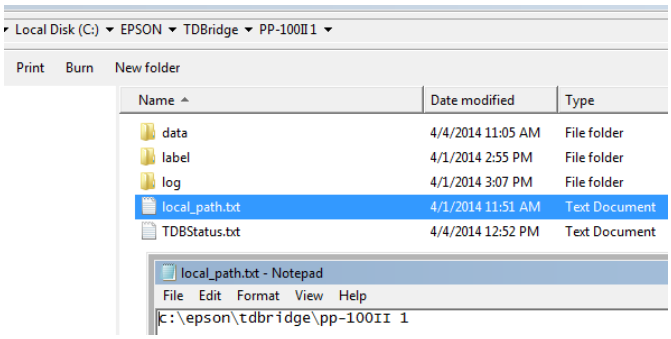



7. Next, create a text file in the share called "**local_path.txt**", which contains the file path to the monitoring folder as seen by the TD Bridge.

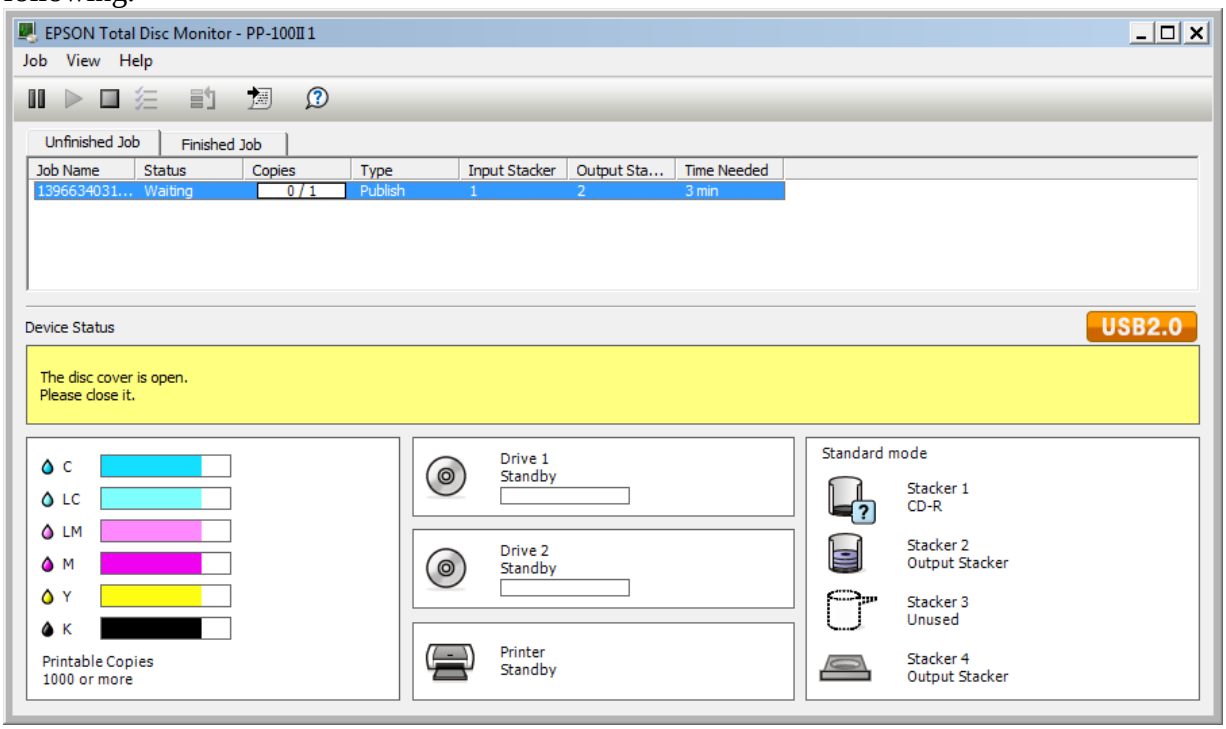
   The reason for this is that users might access the share via g:\Public\PP-100II 1\ but on the server it is actually c:\EPSON\TDBridge\PP-100II 1\ and when the RIS creates the JDF file it needs the actual path as registered in the TD Bridge software

   The following screen shot illustrates what you need to do for this step:

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.




Finally, as an administrator of the TD Bridge host machine, you may want to consider a batch job that cleans up completed jobs and deletes their data.
When a user creates a Disc Producer Job by submitting a CD Burn request via the RIS, a JDF (Epson Job Definition File) will be created at the monitoring location. As the TD Bridge processes that file it's file extension will change JDF → RJD → IMP → STF → DON and if there is an error it will be renamed to ERR. In the case of an error you can re-submit the job by changing the extension back to "JDF" and lookup the error code in the TDBStatus.txt file. You can also monitor the JOB status in the Epson Total Disc Monitor application, which will tell you when you need to put more discs in the stacker or close the door to the device as shown in the following.

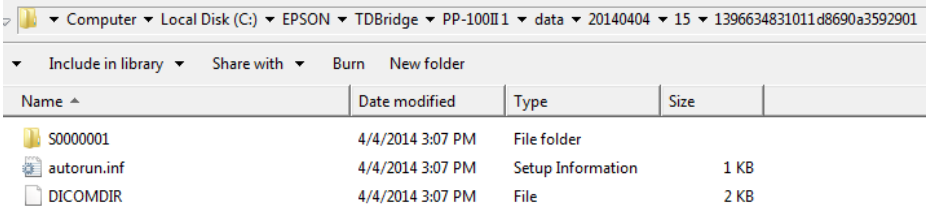



No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

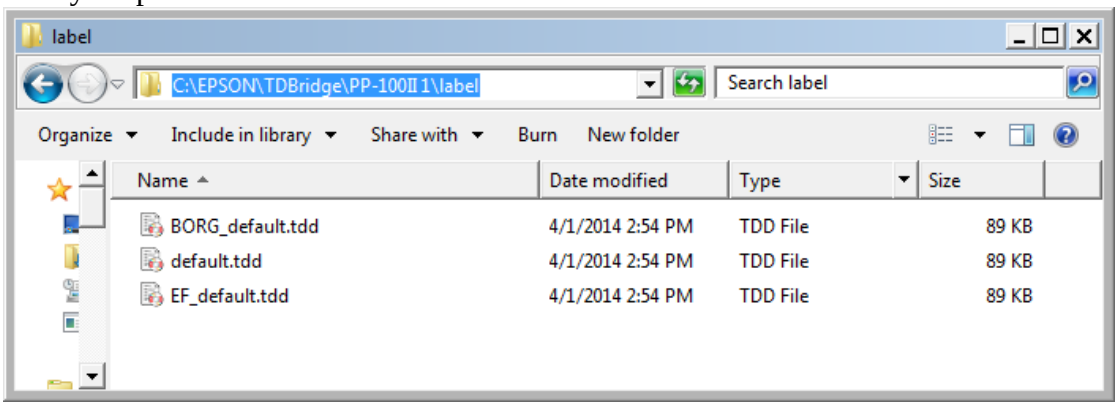
**IMPORTANT:** After the CDs are burned the data for the CD will remain on the TD Bridge share. Over time this will take up lots of drive space and it will be in your best interest to delete/clean out the old data on a daily bases. You just want to make sure the data you are deleting isn't for a job that is in the ".ERR" status.

The data directory is organized by date then by hour, then by JDF file name. The following example shows the job 1396634831011d8690a3592901, which was submitted on April 4th at the 15h and if you look closely at the job id a3592901 represents the accession number of the first study on the CD. The audit log for that study can be used to track down more information about the job.

>> C:\EPSON\TDBridge\PP-100II 1\data\20140404\15\1396634831011d8690a3592901




You can also create a label sub-directory and create default *.TDD files, which will get printed to your CDs. If the label directory and default tdd files don't exist, they will be created the first time RIS submits a job to the disc producer share. You can then edit the default.tdd file to meet the needs of your practice or site.




The fields available for the labels are:

name, patient_id, site_code, site_description, deliver_to_first_name, deliver_to_last_name, deliver_to_address_lines, deliver_to_city, deliver_to_country, deliver_to_state, deliver_to_zip

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

For reference, the following is a sample JDF file:

```
#
# JOB_ID ===  <PacsMediaRequestID>a<RISAccessionNumber>
# you can use the accession number to look at the RIS audit log and see more information about the job
#
JOB_ID=1396634831011d8690a3592901
#
# PUBLISHER === the name of the folder where this job file was written
#
PUBLISHER=PP-100II 1
#
# Only writing CDs, if you need to write a DVD you will need to use an attached burner or
# change this to DVD and change the job extension back to JDF
#
DISC_TYPE=CD
COPIES=1
FORMAT=ISO9660L2
#
# Note: location of data/label is relative to the share/UNC path that was used by the RIS user.
#       If you would like to use another path specific to the local TD Bridge software,
#       create a file named local_path.txt in the DiscPublisher share.
#       It should contain the full path to the share location as accessible by the TD Bridge software
#
DATA=c:\epson\tdbridge\pp-100II 1\data\20140404\15\1396634831011d8690a3592901\
#
# Fields available for the labels are:
#           name,patient_id,site_code,site_description,
#           deliver_to_first_name,deliver_to_last_name,deliver_to_address_lines,
#           deliver_to_city,deliver_to_country,deliver_to_state,deliver_to_zip
#
LABEL=c:\epson\tdbridge\pp-100II 1\data\20140404\15\1396634831011d8690a3592901_label.tdd
```

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## County Option for Radiologist Signing Location

Option to select the County for the Radiologist is controlled by a new system configuration setting titled **"EnforceCountySelection"** with a default of False.

If set to False, the application will behave as before and the user will not be required to select a county before dictation. If the site is Chair enabled at the practice level they will still be required to select a Chair, but the County and Zip Code options will note be presented.

If the site is not Chair enabled but requires County based on the above system configuration setting, they will be presented with a window that will allow them to select a County. They can also enter a Zip Code to shorten the list or select the County automatically. The following window is presented on login. The value entered is remembered on a workstation bases.

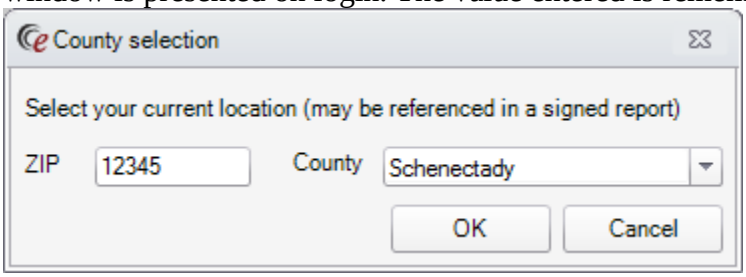



**Figure 5.16 – County selection window prompt**

If "EnforceCountySelection" is true and the chair workflow is enabled for the practice, then the chair selection dialogs with the additional county fields will be displayed

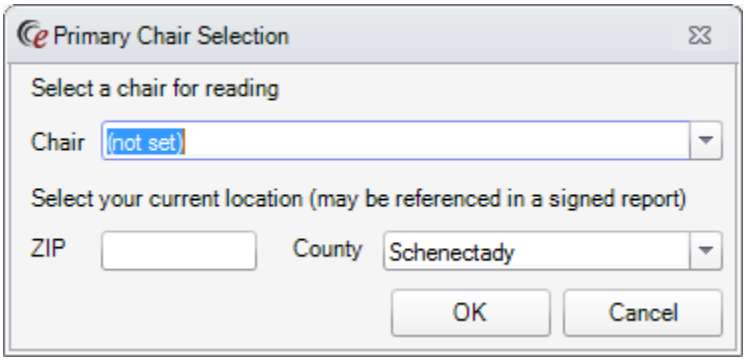



**Figure 5.17 – Chair selector with Zip and County fields**

If the user preference "Use detailed chair selector" is on the user will be prompted with the detailed chair selector window

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

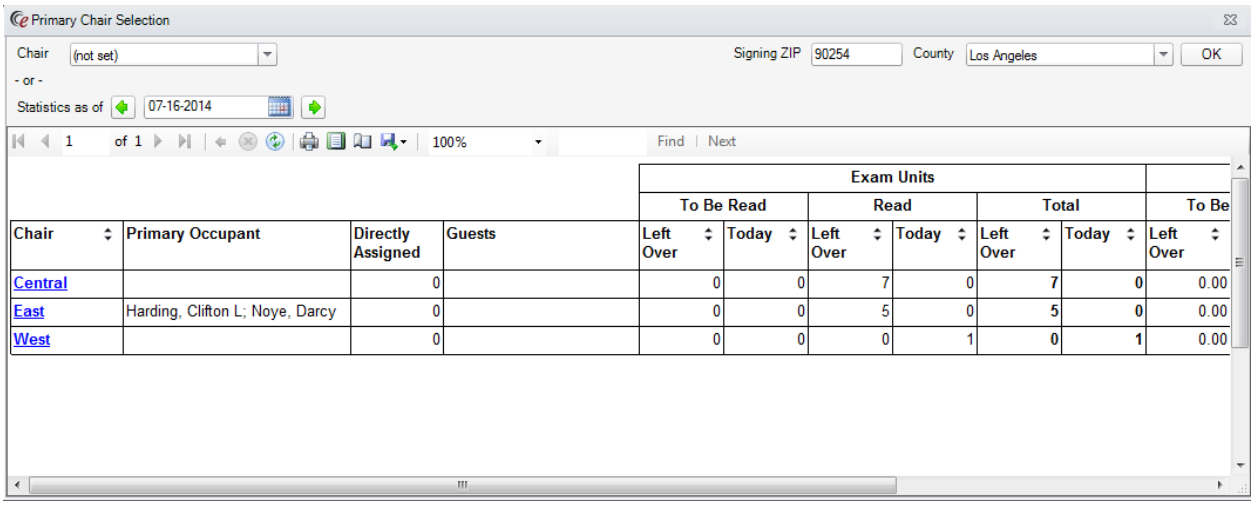



**Figure 5.18 – Detailed chair selector**

If the county selection is enforced, the county that is set at the time of signing is saved to the interpretation table's "signed_county" column.

If Chair is not enabled for the current user but county is enabled, a new status bar icon will be displayed allowing the user to open the County selector.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

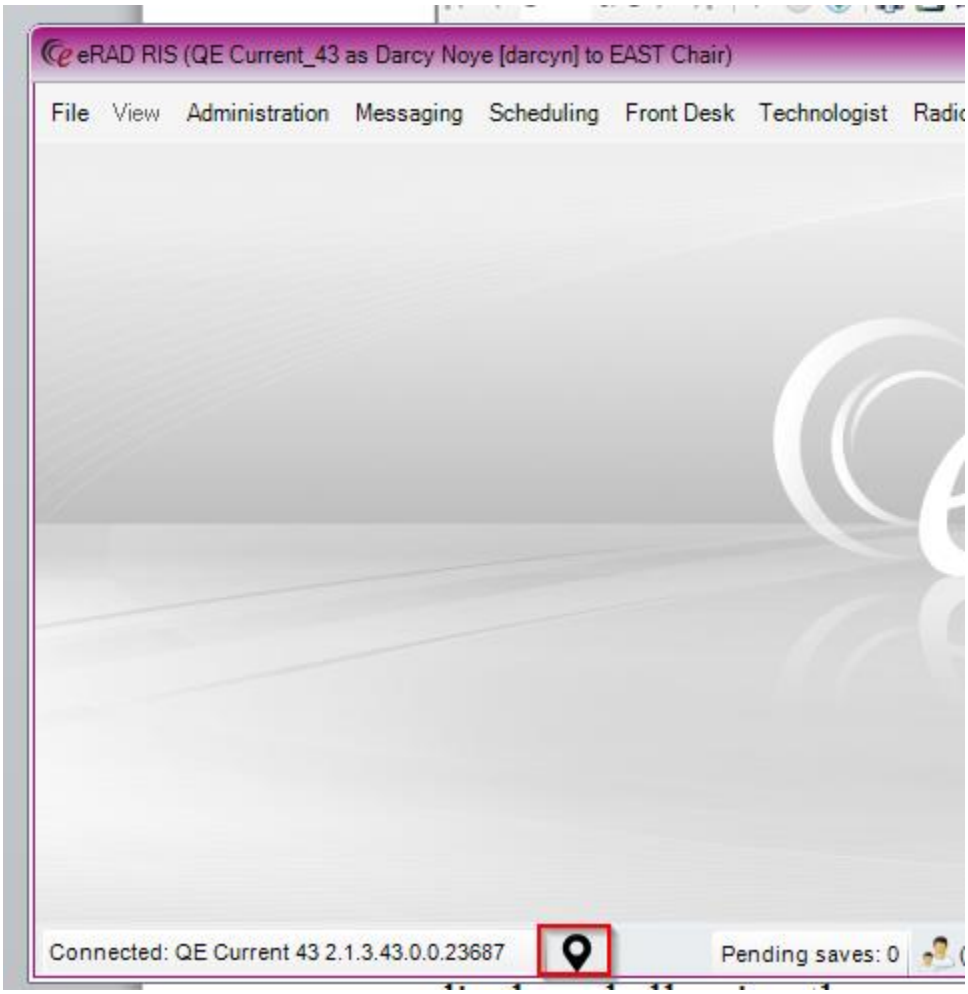



**Figure 5.19 – County selector**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# IVT – Ability to Edit Patient Information

Previous to Build 43, users had to access the Patient Folder – View Edit to alter patient information on the Patient tab. Now the patient tab is editable from the IVT window.

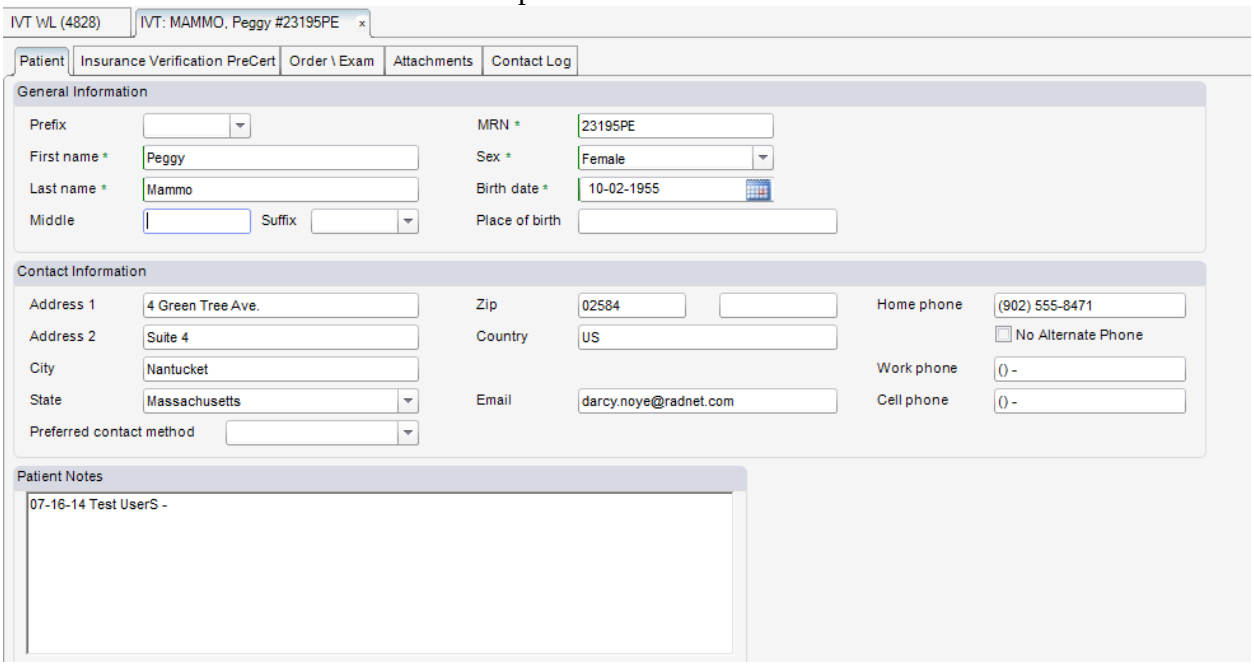



**Figure 5.20 – Patient tab fields editable from IVT window**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## ICD10 Support

To support ICD-10, the RIS code table that current contains ICD9 must be upgraded to support ICD-10 and other coding schemes as necessary. A new table called l_indication that is similar to the current l_indication_code has been created. The new table employs a composite key consisting of coding scheme, release date, and code. Rather than the code itself being the primary key, a numeric primary key exists instead. This approach requires that any place in code/XSLT etc. that refers to the indication code explicitly must be updated to perform a reverse lookup to find the code/coding scheme based on the numeric key.

ICD10 codes can be downloaded from
http://www.cdc.gov/nchs/icd/icd10cm.htm#icd2014
Choose the ICD-10-CM XML Format Option

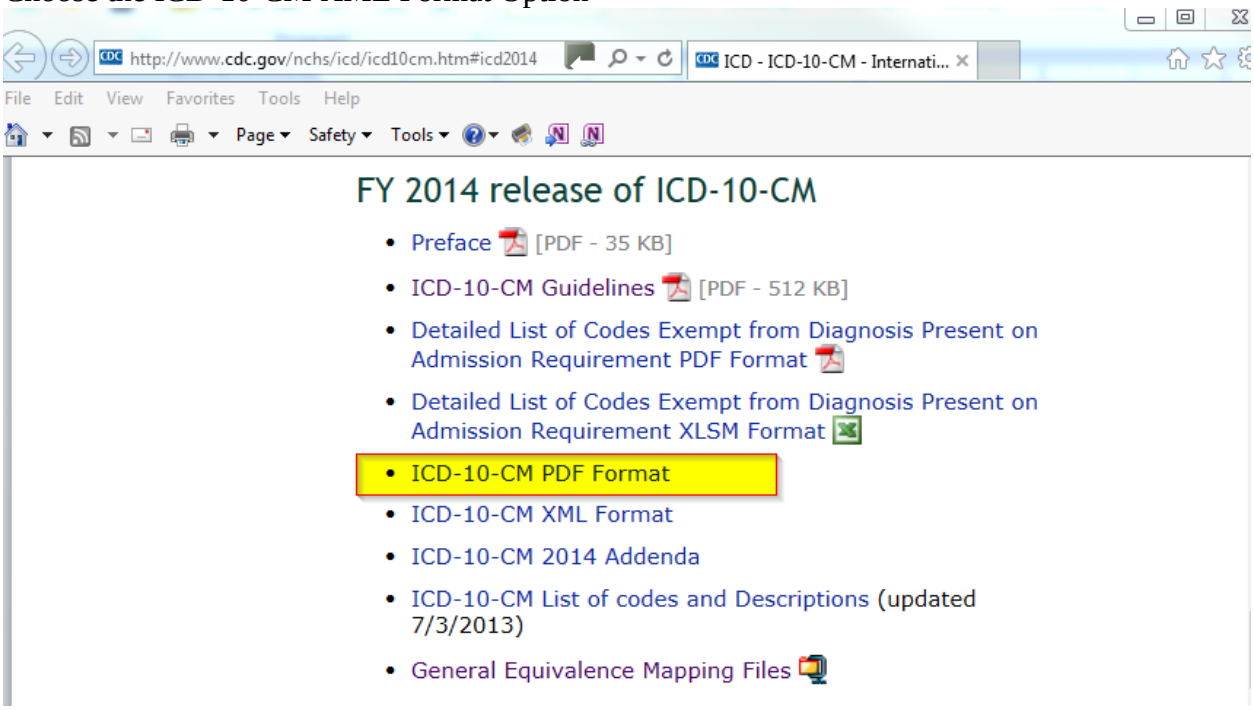



**Figure 5.21 – ICD-10 download**

This XML import file contained roughly 45,000 rows of ICD-10 Clinical Modification (CM) data. Procedure Coding System (PCS) that is also available seems to be for other purposes and not necessary for ICD-10 support. To manage importing of new versions of ICD-10, the indication code lookup has been enhanced with an "Import" button and associated screen for importing only rows in the import XML that do not already exist in the l_indication table. The placement of the "Import" button on the Indications lookup is shown below.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

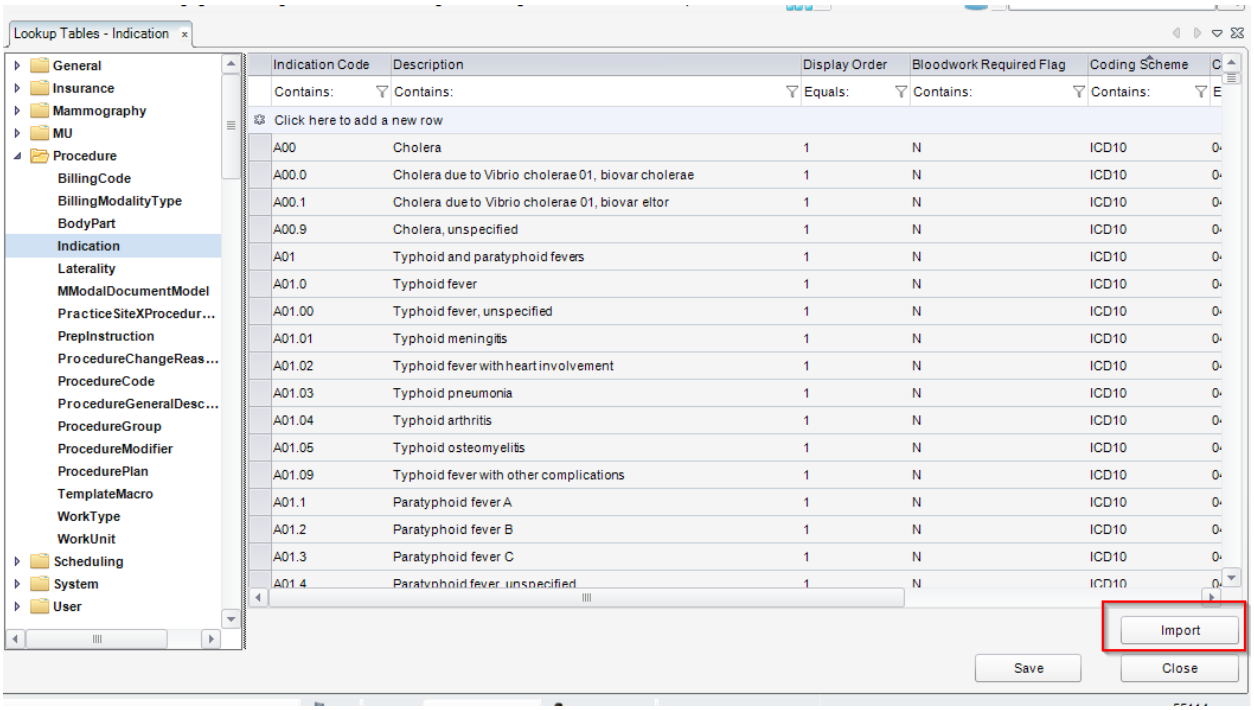



**Figure 5.22 – Indication table with option to Import codes**

To Import new codes select the "Import" button and this will present the Import ICD10 window.

Select the ellipsis button next to the File field. Locate the directory where the XML file was saved. With this folder select the ICD10CM_FY_Full_XML_Tabular.xml file (NOTE: this file will change as new versions are released. It will be the responsibility of the site to continually update with newest codes).
The File path will not be populated. Select the Load XML button. At this point, the user can enter keywords as required. Only the codes that are missing from your current indication list will be imported. In my example I was only missing ICD10 code A22.9, so this is the only one available for download. The "include" column is checked by default. Once editing is complete and all rows that are needed are checked, the "Import" button can be selected. Before selecting the Import button you can also change the effective date.

After import of new rows, RIS must be closed and re-opened for the newly-imported rows to be available in the lookup editor.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

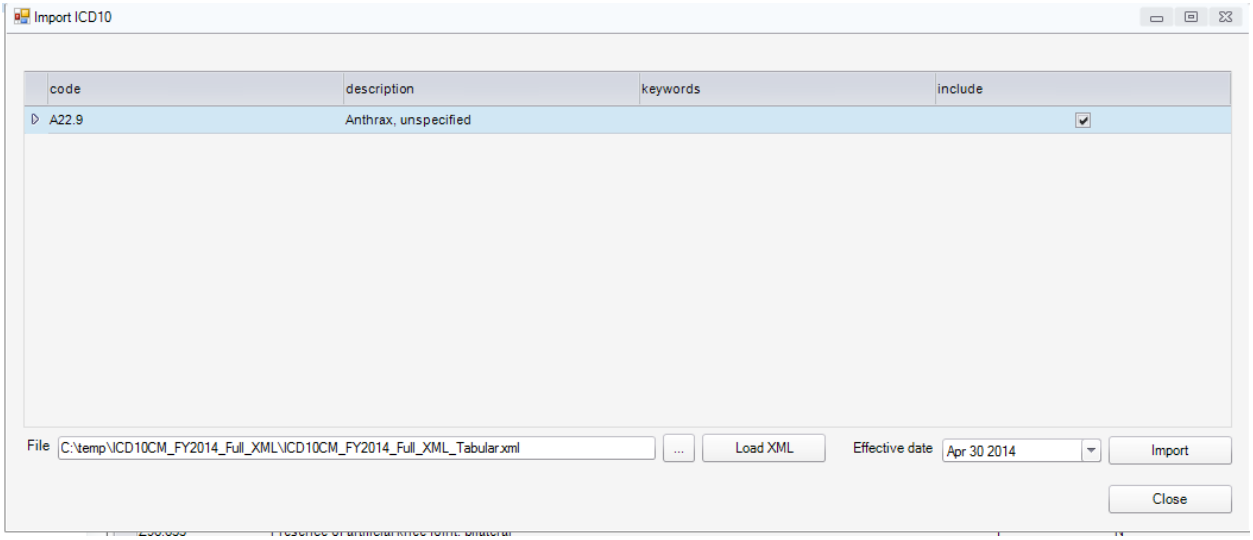



**Figure 5.23 – Import ICD10 window**

## Searching for ICD Codes:

The ICD Codes dialog facilitates searching and filtering of ICD codes in the Indication table. The form contains a textbox for the reason for the exam (from the Order tab) and then the search/results section.

ICD search can be performed from many areas of the application. A general search of a code can be performed from the 'Quick Search" field in the upper right corner of eRAD RIS.

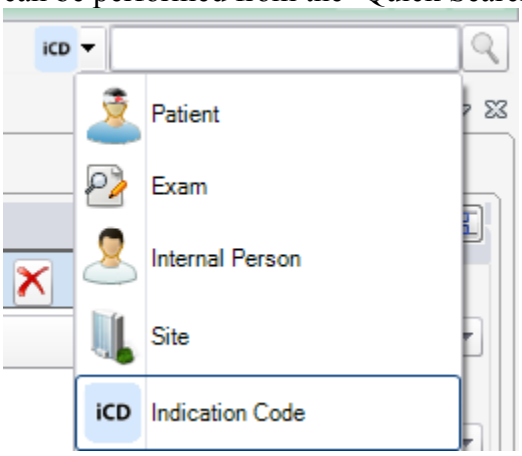



**Figure 5.24 – ICD Quick Search**

Enter the code or description in the field or leave it empty and select the search button to open the ICD Codes window. From this window you can select the Type of code being search for, this

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

can be a combination of ICD9 and ICD10. There is an option for SNOWMED codes, but by default there are no SNOWMED codes included. The box can be checked, but no data will be returned. By default, ICD9 will be checked until the date value in the System Config's **"ICD10EffectiveDate"** whereby ICD10 will be checked by default when the window opens.

Entering a partial or full code number or description will return the results. The search results will display the Code, the Type of code and the Description.

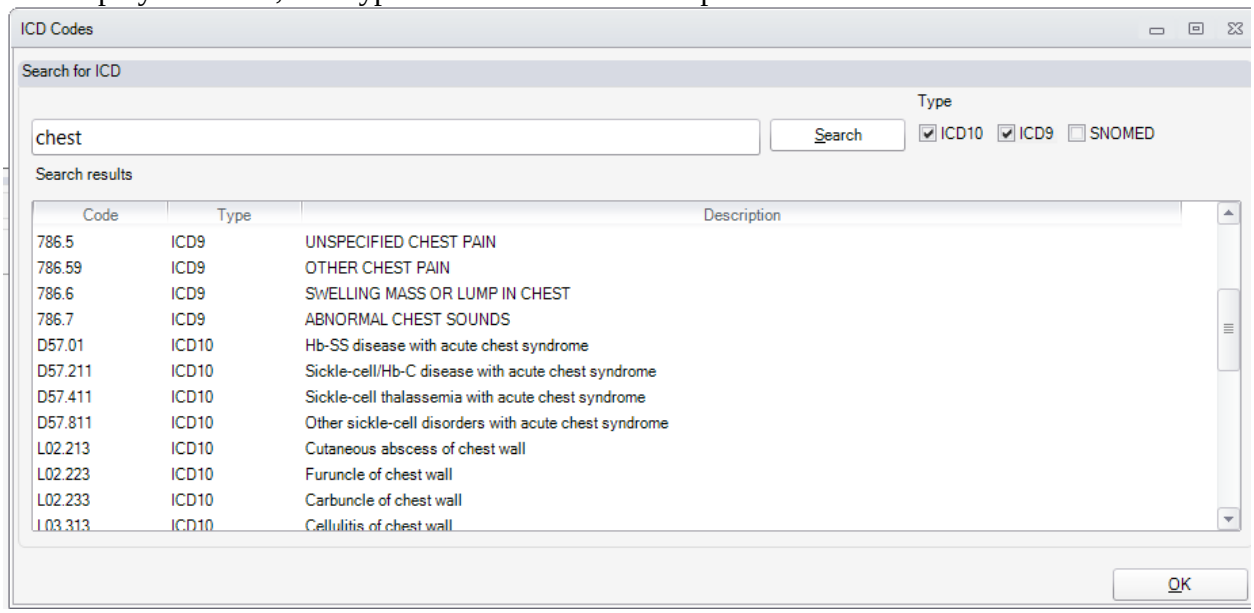



**Figure 5.25 – ICD Codes search window.**

From the Scheduling\Registration\Walk-In windows the user can add Indication codes. The window is accessed on the Schedule\Exam tab, with a new button labeled ICD on the procedure picker row. The button is enabled after the Study is entered. This button is controlled by new access string **"Clinical.Schedule.AssignIcdCode"** with a default of none.

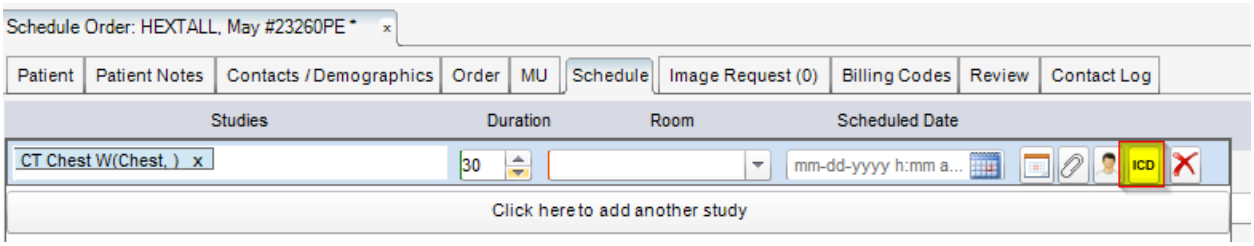



**Figure 5.26 – Add Indication code in Scheduling**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

When the ICD Codes window opens, the Reason for exam will be pre-populated from Order tab. Perform search and from the Search results you can double click a row to insert in the selected codes section of the window. Multiple codes can be entered. When finished, select OK.

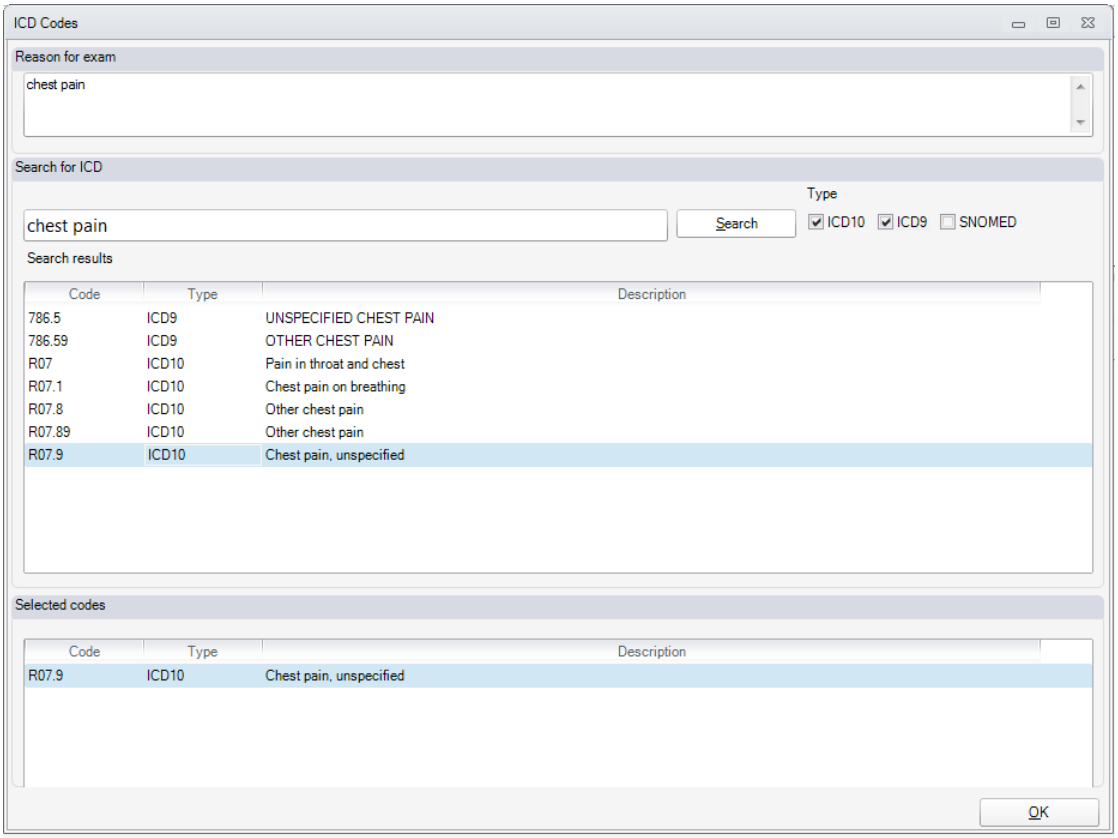



**Figure 5.27 – ICD Codes window accessed from Scheduling\Registration\Walk-in windows.**

In the Technologist workflow, and in View/Edit, The Documentation tab contains two grids that display the ICDs captured up to exam done, and those captured by the radiologist. The buttons to the right of each grid are enabled based on whether the current context should allow editing.
If the new access string titled **"Clinical.ViewEditCanChangeTechIndications"** Is set to full then the Indications button is enabled allowing changing of indications set up to Exam Done.
It can be enforced that a code must be entered by the Tech is the system configuration setting of **"TechMustProvideIcdCode"** is set to True. The default is False
If the new access string titled **"Clinical.ViewEditCanChangeDiagIndications"** is set to full, then the Diagnostic Indications button is enabled, allowing changing of indications set by the radiologist.
The default for both of the above mentioned access strings is none.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

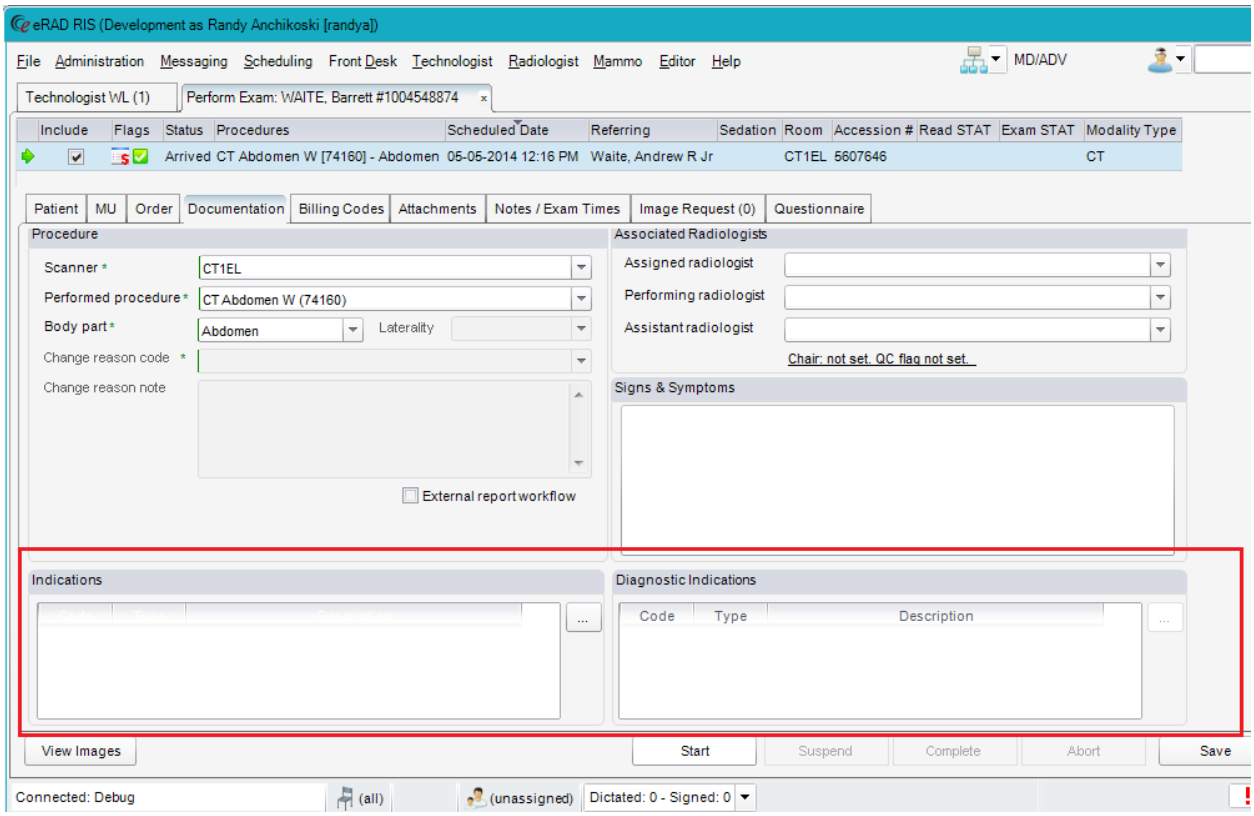



**Figure 5.28 – Indication grids. Left for Technicians and right for Radiologist**

# IMPORTANT: Radiologist ICD Support Uncomplete

**The Radiologist portion of this feature is not complete. It is recommended that the system configuration setting "**RadMustProvideIcdCode**" be left to the default of "False" and the access string of "**Clinical.ViewEditCanChangeDiagIndications**" be left to the default of None.**

The Reporting window also has a new ICD button. The button is enabled with the system configuration setting of **"RadMustProvideIcdCode"** that has a default of False. This button will open the same ICD Codes search window. The data for the indications defined here are saved to c_interpreation_indication.
For the Radiologist to view the Tech workflow defined ICDs, viewing the Exam Details from the View menu will display indications defined in that workflow.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

On the MU tabs Medical History pane the problem codes added are ICD codes and the same search window is provided allowing the user of both ICD9 and ICD10 codes. The user can select the search icon in the problem field o the Medical History grid to open the ICD Codes window, or can enter partial or full value in the problem field and search.

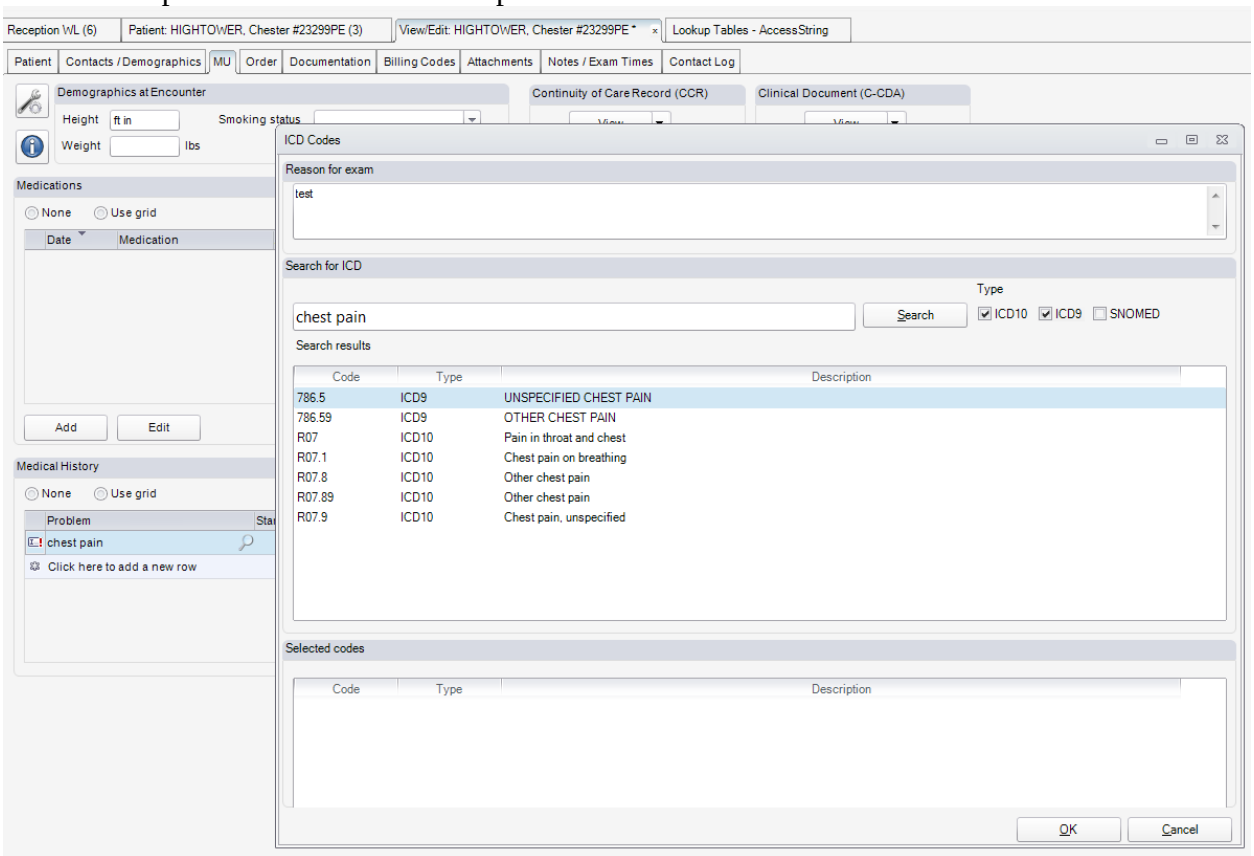



**Figure 5.29 – MU ICD Code search**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Secure Messaging

Secure Messaging has been added in Build 43. This allows RIS users to send secure encrypted messages to other users in the RIS and also to patient that can access the message via the Patient Portal.

To start a new Lookup table titled MessageGroup was created and located under the General list of lookup tables. Columns of the table include the Message Group Code, Description, Display Order, Last Updated and Active column.

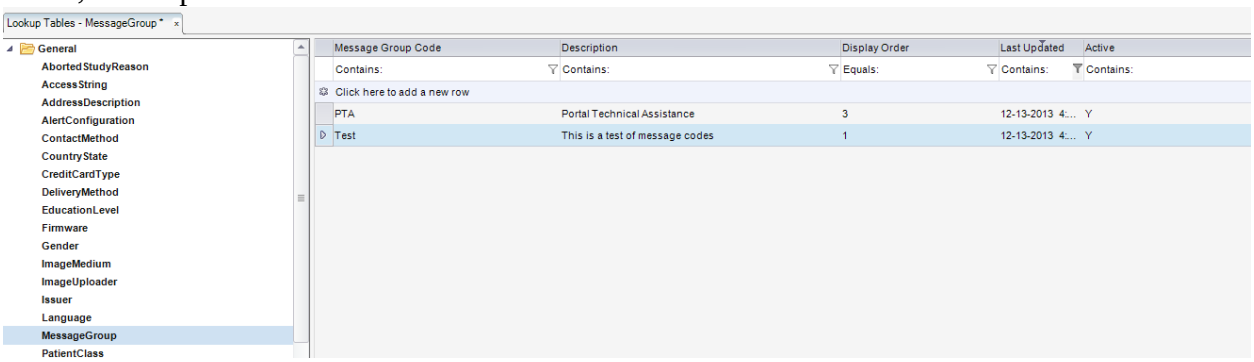



**Figure 5.30 – Message Group lookup**

Values entered in this table will appear in a new field in the Personnel editors Account tab. This field is similar to the other fields on this tab. It is a type ahead field that can contain multiple values.

Having the messaging groups would allow a patient to send a message to a group if they don't know an individual to send it to. The RIS users who have access to this group would then get the messages.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

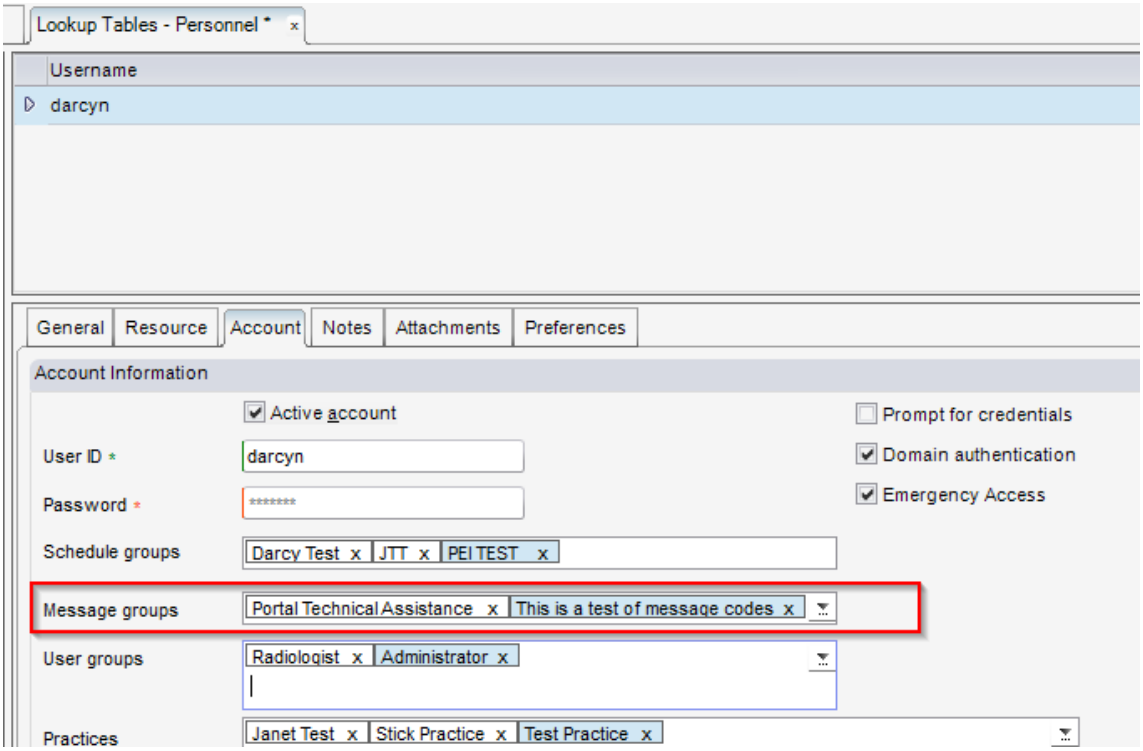



**Figure 5.31 – Assigning message groups to users**

From within the RIS messages are sent/received from under a new Menu option titled Messaging. The Messaging work list access is controlled by access string **"Config.MessageInbox".** This access string also controls access to the Menu option of Secure Message Inbox that is under this Messaging menu. Default is none.

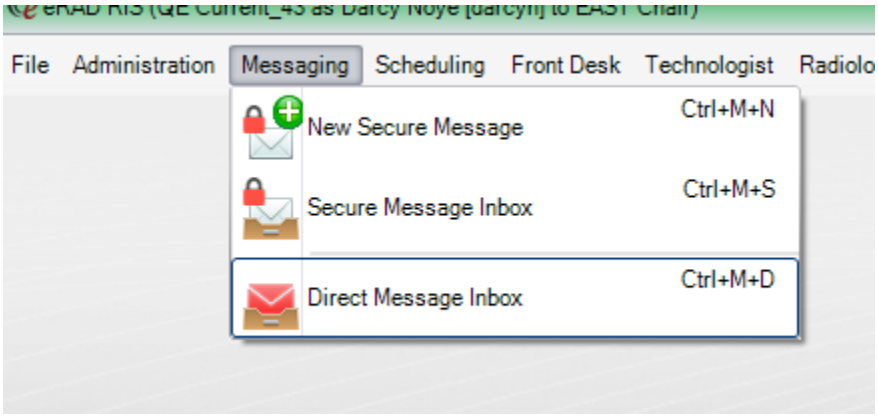



**Figure 5.31a – Message menu and menu options**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

To create a new message select the menu option of New Secure Message that is controlled by the new access string of **"Config.CreateMessage"** that has a default of none. In this window the user can select to send to one of the messaging groups created, or they can send to a patient or another RIS user. The other RIS user would also need access to the Secure Messaging in order to receive the message in their inbox.

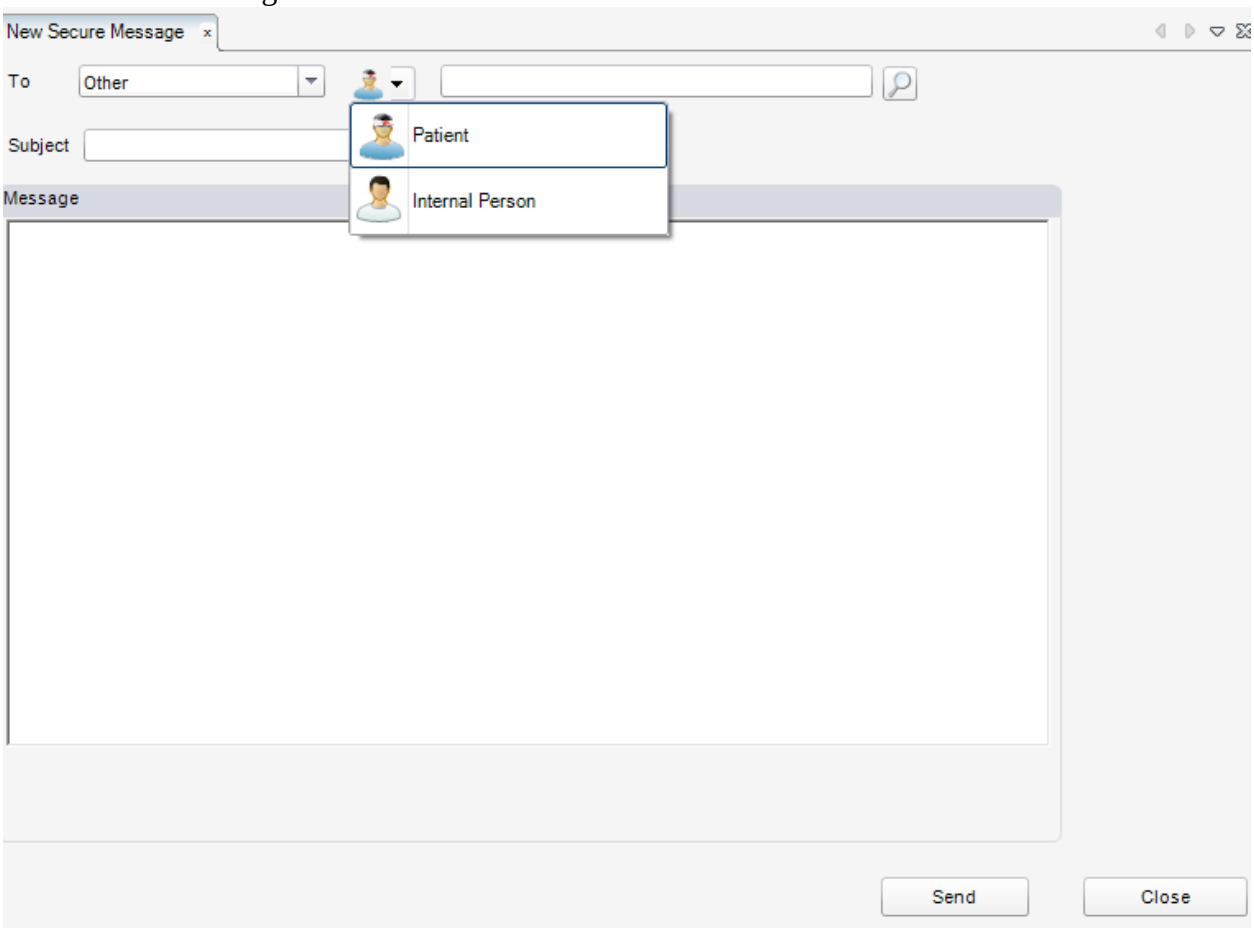



**Figure 5.32 – New Secure Message**

The RIS user can search for a patient or internal person, enter a message and send.

Messages sent to the user can be viewed / reviewed in the Message Inbox. This is accessed from the menu option Secure Message Inbox. Columns of Subject of the message, if the message has been Read, if the message has been replied, Date Sent, Date Read and From and To columns.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

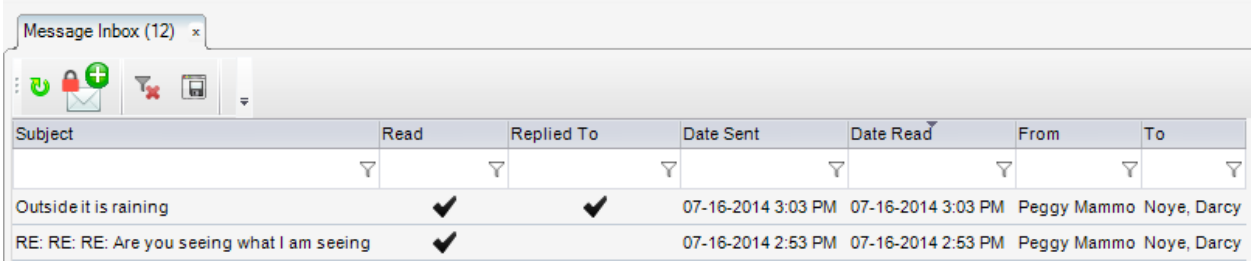



**Figure 5.33 – Secure message inbox**

The Direct Message aspect of this menu will be covered later in this document with the Meaningful Use updates.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Patient Portal Legal Documents

Legal documents were required for the Patient Portal. A new lookup table was created titled LegalDoucment that resides under the System folder of the Administration>Configure menu.

Document types that can be created include:
Terms and Conditions
Privacy Statement
Notice of Privacy Practices
Patient Portal Terms and Conditions
Patient Privacy Notes
Patient Service Agreement
Patient Consent Agreement

The user can define the Document Title and the Description of the Document to be displayed in the Patient Portal.

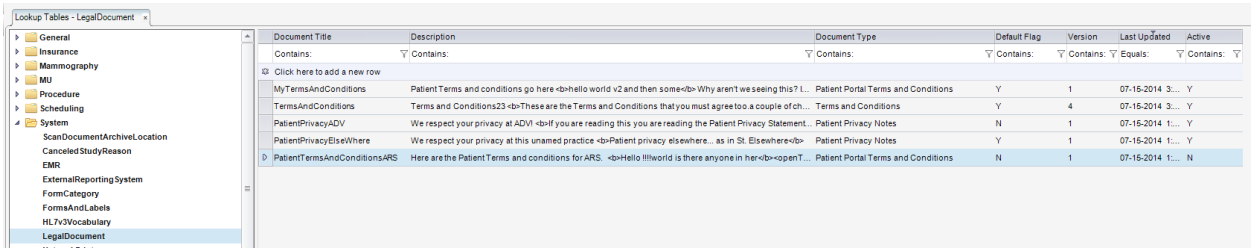


**Figure 5.34 – LegalDoucment look up**

Each type is allowed to have one default of that type, which would be used in the case when a practice cannot be determined or the practice does not have the desired legal document.

The Add\Edit Practice window accessed from the Organization lookup can have Legal Documents defined for a specific practice. Select the Portal tab and use the type ahead feature to add the legal documents.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

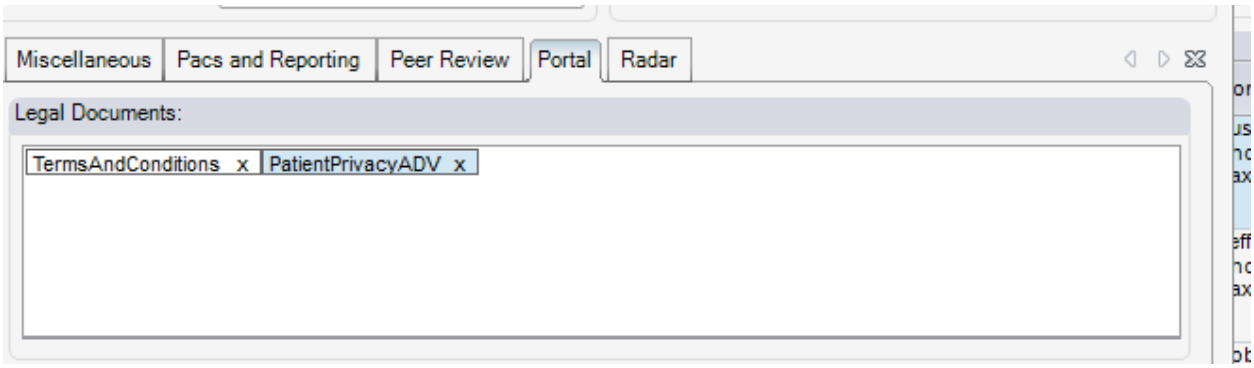



**Figure 5.35 – Legal document specified for a practice**

When logging into the Portal the system will check to see if the document has changed based on the last updated date, and display to the user before they will be able to access the site, if they have already approved that version then the site will load as normal.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Mammography – Suggest Manual Review

Manual review has been addressed by adding a new column to the Mammo Letters WL. The column titled "Suggest Manual Review Reason" will display reasons for a manual review.
If the patient has multiple follow up orders that have not been scheduled the column will inform the user.

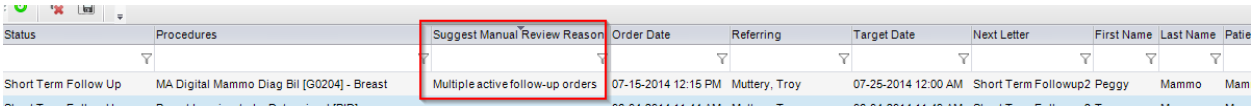



**Figure 5.36 – Mammo Letters work list displaying new column for patient with multiple follow up orders.**

If the patient has a follow up letter on the Mammo Letters WL and the patient has another mammo exam scheduled within 30 days of the target date of the follow up, this column will also inform the user with a reason of another breast exam.

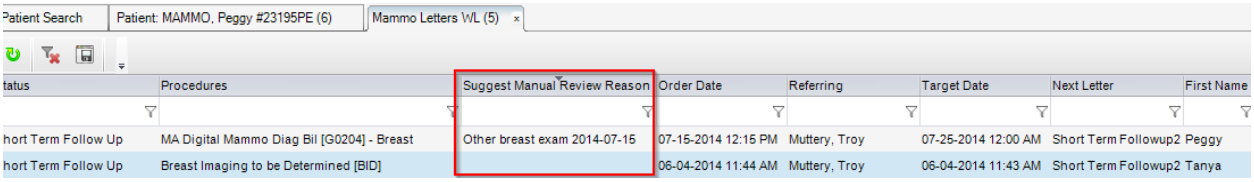



**Figure 5.37 – Mammo Letters work list displaying new column for patient with a breast exam scheduled.**

Also from this work list the user can access the Patient Folder and Cancel Order from the context menu.

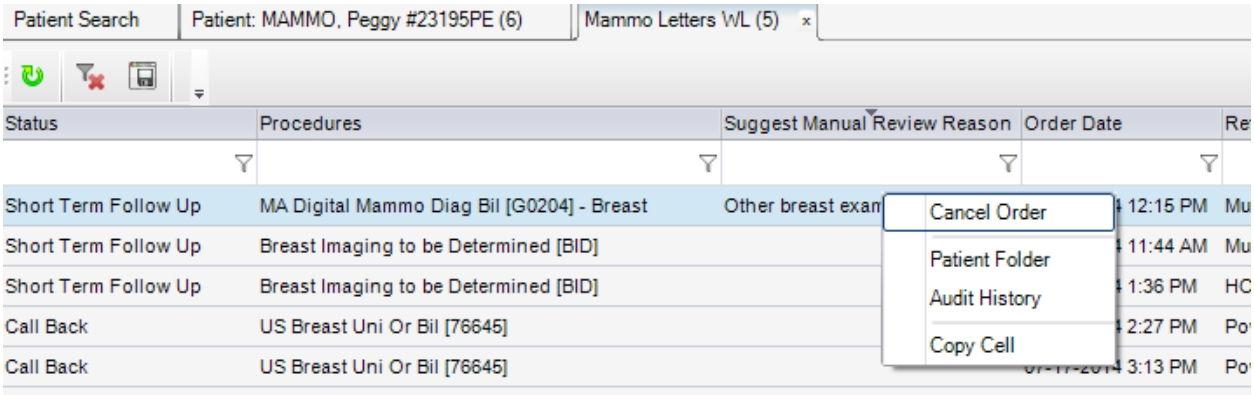



**Figure 5.38 – Context menu options from Mammo Letters WL**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Option to Not Allow Editing of Billing Codes by Technicians

Currently in the RIS we have an option on the procedure code that will allow\disallow the editing of the amount of units for a billing code. This works great for billing codes that are associated to the procedure, but doesn't prevent the tech user from adding a different code and change the units.

For this we have added a new column on the Billing Code table titled Allow Edit Units Flag. If the value of this column is set to Y the user will be able to edit the value on the Billing Code tab of the Perform Exam window. Alternately, if it is N, the user will be prevented from changing the unit value.

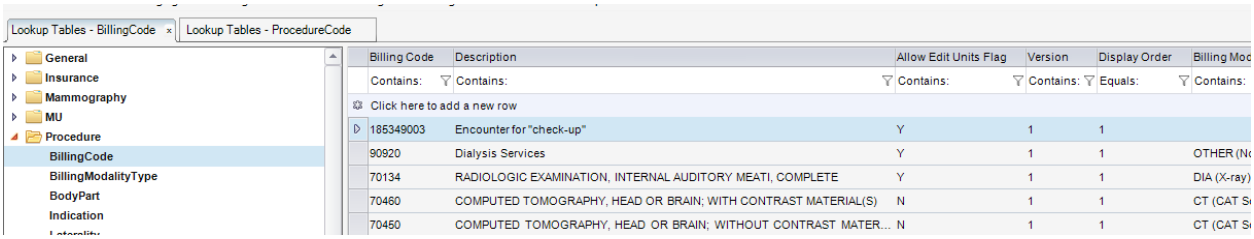



**Figure 5.39 – Billing code lookup showing new column Allow Edit Units Flag**

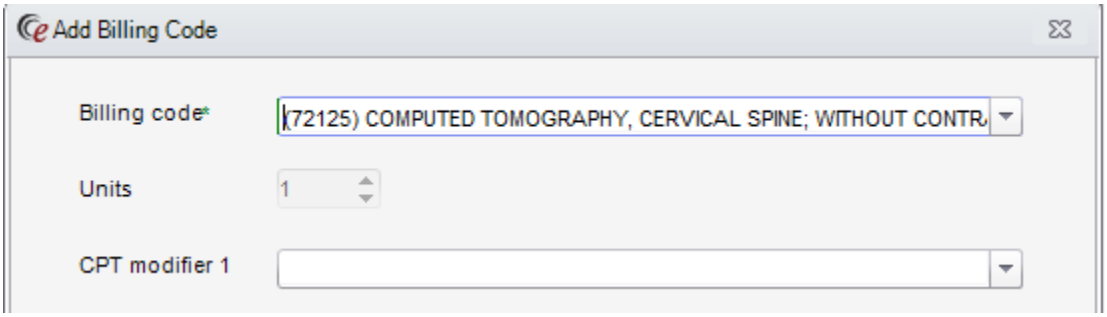



**Figure 5.40 – Unit that cannot be edited**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Patient "Not Yet Menstruating" Flag

In the Perform Exam window there was a flag of No longer menstruating that would disable the LMP and Pregnant fields. For cases of patients that have not starting menstruating but were over the age in which we active the LMP and Pregnant fields, there was no mechanism to disable.

We have added another flag of "Not yet menstruating".

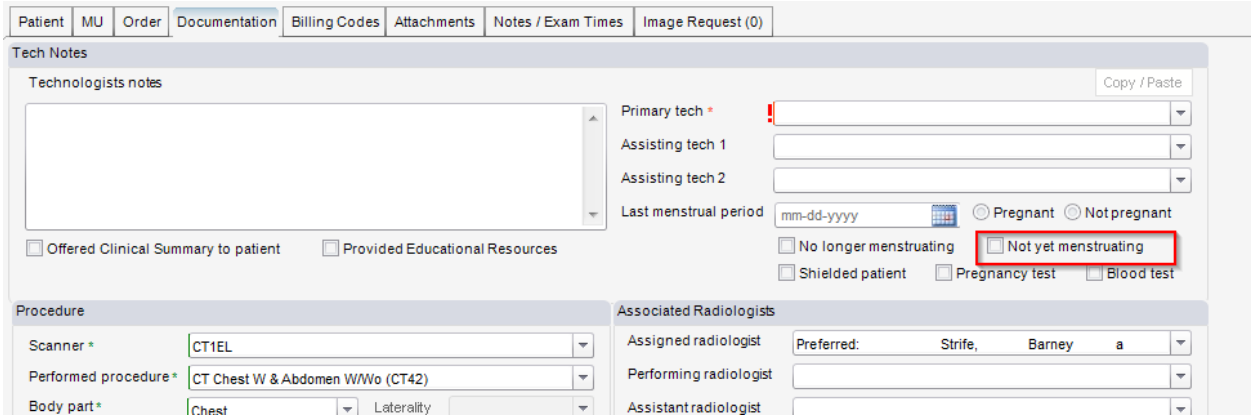



**Figure 5.41 – Not yet menstruating flag**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Exam Search Filter of BI-RADS

The exam search window now has the BI-RADS option filter that can be added for search criteria

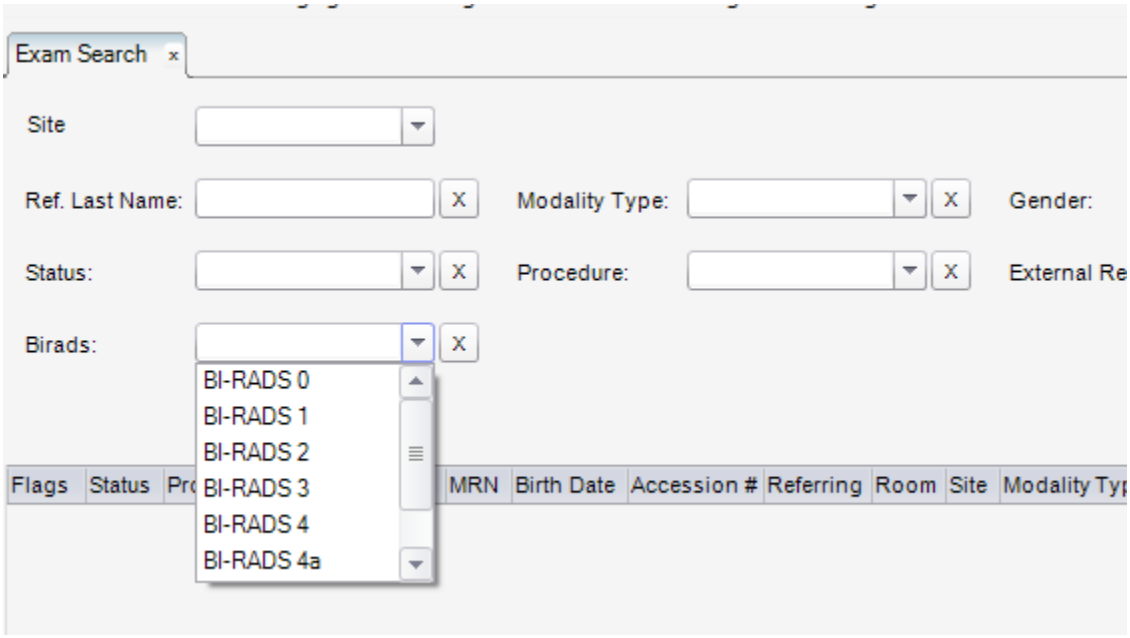



**Figure 5.42 – Exam search capability of searching on BI-RAD levels**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Patient Search – New Patient Split Button Added

The New Patient button has been updated with a new split button. Options within the split button are New patient / New appointment, New appointment and New patient.

**Figure 5.43 – Patient search**

If the user wishes to create a new appointment and performs a search and no results are found the New patient / New appointment option can be selected. This will open the Schedule Order window with for a new patient. If they wish to just create a new patient in the system the New patient option can be used

If the user performs a search and the results list does have a match or multiple results returned, they can select a patient from the list and select the New appointment option. This will open the Schedule Order window with the patient details pre-populated.

In the case of orders from external systems that have to matched with an eRAD RIS MRN, the patient search window will open with only the option of New patient.

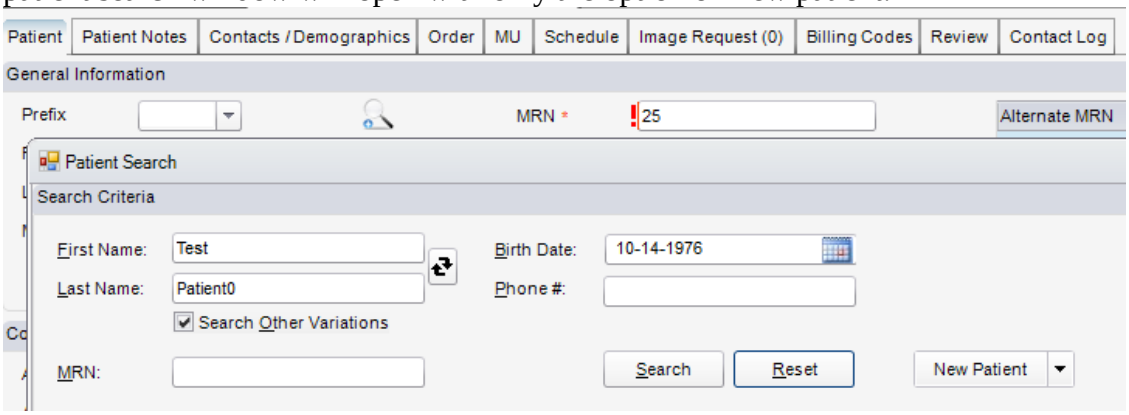



**Figure 5.44 – Patient search for external order**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Responsible Party MRN

Two new fields have been added to the Responsible Party's information on the Contacts / Demographics tab. The fields are not required to be completed. The fields are Relation's ID and ID Issuer.

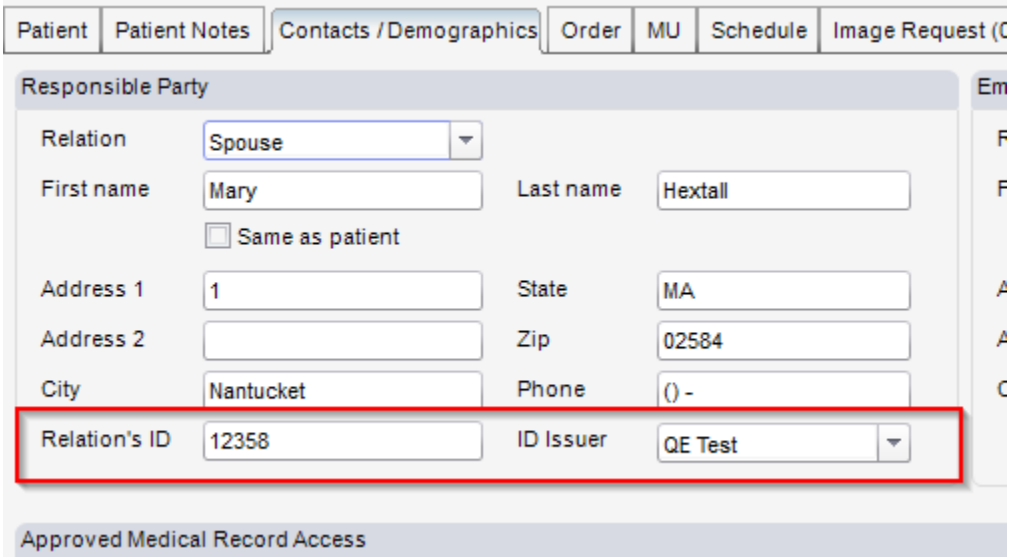



**Figure 5.45 – Responsible Party fields added**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Scheduling – Patients Height and Weight Required at Time of Scheduling

**In previous** versions we had the ability to turn on/off if the patient's height and weight were required at the time of "arriving" the patient. We have added to the ability to turn on/off is the patient's height and / or weight is required at the time of scheduling.

Two new system configuration settings have been created. For patient's height required at scheduling the setting is **"HeightRequiredOnSchedule"**

For the patient's weight required at the time of scheduling the new setting is **"WeightRequiredOnSchedule"**

Both have a default value of none.

| System Config Code | Value | Default | Description |
|---|---|---|---|
| Contains: onsche | Contains: | Contains: | Contains: |
| HeightRequiredOnSchedule | False | False | (value = True/False) height is required when scheduling the patient |
| WeightRequiredOnSchedule | False | False | (value = True/False) weight is required when scheduling the patient |

**Figure 5.46 – new system configuration settings for height/weight required at scheduling.**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Patients Weight and Room Added to Weight Limit Message

The message box that is presented to the user informing them that the current selected scanner has a weight limit that the patient exceeds has had the weight of the patient and the room name added to the message.

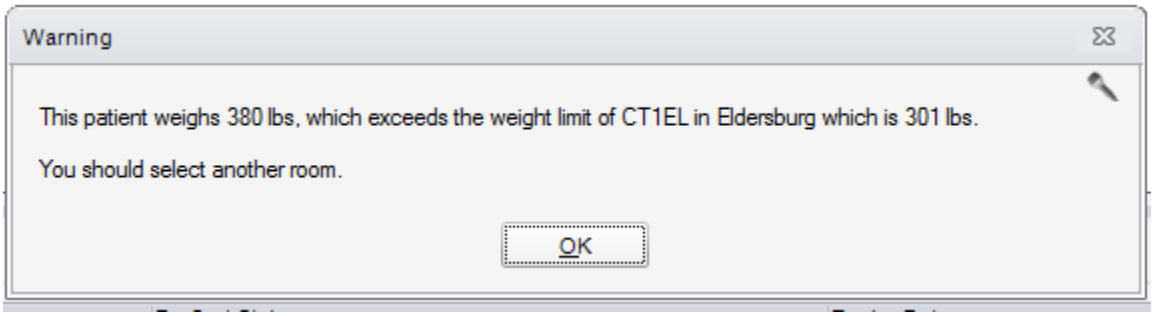



**Figure 5.47 – Message includes patients weight and room**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Ability to Add Longer Room Names

Currently in the scheduling window the names of the rooms come from the Modality Code of the Modality table. A new column was added to the Modality lookup titled Short Description that has a character length of 50. If this field has a value it will be displayed.

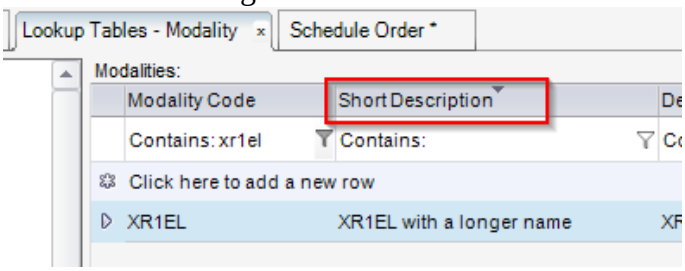



**Figure 5.48 – Short description column added to the modality lookup**

Admins can enter in a longer description name of the room and have it display in the scheduling windows details section.

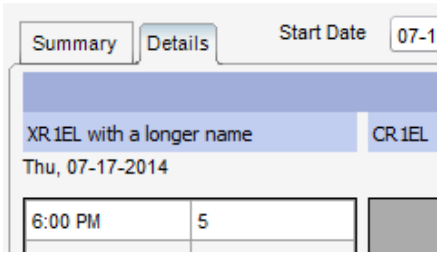



**Figure 5.49 – Details showing short description**

Also displayed in the Calendar of the Scheduling window

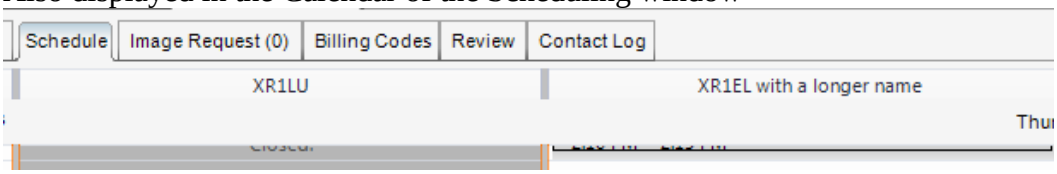



**Figure 5.50 – Calendar control of the new appointment window**

Lastly in the procedure picker rows Room list box

**Figure 5.51 – Room list box on the procedure picker row**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Ability to Use a Closed Room from Registration Window

Registration screen will now allow the use of a closed room/holiday, but on checking-in and arriving they will be prompted to ensure they would like to still use the selected modality.

For checking in a patient, the user will be presented with the following message

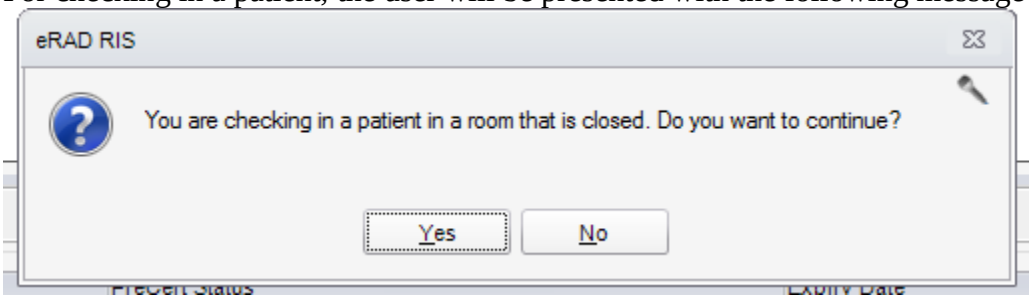



**Figure 5.52 – Message on closed room for checking in a patient**

When arriving the patient in a closed the room the message is:

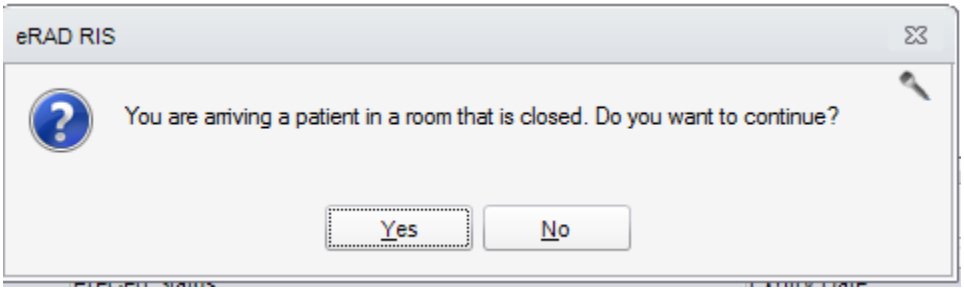



**Figure 5.53 – Arriving a patient in a closed room**

The message will be presented when completing a walk in to a closed room as well.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Scheduling – Repeating Modality Closures

The modality lookup table has an additional option added to the modality closures grid. The Repeat column has a list of values that include days of the week, weekday, weekend, all week and full range.

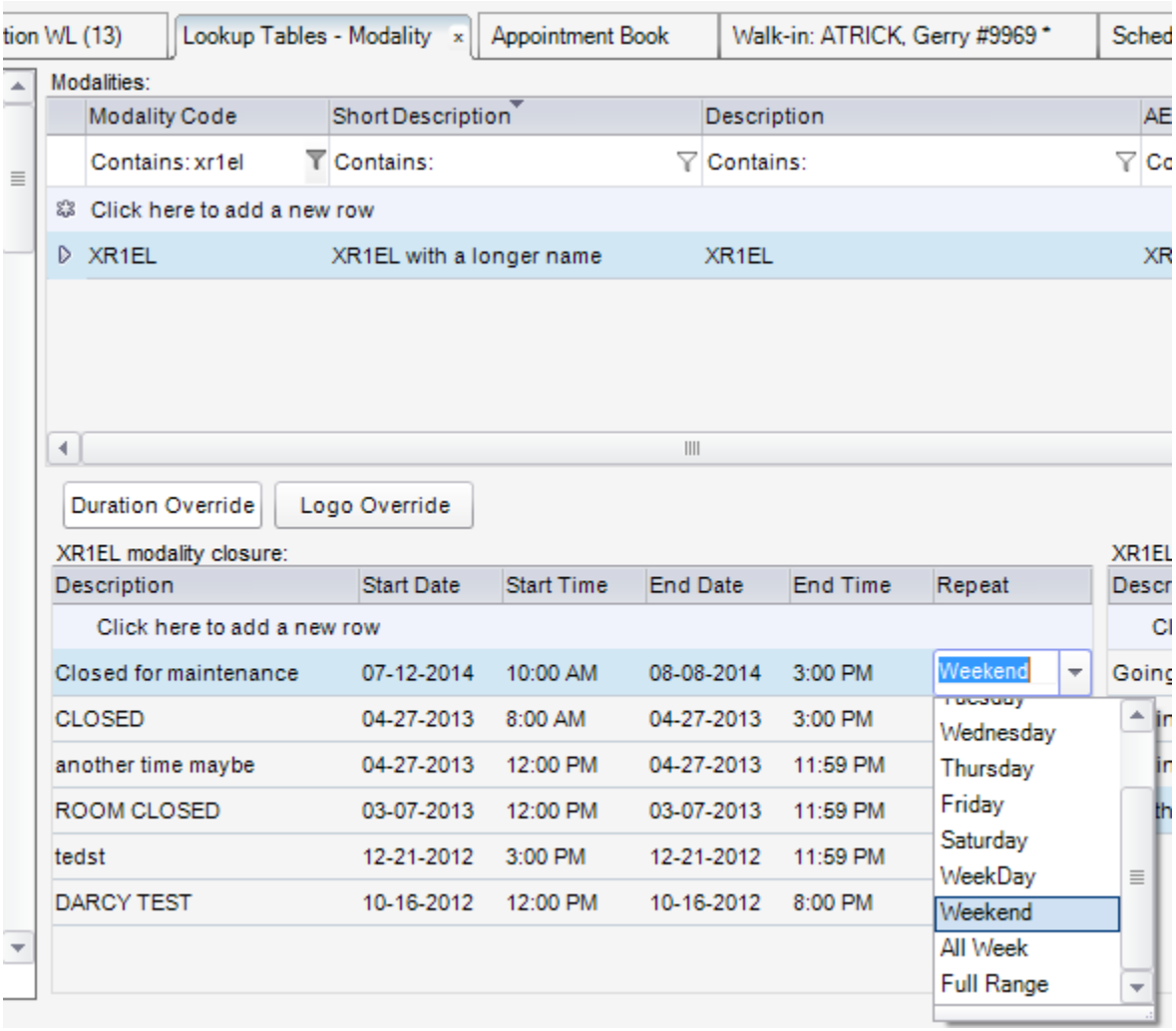



**Figure 5.54 – Repeating room closures**

An example of this would be closure on the weekend between 7am – 5pm, selecting the Weekend option would apply the closure to Saturdays and Sundays in your specified date range.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Last Contact and Last Contacted Type Added to Work Lists

The columns of Last Contact and Last Contacted Type have been added to the following work lists.

- Confirmation
- Reception
- Technologist
- No Show
- Closed Room

Example of the columns from the Reception work list:

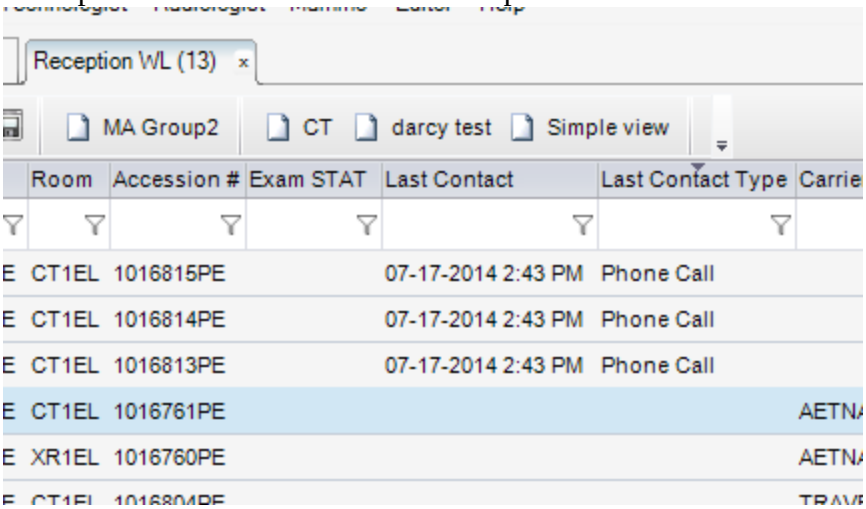



**Figure 5.55 – Last contact and last contact type added to work lists**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Additional Columns Added to the Confirmation WL

The IV Status and PreCert Required columns have been added to the Confirmation WL.

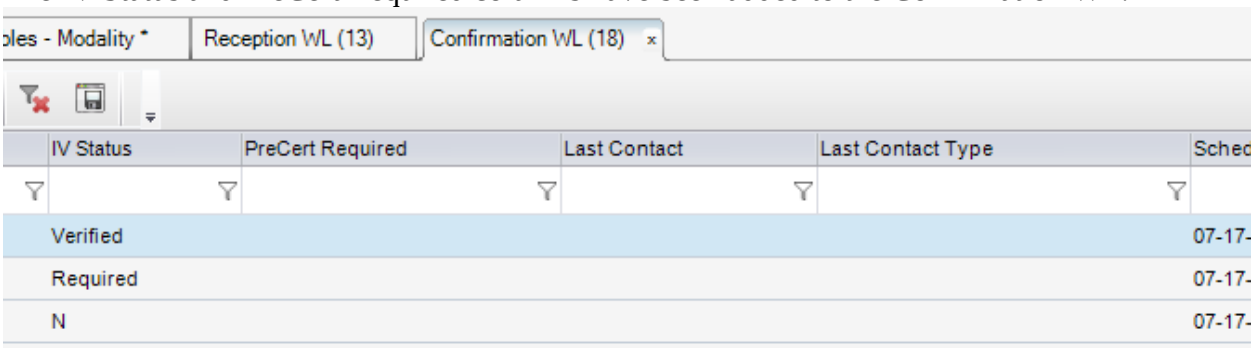



**Figure 5.56 – Columns added to the Confirmation WL**

## Additional Columns added to the Orders to Schedule WL

The columns Birth Date, Abort Reason and Carrier Type have been added to the Orders to Schedule WL

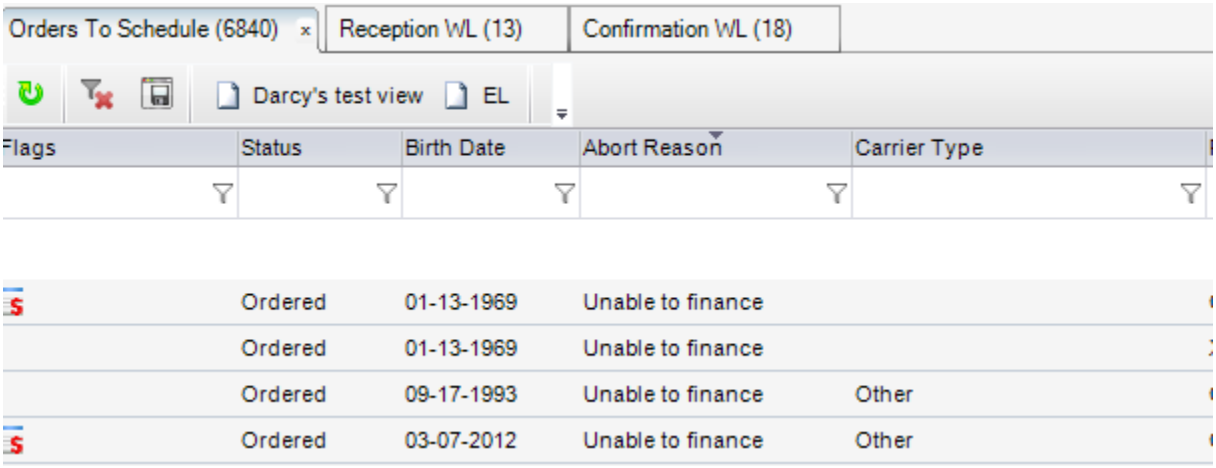



**Figure 5.57 – Columns added to the Orders to Schedule WL**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Columns added to the Image Request WL

The columns of Date of Service and Site columns of Study Performed Site and Image Request site are included on the Image Request WL.

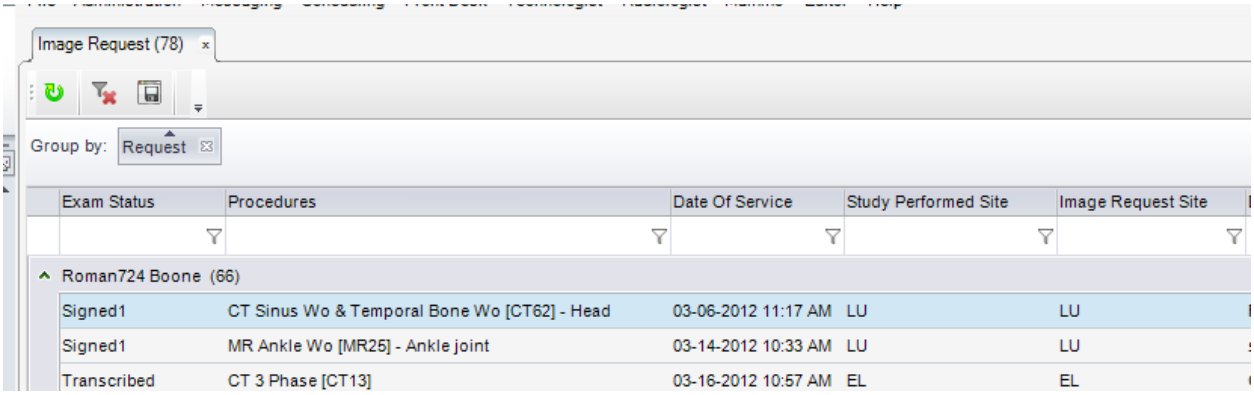



**Figure 5.58 – Columns added to the Image Request WL**

## Locked By Column Added to the CTRM WL

The locked by column has been added to the Critical Results WL and the All Critical Results WL

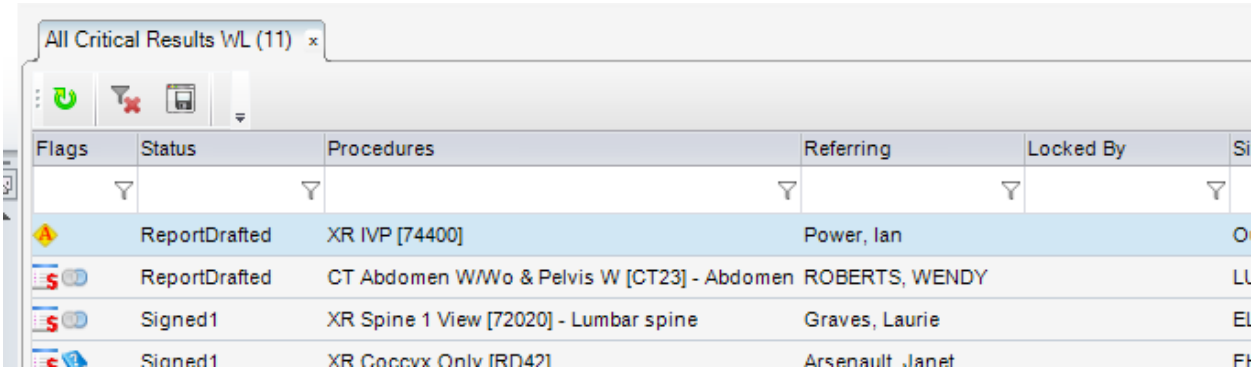



**Figure 5.59 – Locked by column added to Critical Results WL**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Ability to Select Date Range for Confirmation WL

There Confirmation WL is a daily work list in which the user must select each day to see the studies for a specific day. In build 43 we have added to the ability to select a date range from the calendar control to a maximum of 10 days.

This is accomplished by opening the calendar. Focus will be on the current date. Holding down the shift key on the keyboard and select the day in which you would like to end the range. To change back to a single day, double click the day from the calendar.

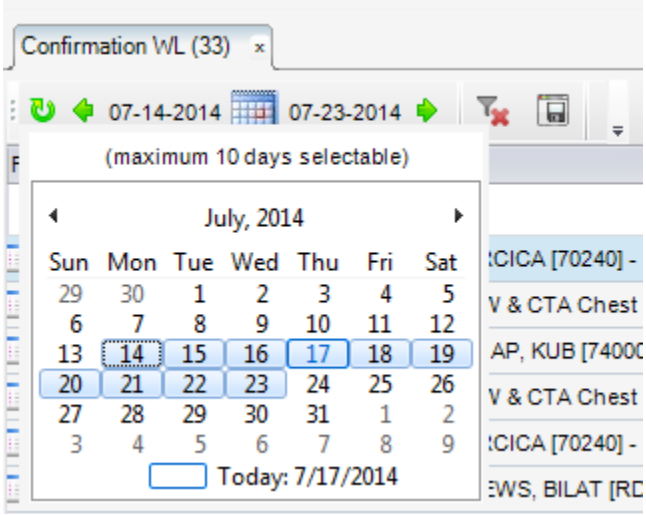



**Figure 5.60 – Selecting a date range on Confirmation WL**

The previous/next arrows cause dates to slide by one day but maintain the selected number of days in the range.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Problem and QA Flags Added to Patient Folder WL

Two new flags have been created for display on the Patient Folder WL. The flag for Problem, with an ICON of a red exclamation point ! and the flag for QA with an ICON of a check mark have been added. The Problem flag is controlled by a new access string titled **"Flag.Problem"** with a default access of full.
The QA flag is controlled by a new access string titled **"Flag.QA"** and it also have a default access of full

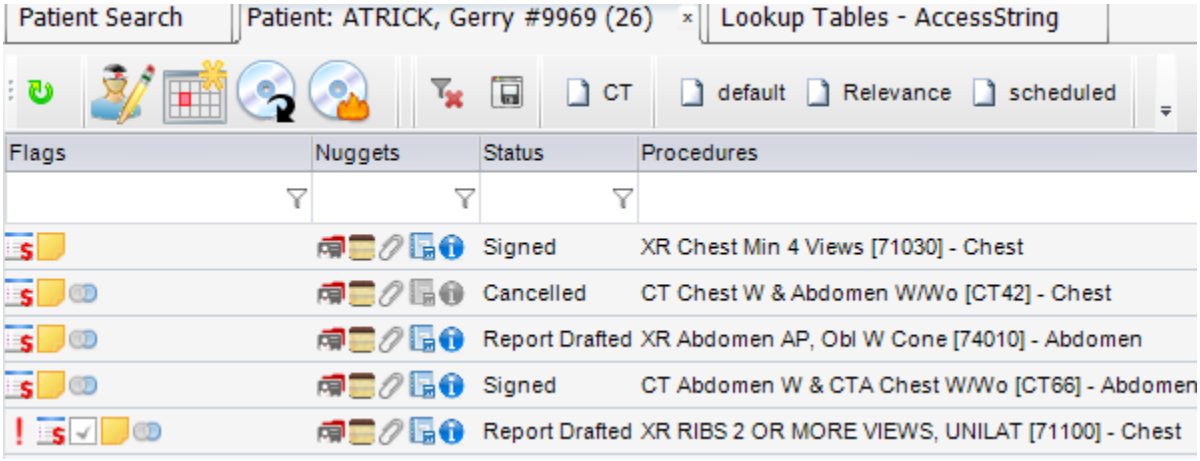



**Figure 5.61 – Problem and QA flags added to Patient Folder**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Personnel Editor – Have City Populated by Zip Code

The common zip code lookup to both the Address section and Deliver To section has been added. The functionality is the same as other areas where this feature exists: when tabbing away from the zip code textbox, if the zip code exists then the city/state will be automatically populated. If more than one entry exists, then the popup shown below will be displayed.

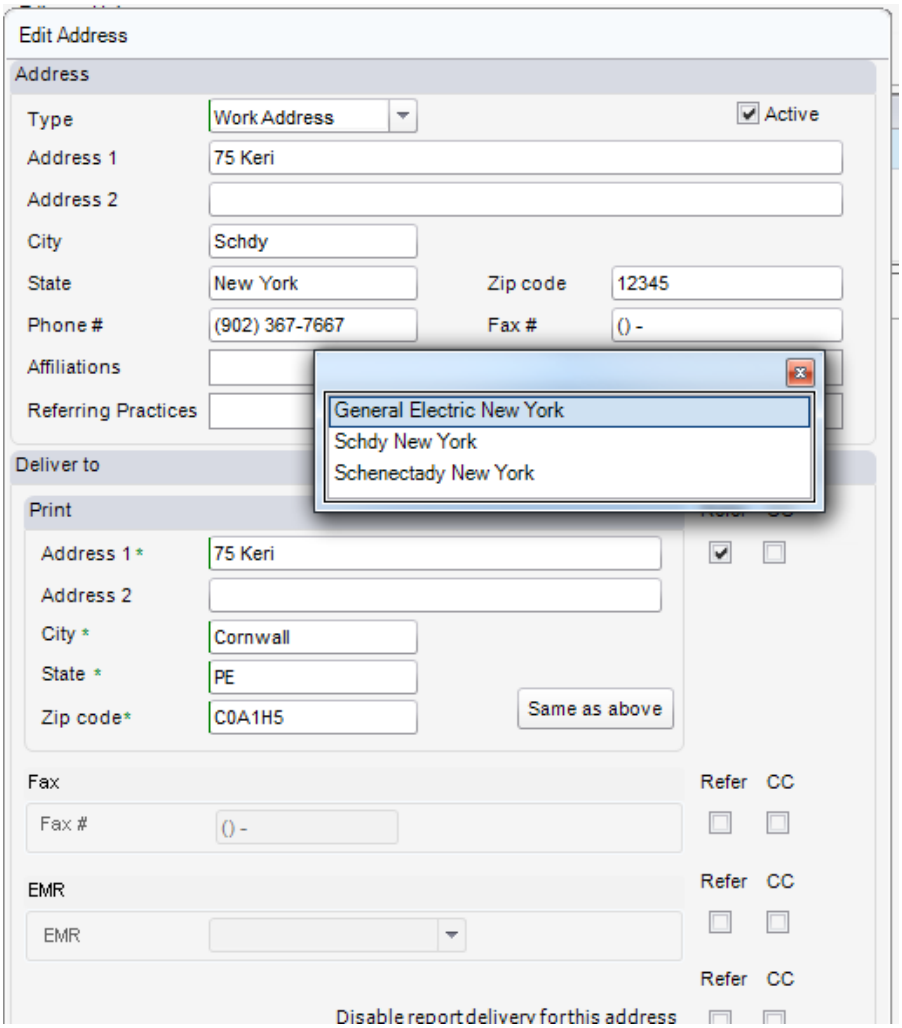



**Figure 5.62 – Personnel editor with zip code lookup**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Ability to Define Primary Specialty for Referring Physician

To set a specialty to 'primary', right click on the item in the multi-select Specialties box and select 'Set as primary'. Only the specialities multi-select should allow this right-click functionality. Only one primary should be allowed.

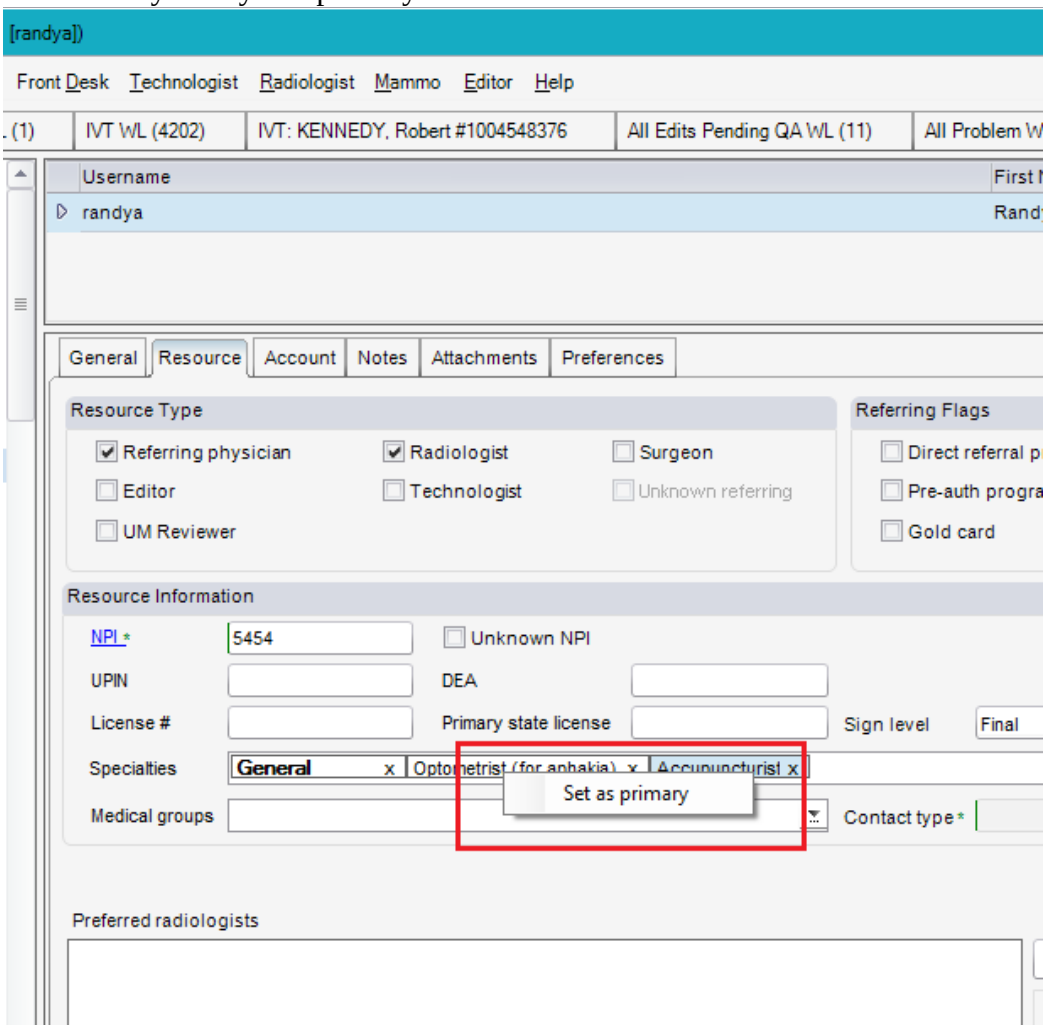



**Figure 5.63 – Set specialty as primary in personnel editor**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Referring Practice Address Changes

Instead of adding a referring practice at the Personnel Level we now have the ability to add 1 or more referring practices when adding or editing addresses as shown in the following:

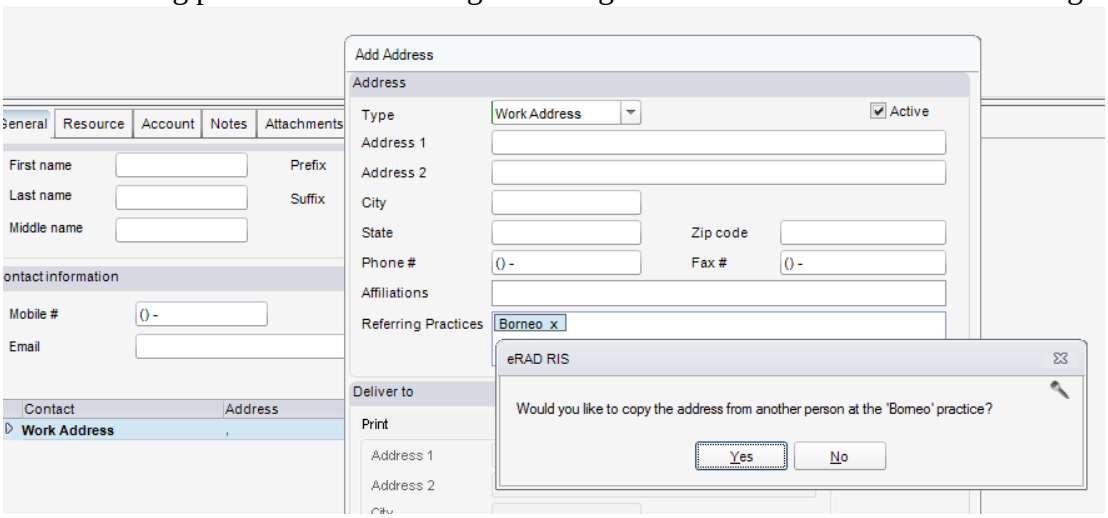



**Figure 5.64 – Add address in Personnel editor**

When a referring practice is added, the user is prompted, "to copy the address from another person at the selected practice". If they choose "Yes" to that question they get a list of person's addresses to use as the address/delivery information, as shown in the following screen capture:

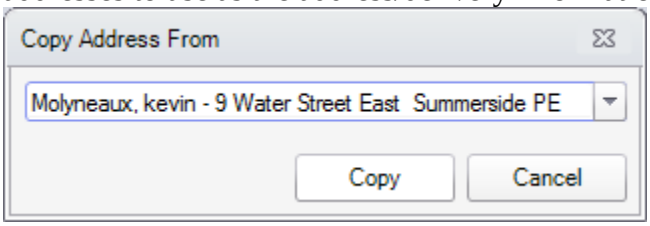



**Figure 5.65 – Copy Address From prompt**

The Personnel editor allows the user to add addresses and edit them individually. To make managing referring addresses easier, we have introduced the following "- Referring Address" editor:

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

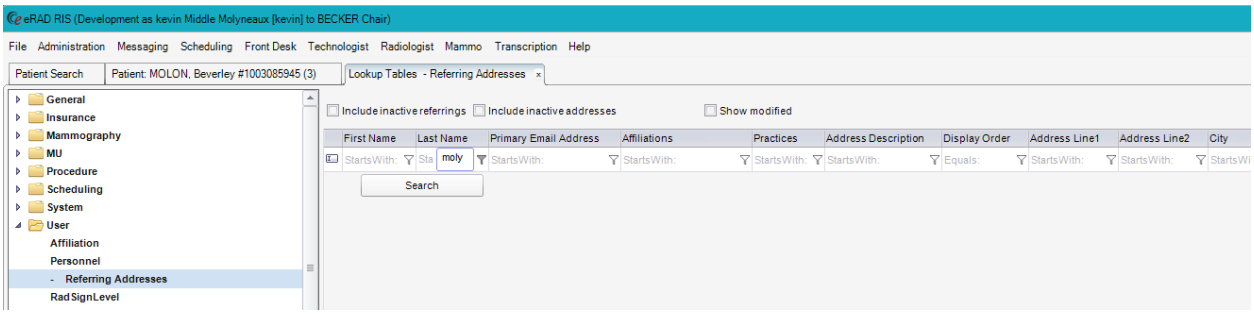



**Figure 5.66 – Referring Addresses lookup**

When you open this screen the first thing you must do is to specify at least one filter value and then click the "Search" button. In this example, I've search for all users with the last name 'molyn'.

Using the context menu option 'Copy/Paste Referring Address" the user can copy an entire address row and paste it to another person/address row.

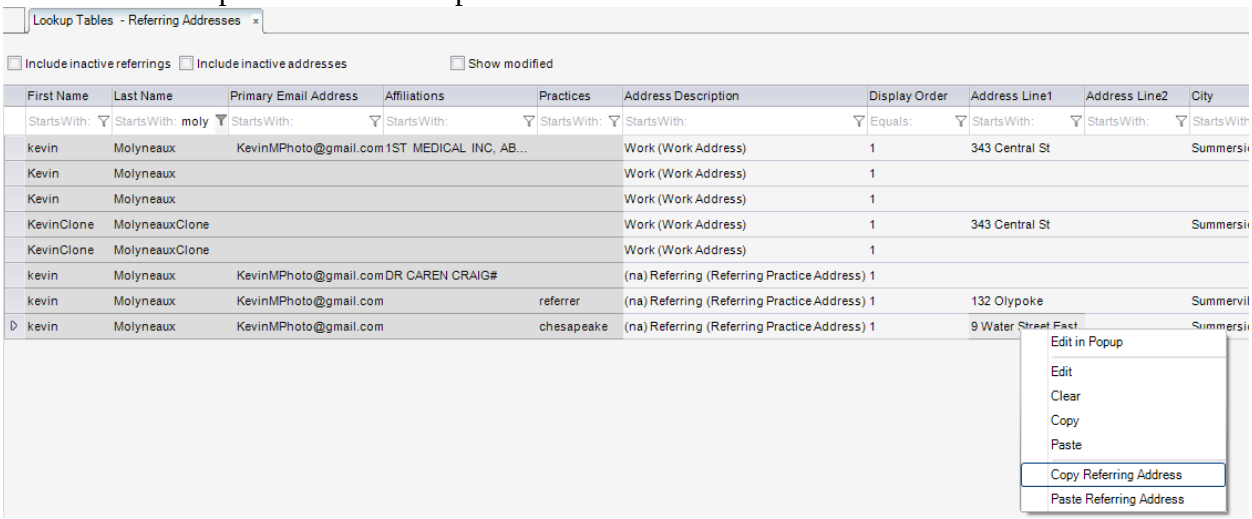



**Figure 5.67 – Referring Addresses context menu options**

Note, the columns shown in the darker shading are non-address fields, which are not included in the "Paste Referring Address" operation and are not editable directly in the gird. Consider these darker columns as read-only, except for the Practice and Affiliations columns which can be edited via the "Add/Remove Practice" context menu as shown in the following screen capture:

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

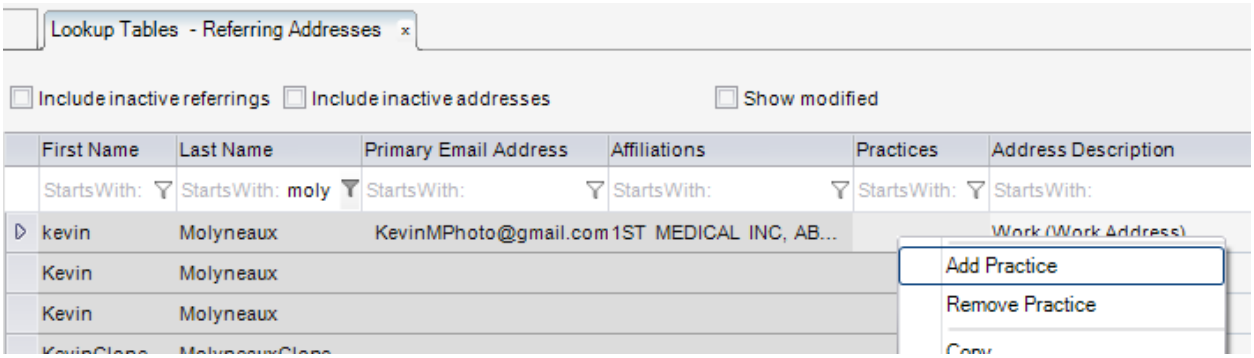



**Figure 5.68 – Add or remove practice**

The grid also support multi cell selection so you could add a practice to more than one address in the same operation as shown in the following screen capture, where I used the keyboard or mouse plus the <CTRL> key to selected multiple Practice cells:

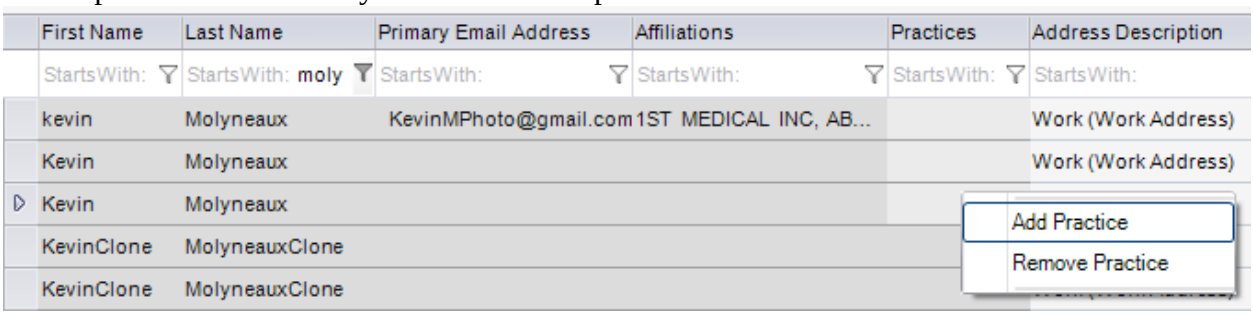



**Figure 5.69 – Multi select cells**

The user can also select multiple cells and paste the same value to all of them as shown in the following example where I am pasting the '343 central st' to all of the selected cells:

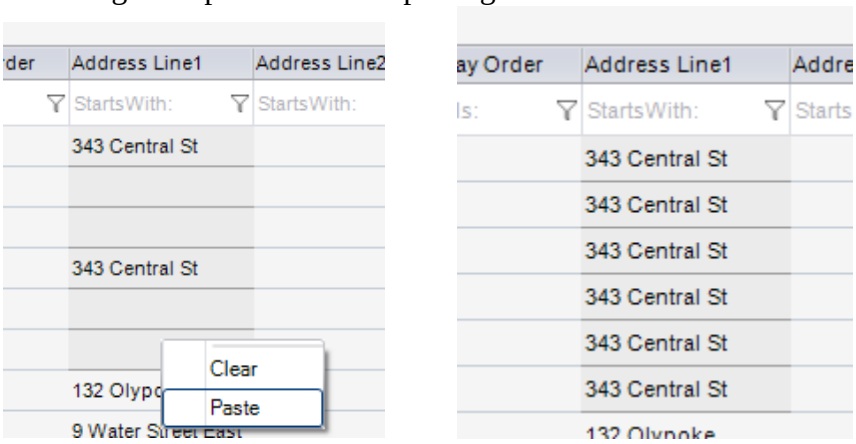



**Figure 5.70 – Before and after copy / paste**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

Checking the "Show Modified" checkbox will remove all filters and show all the rows that have been modified and not yet been saved:

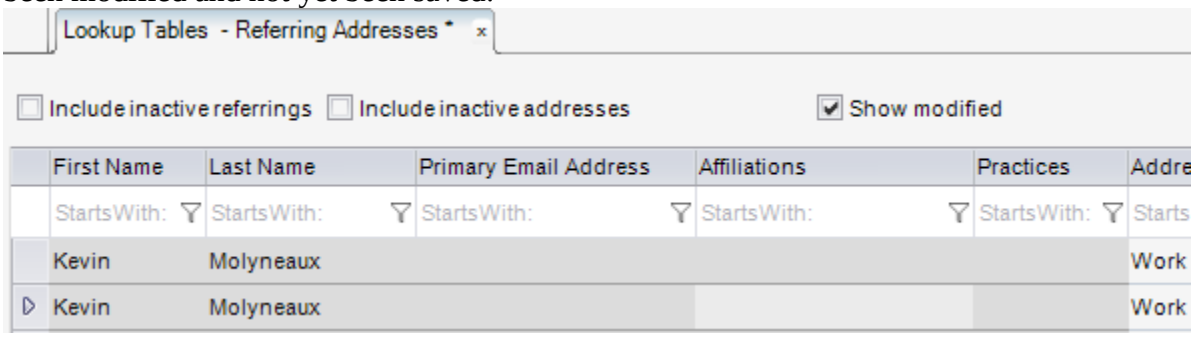



**Figure 5.71 – Show modified**

Then after unchecking the "Show Modified" the filters you had before checking it will be re-applied. If your search returns too many rows (~1000), then the amount returned will be limited and you will see a message explaining that partial results are being displayed. You will also notice that at all times the row count is displayed in the bottom right corner of the RIS screen as shown in the following:

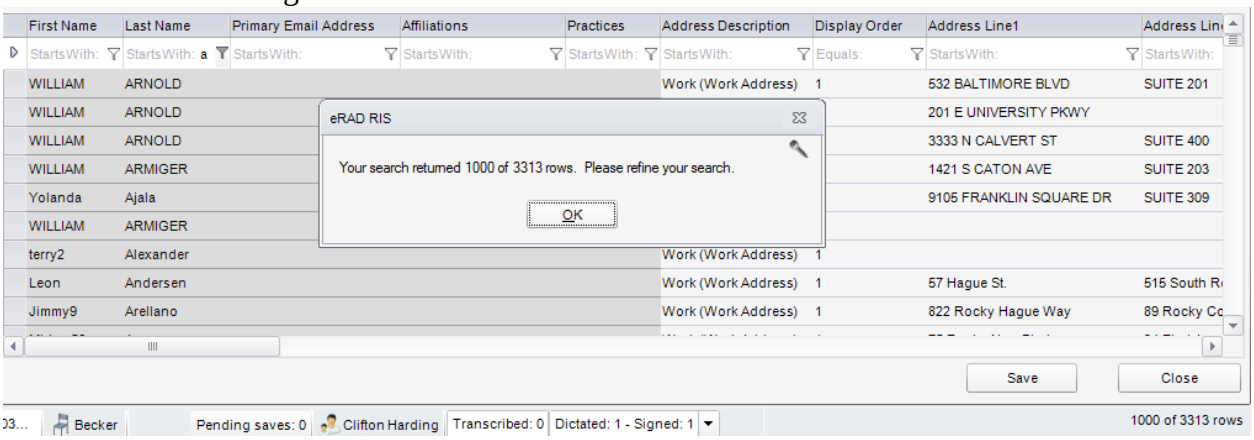
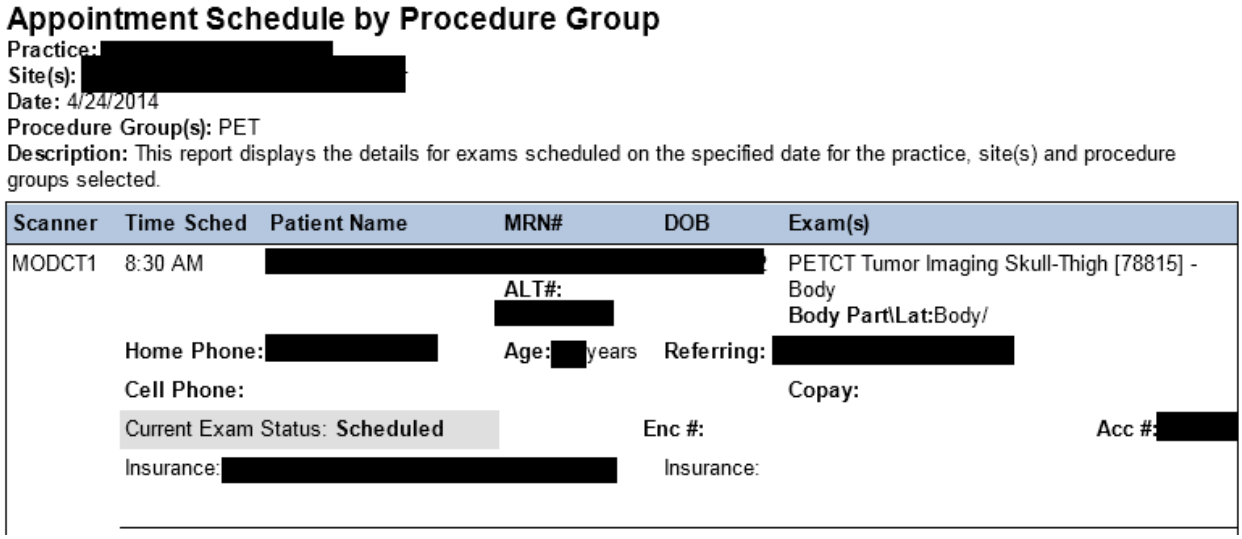



**Figure 5.72 – Unselecting Show Modified results**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Management Report – Appointment Schedule by Procedure Group

The Appointment Schedule by Procedure Group management report will display the details for exams scheduled on the specified date for practice, site(s) and procedure groups selected.



**Appointment Schedule by Procedure Group**

**Practice:** [redacted]
**Site(s):** [redacted]
**Date:** 4/24/2014
**Procedure Group(s):** PET
**Description:** This report displays the details for exams scheduled on the specified date for the practice, site(s) and procedure groups selected.

| Scanner | Time Sched | Patient Name | MRN# | DOB | Exam(s) |
|---|---|---|---|---|---|
| MODCT1 | 8:30 AM | [redacted] | ALT#: [redacted] | | PETCT Tumor Imaging Skull-Thigh [78815] - Body<br>**Body Part\Lat:**Body/ |
| | **Home Phone:** [redacted] | | **Age:** [redacted] years | **Referring:** [redacted] | |
| | **Cell Phone:** | | | | **Copay:** |
| | Current Exam Status: **Scheduled** | | | **Enc #:** | **Acc #:** [redacted] |
| | Insurance: [redacted] | | | Insurance: | |

**Figure 5.73 – Appointment Schedule by Procedure Group management report**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Management Report – Users in Usergroups

This report displays the list of users assigned to the selected user group(s). You can choose to see both active (by default) as well as inactive user accounts.

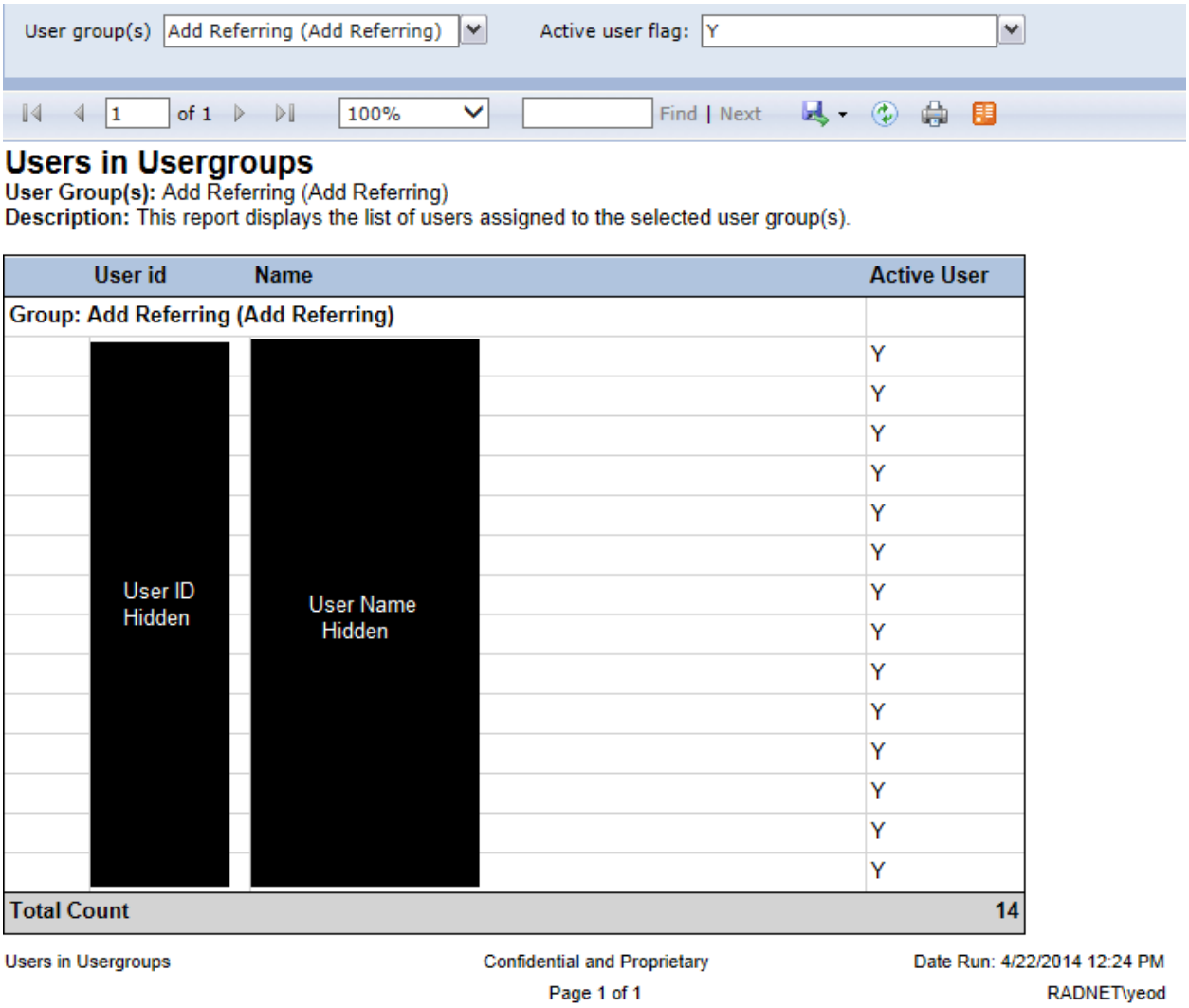



**Figure 5.74 – Users in Usergroups management report**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Management Reports – Radiologist Productivity by User – Mammo

This report is to display the selected mammography exams read by the radiologists for the period specified based on signed off exams.

**Radiologist Productivity by User - Mammo**

**Practice:** [redacted]
**Site(s):** [redacted]
**Date Range:** 3/1/2014 - 3/31/2014
**Procedure Codes:** 76645, 76645SCREE, 77058, 77059, G0202 , G0202BRUS, G0202BRUST, G0202I, G0202IBRUS, G0202IT, G0202T, G0202U, G0202UBRUS, G0202UIMT, G0202UNIT, G0202WCT, G0204 , G0204BRUS, G0204BRUST, G0204CB, G0204CBT, G0204CBUS, G0204CBUST, G0204I, G0204IBRUST, G0204IT, G0204T, G0206 , G0206BRUS, G0206BRUST, G0206CB, G0206CBT, G0206CBUS, G0206CBUST, G0206I, G0206IBRUST, G0206IT, G0206T, HVRA76645, HVRA76645SCREE, HVRA77058, HVRA77059, HVRAG0202 , HVRAG0202BRUS, HVRAG0202I, HVRAG0202IT, HVRAG0202TM, HVRAG0202UNIT, HVRAG0204 , HVRAG0204BRUS, HVRAG0204CB, HVRAG0204CBUS, HVRAG0204I, HVRAG0204IT, HVRAG0204TM, HVRAG0206 , HVRAG0206BRUS, HVRAG0206CB, HVRAG0206CBUS, HVRAG0206I, HVRAG0206IT, HVRAG0206TM, HVRAMA70, MA300, MA300T, MA301, MA301T, MA302T, MA303T, MA999, USBRAD
***Description:*** *This report displays the selected mamography exams read by Radiologist for a specified period. All Exams are Signed exams.*

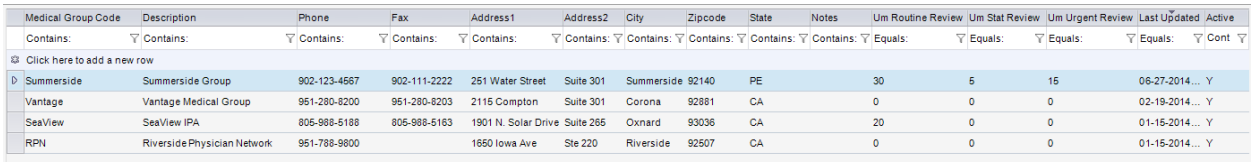
| | Procedure | Count | % |
|---|---|---|---|
| | [redacted] | 13 | 2.08% |
| | MA Digital Diagnostic Mammo Bilat W CAD | 1 | 0.16% |
| | MA Digital Screening Mammo W Breast US and CAD | 1 | 0.16% |
| | MA Digital Screening Mammo W CAD | 8 | 1.28% |
| | MR Breast W WO Bilateral W Cad | 2 | 0.32% |
| | US Breast Unilateral Or Bilateral | 1 | 0.16% |

**Figure 5.74a – Radiologist Productivity by User – Mammo Management report**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Utilization Management – Addition of Medical Group Lookup Table

A lookup has been added called Medical Group has been added under the Insurance directory of the Administration>Configure menu. This contains the name and demographics of the medical group. The table includes the column for UM Routine Review, UM Stat Review and UM Urgent Review



| Medical Group Code | Description | Phone | Fax | Address1 | Address2 | City | Zipcode | State | Notes | Um Routine Review | Um Stat Review | Um Urgent Review | Last Updated | Active |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Contains: | Contains: | Contains: | Contains: | Contains: | Contains: | Contains: | Contains: | Contains: | Contains: | Equals: | Equals: | Equals: | Equals: | Cont |
| Click here to add a new row | | | | | | | | | | | | | | |
| Summerside | Summerside Group | 902-123-4567 | 902-111-2222 | 251 Water Street | Suite 301 | Summerside | 92140 | PE | | 30 | 5 | 15 | 06-27-2014... | Y |
| Vantage | Vantage Medical Group | 951-280-8200 | 951-280-8203 | 2115 Compton | Suite 301 | Corona | 92881 | CA | | 0 | 0 | 0 | 02-19-2014... | Y |
| SeaView | SeaView IPA | 805-988-5188 | 805-988-5163 | 1901 N. Solar Drive | Suite 265 | Oxnard | 93036 | CA | | 20 | 0 | 0 | 01-15-2014... | Y |
| RPN | Riverside Physician Network | 951-788-9800 | | 1650 Iowa Ave | Ste 220 | Riverside | 92507 | CA | | 0 | 0 | 0 | 01-15-2014... | Y |

**Figure 5.75 – Medical Group lookup table**

Access to this new lookup table is controlled by the access string **"Config.LookupEditor.MedicalGroup"** with a default of none.

From the Personnel editor the user can be mapped to one or multiple Medical Groups. The option is found on the Resource tab.

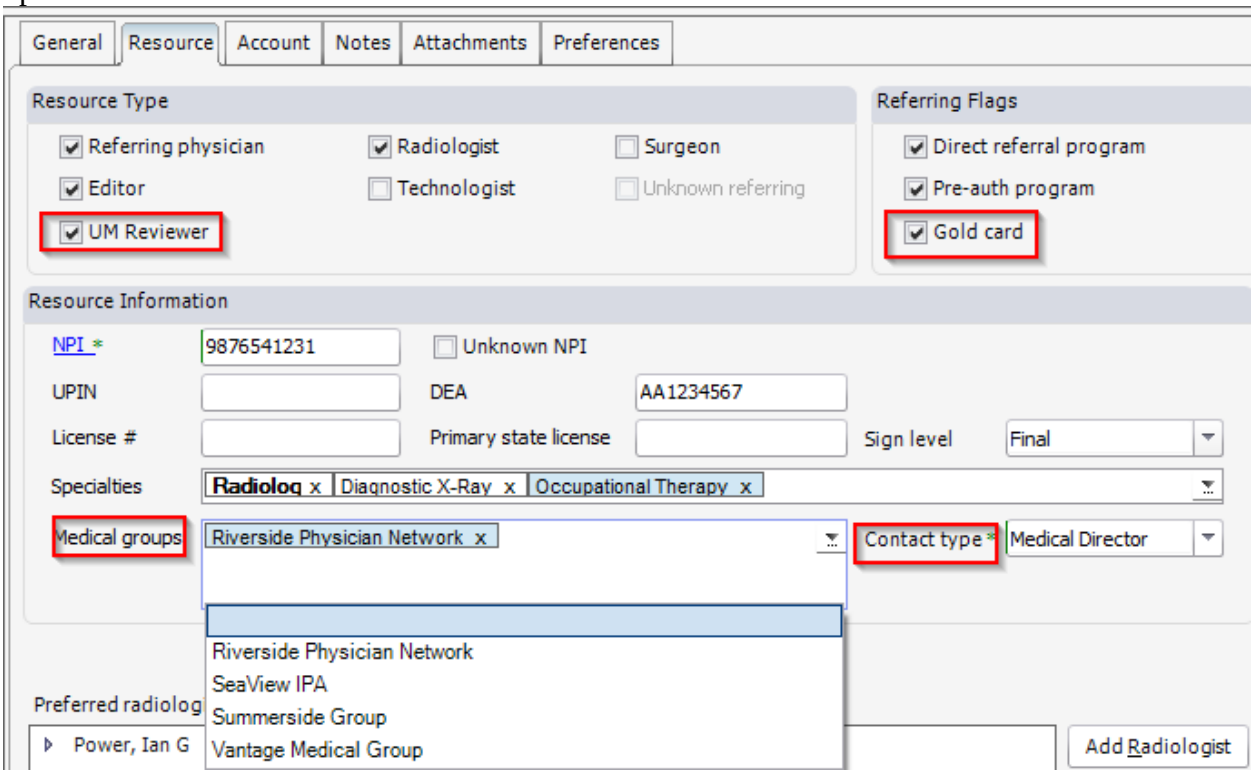



**Figure 5.76 – Map person to medical group**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

Also in the Personnel Editor on the Resource tab is the Referring Flag of Gold Card. The gold card flag is only available if the resource type is referring physician. If the gold card flag is checked, then the utilization management notes field, located on the Notes tab, becomes required.

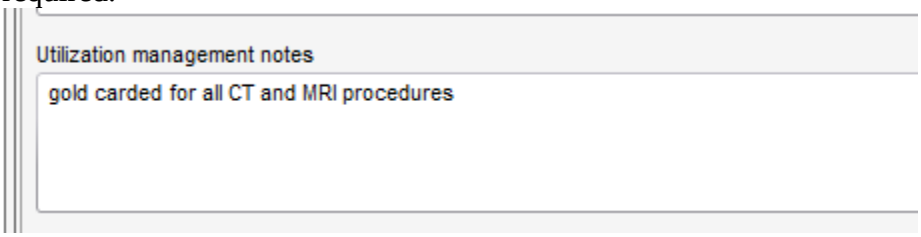



**Figure 5.77 – Utilization management notes**

The end user will need to know why the requesting physician is marked as gold carded. If the utilization notes field is not completed, the user will be promoted with an error message.

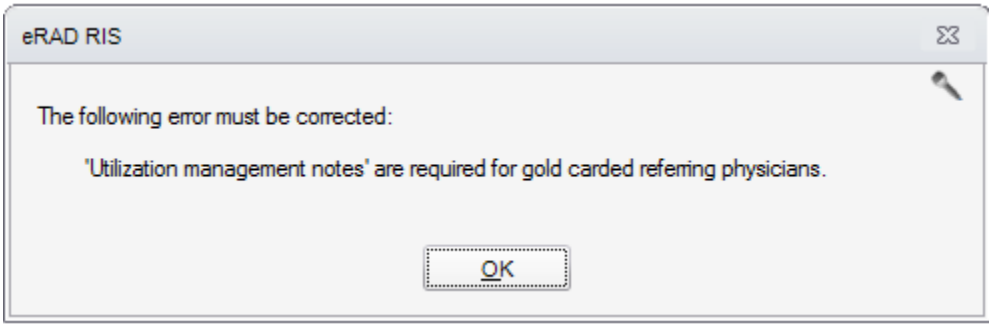



**Figure 5.78 – Prompt is Utilization management notes are not completed**

Again on the Resource tab, the Resource Type of UM Receiver has been added. The Internal Person Search has been modified to include "UM Reviewer" as a Type filter.

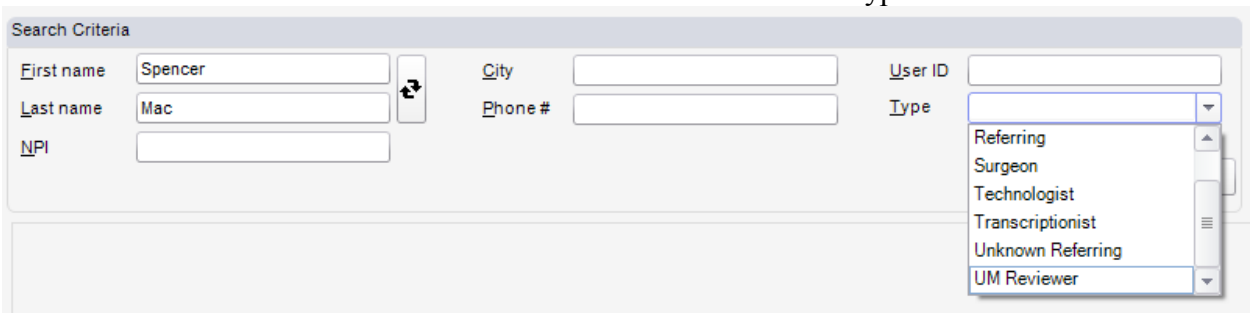



**Figure 5.79 – Internal person search with type of UM Reviewer added**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Utilization Management – Support Medical Group Contact Types

The lookup table Medical Group Contact Type has been added under the Insurance directory of the Administration>Configure menu. This new lookup table is controlled by access string **"Config.LookupEditor.MedicalGroupContactType"**

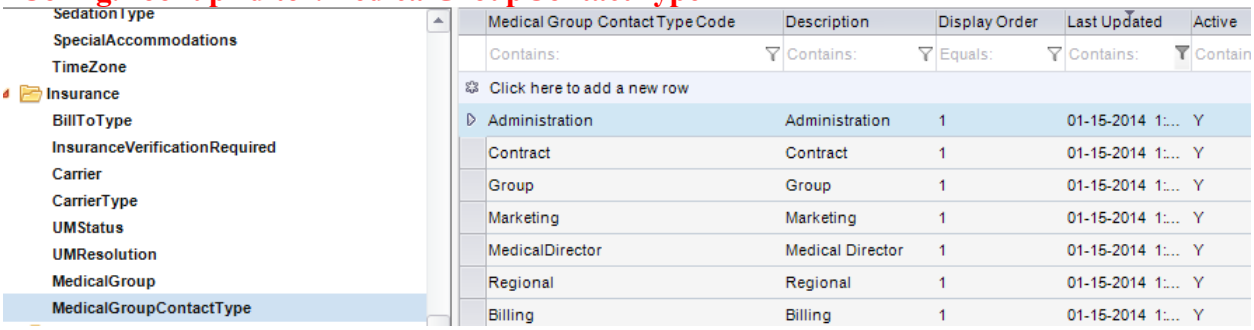



**Figure 5.80 – Medical Group Contact Type lookup table**

The values from this table are used in the Resource tab on the Personnel editor, which has been enhanced to contain a multi type-ahead control for medical groups as well as a corresponding drop-down for medical group contact type. If a medical group is selected, the contact type is a required field.

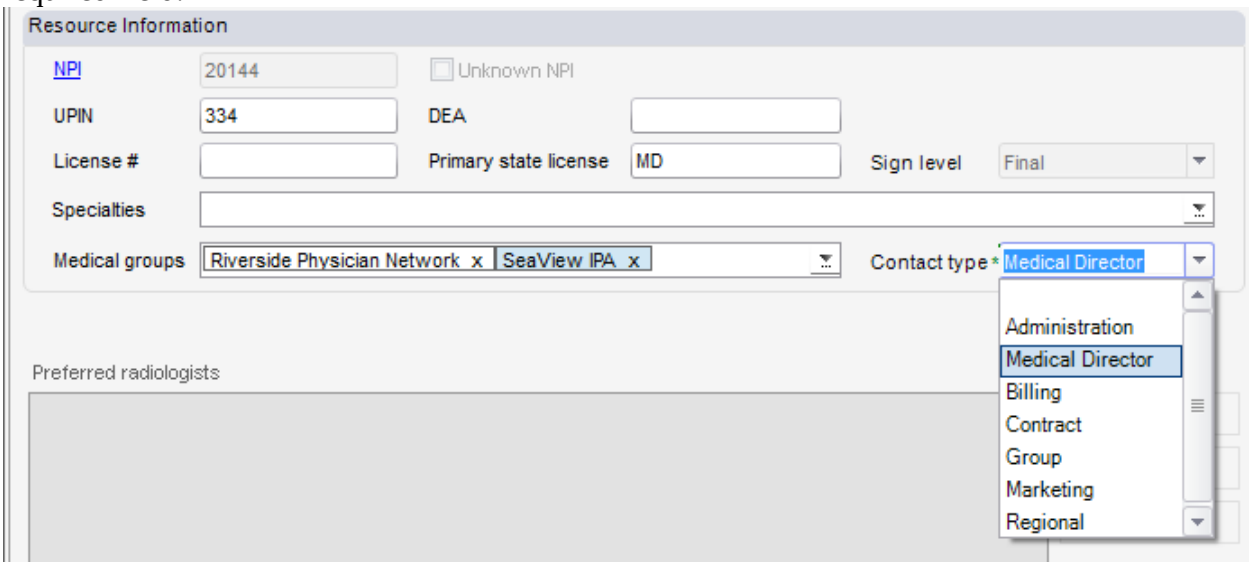



**Figure 5.81 – Adding Contact Type to a user account in Personnel editor**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Utilization Management – Support UM Coverage Type

A lookup called UMCoverage will hold the coverage types that will eventually be applied to a CPT Code level. These coverage types are displayed on the matrix for each medical group so staff can determine which CPT Codes require authorization. The Authorization Flag column will specify which coverage types require review.

| Matrix Name | Effective Date | Revision Date |
|---|---|---|
| ADP - 2013 Matrix - Alliance Desert Physicians | 1/1/2013 | 2/18/2013 |

**Disposition Legend**

A - Capitated service, authorization required

EX - Exclude

FFS - Fee for service, authorization required

IN - Include

TBD - To be determined

X - Capitated service, direct referral (no authorization required)

| EXAM | Body Part | General Comments | CPT | Group Comments | ADP |
|---|---|---|---|---|---|
| **Computed Tomography** | | | | | |
| CT HEAD W/O CONTRAST | Head | | 70450 | | A |
| CT HEAD WITH CONTRAST | Head | | 70460 | | A |
| CT HEAD W/O AND W/CONTRAST | Head | | 70470 | | A |
| CT ORBIT W/O CONTRAST | Head | | 70480 | | A |
| CT ORBIT WITH CONTRAST | Head | | 70481 | | A |
| CT ORBIT WITH&WITHOUT CON | Head | | 70482 | | A |
| CT FACIAL BONES W/O CONTRAST | Head | | 70486 | | A |

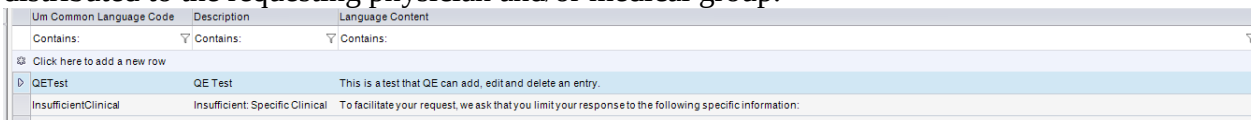
**Figure 5.82 – Matrix showing coverage type legend**

The lookup table access is controlled by a new access string titled **"Config.LookupEditor.UMCoverage"** with a default of none.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Utilization Management – Support UM Common Language

A lookup called UMCommonLanguage will hold the list of common language items which will be accessed by the utilization management staff when performing reviews. Each common language item stores the content which will appear in the external comments which will be distributed to the requesting physician and/or medical group.



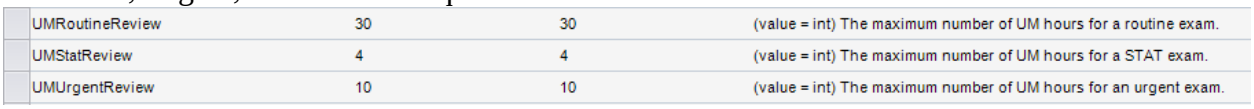
| Um Common Language Code | Description | Language Content |
|---|---|---|
| Contains: | Contains: | Contains: |
| Click here to add a new row | | |
| QETest | QE Test | This is a test that QE can add, edit and delete an entry. |
| InsufficientClinical | Insufficient: Specific Clinical | To facilitate your request, we ask that you limit your response to the following specific information: |

**Figure 5.83 – UM Common Language lookup**

Access to this lookup table is controlled by access string **"Config.LookupEditor.UMCommonLanguage"** with a default of none.

## Utilization Management – Support Default Review Times

A key component of Utilization Management workflow is review time. This is the amount of time (in hours) that it took the UM team to review and finalize the request. Although times can differ based on the contract with the Medical Group, the system is required to have default times for STAT, Urgent, and Routine requests.



| | | | |
|---|---|---|---|
| UMRoutineReview | 30 | 30 | (value = int) The maximum number of UM hours for a routine exam. |
| UMStatReview | 4 | 4 | (value = int) The maximum number of UM hours for a STAT exam. |
| UMUrgentReview | 10 | 10 | (value = int) The maximum number of UM hours for an urgent exam. |

**Figure 5.84 – system configuration settings**

Three new system configuration settings have been added. These values will be used when calculating review time in future releases. Based on a 10 hour workday

- **"UMRoutineReview"** that has a default of 30 hours
- **"UMStatReview"** that has a default of 4 hours
- **"UMUrgentReview"** that has a default of 10 hours

The Medical Group lookup table has 3 columns that will allow for an override to the above system configuration settings to allow for contracts or arrangement differences with the groups.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Utilization Management – Support UM Status

Two lookup tables called UMStatus and UMResolution have been added that are under the Insurance grouping in the lookup table editor. UMStatus contains a list of UM Statuses. This lookup table's access is controlled by the access string "Config.LookupEditor.UMStatus" with a default of none.

| | Um Status Code | Description | Form Content | Final Flag | Display Order |
|---|---|---|---|---|---|
| | Contains: | Contains: | Contains: | Contains: | Equals: |
| | Click here to add a new row | | | | |
| ▷ | QE_Test | QE Test | We're sorry your claim cannot be viewed, processed, approved, declined or rejected at this time. We are doing the... | N | 1 |
| | Approved | Approved | | Y | 11 |

**Figure 5.85 – UMStatus lookup table**

The UMResolution look up is controlled by the access string "Config.LookupEditor.UMResolution"

| | Um Resolution Code | Description | Form Content | Um Status Code | Display C |
|---|---|---|---|---|---|
| | Contains: | Contains: | Contains: | Contains: | Equals: |
| | Click here to add a new row | | | | |
| ▷ | QE_Approved | QE Approved | Please contact QE Test Department for approval process. | QE_Test (QE Test) | 1 |
| | QE_Declined | QE Declined | We're sorry your claim cannot be declined at this time. Please try agai... | QE_Test (QE Test) | 1 |
| | DirectReferral | Direct Referral | No prior review necessary for the requested exam procedure. Please | ReturnedNotInitiat... | 1 |

**Figure 5.86 – UMResolution lookup table**

Each UMResolution is mapped to one UMStatus. A field called Form Content contains the text that will be displayed on the authorization letter when that status and resolution is selected.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Utilization Management – Authorization Rules for Medical Groups

From medical group lookup table the user can create the authorization rules. Each medical group has a set of authorization rules which is available on the right-click context menu. Typically authorization rules will be created by CPT Code and not procedure code or modality type. The rules are access from the context menu.

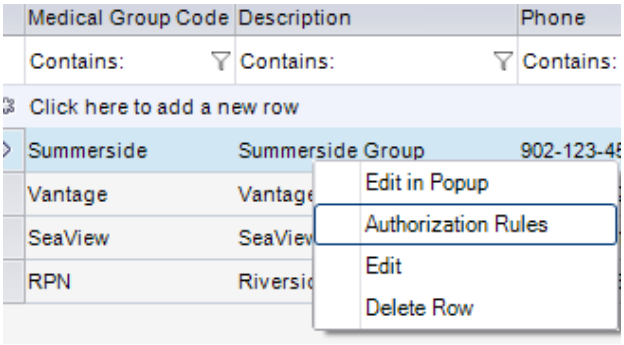



**Figure 5.87 – Accessing Authorization Rules**

The user must select one or more CPT Codes. The user must then specify if this rule is for all practices or a specific one (Matrices will usually apply to all practices however; there are some medical groups where the authorization rules can vary across geographical areas). A coverage type must be specified. These are based on the UM Coverage lookup values.

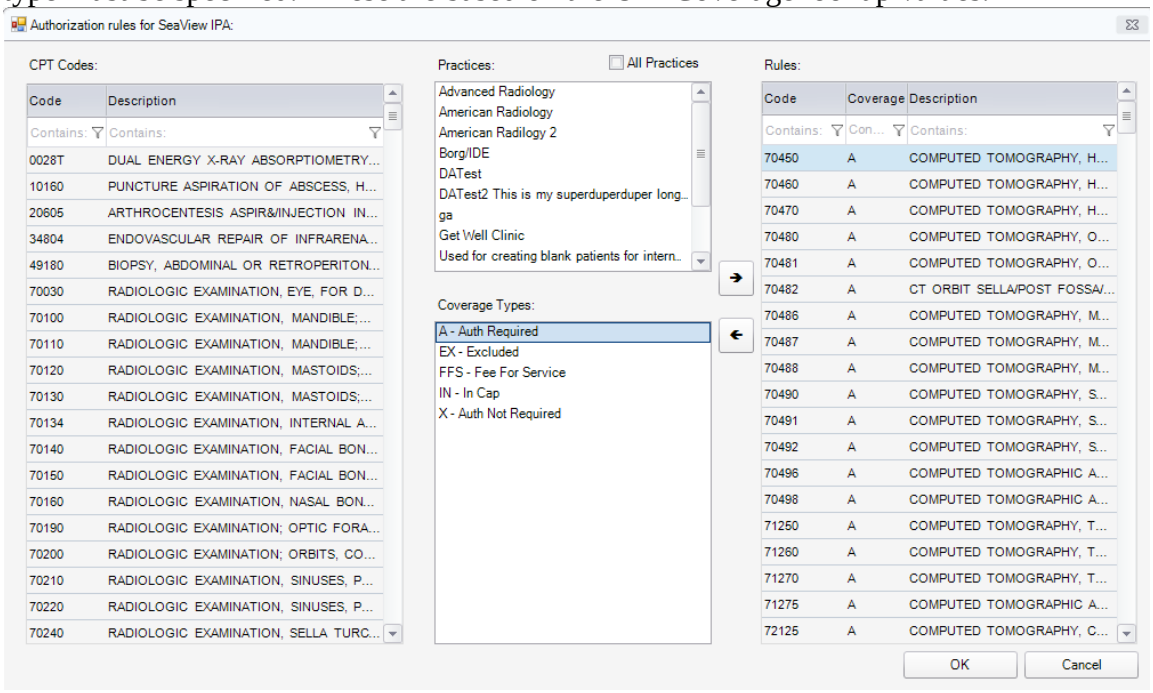
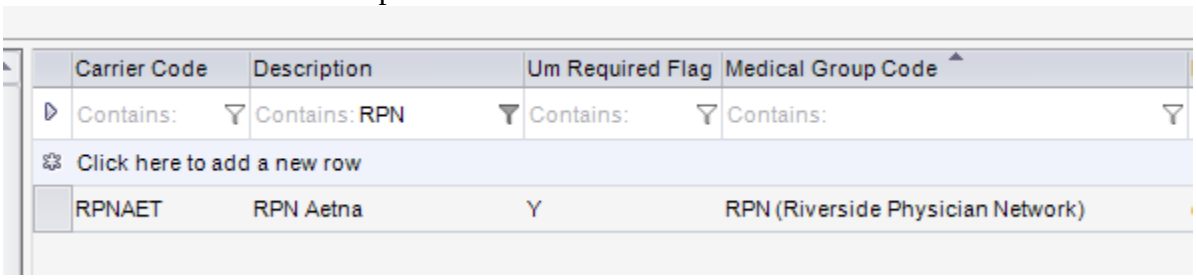



**Figure 5.88 – Authorization rules form**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Utilization Management – Support Capitated Carriers

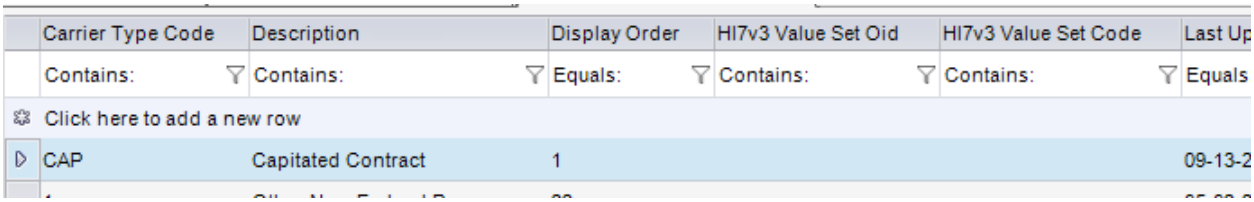
A new column has been added to the Carrier lookup tabled titled UM Required Flag. All current rows in this the Carrier lookup will have a default of N.



| Carrier Code | Description | Um Required Flag | Medical Group Code |
|---|---|---|---|
| Contains: | Contains: RPN | Contains: | Contains: |
| Click here to add a new row | | | |
| RPNAET | RPN Aetna | Y | RPN (Riverside Physician Network) |

**Figure 5.89 – Carrier showing UM required flag**

In addition, the Carrier Type lookup table has a new Carrier Type of CAP has been added to further categorise the carriers requiring utilization review.



| Carrier Type Code | Description | Display Order | HI7v3 Value Set Oid | HI7v3 Value Set Code | Last Up |
|---|---|---|---|---|---|
| Contains: | Contains: | Equals: | Contains: | Contains: | Equals |
| Click here to add a new row | | | | | |
| CAP | Capitated Contract | 1 | | | 09-13-2 |

**Figure 5.90 – New carrier type code**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Utilization Management – Mapping Carriers to Medical Groups

From within the Carrier lookup table there is a new column titled Medical Group Code. If the "UM Required Flag" is enabled, then the Medical Group Code field is required. The user will be prompted with "medical group is required for utilization management" if the Medical Group Code is not specified and the UM Required Flag is enabled.

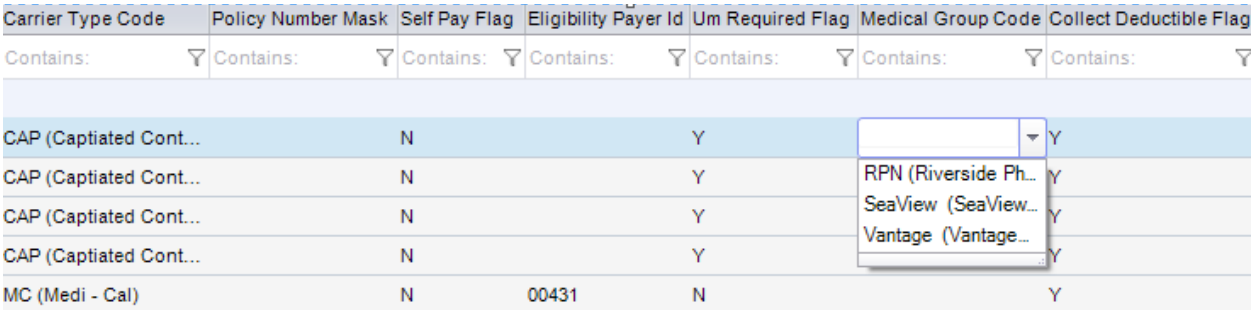



**Figure 5.91 – Specifying Medical Group Code for Carrier**

## Utilization Management – Addition of Utilization Management User Group

This can be done via configuration. A new user group called "Utilization Management" was added to the UserGroup lookup. All utilization review access strings will be mapped to this group.

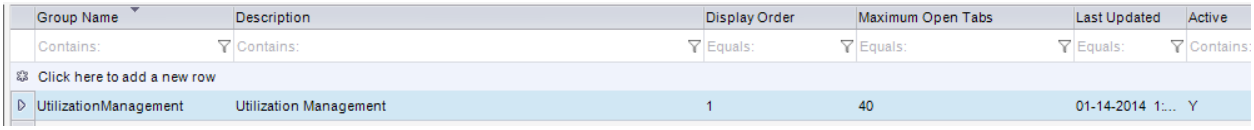



**Figure 5.92 – User Group with new group of UtilizationManagement**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Meaningful Use – Site Level MU Override

Currently the MU Required flag is set at the Practice level the sites that fall under that practice will also be MU Required. It has been requested that we allow for a site to disengage from collecting MU data. For this we have added an MU Required check box at the site level so an Administrator can remove the site. This however doesn't work the opposite way. You can't have a site that MU Required when the practice is not.

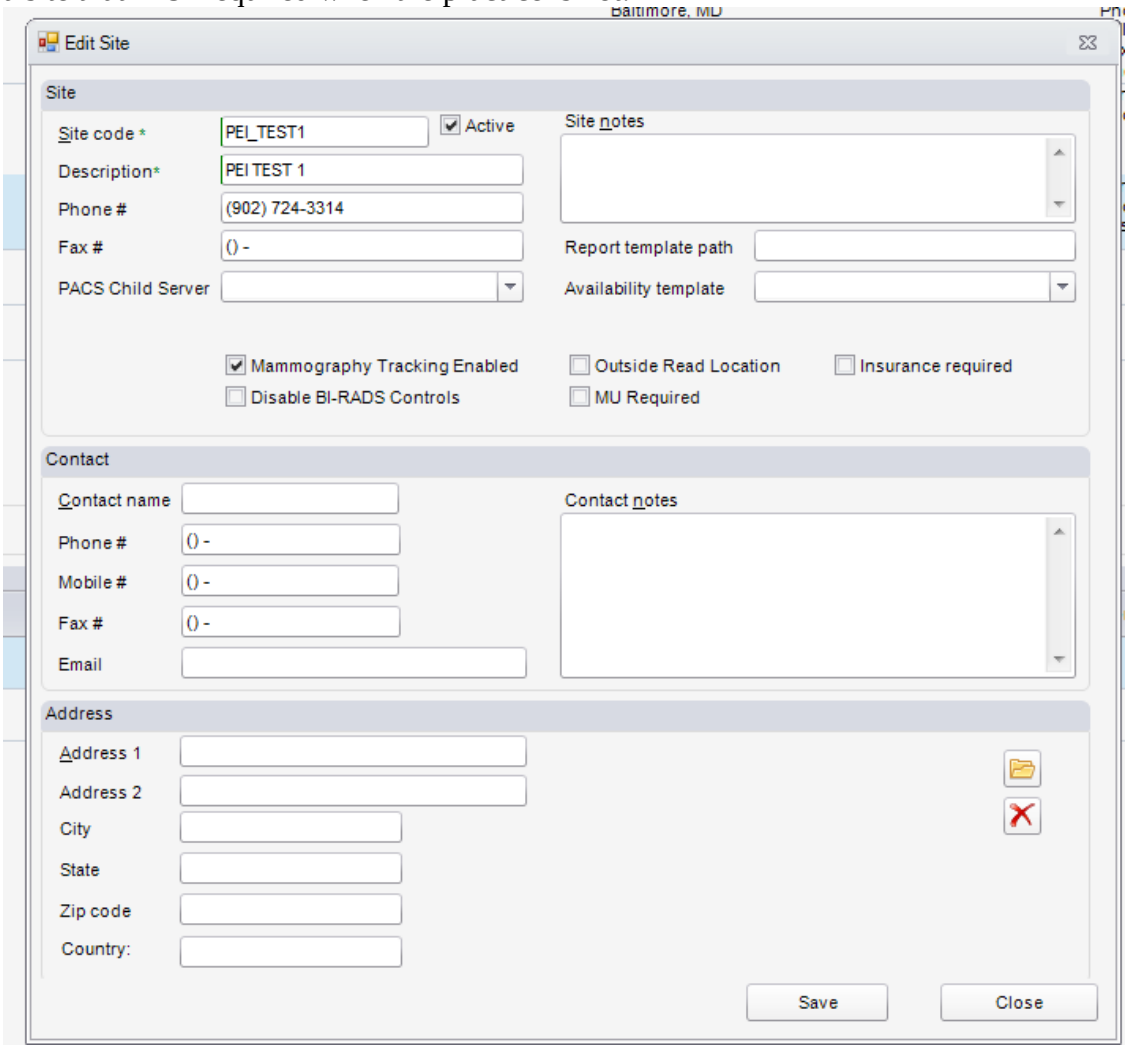



**Figure 5.93 – Site with MU Required flag**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Meaningful Use – Direct Messaging

Worked with RADAR, to create an API call to secure exchange (Direct Message) email provider.
During the configuration of each practice a radar login information will need to be provided, it is intended currently for each box to have a RADAR account, with the same info on every practice, but will allow for a practice to have their own RADAR account and direct message address.
The RADAR account is the same account that would be used for Appointment Reminder and CTRM.

Direct Email Address can be requested through RADAR and Secure exchange, which will have to be verified.

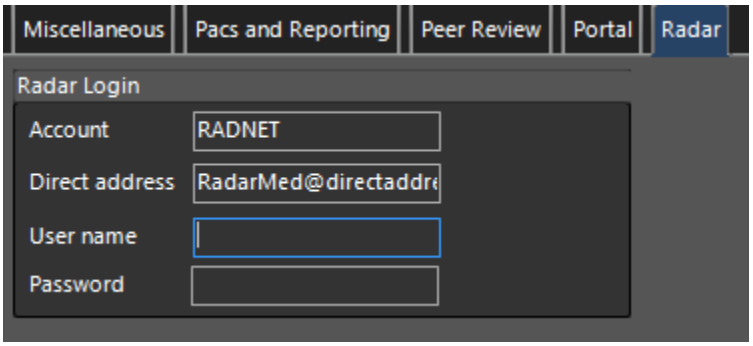



**Figure 5.94 – Practice Radar tab**

This Direct message address and RADAR login is used for sending messages from the Patient Portal as well as sending and receiving Direct message from RIS. When sending a Message the system will first check for a provided value in the practice specific "Direct address" (which does need to be a qualified direct message address), if there is no value specified then we will look at the configuration variable "DirectMessageFromAddress".

### Sending RIS Direct Messages

From within the RIS you are able to send a direct message that will contain the CCDA document by means of opening a patients study through View/Edit, under the MU tab, the process to view the CCDA document will also contain the transmit process for the CCDA document

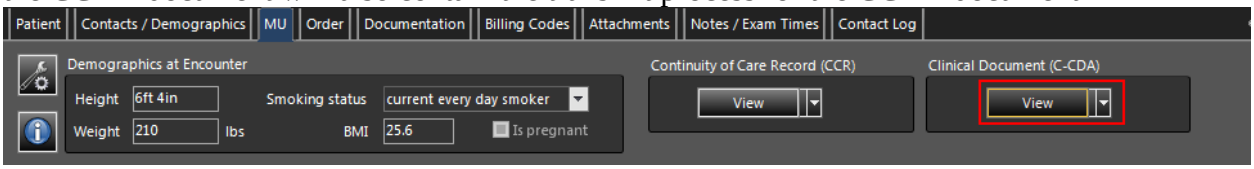



**Figure 5.95 – MU tab Clincal Document access**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

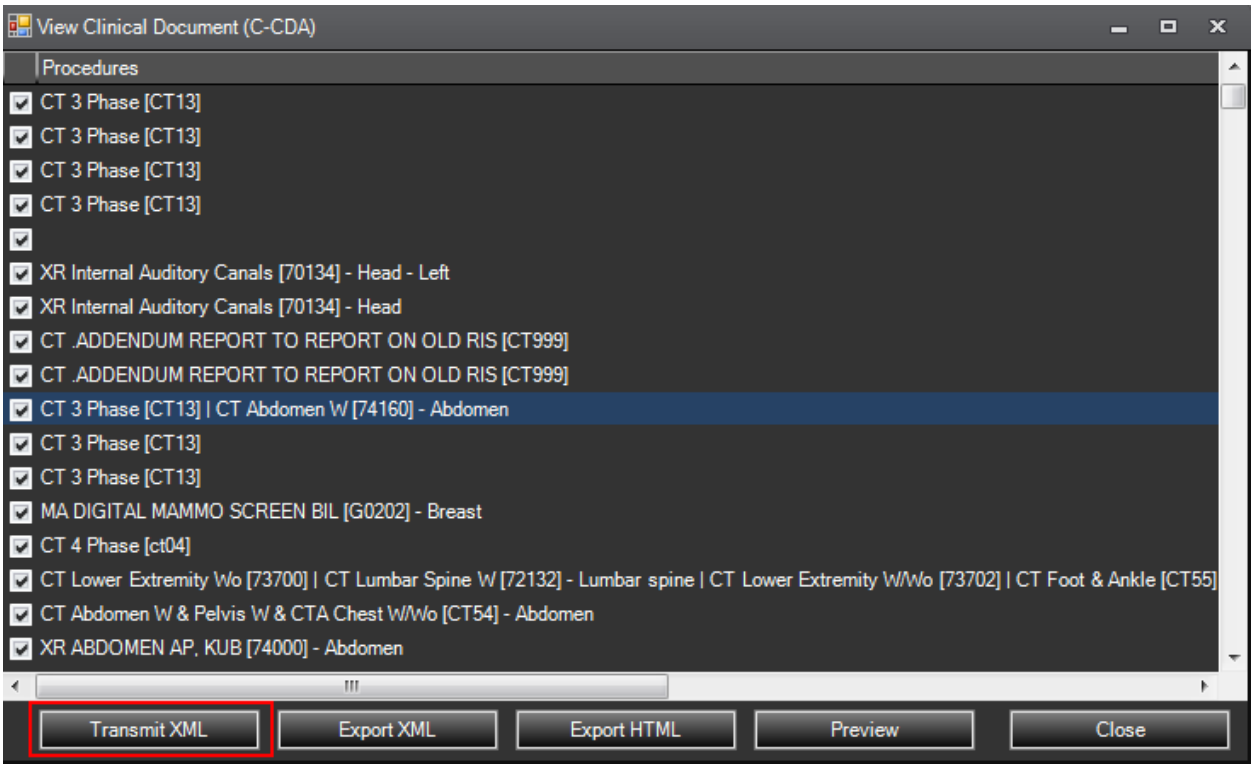



**Figure 5.96 – View Clinical Document**

Transmitting (sending) the CCDA document will allow two version of the document HTML and system(xml) format, where the user will be required to provide a valid Direct message address.

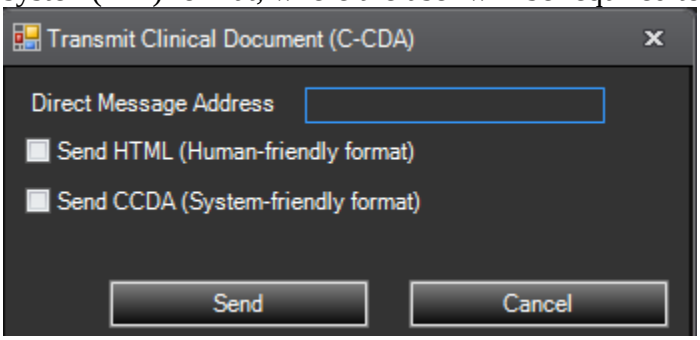



**Figure 5.97 – Transmit Clinical Document**

### Sending Portal Direct Messages

From within the Patient portal, the patient has the ability to send there CCDA document through Direct Message to any desired Direct Message address. When the user has successfully logged

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

into the portal, when there CCDA document is available, the tab will be visible, opening this tab will enable the send button.

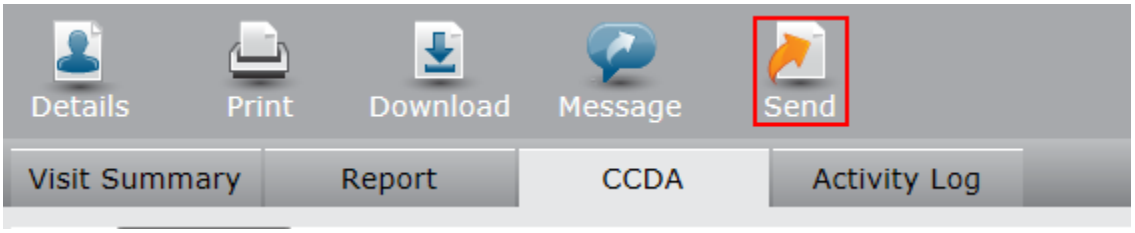



**Figure 5.99 – Sending via Patient Portal**

Click on this will allow for a similar process to the RIS transmit process, where the patient will be prompted for a direct message address, the patient will be required to confirm the address, and then be able to choose what version of the document they would like to send.

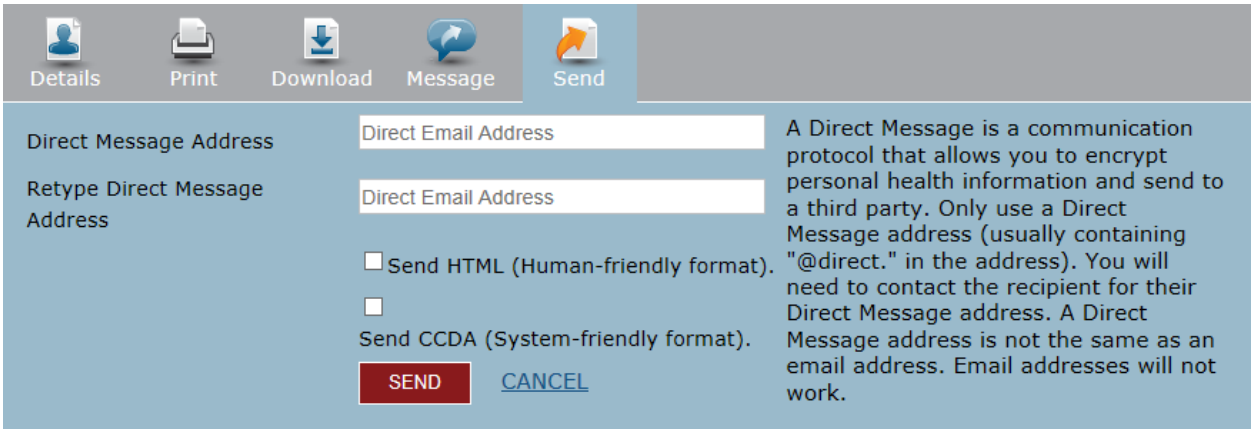



**Figure 5.100 – Entering sender information**

### Receiving Direct Messages

RIS is the only location that is able to receive messages (outside the Direct message provider controlled tools).

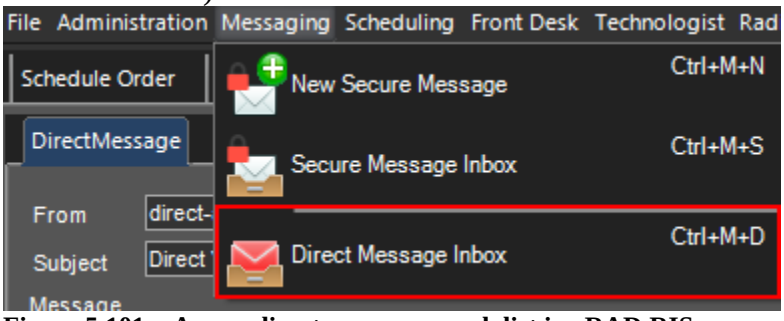



**Figure 5.101 – Access direct messages work list in eRAD RIS**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

From the direct message inbox will list all non-archived messages that for the practices Direct message address.

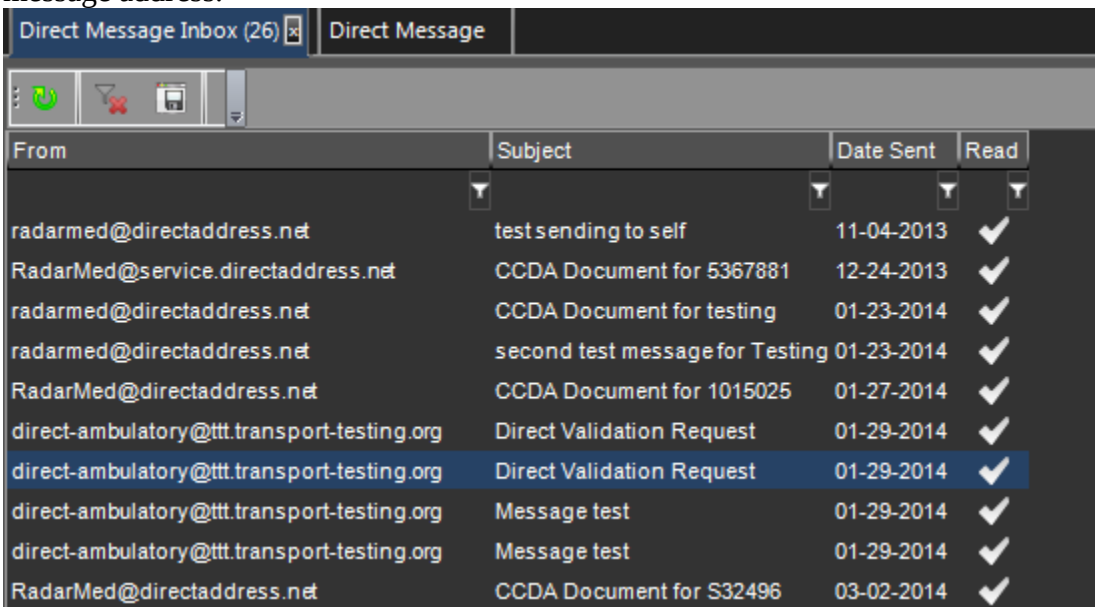



**Figure 5.102 – Direct Message inbox**

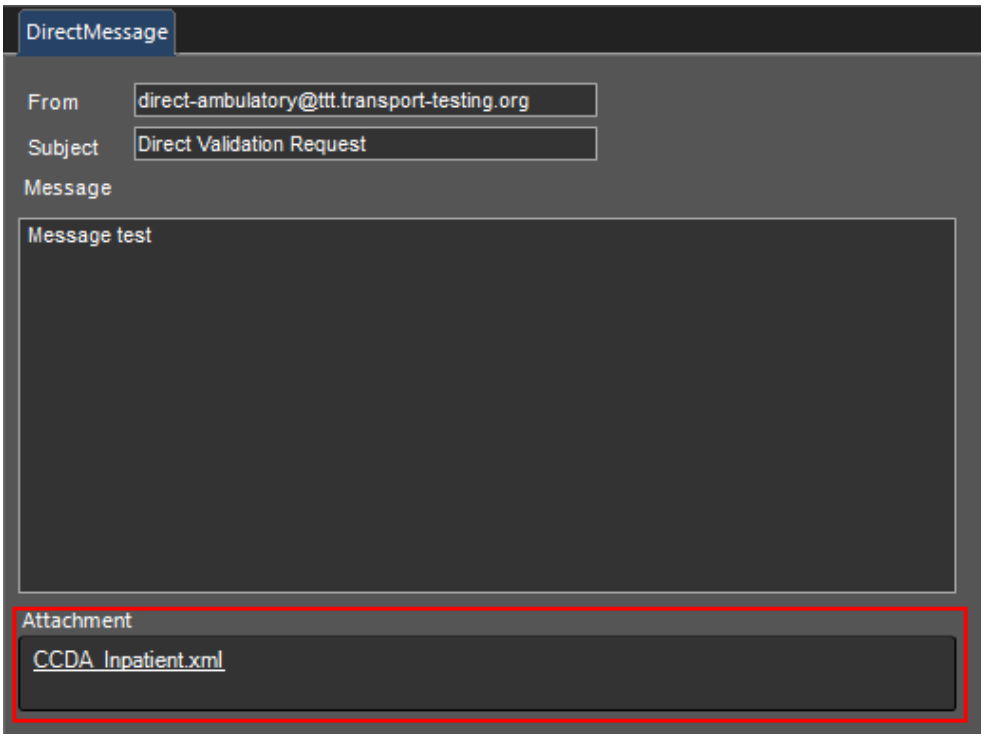



**Figure 5.103 – Accessing direct message**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

Depending of the file type will dictate on how the attachment will handled, if the file is an xml or html we will try to display the attachment, otherwise we will just prompt the user to download the file.

When display the attachment, if it is an xml document type, and we detect that it is a CCDA document we will also provide the user with the ability to link the information from the CCFA document to a desired patient;

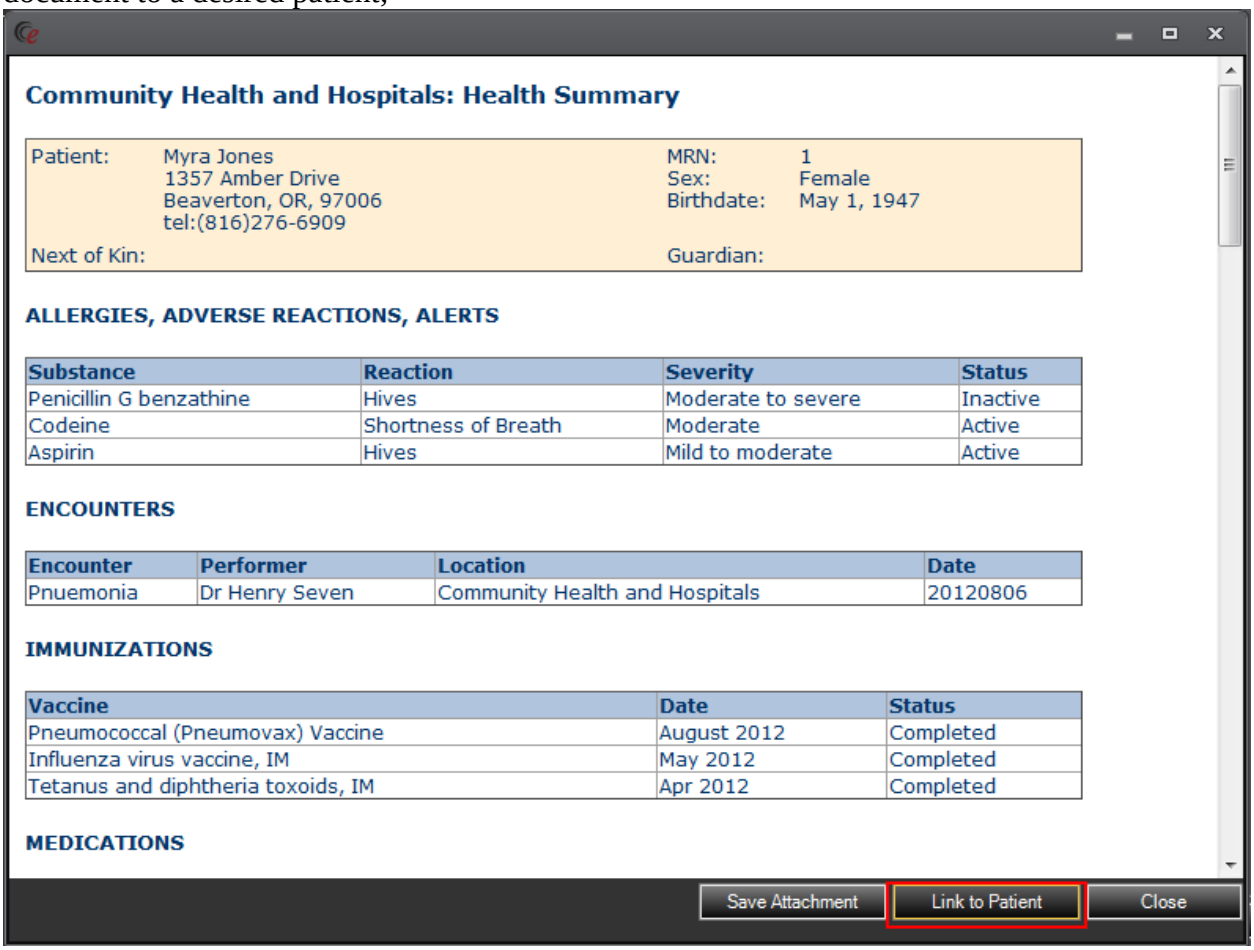



**Figure 5.104 – Viewing CCDA document from link in direct message**

Clicking the link to patient, we will do an initial patient search based on the information we are able to extract from the document, the user is able to modify the search criteria if need be.

Upon selecting a patient, all information from the CCDA document will be merged into the desired patient, and a new patient tab will be added.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

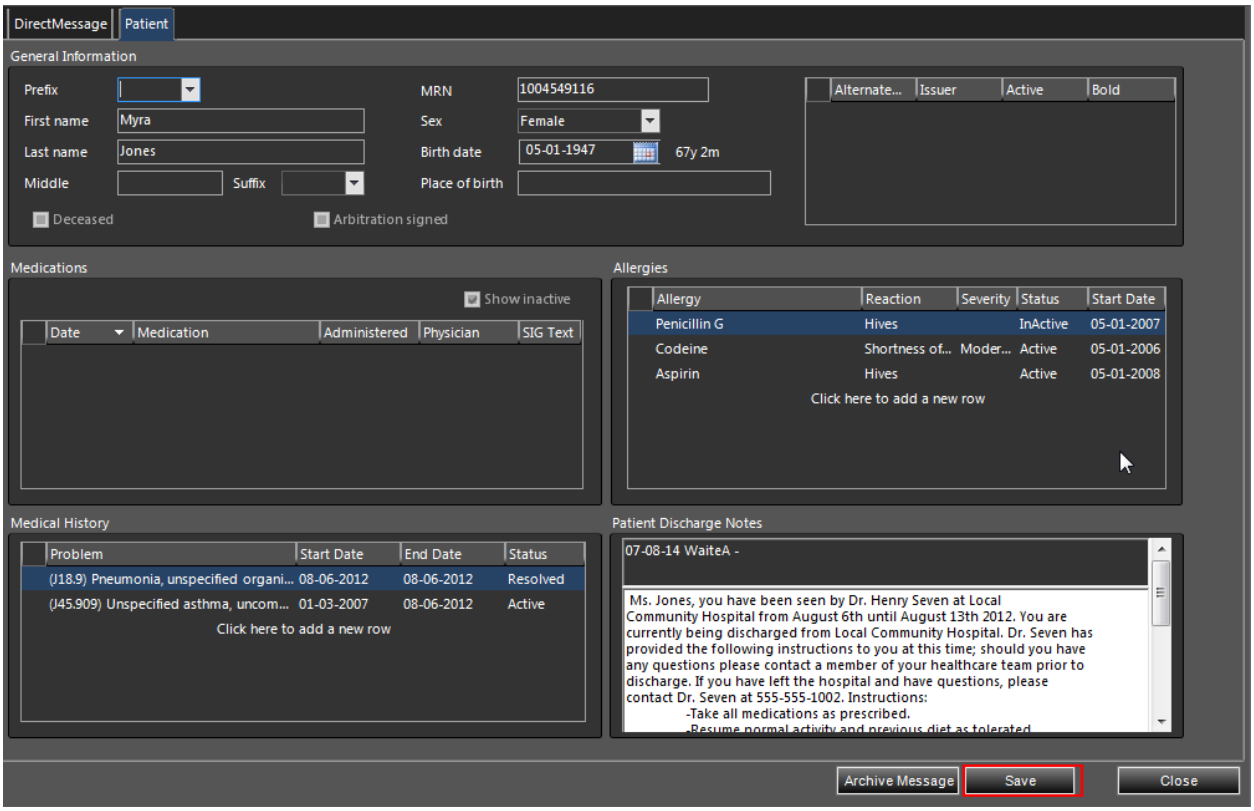



**Figure 5.105 – Patient tab created**

Once all information is imported and confirmed saving will save all imported data. Clicking the archive message is used for once a messages has been completed with, it will remove the message from the direct message inbox WL.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Meaningful Use – Additional Options for MU Fields

On the patient tab the field for Race type, Ethic origin and Language now have a value of "Declined to Specify".

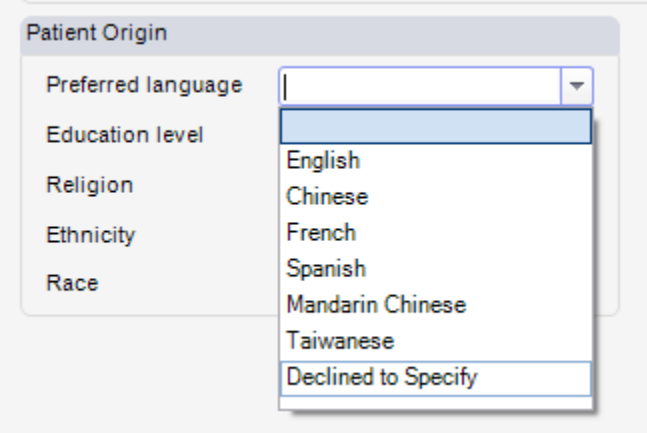



**Figure 5.106 – Declined to specify option**

The Smoking status field on the MU tab also has 2 additional options of Heavy tobacco smoker and Light tobacco smoker.

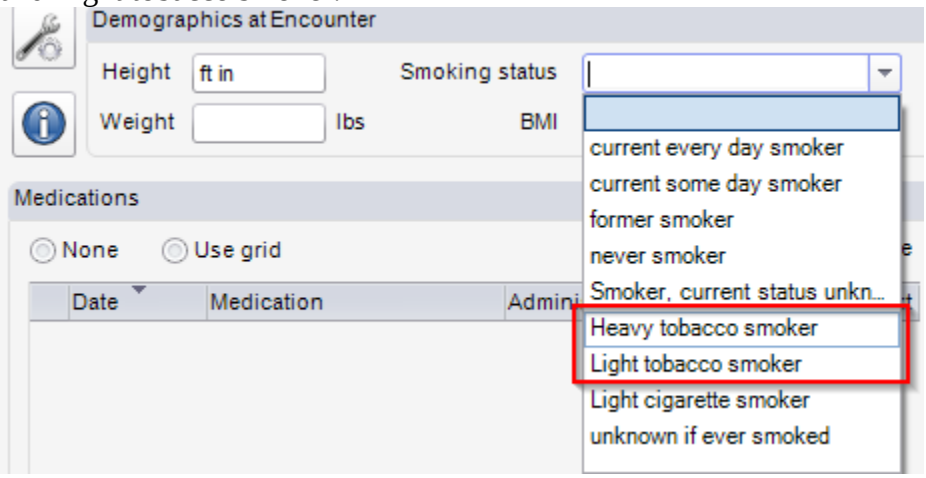



**Figure 5.107 – New smoking status options**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# Meaningful Use – Additional Medications for Quick Add Edit Window

On the MU quick Add/Edit form we modified the code to add the two requested medications (Glycomet and Kombiglzexr).

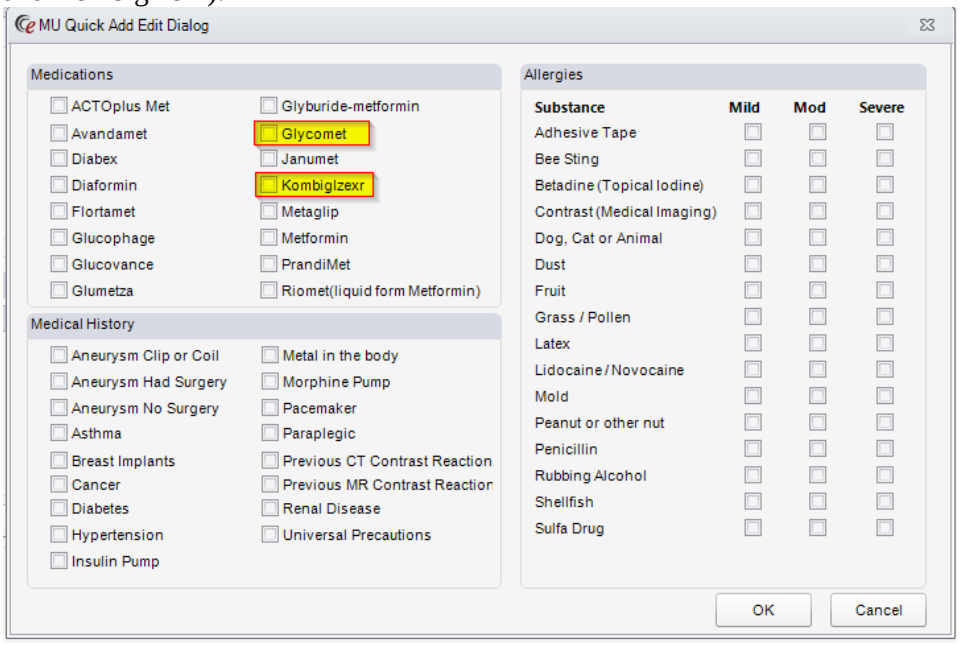



**Figure 5.108 – MU Quick Add Edit window**

Note, in order for these to show enabled on the mu quick add/edit form these two codes will have to be added to the Medication lookup table.

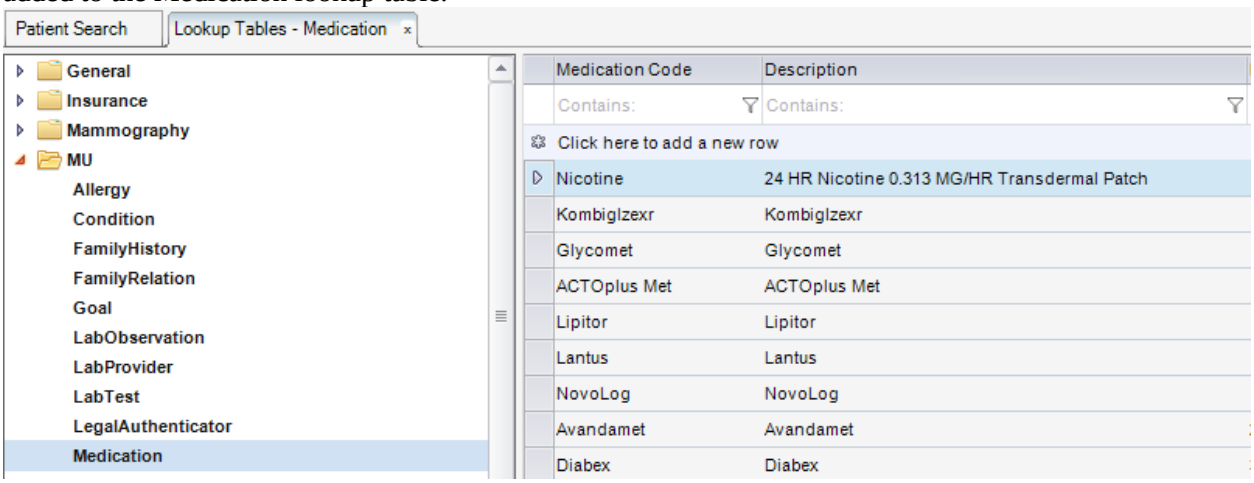



**Figure 5.109 – Medication lookup with new addtions**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Meaningful Use – Laboratory Tests and Values / Results

In order to incorporate MU2 laboratory test results we needed to modify the lab value framework and separated the lab order from the lab results. The screen shot below shows the newly designed form. The User has the ability to add lab order information in the top part of the form and the results will be completed in the results grid. A new button was added that allows the user the ability to add child labs to the lab entry.

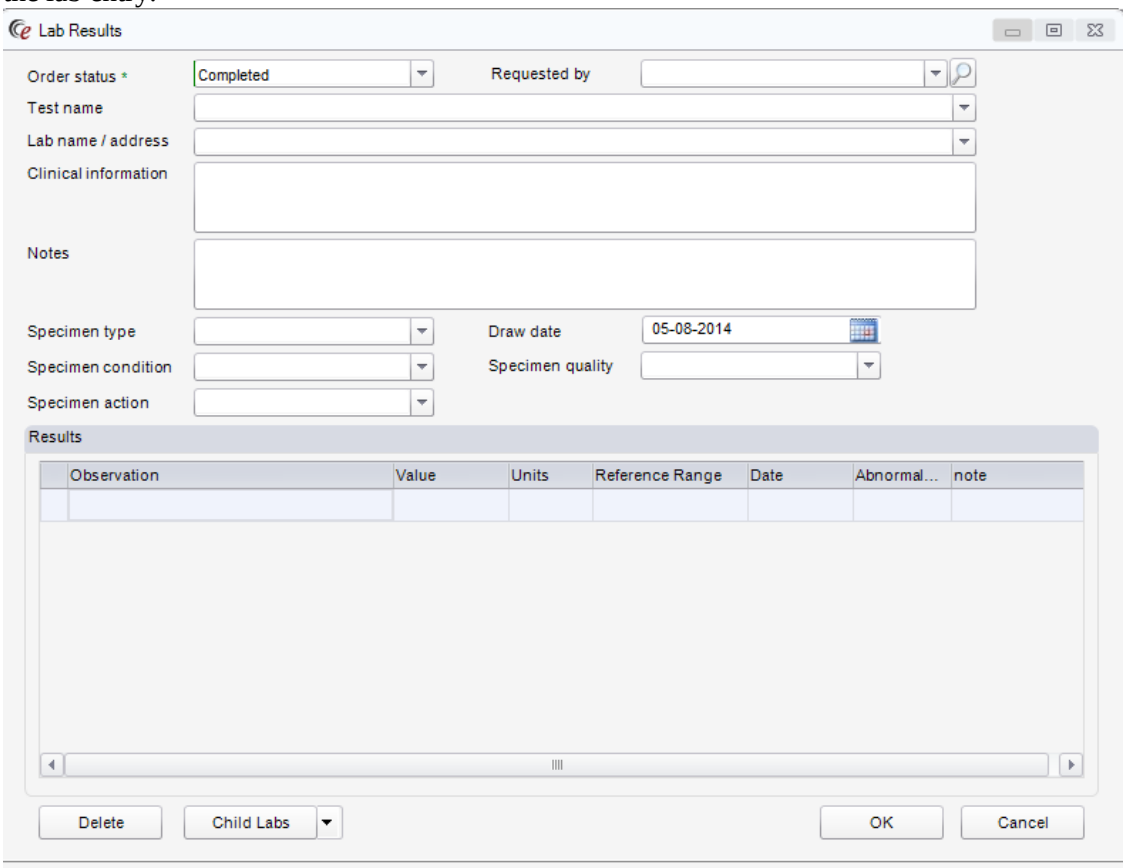



**Figure 5.110 – Lab results window from MU tab**

We created a script (Lab_value_changes.sql) to the build process to migrate over MU values into the new lab framework.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Meaningful Use – Office Visit

The Billing Code table has a new column titled MU Office Visit Flag. It will be used by the automated measures management report when applicable to determine if the mu measure is an office visit and calculate the numerator and denominator based on the performed procedure being an office visit. By default the value is set to N.

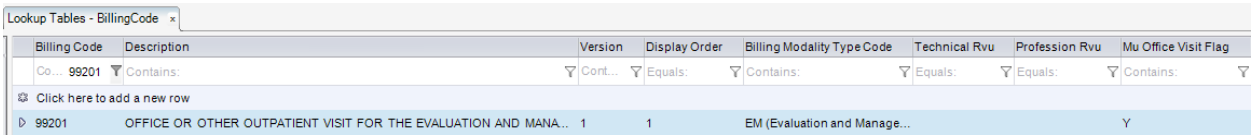



**Figure 5.111 – Billing code table**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Meaningful Use – Clinical Summaries

Added to the MU tab is a new section called Clinical Documentation (C-CDA). The button contains 2 new options of "View" which will view all exams for the patient and "View Current Exam" which will only view the current exam. Normally for Clinical Summary we will select "View Current Exam" to generate the CCDA/human readable format since we are mainly concerned about the current visit.

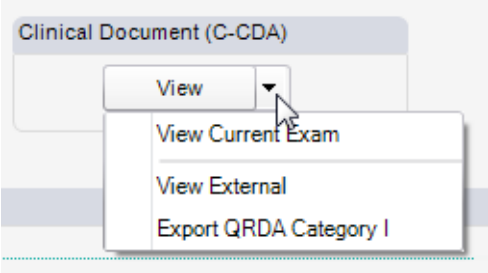



**Figure 5.112 – New options for C-CDA button**

Clicking the View Current Exam will launch a new dialog which will allow the user the ability to customize data. The user will have the option to removed sections for example uncheck Medications will remove medications from both the CCDA and human readable. The user also will have the ability to uncheck specific items they wish not to appear in either the CCDA or human readable format. To generate the CCDA the file format the user will click the Export XML, while the human readable is generated by clicking the Export HTML.

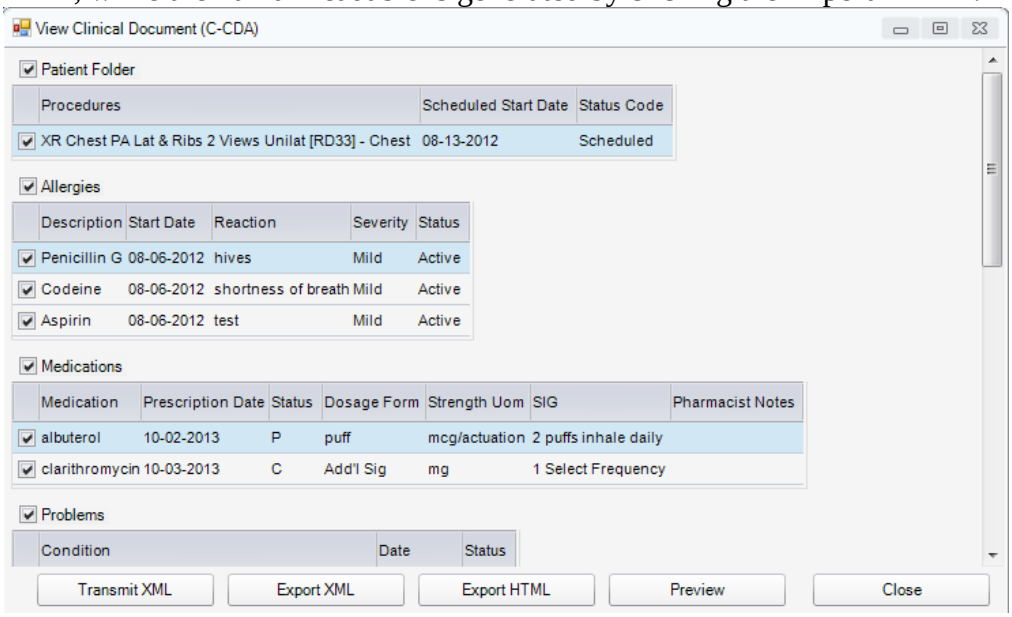



**Figure 5.113 – View Clinical Document (C-CDA)**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Meaningful Use – Data Portability

The data portability feature is really the ability to export all CCDA patient records and therefore this story will be referred to as the MUExportAll feature.

When exported the results will be written to the location specified by the system configuration setting **"MUExportAllPath".** This setting doesn't have a default value. When complete the file will be updated with the date it was completed. If an error occurs the error details are captured.

The UI's Meaningful use form under "Administration / Meaningful Use" shows the progress of the current or previous export operation. It shows how many records have been exported and how many in total are to be processed. It also allows the user to start a new export and gives them the option to suspend or resume the latest export.

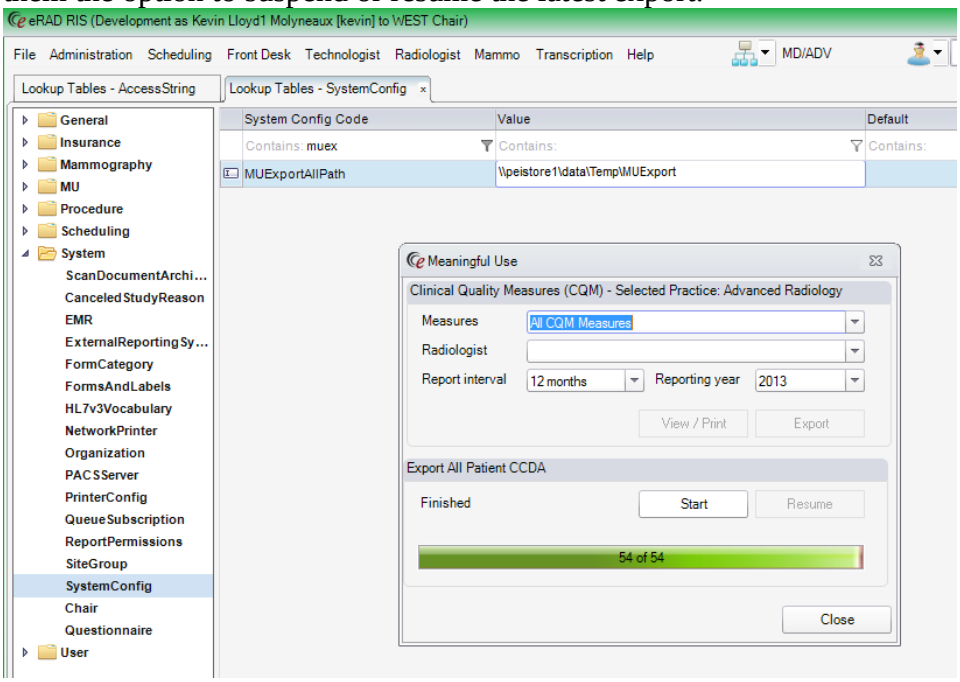



**Figure 5.114 – System config setting and Meaningful Use window display progress**

When clicking the start button the user is asked to confirm the export operations.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

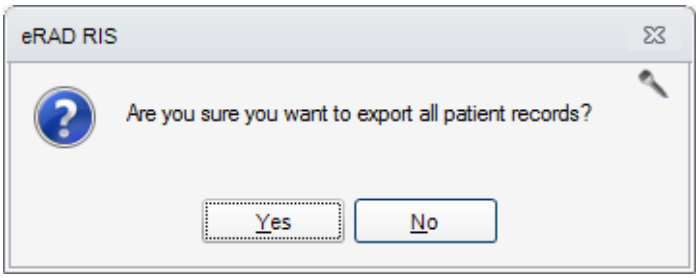



**Figure 5.115 – Confirmatory message**

Choosing Yes will export **all patient** records to the MUExportPath and will overwrite any pre-existing exports at that location. The files are written to the MUExportPath in the format

*Birthyear\birthmonth\birthday\<patient_id>_<issuer_of_id>_<first_name>_<last_name>.xml*

If there is less than 1 GB available at the MUExportPath the status of the export will change to "InsufficientSpace" and after space is made available the user can restart the process by clicking the "Resume" button.

The export progress is completely asynchronous and is executed on the server. There is only one export processing thread per server instances, which on our test instance was exporting about 1 million patients in a week. If you need to process 2 million in a week all you have to do is scale the solution by adding additional WS instances.

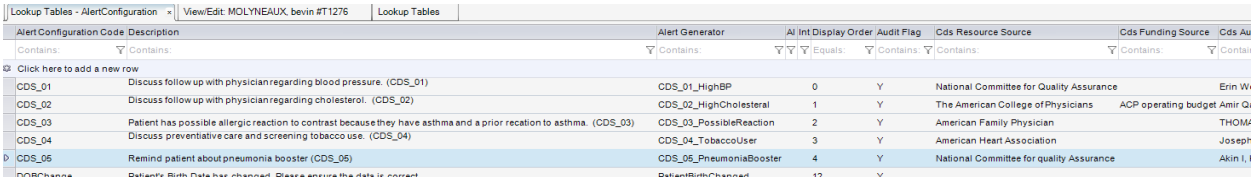
Access to this feature is control via the access string **"MU.ExportAll"** with a default of none.

When and export is started, the Start button then becomes the Stop button. If the Stop button is selected the current job will be put in a status of stopped, which in turn will change the stop button to start again. Stopping or suspended the job will terminate the existing export thread (which will take a few seconds to terminate). The count will be refreshed when you decide to Start the export process again which is only available when in stopped state.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Meaningful Use – Alerts and Clinical Decision Support

The MU alerts we have provided to meet these MU requirements are as follows:
• MRI65PlusHeartDiseaseLipitorAndLDL100Plus
• **LabOrderWithEmptyValue**
• **HasAllergy** (*allergy_code, contrast_procedure_flag)
• **HasProblem** (*indication_code, contrast_procedure_flag)
• **OnMedication** (*drug_name, contrast_procedure_flag)
• **ProcedureXAndHighBP** (procedure_code, BP) // we will allow * from procedure_code
• **AgeGreaterThan** (age, contrast_procedure_flag)


Lookup Tables - AlertConfiguration | View/Edit: MOLYNEAUX, bevin #T1276 | Lookup Tables

| Alert Configuration Code | Description | Alert Generator | Al | Int Display Order | Audit Flag | Cds Resource Source | Cds Funding Source | Cds Au |
|---|---|---|---|---|---|---|---|---|
| Contains: | Contains: | Contains: | | Equals: | Contains: | Contains: | Contains: | Contai |
| Click here to add a new row | | | | | | | | |
| CDS_01 | Discuss follow up with physician regarding blood pressure. (CDS_01) | CDS_01_HighBP | | 0 | Y | National Committee for Quality Assurance | | Erin W |
| CDS_02 | Discuss follow up with physician regarding cholesterol. (CDS_02) | CDS_02_HighCholesteral | | 1 | Y | The American College of Physicians | ACP operating budget | Amir Q |
| CDS_03 | Patient has possible allergic reaction to contrast because they have asthma and a prior recation to asthma. (CDS_03) | CDS_03_PossibleReaction | | 2 | Y | American Family Physician | | THOM |
| CDS_04 | Discuss preventiative care and screening tobacco use. (CDS_04) | CDS_04_TobaccoUser | | 3 | Y | American Heart Association | | Joseph |
| CDS_05 | Remind patient about pneumonia booster (CDS_05) | CDS_05_PneumoniaBooster | | 4 | Y | National Committee for quality Assurance | | Akin I, |
| DOBChange | Patient's Birth Date has changed. Please ensure the date is correct | PatientBirthChanged | | 12 | Y | | | |

**Figure 5.116 – Alert configuration table**

**contrast_procedure_flag** is either a Y or N value. if Y, then the alert only fires if the procedure requires contrast. * are parameters that can be more than one separated by a comma.
To deal with **Clinical Decision Support** the alert text for several of these entries is customizable via the AlertConfiguration lookup table and supports links to external web sites via the a href syntax such as:

<a href='http://www.med.unc.edu/…'>Heart Disease</a>

With the above, when the user clicks on the "Heart Disease" link, the web page www.med.unc.edu will be displayed in a web browser form. The form will be model and when they close the form they will return to the RIS.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

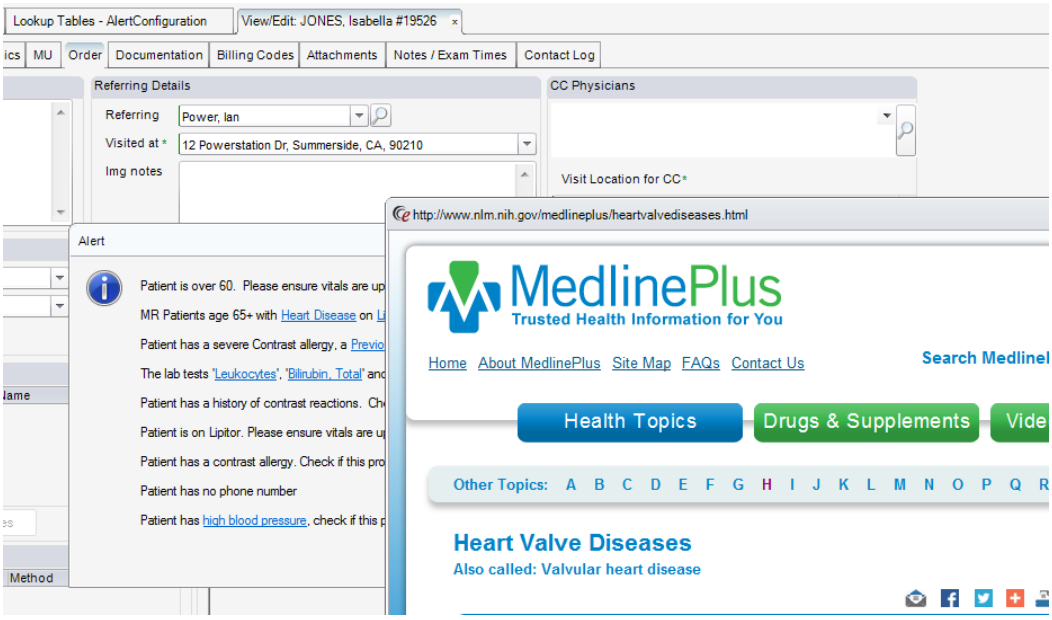



**Figure 5.117 – Clinical decision support**

If the LINK is prefixed with #MUProvidedEducation# and the patient hasn't been provided with CDS information for the current visit, the user will get prompted when they close the web info window with a dialog such as:

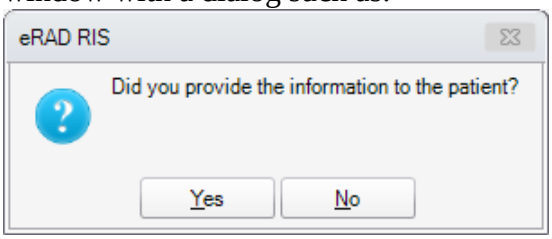



**Figure 5.118 – Confirmatory messge for CDS**

If they choose Yes, it will be marked as "provided educational resources" for the visit.

Here is another example of an alert description, which is set to provide CDS information and record if we provided education resources to the patient:

Patient has <a href='#MUProvidedEducation#https://www.med.unc.edu/im/patients/Resources/high-blood-pressure'>high blood pressure</a>, check if this procedure should be done in an imaging center.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

Then in our first round of MU certification testing we realized we needed Clinical Resource Sourced rules for CDS such as the American Family Physician backed rules for our MU alerts. Based on this we produced the following MU rules:

#1 Alert patient to follow up with physician regarding BP

1) Condition that triggers the alert
   - High BP age 18-85
   - Noted hypertension
   - BP is over 140/90
2) The Clinical resource source
   - National Committee for Quality Assurance
3) The funding source
4) The author of the CDS
   - **Erin Weireter,** Released January 17,2012
5) The link to the clinical resource
   - http://www.qualityforum.org/News_And_Resources/Press_Releases/2012/NQF_Endorses_Cardiovascular_Measures.aspx

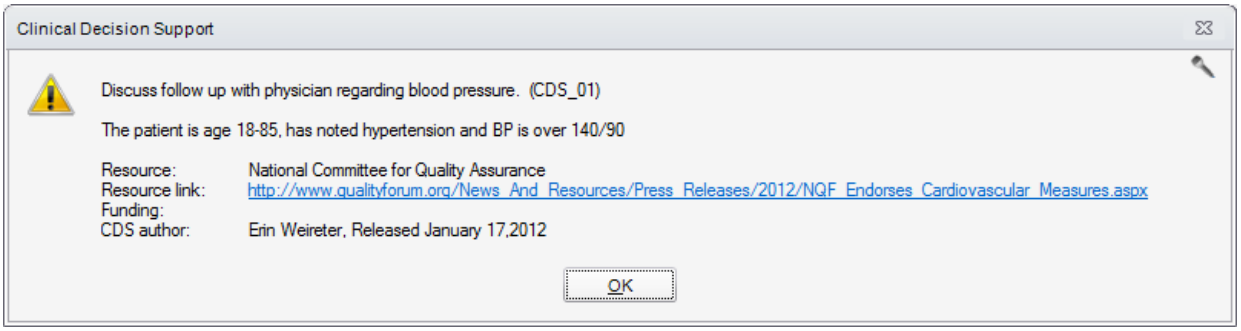



**Figure 5.119 – Alert 1**

#2 Alert patient to follow up with physician regarding cholesterol

1) Conditions that triggers the alert
   - Patient over 65
   - On Lipitor
   - Cholesterol reading over 100
2) The Clinical resource source
   - The American College of Physicians
3) The funding source

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

- Financial support for the Performance Measurement Committee comes exclusively from the ACP operating budget

4) The author of the CDS
   - Amir Qaseem, MD, Robert Centor, MD and Andrew Dunn, MD
5) The link to the clinical resource:

http://www.acponline.org/clinical_information/performance_measurement/ckd.htm

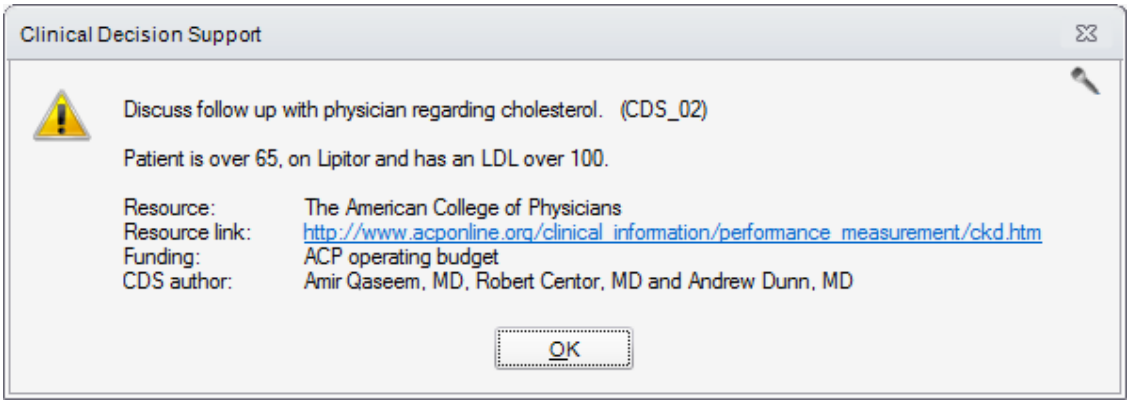



**Figure 5.120 – Alert 2**

#3 Alert patient as to possible allergic reaction to contrast

1) Conditions that triggers the alert
   a. Patient has asthma
   b. Prior reaction to contrast
2) The clinical Resource Source
   a. American Family Physician
3) Financial Source
   a. n/a
4) The author of the CDS
   a. THOMAS G. MADDOX, M.D.,
5) The link to the clinical resource:
   a. http://www.aafp.org/afp/2002/1001/p1229.html

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

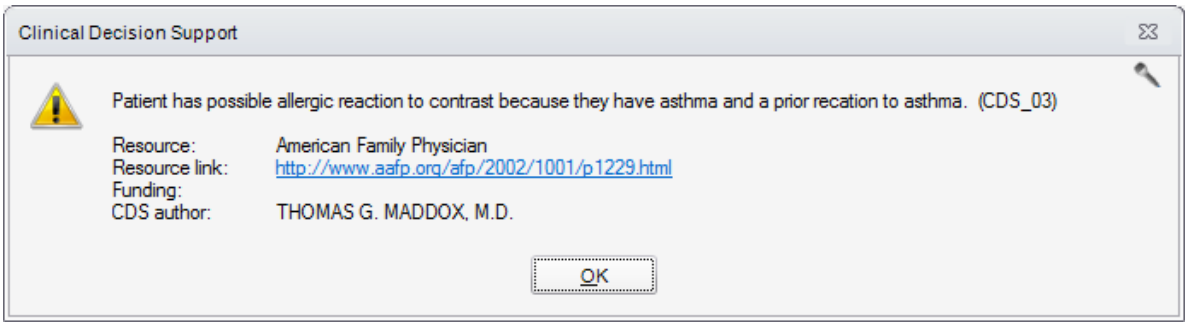



**Figure 5.121 – Alert 3**

#4 Discuss Preventative Care and Screening Tobacco Use

1) Conditions that triggers the alert
    a. Aneurysm /no surgery/smoker
    b. Men over 50 years old higher risk of infection
2) The Clinical Resource Source
    a. American Heart Association
3) Financial Source
    a. n/a
4) The Author of the CDS
    a. Joseph P. Broderick, M.D.,
5) The link to the clinical resource

www.sciencedaily.com/releases/2010/02/100226093207.htm

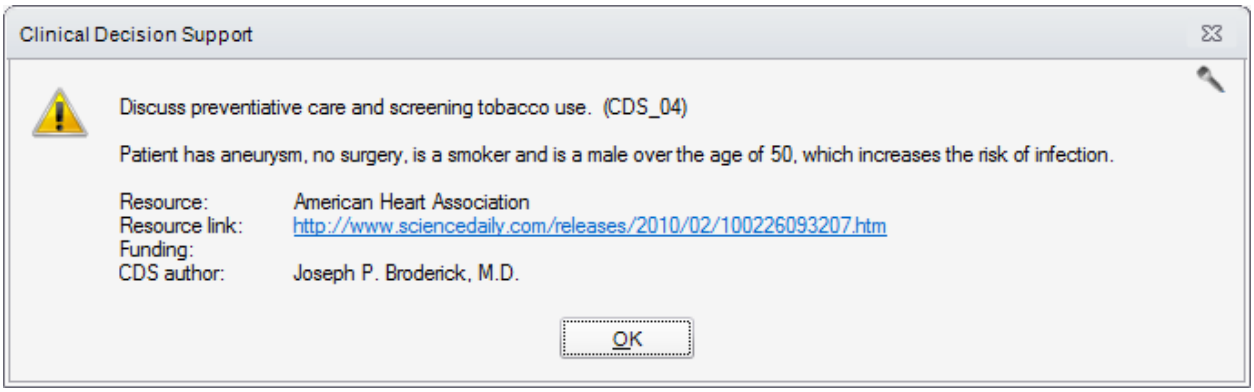



**Figure 5.122 – Alert 4**

#5 Patient Reminder for Pneumonia Booster if Criteria is met

1) Conditions that trigger alert:
    a. Pneumonia Vaccination (PPV23)
    b. Adults 65 and older
    c. Smoke, asthma, heart disease

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

2) The Clinical Resource Source
    a. National Committee for quality Assurance
3) Financial Resource
    a. n/a
4) The author of the CDS
    a. Akin l, Kaya M. Altinel S. & Durand L.
5) The link to the clinical resource
    a. *www.qualityforum.org/WorkArea/linkit.aspx?LinkIdentifier=id...*

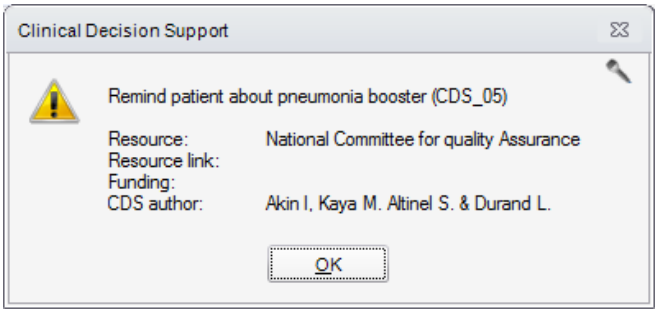



**Figure 5.123 – Alert 5**

**Configuration for new Alerts:**

Alert access strings have been created in the application and can be configured so users whose clinical role allows or does not allow them to see clinical decision support interventions rules. By default the alerts in the system will be set to **Full** access so they will fire for all users. In order to not fire the CDS rule an admin user that has the rights to configure user's rights would have to set the user group to NONE.

Alert #1 is controlled by the access string **"Alert.CDS_01_HighBP"**

Alert #2 is controlled by the access string **"Alert.CDS_02_HighCholesteral"**

Alert #3 is controlled by the access string **"Alert.CDS_03_PossibleReaction"**

Alert #4 is controlled by the access string **"Alert.CDS_04_TobaccoUser"**

Alert #5 is controlled by the access string **"Alert.CDS_05_PneumoniaBooster"**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Meaningful Use – Clinical Quality Measures

To resolve this feature we need to use the cypress tool [v2.4.1]. Radnet has selected the following CQMs measures for Meaningful Use stage 2. Documentation to generate QRDA Category I and III use **CDAR2_QRDA_DSTUR2_2012JUL.docx** which can be downloaded from HL7 Implementation website.

**Radnet 9 CQMs measures**

**CMS50** - Closing the referral loop: receipt of specialist report
**CMS65** - Hypertension: Improvement in blood pressure
**CMS69** - Preventive Care and Screening: Body Mass Index Screening and Follow-Up
**CMS117**- Childhood Immunization Status
**CMS125**- Breast Cancer Screening
**CMS138**- Preventive Care and Screening: Tobacco Use: Screening and Cessation Intervention
**CMS147**- Preventive Care and Screening: Influenza Immunization
**CMS155**- Weight Assessment and Counseling for Nutrition and Physical Activity for Children and Adolescents
**CMS165**- Controlling High Blood Pressure

1) Clinical Quality Measures – capture and export.
   - Retrieve the patient data from Cypress based on the chosen CQMs
     HTML FILE - G:\Documents\RADNet\rRis Product Requirements\Meaningful Use\2014\CQM\QRDA\Samples\NewFolks
   - Create the QRDA Category I output data for evaluation.

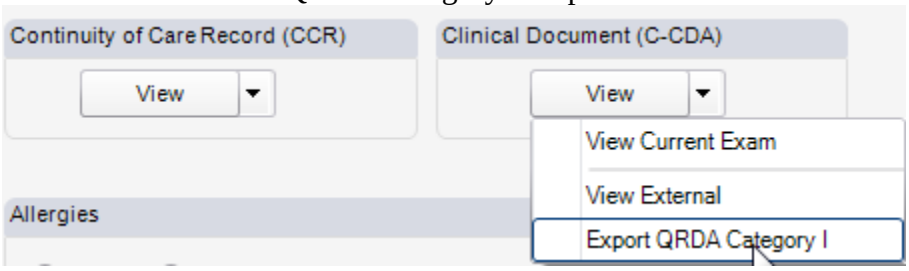



**Figure 5.124 – Capture and export**

User must select the legal authenticator which is used in the QRDA file. (These values are populated from a lookup legal authenticator).

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

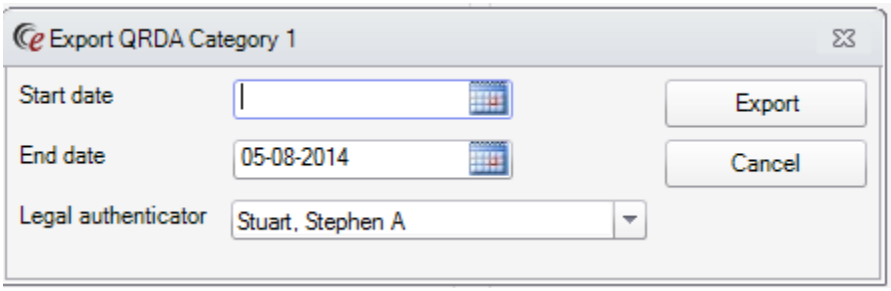



**Figure 5.125 – Export QRDA Category 1**

2) Clinical Quality Measures – Import and calculate
   - Create the patient test deck from Cypress using the specific CQMs selected.
   - Proctor will instruct the Vendor to use the EHR functions to perform the CQM calculations and evaluate them against the expected results.

3) Clinical Quality Measures – electronic submission
   - The CQM calculation results in both QRDA Category I and III format.
   - In order to upload the QRDA Category III results into Cypress for evaluation we added the Quality Reporting Document (QRDA) to the Meaningful Use form for users to generate QRDA Category III results.

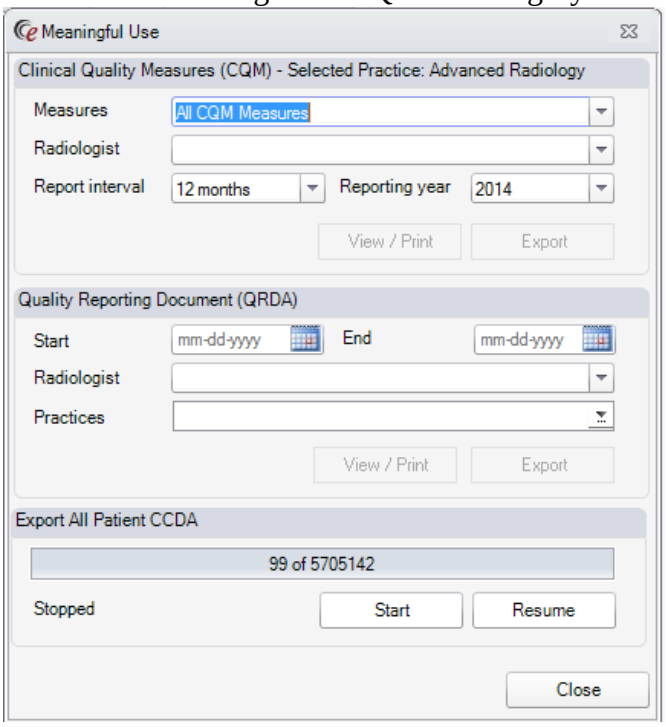



**Figure 5.126 – Meaningful use window**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Meaningful Use – Preventative Care

A new option has been added to the Contact Method of "Declined" has been added to the ContactMethod lookup table.

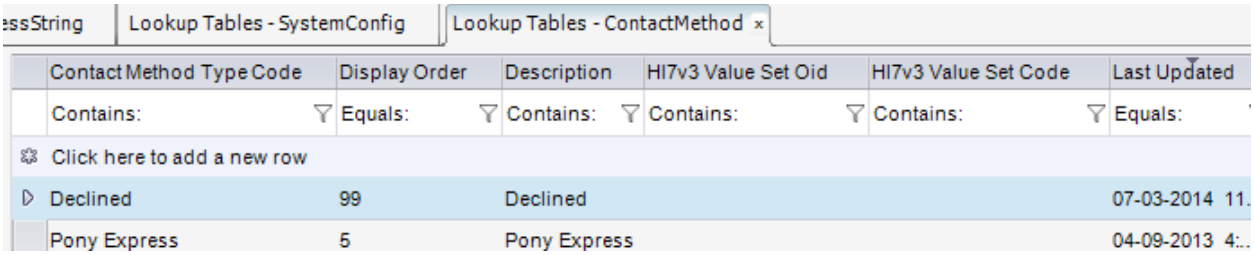



**Figure 5.127 – Declined added to the ContactMethod lookup**

This value will appear in the Preferred Contact Method list box of the Patient tab.

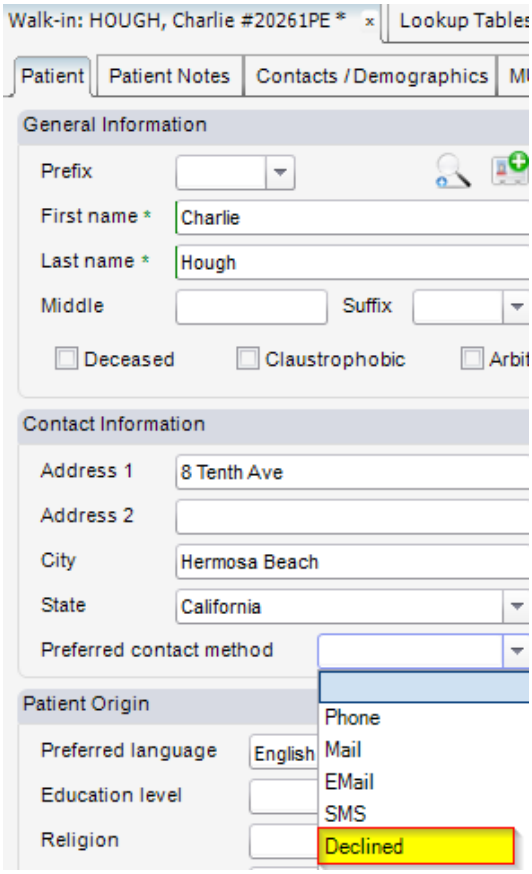



**Figure 5.128 – New preferred contact method**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

Also a new system configuration setting of **"CallbackDeclinedValue"** has been added. This value references the item in the ContactMethod lookup that is used to trigger whether the order's last_letter field should be flagged as 'Declined Callback' in the web services. There is no default value set for this config setting.

If contact method is set to decline value, we will set the order's last letter to '*Declined Callback'* and set the order's last letter date to now when a follow-up order is about to be created.

When configuring this setting, users must take a precaution when selecting the value of Declined as the Preferred Contact Method when the System Configuration setting of "CallbackDeclinedValue" is set to Declined or any other value from the ContactMethod lookup.

For example, a patient that has the Preferred Contact Method of Declined and the System Configuration setting has a value of Declined. If this study is a Mammo study in which a follow up letter will be sent, the letter would not appear on the Mammo Letters WL as the contact method of Declined will be filtered out of the work list.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Meaningful Use – Automated Measures Management Report

Automated Measures – A management report that can accurately adjust the reporting period for all the required types and that the numerator and denominator information are accurate and complete for each reporting period and meaningful use stage for a specific Radiologist.

### Automated Measures - Stage 1

**Radiologist: Power MD, Ian**
**Date Range:** 1/1/2014 - 12/31/2014
**Practice(s):** Get Well Clinic
**Description:** This report displays the percertage of patients where the mu requirement was recorded.
*Click ***here*** to get the details.

| Description | Numerator | Denominator | MU measure | Percentage |
|---|---|---|---|---|
| Demographics | 5 | 8 | 50 | 62.50 % |
| Patient reminders | 5 | 14 | 20 | 35.71 % |
| Medication reconciliation | 4 | 8 | 50 | 50.00 % |
| Problem list | 6 | 8 | 80 | 75.00 % |
| Medication list | 7 | 8 | 80 | 87.50 % |
| Allergy list | 6 | 8 | 80 | 75.00 % |
| Vitals and BMI | 4 | 7 | 50 | 57.14 % |
| Vitals and BMI (alt) | 5 | 8 | 50 | 62.50 % |
| Vitals - BP Out of Scope | 6 | 8 | 50 | 75.00 % |
| Vitals - Ht/Wt Out of Scope | 4 | 7 | 50 | 57.14 % |
| Smoking status | 5 | 7 | 50 | 71.43 % |
| CPOE med | 6 | 7 | 30 | 85.71 % |
| CPOE med (alt) | 9 | 19 | 30 | 47.37 % |
| eHealth | 0 | 0 | 50 | 0.00 % |
| eRx | 0 | 10 | 40 | 0.00 % |
| Lab results | 10 | 17 | 40 | 58.82 % |
| Patient education | 6 | 8 | 10 | 75.00 % |
| Clinical summary | 6 | 9 | 50 | 66.67 % |
| Summary of care | 5 | 8 | 50 | 62.50 % |
| VDT (timely access) | 7 | 8 | 10 | 87.50 % |
| VDT (patient use) | 6 | 8 | 5 | 75.00 % |

eRAD

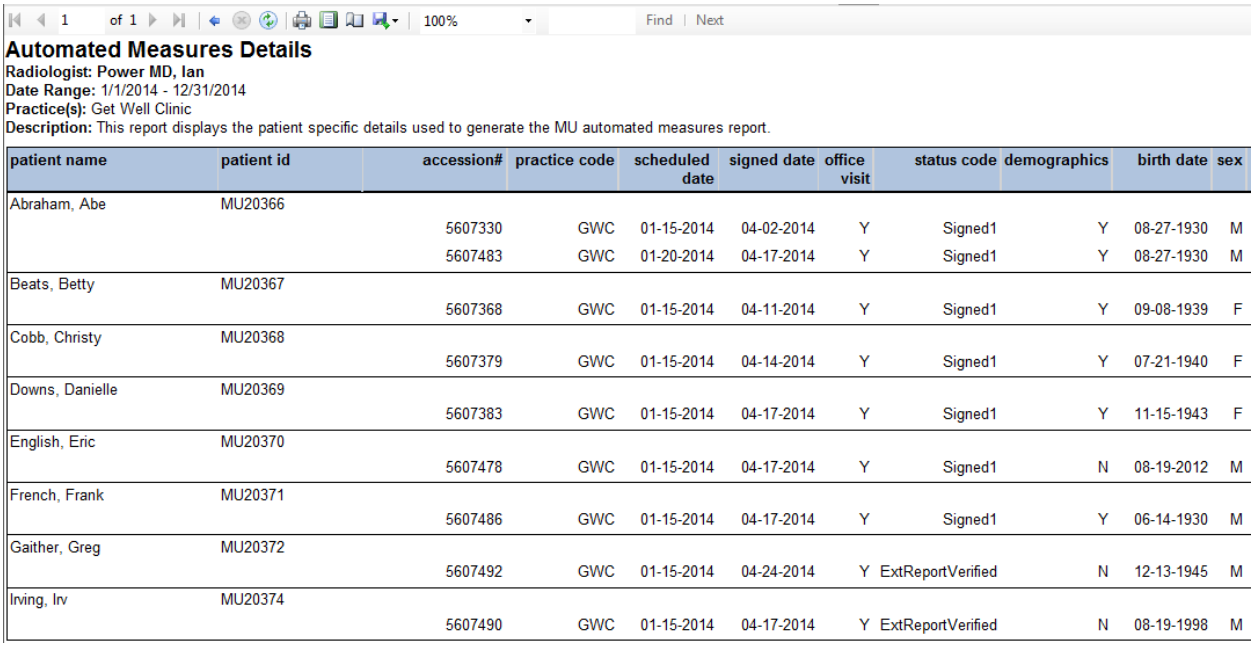
Confidential and Proprietary
Page 1 of 1

Date Run: 5/8/2014 2:15 PM
RMIS\FormsGuestUser

**Figure 5.129 – Automated measures management report stage 1**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

Automated Measures Details - we created to help troubleshoot MU measure problems in the field a new report that will be used to display summary details which make up the numerators and denominators found in the Automated Measures Report. This report can be found in the "SubReport" folder.



1 of 1 100% Find | Next

**Automated Measures Details**

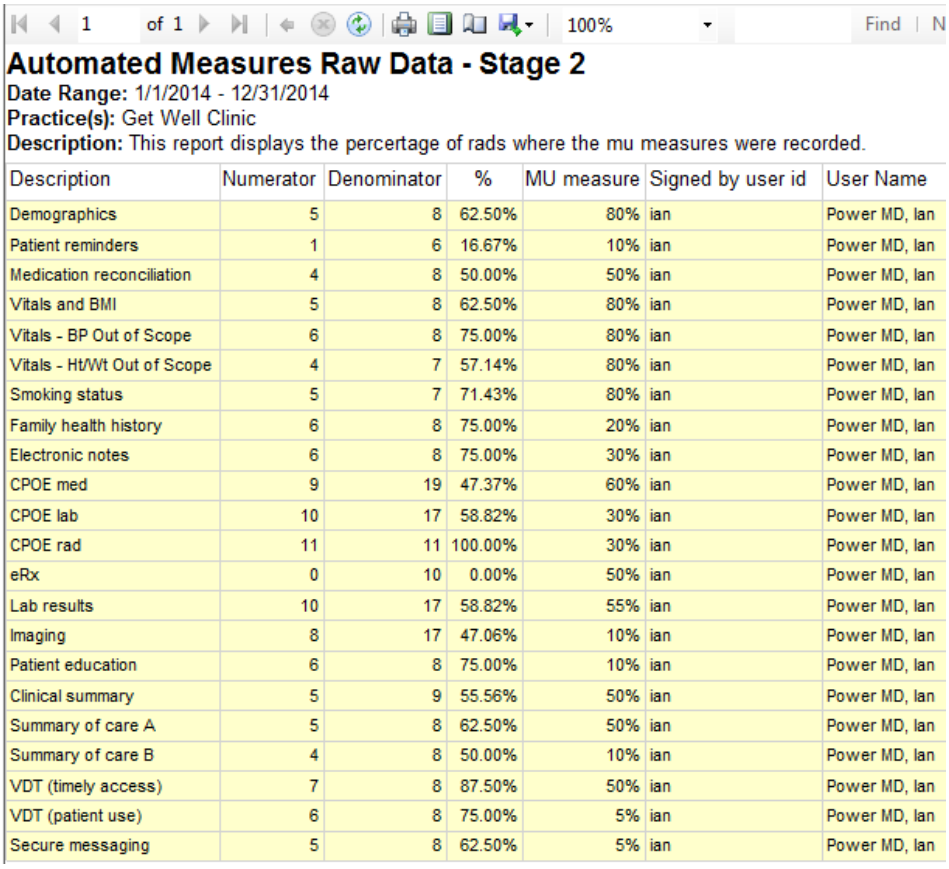
**Radiologist:** Power MD, Ian
**Date Range:** 1/1/2014 - 12/31/2014
**Practice(s):** Get Well Clinic
**Description:** This report displays the patient specific details used to generate the MU automated measures report.

| patient name | patient id | accession# | practice code | scheduled date | signed date | office visit | status code | demographics | birth date | sex |
|---|---|---|---|---|---|---|---|---|---|---|
| Abraham, Abe | MU20366 | | | | | | | | | |
| | | 5607330 | GWC | 01-15-2014 | 04-02-2014 | Y | Signed1 | Y | 08-27-1930 | M |
| | | 5607483 | GWC | 01-20-2014 | 04-17-2014 | Y | Signed1 | Y | 08-27-1930 | M |
| Beats, Betty | MU20367 | | | | | | | | | |
| | | 5607368 | GWC | 01-15-2014 | 04-11-2014 | Y | Signed1 | Y | 09-08-1939 | F |
| Cobb, Christy | MU20368 | | | | | | | | | |
| | | 5607379 | GWC | 01-15-2014 | 04-14-2014 | Y | Signed1 | Y | 07-21-1940 | F |
| Downs, Danielle | MU20369 | | | | | | | | | |
| | | 5607383 | GWC | 01-15-2014 | 04-17-2014 | Y | Signed1 | Y | 11-15-1943 | F |
| English, Eric | MU20370 | | | | | | | | | |
| | | 5607478 | GWC | 01-15-2014 | 04-17-2014 | Y | Signed1 | N | 08-19-2012 | M |
| French, Frank | MU20371 | | | | | | | | | |
| | | 5607486 | GWC | 01-15-2014 | 04-17-2014 | Y | Signed1 | Y | 06-14-1930 | M |
| Gaither, Greg | MU20372 | | | | | | | | | |
| | | 5607492 | GWC | 01-15-2014 | 04-24-2014 | Y | ExtReportVerified | N | 12-13-1945 | M |
| Irving, Irv | MU20374 | | | | | | | | | |
| | | 5607490 | GWC | 01-15-2014 | 04-17-2014 | Y | ExtReportVerified | N | 08-19-1998 | M |

**Figure 5.130 – Automated measures details**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

Automated Measures Raw Data - A management report that can accurately adjust the reporting period for all the required types and that the numerator and denominator information are accurate and complete for each reporting period and meaningful use stage for multiple Radiologist. The main purpose of this report will be used to export results to csv or excel so administrators can monitor the progress of individual Radiologist with regards to MU measures.



1 of 1 100% Find | N

**Automated Measures Raw Data - Stage 2**

**Date Range:** 1/1/2014 - 12/31/2014
**Practice(s):** Get Well Clinic
**Description:** This report displays the percertage of rads where the mu measures were recorded.

| Description | Numerator | Denominator | % | MU measure | Signed by user id | User Name |
|---|---|---|---|---|---|---|
| Demographics | 5 | 8 | 62.50% | 80% | ian | Power MD, Ian |
| Patient reminders | 1 | 6 | 16.67% | 10% | ian | Power MD, Ian |
| Medication reconciliation | 4 | 8 | 50.00% | 50% | ian | Power MD, Ian |
| Vitals and BMI | 5 | 8 | 62.50% | 80% | ian | Power MD, Ian |
| Vitals - BP Out of Scope | 6 | 8 | 75.00% | 80% | ian | Power MD, Ian |
| Vitals - Ht/Wt Out of Scope | 4 | 7 | 57.14% | 80% | ian | Power MD, Ian |
| Smoking status | 5 | 7 | 71.43% | 80% | ian | Power MD, Ian |
| Family health history | 6 | 8 | 75.00% | 20% | ian | Power MD, Ian |
| Electronic notes | 6 | 8 | 75.00% | 30% | ian | Power MD, Ian |
| CPOE med | 9 | 19 | 47.37% | 60% | ian | Power MD, Ian |
| CPOE lab | 10 | 17 | 58.82% | 30% | ian | Power MD, Ian |
| CPOE rad | 11 | 11 | 100.00% | 30% | ian | Power MD, Ian |
| eRx | 0 | 10 | 0.00% | 50% | ian | Power MD, Ian |
| Lab results | 10 | 17 | 58.82% | 55% | ian | Power MD, Ian |
| Imaging | 8 | 17 | 47.06% | 10% | ian | Power MD, Ian |
| Patient education | 6 | 8 | 75.00% | 10% | ian | Power MD, Ian |
| Clinical summary | 5 | 9 | 55.56% | 50% | ian | Power MD, Ian |
| Summary of care A | 5 | 8 | 62.50% | 50% | ian | Power MD, Ian |
| Summary of care B | 4 | 8 | 50.00% | 10% | ian | Power MD, Ian |
| VDT (timely access) | 7 | 8 | 87.50% | 50% | ian | Power MD, Ian |
| VDT (patient use) | 6 | 8 | 75.00% | 5% | ian | Power MD, Ian |
| Secure messaging | 5 | 8 | 62.50% | 5% | ian | Power MD, Ian |

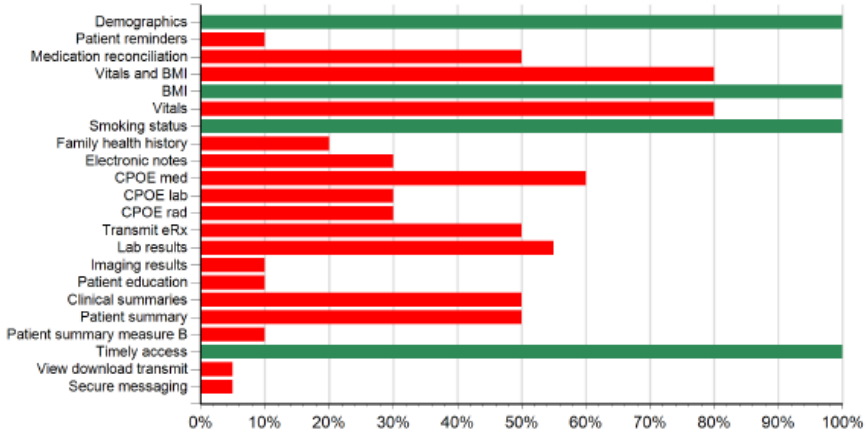
**Figure 5.131 – Automated measures rad data stage 2**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Meaningful Use – Reports by Radiologist Management Report

Created a new management report that will allow the user to select a specific reporting period as well will allow the user the ability to select either stage 1 or stage 2 MU stats to show for a practice or multiple practices.

**1dd88bbf-d70b-4593-8d11-e6241defb297 Stage 2**
**Radiologist:** County, Mister
**Reporting Period:** Jan-01-2014 - Dec-31-2014




| Meaningful Use Meaure | Numerator | Denominator | % | Goal | Pass/Fail |
|---|---|---|---|---|---|
| Demographics | 2 | 2 | 100.00% | 80% | |
| Patient reminders | 0 | 0 | 0.00% | 10% | |
| Medication reconciliation | 0 | 0 | 0.00% | 50% | |
| Vitals and BMI | 0 | 2 | 0.00% | 80% | |
| BMI | 2 | 2 | 100.00% | 80% | |
| Vitals | 0 | 2 | 0.00% | 80% | |
| Smoking status | 2 | 2 | 100.00% | 80% | |
| Family health history | 0 | 2 | 0.00% | 20% | |
| Electronic notes | 0 | 2 | 0.00% | 30% | |
| CPOE med | 0 | 0 | 0.00% | 60% | |
| CPOE lab | 0 | 0 | 0.00% | 30% | |
| CPOE rad | 0 | 0 | 0.00% | 30% | |
| Transmit eRx | 0 | 0 | 0.00% | 50% | |
| Lab results | 0 | 0 | 0.00% | 55% | |
| Imaging results | 0 | 0 | 0.00% | 10% | |
| Patient education | 0 | 0 | 0.00% | 10% | |
| Clinical summaries | 0 | 0 | 0.00% | 50% | |
| Patient summary | 0 | 0 | 0.00% | 50% | |
| Patient summary measure B | 0 | 0 | 0.00% | 10% | |
| Timely access | 2 | 2 | 100.00% | 50% | |
| View download transmit | 0 | 2 | 0.00% | 5% | |
| Secure messaging | 0 | 2 | 0.00% | 5% | |

**Figure 5.132 – Reports by Radiologist management report**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Meaningful Use – Stage 2 Management Reports

MU 2014 requires that the automated measures report be capable of selecting either stage 1(2011) or stage 2(2014) MU statistics; and be able to select date ranges for 90 continuous days within a calendar year, including 90 day periods that span across more than 3 months (e.g. Beginning May 12th); or be able to select a specific calendar year quarter (first, second, third, fourth); and finally be able to select the entire calendar year.

MU 2014 requires a management report(Patient Lists) that will generate a list of patients that can be selected by date and time and based on each data element including: Problems, Medications, Medication Allergy, Demographics, Lab tests and values/results, and Patient communication preference.

To resolve we archived the following MU 2011 management reports.
• Automated Measures.rdl
• CQM Measures.rdl
• MU Automated Measures Details.rdl
• MU Scorecard.rdl
• Patient Lists.rdl
• Patient Reminder List.rdl

We moved all of these reports to a newly created folder "Archive" under Meaningful use on the reporting server. These reports will be used for auditing purposes for previously submitted attestation reports. To ensure these reports are deployed correctly we modified the script for deploying management reports to include the Archive folder structure and reports.

For MU 2014 we created three new management reports and a new SubReport.

1) **Automated Measures** – A management report that can accurately adjust the reporting period for all the required types and that the numerator and denominator information are accurate and complete for each reporting period and meaningful use stage for a specific Radiologist.
   - Automated Measures Details - we created to help troubleshoot MU measure problems in the field a new report that will be used to display summary details which make up the numerators and denominators found in the Automated Measures Report. This report can be found in the "SubReport" folder.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

2) **Automated Measures Raw Data** - A management report that can accurately adjust the reporting period for all the required types and that the numerator and denominator information are accurate and complete for each reporting period and meaningful use stage for multiple Radiologist. The main purpose of this report will be used to export results to csv or excel so administrators can monitor the progress of individual Radiologist with regards to MU measures.

3) **Patient Lists** - Lists of patients are selected by date and time and based on each data element including: Problems, Medications, Medication Allergy, Demographics, Lab tests and values/results, and Patient communication preference

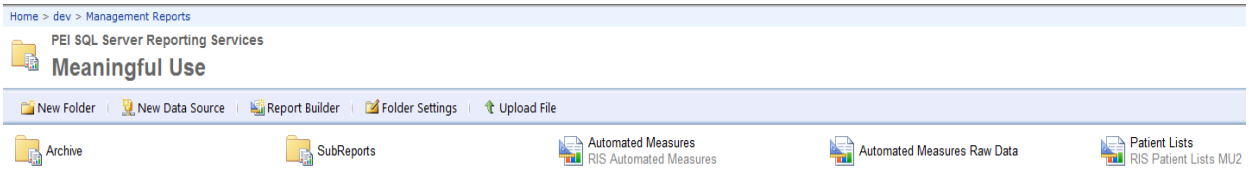
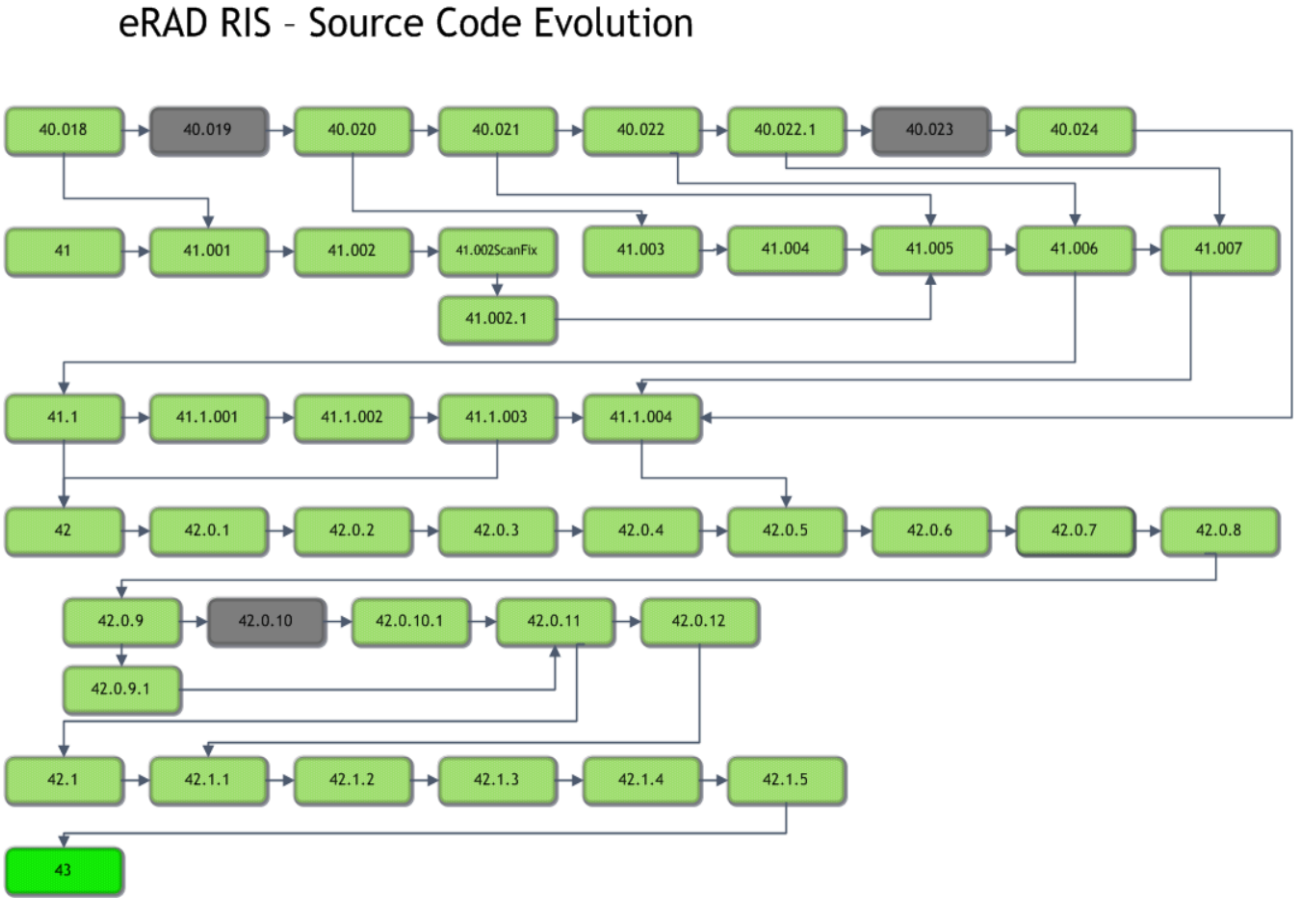



**Figure 5.133 – Meaning Use Stage management reports**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 6. Code Stream




**Legend:**

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 7. RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 41.1 | - | 1.3.41.20918(3GB) | 1.3.41.20791 | 1.3.41.20918 | 1.3.41.20739 | GUI.zip, Core install, Web Service and DB updates, Help files |
| 41.1 | 1 | 1.3.41.20987(3GB) | 1.3.41.20791 | 1.3.41.20918 | 1.3.41.20739 | GUI.zip |
| 41.1 | 2 | 1.3.41.21162(3GB) | 1.3.41.20791 | 1.3.41.21162 | 1.3.41.21150 | GUI.zip, Web Service and DB updates, |
| 41.1 | 3 | 1.3.41.21264(3GB) | 1.3.41.20791 | 1.3.41.21162 | 1.3.41.21150 | GUI.zip |
| 42 | - | 2.42.0.0.21261(3GB) | 2.42.0.0.21261 | 2.42.0.0.21261 | 2.42.0.0.21187 | Full version release |
| 42 | 1 | 2.42.0.1.21597 | 2.42.0.0.21261 | 2.42.0.1.21597 | 2.42.0.0.21187 | GUI and Web Service updates |
| 42 | 2 | 2.42.0.2.21702 | 2.42.0.0.21261 | 2.42.0.2.21702 | 2.42.0.0.21187 | GUI and Web Service updates |
| 42 | 3 | 2.42.0.2.21806 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.0.21187 | GUI and Web Service updates |
| 42 | 4 | 2.42.0.2.21862 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.4.21870 | GUI and Database updates |
| 42 | 5 | 2.42.0.5.21924 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.4.21870 | GUI |
| 42 | 6 | 2.42.0.5.22009 | 2.42.0.0.21261 | 2.42.0.5.22009 | 2.42.0.4.21870 | GUI and Web Service updates |
| 42 | 7 | 2.42.0.7.22090 | 2.42.0.0.21261 | 2.42.0.6.22009 | 2.42.0.4.21870 | GUI.zip updates |
| 42 | 8 | 2.42.0.7.22090 | 2.42.0.7.22150 | 2.42.0.6.22009 | 2.42.0.4.21870 | Web Service updates |
| 42 | 9 | 2.42.0.9.22203 | 2.42.0.0.21261 | 2.42.0.9.22203 | 2.42.0.4.21870 | GUI and Web Service updates |
| 42 | 9.1 | 2.42.0.9.22203 | 2.42.0.0.21261 | 2.42.0.9.22203 | 2.42.0.4.21870 | Web Service updates |
| 42 | 10 | 2.42.0.10.22232 | 2.42.0.0.21261 | 2.42.0.9.22203 | 2.42.0.4.21870 | GUI.zip |
| 42 | 10.1 | 2.42.0.10.22420 | 2.42.0.0.21261 | 2.42.0.9.22203 | 2.42.0.4.21870 | GUI.zip updates |
| 42 | 11 | 2.42.0.11.22495a | 2.42.0.0.21261 | 2.42.0.11.22471 | 2.42.0.11.22527 | GUI.zip, Web Service, Database updates. Management Report Deployment |
| 42 | 12 | 2.42.0.12.22982 | 2.42.0.0.21261 | 2.42.0.12.22982 | 2.42.0.12.22911 | GUI.zip, Web Service, Database updates. |
| 42.1 | - | 2.42.1.0.22744(3GB) | 2.42.0.0.21261 | 2.42.1.0.22744 | 2.42.1.0.22736 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 42.1 | 1 | 2.42.1.1.2296(3GB) | 2.42.0.0.21261 | 2.42.1.1.22963 | 2.42.1.1.22864 | GUI.zip, Web Service, DB updates |
| 42.1 | 2 | 2.42.1.2.23007(3GB) | 2.42.0.0.21261 | 2.42.1.2.23007 | 2.42.1.2.23007 | GUI.zip, Web Service, DB updates |
| 42.1 | 3 | 2.42.1.2.23237(3GB) | 2.42.0.0.21261 | 2.42.1.2.23237 | 2.42.1.2.23007 | GUI.zip, Web Services |
| 42.1 | 4 | 2.42.1.4.23348(3GB) | 2.42.0.0.21261 | 2.42.1.4.23348 | 2.42.1.2.23007 | GUI.zip, Web Services |
| 42.1 | 5 | 2.42.1.5.23406(3GB) | 2.42.0.0.21261 | 2.42.1.5.23406 | 2.42.1.2.23007 | GUI.zip, Web Services |
| **43** | - | 2.43.0.0.23715(3GB) | 2.43.0.0.23171 | 2.43.0.0.23715 | 2.43.0.0.23743 | **Full Version Release** |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 8. Resolved Defects

Bugs Suggested Features and Support Issues resolved in build 2.43. The extract is taken from Redmine bug tracking system and only displays defects resolved in 2.43.

| Bug # | Priority | Subject | Category | Found Version |
|---|---|---|---|---|
| | | | | |
| 6701 | Urgent | When a popup window is open in RIS and user actions a report in PS360, Ris crashes. | Powerscribe Integration | 2.42.1 |
| 6678 | Urgent | PAC IW Out of sync problem | PACS Integration | 2.42.0.9 |
| 6534 | Urgent | original_interpretation_version should be stamped on dictated (currently just on signed reports) | Web Services/DB | 2.42.0.11 |
| 6436 | Urgent | Potential for studies to be orphaned in a way as they won't appear on worklists | Thick Client GUI | 2.42.0 |
| 6255 | Urgent | Slow Mammo Letters WL is impacting DB query times | Worklists | 1.42 |
| 7061 | High | MQSA Outcome Report + and - title values should be reversed | Mgt Reports | 42 |
| 6993 | High | RRR - Orders to Schedule Worklist and Procedure Plans | Thick Client GUI | 42.0.9 |
| 6938 | High | Reporting - insert report template with automacros will remove the technique section | Embedded Reporting | 2.42.1 |
| 6926 | High | paitnet folder for previously unlinked external patient does not get reassociated when the patient is mapped. | EMR | 1.4 |
| 6823 | High | Mulitple scanned images do not get sent to PACS | Thick Client GUI | 42.02 |
| 6774 | High | Callback reminder letters print as diagnostic reports instead of using the proper reminder letter | Document Distribution | 2.42.2 |
| 6700 | High | PS360 integration is opening when it doesn't need to causing unnecessary delays and flicker. | Powerscribe Integration | 2.42.1 |
| 6685 | High | Object reference error when opening transcription screens in read only mode | Radiology Reporting | 2.42.1 |
| 6683 | High | Verbal order is hard-coded to associate to a known scan document type - this should be | Thick Client GUI | 1.4 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| | | configurable | | |
| 6681 | High | bi-rads info not reset when using screen re-use on dictate screen. | Mammography | 2.42.11 |
| 6680 | High | ReportTemplateEditor not being cleaned up when ReportingRadiologist closes | Radiology Reporting | 2.42.09 |
| 6679 | High | referring physician "visited at" drop down list contains only numbers, not human readable addresses | Thick Client GUI | 2.42.0.11 |
| 6517 | High | excessive network traffic generated by transfer of dictations and other data | Web Services/DB | 2.42 |
| 6479 | High | BI-RADS 0 and BI-RADS 4/5 stored procedure causes issues with an implicit conversion of birad_code to an integer | DB | 2.42 |
| 6463 | High | Reschedule - Can reschedule studies in exam done status and outside reads | Scheduling | 2.42.0.11 |
| 6462 | High | Order level IVT - billing codes inactive on reschedule save as order | IVT / Precert | 1.41.1 |
| 6447 | High | _max_interpretation_version does not update when an addendum is deleted | Radiology Reporting | 2.42 |
| 6432 | High | Tech screen - procedures list is not alphabetical | Technologist | 1.42 |
| 6189 | High | Hidden text in editor counts as text when validating fields and section. | Radiology Reporting | 1.4 |
| 6106 | High | error opening merge suggestions due to patient search results | Web Services/DB | 1.41 |
| 5963 | High | MU - Medical History grid, cannot delete a row | Thick Client GUI | 1.42 |
| 5950 | High | MU - CCDA preview - the Allergies (Medications) section is messed up. | Thick Client GUI | 1.42 |
| 5847 | High | Dark mode - BMI on MU tab is white on white and unreadable | Thick Client GUI | 1.42 |
| 5800 | High | parameter is not valid and/or out of memory error while viewing thumbnails | Thick Client GUI | 1.42 |
| 5787 | High | RadNet - Western Operations - Breast Density dropdown order not consistent with the config table settings | Thick Client GUI | 41.1 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 5783 | High | Dark mode login box impossible to see | PACS Integration | 1.42 |
| 5732 | High | issues with sorting exam search results when max row count is reached | Thick Client GUI | 1.42 |
| 5720 | High | referring practice address patern has many issues when migrating referring legacy data. | Thick Client GUI | 1.4 |
| 5711 | High | Using two procedures at scheduling, and patient is claustro - it is showing an option for a closed modality when it should not | | 1.42 |
| 5664 | High | When dictating, losing your lock, and save failed with screen recovered, you won't be able to save | Radiology Reporting | 1.42 |
| 5513 | High | index outside the bounds of the array when saving scan documents | Thick Client GUI | 1.41.002.1 |
| 5496 | High | Scanning - Document Viewer Quick Key Issue | | 1.41 |
| 5459 | High | right click change status to cancel does not refresh worklist afterwards | Thick Client GUI | 1.42 |
| 5447 | High | Reporting - RIS allows the addendum workflow on Legacy PDF reports. | | 1.41 |
| 5420 | High | some messageboxes improperly sized | Thick Client GUI | 1.42 |
| 5406 | High | concurrency violation on save of UserPrefs can crash RIS | Thick Client GUI | 1.42 |
| 5393 | High | confirmation screen does not save scan documents | Thick Client GUI | 1.42 |
| 5335 | High | If a study is in a closed room, it should not appear on the confirmation WL | Thick Client GUI | 1.41 |
| 5291 | High | Operational Management Report - Payments Details | Mgt Reports | 1.4 |
| 5289 | High | Operational Management Report - Performed Procedures Count | Mgt Reports | 1.4 |
| 5287 | High | Operational Management Report - Front Desk Activity | Mgt Reports | 1.4 |
| 5258 | High | Multi-type ahead: control is too tall | | 1.42 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 5257 | High | Multi-type ahead: Dropdown button should have a ... in the icon | | 1.42 |
| 5234 | High | Outside Read screen will not open | | 1.4 |
| 5232 | High | For Truxtun DataMigration only, we need a tool to extract diagnostic report from the Intergy DB | DB | 1.41 |
| 5230 | High | Need to enhance our ImportLegacy utility to include diagnostic reports formated as MS-Word and WordPerfect | DB | 1.41 |
| 5192 | High | Outside Read - requires "Reason for Exam" field to be completed in view edit window` | Thick Client GUI | 1.41.003 |
| 4980 | High | Unknown CC flag never re-set if CC referring is removed from the order. (RRR) | | 40.17 |
| 4936 | High | Default lock workstation value should be 60 minutes. | Thick Client GUI | 1.41 |
| 4928 | High | Darkmode misses | | 1.41 |
| 4843 | High | RRR - Scheduling/Front Desk - Verbal Offer - child row has multiple parents | Thick Client GUI | 1.4 |
| 4840 | High | IVT - PreCert Status Update - PreCert Field Changing | Thick Client GUI | 1.4 |
| 4838 | High | RIS Admin - HL7 | HL7 | 1.4 |
| 4836 | High | IVT - IVT Worklist - Error retrieving the IVT worklist | Thick Client GUI | 1.4 |
| 4830 | High | Carrier search error if carrier name is not found | Thick Client GUI | 1.42 |
| 4755 | High | HL7 ReportSigned could produce duplicate addendum | HL7 | 1.41.001 |
| 4742 | High | scan document documents are saved in the db as null | Thick Client GUI | 1.4 |
| 4658 | High | Scheduling --> modality restriction = no warning | Thick Client GUI | 40.17 |
| 4620 | High | Referring without a first name, erroring when multiple orders are available for patient in reception worklist. | Thick Client GUI | 1.1.3.41.19052 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 4598 | High | RRR - Prep Instructions - when prep instructions exceed maximum visible space, scroll bars do not appear as they should, and user cannot read the bottom of the page of instructions. | Thick Client GUI | 40.18127 |
| 4593 | High | WPR - Send To button causes error | Thick Client GUI | 1.42 |
| 4576 | High | Personnel - Internal person notes | Admin Tools | 1.41 |
| 4548 | High | CTRM - Notes field isn't read only | Thick Client GUI | 1.41 |
| 4464 | High | RRR - IVT - when user adds "-01" to the end of the policy number for a patient, upon saving the change to the policy, the billing code exam information disappears. | Thick Client GUI | 40.18127 |
| 4450 | High | Auto-open worklist won't open if you cancel the chair selection prompt | | 1.41 |
| 4412 | High | WL Filter filtering out all rows when no filter value is specified | Thick Client GUI | 1.4 |
| 4356 | High | Critical Result - CTRN - Unknown referrers added in critical result window display as invalid | Thick Client GUI | 1.41 |
| 4349 | High | Worklist filters ending with a pipe "\|" symbol causes error | Thick Client GUI | 1.40.015 |
| 4284 | High | Mammo - generated followup order not setting default patient type | Thick Client GUI | 40.15 |
| 4278 | High | RRR - Responsible party - "Same As Patient" flag not recognized, and orders are hitting the BEWL that should not be there. | Thick Client GUI | 40.16 |
| 4241 | High | Printer Config - Display Order should have a default | Thick Client GUI | 1.4 |
| 4095 | High | Selected report pane showing "Legacy Report' that doesn't work | Thick Client GUI | 40.14 |
| 4035 | High | RIS Client --> Login Failed | Thick Client GUI | 40.12 |
| 3904 | High | removing alternate MRN does not remove all references | Web Services/DB | 1.4 |
| 3877 | High | Walk In - Object Reference Error | Thick Client GUI | 40.1 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 3852 | High | IVT : ?The ?IV required? flag on the worklist said IV was not required, but when I opened it, it says Verification is required? (it was correctly on the worklist as pre-cert was required however) | Thick Client GUI | 1.40.008 |
| 3847 | High | ConfigFile upload everytime a screen is closed. | Thick Client GUI | 1.4 |
| 3798 | High | Worklist refreshes at different scroll positions (Fisher site visit) | Thick Client GUI | 40.006 |
| 3749 | High | RadNet - ADV Call Centre - can not type in order notes field. | Thick Client GUI | 1.40.006 |
| 3738 | High | Perform exam - perform exam completed time is not be saved if Exam Times tab is accessed | Thick Client GUI | 1.40.008 |
| 3688 | High | wsnocertificate Endpoint does not require authentication | Web Services/DB | 1.4 |
| 3661 | High | Availability template lookup table usability | Admin Tools | 1.4 |
| 3644 | High | Removing procedure then procedure row at arriving throws exception | Thick Client GUI | 1.40.006 |
| 3431 | High | RRR - When you choose 'Self' from responsible party dropdown, then update the patient's address information, you have to uncheck then recheck the 'Same as Patient' check box to get the information to update | | 39.1 |
| 3375 | High | RRR Image Request WL - When status is 'Hold Code Completed' and user presses 'Edit' RIS is throwing an error | | 39.1 |
| 2999 | High | When report is viewed from the Billing Exceptions Work List, via Edit Billing it is showing an Addendum line, even though no addendum exists for the exam | Thick Client GUI | 38 |
| 2982 | High | inactive CPT codes are showing up when you check 'Show Previous Pre-cert CPT codes' option. | | 38 |
| 2230 | High | Cannot create Alternate MRN when creating new patient | Thick Client GUI | 1.2.38.14486 |
| 2142 | High | Reschedule permission does not make 'reschedule' appear in context menu | | 1.38 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 1225 | High | Scheduling - Image Request WL --> Edit Image request ( new patient icon) | Thick Client GUI | 1.36 |
| 6986 | Normal | Reporting - going from a non BIRADS enabled study to a BIRADS enabled study will throw an exception | Radiology Reporting | 2.42.1 |
| 6939 | Normal | Reporting - create template from when the current template has automacros will raise an exception | Embedded Reporting | 2.42.1 |
| 6924 | Normal | scheduling using external MRN ( does not consistently display alternate MRN in grid) | EMR | 42.1 |
| 6923 | Normal | Appointment book cannot be accessed if user doensn't have scheduling group assigned. | Appointment book | 2.42.1 |
| 6922 | Normal | There is no way to register individual studies at different sites that are on one order. | | 2.42.2 |
| 6846 | Normal | When tentative sign is disabled through access string, user preference is half visible | Radiology Reporting | 2.42.0.9 |
| 6839 | Normal | Mgmt Report - IVT Canceled (deprecated report) | Mgt Reports | 2.42 |
| 6806 | Normal | A user/person can be cloned even if they have an address with no cc delivery preference. | Administration | 2.42.0 |
| 6773 | Normal | Using PS360: An exam is assigned to a resident and that resident assign a supervising rad, once the exam in in transcribed status, it is not in the supervising rad's Pending Signature WL | Powerscribe Integration | 2.42.1.2 |
| 6751 | Normal | Error on multi procedure schedule after one study is removed | Scheduling | 2.42.1.2 |
| 6735 | Normal | Management Report Deployment - Radnet specific reports deploying to eRAD | Mgt Reports | 2.42 |
| 6711 | Normal | Clicking the close or skip button on the eRAD RIS window doesn't save the values in Assigned to window | Powerscribe Integration | 42.1.1 |
| 6689 | Normal | RadNet - Monthly Variance Raw Data reports needs to be modified to use cpt_Radnet_counts as well add referring practice functionality | Mgt Reports | 2.42 |
| 6688 | Normal | Error: "Deleted row information cannot be accessed through the row" when updating | Thick Client GUI | 2.42.09 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| | | insurances | | |
| 6686 | Normal | Scanner - users are having to re-scan documents | | 1.42 |
| 6682 | Normal | Reporting - screen reuse and pending save items may hang around on the worklist | Radiology Reporting | 2.42.0.11 |
| 6675 | Normal | PACS Caching - The RIS is failing to clear out the cache field properly when it is to no longer be cached. | PACS Integration | 2.42.0 |
| 6611 | Normal | Mgmt Report - Marketing numbers skewed when c_study_item_certification.units is null | Mgt Reports | 2.42.0.11 |
| 6582 | Normal | Unable to create unknown referring | Scheduling | 42.1 |
| 6547 | Normal | Document distribution does not recover InProgress jobs that do not have a job id when it starts up | Document Distribution | 0 |
| 6546 | Normal | Fax Console Outbox grows too large over time and slows faxing down significantly | Document Distribution | 0 |
| 6545 | Normal | Reporting - Access string PowerScribe360.AllowAutofeed doesn't control user preference | Powerscribe Integration | 2.42.1 |
| 6531 | Normal | PACS images are loaded even if reporting window ultimately does not open. | PACS Integration | 2.42 |
| 6526 | Normal | CD Import - Duplicate MRNs resulting in missing images after the import | Patient Search | 1.42 |
| 6525 | Normal | CD Import - null exception opening a CD, which has a empty patient record | PACS Integration | 1.42 |
| 6516 | Normal | c_frm_core_view - cleanup the view | Web Services/DB | 2.42 |
| 6473 | Normal | Print Forms dialog does not appear when checking-in/arriving patients after removing insurance policy | Thick Client GUI | 2.42.09 |
| 6464 | Normal | MU Clinical Summary Form Needs modified to look at the new c_patient_problem_list2 and the new l_indication tables for handling MU problems(medical history). | Meaningful Use | 42 |
| 6452 | Normal | service throttling is not sufficient for large implementations | Web Services/DB | 2.42 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 6331 | Normal | detailed chair selector does not display - print an error message indicating dataset is incorrect. | DB | 2.42 |
| 6330 | Normal | Re-deployment of reports loses folder specific permission | Mgt Reports | 2.42 |
| 6296 | Normal | CD Import - Everything is sent but study can't be found in PACS. | PACS Integration | 1.42 |
| 6268 | Normal | PACS Server lookup the URL can have new line characters which will cause CD Imports to fail | PACS Integration | 1.42 |
| 6251 | Normal | RIS service "Server" garbage collection | Web Services/DB | 1.42 |
| 6242 | Normal | RIS Service Installation document is out of date | Documentation | 42.0.6 |
| 6239 | Normal | RADNET - MU - Problem list - problem with no start date can be added again via Meaningful Use Quick Add Edit window | Thick Client GUI | 2.42.0.6 |
| 6233 | Normal | RADNET - Reporting - Pregnant field displayed in Exam Details for all patients | Radiology Reporting | 2.42.0.6 |
| 6194 | Normal | Report history and dark mode have some visual issues | Radiology Reporting | 1.42 |
| 6187 | Normal | CDS Service  does not start in  x64 mode | Documentation | 42.003 |
| 6185 | Normal | RRR - Error when creating outside reads | Thick Client GUI | 42.02 |
| 6126 | Normal | Scheduling - Calendar view does not display business hours or device availability template | Thick Client GUI | 2.42 |
| 6115 | Normal | Vague descriptions on Referral reports | Mgt Reports | 1.41 |
| 6113 | Normal | Referring Physician Volumes - missing description | Mgt Reports | 1.41 |
| 6109 | Normal | Language, Race and Ethnicity not in the core view for forms | Mgt Reports | 1.42 |
| 6107 | Normal | MU changed Provided Cinical Summaries to Offered Clinical Summary to patient | Meaningful Use | 2.42 |
| 6091 | Normal | Management reports - IVT Turnaround - Total turnaround time is incorrect | Mgt Reports | 2.42 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 6087 | Normal | Management reports - IVT management reports looking for Approved, but status is now Verified | Mgt Reports | 42.0.1 |
| 6080 | Normal | CD Import via patient folder can match with the wrong patient. | Thick Client GUI | 1.42 |
| 6077 | Normal | Relevance Override does not allow assignment of inactive procedures | | 1.42 |
| 6064 | Normal | Scheduling - Procedure Plans Error | Thick Client GUI | 42.0.0.21577 |
| 6052 | Normal | RadNet - Patient Folder - column missing | Thick Client GUI | 1.42 |
| 6051 | Normal | RadNet - Schedule Existing Order - uncheck not working | Thick Client GUI | 1.42 |
| 6015 | Normal | create a function to coalesce site and practice logo | Web Services/DB | 1.42 |
| 6003 | Normal | Management Reports - Automatic Measures - Missing Parameter | Mgt Reports | 2.42.0.0.21410 |
| 5988 | Normal | re-selecting and blanking out the Referring combo box | | 42 |
| 5984 | Normal | Deleted row error saving attachments | | 1.42 |
| 5982 | Normal | Negative values in Dictated to Drafted on the RTAT portion of the Transcription Dashboards. | Mgt Reports | 1.41 |
| 5944 | Normal | Cloning a person "may" impact orginal person being cloned | Thick Client GUI | 1.41 |
| 5861 | Normal | unhandled exception logging in as a rad but without permission to some WL. | Thick Client GUI | 1.42 |
| 5843 | Normal | MU - When editing the date in Lab results get error. | Thick Client GUI | 1.42 |
| 5837 | Normal | Reporting - Open study in dictate window and get C++ Exception | Radiology Reporting | 2.42 |
| 5814 | Normal | If lab test code matching systemconfig's CPOELabTestCode value doesn't exist for procedure who's CPOE Pathology flag is set, misleading exception occurs | Thin Client GUI | 1.42 |
| 5735 | Normal | The query to get radilogist and transcriptionist statistics in taking over 5 | DB | 1.4 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| | | second on SE | | |
| 5603 | Normal | recent activity message list shows Assign To as Dictated | Radiology Reporting | 1.42 |
| 5495 | Normal | Scanning - "Scanner is not responding" can lock up RIS for about 1 minute | | 1.41 |
| 5450 | Normal | RRR - Confirmed Appointments Report Customization | Mgt Reports | 2.41 |
| 5422 | Normal | Scheduling - Assign to Rad is first name, last name | Thick Client GUI | 1.41.002 |
| 5252 | Normal | Reporting - Verify edits context menu option from All Edits Pending QA opens Create Edit report window | Radiology Reporting | 1.41 |
| 5156 | Normal | can't update performed modality (RRR) | Thin Client GUI | 40.17 |
| 4950 | Normal | Race type code | DB | 1.41.002 |
| 4555 | Normal | When opening a study in read only, user should get a prompt | Radiology Reporting | 1.41 |
| 4326 | Normal | Reporting - Multiple Pending Signature notifications raised | Radiology Reporting | 1.41 |
| 4308 | Normal | Patient Folder - Selected Summary not resizing properly when dragging the pane | Radiology Reporting | 1.41 |
| 4116 | Normal | Error on Sign Next or Submit Next in the field | Thick Client GUI | 1.3.40.18063 |
| 3878 | Normal | GUI - procedure code lookup ( laterality dropdown display) | Thick Client GUI | 40.1 |
| 3814 | Normal | Already Transcribed prompt when in signing workflow (Fisher site visit) | Thick Client GUI | 40.006 |
| 3639 | Normal | Reporting - Index out of range | | 1.4 |
| 3521 | Normal | MU - Calculating MU statistics of Void Exams | Meaningful Use | 1.4 |
| 3273 | Normal | Patient Folder Worklist - Default filter applied results in side scrolled WL on open | Radiology Reporting | 1.4 |
| 3099 | Normal | Documentation window - futuristic menstrual periods.... | Thick Client GUI | 1.4 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 2759 | Normal | Distribution WL - Message box should display in the center of the screen | Thick Client GUI | 1.39 |
| 2635 | Normal | Unchecking No Longer Menstruating doesnt enable pregnancy fields | Thick Client GUI | 1.39 |
| 665 | Normal | fk error when adding new order | Thick Client GUI | 1.25 |
| 357 | Normal | Lookup table filters with dropdown datatype don't work | | 1.13 |
| 6940 | Low | Reporting - apply style formatting to automacro inserted text will break create template from | Embedded Reporting | 2.42.1 |
| 4733 | Low | Spelling mistake in details message (Cannot "adden" an interpretation when previous interpretation is not signed off. ) | Thick Client GUI | 1.41 |
| 3991 | Low | Reporting - Exam Details and Summary panes - Text can be entered in notes' fields, but does not save. | Thick Client GUI | 1.40.013 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 9. Known Limitations

The following are Bugs Suggested Features and Support Issues found in build 2.43. Bugs reported in previous versions are not captured as Known Limitation in this document.

| # | Status | Priority | Subject |
|---|---|---|---|
| | | | |
| 7065 | New | High | ICD button is overlaid by the stat button in minimized dictation mode |
| 7195 | New | High | System config setting RadMustProvideIcdCode doesn't force rad to enter ICD code |
| 7196 | New | Normal | When registering a patient with multiple procedures,and then deselecting the procedure checkbox, an error is produced |
| 7186 | New | Normal | Transportation req'd validation issue |
| 7160 | New | Normal | IVT - Issue with "Parent Procedure" on billing code grid |
| 7153 | New | Normal | ICD Codes - Issue removing codes |
| 7086 | New | Normal | Internal Person search doesn't have default field |
| 7029 | New | Normal | AccessionXMLDrop button showing up all the time if configured, regardless of reporting mode |
| 6991 | New | Normal | Reporting - Exam details data pane can open with scroll bar hidden and window can be resized to have scroll bar hidden |
| 6989 | New | Normal | Secure Messaging - Able to send an empty message |
| 6863 | New | Normal | Inconsistent grid behaviour with new ICD functionality. |
| 6840 | New | Normal | Holiday Lookup missing practice code required field check |
| 6807 | In Progress | Normal | Create template causes Object Reference Not set error |
| 6793 | New | Normal | distribution wl - Activity log column is crowded |
| 6790 | New | Normal | Personel Merge - reject takes user to a blank page |
| 6785 | New | Normal | Administration - Patient search window on patient merge, 'New Pt +Apt' button does nothing |
| 6784 | New | Normal | tech screen - able to complete an exam on a body part different than defined by procedure |
| 6726 | New | Normal | View menu not disabled after Report on Accession # |
| 6592 | New | Normal | Required Notes Fields accept whitespace as input |
| 6908 | In Progress | Normal | MU Quick Add Edit Dialog makes 30 consecutive service calls each time it is opened |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| 7182 | New | Normal | Menu item Messaging doesn't have an access string |
| 7172 | New | Normal | Reconcile Form - Issue with layout of Order and Scheduling Notes |
| 7164 | New | Normal | Cannot delete indictation codes from the Indication lookup table via GUI |
| 7023 | New | Normal | Selected attachments navigating when user selects text. |
| 6972 | New | Normal | BI-RADS picker set tissue density to inactive value |
| 6834 | New | Normal | QA workflow, error when saving opens the wrong screen. |
| 6821 | New | Normal | Reschedule can show incorrect procedure if procedure was changed in Register window |
| 6750 | New | Normal | MU - CCDA Error when generating XML when Allergy is NULL |
| 6671 | New | Normal | Right-click "Confirmation" in Patient Folder for Follow up order throws multple exceptions |
| 7127 | New | Normal | MT polling when waiting for jobs and none exist, can't close tab or visit another tab. |
| 6987 | New | Normal | Fields in scheduling screen not showing as required until you try to save, or tab out of the control. |
| 6792 | New | Normal | Filtering work lists |
| 6081 | New | Normal | If patient has multiple orders on same day ( procedure changed) --> registration confirmation does not reflect it |
| 7188 | New | Normal | County selection screen requires user to click or tab to county field. |
| 7181 | New | Normal | County/ZIP - county getting saved with data but dialog doesn't show one selected |
| 7179 | New | Normal | County/ZIP - possible wrong county selecting automatically. County drop down changing when nulling out ZIP textbox |
| 7165 | New | Normal | Special characters in custom fields for templates can cause the report to not be openable. |
| 7159 | New | Normal | Reporting - PACS integration |
| 7138 | New | Normal | Mammo letter config save button doesn't save changes |
| 7015 | New | Low | MU - A requested lab order can be entered with a blank observation and return an error |
| 6865 | New | Low | Personnel - Referring addresses - Address open double clicking on scroll bar arrows |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| 7178 | New | Low | County/ZIP allows typing in County but doesn't changes value when clicking ok |
| 7177 | New | Low | County/ZIP textbox persists invalid data |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# Server Update

For eRAD RIS
Version 2.0
Build 43
Update 43.0.1

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. New Features ..... 3
   Ability to Add Site Code in Drop Down Lists ..... 3
   Site Column Added to Work Lists ..... 5
   Support International Phone Numbers ..... 6
2. Defects Resolved ..... 7
3. Changes to Configuration ..... 8
4. Code Stream ..... 9
5. Package Contents ..... 10
6. Intended Audience ..... 12
7. Who is affected ..... 12
8. eRAD RIS Release Version Numbers ..... 13
9. Installing ..... 14

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# 1. New Features

## Ability to Add Site Code in Drop Down Lists

Currently eRAD RIS supports practice and site names of 500 characters. The drop down fields that display these values typically only allow for 20-30 characters. Issues with the practice or site name may be very similar in the first 20 characters. To help the users differentiate between the practices/sites we have added a new system configuration setting of **"LocationLayoutFormatString"** with a default value of {description}. This default value means that it will display the Practice/Site description in the drop down list box. The user will have the option to have both the description and code displayed.

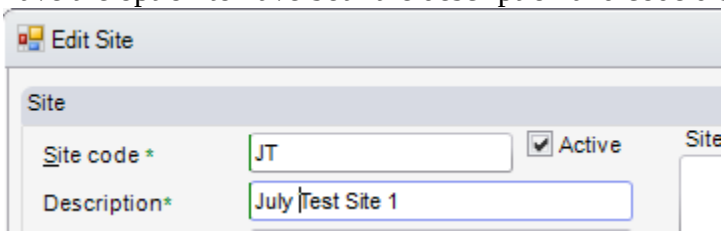



**Figure 1.1 – Displaying site example**

In the systemconfig table I add values for both the site code and the description. The value looks like ({code}) {description}.

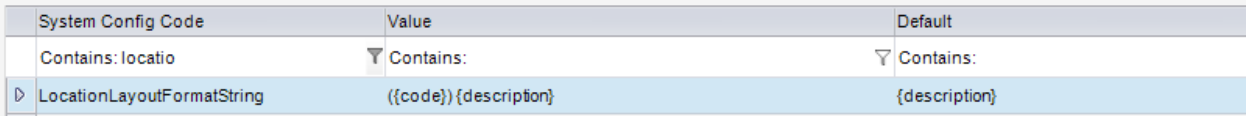



**Figure 1.2 – New configuration setting**

The supporting fields will display these values as displayed in the following screenshot.

Example of the site displayed

(JT) July Test Site 1

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

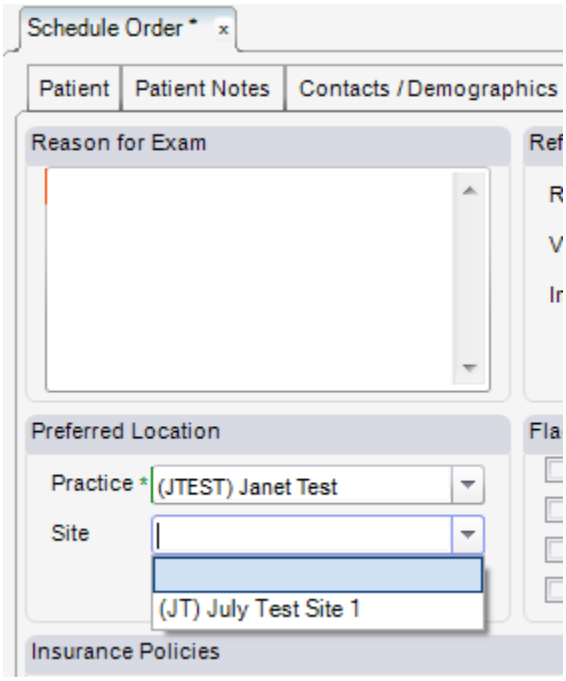



**Figure 1.3 – Displaying values configured for LocationLayoutFormatString**

The configuration setting will allow for the display of the code, description or a combination of both.

- ({code})
- (description) – this is the default vaule
- ({code}) (description)
- (description) ({code})

If any extra characters or spelling mistakes are included in the value the system will return an error when accessing a window that has the practice and/or site field

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## Site Column Added to Work Lists

The site column has been requested to be added to various work lists in which it didn't currently exist. The following is a list of work lists in which it was added.

- Billing Exception WL
- Confirmation WL
- Closed Rooms Reschedule WL
- No Show WL
- Distribution WL
- Distribution History by Date WL
- Mammo Follow Up Orders WL
- Mammo Letters WL
- ACR Category 0 Follow Up WL
- ACR Category 4/5 Follow Up WL

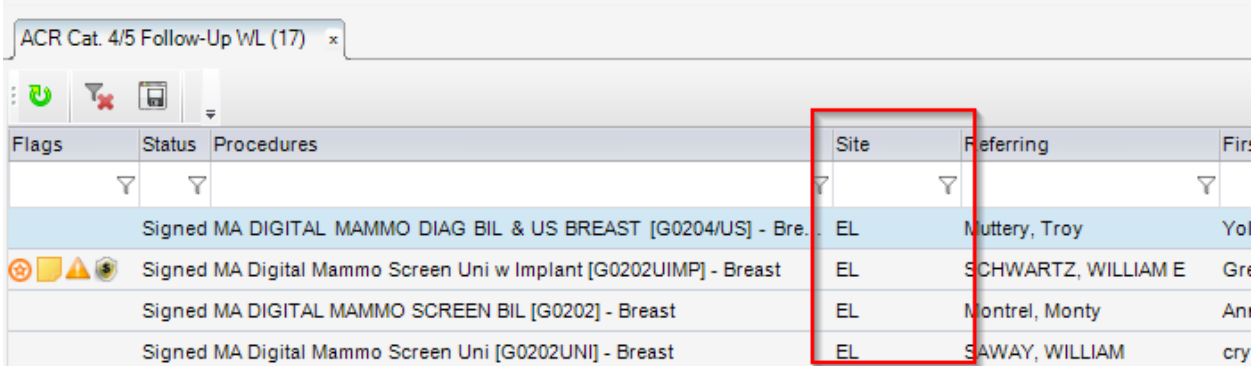



**Figure 1.4 – Site column added to various work lists**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## Support International Phone Numbers

In previous builds the phone number fields automatically supply the phone number mask for North America. The mask was input the number as (902) 555-5555. This works great for North American customers/patients.

We will now allow for a leading + or 0 in the phone number field. When a leading + or 0 is added the mask will not be used allowing the user to input the number unformatted.

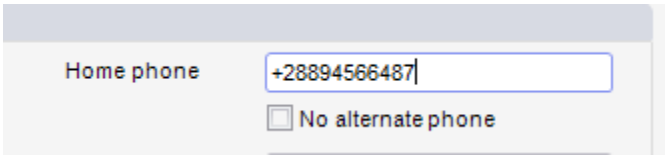



**Figure 1.5 – Phone number with leading plus symbol**

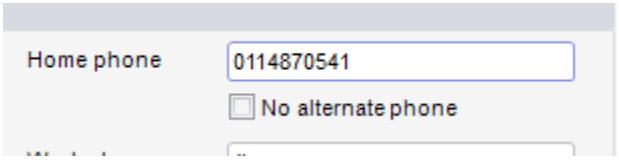



**Figure 1.6 – Phone number with leading 0 (zero)**

This is applied to all phone number fields.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 2. Defects Resolved

| Redmine # | Tracker | Subject | Priority |
|---|---|---|---|
| 7190 | Bug | Dictated by user id changes to editor's id in PowerScribe 360 | High |
| 6894 | Bug | Memory leak in insurance control | High |
| 6856 | Bug | CD Import - PACS Send fails due to compression | High |
| 6540 | Bug | Leading + sign in phone number field no longer disables the format mask | High |
| 7193 | Bug | MU Lab Screen Clean up | Normal |
| 7183 | Bug | maxConnections may be too low for large production environments | Normal |
| 6968 | Bug | DataStoreBase uses non thread safe dictionaries for storing credentials and connections | Normal |
| 6967 | Bug | CommonLib Config class uses non thread safe dictionaries for storing system and user configuration | Normal |
| 6908 | Bug | MU Quick Add Edit Dialog makes 30 consecutive service calls each time it is opened | Normal |
| 7204 | Feature | Site code needed in drop downs to support sites with long names | Urgent |
| 6541 | Feature | Phone number should allow leading 0 | Urgent |
| 7056 | Feature | Worklists - Add site column to various mammo worklists to allow for better filtering | Normal |

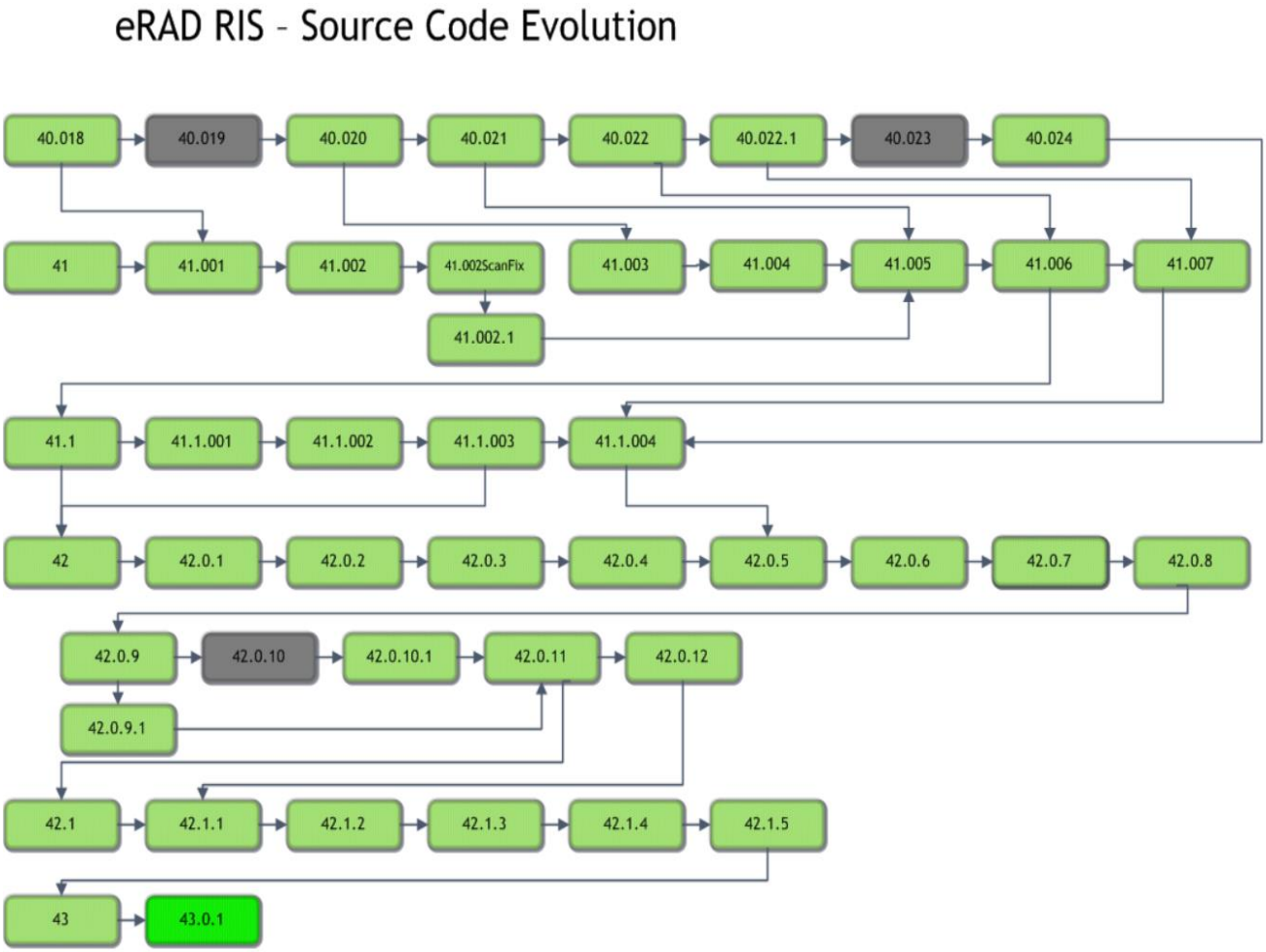
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 3. Changes to Configuration

| Setting Placeholder | Setting | Default | Purpose / Controls Access to |
|---|---|---|---|
| rRISService.exe.config **and** rRISServicex64.exe.config | Change to the <system.serviceModel> section of the rRISServices.exe.config and rRISServicesx64.exe.config file<br><br>**Before:**<br><binding name="netTCPBinding" maxReceivedMessageSize="50000000" maxBufferSize="50000000" maxBufferPoolSize="50000000" **maxConnections="3000" listenBacklog="3000"**><br><br>**After:**<br><binding name="netTCPBinding" maxReceivedMessageSize="50000000" maxBufferSize="50000000" maxBufferPoolSize="50000000" **maxConnections="5000" listenBacklog="100000"**> | | Changes are made under the <system.serviceModel> section of the file. Changes to be made in 2 places in the file<br><br>The changes can be found in the deploy folder > rRISService.exe.config file. Compare with your current file in your rRISService folder. This applies to the rRISService.exe.config and the rRISServicex64.exe.config files<br><br>Manual edit required. |
| Systemconfig setting | LocationLayoutFormatString | {description} | Desired layout for site and practice/site drop down fields such as Preferred location on order tab, search options on schedule tab and Site field on Import CD window. Possible values are {description} and ({code}). The values can be used individually or together. Example: ({code}) {description} |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 4. Code Stream




**Legend:**

**Light Green = Released software**

**Gray = Will not be released**

**Bright Green = Current Release**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 5. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains:
   - rRIS_1.3.43.0.1.23798.zip

2) RIS_Service_Updates contains:
   - ABCpdf.dll
   - ABCpdf9-32.dll
   - ABCpdf9-64.dll
   - Antlr3.Runtime.dll
   - CDSJobManager.dll
   - CDSJobManager.pdb
   - CdsLib.dll
   - CdsLib.xml
   - CdsLib.XmlSerializers.dll
   - CommonLib.dll
   - CommonLib.pdb
   - contents4301.txt
   - DDEngine.dll
   - DDEngine.pdb
   - DiffPlex.dll
   - Interop.ANYMODALCAPTURECTRLLib.dll
   - Interop.FAXCOMEXLib.dll
   - Microsoft.Practices.EnterpriseLibrary.Caching.dll
   - Microsoft.Practices.EnterpriseLibrary.Caching.pdb
   - Microsoft.Practices.EnterpriseLibrary.Common.dll
   - Microsoft.Practices.EnterpriseLibrary.Common.pdb
   - Microsoft.Practices.EnterpriseLibrary.Logging.dll
   - Microsoft.Practices.EnterpriseLibrary.Logging.pdb
   - Microsoft.Practices.ServiceLocation.dll
   - Microsoft.Practices.ServiceLocation.pdb
   - Microsoft.Practices.Unity.dll
   - Microsoft.Practices.Unity.Interception.dll
   - Microsoft.Practices.Unity.Interception.pdb
   - Microsoft.Practices.Unity.pdb
   - Microsoft.ReportViewer.Common.dll
   - Microsoft.ReportViewer.WinForms.dll
   - Microsoft.ReportViewer.WinForms.xml
   - Newtonsoft.Json.dll
   - Newtonsoft.Json.xml
   - NLog.dll
   - O2S.Components.PDFRender4NET.dll
   - PDFToImages.exe
   - Radar.Common.dll
   - Radar.Common.pdb
   - Radar.Common.WebClient.dll
   - Radar.Common.WebClient.pdb
   - Radar.DirectMessaging.Client.dll
   - Radar.DirectMessaging.Client.pdb
   - Radar.DirectMessaging.Model.dll
   - Radar.DirectMessaging.Model.pdb
   - rRISServices.exe
   - rRISServices.pdb
   - rRISServicesx64.exe
   - ScheduledTaskManager.dll
   - ScheduledTaskManager.pdb
   - ServicesConfigWizard.exe
   - ServicesConfigWizard.pdb
   - SignatureApprovalService.exe
   - SignatureApprovalService.pdb
   - System.Net.Http.dll
   - System.Net.Http.Formatting.dll
   - System.Net.Http.xml
   - System.Web.Http.dll
   - System.Web.Http.SelfHost.dll
   - System.Web.Http.SelfHost.xml
   - System.Web.Http.WebHost.dll
   - System.Web.Http.WebHost.xml
   - System.Web.Http.xml
   - System.Web.Mvc.dll
   - System.Web.Mvc.xml
   - System.Web.Optimization.dll
   - System.Web.Razor.dll
   - System.Web.Razor.xml
   - System.Web.WebPages.Deployment.dll
   - System.Web.WebPages.Deployment.xml
   - System.Web.WebPages.dll
   - System.Web.WebPages.Razor.dll
   - System.Web.WebPages.Razor.xml
   - System.Web.WebPages.xml
   - Tourreau.Gilles.FaxDotNet.dll
   - Tourreau.Gilles.FaxDotNet.pdb
   - Tourreau.Gilles.FaxDotNet.xml
   - WCFService.dll
   - WCFService.pdb
   - WCFServiceTests.dll
   - WCFServiceTests.pdb
   - WebApi.dll

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

- WebApi.pdb
- WebGrease.dll
- Wedge.exe
- Wedge.pdb

The rRIS_Service_Updates also contains to subfolders:

A. Deploy folder contains
   a. Applicationsettings.config
   b. ReleaseVersion-connectionstrings.config
   c. rRISServices.exe.config
   d. services.config

B. XSL subfolder contains:
   Subfolder titled "Stylesheets" which contains:
   a. CDAToHTMLCompleteReport.xslt
   b. CDAToHTMLCompleteReportDark.xslt
   c. CDAToHTMLImpressionSection.xslt
   d. CDATorRIS.xslt
   e. CDAToTxt.xslt
   f. DocumentModelReport.xslt
   g. DocumentModelReportAsXml.xslt

   h. CDA Subfolder contains
   a. C-CDA.xsl
   b. eRadStylesheet.xsl
   c. generalTemplates.xsl
   d. header.xsl
   e. QRDA.xsl
   f. QrdaLevel3_Cypress2.4.0.xsl
   g. QrdaLevel3_ViewHtml.xsl
   h. sectionAdministeredMedications.xsl
   i. sectionAllergies.xsl
   j. sectionEncounters.xsl
   k. sectionFindings.xsl
   l. sectionFuncCogStatus.xsl
   m. sectionHospitalDischarge.xsl
   n. sectionImmunizations.xsl
   o. sectionInstructions.xsl
   p. sectionMedications.xsl
   q. sectionPlanOfCare.xsl
   r. sectionProblemList.xsl
   s. sectionProcedures.xsl
   t. sectionQRDAMeasures.xsl
   u. sectionQRDAPatientData.xsl
   v. sectionQRDAReporting.xsl
   w. sectionReasonForVisit.xsl
   x. sectionResults.xsl
   y. sectionSocialHistory.xsl
   z. sectionVitalSigns.xsl

3) SQL Folder contains:
   - B43.0.1.sql

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 6. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

## 7. Who is affected

Build 43 installs. Server updates are not cumulative. This server update must be applied to 43

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

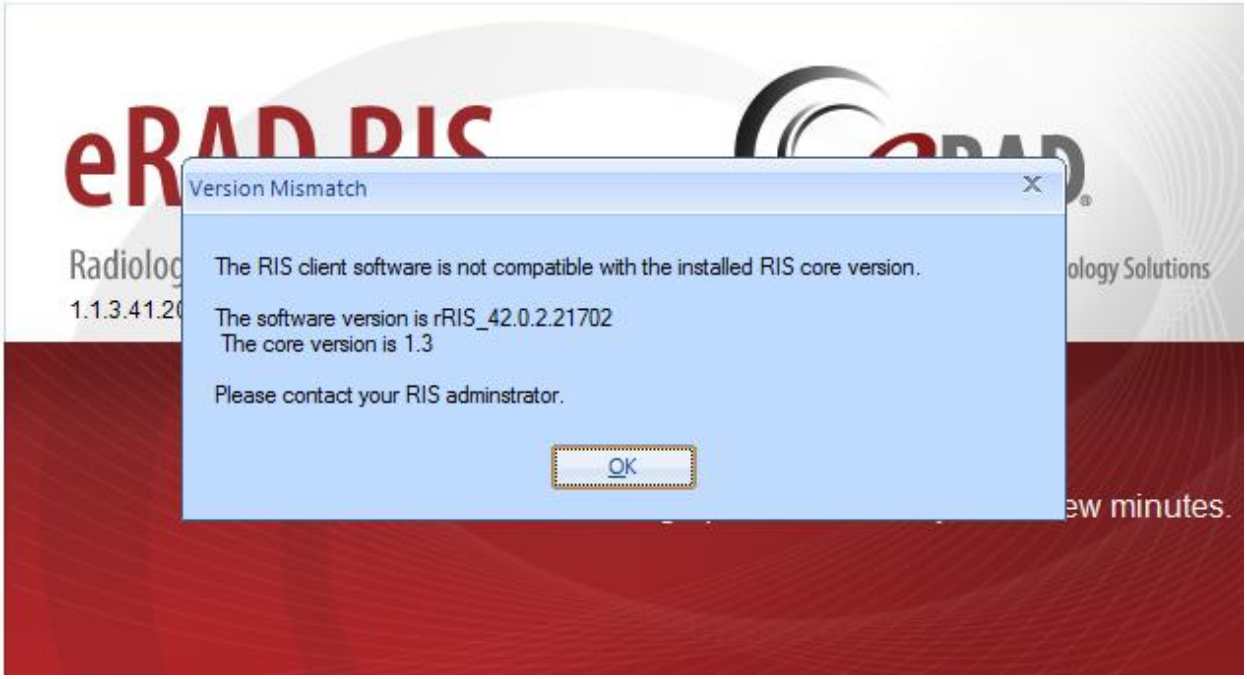
## 8. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 41.1 | - | 1.3.41.20918(3GB) | 1.3.41.20791 | 1.3.41.20918 | 1.3.41.20739 | GUI.zip, Core install, Web Service and DB updates, Help files |
| 41.1 | 1 | 1.3.41.20987(3GB) | 1.3.41.20791 | 1.3.41.20918 | 1.3.41.20739 | GUI.zip |
| 41.1 | 2 | 1.3.41.21162(3GB) | 1.3.41.20791 | 1.3.41.21162 | 1.3.41.21150 | GUI.zip, Web Service and DB updates, |
| 41.1 | 3 | 1.3.41.21264(3GB) | 1.3.41.20791 | 1.3.41.21162 | 1.3.41.21150 | GUI.zip |
| 42 | - | 2.42.0.0.21261(3GB) | 2.42.0.0.21261 | 2.42.0.0.21261 | 2.42.0.0.21187 | Full version release |
| 42 | 1 | 2.42.0.1.21597 | 2.42.0.0.21261 | 2.42.0.1.21597 | 2.42.0.0.21187 | GUI and Web Service updates |
| 42 | 2 | 2.42.0.2.21702 | 2.42.0.0.21261 | 2.42.0.2.21702 | 2.42.0.0.21187 | GUI and Web Service updates |
| 42 | 3 | 2.42.0.2.21806 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.0.21187 | GUI and Web Service updates |
| 42 | 4 | 2.42.0.2.21862 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.4.21870 | GUI and Database updates |
| 42 | 5 | 2.42.0.5.21924 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.4.21870 | GUI |
| 42 | 6 | 2.42.0.5.22009 | 2.42.0.0.21261 | 2.42.0.5.22009 | 2.42.0.4.21870 | GUI and Web Service updates |
| 42 | 7 | 2.42.0.7.22090 | 2.42.0.0.21261 | 2.42.0.6.22009 | 2.42.0.4.21870 | GUI.zip updates |
| 42 | 8 | 2.42.0.7.22090 | 2.42.0.7.22150 | 2.42.0.6.22009 | 2.42.0.4.21870 | Web Service updates |
| 42 | 9 | 2.42.0.9.22203 | 2.42.0.0.21261 | 2.42.0.9.22203 | 2.42.0.4.21870 | GUI and Web Service updates |
| 42 | 9.1 | 2.42.0.9.22203 | 2.42.0.0.21261 | 2.42.0.9.22203 | 2.42.0.4.21870 | Web Service updates |
| 42 | 10 | 2.42.0.10.22232 | 2.42.0.0.21261 | 2.42.0.9.22203 | 2.42.0.4.21870 | GUI.zip |
| 42 | 10.1 | 2.42.0.10.22420 | 2.42.0.0.21261 | 2.42.0.9.22203 | 2.42.0.4.21870 | GUI.zip updates |
| 42 | 11 | 2.42.0.11.22495a | 2.42.0.0.21261 | 2.42.0.11.22471 | 2.42.0.11.22527 | GUI.zip, Web Service, Database updates. Management Report Deployment |
| 42 | 12 | 2.42.0.12.22982 | 2.42.0.0.21261 | 2.42.0.12.22982 | 2.42.0.12.22911 | GUI.zip, Web Service, Database updates. |
| 42.1 | - | 2.42.1.0.22744(3GB) | 2.42.0.0.21261 | 2.42.1.0.22744 | 2.42.1.0.22736 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 42.1 | 1 | 2.42.1.1.2296(3GB) | 2.42.0.0.21261 | 2.42.1.1.22963 | 2.42.1.1.22864 | GUI.zip, Web Service, DB updates |
| 42.1 | 2 | 2.42.1.2.23007(3GB) | 2.42.0.0.21261 | 2.42.1.2.23007 | 2.42.1.2.23007 | GUI.zip, Web Service, DB updates |
| 42.1 | 3 | 2.42.1.2.23237(3GB) | 2.42.0.0.21261 | 2.42.1.2.23237 | 2.42.1.2.23007 | GUI.zip, Web Services |
| 42.1 | 4 | 2.42.1.4.23348(3GB) | 2.42.0.0.21261 | 2.42.1.4.23348 | 2.42.1.2.23007 | GUI.zip, Web Services |
| 42.1 | 5 | 2.42.1.5.23406(3GB) | 2.42.0.0.21261 | 2.42.1.5.23406 | 2.42.1.2.23007 | GUI.zip, Web Services |
| 43 | - | 2.43.0.0.23715(3GB) | 2.43.0.0.23171 | 2.43.0.0.23715 | 2.43.0.0.23743 | Full Version Release |
| **43** | **1** | **2.43.0.1.23798(3GB)** | **2.43.0.0.23171** | **2.43.0.1.23798** | **2.43.0.1.23770** | **GUI.zip, Web Service, DB updates** |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 9. Installing

1) Copy and replace the current rRIS…zip file with the rRIS_1.3.43.0.1.23798.zip file provided with this release.
   Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.




If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_43.0.1.23798→ rRIS_1.3.43.0.1. 23798
NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

**NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

2) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService. Be sure to make backup of all files, but especially the rRISServices.exe.config and rRISServices.vshost.exe.config files.
   *rRISService directories include:*
   a) *rRISService*
   b) *CDS rRISService*
   c) *Wedge rRISService*
   d) *DDE rRISService*

   **Restart each service.**

3) Run the B43.0.1.sql file against the eRAD RIS database instance.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

For eRAD RIS
Version 2.0
Build 43
Update 43.0.2

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. New Features ..... 3
   Image Request flag added to the Patient Folder WL ..... 3
   ICD Support for Radiologists ..... 4
2. Defects Resolved ..... 6
3. Changes to Configuration ..... 8
4. Code Stream ..... 9
5. Package Contents ..... 10
6. Intended Audience ..... 13
7. Who is affected ..... 13
8. eRAD RIS Release Version Numbers ..... 14
9. Installing ..... 15

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# 1. New Features

## Image Request flag added to the Patient Folder WL

A new column titled Image Request Flag has been added the Patient Folder WL. This column is a visual indicator to let the user know if an Image Request has/had been requested for the study.

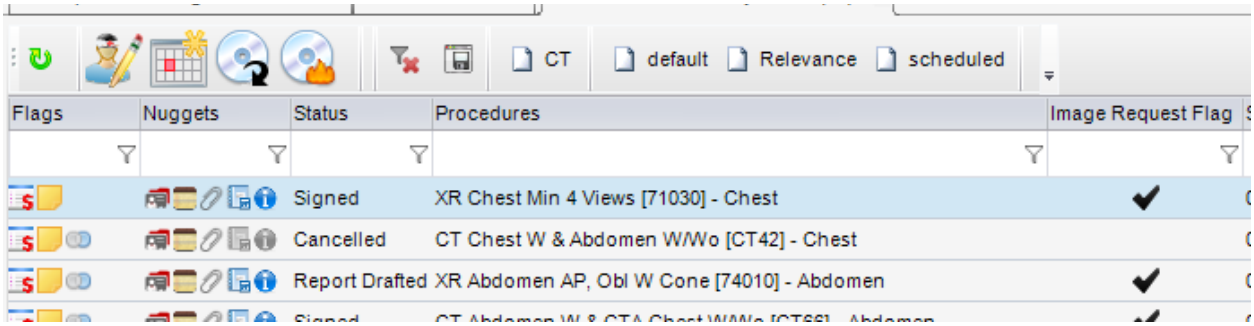



**Figure 1.1 – Image Request Flag column added to patient folder work list**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## ICD Support for Radiologists

In Build 43 we introduced support for ICD 10 codes. The feature was not complete as the Radiologist portion needed some fine tuning.

The Reporting window has a new ICD button. The button is located in the lower left corner of the reporting window.

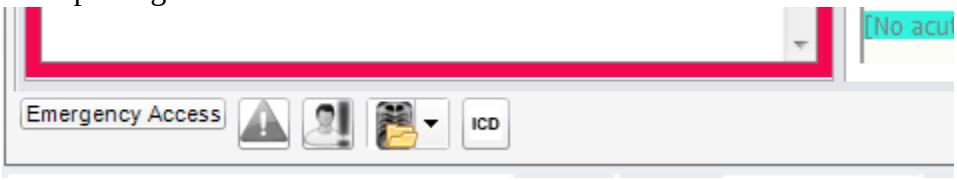



**Figure 1.2 – ICD button in reporting window**

The button is enabled with the system configuration setting of "**RadCanProvideIcdCode"** that has a default of False. This button will open the same ICD Codes search window. The data for the indications defined here are saved to c_interpreation_indication.

The Radiologist can be forced to input an ICD code by enabling the system configuration setting of "**RadMustProvideIcdCode**" that has a default value of False. When this setting is set to "True" the Radiologist will be required to enter at least one ICD code before being able to sign. If a code is not entered they will be presented with a message prompt informing that one must be provided.

**Figure 1.3 – cannot sign with ICD code when "RadMustProvideIcdCode" = true**

The ICD search window looks the same as when accessed from other areas of eRAD RIS. The ICD Codes window will provide the Reason for exam, a text box to enter search criteria where the user can enter the code or description. At least 3 characters must be entered for the search button to enable. The Type of code selected will depend on the value in system configuration setting of "**Icd10EffectiveDate**" which has a default value of 08-07-2014. If the value entered is a future date the Type of code selected will default to ICD 9. In the ICD Codes window the user can still choose to search for either or combine a search for both ICD9 and ICD10. In the example below both are chosen and the search results window displays the values returned. The type column indicates if it is ICD9 or ICD10 codes.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

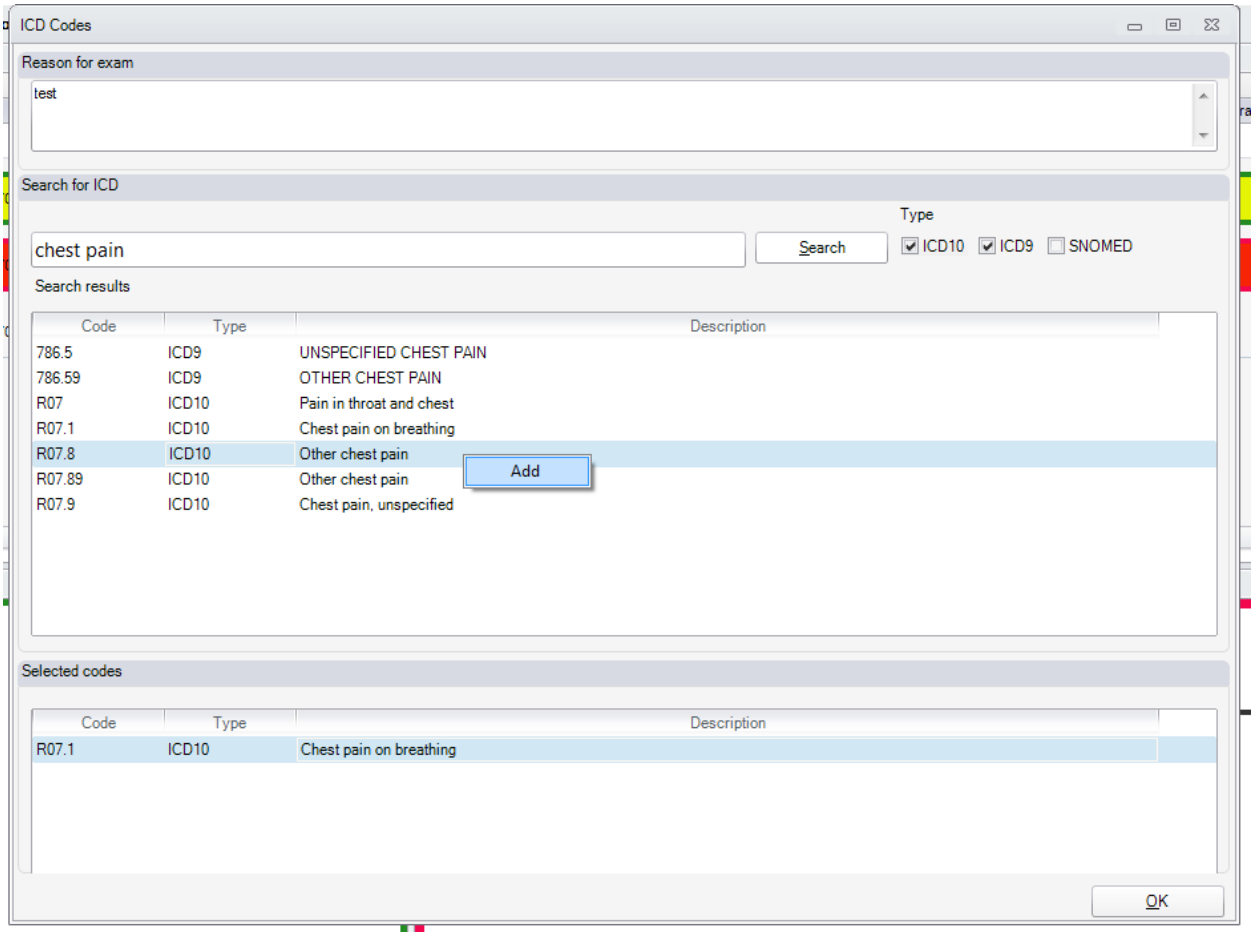



**Figure 1.4 – ICD code search window**

To move a code form the Search results to the Selected codes section of the window, the user must double mouse click, right click and select Add or use the Enter key on the desired code to be added. Multi select is not option. Codes will have to be entered one at a time.

To remove codes from the Selected codes section the user can double mouse click, right click and select Remove or use the delete key on your keyboard.

For the Radiologist to view the Tech workflow defined ICDs, viewing the Exam Details from the View menu will display indications defined in that workflow.

Codes added by a Radiologist can be viewed and/or edited from the View/Edit windows Documentation tab. Users will need the access string permission of "**Clinical.ViewEditCanChangeDiagIndications**" which has a default of None.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 2. Defects Resolved

| Redmine # | Tracker | Subject | Priority |
|---|---|---|---|
| 7236 | Feature | Patient Folder - Add "image request status" as a column on the worklist | Urgent |
| 7291 | Bug | DB Job: Update Mammo Recall categories job will not run | High |
| 7238 | Bug | Mgmt report deployment - issues when date format not same as US (found in SA) | High |
| 7195 | Bug | System config setting RadMustProvideIcdCode doesn't force rad to enter ICD code | High |
| 7184 | Bug | Error when trying to schedule new appointment on a patient with an existing procedure in ordered status | High |
| 7065 | Bug | ICD button is overlaid by the stat button in minimized dictation mode | High |
| 7018 | Bug | Chair and PowerScribe XML files writing to file system when exam not fully opened | High |
| 6910 | Bug | Ris hangs when editing a macro and pasting in new text | High |
| 6037 | Feature | MU2 - CCDA Encounter section does not include Encounter Diagnosis | High |
| 3888 | Feature | ICD 10 - Support | High |
| 7287 | Bug | MU Automated Measures Raw Data report needs Pass column added | Normal |
| 7265 | Bug | CCDA - Height, weight, Blood Pressure Diastolic and Blood Presssue Systolic values are taken from the 1st study | Normal |
| 7264 | Bug | MU Lab Clean up screen | Normal |
| 7261 | Bug | Neat ADF Scanner --> duplex scan support | Normal |
| 7245 | Bug | Clinical.Attachments should be default of Full | Normal |
| 7237 | Bug | Assign to Radiologist popup does not show the rad's for an outside reads c_order.filler_practice_code | Normal |
| 7231 | Bug | MU Related Lab Results window title - has the word Parent in the title | Normal |
| 7229 | Bug | there is a chance that there can be overlapping conflicting date ranges in availablity temapltes | Normal |
| 7222 | Bug | Change location of Technologist Activity by Modality report | Normal |
| 7219 | Bug | Mgmt Report - Biopsy Results Pending Letter | Normal |
| 7211 | Bug | MU Lab Screen Clean date format | Normal |
| 7207 | Bug | MU - clinical.diagnosecodes doesn't control adding indictation codes on mu window | Normal |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

| | | | |
|---|---|---|---|
| 7205 | Bug | Invalid Zip code is retained and not the valid County selection. | Normal |
| 7203 | Management Report | Mgmt Report - Radiologist Signings by VR System | Normal |
| 7182 | Bug | Menu item Messaging doesn't have an access string | Normal |
| 7166 | Bug | Report deployment - MQSA folder really should be called Mammography | Normal |
| 7164 | Bug | Cannot delete indictation codes from the Indication lookup table via GUI | Normal |
| 7146 | Bug | Assign ICD Code button - Using it when saving an order causes error. | Normal |
| 7145 | Bug | MU data is deleted if Patient Search is utilized after data is filled in. | Normal |
| 7137 | Bug | Management Report - Audit Log | Normal |
| 7022 | Bug | Closing .Net connections can cause delays | Normal |
| 7016 | Bug | Exception thrown when deleting a row in MU allergy section and adding a row in MU problem section | Normal |
| 6990 | Bug | the validation for Modality Restriction and Closures are not checking to ensure that the start date occours before the end date | Normal |
| 7050 | Bug | CCDA - BMI value is different that the BMI value in MU tab | Low |

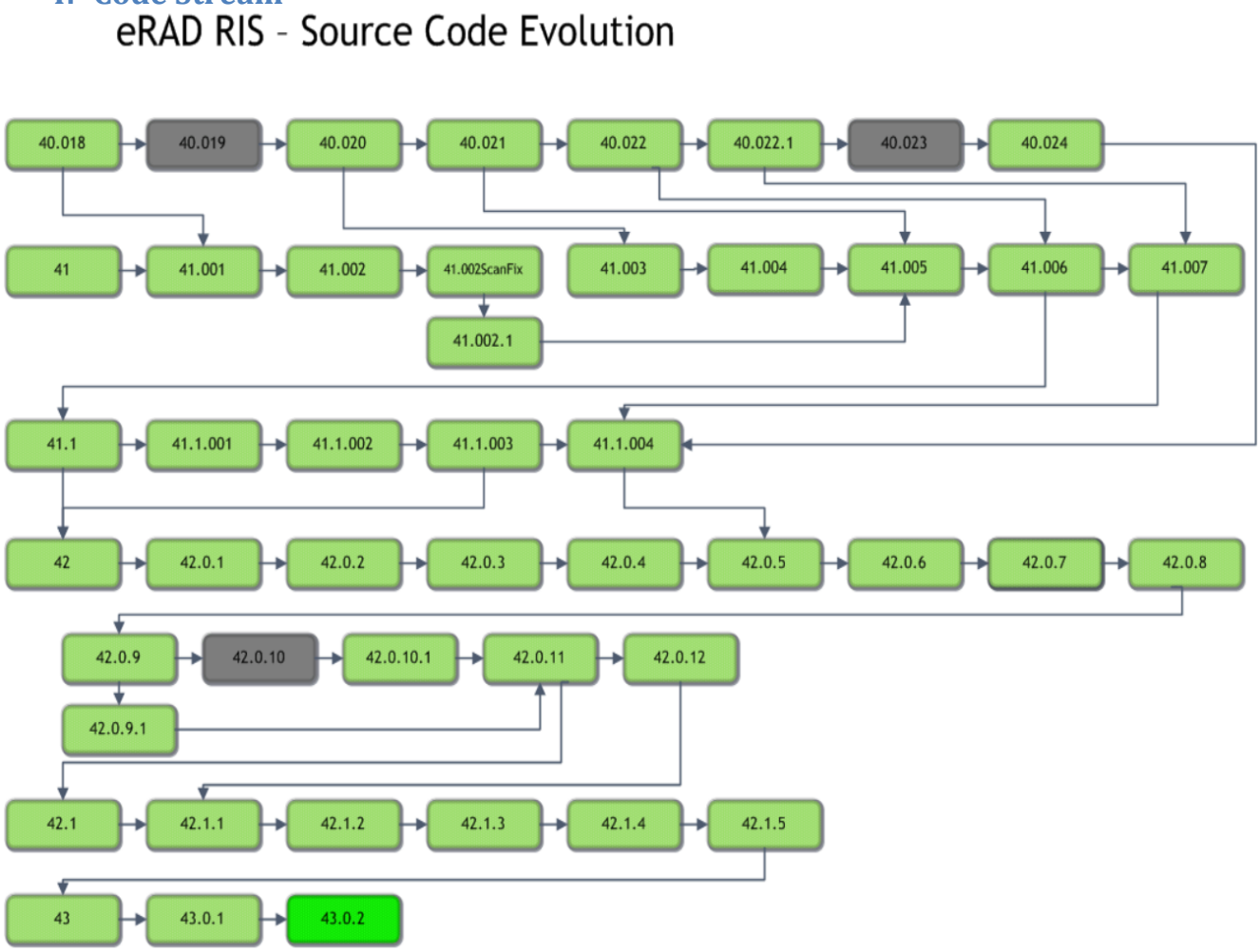
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 3. Changes to Configuration

| Setting Placeholder | Setting | Default | Purpose / Controls Access to |
|---|---|---|---|
| Access strings and User Group Permissions | Clinical.DiagnosisCodes<br><br>**Has been removed** | N/A | This was originally added in an early build of 43 to control access to enter ICD codes in the MU's Extra Info Screen. The ability to add ICD codes in the Extra Info Screen was removed before release of 43. The user can add ICD Codes in the Medical History Grid. For access to add ICD codes into this grid, users must have access to **MU.MUEnabledControls** which controls access to the grids and radio buttons on the MU tab. |
| Access strings and User Group Permissions | Clinical.Attachments<br><br>The default has changed from None to Full | Full | Controls access to the stand alone Attachments screen accessible in a work list via Right Click / Attachments |
| Access strings and User Group Permissions | Clinical.ViewEditCanChangeDiagIndications | None | In View/Edit, the indications defined by the radiologist can be edited |
| SystemConfig | Icd10EffectiveDate | | (value = DateTime mm-dd-yyyy) The date on which ICD10 is effective. ICD9 will be used prior to this date. |
| SystemConfig | RadMustProvideIcdCode | False | A value of True will force radiologist to provide diagnosis ICD code prior to signing. Possible values are False and True |
| SystemConfig | RadCanProvideIcdCode | False | Enables the ability for the radiologist to provide diagnosis ICD code in the reporting screen. Possible values are False and True |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 4. Code Stream




**Legend:**

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 5. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains:
   - rRIS_1.3.43.0.2.24017.zip

2) RIS_Service_Updates contains:
   - ABCpdf.dll
   - ABCpdf9-32.dll
   - ABCpdf9-64.dll
   - Antlr3.Runtime.dll
   - CDSJobManager.dll
   - CDSJobManager.pdb
   - CdsLib.dll
   - CdsLib.xml
   - CdsLib.XmlSerializers.dll
   - CommonLib.dll
   - CommonLib.pdb
   - contents4301.txt
   - DDEngine.dll
   - DDEngine.pdb
   - DiffPlex.dll
   - Interop.ANYMODALCAPTURECTRLLib.dll
   - Interop.FAXCOMEXLib.dll
   - Microsoft.Practices.EnterpriseLibrary.Caching.dll
   - Microsoft.Practices.EnterpriseLibrary.Caching.pdb
   - Microsoft.Practices.EnterpriseLibrary.Common.dll
   - Microsoft.Practices.EnterpriseLibrary.Common.pdb
   - Microsoft.Practices.EnterpriseLibrary.Logging.dll
   - Microsoft.Practices.EnterpriseLibrary.Logging.pdb
   - Microsoft.Practices.ServiceLocation.dll
   - Microsoft.Practices.ServiceLocation.pdb
   - Microsoft.Practices.Unity.dll
   - Microsoft.Practices.Unity.Interception.dll
   - Microsoft.Practices.Unity.Interception.pdb
   - Microsoft.Practices.Unity.pdb
   - Microsoft.ReportViewer.Common.dll
   - Microsoft.ReportViewer.WinForms.dll
   - Microsoft.ReportViewer.WinForms.xml
   - Newtonsoft.Json.dll
   - Newtonsoft.Json.xml
   - NLog.dll
   - O2S.Components.PDFRender4NET.dll
   - PDFToImages.exe
   - Radar.Common.dll
   - Radar.Common.pdb
   - Radar.Common.WebClient.dll
   - Radar.Common.WebClient.pdb
   - Radar.DirectMessaging.Client.dll
   - Radar.DirectMessaging.Client.pdb
   - Radar.DirectMessaging.Model.dll
   - Radar.DirectMessaging.Model.pdb
   - rRISServices.exe
   - rRISServices.pdb
   - rRISServicesx64.exe
   - ScheduledTaskManager.dll
   - ScheduledTaskManager.pdb
   - ServicesConfigWizard.exe
   - ServicesConfigWizard.pdb
   - SignatureApprovalService.exe
   - SignatureApprovalService.pdb
   - System.Net.Http.dll
   - System.Net.Http.Formatting.dll
   - System.Net.Http.xml
   - System.Web.Http.dll
   - System.Web.Http.SelfHost.dll
   - System.Web.Http.SelfHost.xml
   - System.Web.Http.WebHost.dll
   - System.Web.Http.WebHost.xml
   - System.Web.Http.xml
   - System.Web.Mvc.dll
   - System.Web.Mvc.xml
   - System.Web.Optimization.dll
   - System.Web.Razor.dll
   - System.Web.Razor.xml
   - System.Web.WebPages.Deployment.dll
   - System.Web.WebPages.Deployment.xml
   - System.Web.WebPages.dll
   - System.Web.WebPages.Razor.dll
   - System.Web.WebPages.Razor.xml
   - System.Web.WebPages.xml
   - Tourreau.Gilles.FaxDotNet.dll
   - Tourreau.Gilles.FaxDotNet.pdb
   - Tourreau.Gilles.FaxDotNet.xml
   - WCFService.dll
   - WCFService.pdb
   - WCFServiceTests.dll
   - WCFServiceTests.pdb
   - WebApi.dll

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

- WebApi.pdb
- WebGrease.dll
- Wedge.exe
- Wedge.pdb

The rRIS_Service_Updates also contains to subfolders:

A. Deploy folder contains
   a. Applicationsettings.config
   b. ReleaseVersion-connectionstrings.config
   c. rRISServices.exe.config
   d. services.config

B. XSL subfolder contains:
   Subfolder titled "Stylesheets" which contains:
   a. CDAToHTMLCompleteReport.xslt
   b. CDAToHTMLCompleteReportDark.xslt
   c. CDAToHTMLImpressionSection.xslt
   d. CDATorRIS.xslt
   e. CDAToTxt.xslt
   f. DocumentModelReport.xslt
   g. DocumentModelReportAsXml.xslt

   h. CDA Subfolder contains
   a. C-CDA.xsl
   b. eRadStylesheet.xsl
   c. generalTemplates.xsl
   d. header.xsl
   e. QRDA.xsl
   f. QrdaLevel3_Cypress2.4.0.xsl
   g. QrdaLevel3_ViewHtml.xsl
   h. sectionAdministeredMedications.xsl
   i. sectionAllergies.xsl
   j. sectionEncounters.xsl
   k. sectionFindings.xsl
   l. sectionFuncCogStatus.xsl
   m. sectionHospitalDischarge.xsl
   n. sectionImmunizations.xsl
   o. sectionInstructions.xsl
   p. sectionMedications.xsl
   q. sectionPlanOfCare.xsl
   r. sectionProblemList.xsl
   s. sectionProcedures.xsl
   t. sectionQRDAMeasures.xsl
   u. sectionQRDAPatientData.xsl
   v. sectionQRDAReporting.xsl
   w. sectionReasonForVisit.xsl
   x. sectionResults.xsl
   y. sectionSocialHistory.xsl
   z. sectionVitalSigns.xsl

3) SQL Folder contains:
   - B43.0.2.sql

4) **SSRSDeployment** folder contains 7 subfolders, a batch file for deploying the reports and a help file for deploying the reports.

   4.1. **Backups** folder is empty

   4.2. **Fonts** folder contains 4 files:
   4.1.1. FRE3OF9X

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

4.1.2 FRE3OF9x_0
4.1.3 FREE3OF9
4.1.4 FREE3OF9_0

4.3. **ParentFolder** folder contains 7 subfolders
- 4.3.1. **Chair** folder contains 1 .rdl file
- 4.3.2. **Dashboards** folder contains 9 .rdl files
- 4.3.3. **Forms folder** contains sub folder and 2 .rdl files
  - 4.3.3.1. **SubReports** contains 10 .rdl files
- 4.3.4. **Management Reports** folder contains 7 sub folders, these subfolders contain the core management report files (.rdl) to be deployed.
- 4.3.5. **Marketing** folder contains 5 .rdl files
- 4.3.6. **Order Templates** contains 1 file (Default.rdl)
- 4.3.7. **Referring Portal** contains 8 .rdl files
- 4.3.8. **SubReports** contains 11.rdl files
- 4.3.9. **Verbal Order** contains 4 .rdl files

4.4. **Scripts** folder contains 9 .rss files. These files are used with the DeployReports.bat utility to deploy the reports.

4.5. **Upload Custom Mangement Reports** is empty

4.6. **Upload Diagnostic Templates** folder contains 1 subfolder
- 4.6.1. **SubReports** folder is empty

4.7. **Upload Forms** folder contains 1 subfolder.
- 4.7.1. **SubReports** folder is empty

4.8. **eRADDeployReports.bat -** batch file for deploying reports to report server for eRAD customers

4.9. **RadnetDeployReports.bat** - batch file for deploying reports to report sever for RadNet

4.10. **Adding reports for Deployment.docx** document to assist in added a report to the install process when deploying the reports.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 6. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

## 7. Who is affected

Build 43 installs. Server updates are not cumulative. This server update must be applied to 43

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

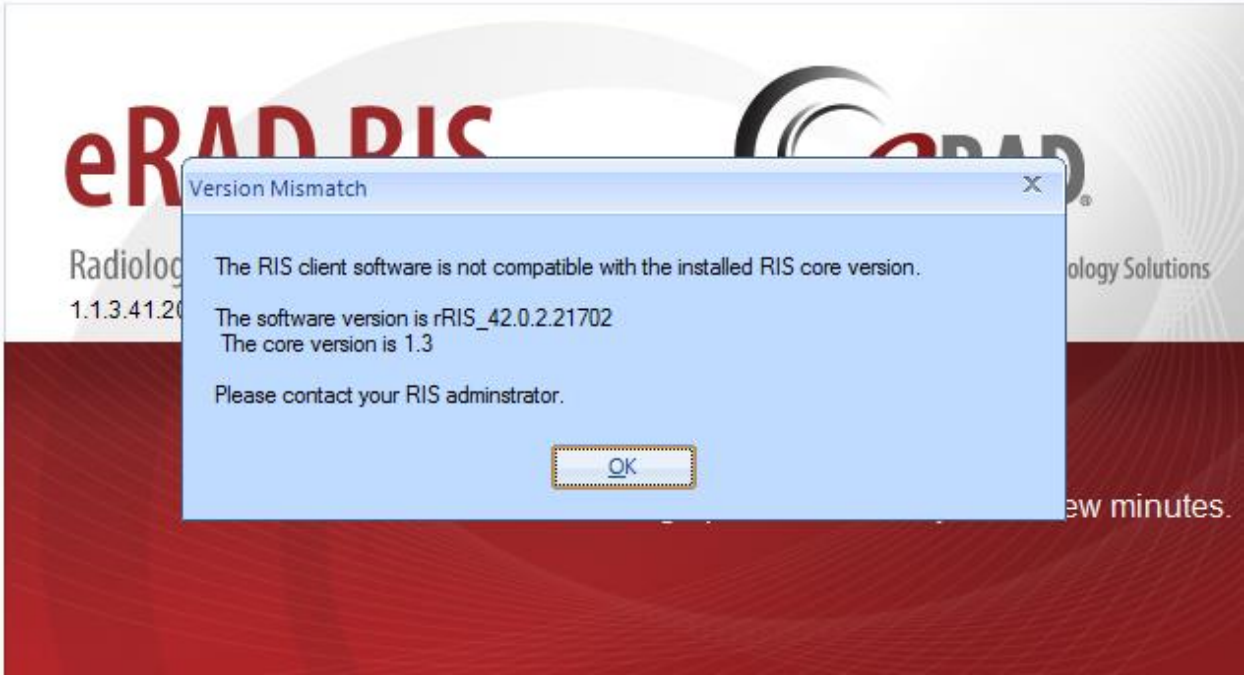
## 8. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 41.1 | - | 1.3.41.20918(3GB) | 1.3.41.20791 | 1.3.41.20918 | 1.3.41.20739 | GUI.zip, Core install, Web Service and DB updates, Help files |
| 41.1 | 1 | 1.3.41.20987(3GB) | 1.3.41.20791 | 1.3.41.20918 | 1.3.41.20739 | GUI.zip |
| 41.1 | 2 | 1.3.41.21162(3GB) | 1.3.41.20791 | 1.3.41.21162 | 1.3.41.21150 | GUI.zip, Web Service and DB updates, |
| 41.1 | 3 | 1.3.41.21264(3GB) | 1.3.41.20791 | 1.3.41.21162 | 1.3.41.21150 | GUI.zip |
| 42 | - | 2.42.0.0.21261(3GB) | 2.42.0.0.21261 | 2.42.0.0.21261 | 2.42.0.0.21187 | Full version release |
| 42 | 1 | 2.42.0.1.21597 | 2.42.0.0.21261 | 2.42.0.1.21597 | 2.42.0.0.21187 | GUI and Web Service updates |
| 42 | 2 | 2.42.0.2.21702 | 2.42.0.0.21261 | 2.42.0.2.21702 | 2.42.0.0.21187 | GUI and Web Service updates |
| 42 | 3 | 2.42.0.2.21806 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.0.21187 | GUI and Web Service updates |
| 42 | 4 | 2.42.0.2.21862 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.4.21870 | GUI and Database updates |
| 42 | 5 | 2.42.0.5.21924 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.4.21870 | GUI |
| 42 | 6 | 2.42.0.5.22009 | 2.42.0.0.21261 | 2.42.0.5.22009 | 2.42.0.4.21870 | GUI and Web Service updates |
| 42 | 7 | 2.42.0.7.22090 | 2.42.0.0.21261 | 2.42.0.6.22009 | 2.42.0.4.21870 | GUI.zip updates |
| 42 | 8 | 2.42.0.7.22090 | 2.42.0.7.22150 | 2.42.0.6.22009 | 2.42.0.4.21870 | Web Service updates |
| 42 | 9 | 2.42.0.9.22203 | 2.42.0.0.21261 | 2.42.0.9.22203 | 2.42.0.4.21870 | GUI and Web Service updates |
| 42 | 9.1 | 2.42.0.9.22203 | 2.42.0.0.21261 | 2.42.0.9.22203 | 2.42.0.4.21870 | Web Service updates |
| 42 | 10 | 2.42.0.10.22232 | 2.42.0.0.21261 | 2.42.0.9.22203 | 2.42.0.4.21870 | GUI.zip |
| 42 | 10.1 | 2.42.0.10.22420 | 2.42.0.0.21261 | 2.42.0.9.22203 | 2.42.0.4.21870 | GUI.zip updates |
| 42 | 11 | 2.42.0.11.22495a | 2.42.0.0.21261 | 2.42.0.11.22471 | 2.42.0.11.22527 | GUI.zip, Web Service, Database updates. Management Report Deployment |
| 42 | 12 | 2.42.0.12.22982 | 2.42.0.0.21261 | 2.42.0.12.22982 | 2.42.0.12.22911 | GUI.zip, Web Service, Database updates. |
| 42.1 | - | 2.42.1.0.22744(3GB) | 2.42.0.0.21261 | 2.42.1.0.22744 | 2.42.1.0.22736 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 42.1 | 1 | 2.42.1.1.2296(3GB) | 2.42.0.0.21261 | 2.42.1.1.22963 | 2.42.1.1.22864 | GUI.zip, Web Service, DB updates |
| 42.1 | 2 | 2.42.1.2.23007(3GB) | 2.42.0.0.21261 | 2.42.1.2.23007 | 2.42.1.2.23007 | GUI.zip, Web Service, DB updates |
| 42.1 | 3 | 2.42.1.2.23237(3GB) | 2.42.0.0.21261 | 2.42.1.2.23237 | 2.42.1.2.23007 | GUI.zip, Web Services |
| 42.1 | 4 | 2.42.1.4.23348(3GB) | 2.42.0.0.21261 | 2.42.1.4.23348 | 2.42.1.2.23007 | GUI.zip, Web Services |
| 42.1 | 5 | 2.42.1.5.23406(3GB) | 2.42.0.0.21261 | 2.42.1.5.23406 | 2.42.1.2.23007 | GUI.zip, Web Services |
| 43 | - | 2.43.0.0.23715(3GB) | 2.43.0.0.23171 | 2.43.0.0.23715 | 2.43.0.0.23743 | Full Version Release |
| 43 | 1 | 2.43.0.1.23798(3GB) | 2.43.0.0.23171 | 2.43.0.1.23798 | 2.43.0.1.23770 | GUI.zip, Web Service, DB updates |
| **43** | **2** | **2.43.0.2.24017(3GB)** | **2.43.0.0.23171** | **2.43.0.2.24017** | **2.43.0.2.24023** | **GUI.zip, Web Service, DB updates and Management Report Deployment** |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 9. Installing

1) Copy and replace the current rRIS…zip file with the rRIS_1.3.43.0.2.24017.zip file provided with this release.
   Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.




If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_43.0.2.24017→ rRIS_1.3.43.0.2. 24017
NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

**NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)**

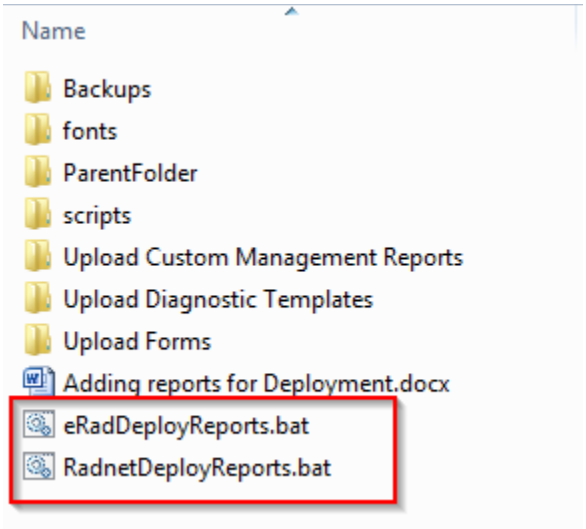
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

2) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService. Be sure to make backup of all files, but especially the rRISServices.exe.config and rRISServices.vshost.exe.config files.
*rRISService directories include:*
   a) *rRISService*
   b) *CDS rRISService*
   c) *Wedge rRISService*
   d) *DDE rRISService*

   **Restart each service.**

3) Run the B43.0.2.sql file against the eRAD RIS database instance.

4) Management Reports Deployment / SSRSDeployment - There are 2 utilities called **RadnetDeployReports.bat** and **eRadDeployReports.bat** that will deploy the reports to a SQL Server Report Service. This utility is found in the **Build X\SSRSDeployment** folder. Below are the steps on how to use this utility. The purpose for the 2 .bat files are the RadNet one deploys a few extra reports specific to RadNet.




1. Launch the DeployReports.bat file.
2. ***Enter report server name [default:<computer_name>]:***
   a. A script will run against the server and return a list of all the root folders on that report server
   **By Default this will pull the computer_name environmental variable from the machine running the script. I suggest running this from the report server for performance anyway.
3. **Enter root folder to deploy reports [default: production]**:

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

a. This will create a new root if the name you give doesn't exist, or it will simply publish below the root of the folder if it does already exist. We typically will use "production" for the installation folder. Note: The script forces the root name to be lowercase.
**Default is suggested to be production, but you may need to change it based on the environment you are deploying to. Ie: testserver might be called something else.

4. **Do you wish to create a backup of the existing reports?**:
   a. This will create a file backup of the report directory specified in the same directory deploy.bat is being run from inside a folder called Backups where it will create a folder based on datetime of backup. Ie: 04172014_110605 (MMDDYYYY_HHMISS).
5. **Do you wish to deploy core management reports**?
   a. If you enter "y", it will redeploy the core management reports
6. **Do you wish to upload Forms**?

a. If you enter "y", the script will deploy any .rdl files into the installations Forms folder that you have previously saved into the script folder called "Upload Forms" including the folder below it called SubReports.

7. **Do you wish to upload Diagnostic Templates**?

a. If you enter "y", the script will deploy any .rdl files into the installations Diagnostic Templates folder that you have previously saved into the script folder called "Upload Diagnostic Templates" including the folder below it called SubReports.

8. **Do you wish to upload Custom Management Reports?**

a. Entering "Y" will copy any .rdl files you've copied under the deployment folder called Upload Custom Management Reports onto the server under Management Reports\Custom\Uploads directory

9. **Do you wish to create a datasource**?
   a. If you select "y" you will get prompted for more information about the datasource you wish to create. You only need to create a datasource, if this is a new installation. No need to do this if you are upgrading an existing installation. The datasource gets created in the root of the folder from step 3. The datasource will be called RISDataSource.

If you chose to create a datasource, the following steps will be requested to complete the connection string.

1. **Enter database server name**:
   a. This is the name of the physical database server
   ex. MYSERVER-1
2. **Enter database name**:
   a. This is the name of the database on the database server
   ex. rRIS_Site

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

3. **Enter report schema user name**: ex. The account that the datasource will use to connect to the database ie: SA. (For security reasons "sa" is not recommended)
4. **Enter report schema password**:

   The results of deployment will be written to log.txt in the same folder as the DeployReports.bat file.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

For eRAD RIS
Version 2.0
Build 43
Update 43.0.3

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. New Features ..... 3
   Insurance Eligibility ..... 3
2. Defects Resolved ..... 25
3. Changes to Configuration ..... 26
4. Code Stream ..... 28
5. Package Contents ..... 29
6. Intended Audience ..... 32
7. Who is affected ..... 32
8. eRAD RIS Release Version Numbers ..... 33
9. Installing ..... 34

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# 1. New Features

## Insurance Eligibility

A summary of the Eligibility coverage is displayed when the mouse pointer is placed over the Eligibility icon. We also plan to show these details along with the calculated amount to collect in the scheduling information window.

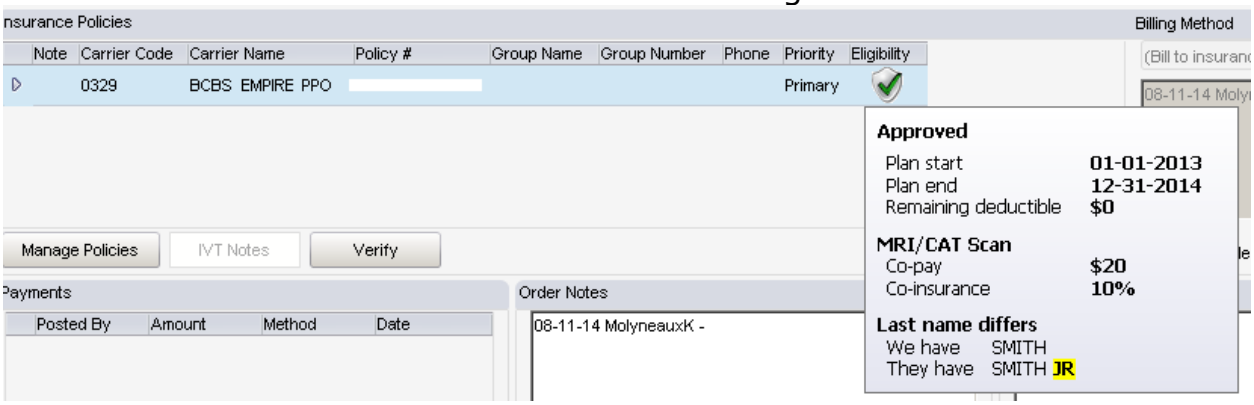



**Figure 1.1 – Displaying eligibility summary**

UI will auto initiate insurance check when all the required data has been entered. Starts after closing the manage policies grid or on "Verify" button.

The insurance check is automatically performed when scheduling or walking in a patient (the first time we get insurance information). Then a second check is automatically performed the first time we open the patients record on the date of service.

Before sending a request to Eligible, we query our previous requests for the current day. If we have an active coverage response from today, which used the same query parameters, we skip the call to Eligible and return the previous response saving us time and eliminating the issue where the user double clicks or missuses the "Verify" button. When we do this, a new root_eligibility_request_key is generated and passed to the eligibility check on the day of service.

The following information is required to start an eligibility request:

- Patient First Name
- Patient Last Name
- Patient DOB

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

- Carrier (payer) name
- Subscriber name
- Subscriber ID

We re-validate when the service type (CT vs MRI) or time of exam change. Not all re-validations will require a second Eligible API query.

If patient insurance details change, another request will be made and the previous request will be terminated.

Although we will trigger this check automatically users have an option to manually request a new insurance check via a "Verify" button (previously "Reverify")

The eligibility check is asynchronous. When the check is in progress the icons for eligibility should display an image indicating that a request is in-progress.

When the results become available, the eligibility icons should update immediately.

If the RIS Screen is closed before the results were finalized or if there is an error in retrieving eligibility then the RIS will display an MS Outlook style notification message should be displayed (this is for when the user already closed the screen).

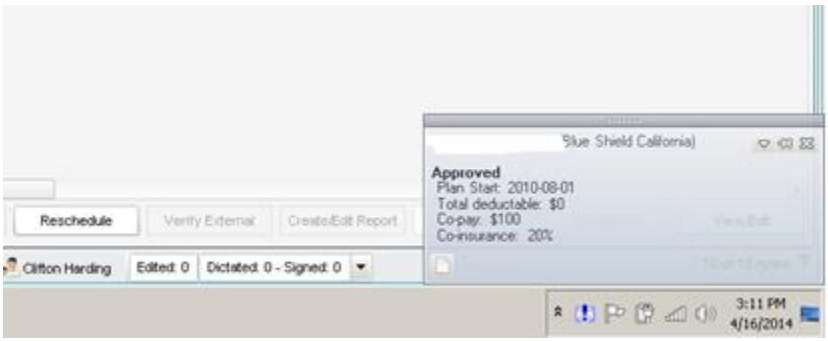



**Figure 1.2 – Eligibility notification**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

Icon in "Insurance Policies Gird" and WLs to display, IVT like shield icon combined with one of the status symbols.

→ 1. Approved

→ 2. Error

→ 3. Warnings

→ 4. Denied

→ 5. in progress

→ 6. Payer not responding

For the rare cases where the insurance response contains multiple possible co-pay or co-insurance values, then we will choose the highest value to collect.

We will use the individuals remaining deductible amount; however, if the family amount is less than the individuals we will use the family remaining deductible amount.

The complete details of the Eligibility response are available by clicking on the Eligibility Status icon and will be displayed using the Eligible API web browser scripts "coverage.js". Clicking on opens the following screen:

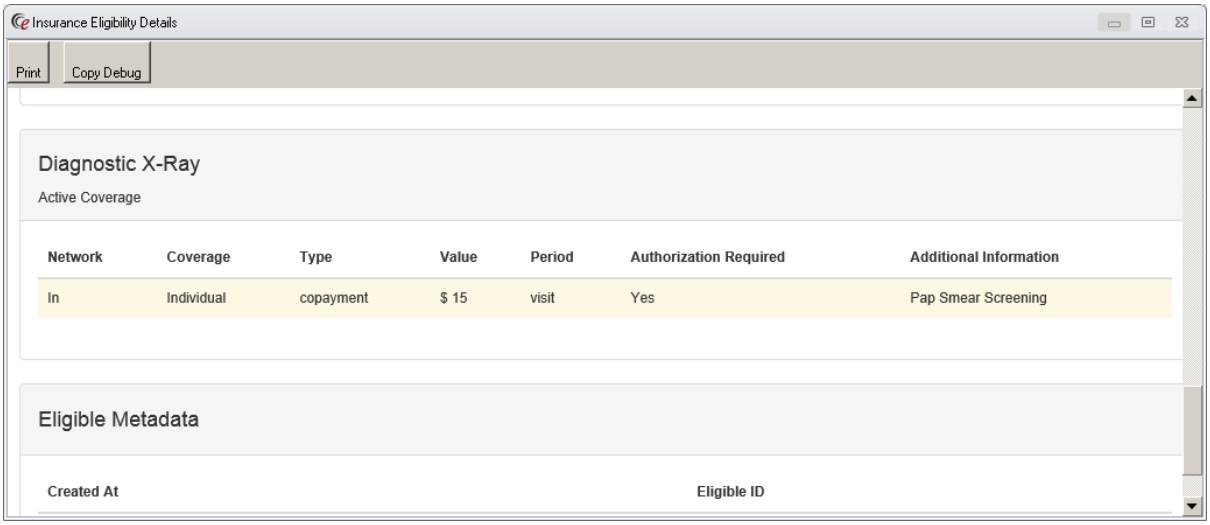



**Figure 1.3 – Insurance Eligibility Details window**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

The RIS will insert the values for the following fields, if they are 'blank':

- Patient address fields
- Patient middle_name

Patient name, gender and birth date are required for the query and will never be blank.

The RIS will insert or update the following RIS fields if they are different in the eligibility return so that we match the insurance company exactly

- Policy Number
- Group Name
- Group Number
- Subscriber's
  - Relation to patient
  - first_name,
  - last_name,
  - middle_name,
  - birth_date,
  - gender
  - Full address

Some fields like first name, last name and birth date might be correct in the RIS but wrong in the insurance database.

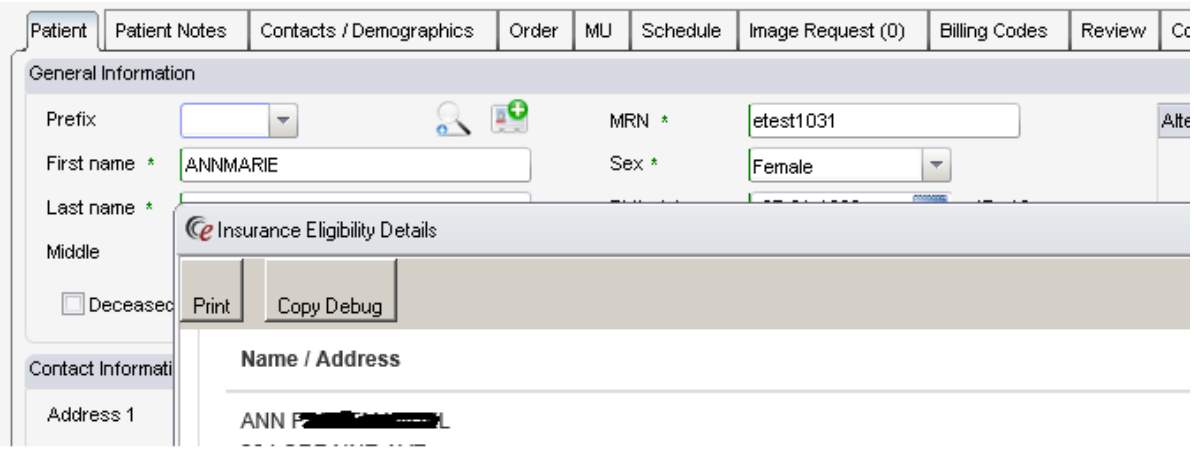



**Figure 1.4 – Comparing patient details**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

In the above example, the patient goes by ANNMARIE, which is what is on her drivers licenses but on her insurance card her first name is just Ann. All other fields match last name, middle name and birthdate.

To make sure this is what the patient and doctors expect, we keep the value we have in RIS but also record the insurance returned values in the following fields, which will be used when communicating with billing:

- insurance_first_name
- insurance_last_name
- insurance_birth_date *see note below

If only one of the above is wrong, we will use the above logic to keep insurance fields for the billing. If two or more of the above fields do not match, we will flag the eligibility check as Questionable. The status will display and the encounter will be referred to IVT. A user with IVT permissions will either need to fix the name or birth date in RIS or use the Eligibility Override feature to ignore the difference.

KM: In a later build, develop some more complex rules and use algorithms such as levenshtein distance (re: http://www.antedes.com/blog/csharp/percentage-match-between-two-strings-levenshtein-distance).

Note: if only one of these insurance field values is different we will allow a green check; however, we will still mention the difference in the insurance summary text (the text displayed when we hover over the eligibility icon).

***We will also store the patient's insurance gender, middle name and address info.**

If the subscriber's relationship is self, we query with the patient's demographics such as first name, last name and birth date.

If the relationship is anything other than self, we will query with the policy holders name, birth_date, plus the patient's demographics as the dependent.

When the service type we are querying comes back as "contact the following entity for coverage info". It means that there is an additional insurance policy that must be checked manually. When this happens (less than 1% of

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

cases tested to date) we will display a reference to the additional insurance policies in the summary text.

If the service type contains, "payer didn't give information for the service" and the service we are querying is not XRay we will attempt again with the XRay service type. If the service type is XRay we will attempt again with CT/MRI.

Worklists will display the eligibility status icon (* when integration with Eligibility API is configured for the site/carrier). Hovering over the icon in the worklist will query the visit information and display a summary of the eligibility results. Clicking on the icon will display the entire insurance details.

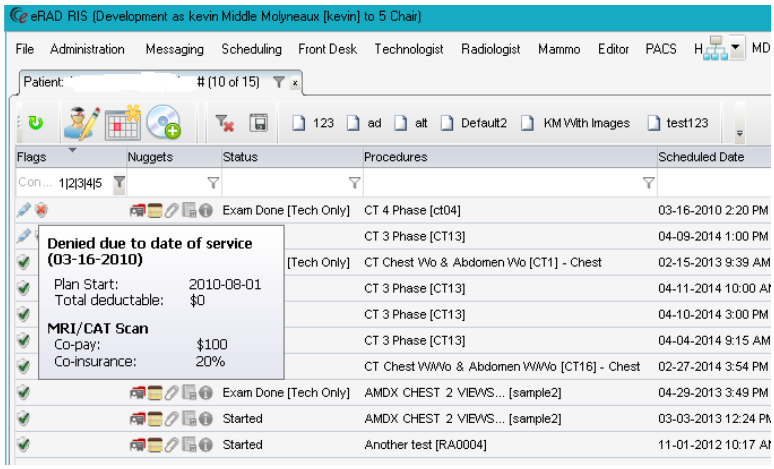



**Figure 1.5 – Summary displayed from flag on patient folder**

When the payer isn't responding, we use the previous result. For example, at the time of scheduling we verified their insurance, then on the day of service if the payer is not responding we allow things to continue with the previous eligibility response:

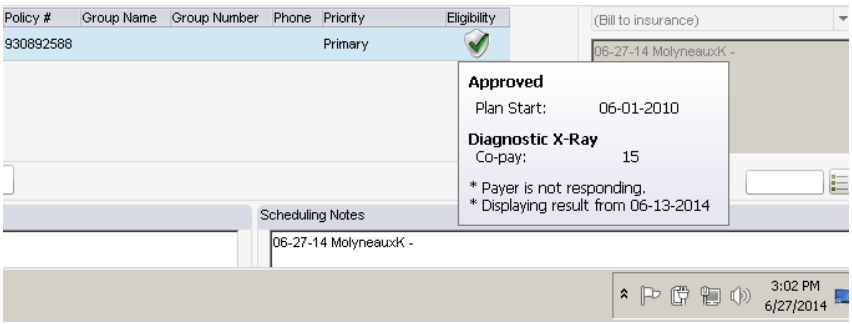



**Figure 1.6 – Showing previous response**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

If the payer isn't responding and we don't have a previous result, then we will display an empty shield icon for the Eligibility ICON, the study won't go to IVT and we will retry with Eligible API every 20 minutes. The c_eligibility_response table will keep a running count of the number of retries and each retry will be logged in the table c_eligibility_retry.

### Integration with the National Payer Database (NPD)

We will integrate with the NPD, passing CPT codes, site information, date of service insurance type (from Eligible API response) and the payer to get the total cost of the visit.

The total cost of the visit will be calculated and stored in the amount to collect text field. The calculation is based on the Insurance Eligibility details and NPD price estimate.

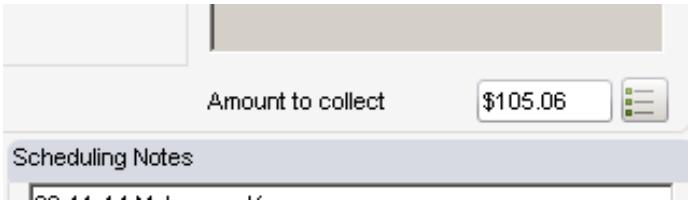



**Figure 1.7 – Amount to collect field can be auto populated**

When the price comes from the NPD, the amount to collect text field will be read-only. Otherwise, if we are using manual insurance verification then the amount to collect can be entered manually.

If we are processing a self-pay insurance, with the code '0100'. Then the price will come from the NPD and the total amount will be displayed in the amount to collect textbox.

If the NPD doesn't return a cost for a selected cpt_code/site/carrier then we will use the '0100' self-pay cost and log the fact that we couldn't find a price in the NPD. The log entry will be stored in the table c_price_unavailable.

To the right of the amount to collect text field, there is a "details" button. This button displays a screen, which explains how the amount to collect was calculated.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

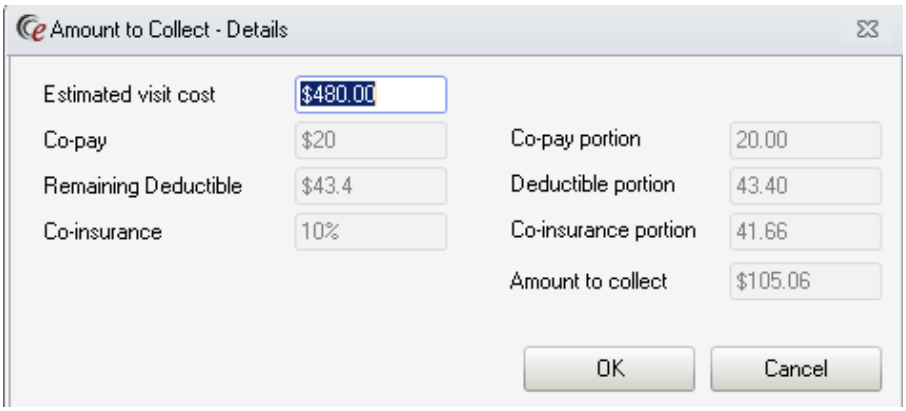



**Figure 1.8 – Amount to collect details**

When we are in any of the scheduling/walking/registration or re-scheduling screens. Note this is only if we are using Auto Insurance Eligibility and NPD pricing.

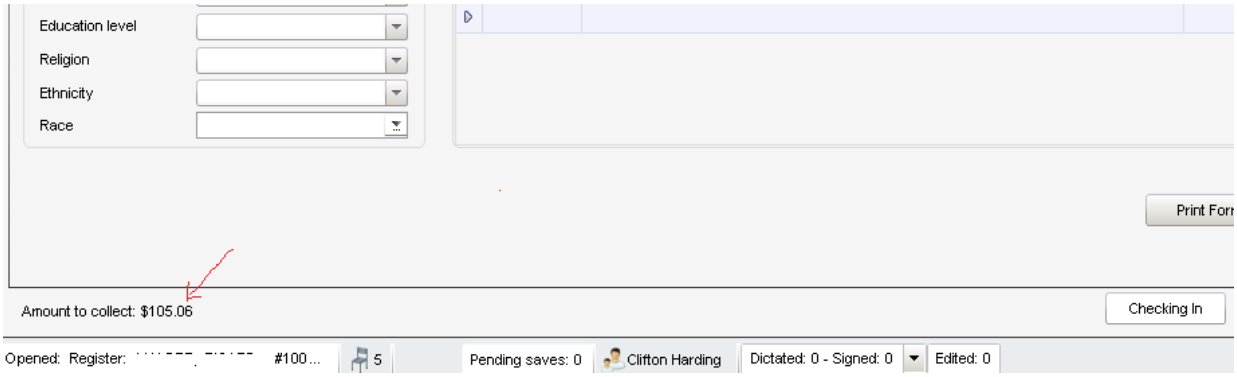



**Figure 1.9 – Amount to collect can be seen on all tabs**

Amount to collect:

a. If there is a secondary insurance, NO COLLECTION WILL BE CALCULATED OR DISPLAYED

b. NPD calculated visit cost is multiplied by the co-insurance % to derive a discrete dollar value to ONLY be displayed when the value of the remaining individual or family deductible is $0 .

c. NPD calculated visit cost will be subtracted from the individual remaining deductible. If this value is equal to or > 0 AND the remaining Family deductible has not been met, and the entire summed contract allowed amount is to be displayed in the RIS to be collected.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

d. If the family deductible has been met or individual deductible amount has been met, collect $0 for deductible. If the value is greater than 0, collect the remaining individual or family deductible amount, whichever is less. Copay, co-insurance, and remaining deductible will be summed and the value will be written into "total to be collected"

If the carrier's carrier_type_code is 'CAP', then we will not use the NPD price and instead only charge the co-pay amount.

At the end of the scheduling process there is now verbiage included in the "Patient Review" message explaining what the patient is expected to pay.

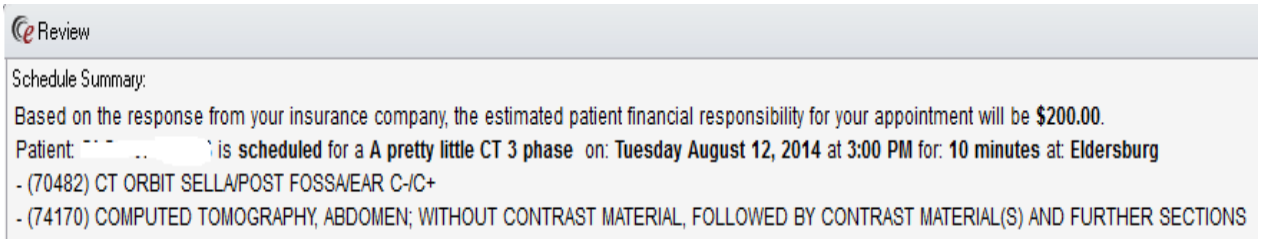



**Figure 1.10 – Updated review window**

## IVT Workflow:

IVT workflow for pre-certs remains the same

If the payer isn't configured for automatic eligibility checking, then we revert to the manual IVT check (same as before).

If we are in the automatic insurance eligibility checking mode the control for manual intervention are not needed and therefore are not shown under the insurance policies as illustrated in the following:

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

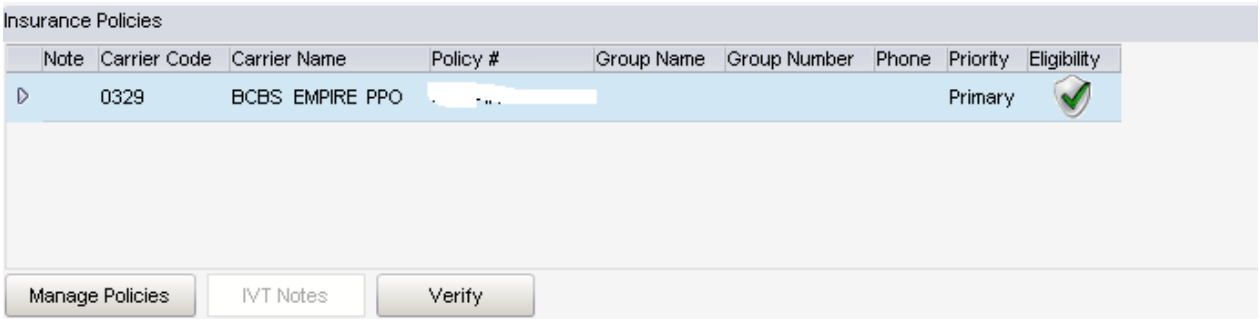



**Figure 1.11 – With and eligible insurance**

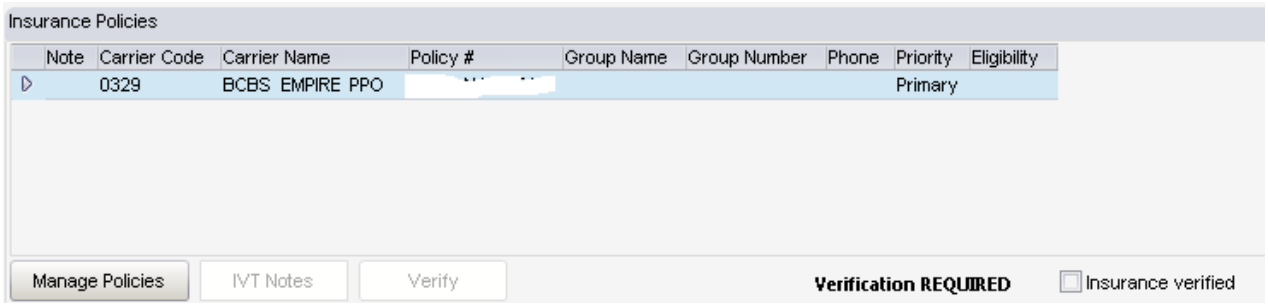



**Figure 1.12 – Without an eligible insurance**

If we get the green check, the study will skip the IVT worklist.

If a patient's insurance is denied, contain errors or has significant warnings, it will be listed in the IVT worklist. The following example shows a case where both the first name and last name are different that the insurer's and therefore we flag this is a possible patient mismatch.

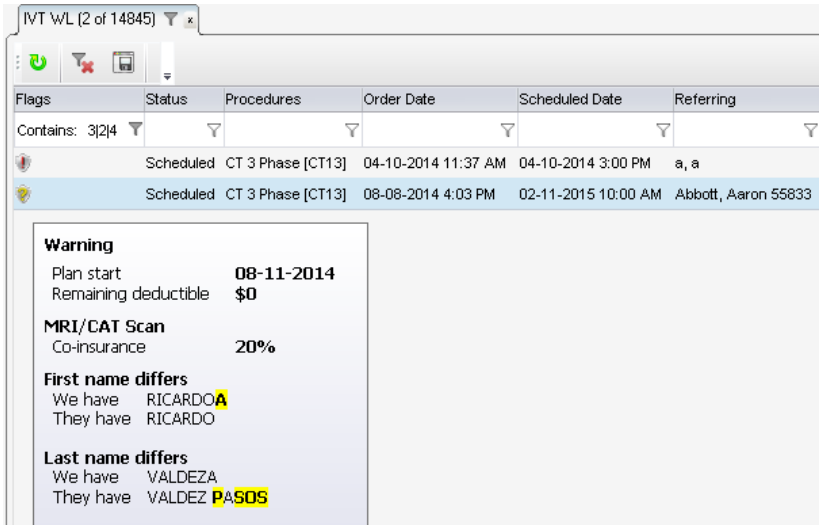



**Figure 1.13 – Eligible insurance that is denied, contains error or warnings will go to IVT**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

The user will get the option on the IVT screen to address the eligibility issue by

- Fixing the issue
  - Correct spelling of patient's name
  - Fix typo in policy number
  - Select the right carrier
  - Change payment to self-pay
- Overriding the eligibility result (admin only)

Right click on the eligibility icon and choose "Override Result".

- Override values for (co_pay, co_insurance, deductible, status)
- Checkbox for override to identify null / not null

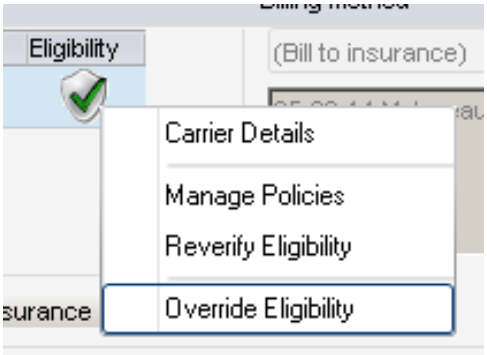



**Figure 1.14 – Override**

We expect this screen will only be accessible (via permissions) to IVT administrators.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

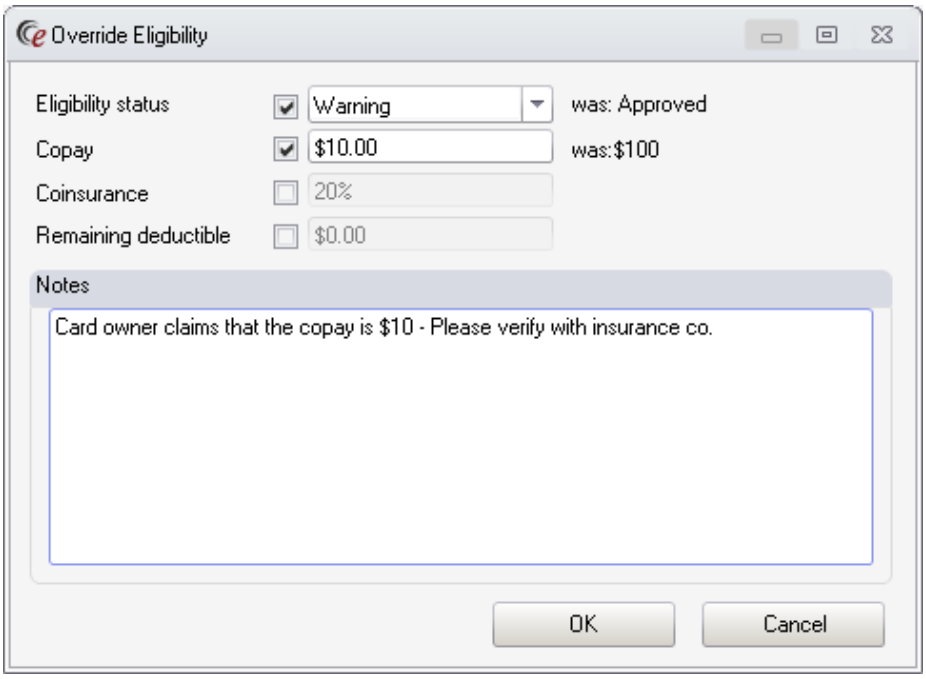



**Figure 1.15 – Override window**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

**Eligibility API Configuration:**

When requesting insurance eligibility we need to know the service type for the patient's visit. For example, is the patient coming in for Consultation (type '3') or a Mammogram (type 'CN') or a MRI (type '62')? For a full list of service types refer to:

https://www.eligibleapi.com/resources/service-codes.xml

A new lookup table called InsuranceServiceType has been created to house the Insurance Service Type Codes

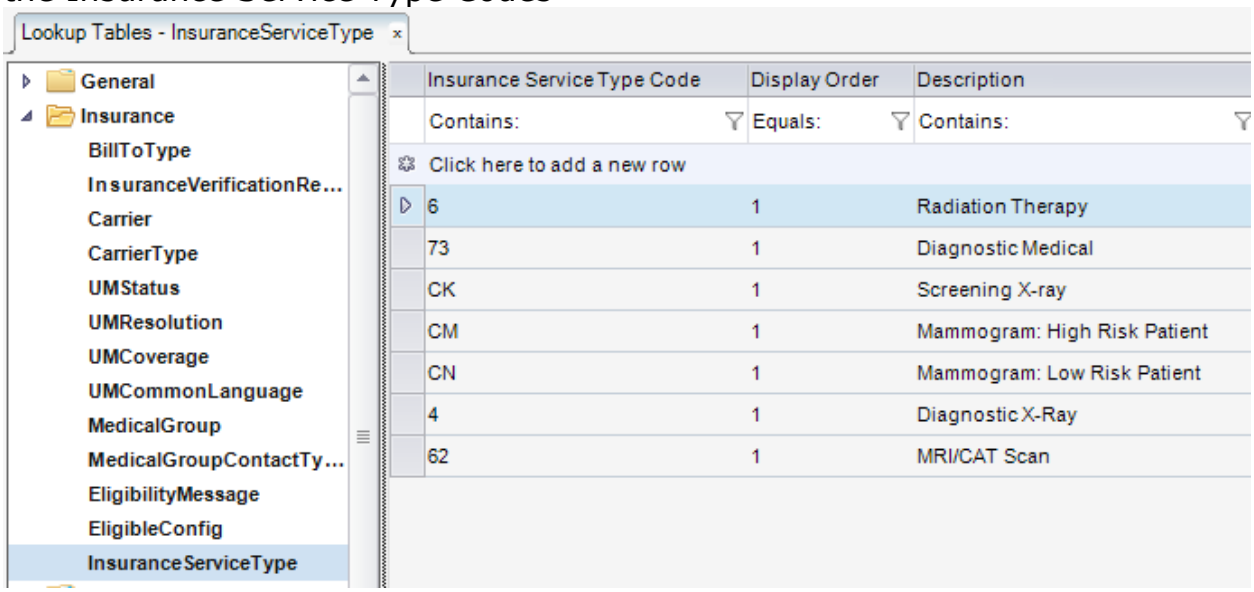



**Figure 1.16 – Insurance Service Type lookup table**

Service type codes are specified in two places:

1. ModalityType lookup
2. ProcedureCode lookup

Specifying a service type code at the modality type level makes it apply for all procedures scheduled on that type of modality, while the procedure code level will override the modality type's service type code.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

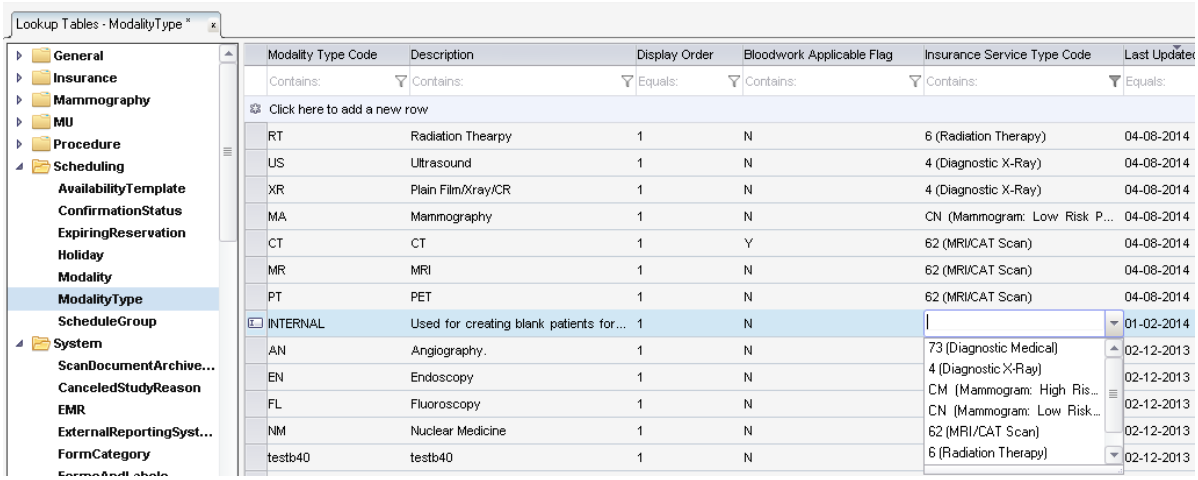



**Figure 1.17 – Modality Type – insurance service type code**

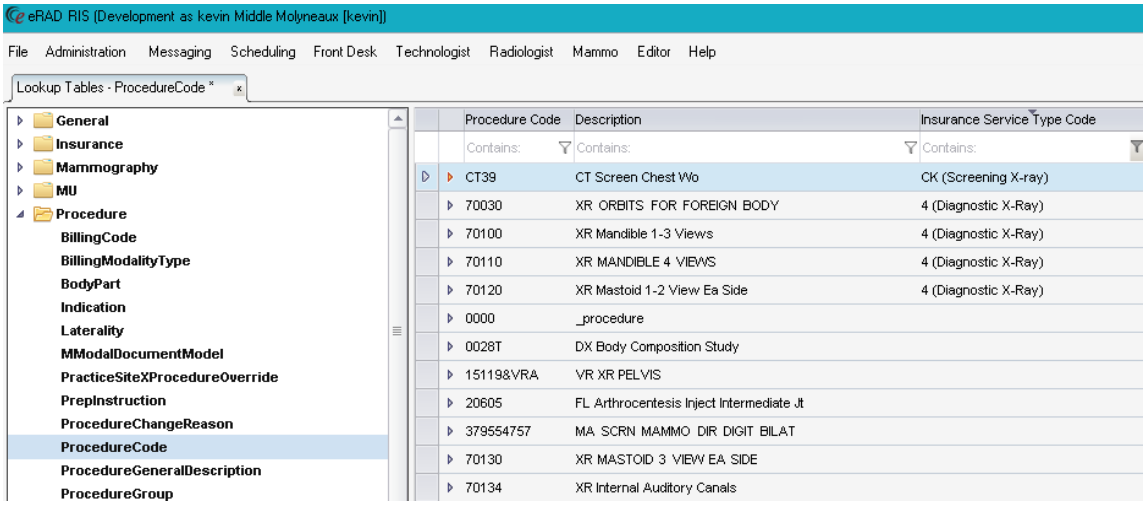



**Figure 1.18 – Procedure Code – insurance service type code**

Next we need to map carriers in RIS to payers in EligibleAPI. The entire list of eligible api payers is at:

https://www.eligibleapi.com/resources/payers/eligibility.xml

Some payers require enrollment, which can be completed at:

https://www.eligibleapi.com/dashboard/enrollment_npis

The mapping for RIS carrier to EligibleAPI Payer is done in the carrier lookup via the "Eligibility Payer ID" column as shown in the following:

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

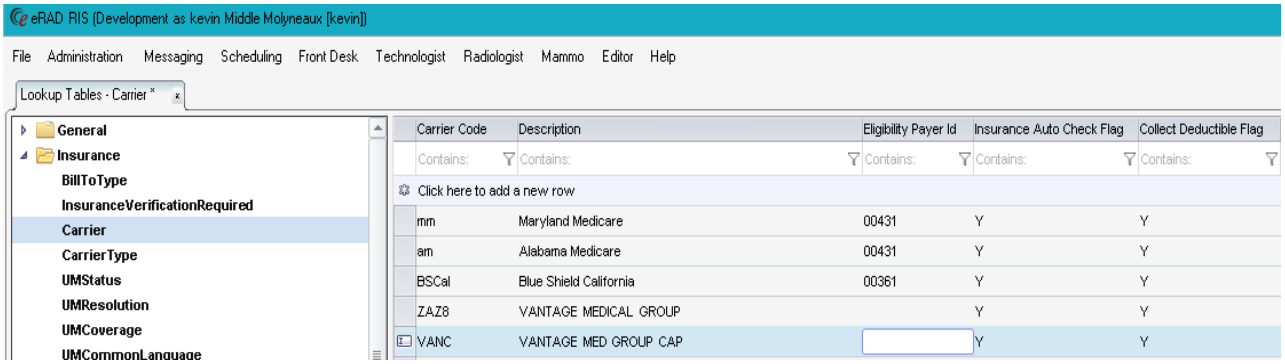



**Figure 1.19 – Carrier lookup with new columns**

The Carrier table also has configuration for "Insurance Auto Check Flag", when this value is Y we will check insurance as soon as we have enough information to perform the insurance check, otherwise, insurance checks will be disabled for this insurance carrier.

Finally, to enable Eligible API integration, we need to specify an NPI and Eligible API String for each site that will be Auto Insurance Eligibility enabled. If you specify a practice and omit the site, this setting will be used for all sites at the specified practice.

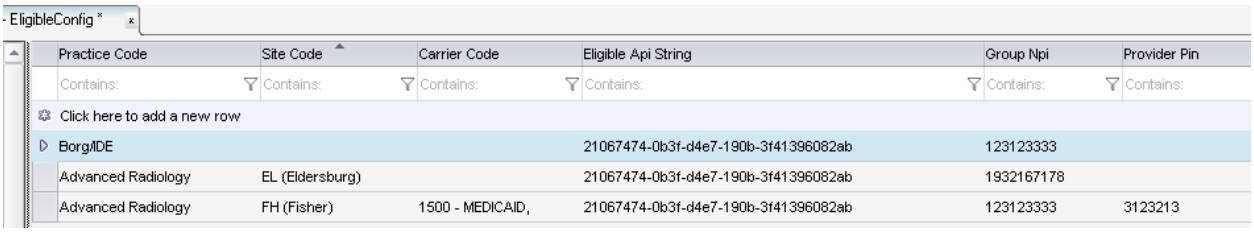



**Figure 1.20 – Eligible config lookup table**

The Eligible Config lookup (shown above) also allows you to specify an optional carrier code if for you want to use a NPI for a given carrier. If you specify a provider_pin you are required to also include a carrier_code. The provider_pin is for payers such as "California Medicaid", which require extra account verification. See the following website for more information:
http://www.dhcs.ca.gov/provgovpart/Pages/ProviderIdentificationNumber(PIN).aspx

Automatic insurance verification has the following access strings:

- Clinical.Insurance.Verify – controls access for re-verifying insurance
- Clinical.Insurance.Override - controls access to override Eligibility/Eligible API results

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

You can also control access to who can see the worklist eligibility flags via the following access strings:

- Flag.EligibilityApproved
- Flag.EligibilityDenied
- Flag.EligibilityError
- Flag.EligibilityInProgress
- Flag.EligibilityWarnings

**NPD Configuration:**

There are two lookup tables to edit for NPD integration. In the Organization lookup table you will need to map the following three fields: NPD client ID, NPD site code and the NPD hospital group

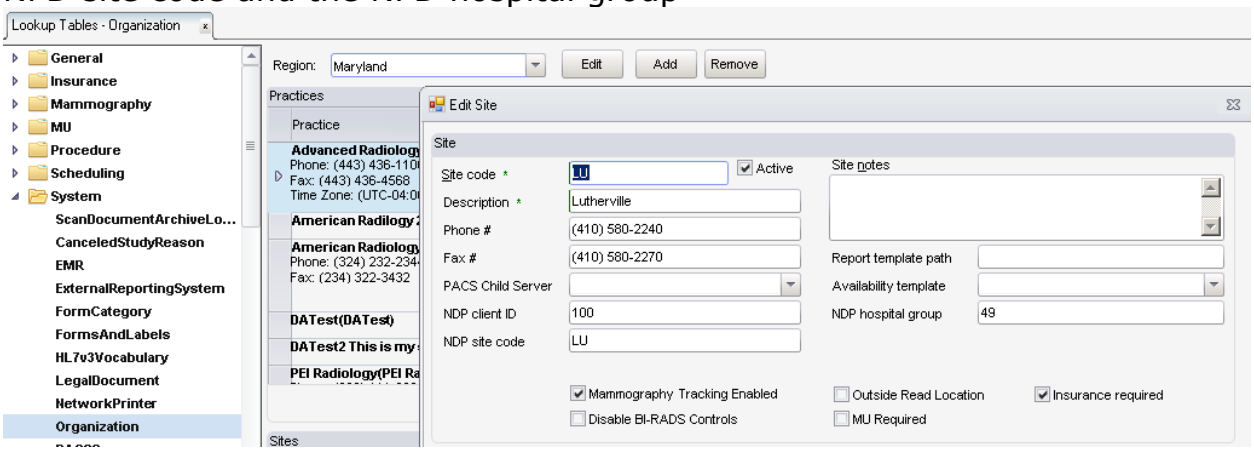



**Figure 1.20 – Site configuration for NPD**

In the Carrier lookup table you will either need the first 4 digits of the carrier code to equal the NPD's Insurance_co_number or you will need to populate the carrier table's "npd_insurance_co_number" field.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

**The table below shows the various Eligibility coverage status and error codes and how they are displayed to IVT.**

| Coverage Status / Error Code | ICON | IVT Workflow |
|---|---|---|
| Approved | Approved | Skips the IVT WL for Insurance Verification |
| First name and last name are different between INS and RIS | Warnings | Visit **will appear** in the IVT WL. Our staff will need to investigate and fix either the first or last name. |
| First name and birth date are different between INS and RIS | Warnings | Visit **will appear** in the IVT WL. Our staff will need to investigate and fix either the first name or DOB. |
| Last name and birth date are different between INS and RIS | Warnings | Visit **will appear** in the IVT WL. Our staff will need to investigate and fix either the last name or DOB. |
| Inactive | Denied | Visit **will appear** in the IVT WL. We will need to use a different insurance or change payment to Self-pay. |
| Not Covered | Denied | Visit **will appear** in the IVT WL. We will need to use a different insurance or change payment to Self-pay. |
| Not Covered due to DOS | Denied | Visit **will appear** in the IVT WL. We will need to use a different insurance, change the DOS or change payment to Self-pay. |
| "42", "41", HTTP TIMEOUT<br>Unable to Respond at Current Time<br>Authorization/Access Restrictions | Payer not responding | The item **will NOT appear** in IVT while we are actively retrying. In this case we are either unable to connect to the payer or the payer isn't responding.<br><br>We will re-try every 20 minutes until we receive a response. If the response is "Approved" it will skip the IVT worklist for Insurance Verification. If the response is "Denied", "Warning" or "Error" it will show in the IVT Worklist. |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

| | | |
|---|---|---|
| "15", "33", "43", "44", "45", "46", "47", "48", "50-63", "51", "97"<br>Required application data missing<br>Input Errors<br>Invalid/Missing Provider Identification<br>Invalid/Missing Provider Name<br>Invalid/Missing Provider Specialty<br>Invalid/Missing Provider Phone Number<br>Invalid/Missing Provider State<br>Invalid/Missing Referring Provider Identification Number<br>Provider Ineligible for Inquiries<br>Provider Not on File<br>Service Dates Not Within Provider Plan Enrollment<br>Inquired Benefit Inconsistent with Provider<br>Inappropriate Product/Service ID Qualifier<br>Inappropriate Product/Service ID<br>Inappropriate Date<br>Missing Date(s) of Service<br>Invalid or Missing Provider Address | Error | Visit **will appear** in the IVT WL.<br><br>These are errors that should never occur. These can be reported to help desk. Also our system administrators will be monitoring reports for these and will adjust configuration and communicate with Eligible API to have them resolved.<br><br>An administrator can verify these manually and use the "Override Eligibility" to move them though the workflow. Or they can be ignored and they will fall off the IVT worklist when they are billed. |
| "64-79"<br>Missing Patient ID<br>Missing Patient Name<br>Missing Patient Gender Code<br>Patient Not Found<br>Duplicate Patient ID Number<br>Inconsistent with Patient's Age<br>Inconsistent with Patient's Gender<br>Patient Birth Date Does Not Match That for the Patient on the Database<br>Subscriber Found, Patient Not Found<br>Invalid/Missing Subscriber/Insured ID<br>Invalid/Missing Subscriber/Insured Name<br>Invalid/Missing Subscriber/Insured Gender Code<br>Subscriber/Insured Not Found<br>Duplicate Subscriber/Insured ID Number<br>Subscriber/Insured Not in Group/Plan Identified<br>Invalid Participant Identification | Error | Visit **will appear** in the IVT WL.<br><br>These are all because the patient information we entered was not found in the insurance company's database.<br><br>For example, in the case of "Duplicate Patient ID Number" we failed to match on the policy number and the patient name/dob matching returned more than one result.<br><br>System administrators can use the Eligibility Message lookup table to customize the string that is displayed to the user. |

**Table 1.1**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

**Management Reports:**
We will also develop reports for:

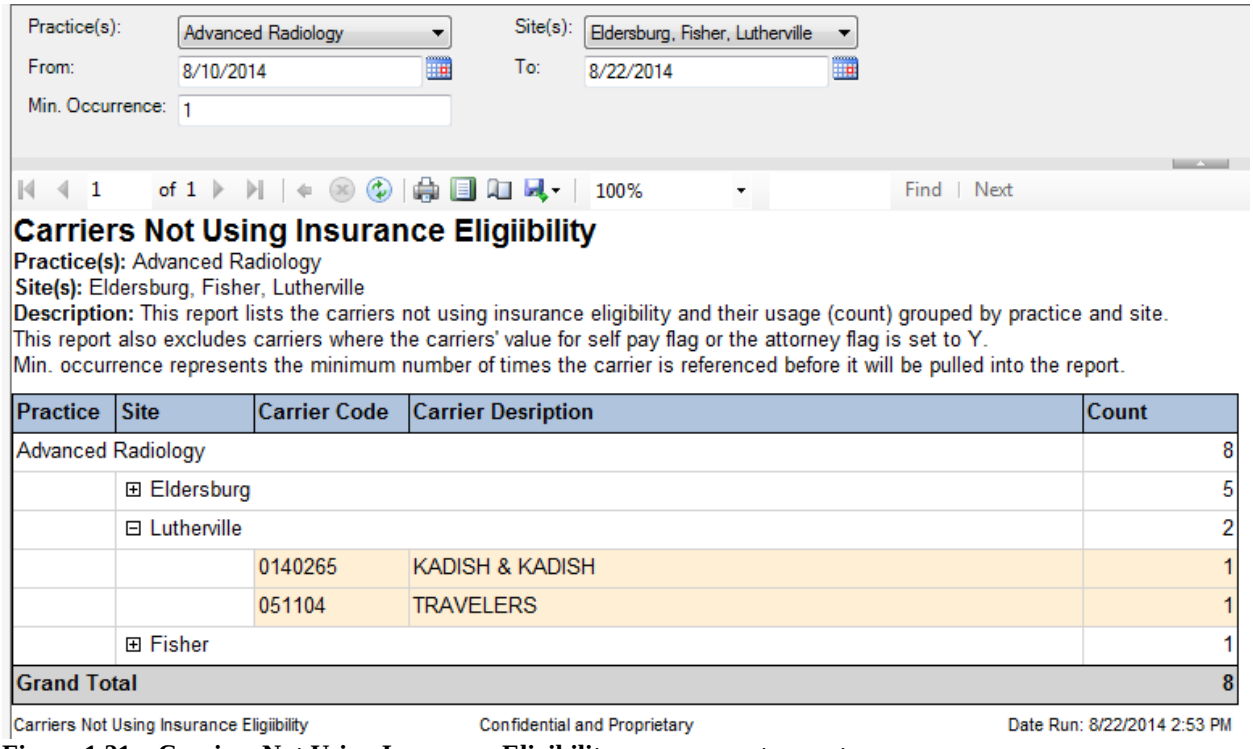
1. Response time performance with Eligible API by payer
2. Requests that failed by carrier and type of error
3. Average number of requests per encounter by site.
4. Insurances that didn't go through eligibility by payer

These management reports will highlight inefficiencies in system performance, the quality of our user entered data and identify populate carriers that haven't been properly configured for Eligible API integration.

The Carriers not using insurance eligibility is useful when examining payers that we should consider contacting Eligible API for a connection with the insurance company. This report shows the number of exams that have gone through our system with a carrier that has not been mapped. If the carrier has the attorney flag set to 'Y' then it will be excluded from this report.

The following reports added for B43.0.3 and are contained in a new directory called Insurance Eligibility.

**Carriers Not Using Insurance Eligibility management report**


Practice(s): Advanced Radiology
Site(s): Eldersburg, Fisher, Lutherville
From: 8/10/2014
To: 8/22/2014
Min. Occurrence: 1
1 of 1 100% Find | Next

**Carriers Not Using Insurance Eligiibility**

**Practice(s):** Advanced Radiology
**Site(s):** Eldersburg, Fisher, Lutherville
**Description:** This report lists the carriers not using insurance eligibility and their usage (count) grouped by practice and site.
This report also excludes carriers where the carriers' value for self pay flag or the attorney flag is set to Y.
Min. occurrence represents the minimum number of times the carrier is referenced before it will be pulled into the report.

| Practice | Site | Carrier Code | Carrier Desription | Count |
|---|---|---|---|---|
| Advanced Radiology | | | | 8 |
| | ⊞ Eldersburg | | | 5 |
| | ⊟ Lutherville | | | 2 |
| | | 0140265 | KADISH & KADISH | 1 |
| | | 051104 | TRAVELERS | 1 |
| | ⊞ Fisher | | | 1 |
| **Grand Total** | | | | **8** |

Carriers Not Using Insurance Eligiibility Confidential and Proprietary Date Run: 8/22/2014 2:53 PM

**Figure 1.21 – Carriers Not Using Insurance Eligibility management report**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

### Eligibility Failed Requests Management Report

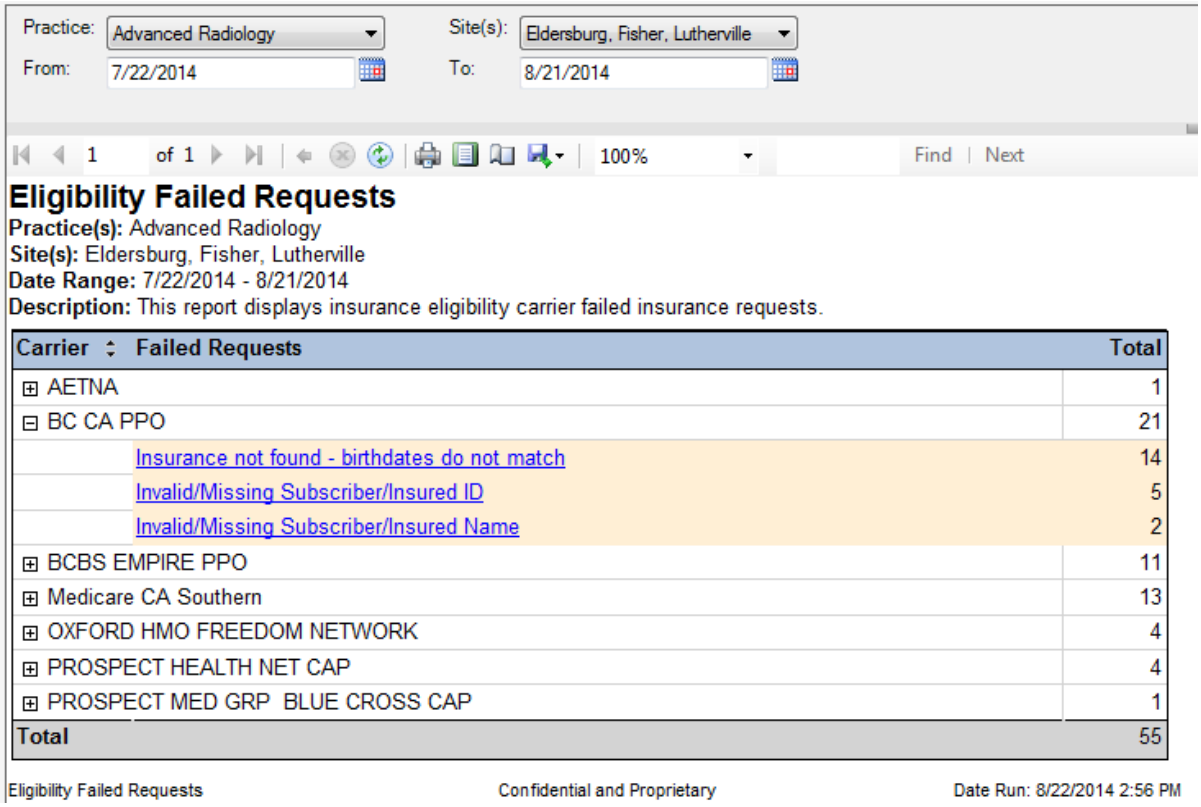



**Figure 1.22 – Eligibility Failed Requests management report**

As you can see in the screenshot above, this report contains hyperlinks. Using "Insurance not found – birthdates do not match" as an example, selecting the link will open a sub report which again contains hyper links

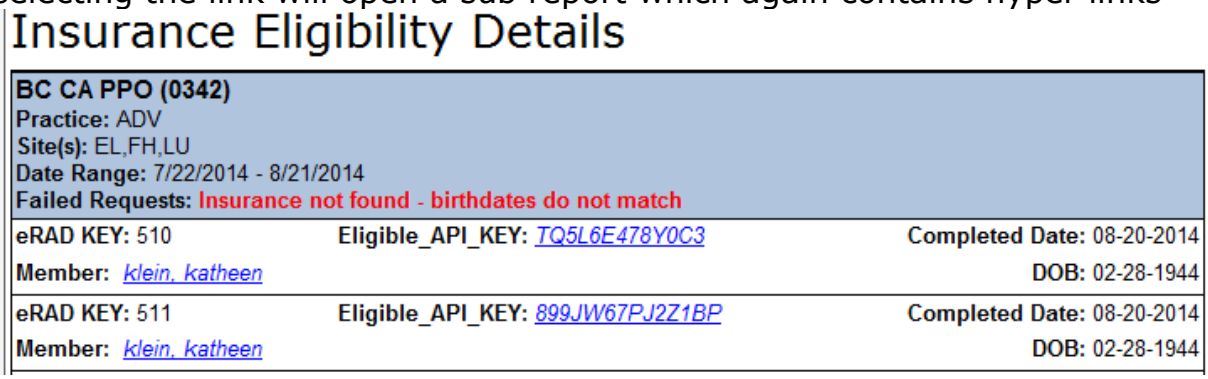
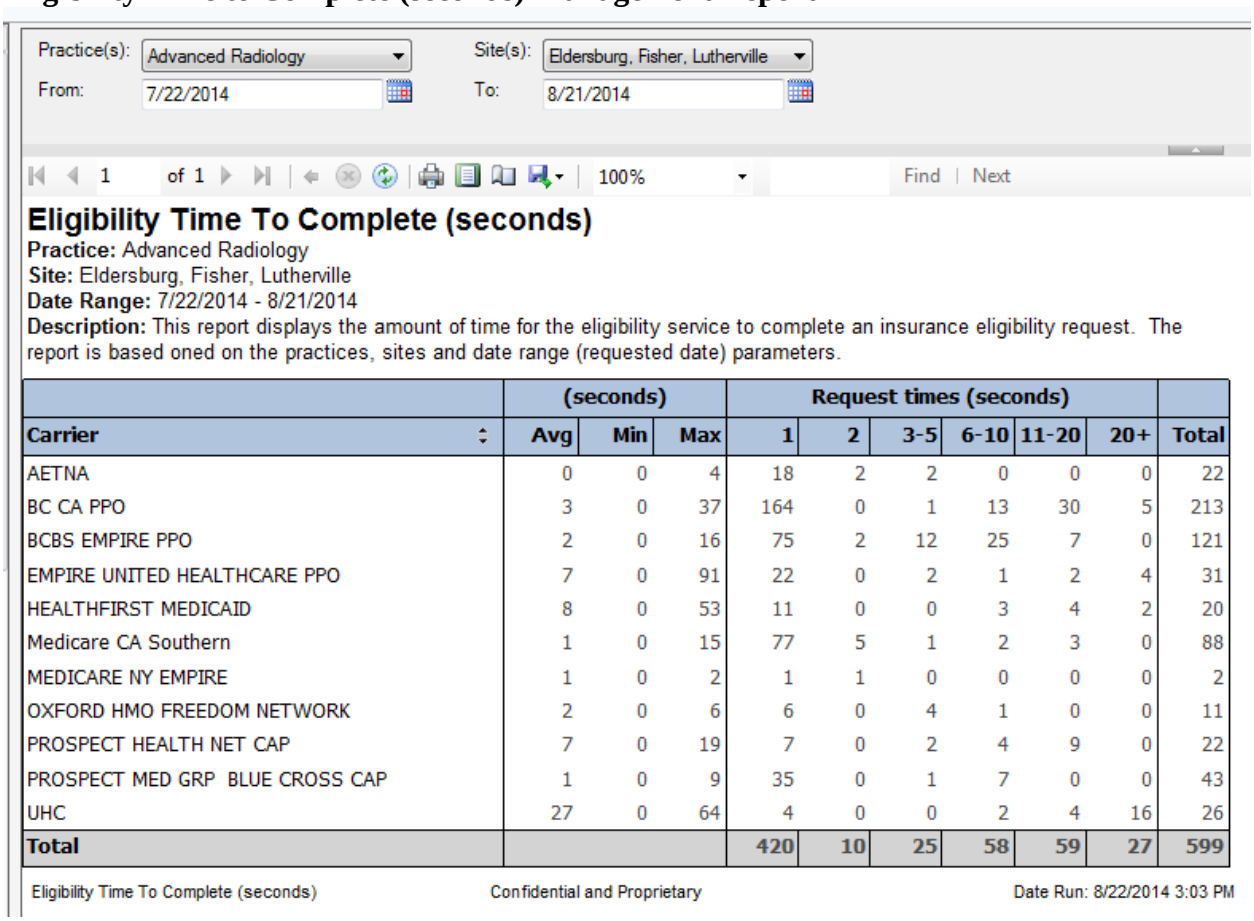



**Figure 1.23 – Insurance Eligibility Details sub report**

Selecting the Eligible_API_KEY will open the Insurance Eligibility Details window. Select the patient's name hyperlink will input the patient's first and last name as well as DOB into the patient search window.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## Eligibility Time to Complete (seconds) Management Report



Practice(s): Advanced Radiology  Site(s): Eldersburg, Fisher, Lutherville
From: 7/22/2014  To: 8/21/2014

1 of 1  100%  Find | Next

**Eligibility Time To Complete (seconds)**

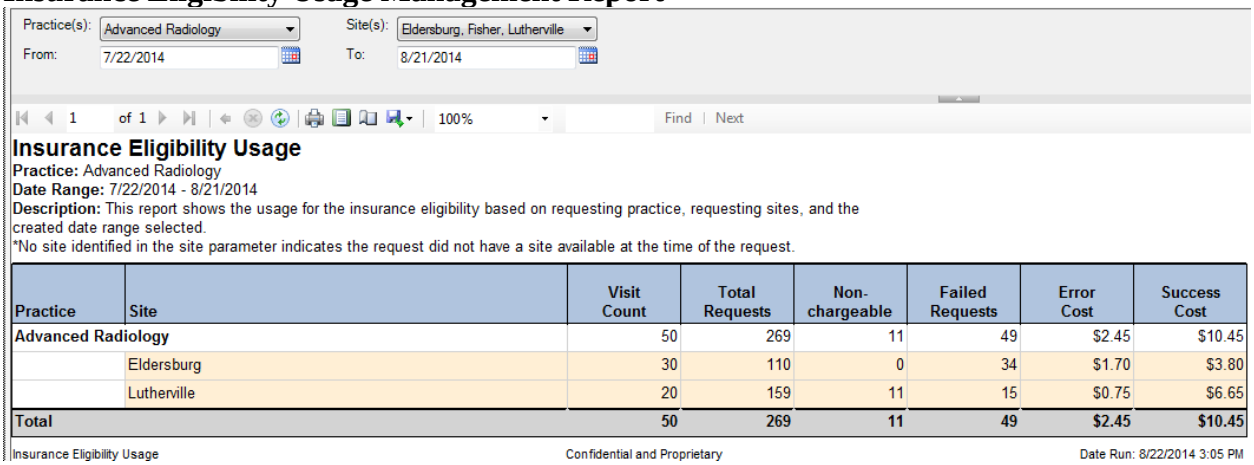
**Practice:** Advanced Radiology
**Site:** Eldersburg, Fisher, Lutherville
**Date Range:** 7/22/2014 - 8/21/2014
**Description:** This report displays the amount of time for the eligibility service to complete an insurance eligibility request. The report is based oned on the practices, sites and date range (requested date) parameters.

| | (seconds) | | | Request times (seconds) | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Carrier** | **Avg** | **Min** | **Max** | **1** | **2** | **3-5** | **6-10** | **11-20** | **20+** | **Total** |
| AETNA | 0 | 0 | 4 | 18 | 2 | 2 | 0 | 0 | 0 | 22 |
| BC CA PPO | 3 | 0 | 37 | 164 | 0 | 1 | 13 | 30 | 5 | 213 |
| BCBS EMPIRE PPO | 2 | 0 | 16 | 75 | 2 | 12 | 25 | 7 | 0 | 121 |
| EMPIRE UNITED HEALTHCARE PPO | 7 | 0 | 91 | 22 | 0 | 2 | 1 | 2 | 4 | 31 |
| HEALTHFIRST MEDICAID | 8 | 0 | 53 | 11 | 0 | 0 | 3 | 4 | 2 | 20 |
| Medicare CA Southern | 1 | 0 | 15 | 77 | 5 | 1 | 2 | 3 | 0 | 88 |
| MEDICARE NY EMPIRE | 1 | 0 | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 2 |
| OXFORD HMO FREEDOM NETWORK | 2 | 0 | 6 | 6 | 0 | 4 | 1 | 0 | 0 | 11 |
| PROSPECT HEALTH NET CAP | 7 | 0 | 19 | 7 | 0 | 2 | 4 | 9 | 0 | 22 |
| PROSPECT MED GRP BLUE CROSS CAP | 1 | 0 | 9 | 35 | 0 | 1 | 7 | 0 | 0 | 43 |
| UHC | 27 | 0 | 64 | 4 | 0 | 0 | 2 | 4 | 16 | 26 |
| **Total** | | | | **420** | **10** | **25** | **58** | **59** | **27** | **599** |

Eligibility Time To Complete (seconds)  Confidential and Proprietary  Date Run: 8/22/2014 3:03 PM

**Figure 1.24 – Eligibility Time to Complete (seconds) management report**

## Insurance Eligibility Usage Management Report



Practice(s): Advanced Radiology  Site(s): Eldersburg, Fisher, Lutherville
From: 7/22/2014  To: 8/21/2014

1 of 1  100%  Find | Next

**Insurance Eligibility Usage**

**Practice:** Advanced Radiology
**Date Range:** 7/22/2014 - 8/21/2014
**Description:** This report shows the usage for the insurance eligibility based on requesting practice, requesting sites, and the created date range selected.
*No site identified in the site parameter indicates the request did not have a site available at the time of the request.

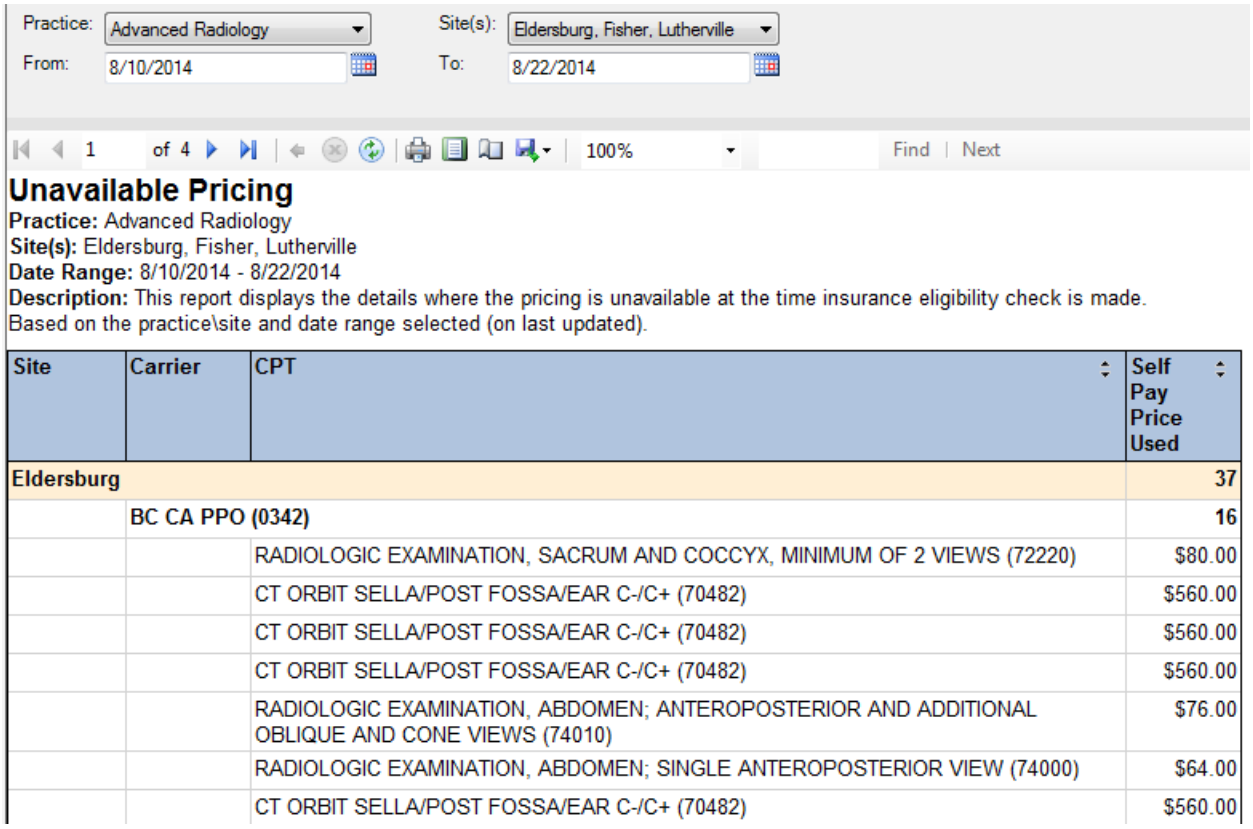
| Practice | Site | Visit Count | Total Requests | Non-chargeable | Failed Requests | Error Cost | Success Cost |
|---|---|---|---|---|---|---|---|
| **Advanced Radiology** | | 50 | 269 | 11 | 49 | $2.45 | $10.45 |
| | Eldersburg | 30 | 110 | 0 | 34 | $1.70 | $3.80 |
| | Lutherville | 20 | 159 | 11 | 15 | $0.75 | $6.65 |
| **Total** | | **50** | **269** | **11** | **49** | **$2.45** | **$10.45** |

Insurance Eligibility Usage  Confidential and Proprietary  Date Run: 8/22/2014 3:05 PM

**Figure 1.25 – Insurance Eligibility Usage management report**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## Unavailable Pricing Management Report



Practice: Advanced Radiology  Site(s): Eldersburg, Fisher, Lutherville
From: 8/10/2014  To: 8/22/2014

1 of 4  100%  Find | Next

**Unavailable Pricing**

**Practice:** Advanced Radiology
**Site(s):** Eldersburg, Fisher, Lutherville
**Date Range:** 8/10/2014 - 8/22/2014
**Description:** This report displays the details where the pricing is unavailable at the time insurance eligibility check is made. Based on the practice\site and date range selected (on last updated).

| Site | Carrier | CPT | Self Pay Price Used |
|---|---|---|---|
| **Eldersburg** | | | **37** |
| | **BC CA PPO (0342)** | | **16** |
| | | RADIOLOGIC EXAMINATION, SACRUM AND COCCYX, MINIMUM OF 2 VIEWS (72220) | $80.00 |
| | | CT ORBIT SELLA/POST FOSSA/EAR C-/C+ (70482) | $560.00 |
| | | CT ORBIT SELLA/POST FOSSA/EAR C-/C+ (70482) | $560.00 |
| | | CT ORBIT SELLA/POST FOSSA/EAR C-/C+ (70482) | $560.00 |
| | | RADIOLOGIC EXAMINATION, ABDOMEN; ANTEROPOSTERIOR AND ADDITIONAL OBLIQUE AND CONE VIEWS (74010) | $76.00 |
| | | RADIOLOGIC EXAMINATION, ABDOMEN; SINGLE ANTEROPOSTERIOR VIEW (74000) | $64.00 |
| | | CT ORBIT SELLA/POST FOSSA/EAR C-/C+ (70482) | $560.00 |

**Figure 1.26 – Unavailable Pricing management report**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 2. Defects Resolved

| Redmine # | Tracker | Subject | Priority |
|---|---|---|---|
| 7406 | Bug | Hold codes - Studies that are changed to or from hold codes after scheduling but before completion of the exam will proceed to an incorrect final status. ie; ExamDone for Hold Codes and HoldCodeCompleted for non-hold codes | High |
| 7305 | Bug | DB view missing technologist flag | Normal |
| 7301 | Bug | Modality Closures are being applied to the wrong dates | Normal |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 3. Changes to Configuration

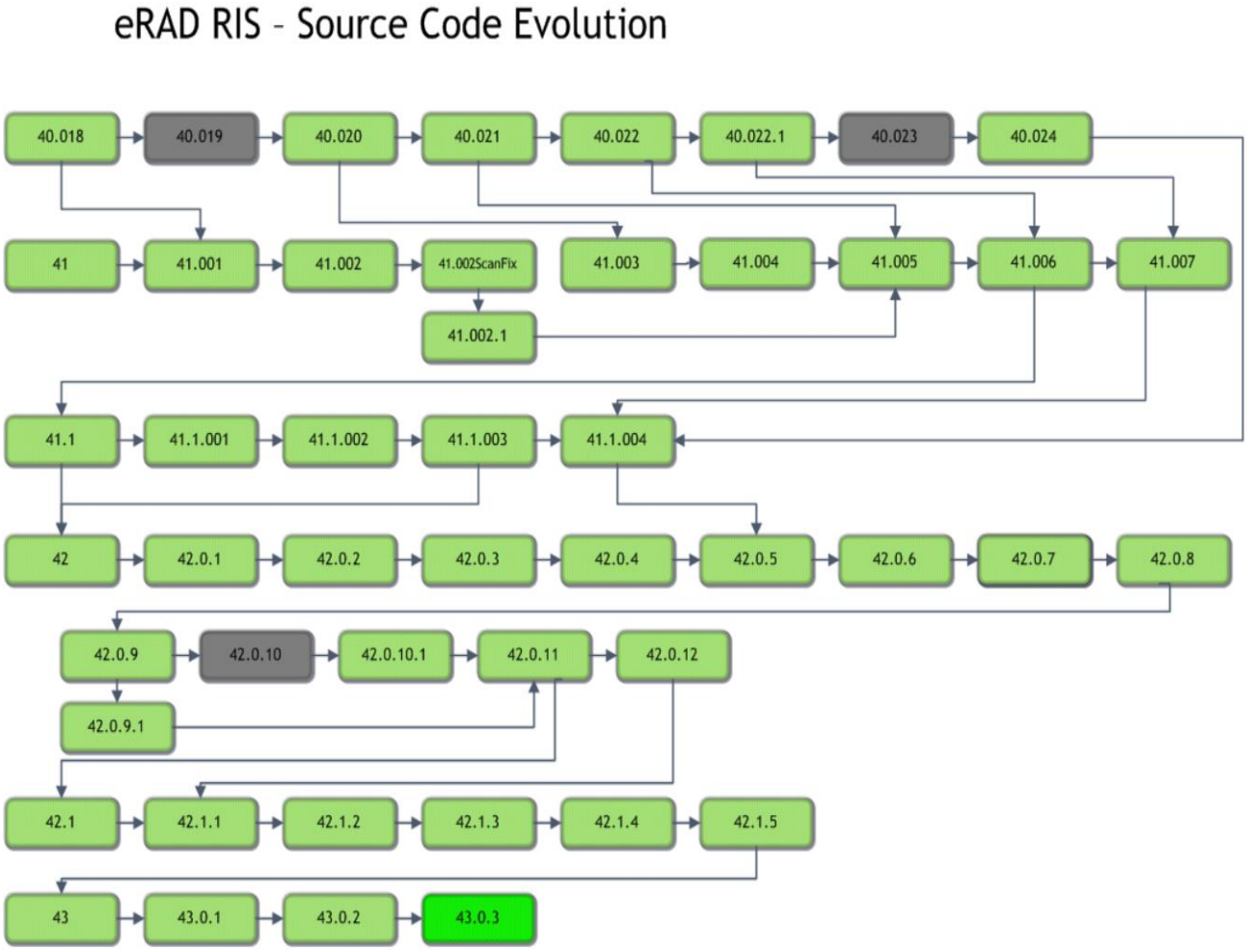
| Setting Placeholder | Setting | Default | Purpose / Controls Access to |
|---|---|---|---|
| Access strings and User Group Permissions | Clinical.Insurance.Override | None | controls access to override Eligiblity/Eligible API results |
| Access strings and User Group Permissions | Clinical.Insurance.Reverify | None | Controls access to the Reverify button in the Manage Insurance groupbox |
| Access strings and User Group Permissions | Flag.EligibilityWarnings | Full | Controls access to the flag displayed on the work list's flag column for Eligibility Warning |
| Access strings and User Group Permissions | Flag.EligibilityApproved | Full | Controls access to the flag displayed on the work list's flag column for Eligibility Approved |
| Access strings and User Group Permissions | Flag.EligibilityDenied | Full | Controls access to the flag displayed on the work list's flag column for Eligibility Denied |
| Access strings and User Group Permissions | Flag.EligibilityError | Full | Controls access to the flag displayed on the work list's flag column for Eligibility Error |
| Access strings and User Group Permissions | Flag.EligibilityInProgress | Full | Controls access to the flag displayed on the work list's flag column for Eligibility In Progress |
| Access strings and User Group Permissions | Config.LookupEditor.InsuranceServiceType | None | Controls access to the lookup table InsuranceServiceType |
| Access strings and User Group Permissions | Config.LookupEditor.EligibleConfig | None | Controls access to the lookup table EligibleConfig |
| SystemConfig | InsuranceEligibleAPIString | | Verification account for billing. |
| SystemConfig | InsuranceReVerifyInterval | 10 | Determines how often, in days, we will re-verify patients insurance before the study is performed. Note: we will also re-verify on the day of |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

| | | | |
|---|---|---|---|
| | | | service |
| SystemConfig | InsuranceVerificationGroupNPI | | NPI for server initiated insurance eligibility requests |
| ApplicationSetting.config | StartInsuranceEligibilityService | False | Turns insurance eligibility checks on and off. |
| Ris.exe.config | **Before:**<br><system.serviceModel><br><bindings><br><basicHttpBinding><br><br><br>**After:**<br><system.serviceModel><br><bindings><br><basicHttpBinding><br>**<binding name="clsNPDServiceSoap" />** | | |
| Ris.exe.config | **Before:**<br><client><br><endpoint address="net.tcp://192.168.16.100:8091/rRIS/Domain/" binding="netTcpBinding" bindingConfiguration="NetTcpBinding_IStudyServiceDomain" contract="ServiceReference.IStudyService" name="NetTcpBinding_IStudyServiceDomain"/><br><br>**After:**<br><client><br><br>**<endpoint address="http://10.10.1.186/NPDService/NPDService.asmx" binding="basicHttpBinding" bindingConfiguration="clsNPDServiceSoap" contract="NPDService.clsNPDServiceSoap" name="clsNPDServiceSoap" />**<br><br><endpoint address="net.tcp://192.168.16.100:9091/rRIS/Domain/" binding="netTcpBinding"<br><br>bindingConfiguration="NetTcpBinding_IStudyServiceDomain" contract="ServiceReference.IStudyService"<br><br>name="NetTcpBinding_IStudyServiceDomain"/> | | |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 4. Code Stream




**Legend:**

**Light Green = Released software**

**Gray = Will not be released**

**Bright Green = Current Release**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 5. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains:
   - rRIS_1.3.43.0.3.24298.zip

2) RIS_Service_Updates contains:
- ABCpdf.dll
- ABCpdf9-32.dll
- ABCpdf9-64.dll
- Antlr3.Runtime.dll
- CDSJobManager.dll
- CDSJobManager.pdb
- CdsLib.dll
- CdsLib.xml
- CdsLib.XmlSerializers.dll
- CommonLib.dll
- CommonLib.pdb
- contents.txt
- DDEngine.dll
- DDEngine.pdb
- DiffPlex.dll
- Interop.ANYMODALCAPTURECTRLLib.dll
- Interop.FAXCOMEXLib.dll
- Microsoft.Practices.EnterpriseLibrary.Caching.dll
- Microsoft.Practices.EnterpriseLibrary.Caching.pdb
- Microsoft.Practices.EnterpriseLibrary.Common.dll
- Microsoft.Practices.EnterpriseLibrary.Common.pdb
- Microsoft.Practices.EnterpriseLibrary.Logging.dll
- Microsoft.Practices.EnterpriseLibrary.Logging.pdb
- Microsoft.Practices.ServiceLocation.dll
- Microsoft.Practices.ServiceLocation.pdb
- Microsoft.Practices.Unity.dll
- Microsoft.Practices.Unity.Interception.dll
- Microsoft.Practices.Unity.Interception.pdb
- Microsoft.Practices.Unity.pdb
- Microsoft.ReportViewer.Common.dll
- Microsoft.ReportViewer.WinForms.dll
- Microsoft.ReportViewer.WinForms.xml
- Newtonsoft.Json.dll
- Newtonsoft.Json.xml
- NLog.dll
- O2S.Components.PDFRender4NET.dll
- PDFToImages.exe
- Radar.Common.dll
- Radar.Common.pdb
- Radar.Common.WebClient.dll
- Radar.Common.WebClient.pdb
- Radar.DirectMessaging.Client.dll
- Radar.DirectMessaging.Client.pdb
- Radar.DirectMessaging.Model.dll
- Radar.DirectMessaging.Model.pdb
- rRISServices.exe
- rRISServices.pdb
- rRISServicesx64.exe
- ScheduledTaskManager.dll
- ScheduledTaskManager.pdb
- ServicesConfigWizard.exe
- ServicesConfigWizard.pdb
- SignatureApprovalService.exe
- SignatureApprovalService.pdb
- System.Net.Http.dll
- System.Net.Http.Formatting.dll
- System.Net.Http.xml
- System.Web.Http.dll
- System.Web.Http.SelfHost.dll
- System.Web.Http.SelfHost.xml
- System.Web.Http.WebHost.dll
- System.Web.Http.WebHost.xml
- System.Web.Http.xml
- System.Web.Mvc.dll
- System.Web.Mvc.xml
- System.Web.Optimization.dll
- System.Web.Razor.dll
- System.Web.Razor.xml
- System.Web.WebPages.Deployment.dll
- System.Web.WebPages.Deployment.xml
- System.Web.WebPages.dll
- System.Web.WebPages.Razor.dll
- System.Web.WebPages.Razor.xml
- System.Web.WebPages.xml
- Tourreau.Gilles.FaxDotNet.dll
- Tourreau.Gilles.FaxDotNet.pdb
- Tourreau.Gilles.FaxDotNet.xml
- WCFService.dll
- WCFService.pdb
- WCFServiceTests.dll
- WCFServiceTests.pdb
- WebApi.dll
- WebApi.pdb
- WebGrease.dll
- Wedge.exe
- Wedge.pdb

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

The rRIS_Service_Updates also contains to subfolders:

A. Deploy folder contains
   a. Applicationsettings.config
   b. ReleaseVersion-connectionstrings.config
   c. rRISServices.exe.config
   d. services.config

B. XSL subfolder contains:
   a. Subfolder titled "Stylesheets" which contains:
      a. CDAToHTMLCompleteReport.xslt
      b. CDAToHTMLCompleteReportDark.xslt
      c. CDAToHTMLImpressionSection.xslt
      d. CDATorRIS.xslt
      e. CDAToTxt.xslt
      f. DocumentModelReport.xslt
      g. DocumentModelReportAsXml.xslt

   b. CDA Subfolder contains
      a. C-CDA.xsl
      b. eRadStylesheet.xsl
      c. generalTemplates.xsl
      d. header.xsl
      e. QRDA.xsl
      f. QrdaLevel3_Cypress2.4.0.xsl
      g. QrdaLevel3_ViewHtml.xsl
      h. sectionAdministeredMedications.xsl
      i. sectionAllergies.xsl
      j. sectionEncounters.xsl
      k. sectionFindings.xsl
      l. sectionFuncCogStatus.xsl
      m. sectionHospitalDischarge.xsl
      n. sectionImmunizations.xsl
      o. sectionInstructions.xsl
      p. sectionMedications.xsl
      q. sectionPlanOfCare.xsl
      r. sectionProblemList.xsl
      s. sectionProcedures.xsl
      t. sectionQRDAMeasures.xsl
      u. sectionQRDAPatientData.xsl
      v. sectionQRDAReporting.xsl
      w. sectionReasonForVisit.xsl
      x. sectionResults.xsl
      y. sectionSocialHistory.xsl
      z. sectionVitalSigns.xsl

3) SQL Folder contains:
   - B43.0.3.sql

4) **SSRSDeployment** folder contains 7 subfolders, a batch file for deploying the reports and a help file for deploying the reports.

   4.1. **Backups** folder is empty

   4.2. **Fonts** folder contains 4 files:
   4.1.1. FRE3OF9X
   4.1.2 FRE3OF9x_0
   4.1.3 FREE3OF9
   4.1.4 FREE3OF9_0

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

4.3. **ParentFolder** folder contains 7 subfolders
- 4.3.1. **Chair** folder contains 1 .rdl file
- 4.3.2. **Dashboards** folder contains 9 .rdl files
- 4.3.3. **Forms folder** contains sub folder and 2 .rdl files
  - 4.3.3.1. **SubReports** contains 10 .rdl files
- 4.3.4. **Management Reports** folder contains 9 sub folders, these subfolders contain the core management report files (.rdl) to be deployed.
- 4.3.5. **Marketing** folder contains 5 .rdl files
- 4.3.6. **Order Templates** contains 1 file (Default.rdl)
- 4.3.7. **SubReports** contains 12.rdl files
- 4.3.8. **Verbal Order** contains 4 .rdl files

4.4. **Scripts** folder contains 9 .rss files. These files are used with the DeployReports.bat utility to deploy the reports.

4.5. **Upload Custom Mangement Reports** is empty

4.6. **Upload Diagnostic Templates** folder contains 1 subfolder
- 4.6.1. **SubReports** folder is empty

4.7. **Upload Forms** folder contains 1 subfolder.
- 4.7.1. **SubReports** folder is empty

4.8. **eRADDeployReports.bat -** batch file for deploying reports to report server for eRAD customers

4.9. **RadnetDeployReports.bat** - batch file for deploying reports to report sever for RadNet

4.10. **Adding reports for Deployment.docx** document to assist in added a report to the install process when deploying the reports.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 6. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

## 7. Who is affected

Build 43 installs. Server updates are not cumulative. This server update must be applied to 43.0.2

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

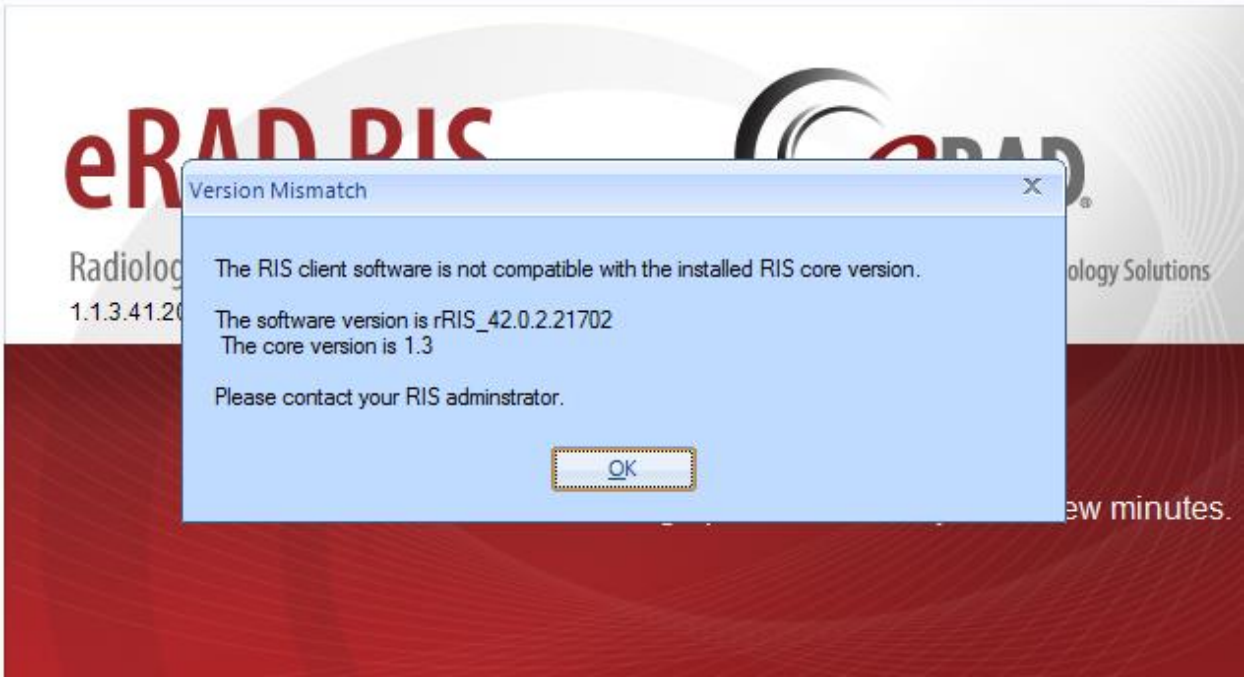
## 8. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 41.1 | - | 1.3.41.20918(3GB) | 1.3.41.20791 | 1.3.41.20918 | 1.3.41.20739 | GUI.zip, Core install, Web Service and DB updates, Help files |
| 41.1 | 1 | 1.3.41.20987(3GB) | 1.3.41.20791 | 1.3.41.20918 | 1.3.41.20739 | GUI.zip |
| 41.1 | 2 | 1.3.41.21162(3GB) | 1.3.41.20791 | 1.3.41.21162 | 1.3.41.21150 | GUI.zip, Web Service and DB updates, |
| 41.1 | 3 | 1.3.41.21264(3GB) | 1.3.41.20791 | 1.3.41.21162 | 1.3.41.21150 | GUI.zip |
| 42 | - | 2.42.0.0.21261(3GB) | 2.42.0.0.21261 | 2.42.0.0.21261 | 2.42.0.0.21187 | Full version release |
| 42 | 1 | 2.42.0.1.21597 | 2.42.0.0.21261 | 2.42.0.1.21597 | 2.42.0.0.21187 | GUI and Web Service updates |
| 42 | 2 | 2.42.0.2.21702 | 2.42.0.0.21261 | 2.42.0.2.21702 | 2.42.0.0.21187 | GUI and Web Service updates |
| 42 | 3 | 2.42.0.2.21806 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.0.21187 | GUI and Web Service updates |
| 42 | 4 | 2.42.0.2.21862 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.4.21870 | GUI and Database updates |
| 42 | 5 | 2.42.0.5.21924 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.4.21870 | GUI |
| 42 | 6 | 2.42.0.5.22009 | 2.42.0.0.21261 | 2.42.0.5.22009 | 2.42.0.4.21870 | GUI and Web Service updates |
| 42 | 7 | 2.42.0.7.22090 | 2.42.0.0.21261 | 2.42.0.6.22009 | 2.42.0.4.21870 | GUI.zip updates |
| 42 | 8 | 2.42.0.7.22090 | 2.42.0.7.22150 | 2.42.0.6.22009 | 2.42.0.4.21870 | Web Service updates |
| 42 | 9 | 2.42.0.9.22203 | 2.42.0.0.21261 | 2.42.0.9.22203 | 2.42.0.4.21870 | GUI and Web Service updates |
| 42 | 9.1 | 2.42.0.9.22203 | 2.42.0.0.21261 | 2.42.0.9.22203 | 2.42.0.4.21870 | Web Service updates |
| 42 | 10 | 2.42.0.10.22232 | 2.42.0.0.21261 | 2.42.0.9.22203 | 2.42.0.4.21870 | GUI.zip |
| 42 | 10.1 | 2.42.0.10.22420 | 2.42.0.0.21261 | 2.42.0.9.22203 | 2.42.0.4.21870 | GUI.zip updates |
| 42 | 11 | 2.42.0.11.22495a | 2.42.0.0.21261 | 2.42.0.11.22471 | 2.42.0.11.22527 | GUI.zip, Web Service, Database updates. Management Report Deployment |
| 42 | 12 | 2.42.0.12.22982 | 2.42.0.0.21261 | 2.42.0.12.22982 | 2.42.0.12.22911 | GUI.zip, Web Service, Database updates. |
| 42.1 | - | 2.42.1.0.22744(3GB) | 2.42.0.0.21261 | 2.42.1.0.22744 | 2.42.1.0.22736 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 42.1 | 1 | 2.42.1.1.2296(3GB) | 2.42.0.0.21261 | 2.42.1.1.22963 | 2.42.1.1.22864 | GUI.zip, Web Service, DB updates |
| 42.1 | 2 | 2.42.1.2.23007(3GB) | 2.42.0.0.21261 | 2.42.1.2.23007 | 2.42.1.2.23007 | GUI.zip, Web Service, DB updates |
| 42.1 | 3 | 2.42.1.2.23237(3GB) | 2.42.0.0.21261 | 2.42.1.2.23237 | 2.42.1.2.23007 | GUI.zip, Web Services |
| 42.1 | 4 | 2.42.1.4.23348(3GB) | 2.42.0.0.21261 | 2.42.1.4.23348 | 2.42.1.2.23007 | GUI.zip, Web Services |
| 42.1 | 5 | 2.42.1.5.23406(3GB) | 2.42.0.0.21261 | 2.42.1.5.23406 | 2.42.1.2.23007 | GUI.zip, Web Services |
| 43 | - | 2.43.0.0.23715(3GB) | 2.43.0.0.23171 | 2.43.0.0.23715 | 2.43.0.0.23743 | Full Version Release |
| 43 | 1 | 2.43.0.1.23798(3GB) | 2.43.0.0.23171 | 2.43.0.1.23798 | 2.43.0.1.23770 | GUI.zip, Web Service, DB updates |
| 43 | 2 | 2.43.0.2.24017(3GB) | 2.43.0.0.23171 | 2.43.0.2.24017 | 2.43.0.2.24023 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| **43** | **3** | **2.43.0.3.24298(3GB)** | **2.43.0.0.23171** | **2.43.0.3.24298** | **2.43.0.3.24283** | **GUI.zip, Web Service, DB updates and Management Report Deployment** |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 9. Installing

1) Copy and replace the current rRIS…zip file with the rRIS_1.3.43.0.3.24298.zip file provided with this release.
   Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.




If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_43.0..3.24298→ rRIS_1.3.43.0.3. 24298
NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

**NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)**

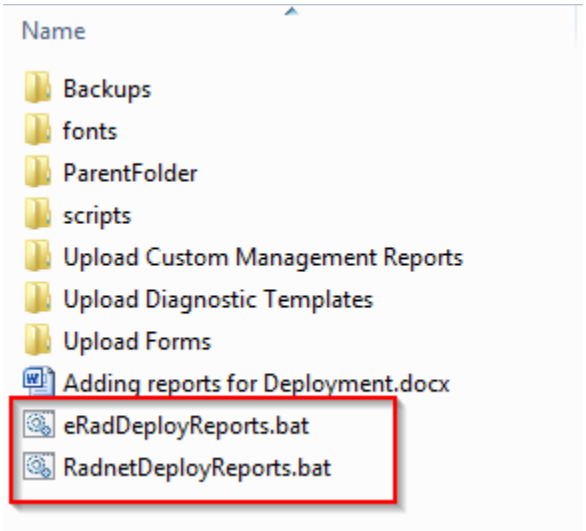
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

2) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService. Be sure to make backup of all files, but especially the rRISServices.exe.config and rRISServices.vshost.exe.config files.
*rRISService directories include:*
   a) *rRISService*
   b) *CDS rRISService*
   c) *Wedge rRISService*
   d) *DDE rRISService*

   **Restart each service.**

3) Run the B43.0.3.sql file against the eRAD RIS database instance.

4) Management Reports Deployment / SSRSDeployment - There are 2 utilities called **RadnetDeployReports.bat** and **eRadDeployReports.bat** that will deploy the reports to a SQL Server Report Service. This utility is found in the **Build X\SSRSDeployment** folder. Below are the steps on how to use this utility. The purpose for the 2 .bat files are the RadNet one deploys a few extra reports specific to RadNet.




1. Launch the DeployReports.bat file.
2. ***Enter report server name [default:<computer_name>]:***
   a. A script will run against the server and return a list of all the root folders on that report server
   **By Default this will pull the computer_name environmental variable from the machine running the script. I suggest running this from the report server for performance anyway.
3. **Enter root folder to deploy reports [default: production]**:

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

a. This will create a new root if the name you give doesn't exist, or it will simply publish below the root of the folder if it does already exist. We typically will use "production" for the installation folder. Note: The script forces the root name to be lowercase.
**Default is suggested to be production, but you may need to change it based on the environment you are deploying to. Ie: testserver might be called something else.

4. **Do you wish to create a backup of the existing reports?**:
   a. This will create a file backup of the report directory specified in the same directory deploy.bat is being run from inside a folder called Backups where it will create a folder based on datetime of backup. Ie: 04172014_110605 (MMDDYYYY_HHMISS).
5. **Do you wish to deploy core management reports**?
   a. If you enter "y", it will redeploy the core management reports
6. **Do you wish to upload Forms**?

a. If you enter "y", the script will deploy any .rdl files into the installations Forms folder that you have previously saved into the script folder called "Upload Forms" including the folder below it called SubReports.

7. **Do you wish to upload Diagnostic Templates**?

a. If you enter "y", the script will deploy any .rdl files into the installations Diagnostic Templates folder that you have previously saved into the script folder called "Upload Diagnostic Templates" including the folder below it called SubReports.

8. **Do you wish to upload Custom Management Reports?**

a. Entering "Y" will copy any .rdl files you've copied under the deployment folder called Upload Custom Management Reports onto the server under Management Reports\Custom\Uploads directory

9. **Do you wish to create a datasource**?
   a. If you select "y" you will get prompted for more information about the datasource you wish to create. You only need to create a datasource, if this is a new installation. No need to do this if you are upgrading an existing installation. The datasource gets created in the root of the folder from step 3. The datasource will be called RISDataSource.

If you chose to create a datasource, the following steps will be requested to complete the connection string.

1. **Enter database server name**:
   a. This is the name of the physical database server
   ex. MYSERVER-1
2. **Enter database name**:
   a. This is the name of the database on the database server
   ex. rRIS_Site

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

3. **Enter report schema user name**: ex. The account that the datasource will use to connect to the database ie: SA. (For security reasons "sa" is not recommended)
4. **Enter report schema password**:

   The results of deployment will be written to log.txt in the same folder as the DeployReports.bat file.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

For eRAD RIS
Version 2.0
Build 43
Update 43.0.3.1

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Defects Resolved ..... 3
2. Code Stream ..... 4
3. Package Contents ..... 5
4. Intended Audience ..... 5
5. Who is affected ..... 5
6. eRAD RIS Release Version Numbers ..... 6
7. Installing ..... 7

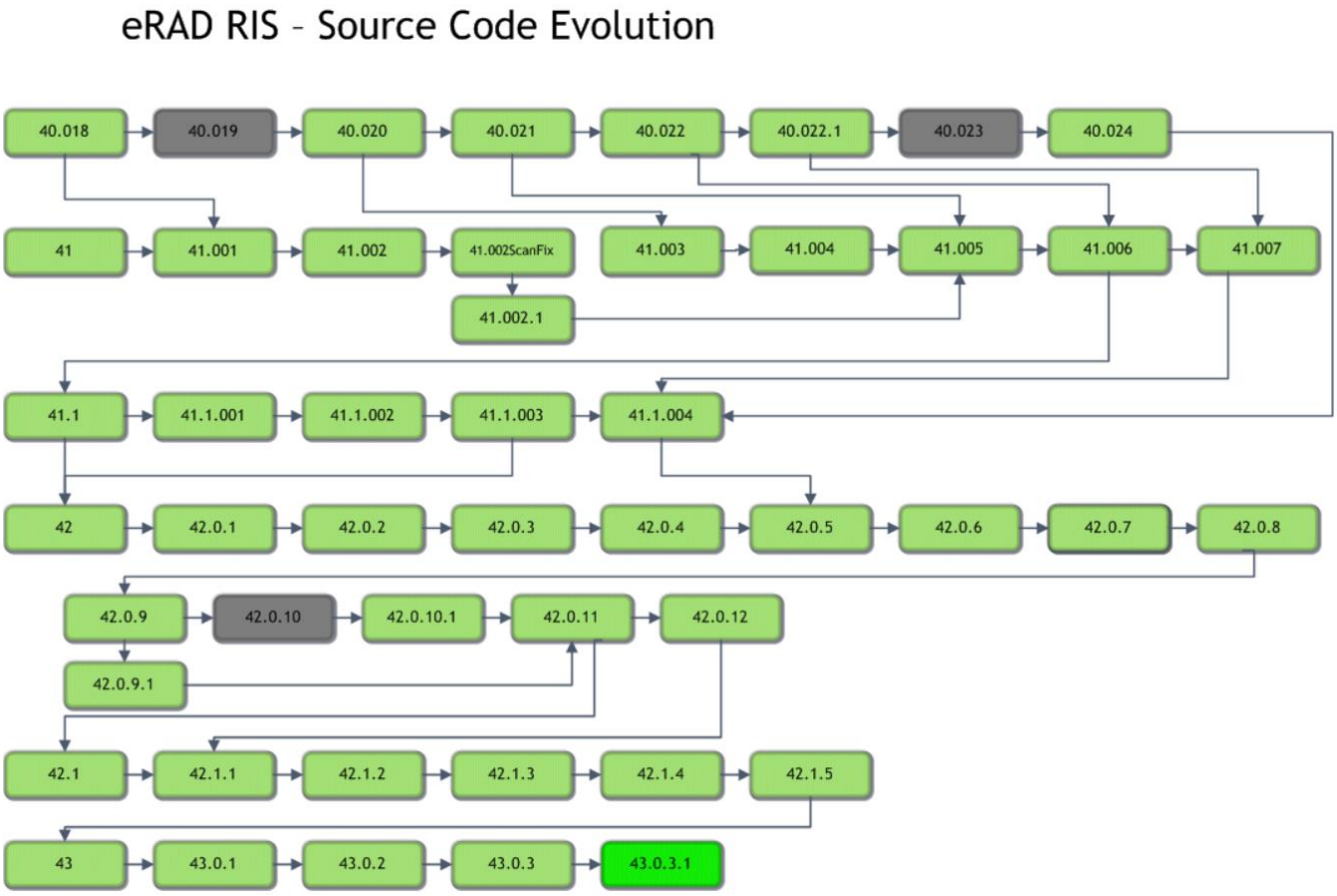
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 1. Defects Resolved

| Redmine # | Tracker | Subject | Priority |
|---|---|---|---|
| 7436 | Bug | Prior Report button no longer visible on the schedule order screen for a mammo follow-up order | Urgent |
| 7363 | Bug | Precert behaviour has changed. Must save the study twice from IVT for to be removed from work list | Normal |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 2. Code Stream




**Legend:**

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 3. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains:
   - rRIS_1.3.43.0.3.1.24450.zip

2) SQL Folder contains:
   - B43.0.3.1.sql

## 4. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

## 5. Who is affected

Build 43 installs. Server updates are not cumulative. This server update must be applied to 43.0.3

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

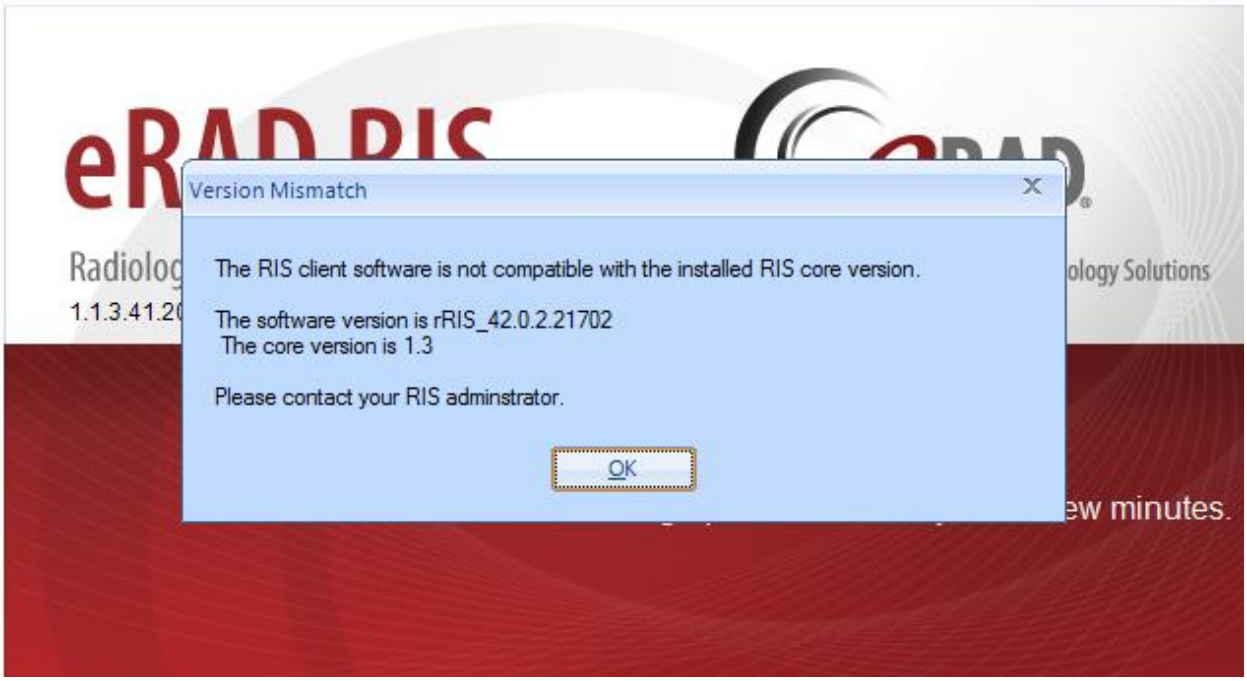
## 6. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 42 | - | 2.42.0.0.21261(3GB) | 2.42.0.0.21261 | 2.42.0.0.21261 | 2.42.0.0.21187 | Full version release |
| 42 | 1 | 2.42.0.1.21597 | 2.42.0.0.21261 | 2.42.0.1.21597 | 2.42.0.0.21187 | GUI and Web Service updates |
| 42 | 2 | 2.42.0.2.21702 | 2.42.0.0.21261 | 2.42.0.2.21702 | 2.42.0.0.21187 | GUI and Web Service updates |
| 42 | 3 | 2.42.0.2.21806 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.0.21187 | GUI and Web Service updates |
| 42 | 4 | 2.42.0.2.21862 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.4.21870 | GUI and Database updates |
| 42 | 5 | 2.42.0.5.21924 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.4.21870 | GUI |
| 42 | 6 | 2.42.0.5.22009 | 2.42.0.0.21261 | 2.42.0.5.22009 | 2.42.0.4.21870 | GUI and Web Service updates |
| 42 | 7 | 2.42.0.7.22090 | 2.42.0.0.21261 | 2.42.0.6.22009 | 2.42.0.4.21870 | GUI.zip updates |
| 42 | 8 | 2.42.0.7.22090 | 2.42.0.7.22150 | 2.42.0.6.22009 | 2.42.0.4.21870 | Web Service updates |
| 42 | 9 | 2.42.0.9.22203 | 2.42.0.0.21261 | 2.42.0.9.22203 | 2.42.0.4.21870 | GUI and Web Service updates |
| 42 | 9.1 | 2.42.0.9.22203 | 2.42.0.0.21261 | 2.42.0.9.22203 | 2.42.0.4.21870 | Web Service updates |
| 42 | 10 | 2.42.0.10.22232 | 2.42.0.0.21261 | 2.42.0.9.22203 | 2.42.0.4.21870 | GUI.zip |
| 42 | 10.1 | 2.42.0.10.22420 | 2.42.0.0.21261 | 2.42.0.9.22203 | 2.42.0.4.21870 | GUI.zip updates |
| 42 | 11 | 2.42.0.11.22495a | 2.42.0.0.21261 | 2.42.0.11.22471 | 2.42.0.11.22527 | GUI.zip, Web Service, Database updates. Management Report Deployment |
| 42 | 12 | 2.42.0.12.22982 | 2.42.0.0.21261 | 2.42.0.12.22982 | 2.42.0.12.22911 | GUI.zip, Web Service, Database updates. |
| 42.1 | - | 2.42.1.0.22744(3GB) | 2.42.0.0.21261 | 2.42.1.0.22744 | 2.42.1.0.22736 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 42.1 | 1 | 2.42.1.1.2296(3GB) | 2.42.0.0.21261 | 2.42.1.1.22963 | 2.42.1.1.22864 | GUI.zip, Web Service, DB updates |
| 42.1 | 2 | 2.42.1.2.23007(3GB) | 2.42.0.0.21261 | 2.42.1.2.23007 | 2.42.1.2.23007 | GUI.zip, Web Service, DB updates |
| 42.1 | 3 | 2.42.1.2.23237(3GB) | 2.42.0.0.21261 | 2.42.1.2.23237 | 2.42.1.2.23007 | GUI.zip, Web Services |
| 42.1 | 4 | 2.42.1.4.23348(3GB) | 2.42.0.0.21261 | 2.42.1.4.23348 | 2.42.1.2.23007 | GUI.zip, Web Services |
| 42.1 | 5 | 2.42.1.5.23406(3GB) | 2.42.0.0.21261 | 2.42.1.5.23406 | 2.42.1.2.23007 | GUI.zip, Web Services |
| 43 | - | 2.43.0.0.23715(3GB) | 2.43.0.0.23171 | 2.43.0.0.23715 | 2.43.0.0.23743 | Full Version Release |
| 43 | 1 | 2.43.0.1.23798(3GB) | 2.43.0.0.23171 | 2.43.0.1.23798 | 2.43.0.1.23770 | GUI.zip, Web Service, DB updates |
| 43 | 2 | 2.43.0.2.24017(3GB) | 2.43.0.0.23171 | 2.43.0.2.24017 | 2.43.0.2.24023 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 3 | 2.43.0.3.24298(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24283 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| **43** | **3.1** | **2.43.0.3.24450(3GB)** | **2.43.0.0.23171** | **2.43.0.3.24298** | **2.43.0.3.24421** | **GUI.zip, and DB updates** |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 7. Installing

1) Copy and replace the current rRIS…zip file with the rRIS_1.3.43.0.3.24450.zip file provided with this release.
   Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.




If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_43.0..3.24450→ rRIS_1.3.43.0.3. 24450
NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

**NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

2) Run the B43.0.3.1.sql file against the eRAD RIS database instance.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

For eRAD RIS
Version 2.0
Build 43
Update 43.0.3.2

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Defects Resolved ..... 3
2. Code Stream ..... 3
3. Package Contents ..... 4
4. Intended Audience ..... 4
5. Who is affected ..... 4
6. eRAD RIS Release Version Numbers ..... 5
7. Installing ..... 6

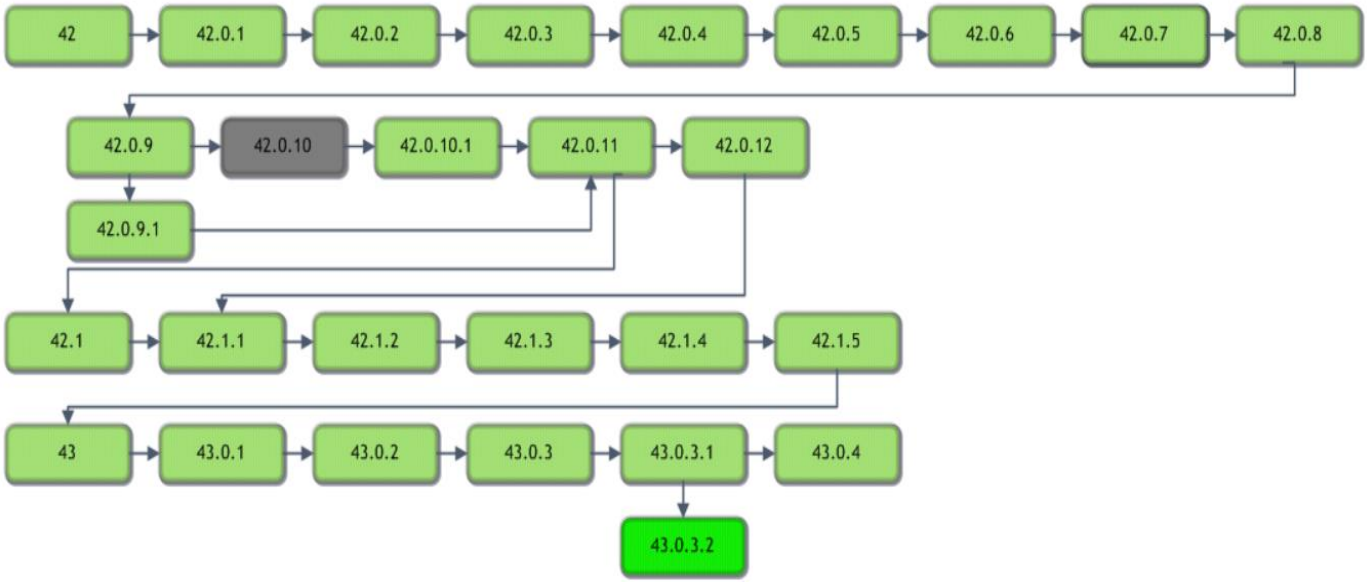
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

**eRAD RIS Server Update**

## 1. Defects Resolved

| Redmine # | Tracker | Subject | Priority |
|---|---|---|---|
| 7467 | bug | Insurance Eligibility - Default value for eligibility_intervention_required_flag was incorrect. The result was studies appearing on the IVT work list with no value under the Insurance Verification Status column. Once opened in IVT window the user would see that IVT was required. | Normal |

## 2. Code Stream




**Legend:**

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 3. Package Contents

Files included for this server update:

1) SQL Folder contains:
    - B43.0.3.2.sql

## 4. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

## 5. Who is affected

Build 43 installs. Server updates are not cumulative. This server update must be applied to 43.0.3.1

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 6. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 42 | - | 2.42.0.0.21261(3GB) | 2.42.0.0.21261 | 2.42.0.0.21261 | 2.42.0.0.21187 | Full version release |
| 42 | 1 | 2.42.0.1.21597 | 2.42.0.0.21261 | 2.42.0.1.21597 | 2.42.0.0.21187 | GUI and Web Service updates |
| 42 | 2 | 2.42.0.2.21702 | 2.42.0.0.21261 | 2.42.0.2.21702 | 2.42.0.0.21187 | GUI and Web Service updates |
| 42 | 3 | 2.42.0.2.21806 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.0.21187 | GUI and Web Service updates |
| 42 | 4 | 2.42.0.2.21862 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.4.21870 | GUI and Database updates |
| 42 | 5 | 2.42.0.5.21924 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.4.21870 | GUI |
| 42 | 6 | 2.42.0.5.22009 | 2.42.0.0.21261 | 2.42.0.5.22009 | 2.42.0.4.21870 | GUI and Web Service updates |
| 42 | 7 | 2.42.0.7.22090 | 2.42.0.0.21261 | 2.42.0.6.22009 | 2.42.0.4.21870 | GUI.zip updates |
| 42 | 8 | 2.42.0.7.22090 | 2.42.0.7.22150 | 2.42.0.6.22009 | 2.42.0.4.21870 | Web Service updates |
| 42 | 9 | 2.42.0.9.22203 | 2.42.0.0.21261 | 2.42.0.9.22203 | 2.42.0.4.21870 | GUI and Web Service updates |
| 42 | 9.1 | 2.42.0.9.22203 | 2.42.0.0.21261 | 2.42.0.9.22203 | 2.42.0.4.21870 | Web Service updates |
| 42 | 10 | 2.42.0.10.22232 | 2.42.0.0.21261 | 2.42.0.9.22203 | 2.42.0.4.21870 | GUI.zip |
| 42 | 10.1 | 2.42.0.10.22420 | 2.42.0.0.21261 | 2.42.0.9.22203 | 2.42.0.4.21870 | GUI.zip updates |
| 42 | 11 | 2.42.0.11.22495a | 2.42.0.0.21261 | 2.42.0.11.22471 | 2.42.0.11.22527 | GUI.zip, Web Service, Database updates. Management Report Deployment |
| 42 | 12 | 2.42.0.12.22982 | 2.42.0.0.21261 | 2.42.0.12.22982 | 2.42.0.12.22911 | GUI.zip, Web Service, Database updates. |
| 42.1 | - | 2.42.1.0.22744(3GB) | 2.42.0.0.21261 | 2.42.1.0.22744 | 2.42.1.0.22736 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 42.1 | 1 | 2.42.1.1.2296(3GB) | 2.42.0.0.21261 | 2.42.1.1.22963 | 2.42.1.1.22864 | GUI.zip, Web Service, DB updates |
| 42.1 | 2 | 2.42.1.2.23007(3GB) | 2.42.0.0.21261 | 2.42.1.2.23007 | 2.42.1.2.23007 | GUI.zip, Web Service, DB updates |
| 42.1 | 3 | 2.42.1.2.23237(3GB) | 2.42.0.0.21261 | 2.42.1.2.23237 | 2.42.1.2.23007 | GUI.zip, Web Services |
| 42.1 | 4 | 2.42.1.4.23348(3GB) | 2.42.0.0.21261 | 2.42.1.4.23348 | 2.42.1.2.23007 | GUI.zip, Web Services |
| 42.1 | 5 | 2.42.1.5.23406(3GB) | 2.42.0.0.21261 | 2.42.1.5.23406 | 2.42.1.2.23007 | GUI.zip, Web Services |
| 43 | - | 2.43.0.0.23715(3GB) | 2.43.0.0.23171 | 2.43.0.0.23715 | 2.43.0.0.23743 | Full Version Release |
| 43 | 1 | 2.43.0.1.23798(3GB) | 2.43.0.0.23171 | 2.43.0.1.23798 | 2.43.0.1.23770 | GUI.zip, Web Service, DB updates |
| 43 | 2 | 2.43.0.2.24017(3GB) | 2.43.0.0.23171 | 2.43.0.2.24017 | 2.43.0.2.24023 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 3 | 2.43.0.3.24298(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24283 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 3.1 | 2.43.0.3.24450(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24421 | GUI.zip, and DB updates |
| **43** | **3.2** | **2.43.0.3.24450(3GB)** | **2.43.0.0.23171** | **2.43.0.3.24298** | **2.43.0.3.24421a** | **DB updates** |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 7. Installing

1) Run the B43.0.3.2.sql file against the eRAD RIS database instance.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

For eRAD RIS
Version 2.0
Build 43
Update 43.0.4

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Defects Resolved ..... 3
2. Changes to Configuration ..... 5
3. Code Stream ..... 6
4. Package Contents ..... 7
5. Intended Audience ..... 10
6. Who is affected ..... 10
7. eRAD RIS Release Version Numbers ..... 11
8. Installing ..... 12

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 1. Defects Resolved

| Redmine # | Tracker | Subject | Priority |
|---|---|---|---|
| 6912 | Bug | EMR patient Merge. | Urgent |
| 7089 | Bug | HL7 merge allows the destination and source patient to be the same | Urgent |
| 7438 | Bug | Prior Report button no longer visible on the schedule order screen for a mammo follow-up order | Urgent |
| 7008 | Bug | IVT WL Counts are off when filters are added | High |
| 7140 | Bug | Message contents sent from portal are not kept | High |
| 7208 | Bug | Chair selection dialog opens with incorrect selection options and on every launch of pending dictation worklist - resulting in duplicate dialogs possible. | High |
| 7277 | Bug | Cannot access a disposed object. Object Name: RadGridView | High |
| 7283 | Bug | IVT Information entered outside of the IVT screen does not save. | High |
| 7328 | Bug | Personnel - Internal Notes field not displaying | High |
| 6930 | Bug | EMR Patient Merge ( HL7 from eRAD) | Normal |
| 6937 | Bug | EMR merge issue - both alternative IDs remain active | Normal |
| 6971 | Bug | EMR merge erad patient into EMR patient | Normal |
| 7007 | Bug | EMR patient merge ( remains on merge request WL) | Normal |
| 7041 | Bug | patient portal - no guarantee that the patient is presented with updated terms for a practice | Normal |
| 7049 | Bug | Error manually changing status | Normal |
| 7063 | Bug | Patient Portal - Visit summary page - there is text overwriting text | Normal |
| 7167 | Bug | Mgmt Report - Mammography Missing Data | Normal |
| 7172 | Bug | Reconcile Form - Issue with layout of Order and Scheduling Notes | Normal |
| 7179 | Bug | County/ZIP - possible wrong county selecting automatically. County drop down changing when nulling out ZIP textbox | Normal |
| 7181 | Bug | County/ZIP - county getting saved with data but dialog doesn't show one selected | Normal |
| 7202 | Bug | ICD - minimized dictation mode needs a smaller ICD icon | Normal |
| 7223 | Bug | CD Import- practice is assigned using the OrgManager instead of the selected site's practice | Normal |
| 7246 | Bug | setting up user for domain authentication - RIS still prompts for | Normal |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

| | | | |
|---|---|---|---|
| | | a password | |
| 7260 | Bug | The INSERT statement conflicted with the Foreign key constraint "fk_c_scan_document_association_c_study" when rescheduling | Normal |
| 7269 | Bug | County selection with no chair - should not prompt users if they have ever selected a county on that work station | Normal |
| 7321 | Bug | ICD codes are unable to copy from the Search Grid | Normal |
| 7397 | Bug | Amount to collect is not cleared when changing site selection from site NPD enabled to site that is not | Normal |
| 7408 | Bug | Insurance Eligibility Details report hyperlink passing incorrect data to patient search | Normal |
| 7412 | Bug | Exam Search Date Range criteria does not work properly for named date ranges | Normal |
| 7415 | Bug | RISService does not scale up quickly if a lot of requests arrive simultaneously -- make min threads configurable | Normal |
| 7437 | Bug | Precert behaviour has changed. Must save the study twice from IVT for to be removed from work list | Normal |
| 7379 | Bug | Insurance Eligibility - Non URL characters entered into the policy number field causes an error | Low |

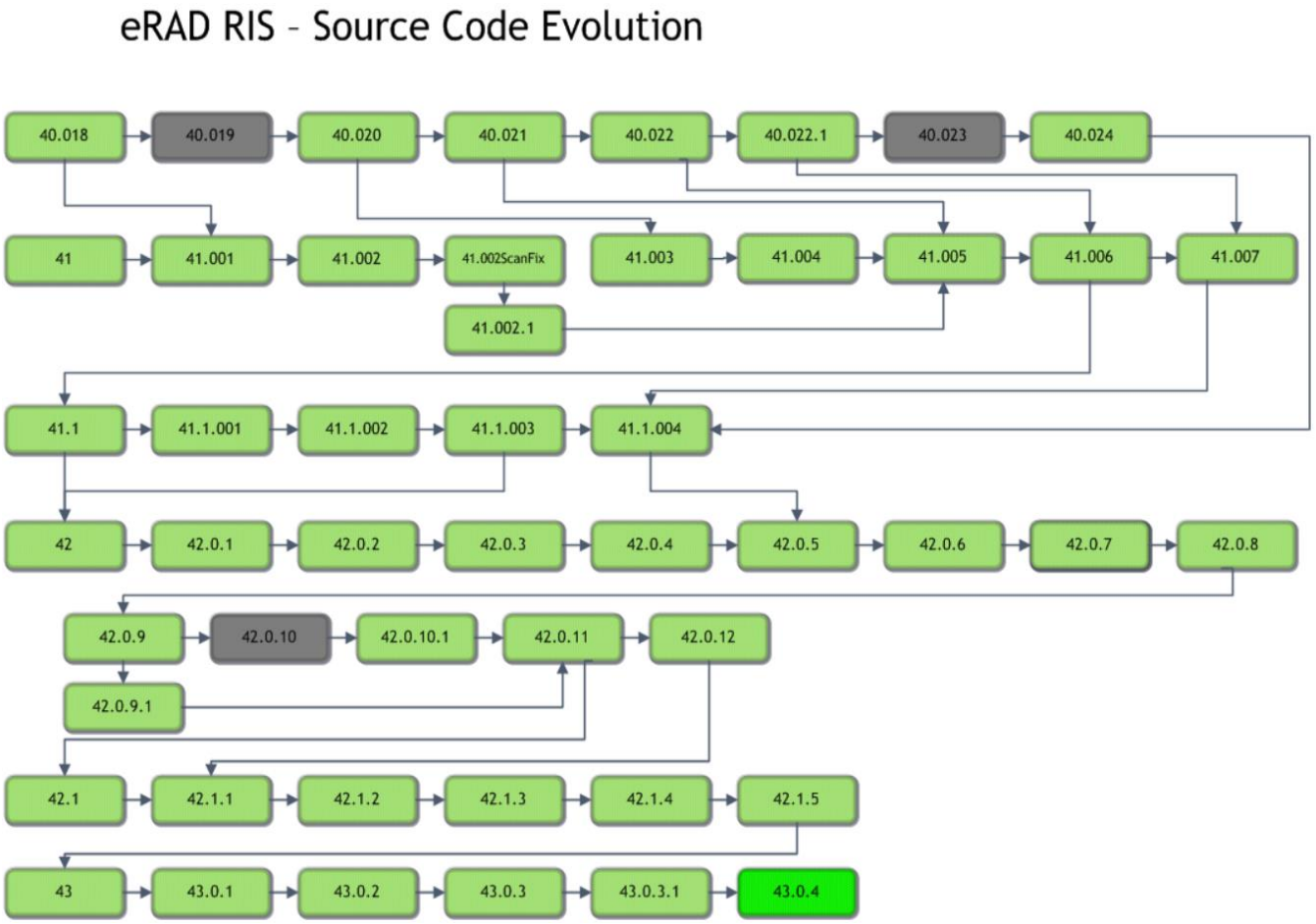
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 2. Changes to Configuration

| Setting Placeholder | Setting | Default | Purpose / Controls Access to |
|---|---|---|---|
| Applicationsettings .config file | </setting><br><setting name="CoreServiceMinIOThreads" serializeAs="String"><br><value>-1</value><br></setting> | -1 | The default value of -1 will keep the value as it currently is (before this patch) using the number of CPU's on the server. If there are 4 CPU's there will be 4 threads. Increasing the value will set the **minimum** IO threads. |
| Applicationsettings .config file | <setting name="CoreServiceMinWorkerThreads" serializeAs="String"><br><value>-1</value><br></setting> | -1 | The default value of -1 will keep the value as it currently is (before this patch) using the number of CPU's on the server. If there are 4 CPU's there will be 4 threads. Increasing the value will set the **minimum** worker threads. |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 3. Code Stream




**Legend:**

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 4. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains:
   - rRIS_1.3.43.0.3.24447.zip

2) RIS_Service_Updates contains:

ABCpdf.dll
ABCpdf9-32.dll
ABCpdf9-64.dll
Antlr3.Runtime.dll
CDSJobManager.dll
CDSJobManager.pdb
CdsLib.dll
CdsLib.xml
CdsLib.XmlSerializers.dll
CommonLib.dll
CommonLib.pdb
contents.txt
DDEngine.dll
DDEngine.pdb
DiffPlex.dll
Interop.ANYMODALCAPTURECTRLLib.dll
Interop.FAXCOMEXLib.dll
Microsoft.Practices.EnterpriseLibrary.Caching.dll
Microsoft.Practices.EnterpriseLibrary.Caching.pdb
Microsoft.Practices.EnterpriseLibrary.Common.dll
Microsoft.Practices.EnterpriseLibrary.Common.pdb
Microsoft.Practices.EnterpriseLibrary.Logging.dll
Microsoft.Practices.EnterpriseLibrary.Logging.pdb
Microsoft.Practices.ServiceLocation.dll
Microsoft.Practices.ServiceLocation.pdb
Microsoft.Practices.Unity.dll
Microsoft.Practices.Unity.Interception.dll
Microsoft.Practices.Unity.Interception.pdb
Microsoft.Practices.Unity.pdb
Microsoft.ReportViewer.Common.dll
Microsoft.ReportViewer.WinForms.dll
Microsoft.ReportViewer.WinForms.xml
Newtonsoft.Json.dll
Newtonsoft.Json.xml
NLog.dll
O2S.Components.PDFRender4NET.dll
PDFToImages.exe
Radar.Common.dll
Radar.Common.pdb
Radar.Common.WebClient.dll
Radar.Common.WebClient.pdb
Radar.DirectMessaging.Client.dll
Radar.DirectMessaging.Client.pdb
Radar.DirectMessaging.Model.dll
Radar.DirectMessaging.Model.pdb
rRISServices.exe
rRISServices.pdb
rRISServicesx64.exe
ScheduledTaskManager.dll
ScheduledTaskManager.pdb
ServicesConfigWizard.exe
ServicesConfigWizard.pdb
SignatureApprovalService.exe
SignatureApprovalService.pdb
System.Net.Http.dll
System.Net.Http.Formatting.dll
System.Net.Http.xml
System.Web.Http.dll
System.Web.Http.SelfHost.dll
System.Web.Http.SelfHost.xml
System.Web.Http.WebHost.dll
System.Web.Http.WebHost.xml
System.Web.Http.xml
System.Web.Mvc.dll
System.Web.Mvc.xml
System.Web.Optimization.dll
System.Web.Razor.dll
System.Web.Razor.xml
System.Web.WebPages.Deployment.dll
System.Web.WebPages.Deployment.xml
System.Web.WebPages.dll
System.Web.WebPages.Razor.dll
System.Web.WebPages.Razor.xml
System.Web.WebPages.xml
Tourreau.Gilles.FaxDotNet.dll
Tourreau.Gilles.FaxDotNet.pdb
Tourreau.Gilles.FaxDotNet.xml
WCFService.dll
WCFService.pdb
WCFServiceTests.dll
WCFServiceTests.pdb
WebApi.dll
WebApi.pdb
WebGrease.dll
Wedge.exe
Wedge.pdb

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

The rRIS_Service_Updates also contains to subfolders:

A. Deploy folder contains
   a. Applicationsettings.config
   b. ReleaseVersion-connectionstrings.config
   c. rRISServices.exe.config
   d. services.config

B. XSL subfolder contains:
   a. Subfolder titled "Stylesheets" which contains:
      a. CDAToHTMLCompleteReport.xslt
      b. CDAToHTMLCompleteReportDark.xslt
      c. CDAToHTMLImpressionSection.xslt
      d. CDATorRIS.xslt
      e. CDAToTxt.xslt
      f. DocumentModelReport.xslt
      g. DocumentModelReportAsXml.xslt

   b. CDA Subfolder contains
      a. C-CDA.xsl
      b. eRadStylesheet.xsl
      c. generalTemplates.xsl
      d. header.xsl
      e. QRDA.xsl
      f. QrdaLevel3_Cypress2.4.0.xsl
      g. QrdaLevel3_ViewHtml.xsl
      h. sectionAdministeredMedications.xsl
      i. sectionAllergies.xsl
      j. sectionEncounters.xsl
      k. sectionFindings.xsl
      l. sectionFuncCogStatus.xsl
      m. sectionImmunizations.xsl
      n. sectionInstructions.xsl
      o. sectionMedications.xsl
      p. sectionPlanOfCare.xsl
      q. sectionProblemList.xsl
      r. sectionProcedures.xsl
      s. sectionQRDAMeasures.xsl
      t. sectionQRDAPatientData.xsl
      u. sectionQRDAReporting.xsl
      v. sectionReasonForVisit.xsl
      w. sectionResults.xsl
      x. sectionSocialHistory.xsl
      y. sectionVitalSigns.xsl

3) SQL Folder contains:
   - B43.0.4.sql

4) **SSRSDeployment** folder contains 7 subfolders, a batch file for deploying the reports and a help file for deploying the reports.

   4.1. **Backups** folder is empty

   4.2. **Fonts** folder contains 4 files:
   4.1.1. FRE3OF9X
   4.1.2 FRE3OF9x_0
   4.1.3 FREE3OF9
   4.1.4 FREE3OF9_0

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

4.3. **ParentFolder** folder contains 7 subfolders
- 4.3.1. **Chair** folder contains 1 .rdl file
- 4.3.2. **Dashboards** folder contains 9 .rdl files
- 4.3.3. **Forms folder** contains sub folder and 2 .rdl files
  - 4.3.3.1. **SubReports** contains 10 .rdl files
- 4.3.4. **Management Reports** folder contains 9 sub folders, these subfolders contain the core management report files (.rdl) to be deployed.
- 4.3.5. **Marketing** folder contains 5 .rdl files
- 4.3.6. **Order Templates** contains 1 file (Default.rdl)
- 4.3.7. **SubReports** contains 12.rdl files
- 4.3.8. **Verbal Order** contains 4 .rdl files

4.4. **Scripts** folder contains 9 .rss files. These files are used with the DeployReports.bat utility to deploy the reports.

4.5. **Upload Custom Mangement Reports** is empty

4.6. **Upload Diagnostic Templates** folder contains 1 subfolder
- 4.6.1. **SubReports** folder is empty

4.7. **Upload Forms** folder contains 1 subfolder.
- 4.7.1. **SubReports** folder is empty

4.8. **eRADDeployReports.bat -** batch file for deploying reports to report server for eRAD customers

4.9. **RadnetDeployReports.bat** - batch file for deploying reports to report sever for RadNet

4.10. **Adding reports for Deployment.docx** document to assist in added a report to the install process when deploying the reports.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 5. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

## 6. Who is affected

Build 43 installs. Server updates are not cumulative. This server update must be applied to 43.0.3.1

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

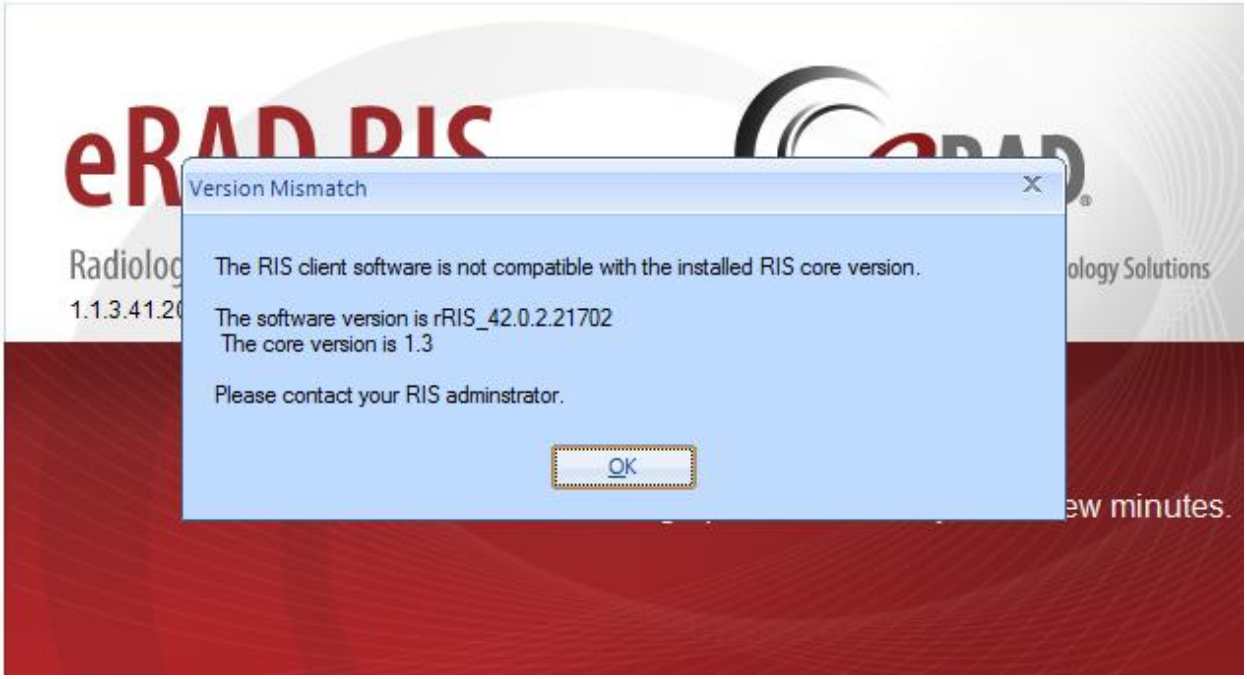
## 7. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 42 | - | 2.42.0.0.21261(3GB) | 2.42.0.0.21261 | 2.42.0.0.21261 | 2.42.0.0.21187 | Full version release |
| 42 | 1 | 2.42.0.1.21597 | 2.42.0.0.21261 | 2.42.0.1.21597 | 2.42.0.0.21187 | GUI and Web Service updates |
| 42 | 2 | 2.42.0.2.21702 | 2.42.0.0.21261 | 2.42.0.2.21702 | 2.42.0.0.21187 | GUI and Web Service updates |
| 42 | 3 | 2.42.0.2.21806 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.0.21187 | GUI and Web Service updates |
| 42 | 4 | 2.42.0.2.21862 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.4.21870 | GUI and Database updates |
| 42 | 5 | 2.42.0.5.21924 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.4.21870 | GUI |
| 42 | 6 | 2.42.0.5.22009 | 2.42.0.0.21261 | 2.42.0.5.22009 | 2.42.0.4.21870 | GUI and Web Service updates |
| 42 | 7 | 2.42.0.7.22090 | 2.42.0.0.21261 | 2.42.0.6.22009 | 2.42.0.4.21870 | GUI.zip updates |
| 42 | 8 | 2.42.0.7.22090 | 2.42.0.7.22150 | 2.42.0.6.22009 | 2.42.0.4.21870 | Web Service updates |
| 42 | 9 | 2.42.0.9.22203 | 2.42.0.0.21261 | 2.42.0.9.22203 | 2.42.0.4.21870 | GUI and Web Service updates |
| 42 | 9.1 | 2.42.0.9.22203 | 2.42.0.0.21261 | 2.42.0.9.22203 | 2.42.0.4.21870 | Web Service updates |
| 42 | 10 | 2.42.0.10.22232 | 2.42.0.0.21261 | 2.42.0.9.22203 | 2.42.0.4.21870 | GUI.zip |
| 42 | 10.1 | 2.42.0.10.22420 | 2.42.0.0.21261 | 2.42.0.9.22203 | 2.42.0.4.21870 | GUI.zip updates |
| 42 | 11 | 2.42.0.11.22495a | 2.42.0.0.21261 | 2.42.0.11.22471 | 2.42.0.11.22527 | GUI.zip, Web Service, Database updates. Management Report Deployment |
| 42 | 12 | 2.42.0.12.22982 | 2.42.0.0.21261 | 2.42.0.12.22982 | 2.42.0.12.22911 | GUI.zip, Web Service, Database updates. |
| 42.1 | - | 2.42.1.0.22744(3GB) | 2.42.0.0.21261 | 2.42.1.0.22744 | 2.42.1.0.22736 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 42.1 | 1 | 2.42.1.1.2296(3GB) | 2.42.0.0.21261 | 2.42.1.1.22963 | 2.42.1.1.22864 | GUI.zip, Web Service, DB updates |
| 42.1 | 2 | 2.42.1.2.23007(3GB) | 2.42.0.0.21261 | 2.42.1.2.23007 | 2.42.1.2.23007 | GUI.zip, Web Service, DB updates |
| 42.1 | 3 | 2.42.1.2.23237(3GB) | 2.42.0.0.21261 | 2.42.1.2.23237 | 2.42.1.2.23007 | GUI.zip, Web Services |
| 42.1 | 4 | 2.42.1.4.23348(3GB) | 2.42.0.0.21261 | 2.42.1.4.23348 | 2.42.1.2.23007 | GUI.zip, Web Services |
| 42.1 | 5 | 2.42.1.5.23406(3GB) | 2.42.0.0.21261 | 2.42.1.5.23406 | 2.42.1.2.23007 | GUI.zip, Web Services |
| 43 | - | 2.43.0.0.23715(3GB) | 2.43.0.0.23171 | 2.43.0.0.23715 | 2.43.0.0.23743 | Full Version Release |
| 43 | 1 | 2.43.0.1.23798(3GB) | 2.43.0.0.23171 | 2.43.0.1.23798 | 2.43.0.1.23770 | GUI.zip, Web Service, DB updates |
| 43 | 2 | 2.43.0.2.24017(3GB) | 2.43.0.0.23171 | 2.43.0.2.24017 | 2.43.0.2.24023 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 3 | 2.43.0.3.24298(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24283 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 3.1 | 2.43.0.3.24450(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24421 | GUI.zip and DB updates |
| **43** | **4** | **2.43.0.4.24447(3GB)** | **2.43.0.0.23171** | **2.43.0.4.24447** | **2.43.0.4.24442** | **GUI.zip, Web Service, DB updates and Management Report Deployment** |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 8. Installing

1) Copy and replace the current rRIS…zip file with the rRIS_1.3.43.0.3.24447.zip file provided with this release.
   Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.




If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_43.0..3.24447→ rRIS_1.3.43.0.3. 24447
NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

**NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)**

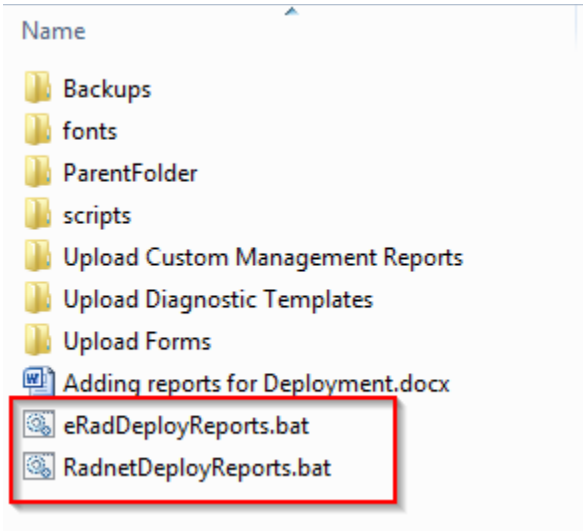
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

2) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService. Be sure to make backup of all files, but especially the rRISServices.exe.config and rRISServices.vshost.exe.config files.
*rRISService directories include:*
   a) *rRISService*
   b) *CDS rRISService*
   c) *Wedge rRISService*
   d) *DDE rRISService*

   **Restart each service.**

3) Run the B43.0.4.sql file against the eRAD RIS database instance.

4) Management Reports Deployment / SSRSDeployment - There are 2 utilities called **RadnetDeployReports.bat** and **eRadDeployReports.bat** that will deploy the reports to a SQL Server Report Service. This utility is found in the **Build X\SSRSDeployment** folder. Below are the steps on how to use this utility. The purpose for the 2 .bat files are the RadNet one deploys a few extra reports specific to RadNet.




1. Launch the DeployReports.bat file.
2. ***Enter report server name [default:<computer_name>]:***
   a. A script will run against the server and return a list of all the root folders on that report server
   **By Default this will pull the computer_name environmental variable from the machine running the script. I suggest running this from the report server for performance anyway.
3. **Enter root folder to deploy reports [default: production]**:

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

a. This will create a new root if the name you give doesn't exist, or it will simply publish below the root of the folder if it does already exist. We typically will use "production" for the installation folder. Note: The script forces the root name to be lowercase.
**Default is suggested to be production, but you may need to change it based on the environment you are deploying to. Ie: testserver might be called something else.

4. **Do you wish to create a backup of the existing reports?**:
   a. This will create a file backup of the report directory specified in the same directory deploy.bat is being run from inside a folder called Backups where it will create a folder based on datetime of backup. Ie: 04172014_110605 (MMDDYYYY_HHMISS).
5. **Do you wish to deploy core management reports**?
   a. If you enter "y", it will redeploy the core management reports
6. **Do you wish to upload Forms**?

a. If you enter "y", the script will deploy any .rdl files into the installations Forms folder that you have previously saved into the script folder called "Upload Forms" including the folder below it called SubReports.

7. **Do you wish to upload Diagnostic Templates**?

a. If you enter "y", the script will deploy any .rdl files into the installations Diagnostic Templates folder that you have previously saved into the script folder called "Upload Diagnostic Templates" including the folder below it called SubReports.

8. **Do you wish to upload Custom Management Reports?**

a. Entering "Y" will copy any .rdl files you've copied under the deployment folder called Upload Custom Management Reports onto the server under Management Reports\Custom\Uploads directory

9. **Do you wish to create a datasource**?
   a. If you select "y" you will get prompted for more information about the datasource you wish to create. You only need to create a datasource, if this is a new installation. No need to do this if you are upgrading an existing installation. The datasource gets created in the root of the folder from step 3. The datasource will be called RISDataSource.

If you chose to create a datasource, the following steps will be requested to complete the connection string.

1. **Enter database server name**:
   a. This is the name of the physical database server
   ex. MYSERVER-1
2. **Enter database name**:
   a. This is the name of the database on the database server
   ex. rRIS_Site

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

3. **Enter report schema user name**: ex. The account that the datasource will use to connect to the database ie: SA. (For security reasons "sa" is not recommended)
4. **Enter report schema password**:

   The results of deployment will be written to log.txt in the same folder as the DeployReports.bat file.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

For eRAD RIS
Version 2.0
Build 43
Update 43.0.5

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. New Features ..... 3
   New Alert Configuration Values ..... 3
   Configurable IVT option for Self-pay ..... 3
   Document Distribution WL Context Menu ..... 4
2. Changes to Configuration ..... 5
3. Defects Resolved ..... 6
4. Code Stream ..... 7
5. Package Contents ..... 8
6. Intended Audience ..... 10
7. Who is affected ..... 10
8. eRAD RIS Release Version Numbers ..... 11
9. Installing ..... 12

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# 1. New Features

## New Alert Configuration Values

Two new alert generators have been added to the AlertConfiguration lookup table.

- InactiveReferringOrAddress – If the referring physician associated with the study has become inactive or the "visited at" address has become inactive in the system since the order was created the user will receive an alert from the Schedule Order, Registration and IVT windows.

- InacticeCCPhysicianOrAddress - If the CC physician associated with the study has become inactive or the "visited at" address has become inactive in the system since the order was created the user will receive an alert from the Schedule Order, Registration and IVT windows.

## Configurable IVT option for Self-pay

A new system configuration setting of "**SelfPayAppearOnIVTWL**" with a default value of False has been added to control if a study created with Billing Method of Self-Pay has been selected on the Order tab. When set to false the study will be as before and will not appear on the IVT work list. With a value of True, the study will now appear on the IVT work list.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## Document Distribution WL Context Menu

The context menu from the Distribution WL and the Distribution History by Date WL now have the option of Patient Folder.

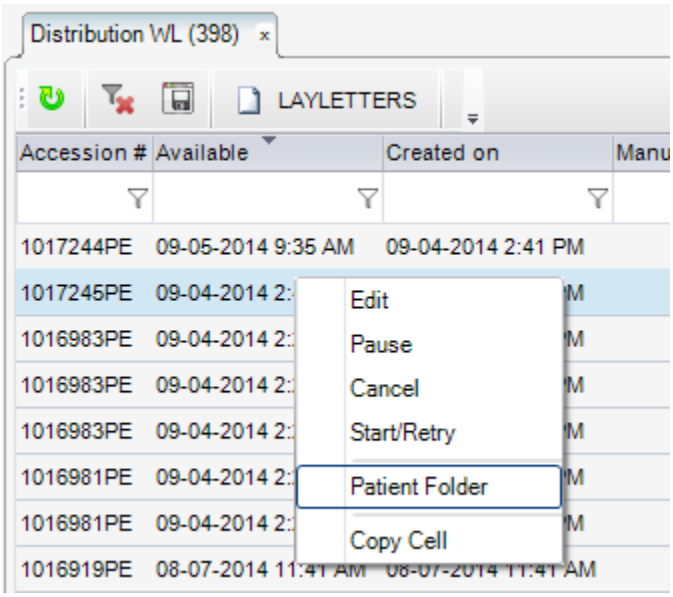



**Figure 1.1 – Patient folder context menu added to Distribution WL's**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 2. Changes to Configuration

| Setting Placeholder | Setting | Default | Purpose / Controls Access to |
|---|---|---|---|
| SystemConfig | SelfPayAppearOnIVTWL | False | Determines if Self-Pay insurance bypasses IVT rules (false) or appear on the IVT work list (true) Possible values are true and false |
| AccessString and UserGroup Permissions | Config.LookupEditor.EligibilityMessage | None | Controls access to the EligibilityMessage lookup table. |

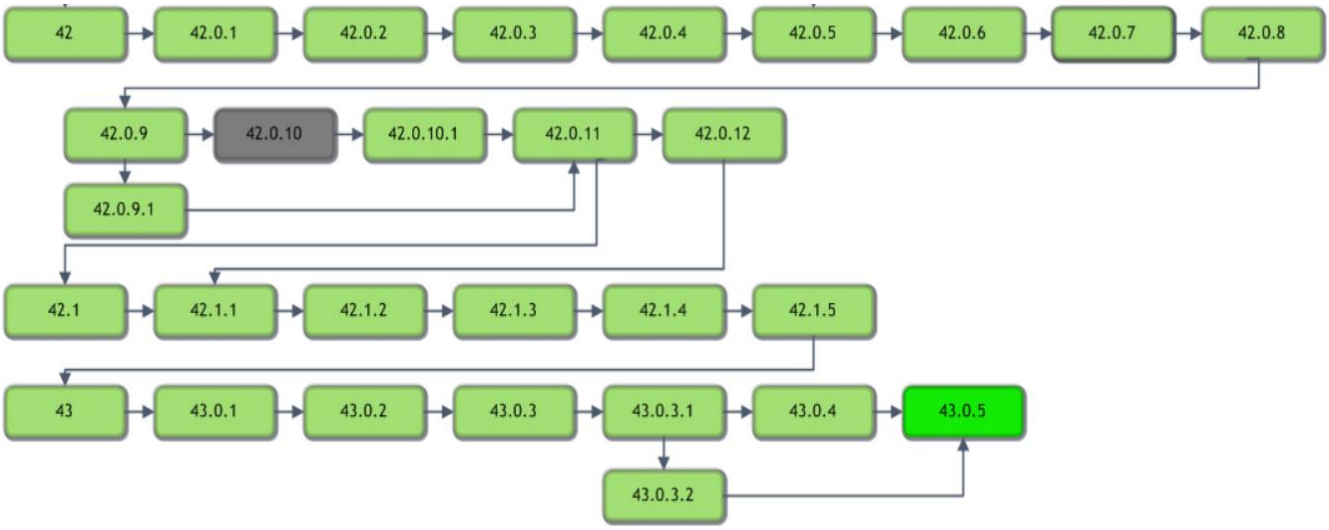
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 3. Defects Resolved

| Redmine # | Tracker | Subject | Priority |
|---|---|---|---|
| 7474 | Bug | Insurance Eligibility - Default value for eligibility_intervention_required_flag was incorrect | Normal |
| 7465 | Bug | Stored procedure should return indicator that the user is inactive if the parameter IsInactive is passed to it. | Normal |
| 7463 | Bug | Insurance Eligibility - order saved with order filler site for eligibility doesn't perform eligibility check. | Normal |
| 7462 | Bug | Insurance Eligibility - Self pay amount to collect is not calculating | Normal |
| 7434 | Bug | Replacement MRNs for deleted alternate MRNs are visible in patient search results | Normal |
| 7429 | Bug | Cannot create internal ID for external patient (linked) | Urgent |
| 7426 | Bug | Document distribution jobs created with 'PRINTER NOT FOUND' message do not go to error status. | Normal |
| 7414 | Bug | automatically fail distribution jobs that are attached to inactive addresses. | Normal |
| 7413 | Bug | inactive referring addresses on active studies | Normal |
| 7396 | Bug | EligibilityMessage lookup requires access string | Normal |
| 7388 | Bug | IVT - Self pays are falling to the IVT worklist. | Normal |
| 7383 | Bug | Mgt Reports - Technologist Activity by Modality - the format of the values in the dropdown for the technologist is not the same as user dropdowns in other reports. | Normal |
| 7377 | Feature | Patient folder context menu option on Distribution worklists | Normal |
| 7374 | Bug | Indication grids on tech screen do not take mutiple studies into account | High |
| 7361 | Bug | Patient Search - search a second time in new appointment window when first patient has patient portals documents | Normal |
| 7355 | Bug | Patient Search second time from Walk-in can throw error | Normal |
| 7343 | Bug | Unable to add ICD codes to a second addendum | Normal |
| 7341 | Bug | CD Burning - Introduce detection of images still uploading | High |
| 7317 | Bug | Wedge will only accept a POST message from Mirth with a size less than 2^18 bytes | High |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 4. Code Stream




**Legend:**

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 5. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains:
   - rRIS_1.3.43.0.5.24632.zip

2) RIS_Service_Updates contains:

ABCpdf.dll
ABCpdf9-32.dll
ABCpdf9-64.dll
Antlr3.Runtime.dll
CDSJobManager.dll
CDSJobManager.pdb
CdsLib.dll
CdsLib.xml
CdsLib.XmlSerializers.dll
CommonLib.dll
CommonLib.pdb
contents.txt
DDEngine.dll
DDEngine.pdb
DiffPlex.dll
Interop.ANYMODALCAPTURECTRLLib.dll
Interop.FAXCOMEXLib.dll
Microsoft.Practices.EnterpriseLibrary.Caching.dll
Microsoft.Practices.EnterpriseLibrary.Caching.pdb
Microsoft.Practices.EnterpriseLibrary.Common.dll
Microsoft.Practices.EnterpriseLibrary.Common.pdb
Microsoft.Practices.EnterpriseLibrary.Logging.dll
Microsoft.Practices.EnterpriseLibrary.Logging.pdb
Microsoft.Practices.ServiceLocation.dll
Microsoft.Practices.ServiceLocation.pdb
Microsoft.Practices.Unity.dll
Microsoft.Practices.Unity.Interception.dll
Microsoft.Practices.Unity.Interception.pdb
Microsoft.Practices.Unity.pdb
Microsoft.ReportViewer.Common.dll
Microsoft.ReportViewer.WinForms.dll
Microsoft.ReportViewer.WinForms.xml
Newtonsoft.Json.dll
Newtonsoft.Json.xml
NLog.dll
O2S.Components.PDFRender4NET.dll
PDFToImages.exe
Radar.Common.dll
Radar.Common.pdb
Radar.Common.WebClient.dll
Radar.Common.WebClient.pdb
Radar.DirectMessaging.Client.dll
Radar.DirectMessaging.Client.pdb
Radar.DirectMessaging.Model.dll
Radar.DirectMessaging.Model.pdb
rRISServices.exe
rRISServices.pdb
rRISServicesx64.exe
ScheduledTaskManager.dll
ScheduledTaskManager.pdb
ServicesConfigWizard.exe
ServicesConfigWizard.pdb
SignatureApprovalService.exe
SignatureApprovalService.pdb
System.Net.Http.dll
System.Net.Http.Formatting.dll
System.Net.Http.xml
System.Web.Http.dll
System.Web.Http.SelfHost.dll
System.Web.Http.SelfHost.xml
System.Web.Http.WebHost.dll
System.Web.Http.WebHost.xml
System.Web.Http.xml
System.Web.Mvc.dll
System.Web.Mvc.xml
System.Web.Optimization.dll
System.Web.Razor.dll
System.Web.Razor.xml
System.Web.WebPages.Deployment.dll
System.Web.WebPages.Deployment.xml
System.Web.WebPages.dll
System.Web.WebPages.Razor.dll
System.Web.WebPages.Razor.xml
System.Web.WebPages.xml
Tourreau.Gilles.FaxDotNet.dll
Tourreau.Gilles.FaxDotNet.pdb
Tourreau.Gilles.FaxDotNet.xml
WCFService.dll
WCFService.pdb
WCFServiceTests.dll
WCFServiceTests.pdb
WebApi.dll
WebApi.pdb
WebGrease.dll
Wedge.exe
Wedge.pdb

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

The rRIS_Service_Updates also contains to subfolders:

A. Deploy folder contains
   a. Applicationsettings.config
   b. ReleaseVersion-connectionstrings.config
   c. rRISServices.exe.config
   d. services.config

B. XSL subfolder contains:
   a. Subfolder titled "Stylesheets" which contains:
      a. CDAToHTMLCompleteReport.xslt
      b. CDAToHTMLCompleteReportDark.xslt
      c. CDAToHTMLImpressionSection.xslt
      d. CDATorRIS.xslt
      e. CDAToTxt.xslt
      f. DocumentModelReport.xslt
      g. DocumentModelReportAsXml.xslt

   b. CDA Subfolder contains
      a. C-CDA.xsl
      b. eRadStylesheet.xsl
      c. generalTemplates.xsl
      d. header.xsl
      e. QRDA.xsl
      f. QrdaLevel3_Cypress2.4.0.xsl
      g. QrdaLevel3_ViewHtml.xsl
      h. sectionAdministeredMedications.xsl
      i. sectionAllergies.xsl
      j. sectionEncounters.xsl
      k. sectionFindings.xsl
      l. sectionFuncCogStatus.xsl
      m. sectionImmunizations.xsl
      n. sectionInstructions.xsl
      o. sectionMedications.xsl
      p. sectionPlanOfCare.xsl
      q. sectionProblemList.xsl
      r. sectionProcedures.xsl
      s. sectionQRDAMeasures.xsl
      t. sectionQRDAPatientData.xsl
      u. sectionQRDAReporting.xsl
      v. sectionReasonForVisit.xsl
      w. sectionResults.xsl
      x. sectionSocialHistory.xsl
      y. sectionVitalSigns.xsl

3) SQL Folder contains:
   - B43.0.5.sql

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 6. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

## 7. Who is affected

Build 43 installs. Server updates are not cumulative. This server update must be applied to 43.0.4

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

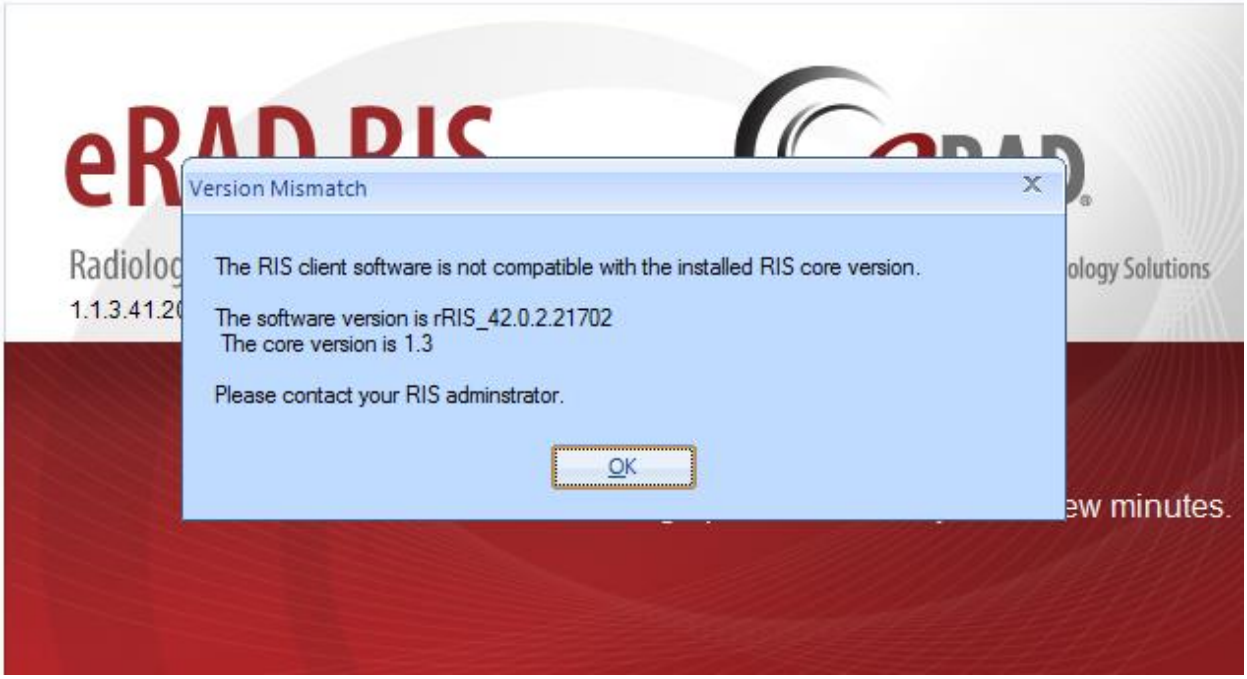
## 8. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 42 | - | 2.42.0.0.21261(3GB) | 2.42.0.0.21261 | 2.42.0.0.21261 | 2.42.0.0.21187 | Full version release |
| 42 | 1 | 2.42.0.1.21597 | 2.42.0.0.21261 | 2.42.0.1.21597 | 2.42.0.0.21187 | GUI and Web Service updates |
| 42 | 2 | 2.42.0.2.21702 | 2.42.0.0.21261 | 2.42.0.2.21702 | 2.42.0.0.21187 | GUI and Web Service updates |
| 42 | 3 | 2.42.0.2.21806 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.0.21187 | GUI and Web Service updates |
| 42 | 4 | 2.42.0.2.21862 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.4.21870 | GUI and Database updates |
| 42 | 5 | 2.42.0.5.21924 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.4.21870 | GUI |
| 42 | 6 | 2.42.0.5.22009 | 2.42.0.0.21261 | 2.42.0.5.22009 | 2.42.0.4.21870 | GUI and Web Service updates |
| 42 | 7 | 2.42.0.7.22090 | 2.42.0.0.21261 | 2.42.0.6.22009 | 2.42.0.4.21870 | GUI.zip updates |
| 42 | 8 | 2.42.0.7.22090 | 2.42.0.7.22150 | 2.42.0.6.22009 | 2.42.0.4.21870 | Web Service updates |
| 42 | 9 | 2.42.0.9.22203 | 2.42.0.0.21261 | 2.42.0.9.22203 | 2.42.0.4.21870 | GUI and Web Service updates |
| 42 | 9.1 | 2.42.0.9.22203 | 2.42.0.0.21261 | 2.42.0.9.22203 | 2.42.0.4.21870 | Web Service updates |
| 42 | 10 | 2.42.0.10.22232 | 2.42.0.0.21261 | 2.42.0.9.22203 | 2.42.0.4.21870 | GUI.zip |
| 42 | 10.1 | 2.42.0.10.22420 | 2.42.0.0.21261 | 2.42.0.9.22203 | 2.42.0.4.21870 | GUI.zip updates |
| 42 | 11 | 2.42.0.11.22495a | 2.42.0.0.21261 | 2.42.0.11.22471 | 2.42.0.11.22527 | GUI.zip, Web Service, Database updates. Management Report Deployment |
| 42 | 12 | 2.42.0.12.22982 | 2.42.0.0.21261 | 2.42.0.12.22982 | 2.42.0.12.22911 | GUI.zip, Web Service, Database updates. |
| 42.1 | - | 2.42.1.0.22744(3GB) | 2.42.0.0.21261 | 2.42.1.0.22744 | 2.42.1.0.22736 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 42.1 | 1 | 2.42.1.1.2296(3GB) | 2.42.0.0.21261 | 2.42.1.1.22963 | 2.42.1.1.22864 | GUI.zip, Web Service, DB updates |
| 42.1 | 2 | 2.42.1.2.23007(3GB) | 2.42.0.0.21261 | 2.42.1.2.23007 | 2.42.1.2.23007 | GUI.zip, Web Service, DB updates |
| 42.1 | 3 | 2.42.1.2.23237(3GB) | 2.42.0.0.21261 | 2.42.1.2.23237 | 2.42.1.2.23007 | GUI.zip, Web Services |
| 42.1 | 4 | 2.42.1.4.23348(3GB) | 2.42.0.0.21261 | 2.42.1.4.23348 | 2.42.1.2.23007 | GUI.zip, Web Services |
| 42.1 | 5 | 2.42.1.5.23406(3GB) | 2.42.0.0.21261 | 2.42.1.5.23406 | 2.42.1.2.23007 | GUI.zip, Web Services |
| 43 | - | 2.43.0.0.23715(3GB) | 2.43.0.0.23171 | 2.43.0.0.23715 | 2.43.0.0.23743 | Full Version Release |
| 43 | 1 | 2.43.0.1.23798(3GB) | 2.43.0.0.23171 | 2.43.0.1.23798 | 2.43.0.1.23770 | GUI.zip, Web Service, DB updates |
| 43 | 2 | 2.43.0.2.24017(3GB) | 2.43.0.0.23171 | 2.43.0.2.24017 | 2.43.0.2.24023 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 3 | 2.43.0.3.24298(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24283 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 3.1 | 2.43.0.3.24450(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24421 | GUI.zip and DB updates |
| 43 | 3.2 | 2.43.0.3.24450(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24421a | DB updates |
| 43 | 4 | 2.43.0.4.24447(3GB) | 2.43.0.0.23171 | 2.43.0.4.24447 | 2.43.0.4.24442 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| **43** | **5** | **2.43.0.5.24632(3GB)** | **2.43.0.0.23171** | **2.43.0.5.24632** | **2.43.0.5.24560** | **GUI.zip, Web Service and DB updates** |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 9. Installing

1) Copy and replace the current rRIS…zip file with the rRIS_1.3.43.0.3.24632.zip file provided with this release.
   Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.




If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_43.0..3.24632→ rRIS_1.3.43.0.3. 24632
NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

**NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

2) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService. Be sure to make backup of all files, but especially the rRISServices.exe.config and rRISServices.vshost.exe.config files.
   *rRISService directories include:*
   a) *rRISService*
   b) *CDS rRISService*
   c) *Wedge rRISService*
   d) *DDE rRISService*

   **Restart each service.**

3) Run the B43.0.5.sql file against the eRAD RIS database instance.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

For eRAD RIS
Version 2.0
Build 43
Update 43.0.6

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. New Features ..... 3
   Relevancy Based on Laterality ..... 3
   Help About Window Contact Info Auto Sizing ..... 3
   Insurance Eligibility Co-pay to be Highest Service Type ..... 3
   Hologic Integration ..... 4
2. Changes to Configuration ..... 7
3. Defects Resolved ..... 8
4. Code Stream ..... 10
5. Package Contents ..... 11
6. Intended Audience ..... 13
7. Who is affected ..... 13
8. eRAD RIS Release Version Numbers ..... 14
9. Installing ..... 15
   Hologic Integration Installation ..... 16

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 1. New Features

### Relevancy Based on Laterality

A new system configuration setting titled "**LateralitiesThatAreNotRelevant**" has been added in 43.0.6 to determine relevant studies based on their laterality. The value field is a comma separated list of laterality codes. The default values for this setting are L,R. The user can also specify NULL, which would be used in the case of a study that doesn't have a laterality specified.

The values entered (with the exception of NULL) must match the values in the Laterality lookup table. For example if the values in the Laterality lookup are not L or R, but instead Left and Right, the values entered for the setting would be Left,Right.

### Help About Window Contact Info Auto Sizing

There is a system configuration setting titled "**HelpContactInfo**" that allows for contact information to be displayed on the Help About window. Previous to this build, if the contact information entered was larger than the field allowed, the text would not be displayed. Now the Help About screen will expand (auto size) based on the content entered.

If the data entered it to be displayed on multiple lines the keyboard combination of Ctrl + Enter will create a new row. The field in the

### Insurance Eligibility Co-pay to be Highest Service Type

When multiple procedures are specified prefer the CT service type based on the InsruanceServiceType table's display order. Service types with lower display orders will be preferred.

Please check the InsuranceServiceType lookup table and ensure that Insurance Service Type Code of 62 – MRI/CAT Scan is set to a lower display order number than Insurance Service Type Code of 4 – Diagnostic X-Ray

Example: MRI/CAT Scan has a display order of 1, then Diagnostic X-Ray will have a display order of 2.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

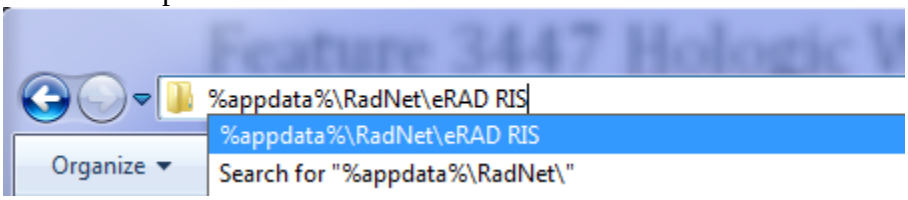
## Hologic Integration

This integration is very similar to PACS integration, but differs in how we configure the RIS to communicate to the image viewer. In the PACS integrations the PACS server settings are configured in the PACS Server lookup table and are associated to an entity within the organization structure. Unless overridden, every workstation in the practice will use that PACS server information to launch images.

## Configuration:

For Hologic integration, each RIS workstation will be set up to use an adjacent Hologic workstation. This means that instead of having one PACS server configured in a lookup table, the settings need to be made on each workstation that will integrate with Hologic. No entry is required for Hologic in the PACS Server lookup.

The settings for the Hologic integration are contained within a file called HologicConfig.xml that is located in the application data directory of eRad RIS. The best way to find where this should go is to open Windows Explorer and type *%appdata% \RadNet\eRAD RIS* into the address text box at the top.




If this file exists then RIS will make Hologic integration available. Since this directory is up a level from where the RIS client is installed the file will not be pushed out automatically nor will it be overwritten. This is to avoid having Hologic integration set up on every workstation even if it is not desired as well as to not overwrite any configuration that has been modified. A template file called HologicConfigTemplate.xml is contained within the RIS package and will be pulled down on an update of the RIS client into the same directory as the RIS executable. This file can be copied to the appropriate directory, renamed to HologicConfig.xml and have its contents changed to the correct settings. The file looks like this:

```
<configuration>
 <configSections>
  <section name="APPLINKER_PROPERTY_DEFINITION" type="a" />
  <section name="DEVICE" type="b" />
 </configSections>
 <APPLINKER_PROPERTY_DEFINITION>
  <NAME>Hologic Bridge</NAME>
  <IP_ADDRESS>ip_of_Hologic_workstation</IP_ADDRESS>
  <HOLOGIC_AS_PORT>5100</HOLOGIC_AS_PORT>
 </APPLINKER_PROPERTY_DEFINITION>
 <DEVICE name="RIS">
  <COMM type="TCPIP">
   <IP_ADDRESS>ip_of_RIS_workstation</IP_ADDRESS>
   <PORT_NUMBER>5102</PORT_NUMBER>
   <Encryption>XOrEncryption</Encryption>
```

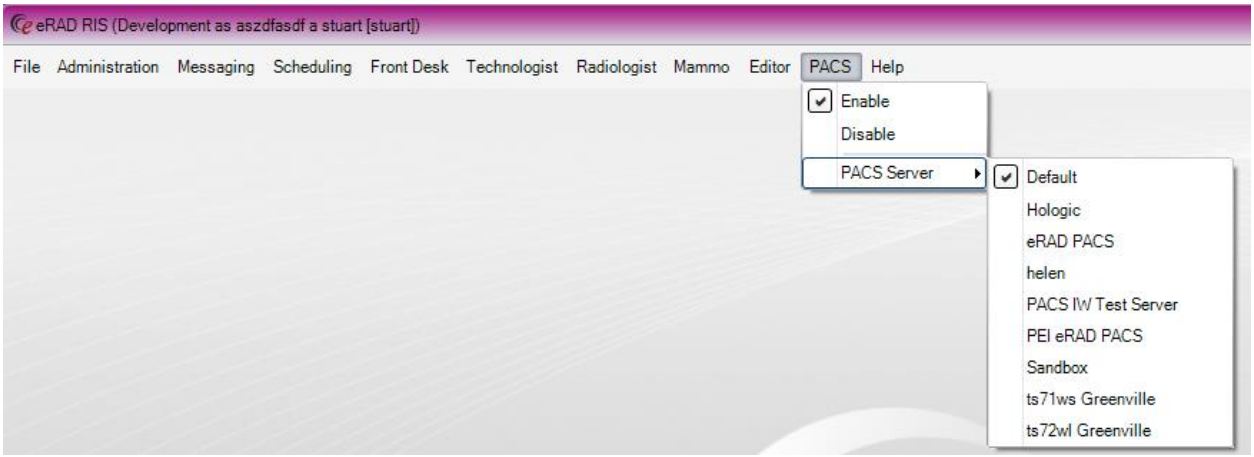
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

```
  </COMM>
 </DEVICE>
</configuration>
```

The important pieces of this are the ip addresses and ports of the Hologic workstation and of the RIS workstation. **Use of localhost or 127.0.0.1 will not work**. Matching changes need to be made on the Hologic workstation to define an incoming connection from a device named *RIS* communicating using that IP and port.

## Activation

Hologic integration does not take effect initially when it is available. This is to allow radiologists who also use another PACS to only use Hologic when they are reading mammography studies. A new submenu has been added to the PACS menu on the main RIS menu bar to temporarily override the PACS integration The PACS Server menu option is controlled by a new access string titled "**PACSIntegration.Override**" that has a default of None. This setting does not persist across restarts of the RIS application. It is populated with items for Default, Hologic (if it is available), and one entry for each of the PACS servers defined in the PACS Server lookup table.




It is recommended that the user close all tabs prior to selecting Hologic or any other item in this menu. This is to avoid confusion between tabs that were opened and associated to an eRad PACS session attempting to close images from Hologic for example. After selecting Hologic from this menu images will be opened and closed from the Hologic workstation defined in the HologicConfig.xml.

## Use

The RIS attempts to log in to the workstation when the user first tries to open images. Upon successfully logging in the images are opened. If login fails the user will be presented with a login dialog. If no connection can be made to AppSync then the login fails and the integration is disabled. It can be re-enabled from the PACS menu.

After the connection has been made and the user logged in, the images will open upon the user opening a reporting window such as the dictation window or the signature window (in this case

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

they need to hit the View Images button). When the user closes the form the images will close on the workstation.
Switching between tabs will keep the images on the workstation in sync. Closing a tab and activating another integrated tab will also cause the appropriate images to be displayed. The View Images menu option from the Patient folder is also supported.

## Limitations

The integration with Hologic is done purely on MRN. This means that the images loaded will be determined by what is on the Hologic workstation. The RIS will receive a success or failure message in response to an Open call but has no way to determine what studies actually opened. This means that the Radiologist's Patient Folder will not show any studies other than the current as loaded. Even the current one is only assumed to have been loaded. There are also no relevant priors requested so the Hologic will be responsible for loading them.
In theory Hologic SecurView can provide notifications to the RIS about actions taken by the user directly within it. During testing with an actual workstation this did not work, possibly due to misconfiguration. Testing with the AppSync simulator verified that the RIS responds to these messages with a NotSupported response, which seems appropriate as it does nothing with the information.
The PACSIntegration.log can be used to monitor the interactions between RIS and Hologic.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 2. Changes to Configuration

| Setting Placeholder | Setting | Default | Purpose / Controls Access to |
|---|---|---|---|
| SystemConfig | LateralitiesThatAreNotRelevant | L,R | Comma separated list of laterality codes defaulted to: L,R the user can also specify NULL which would be when there is no laterality specified. In the case of L,R,NULL a left arm would only match with a Left and Bilateral and would not match if the other study was Right or an unspecified laterality. |
| AccessString and UserGroup Permissions | PACSIntegration.Override | None | Controls access to the Menu option of PACS Server under the PACS menu. Allows the user to temporarily override the PACS Server from which to launch images. |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 3. Defects Resolved

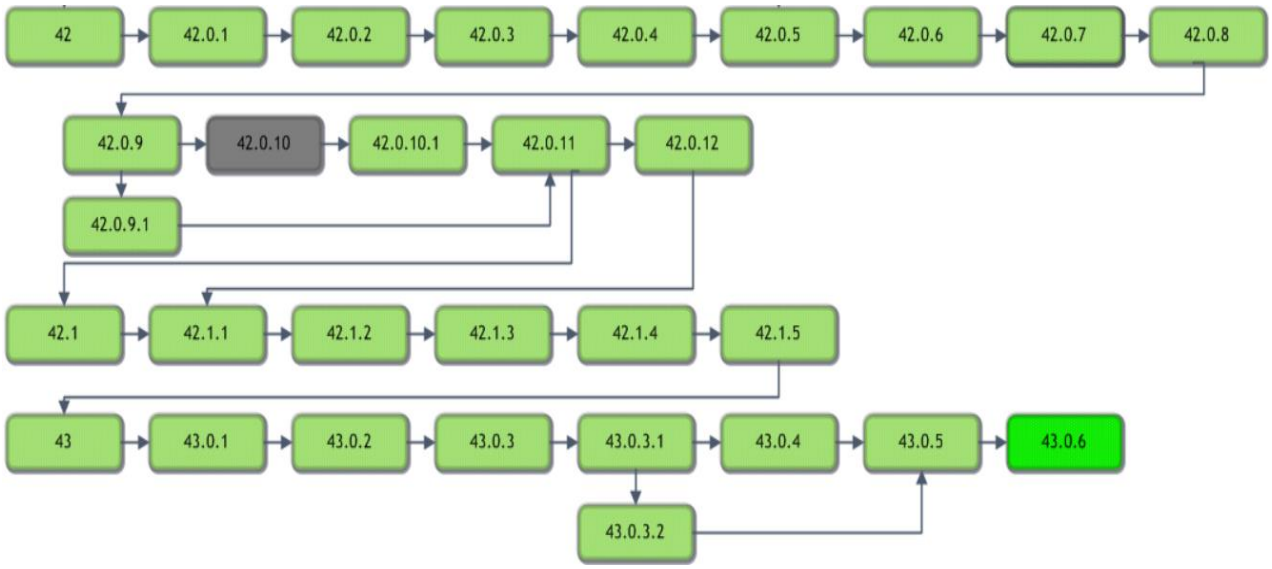
| Redmine # | Tracker | Subject | Priority |
|---|---|---|---|
| 7543 | Bug | Insurance Eligibility - c_study_item_certification.cost column is a number vs smallmoney | Urgent |
| 7515 | Bug | Insurance eligibility - causes an unexpected error when you try and open an order that has missing information. | Urgent |
| 3447 | Feature | RadNet - Hologix integration | Urgent |
| 7534 | Bug | Insurance Eligibility Pilot - Overriding an exam in the IVT screen does not remove it from the WL. | High |
| 7510 | Bug | Insurance Eligibility Pilot - Patient with insurance should never be charged for specific CPT | High |
| 7504 | Bug | Ins Eligibility - Multiple Insurance carriers - when verification completes at different times the eligibility shield is not refreshing, hour glass (in progress) icon stays on the eligibility shield for the carrier(s) that didn't completed last. | High |
| 7491 | Bug | booking locks not released when opening reschedule | High |
| 7251 | Bug | Cannot reschedule patients that do not have a weight on their patient record | High |
| 7547 | Bug | Insurance Eligibility Pilot - For multiple Procedure Code Studies based the insurance check off of the most expensive service type. | Normal |
| 7544 | Bug | Insurance Eligibility Pilot - Workflow can cause errors when trying to validate insurance | Normal |
| 7525 | Bug | Insurance Eligibility Pilot - failing to run eligibility against a study that was previously cancelled (in IVT) | Normal |
| 7513 | Bug | MU Make Patient Educational resources available upon the patient arrival process | Normal |
| 7511 | Bug | Insurance Eligibility Pilot - When we are missing information to perform the eligibility check we should show the red “!” icon | Normal |
| 7509 | Bug | Insurance Eligibility Pilot - Retry logic is building up transactions | Normal |
| 7502 | Bug | Insurance Eligibility Pilot - IVT WL issue with Precert status 'Pending' | Normal |
| 7501 | Bug | Insurance Eligibility Pilot - Auto check on day of service isn't happening. | Normal |
| 7482 | Bug | Availability Template - delete and create a new date range can cause the default time range to copy and move to the new date range. | Normal |
| 7471 | Bug | CD Burning - PACS cleanup isn't executed if user exits CD Burning via the windows title bar | Normal |
| 7466 | Bug | Relevancy - do not mark as relevant if the laterality is different (Left vs Right) | Normal |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

| | | | |
|---|---|---|---|
| 7443 | Bug | Eligibility Flag displays in WL after rescheduling to a site that does not have Eligibility Automation enabled | Normal |
| 7402 | Bug | Error retrieving WL error when trying to use Equals filter on the columns that contain the new LastName, FirstName MI (userName) format | Normal |
| 7375 | Feature | Auto size the Contact block on the Help About screen for eRad Support & Sales contact info | Normal |
| 7260 | Bug | The INSERT statement conflicted with the Foreign key constraint "fk_c_scan_document_association_c_study" when rescheduling | Normal |
| 6975 | Bug | Unknown referring reconciliation breaks queued wedge messages | Normal |
| 6614 | Bug | Retrying multiple completed print jobs uses the printer description instead of code for the destination printer of the new jobs. | Normal |
| 7387 | Bug | MTG Reports - Eligibility Failed Requests report - may become quite large | Low |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 4. Code Stream




**Legend:**

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 5. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains:
   - rRIS_1.3.43.0.6.24914.zip

2) RIS_Service_Updates contains:

ABCpdf.dll
ABCpdf9-32.dll
ABCpdf9-64.dll
Antlr3.Runtime.dll
CDSJobManager.dll
CDSJobManager.pdb
CdsLib.dll
CdsLib.xml
CdsLib.XmlSerializers.dll
CommonLib.dll
CommonLib.pdb
contents.txt
DDEngine.dll
DDEngine.pdb
DiffPlex.dll
Interop.ANYMODALCAPTURECTRLLib.dll
Interop.FAXCOMEXLib.dll
Microsoft.Practices.EnterpriseLibrary.Caching.dll
Microsoft.Practices.EnterpriseLibrary.Caching.pdb
Microsoft.Practices.EnterpriseLibrary.Common.dll
Microsoft.Practices.EnterpriseLibrary.Common.pdb
Microsoft.Practices.EnterpriseLibrary.Logging.dll
Microsoft.Practices.EnterpriseLibrary.Logging.pdb
Microsoft.Practices.ServiceLocation.dll
Microsoft.Practices.ServiceLocation.pdb
Microsoft.Practices.Unity.dll
Microsoft.Practices.Unity.Interception.dll
Microsoft.Practices.Unity.Interception.pdb
Microsoft.Practices.Unity.pdb
Microsoft.ReportViewer.Common.dll
Microsoft.ReportViewer.WinForms.dll
Microsoft.ReportViewer.WinForms.xml
Newtonsoft.Json.dll
Newtonsoft.Json.xml
NLog.dll
O2S.Components.PDFRender4NET.dll
PDFToImages.exe
Radar.Common.dll
Radar.Common.pdb
Radar.Common.WebClient.dll
Radar.Common.WebClient.pdb
Radar.DirectMessaging.Client.dll
Radar.DirectMessaging.Client.pdb
Radar.DirectMessaging.Model.dll
Radar.DirectMessaging.Model.pdb
rRISServices.exe
rRISServices.pdb
rRISServicesx64.exe
ScheduledTaskManager.dll
ScheduledTaskManager.pdb
ServicesConfigWizard.exe
ServicesConfigWizard.pdb
SignatureApprovalService.exe
SignatureApprovalService.pdb
System.Net.Http.dll
System.Net.Http.Formatting.dll
System.Net.Http.xml
System.Web.Http.dll
System.Web.Http.SelfHost.dll
System.Web.Http.SelfHost.xml
System.Web.Http.WebHost.dll
System.Web.Http.WebHost.xml
System.Web.Http.xml
System.Web.Mvc.dll
System.Web.Mvc.xml
System.Web.Optimization.dll
System.Web.Razor.dll
System.Web.Razor.xml
System.Web.WebPages.Deployment.dll
System.Web.WebPages.Deployment.xml
System.Web.WebPages.dll
System.Web.WebPages.Razor.dll
System.Web.WebPages.Razor.xml
System.Web.WebPages.xml
Tourreau.Gilles.FaxDotNet.dll
Tourreau.Gilles.FaxDotNet.pdb
Tourreau.Gilles.FaxDotNet.xml
WCFService.dll
WCFService.pdb
WCFServiceTests.dll
WCFServiceTests.pdb
WebApi.dll
WebApi.pdb
WebGrease.dll
Wedge.exe
Wedge.pdb

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

The rRIS_Service_Updates also contains to subfolders:

A. Deploy folder contains
   a. Applicationsettings.config
   b. ReleaseVersion-connectionstrings.config
   c. rRISServices.exe.config
   d. services.config

B. XSL subfolder contains:
   a. Subfolder titled "Stylesheets" which contains:
      a. CDAToHTMLCompleteReport.xslt
      b. CDAToHTMLCompleteReportDark.xslt
      c. CDAToHTMLImpressionSection.xslt
      d. CDATorRIS.xslt
      e. CDAToTxt.xslt
      f. DocumentModelReport.xslt
      g. DocumentModelReportAsXml.xslt

   b. CDA Subfolder contains
      a. C-CDA.xsl
      b. eRadStylesheet.xsl
      c. generalTemplates.xsl
      d. header.xsl
      e. QRDA.xsl
      f. QrdaLevel3_Cypress2.4.0.xsl
      g. QrdaLevel3_ViewHtml.xsl
      h. sectionAdministeredMedications.xsl
      i. sectionAllergies.xsl
      j. sectionEncounters.xsl
      k. sectionFindings.xsl
      l. sectionFuncCogStatus.xsl
      m. sectionImmunizations.xsl
      n. sectionInstructions.xsl
      o. sectionMedications.xsl
      p. sectionPlanOfCare.xsl
      q. sectionProblemList.xsl
      r. sectionProcedures.xsl
      s. sectionQRDAMeasures.xsl
      t. sectionQRDAPatientData.xsl
      u. sectionQRDAReporting.xsl
      v. sectionReasonForVisit.xsl
      w. sectionResults.xsl
      x. sectionSocialHistory.xsl
      y. sectionVitalSigns.xsl

3) SQL Folder contains:
   - B43.0.6.sql

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 6. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

## 7. Who is affected

Build 43 installs. Server updates are not cumulative. This server update must be applied to 43.0.5

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

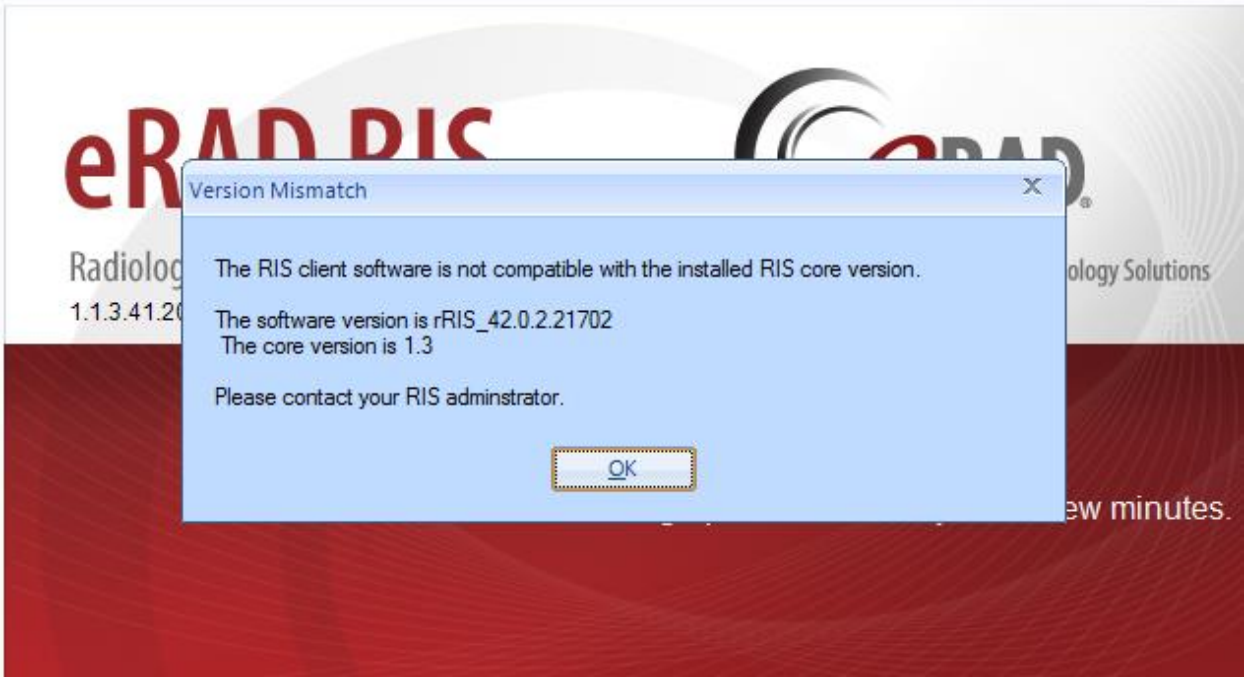
## 8. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 42 | - | 2.42.0.0.21261(3GB) | 2.42.0.0.21261 | 2.42.0.0.21261 | 2.42.0.0.21187 | Full version release |
| 42 | 1 | 2.42.0.1.21597 | 2.42.0.0.21261 | 2.42.0.1.21597 | 2.42.0.0.21187 | GUI and Web Service updates |
| 42 | 2 | 2.42.0.2.21702 | 2.42.0.0.21261 | 2.42.0.2.21702 | 2.42.0.0.21187 | GUI and Web Service updates |
| 42 | 3 | 2.42.0.2.21806 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.0.21187 | GUI and Web Service updates |
| 42 | 4 | 2.42.0.2.21862 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.4.21870 | GUI and Database updates |
| 42 | 5 | 2.42.0.5.21924 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.4.21870 | GUI |
| 42 | 6 | 2.42.0.5.22009 | 2.42.0.0.21261 | 2.42.0.5.22009 | 2.42.0.4.21870 | GUI and Web Service updates |
| 42 | 7 | 2.42.0.7.22090 | 2.42.0.0.21261 | 2.42.0.6.22009 | 2.42.0.4.21870 | GUI.zip updates |
| 42 | 8 | 2.42.0.7.22090 | 2.42.0.7.22150 | 2.42.0.6.22009 | 2.42.0.4.21870 | Web Service updates |
| 42 | 9 | 2.42.0.9.22203 | 2.42.0.0.21261 | 2.42.0.9.22203 | 2.42.0.4.21870 | GUI and Web Service updates |
| 42 | 9.1 | 2.42.0.9.22203 | 2.42.0.0.21261 | 2.42.0.9.22203 | 2.42.0.4.21870 | Web Service updates |
| 42 | 10 | 2.42.0.10.22232 | 2.42.0.0.21261 | 2.42.0.9.22203 | 2.42.0.4.21870 | GUI.zip |
| 42 | 10.1 | 2.42.0.10.22420 | 2.42.0.0.21261 | 2.42.0.9.22203 | 2.42.0.4.21870 | GUI.zip updates |
| 42 | 11 | 2.42.0.11.22495a | 2.42.0.0.21261 | 2.42.0.11.22471 | 2.42.0.11.22527 | GUI.zip, Web Service, Database updates. Management Report Deployment |
| 42 | 12 | 2.42.0.12.22982 | 2.42.0.0.21261 | 2.42.0.12.22982 | 2.42.0.12.22911 | GUI.zip, Web Service, Database updates. |
| 42.1 | - | 2.42.1.0.22744(3GB) | 2.42.0.0.21261 | 2.42.1.0.22744 | 2.42.1.0.22736 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 42.1 | 1 | 2.42.1.1.2296(3GB) | 2.42.0.0.21261 | 2.42.1.1.22963 | 2.42.1.1.22864 | GUI.zip, Web Service, DB updates |
| 42.1 | 2 | 2.42.1.2.23007(3GB) | 2.42.0.0.21261 | 2.42.1.2.23007 | 2.42.1.2.23007 | GUI.zip, Web Service, DB updates |
| 42.1 | 3 | 2.42.1.2.23237(3GB) | 2.42.0.0.21261 | 2.42.1.2.23237 | 2.42.1.2.23007 | GUI.zip, Web Services |
| 42.1 | 4 | 2.42.1.4.23348(3GB) | 2.42.0.0.21261 | 2.42.1.4.23348 | 2.42.1.2.23007 | GUI.zip, Web Services |
| 42.1 | 5 | 2.42.1.5.23406(3GB) | 2.42.0.0.21261 | 2.42.1.5.23406 | 2.42.1.2.23007 | GUI.zip, Web Services |
| 43 | - | 2.43.0.0.23715(3GB) | 2.43.0.0.23171 | 2.43.0.0.23715 | 2.43.0.0.23743 | Full Version Release |
| 43 | 1 | 2.43.0.1.23798(3GB) | 2.43.0.0.23171 | 2.43.0.1.23798 | 2.43.0.1.23770 | GUI.zip, Web Service, DB updates |
| 43 | 2 | 2.43.0.2.24017(3GB) | 2.43.0.0.23171 | 2.43.0.2.24017 | 2.43.0.2.24023 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 3 | 2.43.0.3.24298(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24283 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 3.1 | 2.43.0.3.24450(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24421 | GUI.zip and DB updates |
| 43 | 3.2 | 2.43.0.3.24450(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24421a | DB updates |
| 43 | 4 | 2.43.0.4.24447(3GB) | 2.43.0.0.23171 | 2.43.0.4.24447 | 2.43.0.4.24442 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 5 | 2.43.0.5.24632(3GB) | 2.43.0.0.23171 | 2.43.0.5.24632 | 2.43.0.5.24560 | GUI.zip, Web Service and DB updates |
| **43** | **6** | **2.43.0.6.24914(3GB)** | **2.43.0.0.23171** | **2.43.0.6.24914** | **2.43.0.6.24914** | **GUI.zip, Web Service and DB updates** |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 9. Installing

1) Copy and replace the current rRIS…zip file with the rRIS_1.3.43.0.6.24914.zip file provided with this release.
   Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.




If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_43.0..6.24914→ rRIS_1.3.43.0.6. 24914
NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

**NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

2) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService. Be sure to make backup of all files, but especially the rRISServices.exe.config and rRISServices.vshost.exe.config files.
   *rRISService directories include:*
   a) *rRISService*
   b) *CDS rRISService*
   c) *Wedge rRISService*
   d) *DDE rRISService*

   **Restart each service.**

3) Run the B43.0.6.sql file against the eRAD RIS database instance.

## Hologic Integration Installation

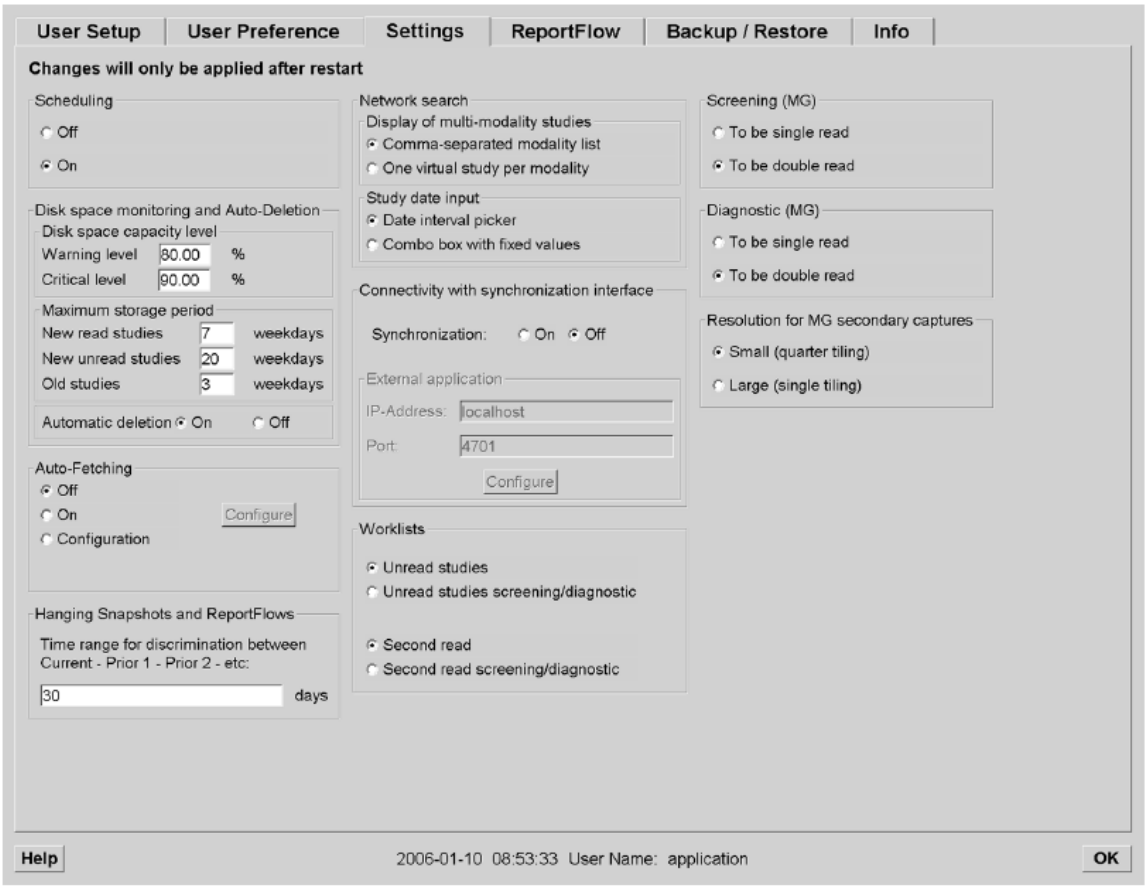
a) Install/upgrade RIS installation to current build

b) Copy HologicConfigTemplate.xml from the RIS GIU.zip folder to *%appdata%\RadNet\eRAD RIS* and rename it HologicConfig.xml.

c) Change the configuration of the IP addresses in HologicConfig.xml to the IPs of the RIS workstation and the Hologic workstation. The port settings should not have to change unless configuration on the Hologic workstation conflicts with them.
   Configure the Hologic workstation to communicate with the RIS device as defined in the config file. This will require logging in to an admin account on the Hologic side and updating the synchronization interface settings. This is accessed via the Configure button in the middle of the screen shown below.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

Click the **Settings** tab to display the window.




d) Restart SecurView for the changes to take effect.

e) Launch RIS.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

For eRAD RIS
Version 2.0
Build 43
Update 43.0.6.1

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Defects Resolved ..... 3
2. Code Stream ..... 4
3. Package Contents ..... 5
4. Intended Audience ..... 7
5. Who is affected ..... 7
6. eRAD RIS Release Version Numbers ..... 8
7. Installing ..... 9

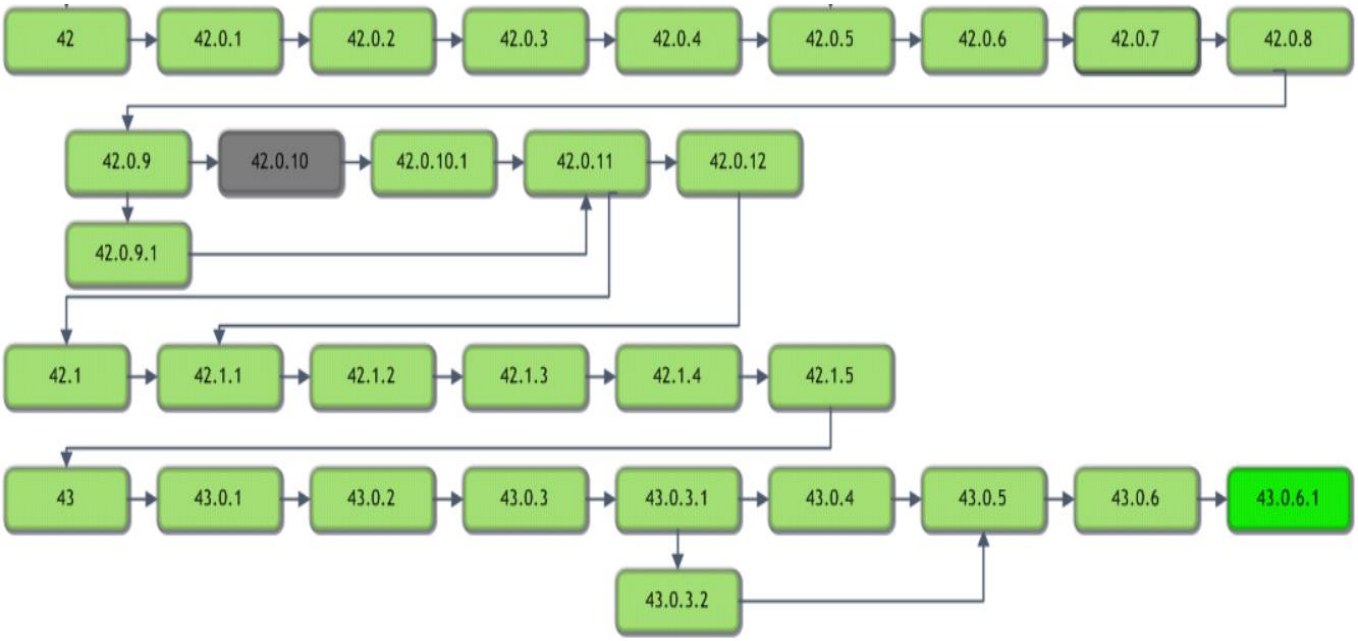
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 1. Defects Resolved

| Redmine # | Tracker | Subject | Priority |
|---|---|---|---|
| 7581 | Bug | Complex WL filters not working, such as : !Ordered | Urgent |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 2. Code Stream




**Legend:**

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 3. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains:
   - rRIS_1.3.43.0.6.1.24937.zip

2) RIS_Service_Updates contains:

ABCpdf.dll
ABCpdf9-32.dll
ABCpdf9-64.dll
Antlr3.Runtime.dll
CDSJobManager.dll
CDSJobManager.pdb
CdsLib.dll
CdsLib.xml
CdsLib.XmlSerializers.dll
CommonLib.dll
CommonLib.pdb
contents.txt
DDEngine.dll
DDEngine.pdb
DiffPlex.dll
Interop.ANYMODALCAPTURECTRLLib.dll
Interop.FAXCOMEXLib.dll
Microsoft.Practices.EnterpriseLibrary.Caching.dll
Microsoft.Practices.EnterpriseLibrary.Caching.pdb
Microsoft.Practices.EnterpriseLibrary.Common.dll
Microsoft.Practices.EnterpriseLibrary.Common.pdb
Microsoft.Practices.EnterpriseLibrary.Logging.dll
Microsoft.Practices.EnterpriseLibrary.Logging.pdb
Microsoft.Practices.ServiceLocation.dll
Microsoft.Practices.ServiceLocation.pdb
Microsoft.Practices.Unity.dll
Microsoft.Practices.Unity.Interception.dll
Microsoft.Practices.Unity.Interception.pdb
Microsoft.Practices.Unity.pdb
Microsoft.ReportViewer.Common.dll
Microsoft.ReportViewer.WinForms.dll
Microsoft.ReportViewer.WinForms.xml
Newtonsoft.Json.dll
Newtonsoft.Json.xml
NLog.dll
O2S.Components.PDFRender4NET.dll
PDFToImages.exe
Radar.Common.dll
Radar.Common.pdb
Radar.Common.WebClient.dll
Radar.Common.WebClient.pdb
Radar.DirectMessaging.Client.dll
Radar.DirectMessaging.Client.pdb
Radar.DirectMessaging.Model.dll
Radar.DirectMessaging.Model.pdb
rRISServices.exe
rRISServices.pdb
rRISServicesx64.exe
ScheduledTaskManager.dll
ScheduledTaskManager.pdb
ServicesConfigWizard.exe
ServicesConfigWizard.pdb
SignatureApprovalService.exe
SignatureApprovalService.pdb
System.Net.Http.dll
System.Net.Http.Formatting.dll
System.Net.Http.xml
System.Web.Http.dll
System.Web.Http.SelfHost.dll
System.Web.Http.SelfHost.xml
System.Web.Http.WebHost.dll
System.Web.Http.WebHost.xml
System.Web.Http.xml
System.Web.Mvc.dll
System.Web.Mvc.xml
System.Web.Optimization.dll
System.Web.Razor.dll
System.Web.Razor.xml
System.Web.WebPages.Deployment.dll
System.Web.WebPages.Deployment.xml
System.Web.WebPages.dll
System.Web.WebPages.Razor.dll
System.Web.WebPages.Razor.xml
System.Web.WebPages.xml
Tourreau.Gilles.FaxDotNet.dll
Tourreau.Gilles.FaxDotNet.pdb
Tourreau.Gilles.FaxDotNet.xml
WCFService.dll
WCFService.pdb
WCFServiceTests.dll
WCFServiceTests.pdb
WebApi.dll
WebApi.pdb
WebGrease.dll
Wedge.exe
Wedge.pdb

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

The rRIS_Service_Updates also contains to subfolders:

A. Deploy folder contains
   a. Applicationsettings.config
   b. ReleaseVersion-connectionstrings.config
   c. rRISServices.exe.config
   d. services.config

B. XSL subfolder contains:
   a. Subfolder titled "Stylesheets" which contains:
      a. CDAToHTMLCompleteReport.xslt
      b. CDAToHTMLCompleteReportDark.xslt
      c. CDAToHTMLImpressionSection.xslt
      d. CDATorRIS.xslt
      e. CDAToTxt.xslt
      f. DocumentModelReport.xslt
      g. DocumentModelReportAsXml.xslt

   b. CDA Subfolder contains
      a. C-CDA.xsl
      b. eRadStylesheet.xsl
      c. generalTemplates.xsl
      d. header.xsl
      e. QRDA.xsl
      f. QrdaLevel3_Cypress2.4.0.xsl
      g. QrdaLevel3_ViewHtml.xsl
      h. sectionAdministeredMedications.xsl
      i. sectionAllergies.xsl
      j. sectionEncounters.xsl
      k. sectionFindings.xsl
      l. sectionFuncCogStatus.xsl
      m. sectionImmunizations.xsl
      n. sectionInstructions.xsl
      o. sectionMedications.xsl
      p. sectionPlanOfCare.xsl
      q. sectionProblemList.xsl
      r. sectionProcedures.xsl
      s. sectionQRDAMeasures.xsl
      t. sectionQRDAPatientData.xsl
      u. sectionQRDAReporting.xsl
      v. sectionReasonForVisit.xsl
      w. sectionResults.xsl
      x. sectionSocialHistory.xsl
      y. sectionVitalSigns.xsl

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 4. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

## 5. Who is affected

Build 43 installs. Server updates are not cumulative. This server update must be applied to 43.0.6

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

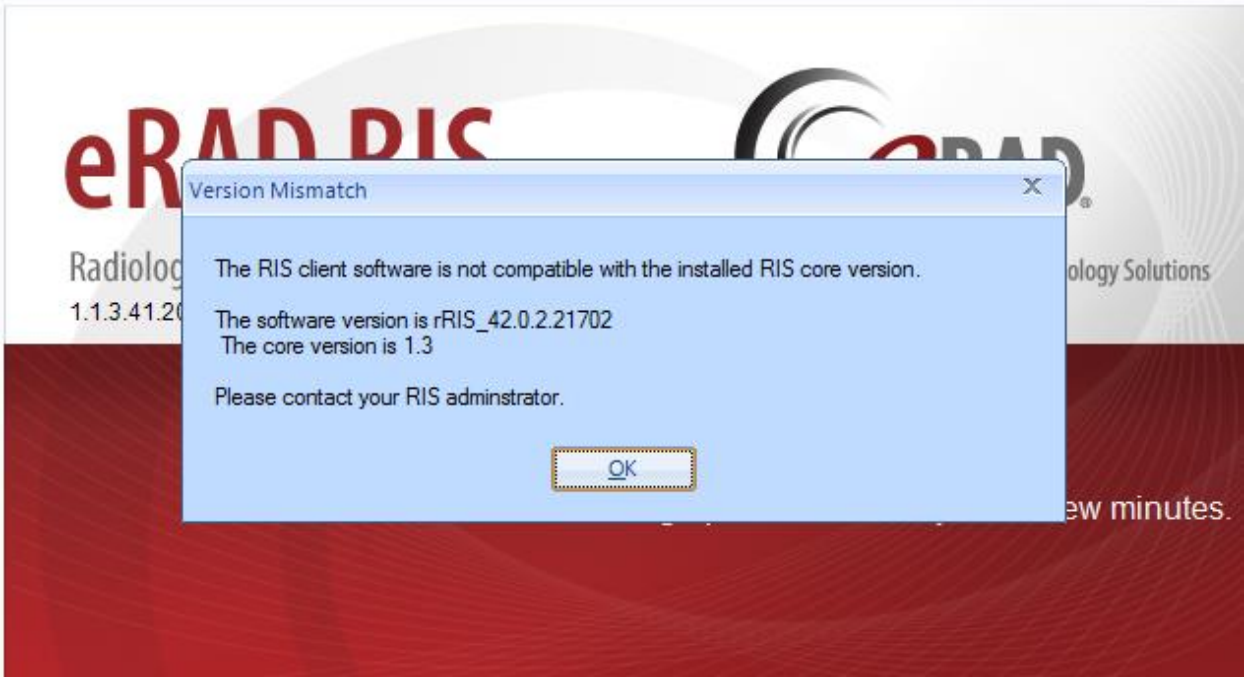
## 6. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 42 | - | 2.42.0.0.21261(3GB) | 2.42.0.0.21261 | 2.42.0.0.21261 | 2.42.0.0.21187 | Full version release |
| 42 | 1 | 2.42.0.1.21597 | 2.42.0.0.21261 | 2.42.0.1.21597 | 2.42.0.0.21187 | GUI and Web Service updates |
| 42 | 2 | 2.42.0.2.21702 | 2.42.0.0.21261 | 2.42.0.2.21702 | 2.42.0.0.21187 | GUI and Web Service updates |
| 42 | 3 | 2.42.0.2.21806 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.0.21187 | GUI and Web Service updates |
| 42 | 4 | 2.42.0.2.21862 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.4.21870 | GUI and Database updates |
| 42 | 5 | 2.42.0.5.21924 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.4.21870 | GUI |
| 42 | 6 | 2.42.0.5.22009 | 2.42.0.0.21261 | 2.42.0.5.22009 | 2.42.0.4.21870 | GUI and Web Service updates |
| 42 | 7 | 2.42.0.7.22090 | 2.42.0.0.21261 | 2.42.0.6.22009 | 2.42.0.4.21870 | GUI.zip updates |
| 42 | 8 | 2.42.0.7.22090 | 2.42.0.7.22150 | 2.42.0.6.22009 | 2.42.0.4.21870 | Web Service updates |
| 42 | 9 | 2.42.0.9.22203 | 2.42.0.0.21261 | 2.42.0.9.22203 | 2.42.0.4.21870 | GUI and Web Service updates |
| 42 | 9.1 | 2.42.0.9.22203 | 2.42.0.0.21261 | 2.42.0.9.22203 | 2.42.0.4.21870 | Web Service updates |
| 42 | 10 | 2.42.0.10.22232 | 2.42.0.0.21261 | 2.42.0.9.22203 | 2.42.0.4.21870 | GUI.zip |
| 42 | 10.1 | 2.42.0.10.22420 | 2.42.0.0.21261 | 2.42.0.9.22203 | 2.42.0.4.21870 | GUI.zip updates |
| 42 | 11 | 2.42.0.11.22495a | 2.42.0.0.21261 | 2.42.0.11.22471 | 2.42.0.11.22527 | GUI.zip, Web Service, Database updates. Management Report Deployment |
| 42 | 12 | 2.42.0.12.22982 | 2.42.0.0.21261 | 2.42.0.12.22982 | 2.42.0.12.22911 | GUI.zip, Web Service, Database updates. |
| 42.1 | - | 2.42.1.0.22744(3GB) | 2.42.0.0.21261 | 2.42.1.0.22744 | 2.42.1.0.22736 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 42.1 | 1 | 2.42.1.1.2296(3GB) | 2.42.0.0.21261 | 2.42.1.1.22963 | 2.42.1.1.22864 | GUI.zip, Web Service, DB updates |
| 42.1 | 2 | 2.42.1.2.23007(3GB) | 2.42.0.0.21261 | 2.42.1.2.23007 | 2.42.1.2.23007 | GUI.zip, Web Service, DB updates |
| 42.1 | 3 | 2.42.1.2.23237(3GB) | 2.42.0.0.21261 | 2.42.1.2.23237 | 2.42.1.2.23007 | GUI.zip, Web Services |
| 42.1 | 4 | 2.42.1.4.23348(3GB) | 2.42.0.0.21261 | 2.42.1.4.23348 | 2.42.1.2.23007 | GUI.zip, Web Services |
| 42.1 | 5 | 2.42.1.5.23406(3GB) | 2.42.0.0.21261 | 2.42.1.5.23406 | 2.42.1.2.23007 | GUI.zip, Web Services |
| 43 | - | 2.43.0.0.23715(3GB) | 2.43.0.0.23171 | 2.43.0.0.23715 | 2.43.0.0.23743 | Full Version Release |
| 43 | 1 | 2.43.0.1.23798(3GB) | 2.43.0.0.23171 | 2.43.0.1.23798 | 2.43.0.1.23770 | GUI.zip, Web Service, DB updates |
| 43 | 2 | 2.43.0.2.24017(3GB) | 2.43.0.0.23171 | 2.43.0.2.24017 | 2.43.0.2.24023 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 3 | 2.43.0.3.24298(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24283 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 3.1 | 2.43.0.3.24450(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24421 | GUI.zip and DB updates |
| 43 | 3.2 | 2.43.0.3.24450(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24421a | DB updates |
| 43 | 4 | 2.43.0.4.24447(3GB) | 2.43.0.0.23171 | 2.43.0.4.24447 | 2.43.0.4.24442 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 5 | 2.43.0.5.24632(3GB) | 2.43.0.0.23171 | 2.43.0.5.24632 | 2.43.0.5.24560 | GUI.zip, Web Service and DB updates |
| 43 | 6 | 2.43.0.6.24914(3GB) | 2.43.0.0.23171 | 2.43.0.6.24914 | 2.43.0.6.24914 | GUI.zip, Web Service and DB updates |
| **43** | **6.1** | **2.43.0.6.24937(3GB)** | **2.43.0.0.23171** | **2.43.0.6.24937** | **2.43.0.6.24914** | **GUI.zip, Web Service** |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 7. Installing

1) Copy and replace the current rRIS…zip file with the rRIS_1.3.43.0.6.1.24937.zip file provided with this release.
   Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.




If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_43.0.6.1.24937→ rRIS_1.3.43.0.6.1.24937
NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

**NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

2) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService. Be sure to make backup of all files, but especially the rRISServices.exe.config and rRISServices.vshost.exe.config files.
   *rRISService directories include:*
   a) *rRISService*
   b) *CDS rRISService*
   c) *Wedge rRISService*
   d) *DDE rRISService*

   **Restart each service.**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

For eRAD RIS
Version 2.0
Build 43
Update 43.0.6.2

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Defects Resolved ..... 3
2. Code Stream ..... 4
3. Package Contents ..... 5
4. Intended Audience ..... 7
5. Who is affected ..... 7
6. eRAD RIS Release Version Numbers ..... 8
7. Installing ..... 9

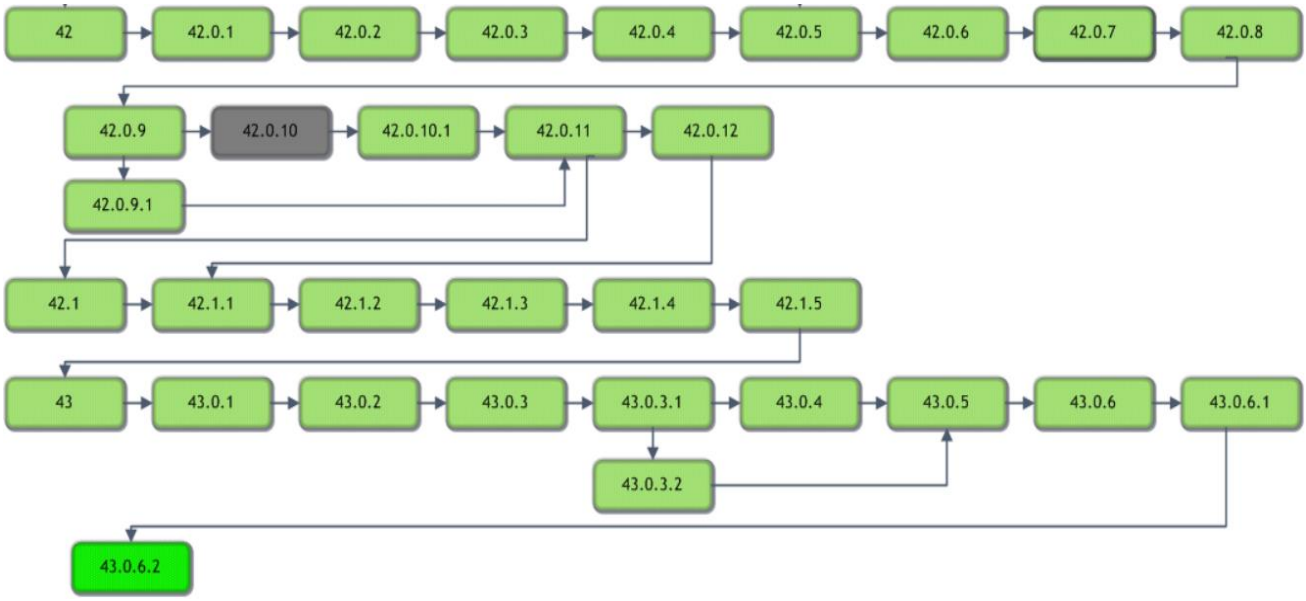
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 1. Defects Resolved

| Redmine # | Tracker | Subject | Priority |
|---|---|---|---|
| 7581 | Bug | Complex WL filters not working, such as : !Ordered | Urgent |
| 7485 | Bug | Patient Search fails with "An unexpected error occurred: Sequence contains no elements" | Urgent |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 2. Code Stream




**Legend:**

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 3. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains:
   - rRIS_1.3.43.0.6.2.24970.zip

2) RIS_Service_Updates contains:

ABCpdf.dll
ABCpdf9-32.dll
ABCpdf9-64.dll
Antlr3.Runtime.dll
CDSJobManager.dll
CDSJobManager.pdb
CdsLib.dll
CdsLib.xml
CdsLib.XmlSerializers.dll
CommonLib.dll
CommonLib.pdb
contents.txt
DDEngine.dll
DDEngine.pdb
DiffPlex.dll
Interop.ANYMODALCAPTURECTRLLib.dll
Interop.FAXCOMEXLib.dll
Microsoft.Practices.EnterpriseLibrary.Caching.dll
Microsoft.Practices.EnterpriseLibrary.Caching.pdb
Microsoft.Practices.EnterpriseLibrary.Common.dll
Microsoft.Practices.EnterpriseLibrary.Common.pdb
Microsoft.Practices.EnterpriseLibrary.Logging.dll
Microsoft.Practices.EnterpriseLibrary.Logging.pdb
Microsoft.Practices.ServiceLocation.dll
Microsoft.Practices.ServiceLocation.pdb
Microsoft.Practices.Unity.dll
Microsoft.Practices.Unity.Interception.dll
Microsoft.Practices.Unity.Interception.pdb
Microsoft.Practices.Unity.pdb
Microsoft.ReportViewer.Common.dll
Microsoft.ReportViewer.WinForms.dll
Microsoft.ReportViewer.WinForms.xml
Newtonsoft.Json.dll
Newtonsoft.Json.xml
NLog.dll
O2S.Components.PDFRender4NET.dll
PDFToImages.exe
Radar.Common.dll
Radar.Common.pdb
Radar.Common.WebClient.dll
Radar.Common.WebClient.pdb
Radar.DirectMessaging.Client.dll
Radar.DirectMessaging.Client.pdb
Radar.DirectMessaging.Model.dll
Radar.DirectMessaging.Model.pdb
rRISServices.exe
rRISServices.pdb
rRISServicesx64.exe
ScheduledTaskManager.dll
ScheduledTaskManager.pdb
ServicesConfigWizard.exe
ServicesConfigWizard.pdb
SignatureApprovalService.exe
SignatureApprovalService.pdb
System.Net.Http.dll
System.Net.Http.Formatting.dll
System.Net.Http.xml
System.Web.Http.dll
System.Web.Http.SelfHost.dll
System.Web.Http.SelfHost.xml
System.Web.Http.WebHost.dll
System.Web.Http.WebHost.xml
System.Web.Http.xml
System.Web.Mvc.dll
System.Web.Mvc.xml
System.Web.Optimization.dll
System.Web.Razor.dll
System.Web.Razor.xml
System.Web.WebPages.Deployment.dll
System.Web.WebPages.Deployment.xml
System.Web.WebPages.dll
System.Web.WebPages.Razor.dll
System.Web.WebPages.Razor.xml
System.Web.WebPages.xml
Tourreau.Gilles.FaxDotNet.dll
Tourreau.Gilles.FaxDotNet.pdb
Tourreau.Gilles.FaxDotNet.xml
WCFService.dll
WCFService.pdb
WCFServiceTests.dll
WCFServiceTests.pdb
WebApi.dll
WebApi.pdb
WebGrease.dll
Wedge.exe
Wedge.pdb

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

The rRIS_Service_Updates also contains to subfolders:

A. Deploy folder contains
   a. Applicationsettings.config
   b. ReleaseVersion-connectionstrings.config
   c. rRISServices.exe.config
   d. services.config

B. XSL subfolder contains:
   a. Subfolder titled "Stylesheets" which contains:
      a. CDAToHTMLCompleteReport.xslt
      b. CDAToHTMLCompleteReportDark.xslt
      c. CDAToHTMLImpressionSection.xslt
      d. CDATorRIS.xslt
      e. CDAToTxt.xslt
      f. DocumentModelReport.xslt
      g. DocumentModelReportAsXml.xslt

   b. CDA Subfolder contains
      a. C-CDA.xsl
      b. eRadStylesheet.xsl
      c. generalTemplates.xsl
      d. header.xsl
      e. QRDA.xsl
      f. QrdaLevel3_Cypress2.4.0.xsl
      g. QrdaLevel3_ViewHtml.xsl
      h. sectionAdministeredMedications.xsl
      i. sectionAllergies.xsl
      j. sectionEncounters.xsl
      k. sectionFindings.xsl
      l. sectionFuncCogStatus.xsl
      m. sectionImmunizations.xsl
      n. sectionInstructions.xsl
      o. sectionMedications.xsl
      p. sectionPlanOfCare.xsl
      q. sectionProblemList.xsl
      r. sectionProcedures.xsl
      s. sectionQRDAMeasures.xsl
      t. sectionQRDAPatientData.xsl
      u. sectionQRDAReporting.xsl
      v. sectionReasonForVisit.xsl
      w. sectionResults.xsl
      x. sectionSocialHistory.xsl
      y. sectionVitalSigns.xsl

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 4. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

## 5. Who is affected

Build 43 installs. Server updates are not cumulative. This server update must be applied to 43.0.6.1

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

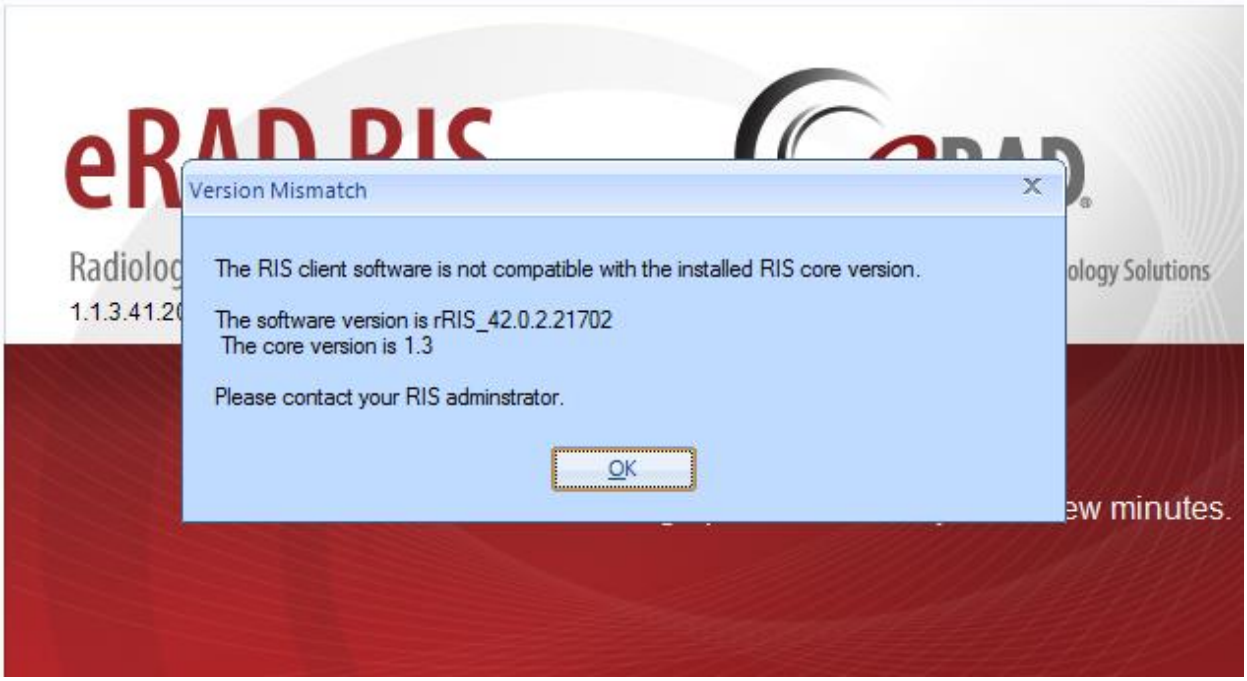
## 6. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 42 | 2 | 2.42.0.2.21702 | 2.42.0.0.21261 | 2.42.0.2.21702 | 2.42.0.0.21187 | GUI and Web Service updates |
| 42 | 3 | 2.42.0.2.21806 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.0.21187 | GUI and Web Service updates |
| 42 | 4 | 2.42.0.2.21862 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.4.21870 | GUI and Database updates |
| 42 | 5 | 2.42.0.5.21924 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.4.21870 | GUI |
| 42 | 6 | 2.42.0.5.22009 | 2.42.0.0.21261 | 2.42.0.5.22009 | 2.42.0.4.21870 | GUI and Web Service updates |
| 42 | 7 | 2.42.0.7.22090 | 2.42.0.0.21261 | 2.42.0.6.22009 | 2.42.0.4.21870 | GUI.zip updates |
| 42 | 8 | 2.42.0.7.22090 | 2.42.0.7.22150 | 2.42.0.6.22009 | 2.42.0.4.21870 | Web Service updates |
| 42 | 9 | 2.42.0.9.22203 | 2.42.0.0.21261 | 2.42.0.9.22203 | 2.42.0.4.21870 | GUI and Web Service updates |
| 42 | 9.1 | 2.42.0.9.22203 | 2.42.0.0.21261 | 2.42.0.9.22203 | 2.42.0.4.21870 | Web Service updates |
| 42 | 10 | 2.42.0.10.22232 | 2.42.0.0.21261 | 2.42.0.9.22203 | 2.42.0.4.21870 | GUI.zip |
| 42 | 10.1 | 2.42.0.10.22420 | 2.42.0.0.21261 | 2.42.0.9.22203 | 2.42.0.4.21870 | GUI.zip updates |
| 42 | 11 | 2.42.0.11.22495a | 2.42.0.0.21261 | 2.42.0.11.22471 | 2.42.0.11.22527 | GUI.zip, Web Service, Database updates. Management Report Deployment |
| 42 | 12 | 2.42.0.12.22982 | 2.42.0.0.21261 | 2.42.0.12.22982 | 2.42.0.12.22911 | GUI.zip, Web Service, Database updates. |
| 42.1 | - | 2.42.1.0.22744(3GB) | 2.42.0.0.21261 | 2.42.1.0.22744 | 2.42.1.0.22736 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 42.1 | 1 | 2.42.1.1.2296(3GB) | 2.42.0.0.21261 | 2.42.1.1.22963 | 2.42.1.1.22864 | GUI.zip, Web Service, DB updates |
| 42.1 | 2 | 2.42.1.2.23007(3GB) | 2.42.0.0.21261 | 2.42.1.2.23007 | 2.42.1.2.23007 | GUI.zip, Web Service, DB updates |
| 42.1 | 3 | 2.42.1.2.23237(3GB) | 2.42.0.0.21261 | 2.42.1.2.23237 | 2.42.1.2.23007 | GUI.zip, Web Services |
| 42.1 | 4 | 2.42.1.4.23348(3GB) | 2.42.0.0.21261 | 2.42.1.4.23348 | 2.42.1.2.23007 | GUI.zip, Web Services |
| 42.1 | 5 | 2.42.1.5.23406(3GB) | 2.42.0.0.21261 | 2.42.1.5.23406 | 2.42.1.2.23007 | GUI.zip, Web Services |
| 43 | - | 2.43.0.0.23715(3GB) | 2.43.0.0.23171 | 2.43.0.0.23715 | 2.43.0.0.23743 | Full Version Release |
| 43 | 1 | 2.43.0.1.23798(3GB) | 2.43.0.0.23171 | 2.43.0.1.23798 | 2.43.0.1.23770 | GUI.zip, Web Service, DB updates |
| 43 | 2 | 2.43.0.2.24017(3GB) | 2.43.0.0.23171 | 2.43.0.2.24017 | 2.43.0.2.24023 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 3 | 2.43.0.3.24298(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24283 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 3.1 | 2.43.0.3.24450(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24421 | GUI.zip and DB updates |
| 43 | 3.2 | 2.43.0.3.24450(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24421a | DB updates |
| 43 | 4 | 2.43.0.4.24447(3GB) | 2.43.0.0.23171 | 2.43.0.4.24447 | 2.43.0.4.24442 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 5 | 2.43.0.5.24632(3GB) | 2.43.0.0.23171 | 2.43.0.5.24632 | 2.43.0.5.24560 | GUI.zip, Web Service and DB updates |
| 43 | 6 | 2.43.0.6.24914(3GB) | 2.43.0.0.23171 | 2.43.0.6.24914 | 2.43.0.6.24914 | GUI.zip, Web Service and DB updates |
| 43 | 6.1 | 2.43.0.6.24937(3GB) | 2.43.0.0.23171 | 2.43.0.6.24937 | 2.43.0.6.24914 | GUI.zip, Web Service |
| **43** | **6.2** | **2.43.0.6.24970(3GB)** | **2.43.0.0.23171** | **2.43.0.6.24970** | **2.43.0.6.24914** | **GUI.zip, Web Service** |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 7. Installing

1) Copy and replace the current rRIS…zip file with the rRIS_1.3.43.0.6.2.24970.zip file provided with this release.
   Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.




If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_43.0.6.2.24970→ rRIS_1.3.43.0.6.2.24970
NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

**NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

2) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService. Be sure to make backup of all files, but especially the rRISServices.exe.config and rRISServices.vshost.exe.config files.
   *rRISService directories include:*
   a) *rRISService*
   b) *CDS rRISService*
   c) *Wedge rRISService*
   d) *DDE rRISService*

   **Restart each service.**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

For eRAD RIS
Version 2.0
Build 43
Update 43.0.7

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. New Features ..... 3
   Zotec TOS Inegration ..... 3
2. Changes to Configuration ..... 5
3. Defects Resolved ..... 6
4. Code Stream ..... 7
5. Package Contents ..... 8
6. Intended Audience ..... 11
7. Who is affected ..... 11
8. eRAD RIS Release Version Numbers ..... 12
9. Installing ..... 13

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# 1. New Features

## Zotec TOS Inegration

For Zotec enabled sites, the "Add" button in the payments section will connect with the Zotec TOS portal, passing all relevant information, which includes: patient demographics, CPT codes, insurance and the amount to collect. Zotec will match the patient and display the Zotec TOS portal in a modal dialog as shown in the following:

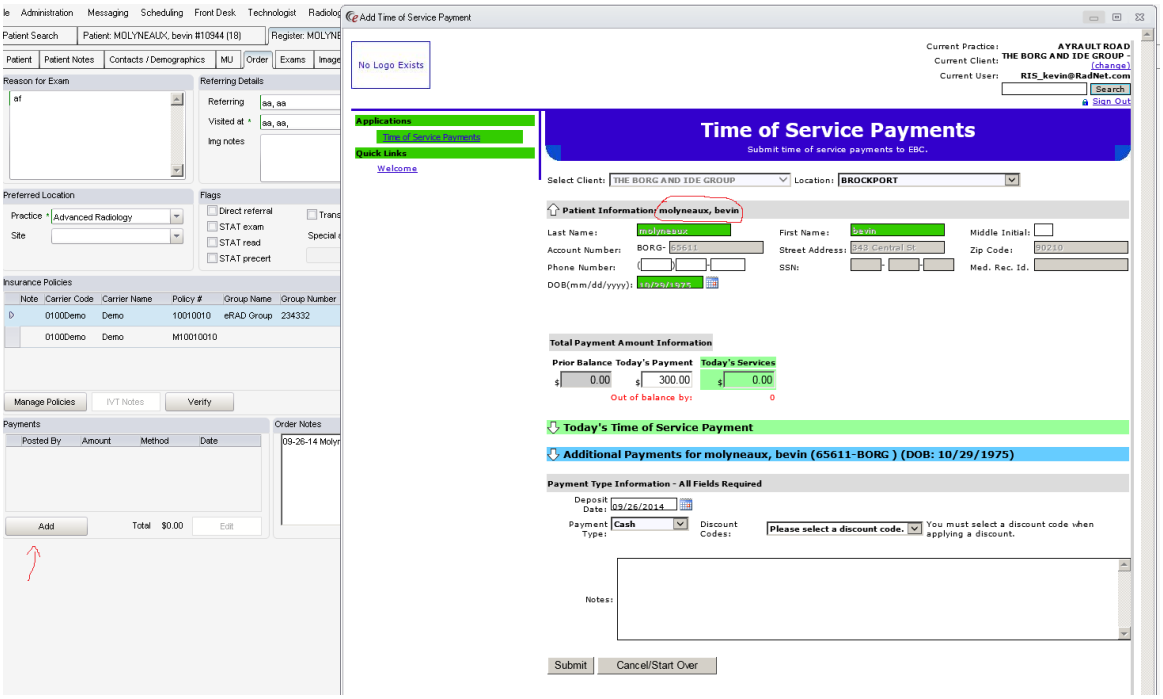



**Figure 1.1 – Adding payment via Zotec TOS payment window**

To record payments for Medical Records services, such as the cost of burning a CD, access the menu "Front Desk / Add Medical Record Payment" as shown in the following:

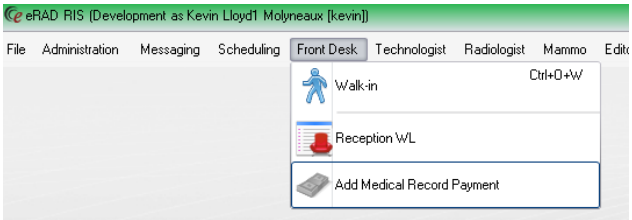



**Figure 1.2 – Add Medical Record Payment access**

When the user clicks on "Add Medical Record Payment", a screen will display, asking the user for the site where the payment will be received. The user will have the option to select any Zotec enabled site for their practice but will default to their "Reception WL" preferred site.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

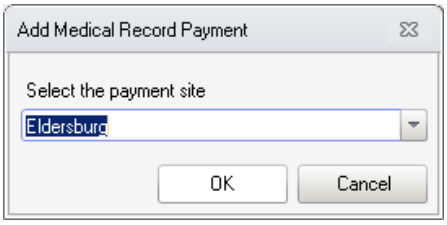



**Figure 1.3 – Selecting site to add medical record payment**

When these choose "OK" to the Add Medical Record Payment, the Zotec TOS web site will display with an extra message at the top of the screen, warning that they are processing a medical record payment. Medical record payments will be processed with following account:

Last Name: MedicalRecords
First Name: <PracticeCode>_<SiteCode>
Address: <site address information>
DOB: Site's Zotec activation date
MRN (not seen on the TOS portal): z<space><PracticeCode>_<SiteCode>

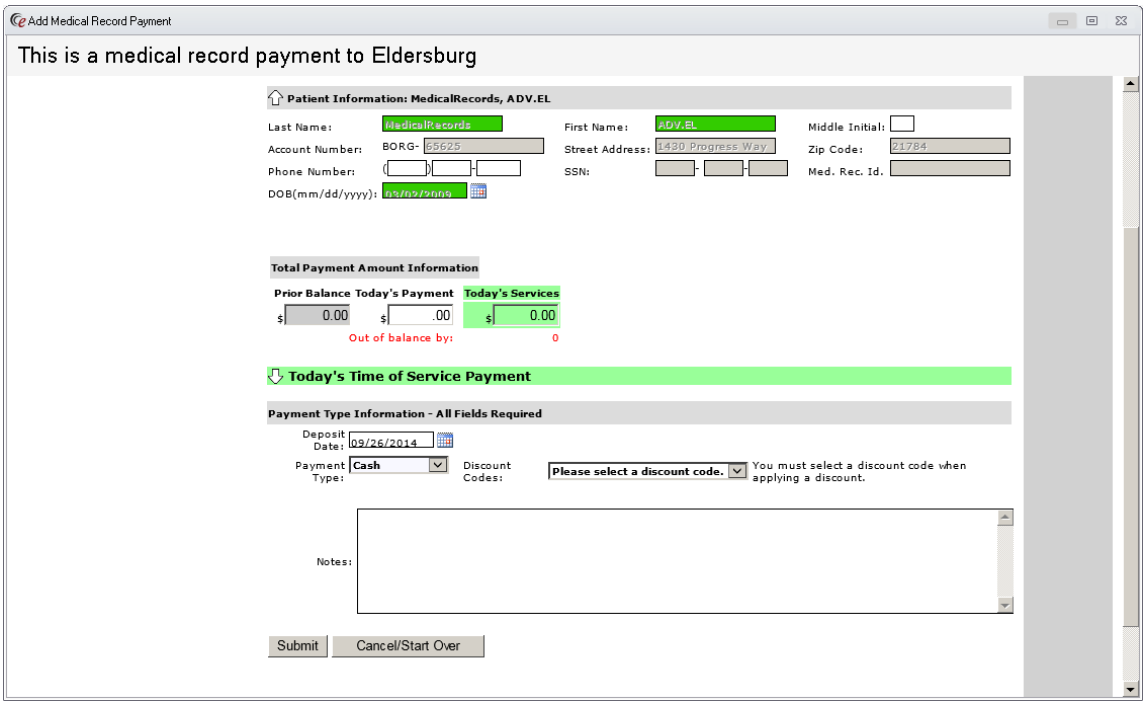



**Figure 1.4 - Zotec TOS payment window**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 2. Changes to Configuration

| Setting Placeholder | Setting | Default | Purpose / Controls Access to |
|---|---|---|---|
| Applicationsetting.config | "StartInsuranceEligibilityService"<br><br>Setting looks like this in the .config file<br><br>`<setting name="StartInsuranceEligibilityService" serializeAs="String"><value>False</value></setting>` | False | This setting originally had a default of True, Changed to false in this build.<br>If the current value of this setting is True when you run the ServicesConfigWizard.exe it will keep the current setting. |
| AccessString and UserGroup Permissions | Zotec.AllowDiscount | None | Allows the user to add a medical record payment, via "Add Medial Record Payment" from the "Front Desk" main menu. |
| AccessString and UserGroup Permissions | Zotec.AllowRefund | None | Allows the user to give refunds in the Zotec time-of-service website |
| AccessString and UserGroup Permissions | Zotec.AddMedicalRecordPayment | Full | Allows the user to add a medical record payment, via "Add Medial Record Payment" from the "Front Desk" main menu. |
| SystemConfig settings | ZotecAmountPaidPrefixString | Amount Paid:</td> <td align='left'> | string in the Zotec receipt, just before the amount paid, which will be reported back to the RIS |
| SystemConfig settings | ZotecTOSPassword | None | Password for Zotec TOS (time of service) integration |
| SystemConfig settings | ZotecTOSUrl | None | URL to the Zotec TOS portal |
| SystemConfig settings | ZotecTOSUser | None | Username for Zotec TOS integration |

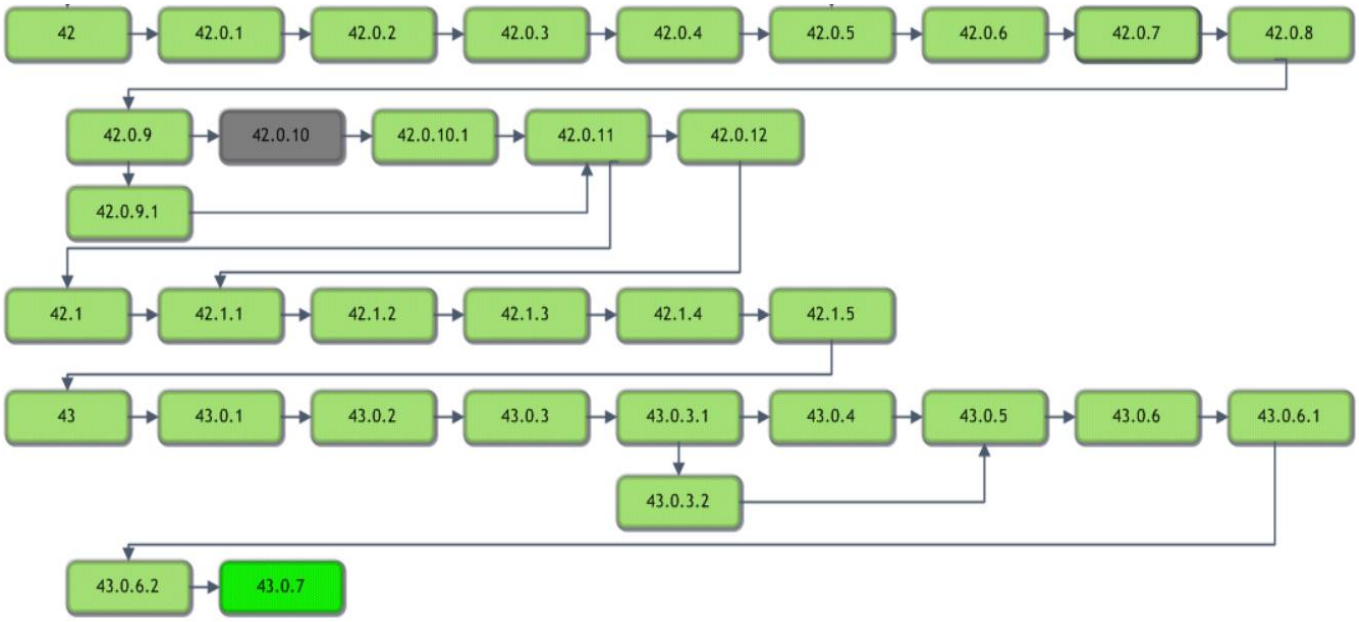
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 3. Defects Resolved

| Redmine # | Tracker | Subject | Priority |
|---|---|---|---|
| 7671 | Bug | internal dataset properties not correctly set | Immediate |
| 7398 | Feature | RIS Integration with Zotec payment portal (TOS) | Urgent |
| 7604 | Bug | Insurance Eligibility Pilot - Invoice Inconsistency | High |
| 7584 | Bug | IVT workflow can cause studies to be moved to Exam Done | High |
| 7455 | Bug | Patient Merge with 1 external MRN is being merged into itself | High |
| 7721 | Slush | Insurance Eligibility Pilot - Should not have pre transaction fee charged to eRAD_Demo payer id | Normal |
| 7716 | Slush | Null exception on login for zotec integration, preventing other code from running, no exception shown to user. | Normal |
| 7715 | Slush | Insurance Eligibility - Zotec integration | Normal |
| 7713 | Slush | Insurance Eligibility - subreport needed to identify patients on the Carriers Not Using Insurance Eligibility report | Normal |
| 7709 | Slush | Zotec integration - after submitting a payment in Zotec, the payment can be deleted in RIS | Normal |
| 7691 | Bug | Alternate MRN's don't display in patient search window | Normal |
| 7680 | Bug | Unable to cancel exam done studies for outside read sites | Normal |
| 7669 | Bug | Insurance Eligibility - IVT screen issue when no insurance is specified. | Normal |
| 7666 | Feature | Enhanced patient search in walk-in screen to include more than just internal persons | Normal |
| 7645 | Bug | StartInsuranceEligibilityService should be turned off by default | Normal |
| 7636 | Bug | Possible search returns as valid, when the start and end time straddle a closure start date. | Normal |
| 7633 | Bug | Problem List Error on Scheduling Outside Read | Normal |
| 7514 | Bug | Help -> Refresh Configuration required on new builds | Normal |
| 7484 | Bug | Document distribution - sites with no printer configured in RIS can still have jobs printed to other sites. | Normal |
| 7435 | Bug | IVT WL - Precert required and Insurance required - changing to an insurance that eligibilty is checked, the required value is not removed from WL (timng issue) | Normal |
| 7255 | Bug | CD Burning - Improve PACS failed to export message | Normal |
| 7166 | Bug | Report deployment - MQSA folder really should be called Mammography | Normal |
| 7015 | Bug | MU - A requested lab order can be entered with a blank observation and return an error | Low |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 4. Code Stream




**Legend:**

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 5. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains:
   - rRIS_1.3.43.0.7.25258.zip

2) RIS_Service_Updates contains:

ABCpdf.dll
ABCpdf9-32.dll
ABCpdf9-64.dll
Antlr3.Runtime.dll
CDSJobManager.dll
CDSJobManager.pdb
CdsLib.dll
CdsLib.xml
CdsLib.XmlSerializers.dll
CommonLib.dll
CommonLib.pdb
contents.txt
DDEngine.dll
DDEngine.pdb
DiffPlex.dll
Interop.ANYMODALCAPTURECTRLLib.dll
Interop.FAXCOMEXLib.dll
Microsoft.Practices.EnterpriseLibrary.Caching.dll
Microsoft.Practices.EnterpriseLibrary.Caching.pdb
Microsoft.Practices.EnterpriseLibrary.Common.dll
Microsoft.Practices.EnterpriseLibrary.Common.pdb
Microsoft.Practices.EnterpriseLibrary.Logging.dll
Microsoft.Practices.EnterpriseLibrary.Logging.pdb
Microsoft.Practices.ServiceLocation.dll
Microsoft.Practices.ServiceLocation.pdb
Microsoft.Practices.Unity.dll
Microsoft.Practices.Unity.Interception.dll
Microsoft.Practices.Unity.Interception.pdb
Microsoft.Practices.Unity.pdb
Microsoft.ReportViewer.Common.dll
Microsoft.ReportViewer.WinForms.dll
Microsoft.ReportViewer.WinForms.xml
Newtonsoft.Json.dll
Newtonsoft.Json.xml
NLog.dll
O2S.Components.PDFRender4NET.dll
PDFToImages.exe
Radar.Common.dll
Radar.Common.pdb
Radar.Common.WebClient.dll
Radar.Common.WebClient.pdb
Radar.DirectMessaging.Client.dll
Radar.DirectMessaging.Client.pdb
Radar.DirectMessaging.Model.dll
Radar.DirectMessaging.Model.pdb
rRISServices.exe
rRISServices.pdb
rRISServicesx64.exe
ScheduledTaskManager.dll
ScheduledTaskManager.pdb
ServicesConfigWizard.exe
ServicesConfigWizard.pdb
SignatureApprovalService.exe
SignatureApprovalService.pdb
System.Net.Http.dll
System.Net.Http.Formatting.dll
System.Net.Http.xml
System.Web.Http.dll
System.Web.Http.SelfHost.dll
System.Web.Http.SelfHost.xml
System.Web.Http.WebHost.dll
System.Web.Http.WebHost.xml
System.Web.Http.xml
System.Web.Mvc.dll
System.Web.Mvc.xml
System.Web.Optimization.dll
System.Web.Razor.dll
System.Web.Razor.xml
System.Web.WebPages.Deployment.dll
System.Web.WebPages.Deployment.xml
System.Web.WebPages.dll
System.Web.WebPages.Razor.dll
System.Web.WebPages.Razor.xml
System.Web.WebPages.xml
Tourreau.Gilles.FaxDotNet.dll
Tourreau.Gilles.FaxDotNet.pdb
Tourreau.Gilles.FaxDotNet.xml
WCFService.dll
WCFService.pdb
WCFServiceTests.dll
WCFServiceTests.pdb
WebApi.dll
WebApi.pdb
WebGrease.dll
Wedge.exe
Wedge.pdb

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

The rRIS_Service_Updates also contains to subfolders:

A. Deploy folder contains
   a. Applicationsettings.config
   b. ReleaseVersion-connectionstrings.config
   c. rRISServices.exe.config
   d. services.config

B. XSL subfolder contains:
   a. Subfolder titled "Stylesheets" which contains:
      a. CDAToHTMLCompleteReport.xslt
      b. CDAToHTMLCompleteReportDark.xslt
      c. CDAToHTMLImpressionSection.xslt
      d. CDATorRIS.xslt
      e. CDAToTxt.xslt
      f. DocumentModelReport.xslt
      g. DocumentModelReportAsXml.xslt

   b. CDA Subfolder contains
      a. C-CDA.xsl
      b. eRadStylesheet.xsl
      c. generalTemplates.xsl
      d. header.xsl
      e. QRDA.xsl
      f. QrdaLevel3_Cypress2.4.0.xsl
      g. QrdaLevel3_ViewHtml.xsl
      h. sectionAdministeredMedications.xsl
      i. sectionAllergies.xsl
      j. sectionEncounters.xsl
      k. sectionFindings.xsl
      l. sectionFuncCogStatus.xsl
      m. sectionImmunizations.xsl
      n. sectionInstructions.xsl
      o. sectionMedications.xsl
      p. sectionPlanOfCare.xsl
      q. sectionProblemList.xsl
      r. sectionProcedures.xsl
      s. sectionQRDAMeasures.xsl
      t. sectionQRDAPatientData.xsl
      u. sectionQRDAReporting.xsl
      v. sectionReasonForVisit.xsl
      w. sectionResults.xsl
      x. sectionSocialHistory.xsl
      y. sectionVitalSigns.xsl

3) SQL Folder contains:
   - B43.0.7.sql

4) **SSRSDeployment** folder contains 7 subfolders, a batch file for deploying the reports and a help file for deploying the reports.

   4.1. **Backups** folder is empty

   4.2. **Fonts** folder contains 4 files:
   4.1.1. FRE3OF9X
   4.1.2 FRE3OF9x_0
   4.1.3 FREE3OF9

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

4.1.4 FREE3OF9_0

4.3. **ParentFolder** folder contains 7 subfolders
- 4.3.1. **Chair** folder contains 1 .rdl file
- 4.3.2. **Dashboards** folder contains 9 .rdl files
- 4.3.3. **Forms folder** contains sub folder and 2 .rdl files
  - 4.3.3.1. **SubReports** contains 10 .rdl files
- 4.3.4. **Management Reports** folder contains 9 sub folders, these subfolders contain the core management report files (.rdl) to be deployed.
- 4.3.5. **Marketing** folder contains 5 .rdl files
- 4.3.6. **Order Templates** contains 1 file (Default.rdl)
- 4.3.7. **SubReports** contains 13.rdl files
- 4.3.8. **Verbal Order** contains 4 .rdl files

4.4. **Scripts** folder contains 9 .rss files. These files are used with the DeployReports.bat utility to deploy the reports.

4.5. **Upload Custom Mangement Reports** is empty

4.6. **Upload Diagnostic Templates** folder contains 1 subfolder
- 4.6.1. **SubReports** folder is empty

4.7. **Upload Forms** folder contains 1 subfolder.
- 4.7.1. **SubReports** folder is empty

4.8. **eRADDeployReports.bat -** batch file for deploying reports to report server for eRAD customers

4.9. **RadnetDeployReports.bat** - batch file for deploying reports to report sever for RadNet

4.10. **Adding reports for Deployment.docx** document to assist in added a report to the install process when deploying the reports.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 6. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

## 7. Who is affected

Build 43 installs. Server updates are not cumulative. This server update must be applied to 43.0.6

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

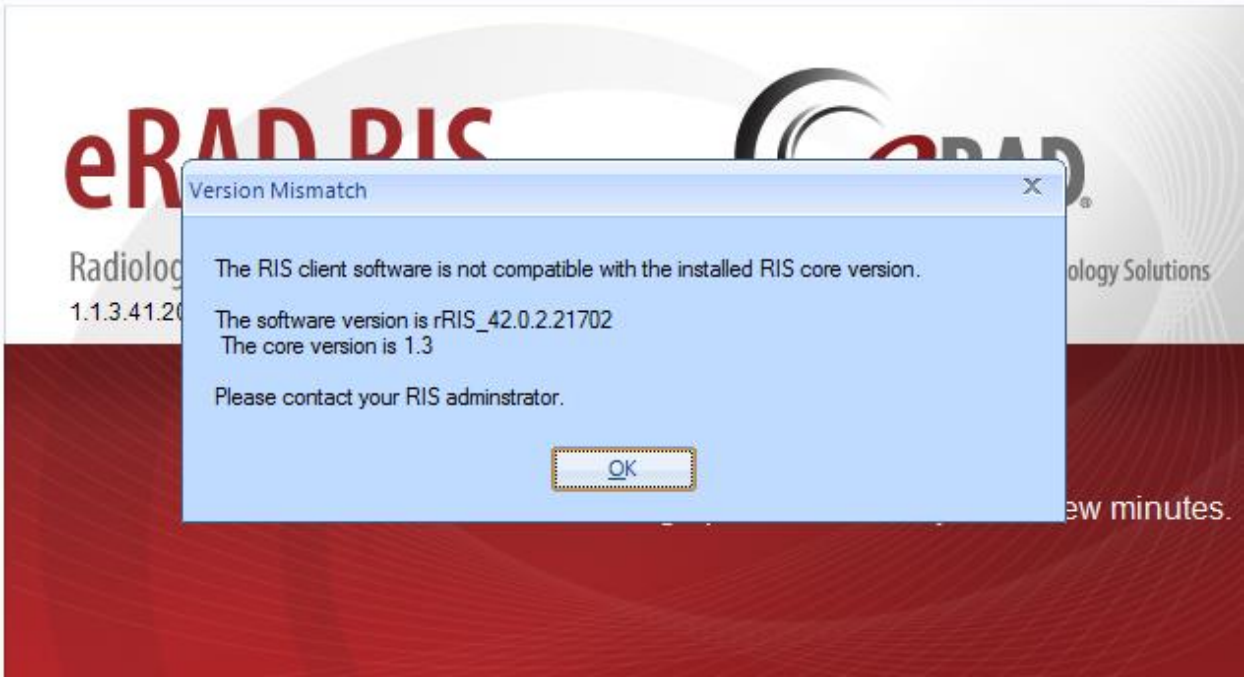
## 8. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 42.1 | - | 2.42.1.0.22744(3GB) | 2.42.0.0.21261 | 2.42.1.0.22744 | 2.42.1.0.22736 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 42.1 | 1 | 2.42.1.1.2296(3GB) | 2.42.0.0.21261 | 2.42.1.1.22963 | 2.42.1.1.22864 | GUI.zip, Web Service, DB updates |
| 42.1 | 2 | 2.42.1.2.23007(3GB) | 2.42.0.0.21261 | 2.42.1.2.23007 | 2.42.1.2.23007 | GUI.zip, Web Service, DB updates |
| 42.1 | 3 | 2.42.1.2.23237(3GB) | 2.42.0.0.21261 | 2.42.1.2.23237 | 2.42.1.2.23007 | GUI.zip, Web Services |
| 42.1 | 4 | 2.42.1.4.23348(3GB) | 2.42.0.0.21261 | 2.42.1.4.23348 | 2.42.1.2.23007 | GUI.zip, Web Services |
| 42.1 | 5 | 2.42.1.5.23406(3GB) | 2.42.0.0.21261 | 2.42.1.5.23406 | 2.42.1.2.23007 | GUI.zip, Web Services |
| 43 | - | 2.43.0.0.23715(3GB) | 2.43.0.0.23171 | 2.43.0.0.23715 | 2.43.0.0.23743 | Full Version Release |
| 43 | 1 | 2.43.0.1.23798(3GB) | 2.43.0.0.23171 | 2.43.0.1.23798 | 2.43.0.1.23770 | GUI.zip, Web Service, DB updates |
| 43 | 2 | 2.43.0.2.24017(3GB) | 2.43.0.0.23171 | 2.43.0.2.24017 | 2.43.0.2.24023 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 3 | 2.43.0.3.24298(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24283 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 3.1 | 2.43.0.3.24450(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24421 | GUI.zip and DB updates |
| 43 | 3.2 | 2.43.0.3.24450(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24421a | DB updates |
| 43 | 4 | 2.43.0.4.24447(3GB) | 2.43.0.0.23171 | 2.43.0.4.24447 | 2.43.0.4.24442 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 5 | 2.43.0.5.24632(3GB) | 2.43.0.0.23171 | 2.43.0.5.24632 | 2.43.0.5.24560 | GUI.zip, Web Service and DB updates |
| 43 | 6 | 2.43.0.6.24914(3GB) | 2.43.0.0.23171 | 2.43.0.6.24914 | 2.43.0.6.24914 | GUI.zip, Web Service and DB updates |
| 43 | 6.1 | 2.43.0.6.24937(3GB) | 2.43.0.0.23171 | 2.43.0.6.24937 | 2.43.0.6.24914 | GUI.zip, Web Service |
| 43 | 6.2 | 2.43.0.6.24970(3GB) | 2.43.0.0.23171 | 2.43.0.6.24970 | 2.43.0.6.24914 | GUI.zip, Web Service |
| **43** | **7** | 2.43.0.7.25258(3GB) | 2.43.0.0.23171 | 2.43.0.7.25258 | 2.43.0.7.25226 | GUI.zip, Web Service, DB updates and Management Report Deployment |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 9. Installing

1) Copy and replace the current rRIS…zip file with the rRIS_1.3.43.0.7.25258.zip file provided with this release.
   Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.




If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_43.0.7.25258→ rRIS_1.3.43.0.7.25258
NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

**NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)**

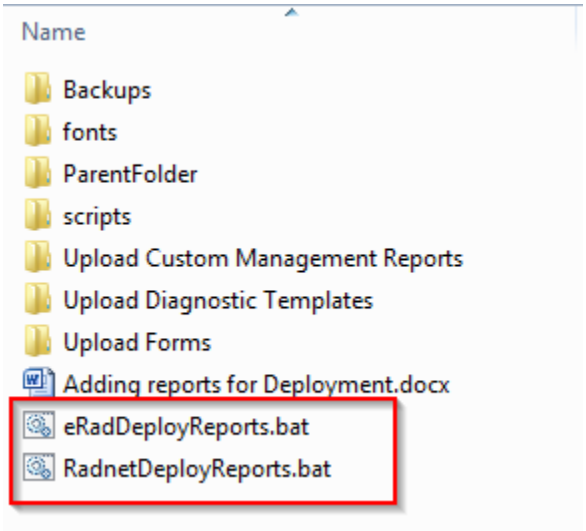
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

2) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService. Be sure to make backup of all files, but especially the rRISServices.exe.config and rRISServices.vshost.exe.config files.
*rRISService directories include:*
   a) *rRISService*
   b) *CDS rRISService*
   c) *Wedge rRISService*
   d) *DDE rRISService*

   **Restart each service.**

3) Run the B43.0.7.sql file against the eRAD RIS database instance.

4) Management Reports Deployment / SSRSDeployment - There are 2 utilities called **RadnetDeployReports.bat** and **eRadDeployReports.bat** that will deploy the reports to a SQL Server Report Service. This utility is found in the **Build X\SSRSDeployment** folder. Below are the steps on how to use this utility. The purpose for the 2 .bat files are the RadNet one deploys a few extra reports specific to RadNet.




1. Launch the DeployReports.bat file.
2. ***Enter report server name [default:<computer_name>]:***
   a. A script will run against the server and return a list of all the root folders on that report server
   **By Default this will pull the computer_name environmental variable from the machine running the script. I suggest running this from the report server for performance anyway.
3. **Enter root folder to deploy reports [default: production]**:

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

a. This will create a new root if the name you give doesn't exist, or it will simply publish below the root of the folder if it does already exist. We typically will use "production" for the installation folder. Note: The script forces the root name to be lowercase.
**Default is suggested to be production, but you may need to change it based on the environment you are deploying to. Ie: testserver might be called something else.

4. **Do you wish to create a backup of the existing reports?**:
   a. This will create a file backup of the report directory specified in the same directory deploy.bat is being run from inside a folder called Backups where it will create a folder based on datetime of backup. Ie: 04172014_110605 (MMDDYYYY_HHMISS).
5. **Do you wish to deploy core management reports**?
   a. If you enter "y", it will redeploy the core management reports
6. **Do you wish to upload Forms**?

a. If you enter "y", the script will deploy any .rdl files into the installations Forms folder that you have previously saved into the script folder called "Upload Forms" including the folder below it called SubReports.

7. **Do you wish to upload Diagnostic Templates**?

a. If you enter "y", the script will deploy any .rdl files into the installations Diagnostic Templates folder that you have previously saved into the script folder called "Upload Diagnostic Templates" including the folder below it called SubReports.

8. **Do you wish to upload Custom Management Reports?**

a. Entering "Y" will copy any .rdl files you've copied under the deployment folder called Upload Custom Management Reports onto the server under Management Reports\Custom\Uploads directory

9. **Do you wish to create a datasource**?
   a. If you select "y" you will get prompted for more information about the datasource you wish to create. You only need to create a datasource, if this is a new installation. No need to do this if you are upgrading an existing installation. The datasource gets created in the root of the folder from step 3. The datasource will be called RISDataSource.

If you chose to create a datasource, the following steps will be requested to complete the connection string.

1. **Enter database server name**:
   a. This is the name of the physical database server
   ex. MYSERVER-1
2. **Enter database name**:
   a. This is the name of the database on the database server
   ex. rRIS_Site

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

3. **Enter report schema user name**: ex. The account that the datasource will use to connect to the database ie: SA. (For security reasons "sa" is not recommended)
4. **Enter report schema password**:

   The results of deployment will be written to log.txt in the same folder as the DeployReports.bat file.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

For eRAD RIS
Version 2.0
Build 43
Update 43.0.8

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. New Features ..... 3
   Integration with Carestream PACS ..... 3
   Eligibility Check for Medical Group ..... 5
   Copy and Paste Enhancements ..... 7
2. Changes to Configuration ..... 10
3. Defects Resolved ..... 11
4. Code Stream ..... 13
5. Package Contents ..... 14
6. Intended Audience ..... 17
7. Who is affected ..... 17
8. eRAD RIS Release Version Numbers ..... 18
9. Installing ..... 19

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# 1. New Features

## Integration with Carestream PACS

With the release of 43.0.8, eRAD RIS now integrates with Carestream PACS. This integration is very similar to the eRad PACS integration. Login, logout, open, append, and close images are all supported. No form of caching is supported.

**Configuration:**
When adding a new row to the PACSServer lookup table, CARESTREAM is now an available option under PACS Server Type. An IP address needs to be provided in the URL column but it is not used by the integration, so 127.0.0.1 can be used.

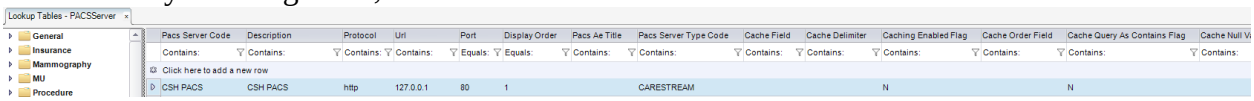



**Figure 1.1 – PACSServer lookup table**

When the Carestream option is added to the PACS Server lookup table, this option can then be added as the default for a Practice from the Organization lookup. Open the Practice for edit and on the PACS and Reporting tab select the Carestream PACS Option.

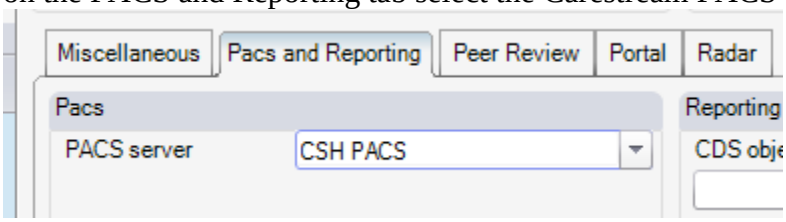



**Figure 1.2 – Adding PACS Server as default to Practice.**

It can also be selected as an option under the PACS menu > PACS Server option which was added in build 43.0.6.

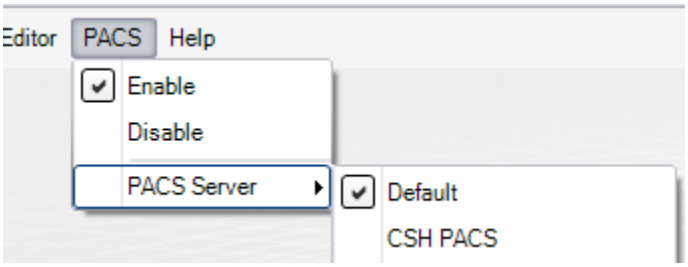



**Figure 1.3 – PACS Server menu option**

**Use:**
The RIS attempts to log in to the PACS when the user first tries to open images. Upon successfully logging in the images are opened. If login fails the user will be presented with a login dialog from the PACS. If the user then logs into the PACS successfully the images will then be launched. If they cancel the PACS login dialog the RIS will try to force the PACS to finish logging out and then display its own login dialog to attempt to resume logging in. The

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

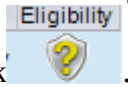
cancellation of the PACS login dialog often leads to disruption of the COM interface which is sometimes irrecoverable.

After the user is logged in, the images will open upon the user opening a reporting window such as the dictation window or the signature window (in this case they need to hit the View Images button). When the user closes the form, the images will close on the workstation.
Switching between tabs will keep the images in the PACS in sync. Closing a tab and activating another integrated tab will also cause the appropriate images to be displayed.

**Limitations:**
The open images call to Carestream PACs is an asynchronous call, meaning that when the RIS instructs the PACs to load images the PACS returns control to the RIS immediately and provides no feedback to the RIS as to whether or not the images actually loaded. The RIS assumes success. In an effort to make sure the images are never out of sync the RIS first issues a Close call before an Open call any time it believes and image session is open.
The COM interfaces that allow PACS to issue call-backs to the RIS have not been implemented as this is very problematic between a COM dll and a .NET application.
The PACSIntegration.log can be used to monitor the interactions between RIS and Carestream.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## Eligibility Check for Medical Group

For several carriers the medical group is mentioned in the eligibility return. We would like to notify the staff when they have chosen an incorrect medical group. If the return does not have the expected medical group we can show a warning message that will display in the lower right corner of the application and the eligibility icon will be a yellow question mark 

.

To configure this feature a new lookup table titled Eligibility Special Condition has been added under the Insurance folder group. This new lookup tables access is controlled by a new access string titled "**Config.LookupEditor.EligibilitySpecialCondition**" which has a default of None.

In this table administrator will input the Carrier, matching string and warning message. If insurance details contains the matching_string, we will display the warning_message. If the matching_string STARTS WITH !, we will display the warning_message when the details does not containing the matching_string.

For example, the configuration may look like:

| Carrier | maching_string | warning_message |
|---|---|---|
| Prospect Aetna | !Prospect Medical Group | Medical group is incorrect (PROSPECT) |
| Monarch UHC | !Monarch | Medical group is incorrect |

In the following example, we have created a carrier "Prospect Demo UHC", which is only valid if the return contains "Prospect medical Group".

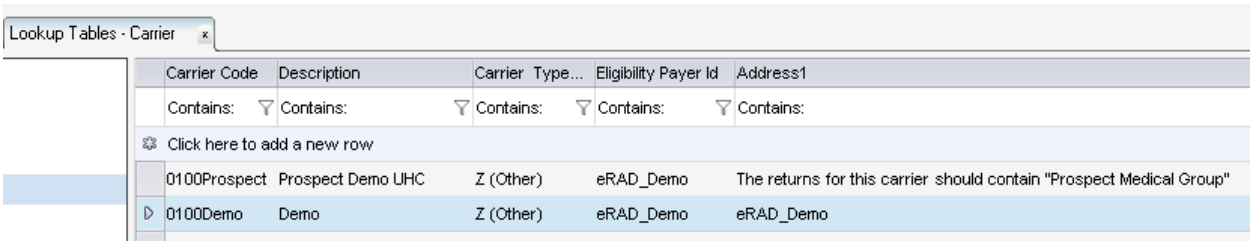



**Figure 1.4 – Carrier lookup**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

Then, the eligibility special condition is configured as shown in the following:

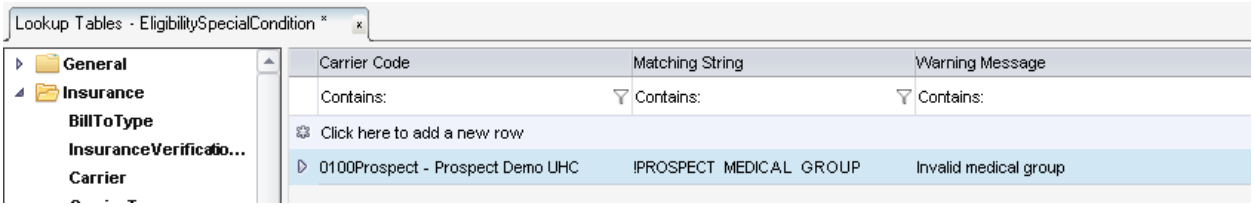



**Figure 1.5 – Eligibility Special Condition lookup**

Carriers can have multiple special conditions but only the first matching condition is displayed. Because the "Prospect Demo UHC" carrier is configured with the eRAD_DEMO eligibility_payer_id testing with the policy #7695 will give a green check. Testing with other policy numbers such as 10010010 will result in the "Invalid medical group" warning.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## Copy and Paste Enhancements

The pre-cert field in the billing codes grid, the insurance policy number, group number and group name columns in the Manage Insurance Policies feature all allow a paste to occur that may have unprintable characters. The issues are white space, tab characters, and a trailing CRLF. These characters will cause billing to fail.

The new code looks at PASTE events. These are caused by Ctrl – V, Shift-Insert, and right-click context menu, and Paste.

It also looks at the character by character typing performed by the user.

Before accepting the value into the RIS, the RIS will search the string for any of these magic unprintable characters, and will replace them with a visible space character.

The new code will then trim all leading and trailing spaces, leading and trailing tab characters, and trailing CRLF (that's the problematic 'enter' key that gets auto-pasted from Excel).

**Example – Someone copies from a web page and the copy buffer contains : (space)123(tab)456(space)(CRLF)(space)(tab)(CRLF) the RIS will simply paste '123 456'**

**OR – Someone types in (space)123(space)456(space)(tab) – The RIS will simply apply '123 456'**

We envision that perhaps some rare circumstance will require a special character to be entered. So, we included the following context menu options:

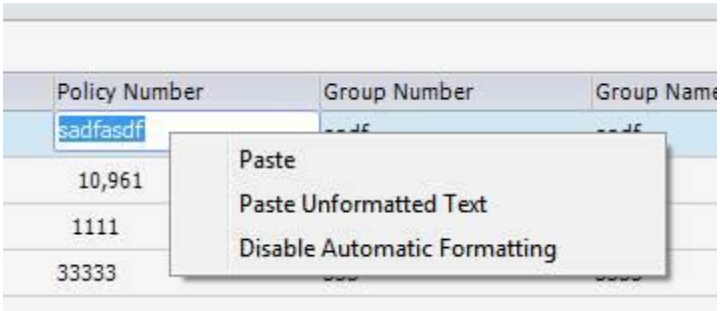



**Figure 1.6 – Pasting options**

**Paste Unformatted Text** disables all the special trimming, and does just what the old paste used to do.

**Disable Automatic Formatting** turns off the auto-trimming feature for every column in that open grid only. When the grid is closed and re-opened (ie, for the next patient) the auto-trimming is again enabled.

We want to put this into a trial-basis by only applying it to the most problematic areas of the RIS first. So, for 43.0.8, it will only work in the areas shown in RED.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

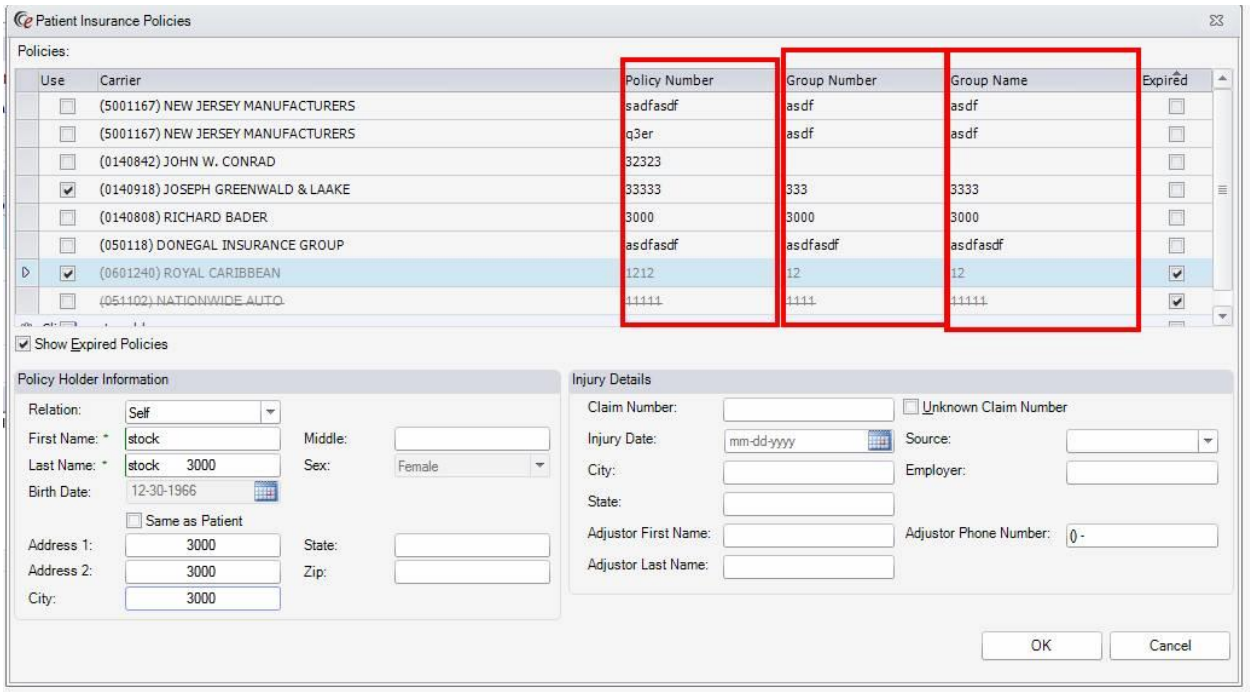



**Figure 1.7 – Manage Policies**

**Figure 1.8 – Billing codes PreCert number**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

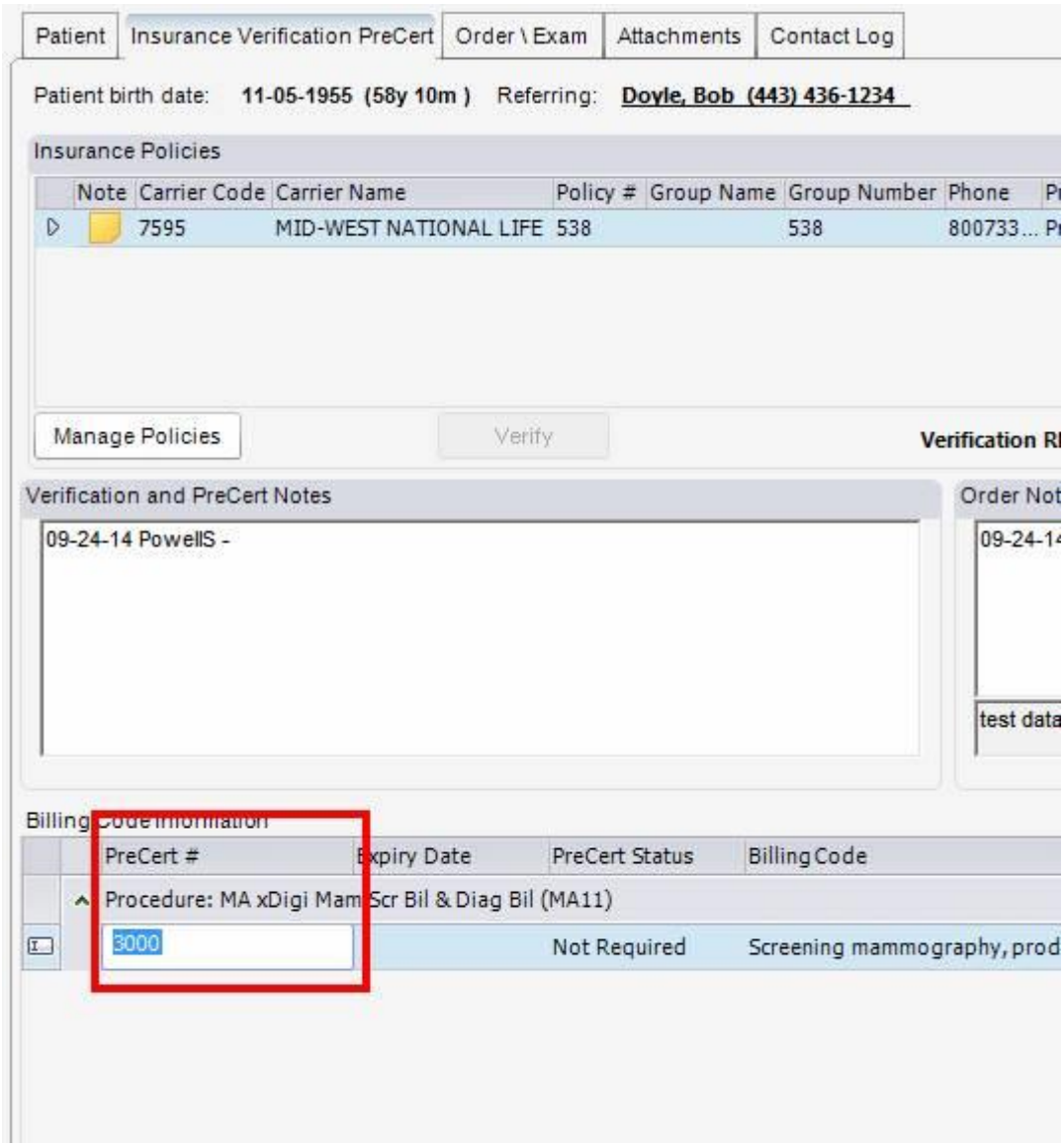



**Figure 1.9 - Billing codes PreCert number**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 2. Changes to Configuration

| Setting Placeholder | Setting | Default | Purpose / Controls Access to |
|---|---|---|---|
| Applicationsetting.config | **Config.LookupEditor.EligibilitySpecialCondition** | None | lookup table access for the Eligibility Special Conditions lookup |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 3. Defects Resolved

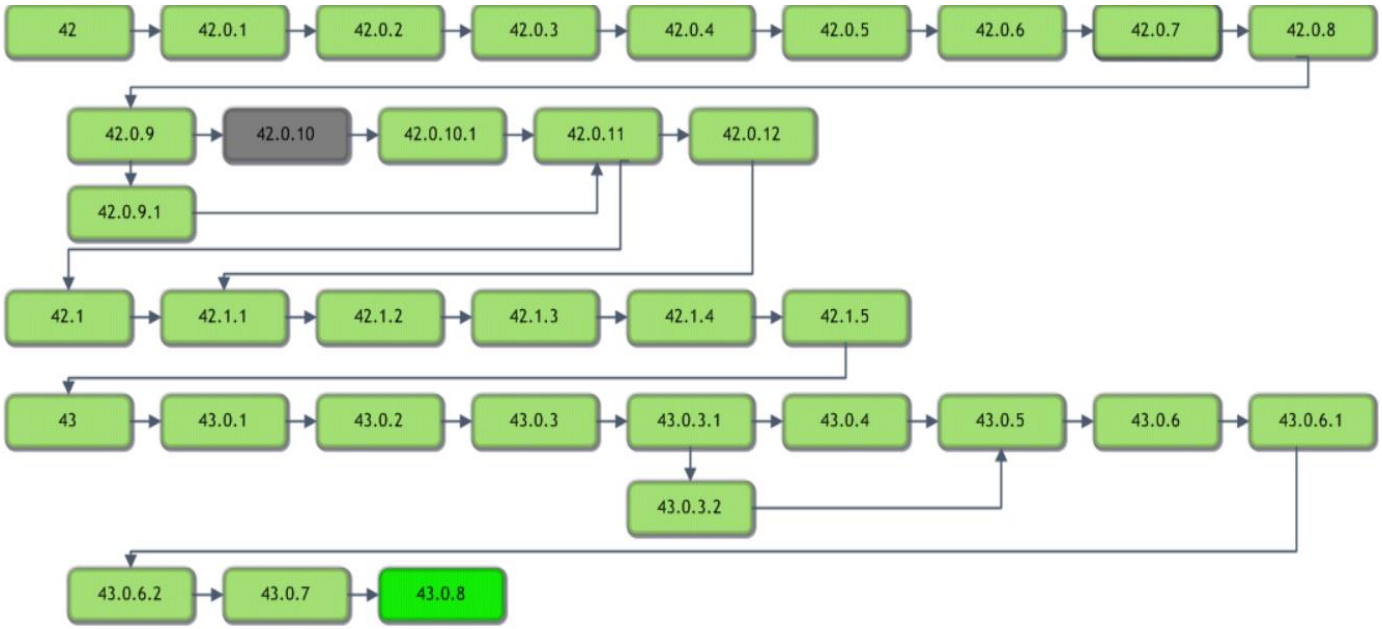
| Redmine # | Tracker | Subject | Priority |
|---|---|---|---|
| 7751 | Bug | Legacy Reports are included in action data container | Urgent |
| 7627 | Bug | Copy & paste can include unprintable characters that affects billing | Urgent |
| 7818 | Bug | v43 new install number of indexes are not in the right tablespace preventing record inserts | High |
| 7806 | Bug | object reference error when scheduling from the Follow Up screen from BI-RADS 4/5 worklist | High |
| 7612 | Bug | unable to cancel an order if the order contained multiple items, one of which has progressed past scheduling and generated an i-code | High |
| 7354 | Feature | eRAD RIS to Carestream PACS Desktop integration | High |
| 7815 | Bug | Can't set a signed study to Voided status | Normal |
| 7814 | Bug | Insurance Eligibility - for multiple insurances we how now decided to collect the co-pay for the primary insurance | Normal |
| 7786 | Bug | Insurance Eligibility - Issue rescheduling a newly added appointment. | Normal |
| 7779 | Bug | Insurance Eligibility - Deadlock when multiple requests are being made | Normal |
| 7758 | Bug | Editors Activity report fails | Normal |
| 7747 | Bug | Automated Measures by Radiologist - Fails on DRA for 2014 yr and stage 2 | Normal |
| 7740 | Bug | Insurance Eligibiltiy - Mutliple STC count - adding multiple rows in c_eligibility_invoice table and affecting the Mutliple STC count value on Eligible API Invoice report. | Normal |
| 7734 | Bug | Error on rescheduling study with insurance eligibility | Normal |
| 7731 | Bug | Insurance Eligibility Pilot - Invoice Inconsistency (PassThrough Fee) | Normal |
| 7729 | Bug | Insurance Eligibility Pilot - Invoice Inconsistency (Search Option Count) | Normal |
| 7718 | Bug | MU CQM Report with Both Stage 1 and Stage 2 numerator/denominator | Normal |
| 7700 | Bug | Insurance Eligibility - If Maximum remaining has been met, we should not charge a co-insurance | Normal |
| 7699 | Bug | Insurance Eligibility - Ignore plan deductible if deductible exists in the service section. | Normal |
| 7697 | Bug | Insurance Eligibility Pilot - Amount to collect refresh issue | Normal |
| 7695 | Feature | Insurance Eligibility - add a check for the Medical Group | Normal |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

| | | | |
|---|---|---|---|
| 7677 | Bug | need ability to move non-mapped patients EMR order to exsisting internal patient orders | Normal |
| 7647 | Bug | Insurance verification required may be inaccurate | Normal |
| 7632 | Bug | Error using Make Known functionality in unknown carrier workflow | Normal |
| 7631 | Bug | Error replacing carrier info on Reconcile screen | Normal |
| 7585 | Bug | Error while scanning - unable to cast object of type 'System.DBNull' to type 'System.String' | Normal |
| 7579 | Bug | Error performing Exam Search | Normal |
| 7563 | Bug | patient portal - Complete Notice of Privacy Practices link is not configurable | Normal |
| 7561 | Bug | Operations \ Unknown Referring report - fails if more than one user with the matching name found. | Normal |
| 7557 | Bug | Patient portal https:// vs http:// links | Normal |
| 7537 | Bug | Management Reports- Date range calender fields of Insurance Eligibility Reports pre populating with random dates causing ability to search/display inaccurate time ranges | Normal |
| 7533 | Bug | Filtering Assigned To columns with multiple users returns work list error. | Normal |
| 7508 | Bug | Insurance Eligibility Prototype - more details when we have an error message | Normal |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 4. Code Stream




**Legend:**

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 5. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains:
   - rRIS_1.3.43.0.8.25440.zip

2) RIS_Service_Updates contains:

ABCpdf.dll
ABCpdf9-32.dll
ABCpdf9-64.dll
Antlr3.Runtime.dll
CDSJobManager.dll
CDSJobManager.pdb
CdsLib.dll
CdsLib.xml
CdsLib.XmlSerializers.dll
CommonLib.dll
CommonLib.pdb
contents.txt
DDEngine.dll
DDEngine.pdb
DiffPlex.dll
Interop.ANYMODALCAPTURECTRLLib.dll
Interop.FAXCOMEXLib.dll
Microsoft.Practices.EnterpriseLibrary.Caching.dll
Microsoft.Practices.EnterpriseLibrary.Caching.pdb
Microsoft.Practices.EnterpriseLibrary.Common.dll
Microsoft.Practices.EnterpriseLibrary.Common.pdb
Microsoft.Practices.EnterpriseLibrary.Logging.dll
Microsoft.Practices.EnterpriseLibrary.Logging.pdb
Microsoft.Practices.ServiceLocation.dll
Microsoft.Practices.ServiceLocation.pdb
Microsoft.Practices.Unity.dll
Microsoft.Practices.Unity.Interception.dll
Microsoft.Practices.Unity.Interception.pdb
Microsoft.Practices.Unity.pdb
Microsoft.ReportViewer.Common.dll
Microsoft.ReportViewer.WinForms.dll
Microsoft.ReportViewer.WinForms.xml
Newtonsoft.Json.dll
Newtonsoft.Json.xml
NLog.dll
O2S.Components.PDFRender4NET.dll
PDFToImages.exe
Radar.Common.dll
Radar.Common.pdb
Radar.Common.WebClient.dll
Radar.Common.WebClient.pdb
Radar.DirectMessaging.Client.dll
Radar.DirectMessaging.Client.pdb
Radar.DirectMessaging.Model.dll
Radar.DirectMessaging.Model.pdb
rRISServices.exe
rRISServices.pdb
rRISServicesx64.exe
ScheduledTaskManager.dll
ScheduledTaskManager.pdb
ServicesConfigWizard.exe
ServicesConfigWizard.pdb
SignatureApprovalService.exe
SignatureApprovalService.pdb
System.Net.Http.dll
System.Net.Http.Formatting.dll
System.Net.Http.xml
System.Web.Http.dll
System.Web.Http.SelfHost.dll
System.Web.Http.SelfHost.xml
System.Web.Http.WebHost.dll
System.Web.Http.WebHost.xml
System.Web.Http.xml
System.Web.Mvc.dll
System.Web.Mvc.xml
System.Web.Optimization.dll
System.Web.Razor.dll
System.Web.Razor.xml
System.Web.WebPages.Deployment.dll
System.Web.WebPages.Deployment.xml
System.Web.WebPages.dll
System.Web.WebPages.Razor.dll
System.Web.WebPages.Razor.xml
System.Web.WebPages.xml
Tourreau.Gilles.FaxDotNet.dll
Tourreau.Gilles.FaxDotNet.pdb
Tourreau.Gilles.FaxDotNet.xml
WCFService.dll
WCFService.pdb
WCFServiceTests.dll
WCFServiceTests.pdb
WebApi.dll
WebApi.pdb
WebGrease.dll
Wedge.exe
Wedge.pdb

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

The rRIS_Service_Updates also contains to subfolders:

A. Deploy folder contains
   a. Applicationsettings.config
   b. ReleaseVersion-connectionstrings.config
   c. rRISServices.exe.config
   d. services.config

B. XSL subfolder contains:
   a. Subfolder titled "Stylesheets" which contains:
      a. CDAToHTMLCompleteReport.xslt
      b. CDAToHTMLCompleteReportDark.xslt
      c. CDAToHTMLImpressionSection.xslt
      d. CDATorRIS.xslt
      e. CDAToTxt.xslt
      f. DocumentModelReport.xslt
      g. DocumentModelReportAsXml.xslt

   b. CDA Subfolder contains
      a. C-CDA.xsl
      b. eRadStylesheet.xsl
      c. generalTemplates.xsl
      d. header.xsl
      e. QRDA.xsl
      f. QrdaLevel3_Cypress2.4.0.xsl
      g. QrdaLevel3_ViewHtml.xsl
      h. sectionAdministeredMedications.xsl
      i. sectionAllergies.xsl
      j. sectionEncounters.xsl
      k. sectionFindings.xsl
      l. sectionFuncCogStatus.xsl
      m. sectionImmunizations.xsl
      n. sectionInstructions.xsl
      o. sectionMedications.xsl
      p. sectionPlanOfCare.xsl
      q. sectionProblemList.xsl
      r. sectionProcedures.xsl
      s. sectionQRDAMeasures.xsl
      t. sectionQRDAPatientData.xsl
      u. sectionQRDAReporting.xsl
      v. sectionReasonForVisit.xsl
      w. sectionResults.xsl
      x. sectionSocialHistory.xsl
      y. sectionVitalSigns.xsl

3) SQL Folder contains:
   - B43.0.8.sql

4) **SSRSDeployment** folder contains 7 subfolders, a batch file for deploying the reports and a help file for deploying the reports.

   4.1. **Backups** folder is empty

   4.2. **Fonts** folder contains 4 files:
   4.1.1. FRE3OF9X
   4.1.2 FRE3OF9x_0
   4.1.3 FREE3OF9

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

4.1.4 FREE3OF9_0

4.3. **ParentFolder** folder contains 7 subfolders
- 4.3.1. **Chair** folder contains 1 .rdl file
- 4.3.2. **Dashboards** folder contains 9 .rdl files
- 4.3.3. **Forms folder** contains sub folder and 2 .rdl files
  - 4.3.3.1. **SubReports** contains 10 .rdl files
- 4.3.4. **Management Reports** folder contains 9 sub folders, these subfolders contain the core management report files (.rdl) to be deployed.
- 4.3.5. **Marketing** folder contains 5 .rdl files
- 4.3.6. **Order Templates** contains 1 file (Default.rdl)
- 4.3.7. **SubReports** contains 13.rdl files
- 4.3.8. **Verbal Order** contains 4 .rdl files

4.4. **Scripts** folder contains 9 .rss files. These files are used with the DeployReports.bat utility to deploy the reports.

4.5. **Upload Custom Mangement Reports** is empty

4.6. **Upload Diagnostic Templates** folder contains 1 subfolder
- 4.6.1. **SubReports** folder is empty

4.7. **Upload Forms** folder contains 1 subfolder.
- 4.7.1. **SubReports** folder is empty

4.8. **eRADDeployReports.bat -** batch file for deploying reports to report server for eRAD customers

4.9. **RadnetDeployReports.bat** - batch file for deploying reports to report sever for RadNet

4.10. **Adding reports for Deployment.docx** document to assist in added a report to the install process when deploying the reports.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 6. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

## 7. Who is affected

Build 43 installs. Server updates are not cumulative. This server update must be applied to 43.0.7

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

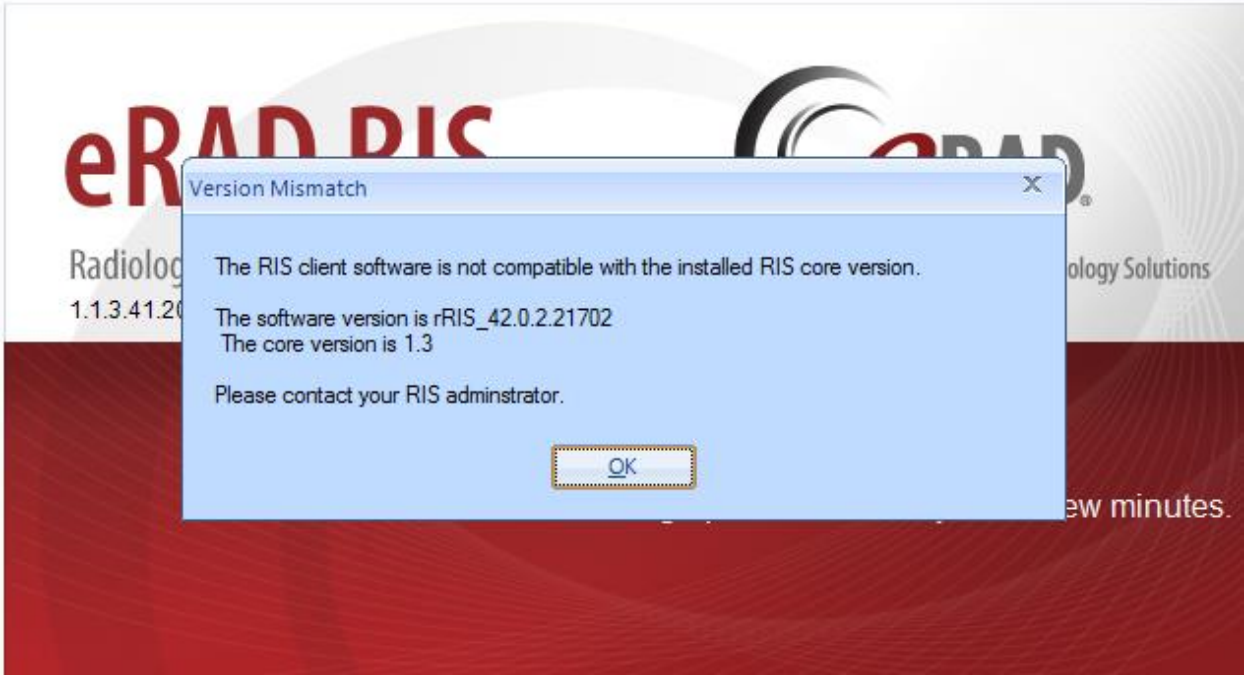
## 8. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 42.1 | - | 2.42.1.0.22744(3GB) | 2.42.0.0.21261 | 2.42.1.0.22744 | 2.42.1.0.22736 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 42.1 | 1 | 2.42.1.1.2296(3GB) | 2.42.0.0.21261 | 2.42.1.1.22963 | 2.42.1.1.22864 | GUI.zip, Web Service, DB updates |
| 42.1 | 2 | 2.42.1.2.23007(3GB) | 2.42.0.0.21261 | 2.42.1.2.23007 | 2.42.1.2.23007 | GUI.zip, Web Service, DB updates |
| 42.1 | 3 | 2.42.1.2.23237(3GB) | 2.42.0.0.21261 | 2.42.1.2.23237 | 2.42.1.2.23007 | GUI.zip, Web Services |
| 42.1 | 4 | 2.42.1.4.23348(3GB) | 2.42.0.0.21261 | 2.42.1.4.23348 | 2.42.1.2.23007 | GUI.zip, Web Services |
| 42.1 | 5 | 2.42.1.5.23406(3GB) | 2.42.0.0.21261 | 2.42.1.5.23406 | 2.42.1.2.23007 | GUI.zip, Web Services |
| 43 | - | 2.43.0.0.23715(3GB) | 2.43.0.0.23171 | 2.43.0.0.23715 | 2.43.0.0.23743 | Full Version Release |
| 43 | 1 | 2.43.0.1.23798(3GB) | 2.43.0.0.23171 | 2.43.0.1.23798 | 2.43.0.1.23770 | GUI.zip, Web Service, DB updates |
| 43 | 2 | 2.43.0.2.24017(3GB) | 2.43.0.0.23171 | 2.43.0.2.24017 | 2.43.0.2.24023 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 3 | 2.43.0.3.24298(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24283 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 3.1 | 2.43.0.3.24450(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24421 | GUI.zip and DB updates |
| 43 | 3.2 | 2.43.0.3.24450(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24421a | DB updates |
| 43 | 4 | 2.43.0.4.24447(3GB) | 2.43.0.0.23171 | 2.43.0.4.24447 | 2.43.0.4.24442 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 5 | 2.43.0.5.24632(3GB) | 2.43.0.0.23171 | 2.43.0.5.24632 | 2.43.0.5.24560 | GUI.zip, Web Service and DB updates |
| 43 | 6 | 2.43.0.6.24914(3GB) | 2.43.0.0.23171 | 2.43.0.6.24914 | 2.43.0.6.24914 | GUI.zip, Web Service and DB updates |
| 43 | 6.1 | 2.43.0.6.24937(3GB) | 2.43.0.0.23171 | 2.43.0.6.24937 | 2.43.0.6.24914 | GUI.zip, Web Service |
| 43 | 6.2 | 2.43.0.6.24970(3GB) | 2.43.0.0.23171 | 2.43.0.6.24970 | 2.43.0.6.24914 | GUI.zip, Web Service |
| 43 | 7 | 2.43.0.7.25258(3GB) | 2.43.0.0.23171 | 2.43.0.7.25258 | 2.43.0.7.25226 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| **43** | **8** | 2.43.0.8.25440(3GB) | 2.43.0.0.23171 | 2.43.0.8.25440 | 2.43.0.8.25425 | GUI.zip, Web Service, DB updates and Management Report Deployment |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 9. Installing

1) Copy and replace the current rRIS…zip file with the rRIS_1.3.43.0.8.25440.zip file provided with this release.
   Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.




If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_43.0.8.25440→ rRIS_1.3.43.0.8.25440
NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

**NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)**

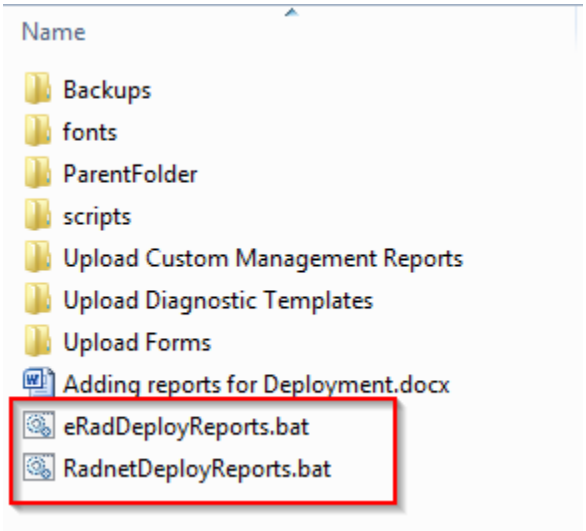
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

2) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService. Be sure to make backup of all files, but especially the rRISServices.exe.config and rRISServices.vshost.exe.config files.
*rRISService directories include:*
   a) *rRISService*
   b) *CDS rRISService*
   c) *Wedge rRISService*
   d) *DDE rRISService*

   **Restart each service.**

3) Run the B43.0.8.sql file against the eRAD RIS database instance.

4) Management Reports Deployment / SSRSDeployment - There are 2 utilities called **RadnetDeployReports.bat** and **eRadDeployReports.bat** that will deploy the reports to a SQL Server Report Service. This utility is found in the **Build X\SSRSDeployment** folder. Below are the steps on how to use this utility. The purpose for the 2 .bat files are the RadNet one deploys a few extra reports specific to RadNet.




1. Launch the DeployReports.bat file.
2. ***Enter report server name [default:<computer_name>]:***
   a. A script will run against the server and return a list of all the root folders on that report server
   **By Default this will pull the computer_name environmental variable from the machine running the script. I suggest running this from the report server for performance anyway.
3. **Enter root folder to deploy reports [default: production]**:

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

a. This will create a new root if the name you give doesn't exist, or it will simply publish below the root of the folder if it does already exist. We typically will use "production" for the installation folder. Note: The script forces the root name to be lowercase.
**Default is suggested to be production, but you may need to change it based on the environment you are deploying to. Ie: testserver might be called something else.

4. **Do you wish to create a backup of the existing reports?**:
   a. This will create a file backup of the report directory specified in the same directory deploy.bat is being run from inside a folder called Backups where it will create a folder based on datetime of backup. Ie: 04172014_110605 (MMDDYYYY_HHMISS).
5. **Do you wish to deploy core management reports**?
   a. If you enter "y", it will redeploy the core management reports
6. **Do you wish to upload Forms**?

a. If you enter "y", the script will deploy any .rdl files into the installations Forms folder that you have previously saved into the script folder called "Upload Forms" including the folder below it called SubReports.

7. **Do you wish to upload Diagnostic Templates**?

a. If you enter "y", the script will deploy any .rdl files into the installations Diagnostic Templates folder that you have previously saved into the script folder called "Upload Diagnostic Templates" including the folder below it called SubReports.

8. **Do you wish to upload Custom Management Reports?**

a. Entering "Y" will copy any .rdl files you've copied under the deployment folder called Upload Custom Management Reports onto the server under Management Reports\Custom\Uploads directory

9. **Do you wish to create a datasource**?
   a. If you select "y" you will get prompted for more information about the datasource you wish to create. You only need to create a datasource, if this is a new installation. No need to do this if you are upgrading an existing installation. The datasource gets created in the root of the folder from step 3. The datasource will be called RISDataSource.

If you chose to create a datasource, the following steps will be requested to complete the connection string.

1. **Enter database server name**:
   a. This is the name of the physical database server
   ex. MYSERVER-1
2. **Enter database name**:
   a. This is the name of the database on the database server
   ex. rRIS_Site

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

3. **Enter report schema user name**: ex. The account that the datasource will use to connect to the database ie: SA. (For security reasons "sa" is not recommended)
4. **Enter report schema password**:

   The results of deployment will be written to log.txt in the same folder as the DeployReports.bat file.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

For eRAD RIS
Version 2.0
Build 43
Update 43.0.9

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Defects Resolved ..... 3
2. Code Stream ..... 4
3. Package Contents ..... 5
4. Intended Audience ..... 7
5. Who is affected ..... 7
6. eRAD RIS Release Version Numbers ..... 8
7. Installing ..... 9

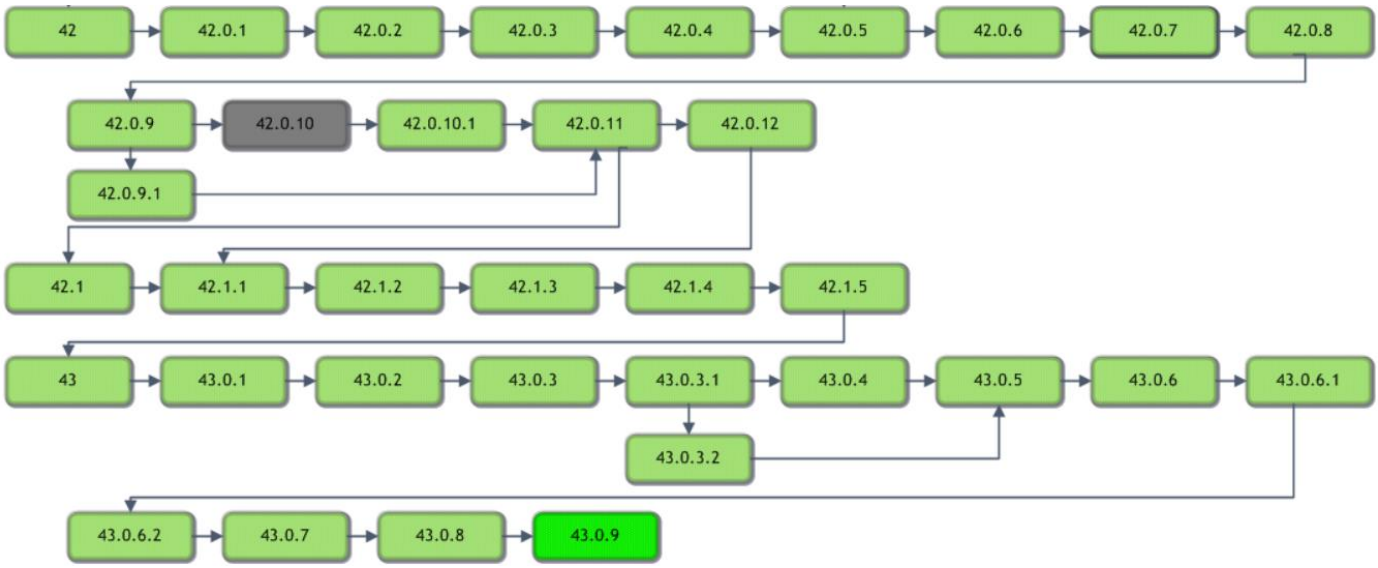
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 1. Defects Resolved

| Redmine # | Tracker | Subject | Priority |
|---|---|---|---|
| 7844 | Bug | Billing Grid - Unable to manually key in a space character | Normal |
| 7843 | Bug | Creating an addendum - when you submit it , the status stays as SIGNED, Cannot sign off this addendum | Normal |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 2. Code Stream




**Legend:**

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 3. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains:
   - rRIS_1.3.43.0.9.25477.zip

2) RIS_Service_Updates contains:

ABCpdf.dll
ABCpdf9-32.dll
ABCpdf9-64.dll
Antlr3.Runtime.dll
CDSJobManager.dll
CDSJobManager.pdb
CdsLib.dll
CdsLib.xml
CdsLib.XmlSerializers.dll
CommonLib.dll
CommonLib.pdb
contents.txt
DDEngine.dll
DDEngine.pdb
DiffPlex.dll
Interop.ANYMODALCAPTURECTRLLib.dll
Interop.FAXCOMEXLib.dll
Microsoft.Practices.EnterpriseLibrary.Caching.dll
Microsoft.Practices.EnterpriseLibrary.Caching.pdb
Microsoft.Practices.EnterpriseLibrary.Common.dll
Microsoft.Practices.EnterpriseLibrary.Common.pdb
Microsoft.Practices.EnterpriseLibrary.Logging.dll
Microsoft.Practices.EnterpriseLibrary.Logging.pdb
Microsoft.Practices.ServiceLocation.dll
Microsoft.Practices.ServiceLocation.pdb
Microsoft.Practices.Unity.dll
Microsoft.Practices.Unity.Interception.dll
Microsoft.Practices.Unity.Interception.pdb
Microsoft.Practices.Unity.pdb
Microsoft.ReportViewer.Common.dll
Microsoft.ReportViewer.WinForms.dll
Microsoft.ReportViewer.WinForms.xml
Newtonsoft.Json.dll
Newtonsoft.Json.xml
NLog.dll
O2S.Components.PDFRender4NET.dll
PDFToImages.exe
Radar.Common.dll
Radar.Common.pdb
Radar.Common.WebClient.dll
Radar.Common.WebClient.pdb
Radar.DirectMessaging.Client.dll
Radar.DirectMessaging.Client.pdb
Radar.DirectMessaging.Model.dll
Radar.DirectMessaging.Model.pdb
rRISServices.exe
rRISServices.pdb
rRISServicesx64.exe
ScheduledTaskManager.dll
ScheduledTaskManager.pdb
ServicesConfigWizard.exe
ServicesConfigWizard.pdb
SignatureApprovalService.exe
SignatureApprovalService.pdb
System.Net.Http.dll
System.Net.Http.Formatting.dll
System.Net.Http.xml
System.Web.Http.dll
System.Web.Http.SelfHost.dll
System.Web.Http.SelfHost.xml
System.Web.Http.WebHost.dll
System.Web.Http.WebHost.xml
System.Web.Http.xml
System.Web.Mvc.dll
System.Web.Mvc.xml
System.Web.Optimization.dll
System.Web.Razor.dll
System.Web.Razor.xml
System.Web.WebPages.Deployment.dll
System.Web.WebPages.Deployment.xml
System.Web.WebPages.dll
System.Web.WebPages.Razor.dll
System.Web.WebPages.Razor.xml
System.Web.WebPages.xml
Tourreau.Gilles.FaxDotNet.dll
Tourreau.Gilles.FaxDotNet.pdb
Tourreau.Gilles.FaxDotNet.xml
WCFService.dll
WCFService.pdb
WCFServiceTests.dll
WCFServiceTests.pdb
WebApi.dll
WebApi.pdb
WebGrease.dll
Wedge.exe
Wedge.pdb

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

The rRIS_Service_Updates also contains to subfolders:

A. Deploy folder contains
   a. Applicationsettings.config
   b. ReleaseVersion-connectionstrings.config
   c. rRISServices.exe.config
   d. services.config

B. XSL subfolder contains:
   a. Subfolder titled "Stylesheets" which contains:
      a. CDAToHTMLCompleteReport.xslt
      b. CDAToHTMLCompleteReportDark.xslt
      c. CDAToHTMLImpressionSection.xslt
      d. CDATorRIS.xslt
      e. CDAToTxt.xslt
      f. DocumentModelReport.xslt
      g. DocumentModelReportAsXml.xslt

   b. CDA Subfolder contains
      a. C-CDA.xsl
      b. eRadStylesheet.xsl
      c. generalTemplates.xsl
      d. header.xsl
      e. QRDA.xsl
      f. QrdaLevel3_Cypress2.4.0.xsl
      g. QrdaLevel3_ViewHtml.xsl
      h. sectionAdministeredMedications.xsl
      i. sectionAllergies.xsl
      j. sectionEncounters.xsl
      k. sectionFindings.xsl
      l. sectionFuncCogStatus.xsl
      m. sectionImmunizations.xsl
      n. sectionInstructions.xsl
      o. sectionMedications.xsl
      p. sectionPlanOfCare.xsl
      q. sectionProblemList.xsl
      r. sectionProcedures.xsl
      s. sectionQRDAMeasures.xsl
      t. sectionQRDAPatientData.xsl
      u. sectionQRDAReporting.xsl
      v. sectionReasonForVisit.xsl
      w. sectionResults.xsl
      x. sectionSocialHistory.xsl
      y. sectionVitalSigns.xsl

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 4. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

## 5. Who is affected

Build 43 installs. Server updates are not cumulative. This server update must be applied to 43.0.8

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

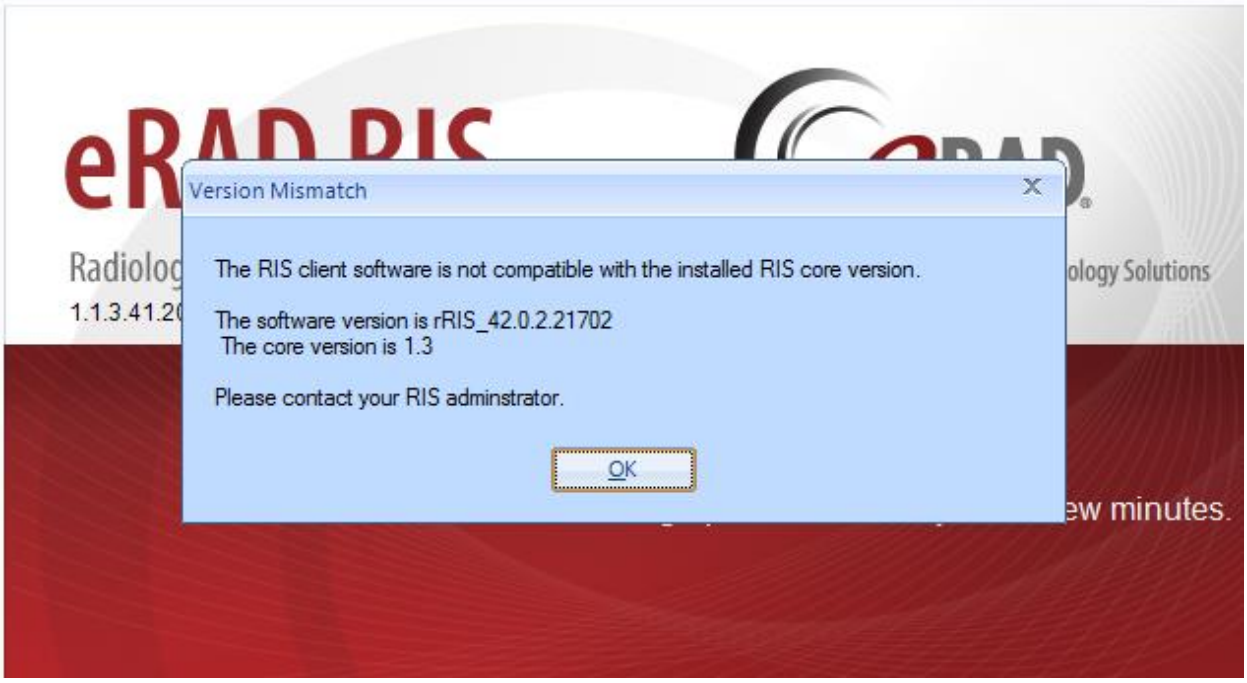
## 6. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 42.1 | - | 2.42.1.0.22744(3GB) | 2.42.0.0.21261 | 2.42.1.0.22744 | 2.42.1.0.22736 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 42.1 | 1 | 2.42.1.1.2296(3GB) | 2.42.0.0.21261 | 2.42.1.1.22963 | 2.42.1.1.22864 | GUI.zip, Web Service, DB updates |
| 42.1 | 2 | 2.42.1.2.23007(3GB) | 2.42.0.0.21261 | 2.42.1.2.23007 | 2.42.1.2.23007 | GUI.zip, Web Service, DB updates |
| 42.1 | 3 | 2.42.1.2.23237(3GB) | 2.42.0.0.21261 | 2.42.1.2.23237 | 2.42.1.2.23007 | GUI.zip, Web Services |
| 42.1 | 4 | 2.42.1.4.23348(3GB) | 2.42.0.0.21261 | 2.42.1.4.23348 | 2.42.1.2.23007 | GUI.zip, Web Services |
| 42.1 | 5 | 2.42.1.5.23406(3GB) | 2.42.0.0.21261 | 2.42.1.5.23406 | 2.42.1.2.23007 | GUI.zip, Web Services |
| 43 | - | 2.43.0.0.23715(3GB) | 2.43.0.0.23171 | 2.43.0.0.23715 | 2.43.0.0.23743 | Full Version Release |
| 43 | 1 | 2.43.0.1.23798(3GB) | 2.43.0.0.23171 | 2.43.0.1.23798 | 2.43.0.1.23770 | GUI.zip, Web Service, DB updates |
| 43 | 2 | 2.43.0.2.24017(3GB) | 2.43.0.0.23171 | 2.43.0.2.24017 | 2.43.0.2.24023 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 3 | 2.43.0.3.24298(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24283 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 3.1 | 2.43.0.3.24450(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24421 | GUI.zip and DB updates |
| 43 | 3.2 | 2.43.0.3.24450(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24421a | DB updates |
| 43 | 4 | 2.43.0.4.24447(3GB) | 2.43.0.0.23171 | 2.43.0.4.24447 | 2.43.0.4.24442 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 5 | 2.43.0.5.24632(3GB) | 2.43.0.0.23171 | 2.43.0.5.24632 | 2.43.0.5.24560 | GUI.zip, Web Service and DB updates |
| 43 | 6 | 2.43.0.6.24914(3GB) | 2.43.0.0.23171 | 2.43.0.6.24914 | 2.43.0.6.24914 | GUI.zip, Web Service and DB updates |
| 43 | 6.1 | 2.43.0.6.24937(3GB) | 2.43.0.0.23171 | 2.43.0.6.24937 | 2.43.0.6.24914 | GUI.zip, Web Service |
| 43 | 6.2 | 2.43.0.6.24970(3GB) | 2.43.0.0.23171 | 2.43.0.6.24970 | 2.43.0.6.24914 | GUI.zip, Web Service |
| 43 | 7 | 2.43.0.7.25258(3GB) | 2.43.0.0.23171 | 2.43.0.7.25258 | 2.43.0.7.25226 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 8 | 2.43.0.8.25440(3GB) | 2.43.0.0.23171 | 2.43.0.8.25440 | 2.43.0.8.25425 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| **43** | **9** | **2.43.0.9.25477(3GB)** | **2.43.0.0.23171** | **2.43.0.9.25477** | **2.43.0.8.25425** | **GUI.zip and Web Service** |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 7. Installing

1) Copy and replace the current rRIS…zip file with the rRIS_1.3.43.0.9.25477.zip file provided with this release.
   Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.




If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_43.0.9.25477→ rRIS_1.3.43.0.9.25477
NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

**NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

2) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService. Be sure to make backup of all files, but especially the rRISServices.exe.config and rRISServices.vshost.exe.config files.
   *rRISService directories include:*
   a) *rRISService*
   b) *CDS rRISService*
   c) *Wedge rRISService*
   d) *DDE rRISService*

   **Restart each service.**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

For eRAD RIS
Version 2.0
Build 43
Update 43.0.10

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Defects Resolved ..... 3
2. Code Stream ..... 4
3. Package Contents ..... 5
4. Intended Audience ..... 7
5. Who is affected ..... 7
6. eRAD RIS Release Version Numbers ..... 8
7. Installing ..... 9

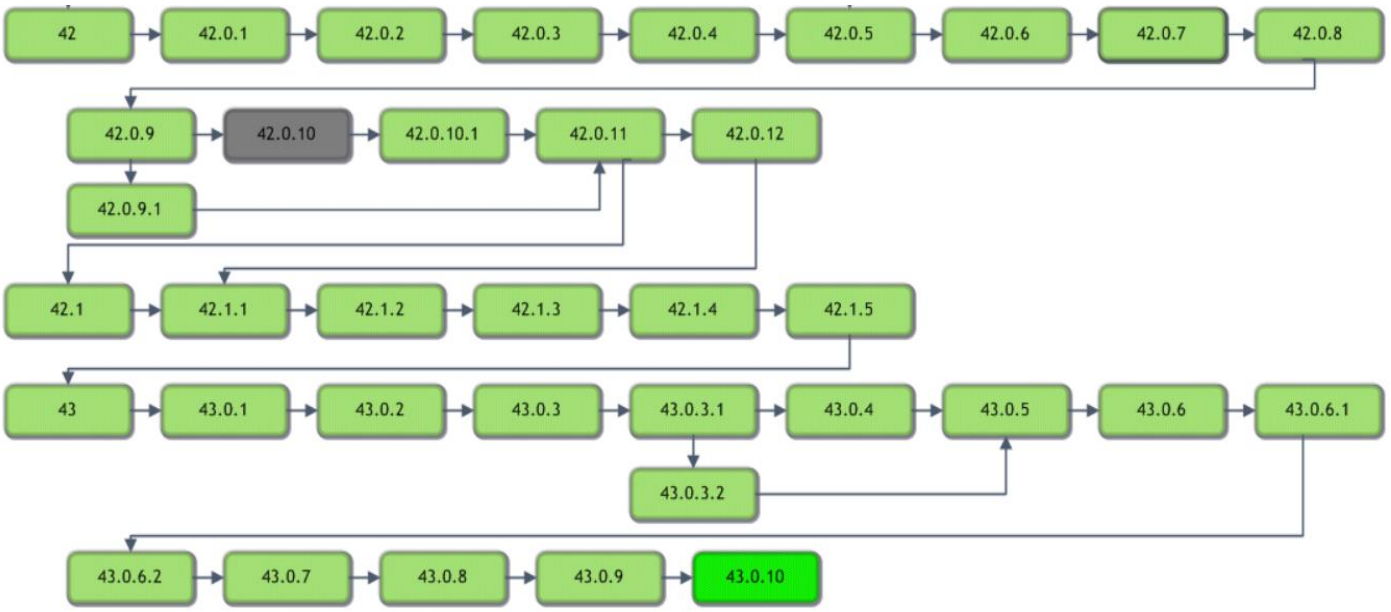
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 1. Defects Resolved

| Redmine # | Tracker | Subject | Priority |
|---|---|---|---|
| 7859 | Bug | slow performance retrieving visit data set | Normal |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 2. Code Stream




**Legend:**

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 3. Package Contents

Files included for this server update:

1) RIS_Service_Updates contains:

ABCpdf.dll
ABCpdf9-32.dll
ABCpdf9-64.dll
Antlr3.Runtime.dll
CDSJobManager.dll
CDSJobManager.pdb
CdsLib.dll
CdsLib.xml
CdsLib.XmlSerializers.dll
CommonLib.dll
CommonLib.pdb
contents.txt
DDEngine.dll
DDEngine.pdb
DiffPlex.dll
Interop.ANYMODALCAPTURECTRLLib.dll
Interop.FAXCOMEXLib.dll
Microsoft.Practices.EnterpriseLibrary.Caching.dll
Microsoft.Practices.EnterpriseLibrary.Caching.pdb
Microsoft.Practices.EnterpriseLibrary.Common.dll
Microsoft.Practices.EnterpriseLibrary.Common.pdb
Microsoft.Practices.EnterpriseLibrary.Logging.dll
Microsoft.Practices.EnterpriseLibrary.Logging.pdb
Microsoft.Practices.ServiceLocation.dll
Microsoft.Practices.ServiceLocation.pdb
Microsoft.Practices.Unity.dll
Microsoft.Practices.Unity.Interception.dll
Microsoft.Practices.Unity.Interception.pdb
Microsoft.Practices.Unity.pdb
Microsoft.ReportViewer.Common.dll
Microsoft.ReportViewer.WinForms.dll
Microsoft.ReportViewer.WinForms.xml
Newtonsoft.Json.dll
Newtonsoft.Json.xml
NLog.dll
O2S.Components.PDFRender4NET.dll
PDFToImages.exe
Radar.Common.dll
Radar.Common.pdb
Radar.Common.WebClient.dll
Radar.Common.WebClient.pdb
Radar.DirectMessaging.Client.dll
Radar.DirectMessaging.Client.pdb
Radar.DirectMessaging.Model.dll
Radar.DirectMessaging.Model.pdb
rRISServices.exe
rRISServices.pdb
rRISServicesx64.exe
ScheduledTaskManager.dll
ScheduledTaskManager.pdb
ServicesConfigWizard.exe
ServicesConfigWizard.pdb
SignatureApprovalService.exe
SignatureApprovalService.pdb
System.Net.Http.dll
System.Net.Http.Formatting.dll
System.Net.Http.xml
System.Web.Http.dll
System.Web.Http.SelfHost.dll
System.Web.Http.SelfHost.xml
System.Web.Http.WebHost.dll
System.Web.Http.WebHost.xml
System.Web.Http.xml
System.Web.Mvc.dll
System.Web.Mvc.xml
System.Web.Optimization.dll
System.Web.Razor.dll
System.Web.Razor.xml
System.Web.WebPages.Deployment.dll
System.Web.WebPages.Deployment.xml
System.Web.WebPages.dll
System.Web.WebPages.Razor.dll
System.Web.WebPages.Razor.xml
System.Web.WebPages.xml
Tourreau.Gilles.FaxDotNet.dll
Tourreau.Gilles.FaxDotNet.pdb
Tourreau.Gilles.FaxDotNet.xml
WCFService.dll
WCFService.pdb
WCFServiceTests.dll
WCFServiceTests.pdb
WebApi.dll
WebApi.pdb
WebGrease.dll
Wedge.exe
Wedge.pdb

The rRIS_Service_Updates also contains to subfolders:

A. Deploy folder contains

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

a. Applicationsettings.config
b. ReleaseVersion-connectionstrings.config
c. rRISServices.exe.config
d. services.config

B. XSL subfolder contains:
   a. Subfolder titled "Stylesheets" which contains:
      a. CDAToHTMLCompleteReport.xslt
      b. CDAToHTMLCompleteReportDark.xslt
      c. CDAToHTMLImpressionSection.xslt
      d. CDATorRIS.xslt
      e. CDAToTxt.xslt
      f. DocumentModelReport.xslt
      g. DocumentModelReportAsXml.xslt

   b. CDA Subfolder contains
      a. C-CDA.xsl
      b. eRadStylesheet.xsl
      c. generalTemplates.xsl
      d. header.xsl
      e. QRDA.xsl
      f. QrdaLevel3_Cypress2.4.0.xsl
      g. QrdaLevel3_ViewHtml.xsl
      h. sectionAdministeredMedications.xsl
      i. sectionAllergies.xsl
      j. sectionEncounters.xsl
      k. sectionFindings.xsl
      l. sectionFuncCogStatus.xsl
      m. sectionImmunizations.xsl
      n. sectionInstructions.xsl
      o. sectionMedications.xsl
      p. sectionPlanOfCare.xsl
      q. sectionProblemList.xsl
      r. sectionProcedures.xsl
      s. sectionQRDAMeasures.xsl
      t. sectionQRDAPatientData.xsl
      u. sectionQRDAReporting.xsl
      v. sectionReasonForVisit.xsl
      w. sectionResults.xsl
      x. sectionSocialHistory.xsl
      y. sectionVitalSigns.xsl

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 4. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

## 5. Who is affected

Build 43 installs. Server updates are not cumulative. This server update must be applied to 43.0.9

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 6. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 42.1 | - | 2.42.1.0.22744(3GB) | 2.42.0.0.21261 | 2.42.1.0.22744 | 2.42.1.0.22736 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 42.1 | 1 | 2.42.1.1.2296(3GB) | 2.42.0.0.21261 | 2.42.1.1.22963 | 2.42.1.1.22864 | GUI.zip, Web Service, DB updates |
| 42.1 | 2 | 2.42.1.2.23007(3GB) | 2.42.0.0.21261 | 2.42.1.2.23007 | 2.42.1.2.23007 | GUI.zip, Web Service, DB updates |
| 42.1 | 3 | 2.42.1.2.23237(3GB) | 2.42.0.0.21261 | 2.42.1.2.23237 | 2.42.1.2.23007 | GUI.zip, Web Services |
| 42.1 | 4 | 2.42.1.4.23348(3GB) | 2.42.0.0.21261 | 2.42.1.4.23348 | 2.42.1.2.23007 | GUI.zip, Web Services |
| 42.1 | 5 | 2.42.1.5.23406(3GB) | 2.42.0.0.21261 | 2.42.1.5.23406 | 2.42.1.2.23007 | GUI.zip, Web Services |
| 43 | - | 2.43.0.0.23715(3GB) | 2.43.0.0.23171 | 2.43.0.0.23715 | 2.43.0.0.23743 | Full Version Release |
| 43 | 1 | 2.43.0.1.23798(3GB) | 2.43.0.0.23171 | 2.43.0.1.23798 | 2.43.0.1.23770 | GUI.zip, Web Service, DB updates |
| 43 | 2 | 2.43.0.2.24017(3GB) | 2.43.0.0.23171 | 2.43.0.2.24017 | 2.43.0.2.24023 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 3 | 2.43.0.3.24298(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24283 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 3.1 | 2.43.0.3.24450(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24421 | GUI.zip and DB updates |
| 43 | 3.2 | 2.43.0.3.24450(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24421a | DB updates |
| 43 | 4 | 2.43.0.4.24447(3GB) | 2.43.0.0.23171 | 2.43.0.4.24447 | 2.43.0.4.24442 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 5 | 2.43.0.5.24632(3GB) | 2.43.0.0.23171 | 2.43.0.5.24632 | 2.43.0.5.24560 | GUI.zip, Web Service and DB updates |
| 43 | 6 | 2.43.0.6.24914(3GB) | 2.43.0.0.23171 | 2.43.0.6.24914 | 2.43.0.6.24914 | GUI.zip, Web Service and DB updates |
| 43 | 6.1 | 2.43.0.6.24937(3GB) | 2.43.0.0.23171 | 2.43.0.6.24937 | 2.43.0.6.24914 | GUI.zip, Web Service |
| 43 | 6.2 | 2.43.0.6.24970(3GB) | 2.43.0.0.23171 | 2.43.0.6.24970 | 2.43.0.6.24914 | GUI.zip, Web Service |
| 43 | 7 | 2.43.0.7.25258(3GB) | 2.43.0.0.23171 | 2.43.0.7.25258 | 2.43.0.7.25226 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 8 | 2.43.0.8.25440(3GB) | 2.43.0.0.23171 | 2.43.0.8.25440 | 2.43.0.8.25425 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 9 | 2.43.0.9.25477(3GB) | 2.43.0.0.23171 | 2.43.0.9.25477 | 2.43.0.8.25425 | GUI.zip and Web Service |
| **43** | **10** | **2.43.0.9.25477(3GB)** | **2.43.0.0.23171** | **2.43.0.10.25477** | **2.43.0.8.25425** | **Web Service** |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 7. Installing

1) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService. Be sure to make backup of all files, but especially the configuration files. These include rRISServices.exe.config, rRISServicesx64.exe.config, applicationsettings.config, connectionstrings.config and services.config files.

   *rRISService directories include:*
   a) *rRISService*
   b) *CDS rRISService*
   c) *Wedge rRISService*
   d) *DDE rRISService*

   **Restart each service.**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

For eRAD RIS
Version 2.0
Build 43
Update 43.0.11

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Defects Resolved ..... 3
2. Code Stream ..... 4
3. Package Contents ..... 5
4. Intended Audience ..... 7
5. Who is affected ..... 7
6. eRAD RIS Release Version Numbers ..... 8
7. Installing ..... 9

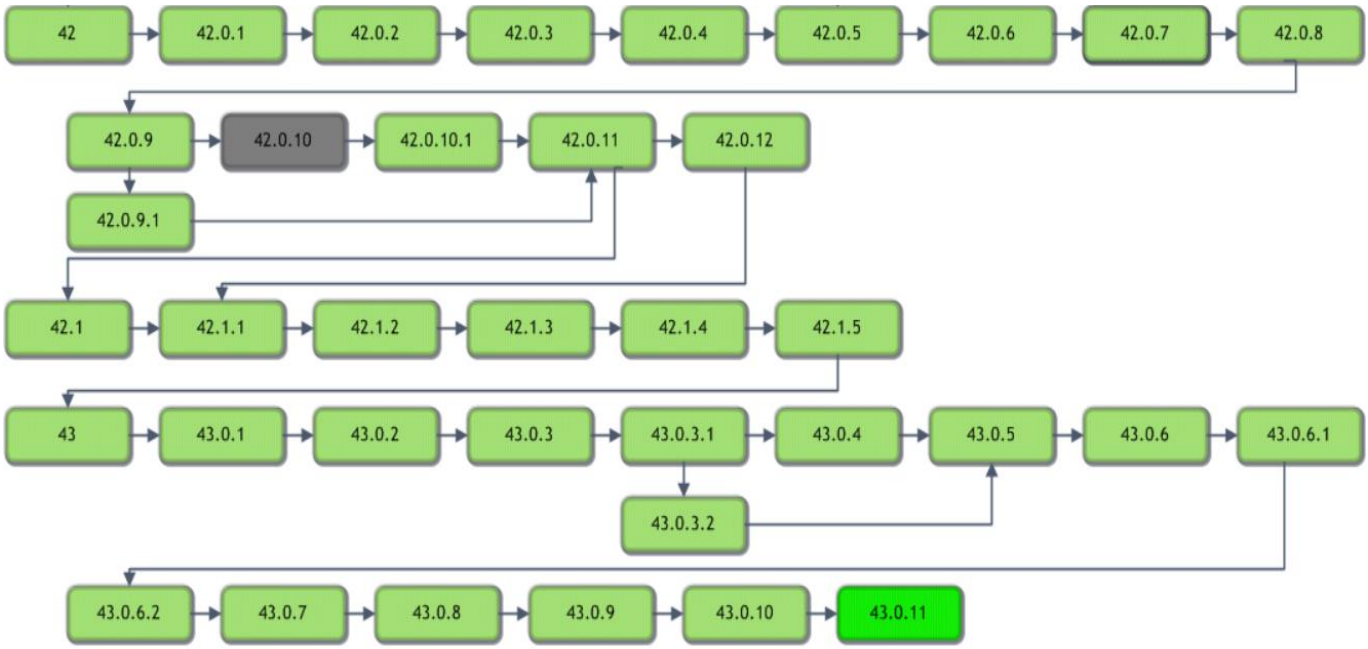
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 1. Defects Resolved

| Redmine # | Tracker | Subject | Priority |
|---|---|---|---|
| 7828 | Feature | CD Burning - Add MRN to interface to PACS to ensure correct images are requested | Urgent |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 2. Code Stream




**Legend:**

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 3. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains:
   - rRIS_1.3.43.0.11.25512.zip

2) RIS_Service_Updates contains:

ABCpdf.dll
ABCpdf9-32.dll
ABCpdf9-64.dll
Antlr3.Runtime.dll
CDSJobManager.dll
CDSJobManager.pdb
CdsLib.dll
CdsLib.xml
CdsLib.XmlSerializers.dll
CommonLib.dll
CommonLib.pdb
contents.txt
DDEngine.dll
DDEngine.pdb
DiffPlex.dll
Interop.ANYMODALCAPTURECTRLLib.dll
Interop.FAXCOMEXLib.dll
Microsoft.Practices.EnterpriseLibrary.Caching.dll
Microsoft.Practices.EnterpriseLibrary.Caching.pdb
Microsoft.Practices.EnterpriseLibrary.Common.dll
Microsoft.Practices.EnterpriseLibrary.Common.pdb
Microsoft.Practices.EnterpriseLibrary.Logging.dll
Microsoft.Practices.EnterpriseLibrary.Logging.pdb
Microsoft.Practices.ServiceLocation.dll
Microsoft.Practices.ServiceLocation.pdb
Microsoft.Practices.Unity.dll
Microsoft.Practices.Unity.Interception.dll
Microsoft.Practices.Unity.Interception.pdb
Microsoft.Practices.Unity.pdb
Microsoft.ReportViewer.Common.dll
Microsoft.ReportViewer.WinForms.dll
Microsoft.ReportViewer.WinForms.xml
Newtonsoft.Json.dll
Newtonsoft.Json.xml
NLog.dll
O2S.Components.PDFRender4NET.dll
PDFToImages.exe
Radar.Common.dll
Radar.Common.pdb
Radar.Common.WebClient.dll
Radar.Common.WebClient.pdb
Radar.DirectMessaging.Client.dll
Radar.DirectMessaging.Client.pdb
Radar.DirectMessaging.Model.dll
Radar.DirectMessaging.Model.pdb
rRISServices.exe
rRISServices.pdb
rRISServicesx64.exe
ScheduledTaskManager.dll
ScheduledTaskManager.pdb
ServicesConfigWizard.exe
ServicesConfigWizard.pdb
SignatureApprovalService.exe
SignatureApprovalService.pdb
System.Net.Http.dll
System.Net.Http.Formatting.dll
System.Net.Http.xml
System.Web.Http.dll
System.Web.Http.SelfHost.dll
System.Web.Http.SelfHost.xml
System.Web.Http.WebHost.dll
System.Web.Http.WebHost.xml
System.Web.Http.xml
System.Web.Mvc.dll
System.Web.Mvc.xml
System.Web.Optimization.dll
System.Web.Razor.dll
System.Web.Razor.xml
System.Web.WebPages.Deployment.dll
System.Web.WebPages.Deployment.xml
System.Web.WebPages.dll
System.Web.WebPages.Razor.dll
System.Web.WebPages.Razor.xml
System.Web.WebPages.xml
Tourreau.Gilles.FaxDotNet.dll
Tourreau.Gilles.FaxDotNet.pdb
Tourreau.Gilles.FaxDotNet.xml
WCFService.dll
WCFService.pdb
WCFServiceTests.dll
WCFServiceTests.pdb
WebApi.dll
WebApi.pdb
WebGrease.dll
Wedge.exe
Wedge.pdb

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

The rRIS_Service_Updates also contains to subfolders:

A. Deploy folder contains
   a. Applicationsettings.config
   b. ReleaseVersion-connectionstrings.config
   c. rRISServices.exe.config
   d. services.config

B. XSL subfolder contains:
   a. Subfolder titled "Stylesheets" which contains:
      a. CDAToHTMLCompleteReport.xslt
      b. CDAToHTMLCompleteReportDark.xslt
      c. CDAToHTMLImpressionSection.xslt
      d. CDATorRIS.xslt
      e. CDAToTxt.xslt
      f. DocumentModelReport.xslt
      g. DocumentModelReportAsXml.xslt

   b. CDA Subfolder contains
      a. C-CDA.xsl
      b. eRadStylesheet.xsl
      c. generalTemplates.xsl
      d. header.xsl
      e. QRDA.xsl
      f. QrdaLevel3_Cypress2.4.0.xsl
      g. QrdaLevel3_ViewHtml.xsl
      h. sectionAdministeredMedications.xsl
      i. sectionAllergies.xsl
      j. sectionEncounters.xsl
      k. sectionFindings.xsl
      l. sectionFuncCogStatus.xsl
      m. sectionImmunizations.xsl
      n. sectionInstructions.xsl
      o. sectionMedications.xsl
      p. sectionPlanOfCare.xsl
      q. sectionProblemList.xsl
      r. sectionProcedures.xsl
      s. sectionQRDAMeasures.xsl
      t. sectionQRDAPatientData.xsl
      u. sectionQRDAReporting.xsl
      v. sectionReasonForVisit.xsl
      w. sectionResults.xsl
      x. sectionSocialHistory.xsl
      y. sectionVitalSigns.xsl

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 4. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

## 5. Who is affected

Build 43 installs. Server updates are not cumulative. This server update must be applied to 43.0.9

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

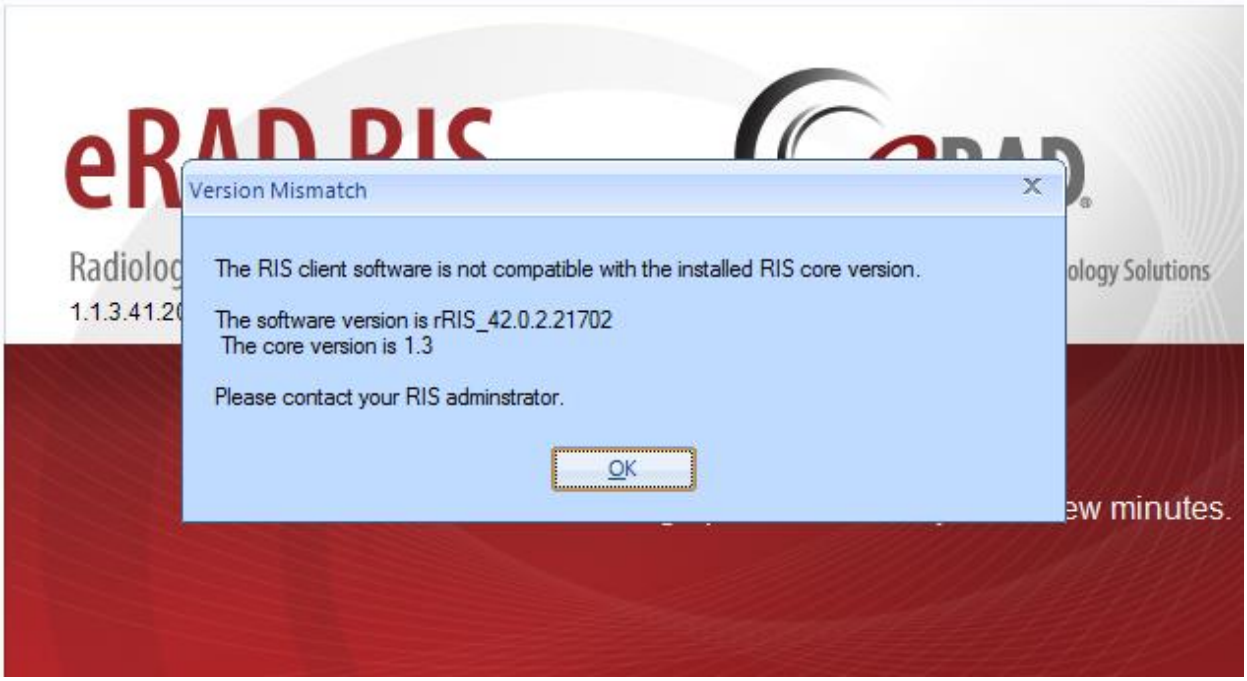
## 6. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 42.1 | - | 2.42.1.0.22744(3GB) | 2.42.0.0.21261 | 2.42.1.0.22744 | 2.42.1.0.22736 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 42.1 | 1 | 2.42.1.1.2296(3GB) | 2.42.0.0.21261 | 2.42.1.1.22963 | 2.42.1.1.22864 | GUI.zip, Web Service, DB updates |
| 42.1 | 2 | 2.42.1.2.23007(3GB) | 2.42.0.0.21261 | 2.42.1.2.23007 | 2.42.1.2.23007 | GUI.zip, Web Service, DB updates |
| 42.1 | 3 | 2.42.1.2.23237(3GB) | 2.42.0.0.21261 | 2.42.1.2.23237 | 2.42.1.2.23007 | GUI.zip, Web Services |
| 42.1 | 4 | 2.42.1.4.23348(3GB) | 2.42.0.0.21261 | 2.42.1.4.23348 | 2.42.1.2.23007 | GUI.zip, Web Services |
| 42.1 | 5 | 2.42.1.5.23406(3GB) | 2.42.0.0.21261 | 2.42.1.5.23406 | 2.42.1.2.23007 | GUI.zip, Web Services |
| 43 | - | 2.43.0.0.23715(3GB) | 2.43.0.0.23171 | 2.43.0.0.23715 | 2.43.0.0.23743 | Full Version Release |
| 43 | 1 | 2.43.0.1.23798(3GB) | 2.43.0.0.23171 | 2.43.0.1.23798 | 2.43.0.1.23770 | GUI.zip, Web Service, DB updates |
| 43 | 2 | 2.43.0.2.24017(3GB) | 2.43.0.0.23171 | 2.43.0.2.24017 | 2.43.0.2.24023 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 3 | 2.43.0.3.24298(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24283 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 3.1 | 2.43.0.3.24450(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24421 | GUI.zip and DB updates |
| 43 | 3.2 | 2.43.0.3.24450(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24421a | DB updates |
| 43 | 4 | 2.43.0.4.24447(3GB) | 2.43.0.0.23171 | 2.43.0.4.24447 | 2.43.0.4.24442 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 5 | 2.43.0.5.24632(3GB) | 2.43.0.0.23171 | 2.43.0.5.24632 | 2.43.0.5.24560 | GUI.zip, Web Service and DB updates |
| 43 | 6 | 2.43.0.6.24914(3GB) | 2.43.0.0.23171 | 2.43.0.6.24914 | 2.43.0.6.24914 | GUI.zip, Web Service and DB updates |
| 43 | 6.1 | 2.43.0.6.24937(3GB) | 2.43.0.0.23171 | 2.43.0.6.24937 | 2.43.0.6.24914 | GUI.zip, Web Service |
| 43 | 6.2 | 2.43.0.6.24970(3GB) | 2.43.0.0.23171 | 2.43.0.6.24970 | 2.43.0.6.24914 | GUI.zip, Web Service |
| 43 | 7 | 2.43.0.7.25258(3GB) | 2.43.0.0.23171 | 2.43.0.7.25258 | 2.43.0.7.25226 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 8 | 2.43.0.8.25440(3GB) | 2.43.0.0.23171 | 2.43.0.8.25440 | 2.43.0.8.25425 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 9 | 2.43.0.9.25477(3GB) | 2.43.0.0.23171 | 2.43.0.9.25477 | 2.43.0.8.25425 | GUI.zip and Web Service |
| 43 | 10 | 2.43.0.9.25477(3GB) | 2.43.0.0.23171 | **2.43.0.10.25477** | 2.43.0.8.25425 | Web Service |
| **43** | **11** | **2.43.0.11.25512(3GB)** | **2.43.0.0.23171** | **2.43.0.11.25512** | **2.43.0.8.25425** | **GUI.zip and Web Service** |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 7. Installing

1) Copy and replace the current rRIS…zip file with the rRIS_1.3.43.0.11.25512.zip file provided with this release.
   Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.




If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_43.0.11.25512→ rRIS_1.3.43.0.11.25512
NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

**NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)**

2) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService. Be sure to make backup of all files, but especially the rRISServices.exe.config and rRISServices.vshost.exe.config files.
*rRISService directories include:*
   a) *rRISService*
   b) *CDS rRISService*
   c) *Wedge rRISService*
   d) *DDE rRISService*

**Restart each service.**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

For eRAD RIS
Version 2.0
Build 43
Update 43.0.12

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Defects Resolved ..... 3
2. Code Stream ..... 4
3. Package Contents ..... 5
4. Intended Audience ..... 7
5. Who is affected ..... 7
6. eRAD RIS Release Version Numbers ..... 8
7. Installing ..... 9

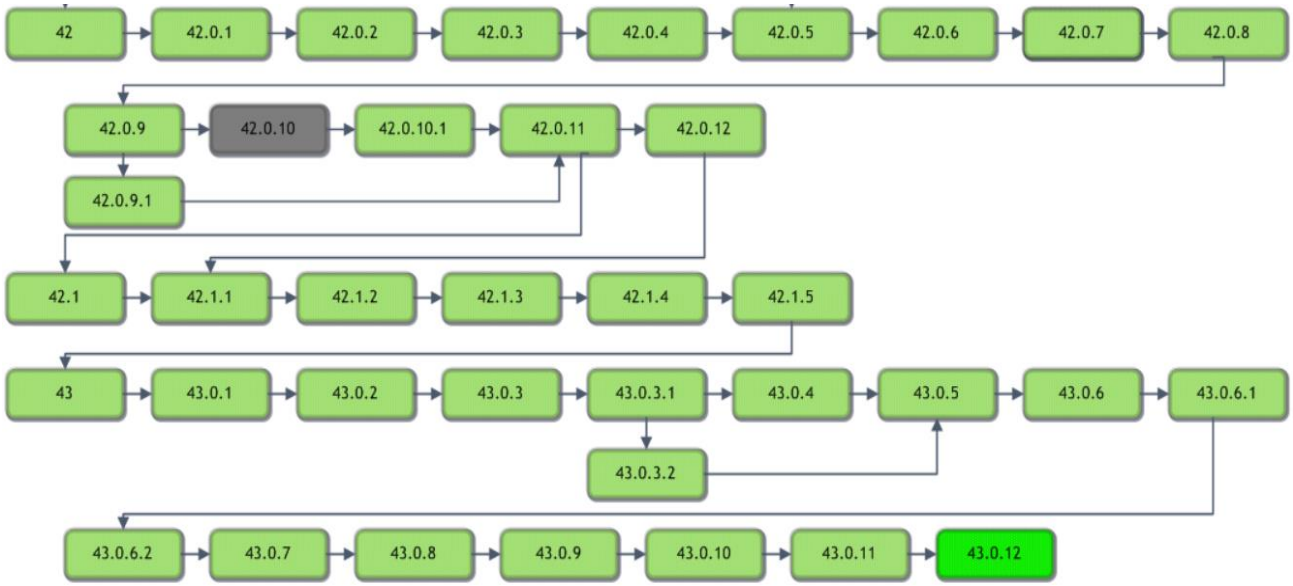
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 1. Defects Resolved

| Redmine # | Tracker | Subject | Priority |
|---|---|---|---|
| 7896 | Bug | Residual Cross site schedule code from future development got put into b43.0.7 that can allow multiple site to come back in a search result | Urgent |
| 7870 | Bug | Insurance Eligibility - Exclude Service Type lines that have a null Period | Urgent |
| 7868 | Bug | Insurance Eligibility - Need to parse returns for text applying to RadNet | Urgent |
| 7907 | Bug | Billing Grid - Unable to copy policy number | Normal |
| 7906 | Bug | CD Burning - Failing due to missing patient_id field in Perform Exam | Normal |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 2. Code Stream




**Legend:**

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 3. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains:
   - rRIS_1.3.43.0.12.25554.zip

2) RIS_Service_Updates contains:

ABCpdf.dll
ABCpdf9-32.dll
ABCpdf9-64.dll
Antlr3.Runtime.dll
CDSJobManager.dll
CDSJobManager.pdb
CdsLib.dll
CdsLib.xml
CdsLib.XmlSerializers.dll
CommonLib.dll
CommonLib.pdb
contents.txt
DDEngine.dll
DDEngine.pdb
DiffPlex.dll
Interop.ANYMODALCAPTURECTRLLib.dll
Interop.FAXCOMEXLib.dll
Microsoft.Practices.EnterpriseLibrary.Caching.dll
Microsoft.Practices.EnterpriseLibrary.Caching.pdb
Microsoft.Practices.EnterpriseLibrary.Common.dll
Microsoft.Practices.EnterpriseLibrary.Common.pdb
Microsoft.Practices.EnterpriseLibrary.Logging.dll
Microsoft.Practices.EnterpriseLibrary.Logging.pdb
Microsoft.Practices.ServiceLocation.dll
Microsoft.Practices.ServiceLocation.pdb
Microsoft.Practices.Unity.dll
Microsoft.Practices.Unity.Interception.dll
Microsoft.Practices.Unity.Interception.pdb
Microsoft.Practices.Unity.pdb
Microsoft.ReportViewer.Common.dll
Microsoft.ReportViewer.WinForms.dll
Microsoft.ReportViewer.WinForms.xml
Newtonsoft.Json.dll
Newtonsoft.Json.xml
NLog.dll
O2S.Components.PDFRender4NET.dll
PDFToImages.exe
Radar.Common.dll
Radar.Common.pdb
Radar.Common.WebClient.dll
Radar.Common.WebClient.pdb
Radar.DirectMessaging.Client.dll
Radar.DirectMessaging.Client.pdb
Radar.DirectMessaging.Model.dll
Radar.DirectMessaging.Model.pdb
rRISServices.exe
rRISServices.pdb
rRISServicesx64.exe
ScheduledTaskManager.dll
ScheduledTaskManager.pdb
ServicesConfigWizard.exe
ServicesConfigWizard.pdb
SignatureApprovalService.exe
SignatureApprovalService.pdb
System.Net.Http.dll
System.Net.Http.Formatting.dll
System.Net.Http.xml
System.Web.Http.dll
System.Web.Http.SelfHost.dll
System.Web.Http.SelfHost.xml
System.Web.Http.WebHost.dll
System.Web.Http.WebHost.xml
System.Web.Http.xml
System.Web.Mvc.dll
System.Web.Mvc.xml
System.Web.Optimization.dll
System.Web.Razor.dll
System.Web.Razor.xml
System.Web.WebPages.Deployment.dll
System.Web.WebPages.Deployment.xml
System.Web.WebPages.dll
System.Web.WebPages.Razor.dll
System.Web.WebPages.Razor.xml
System.Web.WebPages.xml
Tourreau.Gilles.FaxDotNet.dll
Tourreau.Gilles.FaxDotNet.pdb
Tourreau.Gilles.FaxDotNet.xml
WCFService.dll
WCFService.pdb
WCFServiceTests.dll
WCFServiceTests.pdb
WebApi.dll
WebApi.pdb
WebGrease.dll
Wedge.exe
Wedge.pdb

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

The rRIS_Service_Updates also contains to subfolders:

A. Deploy folder contains
   a. Applicationsettings.config
   b. ReleaseVersion-connectionstrings.config
   c. rRISServices.exe.config
   d. services.config

B. XSL subfolder contains:
   a. Subfolder titled "Stylesheets" which contains:
      a. CDAToHTMLCompleteReport.xslt
      b. CDAToHTMLCompleteReportDark.xslt
      c. CDAToHTMLImpressionSection.xslt
      d. CDATorRIS.xslt
      e. CDAToTxt.xslt
      f. DocumentModelReport.xslt
      g. DocumentModelReportAsXml.xslt

   b. CDA Subfolder contains
      a. C-CDA.xsl
      b. eRadStylesheet.xsl
      c. generalTemplates.xsl
      d. header.xsl
      e. QRDA.xsl
      f. QrdaLevel3_Cypress2.4.0.xsl
      g. QrdaLevel3_ViewHtml.xsl
      h. sectionAdministeredMedications.xsl
      i. sectionAllergies.xsl
      j. sectionEncounters.xsl
      k. sectionFindings.xsl
      l. sectionFuncCogStatus.xsl
      m. sectionImmunizations.xsl
      n. sectionInstructions.xsl
      o. sectionMedications.xsl
      p. sectionPlanOfCare.xsl
      q. sectionProblemList.xsl
      r. sectionProcedures.xsl
      s. sectionQRDAMeasures.xsl
      t. sectionQRDAPatientData.xsl
      u. sectionQRDAReporting.xsl
      v. sectionReasonForVisit.xsl
      w. sectionResults.xsl
      x. sectionSocialHistory.xsl
      y. sectionVitalSigns.xsl

C. SQL Folder contains:
   - B43.0.12.sql

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 4. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

## 5. Who is affected

Build 43 installs. Server updates are not cumulative. This server update must be applied to 43.0.8

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

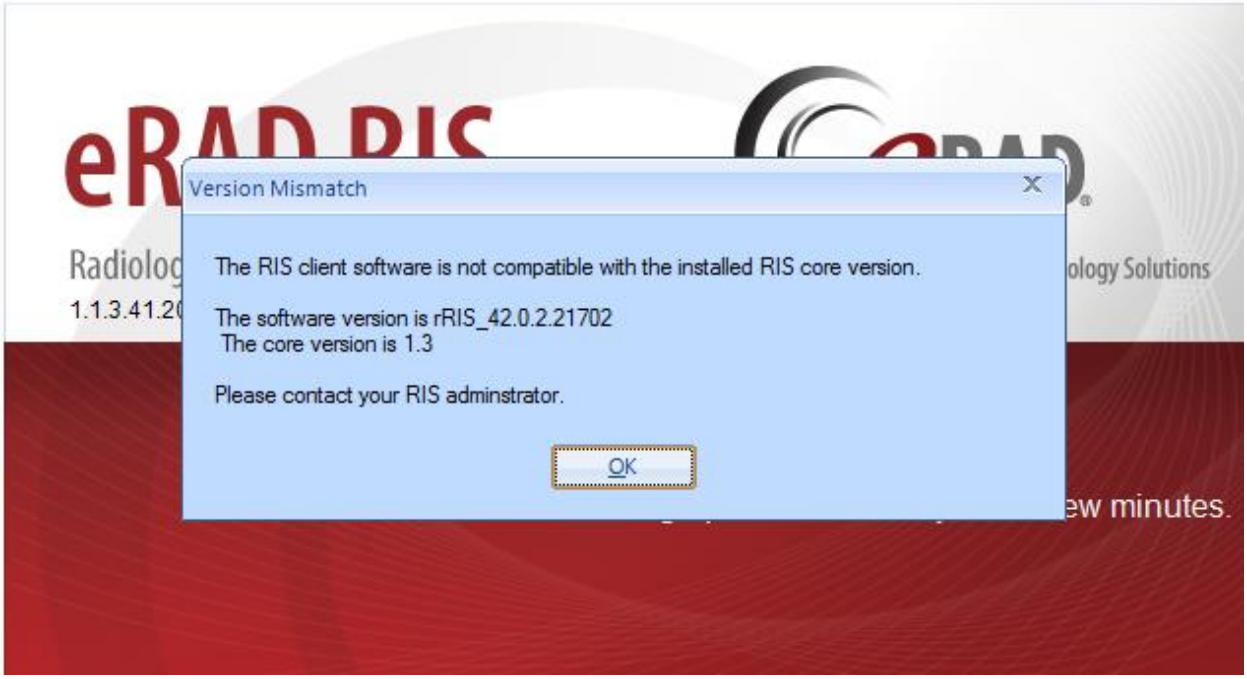
## 6. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 42.1 | - | 2.42.1.0.22744(3GB) | 2.42.0.0.21261 | 2.42.1.0.22744 | 2.42.1.0.22736 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 42.1 | 1 | 2.42.1.1.2296(3GB) | 2.42.0.0.21261 | 2.42.1.1.22963 | 2.42.1.1.22864 | GUI.zip, Web Service, DB updates |
| 42.1 | 2 | 2.42.1.2.23007(3GB) | 2.42.0.0.21261 | 2.42.1.2.23007 | 2.42.1.2.23007 | GUI.zip, Web Service, DB updates |
| 42.1 | 3 | 2.42.1.2.23237(3GB) | 2.42.0.0.21261 | 2.42.1.2.23237 | 2.42.1.2.23007 | GUI.zip, Web Services |
| 42.1 | 4 | 2.42.1.4.23348(3GB) | 2.42.0.0.21261 | 2.42.1.4.23348 | 2.42.1.2.23007 | GUI.zip, Web Services |
| 42.1 | 5 | 2.42.1.5.23406(3GB) | 2.42.0.0.21261 | 2.42.1.5.23406 | 2.42.1.2.23007 | GUI.zip, Web Services |
| 43 | - | 2.43.0.0.23715(3GB) | 2.43.0.0.23171 | 2.43.0.0.23715 | 2.43.0.0.23743 | Full Version Release |
| 43 | 1 | 2.43.0.1.23798(3GB) | 2.43.0.0.23171 | 2.43.0.1.23798 | 2.43.0.1.23770 | GUI.zip, Web Service, DB updates |
| 43 | 2 | 2.43.0.2.24017(3GB) | 2.43.0.0.23171 | 2.43.0.2.24017 | 2.43.0.2.24023 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 3 | 2.43.0.3.24298(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24283 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 3.1 | 2.43.0.3.24450(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24421 | GUI.zip and DB updates |
| 43 | 3.2 | 2.43.0.3.24450(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24421a | DB updates |
| 43 | 4 | 2.43.0.4.24447(3GB) | 2.43.0.0.23171 | 2.43.0.4.24447 | 2.43.0.4.24442 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 5 | 2.43.0.5.24632(3GB) | 2.43.0.0.23171 | 2.43.0.5.24632 | 2.43.0.5.24560 | GUI.zip, Web Service and DB updates |
| 43 | 6 | 2.43.0.6.24914(3GB) | 2.43.0.0.23171 | 2.43.0.6.24914 | 2.43.0.6.24914 | GUI.zip, Web Service and DB updates |
| 43 | 6.1 | 2.43.0.6.24937(3GB) | 2.43.0.0.23171 | 2.43.0.6.24937 | 2.43.0.6.24914 | GUI.zip, Web Service |
| 43 | 6.2 | 2.43.0.6.24970(3GB) | 2.43.0.0.23171 | 2.43.0.6.24970 | 2.43.0.6.24914 | GUI.zip, Web Service |
| 43 | 7 | 2.43.0.7.25258(3GB) | 2.43.0.0.23171 | 2.43.0.7.25258 | 2.43.0.7.25226 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 8 | 2.43.0.8.25440(3GB) | 2.43.0.0.23171 | 2.43.0.8.25440 | 2.43.0.8.25425 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 9 | 2.43.0.9.25477(3GB) | 2.43.0.0.23171 | 2.43.0.9.25477 | 2.43.0.8.25425 | GUI.zip and Web Service |
| 43 | 10 | 2.43.0.9.25477(3GB) | 2.43.0.0.23171 | **2.43.0.10.25477** | 2.43.0.8.25425 | Web Service |
| 43 | 11 | 2.43.0.11.25512(3GB) | 2.43.0.0.23171 | 2.43.0.11.25512 | 2.43.0.8.25425 | GUI.zip and Web Service |
| **43** | **12** | **2.43.0.12.25554(3GB)** | **2.43.0.0.23171** | **2.43.0.12.25554** | **2.43.0.12.25536** | **GUI.zip Web Service and DB Updates** |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 7. Installing

1) Copy and replace the current rRIS…zip file with the rRIS_1.3.43.0.12.25554.zip file provided with this release.
   Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.




If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_43.0.12.25554→ rRIS_1.3.43.0.12.25554
NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

**NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

2) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService. Be sure to make backup of all files, but especially the rRISServices.exe.config and rRISServices.vshost.exe.config files.
   *rRISService directories include:*
   a) *rRISService*
   b) *CDS rRISService*
   c) *Wedge rRISService*
   d) *DDE rRISService*

   **Restart each service.**

3) Run the B43.0.12.sql file against the eRAD RIS database instance.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

For eRAD RIS
Version 2.0
Build 43
Update 43.0.13

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Defects Resolved ..... 3
2. Code Stream ..... 4
3. Package Contents ..... 5
4. Intended Audience ..... 7
5. Who is affected ..... 7
6. eRAD RIS Release Version Numbers ..... 8
7. Installing ..... 9

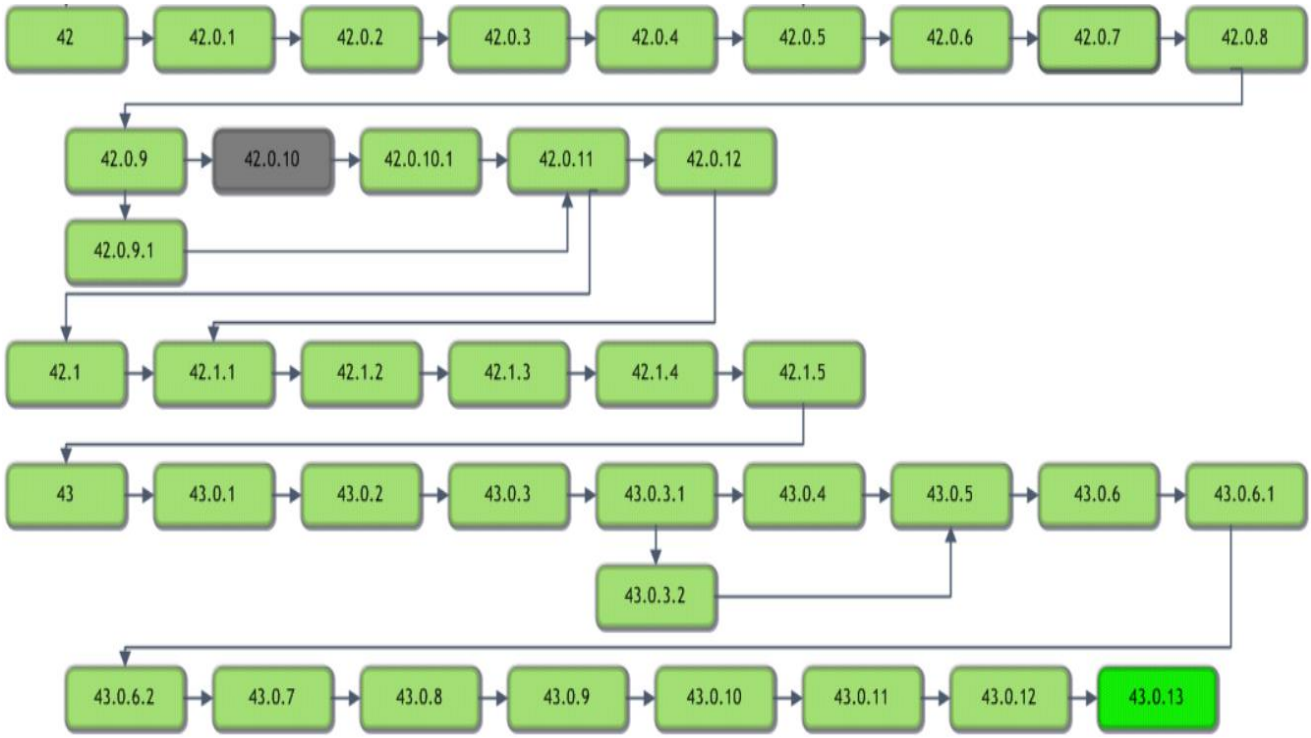
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 1. Defects Resolved

| Redmine # | Tracker | Subject | Priority |
|---|---|---|---|
| 7944 | Bug | Insurance Eligibility - Checks are failing due to problem with fix #7870 | Immediate |
| 7946 | Bug | Powerscribe - discard an addendum may delete original report if HL7 not received | High |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 2. Code Stream




**Legend:**

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 3. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains:
   - rRIS_1.3.43.0.13.25610.zip

2) RIS_Service_Updates contains:

ABCpdf.dll
ABCpdf9-32.dll
ABCpdf9-64.dll
Antlr3.Runtime.dll
CDSJobManager.dll
CDSJobManager.pdb
CdsLib.dll
CdsLib.xml
CdsLib.XmlSerializers.dll
CommonLib.dll
CommonLib.pdb
contents.txt
DDEngine.dll
DDEngine.pdb
DiffPlex.dll
Interop.ANYMODALCAPTURECTRLLib.dll
Interop.FAXCOMEXLib.dll
Microsoft.Practices.EnterpriseLibrary.Caching.dll
Microsoft.Practices.EnterpriseLibrary.Caching.pdb
Microsoft.Practices.EnterpriseLibrary.Common.dll
Microsoft.Practices.EnterpriseLibrary.Common.pdb
Microsoft.Practices.EnterpriseLibrary.Logging.dll
Microsoft.Practices.EnterpriseLibrary.Logging.pdb
Microsoft.Practices.ServiceLocation.dll
Microsoft.Practices.ServiceLocation.pdb
Microsoft.Practices.Unity.dll
Microsoft.Practices.Unity.Interception.dll
Microsoft.Practices.Unity.Interception.pdb
Microsoft.Practices.Unity.pdb
Microsoft.ReportViewer.Common.dll
Microsoft.ReportViewer.WinForms.dll
Microsoft.ReportViewer.WinForms.xml
Newtonsoft.Json.dll
Newtonsoft.Json.xml
NLog.dll
O2S.Components.PDFRender4NET.dll
PDFToImages.exe
Radar.Common.dll
Radar.Common.pdb
Radar.Common.WebClient.dll
Radar.Common.WebClient.pdb
Radar.DirectMessaging.Client.dll
Radar.DirectMessaging.Client.pdb
Radar.DirectMessaging.Model.dll
Radar.DirectMessaging.Model.pdb
rRISServices.exe
rRISServices.pdb
rRISServicesx64.exe
ScheduledTaskManager.dll
ScheduledTaskManager.pdb
ServicesConfigWizard.exe
ServicesConfigWizard.pdb
SignatureApprovalService.exe
SignatureApprovalService.pdb
System.Net.Http.dll
System.Net.Http.Formatting.dll
System.Net.Http.xml
System.Web.Http.dll
System.Web.Http.SelfHost.dll
System.Web.Http.SelfHost.xml
System.Web.Http.WebHost.dll
System.Web.Http.WebHost.xml
System.Web.Http.xml
System.Web.Mvc.dll
System.Web.Mvc.xml
System.Web.Optimization.dll
System.Web.Razor.dll
System.Web.Razor.xml
System.Web.WebPages.Deployment.dll
System.Web.WebPages.Deployment.xml
System.Web.WebPages.dll
System.Web.WebPages.Razor.dll
System.Web.WebPages.Razor.xml
System.Web.WebPages.xml
Tourreau.Gilles.FaxDotNet.dll
Tourreau.Gilles.FaxDotNet.pdb
Tourreau.Gilles.FaxDotNet.xml
WCFService.dll
WCFService.pdb
WCFServiceTests.dll
WCFServiceTests.pdb
WebApi.dll
WebApi.pdb
WebGrease.dll
Wedge.exe
Wedge.pdb

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

The rRIS_Service_Updates also contains to subfolders:

A. Deploy folder contains
   a. Applicationsettings.config
   b. ReleaseVersion-connectionstrings.config
   c. rRISServices.exe.config
   d. services.config

B. XSL subfolder contains:
   a. Subfolder titled "Stylesheets" which contains:
      a. CDAToHTMLCompleteReport.xslt
      b. CDAToHTMLCompleteReportDark.xslt
      c. CDAToHTMLImpressionSection.xslt
      d. CDATorRIS.xslt
      e. CDAToTxt.xslt
      f. DocumentModelReport.xslt
      g. DocumentModelReportAsXml.xslt

   b. CDA Subfolder contains
      a. C-CDA.xsl
      b. eRadStylesheet.xsl
      c. generalTemplates.xsl
      d. header.xsl
      e. QRDA.xsl
      f. QrdaLevel3_Cypress2.4.0.xsl
      g. QrdaLevel3_ViewHtml.xsl
      h. sectionAdministeredMedications.xsl
      i. sectionAllergies.xsl
      j. sectionEncounters.xsl
      k. sectionFindings.xsl
      l. sectionFuncCogStatus.xsl
      m. sectionImmunizations.xsl
      n. sectionInstructions.xsl
      o. sectionMedications.xsl
      p. sectionPlanOfCare.xsl
      q. sectionProblemList.xsl
      r. sectionProcedures.xsl
      s. sectionQRDAMeasures.xsl
      t. sectionQRDAPatientData.xsl
      u. sectionQRDAReporting.xsl
      v. sectionReasonForVisit.xsl
      w. sectionResults.xsl
      x. sectionSocialHistory.xsl
      y. sectionVitalSigns.xsl

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 4. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

## 5. Who is affected

Build 43 installs. Server updates are not cumulative. This server update must be applied to 43.0.12

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

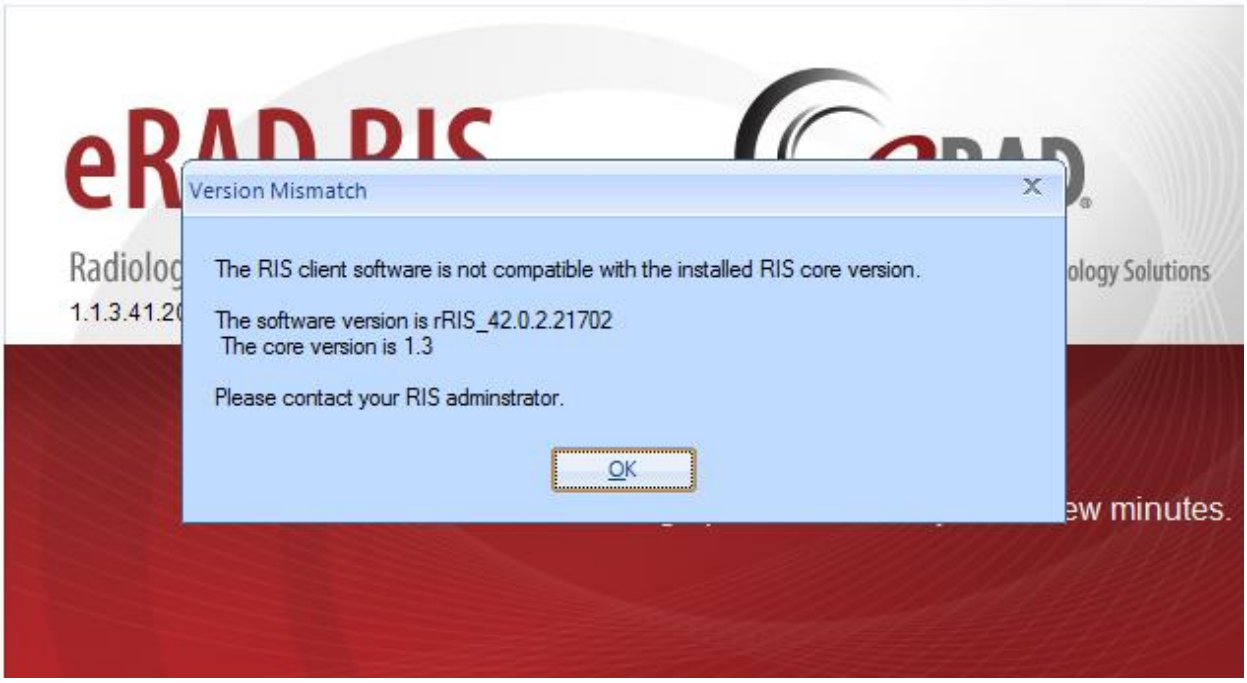
## 6. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 42.1 | - | 2.42.1.0.22744(3GB) | 2.42.0.0.21261 | 2.42.1.0.22744 | 2.42.1.0.22736 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 42.1 | 1 | 2.42.1.1.2296(3GB) | 2.42.0.0.21261 | 2.42.1.1.22963 | 2.42.1.1.22864 | GUI.zip, Web Service, DB updates |
| 42.1 | 2 | 2.42.1.2.23007(3GB) | 2.42.0.0.21261 | 2.42.1.2.23007 | 2.42.1.2.23007 | GUI.zip, Web Service, DB updates |
| 42.1 | 3 | 2.42.1.2.23237(3GB) | 2.42.0.0.21261 | 2.42.1.2.23237 | 2.42.1.2.23007 | GUI.zip, Web Services |
| 42.1 | 4 | 2.42.1.4.23348(3GB) | 2.42.0.0.21261 | 2.42.1.4.23348 | 2.42.1.2.23007 | GUI.zip, Web Services |
| 42.1 | 5 | 2.42.1.5.23406(3GB) | 2.42.0.0.21261 | 2.42.1.5.23406 | 2.42.1.2.23007 | GUI.zip, Web Services |
| 43 | - | 2.43.0.0.23715(3GB) | 2.43.0.0.23171 | 2.43.0.0.23715 | 2.43.0.0.23743 | Full Version Release |
| 43 | 1 | 2.43.0.1.23798(3GB) | 2.43.0.0.23171 | 2.43.0.1.23798 | 2.43.0.1.23770 | GUI.zip, Web Service, DB updates |
| 43 | 2 | 2.43.0.2.24017(3GB) | 2.43.0.0.23171 | 2.43.0.2.24017 | 2.43.0.2.24023 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 3 | 2.43.0.3.24298(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24283 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 3.1 | 2.43.0.3.24450(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24421 | GUI.zip and DB updates |
| 43 | 3.2 | 2.43.0.3.24450(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24421a | DB updates |
| 43 | 4 | 2.43.0.4.24447(3GB) | 2.43.0.0.23171 | 2.43.0.4.24447 | 2.43.0.4.24442 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 5 | 2.43.0.5.24632(3GB) | 2.43.0.0.23171 | 2.43.0.5.24632 | 2.43.0.5.24560 | GUI.zip, Web Service and DB updates |
| 43 | 6 | 2.43.0.6.24914(3GB) | 2.43.0.0.23171 | 2.43.0.6.24914 | 2.43.0.6.24914 | GUI.zip, Web Service and DB updates |
| 43 | 6.1 | 2.43.0.6.24937(3GB) | 2.43.0.0.23171 | 2.43.0.6.24937 | 2.43.0.6.24914 | GUI.zip, Web Service |
| 43 | 6.2 | 2.43.0.6.24970(3GB) | 2.43.0.0.23171 | 2.43.0.6.24970 | 2.43.0.6.24914 | GUI.zip, Web Service |
| 43 | 7 | 2.43.0.7.25258(3GB) | 2.43.0.0.23171 | 2.43.0.7.25258 | 2.43.0.7.25226 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 8 | 2.43.0.8.25440(3GB) | 2.43.0.0.23171 | 2.43.0.8.25440 | 2.43.0.8.25425 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 9 | 2.43.0.9.25477(3GB) | 2.43.0.0.23171 | 2.43.0.9.25477 | 2.43.0.8.25425 | GUI.zip and Web Service |
| 43 | 10 | 2.43.0.9.25477(3GB) | 2.43.0.0.23171 | 2.43.0.10.25477 | 2.43.0.8.25425 | Web Service |
| 43 | 11 | 2.43.0.11.25512(3GB) | 2.43.0.0.23171 | 2.43.0.11.25512 | 2.43.0.8.25425 | GUI.zip and Web Service |
| 43 | 12 | 2.43.0.12.25554(3GB) | 2.43.0.0.23171 | 2.43.0.12.25554 | 2.43.0.12.25536 | GUI.zip Web Service and DB Updates |
| **43** | **13** | **2.43.0.12.25610(3GB)** | **2.43.0.0.23171** | **2.43.0.12.25610** | **2.43.0.12.25536** | **GUI.zip and Web Service** |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 7. Installing

1) Copy and replace the current rRIS…zip file with the rRIS_1.3.43.0.13.25610.zip file provided with this release.
   Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.




If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_43.0.13.25610→ rRIS_1.3.43.0.13.25610
NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

**NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

2) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService. Be sure to make backup of all files, but especially the rRISServices.exe.config and rRISServices.vshost.exe.config files.
   *rRISService directories include:*
   a) *rRISService*
   b) *CDS rRISService*
   c) *Wedge rRISService*
   d) *DDE rRISService*

   **Restart each service.**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

For eRAD RIS
Version 2.0
Build 43
Update 43.0.14

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Defects Resolved ..... 3
2. Code Stream ..... 4
3. Package Contents ..... 5
4. Intended Audience ..... 5
5. Who is affected ..... 5
6. eRAD RIS Release Version Numbers ..... 6
7. Installing ..... 7

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 1. Defects Resolved

| Redmine # | Tracker | Subject | Priority |
|---|---|---|---|
| 7985 | Bug | PowerScribe Integration - exception message when trying to open a study | High |
| 8011 | Bug | Carestream PACS integration Read Only mode issue | Urgent |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 2. Code Stream

**Legend:**

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 3. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains:
   - rRIS_1.3.43.0.14.25644.zip

## 4. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

## 5. Who is affected

Build 43 installs. Server updates are not cumulative. This server update must be applied to 43.0.13

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

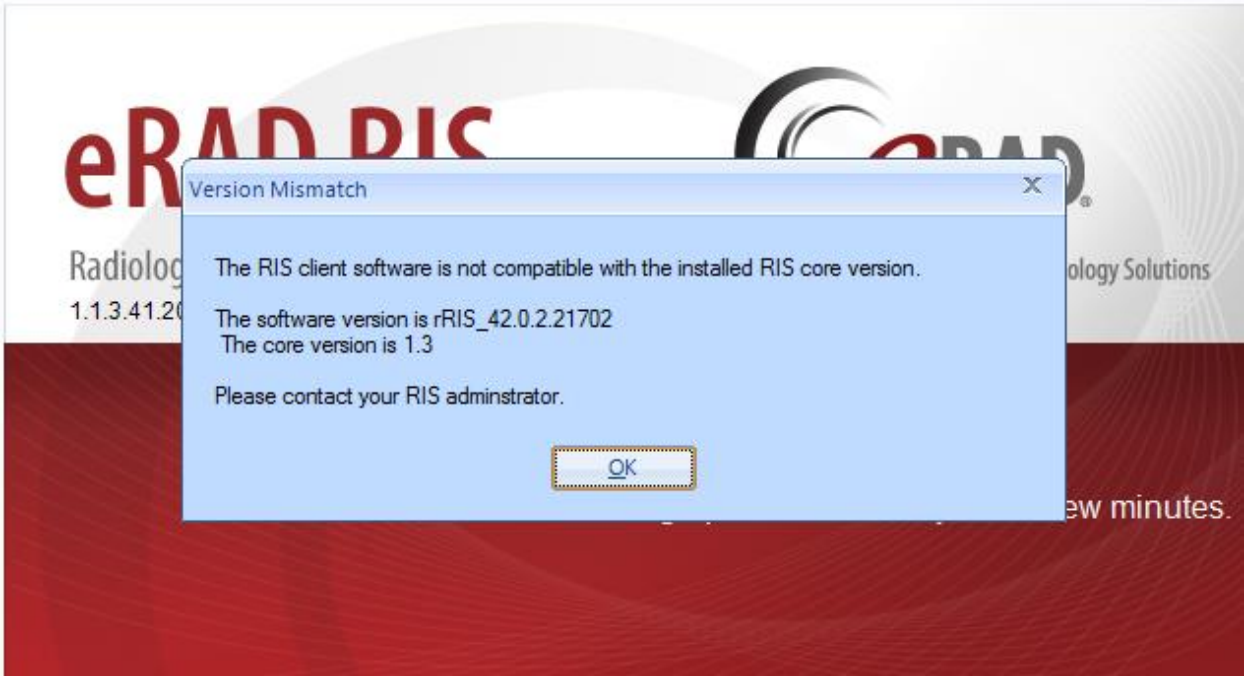
## 6. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 42.1 | - | 2.42.1.0.22744(3GB) | 2.42.0.0.21261 | 2.42.1.0.22744 | 2.42.1.0.22736 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 42.1 | 1 | 2.42.1.1.2296(3GB) | 2.42.0.0.21261 | 2.42.1.1.22963 | 2.42.1.1.22864 | GUI.zip, Web Service, DB updates |
| 42.1 | 2 | 2.42.1.2.23007(3GB) | 2.42.0.0.21261 | 2.42.1.2.23007 | 2.42.1.2.23007 | GUI.zip, Web Service, DB updates |
| 42.1 | 3 | 2.42.1.2.23237(3GB) | 2.42.0.0.21261 | 2.42.1.2.23237 | 2.42.1.2.23007 | GUI.zip, Web Services |
| 42.1 | 4 | 2.42.1.4.23348(3GB) | 2.42.0.0.21261 | 2.42.1.4.23348 | 2.42.1.2.23007 | GUI.zip, Web Services |
| 42.1 | 5 | 2.42.1.5.23406(3GB) | 2.42.0.0.21261 | 2.42.1.5.23406 | 2.42.1.2.23007 | GUI.zip, Web Services |
| 43 | - | 2.43.0.0.23715(3GB) | 2.43.0.0.23171 | 2.43.0.0.23715 | 2.43.0.0.23743 | Full Version Release |
| 43 | 1 | 2.43.0.1.23798(3GB) | 2.43.0.0.23171 | 2.43.0.1.23798 | 2.43.0.1.23770 | GUI.zip, Web Service, DB updates |
| 43 | 2 | 2.43.0.2.24017(3GB) | 2.43.0.0.23171 | 2.43.0.2.24017 | 2.43.0.2.24023 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 3 | 2.43.0.3.24298(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24283 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 3.1 | 2.43.0.3.24450(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24421 | GUI.zip and DB updates |
| 43 | 3.2 | 2.43.0.3.24450(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24421a | DB updates |
| 43 | 4 | 2.43.0.4.24447(3GB) | 2.43.0.0.23171 | 2.43.0.4.24447 | 2.43.0.4.24442 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 5 | 2.43.0.5.24632(3GB) | 2.43.0.0.23171 | 2.43.0.5.24632 | 2.43.0.5.24560 | GUI.zip, Web Service and DB updates |
| 43 | 6 | 2.43.0.6.24914(3GB) | 2.43.0.0.23171 | 2.43.0.6.24914 | 2.43.0.6.24914 | GUI.zip, Web Service and DB updates |
| 43 | 6.1 | 2.43.0.6.24937(3GB) | 2.43.0.0.23171 | 2.43.0.6.24937 | 2.43.0.6.24914 | GUI.zip, Web Service |
| 43 | 6.2 | 2.43.0.6.24970(3GB) | 2.43.0.0.23171 | 2.43.0.6.24970 | 2.43.0.6.24914 | GUI.zip, Web Service |
| 43 | 7 | 2.43.0.7.25258(3GB) | 2.43.0.0.23171 | 2.43.0.7.25258 | 2.43.0.7.25226 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 8 | 2.43.0.8.25440(3GB) | 2.43.0.0.23171 | 2.43.0.8.25440 | 2.43.0.8.25425 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 9 | 2.43.0.9.25477(3GB) | 2.43.0.0.23171 | 2.43.0.9.25477 | 2.43.0.8.25425 | GUI.zip and Web Service |
| 43 | 10 | 2.43.0.9.25477(3GB) | 2.43.0.0.23171 | 2.43.0.10.25477 | 2.43.0.8.25425 | Web Service |
| 43 | 11 | 2.43.0.11.25512(3GB) | 2.43.0.0.23171 | 2.43.0.11.25512 | 2.43.0.8.25425 | GUI.zip and Web Service |
| 43 | 12 | 2.43.0.12.25554(3GB) | 2.43.0.0.23171 | 2.43.0.12.25554 | 2.43.0.12.25536 | GUI.zip Web Service and DB Updates |
| 43 | 13 | 2.43.0.13.25610(3GB) | 2.43.0.0.23171 | 2.43.0.13.25610 | 2.43.0.12.25536 | GUI.zip and Web Service |
| **43** | **14** | **2.43.0.14.25644(3GB)** | **2.43.0.0.23171** | **2.43.0.13.25610** | **2.43.0.12.25536** | **GUI.zip** |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 7. Installing

1) Copy and replace the current rRIS…zip file with the rRIS_1.3.43.0.14.25644.zip file provided with this release.
   Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.




If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_43.0.14.25644→ rRIS_1.3.43.0.14.25644
NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

**NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

For eRAD RIS
Version 2.0
Build 43
Update 43.1

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. New Features ..... 3
   a.) Distribution of Encrypted PDF via Email ..... 3
   b.) CD Burning - new custom fields and support for multiple disc producers ..... 7
   c.) Radiology Reporting - Motorola Symbol Barcode Support ..... 10
   d.) Support patient electronic signature on defined hardware (Lenox Hill) ..... 11
   e.) Support ability to enter preferences for a referring physician to receive films or CD based on procedure type performed ..... 13
2. Defects Resolved ..... 17
3. Changes to Configuration ..... 18
4. Code Stream ..... 19
5. Package Contents ..... 20
6. Intended Audience ..... 22
7. Who is affected ..... 22
8. eRAD RIS Release Version Numbers ..... 23
9. Installing ..... 24

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# 1. New Features

## a.) Distribution of Encrypted PDF via Email

1). Person/Address level configuration of email address and password
For now, this will be configured at the address level and later functionality will be provided to allow a default at the person level (see Outstanding Issues).
Passwords added at the address level are hidden from end users by default. If they have access they can click a button to view the password in plain text. Clicking this button audits their request for access and access to the password.
Changing a password is also an audited event.
Passwords are subject to a "strong password check" as a part of their data validation. The check is running the password against a regular expression. There is a system configuration item for EmailPDFPasswordRegex to house the regular expression, thus allowing it to be customized per install.

2). Queue Poller
Changes were made to the queue poller to pick up any referring or CC addresses that prefer to receive email and create a distribution job with the specified email address.
3). PDF Encryption
In order to password protect the PDF file, an open source PDF library called PDFSharp is being used. This library allows us to pass it a password and a byte array containing a non-encrypted PDF and it then returns the password protected PDF.

4). RADAR
After some discussion of using Mirth to encrypt the PDF and send the email, it was decided that PDFSharp would be used to encrypt the pdf and RADAR would be used to send the email. This required an enhancement to the RADAR dll in order to pass a file to the service so they could attach it to the email. Part of the message to RADAR involves an account name. RIS has always used the practice_code of the revelant practice for this. It is being determine based on the practice related to the_site_code of the study of the distribution job. RADAR uses the account name to determine who the sending message is from. Configuration of the email's format will be done in RADAR, including logos, header, footer, colors, and verbiage.

5). Email Sender
A configuration setting called DDEEnableEmail has been added to the applicationsettings.config file of the RIS services binaries. When this setting is True the main method of the Distribution engine will create a worklist working thread that will poll for Email jobs created by the queue poller. This setting was added in order to provide the ability to disable email functionality on a particular Distribution server, mostly for testing purposes. There is nothing preventing multiple Distribution services from processing email jobs at the same time for scalability purposes.
When the Distribution service finds an email job, it will create a PDF of the report using the Sql Server Reporting Services framework in the same way faxes and print jobs are done. It then encrypts the PDF using the PDFSharp library and sends it via RADAR using the dll the RADAR team has provided.

6). Send Report Dialog
The Send Report dialog, also used to edit active Distribution jobs, has been enhanced to allow sending emails. The email portion is disabled when the Other radio button is selected. This is because the password used to encrypt the PDF file is set for the particular person and address.
Upon selecting an address with a delivery preference of Email the Email textbox will automatically populate based on the value from the person's address. For addresses with other default delivery preferences, changing the Delivery method dropdown to Email will cause the email textbox to populate if and Email has been specified for that address.
Note there are outstanding issues regarding this screen.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

7). Worklists
The Document Distribution Worklists in the RIS client now show Email jobs with a Delivery Method value of "Email" and an Email Address column valued with the destination Email address. See screenshots below.

### *How to enable the Feature*

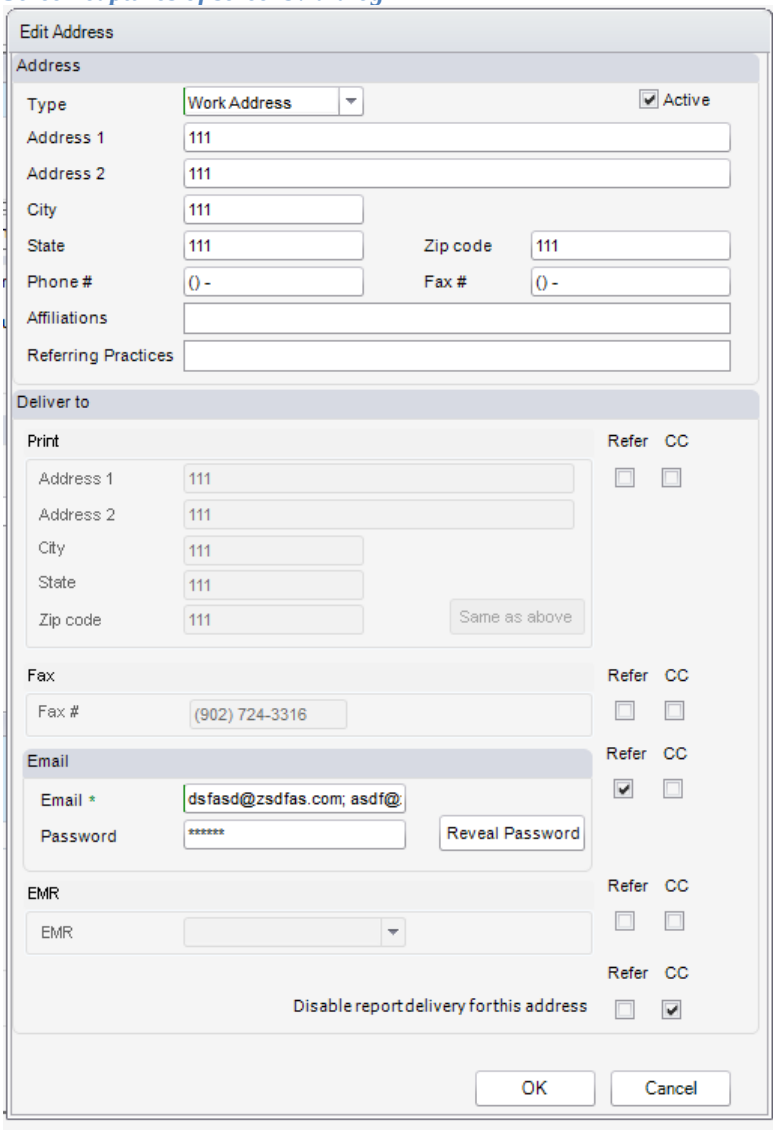
1) Personnel changes
    a. Any referring physicians that wish to receive reports via email when they are the referring or a CC doctor on a study must be configured with that preference via the Personnel editor.
2) Service setting changes
    a. The queue used by the Distribution Engine must be set up appropriately to subscribe to report related events. If the service is already set up for Fax and Print jobs the queue is already ready.
    b. The applicationsettings.config file for the Document Distribution service now contains a setting called "DDEEnableEmail" which must be set to True for the DD to process email jobs.
3) RADAR settings
    a. RADAR must have accounts for all practices which will be sending emails.

### *Permission Strings*

Config.LookupEditor.Personnel.EmailPassword = full access to this enables users to view personnel address distribution email passwords (Default == None)

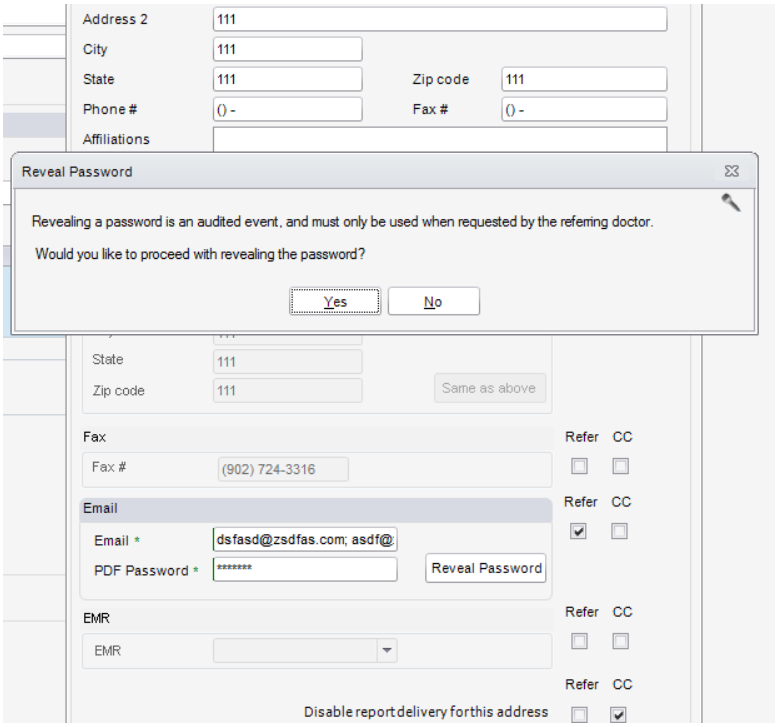
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

*Screen captures of screens / dialog*

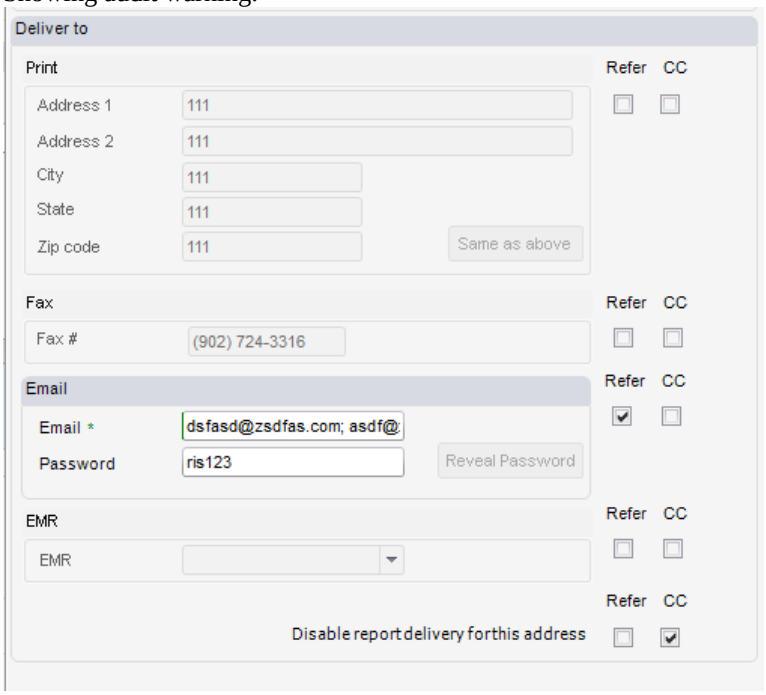



Showing new Email section of address config

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

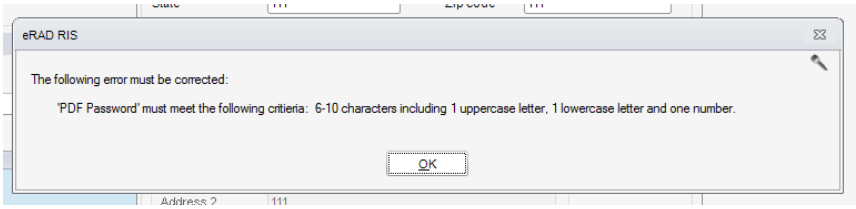



Showing audit warning.

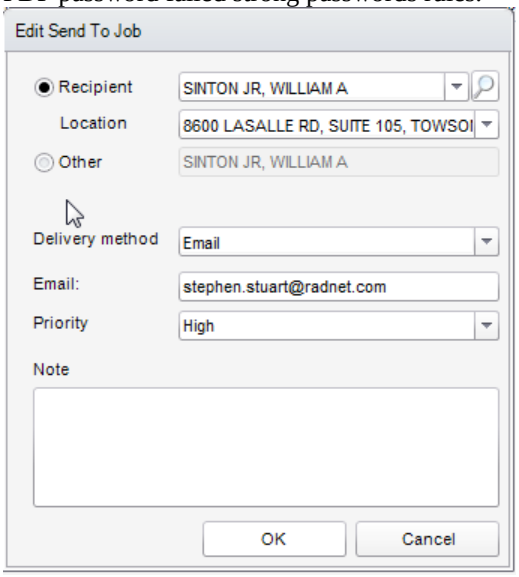



Showing clear text password

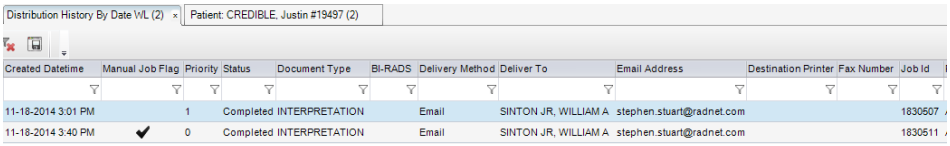
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.



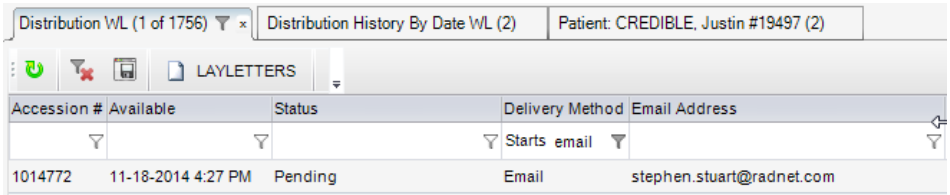

PDF password failed strong passwords rules.




Send Report dialog with Email in the Delivery method dropdown.




Distribution History By Date WL showing two completed Email jobs.




Distribution WL of active jobs, showing one Email job in Pending status

## b.) CD Burning - new custom fields and support for multiple disc producers

In addition to the existing discproducer labels:

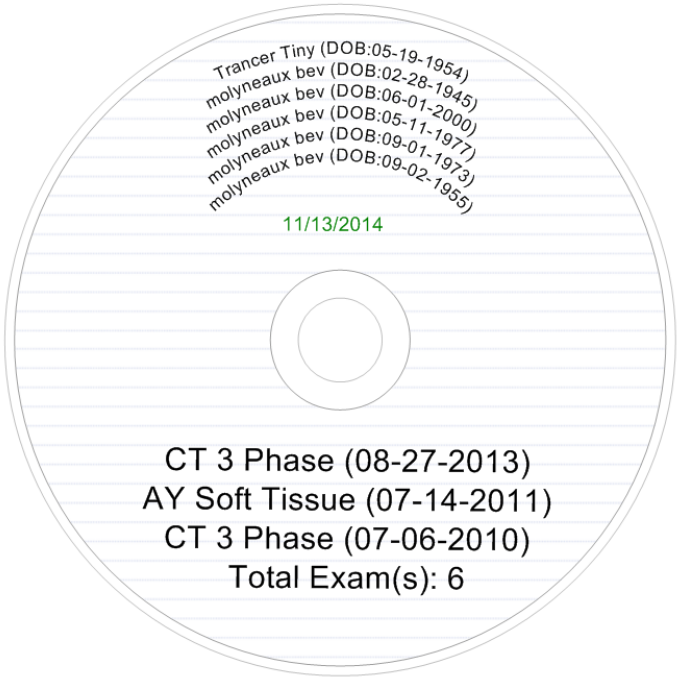
name, patient_id, site_code, site_description, deliver_to_first_name, deliver_to_last_name, deliver_to_address_lines, deliver_to_city, deliver_to_country, deliver_to_state, deliver_to_zip

We have added:

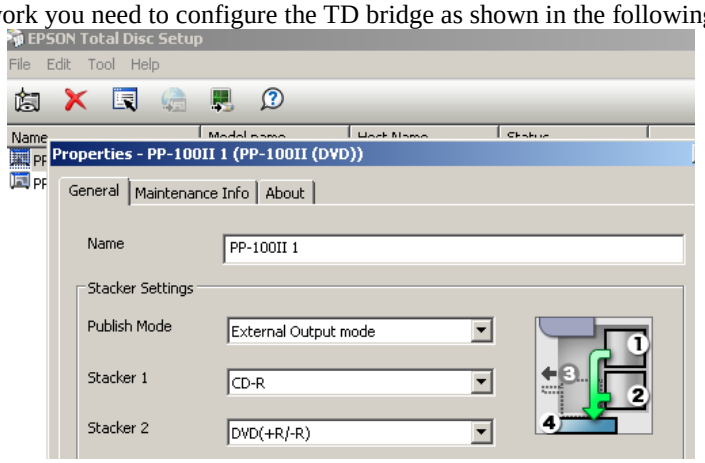
study_count, study1, study2, study3, study4, study5, study6, study7, study8, study9, study10

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

The name parameter now works and has the format <last_name><first_name> (DOB: <date>). An example label is shown in the following screen shot. Note in this example, I've burned a CD with data from several different PACS patients. As discussed in the previous RIS release, the format and design of the disc label is totally customizable by site.



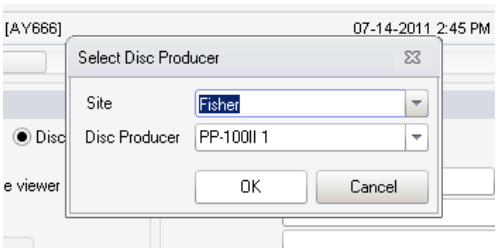

If the content to be written is greater than 650MB we now instruct the disc producer to burn to a DVD. For this to work you need to configure the TD bridge as shown in the following:




The disc producer's default share location has been added to the site configuration. With this setting, the disc producer location will default base on the site chosen in the "Select CD Burner" dialog. This popup, was previously titled "Select a label for the CD".

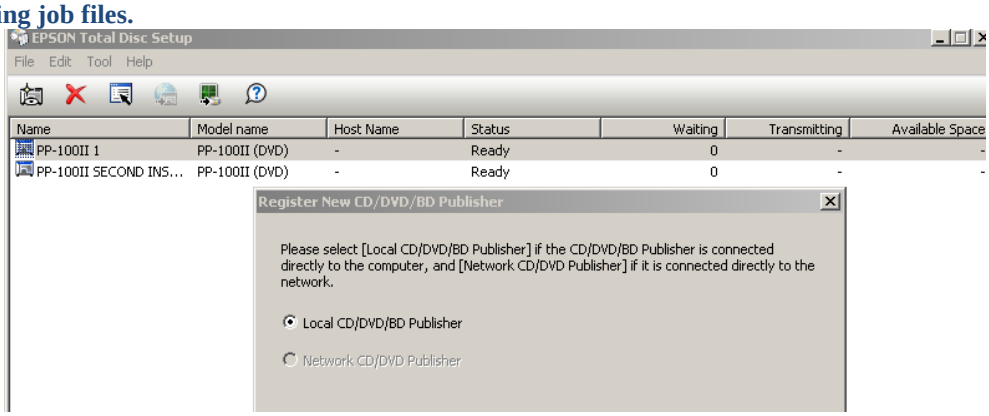
To support multiple burners we have modified the "Select Disc Producer" dialog to include an input for the burner at the selected site. If there is only one burner at the site, the burner dropdown is disabled; otherwise, it defaults to the last selection used for that site. If "Auto Select" is chosen, RIS will randomly pick one of the burners and will use that selection for the remainder of the RIS session. If the user specifically picks one of the burners, that selection will persist for that site.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

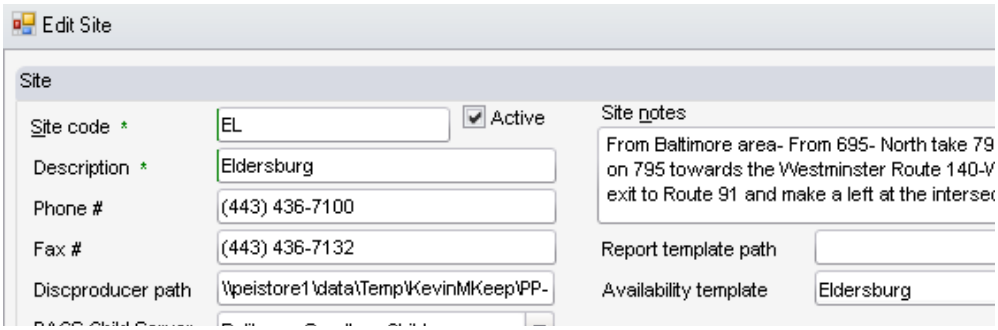



or

To configure more than one burner, go to the Epson Total Disc Setup as shown in the following screen shot. After setting up the additional instances you must restart the TD Bridge. **NOTE: DISC PRODUCER NAMES MUST BE TYPED IN UPPER CASE, lower case will case an error when submitting job files.**




The disc producer path is configurable in the Organization lookup for a Site, as shown in the following:




If you have used the discproducer with a previous B43 build, you will need to delete the label subfolder in all of your discproducer shares; otherwise, you will not have access to the new fields: study_count and study<n>.

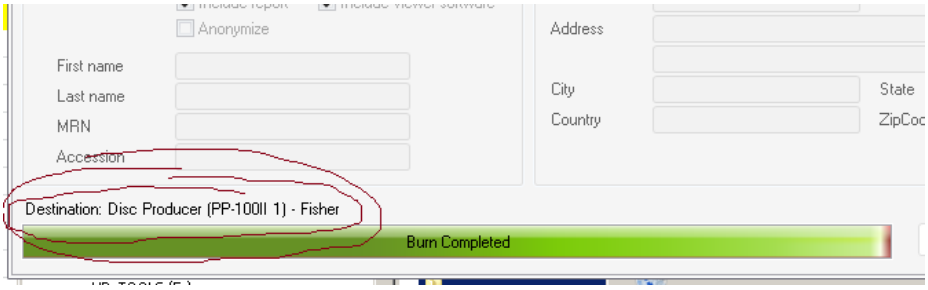
We have also added a text label at the bottom of the CD Burning screen to remind the user what they selected for the destination. A few examples are as follows:

Destination: Disc Producer (<name of burner>) – <site description>

Destination: File System - c:\<path>

Destination: CD\DVD - D:\

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.




***DB schema changes***

Added discproducer_path to the l_site table.

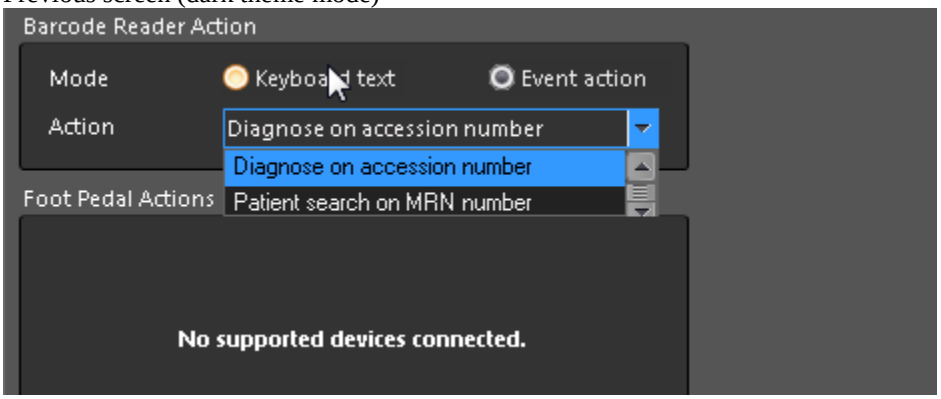
## c.) Radiology Reporting - Motorola Symbol Barcode Support

Motorola provides an SDK for tightly integrating with their devices. See miscellaneous for link info. Within the SDK we used the Interop.CoreScanner.dll file which we included in our main application as a reference. This allows us to call methods and subscribe to events coming from the barcoding device.

*Note at this time we are not undertaking the installation of the Motorola Symbol device. There are installation drivers available directly from Motorola for both 32 and 64 bit.*

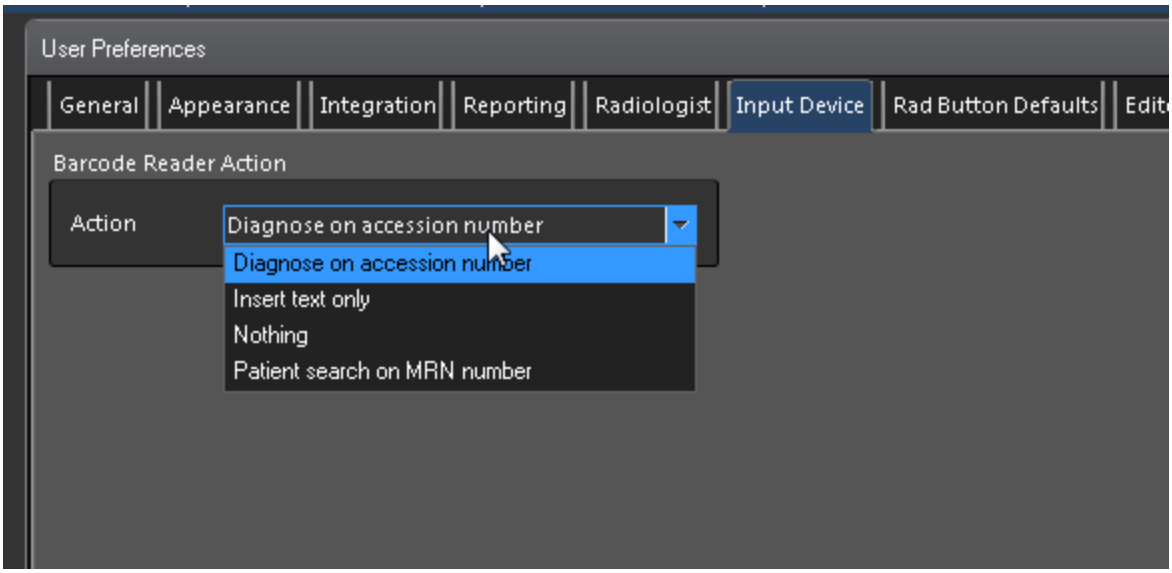
We will use the same Barcode control for Motorola Device as we do for the Philips Speech Mike device. We have also simplified the user preference control by eliminating the "Mode" option and adding a new action of "Insert Text Only" and "Nothing".

Previous screen (dark theme mode)




Current Screen (dark theme mode)

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.




As illustrated in the above image users can now choose two new options. This simplifies the choice for users.

- "Insert Text Only" will send the text of the barcode plus an <ENTER> press key to the current cursor location. This is not application specific.
- "Nothing" will simply swallow the event and take no action. This may be handy if another application is integrated with the barcoding device.

We now show the "Input Device" tab regardless of reporting mode. Previously we only presented the tab if you were in M*Modal reporting mode. We do hide the other (non barcode) group boxes when not in M*Modal mode as they are not relevant to other reporting modes. We don't initialize all devices (start them up) for particular reporting modes. We do attempt to initialize the Motorola Symbol Barcode scanner for all users. If the drivers exist it will start up if not the users will see no negative side effects.

***How to enable this feature***

The feature is enabled by default. To make the feature usable workstations will need to install the correct drivers for the Motorola Symbol Barcode device.

## d.) Support patient electronic signature on defined hardware (Lenox Hill)

RIS needs to support the ability to show a form (e.g. a consent form, etc) on the screen and allow the Patient to review the document and then sign their name with a stylus.

1. Functionality was designed around our current management report functionality. A special form category can be used to make RIS treat forms as a signature type form.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

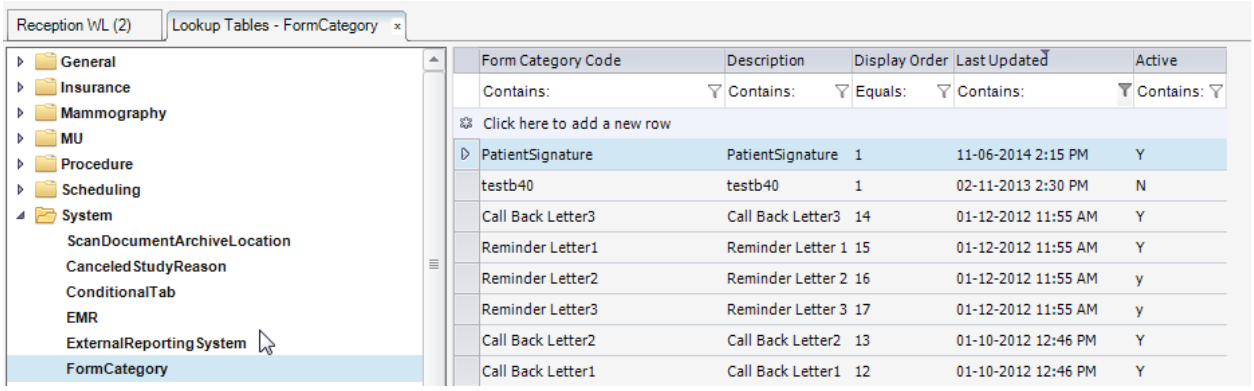



Figure 1 – Form Category editor allows the creation of a new form category.

Figure 2 – Assign a form category of PatientSignature to a form to drive the signature.

2. If the user tries to print a form that is signature driven, we collect the signature and then save the form as a scan document, currently using the Scan Document Type of "Consent", although the user can re-classify the document type afterwards. RIS allows the user to manually print a form by using one of 3 methods below.
    a. "Print Forms" on the "Patient" tab on Registration/PerformExam, ViewEdit, etc
    b. Using the right click/context menu from a worklist and choosing "Print Forms"
    c. Saving a screen in RIS and working with the "Print Forms" dialog to print specially configured forms (e.g. certain forms are configured to fire for different actions in RIS such as CheckingIn based on the modality type, procedure, practice, or other criteria)
3. When a form is previewed or sent to the printer, RIS will check to see if the form requires signature controls and show a maximized window with the report if this is the case.
4. If multiple forms meet the filter criteria when a patient is being checked in, RIS will first print the matching non-signature based forms and will then present the signature based forms one at a time.
5. The users at the front desk will have a WACOM monitor with stylus facing the patient and when they are ready to collect signatures they will press WindowsKey+P and choose Mirror Desktop to allow the patient to complete the forms.
6. The window that pops up with the patient form will have a Sign button to allow the signature to be collected, a reset button to clear the signature on the current page and start again, an accept signature button to save the form with signature as a scan document, and previous page / next page buttons. The buttons are disabled until the user clicks the Sign button. Prev Page / Next Page will be disabled if there is only one page, and are disabled where appropriate at the start and end of the document.

Figure 3 – Signature buttons

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

### *How to enable this feature*

Create form category as discussed above, associate category with forms in the forms and labels lookup editor

## e.) Support ability to enter preferences for a referring physician to receive films or CD based on procedure type performed

The Personnel configuration screen has been enhanced for setting up or modifying referring physicians. An additional tab called Referring Preferences has been added. The Referring Preferences tab is only enabled when the Referring Physician resource flag is enabled on the Resource tab.

The Preferred Radiologists control has been moved to the new Referring Preferences tab. The Image Request Preferences can also be found here.

The Image Request Preferences selection functions very similarly to the Preferred Radiologists. The user starts by selecting a format. The image request format is a combination of the image medium and delivery method. The image medium options are determined by the values in the ImageMedium lookup table. The delivery method options are limited to Mail, Courier, Pickup, and Other.

Once a format is specified, the user may further filter studies by selecting a modality type. The modality type listing is determined by the active types in the ModalityType lookup. To further filter the study selection for image requests, the user may specify one or more procedures by modality type. The procedure listing is determined by the mappings in the ScheduleGroup lookup.
If a referring physician wants all his or her studies burnt to a CD and sent by courier, simply adding a format of CD and Courier will accomplish this. As the patient is arrived by the front desk staff, a new image request will automatically be created for the study. If the referring physician only wants CDs sent by courier for all CT and US procedures, adding a modality type filter on the CD – Courier node will do this.
If the referring physician wants to pick up film copies of XR procedures, adding an additional node of Film – Pickup with a modality type of XR will accomplish this.
If the referring only wants image requests for certain procedures, this can be accomplished by adding one or more procedure nodes to the modality selection.
When a new image request is added based on the above preferences, the image request fields are defaulted as follows:

- Request Datetime - The date and time when the patient is arrived
- Requested by Type – Referring
- Requested by Contact Name – The first name and last name of the referring physician
- Requested by Phone Number – The phone number of the address matched to the order
- Image Medium Code – The image medium from the image request preference
- Delivery Method – The delivery method from the image request preference
- Deliver to Last Name – The last name of the referring physician
- Deliver to First Name – The first name of the referring physician
- Deliver to Name Suffix – The suffix of the referring physician
- Deliver to Name Prefix – The prefix of the referring physician
- Request Status – Pending
- Deliver to Type – Referring
- Site Code – The site code that the scheduled modality belongs to

If a “Deliver To” address is specified in the contact information of the referring physician, the following image request address fields will default to the specified address or they will default to the referring address that is matched to the order.

- Deliver to Address 1
- Deliver to Address 2

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

- Deliver to City
- Deliver to State
- Deliver to Country
- Deliver to Zipcode
- Deliver to Phone Number

## *Screen captures of screens / dialogs / screen changes*

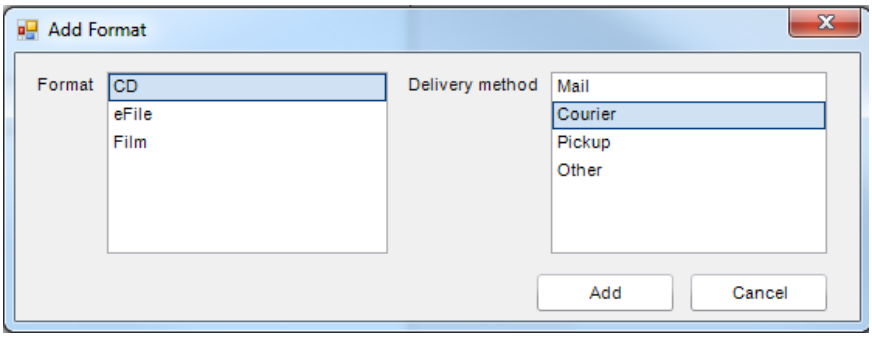



Figure 1 – Adding a Format of CD and a Delivery Method of Courier

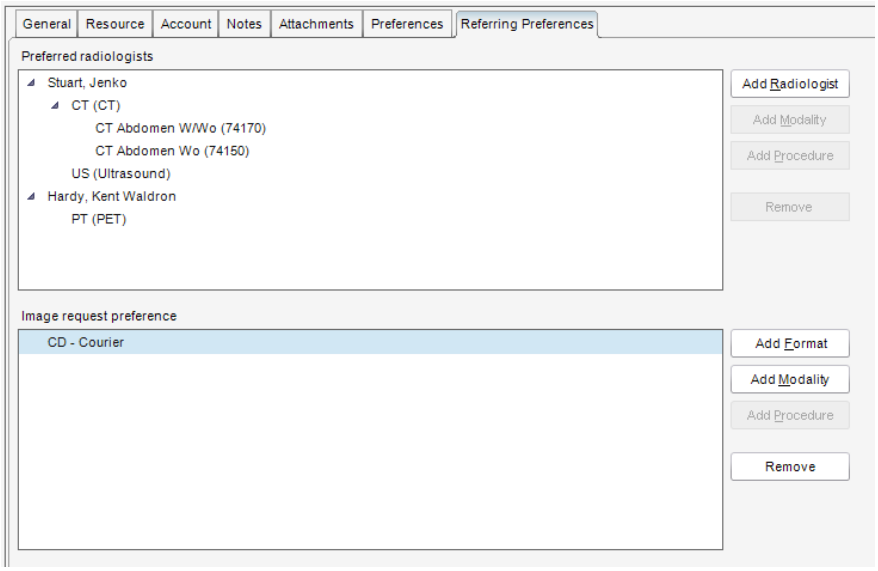



Figure 2 – Image request preference for all studies to be CD - Courier

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

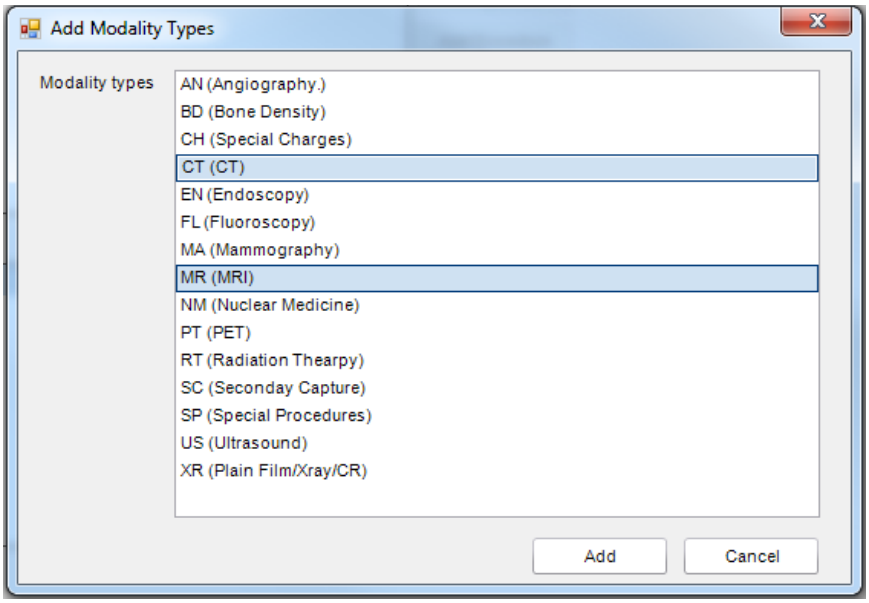



Figure 3 – Adding Modality Types of CT and MR

Figure 4 – CD – Courier for CT and MR Modality Types only

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

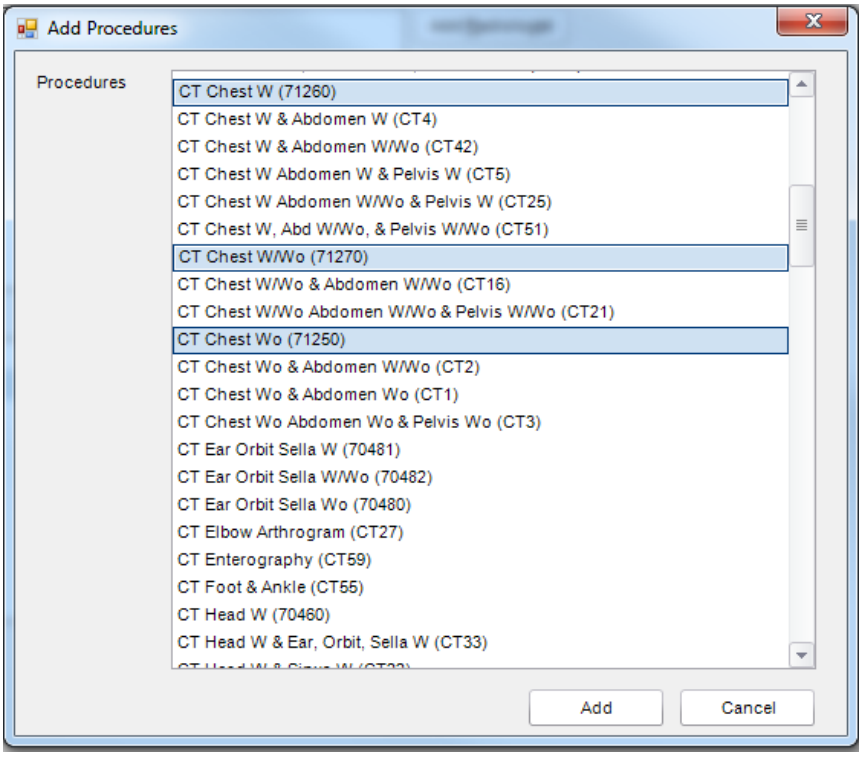



Figure 5 – Selecting Procedures for the CT Modality Type

Figure 6 – CD – Courier for 71250, 71260, 72170 and MR Modality Type

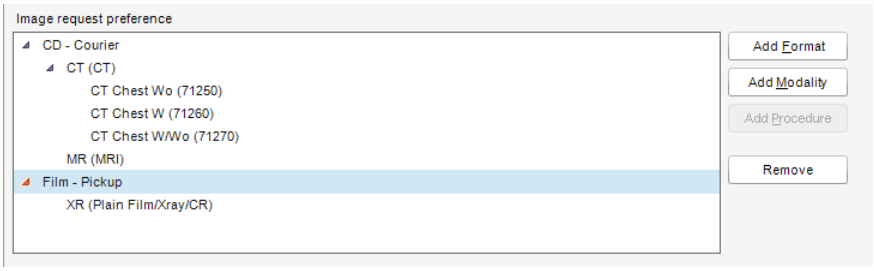



Figure 7 – Adding Film - Pickup for the XR Modality Type

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

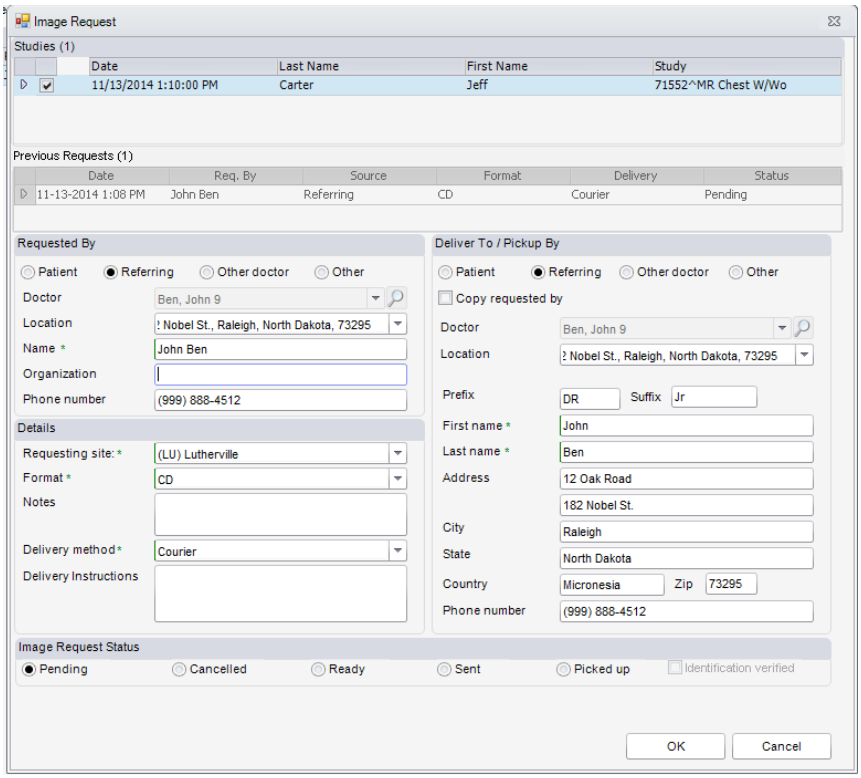



Figure 8 – New Image Request created on arrival for MR of the Chest

### *Impacts on other components*

This feature has changed the behaviour of the Personnel lookup by adding an additional tab called Referring Preferences. This new tab is enabled for Referring Physician resource types only.

### *DB schema changes*

Added l_image_preference
Added l_image_preference_x_study

## 2. Defects Resolved

| Redmine # | Tracker | Subject | Priority |
|---|---|---|---|
| 8000 | Feature | Distribution of Encrypted PDF via Email | High |
| 7648 | Feature | CD Burning - new custom fields and support for multiple disc producers | Normal |
| 8006 | Feature | Radiology Reporting - Motorola Symbol Barcode Support | Urgent |
| 7960 | Feature | DB upgrade scripts need to be accumulative | Normal |
| 7898 | Feature | Support patient electronic signature on defined hardware (Lenox Hill) | Urgent |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

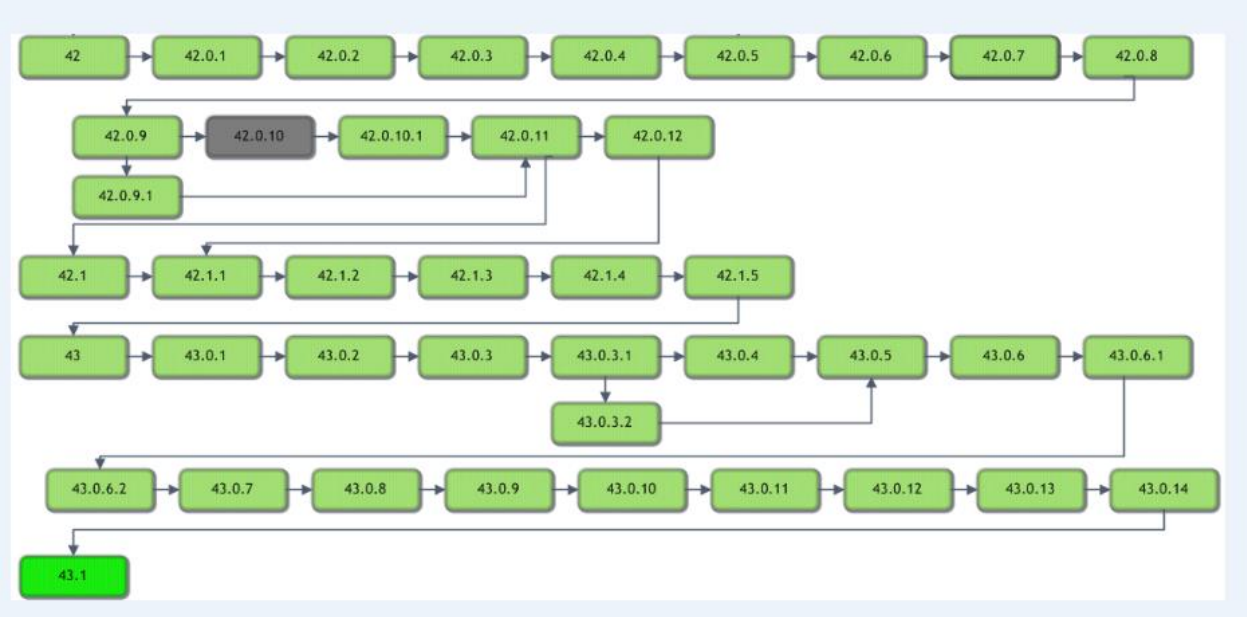
| | | | |
|---|---|---|---|
| 7797 | Feature | Support ability to enter preferences for a referring physician to receive films or CD based on procedure type performed. | Urgent |
| 8109 | Bug | Regarding Barcode scanning the file <Interop.CoreScanner.dll> is missing from the build. | High |
| 8039 | Bug | Users/Persons with no first names cause View/Edit screen to throw an error and not open | Normal |
| 8003 | Bug | Unable to suspend an addendum | Normal |
| 8001 | Bug | Epson Discproducer problem does not write DVDs | Normal |
| 7958 | Bug | Insurance Eligibility - Zotec TOS not returning payment amounts back to RIS | Normal |
| 7943 | Bug | Carestream PACS Integration - Accession Number being used instead of External Study Identifier | Normal |
| 7942 | Bug | Carestream PACS Integration - Password is stored in log file | Normal |
| 7926 | Bug | Timeout error while burning images to CD | Normal |
| 7856 | Bug | CD Burning - w discproducer the pt name is not printed | Normal |
| 7744 | Bug | CD Import - Windows 7 CD Burning via Explorer prevents us from scanning CD without DICOMDIR | Urgent |

## 3. Changes to Configuration

| Setting Placeholder | Setting | Default | Purpose / Controls Access to |
|---|---|---|---|
| Access string / User Group Permission tables | Config.LookupEditor.Personnel.EmailPassword | None | Full access to this enables users to view personnel address distribution email passwords |
| Applicationsettings.config | DDEEnableEmail | True | Must be set to True for the DD to process email jobs |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 4. Code Stream




**Legend:**

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 5. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains:
   - rRIS_1.3.43.1.0.25850.zip

2) RIS_Service_Updates contains:

ABCpdf.dll
ABCpdf9-32.dll
ABCpdf9-64.dll
Antlr3.Runtime.dll
CDSJobManager.dll
CDSJobManager.pdb
CdsLib.dll
CdsLib.xml
CdsLib.XmlSerializers.dll
CommonLib.dll
CommonLib.pdb
contents.txt
DDEngine.dll
DDEngine.pdb
DiffPlex.dll
Interop.ANYMODALCAPTURECTRLLib.dll
Interop.FAXCOMEXLib.dll
Microsoft.Practices.EnterpriseLibrary.Caching.dll
Microsoft.Practices.EnterpriseLibrary.Caching.pdb
Microsoft.Practices.EnterpriseLibrary.Common.dll
Microsoft.Practices.EnterpriseLibrary.Common.pdb
Microsoft.Practices.EnterpriseLibrary.Logging.dll
Microsoft.Practices.EnterpriseLibrary.Logging.pdb
Microsoft.Practices.ServiceLocation.dll
Microsoft.Practices.ServiceLocation.pdb
Microsoft.Practices.Unity.dll
Microsoft.Practices.Unity.Interception.dll
Microsoft.Practices.Unity.Interception.pdb
Microsoft.Practices.Unity.pdb
Microsoft.ReportViewer.Common.dll
Microsoft.ReportViewer.WinForms.dll
Microsoft.ReportViewer.WinForms.xml
Newtonsoft.Json.dll
Newtonsoft.Json.xml
NLog.dll
O2S.Components.PDFRender4NET.dll
PDFToImages.exe
Radar.Common.dll
Radar.Common.pdb
Radar.Common.WebClient.dll
Radar.Common.WebClient.pdb
Radar.DirectMessaging.Client.dll
Radar.DirectMessaging.Client.pdb
Radar.DirectMessaging.Model.dll
Radar.DirectMessaging.Model.pdb
rRISServices.exe
rRISServices.pdb
rRISServicesx64.exe
ScheduledTaskManager.dll
ScheduledTaskManager.pdb
ServicesConfigWizard.exe
ServicesConfigWizard.pdb
SignatureApprovalService.exe
SignatureApprovalService.pdb
System.Net.Http.dll
System.Net.Http.Formatting.dll
System.Net.Http.xml
System.Web.Http.dll
System.Web.Http.SelfHost.dll
System.Web.Http.SelfHost.xml
System.Web.Http.WebHost.dll
System.Web.Http.WebHost.xml
System.Web.Http.xml
System.Web.Mvc.dll
System.Web.Mvc.xml
System.Web.Optimization.dll
System.Web.Razor.dll
System.Web.Razor.xml
System.Web.WebPages.Deployment.dll
System.Web.WebPages.Deployment.xml
System.Web.WebPages.dll
System.Web.WebPages.Razor.dll
System.Web.WebPages.Razor.xml
System.Web.WebPages.xml
Tourreau.Gilles.FaxDotNet.dll
Tourreau.Gilles.FaxDotNet.pdb
Tourreau.Gilles.FaxDotNet.xml
WCFService.dll
WCFService.pdb
WCFServiceTests.dll
WCFServiceTests.pdb
WebApi.dll
WebApi.pdb
WebGrease.dll
Wedge.exe
Wedge.pdb

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

The rRIS_Service_Updates also contains to subfolders:

A. Deploy folder contains
   a. Applicationsettings.config
   b. ReleaseVersion-connectionstrings.config
   c. rRISServices.exe.config
   d. services.config

B. XSL subfolder contains:
   a. Subfolder titled "Stylesheets" which contains:
      a. CDAToHTMLCompleteReport.xslt
      b. CDAToHTMLCompleteReportDark.xslt
      c. CDAToHTMLImpressionSection.xslt
      d. CDATorRIS.xslt
      e. CDAToTxt.xslt
      f. DocumentModelReport.xslt
      g. DocumentModelReportAsXml.xslt

   b. CDA Subfolder contains
      a. C-CDA.xsl
      b. eRadStylesheet.xsl
      c. generalTemplates.xsl
      d. header.xsl
      e. QRDA.xsl
      f. QrdaLevel3_Cypress2.4.0.xsl
      g. QrdaLevel3_ViewHtml.xsl
      h. sectionAdministeredMedications.xsl
      i. sectionAllergies.xsl
      j. sectionEncounters.xsl
      k. sectionFindings.xsl
      l. sectionFuncCogStatus.xsl
      m. sectionImmunizations.xsl
      n. sectionInstructions.xsl
      o. sectionMedications.xsl
      p. sectionPlanOfCare.xsl
      q. sectionProblemList.xsl
      r. sectionProcedures.xsl
      s. sectionQRDAMeasures.xsl
      t. sectionQRDAPatientData.xsl
      u. sectionQRDAReporting.xsl
      v. sectionReasonForVisit.xsl
      w. sectionResults.xsl
      x. sectionSocialHistory.xsl
      y. sectionVitalSigns.xsl

3) DB folder contains 1 file and 2 subfolders:
   Readme.txt
   a. Common subfolder contains
      a. RISMaintenancejoBS.SQL
      b. MU subfolder
   b. Upgrade
      a. RunUpgrade.bat
      b. Scripts subfolder
      c. Log subfolder

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 6. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

## 7. Who is affected

Build 43 installs. Server updates are not cumulative. This server update must be applied to 43.0.14

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 8. eRAD RIS Release Version Numbers

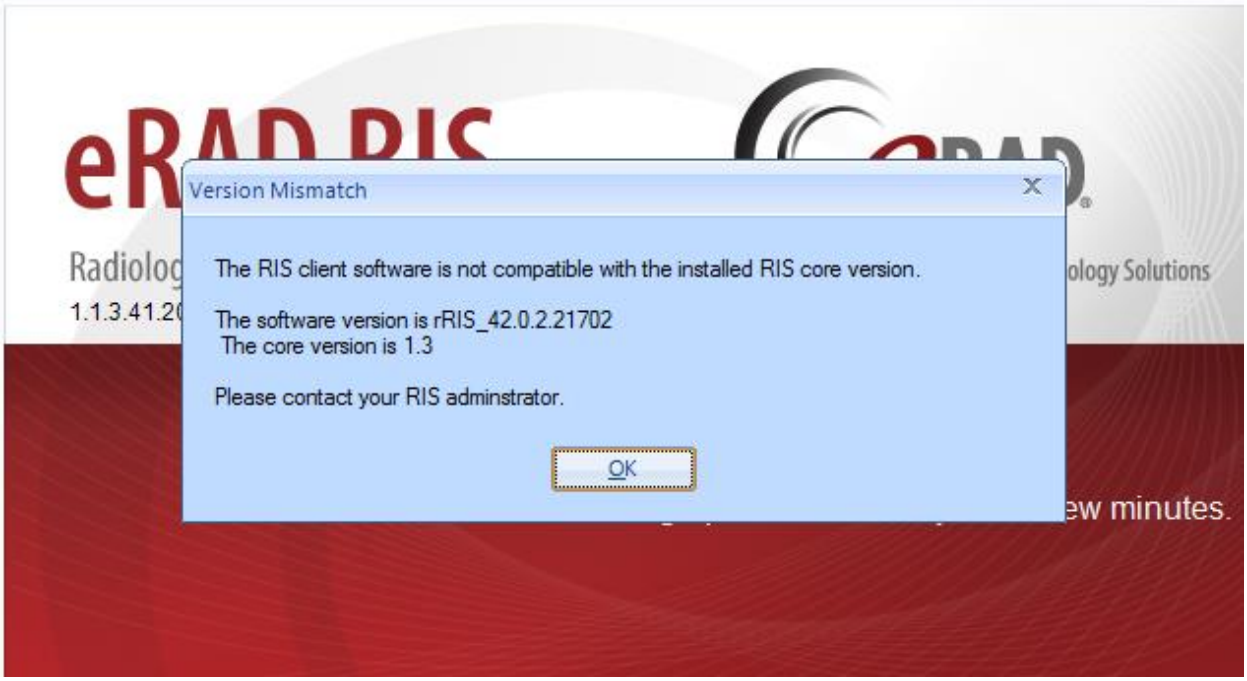
| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 42.1 | - | 2.42.1.0.22744(3GB) | 2.42.0.0.21261 | 2.42.1.0.22744 | 2.42.1.0.22736 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 42.1 | 1 | 2.42.1.1.2296(3GB) | 2.42.0.0.21261 | 2.42.1.1.22963 | 2.42.1.1.22864 | GUI.zip, Web Service, DB updates |
| 42.1 | 2 | 2.42.1.2.23007(3GB) | 2.42.0.0.21261 | 2.42.1.2.23007 | 2.42.1.2.23007 | GUI.zip, Web Service, DB updates |
| 42.1 | 3 | 2.42.1.2.23237(3GB) | 2.42.0.0.21261 | 2.42.1.2.23237 | 2.42.1.2.23007 | GUI.zip, Web Services |
| 42.1 | 4 | 2.42.1.4.23348(3GB) | 2.42.0.0.21261 | 2.42.1.4.23348 | 2.42.1.2.23007 | GUI.zip, Web Services |
| 42.1 | 5 | 2.42.1.5.23406(3GB) | 2.42.0.0.21261 | 2.42.1.5.23406 | 2.42.1.2.23007 | GUI.zip, Web Services |
| 43 | - | 2.43.0.0.23715(3GB) | 2.43.0.0.23171 | 2.43.0.0.23715 | 2.43.0.0.23743 | Full Version Release |
| 43 | 1 | 2.43.0.1.23798(3GB) | 2.43.0.0.23171 | 2.43.0.1.23798 | 2.43.0.1.23770 | GUI.zip, Web Service, DB updates |
| 43 | 2 | 2.43.0.2.24017(3GB) | 2.43.0.0.23171 | 2.43.0.2.24017 | 2.43.0.2.24023 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 3 | 2.43.0.3.24298(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24283 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 3.1 | 2.43.0.3.24450(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24421 | GUI.zip and DB updates |
| 43 | 3.2 | 2.43.0.3.24450(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24421a | DB updates |
| 43 | 4 | 2.43.0.4.24447(3GB) | 2.43.0.0.23171 | 2.43.0.4.24447 | 2.43.0.4.24442 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 5 | 2.43.0.5.24632(3GB) | 2.43.0.0.23171 | 2.43.0.5.24632 | 2.43.0.5.24560 | GUI.zip, Web Service and DB updates |
| 43 | 6 | 2.43.0.6.24914(3GB) | 2.43.0.0.23171 | 2.43.0.6.24914 | 2.43.0.6.24914 | GUI.zip, Web Service and DB updates |
| 43 | 6.1 | 2.43.0.6.24937(3GB) | 2.43.0.0.23171 | 2.43.0.6.24937 | 2.43.0.6.24914 | GUI.zip, Web Service |
| 43 | 6.2 | 2.43.0.6.24970(3GB) | 2.43.0.0.23171 | 2.43.0.6.24970 | 2.43.0.6.24914 | GUI.zip, Web Service |
| 43 | 7 | 2.43.0.7.25258(3GB) | 2.43.0.0.23171 | 2.43.0.7.25258 | 2.43.0.7.25226 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 8 | 2.43.0.8.25440(3GB) | 2.43.0.0.23171 | 2.43.0.8.25440 | 2.43.0.8.25425 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 9 | 2.43.0.9.25477(3GB) | 2.43.0.0.23171 | 2.43.0.9.25477 | 2.43.0.8.25425 | GUI.zip and Web Service |
| 43 | 10 | 2.43.0.9.25477(3GB) | 2.43.0.0.23171 | 2.43.0.10.25477 | 2.43.0.8.25425 | Web Service |
| 43 | 11 | 2.43.0.11.25512(3GB) | 2.43.0.0.23171 | 2.43.0.11.25512 | 2.43.0.8.25425 | GUI.zip and Web Service |
| 43 | 12 | 2.43.0.12.25554(3GB) | 2.43.0.0.23171 | 2.43.0.12.25554 | 2.43.0.12.25536 | GUI.zip Web Service and DB Updates |
| 43 | 13 | 2.43.0.12.25610(3GB) | 2.43.0.0.23171 | 2.43.0.12.25610 | 2.43.0.12.25536 | GUI.zip and Web Service |
| 43 | 14 | 2.43.0.14.25644(3GB) | 2.43.0.0.23171 | 2.43.0.13.25610 | 2.43.0.12.25536 | GUI.zip |
| **43.1** | - | **2.43.1.0.25850(3GB)** | **2.43.0.0.23171** | **2.43.1.0.25850** | **2.43.1.0.25771** | **GUI.zip Web Service and DB Updates** |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 9. Installing

1. Copy and replace the current rRIS…zip file with the rRIS_1.3.43.1.0.25850.zip file provided with this release.

   Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.




If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_43.1.0.25850→ rRIS_1.3.43.1.0.25850
NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

**NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)**

2. Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService. Be sure to make backup of all files, but especially the rRISServices.exe.config and rRISServices.vshost.exe.config files.

   *rRISService directories include:*
   - *a) rRISService*
   - *b) CDS rRISService*

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

c) *Wedge rRISService*
d) *DDE rRISService*

**Restart each service.**

3. Data upgrade Instructions.

Always run the upgrade scripts in a test environment of the actual database to make sure they run cleanly. If any errors occur please contact development.

> *Note: There is a new upgrade program with B43.1 called "RunUpgrade.bat". This program will prompt you for the database server name, database name and authentication credentials. There is no need to run the database upgrade scripts manually as was done in previous releases.*

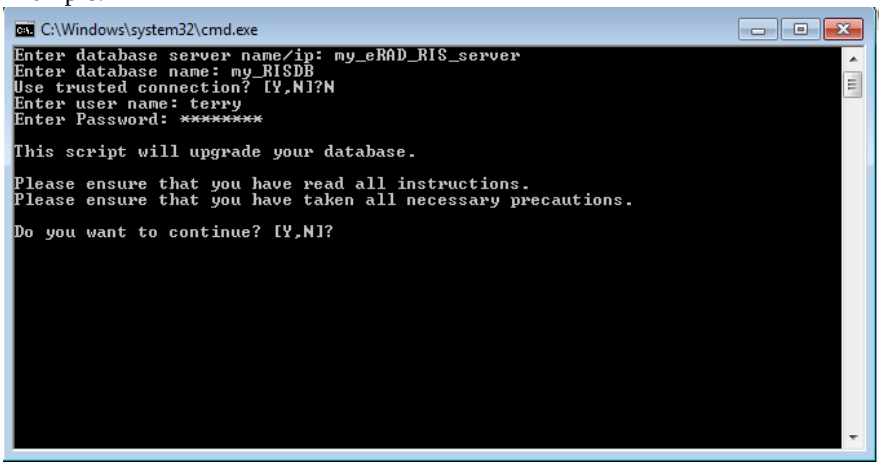
From the upgrade folder, double click the "RunUpgrade.bat" command file.

Enter the server name, database name and authentication credentials to the database. You have 2 choices for authentication credentials.

You can choose to use "Trusted connection". Using this option will pass the identity of the currently logged on user. If this user has "db_owner" access to the eRAD RIS database then feel free to use this options.

If you decide not to use "Trusted connection" then you will be prompted for user id and password.

Example:




After the upgrade program has finished you can find the upgrade logs in the "log" folder. The file name will be eRAD_RIS_db_upgrade_timestamp.log, where timestamp is a value representing the date and time the upgrade started. If you see any errors please contact the development team

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

For eRAD RIS
Version 2.0
Build 43.2

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. New Features ..... 3
   Distribution of Encrypted PDF via Email ..... 3
2. Defects Resolved ..... 8
3. Changes to Configuration ..... 8
4. Code Stream ..... 9
5. Package Contents ..... 10
6. Intended Audience ..... 12
7. Who is affected ..... 12
8. eRAD RIS Release Version Numbers ..... 13
9. Installing ..... 14

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 1. New Features

The purpose of Build 43.2 is to add Remine bug number 9146 - Patient Name to be included in Email message to RADAR. The original feature to support emailing diagnostic reports was introduced in 43.1 and is described below. You will also find the configuration settings required to use the feature were re-added to this document as well.

# The following is from 43.1

## Distribution of Encrypted PDF via Email

1). Person/Address level configuration of email address and password
For now, this will be configured at the address level and later functionality will be provided to allow a default at the person level (see Outstanding Issues).
Passwords added at the address level are hidden from end users by default. If they have access they can click a button to view the password in plain text. Clicking this button audits their request for access and access to the password.
Changing a password is also an audited event.
Passwords are subject to a "strong password check" as a part of their data validation. The check is running the password against a regular expression. There is a system configuration item for EmailPDFPasswordRegex to house the regular expression, thus allowing it to be customized per install.

2). Queue Poller
Changes were made to the queue poller to pick up any referring or CC addresses that prefer to receive email and create a distribution job with the specified email address.
3). PDF Encryption
In order to password protect the PDF file, an open source PDF library called PDFSharp is being used. This library allows us to pass it a password and a byte array containing a non-encrypted PDF and it then returns the password protected PDF.

3). RADAR
After some discussion of using Mirth to encrypt the PDF and send the email, it was decided that PDFSharp would be used to encrypt the pdf and RADAR would be used to send the email. This required an enhancement to the RADAR dll in order to pass a file to the service so they could attach it to the email. Part of the message to RADAR involves an account name. RIS has always used the practice_code of the revelant practice for this. It is being determine based on the practice related to the_site_code of the study of the distribution job. RADAR uses the account name to determine who the sending message is from. Configuration of the email's format will be done in RADAR, including logos, header, footer, colors, and verbiage.

4). Email Sender
A configuration setting called DDEEnableEmail has been added to the applicationsettings.config file of the RIS services binaries. When this setting is True the main method of the Distribution engine will create a worklist working thread that will poll for Email jobs created by the queue poller. This setting was added in order to provide the ability to disable email functionality on a particular Distribution server, mostly for testing purposes. There is nothing preventing multiple Distribution services from processing email jobs at the same time for scalability purposes.
When the Distribution service finds an email job, it will create a PDF of the report using the Sql Server Reporting Services framework in the same way faxes and print jobs are done. It then encrypts the PDF using the PDFSharp library and sends it via RADAR using the dll the RADAR team has provided.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

5). Send Report Dialog
The Send Report dialog, also used to edit active Distribution jobs, has been enhanced to allow sending emails. The email portion is disabled when the Other radio button is selected. This is because the password used to encrypt the PDF file is set for the particular person and address.
Upon selecting an address with a delivery preference of Email the Email textbox will automatically populate based on the value from the person's address. For addresses with other default delivery preferences, changing the Delivery method dropdown to Email will cause the email textbox to populate if and Email has been specified for that address.
Note there are outstanding issues regarding this screen.

6). Worklists
The Document Distribution Worklists in the RIS client now show Email jobs with a Delivery Method value of "Email" and an Email Address column valued with the destination Email address. See screenshots below.

## *How to enable the Feature*

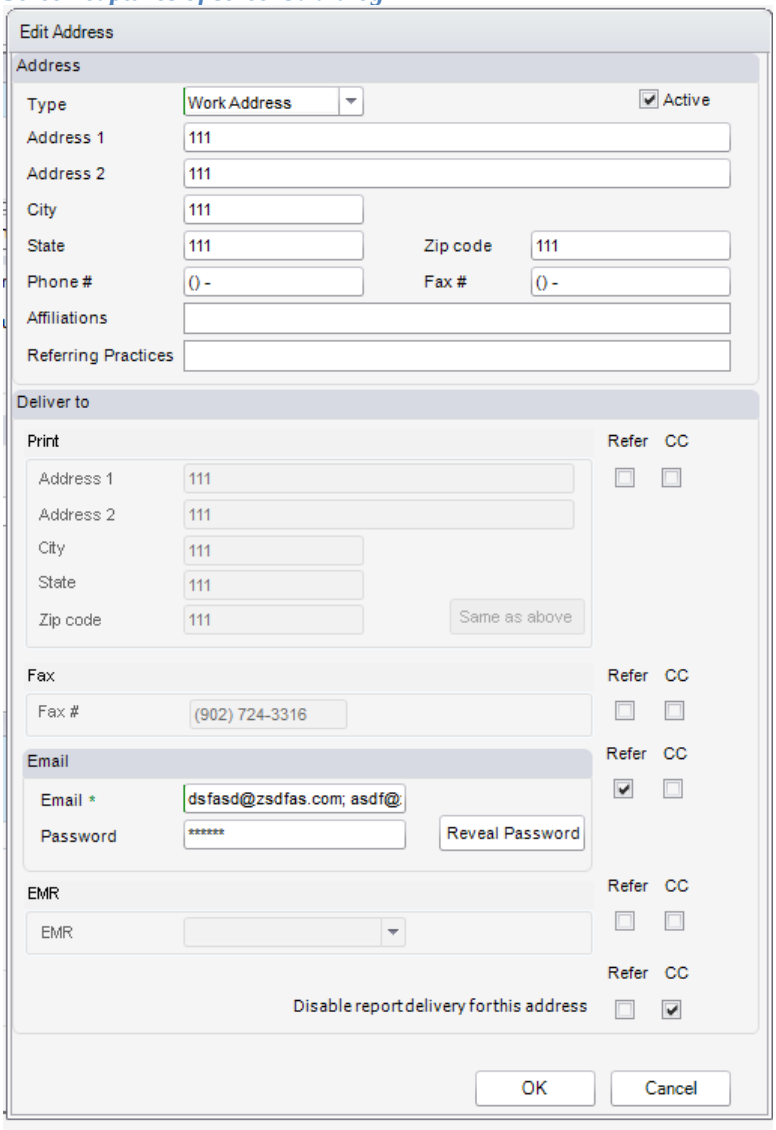
1) Personnel changes
    a. Any referring physicians that wish to receive reports via email when they are the referring or a CC doctor on a study must be configured with that preference via the Personnel editor.
2) Service setting changes
    a. The queue used by the Distribution Engine must be set up appropriately to subscribe to report related events. If the service is already set up for Fax and Print jobs the queue is already ready.
    b. The applicationsettings.config file for the Document Distribution service now contains a setting called "DDEEnableEmail" which must be set to True for the DD to process email jobs.
3) RADAR settings
    a. RADAR must have accounts for all practices which will be sending emails.

### *Permission Strings*

Config.LookupEditor.Personnel.EmailPassword = full access to this enables users to view personnel address distribution email passwords (Default == None)

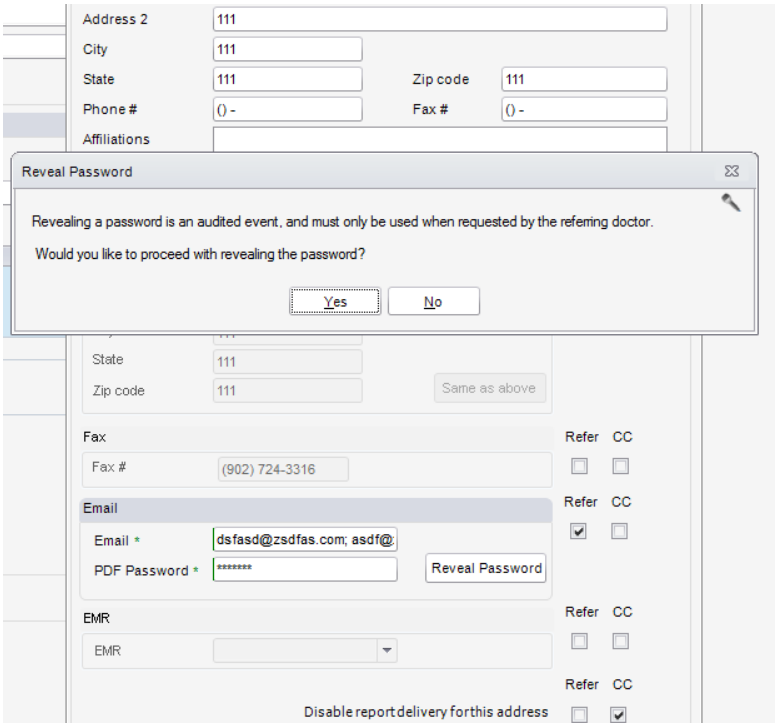
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

*Screen captures of screens / dialog*

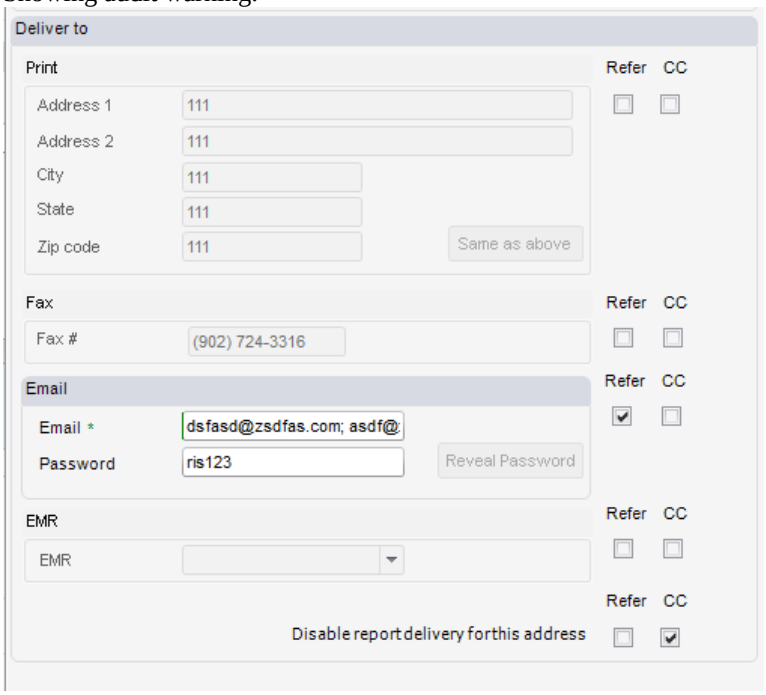



Showing new Email section of address config

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

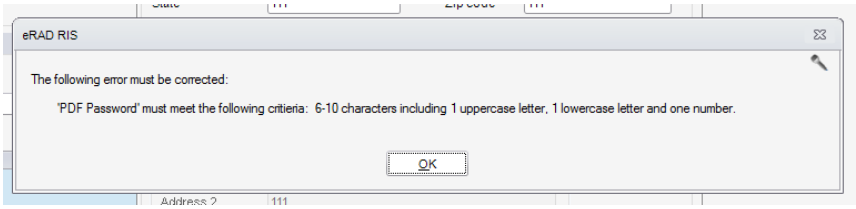



Showing audit warning.

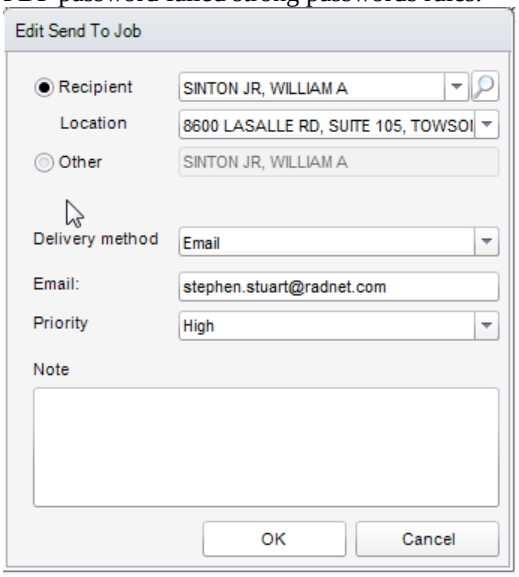



Showing clear text password

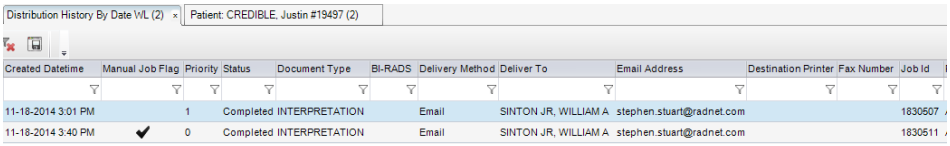
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.



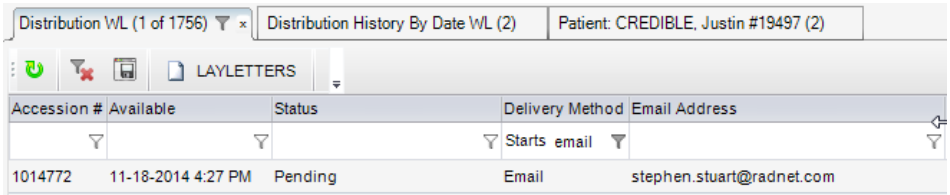

PDF password failed strong passwords rules.




Send Report dialog with Email in the Delivery method dropdown.




Distribution History By Date WL showing two completed Email jobs.




Distribution WL of active jobs, showing one Email job in Pending status

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 2. Defects Resolved

| Redmine # | Tracker | Subject | Priority |
|---|---|---|---|
| 9146 | Bug | Patient Name to be included in Email message to RADAR | Urgent |

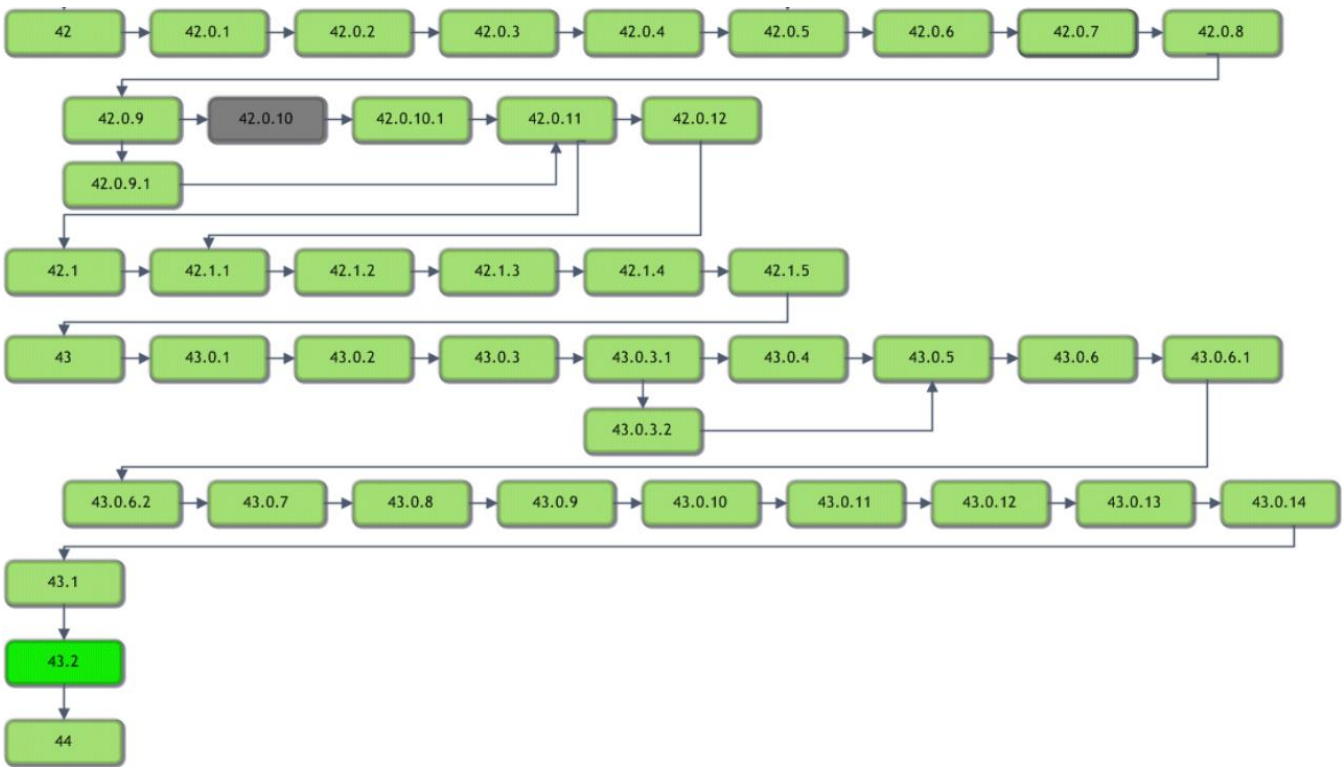
## 3. Changes to Configuration

**The following configuration changes are from 43.1**

| Setting Placeholder | Setting | Default | Purpose / Controls Access to |
|---|---|---|---|
| Access string / User Group Permission tables | Config.LookupEditor.Personnel.EmailPassword | None | Full access to this enables users to view personnel address distribution email passwords |
| Applicationsettings.config | DDEEnableEmail | True | Must be set to True for the DD to process email jobs |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 4. Code Stream




**Legend:**

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 5. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains:
   - rRIS_1.3.43.2.0.26864.zip

2) RIS_Service_Updates contains:

ABCpdf.dll
ABCpdf9-32.dll
ABCpdf9-64.dll
Antlr3.Runtime.dll
CDSJobManager.dll
CDSJobManager.pdb
CdsLib.dll
CdsLib.xml
CdsLib.XmlSerializers.dll
CommonLib.dll
CommonLib.pdb
DDEngine.dll
DDEngine.pdb
DiffPlex.dll
Interop.ANYMODALCAPTURECTRLLib.dll
Interop.FAXCOMEXLib.dll
Microsoft.Practices.EnterpriseLibrary.Caching.dll
Microsoft.Practices.EnterpriseLibrary.Caching.pdb
Microsoft.Practices.EnterpriseLibrary.Common.dll
Microsoft.Practices.EnterpriseLibrary.Common.pdb
Microsoft.Practices.EnterpriseLibrary.Logging.dll
Microsoft.Practices.EnterpriseLibrary.Logging.pdb
Microsoft.Practices.ServiceLocation.dll
Microsoft.Practices.ServiceLocation.pdb
Microsoft.Practices.Unity.dll
Microsoft.Practices.Unity.Interception.dll
Microsoft.Practices.Unity.Interception.pdb
Microsoft.Practices.Unity.pdb
Microsoft.ReportViewer.Common.dll
Microsoft.ReportViewer.WinForms.dll
Microsoft.ReportViewer.WinForms.xml
Microsoft.Web.Infrastructure.dll
Newtonsoft.Json.dll
Newtonsoft.Json.xml
NLog.dll
O2S.Components.PDFRender4NET.dll
PdfSharp.dll
PDFToImages.exe
Radar.Api.Client.dll
Radar.Api.Client.pdb
Radar.Api.Model.dll
Radar.Api.Model.pdb
Radar.Common.dll
Radar.Common.pdb
Radar.Common.WebClient.dll
Radar.Common.WebClient.pdb
Radar.DirectMessaging.Client.dll
Radar.DirectMessaging.Client.pdb
Radar.DirectMessaging.Model.dll
Radar.DirectMessaging.Model.pdb
rRISServices.exe
rRISServices.pdb
rRISServicesx64.exe
ScheduledTaskManager.dll
ScheduledTaskManager.pdb
ServicesConfigWizard.exe
ServicesConfigWizard.pdb
SignatureApprovalService.exe
SignatureApprovalService.pdb
System.Net.Http.dll
System.Net.Http.Formatting.dll
System.Net.Http.xml
System.Web.Http.dll
System.Web.Http.SelfHost.dll
System.Web.Http.SelfHost.xml
System.Web.Http.WebHost.dll
System.Web.Http.WebHost.xml
System.Web.Http.xml
System.Web.Mvc.dll
System.Web.Mvc.xml
System.Web.Optimization.dll
System.Web.Razor.dll
System.Web.Razor.xml
System.Web.WebPages.Deployment.dll
System.Web.WebPages.Deployment.xml
System.Web.WebPages.dll
System.Web.WebPages.Razor.dll
System.Web.WebPages.Razor.xml
System.Web.WebPages.xml
Tourreau.Gilles.FaxDotNet.dll
Tourreau.Gilles.FaxDotNet.pdb
Tourreau.Gilles.FaxDotNet.xml
WCFService.dll
WCFService.pdb
WCFServiceTests.dll
WCFServiceTests.pdb
WebApi.dll
WebApi.pdb
WebGrease.dll
Wedge.exe
Wedge.pdb

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

The rRIS_Service_Updates also contains to subfolders:

A. Deploy folder contains
   a. Applicationsettings.config
   b. ReleaseVersion-connectionstrings.config
   c. rRISServices.exe.config
   d. services.config
   e. rRISServicesx64.exe.config

B. XSL subfolder contains:
   a. Subfolder titled "Stylesheets" which contains:
      a. CDAToHTMLCompleteReport.xslt
      b. CDAToHTMLCompleteReportDark.xslt
      c. CDAToHTMLImpressionSection.xslt
      d. CDATorRIS.xslt
      e. CDAToTxt.xslt
      f. DocumentModelReport.xslt
      g. DocumentModelReportAsXml.xslt

   b. CDA Subfolder contains
      a. C-CDA.xsl
      b. eRadStylesheet.xsl
      c. generalTemplates.xsl
      d. header.xsl
      e. QRDA.xsl
      f. QrdaLevel3_Cypress2.4.0.xsl
      g. QrdaLevel3_ViewHtml.xsl
      h. sectionAdministeredMedications.xsl
      i. sectionAllergies.xsl
      j. sectionEncounters.xsl
      k. sectionFindings.xsl
      l. sectionFuncCogStatus.xsl
      m. sectionImmunizations.xsl
      n. sectionInstructions.xsl
      o. sectionMedications.xsl
      p. sectionPlanOfCare.xsl
      q. sectionProblemList.xsl
      r. sectionProcedures.xsl
      s. sectionQRDAMeasures.xsl
      t. sectionQRDAPatientData.xsl
      u. sectionQRDAReporting.xsl
      v. sectionReasonForVisit.xsl
      w. sectionResults.xsl
      x. sectionSocialHistory.xsl
      y. sectionVitalSigns.xsl

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 6. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

## 7. Who is affected

Build 43 installs. Server updates are not cumulative. This server update must be applied to 43.1

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 8. eRAD RIS Release Version Numbers

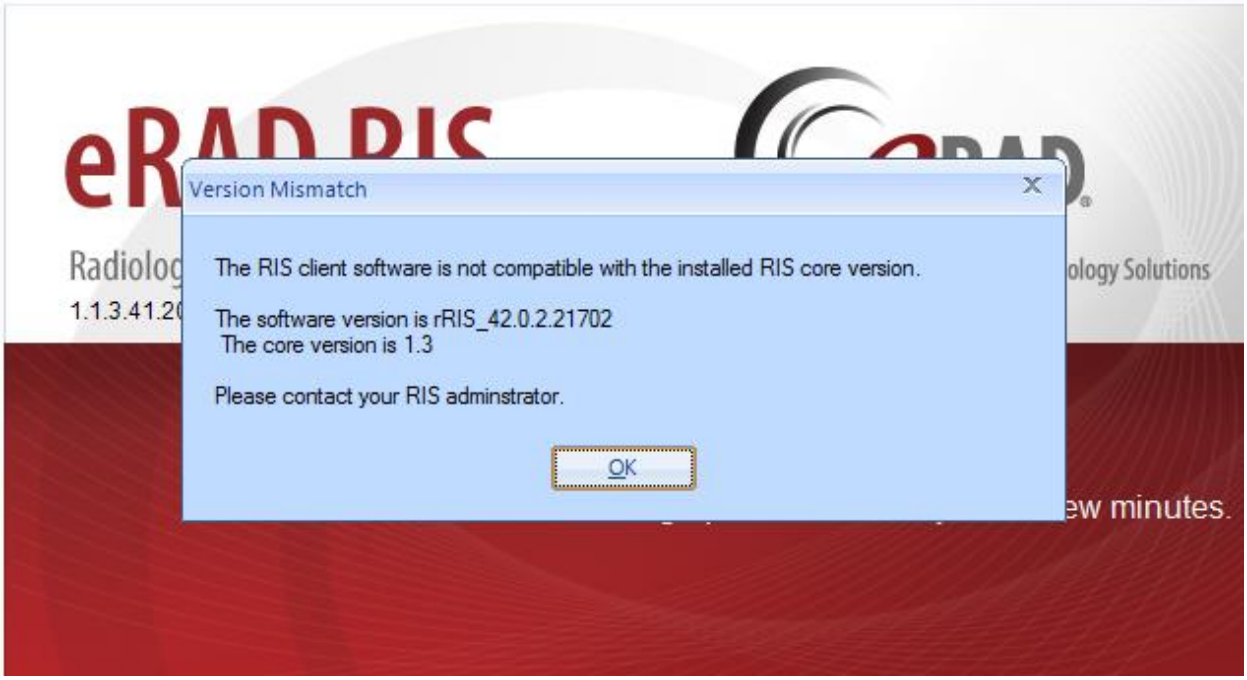
| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 42.1 | - | 2.42.1.0.22744(3GB) | 2.42.0.0.21261 | 2.42.1.0.22744 | 2.42.1.0.22736 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 42.1 | 1 | 2.42.1.1.2296(3GB) | 2.42.0.0.21261 | 2.42.1.1.22963 | 2.42.1.1.22864 | GUI.zip, Web Service, DB updates |
| 42.1 | 2 | 2.42.1.2.23007(3GB) | 2.42.0.0.21261 | 2.42.1.2.23007 | 2.42.1.2.23007 | GUI.zip, Web Service, DB updates |
| 42.1 | 3 | 2.42.1.2.23237(3GB) | 2.42.0.0.21261 | 2.42.1.2.23237 | 2.42.1.2.23007 | GUI.zip, Web Services |
| 42.1 | 4 | 2.42.1.4.23348(3GB) | 2.42.0.0.21261 | 2.42.1.4.23348 | 2.42.1.2.23007 | GUI.zip, Web Services |
| 42.1 | 5 | 2.42.1.5.23406(3GB) | 2.42.0.0.21261 | 2.42.1.5.23406 | 2.42.1.2.23007 | GUI.zip, Web Services |
| 43 | - | 2.43.0.0.23715(3GB) | 2.43.0.0.23171 | 2.43.0.0.23715 | 2.43.0.0.23743 | Full Version Release |
| 43 | 1 | 2.43.0.1.23798(3GB) | 2.43.0.0.23171 | 2.43.0.1.23798 | 2.43.0.1.23770 | GUI.zip, Web Service, DB updates |
| 43 | 2 | 2.43.0.2.24017(3GB) | 2.43.0.0.23171 | 2.43.0.2.24017 | 2.43.0.2.24023 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 3 | 2.43.0.3.24298(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24283 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 3.1 | 2.43.0.3.24450(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24421 | GUI.zip and DB updates |
| 43 | 3.2 | 2.43.0.3.24450(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24421a | DB updates |
| 43 | 4 | 2.43.0.4.24447(3GB) | 2.43.0.0.23171 | 2.43.0.4.24447 | 2.43.0.4.24442 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 5 | 2.43.0.5.24632(3GB) | 2.43.0.0.23171 | 2.43.0.5.24632 | 2.43.0.5.24560 | GUI.zip, Web Service and DB updates |
| 43 | 6 | 2.43.0.6.24914(3GB) | 2.43.0.0.23171 | 2.43.0.6.24914 | 2.43.0.6.24914 | GUI.zip, Web Service and DB updates |
| 43 | 6.1 | 2.43.0.6.24937(3GB) | 2.43.0.0.23171 | 2.43.0.6.24937 | 2.43.0.6.24914 | GUI.zip, Web Service |
| 43 | 6.2 | 2.43.0.6.24970(3GB) | 2.43.0.0.23171 | 2.43.0.6.24970 | 2.43.0.6.24914 | GUI.zip, Web Service |
| 43 | 7 | 2.43.0.7.25258(3GB) | 2.43.0.0.23171 | 2.43.0.7.25258 | 2.43.0.7.25226 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 8 | 2.43.0.8.25440(3GB) | 2.43.0.0.23171 | 2.43.0.8.25440 | 2.43.0.8.25425 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 9 | 2.43.0.9.25477(3GB) | 2.43.0.0.23171 | 2.43.0.9.25477 | 2.43.0.8.25425 | GUI.zip and Web Service |
| 43 | 10 | 2.43.0.9.25477(3GB) | 2.43.0.0.23171 | 2.43.0.10.25477 | 2.43.0.8.25425 | Web Service |
| 43 | 11 | 2.43.0.11.25512(3GB) | 2.43.0.0.23171 | 2.43.0.11.25512 | 2.43.0.8.25425 | GUI.zip and Web Service |
| 43 | 12 | 2.43.0.12.25554(3GB) | 2.43.0.0.23171 | 2.43.0.12.25554 | 2.43.0.12.25536 | GUI.zip Web Service and DB Updates |
| 43 | 13 | 2.43.0.12.25610(3GB) | 2.43.0.0.23171 | 2.43.0.12.25610 | 2.43.0.12.25536 | GUI.zip and Web Service |
| 43 | 14 | 2.43.0.14.25644(3GB) | 2.43.0.0.23171 | 2.43.0.13.25610 | 2.43.0.12.25536 | GUI.zip |
| 43.1 | - | 2.43.1.0.25850(3GB) | 2.43.0.0.23171 | 2.43.1.0.25850 | 2.43.1.0.25771 | GUI.zip Web Service and DB Updates |
| **43.2** | - | **2.43.2.0.26864(3GB)** | **2.43.0.0.23171** | **2.43.2.0.26864** | **2.43.1.0.25771** | **GUI.zip and Web Service** |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 9. Installing

1. Copy and replace the current rRIS…zip file with the rRIS_1.3.43.2.0.26864.zip file provided with this release.

Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.




If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_43.2.0.26864→ rRIS_1.3.43.2.0.26864
NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

**NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)**

2. Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService. Be sure to make backup of all files, but especially the rRISServices.exe.config and rRISServices.vshost.exe.config files.

*rRISService directories include:*

*a) rRISService*
*b) CDS rRISService*
*c) Wedge rRISService*
*d) DDE rRISService*

**Restart each service.**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# User Release Notes

for eRAD RIS
Version 2
Build 43

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# Table of Contents

1. Purpose ..... 4
2. Intended Audience ..... 4
3. Installing/Accessing the Application ..... 4
4. New Access Strings and Configuration Settings 43 ..... 5
5. New Features and Enhancements ..... 16
Reporting – Peer Review (Phase 1) ..... 16
Export Images (Burn CD) ..... 22
County Option for Radiologist Signing Location ..... 32
IVT – Ability to Edit Patient Information ..... 35
ICD10 Support ..... 36
IMPORTANT: Radiologist ICD Support Uncomplete ..... 41
Secure Messaging ..... 43
Patient Portal Legal Documents ..... 47
Mammography – Suggest Manual Review ..... 49
Option to Not Allow Editing of Billing Codes by Technicians ..... 50
Patient "Not Yet Menstruating" Flag ..... 51
Exam Search Filter of BI-RADS ..... 52
Patient Search – New Patient Split Button Added ..... 53
Responsible Party MRN ..... 54
Scheduling – Patients Height and Weight Required at Time of Scheduling ..... 55
Patients Weight and Room Added to Weight Limit Message ..... 56
Ability to Add Longer Room Names ..... 57
Ability to Use a Closed Room from Registration Window ..... 58
Scheduling – Repeating Modality Closures ..... 59
Last Contact and Last Contacted Type Added to Work Lists ..... 60
Additional Columns Added to the Confirmation WL ..... 61
Additional Columns added to the Orders to Schedule WL ..... 61
Columns added to the Image Request WL ..... 62
Locked By Column Added to the CTRM WL ..... 62
Ability to Select Date Range for Confirmation WL ..... 63
Problem and QA Flags Added to Patient Folder WL ..... 64
Personnel Editor – Have City Populated by Zip Code ..... 65
Ability to Define Primary Specialty for Referring Physician ..... 66
Referring Practice Address Changes ..... 67
Management Report – Appointment Schedule by Procedure Group ..... 71
Management Report – Users in Usergroups ..... 72
Management Reports – Radiologist Productivity by User – Mammo ..... 73
Utilization Management – Addition of Medical Group Lookup Table ..... 74

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

Utilization Management – Support Medical Group Contact Types ..... 76
Utilization Management – Support UM Coverage Type ..... 77
Utilization Management – Support UM Common Language ..... 78
Utilization Management – Support Default Review Times ..... 78
Utilization Management – Support UM Status ..... 79
Utilization Management – Authorization Rules for Medical Groups ..... 80
Utilization Management – Support Capitated Carriers ..... 81
Utilization Management – Mapping Carriers to Medical Groups ..... 82
Utilization Management – Addition of Utilization Management User Group ..... 82
Meaningful Use – Site Level MU Override ..... 83
Meaningful Use – Direct Messaging ..... 84
Meaningful Use – Additional Options for MU Fields ..... 90
Meaningful Use – Additional Medications for Quick Add Edit Window ..... 91
Meaningful Use – Laboratory Tests and Values / Results ..... 92
Meaningful Use – Office Visit ..... 93
Meaningful Use – Clinical Summaries ..... 94
Meaningful Use – Data Portability ..... 95
Meaningful Use – Alerts and Clinical Decision Support ..... 97
Meaningful Use – Clinical Quality Measures ..... 103
Meaningful Use – Preventative Care ..... 105
Meaningful Use – Automated Measures Management Report ..... 107
Meaningful Use – Reports by Radiologist Management Report ..... 110
Meaningful Use – Stage 2 Management Reports ..... 111
6. Code Stream ..... 113
7. RIS Release Version Numbers ..... 114
8. Resolved Defects ..... 115
9. Known Limitations ..... 127

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 1. Purpose

This document describes some of the new features and changes implemented in eRAD RIS as of the end of Sprint 43 and subsequent server releases. This version of eRAD RIS is referred to as Build 2.43.

Only features which can be visually demonstrated to the user will be outlined in this document.

# 2. Intended Audience

This document is created by the RIS Development team for the RadNet RIS management team.

# 3. Installing/Accessing the Application

The installation guide for the eRAD RIS client have been posted to the RadNet Wiki page at http://mdbal01rdtweb/Wiki/

Under the RIS menu click on the rRIS page. The credentials to access the page are:
Username: rRIS
Password: Summerside

*Please note that Build 2.43 is considered a new core release of the application and will require a reinstallation of eRAD RIS. This is accomplished by navigating to the eRAD RIS shared installation drive and running the CoreInstall.bat file (ex: I:\RISDeployment\CoreInstall.bat)*

If you experience difficulties accessing the application please do not hesitate to contact Darcy Noye with the PEI RIS Development Team.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 4. New Access Strings and Configuration Settings 43

| Setting Placeholder | Setting | Default | Purpose / Controls Access to |
|---|---|---|---|
| Access string / User Group Permission tables | Alert.AgeGreaterThan | Full | full access to this enables users to see the alert of the "AgeGreaterThan" type when it is evaluated to be true |
| Access string / User Group Permission tables | Alert.CDS_01_HighBP | Full | full access to this enables users to see the alert |
| Access string / User Group Permission tables | Alert.CDS_02_HighCholesteral | Full | full access to this enables users to see the alert |
| Access string / User Group Permission tables | Alert.CDS_03_PossibleReaction | Full | full access to this enables users to see the alert |
| Access string / User Group Permission tables | Alert.CDS_04_TobaccoUser | Full | full access to this enables users to see the alert |
| Access string / User Group Permission tables | Alert.CDS_05_PneumoniaBooster | Full | full access to this enables users to see the alert |
| Access string / User Group Permission tables | Alert.ExpiredInsurance | Full | full access to this enables users to see the alert of the "ExpiredInsurance" type when it is evaluated to be true |
| Access string / User Group Permission tables | Alert.HasAllergy | Full | full access to this enables users to see the alert of the "HasAllergy" type when it is evaluated to be true |
| Access string / User Group Permission tables | Alert.HasProblem | Full | full access to this enables users to see the alert of the "HasProblem" type when it is evaluated to be true |
| Access string / User Group Permission tables | Alert.InactiveCarrierAppliedToVisit | Full | full access to this enables users to see the alert of the "InactiveCarrierAppliedToVisit" type when it is evaluated to be true |
| Access string / User Group Permission tables | Alert.IndicationAndMedication | Full | full access to this enables users to see the alert of the "IndicationAndMedication" type when it is evaluated |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| | | | to be true |
| Access string / User Group Permission tables | Alert.IndicationAndSevereContrastAllergy | Full | full access to this enables users to see the alert of the "IndicationAndSevereContrastAllergy" type when it is evaluated to be true |
| Access string / User Group Permission tables | Alert.LabOrderWithEmptyValue | Full | full access to this enables users to see the alert of the "LabOrderWithEmptyValue " type when it is evaluated to be true |
| Access string / User Group Permission tables | Alert.MRI65PlusHeartDiseaseLipitorAndLDL100Plus | Full | full access to this enables users to see the alert of the "MRI65PlusHeartDiseaseLipitorAndLDL100Plus" type when it is evaluated to be true |
| Access string / User Group Permission tables | Alert.OnMedication | Full | full access to this enables users to see the alert of the "OnMedication" type when it is evaluated to be true |
| Access string / User Group Permission tables | Alert.PatientBirthChanged | Full | full access to this enables users to see the alert of the "PatientBirthChanged" type when it is evaluated to be true |
| Access string / User Group Permission tables | Alert.PatientDeceased | Full | full access to this enables users to see the alert of the "PatientDeceased" type when it is evaluated to be true |
| Access string / User Group Permission tables | Alert.PatientDrugAllergyWhenArrivedOrStarted | Full | full access to this enables users to see the alert of the "PatientDrugAllergyWhenArrivedOrStarted" type when it is evaluated to be true |
| Access string / User Group Permission tables | Alert.PatientFirstNameChanged | Full | full access to this enables users to see the alert of the "PatientFirstNameChanged " type when it is evaluated |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| | | | to be true |
| Access string / User Group Permission tables | Alert.PatientLastNameChanged | Full | full access to this enables users to see the alert of the "PatientLastNameChanged " type when it is evaluated to be true |
| Access string / User Group Permission tables | Alert.PatientMissingPhoneInfo | Full | full access to this enables users to see the alert of the "PatientMissingPhoneInfo" type when it is evaluated to be true |
| Access string / User Group Permission tables | Alert.ProcedureXAndHighBP | Full | full access to this enables users to see the alert of the "ProcedureXAndHighBP" type when it is evaluated to be true |
| | Clinical.AlertFramework | Full | Allows the user to see alerts, which by default should be set to full access. Added this to pass an MU test case which requires us to show we can configure alerts not to fire for a specific user group. |
| Access string / User Group Permission tables | Config.LookupEditor.AllergySeverity | Full | allows the user to see alerts, which by default should be enabled full for all users. Added this to pass an MU test case which requires us to show we can configure alerts not to fire for a specific user group. |
| Access string / User Group Permission tables | Clinical.Attachments | Full | Controls access to the standalown Attachments screen accessable in a worklist via Right Click / Attachments |
| Access string / User Group Permission tables | Clinical.BurnCD | None | Controls access to the "Burn CD" Image Request context menu, the "Burn CD" from the tech's Perform Exam screen and |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| | | | the patient folder's Burn CD menu items |
| Access string / User Group Permission tables | Clinical.DataField.Patient.Notes | None | Controls if the user has access to change previous patient notes |
| Access string / User Group Permission tables | Clinical.DeleteDictationAndResetStatus.ExternalReportVerified | None | When a external report is verified, this permission will allow the verified report to be reverted back to exam done so it can be either re-verified or changed to a non-external report. |
| Access string / User Group Permission tables | Clinical.DiagnosisCodes | None | Controls access for users to enter ICD Codes in the MU Tab's MU Extra Info Screen. |
| Access string / User Group Permission tables | Clinical.InfoButton | Full | allows user access to the MU Info button feature accessabel in the MU tab's grids for Medications, Medical History or Lab Results via a Right Click / View Medline Plus Info. |
| Access string / User Group Permission tables | Clinical.Insurance.Override | None | controls access to override Eligiblity/Eligible API results |
| Access string / User Group Permission tables | Clinical.Insurance.Reverify | None | Controls access to the Reverify button in the Manage Insurance groupbox |
| Access string / User Group Permission tables | Clinical.Labwork.AddEdit | None | limits users ability to add or edit labwork |
| Access string / User Group Permission tables | Clinical.Labwork.Request | None | limits users ability to request labwork |
| Access string / User Group Permission tables | Clinical.PeerReview | None | Access to Peer Review context menu item and buttons |
| Access string / User Group Permission tables | Clinical.Schedule.AssignIcdCode | None | Controls whether ICD codes can be assigned during scheduling, ordering, registering |
| Access string / User | Clinical.Schedule.Calendar | None | Schedule Calendar control |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| Group Permission tables | This is not a new access string but the default value has changed from **full to none** | | |
| Access string / User Group Permission tables | Clinical.ViewEditCanChangeDiagIndications | None | In View/Edit, the indications defined by the radiologist can be edited |
| Access string / User Group Permission tables | Clinical.ViewEditCanChangeTechIndications | None | In View/Edit, the indications defined up to the technologist workflow can be edited |
| Access string / User Group Permission tables | Config.AllowMModalConfig<br><br>This is not a new access string but the default value has changed from **none to full** | Full | Allows users access to turning on M*Modal workflow for themselves or other users if the current user has admin access |
| Access string / User Group Permission tables | Config.CreateMessage | None | Gives ability to create a new secure message for comunication between Patient Portal and RIS |
| Access string / User Group Permission tables | Config.LookupEditor.AllergySeverity | None | lookup table access for Allergy Severity |
| Access string / User Group Permission tables | Config.LookupEditor.EligibleConfig | None | controls access in the lookup table editor |
| Access string / User Group Permission tables | Config.LookupEditor.HL7v3Vocabulary | None | controls access in the lookup table editor |
| Access string / User Group Permission tables | Config.LookupEditor.InsuranceServiceType | None | Controls access to the lookup table editor |
| Access string / User Group Permission tables | Config.LookupEditor.LabObservation | None | Controls access to the lookup table editor |
| Access string / User Group Permission tables | Config.LookupEditor.LabProvider | None | Controls access to the lookup table editor |
| Access string / User Group Permission tables | Config.LookupEditor.LegalAuthenticator | None | controls access in the lookup table editor |
| Access string / User Group Permission tables | Config.LookupEditor.LegalDocument | None | Controls access to lookup table legal document |
| Access string / User Group Permission tables | Config.LookupEditor.MedicalGroup | None | lookup table access for Medical Group |
| Access string / User Group Permission tables | Config.LookupEditor.MedicalGroupContactType | None | lookup table access for Medical Group Contact Type. |
| Access string / User | Config.LookupEditor.MessageGrou | None | Controls access to the |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| Group Permission tables | p | | Message Group lookup table |
| Access string / User Group Permission tables | Config.LookupEditor.ObservationResult | None | Controls access to the lookup table editor |
| Access string / User Group Permission tables | Config.LookupEditor.ReferringAddresses | None | limits users ability to view or edit the Lookup editor for Referring Addresses. To have access users will also need to have access to the Config.LookupEditor.Personnel item. |
| Access string / User Group Permission tables | Config.LookupEditor.SpecimenAction | None | Controls access to the lookup table editor |
| Access string / User Group Permission tables | Config.LookupEditor.SpecimenCondition | None | Controls access to the lookup table editor |
| Access string / User Group Permission tables | Config.LookupEditor.SpecimenQuality | None | Controls access to the lookup table editor |
| Access string / User Group Permission tables | Config.LookupEditor.SpecimenType | None | Controls access to the lookup table editor |
| Access string / User Group Permission tables | Config.LookupEditor.UMCommonLanguage | None | lookup table access for UM Common Language |
| Access string / User Group Permission tables | Config.LookupEditor.UMCoverage | None | lookup table access for UM Coverage |
| Access string / User Group Permission tables | Config.LookupEditor.UMResolution | None | lookup table access for UM Resolution |
| Access string / User Group Permission tables | Config.LookupEditor.UMStatus | None | lookup table access for UM Status |
| Access string / User Group Permission tables | Config.MessageInbox | None | Gives ability to access the Secure message inbox |
| Access string / User Group Permission tables | ContentEnum.Reschedule | None | Reschedule Studies |
| Access string / User Group Permission tables | Flag.EligibilityApproved | Full | Access to see the flag |
| Access string / User Group Permission tables | Flag.EligibilityDenied | Full | Access to see the flag |
| Access string / User Group Permission tables | Flag.EligibilityError | Full | Access to see the flag |
| Access string / User Group Permission tables | Flag.EligibilityInProgress | Full | Access to see the flag |
| Access string / User Group Permission tables | Flag.EligibilityWarnings | Full | Access to see the flag |
| Access string / User | Flag.Problem | Full | Access to see the Problem |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| Group Permission tables | | | flag |
| Access string / User Group Permission tables | Flag.QA | Full | Access to see the QA flag |
| Access string / User Group Permission tables | MU.ExportAll | None | controls access for administrators to export all CCDA Data to the system config location MU_ExportALL_Path |
| Access string / User Group Permission tables | WL.DirectMessage | None | Gives ability to access the Direct message inbox |
| Access string / User Group Permission tables | WL.LabworkAdvisedWL | None | WL access for the LabworkAdvice context menu item. |
| Access string / User Group Permission tables | WL.LabworkRequestedWL | None | WL access for the Labwork Requested context menu item. |
| Access string / User Group Permission tables | WL.MT.PeerReviewPendingAction All | None | WL access to All Peer Reviews Pending QA under the Editor menu |
| Access string / User Group Permission tables | WL.Rad.PeerReviewPendingAction All | None | WL access to All Peer Reviews Pending QA under the Radiologist menu |
| Access string / User Group Permission tables | PowerScribe360.AllowAutofeed<br><br>This access string has been removed | removed | This access string has been removed. |
| SystemConfig lookup | APIServerUrl | | the URL for Webservice API services (ie: http://<your rRisService server><API Port>/API) |
| SystemConfig lookup | AuthorizationPrefix | | A prefix that will be added to the new Authorization numbers that are assigned |
| SystemConfig lookup | CallbackDeclinedValue | | The key in Follow Up Type system config table to be considered as 'Declined Callback Letter' |
| SystemConfig lookup | DDRemoveErroredFaxJobs | True | Determines if the Document Distribution Engine removes failed fax jobs after recording their status |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| SystemConfig lookup | DefaultAgeofMinor | 18 | The maximum number that would define a patient as being a minor |
| SystemConfig lookup | EnableContrastBillingRelation | True | Enables billing and contrast code syncing in the tech window |
| SystemConfig lookup | EnforceCountySelection | False | To force user to select a county for signing |
| SystemConfig lookup | HeightRequiredOnSchedule | False | Height is required when scheduling the patient |
| SystemConfig lookup | Icd10EffectiveDate | 07-16-2014 | (value = DateTime mm-dd-yyyy) The date on which ICD10 is effective. ICD9 will be used prior to this date. |
| SystemConfig lookup | InsuranceEligibleAPIString | | Verification account for billing. |
| SystemConfig lookup | InsuranceReVerifyInterval | 10 | (value = int in days) Determines how often we will reverify a patients insurance, before the study is preformed. Note: we will also re-verify on the day of service |
| SystemConfig lookup | InsuranceVerificationGroupNPI | | NPI for server initiated insurance eligiblity requests |
| SystemConfig lookup | MUExportAllPath | | Path where the MU feature to export all patient CCDA will be stored (Ex: c:\temp\muexport) |
| SystemConfig lookup | PeerReviewScoreToStartRequiringNotes | 2b | Determines the score at which we will start to require they enter notes. Possible values are - 1, 2a, 2b, 3a, 3b, 4a or 4b. |
| SystemConfig lookup | PeerReviewScoreToStartSendingToQa | 2b | Determines the score at which we will start to mark them as pending Qa. Possible values are - 1, 2a, 2b, 3a, 3b, 4a or 4b |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| SystemConfig lookup | RadarAPIURL | https://api.myradarconnect.com/v1/ | (value = URL) Determines the start of day to jump the calendar too. |
| SystemConfig lookup | RadMustProvideIcdCode | False | To force radiologist to provide diagnosis ICD code prior to signing. |
| SystemConfig lookup | TechMustProvideIcdCode | False | To force technologist to provide diagnosis ICD code prior to exam done. |
| SystemConfig lookup | UMRoutineReview | 30 | The maximum number of UM hours for a routine exam. |
| SystemConfig lookup | UMStatReview | 4 | The maximum number of UM hours for a STAT exam. |
| SystemConfig lookup | UMUrgentReview | 10 | The maximum number of UM hours for an urgent exam. |
| SystemConfig lookup | WeightRequiredOnSchedule | False | weight is required when scheduling the patient (value = True/False) |
| SystemConfig lookup | WeightUnitsAbbreviation | lbs | An abbreviation of the system's weight measurement unit (i.e. kg or lbs) Default is lbs. |
| SystemConfig lookup | WorklistDateRangeDays | 10 | Maximum number of days to filter date enabled worklists by. |
| rRISService.exe.config **and** rRISServicex64.exe.config | Setting <serviceThrottling> has been increased.<br><br>**Before**:<br><serviceThrottling maxConcurrentCalls="2000" maxConcurrentSessions="4000" maxConcurrentInstances="4000" /><br><br>**After**:<br><serviceThrottling maxConcurrentCalls="3000" maxConcurrentSessions="5000" maxConcurrentInstances="5000" /> | | This increase was added for larger implemenations.<br><br>The changes can be found in the deploy folder > rRISService.exe.config file. Compare with your current file in your rRISService folder. This applies to the rRISService.exe.config and the rRISServicex64.exe.config files<br><br>Manual edit required. |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| rRISService.exe.config **and** rRISServicex64.exe.config | Change to the <system.serviceModel> section of the rRISServices.exe.config and rRISServicesx64.exe.config file<br><br>**Before:**<br><binding name="netTCPBinding" maxReceivedMessageSize="50000000" maxBufferSize="50000000" maxBufferPoolSize="50000000"><br><br>**After:**<br><binding name="netTCPBinding" maxReceivedMessageSize="50000000" maxBufferSize="50000000" maxBufferPoolSize="50000000" **maxConnections="3000" listenBacklog="3000"**> | | Changes are made under the <system.serviceModel> section of the file. Changes to be made in 2 places in the file<br><br>The changes can be found in the deploy folder > rRISService.exe.config file. Compare with your current file in your rRISService folder. This applies to the rRISService.exe.config and the rRISServicex64.exe.config files<br><br>Manual edit required. |
| rRISService.exe.config **and** rRISServicex64.exe.config | Change to the <system.serviceModel> section of the rRISServices.exe.config and rRISServicesx64.exe.config file<br><br>**Before:**<br><readerQuotas maxStringContentLength="10240000" maxArrayLength="10240000" /><br><br>**After:**<br><readerQuotas maxStringContentLength="10240000" maxArrayLength="10240000" **maxNameTableCharCount="32768"** /> | | Changes are made under the <system.serviceModel> section of the file. Changes to be made in 2 places in the file<br><br>The changes can be found in the deploy folder > rRISService.exe.config file. Compare with your current file in your rRISService folder. This applies to the rRISService.exe.config and the rRISServicex64.exe.config files<br><br>Manual edit required. |
| rRISService.exe.config and rRISServicex64.exe.config | <runtime><br><gcServer enabled="true"/><br></runtime> | true | Added to the base rrisservices.config file. Possible values are true and false.<br><br>Manual edit required. |
| rRISService.exe.config **and** rRISServicex64.exe.config | **Before:**<br><serviceThrottling maxConcurrentCalls="2000" maxConcurrentSessions="4000" maxConcurrentInstances="4000" /><br><br>**After:** | | Changes are made under the <behaviors> section of the file.<br><br>The changes can be found in the deploy folder > rRISService.exe.config file. |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| | <serviceThrottling maxConcurrentCalls="3000" maxConcurrentSessions="5000" maxConcurrentInstances="5000" /> | | Compare with your current file in your rRISService folder. This applies to the rRISService.exe.config and the rRISServicex64.exe.config files<br><br>Manual edit required. |
| Applicationsettings.config | UsePerCallInstanceContextMode | False | Will use PerSession mode by default but if UsePerCallInstanceContext Mode is True we use PerCall instead.<br><br>**PerCall** = the service creates resources, processes the client call, and then destroys the resources. This provides greater scalability as the resources are released sooner, but each call may experience more latency<br><br>**PerSession** = the service creates resources for a session which are then kept alive and re-used from one user call to the next. May provide less latency. |
| Applicationsettings.config | StartInsuranceEligibilityService | False | This is not completely implemented in this build and should remain as false. |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 5. New Features and Enhancements

## Reporting – Peer Review (Phase 1)

In build 43 peer review options have been added to the Patient Folder and also from the Reporting windows Patient History data pane.

From the Patient Folder the study can be peer reviewed by selecting the Peer Review option from the context menu. The option will display for studies not signed by "you" and are in signed status.

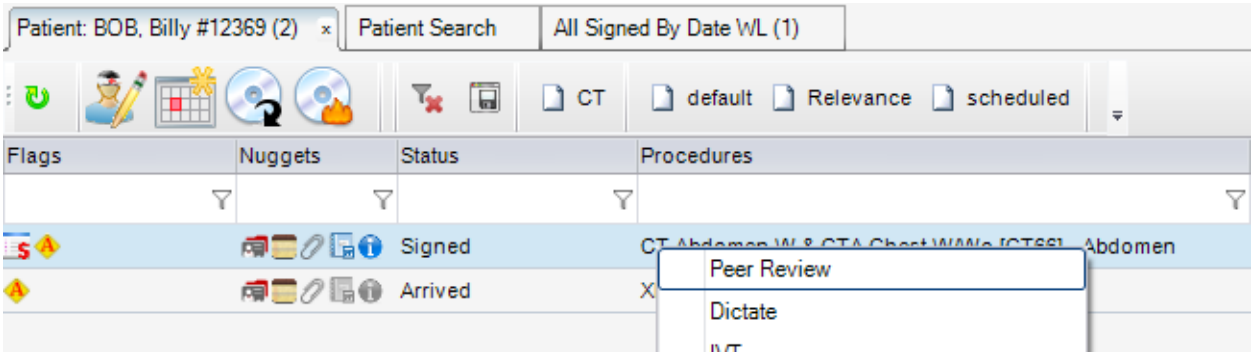



**Figure 5.1 – Peer Review context menu option from Patient Folder**

From the Reporting windows Patient History control the Peer Review button will be displayed in the "My Views" column.

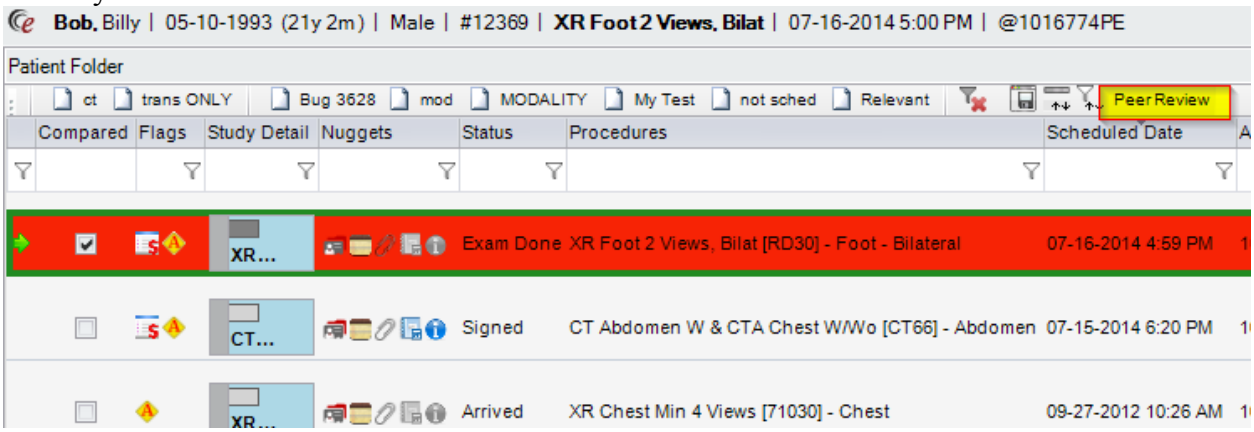



**Figure 5.2 – Peer Review button on Patient History control of reporting window.**

Again, only the studies in signed status that were not signed by you can be reviewed. Selecting a study in a status other than signed with inform the user that the current study status cannot be peer reviewed

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

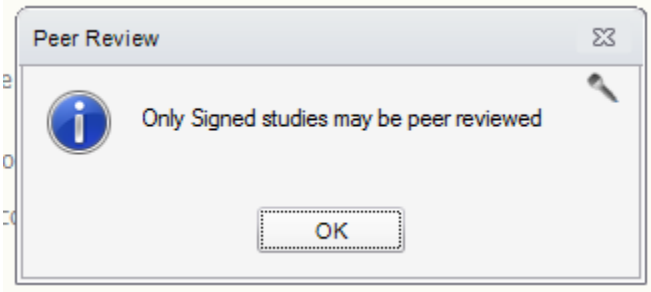



**Figure 5.3 – Attempt to peer review a study in status other than signed**

The options for peer review are controlled by an access string titled **"Clinical.PeerReview"** with a default level of None.

Upon selecting one of the options for peer review the Peer Review window will open. From this window the user can see the performed data, accession number, procedure performed, patients name, MRN and date of birth.

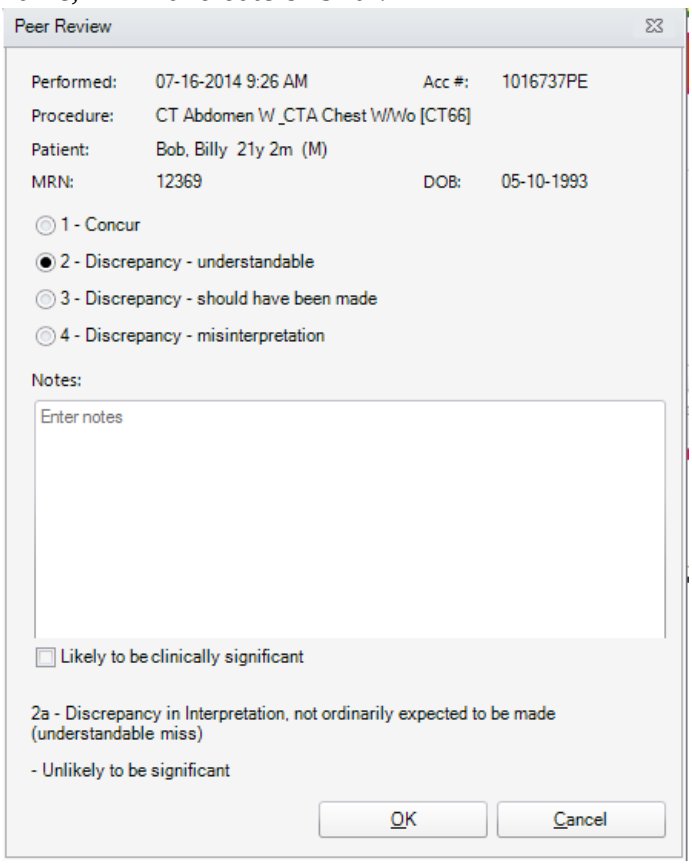



**Figure 5.3 – Peer Review window**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

The Peer Reviewer will have 7 scoring options. The values are 1-4 with the option to select the check box "Likely to be clinically significant". Selecting this check box if the difference of the study to be Unlikely significant and Likely significant, changing the score from 2a to 2b for example.
The scoring would look like this:

| Peer review score code | Description |
|---|---|
| 1 | Concur with interpretation |
| 2a | Discrepancy in Interpretation/not ordinarily expected to be made (understandable miss) - Unlikely to be significant |
| 2b | Discrepancy in Interpretation/not ordinarily expected to be made (understandable miss) - Likely to be significant |
| 3a | Discrepancy in Interpretation/should be made most of time - Unlikely to be significant |
| 3b | Discrepancy in Interpretation/should be made most of time - Likely to be significant |
| 4a | Discrepancy in Interpretation/should be made almost every time (misinterpretation of findings) - Unlikely to be significant |
| 4b | Discrepancy in Interpretation/should be made almost every time (misinterpretation of findings) - Likely to be significant |

**Table 5.1 – Peer review scores**

There is also a notes field for the user to add any notes pertaining to the studies peer review. Notes are required when the score passes a certain threshold, that threshold is configurable at the system and the practice level. The practice level overrides the system configuration setting if it is configured. This threshold identifies the score at which notes will start to be required. When notes are required, the OK button will be disabled until notes are entered. This is also set at the system and practice level. The system configuration setting it titled **"PeerReviewScoreToStartRequiringNotes"** with a default value of 2b.

The Add/Edit Practice window has been redesigned. To access the optional settings for Peer Review, select the appropriate tab as shown in the screenshot below.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

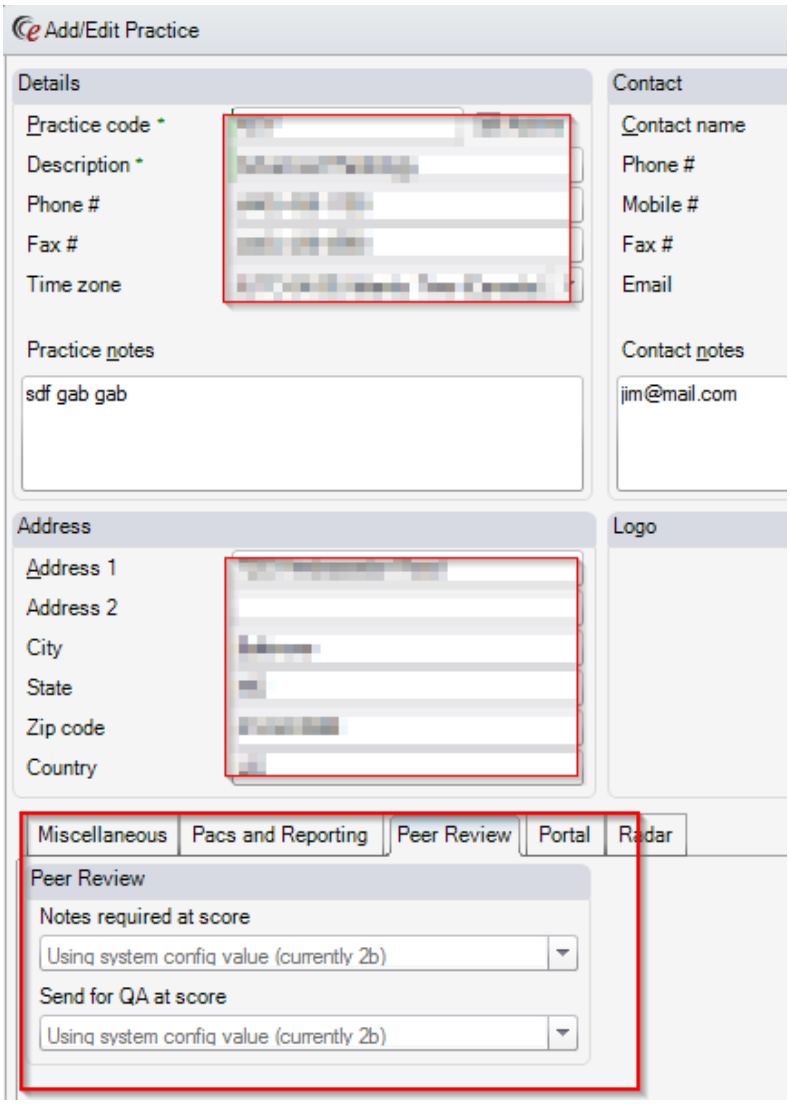



**Figure 5.4 – Peer Review tab of the Add/Edit Practice window**

Similar to the system configuration setting for notes, we have another setting titled **"PeerReviewScoreToStartSendinfToQA"** with a default value of 2b that determines if a peer review will then go to a "post peer review work list" where it can then be reviewed, or entered in an external system and marked as completed. This is also set at the system and practice level with the practice level overriding the system configuration setting.

Once a study is peer reviewed, if it meets the **"PeerReviewScoreToStartSendinfToQA"** settings, the peer review will be went to the "All Peer Review Pending Action WL". This worklist can be accessed from the Radiologist and Editor menus and each is controlled by its

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

own new access string. The All Peer Review Pending Action WL under the Radiologist menu is controlled by access string **"WL.Rad.PeerReviewPendingActionAll"** with a default of none. Access to the work list option under the Editor menu is controlled by access string **"WL.MT.PeerReviewPendingActionAll"** which also has a default of none.

This work list will show the score and score description along with some details attached to the peer review and the study itself. From this worklist, the user will have the option to "Mark as Completed" which will remove the item from the worklist, or "Open".

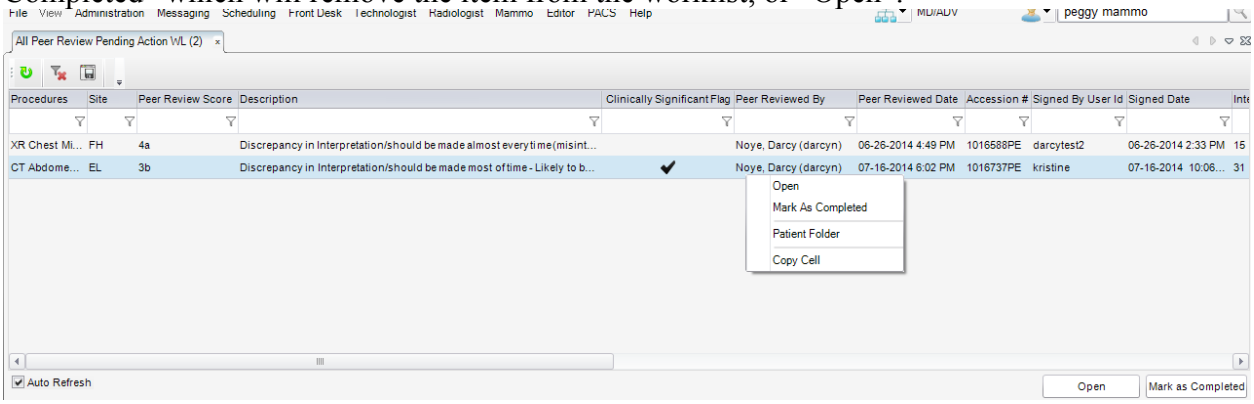



**Figure 5.5 – All Peer Review Pending Action WL**

Selecting Open will present the user with a read only version of the Peer Review window. The user can see the notes and score given by the peer reviewer. Options in this window are to Mark As Completed and Cancel. There is also an ICON in the upper right corner that will allow the user to copy and paste the details of the peer review. Data can also be copied from each row in the peer review window via a right click on the snippet of information.
Example of the text:

Reviewed by: Noye, Darcy (darcyn)
Date: 07-16-2014 6:02 PM

Performed: 07-16-2014 9:26 AM
Acc #: 1016737PE
Procedure: CT Abdomen W & CTA Chest W/Wo [CT66]
Patient: Bob, Billy 21y 2m (M)
MRN: 12369
DOB: 05-10-1993

Notes:
I have entered my notes

Score:
3b - Discrepancy in Interpretation, should be made most of time
- Likely to be significant

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

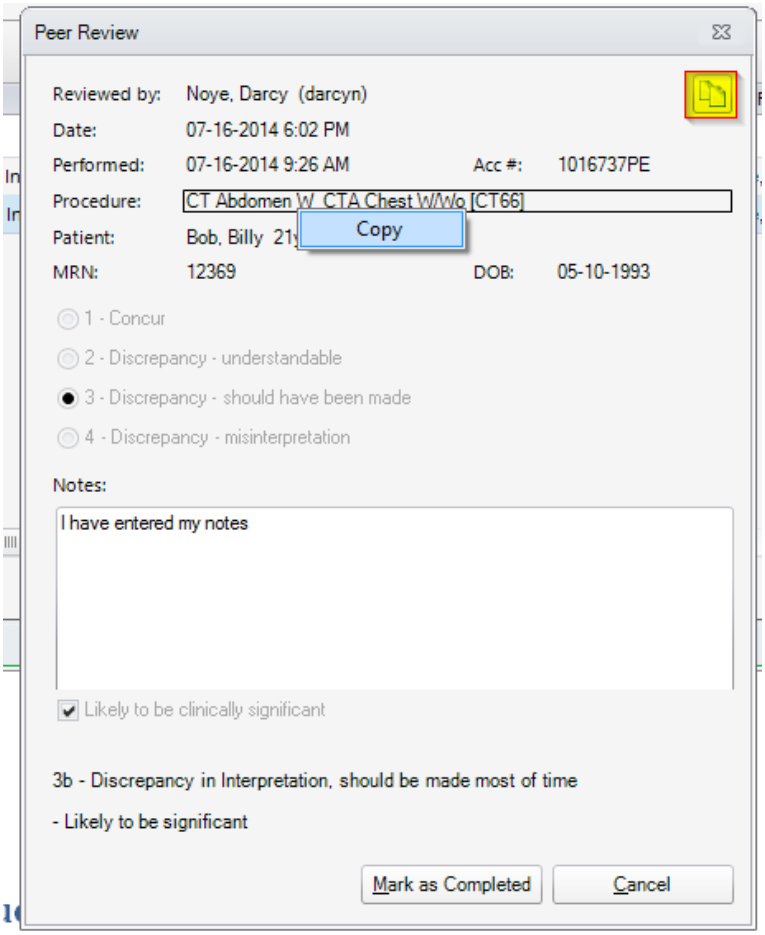



**Figure 5.6 – Peer Review window displaying score from peer reviewer and copy options.**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Export Images (Burn CD)

Burn CD option in eRAD RIS will be available from 3 locations in the application, the Image Request work list, the Patient Folder work list and the Technologists Perform Exam window. Access to Burn CD from all 3 locations is controlled by the access string tilted **"Clinical.BurnCD"** with a default value of Full.

Access from Image Request work list:
Image request work list now has the option to group requests. Default grouping is: Site, Media Type and Deliver To. This grouping makes it easier to multi select the items and completes the "Burn CD" in one step as shown in the following "Burn CD" context menu selection. Multiple studies can be selected from the Image request work list to be burned. From the Burn CD window the user can choose to include or not the studies for the CD. The Deliver To information in the Burn CD window will automatically be populated from the data entered on the Image Request. If there are different deliver to addresses, the user will be required to select one or can cancel and reselect the studies from the work list.

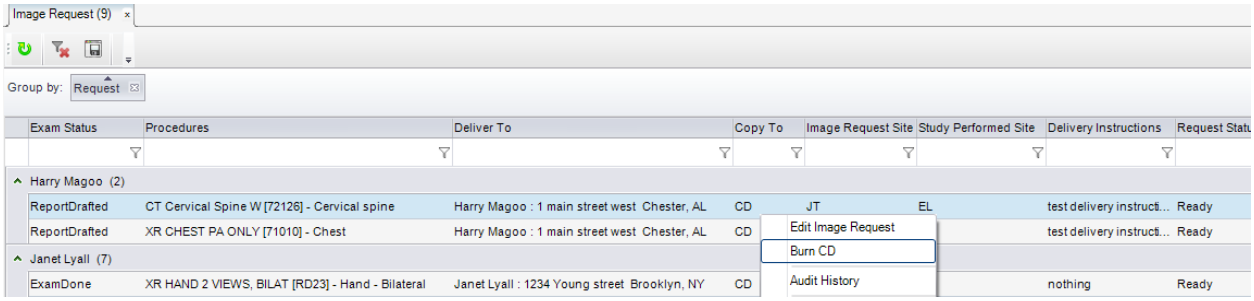



**Figure 5.7 – Image Request work list**

Access from Patient Folder work list:
From the Patient Folder work list the user can select a single or multiple studies. The Burn CD option is also in the context menu. When the Burn CD window opens the Deliver To information will be blank. These fields are not required to be completed. Again the user can decide in the Burn CD window if they want to include all of the studies that were selected.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

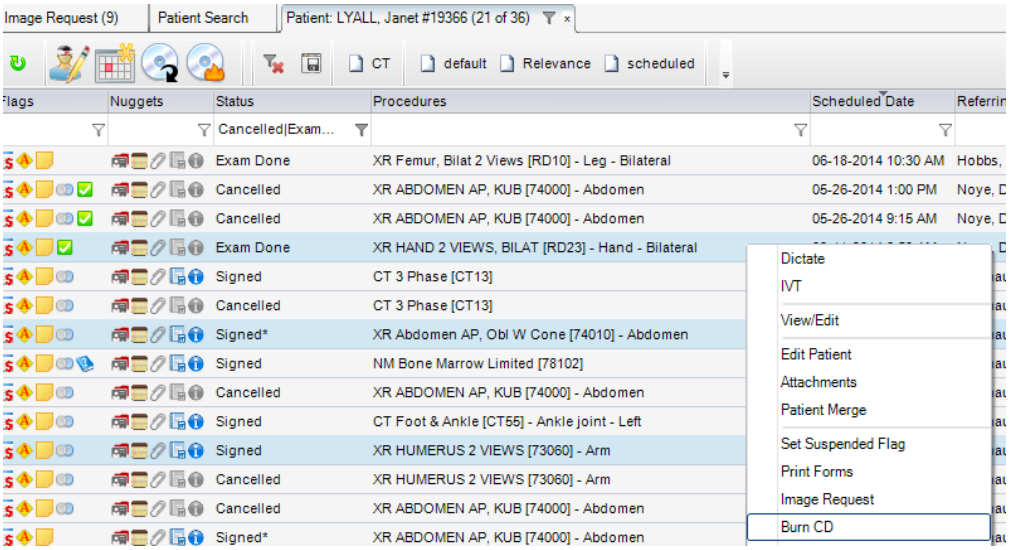



**Figure 5.8 – Patient Folder work list**

Access from Technologist's Perform Exam window:

The Perform Exam window will have access to the Burn CD window via the button of the same name in the lower left corner of the data window.

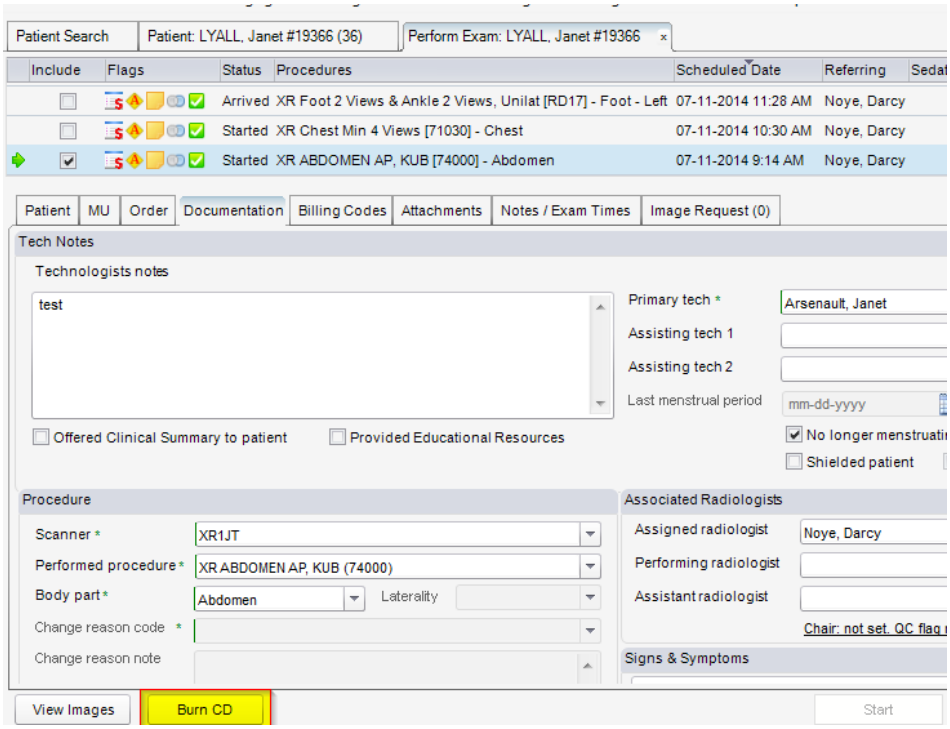



**Figure 5.9 – Perform Exam window**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

As a precaution the user will be prompted with a message from the Perform Exam window to ensure all of the images have been uploaded to PACS.

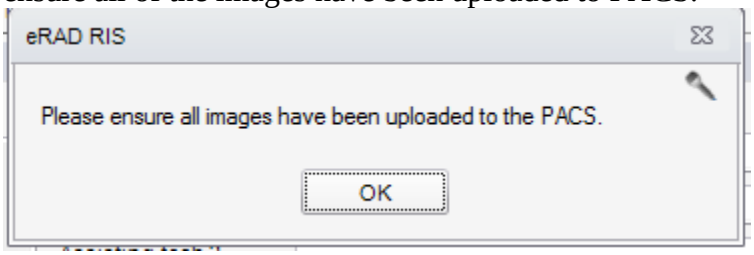



**Figure 5.10 – Message displayed from Perform Exam window when Burn CD is selected**

When the Burn CD window opens the Deliver To information will be blank. The user will have the option to select additional studies to burn that have been completed for that day.

Burn CD window:

The Burn CD window is the main dialog for this feature. It shows all the studies that were selected in the Image Request WL or Patient Folder WL (the exception is the Burn CD from Perform Exam) and allows you to uncheck items to exclude them from the CD. The checked items are included in an Image Request level lock so that if another user tries to export the same Image Requests they will be notified that another user is processing that request.

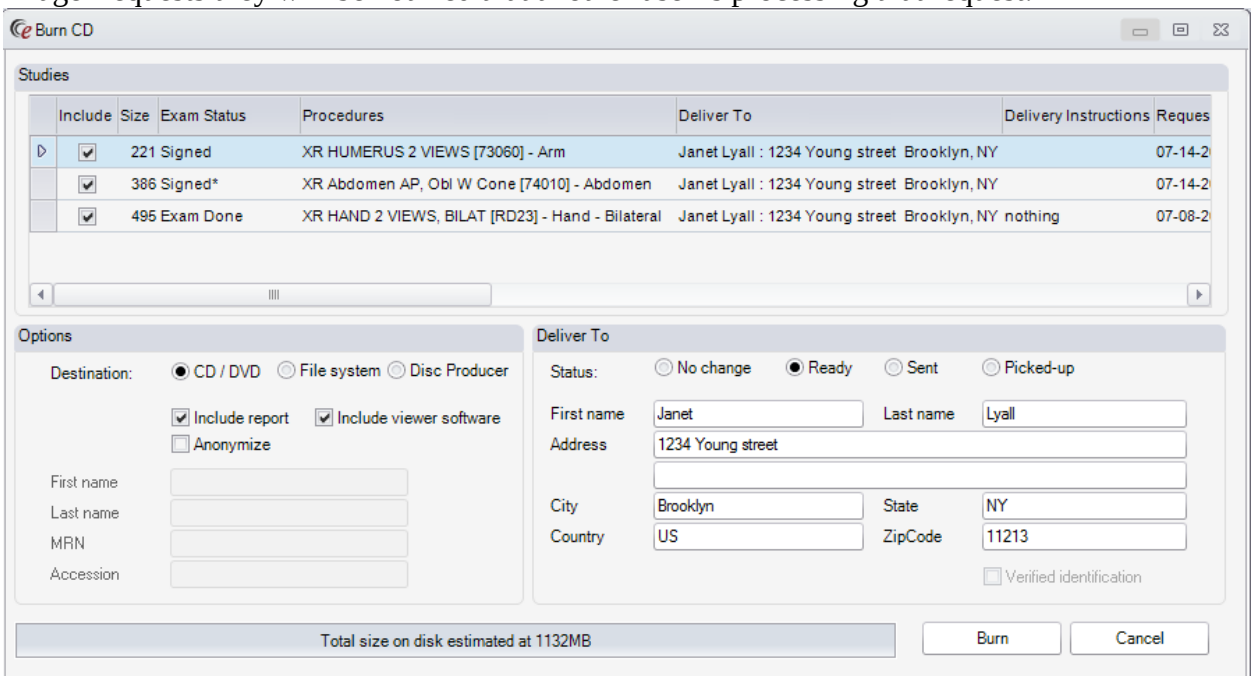



**Figure 5.11 – Burn CD window**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

If actioned from the Image Request WL, successful burns will remove the selected studies requests from the WL.

Images for the selected studies are requested from PACS and the contents are written to the specified media type. If the media type is "CD/DVD", the contents will be written to the local burner. If the media type is Filesytem or Disc Producer, the contents will be written to the directory chosen. For disc producer the file format written is specific to the Epson JDF file format. After the JDF file is created, the progress can be monitored via the Epson TD Bridge software. The RIS will do an estimated size of the images to be burned.
When the Burn CD window opens, it queries each of the Requesting Site's local child PACS servers. If it does not have the study, it then queries the Practice's PACS WL server. The goal of this query is:

1. To obtain an approximate size of the study data
2. To identify which server has the images

The figure above of the Burn CD window shows the approximate sizes and in the progress bar area a total estimate of the size on disc.

If it exceeds 680MB it will present the user will message informing that the estimated size may not fit on one CD.

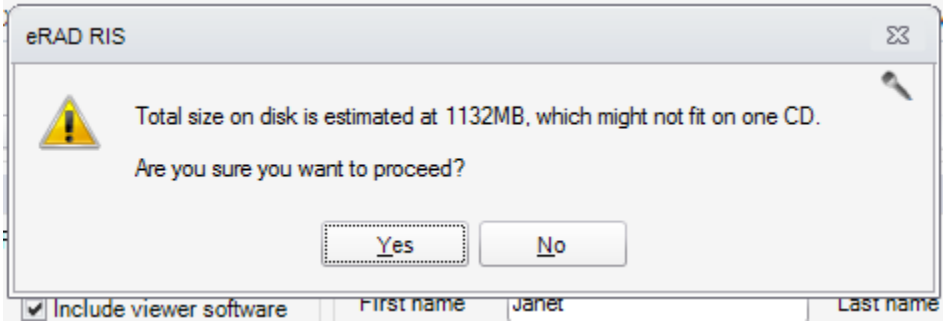



**Figure 5.12 – Are you sure?**

If they are actually burning to a DVD media, they should ignore this message and click "Yes" but if they only have CD's then they will need to click "NO" and include fewer studies.
If all of the selected studies are on the local child PACS server then the request for the CD contents will be made local. But if one or more of the studies are not local the request will be made to the practices PACS WL server.

When the media is successfully burned, the status and deliver to information for the "included" image requests will be updated. And before and after audit messages are written to the Audit log. The description in the audit entry is basically the entire contents of the CD's Readme file, which includes unique identifiers and even the CD's checksum.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

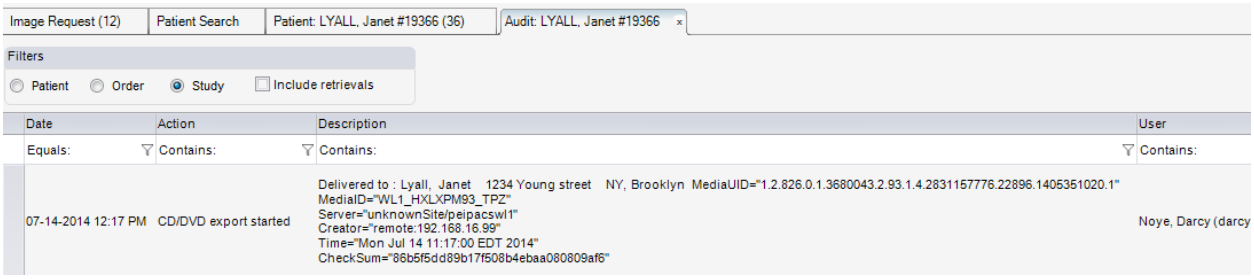



**Figure 5.13 – Audit history**

Change to Image Request:

With B43, when creating an image request there is a new required field "Requesting site".

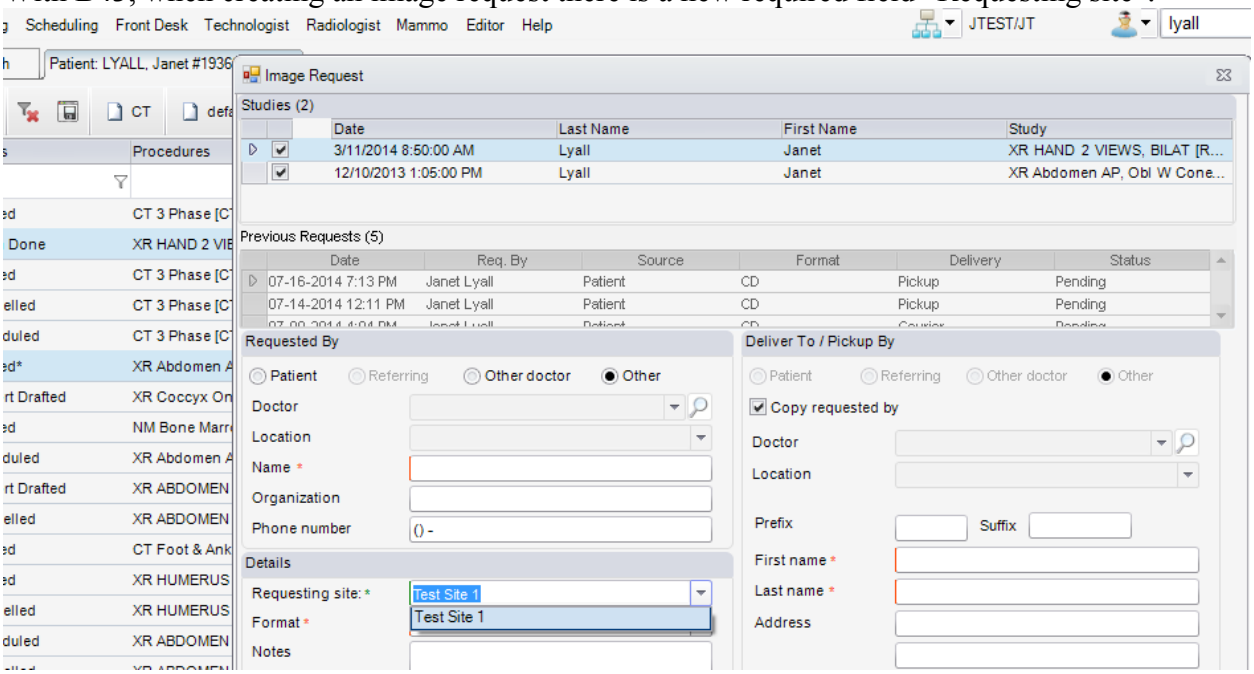



**Figure 5.14 – Image request has new required field of Requesting site**

The "Requesting Site" value is the site used when showing the Image Request WL. So when looking at the JTEST/JT WL as shown in the following screen shot, you see all the image requests that need to be completed at JT. Previous to B43, the JT WL would only show the image request's needed at a site such as JT if they were performed at JT.

We also changed the work list so (by default) it groups Requests by Patient, Meida Format and Deliver To. In the following screen you can see the default "Request" grouping. If the user clicks on the "Group by:" button the sorting changes between Ascending and Descending (by image request date).

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

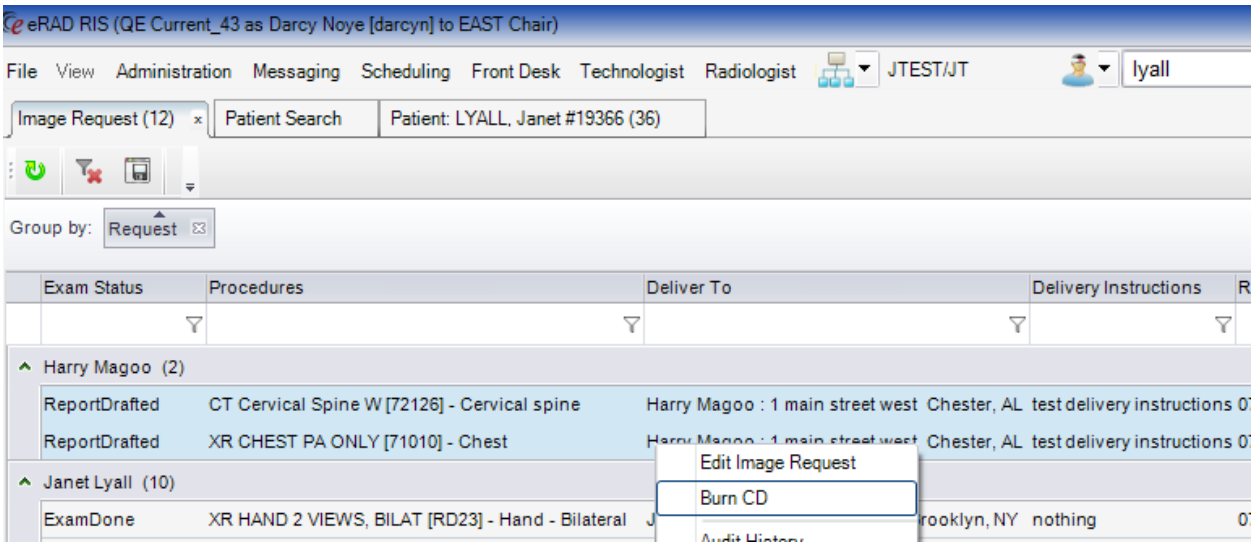



**Figure 5.15 – Image request work list group by Request**

**The remaining will explain how to set up the Disc Producers Epson TD Bridge Server**

When using an Epson Disc Producer you will need to dedicate a PC to host the hardware. On that PC you will need to install the EPSON TD Bridge software. The TD Bridge software and documentation is available at:

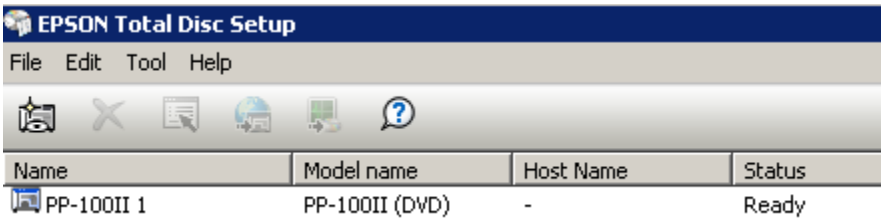
https://www.epsonexpert.com/login

https://www.epsonexpert.com/ee/techRes/index.htm?ProductId=598

In addition to the typical install you will need to:

1. Install the Epson Total Disc Maker Software, either download the latest from Epson or use the install disc that came with the burner.

2. Launch the "Epson Total Disc Setup" utility, which is in your "start/program" menu after the install. Add the local "PP-100" burner as shown in the following:



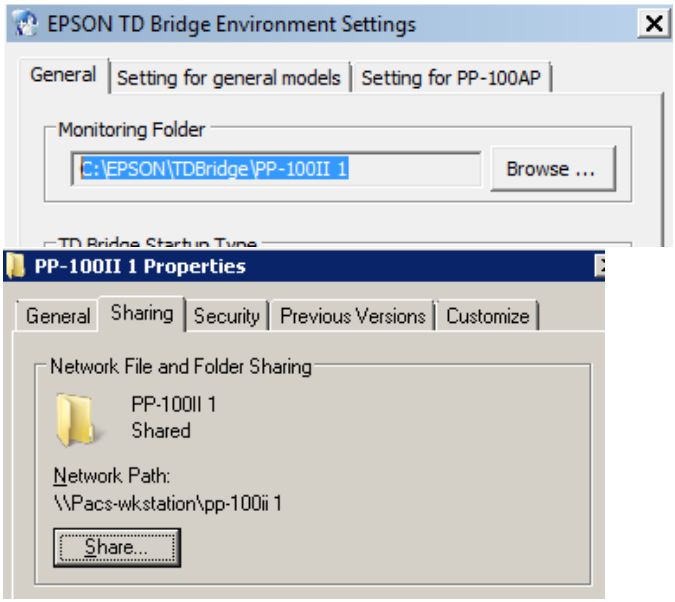

3. Install the TD Bridge software.

4. Launch the program "EPSON TD Bridge Environment Settings"

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

5. Setup the TD Bridge monitoring folder to use a network share, which users will have write access for submitting JDF files and data. Unfortunately, the monitoring folder must be on the host system's hard drive; therefore, will need to share the folder on the Epson Disc Publisher host.

6. **Make sure the subfolder name for that share location is the name of the EPSON Disc Publisher Instance**. For example, in my installation the hardware's name is "PP-100II 1" so:

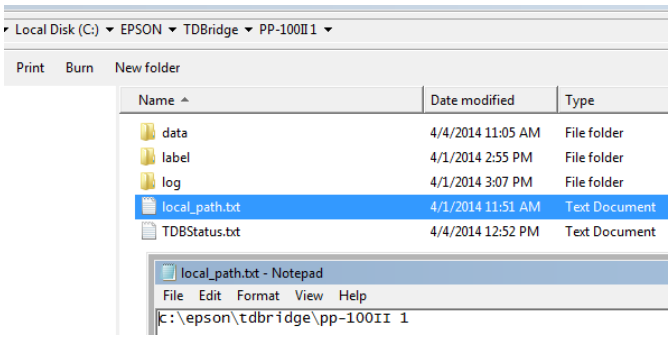



7. Next, create a text file in the share called "**local_path.txt**", which contains the file path to the monitoring folder as seen by the TD Bridge.

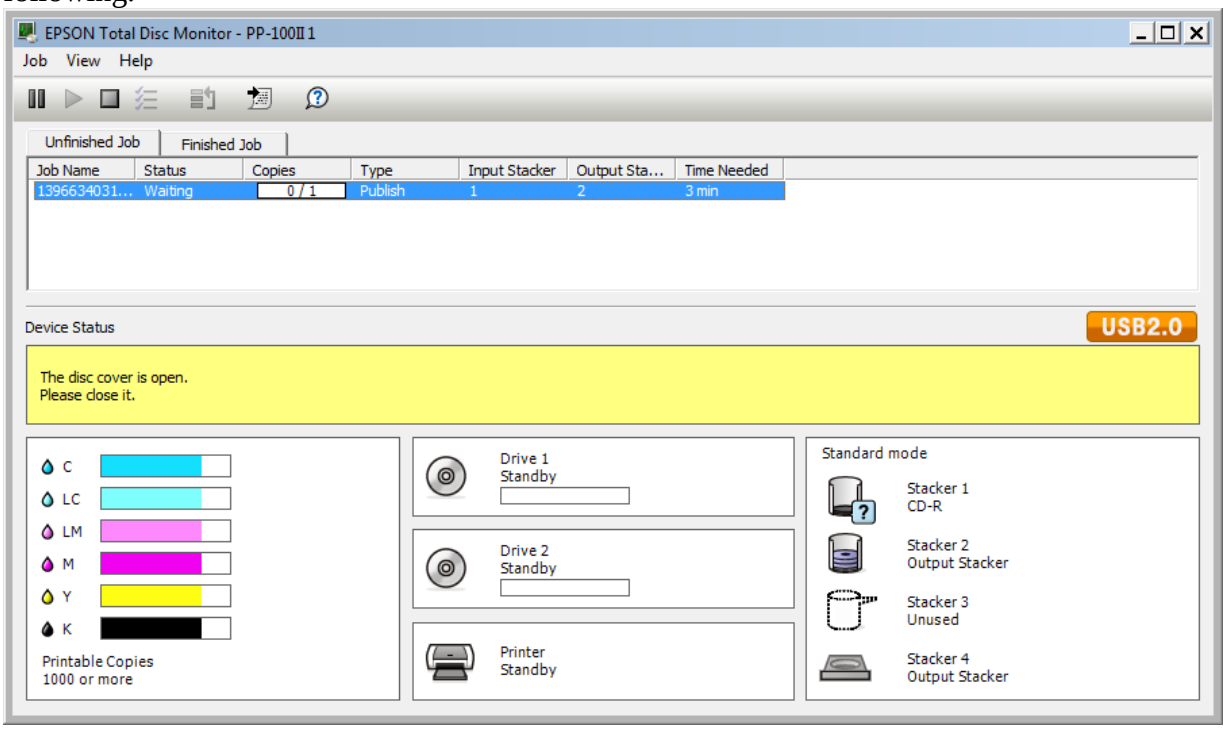
   The reason for this is that users might access the share via g:\Public\PP-100II 1\ but on the server it is actually c:\EPSON\TDBridge\PP-100II 1\ and when the RIS creates the JDF file it needs the actual path as registered in the TD Bridge software

   The following screen shot illustrates what you need to do for this step:

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.




Finally, as an administrator of the TD Bridge host machine, you may want to consider a batch job that cleans up completed jobs and deletes their data.
When a user creates a Disc Producer Job by submitting a CD Burn request via the RIS, a JDF (Epson Job Definition File) will be created at the monitoring location. As the TD Bridge processes that file it's file extension will change JDF → RJD → IMP → STF → DON and if there is an error it will be renamed to ERR. In the case of an error you can re-submit the job by changing the extension back to "JDF" and lookup the error code in the TDBStatus.txt file. You can also monitor the JOB status in the Epson Total Disc Monitor application, which will tell you when you need to put more discs in the stacker or close the door to the device as shown in the following.

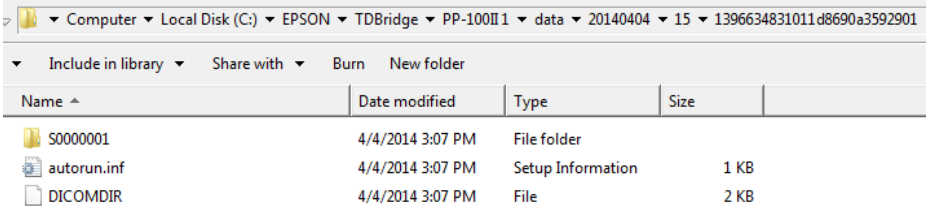



No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

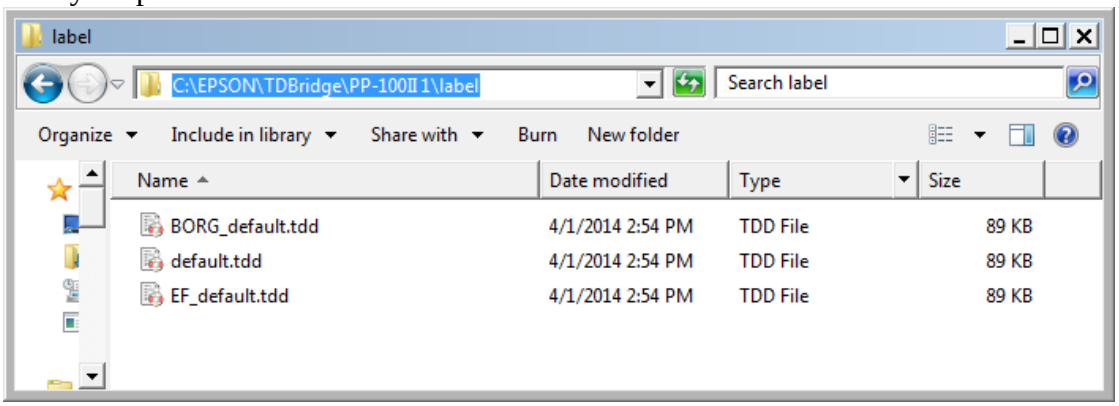
**IMPORTANT:** After the CDs are burned the data for the CD will remain on the TD Bridge share. Over time this will take up lots of drive space and it will be in your best interest to delete/clean out the old data on a daily bases. You just want to make sure the data you are deleting isn't for a job that is in the ".ERR" status.

The data directory is organized by date then by hour, then by JDF file name. The following example shows the job 1396634831011d8690a3592901, which was submitted on April 4th at the 15h and if you look closely at the job id a3592901 represents the accession number of the first study on the CD. The audit log for that study can be used to track down more information about the job.

>> C:\EPSON\TDBridge\PP-100II 1\data\20140404\15\1396634831011d8690a3592901




You can also create a label sub-directory and create default *.TDD files, which will get printed to your CDs. If the label directory and default tdd files don't exist, they will be created the first time RIS submits a job to the disc producer share. You can then edit the default.tdd file to meet the needs of your practice or site.




The fields available for the labels are:

name, patient_id, site_code, site_description, deliver_to_first_name, deliver_to_last_name, deliver_to_address_lines, deliver_to_city, deliver_to_country, deliver_to_state, deliver_to_zip

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

For reference, the following is a sample JDF file:

```
#
# JOB_ID ===  <PacsMediaRequestID>a<RISAccessionNumber>
# you can use the accession number to look at the RIS audit log and see more information about the job
#
JOB_ID=1396634831011d8690a3592901
#
# PUBLISHER === the name of the folder where this job file was written
#
PUBLISHER=PP-100II 1
#
# Only writing CDs, if you need to write a DVD you will need to use an attached burner or
# change this to DVD and change the job extension back to JDF
#
DISC_TYPE=CD
COPIES=1
FORMAT=ISO9660L2
#
# Note: location of data/label is relative to the share/UNC path that was used by the RIS user.
#       If you would like to use another path specific to the local TD Bridge software,
#       create a file named local_path.txt in the DiscPublisher share.
#       It should contain the full path to the share location as accessible by the TD Bridge software
#
DATA=c:\epson\tdbridge\pp-100II 1\data\20140404\15\1396634831011d8690a3592901\
#
# Fields available for the labels are:
#           name,patient_id,site_code,site_description,
#           deliver_to_first_name,deliver_to_last_name,deliver_to_address_lines,
#           deliver_to_city,deliver_to_country,deliver_to_state,deliver_to_zip
#
LABEL=c:\epson\tdbridge\pp-100II 1\data\20140404\15\1396634831011d8690a3592901_label.tdd
```

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## County Option for Radiologist Signing Location

Option to select the County for the Radiologist is controlled by a new system configuration setting titled **"EnforceCountySelection"** with a default of False.

If set to False, the application will behave as before and the user will not be required to select a county before dictation. If the site is Chair enabled at the practice level they will still be required to select a Chair, but the County and Zip Code options will note be presented.

If the site is not Chair enabled but requires County based on the above system configuration setting, they will be presented with a window that will allow them to select a County. They can also enter a Zip Code to shorten the list or select the County automatically. The following window is presented on login. The value entered is remembered on a workstation bases.

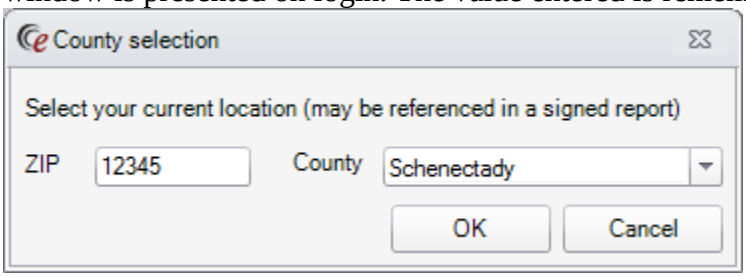



**Figure 5.16 – County selection window prompt**

If "EnforceCountySelection" is true and the chair workflow is enabled for the practice, then the chair selection dialogs with the additional county fields will be displayed

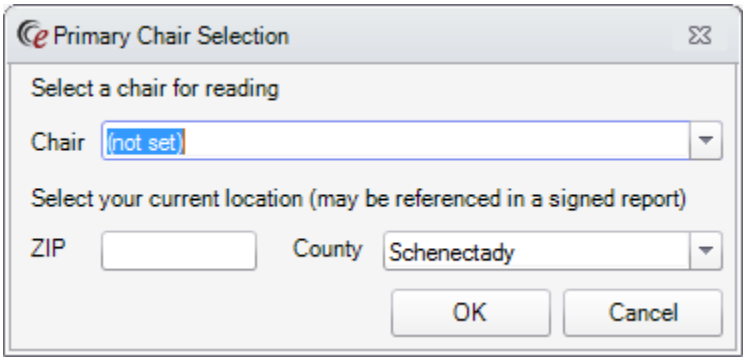



**Figure 5.17 – Chair selector with Zip and County fields**

If the user preference "Use detailed chair selector" is on the user will be prompted with the detailed chair selector window

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

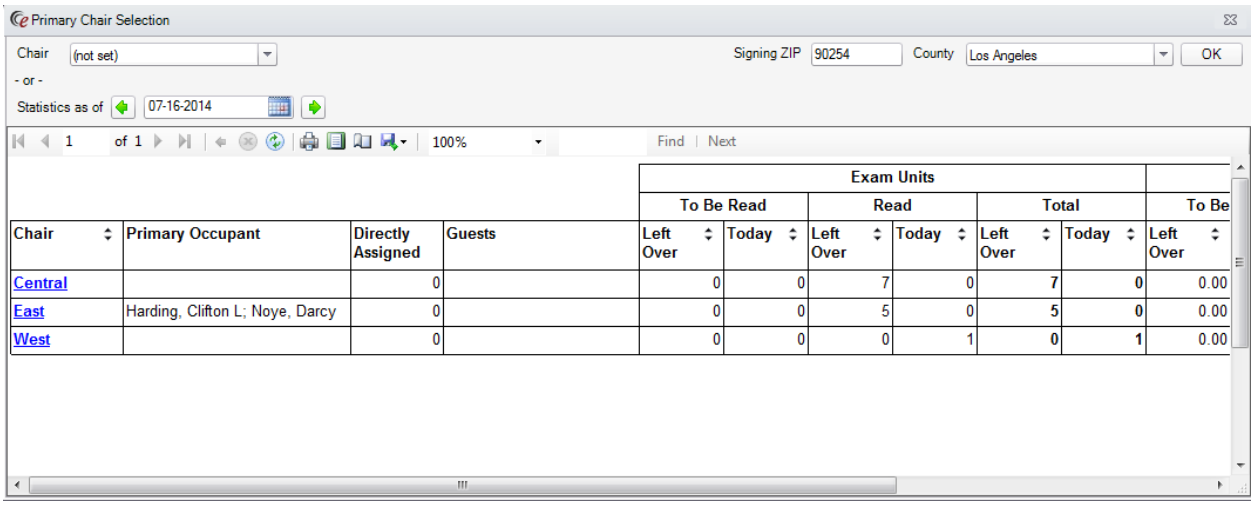



**Figure 5.18 – Detailed chair selector**

If the county selection is enforced, the county that is set at the time of signing is saved to the interpretation table's "signed_county" column.

If Chair is not enabled for the current user but county is enabled, a new status bar icon will be displayed allowing the user to open the County selector.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

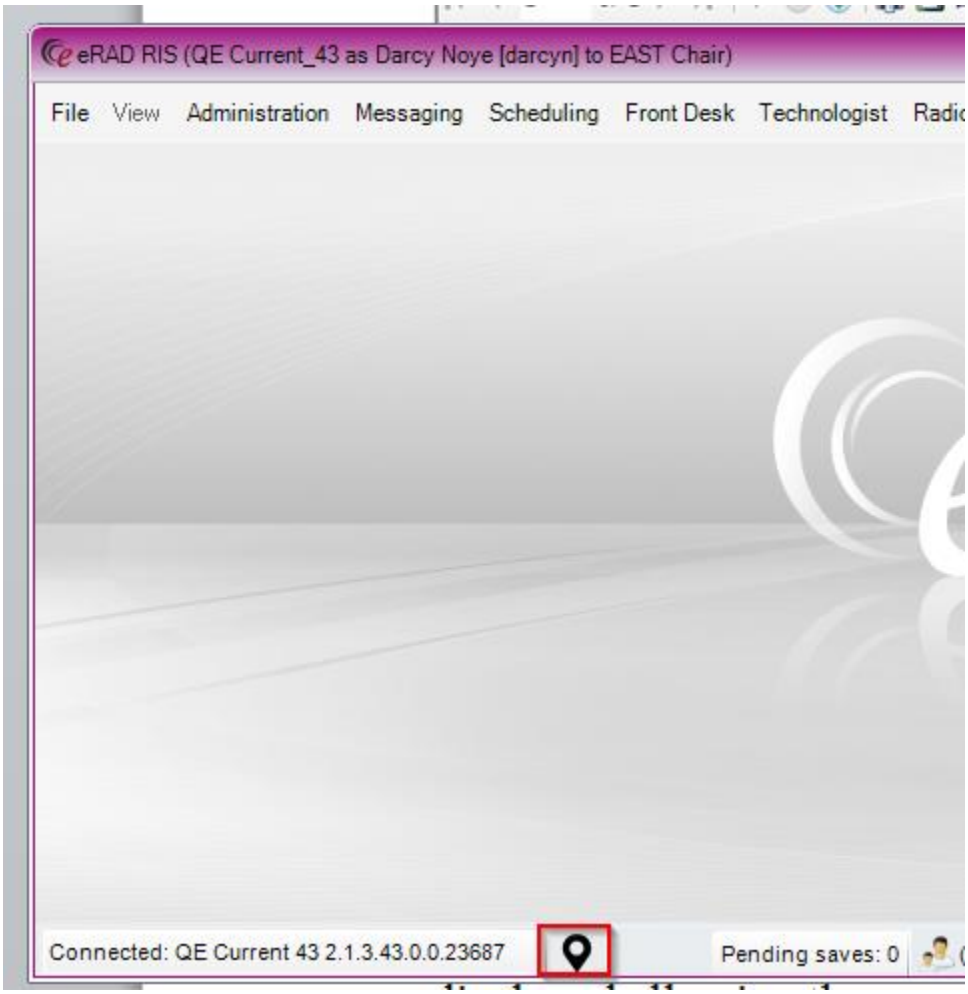



**Figure 5.19 – County selector**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# IVT – Ability to Edit Patient Information

Previous to Build 43, users had to access the Patient Folder – View Edit to alter patient information on the Patient tab. Now the patient tab is editable from the IVT window.

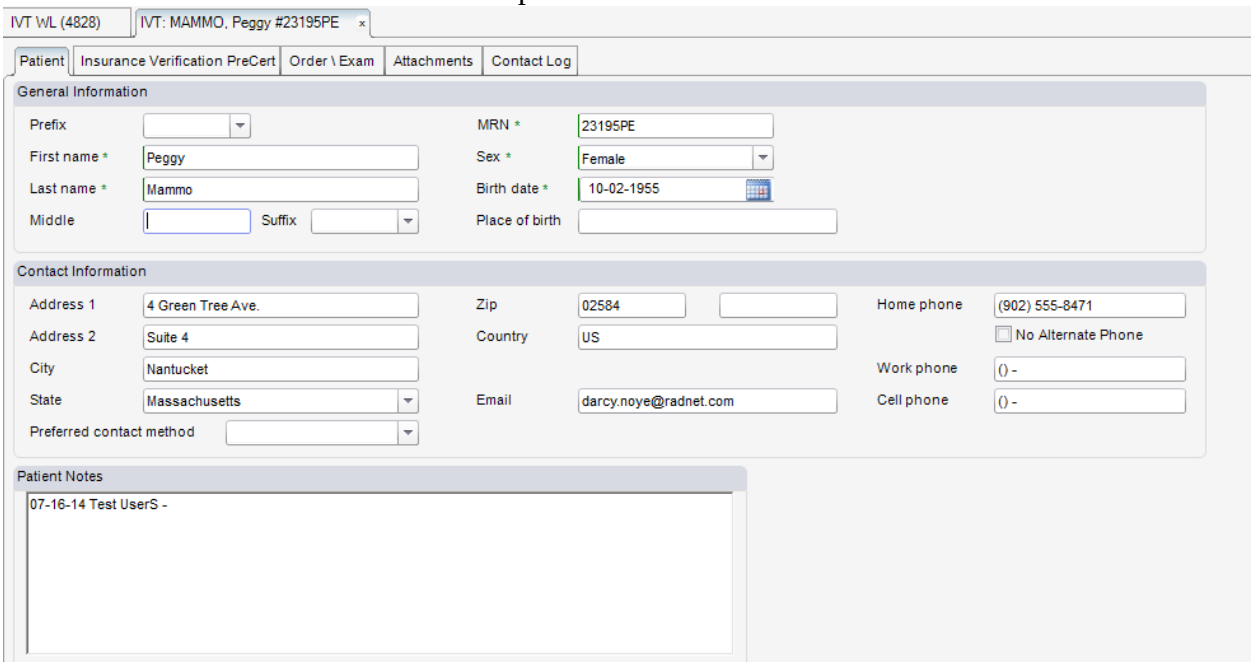



**Figure 5.20 – Patient tab fields editable from IVT window**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## ICD10 Support

To support ICD-10, the RIS code table that current contains ICD9 must be upgraded to support ICD-10 and other coding schemes as necessary. A new table called l_indication that is similar to the current l_indication_code has been created. The new table employs a composite key consisting of coding scheme, release date, and code. Rather than the code itself being the primary key, a numeric primary key exists instead. This approach requires that any place in code/XSLT etc. that refers to the indication code explicitly must be updated to perform a reverse lookup to find the code/coding scheme based on the numeric key.

ICD10 codes can be downloaded from
http://www.cdc.gov/nchs/icd/icd10cm.htm#icd2014
Choose the ICD-10-CM XML Format Option

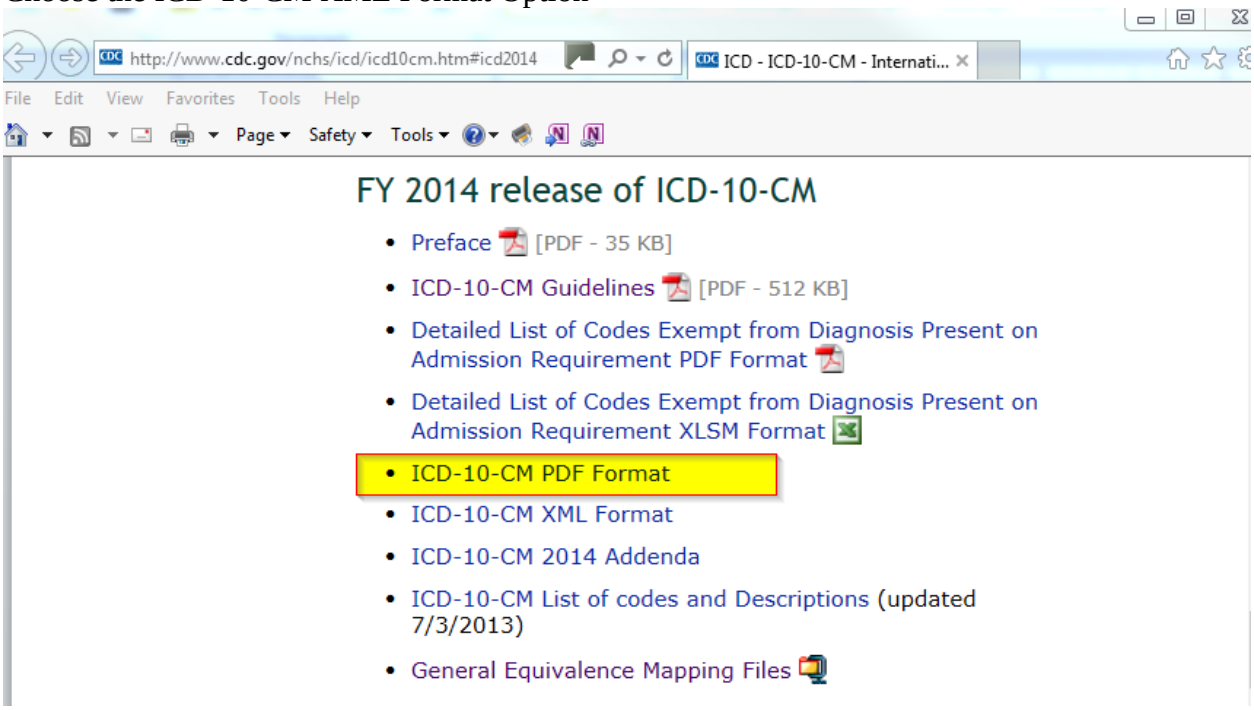



**Figure 5.21 – ICD-10 download**

This XML import file contained roughly 45,000 rows of ICD-10 Clinical Modification (CM) data. Procedure Coding System (PCS) that is also available seems to be for other purposes and not necessary for ICD-10 support. To manage importing of new versions of ICD-10, the indication code lookup has been enhanced with an "Import" button and associated screen for importing only rows in the import XML that do not already exist in the l_indication table. The placement of the "Import" button on the Indications lookup is shown below.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

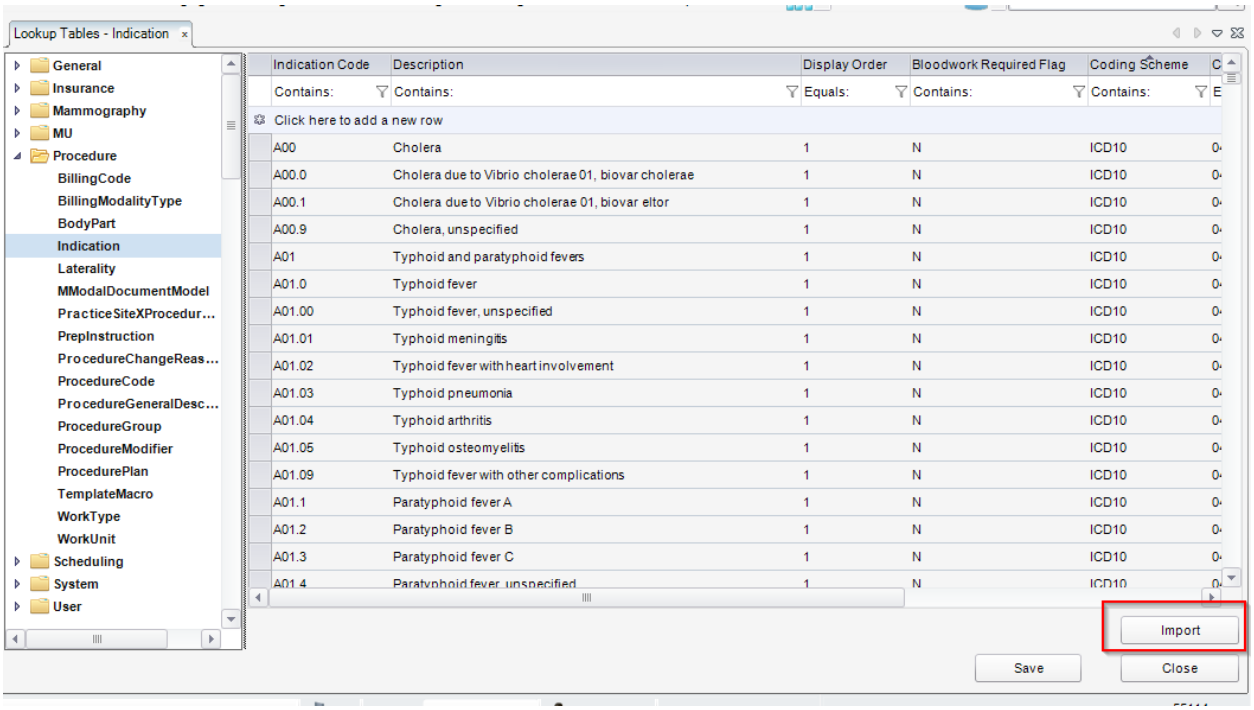



**Figure 5.22 – Indication table with option to Import codes**

To Import new codes select the "Import" button and this will present the Import ICD10 window.

Select the ellipsis button next to the File field. Locate the directory where the XML file was saved. With this folder select the ICD10CM_FY_Full_XML_Tabular.xml file (NOTE: this file will change as new versions are released. It will be the responsibility of the site to continually update with newest codes).
The File path will not be populated. Select the Load XML button. At this point, the user can enter keywords as required. Only the codes that are missing from your current indication list will be imported. In my example I was only missing ICD10 code A22.9, so this is the only one available for download. The "include" column is checked by default. Once editing is complete and all rows that are needed are checked, the "Import" button can be selected. Before selecting the Import button you can also change the effective date.

After import of new rows, RIS must be closed and re-opened for the newly-imported rows to be available in the lookup editor.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

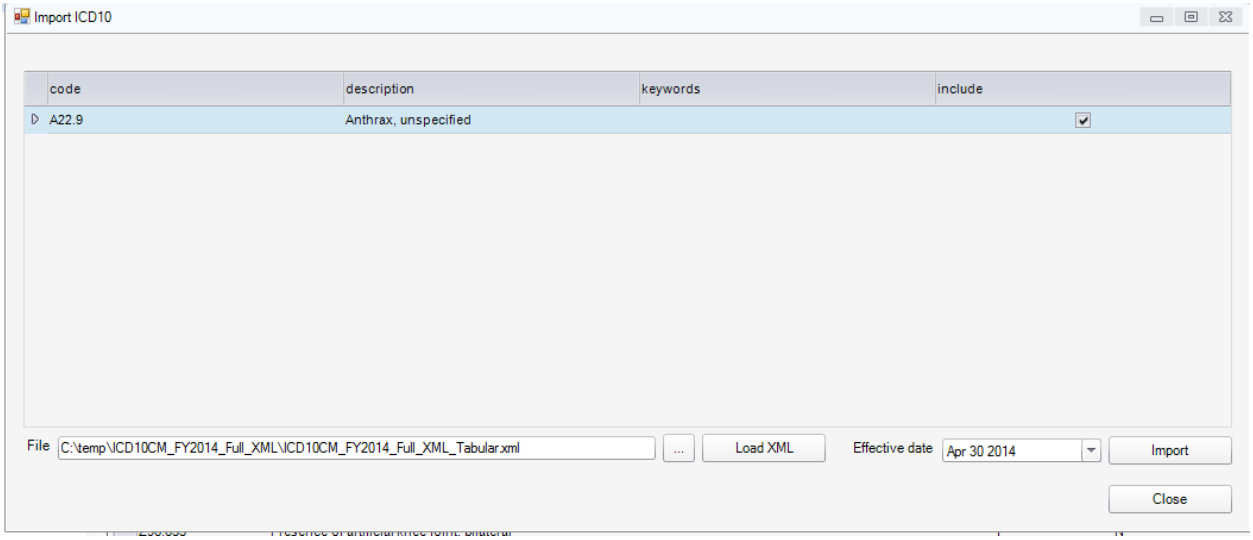



**Figure 5.23 – Import ICD10 window**

## Searching for ICD Codes:

The ICD Codes dialog facilitates searching and filtering of ICD codes in the Indication table. The form contains a textbox for the reason for the exam (from the Order tab) and then the search/results section.

ICD search can be performed from many areas of the application. A general search of a code can be performed from the 'Quick Search" field in the upper right corner of eRAD RIS.

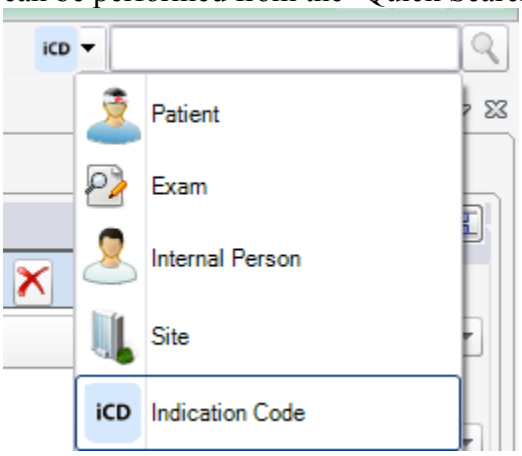



**Figure 5.24 – ICD Quick Search**

Enter the code or description in the field or leave it empty and select the search button to open the ICD Codes window. From this window you can select the Type of code being search for, this

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

can be a combination of ICD9 and ICD10. There is an option for SNOWMED codes, but by default there are no SNOWMED codes included. The box can be checked, but no data will be returned. By default, ICD9 will be checked until the date value in the System Config's **"ICD10EffectiveDate"** whereby ICD10 will be checked by default when the window opens.

Entering a partial or full code number or description will return the results. The search results will display the Code, the Type of code and the Description.

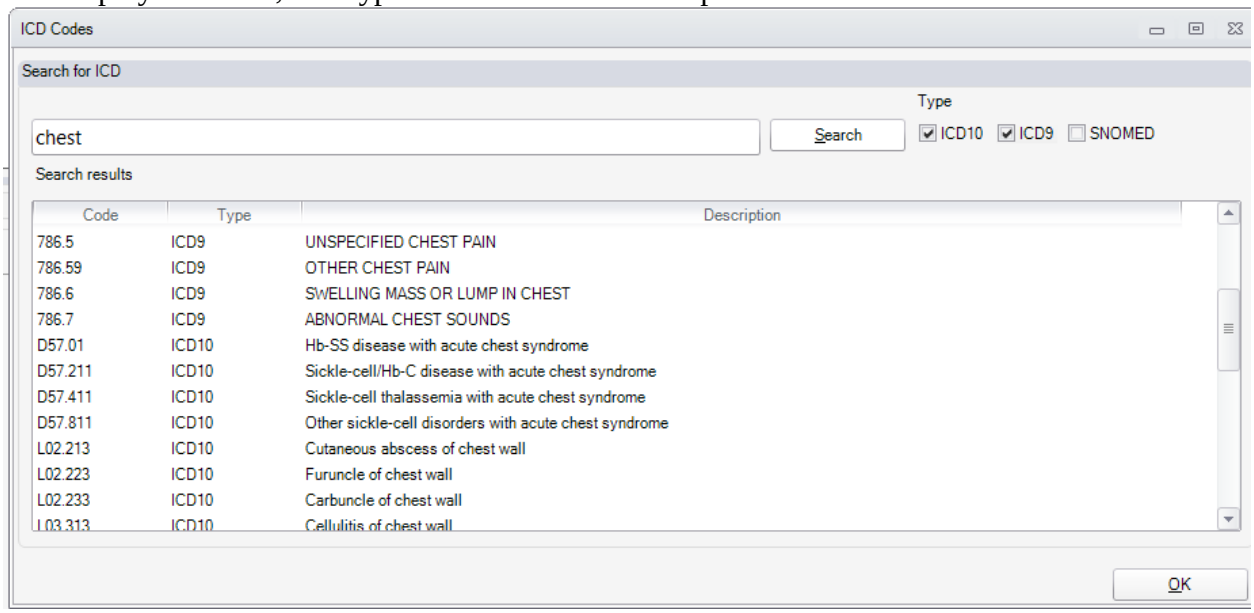



**Figure 5.25 – ICD Codes search window.**

From the Scheduling\Registration\Walk-In windows the user can add Indication codes. The window is accessed on the Schedule\Exam tab, with a new button labeled ICD on the procedure picker row. The button is enabled after the Study is entered. This button is controlled by new access string **"Clinical.Schedule.AssignIcdCode"** with a default of none.

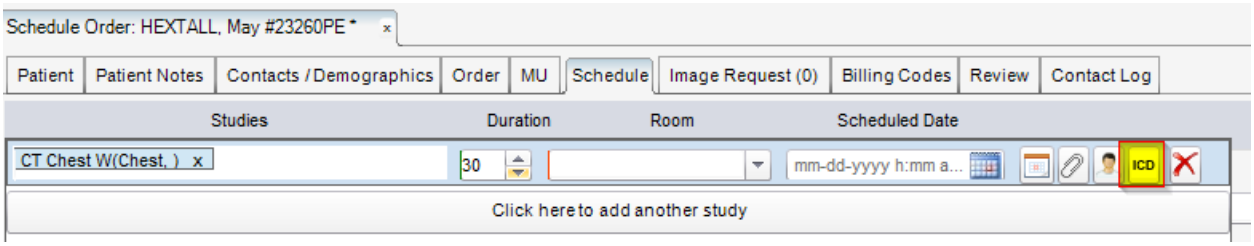



**Figure 5.26 – Add Indication code in Scheduling**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

When the ICD Codes window opens, the Reason for exam will be pre-populated from Order tab. Perform search and from the Search results you can double click a row to insert in the selected codes section of the window. Multiple codes can be entered. When finished, select OK.

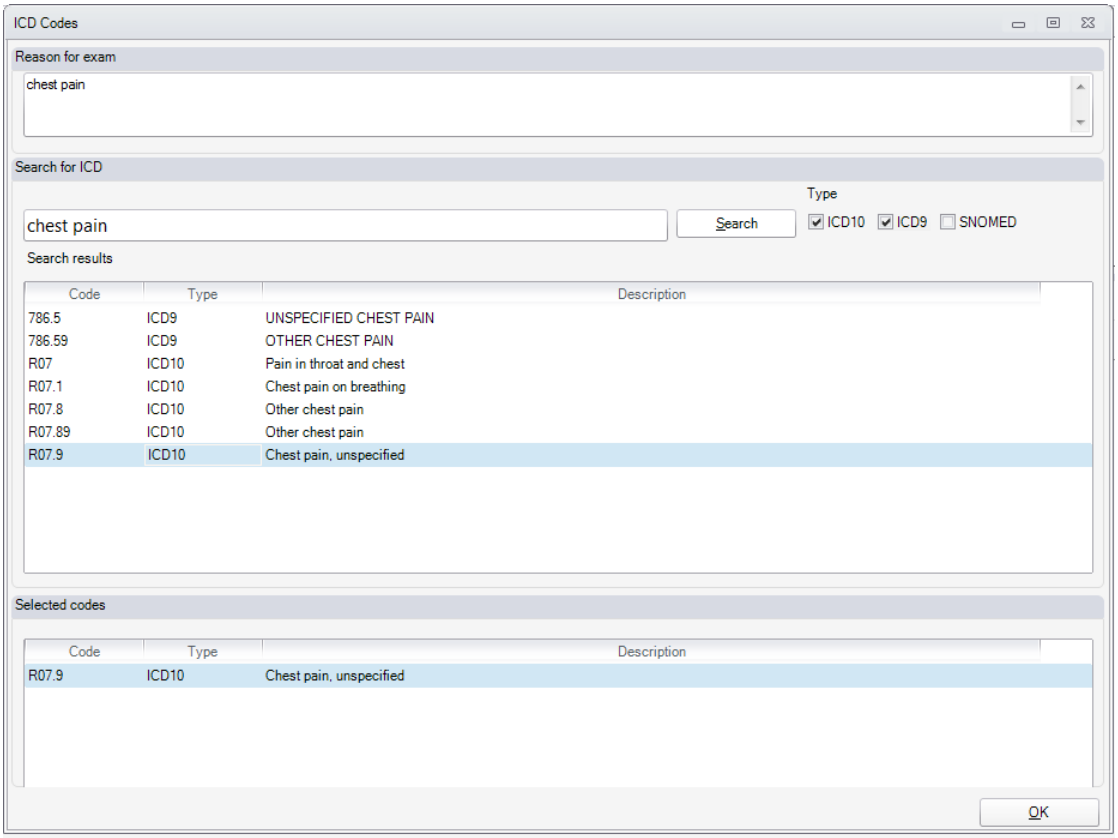



**Figure 5.27 – ICD Codes window accessed from Scheduling\Registration\Walk-in windows.**

In the Technologist workflow, and in View/Edit, The Documentation tab contains two grids that display the ICDs captured up to exam done, and those captured by the radiologist. The buttons to the right of each grid are enabled based on whether the current context should allow editing.
If the new access string titled **"Clinical.ViewEditCanChangeTechIndications"** Is set to full then the Indications button is enabled allowing changing of indications set up to Exam Done.
It can be enforced that a code must be entered by the Tech is the system configuration setting of **"TechMustProvideIcdCode"** is set to True. The default is False
If the new access string titled **"Clinical.ViewEditCanChangeDiagIndications"** is set to full, then the Diagnostic Indications button is enabled, allowing changing of indications set by the radiologist.
The default for both of the above mentioned access strings is none.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

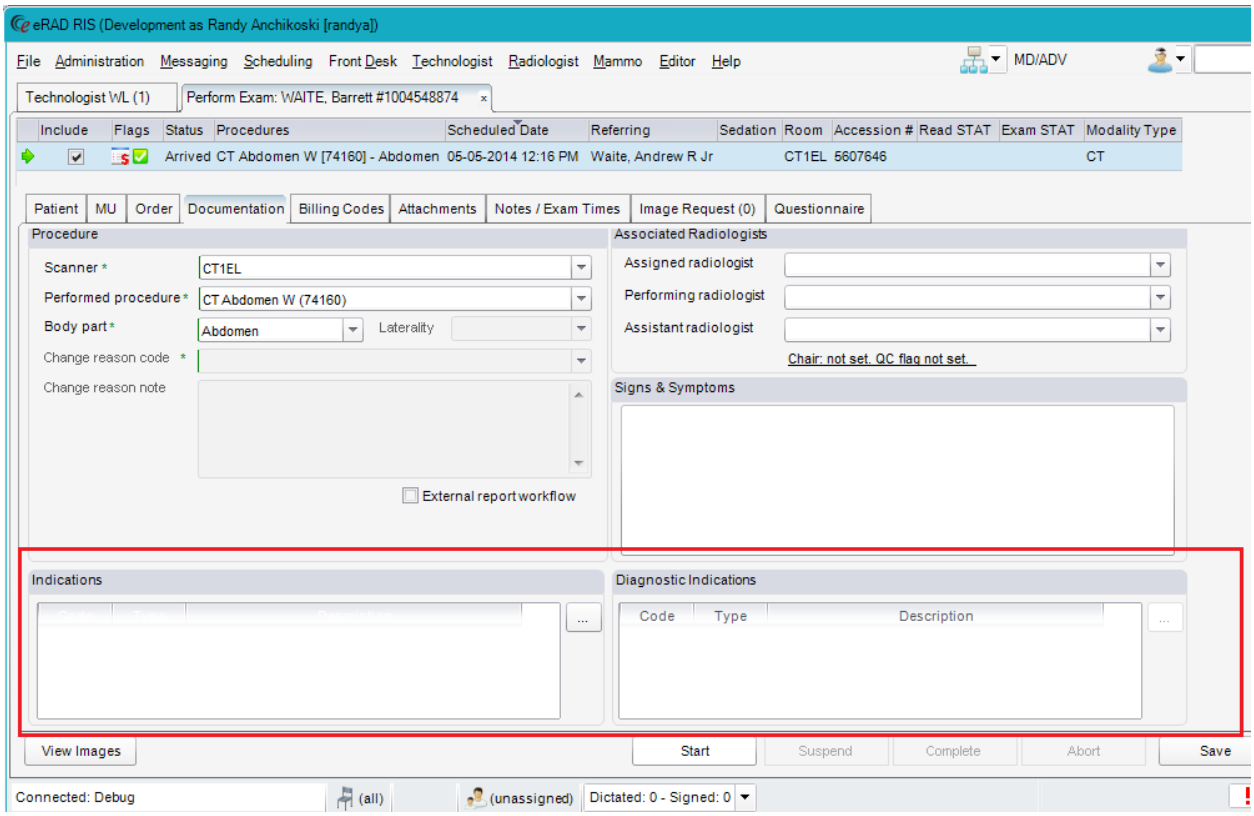



**Figure 5.28 – Indication grids. Left for Technicians and right for Radiologist**

# IMPORTANT: Radiologist ICD Support Uncomplete

**The Radiologist portion of this feature is not complete. It is recommended that the system configuration setting "**RadMustProvideIcdCode**" be left to the default of "False" and the access string of "**Clinical.ViewEditCanChangeDiagIndications**" be left to the default of None.**

The Reporting window also has a new ICD button. The button is enabled with the system configuration setting of **"RadMustProvideIcdCode"** that has a default of False. This button will open the same ICD Codes search window. The data for the indications defined here are saved to c_interpreation_indication.
For the Radiologist to view the Tech workflow defined ICDs, viewing the Exam Details from the View menu will display indications defined in that workflow.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

On the MU tabs Medical History pane the problem codes added are ICD codes and the same search window is provided allowing the user of both ICD9 and ICD10 codes. The user can select the search icon in the problem field o the Medical History grid to open the ICD Codes window, or can enter partial or full value in the problem field and search.

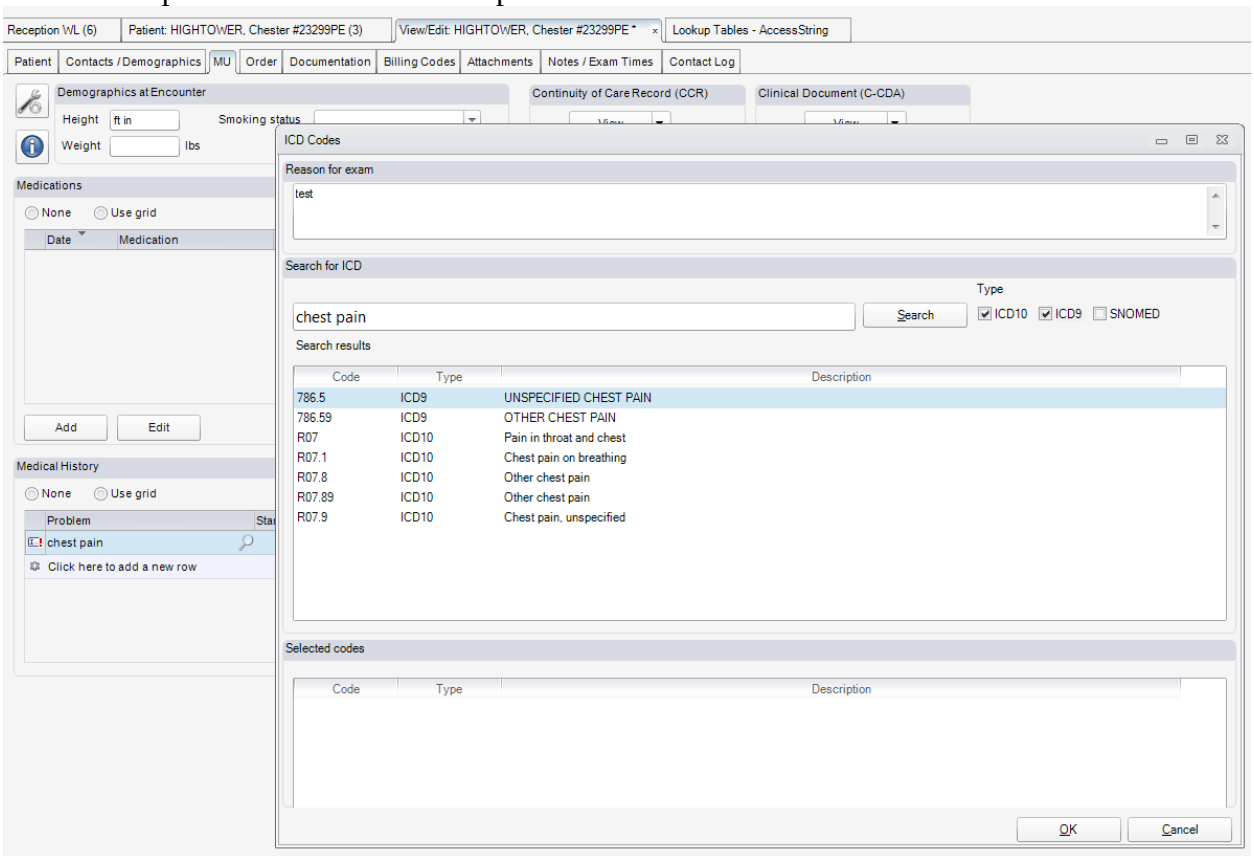



**Figure 5.29 – MU ICD Code search**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Secure Messaging

Secure Messaging has been added in Build 43. This allows RIS users to send secure encrypted messages to other users in the RIS and also to patient that can access the message via the Patient Portal.

To start a new Lookup table titled MessageGroup was created and located under the General list of lookup tables. Columns of the table include the Message Group Code, Description, Display Order, Last Updated and Active column.

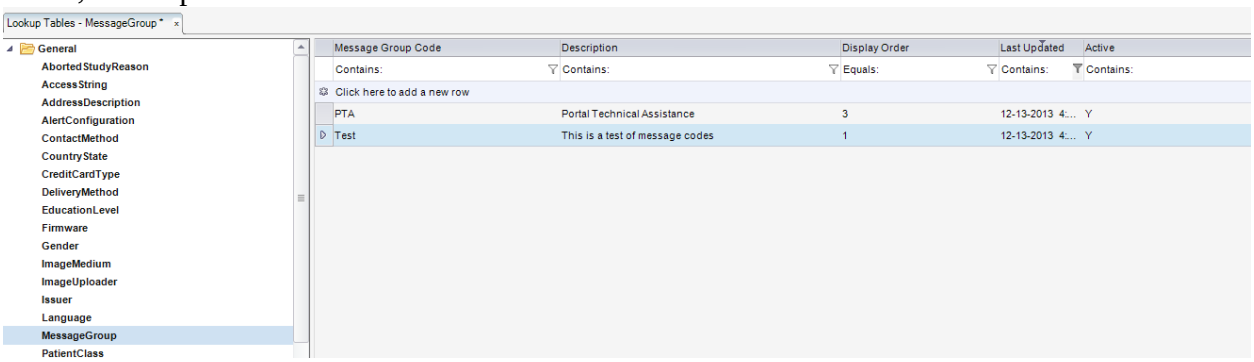



**Figure 5.30 – Message Group lookup**

Values entered in this table will appear in a new field in the Personnel editors Account tab. This field is similar to the other fields on this tab. It is a type ahead field that can contain multiple values.

Having the messaging groups would allow a patient to send a message to a group if they don't know an individual to send it to. The RIS users who have access to this group would then get the messages.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

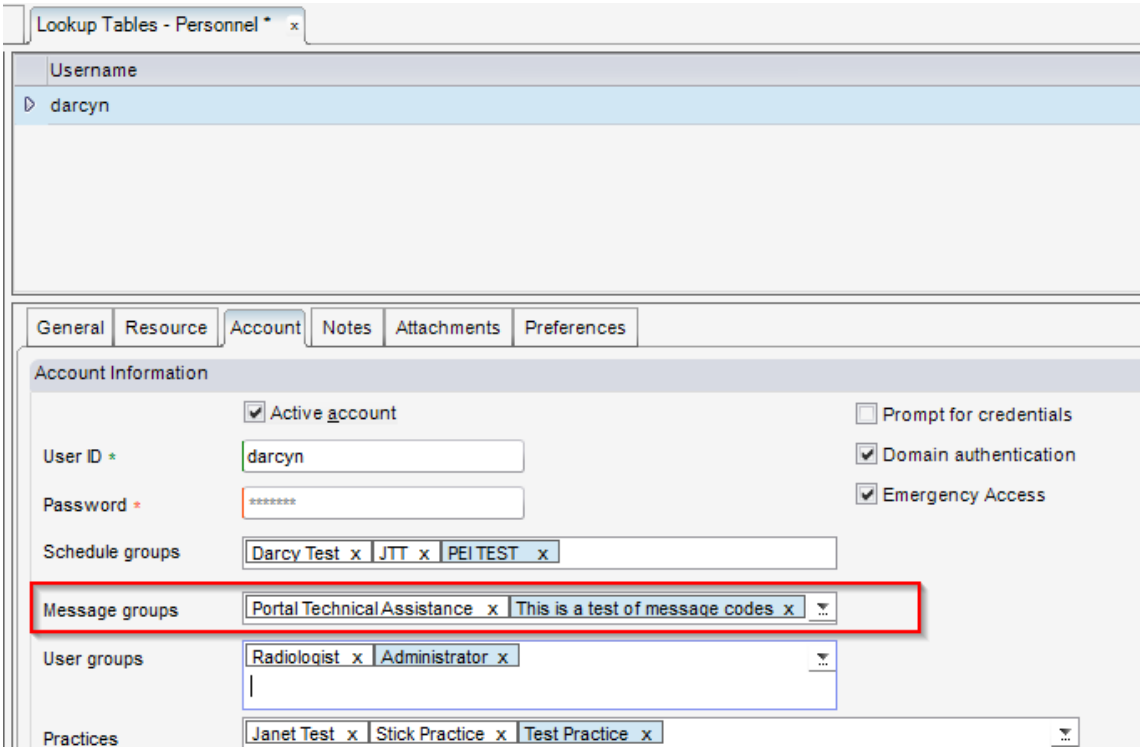



**Figure 5.31 – Assigning message groups to users**

From within the RIS messages are sent/received from under a new Menu option titled Messaging. The Messaging work list access is controlled by access string **"Config.MessageInbox".** This access string also controls access to the Menu option of Secure Message Inbox that is under this Messaging menu. Default is none.

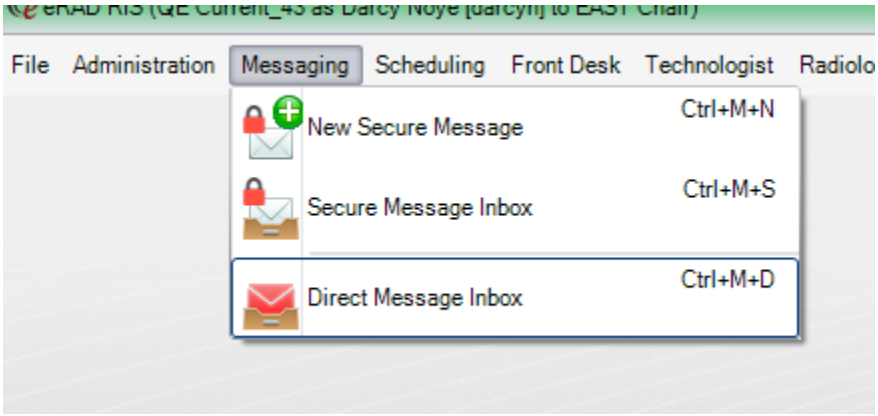



**Figure 5.31a – Message menu and menu options**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

To create a new message select the menu option of New Secure Message that is controlled by the new access string of **"Config.CreateMessage"** that has a default of none. In this window the user can select to send to one of the messaging groups created, or they can send to a patient or another RIS user. The other RIS user would also need access to the Secure Messaging in order to receive the message in their inbox.

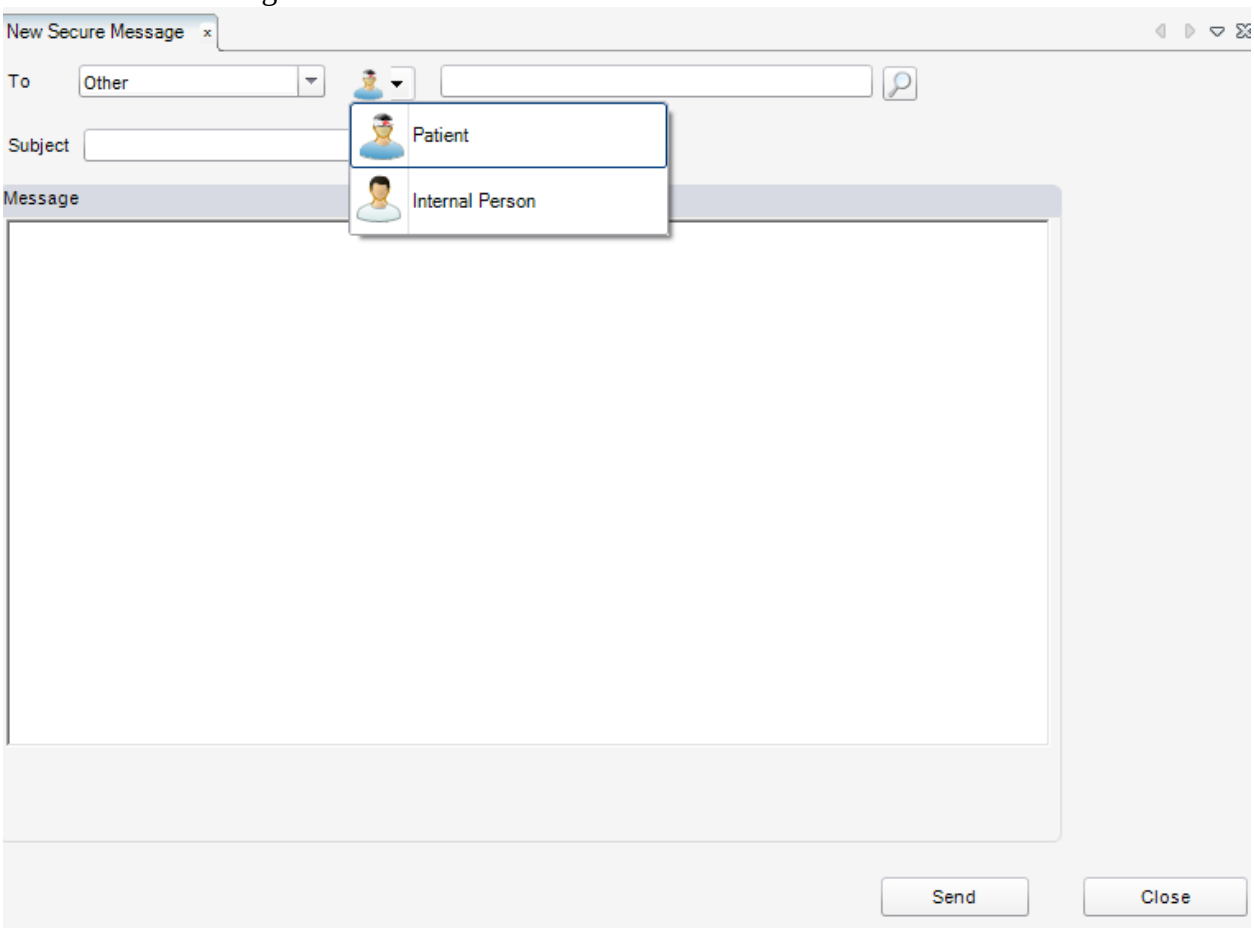



**Figure 5.32 – New Secure Message**

The RIS user can search for a patient or internal person, enter a message and send.

Messages sent to the user can be viewed / reviewed in the Message Inbox. This is accessed from the menu option Secure Message Inbox. Columns of Subject of the message, if the message has been Read, if the message has been replied, Date Sent, Date Read and From and To columns.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

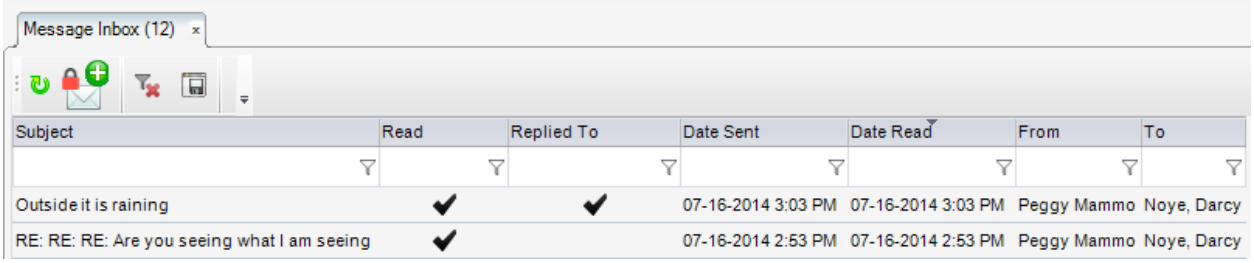



**Figure 5.33 – Secure message inbox**

The Direct Message aspect of this menu will be covered later in this document with the Meaningful Use updates.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Patient Portal Legal Documents

Legal documents were required for the Patient Portal. A new lookup table was created titled LegalDoucment that resides under the System folder of the Administration>Configure menu.

Document types that can be created include:
Terms and Conditions
Privacy Statement
Notice of Privacy Practices
Patient Portal Terms and Conditions
Patient Privacy Notes
Patient Service Agreement
Patient Consent Agreement

The user can define the Document Title and the Description of the Document to be displayed in the Patient Portal.

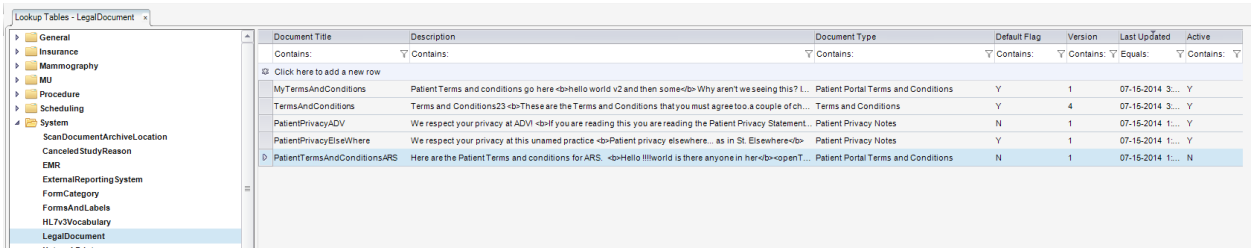


**Figure 5.34 – LegalDoucment look up**

Each type is allowed to have one default of that type, which would be used in the case when a practice cannot be determined or the practice does not have the desired legal document.

The Add\Edit Practice window accessed from the Organization lookup can have Legal Documents defined for a specific practice. Select the Portal tab and use the type ahead feature to add the legal documents.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

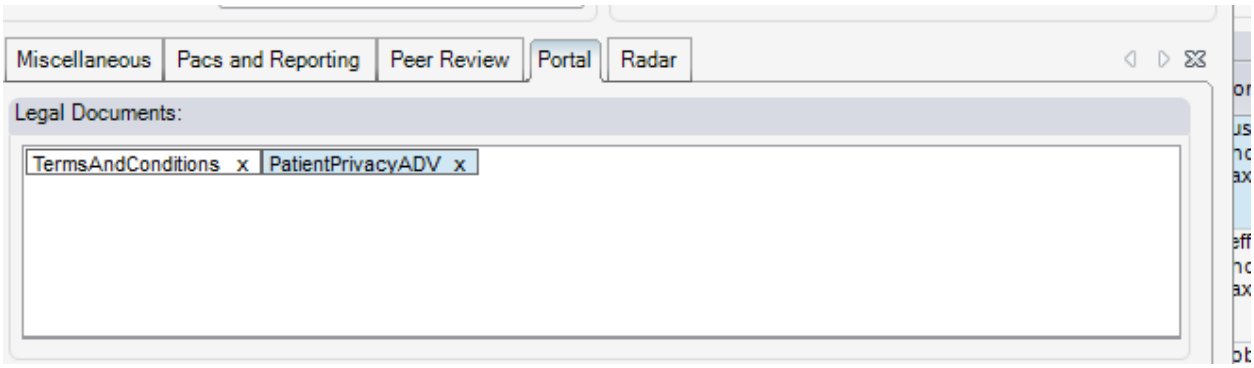



**Figure 5.35 – Legal document specified for a practice**

When logging into the Portal the system will check to see if the document has changed based on the last updated date, and display to the user before they will be able to access the site, if they have already approved that version then the site will load as normal.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Mammography – Suggest Manual Review

Manual review has been addressed by adding a new column to the Mammo Letters WL. The column titled "Suggest Manual Review Reason" will display reasons for a manual review.
If the patient has multiple follow up orders that have not been scheduled the column will inform the user.

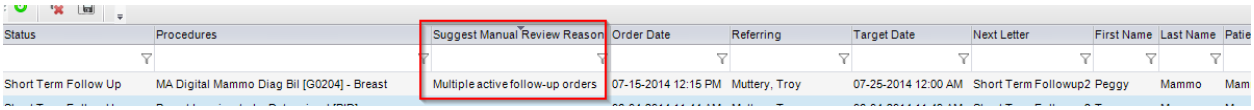



**Figure 5.36 – Mammo Letters work list displaying new column for patient with multiple follow up orders.**

If the patient has a follow up letter on the Mammo Letters WL and the patient has another mammo exam scheduled within 30 days of the target date of the follow up, this column will also inform the user with a reason of another breast exam.

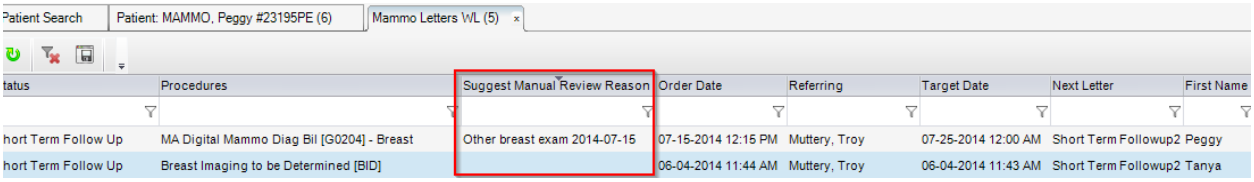



**Figure 5.37 – Mammo Letters work list displaying new column for patient with a breast exam scheduled.**

Also from this work list the user can access the Patient Folder and Cancel Order from the context menu.

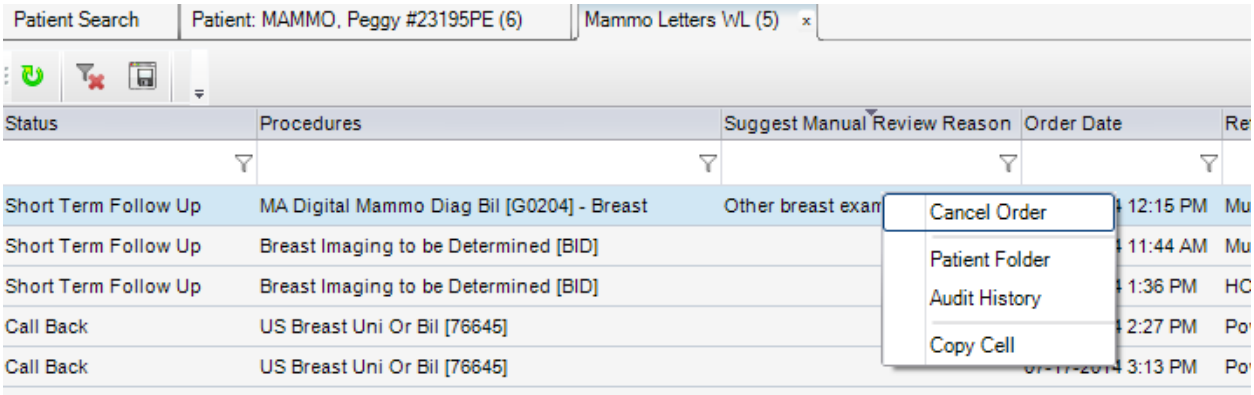



**Figure 5.38 – Context menu options from Mammo Letters WL**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Option to Not Allow Editing of Billing Codes by Technicians

Currently in the RIS we have an option on the procedure code that will allow\disallow the editing of the amount of units for a billing code. This works great for billing codes that are associated to the procedure, but doesn't prevent the tech user from adding a different code and change the units.

For this we have added a new column on the Billing Code table titled Allow Edit Units Flag. If the value of this column is set to Y the user will be able to edit the value on the Billing Code tab of the Perform Exam window. Alternately, if it is N, the user will be prevented from changing the unit value.

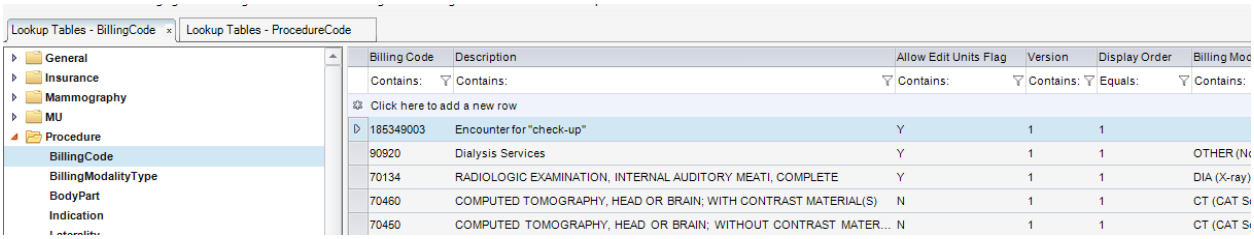



**Figure 5.39 – Billing code lookup showing new column Allow Edit Units Flag**

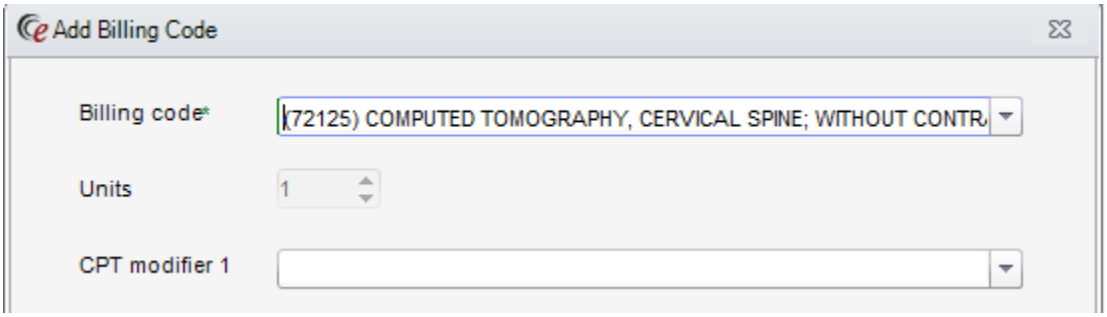



**Figure 5.40 – Unit that cannot be edited**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Patient "Not Yet Menstruating" Flag

In the Perform Exam window there was a flag of No longer menstruating that would disable the LMP and Pregnant fields. For cases of patients that have not starting menstruating but were over the age in which we active the LMP and Pregnant fields, there was no mechanism to disable.

We have added another flag of "Not yet menstruating".

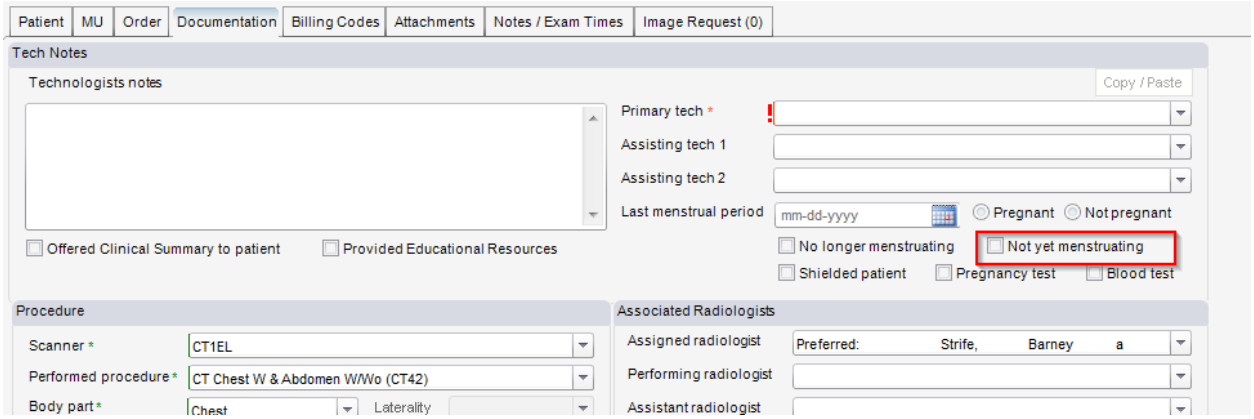



**Figure 5.41 – Not yet menstruating flag**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Exam Search Filter of BI-RADS

The exam search window now has the BI-RADS option filter that can be added for search criteria

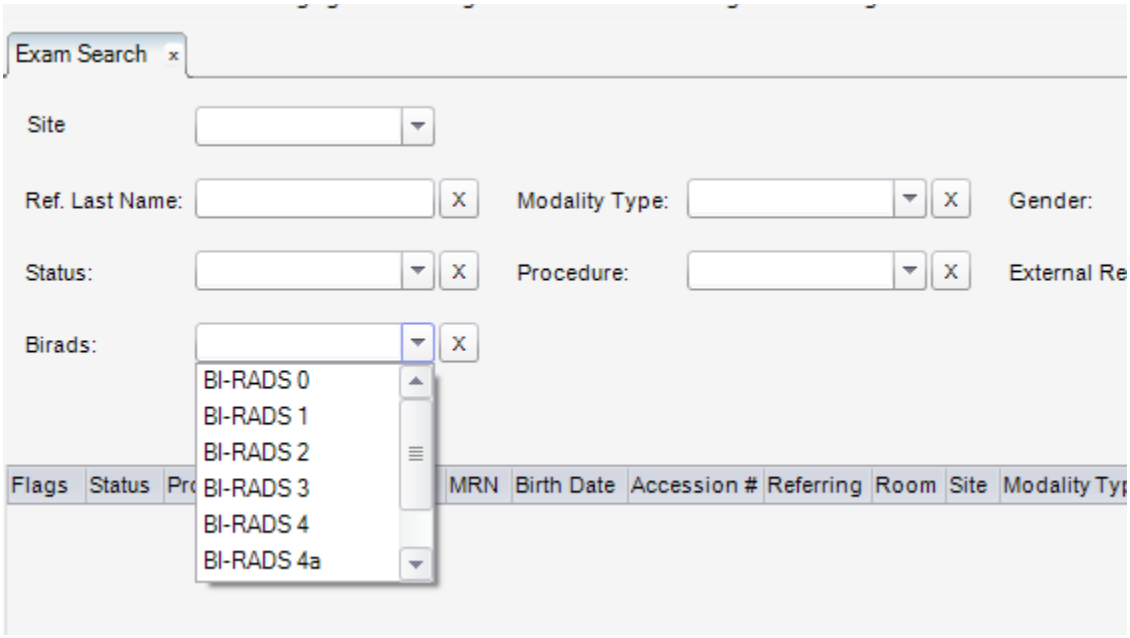



**Figure 5.42 – Exam search capability of searching on BI-RAD levels**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Patient Search – New Patient Split Button Added

The New Patient button has been updated with a new split button. Options within the split button are New patient / New appointment, New appointment and New patient.

**Figure 5.43 – Patient search**

If the user wishes to create a new appointment and performs a search and no results are found the New patient / New appointment option can be selected. This will open the Schedule Order window with for a new patient. If they wish to just create a new patient in the system the New patient option can be used

If the user performs a search and the results list does have a match or multiple results returned, they can select a patient from the list and select the New appointment option. This will open the Schedule Order window with the patient details pre-populated.

In the case of orders from external systems that have to matched with an eRAD RIS MRN, the patient search window will open with only the option of New patient.

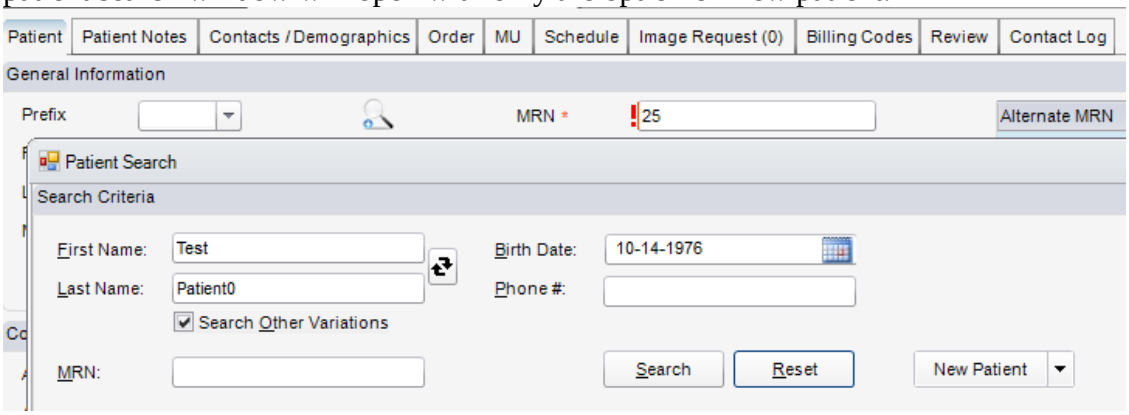



**Figure 5.44 – Patient search for external order**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Responsible Party MRN

Two new fields have been added to the Responsible Party's information on the Contacts / Demographics tab. The fields are not required to be completed. The fields are Relation's ID and ID Issuer.

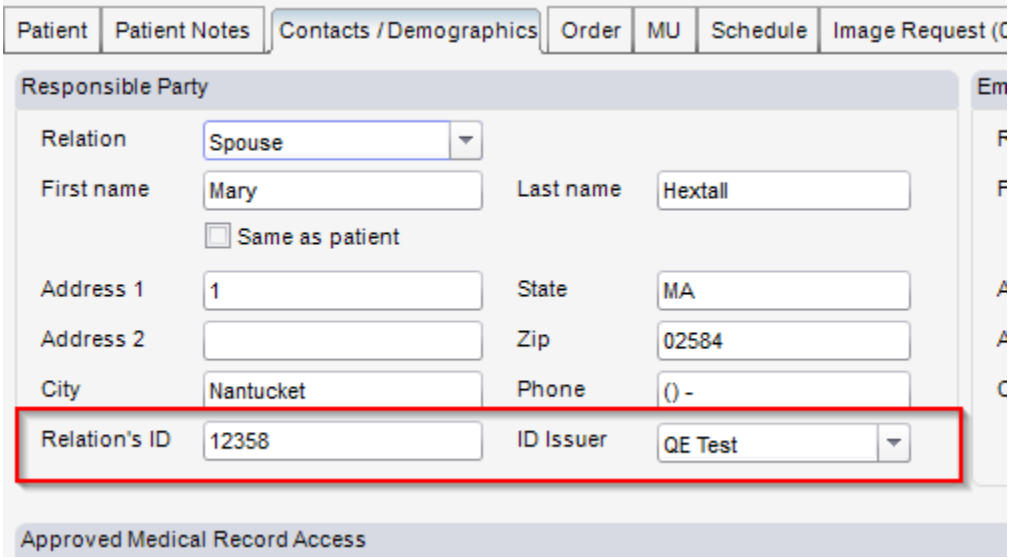



**Figure 5.45 – Responsible Party fields added**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Scheduling – Patients Height and Weight Required at Time of Scheduling

**In previous** versions we had the ability to turn on/off if the patient's height and weight were required at the time of "arriving" the patient. We have added to the ability to turn on/off is the patient's height and / or weight is required at the time of scheduling.

Two new system configuration settings have been created. For patient's height required at scheduling the setting is **"HeightRequiredOnSchedule"**

For the patient's weight required at the time of scheduling the new setting is **"WeightRequiredOnSchedule"**

Both have a default value of none.

| System Config Code | Value | Default | Description |
|---|---|---|---|
| Contains: onsche | Contains: | Contains: | Contains: |
| HeightRequiredOnSchedule | False | False | (value = True/False) height is required when scheduling the patient |
| WeightRequiredOnSchedule | False | False | (value = True/False) weight is required when scheduling the patient |

**Figure 5.46 – new system configuration settings for height/weight required at scheduling.**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Patients Weight and Room Added to Weight Limit Message

The message box that is presented to the user informing them that the current selected scanner has a weight limit that the patient exceeds has had the weight of the patient and the room name added to the message.

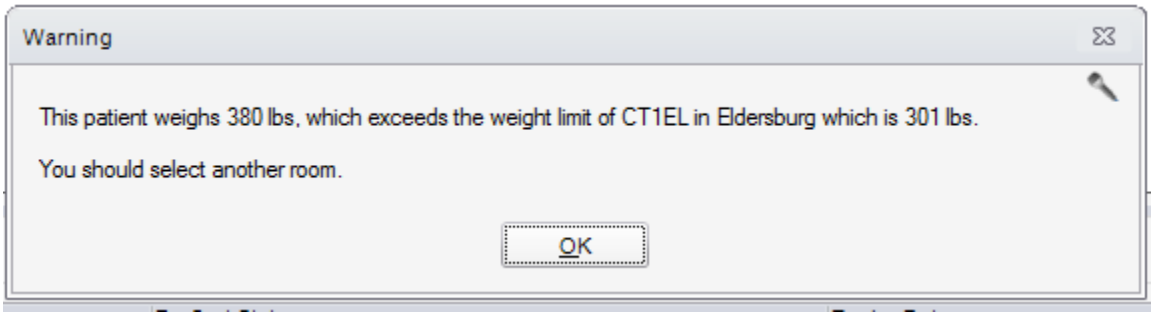



**Figure 5.47 – Message includes patients weight and room**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Ability to Add Longer Room Names

Currently in the scheduling window the names of the rooms come from the Modality Code of the Modality table. A new column was added to the Modality lookup titled Short Description that has a character length of 50. If this field has a value it will be displayed.

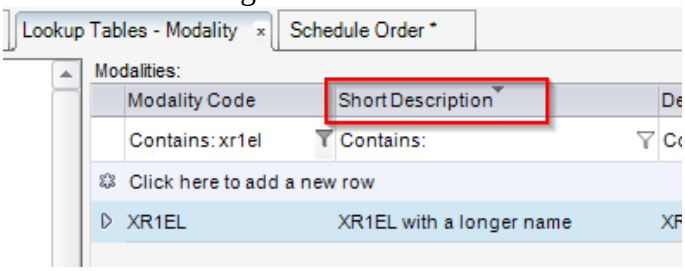



**Figure 5.48 – Short description column added to the modality lookup**

Admins can enter in a longer description name of the room and have it display in the scheduling windows details section.

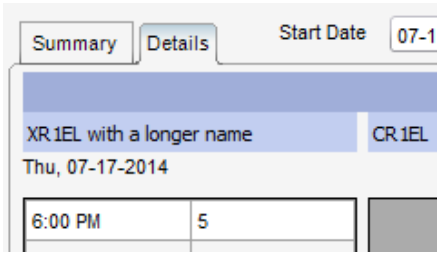



**Figure 5.49 – Details showing short description**

Also displayed in the Calendar of the Scheduling window

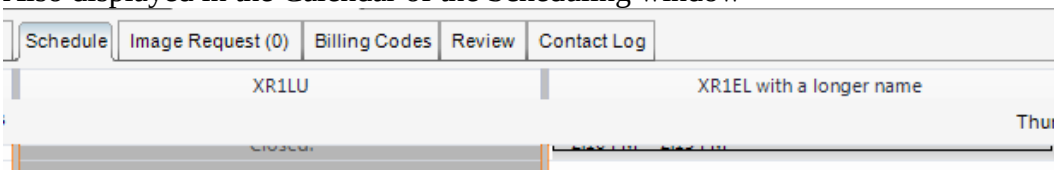



**Figure 5.50 – Calendar control of the new appointment window**

Lastly in the procedure picker rows Room list box

**Figure 5.51 – Room list box on the procedure picker row**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Ability to Use a Closed Room from Registration Window

Registration screen will now allow the use of a closed room/holiday, but on checking-in and arriving they will be prompted to ensure they would like to still use the selected modality.

For checking in a patient, the user will be presented with the following message

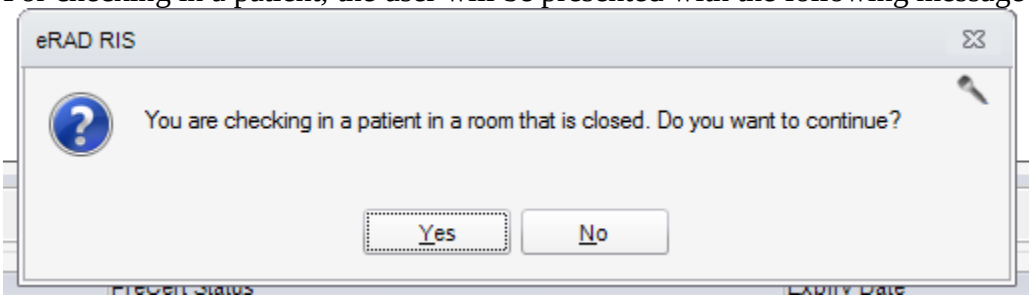



**Figure 5.52 – Message on closed room for checking in a patient**

When arriving the patient in a closed the room the message is:

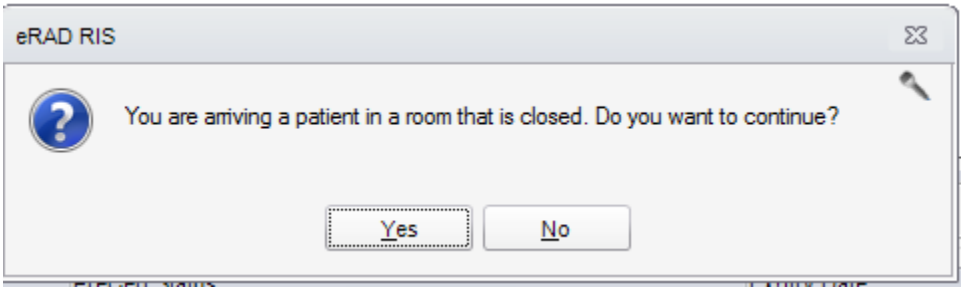



**Figure 5.53 – Arriving a patient in a closed room**

The message will be presented when completing a walk in to a closed room as well.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Scheduling – Repeating Modality Closures

The modality lookup table has an additional option added to the modality closures grid. The Repeat column has a list of values that include days of the week, weekday, weekend, all week and full range.

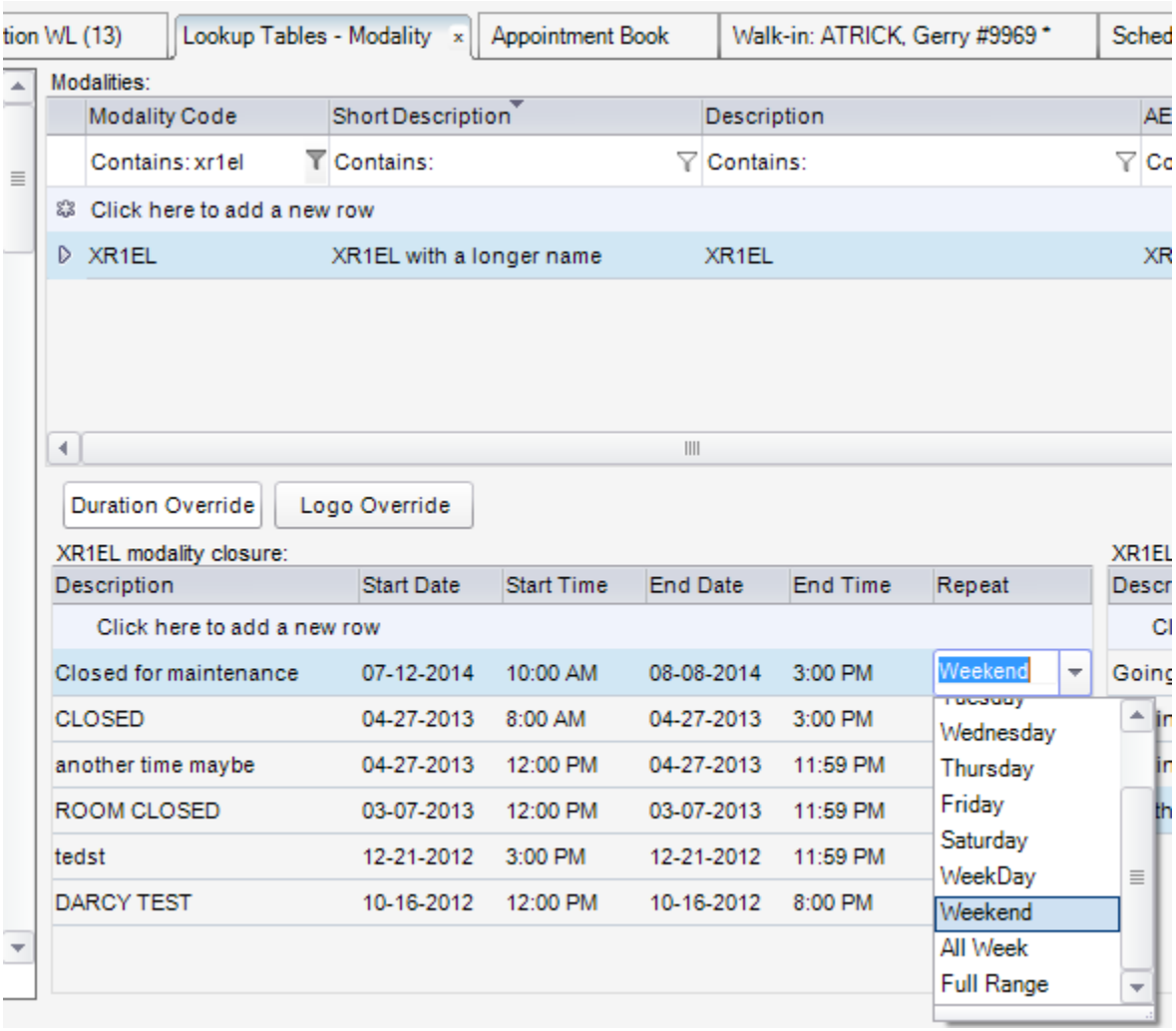



**Figure 5.54 – Repeating room closures**

An example of this would be closure on the weekend between 7am – 5pm, selecting the Weekend option would apply the closure to Saturdays and Sundays in your specified date range.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Last Contact and Last Contacted Type Added to Work Lists

The columns of Last Contact and Last Contacted Type have been added to the following work lists.

- Confirmation
- Reception
- Technologist
- No Show
- Closed Room

Example of the columns from the Reception work list:

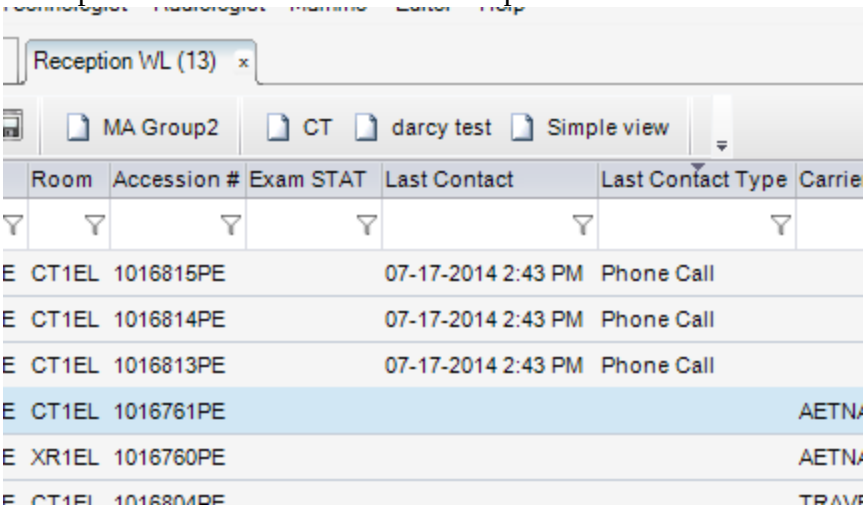



**Figure 5.55 – Last contact and last contact type added to work lists**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Additional Columns Added to the Confirmation WL

The IV Status and PreCert Required columns have been added to the Confirmation WL.

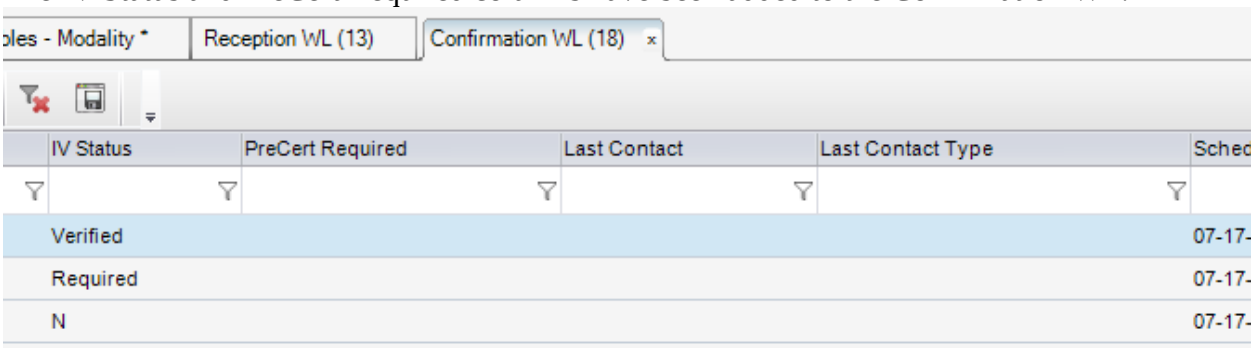



**Figure 5.56 – Columns added to the Confirmation WL**

## Additional Columns added to the Orders to Schedule WL

The columns Birth Date, Abort Reason and Carrier Type have been added to the Orders to Schedule WL

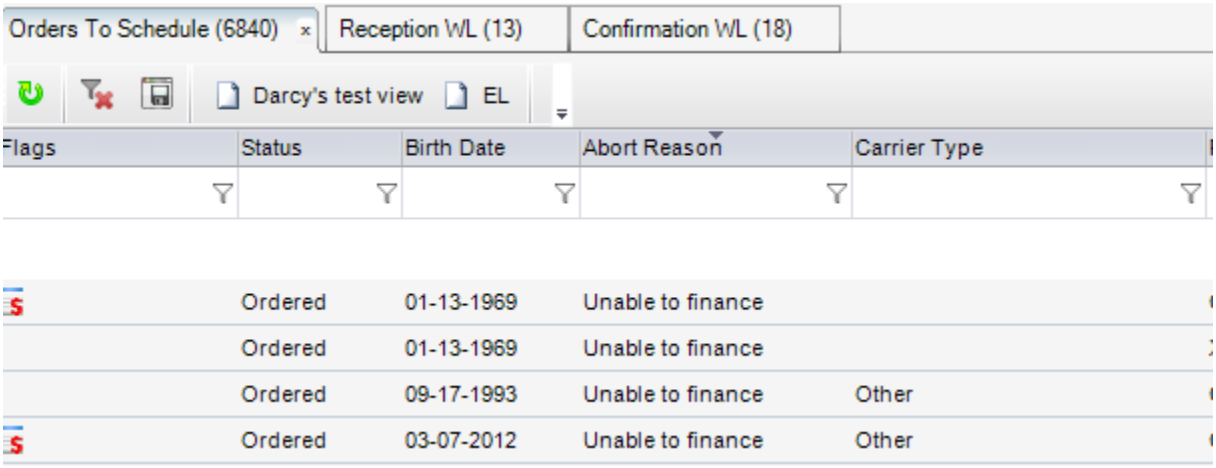



**Figure 5.57 – Columns added to the Orders to Schedule WL**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Columns added to the Image Request WL

The columns of Date of Service and Site columns of Study Performed Site and Image Request site are included on the Image Request WL.

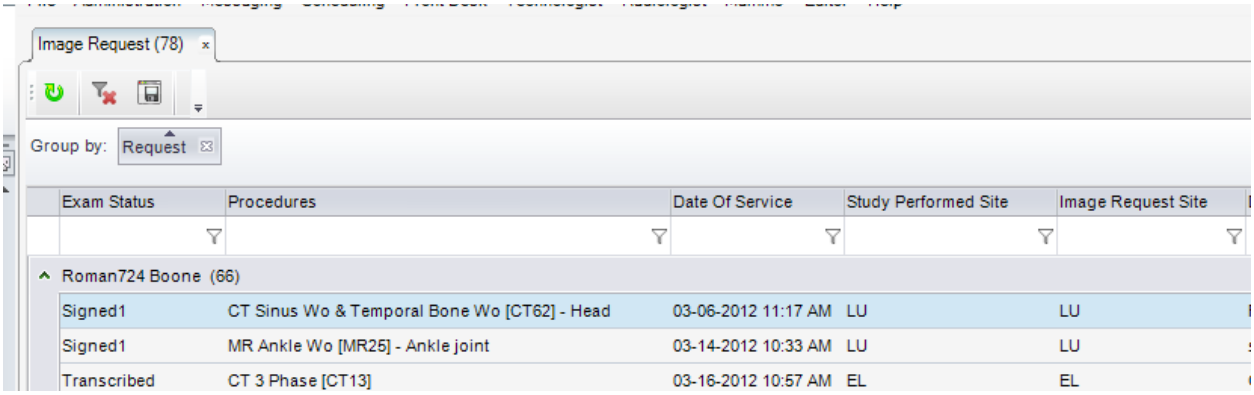



**Figure 5.58 – Columns added to the Image Request WL**

## Locked By Column Added to the CTRM WL

The locked by column has been added to the Critical Results WL and the All Critical Results WL

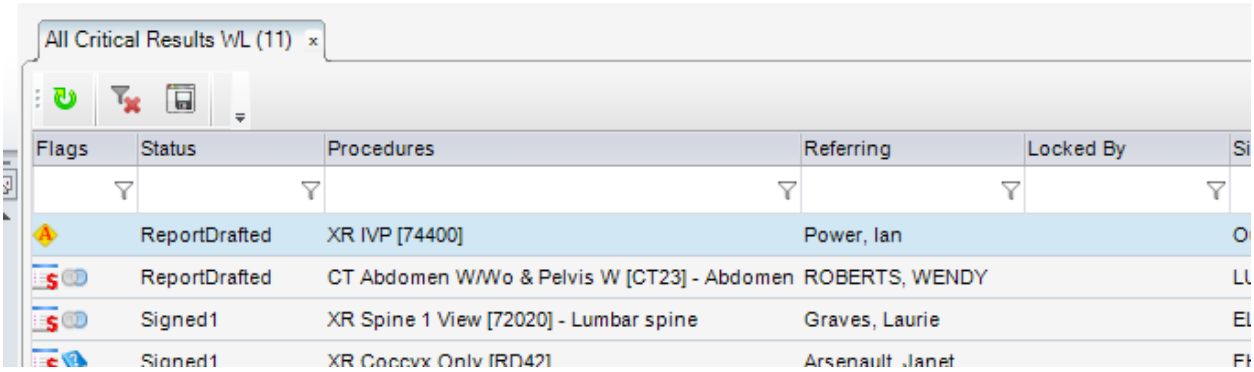



**Figure 5.59 – Locked by column added to Critical Results WL**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Ability to Select Date Range for Confirmation WL

There Confirmation WL is a daily work list in which the user must select each day to see the studies for a specific day. In build 43 we have added to the ability to select a date range from the calendar control to a maximum of 10 days.

This is accomplished by opening the calendar. Focus will be on the current date. Holding down the shift key on the keyboard and select the day in which you would like to end the range. To change back to a single day, double click the day from the calendar.

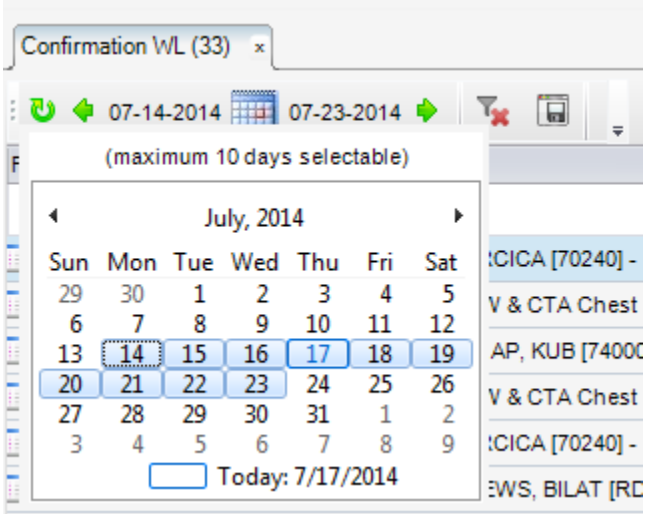



**Figure 5.60 – Selecting a date range on Confirmation WL**

The previous/next arrows cause dates to slide by one day but maintain the selected number of days in the range.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Problem and QA Flags Added to Patient Folder WL

Two new flags have been created for display on the Patient Folder WL. The flag for Problem, with an ICON of a red exclamation point ! and the flag for QA with an ICON of a check mark have been added. The Problem flag is controlled by a new access string titled **"Flag.Problem"** with a default access of full.
The QA flag is controlled by a new access string titled **"Flag.QA"** and it also have a default access of full

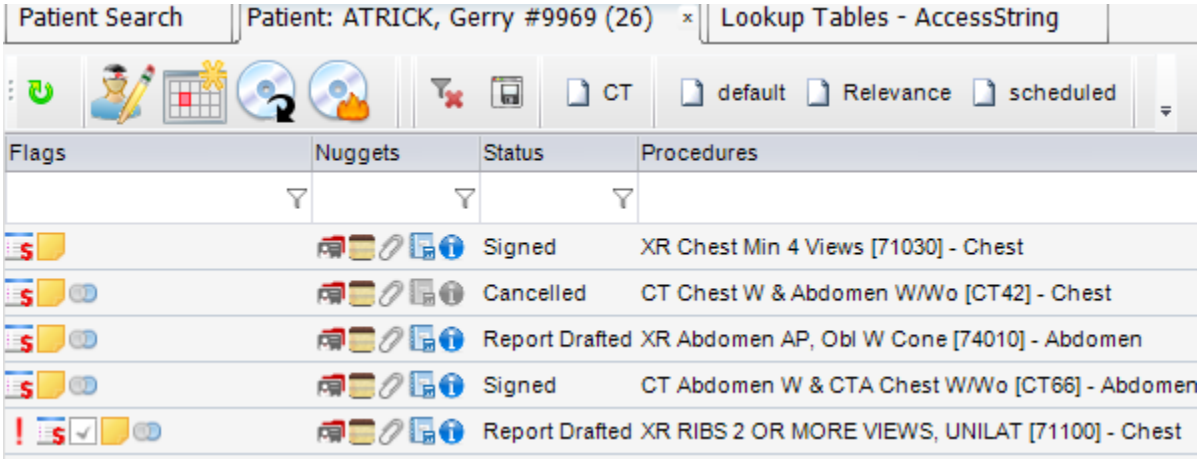



**Figure 5.61 – Problem and QA flags added to Patient Folder**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Personnel Editor – Have City Populated by Zip Code

The common zip code lookup to both the Address section and Deliver To section has been added. The functionality is the same as other areas where this feature exists: when tabbing away from the zip code textbox, if the zip code exists then the city/state will be automatically populated. If more than one entry exists, then the popup shown below will be displayed.

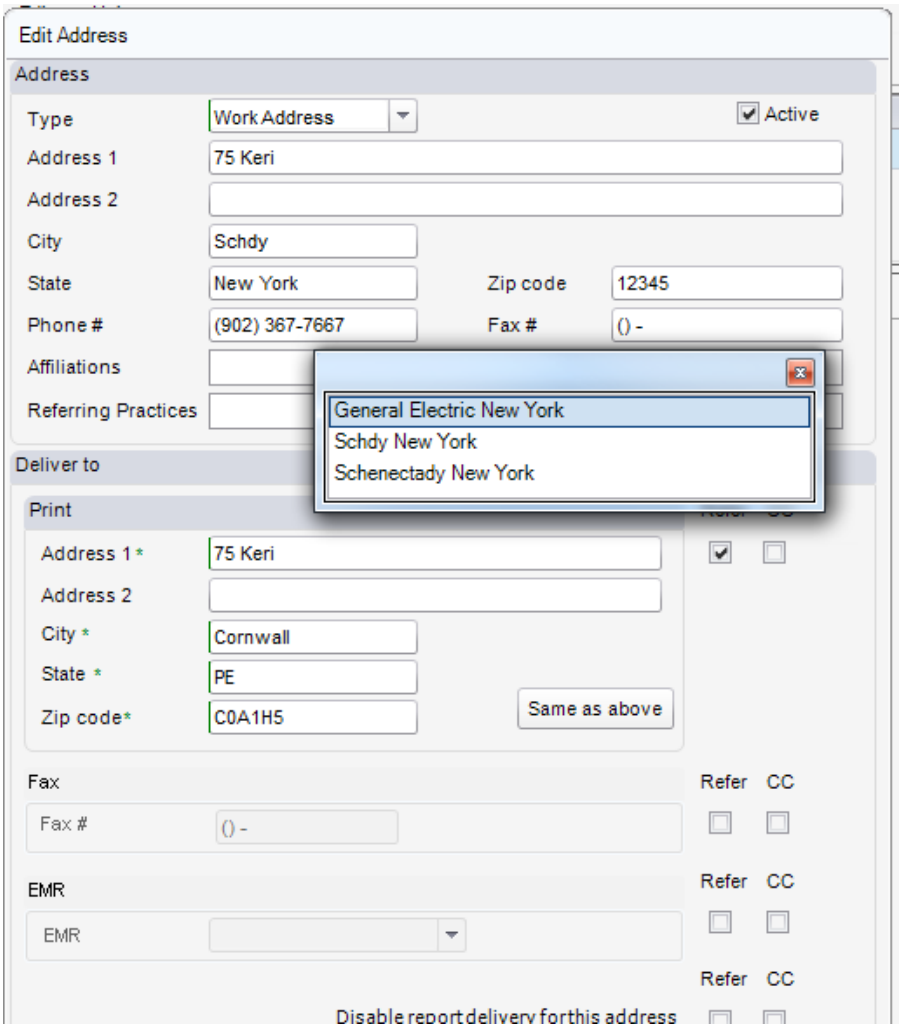



**Figure 5.62 – Personnel editor with zip code lookup**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Ability to Define Primary Specialty for Referring Physician

To set a specialty to 'primary', right click on the item in the multi-select Specialties box and select 'Set as primary'. Only the specialities multi-select should allow this right-click functionality. Only one primary should be allowed.

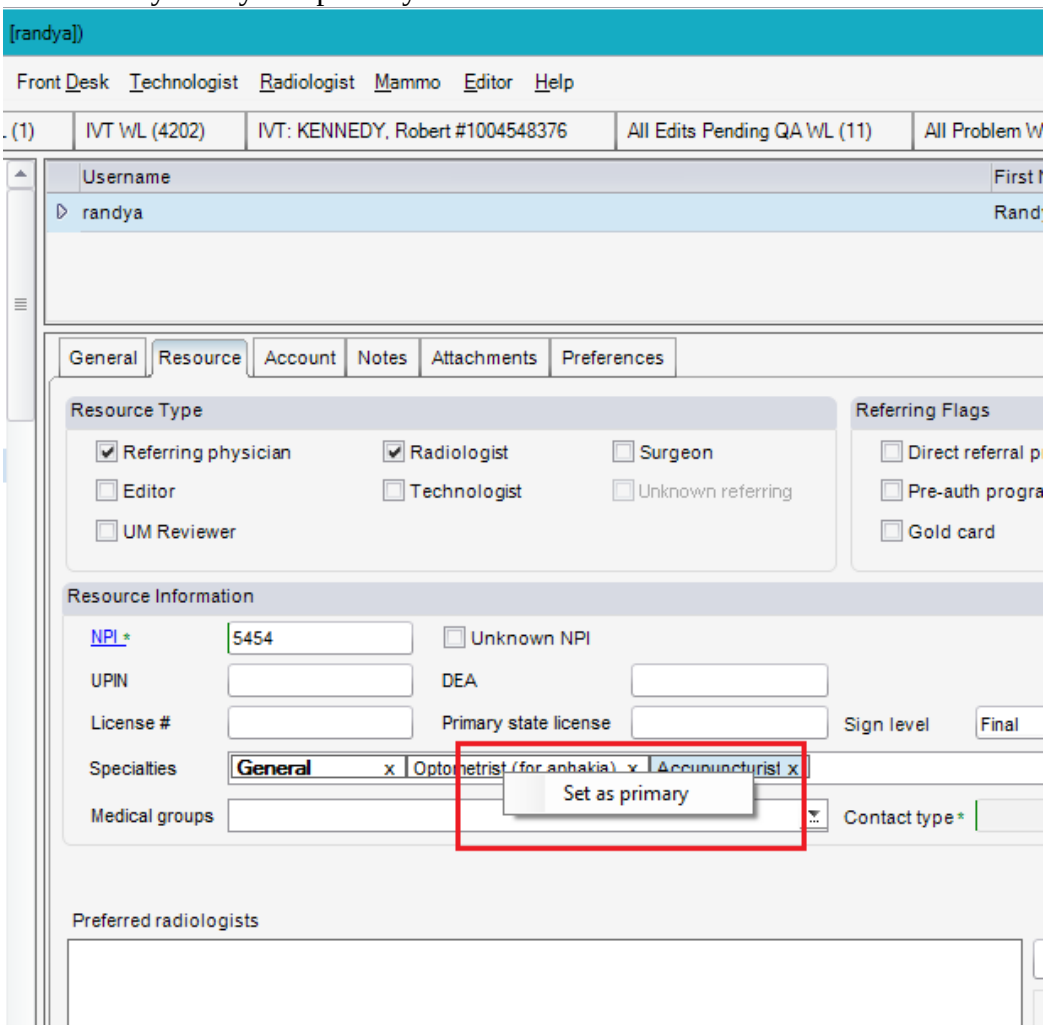



**Figure 5.63 – Set specialty as primary in personnel editor**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Referring Practice Address Changes

Instead of adding a referring practice at the Personnel Level we now have the ability to add 1 or more referring practices when adding or editing addresses as shown in the following:

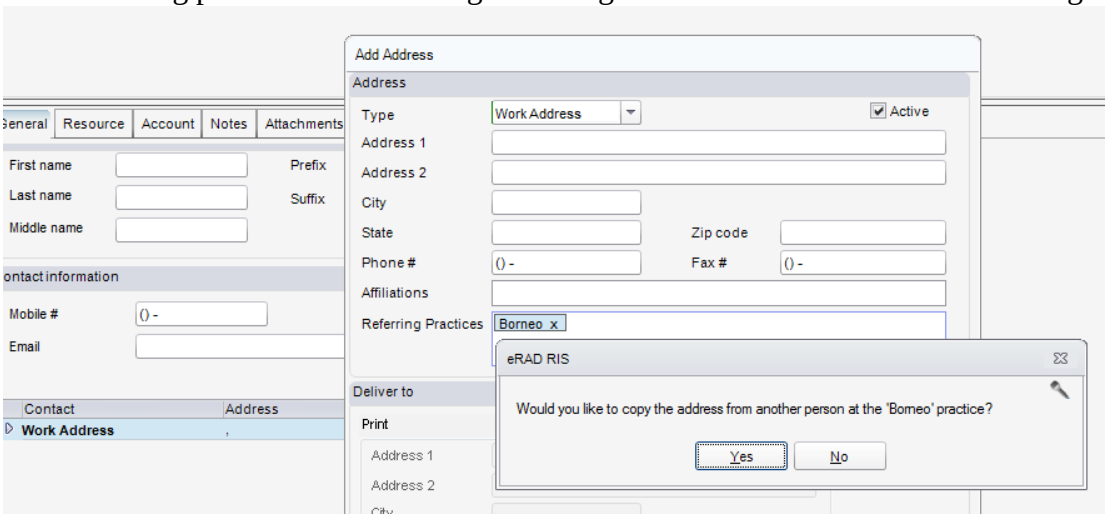



**Figure 5.64 – Add address in Personnel editor**

When a referring practice is added, the user is prompted, "to copy the address from another person at the selected practice". If they choose "Yes" to that question they get a list of person's addresses to use as the address/delivery information, as shown in the following screen capture:

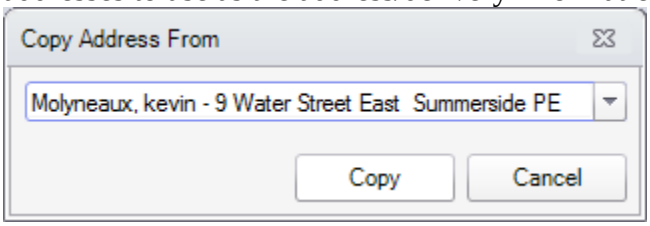



**Figure 5.65 – Copy Address From prompt**

The Personnel editor allows the user to add addresses and edit them individually. To make managing referring addresses easier, we have introduced the following "- Referring Address" editor:

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

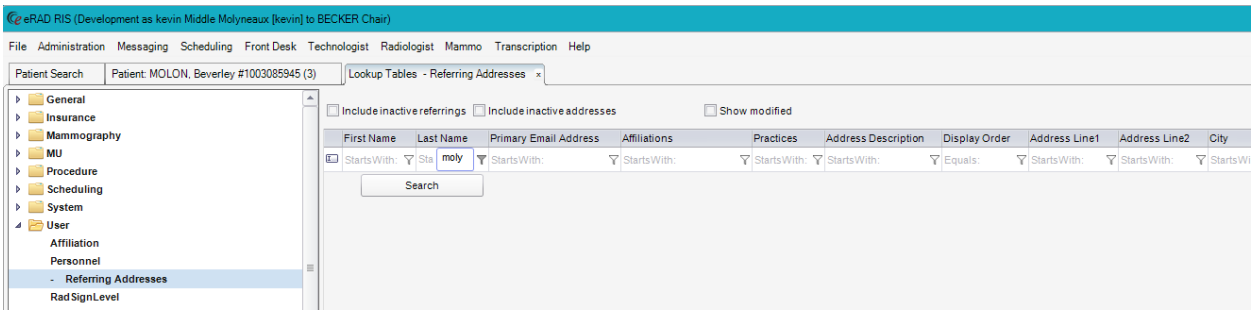



**Figure 5.66 – Referring Addresses lookup**

When you open this screen the first thing you must do is to specify at least one filter value and then click the "Search" button. In this example, I've search for all users with the last name 'molyn'.

Using the context menu option 'Copy/Paste Referring Address" the user can copy an entire address row and paste it to another person/address row.

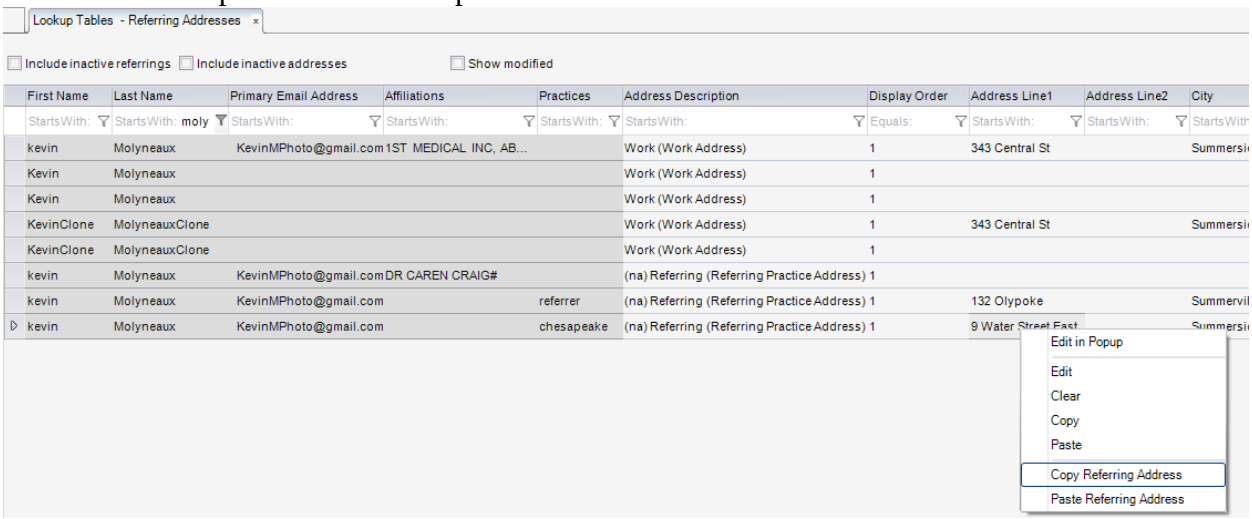



**Figure 5.67 – Referring Addresses context menu options**

Note, the columns shown in the darker shading are non-address fields, which are not included in the "Paste Referring Address" operation and are not editable directly in the gird. Consider these darker columns as read-only, except for the Practice and Affiliations columns which can be edited via the "Add/Remove Practice" context menu as shown in the following screen capture:

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

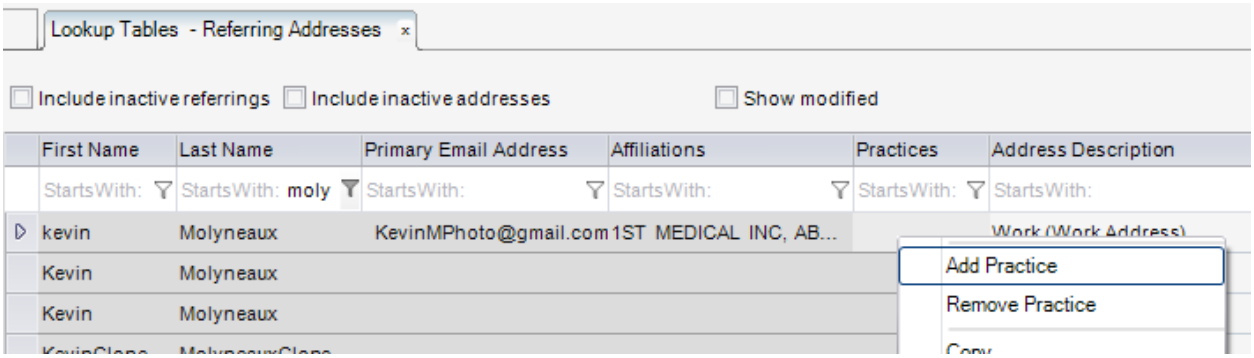



**Figure 5.68 – Add or remove practice**

The grid also support multi cell selection so you could add a practice to more than one address in the same operation as shown in the following screen capture, where I used the keyboard or mouse plus the <CTRL> key to selected multiple Practice cells:

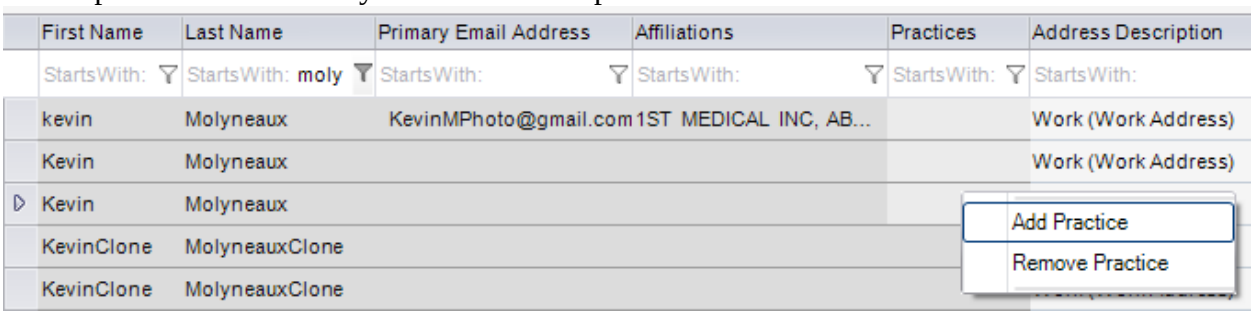



**Figure 5.69 – Multi select cells**

The user can also select multiple cells and paste the same value to all of them as shown in the following example where I am pasting the '343 central st' to all of the selected cells:

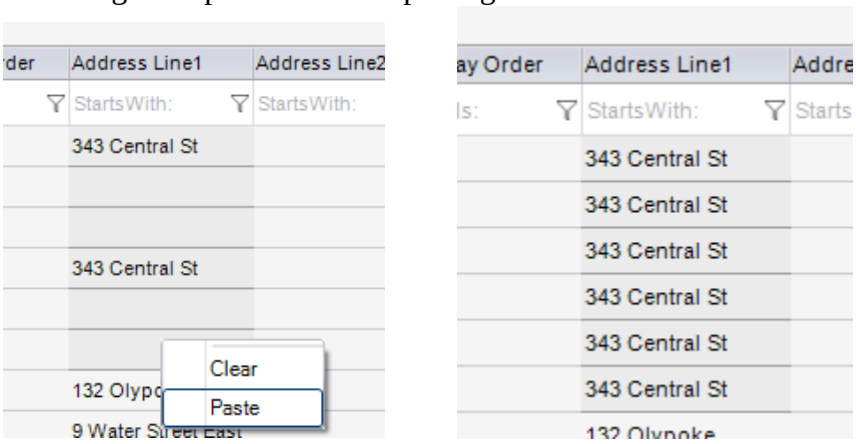



**Figure 5.70 – Before and after copy / paste**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

Checking the "Show Modified" checkbox will remove all filters and show all the rows that have been modified and not yet been saved:

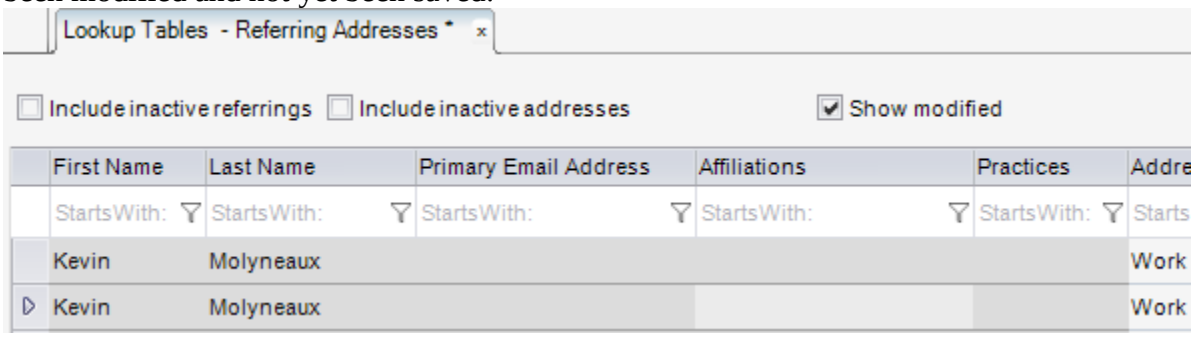



**Figure 5.71 – Show modified**

Then after unchecking the "Show Modified" the filters you had before checking it will be re-applied. If your search returns too many rows (~1000), then the amount returned will be limited and you will see a message explaining that partial results are being displayed. You will also notice that at all times the row count is displayed in the bottom right corner of the RIS screen as shown in the following:

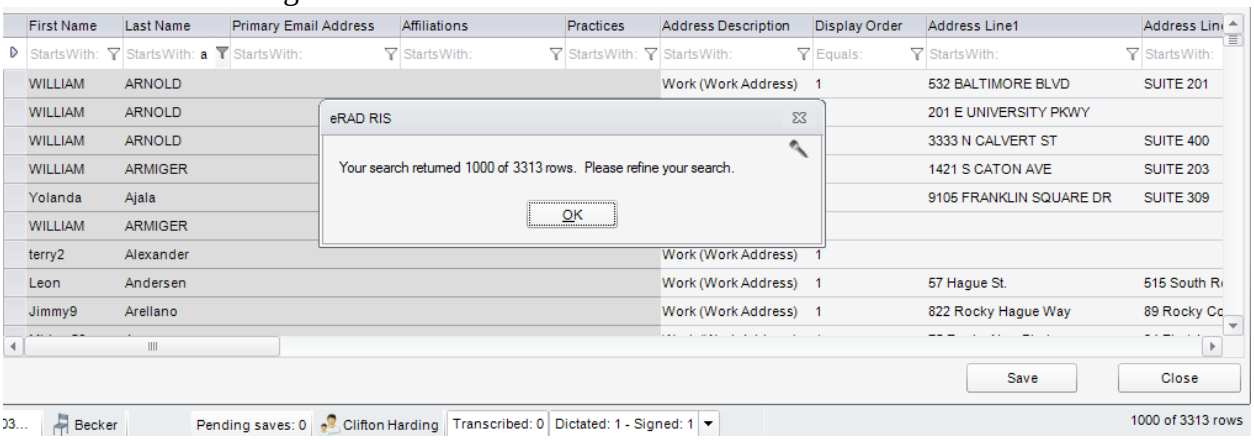
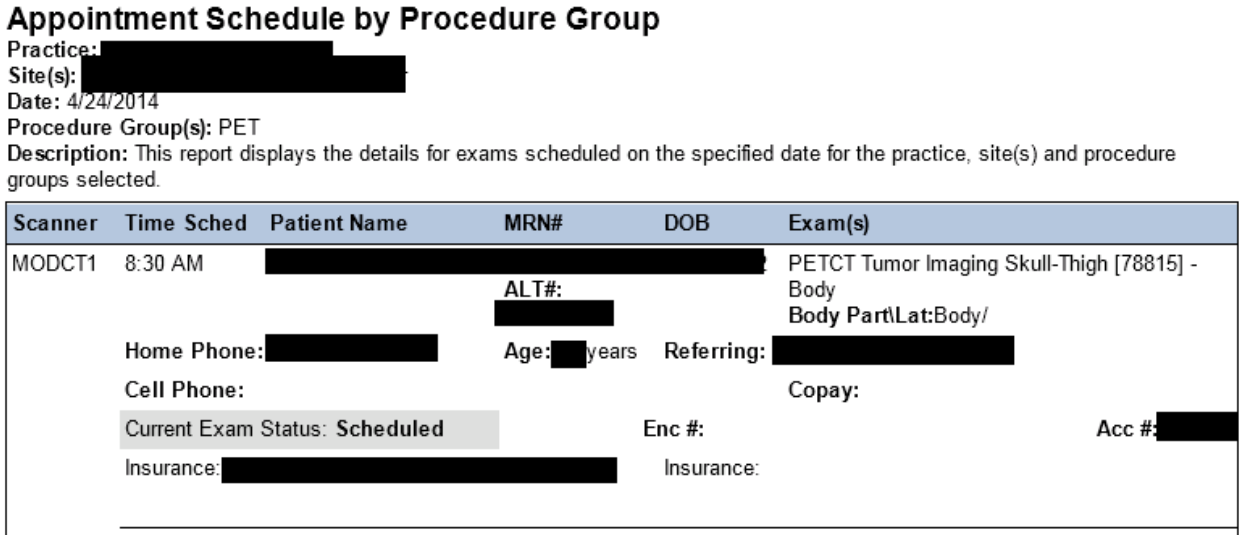



**Figure 5.72 – Unselecting Show Modified results**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Management Report – Appointment Schedule by Procedure Group

The Appointment Schedule by Procedure Group management report will display the details for exams scheduled on the specified date for practice, site(s) and procedure groups selected.



**Appointment Schedule by Procedure Group**

**Practice:** [redacted]
**Site(s):** [redacted]
**Date:** 4/24/2014
**Procedure Group(s):** PET
**Description:** This report displays the details for exams scheduled on the specified date for the practice, site(s) and procedure groups selected.

| Scanner | Time Sched | Patient Name | MRN# | DOB | Exam(s) |
|---|---|---|---|---|---|
| MODCT1 | 8:30 AM | [redacted] | ALT#: [redacted] | | PETCT Tumor Imaging Skull-Thigh [78815] - Body<br>**Body Part\Lat:**Body/ |
| | **Home Phone:** [redacted] | | **Age:** [redacted] years | **Referring:** [redacted] | |
| | **Cell Phone:** | | | | **Copay:** |
| | Current Exam Status: **Scheduled** | | | **Enc #:** | **Acc #:** [redacted] |
| | Insurance: [redacted] | | | Insurance: | |

**Figure 5.73 – Appointment Schedule by Procedure Group management report**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Management Report – Users in Usergroups

This report displays the list of users assigned to the selected user group(s). You can choose to see both active (by default) as well as inactive user accounts.

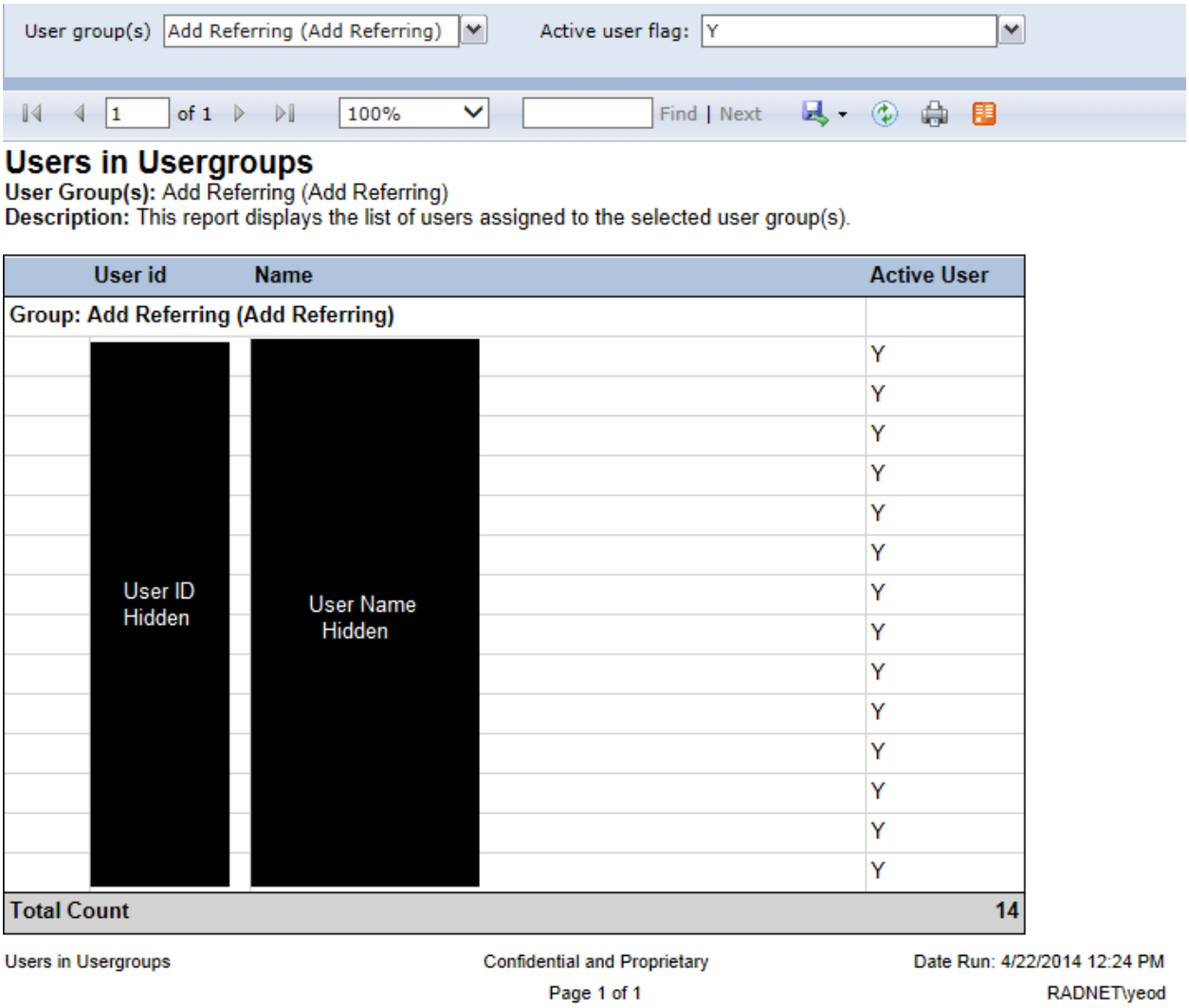



**Figure 5.74 – Users in Usergroups management report**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Management Reports – Radiologist Productivity by User – Mammo

This report is to display the selected mammography exams read by the radiologists for the period specified based on signed off exams.

**Radiologist Productivity by User - Mammo**

**Practice:** [redacted]
**Site(s):** [redacted]
**Date Range:** 3/1/2014 - 3/31/2014
**Procedure Codes:** 76645, 76645SCREE, 77058, 77059, G0202 , G0202BRUS, G0202BRUST, G0202I, G0202IBRUS, G0202IT, G0202T, G0202U, G0202UBRUS, G0202UIMT, G0202UNIT, G0202WCT, G0204 , G0204BRUS, G0204BRUST, G0204CB, G0204CBT, G0204CBUS, G0204CBUST, G0204I, G0204IBRUST, G0204IT, G0204T, G0206 , G0206BRUS, G0206BRUST, G0206CB, G0206CBT, G0206CBUS, G0206CBUST, G0206I, G0206IBRUST, G0206IT, G0206T, HVRA76645, HVRA76645SCREE, HVRA77058, HVRA77059, HVRAG0202 , HVRAG0202BRUS, HVRAG0202I, HVRAG0202IT, HVRAG0202TM, HVRAG0202UNIT, HVRAG0204 , HVRAG0204BRUS, HVRAG0204CB, HVRAG0204CBUS, HVRAG0204I, HVRAG0204IT, HVRAG0204TM, HVRAG0206 , HVRAG0206BRUS, HVRAG0206CB, HVRAG0206CBUS, HVRAG0206I, HVRAG0206IT, HVRAG0206TM, HVRAMA70, MA300, MA300T, MA301, MA301T, MA302T, MA303T, MA999, USBRAD
***Description:*** *This report displays the selected mamography exams read by Radiologist for a specified period. All Exams are Signed exams.*

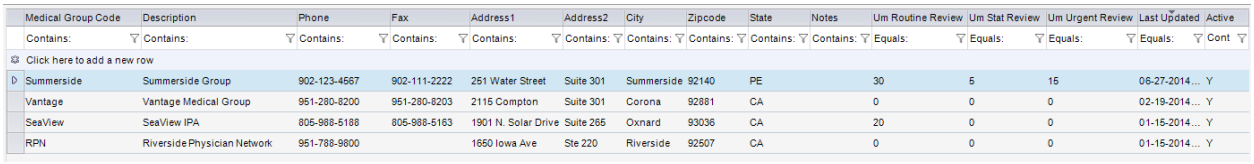
| | Procedure | Count | % |
|---|---|---|---|
| | [redacted] | 13 | 2.08% |
| | MA Digital Diagnostic Mammo Bilat W CAD | 1 | 0.16% |
| | MA Digital Screening Mammo W Breast US and CAD | 1 | 0.16% |
| | MA Digital Screening Mammo W CAD | 8 | 1.28% |
| | MR Breast W WO Bilateral W Cad | 2 | 0.32% |
| | US Breast Unilateral Or Bilateral | 1 | 0.16% |

**Figure 5.74a – Radiologist Productivity by User – Mammo Management report**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Utilization Management – Addition of Medical Group Lookup Table

A lookup has been added called Medical Group has been added under the Insurance directory of the Administration>Configure menu. This contains the name and demographics of the medical group. The table includes the column for UM Routine Review, UM Stat Review and UM Urgent Review



| Medical Group Code | Description | Phone | Fax | Address1 | Address2 | City | Zipcode | State | Notes | Um Routine Review | Um Stat Review | Um Urgent Review | Last Updated | Active |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Contains: | Contains: | Contains: | Contains: | Contains: | Contains: | Contains: | Contains: | Contains: | Contains: | Equals: | Equals: | Equals: | Equals: | Cont |
| Click here to add a new row | | | | | | | | | | | | | | |
| Summerside | Summerside Group | 902-123-4567 | 902-111-2222 | 251 Water Street | Suite 301 | Summerside | 92140 | PE | | 30 | 5 | 15 | 06-27-2014... | Y |
| Vantage | Vantage Medical Group | 951-280-8200 | 951-280-8203 | 2115 Compton | Suite 301 | Corona | 92881 | CA | | 0 | 0 | 0 | 02-19-2014... | Y |
| SeaView | SeaView IPA | 805-988-5188 | 805-988-5163 | 1901 N. Solar Drive | Suite 265 | Oxnard | 93036 | CA | | 20 | 0 | 0 | 01-15-2014... | Y |
| RPN | Riverside Physician Network | 951-788-9800 | | 1650 Iowa Ave | Ste 220 | Riverside | 92507 | CA | | 0 | 0 | 0 | 01-15-2014... | Y |

**Figure 5.75 – Medical Group lookup table**

Access to this new lookup table is controlled by the access string **"Config.LookupEditor.MedicalGroup"** with a default of none.

From the Personnel editor the user can be mapped to one or multiple Medical Groups. The option is found on the Resource tab.

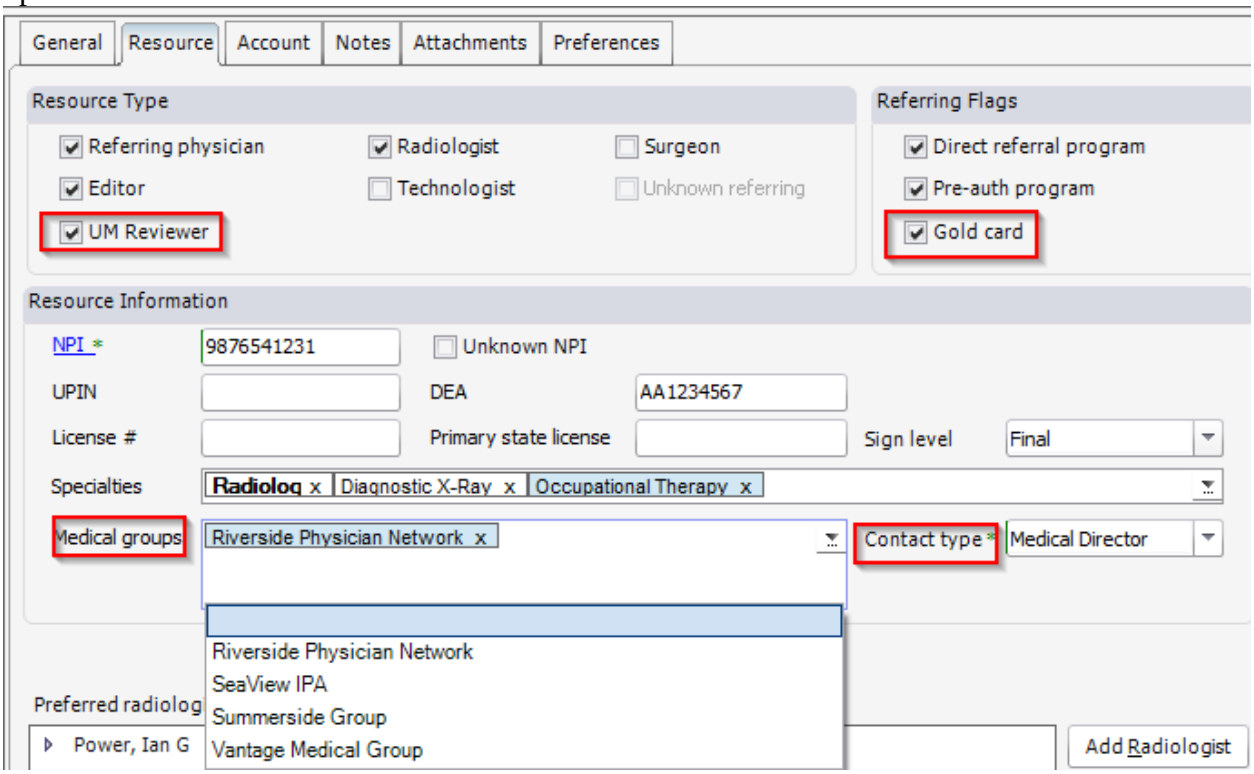



**Figure 5.76 – Map person to medical group**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

Also in the Personnel Editor on the Resource tab is the Referring Flag of Gold Card. The gold card flag is only available if the resource type is referring physician. If the gold card flag is checked, then the utilization management notes field, located on the Notes tab, becomes required.

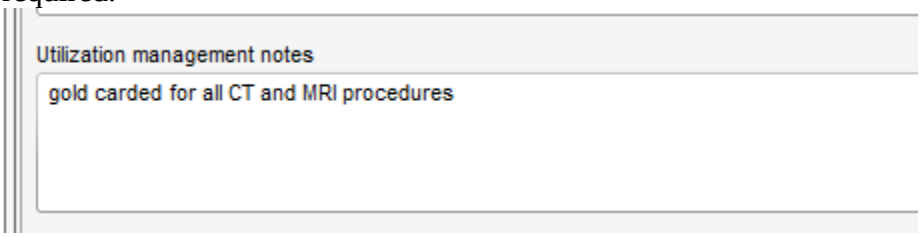



**Figure 5.77 – Utilization management notes**

The end user will need to know why the requesting physician is marked as gold carded. If the utilization notes field is not completed, the user will be promoted with an error message.

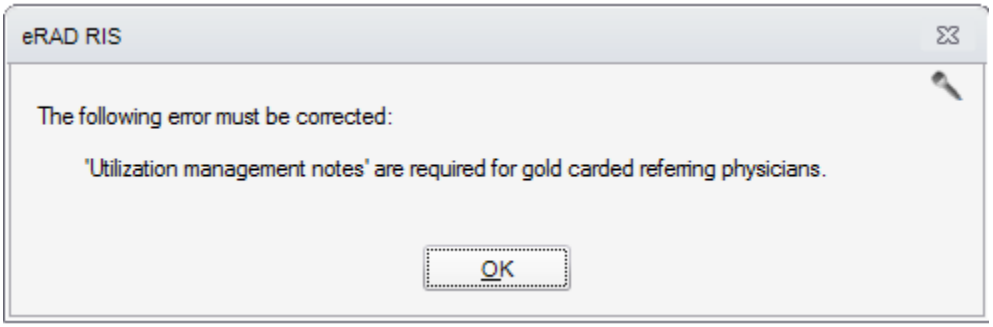



**Figure 5.78 – Prompt is Utilization management notes are not completed**

Again on the Resource tab, the Resource Type of UM Receiver has been added. The Internal Person Search has been modified to include "UM Reviewer" as a Type filter.

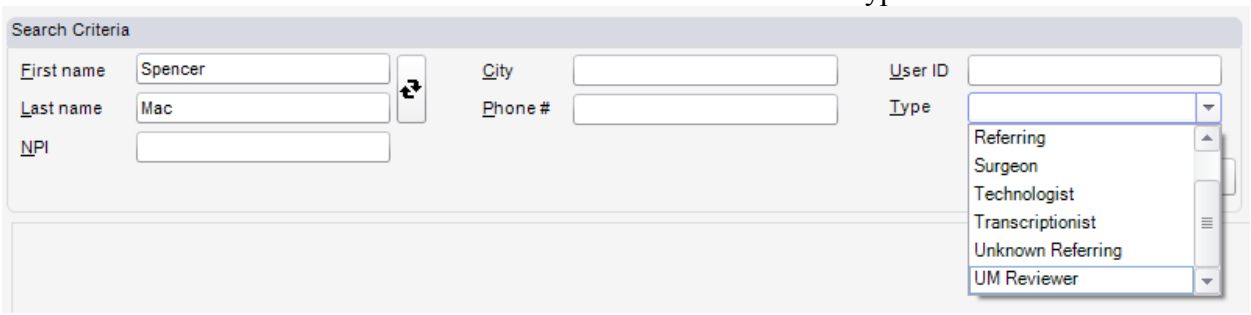



**Figure 5.79 – Internal person search with type of UM Reviewer added**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Utilization Management – Support Medical Group Contact Types

The lookup table Medical Group Contact Type has been added under the Insurance directory of the Administration>Configure menu. This new lookup table is controlled by access string **"Config.LookupEditor.MedicalGroupContactType"**

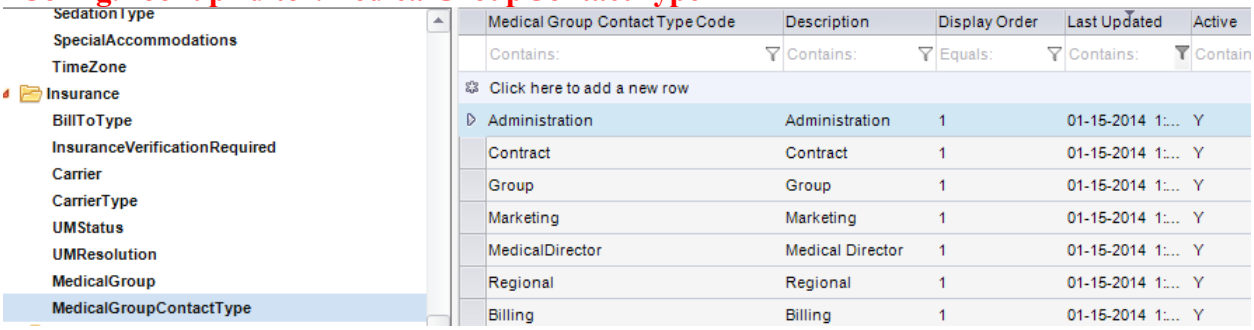



**Figure 5.80 – Medical Group Contact Type lookup table**

The values from this table are used in the Resource tab on the Personnel editor, which has been enhanced to contain a multi type-ahead control for medical groups as well as a corresponding drop-down for medical group contact type. If a medical group is selected, the contact type is a required field.

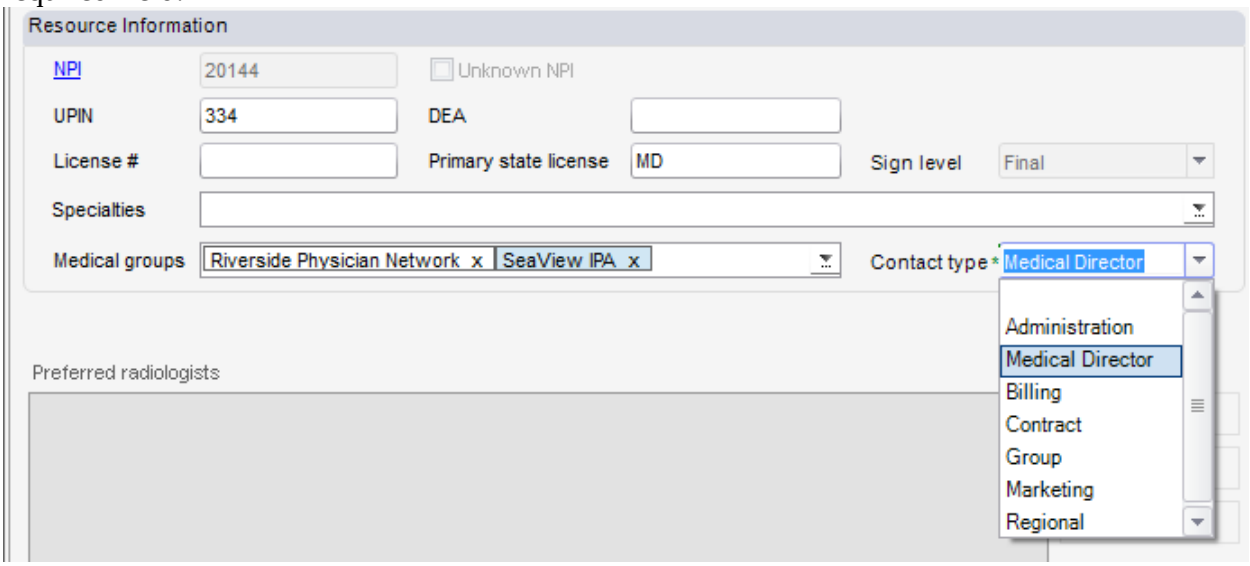



**Figure 5.81 – Adding Contact Type to a user account in Personnel editor**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Utilization Management – Support UM Coverage Type

A lookup called UMCoverage will hold the coverage types that will eventually be applied to a CPT Code level. These coverage types are displayed on the matrix for each medical group so staff can determine which CPT Codes require authorization. The Authorization Flag column will specify which coverage types require review.

| Matrix Name | Effective Date | Revision Date |
|---|---|---|
| ADP - 2013 Matrix - Alliance Desert Physicians | 1/1/2013 | 2/18/2013 |

**Disposition Legend**

A - Capitated service, authorization required

EX - Exclude

FFS - Fee for service, authorization required

IN - Include

TBD - To be determined

X - Capitated service, direct referral (no authorization required)

| EXAM | Body Part | General Comments | CPT | Group Comments | ADP |
|---|---|---|---|---|---|
| **Computed Tomography** | | | | | |
| CT HEAD W/O CONTRAST | Head | | 70450 | | A |
| CT HEAD WITH CONTRAST | Head | | 70460 | | A |
| CT HEAD W/O AND W/CONTRAST | Head | | 70470 | | A |
| CT ORBIT W/O CONTRAST | Head | | 70480 | | A |
| CT ORBIT WITH CONTRAST | Head | | 70481 | | A |
| CT ORBIT WITH&WITHOUT CON | Head | | 70482 | | A |
| CT FACIAL BONES W/O CONTRAST | Head | | 70486 | | A |

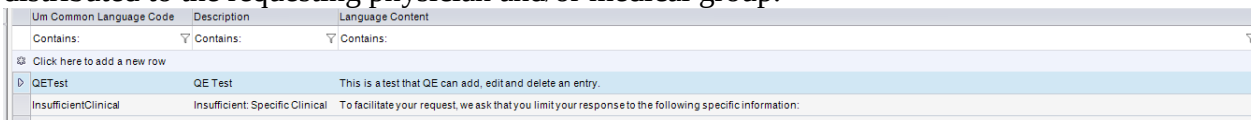
**Figure 5.82 – Matrix showing coverage type legend**

The lookup table access is controlled by a new access string titled **"Config.LookupEditor.UMCoverage"** with a default of none.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Utilization Management – Support UM Common Language

A lookup called UMCommonLanguage will hold the list of common language items which will be accessed by the utilization management staff when performing reviews. Each common language item stores the content which will appear in the external comments which will be distributed to the requesting physician and/or medical group.



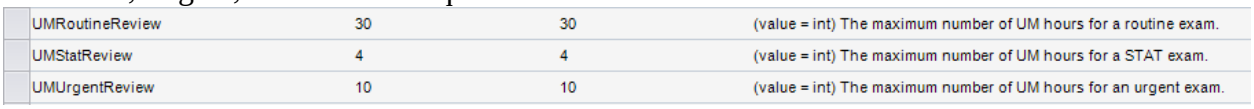
| Um Common Language Code | Description | Language Content |
|---|---|---|
| Contains: | Contains: | Contains: |
| Click here to add a new row | | |
| QETest | QE Test | This is a test that QE can add, edit and delete an entry. |
| InsufficientClinical | Insufficient: Specific Clinical | To facilitate your request, we ask that you limit your response to the following specific information: |

**Figure 5.83 – UM Common Language lookup**

Access to this lookup table is controlled by access string **"Config.LookupEditor.UMCommonLanguage"** with a default of none.

## Utilization Management – Support Default Review Times

A key component of Utilization Management workflow is review time. This is the amount of time (in hours) that it took the UM team to review and finalize the request. Although times can differ based on the contract with the Medical Group, the system is required to have default times for STAT, Urgent, and Routine requests.



| | | | |
|---|---|---|---|
| UMRoutineReview | 30 | 30 | (value = int) The maximum number of UM hours for a routine exam. |
| UMStatReview | 4 | 4 | (value = int) The maximum number of UM hours for a STAT exam. |
| UMUrgentReview | 10 | 10 | (value = int) The maximum number of UM hours for an urgent exam. |

**Figure 5.84 – system configuration settings**

Three new system configuration settings have been added. These values will be used when calculating review time in future releases. Based on a 10 hour workday

- **"UMRoutineReview"** that has a default of 30 hours
- **"UMStatReview"** that has a default of 4 hours
- **"UMUrgentReview"** that has a default of 10 hours

The Medical Group lookup table has 3 columns that will allow for an override to the above system configuration settings to allow for contracts or arrangement differences with the groups.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Utilization Management – Support UM Status

Two lookup tables called UMStatus and UMResolution have been added that are under the Insurance grouping in the lookup table editor. UMStatus contains a list of UM Statuses. This lookup table's access is controlled by the access string "Config.LookupEditor.UMStatus" with a default of none.

| | Um Status Code | Description | Form Content | Final Flag | Display Order |
|---|---|---|---|---|---|
| | Contains: | Contains: | Contains: | Contains: | Equals: |
| | Click here to add a new row | | | | |
| ▷ | QE_Test | QE Test | We're sorry your claim cannot be viewed, processed, approved, declined or rejected at this time. We are doing the... | N | 1 |
| | Approved | Approved | | Y | 11 |

**Figure 5.85 – UMStatus lookup table**

The UMResolution look up is controlled by the access string "Config.LookupEditor.UMResolution"

| | Um Resolution Code | Description | Form Content | Um Status Code | Display C |
|---|---|---|---|---|---|
| | Contains: | Contains: | Contains: | Contains: | Equals: |
| | Click here to add a new row | | | | |
| ▷ | QE_Approved | QE Approved | Please contact QE Test Department for approval process. | QE_Test (QE Test) | 1 |
| | QE_Declined | QE Declined | We're sorry your claim cannot be declined at this time. Please try agai... | QE_Test (QE Test) | 1 |
| | DirectReferral | Direct Referral | No prior review necessary for the requested exam procedure. Please | ReturnedNotInitiat... | 1 |

**Figure 5.86 – UMResolution lookup table**

Each UMResolution is mapped to one UMStatus. A field called Form Content contains the text that will be displayed on the authorization letter when that status and resolution is selected.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Utilization Management – Authorization Rules for Medical Groups

From medical group lookup table the user can create the authorization rules. Each medical group has a set of authorization rules which is available on the right-click context menu. Typically authorization rules will be created by CPT Code and not procedure code or modality type. The rules are access from the context menu.

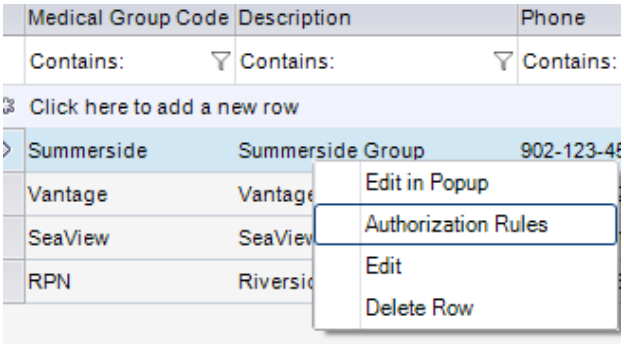



**Figure 5.87 – Accessing Authorization Rules**

The user must select one or more CPT Codes. The user must then specify if this rule is for all practices or a specific one (Matrices will usually apply to all practices however; there are some medical groups where the authorization rules can vary across geographical areas). A coverage type must be specified. These are based on the UM Coverage lookup values.

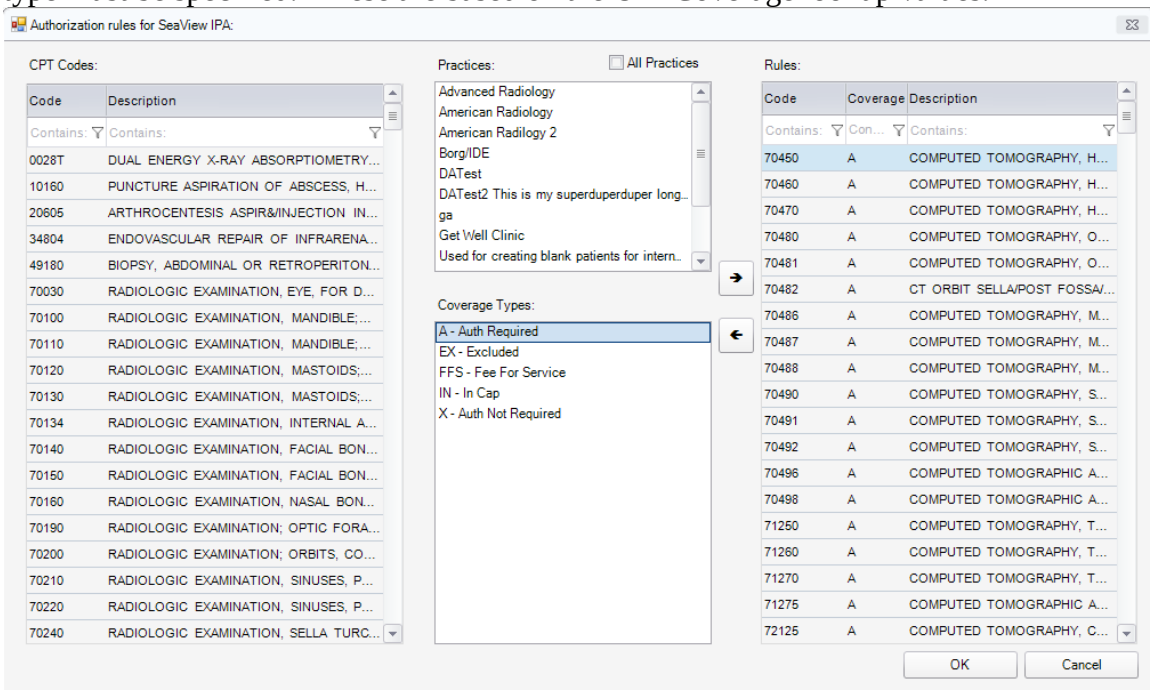
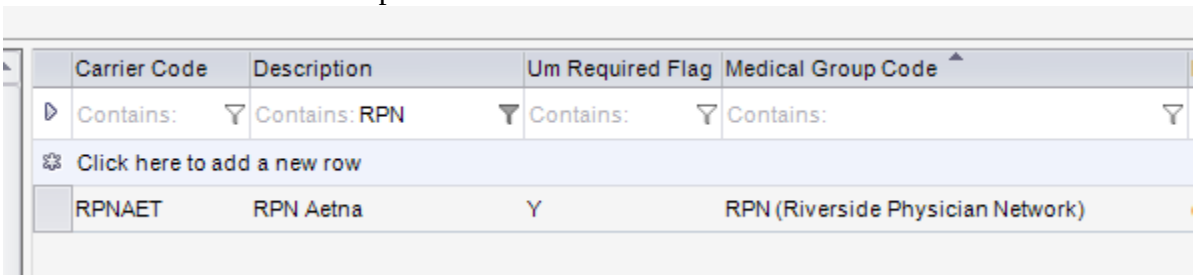



**Figure 5.88 – Authorization rules form**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Utilization Management – Support Capitated Carriers

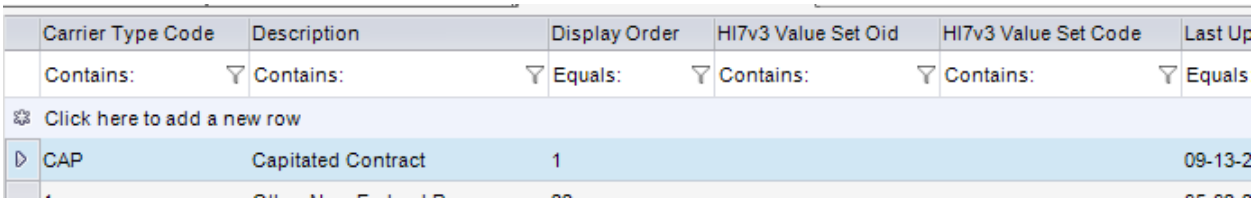
A new column has been added to the Carrier lookup tabled titled UM Required Flag. All current rows in this the Carrier lookup will have a default of N.



| Carrier Code | Description | Um Required Flag | Medical Group Code |
|---|---|---|---|
| Contains: | Contains: RPN | Contains: | Contains: |
| Click here to add a new row | | | |
| RPNAET | RPN Aetna | Y | RPN (Riverside Physician Network) |

**Figure 5.89 – Carrier showing UM required flag**

In addition, the Carrier Type lookup table has a new Carrier Type of CAP has been added to further categorise the carriers requiring utilization review.



| Carrier Type Code | Description | Display Order | HI7v3 Value Set Oid | HI7v3 Value Set Code | Last Up |
|---|---|---|---|---|---|
| Contains: | Contains: | Equals: | Contains: | Contains: | Equals |
| Click here to add a new row | | | | | |
| CAP | Capitated Contract | 1 | | | 09-13-2 |

**Figure 5.90 – New carrier type code**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Utilization Management – Mapping Carriers to Medical Groups

From within the Carrier lookup table there is a new column titled Medical Group Code. If the "UM Required Flag" is enabled, then the Medical Group Code field is required. The user will be prompted with "medical group is required for utilization management" if the Medical Group Code is not specified and the UM Required Flag is enabled.

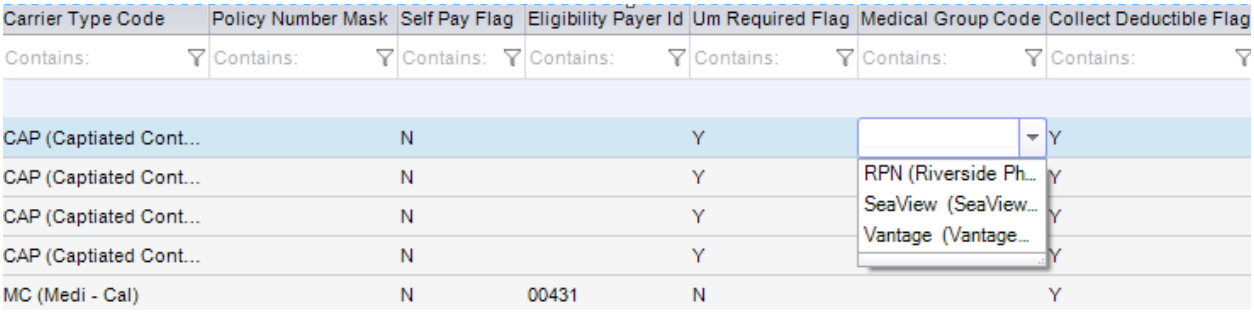



**Figure 5.91 – Specifying Medical Group Code for Carrier**

## Utilization Management – Addition of Utilization Management User Group

This can be done via configuration. A new user group called "Utilization Management" was added to the UserGroup lookup. All utilization review access strings will be mapped to this group.

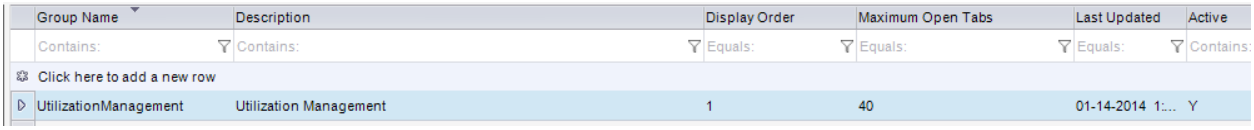



**Figure 5.92 – User Group with new group of UtilizationManagement**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Meaningful Use – Site Level MU Override

Currently the MU Required flag is set at the Practice level the sites that fall under that practice will also be MU Required. It has been requested that we allow for a site to disengage from collecting MU data. For this we have added an MU Required check box at the site level so an Administrator can remove the site. This however doesn't work the opposite way. You can't have a site that MU Required when the practice is not.

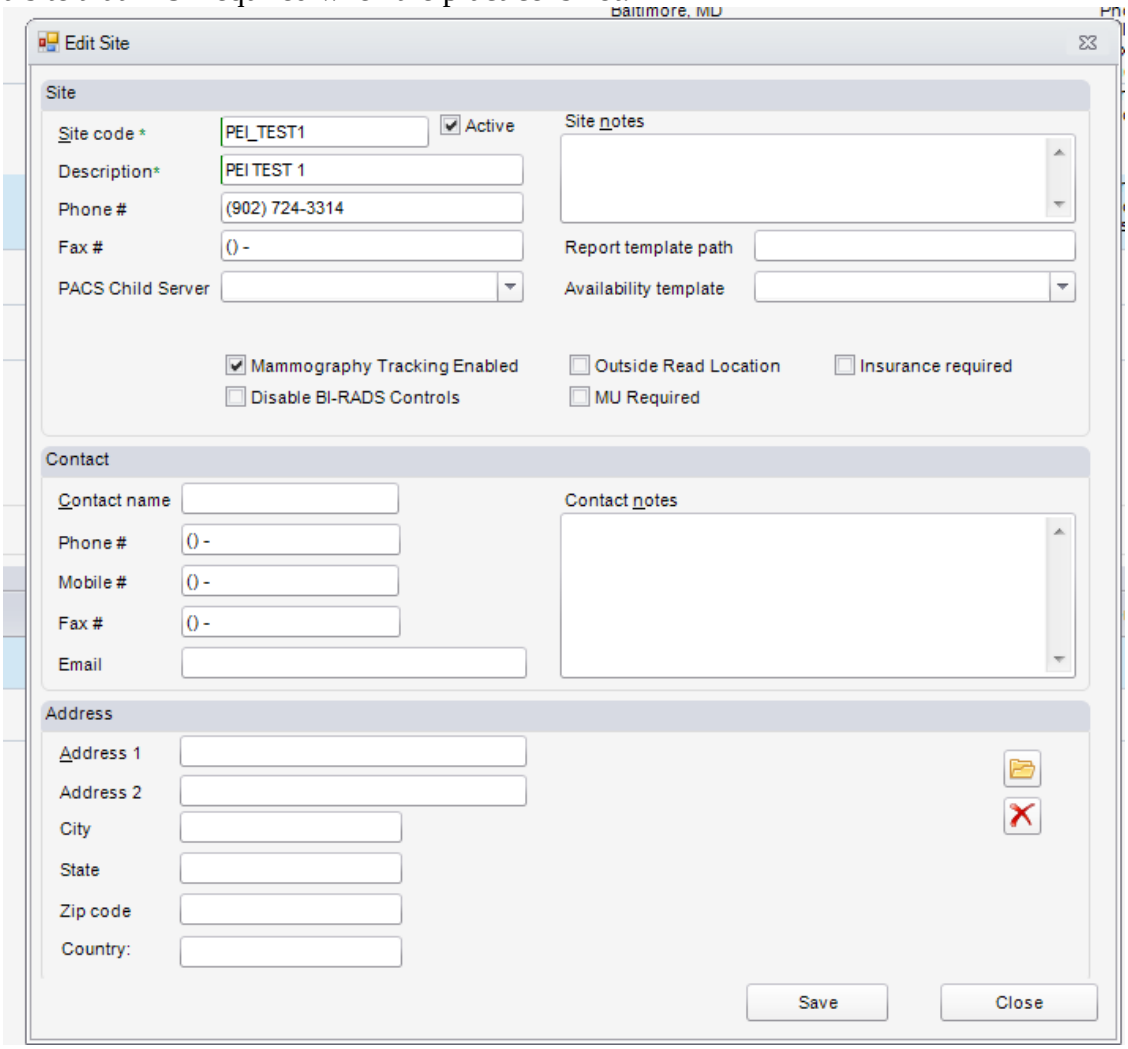



**Figure 5.93 – Site with MU Required flag**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Meaningful Use – Direct Messaging

Worked with RADAR, to create an API call to secure exchange (Direct Message) email provider.
During the configuration of each practice a radar login information will need to be provided, it is intended currently for each box to have a RADAR account, with the same info on every practice, but will allow for a practice to have their own RADAR account and direct message address.
The RADAR account is the same account that would be used for Appointment Reminder and CTRM.

Direct Email Address can be requested through RADAR and Secure exchange, which will have to be verified.

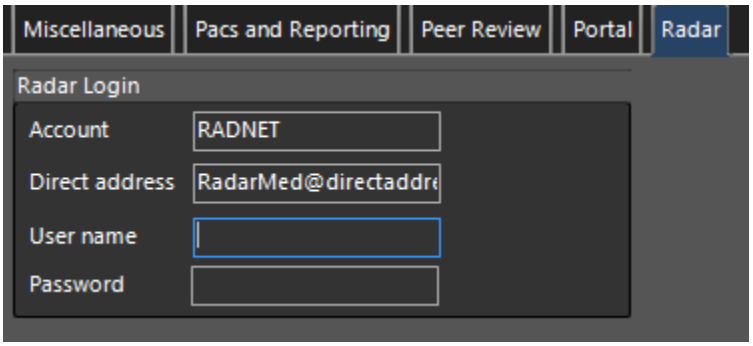



**Figure 5.94 – Practice Radar tab**

This Direct message address and RADAR login is used for sending messages from the Patient Portal as well as sending and receiving Direct message from RIS. When sending a Message the system will first check for a provided value in the practice specific "Direct address" (which does need to be a qualified direct message address), if there is no value specified then we will look at the configuration variable "DirectMessageFromAddress".

### Sending RIS Direct Messages

From within the RIS you are able to send a direct message that will contain the CCDA document by means of opening a patients study through View/Edit, under the MU tab, the process to view the CCDA document will also contain the transmit process for the CCDA document

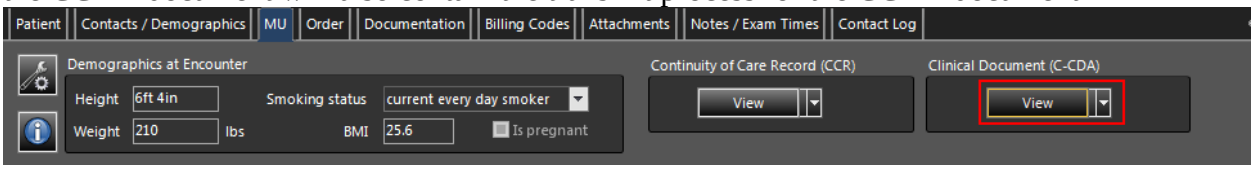



**Figure 5.95 – MU tab Clincal Document access**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

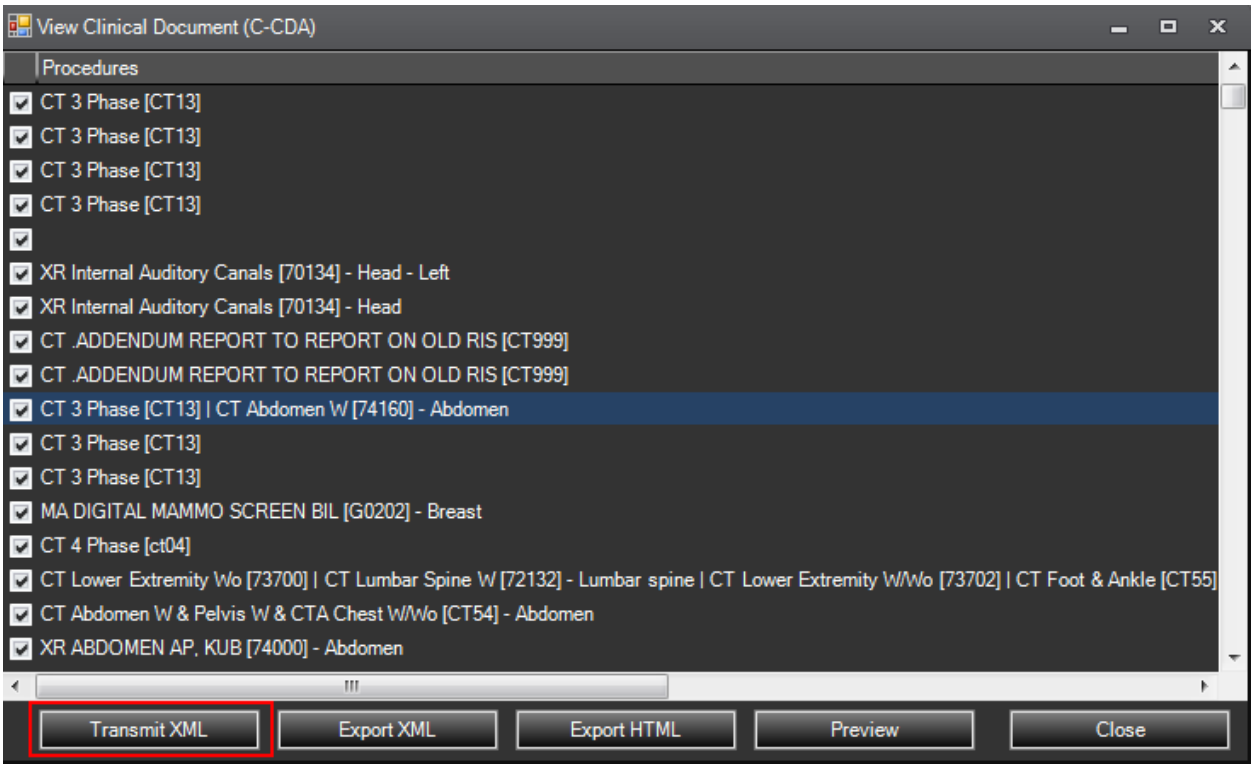



**Figure 5.96 – View Clinical Document**

Transmitting (sending) the CCDA document will allow two version of the document HTML and system(xml) format, where the user will be required to provide a valid Direct message address.

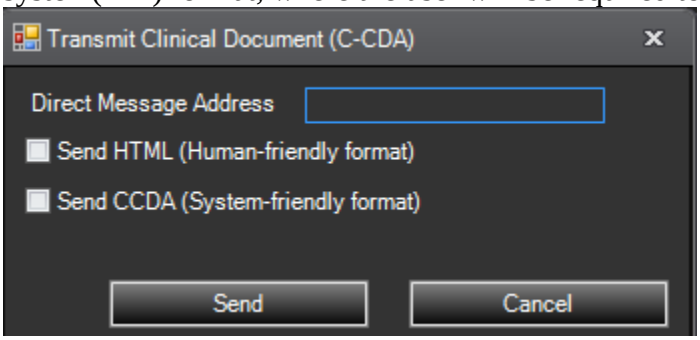



**Figure 5.97 – Transmit Clinical Document**

### Sending Portal Direct Messages

From within the Patient portal, the patient has the ability to send there CCDA document through Direct Message to any desired Direct Message address. When the user has successfully logged

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

into the portal, when there CCDA document is available, the tab will be visible, opening this tab will enable the send button.

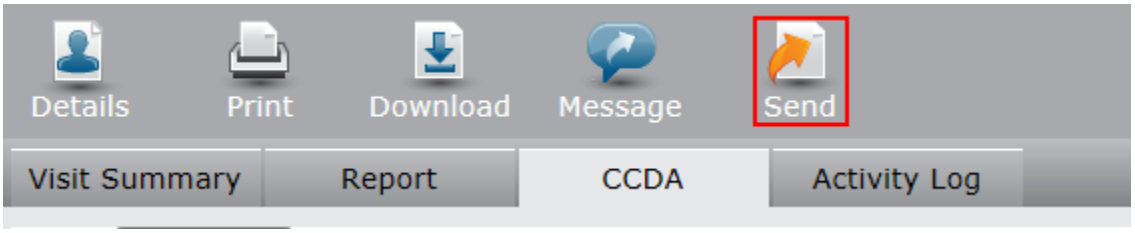



**Figure 5.99 – Sending via Patient Portal**

Click on this will allow for a similar process to the RIS transmit process, where the patient will be prompted for a direct message address, the patient will be required to confirm the address, and then be able to choose what version of the document they would like to send.

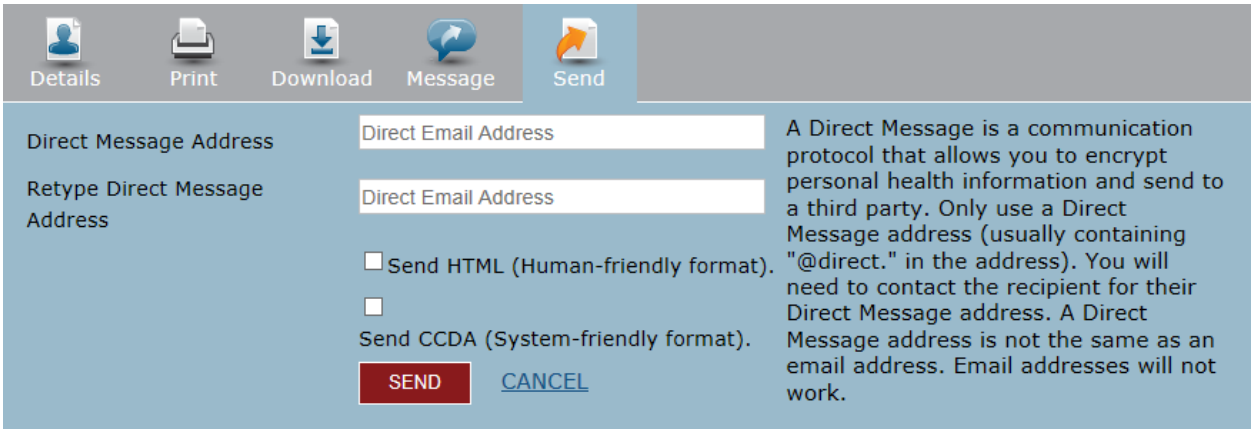



**Figure 5.100 – Entering sender information**

### Receiving Direct Messages

RIS is the only location that is able to receive messages (outside the Direct message provider controlled tools).

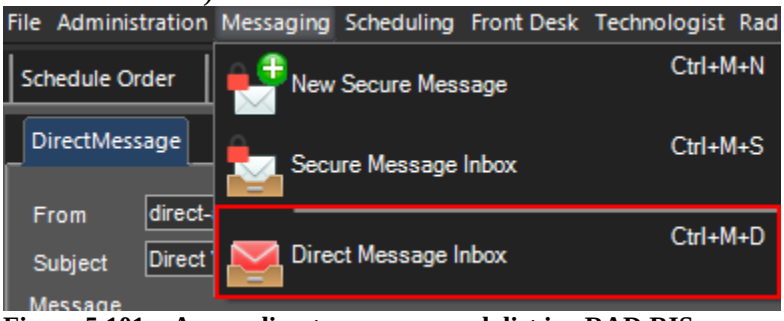



**Figure 5.101 – Access direct messages work list in eRAD RIS**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

From the direct message inbox will list all non-archived messages that for the practices Direct message address.

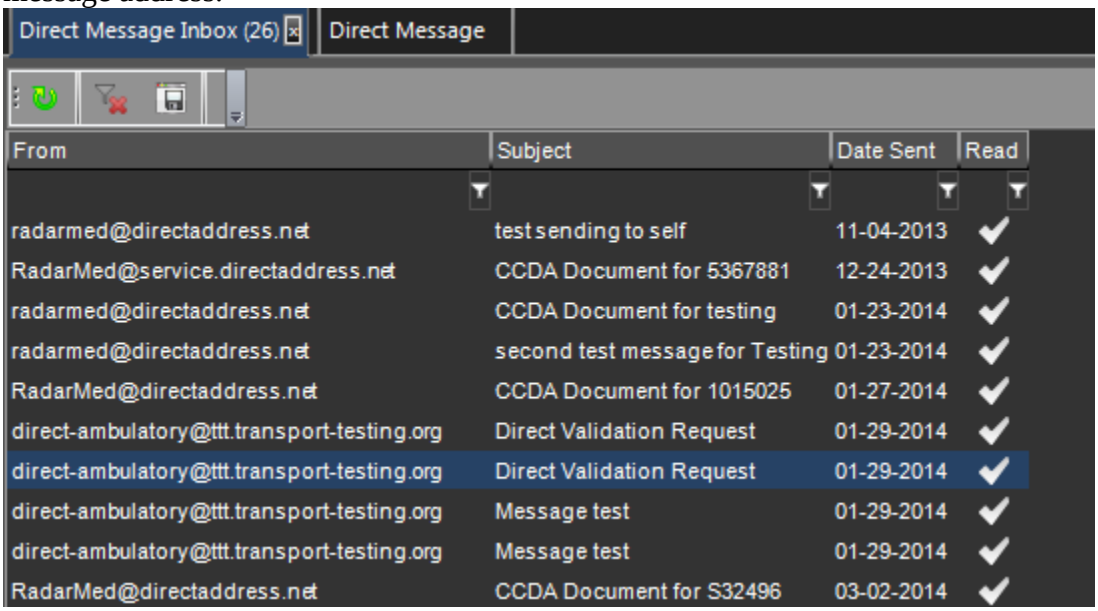



**Figure 5.102 – Direct Message inbox**

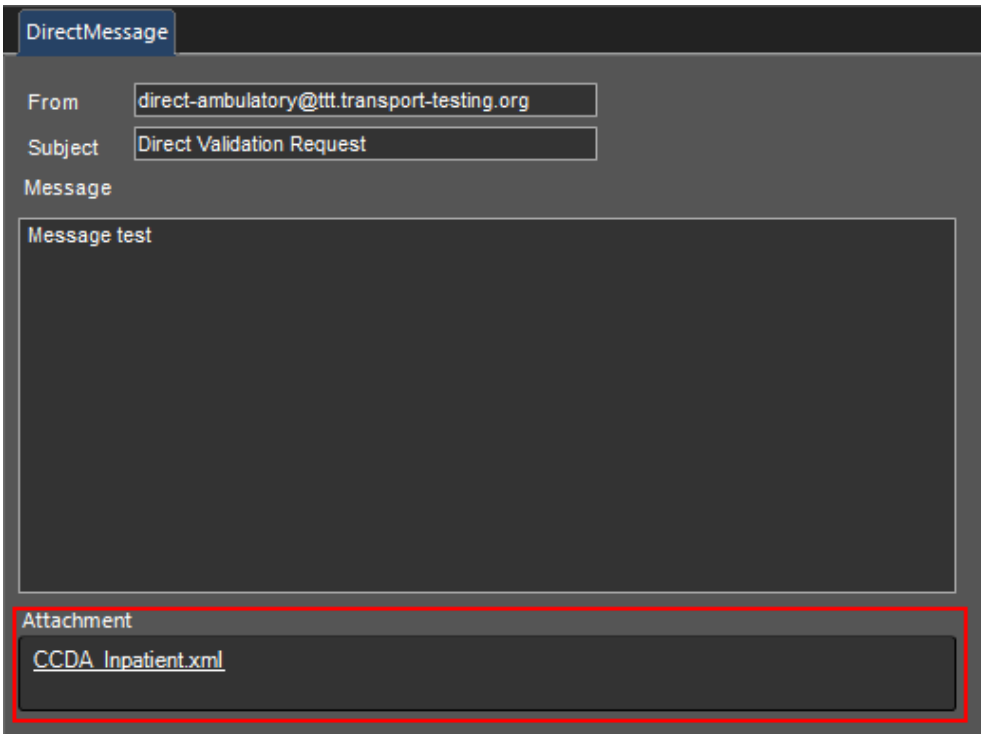



**Figure 5.103 – Accessing direct message**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

Depending of the file type will dictate on how the attachment will handled, if the file is an xml or html we will try to display the attachment, otherwise we will just prompt the user to download the file.

When display the attachment, if it is an xml document type, and we detect that it is a CCDA document we will also provide the user with the ability to link the information from the CCFA document to a desired patient;

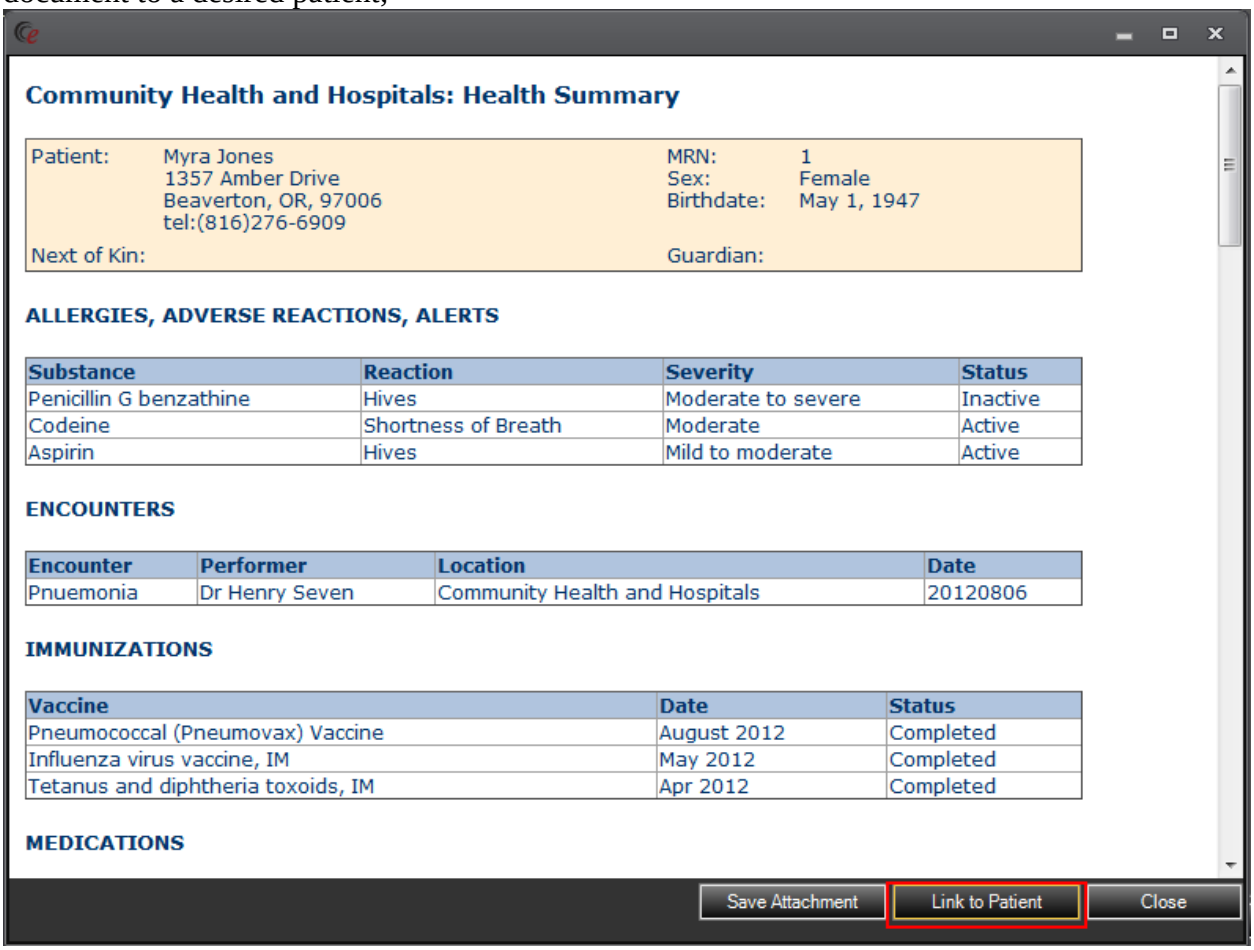



**Figure 5.104 – Viewing CCDA document from link in direct message**

Clicking the link to patient, we will do an initial patient search based on the information we are able to extract from the document, the user is able to modify the search criteria if need be.

Upon selecting a patient, all information from the CCDA document will be merged into the desired patient, and a new patient tab will be added.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

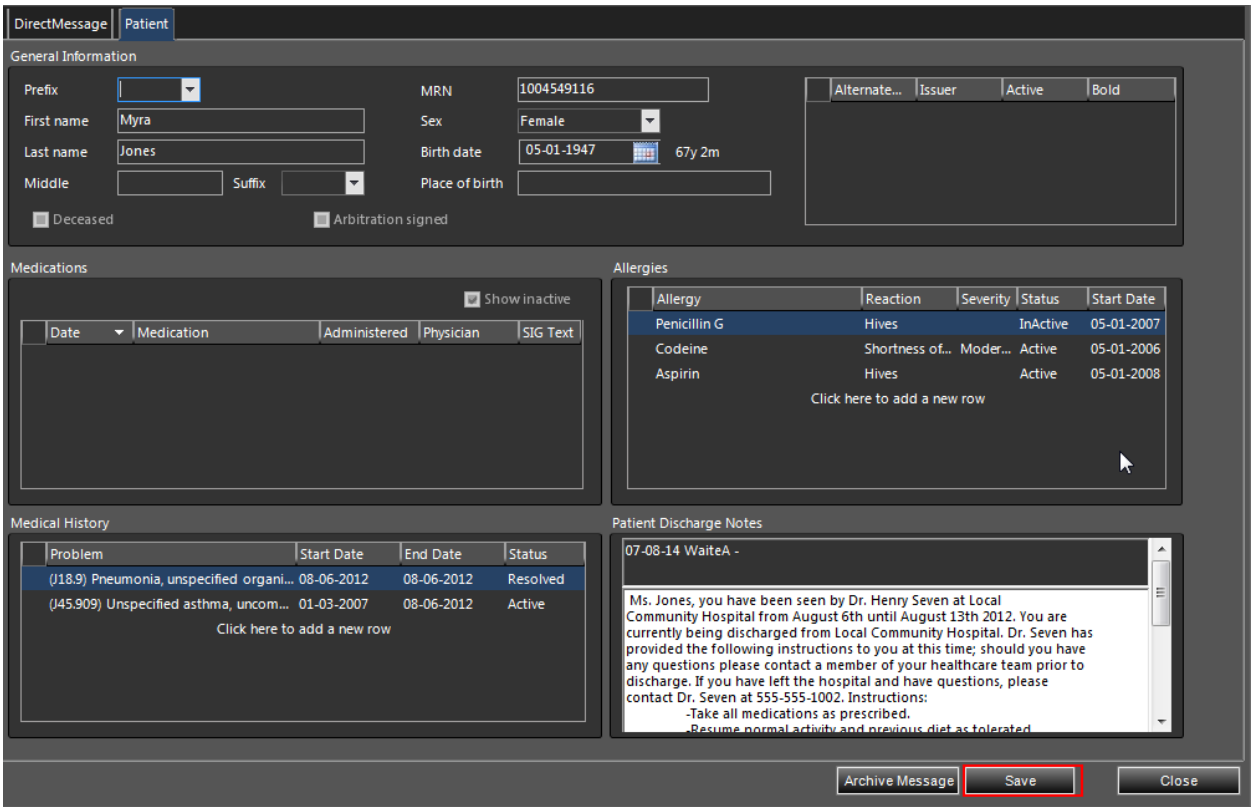



**Figure 5.105 – Patient tab created**

Once all information is imported and confirmed saving will save all imported data. Clicking the archive message is used for once a messages has been completed with, it will remove the message from the direct message inbox WL.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Meaningful Use – Additional Options for MU Fields

On the patient tab the field for Race type, Ethic origin and Language now have a value of "Declined to Specify".

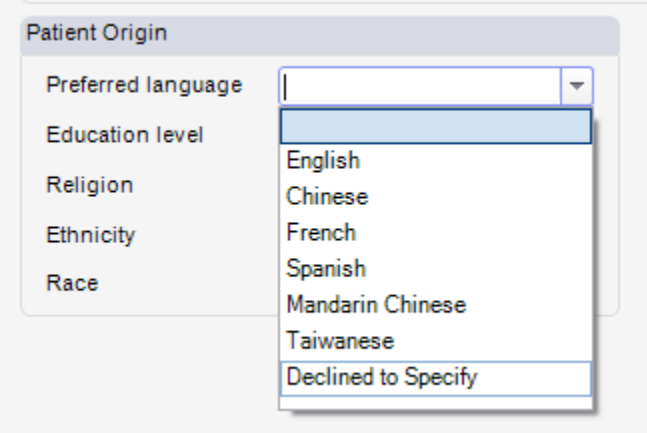



**Figure 5.106 – Declined to specify option**

The Smoking status field on the MU tab also has 2 additional options of Heavy tobacco smoker and Light tobacco smoker.

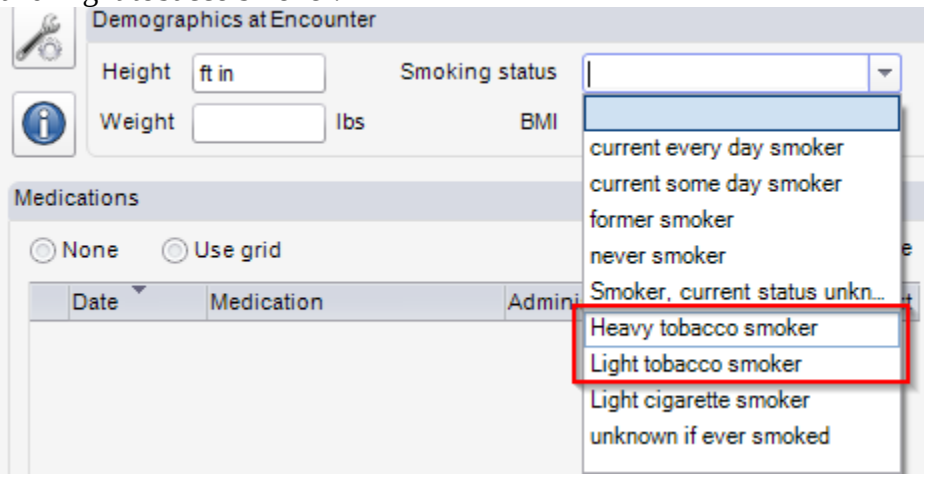



**Figure 5.107 – New smoking status options**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# Meaningful Use – Additional Medications for Quick Add Edit Window

On the MU quick Add/Edit form we modified the code to add the two requested medications (Glycomet and Kombiglzexr).

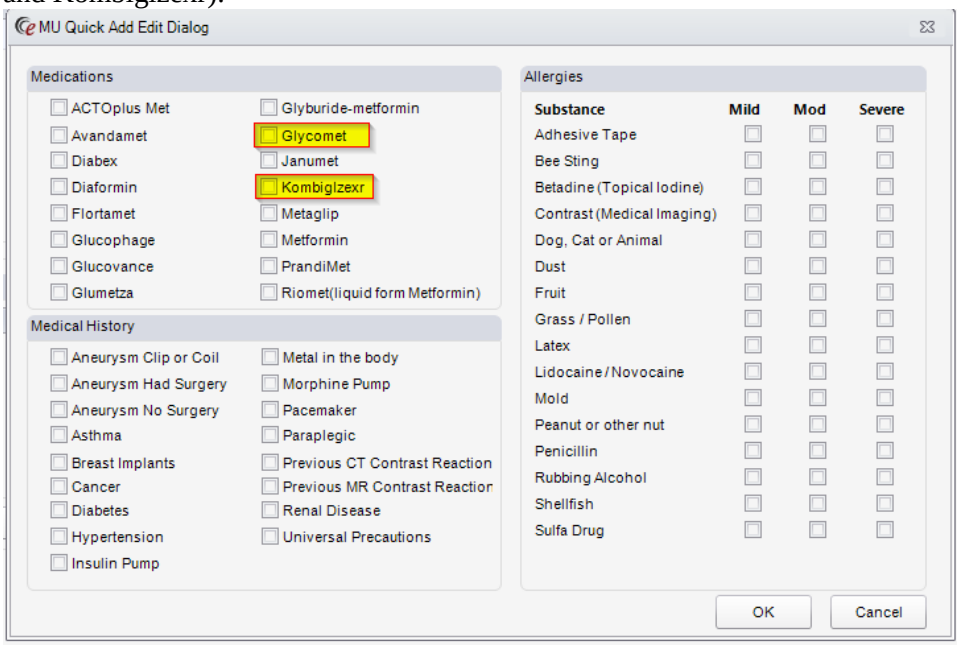



**Figure 5.108 – MU Quick Add Edit window**

Note, in order for these to show enabled on the mu quick add/edit form these two codes will have to be added to the Medication lookup table.

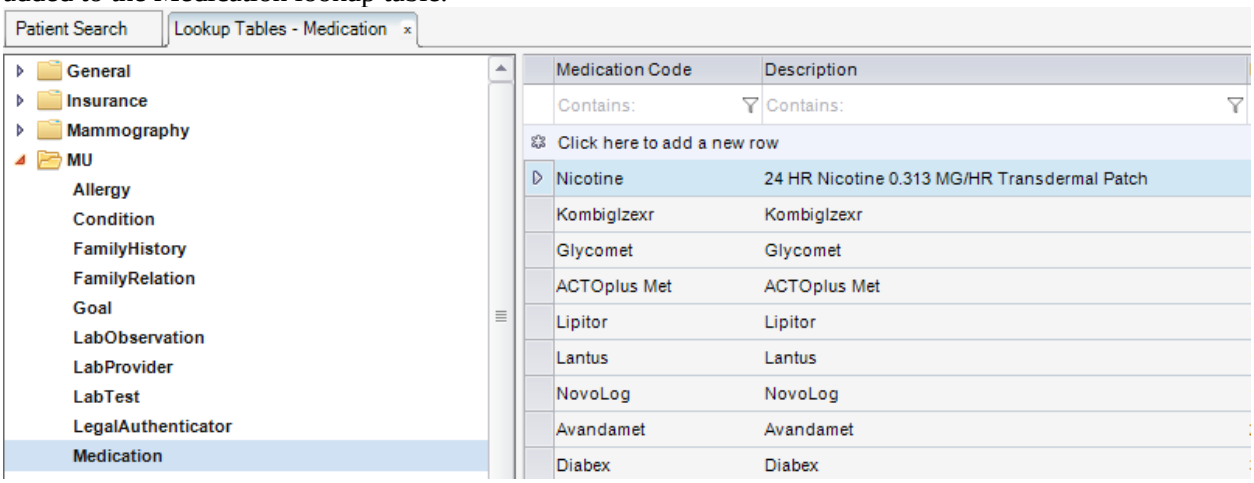



**Figure 5.109 – Medication lookup with new addtions**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Meaningful Use – Laboratory Tests and Values / Results

In order to incorporate MU2 laboratory test results we needed to modify the lab value framework and separated the lab order from the lab results. The screen shot below shows the newly designed form. The User has the ability to add lab order information in the top part of the form and the results will be completed in the results grid. A new button was added that allows the user the ability to add child labs to the lab entry.

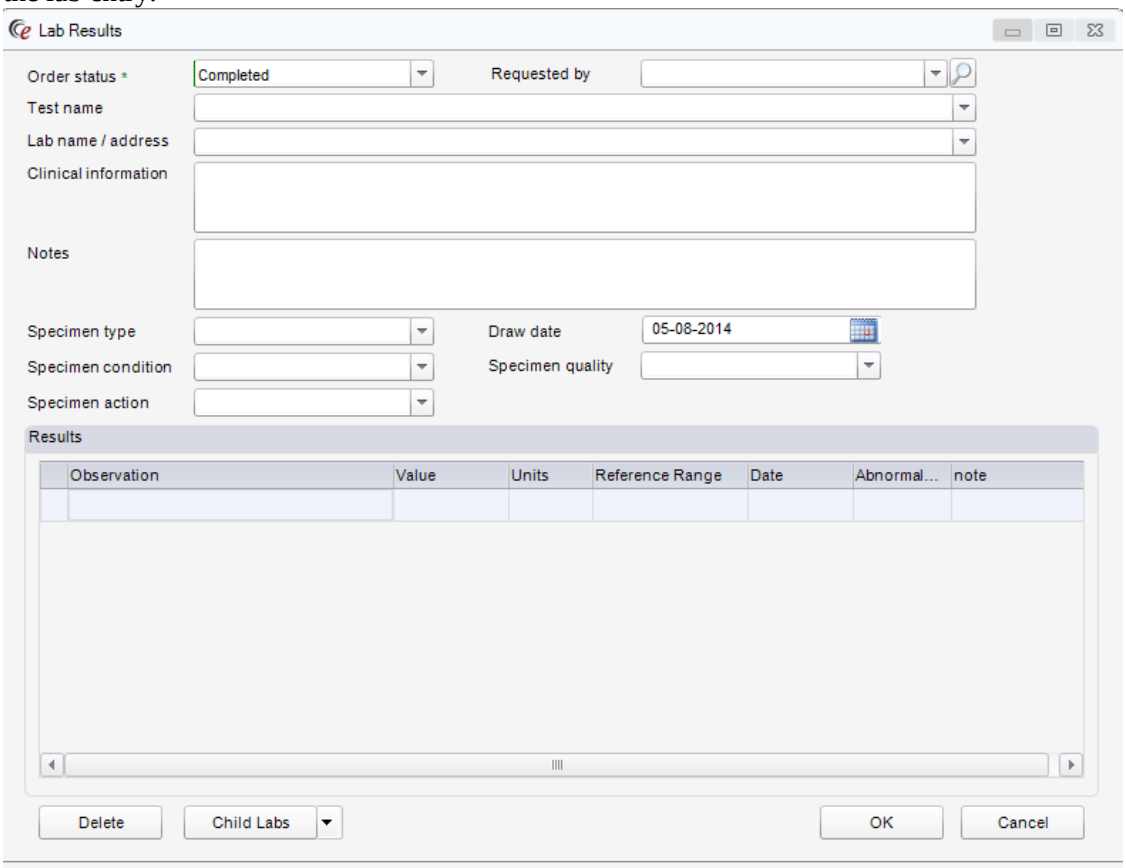



**Figure 5.110 – Lab results window from MU tab**

We created a script (Lab_value_changes.sql) to the build process to migrate over MU values into the new lab framework.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Meaningful Use – Office Visit

The Billing Code table has a new column titled MU Office Visit Flag. It will be used by the automated measures management report when applicable to determine if the mu measure is an office visit and calculate the numerator and denominator based on the performed procedure being an office visit. By default the value is set to N.

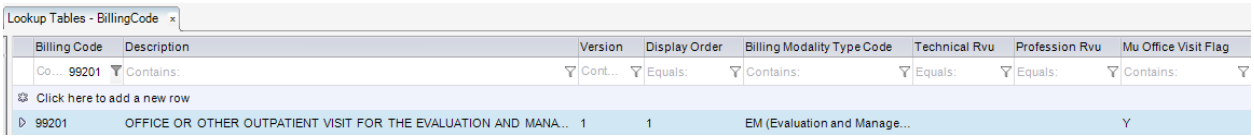



**Figure 5.111 – Billing code table**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Meaningful Use – Clinical Summaries

Added to the MU tab is a new section called Clinical Documentation (C-CDA). The button contains 2 new options of "View" which will view all exams for the patient and "View Current Exam" which will only view the current exam. Normally for Clinical Summary we will select "View Current Exam" to generate the CCDA/human readable format since we are mainly concerned about the current visit.

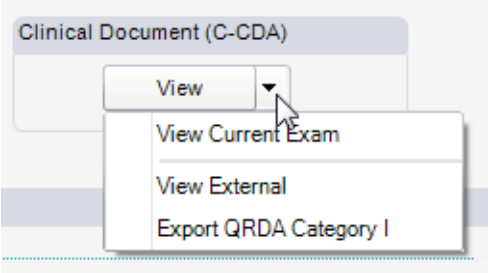



**Figure 5.112 – New options for C-CDA button**

Clicking the View Current Exam will launch a new dialog which will allow the user the ability to customize data. The user will have the option to removed sections for example uncheck Medications will remove medications from both the CCDA and human readable. The user also will have the ability to uncheck specific items they wish not to appear in either the CCDA or human readable format. To generate the CCDA the file format the user will click the Export XML, while the human readable is generated by clicking the Export HTML.

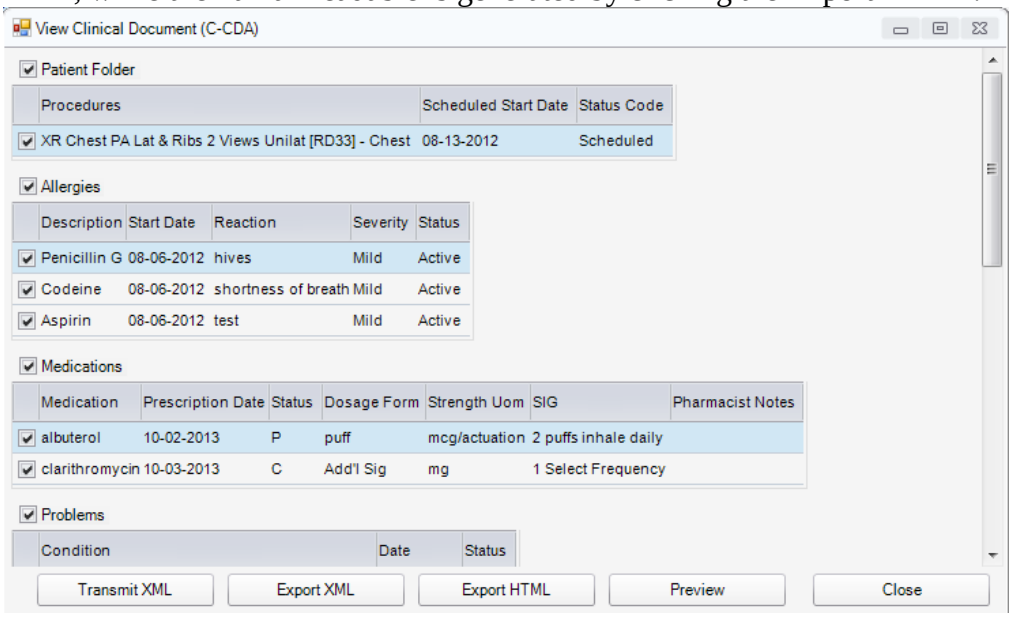



**Figure 5.113 – View Clinical Document (C-CDA)**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Meaningful Use – Data Portability

The data portability feature is really the ability to export all CCDA patient records and therefore this story will be referred to as the MUExportAll feature.

When exported the results will be written to the location specified by the system configuration setting **"MUExportAllPath".** This setting doesn't have a default value. When complete the file will be updated with the date it was completed. If an error occurs the error details are captured.

The UI's Meaningful use form under "Administration / Meaningful Use" shows the progress of the current or previous export operation. It shows how many records have been exported and how many in total are to be processed. It also allows the user to start a new export and gives them the option to suspend or resume the latest export.

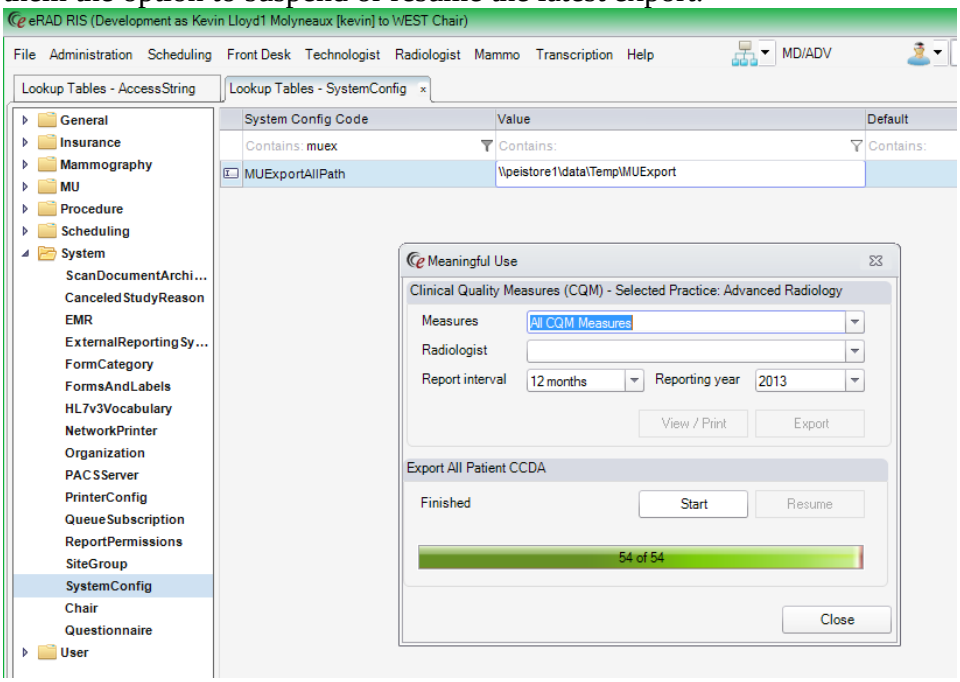



**Figure 5.114 – System config setting and Meaningful Use window display progress**

When clicking the start button the user is asked to confirm the export operations.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

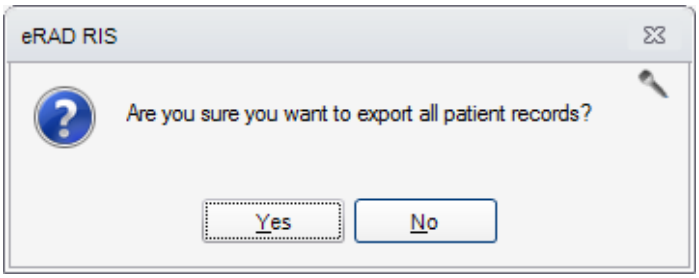



**Figure 5.115 – Confirmatory message**

Choosing Yes will export **all patient** records to the MUExportPath and will overwrite any pre-existing exports at that location. The files are written to the MUExportPath in the format

*Birthyear\birthmonth\birthday\<patient_id>_<issuer_of_id>_<first_name>_<last_name>.xml*

If there is less than 1 GB available at the MUExportPath the status of the export will change to "InsufficientSpace" and after space is made available the user can restart the process by clicking the "Resume" button.

The export progress is completely asynchronous and is executed on the server. There is only one export processing thread per server instances, which on our test instance was exporting about 1 million patients in a week. If you need to process 2 million in a week all you have to do is scale the solution by adding additional WS instances.

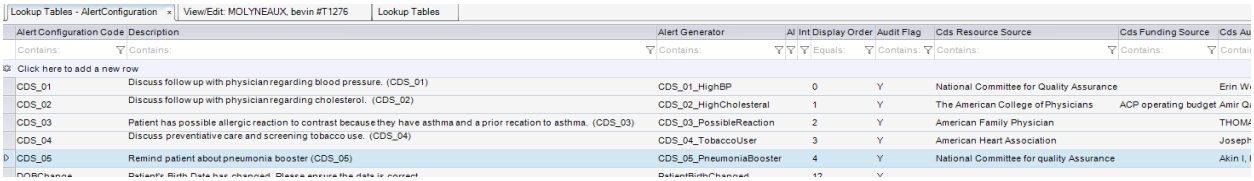
Access to this feature is control via the access string **"MU.ExportAll"** with a default of none.

When and export is started, the Start button then becomes the Stop button. If the Stop button is selected the current job will be put in a status of stopped, which in turn will change the stop button to start again. Stopping or suspended the job will terminate the existing export thread (which will take a few seconds to terminate). The count will be refreshed when you decide to Start the export process again which is only available when in stopped state.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Meaningful Use – Alerts and Clinical Decision Support

The MU alerts we have provided to meet these MU requirements are as follows:
• MRI65PlusHeartDiseaseLipitorAndLDL100Plus
• **LabOrderWithEmptyValue**
• **HasAllergy** (*allergy_code, contrast_procedure_flag)
• **HasProblem** (*indication_code, contrast_procedure_flag)
• **OnMedication** (*drug_name, contrast_procedure_flag)
• **ProcedureXAndHighBP** (procedure_code, BP) // we will allow * from procedure_code
• **AgeGreaterThan** (age, contrast_procedure_flag)


Lookup Tables - AlertConfiguration | View/Edit: MOLYNEAUX, bevin #T1276 | Lookup Tables

| Alert Configuration Code | Description | Alert Generator | Al | Int Display Order | Audit Flag | Cds Resource Source | Cds Funding Source | Cds Au |
|---|---|---|---|---|---|---|---|---|
| Contains: | Contains: | Contains: | | Equals: | Contains: | Contains: | Contains: | Contai |
| Click here to add a new row | | | | | | | | |
| CDS_01 | Discuss follow up with physician regarding blood pressure. (CDS_01) | CDS_01_HighBP | | 0 | Y | National Committee for Quality Assurance | | Erin W |
| CDS_02 | Discuss follow up with physician regarding cholesterol. (CDS_02) | CDS_02_HighCholesteral | | 1 | Y | The American College of Physicians | ACP operating budget | Amir Q |
| CDS_03 | Patient has possible allergic reaction to contrast because they have asthma and a prior recation to asthma. (CDS_03) | CDS_03_PossibleReaction | | 2 | Y | American Family Physician | | THOM |
| CDS_04 | Discuss preventiative care and screening tobacco use. (CDS_04) | CDS_04_TobaccoUser | | 3 | Y | American Heart Association | | Joseph |
| CDS_05 | Remind patient about pneumonia booster (CDS_05) | CDS_05_PneumoniaBooster | | 4 | Y | National Committee for quality Assurance | | Akin I, |
| DOBChange | Patient's Birth Date has changed. Please ensure the date is correct | PatientBirthChanged | | 12 | Y | | | |

**Figure 5.116 – Alert configuration table**

**contrast_procedure_flag** is either a Y or N value. if Y, then the alert only fires if the procedure requires contrast. * are parameters that can be more than one separated by a comma.
To deal with **Clinical Decision Support** the alert text for several of these entries is customizable via the AlertConfiguration lookup table and supports links to external web sites via the a href syntax such as:

<a href='http://www.med.unc.edu/…'>Heart Disease</a>

With the above, when the user clicks on the "Heart Disease" link, the web page www.med.unc.edu will be displayed in a web browser form. The form will be model and when they close the form they will return to the RIS.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

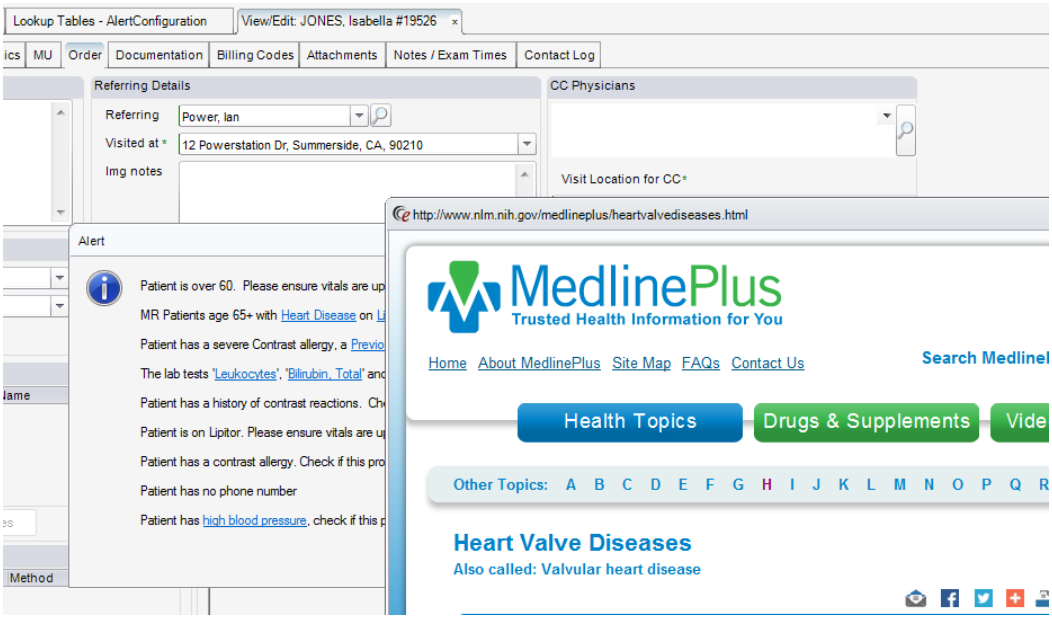



**Figure 5.117 – Clinical decision support**

If the LINK is prefixed with #MUProvidedEducation# and the patient hasn't been provided with CDS information for the current visit, the user will get prompted when they close the web info window with a dialog such as:

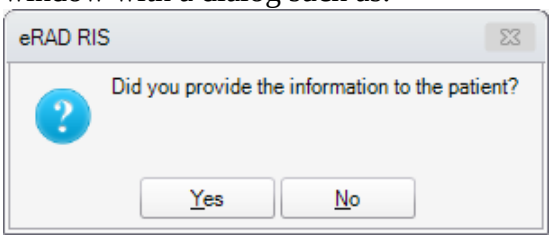



**Figure 5.118 – Confirmatory messge for CDS**

If they choose Yes, it will be marked as "provided educational resources" for the visit.

Here is another example of an alert description, which is set to provide CDS information and record if we provided education resources to the patient:

Patient has <a href='#MUProvidedEducation#https://www.med.unc.edu/im/patients/Resources/high-blood-pressure'>high blood pressure</a>, check if this procedure should be done in an imaging center.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

Then in our first round of MU certification testing we realized we needed Clinical Resource Sourced rules for CDS such as the American Family Physician backed rules for our MU alerts. Based on this we produced the following MU rules:

#1 Alert patient to follow up with physician regarding BP

1) Condition that triggers the alert
   - High BP age 18-85
   - Noted hypertension
   - BP is over 140/90
2) The Clinical resource source
   - National Committee for Quality Assurance
3) The funding source
4) The author of the CDS
   - **Erin Weireter,** Released January 17,2012
5) The link to the clinical resource
   - http://www.qualityforum.org/News_And_Resources/Press_Releases/2012/NQF_Endorses_Cardiovascular_Measures.aspx

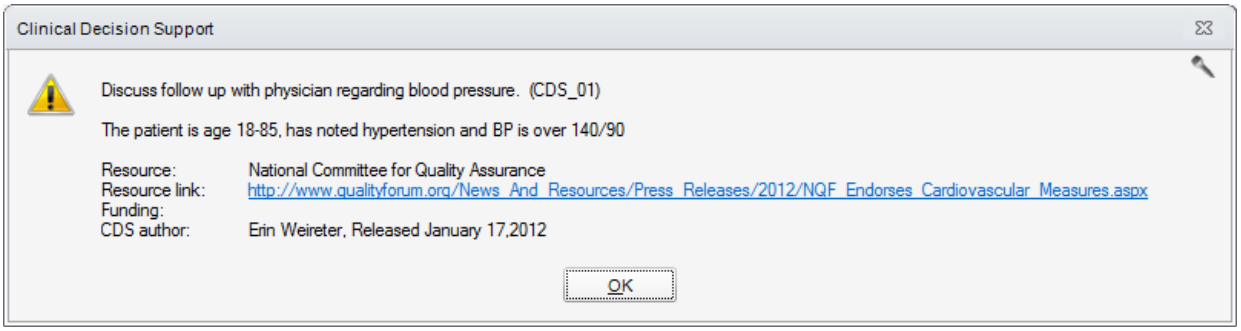



**Figure 5.119 – Alert 1**

#2 Alert patient to follow up with physician regarding cholesterol

1) Conditions that triggers the alert
   - Patient over 65
   - On Lipitor
   - Cholesterol reading over 100
2) The Clinical resource source
   - The American College of Physicians
3) The funding source

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

- Financial support for the Performance Measurement Committee comes exclusively from the ACP operating budget

4) The author of the CDS
   - Amir Qaseem, MD, Robert Centor, MD and Andrew Dunn, MD
5) The link to the clinical resource:

http://www.acponline.org/clinical_information/performance_measurement/ckd.htm

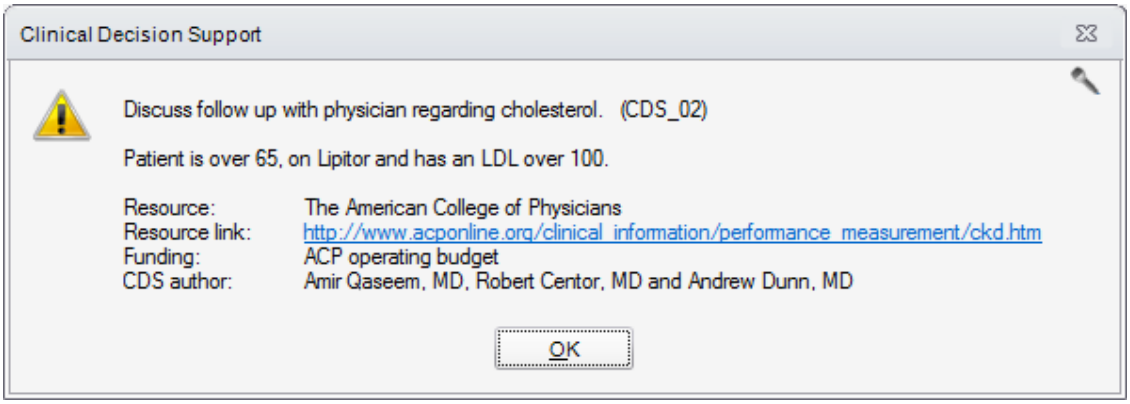



**Figure 5.120 – Alert 2**

#3 Alert patient as to possible allergic reaction to contrast

1) Conditions that triggers the alert
   a. Patient has asthma
   b. Prior reaction to contrast
2) The clinical Resource Source
   a. American Family Physician
3) Financial Source
   a. n/a
4) The author of the CDS
   a. THOMAS G. MADDOX, M.D.,
5) The link to the clinical resource:
   a. http://www.aafp.org/afp/2002/1001/p1229.html

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

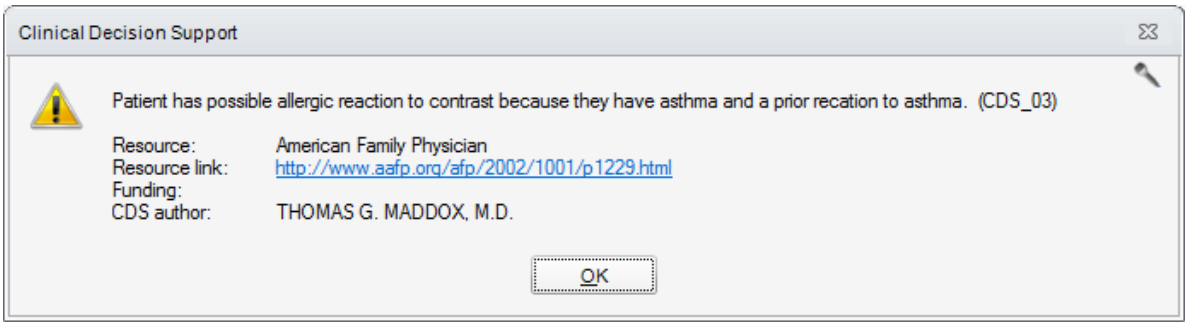



**Figure 5.121 – Alert 3**

#4 Discuss Preventative Care and Screening Tobacco Use

1) Conditions that triggers the alert
    a. Aneurysm /no surgery/smoker
    b. Men over 50 years old higher risk of infection
2) The Clinical Resource Source
    a. American Heart Association
3) Financial Source
    a. n/a
4) The Author of the CDS
    a. Joseph P. Broderick, M.D.,
5) The link to the clinical resource

www.sciencedaily.com/releases/2010/02/100226093207.htm

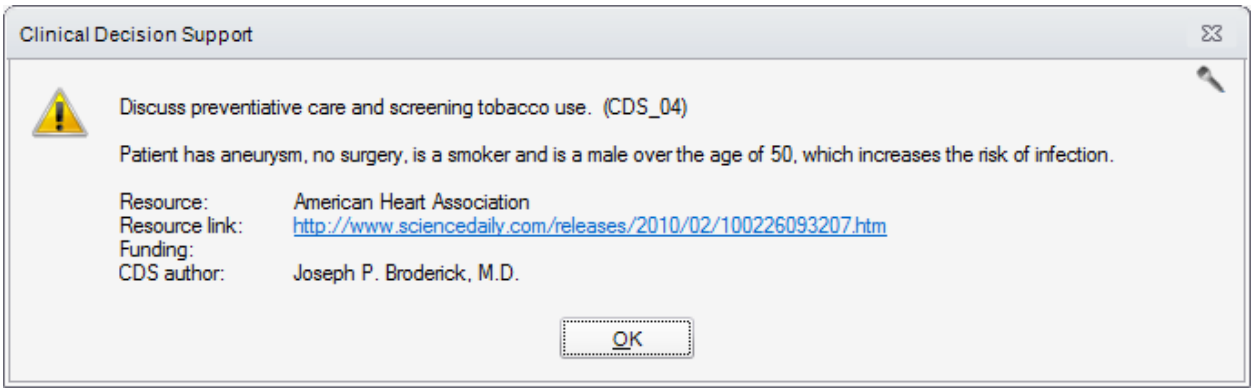



**Figure 5.122 – Alert 4**

#5 Patient Reminder for Pneumonia Booster if Criteria is met

1) Conditions that trigger alert:
    a. Pneumonia Vaccination (PPV23)
    b. Adults 65 and older
    c. Smoke, asthma, heart disease

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

2) The Clinical Resource Source
    a. National Committee for quality Assurance
3) Financial Resource
    a. n/a
4) The author of the CDS
    a. Akin l, Kaya M. Altinel S. & Durand L.
5) The link to the clinical resource
    a. *www.qualityforum.org/WorkArea/linkit.aspx?LinkIdentifier=id...*

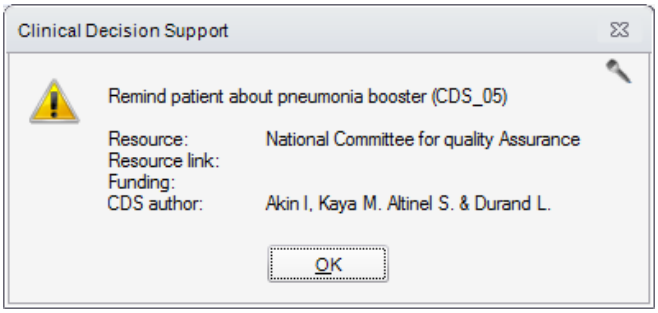



**Figure 5.123 – Alert 5**

**Configuration for new Alerts:**

Alert access strings have been created in the application and can be configured so users whose clinical role allows or does not allow them to see clinical decision support interventions rules. By default the alerts in the system will be set to **Full** access so they will fire for all users. In order to not fire the CDS rule an admin user that has the rights to configure user's rights would have to set the user group to NONE.

Alert #1 is controlled by the access string **"Alert.CDS_01_HighBP"**

Alert #2 is controlled by the access string **"Alert.CDS_02_HighCholesteral"**

Alert #3 is controlled by the access string **"Alert.CDS_03_PossibleReaction"**

Alert #4 is controlled by the access string **"Alert.CDS_04_TobaccoUser"**

Alert #5 is controlled by the access string **"Alert.CDS_05_PneumoniaBooster"**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Meaningful Use – Clinical Quality Measures

To resolve this feature we need to use the cypress tool [v2.4.1]. Radnet has selected the following CQMs measures for Meaningful Use stage 2. Documentation to generate QRDA Category I and III use **CDAR2_QRDA_DSTUR2_2012JUL.docx** which can be downloaded from HL7 Implementation website.

**Radnet 9 CQMs measures**

**CMS50** - Closing the referral loop: receipt of specialist report
**CMS65** - Hypertension: Improvement in blood pressure
**CMS69** - Preventive Care and Screening: Body Mass Index Screening and Follow-Up
**CMS117**- Childhood Immunization Status
**CMS125**- Breast Cancer Screening
**CMS138**- Preventive Care and Screening: Tobacco Use: Screening and Cessation Intervention
**CMS147**- Preventive Care and Screening: Influenza Immunization
**CMS155**- Weight Assessment and Counseling for Nutrition and Physical Activity for Children and Adolescents
**CMS165**- Controlling High Blood Pressure

1) Clinical Quality Measures – capture and export.
   - Retrieve the patient data from Cypress based on the chosen CQMs
     HTML FILE - G:\Documents\RADNet\rRis Product Requirements\Meaningful Use\2014\CQM\QRDA\Samples\NewFolks
   - Create the QRDA Category I output data for evaluation.

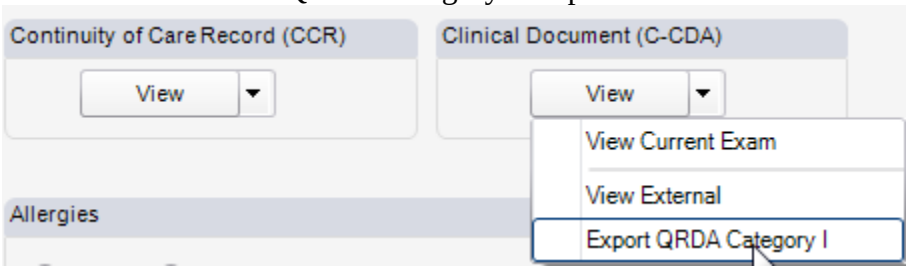



**Figure 5.124 – Capture and export**

User must select the legal authenticator which is used in the QRDA file. (These values are populated from a lookup legal authenticator).

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

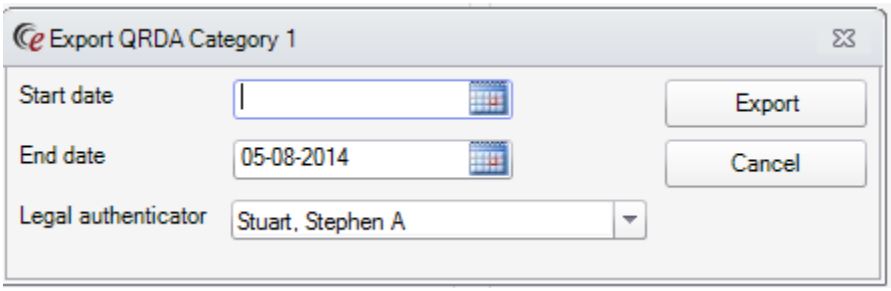



**Figure 5.125 – Export QRDA Category 1**

2) Clinical Quality Measures – Import and calculate
   - Create the patient test deck from Cypress using the specific CQMs selected.
   - Proctor will instruct the Vendor to use the EHR functions to perform the CQM calculations and evaluate them against the expected results.

3) Clinical Quality Measures – electronic submission
   - The CQM calculation results in both QRDA Category I and III format.
   - In order to upload the QRDA Category III results into Cypress for evaluation we added the Quality Reporting Document (QRDA) to the Meaningful Use form for users to generate QRDA Category III results.

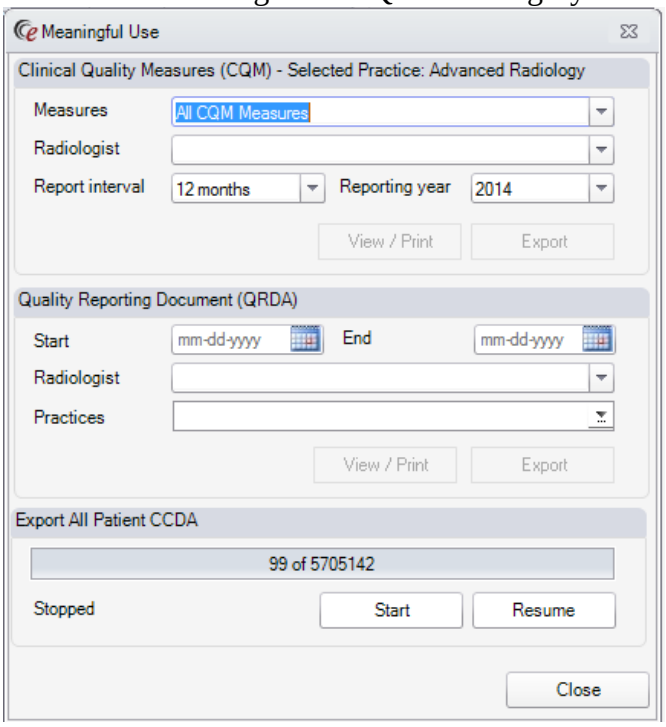



**Figure 5.126 – Meaningful use window**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Meaningful Use – Preventative Care

A new option has been added to the Contact Method of "Declined" has been added to the ContactMethod lookup table.

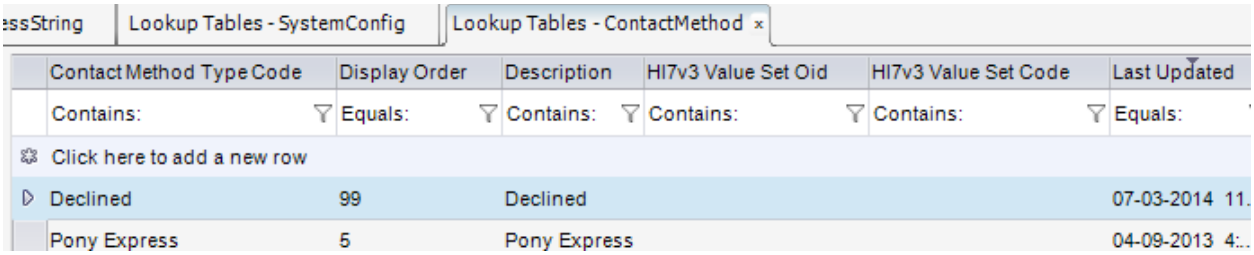



**Figure 5.127 – Declined added to the ContactMethod lookup**

This value will appear in the Preferred Contact Method list box of the Patient tab.

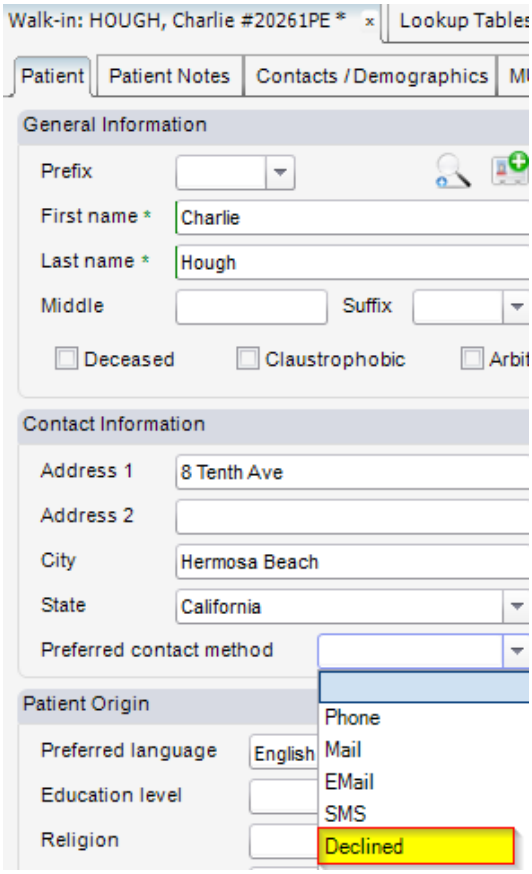



**Figure 5.128 – New preferred contact method**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

Also a new system configuration setting of **"CallbackDeclinedValue"** has been added. This value references the item in the ContactMethod lookup that is used to trigger whether the order's last_letter field should be flagged as 'Declined Callback' in the web services. There is no default value set for this config setting.

If contact method is set to decline value, we will set the order's last letter to '*Declined Callback'* and set the order's last letter date to now when a follow-up order is about to be created.

When configuring this setting, users must take a precaution when selecting the value of Declined as the Preferred Contact Method when the System Configuration setting of "CallbackDeclinedValue" is set to Declined or any other value from the ContactMethod lookup.

For example, a patient that has the Preferred Contact Method of Declined and the System Configuration setting has a value of Declined. If this study is a Mammo study in which a follow up letter will be sent, the letter would not appear on the Mammo Letters WL as the contact method of Declined will be filtered out of the work list.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Meaningful Use – Automated Measures Management Report

Automated Measures – A management report that can accurately adjust the reporting period for all the required types and that the numerator and denominator information are accurate and complete for each reporting period and meaningful use stage for a specific Radiologist.

### Automated Measures - Stage 1

**Radiologist: Power MD, Ian**
**Date Range:** 1/1/2014 - 12/31/2014
**Practice(s):** Get Well Clinic
**Description:** This report displays the percertage of patients where the mu requirement was recorded.
*Click ***here*** to get the details.

| Description | Numerator | Denominator | MU measure | Percentage |
|---|---|---|---|---|
| Demographics | 5 | 8 | 50 | 62.50 % |
| Patient reminders | 5 | 14 | 20 | 35.71 % |
| Medication reconciliation | 4 | 8 | 50 | 50.00 % |
| Problem list | 6 | 8 | 80 | 75.00 % |
| Medication list | 7 | 8 | 80 | 87.50 % |
| Allergy list | 6 | 8 | 80 | 75.00 % |
| Vitals and BMI | 4 | 7 | 50 | 57.14 % |
| Vitals and BMI (alt) | 5 | 8 | 50 | 62.50 % |
| Vitals - BP Out of Scope | 6 | 8 | 50 | 75.00 % |
| Vitals - Ht/Wt Out of Scope | 4 | 7 | 50 | 57.14 % |
| Smoking status | 5 | 7 | 50 | 71.43 % |
| CPOE med | 6 | 7 | 30 | 85.71 % |
| CPOE med (alt) | 9 | 19 | 30 | 47.37 % |
| eHealth | 0 | 0 | 50 | 0.00 % |
| eRx | 0 | 10 | 40 | 0.00 % |
| Lab results | 10 | 17 | 40 | 58.82 % |
| Patient education | 6 | 8 | 10 | 75.00 % |
| Clinical summary | 6 | 9 | 50 | 66.67 % |
| Summary of care | 5 | 8 | 50 | 62.50 % |
| VDT (timely access) | 7 | 8 | 10 | 87.50 % |
| VDT (patient use) | 6 | 8 | 5 | 75.00 % |

eRAD

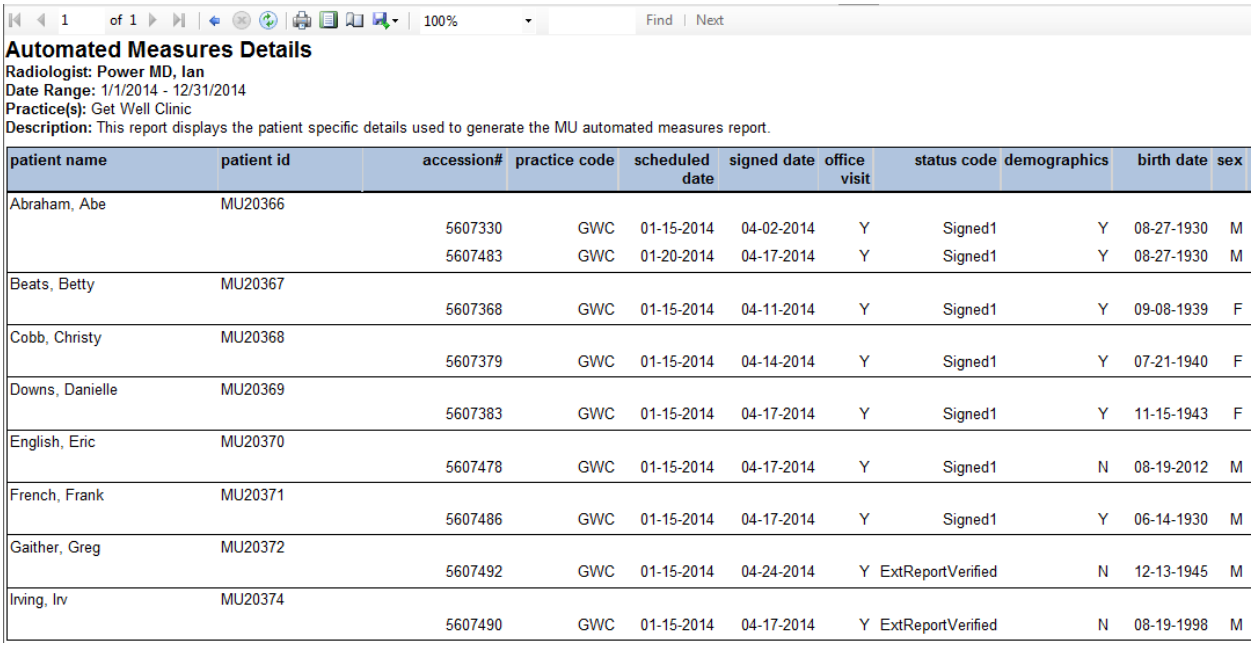
Confidential and Proprietary
Page 1 of 1

Date Run: 5/8/2014 2:15 PM
RMIS\FormsGuestUser

**Figure 5.129 – Automated measures management report stage 1**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

Automated Measures Details - we created to help troubleshoot MU measure problems in the field a new report that will be used to display summary details which make up the numerators and denominators found in the Automated Measures Report. This report can be found in the "SubReport" folder.



1 of 1 100% Find | Next

**Automated Measures Details**

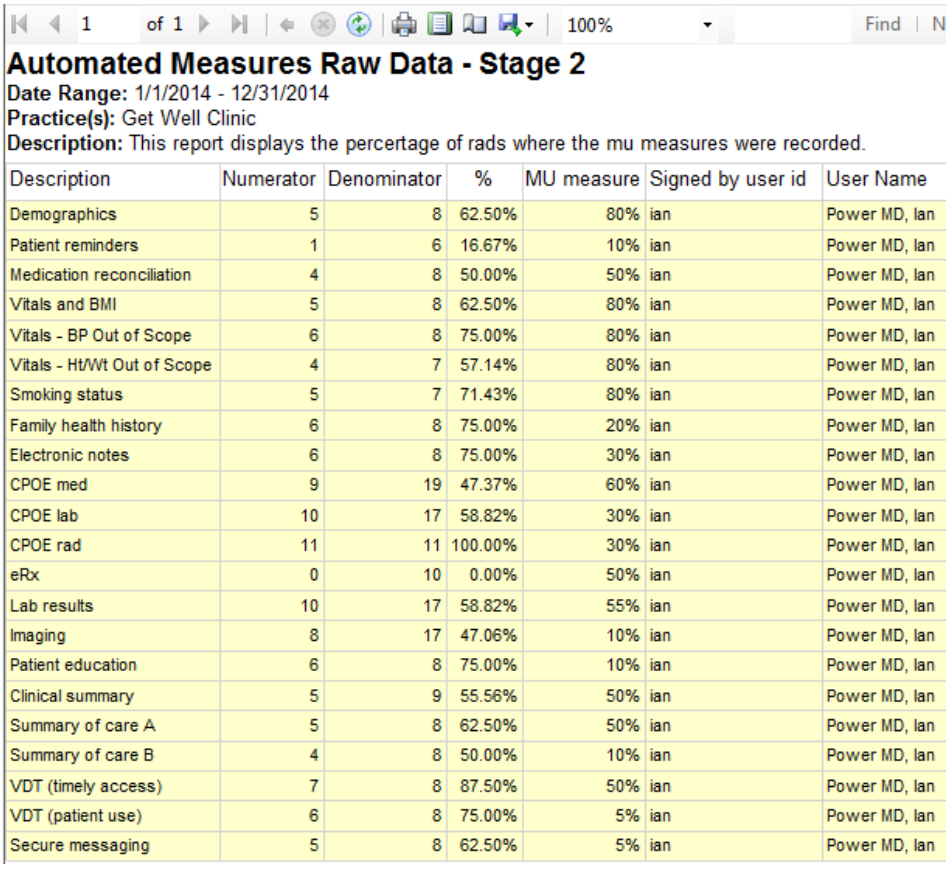
**Radiologist:** Power MD, Ian
**Date Range:** 1/1/2014 - 12/31/2014
**Practice(s):** Get Well Clinic
**Description:** This report displays the patient specific details used to generate the MU automated measures report.

| patient name | patient id | accession# | practice code | scheduled date | signed date | office visit | status code | demographics | birth date | sex |
|---|---|---|---|---|---|---|---|---|---|---|
| Abraham, Abe | MU20366 | | | | | | | | | |
| | | 5607330 | GWC | 01-15-2014 | 04-02-2014 | Y | Signed1 | Y | 08-27-1930 | M |
| | | 5607483 | GWC | 01-20-2014 | 04-17-2014 | Y | Signed1 | Y | 08-27-1930 | M |
| Beats, Betty | MU20367 | | | | | | | | | |
| | | 5607368 | GWC | 01-15-2014 | 04-11-2014 | Y | Signed1 | Y | 09-08-1939 | F |
| Cobb, Christy | MU20368 | | | | | | | | | |
| | | 5607379 | GWC | 01-15-2014 | 04-14-2014 | Y | Signed1 | Y | 07-21-1940 | F |
| Downs, Danielle | MU20369 | | | | | | | | | |
| | | 5607383 | GWC | 01-15-2014 | 04-17-2014 | Y | Signed1 | Y | 11-15-1943 | F |
| English, Eric | MU20370 | | | | | | | | | |
| | | 5607478 | GWC | 01-15-2014 | 04-17-2014 | Y | Signed1 | N | 08-19-2012 | M |
| French, Frank | MU20371 | | | | | | | | | |
| | | 5607486 | GWC | 01-15-2014 | 04-17-2014 | Y | Signed1 | Y | 06-14-1930 | M |
| Gaither, Greg | MU20372 | | | | | | | | | |
| | | 5607492 | GWC | 01-15-2014 | 04-24-2014 | Y | ExtReportVerified | N | 12-13-1945 | M |
| Irving, Irv | MU20374 | | | | | | | | | |
| | | 5607490 | GWC | 01-15-2014 | 04-17-2014 | Y | ExtReportVerified | N | 08-19-1998 | M |

**Figure 5.130 – Automated measures details**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

Automated Measures Raw Data - A management report that can accurately adjust the reporting period for all the required types and that the numerator and denominator information are accurate and complete for each reporting period and meaningful use stage for multiple Radiologist. The main purpose of this report will be used to export results to csv or excel so administrators can monitor the progress of individual Radiologist with regards to MU measures.



1 of 1 100% Find | N

**Automated Measures Raw Data - Stage 2**

**Date Range:** 1/1/2014 - 12/31/2014
**Practice(s):** Get Well Clinic
**Description:** This report displays the percertage of rads where the mu measures were recorded.

| Description | Numerator | Denominator | % | MU measure | Signed by user id | User Name |
|---|---|---|---|---|---|---|
| Demographics | 5 | 8 | 62.50% | 80% | ian | Power MD, Ian |
| Patient reminders | 1 | 6 | 16.67% | 10% | ian | Power MD, Ian |
| Medication reconciliation | 4 | 8 | 50.00% | 50% | ian | Power MD, Ian |
| Vitals and BMI | 5 | 8 | 62.50% | 80% | ian | Power MD, Ian |
| Vitals - BP Out of Scope | 6 | 8 | 75.00% | 80% | ian | Power MD, Ian |
| Vitals - Ht/Wt Out of Scope | 4 | 7 | 57.14% | 80% | ian | Power MD, Ian |
| Smoking status | 5 | 7 | 71.43% | 80% | ian | Power MD, Ian |
| Family health history | 6 | 8 | 75.00% | 20% | ian | Power MD, Ian |
| Electronic notes | 6 | 8 | 75.00% | 30% | ian | Power MD, Ian |
| CPOE med | 9 | 19 | 47.37% | 60% | ian | Power MD, Ian |
| CPOE lab | 10 | 17 | 58.82% | 30% | ian | Power MD, Ian |
| CPOE rad | 11 | 11 | 100.00% | 30% | ian | Power MD, Ian |
| eRx | 0 | 10 | 0.00% | 50% | ian | Power MD, Ian |
| Lab results | 10 | 17 | 58.82% | 55% | ian | Power MD, Ian |
| Imaging | 8 | 17 | 47.06% | 10% | ian | Power MD, Ian |
| Patient education | 6 | 8 | 75.00% | 10% | ian | Power MD, Ian |
| Clinical summary | 5 | 9 | 55.56% | 50% | ian | Power MD, Ian |
| Summary of care A | 5 | 8 | 62.50% | 50% | ian | Power MD, Ian |
| Summary of care B | 4 | 8 | 50.00% | 10% | ian | Power MD, Ian |
| VDT (timely access) | 7 | 8 | 87.50% | 50% | ian | Power MD, Ian |
| VDT (patient use) | 6 | 8 | 75.00% | 5% | ian | Power MD, Ian |
| Secure messaging | 5 | 8 | 62.50% | 5% | ian | Power MD, Ian |

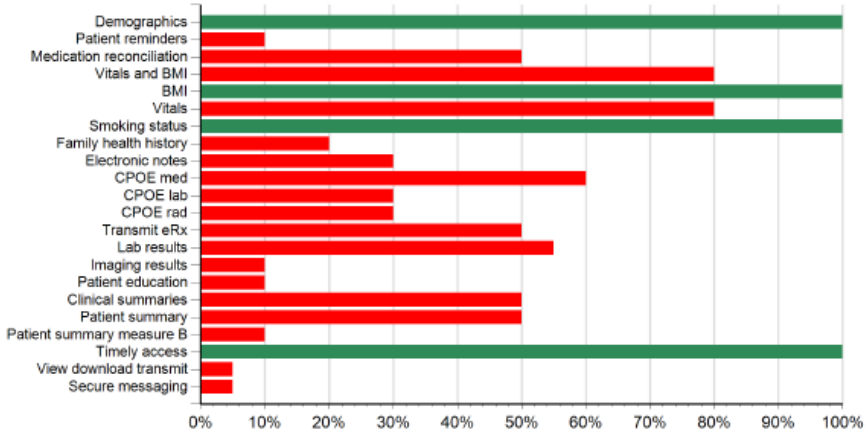
**Figure 5.131 – Automated measures rad data stage 2**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Meaningful Use – Reports by Radiologist Management Report

Created a new management report that will allow the user to select a specific reporting period as well will allow the user the ability to select either stage 1 or stage 2 MU stats to show for a practice or multiple practices.

**1dd88bbf-d70b-4593-8d11-e6241defb297 Stage 2**
**Radiologist:** County, Mister
**Reporting Period:** Jan-01-2014 - Dec-31-2014




| Meaningful Use Meaure | Numerator | Denominator | % | Goal | Pass/Fail |
|---|---|---|---|---|---|
| Demographics | 2 | 2 | 100.00% | 80% | |
| Patient reminders | 0 | 0 | 0.00% | 10% | |
| Medication reconciliation | 0 | 0 | 0.00% | 50% | |
| Vitals and BMI | 0 | 2 | 0.00% | 80% | |
| BMI | 2 | 2 | 100.00% | 80% | |
| Vitals | 0 | 2 | 0.00% | 80% | |
| Smoking status | 2 | 2 | 100.00% | 80% | |
| Family health history | 0 | 2 | 0.00% | 20% | |
| Electronic notes | 0 | 2 | 0.00% | 30% | |
| CPOE med | 0 | 0 | 0.00% | 60% | |
| CPOE lab | 0 | 0 | 0.00% | 30% | |
| CPOE rad | 0 | 0 | 0.00% | 30% | |
| Transmit eRx | 0 | 0 | 0.00% | 50% | |
| Lab results | 0 | 0 | 0.00% | 55% | |
| Imaging results | 0 | 0 | 0.00% | 10% | |
| Patient education | 0 | 0 | 0.00% | 10% | |
| Clinical summaries | 0 | 0 | 0.00% | 50% | |
| Patient summary | 0 | 0 | 0.00% | 50% | |
| Patient summary measure B | 0 | 0 | 0.00% | 10% | |
| Timely access | 2 | 2 | 100.00% | 50% | |
| View download transmit | 0 | 2 | 0.00% | 5% | |
| Secure messaging | 0 | 2 | 0.00% | 5% | |

**Figure 5.132 – Reports by Radiologist management report**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Meaningful Use – Stage 2 Management Reports

MU 2014 requires that the automated measures report be capable of selecting either stage 1(2011) or stage 2(2014) MU statistics; and be able to select date ranges for 90 continuous days within a calendar year, including 90 day periods that span across more than 3 months (e.g. Beginning May 12th); or be able to select a specific calendar year quarter (first, second, third, fourth); and finally be able to select the entire calendar year.

MU 2014 requires a management report(Patient Lists) that will generate a list of patients that can be selected by date and time and based on each data element including: Problems, Medications, Medication Allergy, Demographics, Lab tests and values/results, and Patient communication preference.

To resolve we archived the following MU 2011 management reports.
• Automated Measures.rdl
• CQM Measures.rdl
• MU Automated Measures Details.rdl
• MU Scorecard.rdl
• Patient Lists.rdl
• Patient Reminder List.rdl

We moved all of these reports to a newly created folder "Archive" under Meaningful use on the reporting server. These reports will be used for auditing purposes for previously submitted attestation reports. To ensure these reports are deployed correctly we modified the script for deploying management reports to include the Archive folder structure and reports.

For MU 2014 we created three new management reports and a new SubReport.

1) **Automated Measures** – A management report that can accurately adjust the reporting period for all the required types and that the numerator and denominator information are accurate and complete for each reporting period and meaningful use stage for a specific Radiologist.
   - Automated Measures Details - we created to help troubleshoot MU measure problems in the field a new report that will be used to display summary details which make up the numerators and denominators found in the Automated Measures Report. This report can be found in the "SubReport" folder.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

2) **Automated Measures Raw Data** - A management report that can accurately adjust the reporting period for all the required types and that the numerator and denominator information are accurate and complete for each reporting period and meaningful use stage for multiple Radiologist. The main purpose of this report will be used to export results to csv or excel so administrators can monitor the progress of individual Radiologist with regards to MU measures.

3) **Patient Lists** - Lists of patients are selected by date and time and based on each data element including: Problems, Medications, Medication Allergy, Demographics, Lab tests and values/results, and Patient communication preference

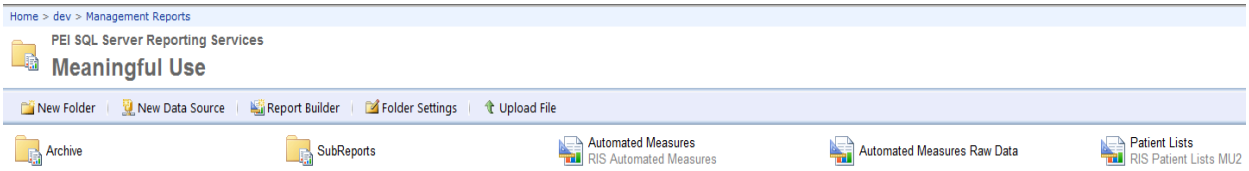
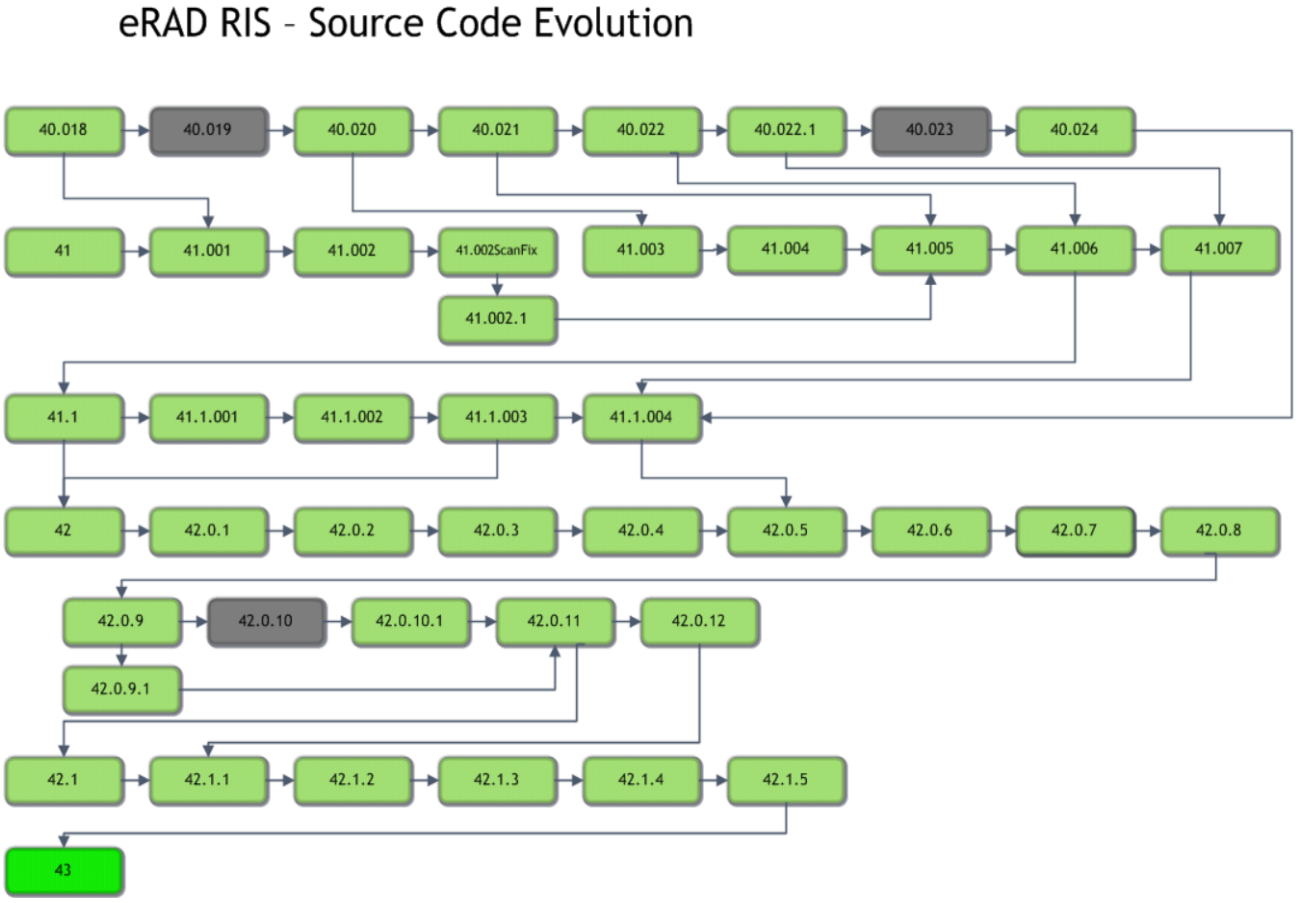



**Figure 5.133 – Meaning Use Stage management reports**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 6. Code Stream




**Legend:**

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 7. RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 41.1 | - | 1.3.41.20918(3GB) | 1.3.41.20791 | 1.3.41.20918 | 1.3.41.20739 | GUI.zip, Core install, Web Service and DB updates, Help files |
| 41.1 | 1 | 1.3.41.20987(3GB) | 1.3.41.20791 | 1.3.41.20918 | 1.3.41.20739 | GUI.zip |
| 41.1 | 2 | 1.3.41.21162(3GB) | 1.3.41.20791 | 1.3.41.21162 | 1.3.41.21150 | GUI.zip, Web Service and DB updates, |
| 41.1 | 3 | 1.3.41.21264(3GB) | 1.3.41.20791 | 1.3.41.21162 | 1.3.41.21150 | GUI.zip |
| 42 | - | 2.42.0.0.21261(3GB) | 2.42.0.0.21261 | 2.42.0.0.21261 | 2.42.0.0.21187 | Full version release |
| 42 | 1 | 2.42.0.1.21597 | 2.42.0.0.21261 | 2.42.0.1.21597 | 2.42.0.0.21187 | GUI and Web Service updates |
| 42 | 2 | 2.42.0.2.21702 | 2.42.0.0.21261 | 2.42.0.2.21702 | 2.42.0.0.21187 | GUI and Web Service updates |
| 42 | 3 | 2.42.0.2.21806 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.0.21187 | GUI and Web Service updates |
| 42 | 4 | 2.42.0.2.21862 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.4.21870 | GUI and Database updates |
| 42 | 5 | 2.42.0.5.21924 | 2.42.0.0.21261 | 2.42.0.2.21806 | 2.42.0.4.21870 | GUI |
| 42 | 6 | 2.42.0.5.22009 | 2.42.0.0.21261 | 2.42.0.5.22009 | 2.42.0.4.21870 | GUI and Web Service updates |
| 42 | 7 | 2.42.0.7.22090 | 2.42.0.0.21261 | 2.42.0.6.22009 | 2.42.0.4.21870 | GUI.zip updates |
| 42 | 8 | 2.42.0.7.22090 | 2.42.0.7.22150 | 2.42.0.6.22009 | 2.42.0.4.21870 | Web Service updates |
| 42 | 9 | 2.42.0.9.22203 | 2.42.0.0.21261 | 2.42.0.9.22203 | 2.42.0.4.21870 | GUI and Web Service updates |
| 42 | 9.1 | 2.42.0.9.22203 | 2.42.0.0.21261 | 2.42.0.9.22203 | 2.42.0.4.21870 | Web Service updates |
| 42 | 10 | 2.42.0.10.22232 | 2.42.0.0.21261 | 2.42.0.9.22203 | 2.42.0.4.21870 | GUI.zip |
| 42 | 10.1 | 2.42.0.10.22420 | 2.42.0.0.21261 | 2.42.0.9.22203 | 2.42.0.4.21870 | GUI.zip updates |
| 42 | 11 | 2.42.0.11.22495a | 2.42.0.0.21261 | 2.42.0.11.22471 | 2.42.0.11.22527 | GUI.zip, Web Service, Database updates. Management Report Deployment |
| 42 | 12 | 2.42.0.12.22982 | 2.42.0.0.21261 | 2.42.0.12.22982 | 2.42.0.12.22911 | GUI.zip, Web Service, Database updates. |
| 42.1 | - | 2.42.1.0.22744(3GB) | 2.42.0.0.21261 | 2.42.1.0.22744 | 2.42.1.0.22736 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 42.1 | 1 | 2.42.1.1.2296(3GB) | 2.42.0.0.21261 | 2.42.1.1.22963 | 2.42.1.1.22864 | GUI.zip, Web Service, DB updates |
| 42.1 | 2 | 2.42.1.2.23007(3GB) | 2.42.0.0.21261 | 2.42.1.2.23007 | 2.42.1.2.23007 | GUI.zip, Web Service, DB updates |
| 42.1 | 3 | 2.42.1.2.23237(3GB) | 2.42.0.0.21261 | 2.42.1.2.23237 | 2.42.1.2.23007 | GUI.zip, Web Services |
| 42.1 | 4 | 2.42.1.4.23348(3GB) | 2.42.0.0.21261 | 2.42.1.4.23348 | 2.42.1.2.23007 | GUI.zip, Web Services |
| 42.1 | 5 | 2.42.1.5.23406(3GB) | 2.42.0.0.21261 | 2.42.1.5.23406 | 2.42.1.2.23007 | GUI.zip, Web Services |
| **43** | - | 2.43.0.0.23715(3GB) | 2.43.0.0.23171 | 2.43.0.0.23715 | 2.43.0.0.23743 | **Full Version Release** |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 8. Resolved Defects

Bugs Suggested Features and Support Issues resolved in build 2.43. The extract is taken from Redmine bug tracking system and only displays defects resolved in 2.43.

| Bug # | Priority | Subject | Category | Found Version |
|---|---|---|---|---|
| | | | | |
| 6701 | Urgent | When a popup window is open in RIS and user actions a report in PS360, Ris crashes. | Powerscribe Integration | 2.42.1 |
| 6678 | Urgent | PAC IW Out of sync problem | PACS Integration | 2.42.0.9 |
| 6534 | Urgent | original_interpretation_version should be stamped on dictated (currently just on signed reports) | Web Services/DB | 2.42.0.11 |
| 6436 | Urgent | Potential for studies to be orphaned in a way as they won't appear on worklists | Thick Client GUI | 2.42.0 |
| 6255 | Urgent | Slow Mammo Letters WL is impacting DB query times | Worklists | 1.42 |
| 7061 | High | MQSA Outcome Report + and - title values should be reversed | Mgt Reports | 42 |
| 6993 | High | RRR - Orders to Schedule Worklist and Procedure Plans | Thick Client GUI | 42.0.9 |
| 6938 | High | Reporting - insert report template with automacros will remove the technique section | Embedded Reporting | 2.42.1 |
| 6926 | High | paitnet folder for previously unlinked external patient does not get reassociated when the patient is mapped. | EMR | 1.4 |
| 6823 | High | Mulitple scanned images do not get sent to PACS | Thick Client GUI | 42.02 |
| 6774 | High | Callback reminder letters print as diagnostic reports instead of using the proper reminder letter | Document Distribution | 2.42.2 |
| 6700 | High | PS360 integration is opening when it doesn't need to causing unnecessary delays and flicker. | Powerscribe Integration | 2.42.1 |
| 6685 | High | Object reference error when opening transcription screens in read only mode | Radiology Reporting | 2.42.1 |
| 6683 | High | Verbal order is hard-coded to associate to a known scan document type - this should be | Thick Client GUI | 1.4 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| | | configurable | | |
| 6681 | High | bi-rads info not reset when using screen re-use on dictate screen. | Mammography | 2.42.11 |
| 6680 | High | ReportTemplateEditor not being cleaned up when ReportingRadiologist closes | Radiology Reporting | 2.42.09 |
| 6679 | High | referring physician "visited at" drop down list contains only numbers, not human readable addresses | Thick Client GUI | 2.42.0.11 |
| 6517 | High | excessive network traffic generated by transfer of dictations and other data | Web Services/DB | 2.42 |
| 6479 | High | BI-RADS 0 and BI-RADS 4/5 stored procedure causes issues with an implicit conversion of birad_code to an integer | DB | 2.42 |
| 6463 | High | Reschedule - Can reschedule studies in exam done status and outside reads | Scheduling | 2.42.0.11 |
| 6462 | High | Order level IVT - billing codes inactive on reschedule save as order | IVT / Precert | 1.41.1 |
| 6447 | High | _max_interpretation_version does not update when an addendum is deleted | Radiology Reporting | 2.42 |
| 6432 | High | Tech screen - procedures list is not alphabetical | Technologist | 1.42 |
| 6189 | High | Hidden text in editor counts as text when validating fields and section. | Radiology Reporting | 1.4 |
| 6106 | High | error opening merge suggestions due to patient search results | Web Services/DB | 1.41 |
| 5963 | High | MU - Medical History grid, cannot delete a row | Thick Client GUI | 1.42 |
| 5950 | High | MU - CCDA preview - the Allergies (Medications) section is messed up. | Thick Client GUI | 1.42 |
| 5847 | High | Dark mode - BMI on MU tab is white on white and unreadable | Thick Client GUI | 1.42 |
| 5800 | High | parameter is not valid and/or out of memory error while viewing thumbnails | Thick Client GUI | 1.42 |
| 5787 | High | RadNet - Western Operations - Breast Density dropdown order not consistent with the config table settings | Thick Client GUI | 41.1 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 5783 | High | Dark mode login box impossible to see | PACS Integration | 1.42 |
| 5732 | High | issues with sorting exam search results when max row count is reached | Thick Client GUI | 1.42 |
| 5720 | High | referring practice address patern has many issues when migrating referring legacy data. | Thick Client GUI | 1.4 |
| 5711 | High | Using two procedures at scheduling, and patient is claustro - it is showing an option for a closed modality when it should not | | 1.42 |
| 5664 | High | When dictating, losing your lock, and save failed with screen recovered, you won't be able to save | Radiology Reporting | 1.42 |
| 5513 | High | index outside the bounds of the array when saving scan documents | Thick Client GUI | 1.41.002.1 |
| 5496 | High | Scanning - Document Viewer Quick Key Issue | | 1.41 |
| 5459 | High | right click change status to cancel does not refresh worklist afterwards | Thick Client GUI | 1.42 |
| 5447 | High | Reporting - RIS allows the addendum workflow on Legacy PDF reports. | | 1.41 |
| 5420 | High | some messageboxes improperly sized | Thick Client GUI | 1.42 |
| 5406 | High | concurrency violation on save of UserPrefs can crash RIS | Thick Client GUI | 1.42 |
| 5393 | High | confirmation screen does not save scan documents | Thick Client GUI | 1.42 |
| 5335 | High | If a study is in a closed room, it should not appear on the confirmation WL | Thick Client GUI | 1.41 |
| 5291 | High | Operational Management Report - Payments Details | Mgt Reports | 1.4 |
| 5289 | High | Operational Management Report - Performed Procedures Count | Mgt Reports | 1.4 |
| 5287 | High | Operational Management Report - Front Desk Activity | Mgt Reports | 1.4 |
| 5258 | High | Multi-type ahead: control is too tall | | 1.42 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 5257 | High | Multi-type ahead: Dropdown button should have a ... in the icon | | 1.42 |
| 5234 | High | Outside Read screen will not open | | 1.4 |
| 5232 | High | For Truxtun DataMigration only, we need a tool to extract diagnostic report from the Intergy DB | DB | 1.41 |
| 5230 | High | Need to enhance our ImportLegacy utility to include diagnostic reports formated as MS-Word and WordPerfect | DB | 1.41 |
| 5192 | High | Outside Read - requires "Reason for Exam" field to be completed in view edit window` | Thick Client GUI | 1.41.003 |
| 4980 | High | Unknown CC flag never re-set if CC referring is removed from the order. (RRR) | | 40.17 |
| 4936 | High | Default lock workstation value should be 60 minutes. | Thick Client GUI | 1.41 |
| 4928 | High | Darkmode misses | | 1.41 |
| 4843 | High | RRR - Scheduling/Front Desk - Verbal Offer - child row has multiple parents | Thick Client GUI | 1.4 |
| 4840 | High | IVT - PreCert Status Update - PreCert Field Changing | Thick Client GUI | 1.4 |
| 4838 | High | RIS Admin - HL7 | HL7 | 1.4 |
| 4836 | High | IVT - IVT Worklist - Error retrieving the IVT worklist | Thick Client GUI | 1.4 |
| 4830 | High | Carrier search error if carrier name is not found | Thick Client GUI | 1.42 |
| 4755 | High | HL7 ReportSigned could produce duplicate addendum | HL7 | 1.41.001 |
| 4742 | High | scan document documents are saved in the db as null | Thick Client GUI | 1.4 |
| 4658 | High | Scheduling --> modality restriction = no warning | Thick Client GUI | 40.17 |
| 4620 | High | Referring without a first name, erroring when multiple orders are available for patient in reception worklist. | Thick Client GUI | 1.1.3.41.19052 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 4598 | High | RRR - Prep Instructions - when prep instructions exceed maximum visible space, scroll bars do not appear as they should, and user cannot read the bottom of the page of instructions. | Thick Client GUI | 40.18127 |
| 4593 | High | WPR - Send To button causes error | Thick Client GUI | 1.42 |
| 4576 | High | Personnel - Internal person notes | Admin Tools | 1.41 |
| 4548 | High | CTRM - Notes field isn't read only | Thick Client GUI | 1.41 |
| 4464 | High | RRR - IVT - when user adds "-01" to the end of the policy number for a patient, upon saving the change to the policy, the billing code exam information disappears. | Thick Client GUI | 40.18127 |
| 4450 | High | Auto-open worklist won't open if you cancel the chair selection prompt | | 1.41 |
| 4412 | High | WL Filter filtering out all rows when no filter value is specified | Thick Client GUI | 1.4 |
| 4356 | High | Critical Result - CTRN - Unknown referrers added in critical result window display as invalid | Thick Client GUI | 1.41 |
| 4349 | High | Worklist filters ending with a pipe "\|" symbol causes error | Thick Client GUI | 1.40.015 |
| 4284 | High | Mammo - generated followup order not setting default patient type | Thick Client GUI | 40.15 |
| 4278 | High | RRR - Responsible party - "Same As Patient" flag not recognized, and orders are hitting the BEWL that should not be there. | Thick Client GUI | 40.16 |
| 4241 | High | Printer Config - Display Order should have a default | Thick Client GUI | 1.4 |
| 4095 | High | Selected report pane showing "Legacy Report' that doesn't work | Thick Client GUI | 40.14 |
| 4035 | High | RIS Client --> Login Failed | Thick Client GUI | 40.12 |
| 3904 | High | removing alternate MRN does not remove all references | Web Services/DB | 1.4 |
| 3877 | High | Walk In - Object Reference Error | Thick Client GUI | 40.1 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 3852 | High | IVT : ?The ?IV required? flag on the worklist said IV was not required, but when I opened it, it says Verification is required? (it was correctly on the worklist as pre-cert was required however) | Thick Client GUI | 1.40.008 |
| 3847 | High | ConfigFile upload everytime a screen is closed. | Thick Client GUI | 1.4 |
| 3798 | High | Worklist refreshes at different scroll positions (Fisher site visit) | Thick Client GUI | 40.006 |
| 3749 | High | RadNet - ADV Call Centre - can not type in order notes field. | Thick Client GUI | 1.40.006 |
| 3738 | High | Perform exam - perform exam completed time is not be saved if Exam Times tab is accessed | Thick Client GUI | 1.40.008 |
| 3688 | High | wsnocertificate Endpoint does not require authentication | Web Services/DB | 1.4 |
| 3661 | High | Availability template lookup table usability | Admin Tools | 1.4 |
| 3644 | High | Removing procedure then procedure row at arriving throws exception | Thick Client GUI | 1.40.006 |
| 3431 | High | RRR - When you choose 'Self' from responsible party dropdown, then update the patient's address information, you have to uncheck then recheck the 'Same as Patient' check box to get the information to update | | 39.1 |
| 3375 | High | RRR Image Request WL - When status is 'Hold Code Completed' and user presses 'Edit' RIS is throwing an error | | 39.1 |
| 2999 | High | When report is viewed from the Billing Exceptions Work List, via Edit Billing it is showing an Addendum line, even though no addendum exists for the exam | Thick Client GUI | 38 |
| 2982 | High | inactive CPT codes are showing up when you check 'Show Previous Pre-cert CPT codes' option. | | 38 |
| 2230 | High | Cannot create Alternate MRN when creating new patient | Thick Client GUI | 1.2.38.14486 |
| 2142 | High | Reschedule permission does not make 'reschedule' appear in context menu | | 1.38 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 1225 | High | Scheduling - Image Request WL --> Edit Image request ( new patient icon) | Thick Client GUI | 1.36 |
| 6986 | Normal | Reporting - going from a non BIRADS enabled study to a BIRADS enabled study will throw an exception | Radiology Reporting | 2.42.1 |
| 6939 | Normal | Reporting - create template from when the current template has automacros will raise an exception | Embedded Reporting | 2.42.1 |
| 6924 | Normal | scheduling using external MRN ( does not consistently display alternate MRN in grid) | EMR | 42.1 |
| 6923 | Normal | Appointment book cannot be accessed if user doensn't have scheduling group assigned. | Appointment book | 2.42.1 |
| 6922 | Normal | There is no way to register individual studies at different sites that are on one order. | | 2.42.2 |
| 6846 | Normal | When tentative sign is disabled through access string, user preference is half visible | Radiology Reporting | 2.42.0.9 |
| 6839 | Normal | Mgmt Report - IVT Canceled (deprecated report) | Mgt Reports | 2.42 |
| 6806 | Normal | A user/person can be cloned even if they have an address with no cc delivery preference. | Administration | 2.42.0 |
| 6773 | Normal | Using PS360: An exam is assigned to a resident and that resident assign a supervising rad, once the exam in in transcribed status, it is not in the supervising rad's Pending Signature WL | Powerscribe Integration | 2.42.1.2 |
| 6751 | Normal | Error on multi procedure schedule after one study is removed | Scheduling | 2.42.1.2 |
| 6735 | Normal | Management Report Deployment - Radnet specific reports deploying to eRAD | Mgt Reports | 2.42 |
| 6711 | Normal | Clicking the close or skip button on the eRAD RIS window doesn't save the values in Assigned to window | Powerscribe Integration | 42.1.1 |
| 6689 | Normal | RadNet - Monthly Variance Raw Data reports needs to be modified to use cpt_Radnet_counts as well add referring practice functionality | Mgt Reports | 2.42 |
| 6688 | Normal | Error: "Deleted row information cannot be accessed through the row" when updating | Thick Client GUI | 2.42.09 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| | | insurances | | |
| 6686 | Normal | Scanner - users are having to re-scan documents | | 1.42 |
| 6682 | Normal | Reporting - screen reuse and pending save items may hang around on the worklist | Radiology Reporting | 2.42.0.11 |
| 6675 | Normal | PACS Caching - The RIS is failing to clear out the cache field properly when it is to no longer be cached. | PACS Integration | 2.42.0 |
| 6611 | Normal | Mgmt Report - Marketing numbers skewed when c_study_item_certification.units is null | Mgt Reports | 2.42.0.11 |
| 6582 | Normal | Unable to create unknown referring | Scheduling | 42.1 |
| 6547 | Normal | Document distribution does not recover InProgress jobs that do not have a job id when it starts up | Document Distribution | 0 |
| 6546 | Normal | Fax Console Outbox grows too large over time and slows faxing down significantly | Document Distribution | 0 |
| 6545 | Normal | Reporting - Access string PowerScribe360.AllowAutofeed doesn't control user preference | Powerscribe Integration | 2.42.1 |
| 6531 | Normal | PACS images are loaded even if reporting window ultimately does not open. | PACS Integration | 2.42 |
| 6526 | Normal | CD Import - Duplicate MRNs resulting in missing images after the import | Patient Search | 1.42 |
| 6525 | Normal | CD Import - null exception opening a CD, which has a empty patient record | PACS Integration | 1.42 |
| 6516 | Normal | c_frm_core_view - cleanup the view | Web Services/DB | 2.42 |
| 6473 | Normal | Print Forms dialog does not appear when checking-in/arriving patients after removing insurance policy | Thick Client GUI | 2.42.09 |
| 6464 | Normal | MU Clinical Summary Form Needs modified to look at the new c_patient_problem_list2 and the new l_indication tables for handling MU problems(medical history). | Meaningful Use | 42 |
| 6452 | Normal | service throttling is not sufficient for large implementations | Web Services/DB | 2.42 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 6331 | Normal | detailed chair selector does not display - print an error message indicating dataset is incorrect. | DB | 2.42 |
| 6330 | Normal | Re-deployment of reports loses folder specific permission | Mgt Reports | 2.42 |
| 6296 | Normal | CD Import - Everything is sent but study can't be found in PACS. | PACS Integration | 1.42 |
| 6268 | Normal | PACS Server lookup the URL can have new line characters which will cause CD Imports to fail | PACS Integration | 1.42 |
| 6251 | Normal | RIS service "Server" garbage collection | Web Services/DB | 1.42 |
| 6242 | Normal | RIS Service Installation document is out of date | Documentation | 42.0.6 |
| 6239 | Normal | RADNET - MU - Problem list - problem with no start date can be added again via Meaningful Use Quick Add Edit window | Thick Client GUI | 2.42.0.6 |
| 6233 | Normal | RADNET - Reporting - Pregnant field displayed in Exam Details for all patients | Radiology Reporting | 2.42.0.6 |
| 6194 | Normal | Report history and dark mode have some visual issues | Radiology Reporting | 1.42 |
| 6187 | Normal | CDS Service  does not start in  x64 mode | Documentation | 42.003 |
| 6185 | Normal | RRR - Error when creating outside reads | Thick Client GUI | 42.02 |
| 6126 | Normal | Scheduling - Calendar view does not display business hours or device availability template | Thick Client GUI | 2.42 |
| 6115 | Normal | Vague descriptions on Referral reports | Mgt Reports | 1.41 |
| 6113 | Normal | Referring Physician Volumes - missing description | Mgt Reports | 1.41 |
| 6109 | Normal | Language, Race and Ethnicity not in the core view for forms | Mgt Reports | 1.42 |
| 6107 | Normal | MU changed Provided Cinical Summaries to Offered Clinical Summary to patient | Meaningful Use | 2.42 |
| 6091 | Normal | Management reports - IVT Turnaround - Total turnaround time is incorrect | Mgt Reports | 2.42 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 6087 | Normal | Management reports - IVT management reports looking for Approved, but status is now Verified | Mgt Reports | 42.0.1 |
| 6080 | Normal | CD Import via patient folder can match with the wrong patient. | Thick Client GUI | 1.42 |
| 6077 | Normal | Relevance Override does not allow assignment of inactive procedures | | 1.42 |
| 6064 | Normal | Scheduling - Procedure Plans Error | Thick Client GUI | 42.0.0.21577 |
| 6052 | Normal | RadNet - Patient Folder - column missing | Thick Client GUI | 1.42 |
| 6051 | Normal | RadNet - Schedule Existing Order - uncheck not working | Thick Client GUI | 1.42 |
| 6015 | Normal | create a function to coalesce site and practice logo | Web Services/DB | 1.42 |
| 6003 | Normal | Management Reports - Automatic Measures - Missing Parameter | Mgt Reports | 2.42.0.0.21410 |
| 5988 | Normal | re-selecting and blanking out the Referring combo box | | 42 |
| 5984 | Normal | Deleted row error saving attachments | | 1.42 |
| 5982 | Normal | Negative values in Dictated to Drafted on the RTAT portion of the Transcription Dashboards. | Mgt Reports | 1.41 |
| 5944 | Normal | Cloning a person "may" impact orginal person being cloned | Thick Client GUI | 1.41 |
| 5861 | Normal | unhandled exception logging in as a rad but without permission to some WL. | Thick Client GUI | 1.42 |
| 5843 | Normal | MU - When editing the date in Lab results get error. | Thick Client GUI | 1.42 |
| 5837 | Normal | Reporting - Open study in dictate window and get C++ Exception | Radiology Reporting | 2.42 |
| 5814 | Normal | If lab test code matching systemconfig's CPOELabTestCode value doesn't exist for procedure who's CPOE Pathology flag is set, misleading exception occurs | Thin Client GUI | 1.42 |
| 5735 | Normal | The query to get radilogist and transcriptionist statistics in taking over 5 | DB | 1.4 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| | | second on SE | | |
| 5603 | Normal | recent activity message list shows Assign To as Dictated | Radiology Reporting | 1.42 |
| 5495 | Normal | Scanning - "Scanner is not responding" can lock up RIS for about 1 minute | | 1.41 |
| 5450 | Normal | RRR - Confirmed Appointments Report Customization | Mgt Reports | 2.41 |
| 5422 | Normal | Scheduling - Assign to Rad is first name, last name | Thick Client GUI | 1.41.002 |
| 5252 | Normal | Reporting - Verify edits context menu option from All Edits Pending QA opens Create Edit report window | Radiology Reporting | 1.41 |
| 5156 | Normal | can't update performed modality (RRR) | Thin Client GUI | 40.17 |
| 4950 | Normal | Race type code | DB | 1.41.002 |
| 4555 | Normal | When opening a study in read only, user should get a prompt | Radiology Reporting | 1.41 |
| 4326 | Normal | Reporting - Multiple Pending Signature notifications raised | Radiology Reporting | 1.41 |
| 4308 | Normal | Patient Folder - Selected Summary not resizing properly when dragging the pane | Radiology Reporting | 1.41 |
| 4116 | Normal | Error on Sign Next or Submit Next in the field | Thick Client GUI | 1.3.40.18063 |
| 3878 | Normal | GUI - procedure code lookup ( laterality dropdown display) | Thick Client GUI | 40.1 |
| 3814 | Normal | Already Transcribed prompt when in signing workflow (Fisher site visit) | Thick Client GUI | 40.006 |
| 3639 | Normal | Reporting - Index out of range | | 1.4 |
| 3521 | Normal | MU - Calculating MU statistics of Void Exams | Meaningful Use | 1.4 |
| 3273 | Normal | Patient Folder Worklist - Default filter applied results in side scrolled WL on open | Radiology Reporting | 1.4 |
| 3099 | Normal | Documentation window - futuristic menstrual periods.... | Thick Client GUI | 1.4 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 2759 | Normal | Distribution WL - Message box should display in the center of the screen | Thick Client GUI | 1.39 |
| 2635 | Normal | Unchecking No Longer Menstruating doesnt enable pregnancy fields | Thick Client GUI | 1.39 |
| 665 | Normal | fk error when adding new order | Thick Client GUI | 1.25 |
| 357 | Normal | Lookup table filters with dropdown datatype don't work | | 1.13 |
| 6940 | Low | Reporting - apply style formatting to automacro inserted text will break create template from | Embedded Reporting | 2.42.1 |
| 4733 | Low | Spelling mistake in details message (Cannot "adden" an interpretation when previous interpretation is not signed off. ) | Thick Client GUI | 1.41 |
| 3991 | Low | Reporting - Exam Details and Summary panes - Text can be entered in notes' fields, but does not save. | Thick Client GUI | 1.40.013 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 9. Known Limitations

The following are Bugs Suggested Features and Support Issues found in build 2.43. Bugs reported in previous versions are not captured as Known Limitation in this document.

| # | Status | Priority | Subject |
|---|---|---|---|
| | | | |
| 7065 | New | High | ICD button is overlaid by the stat button in minimized dictation mode |
| 7195 | New | High | System config setting RadMustProvideIcdCode doesn't force rad to enter ICD code |
| 7196 | New | Normal | When registering a patient with multiple procedures,and then deselecting the procedure checkbox, an error is produced |
| 7186 | New | Normal | Transportation req'd validation issue |
| 7160 | New | Normal | IVT - Issue with "Parent Procedure" on billing code grid |
| 7153 | New | Normal | ICD Codes - Issue removing codes |
| 7086 | New | Normal | Internal Person search doesn't have default field |
| 7029 | New | Normal | AccessionXMLDrop button showing up all the time if configured, regardless of reporting mode |
| 6991 | New | Normal | Reporting - Exam details data pane can open with scroll bar hidden and window can be resized to have scroll bar hidden |
| 6989 | New | Normal | Secure Messaging - Able to send an empty message |
| 6863 | New | Normal | Inconsistent grid behaviour with new ICD functionality. |
| 6840 | New | Normal | Holiday Lookup missing practice code required field check |
| 6807 | In Progress | Normal | Create template causes Object Reference Not set error |
| 6793 | New | Normal | distribution wl - Activity log column is crowded |
| 6790 | New | Normal | Personel Merge - reject takes user to a blank page |
| 6785 | New | Normal | Administration - Patient search window on patient merge, 'New Pt +Apt' button does nothing |
| 6784 | New | Normal | tech screen - able to complete an exam on a body part different than defined by procedure |
| 6726 | New | Normal | View menu not disabled after Report on Accession # |
| 6592 | New | Normal | Required Notes Fields accept whitespace as input |
| 6908 | In Progress | Normal | MU Quick Add Edit Dialog makes 30 consecutive service calls each time it is opened |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| 7182 | New | Normal | Menu item Messaging doesn't have an access string |
| 7172 | New | Normal | Reconcile Form - Issue with layout of Order and Scheduling Notes |
| 7164 | New | Normal | Cannot delete indictation codes from the Indication lookup table via GUI |
| 7023 | New | Normal | Selected attachments navigating when user selects text. |
| 6972 | New | Normal | BI-RADS picker set tissue density to inactive value |
| 6834 | New | Normal | QA workflow, error when saving opens the wrong screen. |
| 6821 | New | Normal | Reschedule can show incorrect procedure if procedure was changed in Register window |
| 6750 | New | Normal | MU - CCDA Error when generating XML when Allergy is NULL |
| 6671 | New | Normal | Right-click "Confirmation" in Patient Folder for Follow up order throws multple exceptions |
| 7127 | New | Normal | MT polling when waiting for jobs and none exist, can't close tab or visit another tab. |
| 6987 | New | Normal | Fields in scheduling screen not showing as required until you try to save, or tab out of the control. |
| 6792 | New | Normal | Filtering work lists |
| 6081 | New | Normal | If patient has multiple orders on same day ( procedure changed) --> registration confirmation does not reflect it |
| 7188 | New | Normal | County selection screen requires user to click or tab to county field. |
| 7181 | New | Normal | County/ZIP - county getting saved with data but dialog doesn't show one selected |
| 7179 | New | Normal | County/ZIP - possible wrong county selecting automatically. County drop down changing when nulling out ZIP textbox |
| 7165 | New | Normal | Special characters in custom fields for templates can cause the report to not be openable. |
| 7159 | New | Normal | Reporting - PACS integration |
| 7138 | New | Normal | Mammo letter config save button doesn't save changes |
| 7015 | New | Low | MU - A requested lab order can be entered with a blank observation and return an error |
| 6865 | New | Low | Personnel - Referring addresses - Address open double clicking on scroll bar arrows |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| 7178 | New | Low | County/ZIP allows typing in County but doesn't changes value when clicking ok |
| 7177 | New | Low | County/ZIP textbox persists invalid data |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# User Release Notes

for eRAD RIS
Version 2
Build 44

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# Table of Contents

1. Purpose ..... 4
2. Intended Audience ..... 4
3. Installing/Accessing the Application ..... 4
4. New Access Strings and Configuration Settings 44 ..... 5
5. New Features and Enhancements ..... 12
Mammo Drawing Tool ..... 12
Notes Field Added to Mammo Biopsy window ..... 16
User Friendly Names for Mammo Follow-Up Order Statuses ..... 17
Mammography – Prior Report from Scheduling Window ..... 19
Reporting – Mammography – Disable Scrolling Function on BI-RADs Picker ..... 20
Reporting – PowerScribe 360 – Custom Exam Title and Technique ..... 21
Configurable Auto Close Delay for Work List Notifications ..... 24
Ability to Change Status Tentatively Signed to Report Drafted ..... 25
Reporting - Peer Review ..... 26
Reporting – Peer Review – Review and Override Peer Reviews ..... 27
Reporting – Peer Review – Request Addendum ..... 29
Reporting – Peer Review – Create Addendum from Peer Review Window ..... 31
Reporting – Assign Radiologist Picker Redesign ..... 32
Contrast, Sedation and CT Dosage Tracking ..... 33
Send Copy of Diagnostic Report to Patient on Request ..... 41
STAT Read changes ..... 43
PACS Server Override From PACS Menu ..... 44
Hologic Integration Changes ..... 45
Track Registered in PECOS ..... 46
Preferred Location Site Field on Order Tab Configurable ..... 47
MRN for Responsible Party ..... 48
Patient Weight Added to Review Tab ..... 49
Meaningful Use Tab Available in Confirmation ..... 50
Registration – Hyperlink to Scanned ID Card ..... 51
Improved Error Messages for Payments ..... 53
Insurance Policies Enhancements ..... 54
Perform Exam – LMP Start and End Age Configurable ..... 58
Perform Exam – Additional Copy Paste options ..... 58
Retain Pre-Cert Approval on Reschedule ..... 59
User Management – Internal Person Search ..... 59
User Management – Helpdesk Reset Password ..... 61
User Management – Enhanced Password Requirements ..... 64
Track Viewing of Audit Log ..... 66

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

Work List Context Menu Re-Organization..... 67
6. Code Stream..... 70
7. RIS Release Version Numbers ..... 71
8. Resolved Defects ..... 72
9. Known Limitations ..... 84

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 1. Purpose

This document describes some of the new features and changes implemented in eRAD RIS as of the end of Sprint 44 and subsequent server releases. This version of eRAD RIS is referred to as Build 2.44

Only features which can be visually demonstrated to the user will be outlined in this document.

# 2. Intended Audience

This document is created by the RIS Development team for the RadNet RIS management team.

# 3. Installing/Accessing the Application

The installation guide for the eRAD RIS client have been posted to the RadNet Wiki page at http://mdbal01rdtweb/Wiki/

Under the RIS menu click on the rRIS page. The credentials to access the page are:
Username: rRIS
Password: Summerside

*Please note that Build 2.44 is considered a new core release of the application and will require a reinstallation of eRAD RIS. This is accomplished by navigating to the eRAD RIS shared installation drive and running the CoreInstall.bat file (ex: I:\RISDeployment\CoreInstall.bat)*

If you experience difficulties accessing the application please do not hesitate to contact Darcy Noye with the PEI RIS Development Team.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 4. New Access Strings and Configuration Settings 44

| Setting Placeholder | Setting | Default | Purpose / Controls Access to |
|---|---|---|---|
| Access string / User Group Permission tables | Clinical.AllowPeerReviewChanges | None | Allows the user to make modifications to peer reviews |
| Access string / User Group Permission tables | View.Preset.Administration.PresetPeerReview | None | Access to preset layout administration for Peer Review |
| Access string / User Group Permission tables | View.PresetPeerReview | Full | Access to see the main menu item "View/LoadLayout.../Peer Review" (on dictation screens) |
| Access string / User Group Permission tables | View.BreastDrawing | Full | Access to see the Breast Drawing menu item from View menu (visible when dictate window is open on a mammo study) |
| Access string / User Group Permission tables | View.SelectedBreastDrawing | Full | Access to see the Selected Breast Drawing menu item from View menu (visible when dictate window is open on a mammo study) |
| Access string / User Group Permission tables | Config.TechSupportChangePassword | None | Allows the user to change other user's password. Intended for helpdesk users who do not require full access to the Personnel Editor |
| Access string / User Group Permission tables | Config.LookupEditor.ProcedureExamTitle | None | Controls access to the ProcedureExamTitle lookup table |
| Access string / User Group Permission tables | Config.LookupEditor.ProcedureTechnique | None | Controls access to the ProcedureTechnique lookup table |
| Access string / User Group Permission tables | Config.LookupEditor.Personnel.EmailPassword | None | full access to this enables users to view personnel address distribution email passwords |
| Access string / User Group Permission tables | Config.LookupEditor.Contrast | None | Controls access to the Contrast lookup table |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| Access string / User Group Permission tables | Config.LookupEditor.DosageUnit | None | Controls access to the DosageUnit lookup table |
| Access string / User Group Permission tables | Config.LookupEditor.Sedative | None | Controls access to the Sedative lookup table |
| Access string / User Group Permission tables | NOTE: Change to Access String Name<br><br>Clinical.ReportingTranscription<br><br>IS NOW<br><br>Clinical.ReportingEditor | None | Access to the Create/Edit Reporting window |
| Access string / User Group Permission tables | NOTE: Change to Access String Name<br><br>Menu.Transcription<br><br>IS NOW<br><br>Menu.Editor | None | Controls access to the Editor Menu |
| Access string / User Group Permission tables | NOTE: Change to Access String Name<br><br>Clinical.AssignTranscriptionist<br><br>IS NOW<br><br>Clinical.AssignEditor | None | Assign To Editor context menu option for work lists in which the option is available |
| Access string / User Group Permission tables | NOTE: Change to Access String Name<br><br>Clinical.UserPreferences.TranscriptionPolling<br><br>IS NOW<br><br>Clinical.UserPreferences.EditorPolling | None | Enables access to the User Preferences Editor Polling User Preferences |
| Access string / User Group Permission tables | The following access string has been removed as it wasn't being used.<br><br>Config.LookupEditor.Macro | N/A | The access string Config.LookupEditor.TemplateMacro will provide access to the TemplateMacro lookup table. |
| | | | |
| SystemConfig lookup | AllowedPasswordFailAttempts | -1 | Number of allowed failed consecutive attempts |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| | | | before locking account. 0 or less disables feature and will never lock out a user." |
| SystemConfig lookup | EmailPDFPasswordRegex | (?=^.{6,10}$)^\S*(?=.*[a-z])\S*(?=.*[A-Z])(?=.*[0-9])(?!./s*)\S*$ | (value = string) Used to configure the regex for detecting what is a strong password for email PDF |
| SystemConfig lookup | EmailPDFPasswordRegexHint | 6-10 characters including 1 uppercase letter, 1 lowercase letter and one number | 6-10 characters including 1 uppercase letter, 1 lowercase letter and one number |
| SystemConfig lookup | EnableContrastBillingRelation | True | True enables billing and contrast code syncing in the tech window |
| SystemConfig lookup | EnableNotRegisteredInPECOSWarning | False | (value = True/False) Determines if the system will warn scheduler if referring physician is not in PECOS and patient is using Medicare. |
| SystemConfig lookup | ExpirePasswordInDays | -1 | Number of days before you must change your password. 0 or less disables feature and passwords do not expire. |
| SystemConfig lookup | LMPEndingAge | 56 | When the patient reaches this age, the LMP checker will no longer be enabled on the technologist screen. |
| SystemConfig lookup | LMPStartingAge | 12 | When the patient reaches this age, the LMP checker will be enabled on the technologist screen. |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| SystemConfig lookup | PasswordLockedMessage | "Account locked. Please contact your administrator." | Message to display to users who have had their accounts locked out." |
| SystemConfig lookup | RecentPasswordRestrictionCount | -1 | Number of times you have to change a password before you can reuse an old password. 0 or less disables feature and password history is not saved |
| SystemConfig lookup | ScheduleUsePreferredSite | True | True to require a preferred site and attempt to pre-select preferred site on schedule search. |
| SystemConfig lookup | InsuranceEligibleAPIString | | Verification account for billing. |
| Applicationsettings.config | <setting name="**StartInboundDocumentService**" serializeAs="String"><br><value>false</value><br></setting> | False | |
| Applicationsettings.config | <setting name="**InboundDocumentFolderLocation**" serializeAs="String"><br><br><value>C:\InBoundDocuments</value><br></setting> | C:\InBoundDocuments | |

## Changes to RIS.exe.config file

The section <listeners> in the ris.exe.config file has been changed in this release. Below you will see the before and after. In the "before" section, if the text is highlight grey, it is to indicate that it has been removed. Text highlight green in the "after" section will indicate new configuration. Any text in Yellow in before section will indicate values that have changed. The corresponding value will be highlighted Yellow in the After section

| Before | After |
|---|---|
| <loggingConfiguration name="" tracingEnabled="true" | <loggingConfiguration name="" tracingEnabled="true" |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | |
|---|---|
| defaultCategory="General"><br><listeners><br><add name="Event Log Listener"<br>type="Microsoft.Practices.EnterpriseLibrary.Logging.TraceListeners.FormattedEventLogTraceListener,<br>Microsoft.Practices.EnterpriseLibrary.Logging,<br>Version=5.0.414.0, Culture=neutral"<br>listenerDataType="Microsoft.Practices.EnterpriseLibrary.Logging.Configuration.FormattedEventLogTraceListenerData,<br>Microsoft.Practices.EnterpriseLibrary.Logging,<br>Version=5.0.414.0, Culture=neutral"<br>source="rRIS" formatter="Text Formatter" log="" machineName="."<br>traceOutputOptions="None" /><br><add name="Flat File Trace Listener"<br>type="Microsoft.Practices.EnterpriseLibrary.Logging.TraceListeners.FlatFileTraceListener,<br>Microsoft.Practices.EnterpriseLibrary.Logging,<br>Version=5.0.414.0, Culture=neutral"<br>listenerDataType="Microsoft.Practices.EnterpriseLibrary.Logging.Configuration.FlatFileTraceListenerData,<br>Microsoft.Practices.EnterpriseLibrary.Logging,<br>Version=5.0.414.0, Culture=neutral"<br>fileName="trace.log" formatter="Text Formatter" /><br><add name="Rolling Flat File Trace Listener"<br>type="Microsoft.Practices.EnterpriseLibrary.Logging.TraceListeners.RollingFlatFileTraceListener,<br>Microsoft.Practices.EnterpriseLibrary.Logging,<br>Version=5.0.414.0, Culture=neutral"<br>listenerDataType="Microsoft.Practices.EnterpriseLibrary.Logging.Configuration.RollingFlatFileTraceListenerData,<br>Microsoft.Practices.EnterpriseLibrary.Logging,<br>Version=5.0.414.0, Culture=neutral" | defaultCategory="General"><br><listeners><br><add name="Event Log Listener"<br>type="Microsoft.Practices.EnterpriseLibrary.Logging.TraceListeners.FormattedEventLogTraceListener,<br>Microsoft.Practices.EnterpriseLibrary.Logging,<br>Version=5.0.414.0, Culture=neutral"<br>listenerDataType="Microsoft.Practices.EnterpriseLibrary.Logging.Configuration.FormattedEventLogTraceListenerData,<br>Microsoft.Practices.EnterpriseLibrary.Logging,<br>Version=5.0.414.0, Culture=neutral"<br>source="rRIS" formatter="Text Formatter" log="" machineName="."<br>traceOutputOptions="None" /><br><add name="Rolling Flat File Trace Listener"<br>type="Microsoft.Practices.EnterpriseLibrary.Logging.TraceListeners.RollingFlatFileTraceListener,<br>Microsoft.Practices.EnterpriseLibrary.Logging,<br>Version=5.0.414.0, Culture=neutral"<br>listenerDataType="Microsoft.Practices.EnterpriseLibrary.Logging.Configuration.RollingFlatFileTraceListenerData,<br>Microsoft.Practices.EnterpriseLibrary.Logging,<br>Version=5.0.414.0, Culture=neutral" |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | |
|---|---|
| rollFileExistsBehavior="Increment" rollInterval="Hour"<br>header="" footer=""<br>fileName="verbose_log/trace.log" formatter="SimpleTextFormatter" /><br></listeners><br><formatters><br><add type="Microsoft.Practices.EnterpriseLibrary.Logging.Formatters.TextFormatter, Microsoft.Practices.EnterpriseLibrary.Logging, Version=5.0.414.0, Culture=neutral"<br>template="Timestamp: {timestamp(MM/dd/yyyy HH:mm:ss.ffffff)}{newline}
Message: {message}{newline}
Priority: {priority}{newline}
Severity: {severity}{newline}
Title:{title}{newline}
Machine: {localMachine}{newline}
Extended Properties: {dictionary({key} - {value}{newline})}"<br>name="Text Formatter" /><br><add type="Microsoft.Practices.EnterpriseLibrary.Logging.Formatters.TextFormatter, Microsoft.Practices.EnterpriseLibrary.Logging, Version=5.0.414.0, Culture=neutral"<br>template="{timestamp(MM/dd/yyyy HH:mm:ss.fff)}{tab}{severity}{tab}Message: {message}"<br>name="SimpleTextFormatter" /><br></formatters><br><categorySources><br><add switchValue="Warning" name="General"><br><listeners><br><add name="Event Log Listener" /><br></listeners><br></add> | rollFileExistsBehavior="Increment" rollInterval="Hour"<br>header="" footer=""<br>fileName="verbose_log/trace.log" formatter="SimpleTextFormatter" /><br></listeners><br><formatters><br><add type="Microsoft.Practices.EnterpriseLibrary.Logging.Formatters.TextFormatter, Microsoft.Practices.EnterpriseLibrary.Logging, Version=5.0.414.0, Culture=neutral"<br>template="Timestamp: {timestamp(MM/dd/yyyy HH:mm:ss.ffffff)}{newline}
Message: {message}{newline}
Priority: {priority}{newline}
Severity: {severity}{newline}
Title:{title}{newline}
Machine: {localMachine}{newline}
Extended Properties: {dictionary({key} - {value}{newline})}"<br>name="Text Formatter" /><br><add type="CommonLib.eRadLogFormatter, CommonLib, Version=1.0.0.0, Culture=neutral"<br>template="{timestamp(MM/dd/yyyy HH:mm:ss.fff)}{tab}{category}{tab}{severity}{tab}Message: {message}"<br>name="SimpleTextFormatter" /><br></formatters><br><categorySources><br><add switchValue="Warning" name="General"><br><listeners><br><add name="Event Log Listener" /><br></listeners><br></add> |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | |
|---|---|
| </categorySources><br><specialSources><br><allEvents switchValue="Verbose" name="All Events"><br><listeners><br><add name="Rolling Flat File Trace Listener" /><br></listeners><br></allEvents><br><notProcessed switchValue="Off" name="Unprocessed Category" /><br><errors switchValue="All" name="Logging Errors & Warnings"><br><listeners><br><add name="Flat File Trace Listener" /><br></listeners><br></errors><br></specialSources><br></loggingConfiguration> | <add switchValue="All" name="General All"><br><listeners><br><add name="Rolling Flat File Trace Listener" /><br></listeners><br></add><br></categorySources><br><specialSources><br><allEvents switchValue="All" name="All Events"><br><listeners><br><add name="Rolling Flat File Trace Listener" /><br></listeners><br></allEvents><br><notProcessed switchValue="Off" name="Unprocessed Category" /><br><errors switchValue="All" name="Errors"><br><listeners><br><add name="Rolling Flat File Trace Listener" /><br></listeners><br></errors><br></specialSources><br></loggingConfiguration> |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 5. New Features and Enhancements

## Mammo Drawing Tool

The technologist required a drawing tool for mammo studies to represent the existence and location of Moles, Pain, Palpable Masses, and Scars.

A new tab with the title Breast Diagram has been added to the Perform Exam and View/Edit screen. The Breast Diagram tab will only be visible for procedures with the "Birad Enabled Flag" set to "Y".

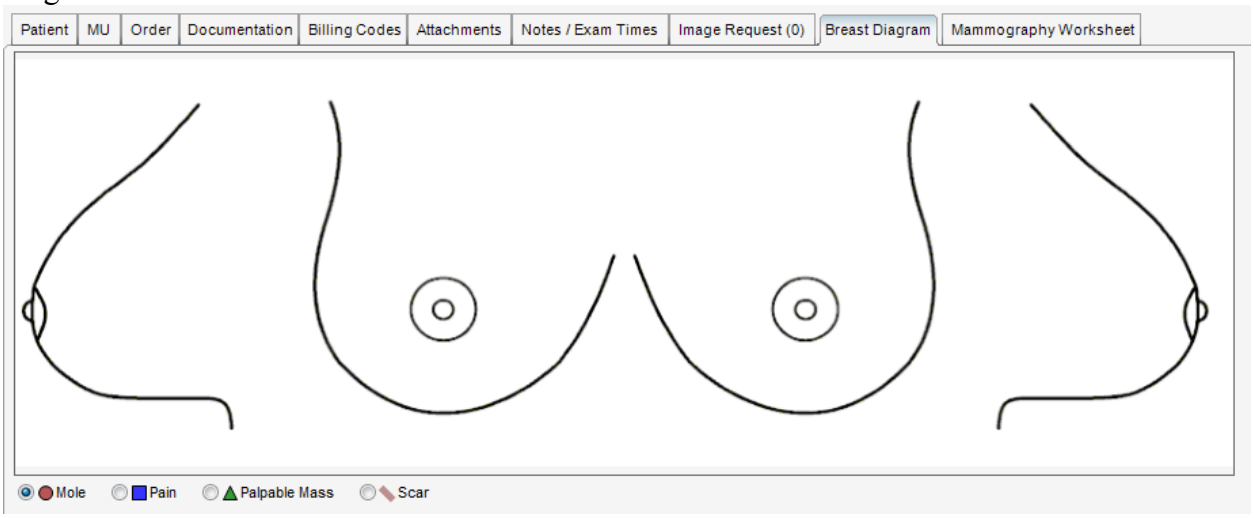



**Figure 5.1 – Breast Diagram tab for female patients**

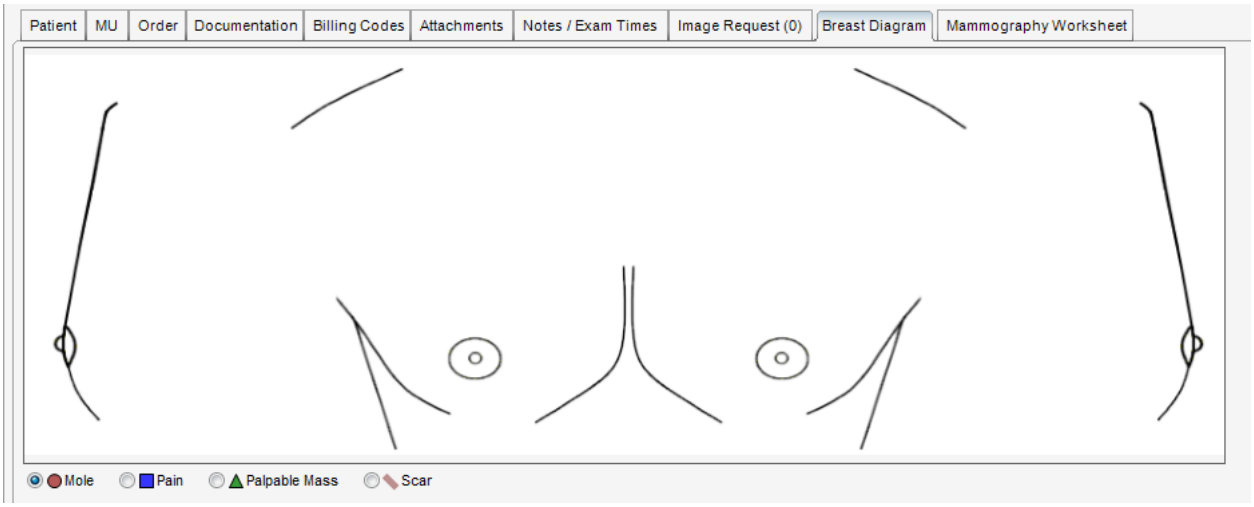



**Figure 5.2 – Breast Diagram tab for male patients**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

The technologist can use the radio buttons along the bottom of the drawing tool to select a shape and then click on the image to place the shape.

Once placed, a circle (mole), square (pain), or triangle (palpable mass) can be moved by placing the mouse over the center of the shape and dragging the shape to a new location.

A cross style mouse pointer will appear if the user places the mouse pointer over the edge of a circle, square, or triangle and the user can then drag the mouse away from the shape's center to enlarge the shape, or closer to the center to make the shape smaller.

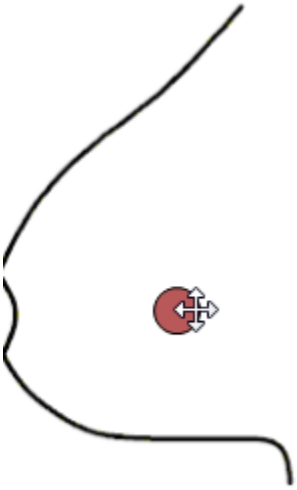


**Figure 5.3 – Mouse pointer appearance for resizing shapes added to breast diagram**

To delete a shape, the user can right click the center of the shape and then choose "Delete" from the context menu
To discard the shapes on the drawing, the user can right click the center of the shape and choose "Clear All".
A breast drawing can be exported using right click -> Save Image and specifying a file name.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

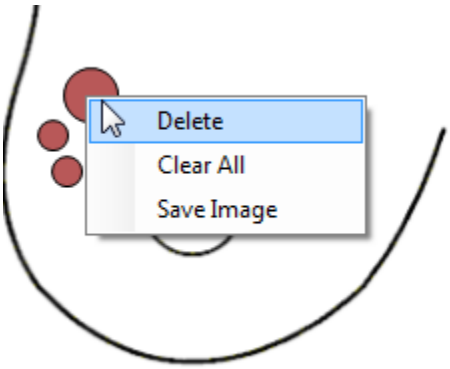



**Figure 5.4 – Context menu options of Breast Diagram**

The scar pen allows the user to draw a free form line across the breast drawing which will be decorated with cross hatches. The scar pen lines cannot be moved once placed so if changes are required, the user must right click the scar, choose delete, and then place a new scar in the appropriate place.

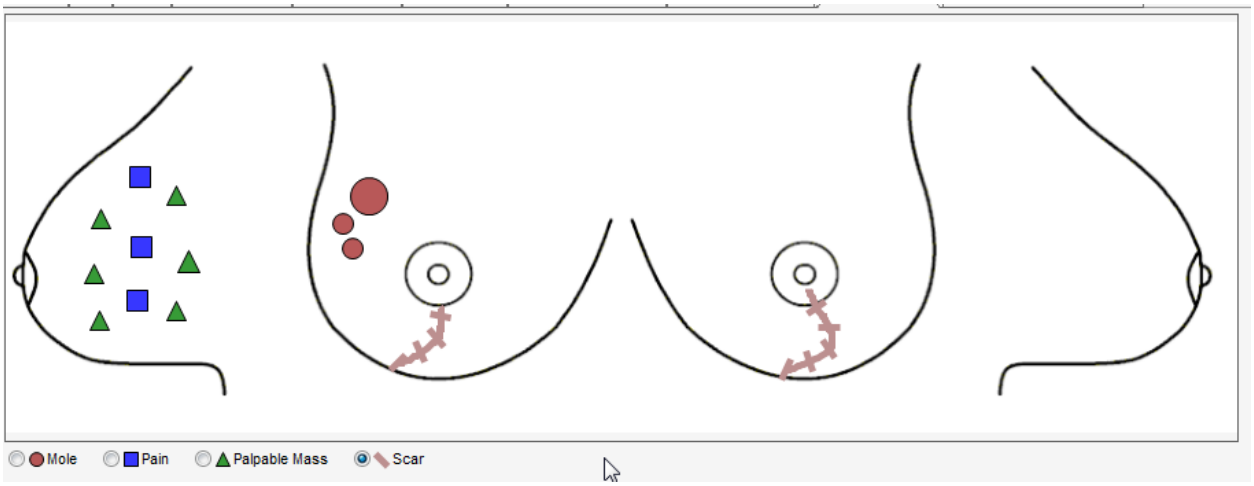



**Figure 5.5 – Breast Diagram displaying all shapes that can be added**

When saving the breast drawings to the database, we save information on the placement of each shape (type, size, and location on the drawing) and a rendered JPG of the background with the shapes on top. If a technologist creates a drawing, their changes can be edited at a later date from Perform Exam or ViewEdit (e.g. existing shapes can be deleted or resized, or the user can add more shapes).

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Breast Drawing on the Reporting Windows

The breast drawing that is presented to the radiologist is a read only .jpg version of the drawing saved by the technologist.

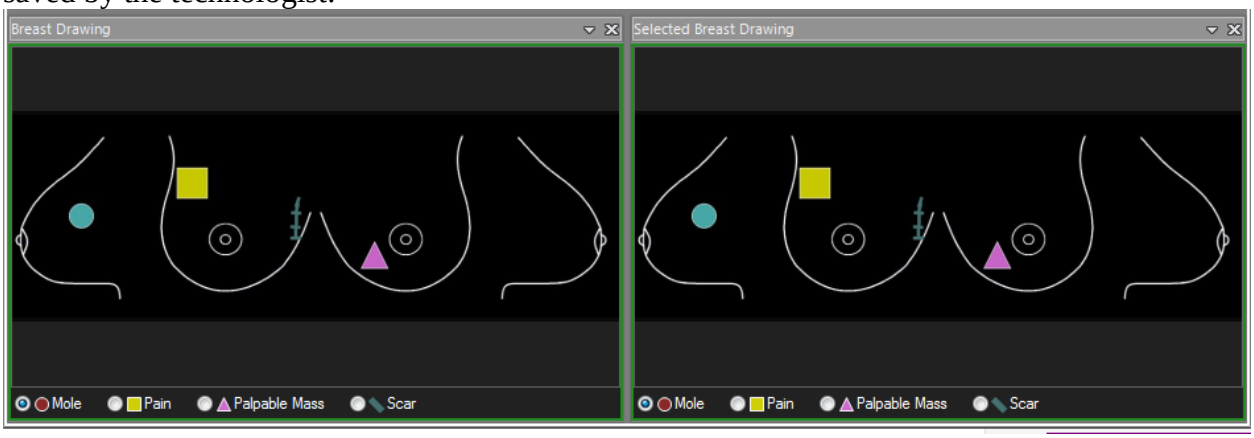



**Figure 5.6 – Breast Drawing and Selected Breast Drawing data panes in reporting window**

The radiologist can enable the Breast Drawing pane from the View menu when the Dictate screen is open on a BI-RADS enabled exam. The menu options are controlled by 2 new access strings titled "**View.BreastDrawing**" and "**View.SelectedBreastDrawing**" with defaults of Full.

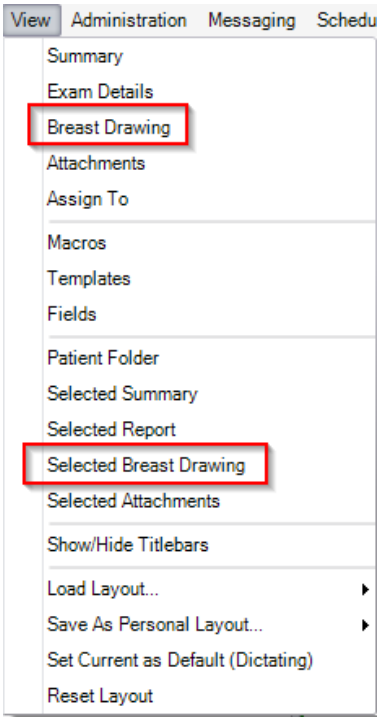



**Figure 5.7 – View menu options to access breast drawing and selected breast drawing**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Notes Field Added to Mammo Biopsy window

When performing a follow up from the ACR Category 0 or the ACR Category 4/5 follow up work lists, or accessing the View/Edit window on a mammo study, users can access the Mammo Biopsy window. In the biopsy window a new notes field has been added.

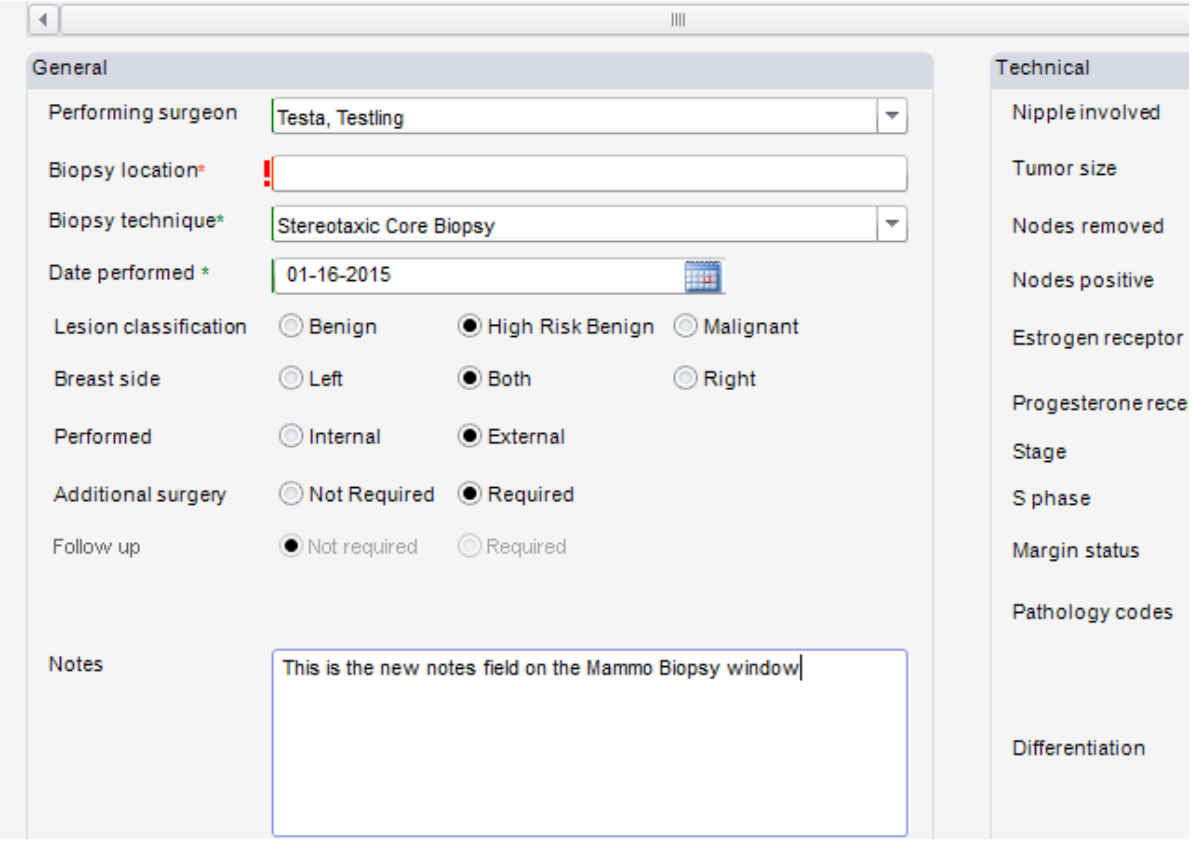



**Figure 5.8 – Mammo biopsy window with added notes field**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## User Friendly Names for Mammo Follow-Up Order Statuses

Mammo follow-up orders had 3 statuses of Callback, Short Term Follow Up and Invitation. These statuses will now be prefixed with Reminder with subtle changes to the order status names as well. They will now display as “Reminder – Callback”, “Reminder - Short Term” and “Reminder – Annual”.

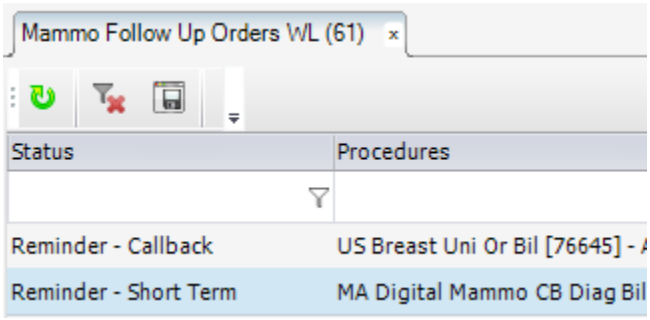



**Figure 5.9 – New order status for Mammo Follow-Ups**

The name changes will apply to the work lists, audit history and scheduling pop-ups.

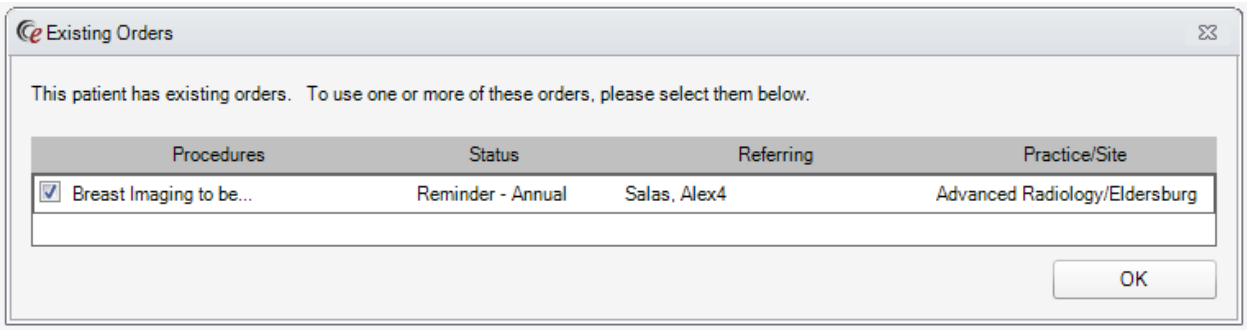



**Figure 5.10 – Existing orders window**

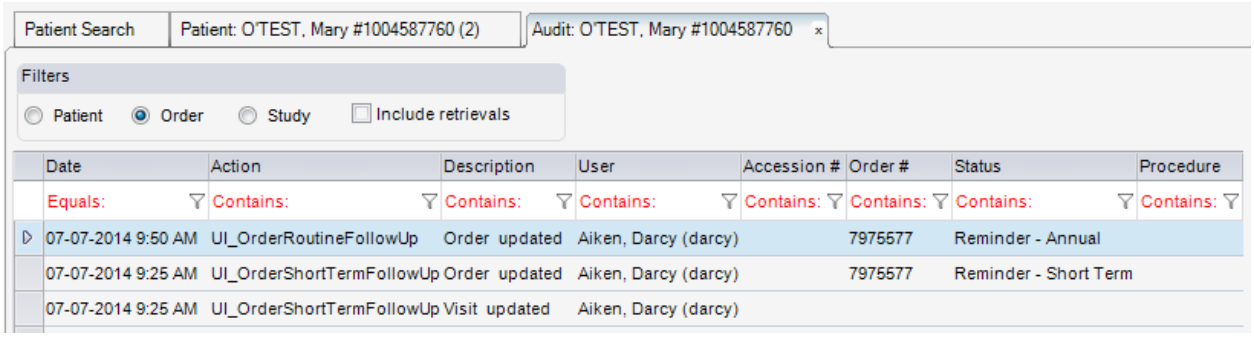



**Figure 5.11 – Audit History window**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

The administration > Configure lookup tables will still be displaying the previous names. Example such as the MammoLetterConfig and SystemConfig values for default letters.

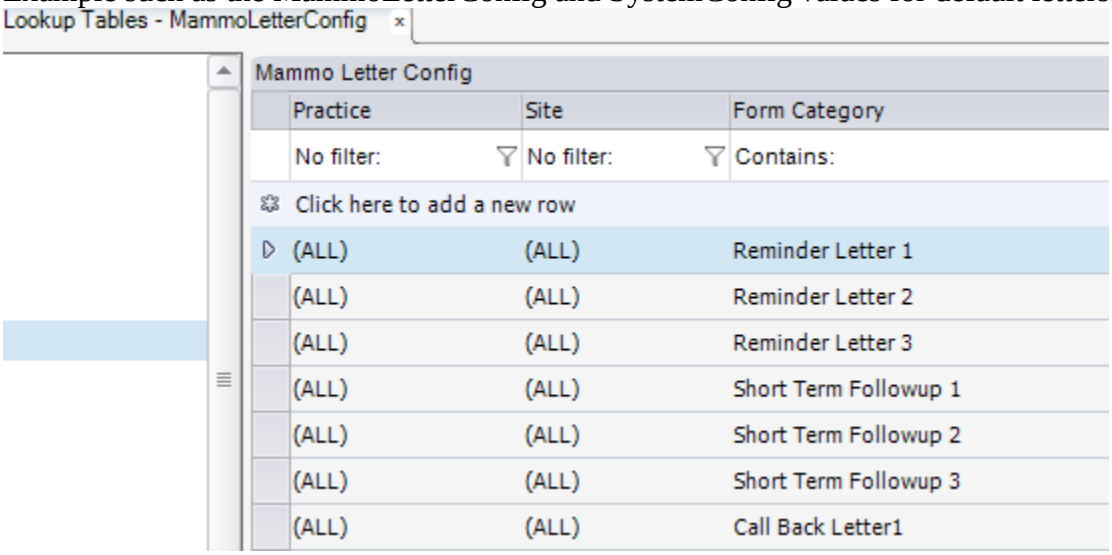



**Figure 5.12 – Mammo letter config lookup will use the old names as well as other lookups**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Mammography – Prior Report from Scheduling Window

In previous versions users accessing the prior report from within the scheduling window on mammo follow up studies would see the report open in a .pdf format. This was undesirable because text could not be copied from the report.

The viewing of the report has changed in Build 44. The user will now see the report open in a window that is similar to data nugget of the report accessed from the Patient Folder WL.

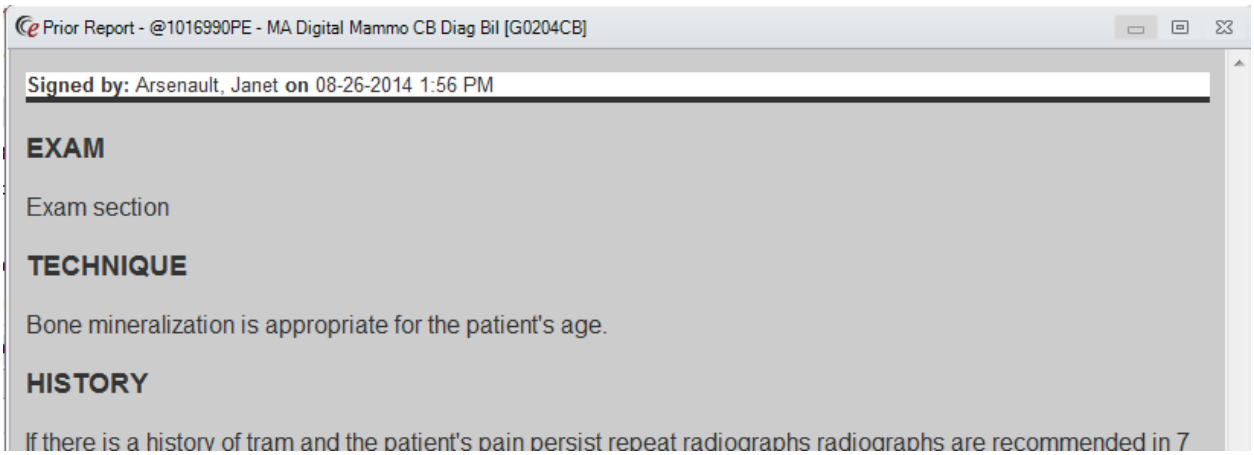



**Figure 5.13 – Prior Report accessed from scheduling window**

The Prior Report window will display the accession number, procedure name, laterality and procedure code in title bar.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Mammography – Disable Scrolling Function on BI-RADs Picker

In the reporting window after a user chose a BI-RAD value from the list box, the control stayed active. The scroll wheel on the mouse has been deactivated from the BI-RAD list box. The user now must click and selected from the available options.

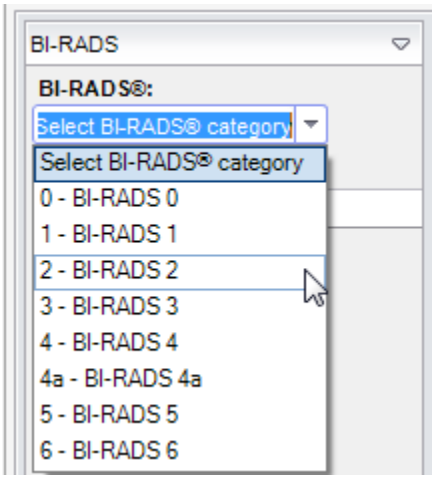



**Figure 5.14 – Scrolling feature disabled on BI-RADs picker in Reporting window.**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – PowerScribe 360 – Custom Exam Title and Technique

The Exam Title and Technique will now be able to be used with PowerScribe 360. Two new tables called "ProcedureExamTitle" and ProcedureTechnique" have been created and added to give users the ability to send a custom technique and exam title for the procedure being performed to PowerScribe 360 so that it can be populated automatically into the report. These new lookup tables live under the Procedure list of lookup tables where access to the lookup tables are controlled by access strings "**Config.LookupEditor.ProcedureExamTitle**" and "**Config.LookupEditor.ProcedureTechnique**" both with defaults of None.

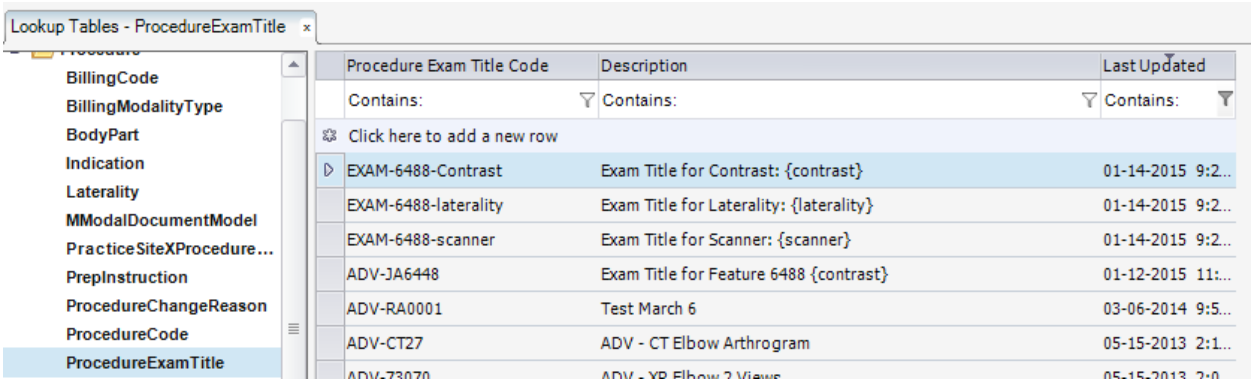



**Figure 5.15 – New lookup for ProcedureExamTitle**

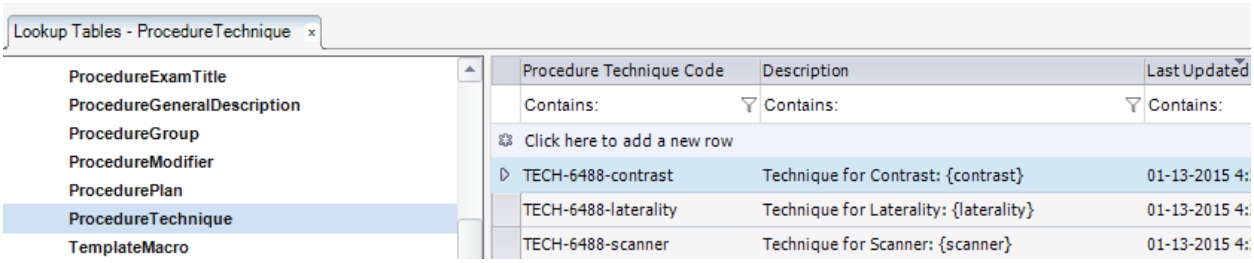



**Figure 5.16 – New lookup for ProcedureTechnique**

These fields will be coded within our custom field helper class in such a way that when the description contains {contrast}, {scanner} or {laterality} it will find those values and inject them into the field description. {scanner} looks at the report_description in the l_modality table for its value.

If the system currently has values in the ProcedureGeneralDescription lookup table these values will be automatically moved to the ProcedureExamTitle lookup table, but will also still remain the ProcedureGeneralDescription lookup table.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

Once the ProcedureExamTitle and ProcedureTechnique have been added they will then need to be referenced on the procedure code.

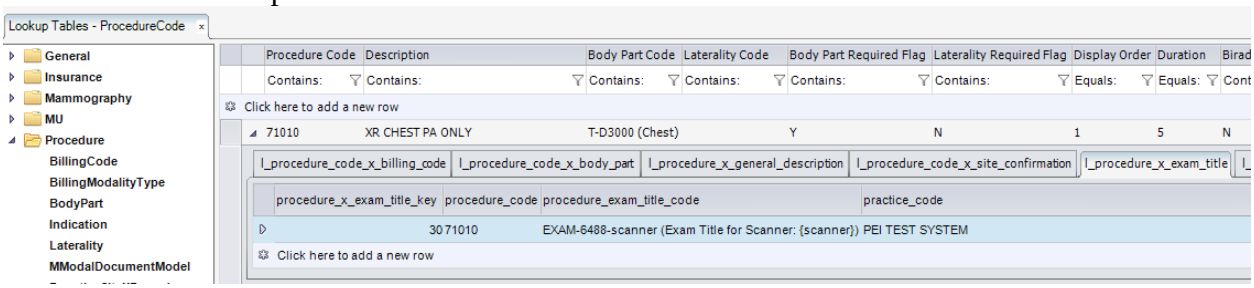



**Figure 5.17 – Adding ProcedureExamTitle to procedure code**

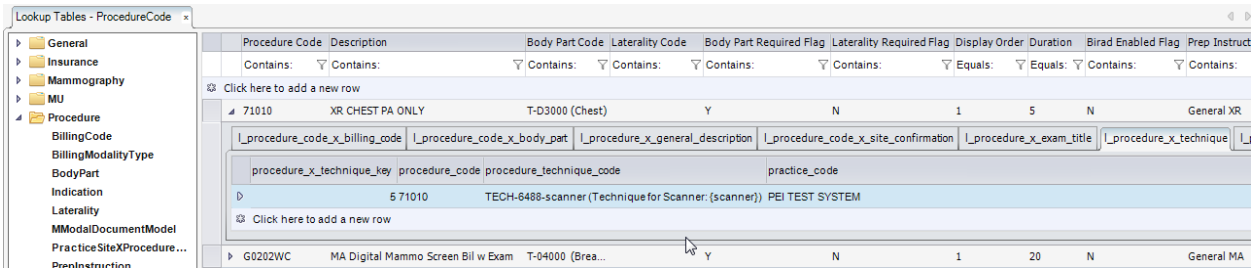



**Figure 5.18 – Adding ProcedureTechnique to procedure code**

Once the procedure exam title and procedure technique have been added to the procedure code To enable this feature a ris admin would have to populate the new tables with exam titles and techniques and link those to procedure codes. Then mirth will take care of sending these over to PowerScribe 360 once it's run some preprocessing on them to convert the inner fields with actual values ({contrast}, {scanner} or {laterality})

1. Make sure user has access to permission strings
    a. Config.LookupEditor.ProcedureExamTitle
    b. Config.LookupEditor.ProcedureTechnique
2. Open Configuration screen and open either ProcedureExamTitle or ProcedureTechnique lookup editor in the Procedure folder
    a. Add entries to the table as required
3. Open the ProcedureCode lookup editor
    a. Find the procedure code to link to exam title or technique
    b. Expand the row using the little arrow on the left of the row
    c. Find the tab for either l_procedure_exam_title or l_procedure_technique
    d. Add rows here to link the procedure code to the exam title or technique
4. Open the macro editor and create fields that are custom fields and link them to either one of these new fields.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

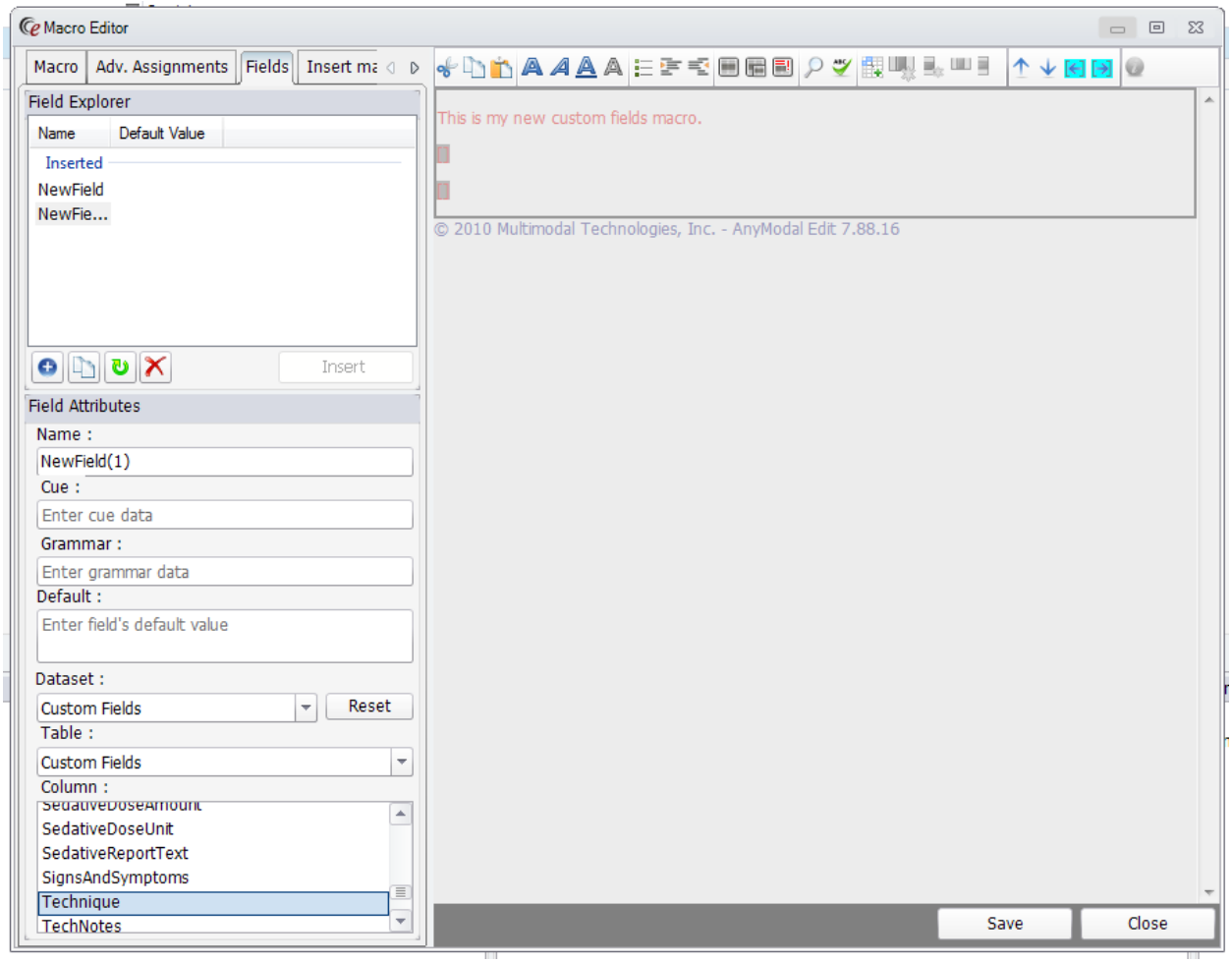



**Figure 5.19 – Adding ProcedureTechnique and ProcedureExamTitle to Macros and Templates**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Configurable Auto Close Delay for Work List Notifications

There is a new spin control on the user preferences screen. This is located under the feedback section of the radiologist tab.

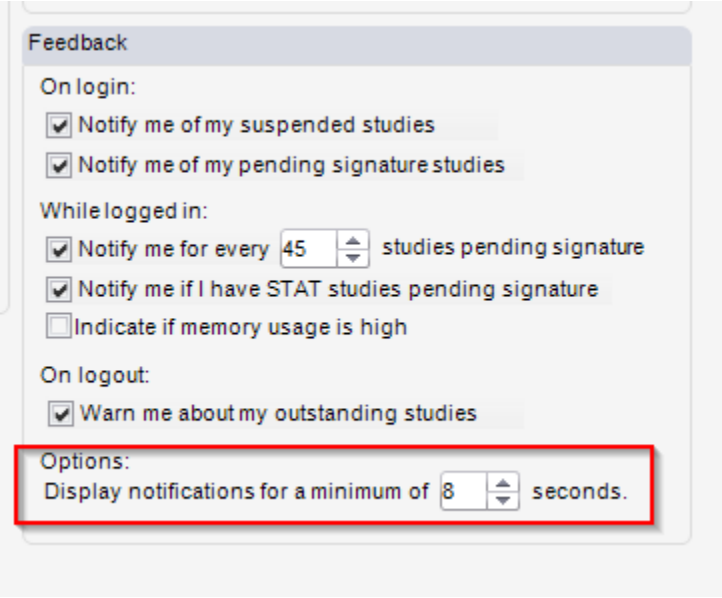



**Figure 5.20 – New User Preference**

"Display notifications for a minimum of ____ seconds" - Is there the user enters their preferred value.

The user can select between a range of 3 - 60 seconds. The value selected will be the amount of seconds the notification will display on the screen before it begins to fade out.
The default setting is 8 seconds. This matches the systems previous default functionality.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Ability to Change Status Tentatively Signed to Report Drafted

Users will now be able to change an exam with a status of Signed* to Report Drafted. The context menu option of Change Status to Report Drafted has been added to the Signed, Pending Release WL, All Signed, Pending Release WL, All Signed Pending QA WL and All Pending QA WL.

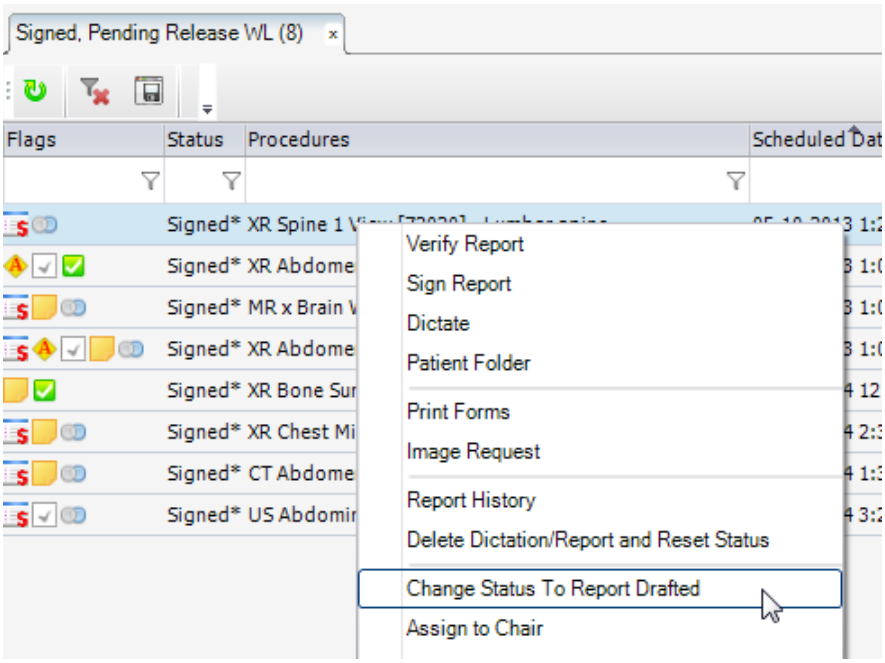



**Figure 5.21 – Change Status To Report Drafted context menu item**

The context menu option of Change Status To Report Drafted has been added to the sub menu of the context menu item of Change Status to… of the Patient Folder WL.

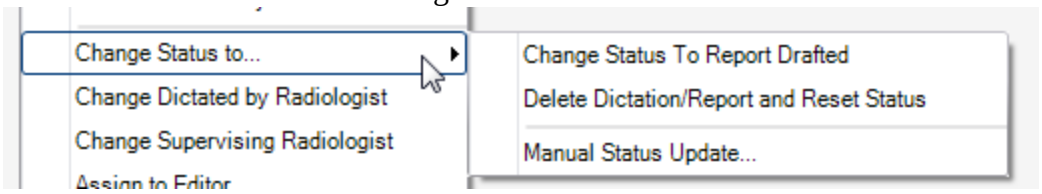



**Figure 5.22 – Context menu item from Patient Folder WL**

We set the tentatively signed by user id, tentatively signed date and the automatic sign date to null for the study being altered.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting - Peer Review

The look, feel and usage of Peer Review has changed in Build 44. Previous versions would allow users to Peer Review a study; add a value and notes which would then go to the All Peer Review Pending Action WL. This is still true today. Once it is on this work list however, the action to complete has changed.

From the All Peer Review Pending Action WL a user will 2 Peer Review action options. The first is to Review the study and the other is to Mark as Completed. Selecting the Mark as Complete will remove the study from the work list as to "mark as complete". The Review option will open the study in a Peer Review QA tab. This new tab will display the report in a read only HTML view similar to viewing Prior Reports.

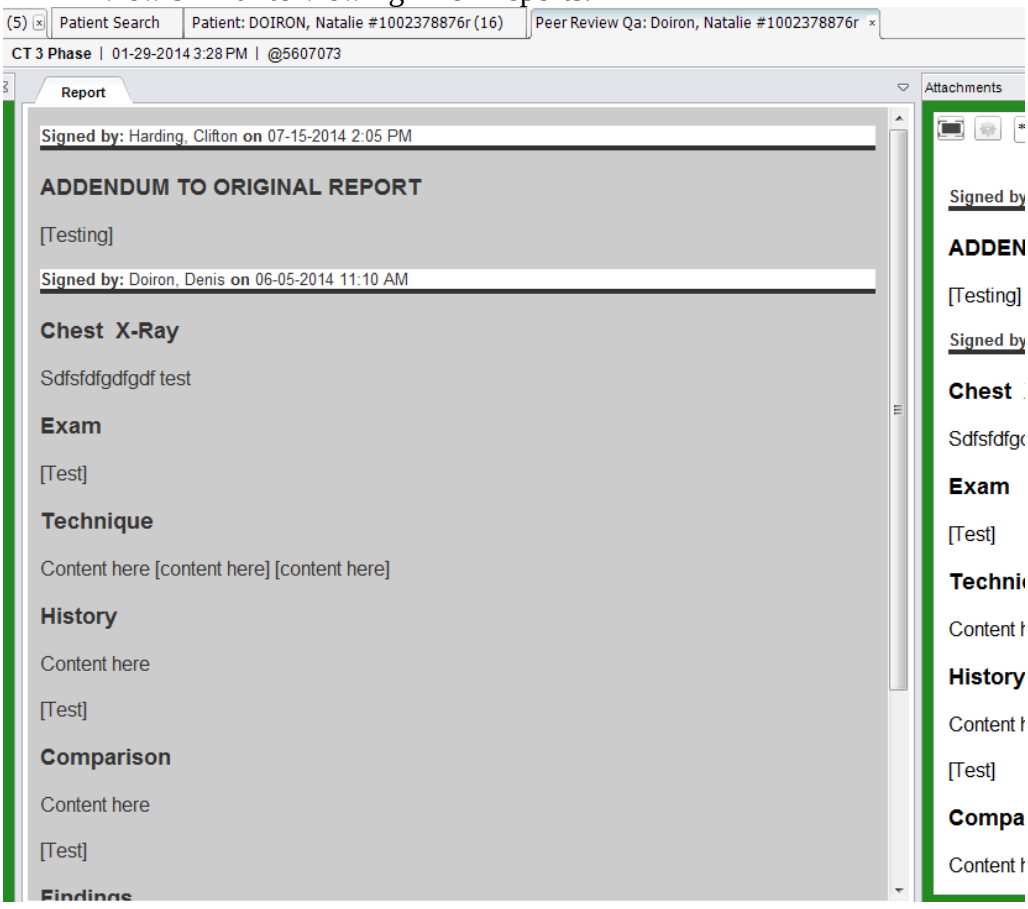



**Figure 5.23 – Peer Review QA window displaying read only version of report**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Peer Review – Review and Override Peer Reviews

When reviewing a study from the All Peer Review Pending Action WL the user will also see the Peer Review data pane, which is the same as the Peer Review window the user would have been presented with in prior versions.

If the user agrees with the Peer Review they can select the Complete button and move on to the next study or close the Peer Review QA window. If there is a discrepancy and the reviewer wants "reject" the peer review they can do so in the Peer Review data pane. The user will select the "I disagree with this review" check box which will enable the Peer Review controls.

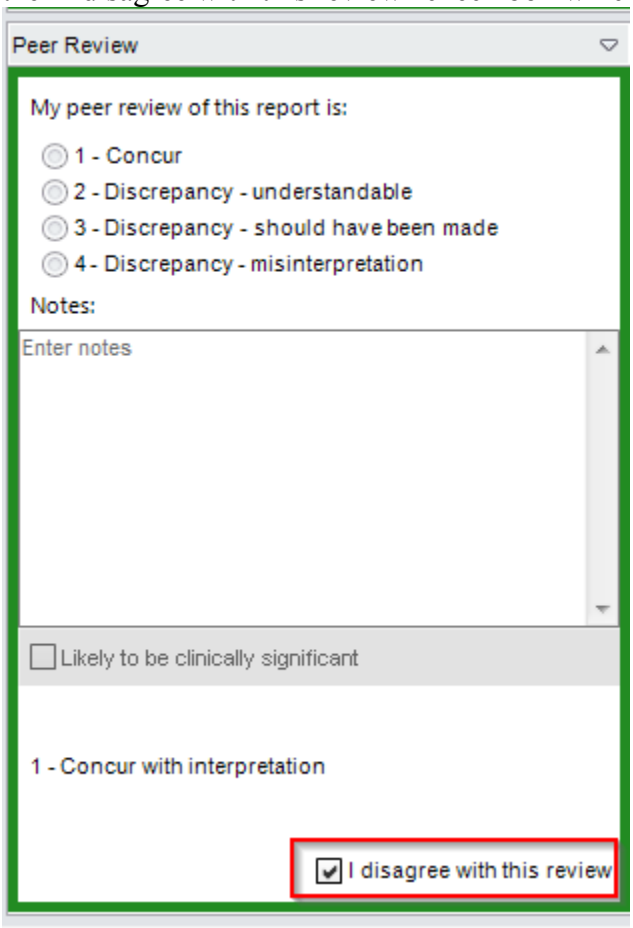



**Figure 5.24 – Peer Review control from Peer Review QA window**

The radiologist will get to choose a score, and enter notes very much like he would if he was doing a normal peer review. At any time he can revert back and uncheck the box. While the box

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

is unchecked, any information entered in the peer review box will be ignored and will not be saved. Only when the box is checked, and the information is visible will it get saved.

Also the Complete button on the Peer Review QA window will be disabled. It will stay disabled until the criteria for the controls are met, meaning there must be notes entered if the score meets a predefined criteria as it would in the normal peer review control, which is based on the "**PeerReviewScoreToStartRequiringNotes**" setting. So whether the score meets this setting, notes will or will not be required, and once the peer review details passes validation, the complete button will be enable.

This control can also exist for transcriptions, since some sites might have them enter there peer reviews into another system. In this case they should not have the option to disagree with the peer review, the access string that controls this is "**Clinical.AllowPeerReviewChanges**", this will hide the panel that contains the "I disagree with this review" checkbox.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Peer Review – Request Addendum

Studies that have been peer reviewed can have an addendum requested from the All Peer Review Pending Action WL context menu. Alternatively if the study has an addendum request the context menu will have the option to Cancel Addendum Request.

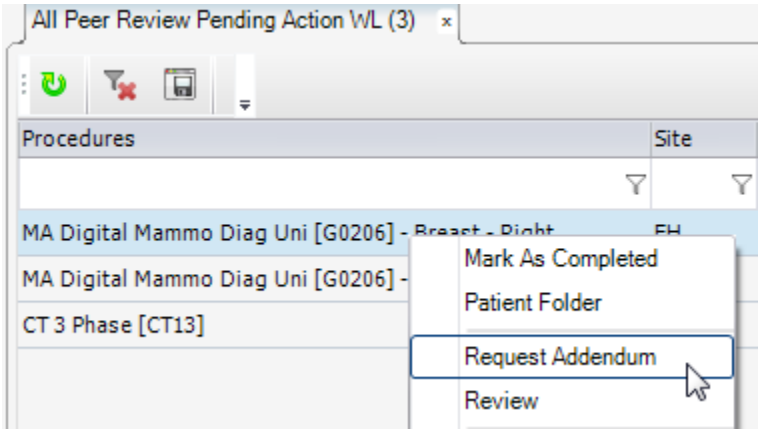



**Figure 5.25 – Request Addendum from All Peer Review Pending Action WL**

They can also have an addendum requested from within the Peer Review QA window. Another new data pane has been added with 2 options, Request Addendum and Create Addendum. Create Addendum will be discussed in the next feature description.

Notes are always required on addendum requests, so the button will only enable once notes are entered. The user also gets to choose who the addendum request should be assigned to, by default it will be the signing radiologist.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

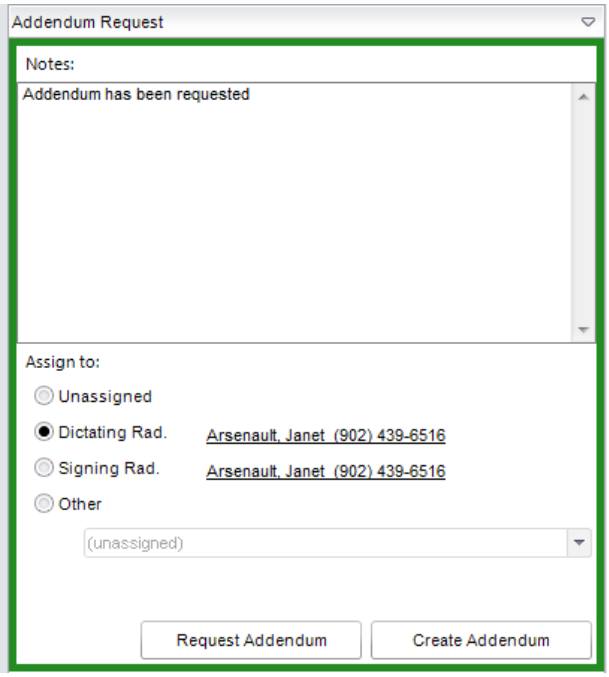



**Figure 5.26 – Request Addendum from within Peer Review QA window**

When the user clicks the "Request Addendum" button, the addendum request will be made immediately, without closing the screen, or completing the peer review. It is a separate action, run as if it was run from the worklist. When the user does this the screen will refresh to show that an addendum was requested.

In this mode it will show the notes for the addendum request, who it is assigned to and a button to cancel it. This is also the way it will open up on a peer review that has already had a addendum requested.

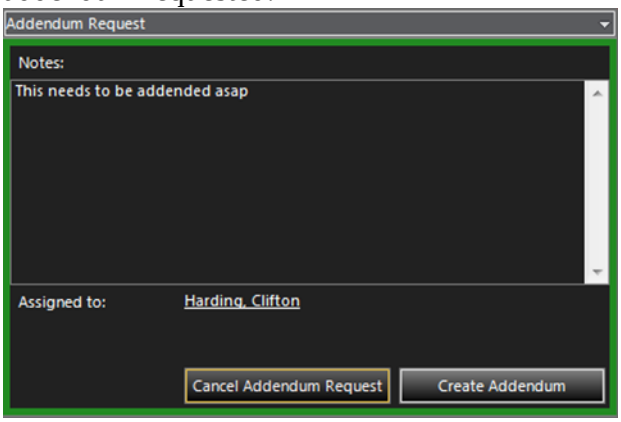



**Figure 5.27 – Ability to Cancel Addendum Request from Peer Review QA window**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Peer Review – Create Addendum from Peer Review Window

As seen in the previous feature, the user will have the ability to create an addendum immediately from within the Peer Review QA window. The button to create an addendum is found in the Addendum Request data pane.

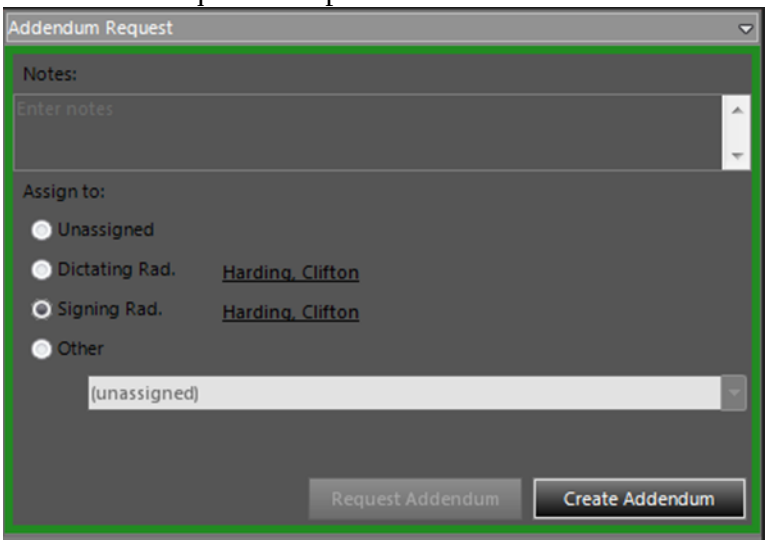



**Figure 5.28 – Create Addendum from Peer Review QA window**

When it is clicked, it will get disabled, and it will open a dictate screen in another tab, and leave the Peer Review screen as is. When the radiologist closed the create addendum screen, assuming he hasn't been bouncing back and forth between tabs, it will return him to the Peer Review screen where he can complete it and move on to the next one.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Assign Radiologist Picker Redesign

We redesigned the existing user picker control and provided all existing functionality while adding some desirable functionality.

1. If you already have an assignment we will display this at the top of the dialog in the currently assigned label.
2. The OK button will save the selected assignment. It will enable when a valid item is selected.
3. We now inherit from the popup dialog base class now and display the icon on the form and in the windows tool bar.
4. We added functionality to save super rad as your preference. Previously if you want to change it you would have to open user preferences also. This option is only available when selecting a supervising rad. Not available for example when changing dictating rad or super rad in the summary screen.
5. When showing all we will load all practices and associated radiologists for each. If a radiologist is associated to more than one practice we will list that user in each practice.
6. Now using Telerik controls entirely.
7. When opening to select super rad users will first get the list of radiologists for their currently selected practice. Show all will show all practices, and only practices, they are associated with. Previously users could see a list of all practices even if they were not associated with them.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# Contrast, Sedation and CT Dosage Tracking

## Contrast

The ability to add contrast and sedation values and track CT dosage has been added to the Documentation tab of the Technologists Perform Exam window and also available on the same tab of the View/Edit and Billing Exception windows.

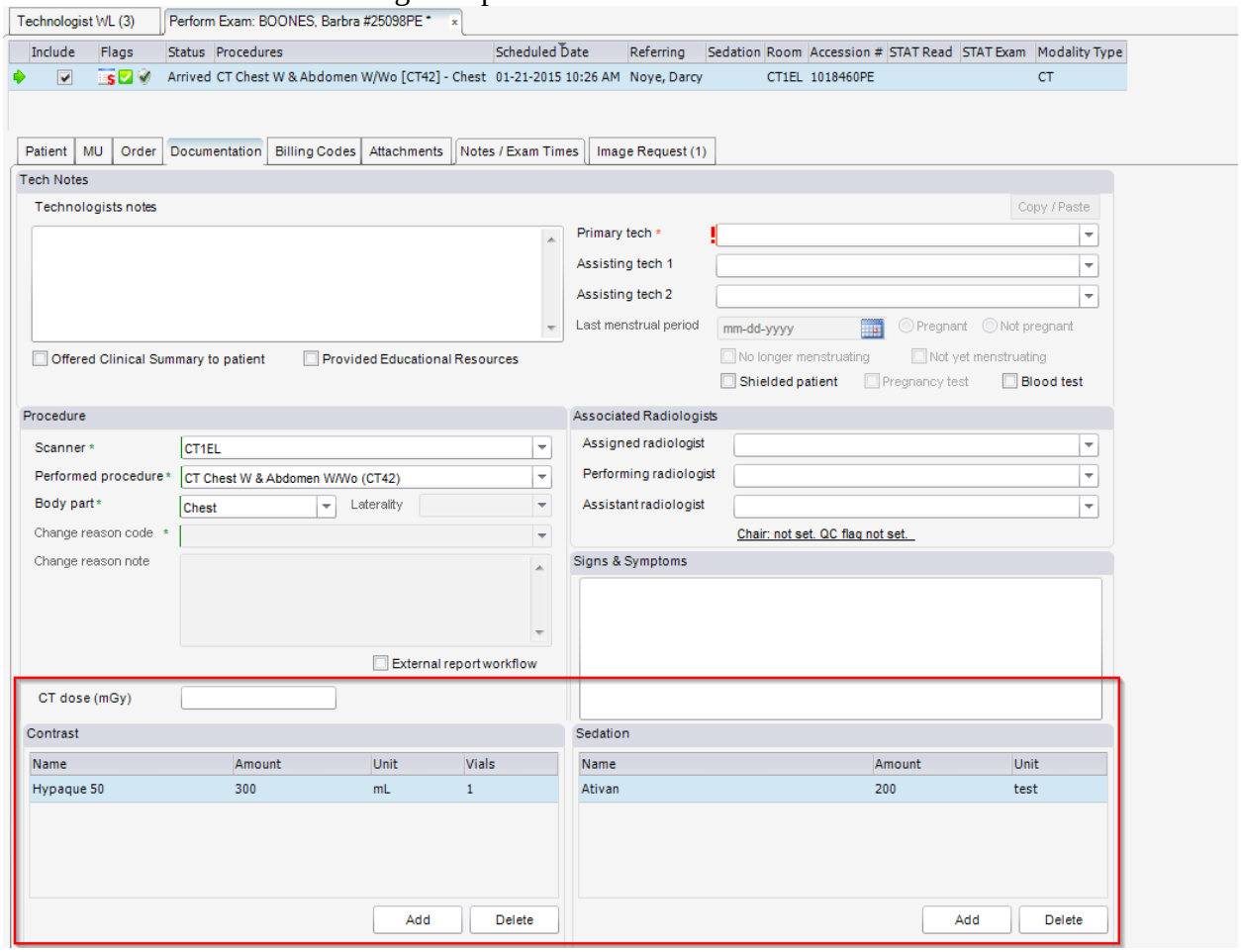



**Figure 5.29 – Contrast and Sedation fields and CT Dosage field**

Contrast is tracked with a grid control that captures the contrast type, amount, units and vials. The controls to capture this data is in their own section on the screen and will be required for procedure codes that are flagged as requiring contrast.

The contrast grid will have records added and removed via Add and Delete buttons.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

To add a Contrast to the grid, the user will click the Add button. Upon clicking, the user is presented with a pop up input box that contains a drop down list of available contrasts. The list will only contain available contrasts that are not already present in the grid.

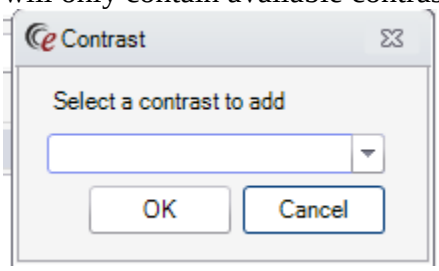



**Figure 5.30 – Add contrast**

Since inventory is not managed, the amount/dosage may not directly correlate to a vial size. Example: Site A may have small 10cc vials of Contrast XYZ while Site B may have 50 cc vials of Contrast XYZ. The default dosage may be 30ccs. At Site A we would have used 3 vials but Site B would have used just 1.

The value in the Vials column can have a direct relation to the billing codes. The system config setting of "**EnableContrastBillingRelation**" is true (true is the default), the values in the Vials column will populate in the Units column on the Billing Codes tab if the Billing Code has the Contrast Code assigned. As billing codes are billed based on unit count (in the case of contrast a vial is a unit) the system will make sure these two values match up. If you change one of these values the other will update. Think of vials and units as tied together or even one in the same. Also when "EnableContrastBillingRelation" is true, removing the contrast code will remove the associated billing code and vice versa.

If the relation is not enabled, the vials column is manually entered and does not affect anything else.

The contrast can also be pre-populated into the grid. The Billing Code can have a contrast type assigned. The Procedure Code will then have the Billing Code assigned to it. When performing exam on this procedure the contrast and its default values will pre-populate the Contrast grid.

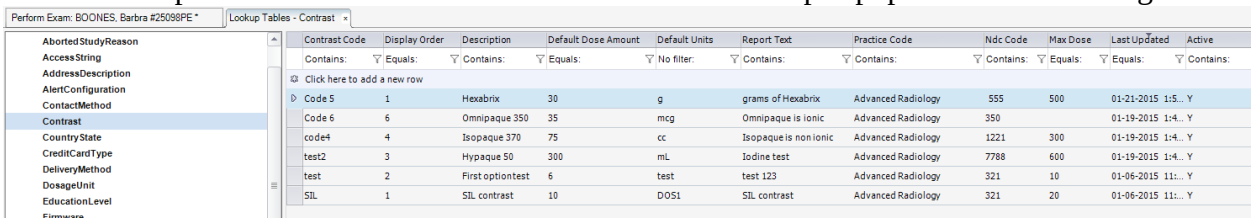



**Figure 5.31 – Contrast lookup table**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

Contrast values will come from the Contrast lookup table. This table is controlled by access string "**Config.LookupEditor.Contrast**" that has a default of None. As mentioned the Contrast Code can have a default dose amount, default units and be associated to a practice. The description is what the user will see in the data windows. Report Text will be used when a field is mapped to a diagnostic report template. The Ndc code column will contain the National Drug Code value and the Max Dose column will provide an alert if this threshold is meet.

Contrast data will be accessible to the radiologist report via fields. The value in the Report Text field in the screen capture above will be used in the report.

There is a master "ContrastField" field, which will concatenate the contrast record(s) for the study into a sentence. Also there are options to manually pull the contrast data items one at a time. However this manual option only pulls the first contrast record for each data item.

Example of ContrastField :: ***Patient was administered 4g of Contrast Type A, 47cc of Contrast Brand X, 250ml of Contrast Type 5 and 8g of Contrast Brand XYZ***.

In this example, we are looking at "Patient was administered" + dose + unit + "of" + "contrast name". This pattern repeats for each record. Contrast data will be packaged and sent to third party integrated applications as needed through configuration.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

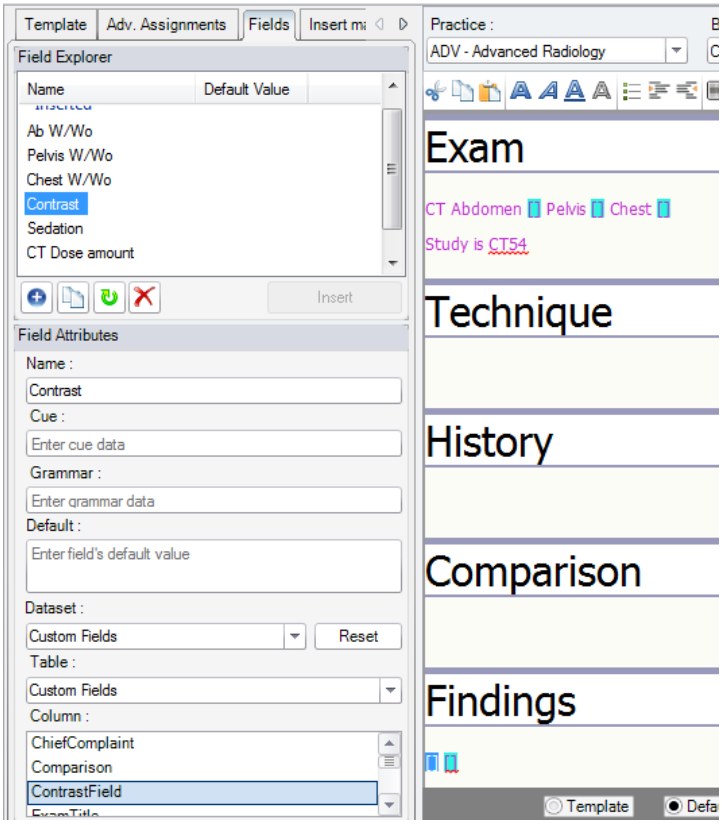



**Figure 5.32 – Adding Contrast field to template**

## Sedation

Similar to contrast tracking, there will be defaults identified to be loaded for each sedative, amount administered and unit of measure. Sedatives will be associated to a practice.

The sedative grid will have records added and removed via Add and Delete buttons.

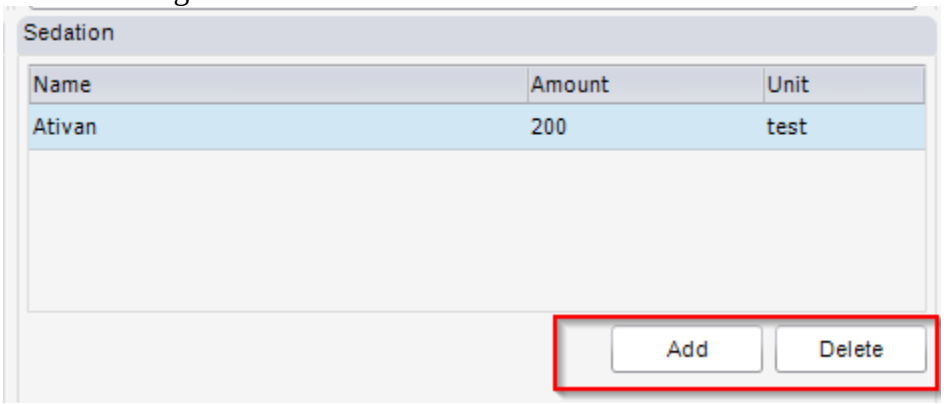



**Figure 5.33 – Sedation grid**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

Selecting the Add button will open the Add Sedation window. The list of available option will come from the Sedative lookup and the options available will be those that are not already added to the grid.

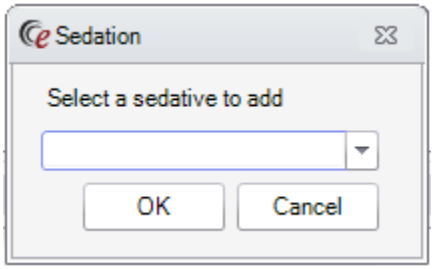



**Figure 5.34 – Add Sedation grid**

The new lookup table called Sedative is controlled by access string "**Config.LookupEditor.Sedative**" that has a default of None.

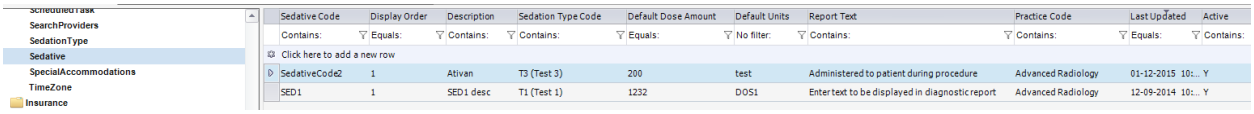



**Figure 5.35 – Sedative lookup table**

Sedative's will be associated to a practice. The Description is what the user will see in the grid of the Perform Exam, View\Edit and Billing Exception windows. The default dose amount will auto populate the Amount column and the Default Units value will auto populate the Unit field. The Report Text field can be mapped to Template\Macros. This column allows for a 2nd description of the sedative for the intent of being included in the radiologists report (in case it is different than the main description which the tech sees in their screen).

There is a master "SedativeField" field, which will concatenate the sedation record(s) for the study into a sentence. Also there are options to manually pull the sedative data items one at a time. However this manual option only pulls the first contrast record for each data item.

Example of SedativeField:: ***Patient was administered 4g of Sedative Type A, 47cc of Sedative Brand X, 250ml of Sedative Type 5 and 8g of Sedative Brand XYZ***.

In this example, we are looking at "Patient was administered" + dose + unit + "of" + "sedative name". This pattern repeats for each record.

Sedation data will be packaged and sent to third party integrated applications as needed through configuration.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

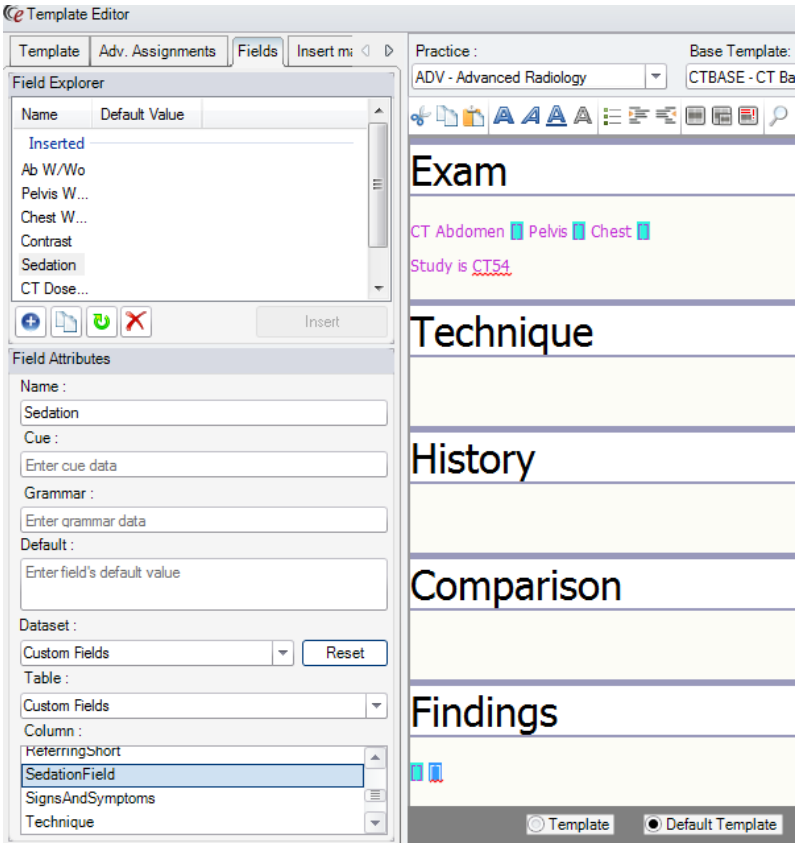



**Figure 5.36 – SedationField for Template\Macros**

In this example, we are looking at “Patient was administered” + dose + unit + “of” + “sedative name”. This pattern repeats for each record.
Sedation data will be packaged and sent to third party integrated applications as needed through configuration.

In both the Contrast and Sedative lookup tables, the values available in the Default Units column will come from the lookup table Dosage Unit. Access to this lookup table is controlled by “**Config.LookupEditor.DosageUnit**” that has a default of None. The table will capture the Dosage Unit Code and Description, along with Display Order, Last Updated and Active columns.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

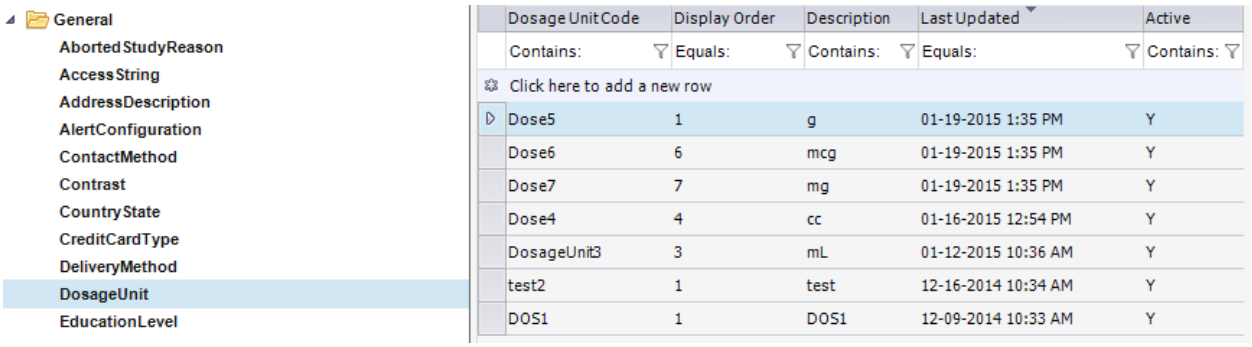



**Figure 5.37 – Dosage Unit lookup table**

## CT Dose

In the Perform Exam window, the View\Edit window and the Billing Exception window on the Documentation tab, anew field called CT dose (mGy) has been added.

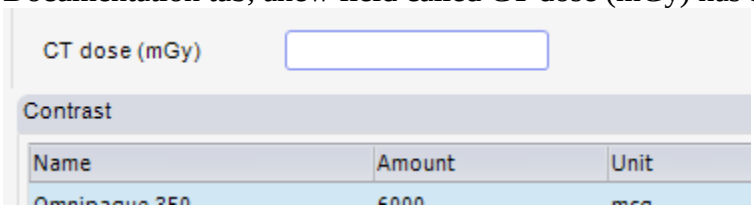



**Figure 5.38 – CT dose field on documentation tab**

Dosage tracking is enabled at the practice level and will be performed by entering the dosage amount into a text field on the tech screen. There would be no default values set for this. The tech will have to manually enter the amount.

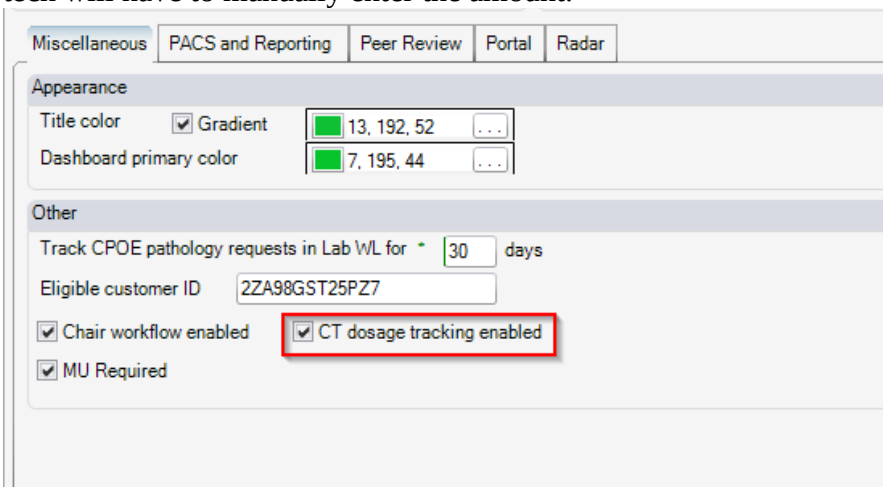



**Figure 5.39 – Enabling CT dosage tracking for Practice**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

To determine what is a CT, there was a new system table added, s_dicom_modality_type. This table contains a list of dicom supported modality types:
http://www.dicomlibrary.com/dicom/modality/

These codes can be mapped to the procedure code table. If CT dosage tracking is enabled we check if the procedure code has that procedures dicom_modality_type set to 'CT', if so, then we require the tracking to be entered.

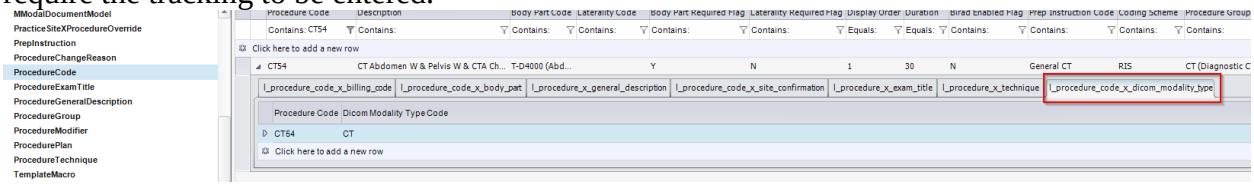



**Figure 5.40 – Dicom Modality Type set on a procedure code**

CT dosage data will be accessible in the radiologist report via fields. A system would be configured to have report template contain the ct_dose_amount field. Alternatively a radiologist could have macros created that use the field and they can then choose to include the data at will or leave it omitted.

CT dosage data will be packaged and sent to third party integrated applications as needed.

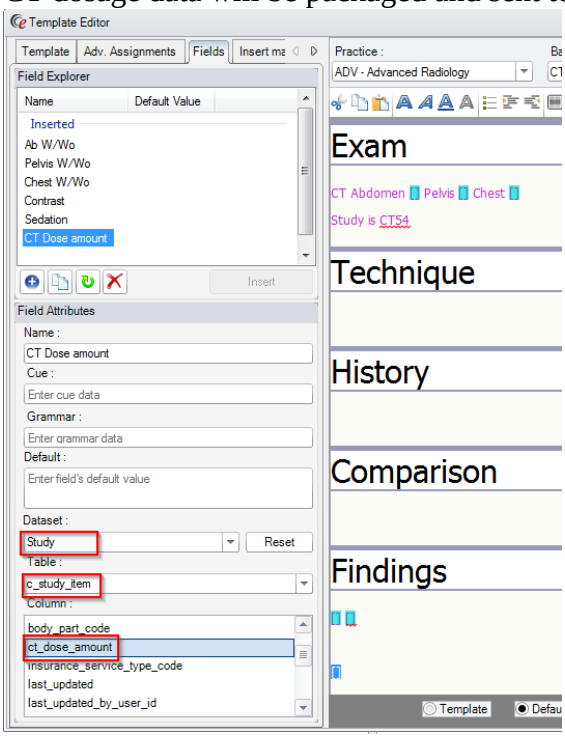



**Figure 5.41 – Adding CT Dosage amount to Template\Macros**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Send Copy of Diagnostic Report to Patient on Request

An option to send the diagnostic report to patient has been added in B44. First we have added a check box on the Order tab in the Referring Details section of the window. Selecting this check box will create a distribution print job on the Document Distribution WL when the report is signed. This checkbox will also be available for New Outside Reads.

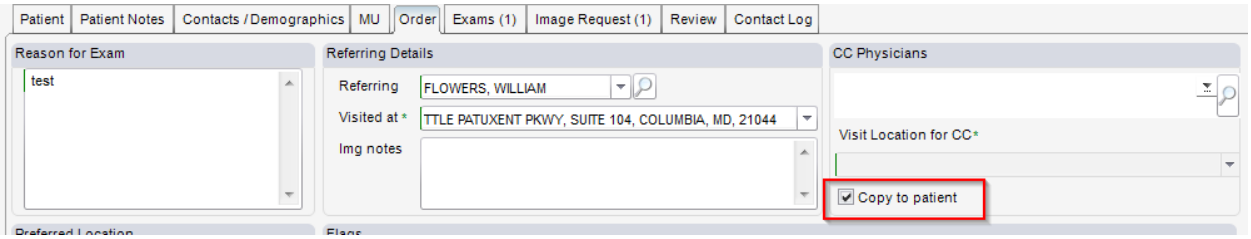



**Figure 5.42 – Copy to patient check box on the Order tab**

From the Document Distribution WL, the Distribution History By Date WL and Distribution History WL access from the Patient Folder WL will have the option to edit a job and select Patient

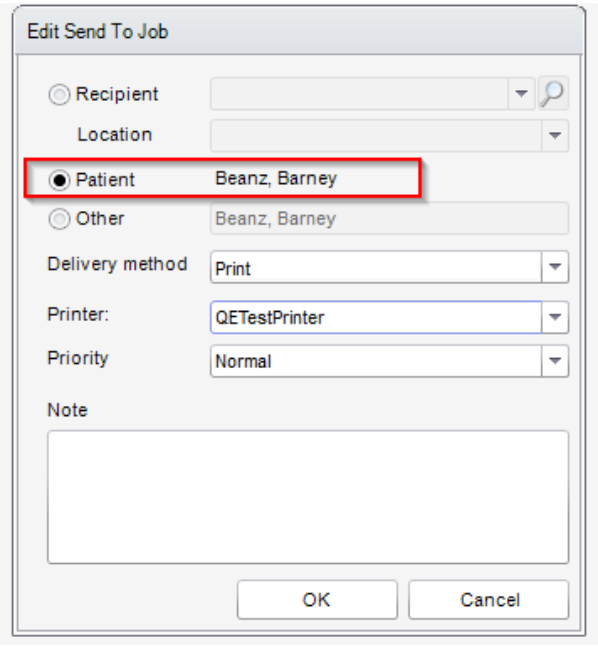


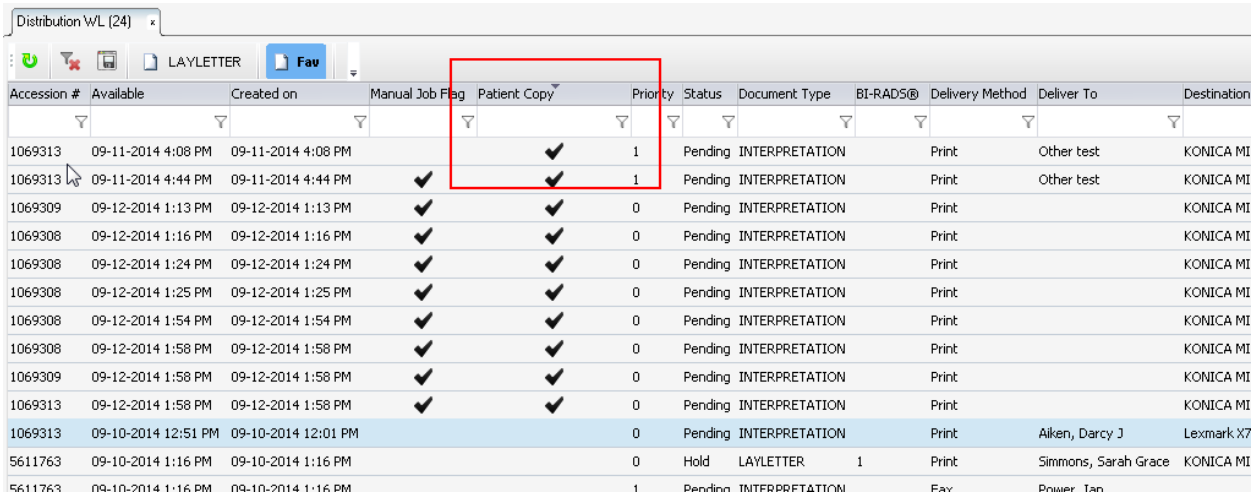

**Figure 5.43 – Edit existing distribution job**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

Also from the Distribution History By Date WL and Distribution History WL access from the Patient Folder WL a user can create a new job and once again the Patient option can be selected to send report to patient.

The Patient Folder WL also has a context menu option of Send Report. This again will open the window displayed in Figure 5.43 and once again Patient is an option. This is also the same for the Send to button that is available from the Reporting windows such as the Dictate window, the Sign Reports window, etc…

When a distribution job is created for a patient, a new column on the Distribution WL titled Patient Copy will be populated with a check mark. This column also exists on the Distribution History By Date WL and Distribution History WL




| Accession # | Available | Created on | Manual Job Flag | Patient Copy | Priority | Status | Document Type | BI-RADS® | Delivery Method | Deliver To | Destination |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1069313 | 09-11-2014 4:08 PM | 09-11-2014 4:08 PM | | ✔ | 1 | Pending | INTERPRETATION | | Print | Other test | KONICA MI |
| 1069313 | 09-11-2014 4:44 PM | 09-11-2014 4:44 PM | ✔ | ✔ | 1 | Pending | INTERPRETATION | | Print | Other test | KONICA MI |
| 1069309 | 09-12-2014 1:13 PM | 09-12-2014 1:13 PM | ✔ | ✔ | 0 | Pending | INTERPRETATION | | Print | | KONICA MI |
| 1069308 | 09-12-2014 1:16 PM | 09-12-2014 1:16 PM | ✔ | ✔ | 0 | Pending | INTERPRETATION | | Print | | KONICA MI |
| 1069308 | 09-12-2014 1:24 PM | 09-12-2014 1:24 PM | ✔ | ✔ | 0 | Pending | INTERPRETATION | | Print | | KONICA MI |
| 1069308 | 09-12-2014 1:25 PM | 09-12-2014 1:25 PM | ✔ | ✔ | 0 | Pending | INTERPRETATION | | Print | | KONICA MI |
| 1069308 | 09-12-2014 1:54 PM | 09-12-2014 1:54 PM | ✔ | ✔ | 0 | Pending | INTERPRETATION | | Print | | KONICA MI |
| 1069308 | 09-12-2014 1:58 PM | 09-12-2014 1:58 PM | ✔ | ✔ | 0 | Pending | INTERPRETATION | | Print | | KONICA MI |
| 1069309 | 09-12-2014 1:58 PM | 09-12-2014 1:58 PM | ✔ | ✔ | 0 | Pending | INTERPRETATION | | Print | | KONICA MI |
| 1069313 | 09-12-2014 1:58 PM | 09-12-2014 1:58 PM | ✔ | ✔ | 0 | Pending | INTERPRETATION | | Print | | KONICA MI |
| 1069313 | 09-10-2014 12:51 PM | 09-10-2014 12:01 PM | | | 0 | Pending | INTERPRETATION | | Print | Aiken, Darcy J | Lexmark X7 |
| 5611763 | 09-10-2014 1:16 PM | 09-10-2014 1:16 PM | | | 0 | Hold | LAYLETTER | 1 | Print | Simmons, Sarah Grace | KONICA MI |

**Figure 5.44 – Patient Copy column on the Distribution WL**

The diagnostic template(s) will require changes to accommodate this feature. To implement the logic for adding patient "send to" information to the template see document eRAD RIS Build 44 Upgrade Instructions.docx

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## STAT Read changes

The ‘stat read’ flag had many different labels and icons. We have made some changes to have one consistent format. ‘STAT Read’ and ‘STAT read’ (where sentence case is required) and the icon will be a red triangle with an exclamation mark.

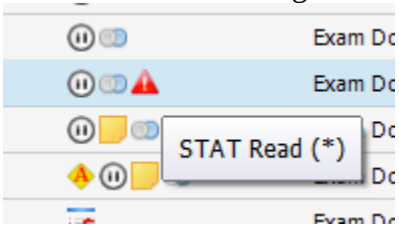



**Figure 5.44 – STAT Read flag icon**

The context menu to add flag has been changed to be “Set STAT Read” and “Remove STAT Read” when it has been already set.

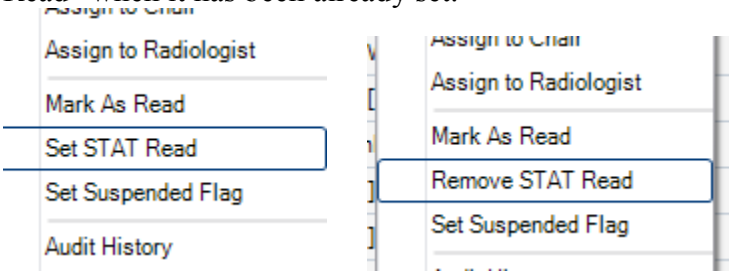



**Figure 5.45 – Context menu items to set and remove STAT read flag**

The Column title has also been updated

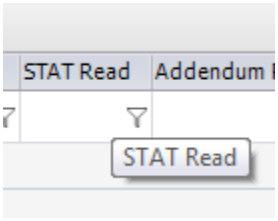



**Figure 5.46 – STAT Read work list column title**

Finally, when opening a study that has the STAT Read flag we have changed the verbal notification to say STAT Read as opposed to STAT Exam.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## PACS Server Override From PACS Menu

This was originally introduced in patch build 43.0.6. Adding as a refresher. The menu item of PACS Server Override located under the PACS menu is controlled by the access string "PACSIntegration.Override" with a default access level of Full. We have given it full access so users who have access to the Menu.PACS access string which has a default of None will be given automatic access to it.

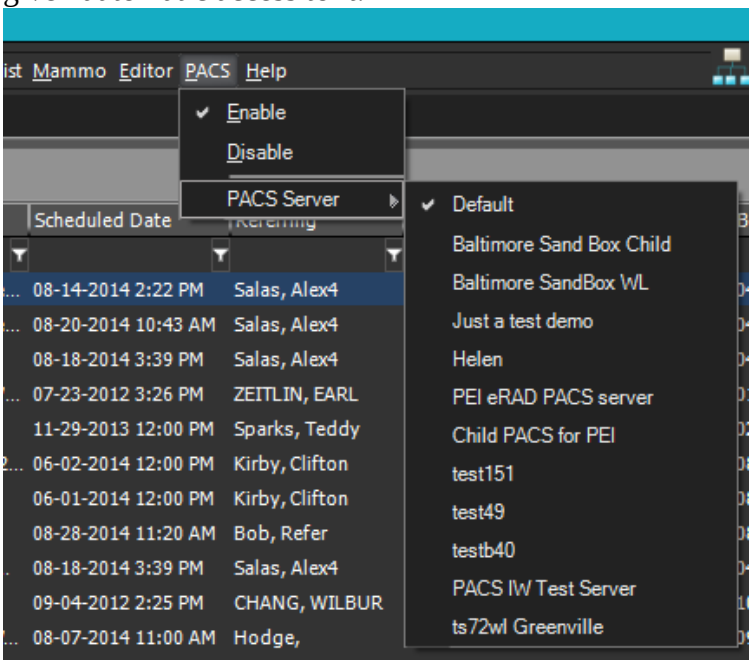



**Figure 5.47 – PACS Server menu option**

Before when a workstation didn't have the configuration for the selected Pacs server, the menu would disappear, now it does not, access string determines if the user sees the menu. If the Pacs server isn't configured on the workstation, the Enable/Disable items will be disabled.

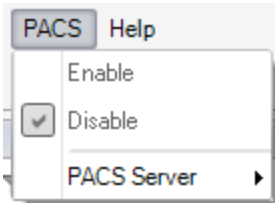



**Figure 5.48 – Enable\Disable menu options disabled**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Hologic Integration Changes

When integration with a Hologic Workstation was initially developed in Build 43.0.6, it required the user to select "Hologic" from the PACS Override menu every time they logged in. This was painful for the radiologists who work only with Hologic from a particular workstation.

Now if the Hologic integration is available on the workstation it is now selected by default in the PACS override menu. This means that the user needs to have the *PACSIntegration.Override* permission.

Also in the original release of this feature, the Hologic Integration was user specific. The HologicConfig.xml file was added to the %appdata% directory ( a user's roaming profile) Now this file is put in c:\ProgramData\Radnet\eRad RIS to make the configuration available to all users on the workstation.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Track Registered in PECOS

PECOS (Provider Enrollment, Chain, and Ownership System) is used with Medicare to support the Medicare Provider and Supplier enrollment process. A new checkbox has been added to the Personnel Editor that is enabled when the Resource Flags of Referrer or Radiologist are selected.

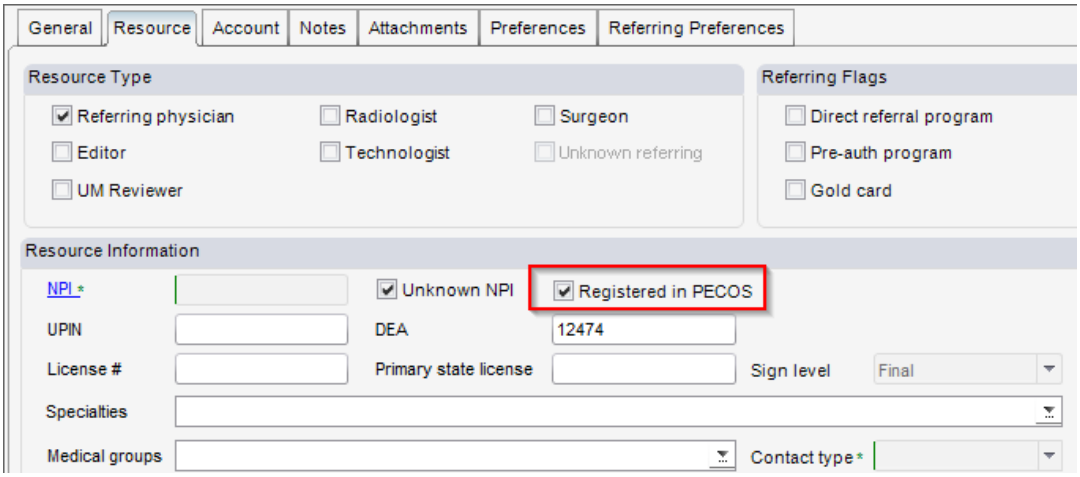



**Figure 5.49 – Registered in PECOS checkbox in Personnel Editor**

The Carrier Type lookup table has an additional column added with a title of Medicare Type Flag. This column is to be set to Y for all Carrier Types that are Medicare.

**Figure 5.50 – Medicare Type Flag column added to Carrier Type lookup table**

When a study is scheduled with an Insurance Carrier that is a Medicare provider, the referring physician that does not have the check box selected on their user profile will receive a message informing that they are not registered in PECOS. The message prompt will be determined by the system configuration setting of "**EnableNotRegisteredInPECOSWarning**" that has a default value of False.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

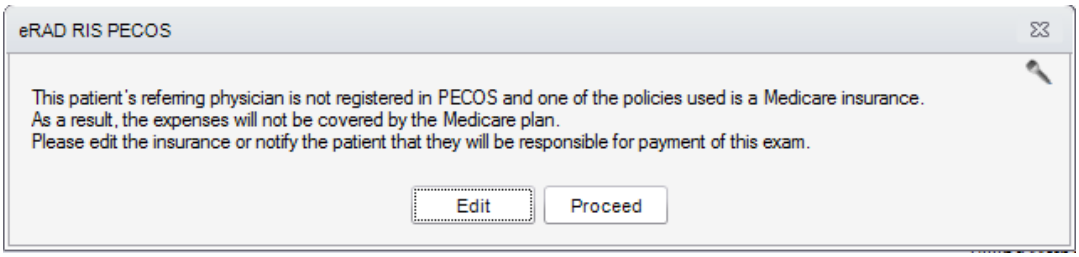



**Figure 5.51 – Not registered in PECOS message**

## Preferred Location Site Field on Order Tab Configurable

The Preferred Location Site field on the Order tab has always been required when saving a New Appointment as an Order. Build 44 will see this field as an optional field dependant on the system configuration setting of "**ScheduleUsePreferredSite**" that has a default of True to keep the current configuration as the default.

Customer wishing to have the Preferred Location field as not required when saving as an order will need to add a value of False

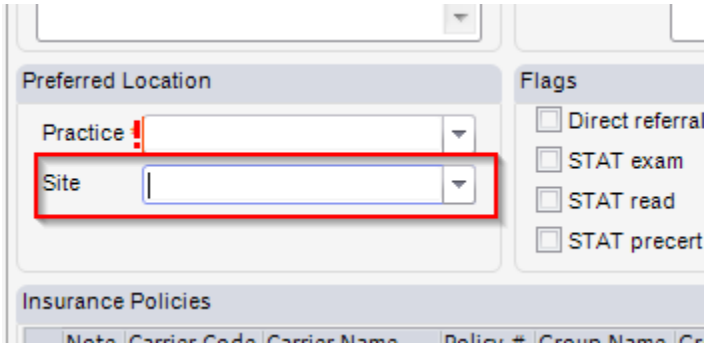



**Figure 5.52 – Optional Preferred Location Site field**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## MRN for Responsible Party

Two new fields have been added to the Responsible Party section on the Contacts Demographics tab. The Relation's ID field is a text field that will accept alphanumeric characters. The ID Issuer field is a list box in which the values come from the Issuer lookup table. Neither field is required to be completed.

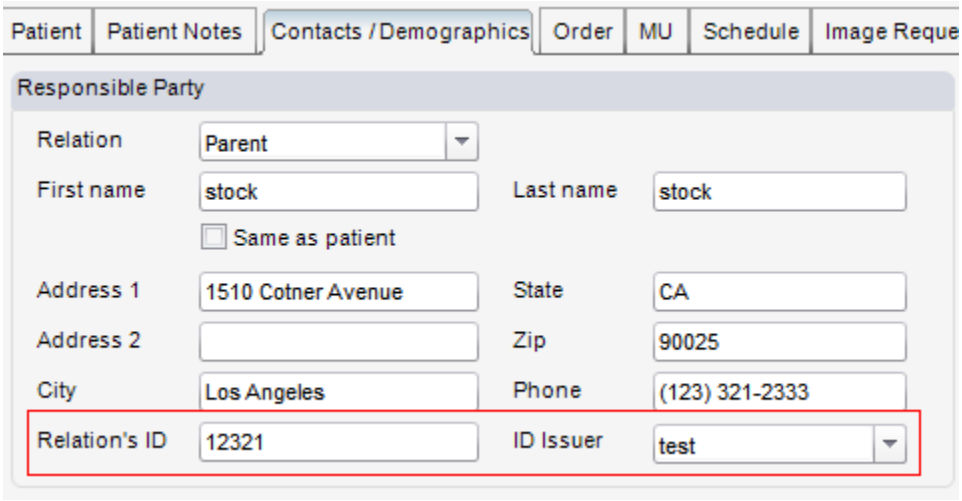



**Figure 5.53 – MRN fields added to Responsible Party**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Patient Weight Added to Review Tab

Patient weight has been added to the Review Tab and Review window that is presented when completing a New Appointment. The Review tab is also available from the Confirmation window which also displays the patient's weight. The verbiage that has been added will read as "The patient reports their weight to be: <XXX>lbs

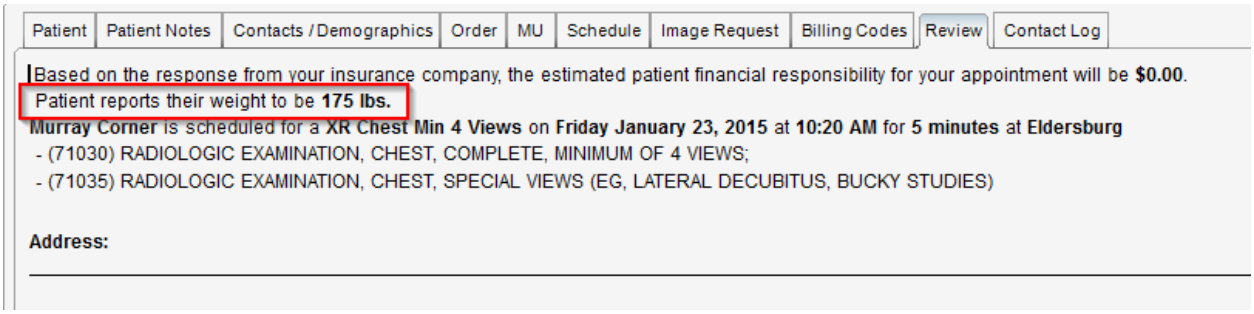



**Figure 5.54 – Patient weight added to Review tab\window**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Meaningful Use Tab Available in Confirmation

The Confirmation window and workflow was missing the MU tab. This has been added as the second tab in the Confirmation window.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

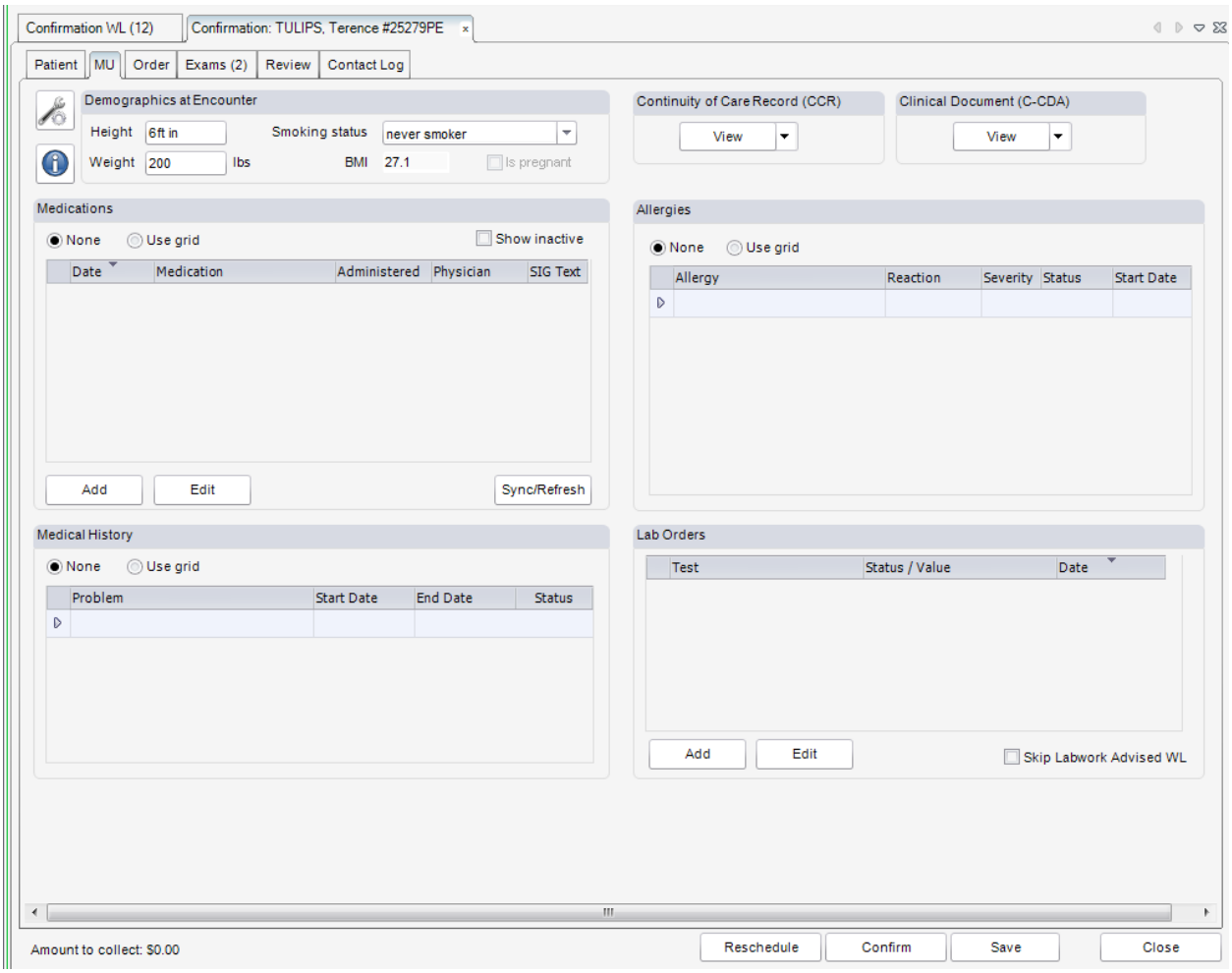



**Figure 5.55 – MU tab added to Confirmation window**

# Registration – Hyperlink to Scanned ID Card

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

The Patient tab in the Registration window will now have a hyperlink to the scanned id for Drivers License scan type. The icon of a camera will appear next to the verified ID check box within the General Information section of the Patient tab. Selecting the ICON will open the Patient ID window to show the scanned image of the patients ID

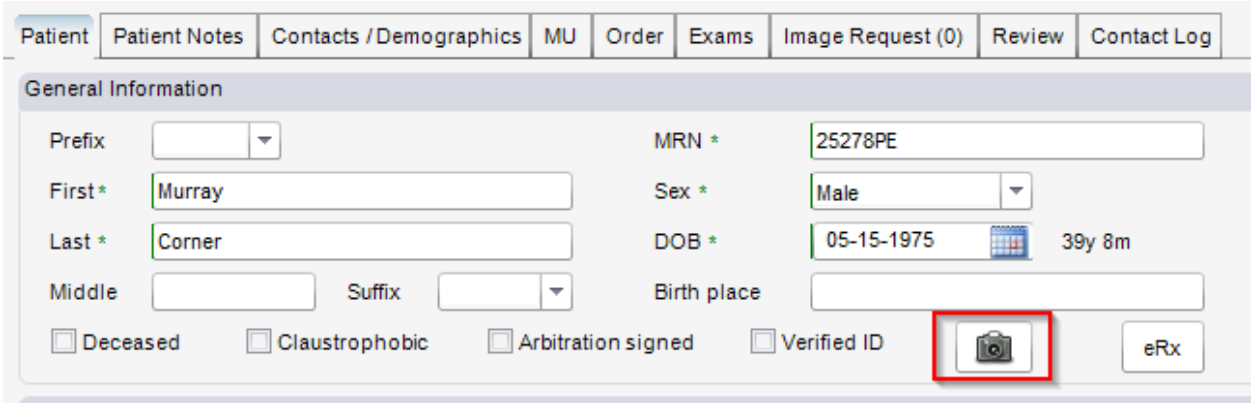



**Figure 5.56 – Hyperlink to patients scanned ID**

The pre-existing configuration setting of "**PhotoIDScanDocumentType**" with a default of License is used to determine which scan document type should show when the user selects the camera icon. This is the same functionality that is used in Patient Merge window.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Improved Error Messages for Payments

When adding payments in eRAD RIS we used to return a generic message that something was missing. We will now provide the following messages.

If the payment amount is missing

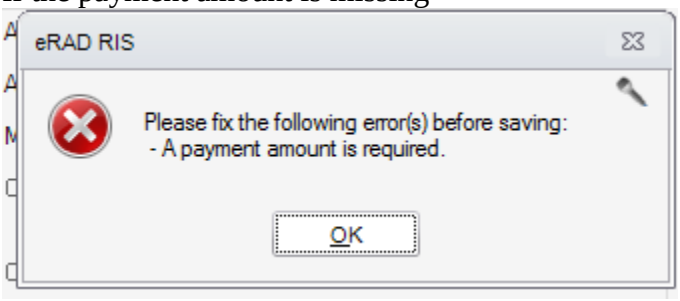



**Figure 5.57 – Missing payment amount message**

Making credit card payments, messages for credit card type, last 4 digits of credit card are required, payee name required and card expiry required. These messages can be appear all in one message or individual, depending on the details missing.

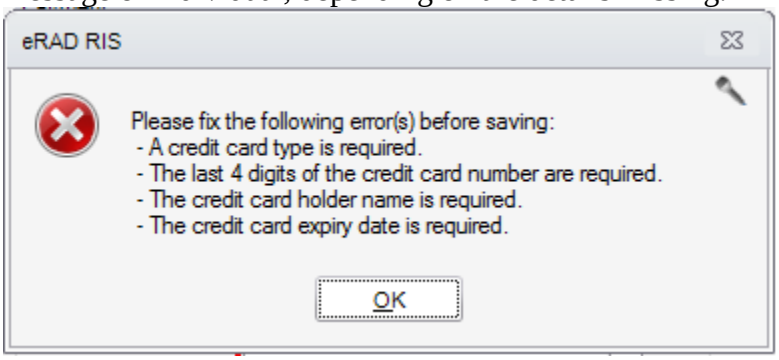



**Figure 5.58 – Missing credit card information message**

Lastly if payment is by check, the user will be notified if the Check Number field has not been completed

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

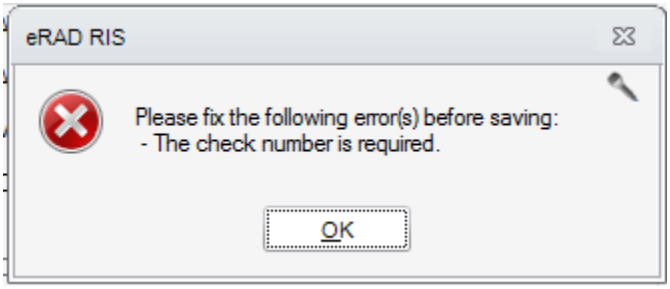



**Figure 5.59 – Missing check number message**

## Insurance Policies Enhancements

When an Insurance Policy was marked as expired we didn't provide a visual representation to aid the user to quickly determine that it had expired. Now when the Expired check box is selected the rows text will become grey. When Expired check box is unselected it will return to the original text state.

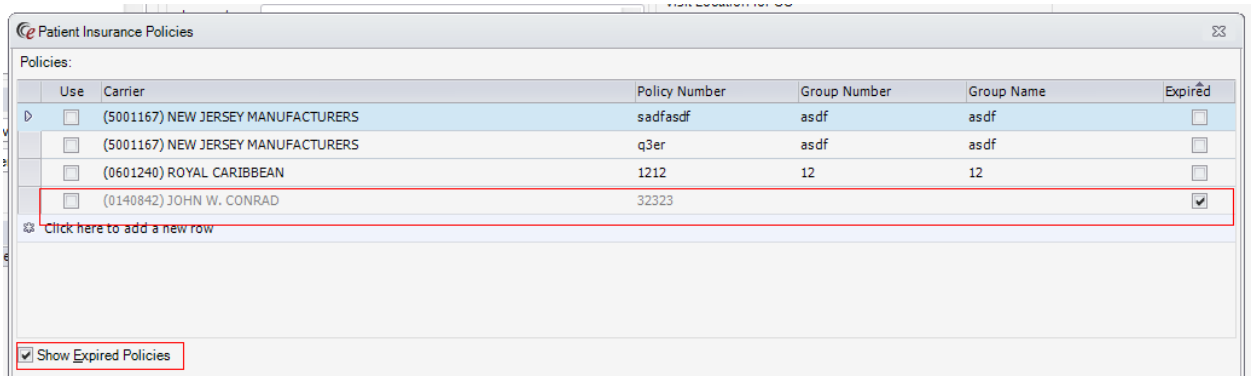
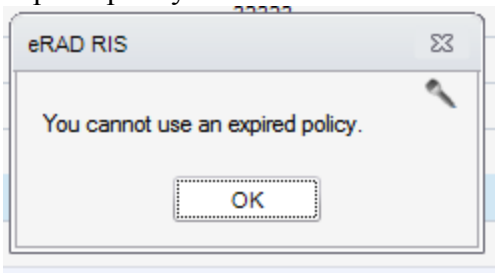



**Figure 5.60 – Displaying expired insurances**

The Show Expired Policies check box will now be selected by default. If the "Use" check box is selected for an expired insurance the user will be presented with a message "You cannot use and expired policy".




No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

**Figure 5.61 – Attempting to use and expired policy message**

In addition, if you have a policy that has the Use checkbox selected and you try to expire it, the Use check box will automatically be deselected.

If a patient has an Insurance Policy that has been marked as inactive in the lookup table the Insurance Policies grid will display the inactive carrier in red font.

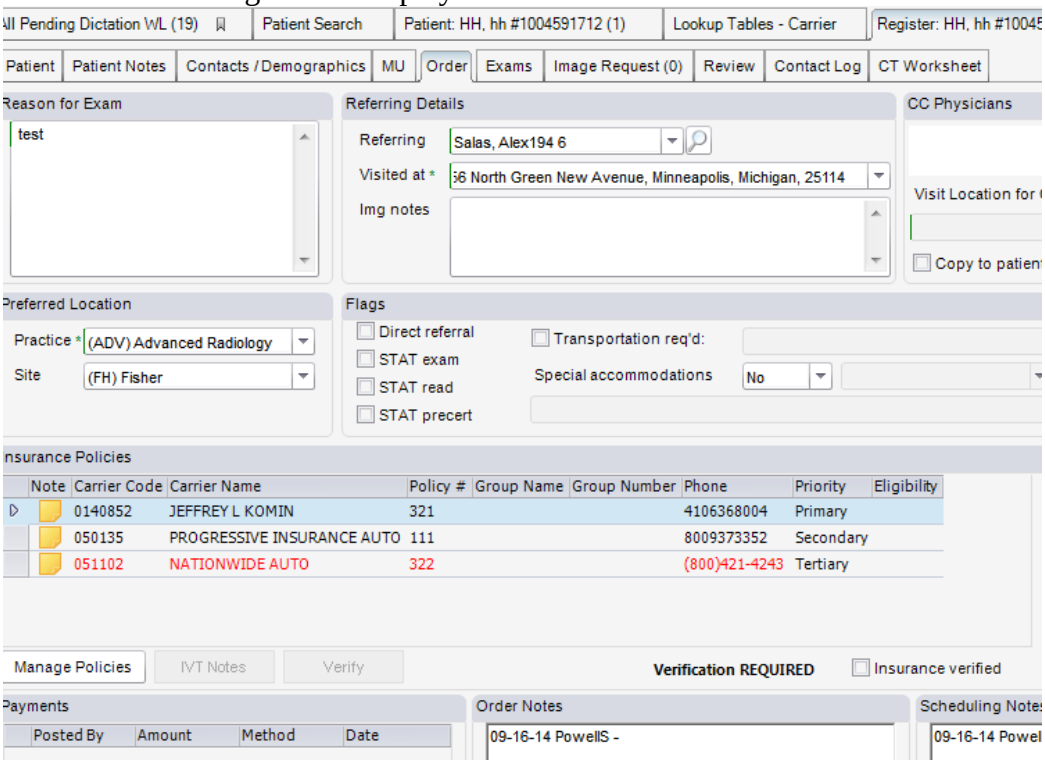



**Figure 5.62 – Inactive carriers**

When a user goes into Manage Policies, there is a prompt that the RIS will now mark this policy as expired, and will remove the Use checkbox.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

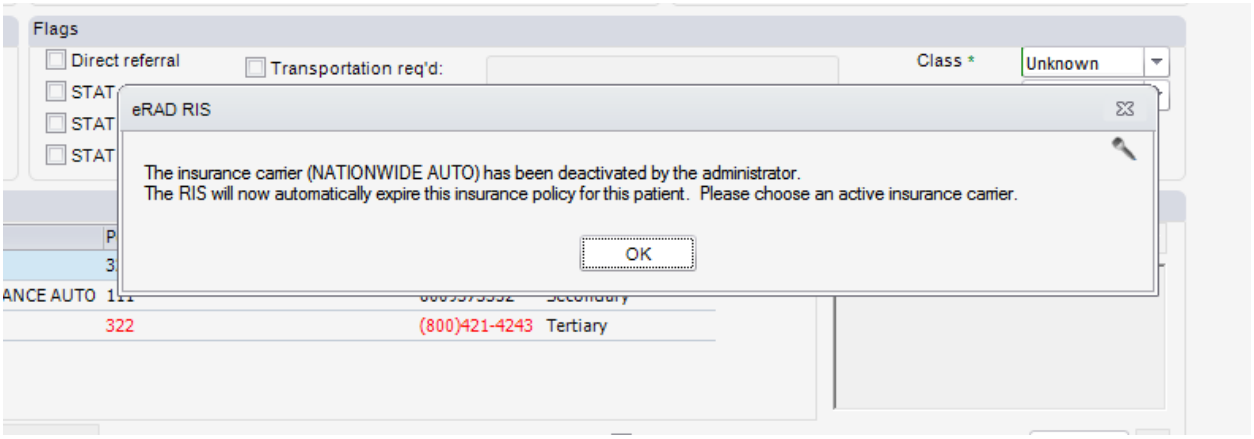



**Figure 5.63 – Message prompt for inactive insurance carrier**

Once they select the OK button the Expiry check box will be automatically selected and the Use check box will be deselected. The carrier row that has been deactivated will have text marked with strikethrough. The strikethrough equates to a carrier that has been de-activated. (does not equate to Expired… I will show that further below).

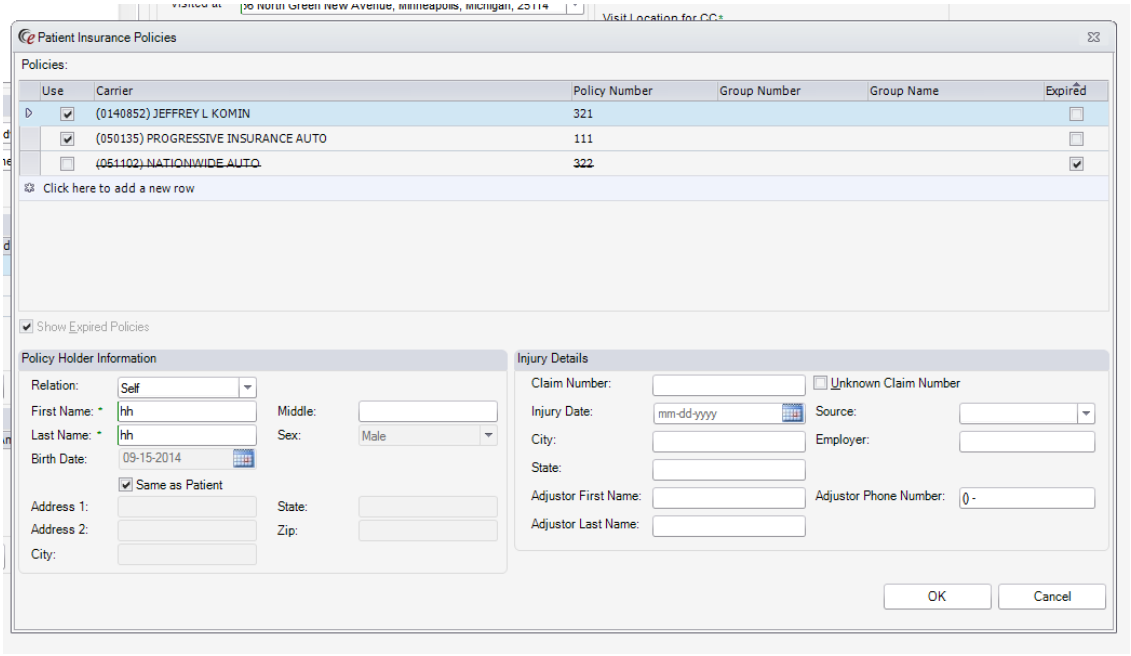



**Figure 5.64 – Insurance carrier that has been marked as inactive via lookup table**

If the user attempts to re-add the Use check box they will be prompted with a message informing that they cannot because it has been deactivated.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

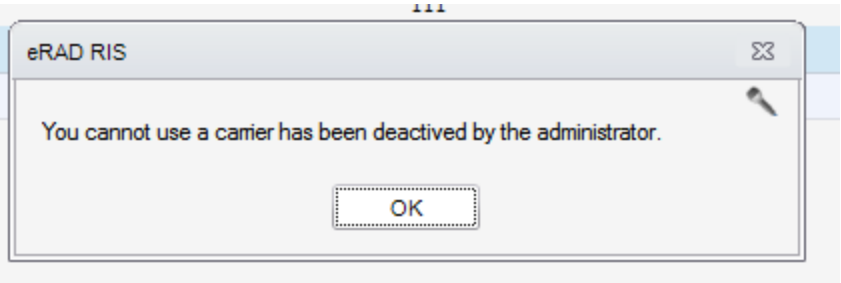



**Figure 5.65 – Message prompt attempting to Use deactivated insurance**

When the deactivated carrier is marked expired and has the strikethrough added and the Manage Policies window is closed the Insurance Policies grid will not display this carrier. If you remember, before it was accessed the first time, the carrier was displayed in red font

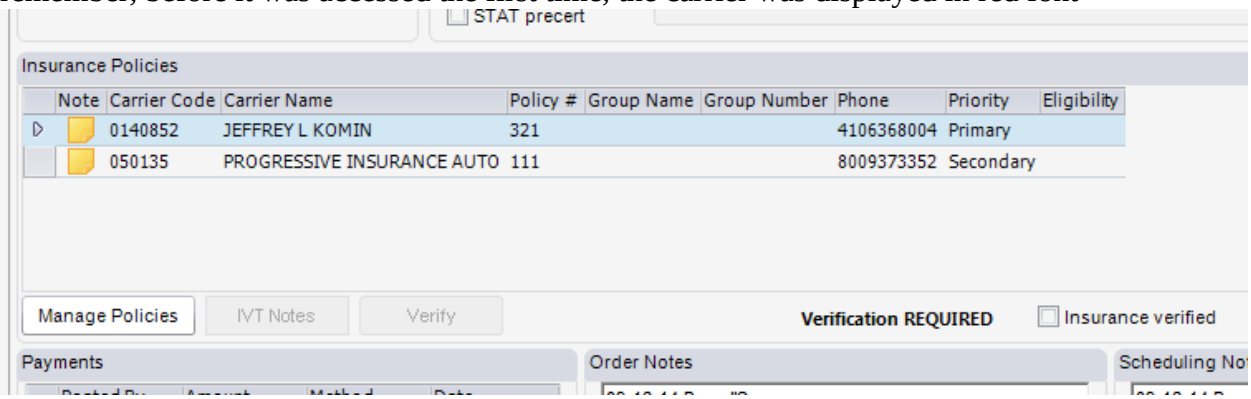



**Figure 5.66 – Deactivated insurance removed from Insurance Policies grid**

Now if the Manage Policies window is opened again, the deactivated carrier will be displayed in strikethrough grey font.

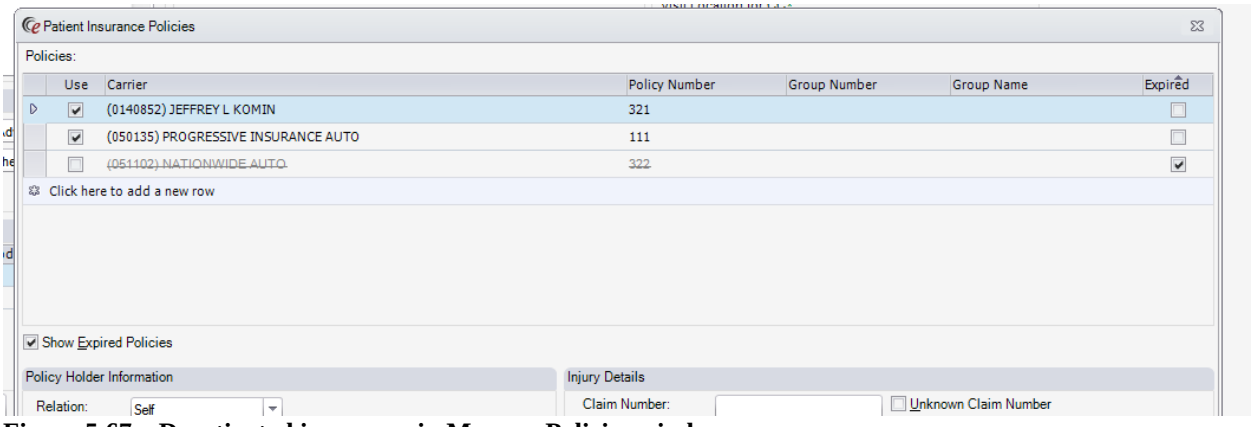



**Figure 5.67 – Deactivated insurance in Manage Policies window**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

If an Administrator later re-activates this carrier, the next time a user opens the Manage Policies window, the strikethrough will be gone and the policy can be select for "Use" again.

NOTE: If the patient has a policy attached to their profile, and the administrator disables it, and then the patient is scheduled for a new procedure (ie, it did not already have a USE checkbox for this policy), the RIS will mark this policy expired without a notification to the user.

## Perform Exam – LMP Start and End Age Configurable

In current version of eRAD RIS the Last Menstrual Period date is required for female patients between the ages of 12 and 56. In Build 44 we have introduced two new system configuration settings to make the start and end age configurable.

The system configuration setting of "**LMPStartingAge**" will determine the starting age to have the Last menstrual period date and pregnancy fields enabled. The default value is 12 years of age.

The system configuration setting of "**LMPEndingAge**" will determine the end age to have the Last menstrual period date and pregnancy fields enabled. The default value is 56 years of age.

| System Config Code | Value | Default | Description |
|---|---|---|---|
| [..a..]: lmp | [..a..]: | [..a..]: | [..a..]: |
| LMPStartingAge | 12 | 12 | (value = int) When the patient reaches this age, the LMP checker will be enabled on the technologist screen. |
| LMPEndingAge | 56 | 56 | (value = int) When the patient reaches this age, the LMP checker will no longer be enabled on the technologist screen. |

**Figure 5.68 – New system configuration setting to determine LMP start and end ages**

## Perform Exam – Additional Copy Paste options

The Perform Exam window has a copy paste function that can be used when a user wants to copy key fields from one study to another of the same order. The fields of Assigned Radiologist and Performing Radiologist have been added to the Items to copy list.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

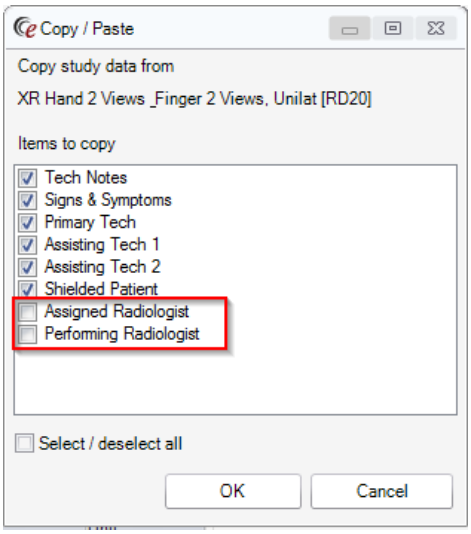



**Figure 5.69 – Additional options for copy / paste function**

## Retain Pre-Cert Approval on Reschedule

During the point of reschedule, after the desired studies have been selected to be rescheduled but the scheduled studies do not change, all existing Pre-cert information will be copied up to the new study item. If the Pre-cert has been approved and the expiration date has not been reach yet, then the Pre-cert status will remain as approved.

## User Management – Internal Person Search

When searching for an internal person using the Quick Search in the upper right of eRAD RIS we have added the ability to search on username. To search on username, prefix your search with a colon :

Example, my username is darcyn. To perform an internal person search on that username enter

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

:darcyn in the search field.

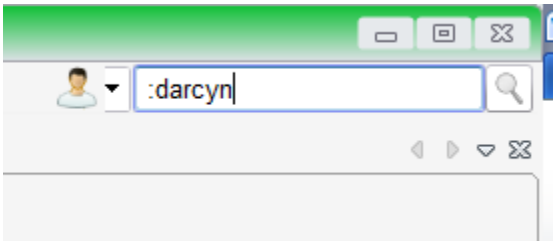



**Figure 5.70 – person search on username**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## User Management – Helpdesk Reset Password

We have added a method for users who don't have Personnel access to assist users who require a password change, forgotten passwords, etc…

This feature is enabled with the access string "**Config.TechSupportChangePassword**" that has a default of None. From the Internal Person Search window a user with this permission can right click on the users account and select the Reset Password option

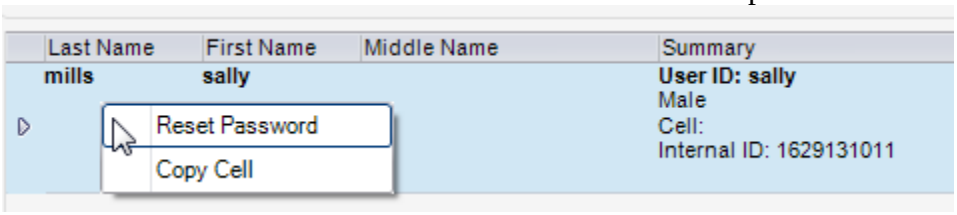



**Figure 5.71 – Reset Password from Internal Person Search**

The Reset Password dialog supports 3 use cases:

1. Modify the RIS password for a user who is using RIS authentication
2. Modify a RIS user so that they begin using their domain password instead of their current password
3. Modify a user who is using domain authentication so that they begin using RIS authentication

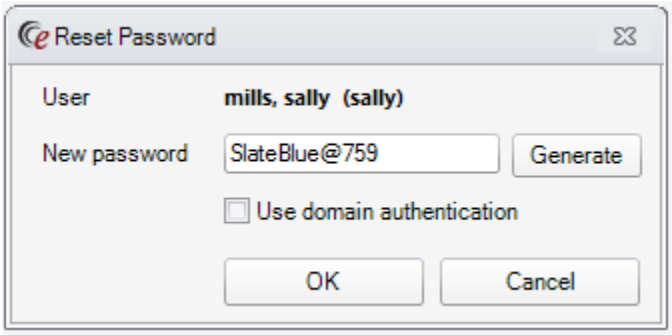



**Figure 5.72 – Reset password window**

The Reset Password dialog box generates a new password automatically for users who are using custom authentication although the help desk user may choose to generate a new password instead by pressing the "Generate" button or by typing in a password of their choosing.

An entry is generated in the audit table whenever a user changes either the domain_auth_flag or the password (either for their own account or for another user).

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

Upon selecting the OK button the user will be presented with a confirmatory message

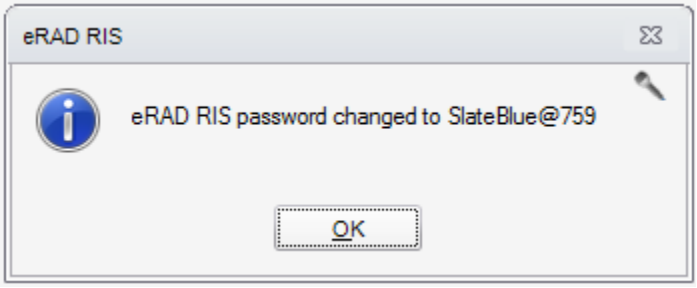



**Figure 5.73 – Confirmatory message informing password has changed for RIS Authentication user**

If the user chooses to select "Use domain authentication" the New Password field and Generate button will be disabled and the the confirmatory message will be slightly different.

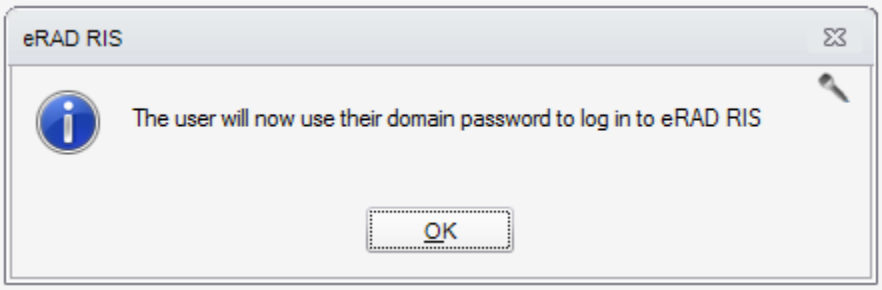



**Figure 5.74 – Changing user to be Domain Authenticated**

If the user is switched from to RIS Authentication from Domain Authentication the confirmatory message will inform the user of the change.

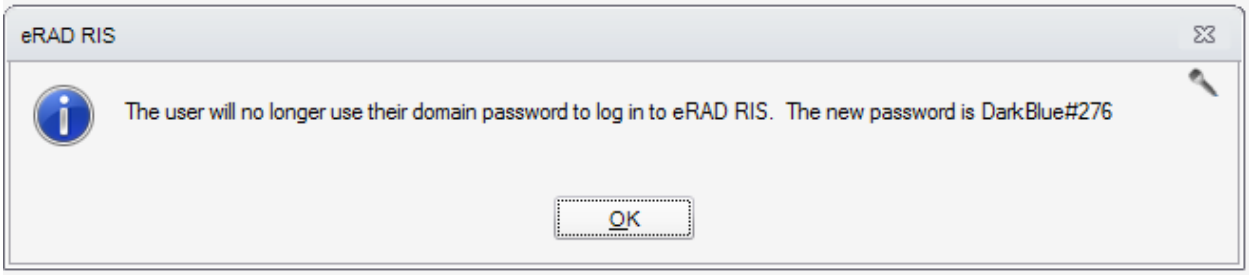



**Figure 5.75 – Confirmatory message when changing from Domain to RIS autentication**

As a security feature, a user who is not a RIS Administrator or does not have permission to access the full Personnel editor ("Config.LookupEditor.Personnel") is not allowed to change the credentials of a user that has these elevated permissions. This constraint is designed to prevent a user that is not allowed to access the personnel editor from hijacking an administrative account.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

If they attempt to change the password of a said person they will receive an error message

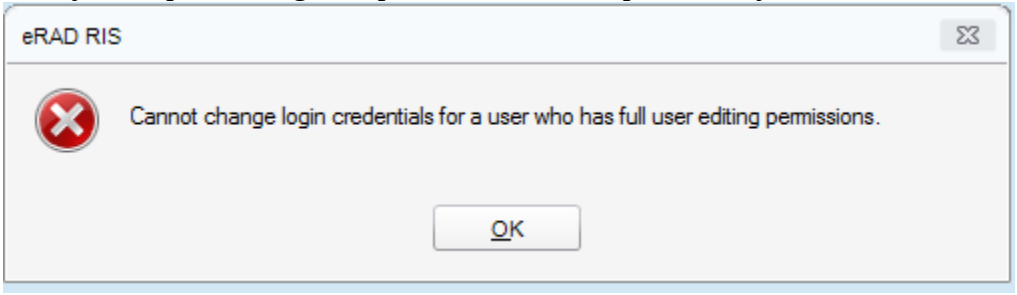



**Figure 5.75 – Cannot change password for user with personnel editor permissions**

### Random Password Generation

Passwords are generated using a random color from the KnownColor enumerated type, adding a random symbol from the following list: `{ "!", "@", "#", "$", ".", "-", "+", "=" }`, and then adding a random number less than 1000.

IF the password criteria has not been met, the user attempting to reset the password will be informed with the following message.

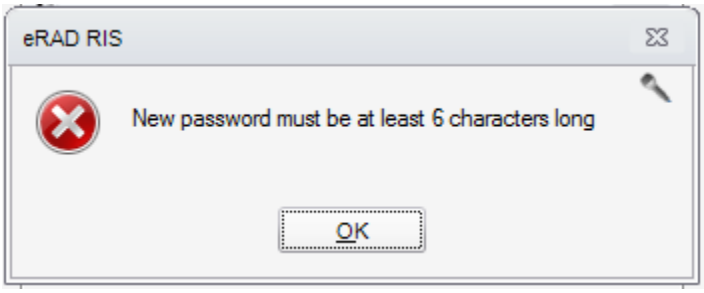



**Figure 5.76 – Password doesn't meet password criteria**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## User Management – Enhanced Password Requirements

At the user management level, eRAD RIS will no longer allow a user to set a password that doesn't meet the minimum length, is not considered "strong" or has been used by this user recently.

The "strong" password and minimum length are already defined in system config. As such we will leave that functionality in place. Strong passwords are forced on users resetting their own passwords. However in the administration section, both the personnel look up and reset password utility bypass the strong password requirement. This allows an admin to set a password to whatever they decide. There is one restriction; the password being set cannot be in the user's recent password history.

Recent passwords are stored in the database, as long as they persist; the user cannot have their password reset to one from their history. A system configuration setting of "**RecentPasswordRestrictionCount**" will determine how many passwords we store in the history for each user until they can re-use a previous password. The default value for this setting is -1. A value of zero or less disables the setting.

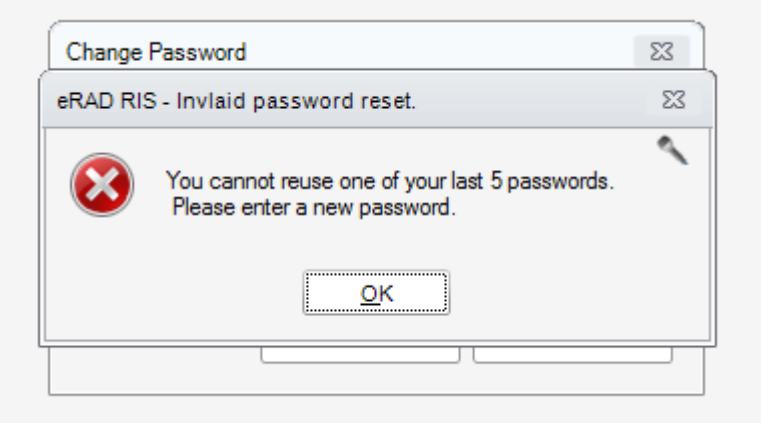



**Figure 5.77 – Message informing a recent password cannot be used**

Passwords will also now expire after a defined amount of time in days. The system configuration setting of "**ExpirePasswordInDays**" controls this feature. A default of -1 is applied to this setting. A value of zero or less will disable this setting. Once expired, the user will be able to login one more time. At this time, they are presented with a reset password screen and notified that their password has expired and must be reset. If they manage to bypass this, the user will be locked out upon next login attempt.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

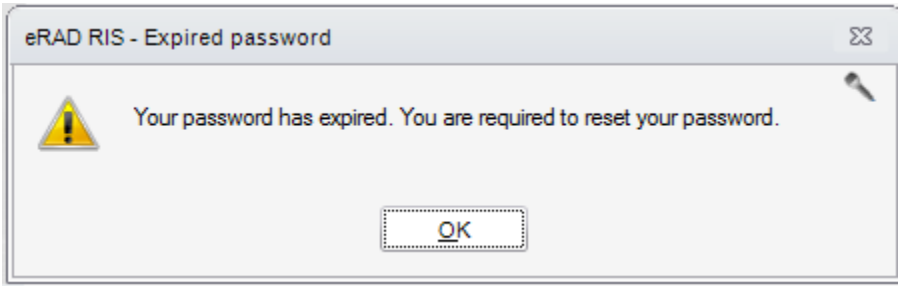



**Figure 5.78 – Password reset message**

Users will be locked out if they try to login with an incorrect password more than a system configuration defined set amount of attempts. The setting that controls this feature is "**AllowedPasswordFailAttempts**" that has a default value of -1. Values of zero or less will disable this setting.

Locked out users will need to contact their administrator to be unlocked/reset.
To unlock the account, and administrator simply sets a new password, this updates/resets the users failed attempts and change date.

**Figure 5.79 – user account locked message on login in attempt**

Passwords reset in the personnel editor and the tech support reset password utility will set the passwords as expired. This will force the user to reset their password upon login.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Track Viewing of Audit Log

We will now capture in the audit log the user activity when the audit log is accessed and when a eRAD RIS based audit log management report is accessed.

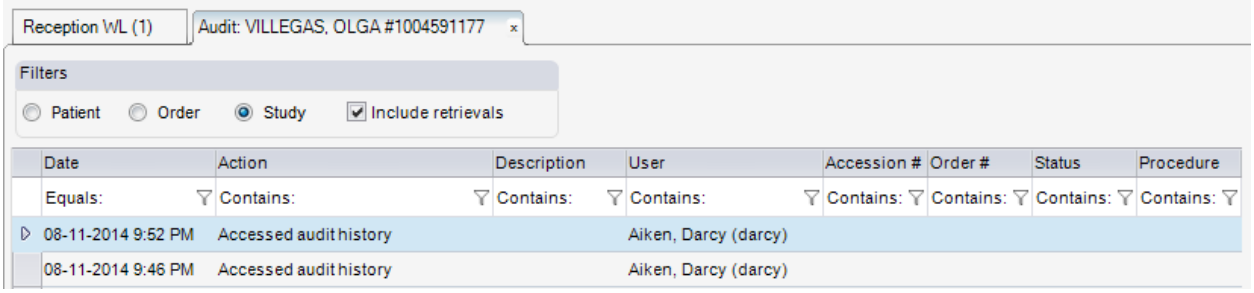



**Figure 5.80 – Audit log entry of a user accessing audit log**

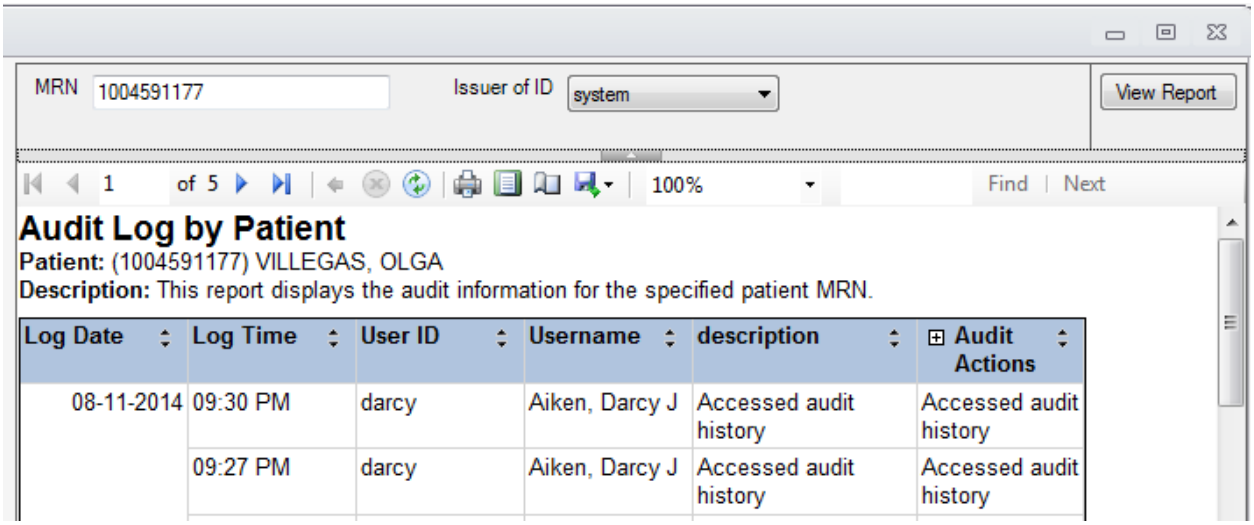



**Figure 5.81 – new entry displayed in the audit management report (running the report adds a new entry)**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Work List Context Menu Re-Organization

Context menu organization for worklist context menus.

Group 1: Workflow/data entry screens – These are status dependent. They are in reverse workflow order, therefore, the 'latest' and most likely option will always be on top.

VerifySignedReport
SignReports
VerifyExternalReport
VerifyTranscribedReports
TranscribeReports
Dictate
MarkAsCompleted
PerformExam
Registration
ScheduleOrderWithContext
EditSchedule
IVT
PatientModeWL // ALWAYS AT THE END OF THIS BLOCK

Group 2: Workflow/data entry screens – These ones are essentially stateless - They can occur almost anywhere during the workflow

UtilizationManagement
Confirmation
EditPatient
PatientMerge
BillingConfirmation
Reconcile
ViewEdit // ALWAYS AT THE END OF THIS BLOCK

Group 3: ACTIONS performed on this study/row – Group with same if there appear to be a logical neighbor. If unsure, check with Stick

LabelsAndForms
Attachments
RequestImageCopy
EditImageRequest
ExportDICOMImages
CreateTechnicalRepeatAction
FollowupRescheduledRoot
CalculateRelevance
ViewImages // ALWAYS AT THE END OF THIS BLOCK

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

Group 4: REPORT related items

Report Submenu - PreviewReport
Report SubMenu - PrintReport
ReportPrintingMenu
ReportHistory
ReleaseTentativelySignedReport
DDENewJob
DDHistoryByStudyWL
DDEEditJob
DDEPauseJob
DDECancelJob
DDERetryJob
DDEPreview
RequestAddendum
CancelAddendumRequest
PeerReviewOpen
PeerReview
Review
ResendDictationForRecognition
CacheStudy
Ctrn
DeleteDictationReportResetStatus // ALWAYS AT THE END OF THIS BLOCK

Group 5: Change Status

ChangeStatusTo
ChangeStatusToReportDrafted
ClosedRoomChangeStatusTo
ReceptionChangeStatusTo
TechChangeStatusTo
ChangeStatusToMammoFup
CancelOrder

Group 6: Person assignments

AssignToChair
AssignToRadiologist
ChangeDictateByRadiologist
ChangeSupervisingRadiologist
AssignToTranscriptionist

Group 7: FLAGS

SetProblemFlag
RemoveProblemFlag
ResolveProblem
SetQaFlag

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

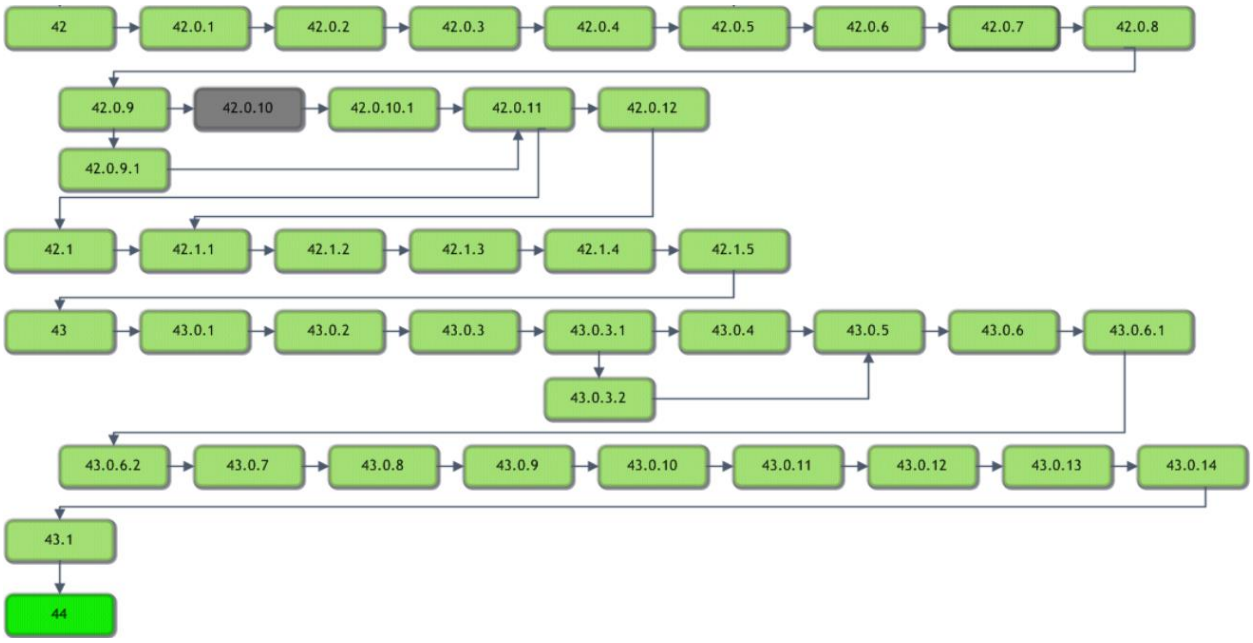
RemoveQaFlag
SetReadFlag
RemoveReadFlag
SetStatFlag
RemoveStatFlag
SetSuspendedFlag
RemoveSuspendedFlag
ForcePACSCorrection
ForceUnPACSCorrection

Group 8+9: Audit history and copy cell - always alone and separated

AuditHistory
CopyCellAction

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 6. Code Stream




**Legend:**

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 7. RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 42.1 | - | 2.42.1.0.22744 | 2.42.0.0.21261 | 2.42.1.0.22744 | 2.42.1.0.22736 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 42.1 | 1 | 2.42.1.1.22963 | 2.42.0.0.21261 | 2.42.1.1.22963 | 2.42.1.1.22864 | GUI.zip, Web Service, DB updates |
| 42.1 | 2 | 2.42.1.2.23007(3GB) | 2.42.0.0.21261 | 2.42.1.2.23007 | 2.42.1.1.23007 | GUI.zip, Web Service, DB updates |
| 42.1 | 3 | 2.42.1.3.23237(3GB) | 2.42.0.0.21261 | 2.42.1.3.23237 | 2.42.1.1.23007 | GUI.zip, Web Services |
| 42.1 | 4 | 2.42.1.4.23348(3GB) | 2.42.0.0.21261 | 2.42.1.4.23348 | 2.42.1.1.23007 | GUI.zip, Web Services |
| 42.1 | 5 | 2.42.1.5.23406(3GB) | 2.42.0.0.21261 | 2.42.1.5.23406 | 2.42.1.1.23007 | GUI.zip, Web Services |
| 43 | - | 2.43.0.0.23715(3GB) | 2.43.0.0.23171 | 2.43.0.0.23715 | 2.43.0.0.23743 | Full Version Release |
| 43 | 1 | 2.43.0.1.23798(3GB) | 2.43.0.0.23171 | 2.43.0.1.23798 | 2.43.0.1.23770 | GUI.zip, Web Service, DB updates |
| 43 | 2 | 2.43.0.2.24017(3GB) | 2.43.0.0.23171 | 2.43.0.2.24017 | 2.43.0.2.24023 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 3 | 2.43.0.3.24298(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24283 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 3.1 | 2.43.0.3.24450(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24421 | GUI.zip, and DB updates |
| 43 | 3.2 | 2.43.0.3.24450(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24421a | DB updates |
| 43 | 4 | 2.43.0.4.24447(3GB) | 2.43.0.0.23171 | 2.43.0.4.24447 | 2.43.0.4.24442 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 5 | 2.43.0.4.24632(3GB) | 2.43.0.0.23171 | 2.43.0.4.24632 | 2.43.0.4.24560 | GUI.zip, Web Service and DB updates |
| 43 | 6 | 2.43.0.4.24(3GB) | 2.43.0.0.23171 | 2.43.0.4.24 | 2.43.0.4.24 | GUI.zip, Web Service and DB updates |
| 43 | 6.1 | 2.43.0.6.24937(3GB) | 2.43.0.0.23171 | 2.43.0.6.24937 | 2.43.0.6.24914 | GUI.zip, Web Service |
| 43 | 6.2 | 2.43.0.6.24970(3GB) | 2.43.0.0.23171 | 2.43.0.6.24970 | 2.43.0.6.24914 | GUI.zip, Web Service |
| 43 | 7 | 2.43.0.7.25258(3GB) | 2.43.0.0.23171 | 2.43.0.7.25258 | 2.43.0.7.25226 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 8 | 2.43.0.8.25440(3GB) | 2.43.0.0.23171 | 2.43.0.8.25440 | 2.43.0.8.25425 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 9 | 2.43.0.9.25477(3GB) | 2.43.0.0.23171 | 2.43.0.9.25477 | 2.43.0.8.25425 | GUI.zip and Web Service |
| 43 | 10 | 2.43.0.9.25477(3GB) | 2.43.0.0.23171 | 2.43.0.10.25477 | 2.43.0.8.25425 | Web Service |
| 43 | 11 | 2.43.0.11.25512(3GB) | 2.43.0.0.23171 | 2.43.0.11.25512 | 2.43.0.8.25425 | GUI.zip and Web Service |
| 43 | 12 | 2.43.0.12.25554(3GB) | 2.43.0.0.23171 | 2.43.0.12.25554 | 2.43.0.12.25536 | GUI.zip Web Service and DB Updates |
| 43 | 13 | 2.43.0.12.25610(3GB) | 2.43.0.0.23171 | 2.43.0.12.25610 | 2.43.0.12.25536 | GUI.zip and Web Service |
| 43 | 14 | 2.43.0.14.25644(3GB) | 2.43.0.0.23171 | 2.43.0.13.25610 | 2.43.0.12.25536 | GUI.zip |
| 43.1 | - | 2.43.1.0.25850(3GB) | 2.43.0.0.23171 | 2.43.1.0.25850 | 2.43.1.0.25771 | GUI.zip Web Service and DB Updates |
| **44** | **-** | **2.44.0.0.26570(3GB)** | **2.44.0.0.26405** | **2.44.0.0.26570** | **2.44.0.0.26475** | **Full Version Release** |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 8. Resolved Defects

Bugs Suggested Features and Support Issues resolved in build 2.44. The extract is taken from Redmine bug tracking system and only displays defects resolved in 2.44.

| Bug # | Priority | Subject | Category | Found Version |
|---|---|---|---|---|
| 6954 | Immediate | Reporting - Batch dictation files are not cleaned up if user closes the screen | Embedded Reporting | 2.42.09 |
| 8539 | Urgent | Laterality for scheduled procedure is not being initialized as expected. | | 43.1 |
| 8396 | Urgent | Patient Name to be included in Email message to RADAR | Document Distribution | 2.43.1 |
| 8085 | Urgent | CD Import - Windows 7 CD Burning via Explorer prevents us from scanning CD without DICOMDIR | CD Burning | 43 |
| 8038 | Urgent | Lab Results - have to change the date twice in order for it to save | Meaningful Use | 43.0.11 |
| 8014 | Urgent | Carestream PACS integration Read Only mode issue (Copy of #8011 for 43.0.14) | PACS (Non - eRAD) Integration | 43.0.12 |
| 7875 | Urgent | Insurance Eligibility - Amount to collect in View Edit | Insurance Eligibility | 43.0.6 |
| 7826 | Urgent | PACS IW - Infinite loop trying to open study with invalid external id | PACS (Non - eRAD) Integration | 2.43.1 |
| 7589 | Urgent | patient insurance group name is limited to 20 characters | DB | 2.42 |
| 7574 | Urgent | c_frm_core_view - joining site based on scheduled_modality_code, should join on study table _site_code | Web Services/DB | 42.1.2 |
| 4228 | Urgent | RadNet - Mammo - Add BIRADS trademark | Thick Client GUI | 2.43.0.0 |
| 8465 | High | Zotec TOS Integration - Print Receipt is displaying previous patient's data | | 43.1 |
| 8146 | High | Study not on Labwork Advised WL | Meaningful Use | 2.43.0.14 |
| 8128 | High | Insurance Eligibility - Schedule Order Screen Lockup | Insurance Eligibility | 43.0.14 |
| 8111 | High | Hologic integration configuration file needs to be configured individually for each user account | PACS (Non - eRAD) Integration | 2.43.0.14 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 7968 | High | MU Medications, Medical History and Allergies grids are not refreshing for a new patient | Meaningful Use | 43.1 |
| 7908 | High | Powerscribe - discard an addendum may delete original report if HL7 not received | Powerscribe Integration | 2.43.0.11 |
| 7805 | High | object reference error when scheduling from the Follow Up screen from BI-RADS 4/5 worklist | Web Services/DB | 2.43.0.6 |
| 7682 | High | Patient folder does not display the Signing Radiologist column | Patient Folder | 43.0.6.2 |
| 7577 | High | c_frm_core_view - expects referring to have an address | Web Services/DB | 43.0.2 |
| 7575 | High | Transportation Report - Should have a date range, site selector and DOS grouping | Mgt Reports | 42.1 |
| 7277 | High | Cannot access a disposed object. Object Name: RadGridView | Performance | 43.0.1 |
| 7126 | High | Dictated by user id changes to editor's id in PowerScribe 360 | Powerscribe Integration | 42.1 |
| 6958 | High | Scheduling -- start date for search criteria not set for mammo follow-up orders | Scheduling | 2.42 |
| 6610 | High | Ris is hanging after mt's make edits to a report | Embedded Reporting | 42.0.9 |
| 6504 | High | Reschedule with more than one procedure, the RIS sometimes invert the order | | 1.4 |
| 6345 | High | Poor usability around canceling adding new address to referring | Admin-Other | 1.42 |
| 5685 | High | Logout - after entering username and PWD error saying eRAD RIS is already running | Thick Client GUI | 1.42 |
| 5657 | High | Cannot click 'OK' or 'Cancel' in PACSLoginDialog when running in 'Minimized' recording control mode | Thick Client GUI | 1.42 |
| 5476 | High | Scheduling - Inactivity message displaying at incorrect time | Thin Client GUI | 1.41.005 |
| 4571 | High | Document Distribution eventually jams if a fax job gets stuck in Transmitting | Document Distribution | 1.40.16 |
| 4538 | High | IVT WL slow if user filters on both site and practice | Web Services/DB | 1.4 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 4503 | High | Perform Exam - Complete / Start can advance a study when it shouldn't | Technologist | 1.41 |
| 4049 | High | Hold codes - update status appropriately when Hold codes are changed to real codes | Thick Client GUI | 2.42 |
| 3757 | High | IVT pre-cert notes disappearing randomly | Thick Client GUI | 1.40.006 |
| 3751 | High | Modifying insurance can cause the study to fall off the IVT Worklist | Thick Client GUI | 1.40.006 |
| 2304 | High | A study in a "Pending" IVT status does not show the IVT flag on the worklist | Thick Client GUI | 1.38 |
| 1805 | High | visited location not filtered for cc physicians | Thick Client GUI | 1.38 |
| 8570 | Normal | Zotec TOS Integration - 401 Error | | 43.1 |
| 8300 | Normal | GetExamCountsByChair takes a rather long time to execute | Radiology Reporting | 2.43 |
| 8250 | Normal | IVT WL slow when query for practice | Worklists | 2.43.1 |
| 8220 | Normal | there are unused, overlapping (duplicate indexes) and missing on the db that may be contributing to excessive resource use | DB | 2.43 |
| 8201 | Normal | person address editor - using StrongPasswordRegex instead of EmailPDFPasswordRegex | | 2.43.1 |
| 8193 | Normal | c_frm_reminder_letter - view cleanup | Web Services/DB | 2.43.1 |
| 8159 | Normal | CD Import - 3rd Party DLL missing dependency | | 43.1 |
| 8148 | Normal | Powerscribe closing open report in eRAD RIS with autofeed turned off | Powerscribe Integration | 2.43.1 |
| 8143 | Normal | Radiology Reporting - Multitab reporting with Powerscribe 360 will cause tabs to close and save | Powerscribe Integration | 2.43.0.6 |
| 8126 | Normal | MU - CQM Measures Report is hanging on the SouthEast DB | Meaningful Use | 2.43 |
| 8125 | Normal | The scheduled DB job rRIS_California : Update Mammo Letters WL Reason was taking 25 minutes to run | Mammography | 2.43 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 8121 | Normal | Trace Data database logic includes needless refresh logic that generates needless CPU load | Web Services/DB | 2.43.0.14 |
| 8096 | Normal | Error when scheduling procedure plans and image requests | Image request | 43.0.14 |
| 8090 | Normal | Epson Discproducer problem does not write DVDs | | 43.0.13 |
| 8089 | Normal | Carestream PACS Integration - Accession Number being used instead of External Study Identifier | PACS (Non - eRAD) Integration | 2.43.0.12 |
| 8088 | Normal | Carestream PACS Integration - Password is stored in log file | PACS (Non - eRAD) Integration | 2.43.0.12 |
| 8087 | Normal | Insurance Eligibility - Zotec TOS not returning payment amounts back to RIS | | 43.0.12 |
| 8086 | Normal | Timeout error while burning images to CD | CD Burning | 2.43.0.11 |
| 8083 | Normal | Incoming EMR orders not matched to internal patient because of phone number formatting | EMR | 2.43.0.14 |
| 8068 | Normal | Create rRIS User SQL Script tries to insert RIS Administrators group but the group is already inserted as part of the B43 Base Schema | DB | 2.43.0 |
| 8022 | Normal | User Preferences - Integration Tab - Out bound reporting verbiage change | Radiology Reporting | 2.43.1 |
| 8020 | Normal | User Preferences - Input Device barcode event action patient search verbiage change | Radiology Reporting | 2.43.1 |
| 7974 | Normal | error during rescheduling process: The INSERT statement conflicted with the FOREIGN KEY constraint "FK_c_scan_document_association_c_study" | Scheduling | 2.43.0.12 |
| 7962 | Normal | Cannot match external patient during walk-in/scheduling after including "Existing Orders" | EMR | 2.43.0.12 |
| 7931 | Normal | Exams cannot leave HoldCodeCompleted status via Change Status -> Manual Status Update | Web Services/DB | 2.43.0.12 |
| 7838 | Normal | Creating an addendum - when you submit it , the status stays as SIGNED, Cannot sign off this addendum | Radiology Reporting | 43.0.7 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 7819 | Normal | Reporting Custom Fields - Magnet strength shows NOT AVAILABLE when table value is null or empty | Radiology Reporting | 2.42.1 |
| 7816 | Normal | CQM Measures Stage 2 will fail if the combined practice codes selected are more than 20 characters | Mgt Reports | 2.43.0.8 |
| 7775 | Normal | Peer Review - Signed by is showing user_id only not user id and name as per convention | Radiology Reporting | 2.43.1 |
| 7769 | Normal | run RIS services in console shows "unrecognized command line argument" on console screen | Web Services/DB | 2.43 |
| 7706 | Normal | MU CQM | Meaningful Use | 2.43 |
| 7652 | Normal | B43 base new install scripts cause an error. | DB | 2.43 |
| 7621 | Normal | Insurance Verified Checkbox disappears | | 43.0.5 |
| 7610 | Normal | Radiology Reporting - M*Modal remove unwanted events from interactive dictation | Radiology Reporting | 2.43.1 |
| 7609 | Normal | Radiologist Reporting - eRAD RIS log entered into capture log | Radiology Reporting | 2.43.1 |
| 7588 | Normal | Grids - All grids are missing the left hand border on the header row (in light mode) | UI Look and feel | 2.43 |
| 7507 | Normal | Clean up current editor control code in preparation for new interface implementation | Radiology Reporting | 2.43.0 |
| 7497 | Normal | biopsy surgeon selection shows referring's and other personnel that are not surgeons | Mammography | 2.43.0.5 |
| 7489 | Normal | Disabled menu items in dark mode aren't visually identifiable. | UI Look and feel | 43.1 |
| 7483 | Normal | Preferred Radiologist - may show radiologist from another practice | Radiology Reporting | 2.42 |
| 7470 | Normal | Scheduling- Error when choosing time from the Calendar view if modality room does not match procedure. | Scheduling | 2.43.05 |
| 7464 | Normal | Mgt Reports - Mammo Annual Radiologist Summary - the format of the values in the dropdown for the technologist is not the same as user dropdowns in other reports | Mgt Reports | 43.0.4 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 7447 | Normal | jfif file type and possible additional files extensions jif, .jpe, .jfi could cause rendering issues for browsers IE8 and earlier. | | 2.42 |
| 7445 | Normal | Light mode - Buttons sometimes appear white and super white (should all be super white) | UI Look and feel | 2.43 |
| 7444 | Normal | User preference for pending signature notification is worded poorly | Radiology Reporting | 43.1 |
| 7433 | Normal | Request Addendum - exception when performed modality is null | Radiology Reporting | 2.43.1 |
| 7431 | Normal | Peer Review Workflow - verbiage case | Radiology Reporting | 2.43.1 |
| 7411 | Normal | Notification for STAT cases pending signature count can be wrong | Radiology Reporting | 2.43.0 |
| 7409 | Normal | Reporting - able to edit read-only reports and sign off on studies dictated by other users | Radiology Reporting | 2.43.1 |
| 7407 | Normal | Peer Review Workflow - Unable to open or review locked studies from the All Peer Review Pending Action WL | Radiology Reporting | 2.43.1 |
| 7358 | Normal | Reporting - Layout not displaying tool windows properly when switching reporting modes or loading layouts | Radiology Reporting | 2.43 |
| 7351 | Normal | Assign to radiologist in scheduling screen doesn't use common radiologist picker control | Radiology Reporting | 2.43.1 |
| 7350 | Normal | User (Radiologist or Transcriptionist) picker undesirable highlighting when opening | Radiology Reporting | 2.43.1 |
| 7334 | Normal | Canceled Exams - add canceled date to details | Mgt Reports | 42.0.1 |
| 7330 | Normal | cancelling a completed study is getting error do to the I-Code Reference | | 2.43.0.2 |
| 7325 | Normal | Emergency access stays disabled after using it and doing next workflow | Radiology Reporting | 2.43 |
| 7315 | Normal | there is a chance that the arrive multiple study dialog box will open and then close by itself based on the existing of studies in specfic status | | 2.43 |
| 7311 | Normal | Manual change status Dialog screen Ok button doesn't always appear on the screen | Thick Client GUI | 2.43 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 7304 | Normal | Medical History - Date Ranges cannot overlap | Meaningful Use | 2.43.0.1 |
| 7297 | Normal | Smoking Status, 'never smoker', is interpreted by Clinical Decision Support that the patient is a smoker | Meaningful Use | 2.43 |
| 7296 | Normal | Edit Availability template Date Range will not allow the start date to be moved to be 5 days before the currently set Start Date | Scheduling | 2.43.2 |
| 7286 | Normal | QA workflow changes back to editing workflow after breaking glass | Radiology Reporting | 2.43 |
| 7284 | Normal | Error assigning radiologist on a study with a null performed modality | Radiology Reporting | 2.43 |
| 7278 | Normal | Practice code is not required for Authorization Rules | Utilization Management | 2.43 |
| 7273 | Normal | CDS_03_PossibleReaction alert giving errors on deleted row | Meaningful Use | 43.0.1 |
| 7272 | Normal | CDS_03_PossibleReaction alert giving errors on null column | Meaningful Use | 43.0.1 |
| 7257 | Normal | MU Allergy Severity Should be using the active lookup values | Meaningful Use | 2.43 |
| 7253 | Normal | able to "use" an insurance where the carrier was inactive | | 2.43 |
| 7248 | Normal | Error on GetData/DisplayData | Technologist | 2.43 |
| 7232 | Normal | Reporting - Create/Edit a report in exam done (bad data perhaps) will result in poorly worded message | Radiology Reporting | 2.43 |
| 7221 | Normal | User preference wording on integration tab state we drop an xml file and write another | Radiology Reporting | 2.43 |
| 7201 | Normal | CommonLib Config class uses non thread safe dictionaries for storing system and user configuration | Infrastructure | 1.43 |
| 7200 | Normal | DataStoreBase uses non thread safe dictionaries for storing credentials and connections | Infrastructure | 1.43 |
| 7199 | Normal | dbnull error on person first name when opening reporting screen | Radiology Reporting | 2.43 |
| 7197 | Normal | When registering a patient with multiple procedures, and then deselecting the | Reception | 2.43 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| | | procedure checkbox, an error is produced | | |
| 7180 | Normal | Inactive study items, study item certs are still be used to validation if precert is still required | Thick Client GUI | 2.42.09 |
| 7163 | Normal | Import ICD code window needs clean up | Admin-Other | 2.43 |
| 7143 | Normal | SAPS - mays stop processing jobs if a PowerScribe 360 encountered | Web Services/DB | 2.42.1 |
| 7142 | Normal | SAPS - service will not recover and process remaining jobs on signing failure | Web Services/DB | 2.42.1 |
| 7138 | Normal | Mammo letter config save button appears to not save changes | Admin-Other | 2.43 |
| 7086 | Normal | Internal Person search doesn't have default field | Admin-Other | 2.43 |
| 7077 | Normal | Nuggets - Scanned document nugget does not show print button unless screen is expanded | Worklists | 2.42 |
| 7068 | Normal | Flags - STAT READ has many different explanations and icons | UI Look and feel | 2.42 |
| 7060 | Normal | Null policy number causes failure in StudyDataset rules when signing reports | Billing | 2.42.0.2 |
| 7040 | Normal | Context menu on Patient folder (and likely other worklists) needs re-organization. | UI Look and feel | 2.43 |
| 7012 | Normal | Labels cut off in Modality lookup editor. | UI Look and feel | 2.43 |
| 6999 | Normal | There is no row at position 0 exception when trying to view C-CDA document | Thick Client GUI | 2.43 |
| 6977 | Normal | Radiologist Pending Edit worklist doesn't have the dictate button | Radiology Reporting | 2.43 |
| 6972 | Normal | BI-RADS picker set tissue density to inactive value | Mammography | 2.43 |
| 6947 | Normal | Patient search on external patient has split button active with on option that isn't available. | Patient Search | 2.43 |
| 6944 | Normal | MU - Lab results - the results date field has slashes rather than dashes | UI Look and feel | 2.43 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 6919 | Normal | Can't log in to RIS if time on client differs from server | Web Services/DB | 2.42 |
| 6898 | Normal | "ReportingEvent: contribute report" showing in verbose log when signing | Radiology Reporting | 2.42.1 |
| 6897 | Normal | "Starting open report in PowerScribe 360" is logged when not in PowerScribe 360 mode | Powerscribe Integration | 2.42.1 |
| 6859 | Normal | All Problem WL - the context menu is not highlighting the assigned radiologist | Worklists | 2.43 |
| 6858 | Normal | STAT UM Priority is not required | Utilization Management | 2.43 |
| 6841 | Normal | Details for rRISServices.exe and rRISServicesX64.exe should contain the proper version information | Documentation | 43 |
| 6834 | Normal | QA workflow, error when saving opens the wrong screen. | Radiology Reporting | 2.43 |
| 6833 | Normal | Enhance stored procedures to parameterize the queries | DB | 2.43 |
| 6826 | Normal | Dark mode - Person hyperlinks are black text on (usually) dark grey background. | Dark Mode/Theming | 2.42 |
| 6821 | Normal | Reschedule can show incorrect procedure if procedure was changed in Register window | Scheduling | 2.43 |
| 6771 | Normal | Error, clicking Post on Billing Exception WL | Billing | 42.1.2 |
| 6768 | Normal | RIS Upgrade Process consumes large amount of disk space on client machines over time | Client Install | 2.42 |
| 6750 | Normal | MU - CCDA Error when generating XML when Allergy is NULL | Meaningful Use | 2.43 |
| 6715 | Normal | Radiologist daily counts control opens wrong worklist when clicking Signed Pending Release item | Radiology Reporting | 2.42.09 |
| 6706 | Normal | Technique and TechNotes custom field show as "Not Implemented" | Embedded Reporting | 1.4 |
| 6705 | Normal | Selected Summary doesn't redraw properly when resizing the control | Radiology Reporting | 1.39 |
| 6704 | Normal | RTF to CDA converter doesn't handle \line rtf formatting | Powerscribe Integration | 2.42.1 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 6699 | Normal | Report data nugget not displaying line breaks properly | Radiology Reporting | 2.42.1 |
| 6698 | Normal | Reject addendum request button on addendums in progress | Radiology Reporting | 2.43.0.0 |
| 6690 | Normal | On login if incorrect password, focus is set to user name textbox, not password textbox | Thick Client GUI | 2.43 |
| 6671 | Normal | Right-click "Confirmation" in Patient Folder for Follow up order throws multiple exceptions | Mammography | 2.43 |
| 6666 | Normal | Creating addendum in PS360 and setting problem flag fails to save. | Powerscribe Integration | 2.42.1 |
| 6574 | Normal | Worklist Notifications memory leak | Radiology Reporting | 2.42.1 |
| 6563 | Normal | Radiologist stats should update on a timer not just on report save | Radiology Reporting | 2.42.0.9 |
| 6562 | Normal | Radiologist stats on the tool bar are filtered base on org picker | Radiology Reporting | 2.42.0.9 |
| 6532 | Normal | Close PowerScribe 360 client and receive an error | Powerscribe Integration | 2.42.1 |
| 6527 | Normal | Reporting - report nugget preview is ordered by last updated instead of version | Radiology Reporting | 2.42.0.9 |
| 6519 | Normal | Unable to move items off the IVT Worklist | IVT / Precert | 1.42 |
| 6410 | Normal | Insurance:  Expired policy can still be 'used' in a current study. | Insurance Managment | 1.42 |
| 6312 | Normal | BulkWritable column function locks on order, not on study | Radiology Reporting | 2.42.0 |
| 6253 | Normal | Automacros that start with a field cause problems in editor | Radiology Reporting | 2.42.0.6 |
| 6111 | Normal | RIS Clean install --> SQL scripts do not create default jobs | DB | 2.43.0.14 |
| 6053 | Normal | Multi Proc Order - procedures re-ordering | Thick Client GUI | 1.42 |
| 5990 | Normal | Transcription dashboard  - Need to exclude outside reads from the report turnaround times | Web Services/DB | 1.41 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 5983 | Normal | Patient Folder Panel doesn't display data when dictating | Thick Client GUI | 1.42 |
| 5822 | Normal | 'Assign' functionality throws error on report addendum | Embedded Reporting | 2.42 |
| 5808 | Normal | Dark mode, very hard to read text in Recording and Playback settings | Embedded Reporting | 1.42 |
| 5789 | Normal | Signed Pending QA studies can be assigned to transcription and remain in signed status in QA workflow. | Radiology Reporting | 1.41.1 |
| 5465 | Normal | Unable to suspend an addendum | Radiology Reporting | 1.4 |
| 4615 | Normal | CTRM - Issue with Resolve button | Thick Client GUI | 1.41 |
| 4436 | Normal | Notification wording/layout | Radiology Reporting | 1.41 |
| 4066 | Normal | Transcription Summary/Exam Detail pane not showing requested_by if address_key not populated | Thick Client GUI | 1.4 |
| 3457 | Normal | Reporting - Removing subsection can add another subsection | Thick Client GUI | 1.4 |
| 3359 | Normal | Referring not displaying in VR2 (Beverly) | Radiology Reporting | 1.38 |
| 2236 | Normal | All grids (worklist and other grids) font does not resize | Worklists | 1.2 |
| 1379 | Normal | Address 1 box on Patient Insurance Policies screen partially obscured by another control | Thick Client GUI | 1.37 |
| 1112 | Normal | New Appointment > Patient tab > Contact Information tab order | Thick Client GUI | 1.35 |
| 7496 | Low | Mgt Report where the format of the role dropdown parameter is not consistent | Mgt Reports | 2.43.0.5 |
| 7356 | Low | Personnel Search - Type selection continuously grows | Thick Client GUI | 2.43 |
| 7227 | Low | Registration - 'Arrive' window on different date. Default should be "now" | Reception | 1.43 |
| 7210 | Low | Label alignment when displaying both chair and county not left aligned | UI Look and feel | 2.43 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 7178 | Low | County/ZIP allows typing in County but doesn't changes value when clicking ok | UI Look and feel | 2.43 |
| 7161 | Low | Non M*Modal reporting mode allows users to open hidden tool windows with shortcuts | Radiology Reporting | 2.43 |
| 7159 | Low | Reporting - PACS integration warn when relevant prior not loaded in PACS | PACS (eRAD) Int - RIS only | 2.43 |
| 7081 | Low | Payment screen: Rename buttons to reduce confusion | Thick Client GUI | 2.42 |
| 7045 | Low | MU Phase 2 - QRDA Cat 1 error when HCPCS code is loaded | Meaningful Use | 2.43 |
| 7004 | Low | Pregnant button automatically selected for female patients not included in age range 12-55 | Scheduling | 2.43 |
| 6824 | Low | Reporting - Opening rad reporting window in read only will still have Sign Button visually enhanced | Radiology Reporting | 2.43 |
| 6232 | Low | Reporting - studies that have requested addendum flag cannot be assigned to problem queue | Radiology Reporting | 2.42.0.2 |
| 5672 | Low | Next Workflow on All_____ worklists, locked studies break work flow. | Thick Client GUI | 1.42 |
| 4927 | Low | Radiologist name is Firstname Lastname in Assign To Radiologist window | Thick Client GUI | 1.41 |
| 4675 | Low | Reporting - assign to panel stays open when going through reports if it opens once. | Radiology Reporting | 1.41 |
| 4394 | Low | Signed pending release WL context menu item missing. | Radiology Reporting | 1.4 |
| 4082 | Low | Previewing unsaved addendums from the reporting screen. | Embedded Reporting | 1.41 |
| 2432 | Low | DataNugget Windows, refresh Icon is not consistent | Thick Client GUI | 38.1 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 9. Known Limitations

The following are Bugs Suggested Features and Support Issues found in build 2.44. Bugs reported in previous versions are not captured as Known Limitation in this document.

| # | Status | Priority | Subject |
|---|---|---|---|
| 8647 | New | Normal | Dictated By Date WL missing context menu items |
| 8635 | New | Normal | CT Dosage is not displayed with three decimal places in Perform Exam window |
| 8605 | New | Normal | MU tab- Medications - Switching from "Use grid" to "None" and saving deletes the current medication list. |
| 8594 | New | Normal | IVT WL, Pre-cert status stays the same when changing insurance at arriving/checking stage. |
| 8593 | New | Normal | Confirmation window thinks there are 2 exams on a rescheduled study |
| 8592 | New | Normal | Error upon trying to add new row in lookup tables |
| 8591 | New | Normal | Switching Insurance during reschedule makes the "Insurance verified" checkbox disappear. |
| 8587 | New | Normal | Contrast amounts that exceed Max Value are acceptable upon Saving in Perform Exam window |
| 8586 | New | Normal | Contrast alert prompt for exceeding max dose only displays one contrast name at a time if there is greater than one that exceeds. |
| 8581 | New | Normal | Template editor - opening an existing template in template editor, change the Practice, and then close, saying no to save changes will save the practice change. |
| 8571 | New | Normal | Add alternate MRN is using Issuer Code and Responsible Party is using Description from Issuer table |
| 8569 | New | Normal | Mammo drawing tool - Breast diagram does not change between male and female templates if the sex is altered after viewing template |
| 8568 | New | Normal | When logged in as a user with Admin or RIS Admin usergroup only, when you try to sign a report get an incorrect message. |
| 8565 | New | Normal | Mammo drawing tool - Unintentional lines can be added to a scar |
| 8562 | New | Normal | Image Request Status column on Patient Folder WL doesn't display status, stays empty |
| 8560 | New | Normal | Switching from Powerscribe360 to M*Modal with dictation window still open then click skip & continue will cause an error. |
| 8557 | New | Normal | Peer Review QA window - no scrolling action added to |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| | | | addendum request and peer review windows |
| 8545 | New | Normal | When an exam is aborted by a tech in the perform exam window, it is removed from the PACS WL, it can be set back to started then completed (exam done) but the exam is not recreated in PACS. |
| 8527 | Resolved | Normal | Error when trying to create a new template for dictation |
| 8490 | New | Normal | Access string WL.MT.ReportDraftedQaAll no longer used |
| 8473 | New | Normal | The "View Images" icon in the reporting window doesn't appear to work correctly. |
| 8471 | New | Normal | Walk-In not responding when Checking In multiple studies with multiple CC Physicians |
| 8467 | New | Normal | Walk-in removing first exam not refreshing scheduled date |
| 8466 | New | Normal | Mammo follow up orders can be opened in Register window |
| 8451 | New | Normal | Arrive/Checking In date field not auto-formatting resulting in error |
| 8449 | New | Normal | Null reference error closing "New Schedule" dialog from Appointment Book |
| 8448 | New | Normal | Attempt to alter Group Number or Group Name of Insurance Carriers causes a shift in the list and potential incorrect changes |
| 8443 | New | Normal | PreferredSite not auto-selected in search options under schedule tab when scheduling an order. |
| 8414 | New | Normal | removed former referring practice address references |
| 8408 | New | Normal | Inactive rooms showing in calendar view. |
| 8404 | Resolved | Normal | New Walk-in Button from Patient Search results does not trigger the existing orders prompt |
| 8392 | New | Normal | Error when scheduling and responsible party and emergency contact are the same |
| 8387 | New | Normal | Signing and Dictation context menu item behaviour is inconsistent |
| 8379 | Resolved | Normal | Title of a Peer Review Report and the title from the folder do not match |
| 8378 | Resolved | Normal | Peer Review Reports are not displaying today's data unless tomorrows date is included in the date range |
| 8374 | New | Normal | Error when trying to edit an Image Request if the Deliver To/Pickup By section did not have a name included. |
| 8302 | New | Normal | Assigned Radiologist is not recognized as assigned in the Assign to Radiologist window |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| 8289 | New | Normal | Mammo breast diagram in reporting window has option to clear all images |
| 8285 | New | Normal | Dark mode in personnel editor -> account tab, cannot see values |
| 8282 | New | Normal | Dictation Control - Form that is already visible cannot be displayed as a modal dialog box. |
| 8278 | New | Normal | Close button appears to be disabled after selecting OK for ?no phone number? alert |
| 8273 | Resolved | Normal | Burn CD - Destination path label doesn't display path if Auto Select is used |
| 8262 | New | Normal | Mgmt Report: Audit Log by Patient |
| 8249 | New | Normal | Diagnose Reporting Screen Layout - show BI-RADS trademark |
| 8247 | New | Normal | Save as Order - Column 'visit_key' is read only |
| 8232 | New | Normal | Dark Mode - Theming - Recommendation dropdown in the BIRADS picker control not styling properly |
| 8230 | New | Normal | able to open the same accession twice in rad window |
| 8175 | New | Normal | Creating an addendum from "All signed by Date WL" using Powerscribe360 with auto feed next from worklist turned on, will not let you exit the exam if selecting No to creating an addendum prompt. |
| 8168 | New | Normal | Checking "Show Expired Policies" checkbox will undo changes made to a policy expired checkbox status |
| 8030 | New | Normal | Using the tab while adding an insurance policy causes another policy row to be started which causes an alert to user. |
| 8455 | New | Normal | Error produced if contrast amount is deleted and then the Start or Complete button is selected |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# User Release Notes

for eRAD RIS
Version 2
Build 44.1

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# Table of Contents

1. Purpose ..... 3
2. Intended Audience ..... 3
3. Installing/Accessing the Application ..... 3
4. New Access Strings and Configuration Settings 44.1 ..... 4
5. New Features and Enhancements ..... 5
Billing Integrity ..... 5
Insurance Eligibility – Tier 2 and Advanced and Complex Parsing ..... 8
Insurance Eligibility – Store Carrier User and Pin for Eligible ..... 9
CD Burning Enhancements ..... 10
Improved Detection of Not Enough Disk Space ..... 10
Remember Previous Destination ..... 11
CD Burner User Profile ..... 11
Show Patient Notes of Merged Patients ..... 12
Display Issuer of Order on Existing Orders Pop-Up Window ..... 13
Disable Contrast Required ..... 14
6. Code Stream ..... 15
7. eRAD RIS Release Version Numbers ..... 16
8. Resolved Defects ..... 17
9. Additional Defects Resolved ..... 19
10. Known Limitations ..... 22

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 1. Purpose

This document describes some of the new features and changes implemented in eRAD RIS as of the end of Sprint 44.1 and subsequent server releases. This version of eRAD RIS is referred to as Build 2.44.1

Only features which can be visually demonstrated to the user will be outlined in this document.

# 2. Intended Audience

This document is created by the RIS Development team for the RadNet RIS management team.

# 3. Installing/Accessing the Application

The installation guide for the eRAD RIS client have been posted to the RadNet Wiki page at http://mdbal01rdtweb/Wiki/

Under the RIS menu click on the rRIS page. The credentials to access the page are:
Username: rRIS
Password: Summerside

*Please note that Build 2.44.1 is considered a new release of the application. It does not require a reinstallation of eRAD RIS. If users choose to reinstall, this is accomplished by navigating to the eRAD RIS shared installation drive and running the CoreInstall.bat file (ex: I:\RISDeployment\CoreInstall.bat)*

If you experience difficulties accessing the application please do not hesitate to contact Darcy Noye with the PEI RIS Development Team.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 4. New Access Strings and Configuration Settings 44.1

| Setting Placeholder | Setting | Default | Purpose / Controls Access to |
|---|---|---|---|
| Access string / User Group Permission tables | Clinical.RepostToBilling | None | Enables access to the billing confirmation / Repost context menu action |
| Access string / User Group Permission tables | WL.BillingConfirmation | None | WL access for Billing Confirmation work list under Administration menu |
| Access string / User Group Permission tables | Clinical.Billing.ShowCodingColumns | None | Controls the ability to see the billing confirmation coding columns in the Billing Codes grid. See the view edit screen, for an example of the Billing Codes grid. |
| | | | |
| SystemConfig lookup | BillingConfirmationWLLag | 60 | The number of minutes Lag after which the billing code(s) that has not been finalized will display in the Billing Confirmation WL. |
| SystemConfig lookup | RISOrderSourceDescription | RIS | Describes RIS generated orders |
| SystemConfig lookup | ICodeExpirationDays | 5 | The number of days from the time an ICode is created to when it will expire, negative value will provide no expiry date. |
| SystemConfig lookup | TechContrastRequired | False | Disables the Contrast Required feature. The Contrast grid on the Perform Exam window and also on the View/Edit window will not require an entry. |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 5. New Features and Enhancements

## Billing Integrity

The eRAD RIS sends "billing" messages to Zotec when an exam reaches a final state. A final state occurs when either the diagnostic report for the exam is signed (identified with a status of "Signed") or when only the technical component (acquisition) of an exam is to be performed (identified with a status of "ExamDoneTechOnly"). Once either of these states is reached a final validation is done on the exam's data, such as insurance details, referring physician details, etc. If the validation passes the study's billing status is changed to "Billed". If not the study is put on the Billing Exception WL. A RIS user can work this work list to correct the failed edits and subsequently push the study to a "Billed" status. Once the study reaches "Billed" status then eRAD RIS will send a "StudyBilled" message to Mirth. Mirth will then encode the message to appropriate format, likely HL7, and send it to the desired billing system for processing.

Although the eRAD RIS status suggests the study has been "Billed" the truth is RIS actually does not know if it has been billed or not. This status actually means the study has been pushed to an external billing system for post billing activity. eRAD RIS currently does not get any feedback from external billing systems to indicate the status of post billing activity. Without this it is very difficult to identify studies that have been reimbursed compared to those studies that still need reimbursement.

In build 44.1 a new work list titled Billing Confirmation WL has been added. Access to this work list is controlled by access string **"WL.BillingConfirmation"** which has a default of None. The work list is available under the Administration menu. This work list shows studies that have a billing code with the coding status of ***Not Understood, Not Sufficient, Tentative.***

In addition to the coding status, the study won't display until the Lag in the work list exeeds the system configured value for "**BillingConfirmationWLLag**" which is set in minutes. This is a new system configuration setting for this feature. It has a default value of 60 minutes.

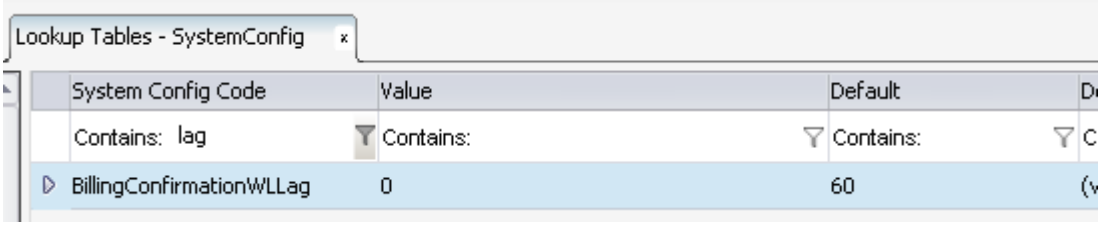



**Figure 5.1 – New system configuration setting BillingConfirmationWLLag**

The following is an example of the work list. Lag is a calculation of the minutes between <now> and coding_submitted_date. You can see the new columns of Coding Status, Coding Submitted

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

Date, Coding Last Action Date and Lag that have been created and included on this work list. All new columns are list further in this document

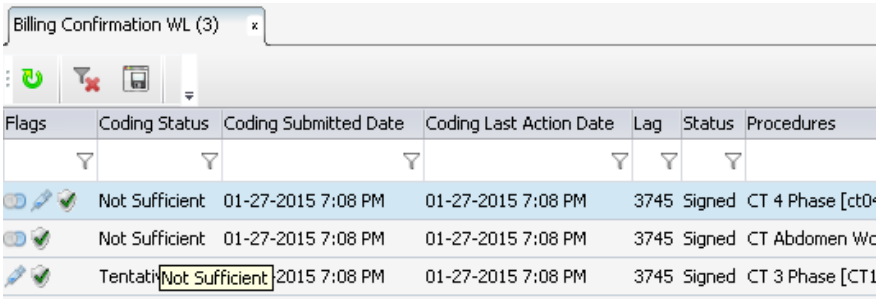



**Figure 5.2 – Billing Confirmation WL**

From the billing confirmation you can open the study in View Edit, then on the Billing Codes tab you can change the coding status to "not remitting" and document the reason in the coding_notes field.

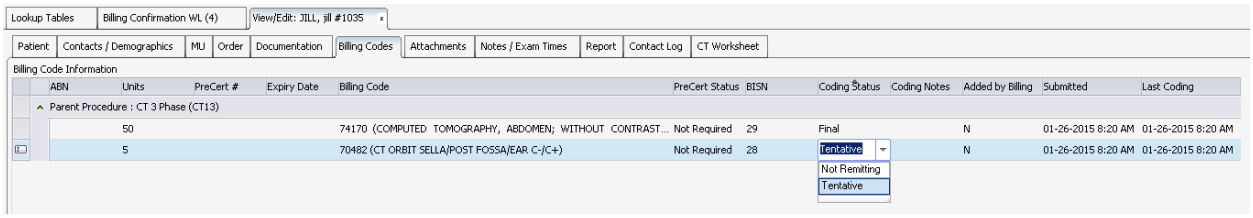



**Figure 5.3 – View/edit window access from Billing Confirmation displaying Billing Codes tab**

Looking at the Billing Codes tab above there are new columns added. The columns of BISN, Coding Status, Coding Notes, Added by Billing, Change Reason, Submitted, Last Coding and Downcoded Procedure (which is not displayed by default but can be added via column chooser. To access the column chooser right click on a column header)

From the billing confirmation you can also Repost items back to billing. This feature supports multi select and is accessible from the right-click "Repost" context menu.

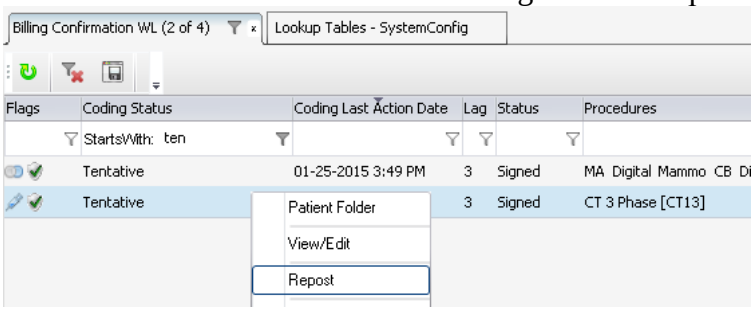



**Figure 5.4 – Repost from Billing Confirmation WL**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

The following is the list of new columns added that appear on the Billing Confirmation WL or on the Billing Codes tab of View/Edit

**bisn** – (billing item serial number)

Identity column, generated upon saving a billing code. It is required to have a value in the DB. It should be unique for the entire database. Its purpose is to unique identify a billing item. To be used with in the interface with an external billing system.

**coding_status**

Billing code's coding status, which defaults to null. The external billing system will send messages to update the status. The coding status will be one of the following values:

- Submitted
- Not Understood
- Not Sufficient
- Tentative
- Final
- Not Remitting

If 'Not Understood' or 'Not Sufficient' the coding_notes field will contain an explanation. If the status is 'Final' and it is a new billing code the coding_notes field will contain an explanation

**coding_notes**

A general notes filed to be used by eRAD RIS to add comments regarding billing items that needed an action.

**added_by_billing_**flag

A flag to indicate that the diagnosis code was "downcoded"

**downcoded_procedure_code**

A procedure code assigned by the external billing/coding system

**coding_submitted_date**

A date time to indicate when the coding was sent to the billing system

**coding_recieved_date**

A date time to indicate when the coding was received in the billing system

**coding_last_action_date**

A date time to indicate last processing action by the external billing system, which will be used to calculate the lag column in the billing confirmation worklist.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Insurance Eligibility – Tier 2 and Advanced and Complex Parsing

If the insurance return's Xray section contains line items with "TIER 2" or "TIER TWO" we will move those line items so they only exist in the CT/MRI section of the return. For "TIER 2" and "TIER TWO", this is the default functionality. We have seen several cases where this is necessary.

For additional cases, where there is a need to move line items between service sections, we have introduced configuration via the c_eligibility_special_condidtions as shown in the following.

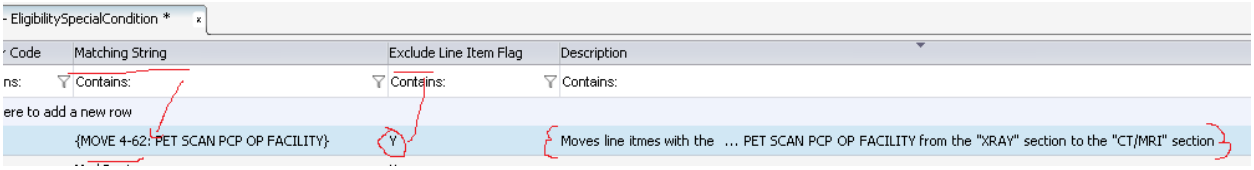



**Figure 5.5 – Configuring Eligibility Special Condition**

To meet the other requirements, customers can create new rules such as:

<move 4-62: Radiology Advanced>
<move 4-62: Complex Imaging >

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Insurance Eligibility – Store Carrier User and Pin for Eligible

Eligible now requires eRAD RIS to store and forward a user and pin to connect to a particular carrier. Although it is only for one carrier today, the number of carriers that eligible will require this for will increase in the future.

The EligibleConfig lookup table has 2 new columns added titled Portal User and Provider Pin. The Portal User will store the username required for Eligible to connect to the carrier and the Provider Pin is similar to a password that the Carrier will also require to be passed over.

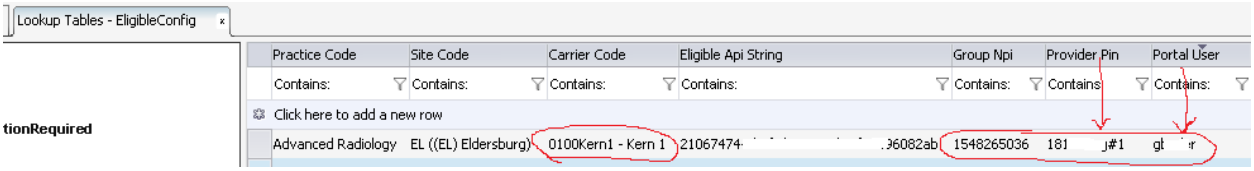



**Figure 5.6 – EligibleConfig lookup displaying new columns**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## CD Burning Enhancements

### Improved Detection of Not Enough Disk Space

In previous builds in which we supported CD Exporting (or CD Burning) from the RIS we would gather an estimated size of the images to be burned. The estimated sizes could vary greatly and the end result could be a significant size difference. This made it difficult to determine what media type to use (CD or DVD).

To improve the Burn CD process we will no longer use the estimated size and will no longer present message at beginning of burn process informing that you might want to consider using DVD. Instead we will now wait until 2/3 of the burn process (around 66%) is complete and we have an actual size of the image(s) that have been requested to be copied.

If the size of the image(s) exceeds 650MB we will present the user with a message "There are too many studies to fit on a CD. Would you like to burn these studies to a DVD?"

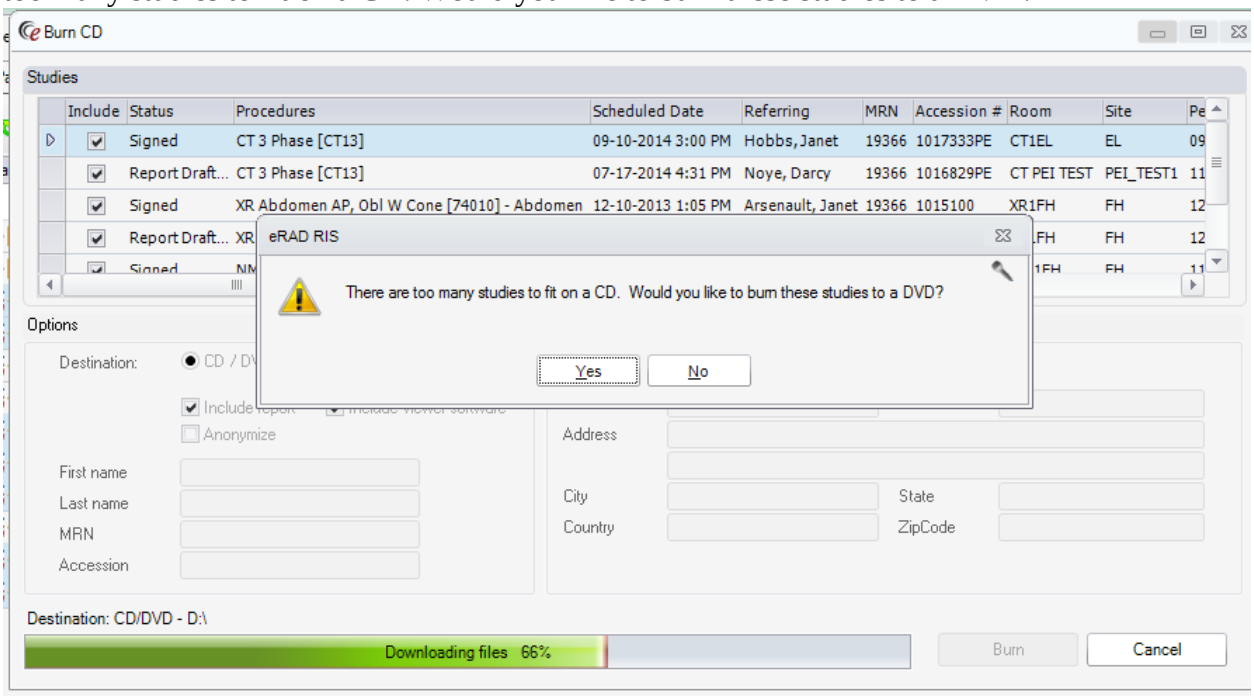



**Figure 5.7 – Burn CD prompt for too many studies for a CD**

With the message presented the user must change the media before selecting Yes. If they leave the CD in and select Yes the will immediately get an error of Not enough space and the Burn process will not resume. The user will need to start again.

Selecting No will abort the Burn CD process and close the window.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

**Remember Previous Destination**
Another enhancement is the Burn CD window will remember the user previous destination selection. If you are a user that uses Disc Producer only, that destination radio button will be selected the next time you open the Burn CD window. Also if there happens to be multiple Disc Producers, the last one selected will also be remembered.

**CD Burner User Profile**
Lastly a new field was added on the Practice table that will allow for a "CD burner user profile" to be added and will be the default layout used when burning CDs.

A user account is created in eRAD PACS with a defined hanging protocol that will be the default layout of images displayed from burned CD will be presented. The username of the eRAD PACS account is then added to the CD burner user profile field. This is accessed under the Administration > Configure > System > Organization, select the practice that you want to have the profile associated with and open for edit. On the PACS and Reporting tab enter in the User ID that was created in the PACS in the CD burner user profile field. Save the Organization lookup table.

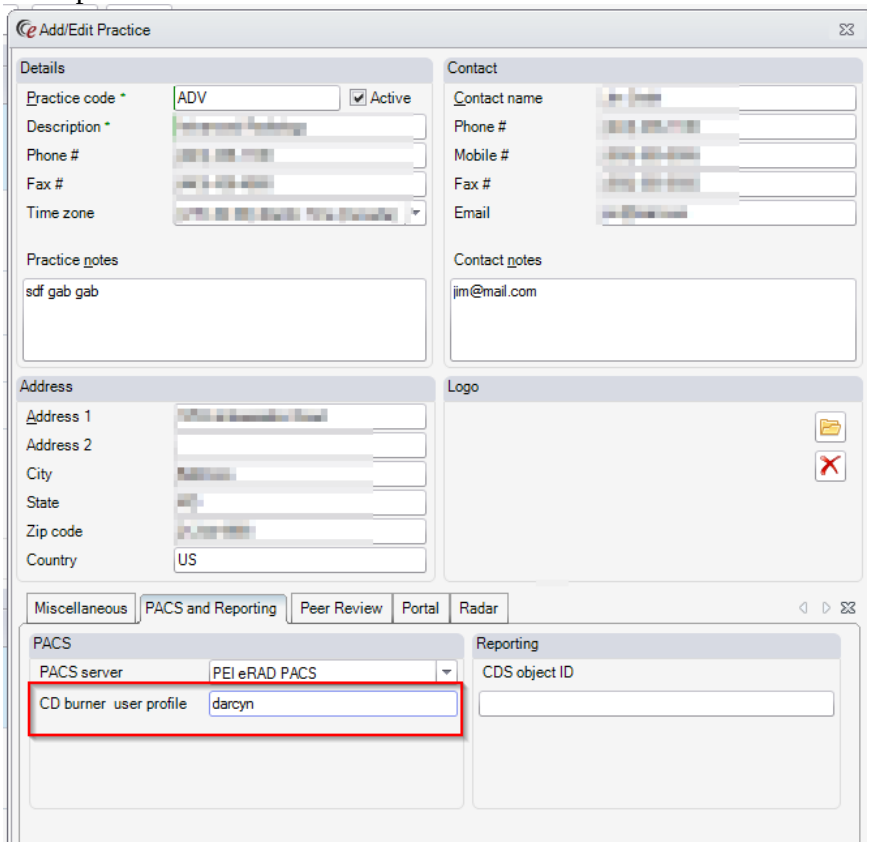



**Figure 5.7 – CD burner user profile field on Practice lookup table**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Show Patient Notes of Merged Patients

In previous versions of eRAD RIS, when a patient was merged with another, the source patients, patient notes didn't display on the destination patients, patient notes. In Build 44.1 a new hyperlink has been added to the Patient Notes tab. When looking at the figure below the Previous patient notes hyperlink will open a new Previous Patient Notes window and display the notes for all of the patients that have been merged to the current patient.

The notes will be grouped under a header that shows the previous patient name, MRN, and the date of the merge. The user can then use the mouse to highlight the text they want to extract and press Control+C to copy the text to the clipboard so that it can be pasted into the notes section and saved.

All screens that allow the user to add patient notes have had the Previous Patient Notes added.

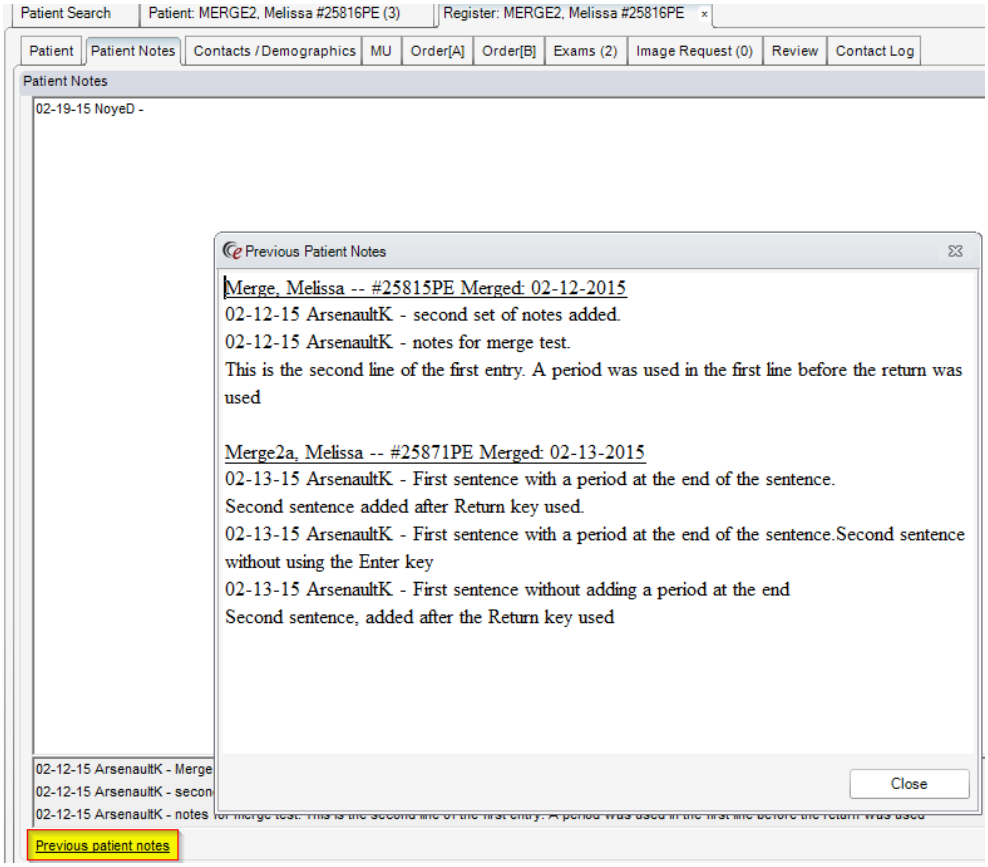



**Figure 5.8 – Displaying previous patient notes of merged patients**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Display Issuer of Order on Existing Orders Pop-Up Window

A new column titled Order Source has been added to the Existing Orders window prompt that will display the Issuer of the Order.

The Existing Orders prompt is displayed when creating a New Appointment or Walk-In for a patient that has pre-existing orders in the system.

IT will show either the value of the "issuer_of_placer_order_number" column in the order (when specified, this is generally the emr code), or the value from the new system configuration setting of "**RISOrderSourceDescription**" that has a default of "RIS" for an internally generated order.

If the "issuer_of_placer_order_number" matches an EMR code in the EMR lookup table, the tool tip for the Order Source column will show the full description of the EMR as well as the EMR code.

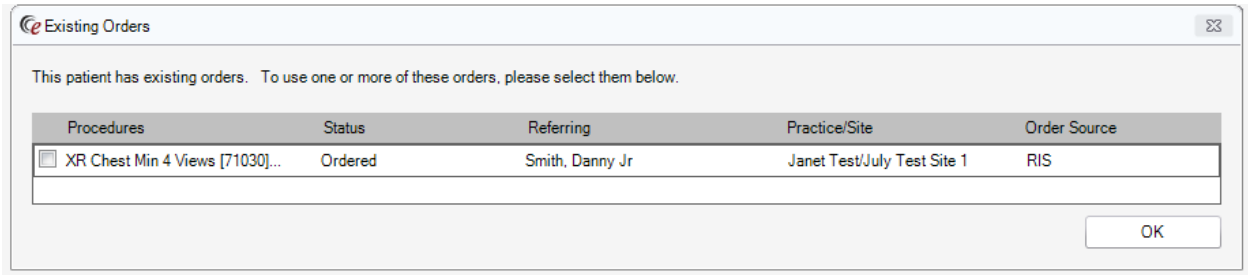



**Figure 5.9 – Issuer of Order "Order Source" added to Existing Orders window**

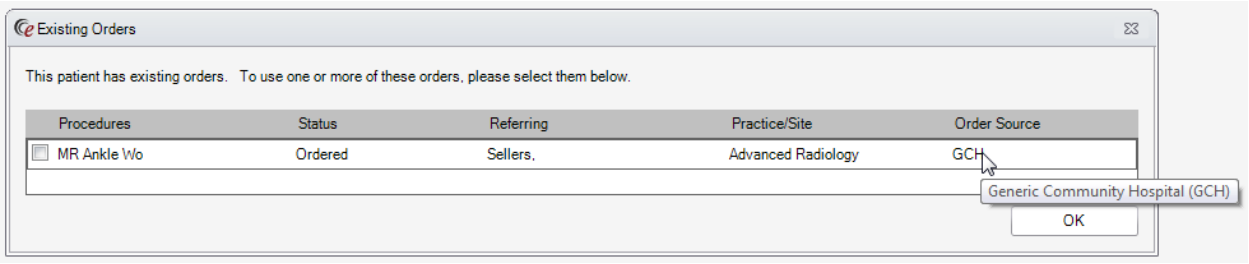



**Figure 5.10 – Order Source with tooltip displayed**

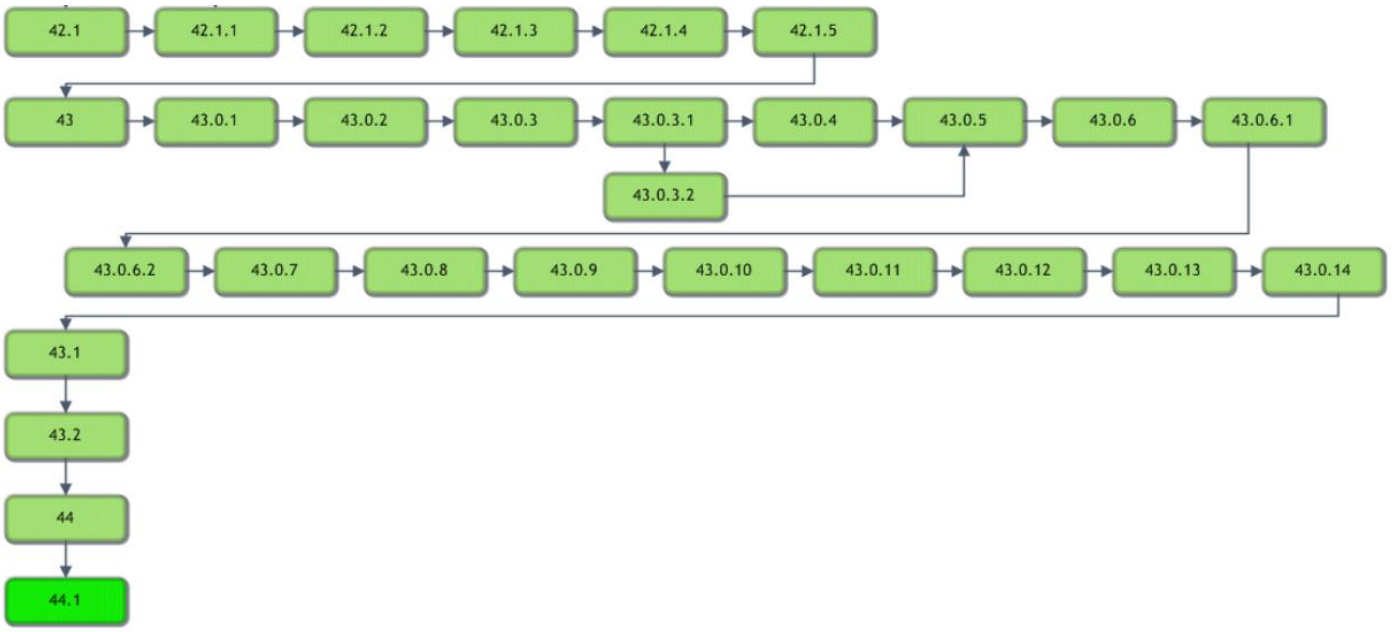
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Disable Contrast Required

The feature of Contrast, Sedation and CT Dosage Tracking was included with Build 44. The means to turn this feature off was on each individual procedure code using the Requires Contrast Flag. In Build 44.1 we have added a global configuration setting of "**TechContrastRequired**" which has a default of False. When using the default the Contrast grid will still be present in the Perform Exam and View/Edit windows but the user will not be required to enter a contrast to save the study. When a value of True is added, the feature will work as intended when released with Build 44.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 6. Code Stream




**Legend:**

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 7. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 42.1 | - | 2.42.1.0.22744 | 2.42.0.0.21261 | 2.42.1.0.22744 | 2.42.1.0.22736 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 42.1 | 1 | 2.42.1.1.22963 | 2.42.0.0.21261 | 2.42.1.1.22963 | 2.42.1.1.22864 | GUI.zip, Web Service, DB updates |
| 42.1 | 2 | 2.42.1.2.23007(3GB) | 2.42.0.0.21261 | 2.42.1.2.23007 | 2.42.1.1.23007 | GUI.zip, Web Service, DB updates |
| 42.1 | 3 | 2.42.1.3.23237(3GB) | 2.42.0.0.21261 | 2.42.1.3.23237 | 2.42.1.1.23007 | GUI.zip, Web Services |
| 42.1 | 4 | 2.42.1.4.23348(3GB) | 2.42.0.0.21261 | 2.42.1.4.23348 | 2.42.1.1.23007 | GUI.zip, Web Services |
| 42.1 | 5 | 2.42.1.5.23406(3GB) | 2.42.0.0.21261 | 2.42.1.5.23406 | 2.42.1.1.23007 | GUI.zip, Web Services |
| 43 | - | 2.43.0.0.23715(3GB) | 2.43.0.0.23171 | 2.43.0.0.23715 | 2.43.0.0.23743 | Full Version Release |
| 43 | 1 | 2.43.0.1.23798(3GB) | 2.43.0.0.23171 | 2.43.0.1.23798 | 2.43.0.1.23770 | GUI.zip, Web Service, DB updates |
| 43 | 2 | 2.43.0.2.24017(3GB) | 2.43.0.0.23171 | 2.43.0.2.24017 | 2.43.0.2.24023 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 3 | 2.43.0.3.24298(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24283 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 3.1 | 2.43.0.3.24450(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24421 | GUI.zip, and DB updates |
| 43 | 3.2 | 2.43.0.3.24450(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24421a | DB updates |
| 43 | 4 | 2.43.0.4.24447(3GB) | 2.43.0.0.23171 | 2.43.0.4.24447 | 2.43.0.4.24442 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 5 | 2.43.0.4.24632(3GB) | 2.43.0.0.23171 | 2.43.0.4.24632 | 2.43.0.4.24560 | GUI.zip, Web Service and DB updates |
| 43 | 6 | 2.43.0.4.24(3GB) | 2.43.0.0.23171 | 2.43.0.4.24 | 2.43.0.4.24 | GUI.zip, Web Service and DB updates |
| 43 | 6.1 | 2.43.0.6.24937(3GB) | 2.43.0.0.23171 | 2.43.0.6.24937 | 2.43.0.6.24914 | GUI.zip, Web Service |
| 43 | 6.2 | 2.43.0.6.24970(3GB) | 2.43.0.0.23171 | 2.43.0.6.24970 | 2.43.0.6.24914 | GUI.zip, Web Service |
| 43 | 7 | 2.43.0.7.25258(3GB) | 2.43.0.0.23171 | 2.43.0.7.25258 | 2.43.0.7.25226 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 8 | 2.43.0.8.25440(3GB) | 2.43.0.0.23171 | 2.43.0.8.25440 | 2.43.0.8.25425 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 9 | 2.43.0.9.25477(3GB) | 2.43.0.0.23171 | 2.43.0.9.25477 | 2.43.0.8.25425 | GUI.zip and Web Service |
| 43 | 10 | 2.43.0.9.25477(3GB) | 2.43.0.0.23171 | 2.43.0.10.25477 | 2.43.0.8.25425 | Web Service |
| 43 | 11 | 2.43.0.11.25512(3GB) | 2.43.0.0.23171 | 2.43.0.11.25512 | 2.43.0.8.25425 | GUI.zip and Web Service |
| 43 | 12 | 2.43.0.12.25554(3GB) | 2.43.0.0.23171 | 2.43.0.12.25554 | 2.43.0.12.25536 | GUI.zip Web Service and DB Updates |
| 43 | 13 | 2.43.0.12.25610(3GB) | 2.43.0.0.23171 | 2.43.0.12.25610 | 2.43.0.12.25536 | GUI.zip and Web Service |
| 43 | 14 | 2.43.0.14.25644(3GB) | 2.43.0.0.23171 | 2.43.0.13.25610 | 2.43.0.12.25536 | GUI.zip |
| 43.1 | - | 2.43.1.0.25850(3GB) | 2.43.0.0.23171 | 2.43.1.0.25850 | 2.43.1.0.25771 | GUI.zip Web Service and DB Updates |
| 43.2 | - | 2.43.2.0.26864(3GB) | 2.43.0.0.23171 | 2.43.2.0.26864 | 2.43.1.0.25771 | GUI.zip and Web Service |
| 44 | - | 2.44.0.0.26570(3GB) | 2.44.0.0.26405 | 2.44.0.0.26570 | 2.44.0.0.26475 | Full Version Release |
| **44.1** | **-** | **2.44.0.0.26984(3GB)** | **2.44.0.0.26405** | **2.44.0.0.26984** | **2.44.0.0.27145** | **Gui.zip, Web Service, and DB** |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 8. Resolved Defects

Bugs Suggested Features and Support Issues resolved in build 2.44.1. The extract is taken from Redmine bug tracking system and only displays defects resolved in 2.44.1.

| Bug # | Priority | Subject | Category | Found Version |
|---|---|---|---|---|
| 9269 | Immediate | B44.1 upgrade scripts are taking too long to run on large database | DB | 2.44.1 |
| 9012 | Immediate | missing reply to information for the secure message | Connect Patient Portal 1.x | 2.44 |
| 8223 | Urgent | IVT WL queries are terribly slow for a 3 Radnet data centers | IVT / Precert | 2.43 |
| 8759 | Urgent | Pending Dictation WL is taking a long time to process results. | Worklists | 2.43.1 |
| 9010 | Urgent | Insurance Eligibility - NPD pricing is missing some billing codes | Insurance Eligibility | 44 |
| 7256 | High | CD Burning - Improve detection of "not enough space" | CD Burning | 2.43 |
| 8463 | High | Insurance Eligibility - Eligibility is preventing scheduling of follow-up | Insurance Eligibility | 43.1 |
| 8653 | High | Insurance Eligibility - update on the order resulting in wrong IVT Intervention flag on the order table. | Insurance Eligibility | 43.1 |
| 8659 | High | All signed pending QA context menu option for verify reports doesn't open proper action and report can be released | Radiology Reporting | 2.44 |
| 8761 | High | QA flag is not removed after verifying edit | Radiology Reporting | 2.44 |
| 9023 | High | Activation issue when using next workflow in dictation screen with reuse on. | Radiology Reporting | 2.44 |
| 9024 | High | Possibility that when you open a reporting screen, RIS get relocated to cursor position. | Radiology Reporting | 2.44 |
| 3538 | Normal | Reception / Technologist wl Precert required column not updated correctly | Worklists | 1.4 |
| 4394 | Normal | Signed pending release WL context menu item missing. | Radiology Reporting | 1.4 |
| 7917 | Normal | CD Burning generate may generate http requests for status updates every second | CD Burning | 2.43.0.11 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 7967 | Normal | Insurance Eligibility - Tier 2 and advanced / complex parsing. | Insurance Eligibility | 43.0.6 |
| 8025 | Normal | Insurance Eligibility - Remaining Copay is incorrectly taken as co-payment amount | Insurance Eligibility | 43.0.12 |
| 8116 | Normal | CD Burning - remember users previous destination preference | CD Burning | 43.1 |
| 8273 | Normal | Burn CD - Destination path label doesn't display path if Auto Select is used | CD Burning | 2.44 |
| 8680 | Normal | MU - Generating of the Icode code needs to be expanded to generate the Icode code at Check-In Status | Meaningful Use | 2.43 |
| 8760 | Normal | ICode expiration date is currently hard codes to 5 days needs to be changed | Connect Patient Portal 1.x | 2.44 |
| 9157 | Normal | Unable to make contrast not required for techs without affecting MU contrast alerts | Technologist | 2.44 |
| 4617 | Low | Expired Insurances | Insurance Managment | 1.41 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 9. Additional Defects Resolved

The following list of defects was reviewed\retested in 2.44.1 and could no longer be reproduced. These defects may have been resolved with a duplicate defect logged in Redmine, resolved inadvertently with the resolution of another defect or work flow has changed so that the logged defect is no longer an issue or a defect was logged against a workflow that no longer is supported (Example – Bug 2124 – We no longer allow orders to be opened in registration window)

| Bug # | Priority | Subject | Found Version |
|---|---|---|---|
| 4574 | High | Outside Reads - history field changed to signs and symptoms | 1.41 |
| 4731 | High | Should not have the ability to click sign twice on a Laterality check message box | 1.41 |
| 5333 | High | Reporting - Attachment viewer "Show More" option doesn't display attachment | 1.41.1 |
| 2124 | Normal | procedure picker does not refresh after checkin | 1.1.2.37.14326 |
| 2764 | Normal | Scheduling - No warning on deleting studies with assigned attachments | 1.1.3.39.15389 |
| 2880 | Normal | Notification for pending signature not displaying when study count is met. | 1.39 |
| 3065 | Normal | Carrier search - Object reference error if search performed more than once | 1.4 |
| 3135 | Normal | Procedure code description in new appointment truncates (the display) of some procedure codes | 1.4 |
| 3175 | Normal | Pending Pacs Correction message needs clean up | 1.4 |
| 3361 | Normal | When cloning multiple Personel, scrolling loses focus on what you select | 1.1.3.39.16026 |
| 3524 | Normal | Reschedule a multi study second time does not include second study | 1.40.004 |
| 3537 | Normal | @accession number search throws error if patient has cancelled orders | 1.4 |
| 3582 | Normal | Reporting - protect sections and delete table raising exceptions | 1.4 |
| 3597 | Normal | Laterality check message on transcribe | 1.4 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| 3600 | Normal | Audit log error when more then one patients audit history is opened | 1.40.006 |
| 3682 | Normal | Delete dictation on a study that was signed by contribute A (maybe b too) | 1.40.007 |
| 3893 | Normal | MT Transcribe & Continue/Close user preference not saving | 1.40.010 |
| 4372 | Normal | Creating a new appointment from the patient search window causes error. | 1.41 |
| 4421 | Normal | Shortcut for Tables not working in report editor (CTRL + T) | 1.41 |
| 4645 | Normal | Inactive procedure codes appear in the Procedure Plan table | 1.41 |
| 4646 | Normal | Schedule group lookup needs default column widths | 1.41 |
| 4901 | Normal | Scheduling - reservation needs to happen when picked | 1.4 |
| 4941 | Normal | Reporting - Autosave timing error | 1.41.002 |
| 4967 | Normal | Reporting - Submit audio in minimized mode throws error. | 1.41.002 |
| 5275 | Normal | Reporting - Adding empty space to field will allow user to sign | 1.41.1 |
| 5319 | Normal | Reporting - closing Attachment Viewer Preferences throws error in reporting window. | 1.41.1 |
| 5320 | Normal | Reporting - Attachment viewer in reporting window - double click to open the report will change to the next scan doc. | 1.41.1 |
| 5502 | Normal | Error when opening a patient merge suggestion: "Source patient not found" | 1.41.002.1 |
| 5519 | Normal | Reporting - pending signature on login and pending signature worklist notifications can be shown at the same time | 1.42 |
| 6033 | Normal | Scheduling - Holiday is not displayed in New Appointment Calendar view. | 1.42 |
| 3886 | Low | Reporting - Default button action on Skip/ Close button | 1.40.010 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| 4027 | Low | Image request - Remove image request, select edit throws error | 1.40.013 |
| 4163 | Low | Perform Exam - Cancelled studies in patient history list have buttons enabled | 1.41.015 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 10. Known Limitations

The following are Bugs Suggested Features and Support Issues found in build 2.44.1. Bugs reported in previous versions are not captured as Known Limitation in this document.

| # | Status | Priority | Subject |
|---|---|---|---|
| 9166 | New | High | Contrast is required on view/edit when contrast setting is set to true and is required |
| 9181 | New | High | Contrast - Perform Exam on non-contrast and contrast study copying contrast/billing codes to non-contrast study |
| 9013 | New | Normal | Preferred Site (c_orderRow.filler_site_code) not auto-populating on Scheduling/Walk-ins |
| 9014 | New | Normal | Preferred Site (c_orderRow.filler_site_code) isn't required when saving an order through "Schedule Later" |
| 9100 | New | Normal | Contrast - If a contrast is made inactive it still is available for selection and could be added to billing codes |
| 9103 | New | Normal | Contrast billing- if a BillingCode is not Active it will still be added to the billing code tab if the Contrast associated to it is added to Contrast grid |
| 9106 | New | Normal | Rescheduling- choosing Schedule Later from the Appointment Book will not change the status of the procedure in Reception WL or Patient folder |
| 9122 | New | Normal | EMR orders - the laterality is sent from external system but is not populated in scheduling window |
| 9139 | New | Normal | EMR order does not reflect correct information on Review tab. |
| 9172 | New | Normal | Contrast - Billing codes added on Perform Exam window don't get pre-cert status added. |
| 9190 | New | Normal | Contrast and Sedation - Manually delete default contrast will remove 2nd contrast code from grid |
| 9117 | In Progress | Normal | EMR order - attempt to schedule a 2nd time and schedule window has incorrect information. |
| 9099 | Peer Testing | Normal | Verify edits context menu option available from Report Drafted WL |
| 8999 | New | Low | Personnel - Domain authentication checkbox being auto-checked with no visual indication |
| 9007 | New | Low | IVT Window - Removing Insurance on exam/practice that doesn't require IV isn't adding exam to IVT WL |
| 9158 | New | Low | EMR order - the phone number is not displayed correctly in WL |
| 9169 | New | Low | System Config  code - 'EnableContrastBillingRelation' |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| | | | the default is set to True, should be set to False |
| 9184 | New | Low | Contrast - Perform Exam - Billing Codes added to empty Billing Code grid do not re-enable the Edit/Delete buttons |
| 9185 | New | Low | Outside Read - alert for no billing codes only appears after clicking save |
| 9116 | Resolved | Low | EMR orders - schedule - The Map Procedures to EMR order window has a double 'the' in the instructions |
| 9009 | Duplicate | Low | Preferred Site dropdown required on scheduling after clicking Save as Order button. |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# Server Update

For eRAD RIS
Version 2.0
Build 44.1
Update 44.1.1

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Defects Resolved ..... 3
2. Code Stream ..... 4
3. Package Contents ..... 5
4. Intended Audience ..... 5
5. Who is affected ..... 5
6. eRAD RIS Release Version Numbers ..... 6
7. Installing ..... 7

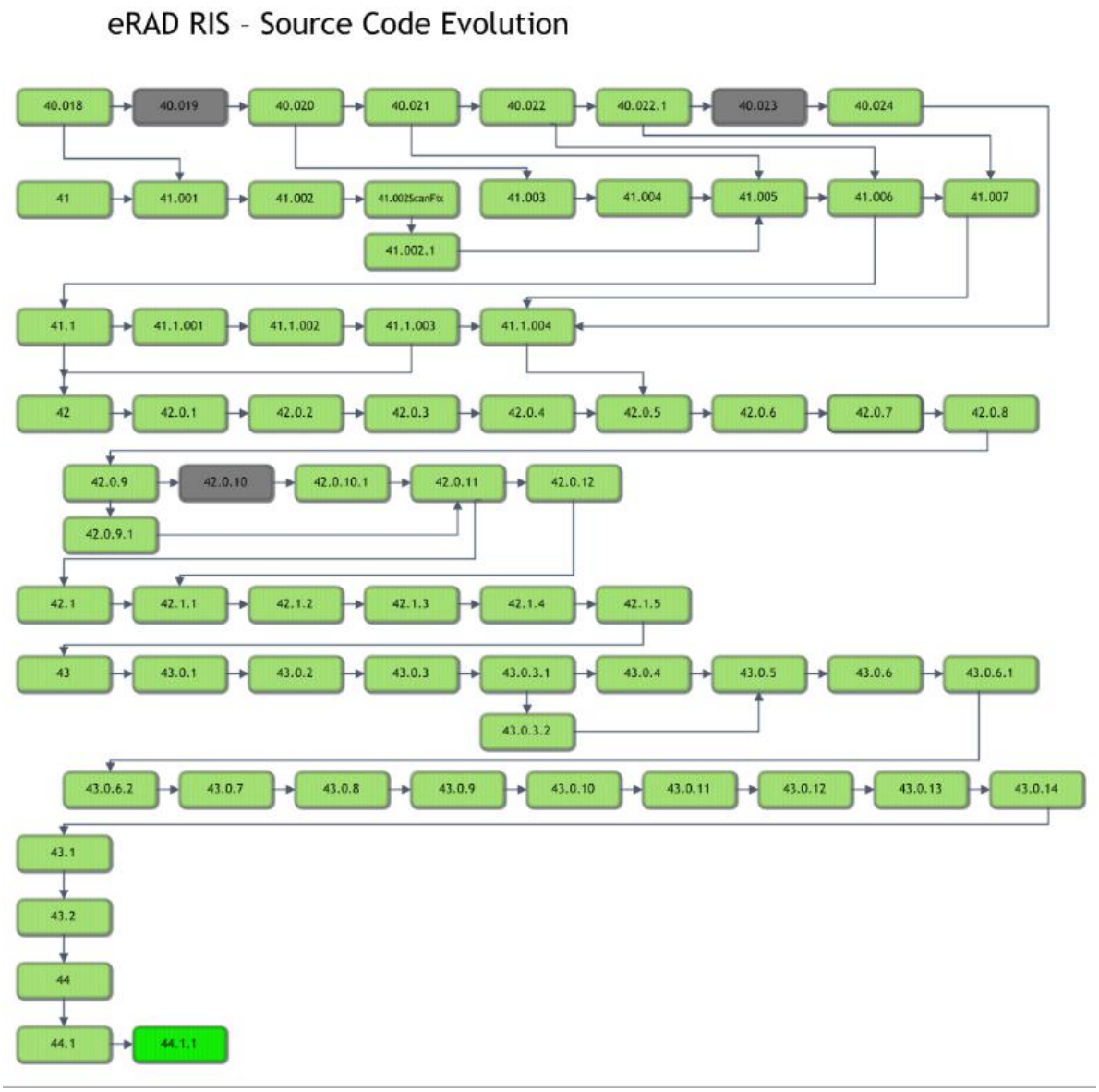
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 1. Defects Resolved

| Redmine # | Tracker | Subject | Priority |
|---|---|---|---|
| 9249 | Bug | Reporting Radiology - Previous field "ProcedureDescription" not working after upgrading to 44.x | Urgent |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 2. Code Stream




**Legend:**

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 3. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains:
   - rRIS_1.3.44.1.1.27093.zip

## 4. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

## 5. Who is affected

Build 44.1 installs. Server updates are not cumulative. This server update must be applied to 44.1.1

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

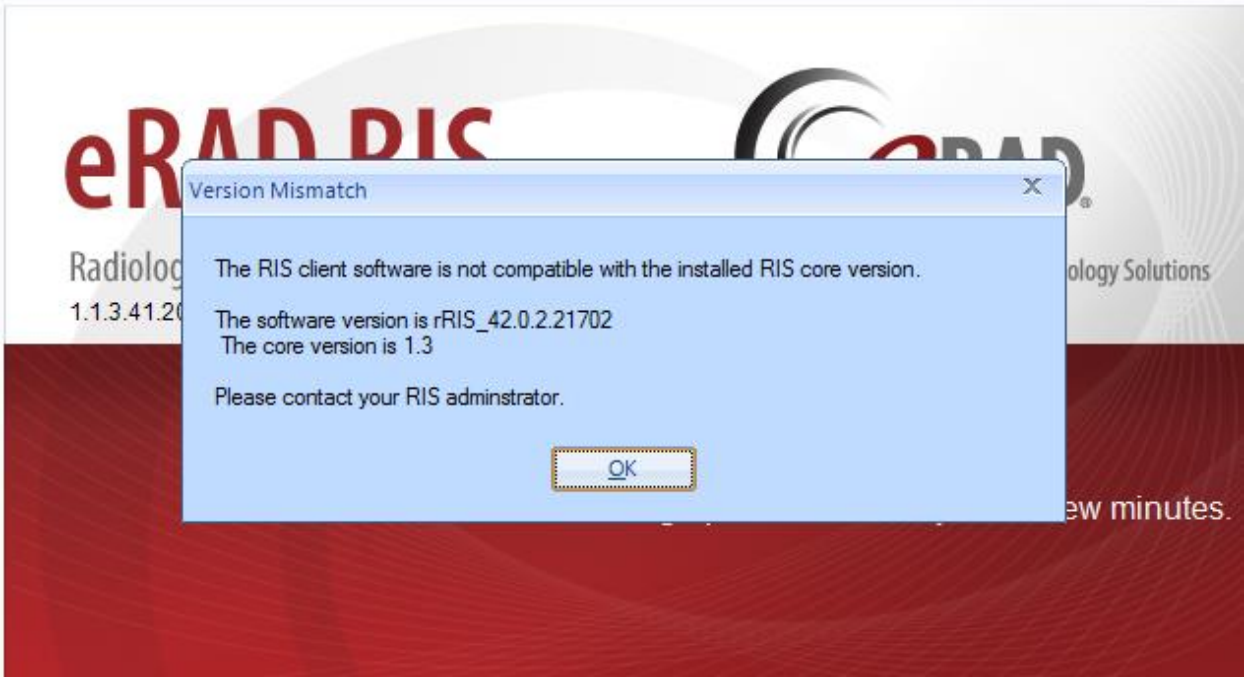
## 6. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 42.1 | - | 2.42.1.0.22744(3GB) | 2.42.0.0.21261 | 2.42.1.0.22744 | 2.42.1.0.22736 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 42.1 | 1 | 2.42.1.1.2296(3GB) | 2.42.0.0.21261 | 2.42.1.1.22963 | 2.42.1.1.22864 | GUI.zip, Web Service, DB updates |
| 42.1 | 2 | 2.42.1.2.23007(3GB) | 2.42.0.0.21261 | 2.42.1.2.23007 | 2.42.1.2.23007 | GUI.zip, Web Service, DB updates |
| 42.1 | 3 | 2.42.1.2.23237(3GB) | 2.42.0.0.21261 | 2.42.1.2.23237 | 2.42.1.2.23007 | GUI.zip, Web Services |
| 42.1 | 4 | 2.42.1.4.23348(3GB) | 2.42.0.0.21261 | 2.42.1.4.23348 | 2.42.1.2.23007 | GUI.zip, Web Services |
| 42.1 | 5 | 2.42.1.5.23406(3GB) | 2.42.0.0.21261 | 2.42.1.5.23406 | 2.42.1.2.23007 | GUI.zip, Web Services |
| 43 | - | 2.43.0.0.23715(3GB) | 2.43.0.0.23171 | 2.43.0.0.23715 | 2.43.0.0.23743 | Full Version Release |
| 43 | 1 | 2.43.0.1.23798(3GB) | 2.43.0.0.23171 | 2.43.0.1.23798 | 2.43.0.1.23770 | GUI.zip, Web Service, DB updates |
| 43 | 2 | 2.43.0.2.24017(3GB) | 2.43.0.0.23171 | 2.43.0.2.24017 | 2.43.0.2.24023 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 3 | 2.43.0.3.24298(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24283 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 3.1 | 2.43.0.3.24450(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24421 | GUI.zip and DB updates |
| 43 | 3.2 | 2.43.0.3.24450(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24421a | DB updates |
| 43 | 4 | 2.43.0.4.24447(3GB) | 2.43.0.0.23171 | 2.43.0.4.24447 | 2.43.0.4.24442 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 5 | 2.43.0.5.24632(3GB) | 2.43.0.0.23171 | 2.43.0.5.24632 | 2.43.0.5.24560 | GUI.zip, Web Service and DB updates |
| 43 | 6 | 2.43.0.6.24914(3GB) | 2.43.0.0.23171 | 2.43.0.6.24914 | 2.43.0.6.24914 | GUI.zip, Web Service and DB updates |
| 43 | 6.1 | 2.43.0.6.24937(3GB) | 2.43.0.0.23171 | 2.43.0.6.24937 | 2.43.0.6.24914 | GUI.zip, Web Service |
| 43 | 6.2 | 2.43.0.6.24970(3GB) | 2.43.0.0.23171 | 2.43.0.6.24970 | 2.43.0.6.24914 | GUI.zip, Web Service |
| 43 | 7 | 2.43.0.7.25258(3GB) | 2.43.0.0.23171 | 2.43.0.7.25258 | 2.43.0.7.25226 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 8 | 2.43.0.8.25440(3GB) | 2.43.0.0.23171 | 2.43.0.8.25440 | 2.43.0.8.25425 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 9 | 2.43.0.9.25477(3GB) | 2.43.0.0.23171 | 2.43.0.9.25477 | 2.43.0.8.25425 | GUI.zip and Web Service |
| 43 | 10 | 2.43.0.9.25477(3GB) | 2.43.0.0.23171 | 2.43.0.10.25477 | 2.43.0.8.25425 | Web Service |
| 43 | 11 | 2.43.0.11.25512(3GB) | 2.43.0.0.23171 | 2.43.0.11.25512 | 2.43.0.8.25425 | GUI.zip and Web Service |
| 43 | 12 | 2.43.0.12.25554(3GB) | 2.43.0.0.23171 | 2.43.0.12.25554 | 2.43.0.12.25536 | GUI.zip Web Service and DB Updates |
| 43 | 13 | 2.43.0.13.25610(3GB) | 2.43.0.0.23171 | 2.43.0.13.25610 | 2.43.0.12.25536 | GUI.zip and Web Service |
| 43 | 14 | 2.43.0.14.25644(3GB) | 2.43.0.0.23171 | 2.43.0.13.25610 | 2.43.0.12.25536 | GUI.zip |
| 43.1 | - | 2.43.1.0.25850(3GB) | 2.43.0.0.23171 | 2.43.1.0.25850 | 2.43.1.0.25771 | GUI.zip Web Service and DB Updates |
| 43.2 | - | 2.43.2.0.26864(3GB) | 2.43.0.0.23171 | 2.43.2.0.26864 | 2.43.1.0.25771 | GUI.zip and Web Service |
| 44 | - | 2.44.0.0.26570(3GB) | 2.44.0.0.26405 | 2.44.0.0.26570 | 2.44.0.0.26475 | Full Version Release |
| 44.1 | - | 2.44.1.0.26984(3GB) | 2.44.0.0.26405 | 2.44.1.0.26984 | 2.44.1.0.26906 | Gui.zip, Web Service, and DB |
| **44.1.1** | **-** | **2.44.1.1.27093(3GB)** | **2.44.0.0.26405** | **2.44.1.0.26984** | **2.44.1.0.26906** | **Gui.zip** |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 7. Installing

1) Copy and replace the current rRIS…zip file with the rRIS_1.3.44.1.1.27093.zip file provided with this release.
   Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.




If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_44.1.1.27093→ rRIS_1.3.44.1.1.27093
NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

**NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# User Release Notes

for eRAD RIS
Version 2
Build 44.1

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# Table of Contents

1. Purpose ..... 3
2. Intended Audience ..... 3
3. Installing/Accessing the Application ..... 3
4. New Access Strings and Configuration Settings 44.1 ..... 4
5. New Features and Enhancements ..... 5
Billing Integrity ..... 5
Insurance Eligibility – Tier 2 and Advanced and Complex Parsing ..... 8
Insurance Eligibility – Store Carrier User and Pin for Eligible ..... 9
CD Burning Enhancements ..... 10
Improved Detection of Not Enough Disk Space ..... 10
Remember Previous Destination ..... 11
CD Burner User Profile ..... 11
Show Patient Notes of Merged Patients ..... 12
Display Issuer of Order on Existing Orders Pop-Up Window ..... 13
Disable Contrast Required ..... 14
6. Code Stream ..... 15
7. eRAD RIS Release Version Numbers ..... 16
8. Resolved Defects ..... 17
9. Additional Defects Resolved ..... 19
10. Known Limitations ..... 22

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 1. Purpose

This document describes some of the new features and changes implemented in eRAD RIS as of the end of Sprint 44.1 and subsequent server releases. This version of eRAD RIS is referred to as Build 2.44.1

Only features which can be visually demonstrated to the user will be outlined in this document.

# 2. Intended Audience

This document is created by the RIS Development team for the RadNet RIS management team.

# 3. Installing/Accessing the Application

The installation guide for the eRAD RIS client have been posted to the RadNet Wiki page at http://mdbal01rdtweb/Wiki/

Under the RIS menu click on the rRIS page. The credentials to access the page are:
Username: rRIS
Password: Summerside

*Please note that Build 2.44.1 is considered a new release of the application. It does not require a reinstallation of eRAD RIS. If users choose to reinstall, this is accomplished by navigating to the eRAD RIS shared installation drive and running the CoreInstall.bat file (ex: I:\RISDeployment\CoreInstall.bat)*

If you experience difficulties accessing the application please do not hesitate to contact Darcy Noye with the PEI RIS Development Team.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 4. New Access Strings and Configuration Settings 44.1

| Setting Placeholder | Setting | Default | Purpose / Controls Access to |
|---|---|---|---|
| Access string / User Group Permission tables | Clinical.RepostToBilling | None | Enables access to the billing confirmation / Repost context menu action |
| Access string / User Group Permission tables | WL.BillingConfirmation | None | WL access for Billing Confirmation work list under Administration menu |
| Access string / User Group Permission tables | Clinical.Billing.ShowCodingColumns | None | Controls the ability to see the billing confirmation coding columns in the Billing Codes grid. See the view edit screen, for an example of the Billing Codes grid. |
| | | | |
| SystemConfig lookup | BillingConfirmationWLLag | 60 | The number of minutes Lag after which the billing code(s) that has not been finalized will display in the Billing Confirmation WL. |
| SystemConfig lookup | RISOrderSourceDescription | RIS | Describes RIS generated orders |
| SystemConfig lookup | ICodeExpirationDays | 5 | The number of days from the time an ICode is created to when it will expire, negative value will provide no expiry date. |
| SystemConfig lookup | TechContrastRequired | False | Disables the Contrast Required feature. The Contrast grid on the Perform Exam window and also on the View/Edit window will not require an entry. |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 5. New Features and Enhancements

## Billing Integrity

The eRAD RIS sends "billing" messages to Zotec when an exam reaches a final state. A final state occurs when either the diagnostic report for the exam is signed (identified with a status of "Signed") or when only the technical component (acquisition) of an exam is to be performed (identified with a status of "ExamDoneTechOnly"). Once either of these states is reached a final validation is done on the exam's data, such as insurance details, referring physician details, etc. If the validation passes the study's billing status is changed to "Billed". If not the study is put on the Billing Exception WL. A RIS user can work this work list to correct the failed edits and subsequently push the study to a "Billed" status. Once the study reaches "Billed" status then eRAD RIS will send a "StudyBilled" message to Mirth. Mirth will then encode the message to appropriate format, likely HL7, and send it to the desired billing system for processing.

Although the eRAD RIS status suggests the study has been "Billed" the truth is RIS actually does not know if it has been billed or not. This status actually means the study has been pushed to an external billing system for post billing activity. eRAD RIS currently does not get any feedback from external billing systems to indicate the status of post billing activity. Without this it is very difficult to identify studies that have been reimbursed compared to those studies that still need reimbursement.

In build 44.1 a new work list titled Billing Confirmation WL has been added. Access to this work list is controlled by access string **"WL.BillingConfirmation"** which has a default of None. The work list is available under the Administration menu. This work list shows studies that have a billing code with the coding status of ***Not Understood, Not Sufficient, Tentative.***

In addition to the coding status, the study won't display until the Lag in the work list exeeds the system configured value for "**BillingConfirmationWLLag**" which is set in minutes. This is a new system configuration setting for this feature. It has a default value of 60 minutes.

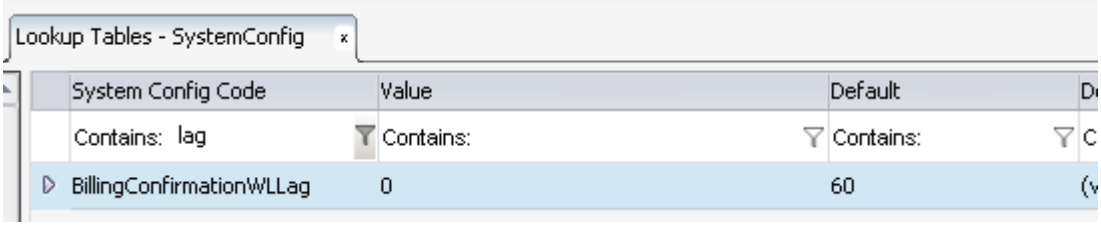



**Figure 5.1 – New system configuration setting BillingConfirmationWLLag**

The following is an example of the work list. Lag is a calculation of the minutes between <now> and coding_submitted_date. You can see the new columns of Coding Status, Coding Submitted

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

Date, Coding Last Action Date and Lag that have been created and included on this work list. All new columns are list further in this document

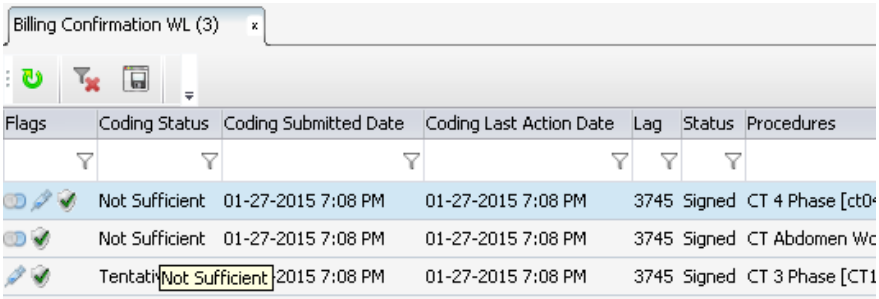



**Figure 5.2 – Billing Confirmation WL**

From the billing confirmation you can open the study in View Edit, then on the Billing Codes tab you can change the coding status to "not remitting" and document the reason in the coding_notes field.

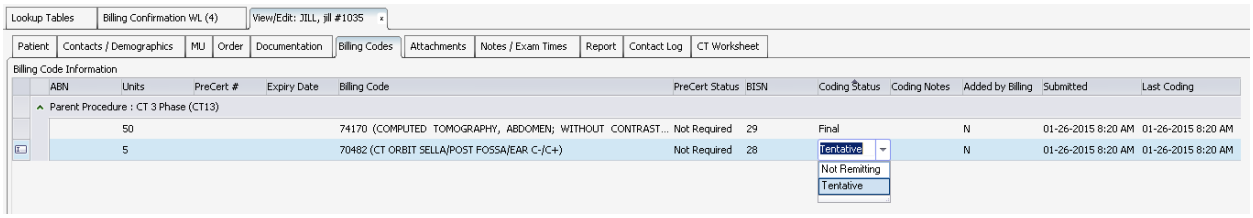



**Figure 5.3 – View/edit window access from Billing Confirmation displaying Billing Codes tab**

Looking at the Billing Codes tab above there are new columns added. The columns of BISN, Coding Status, Coding Notes, Added by Billing, Change Reason, Submitted, Last Coding and Downcoded Procedure (which is not displayed by default but can be added via column chooser. To access the column chooser right click on a column header)

From the billing confirmation you can also Repost items back to billing. This feature supports multi select and is accessible from the right-click "Repost" context menu.

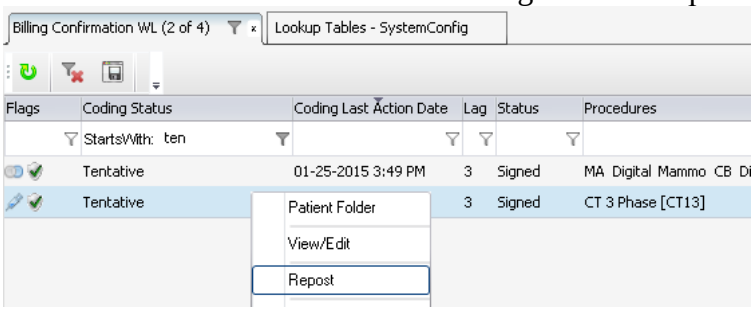



**Figure 5.4 – Repost from Billing Confirmation WL**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

The following is the list of new columns added that appear on the Billing Confirmation WL or on the Billing Codes tab of View/Edit

**bisn** – (billing item serial number)

Identity column, generated upon saving a billing code. It is required to have a value in the DB. It should be unique for the entire database. Its purpose is to unique identify a billing item. To be used with in the interface with an external billing system.

**coding_status**

Billing code's coding status, which defaults to null. The external billing system will send messages to update the status. The coding status will be one of the following values:

- Submitted
- Not Understood
- Not Sufficient
- Tentative
- Final
- Not Remitting

If 'Not Understood' or 'Not Sufficient' the coding_notes field will contain an explanation. If the status is 'Final' and it is a new billing code the coding_notes field will contain an explanation

**coding_notes**

A general notes filed to be used by eRAD RIS to add comments regarding billing items that needed an action.

**added_by_billing_**flag

A flag to indicate that the diagnosis code was "downcoded"

**downcoded_procedure_code**

A procedure code assigned by the external billing/coding system

**coding_submitted_date**

A date time to indicate when the coding was sent to the billing system

**coding_recieved_date**

A date time to indicate when the coding was received in the billing system

**coding_last_action_date**

A date time to indicate last processing action by the external billing system, which will be used to calculate the lag column in the billing confirmation worklist.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Insurance Eligibility – Tier 2 and Advanced and Complex Parsing

If the insurance return's Xray section contains line items with "TIER 2" or "TIER TWO" we will move those line items so they only exist in the CT/MRI section of the return. For "TIER 2" and "TIER TWO", this is the default functionality. We have seen several cases where this is necessary.

For additional cases, where there is a need to move line items between service sections, we have introduced configuration via the c_eligibility_special_condidtions as shown in the following.

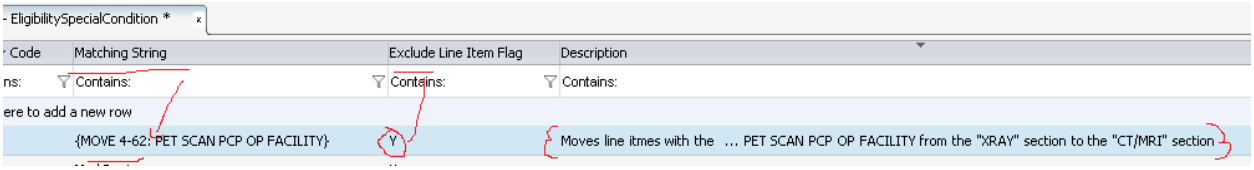



**Figure 5.5 – Configuring Eligibility Special Condition**

To meet the other requirements, customers can create new rules such as:

<move 4-62: Radiology Advanced>
<move 4-62: Complex Imaging >

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Insurance Eligibility – Store Carrier User and Pin for Eligible

Eligible now requires eRAD RIS to store and forward a user and pin to connect to a particular carrier. Although it is only for one carrier today, the number of carriers that eligible will require this for will increase in the future.

The EligibleConfig lookup table has 2 new columns added titled Portal User and Provider Pin. The Portal User will store the username required for Eligible to connect to the carrier and the Provider Pin is similar to a password that the Carrier will also require to be passed over.

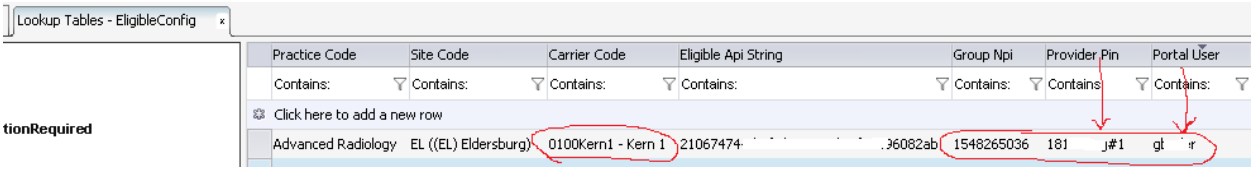



**Figure 5.6 – EligibleConfig lookup displaying new columns**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## CD Burning Enhancements

### Improved Detection of Not Enough Disk Space

In previous builds in which we supported CD Exporting (or CD Burning) from the RIS we would gather an estimated size of the images to be burned. The estimated sizes could vary greatly and the end result could be a significant size difference. This made it difficult to determine what media type to use (CD or DVD).

To improve the Burn CD process we will no longer use the estimated size and will no longer present message at beginning of burn process informing that you might want to consider using DVD. Instead we will now wait until 2/3 of the burn process (around 66%) is complete and we have an actual size of the image(s) that have been requested to be copied.

If the size of the image(s) exceeds 650MB we will present the user with a message "There are too many studies to fit on a CD. Would you like to burn these studies to a DVD?"

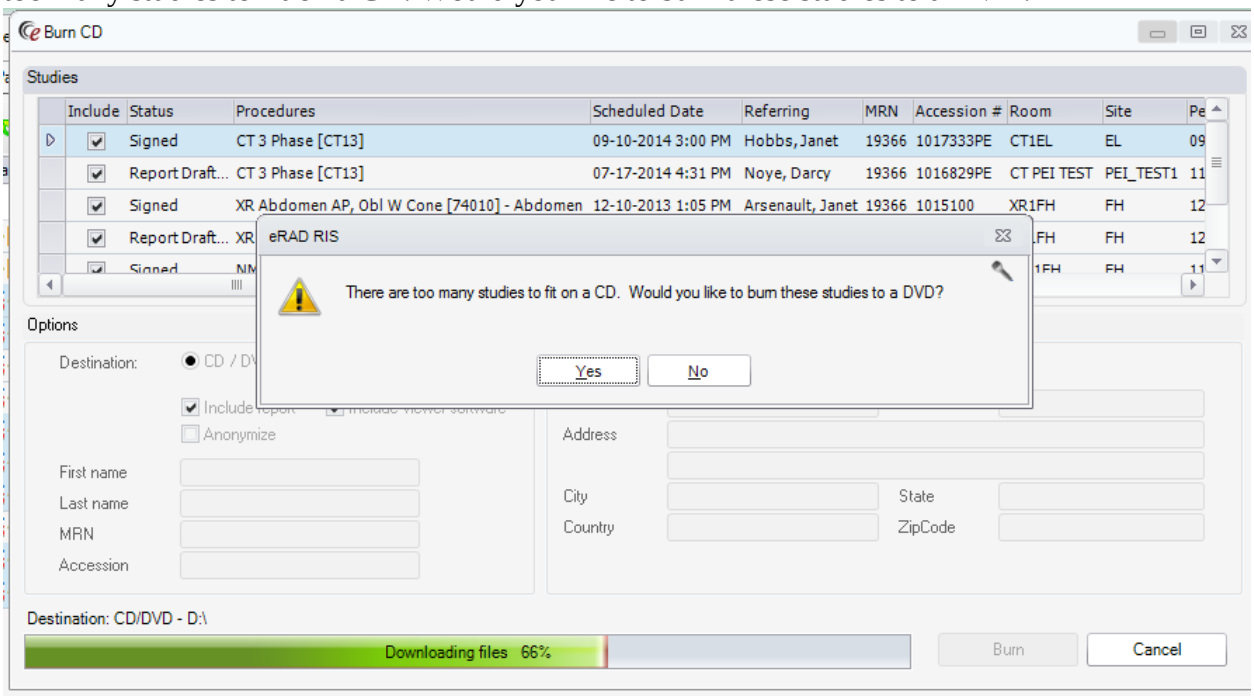



**Figure 5.7 – Burn CD prompt for too many studies for a CD**

With the message presented the user must change the media before selecting Yes. If they leave the CD in and select Yes the will immediately get an error of Not enough space and the Burn process will not resume. The user will need to start again.

Selecting No will abort the Burn CD process and close the window.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

**Remember Previous Destination**
Another enhancement is the Burn CD window will remember the user previous destination selection. If you are a user that uses Disc Producer only, that destination radio button will be selected the next time you open the Burn CD window. Also if there happens to be multiple Disc Producers, the last one selected will also be remembered.

**CD Burner User Profile**
Lastly a new field was added on the Practice table that will allow for a "CD burner user profile" to be added and will be the default layout used when burning CDs.

A user account is created in eRAD PACS with a defined hanging protocol that will be the default layout of images displayed from burned CD will be presented. The username of the eRAD PACS account is then added to the CD burner user profile field. This is accessed under the Administration > Configure > System > Organization, select the practice that you want to have the profile associated with and open for edit. On the PACS and Reporting tab enter in the User ID that was created in the PACS in the CD burner user profile field. Save the Organization lookup table.

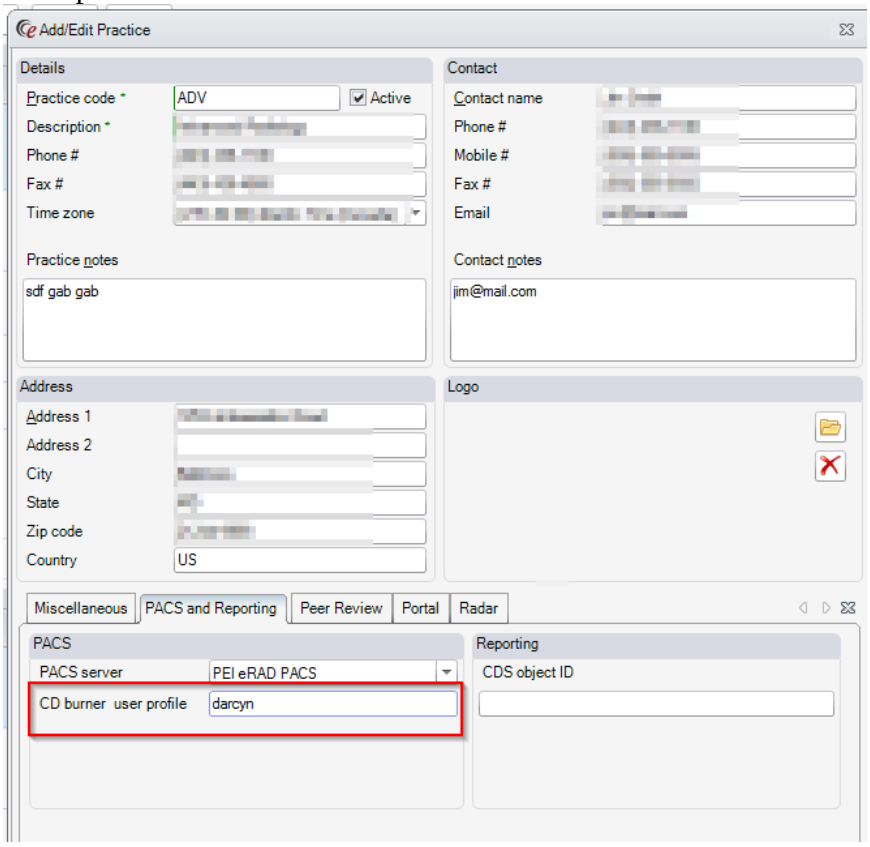



**Figure 5.7 – CD burner user profile field on Practice lookup table**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Show Patient Notes of Merged Patients

In previous versions of eRAD RIS, when a patient was merged with another, the source patients, patient notes didn't display on the destination patients, patient notes. In Build 44.1 a new hyperlink has been added to the Patient Notes tab. When looking at the figure below the Previous patient notes hyperlink will open a new Previous Patient Notes window and display the notes for all of the patients that have been merged to the current patient.

The notes will be grouped under a header that shows the previous patient name, MRN, and the date of the merge. The user can then use the mouse to highlight the text they want to extract and press Control+C to copy the text to the clipboard so that it can be pasted into the notes section and saved.

All screens that allow the user to add patient notes have had the Previous Patient Notes added.

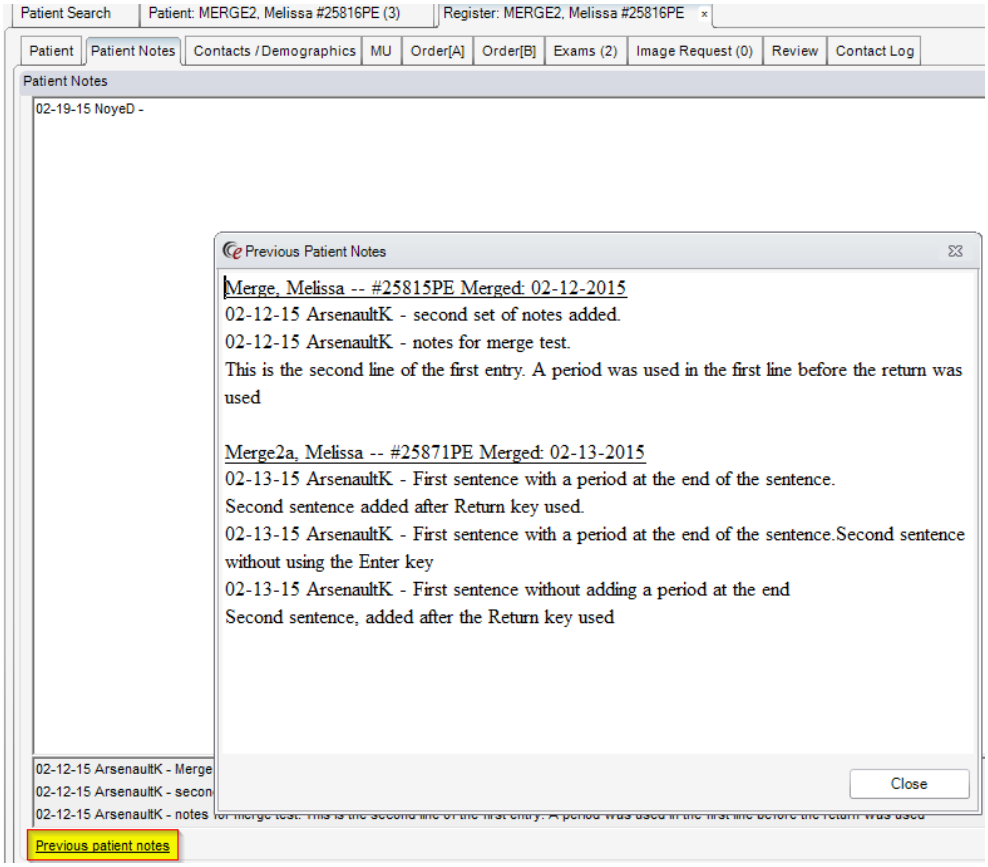



**Figure 5.8 – Displaying previous patient notes of merged patients**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Display Issuer of Order on Existing Orders Pop-Up Window

A new column titled Order Source has been added to the Existing Orders window prompt that will display the Issuer of the Order.

The Existing Orders prompt is displayed when creating a New Appointment or Walk-In for a patient that has pre-existing orders in the system.

IT will show either the value of the "issuer_of_placer_order_number" column in the order (when specified, this is generally the emr code), or the value from the new system configuration setting of "**RISOrderSourceDescription**" that has a default of "RIS" for an internally generated order.

If the "issuer_of_placer_order_number" matches an EMR code in the EMR lookup table, the tool tip for the Order Source column will show the full description of the EMR as well as the EMR code.

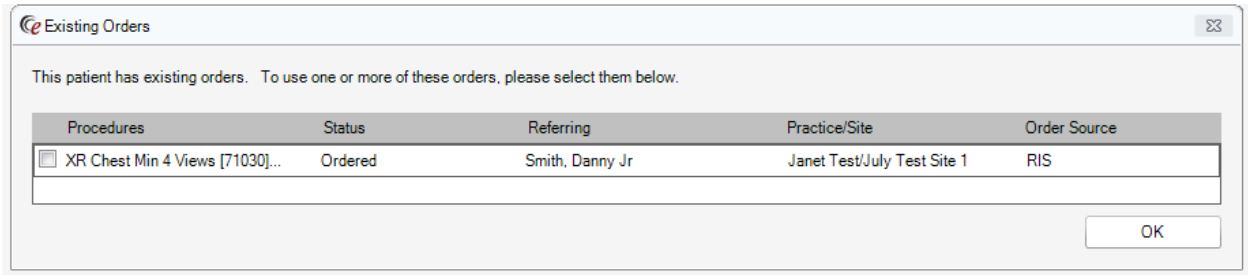



**Figure 5.9 – Issuer of Order "Order Source" added to Existing Orders window**

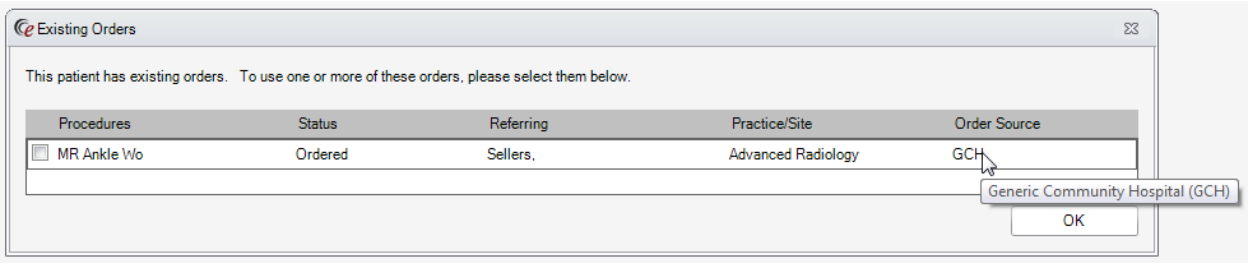



**Figure 5.10 – Order Source with tooltip displayed**

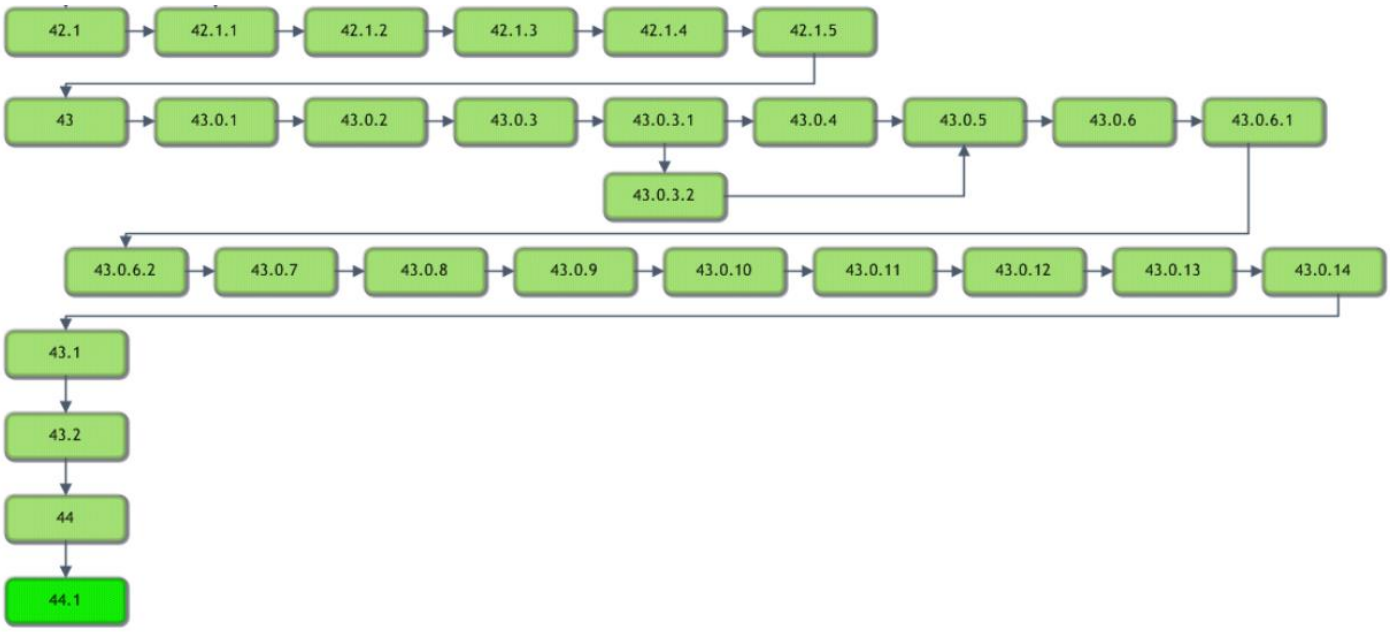
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Disable Contrast Required

The feature of Contrast, Sedation and CT Dosage Tracking was included with Build 44. The means to turn this feature off was on each individual procedure code using the Requires Contrast Flag. In Build 44.1 we have added a global configuration setting of "**TechContrastRequired**" which has a default of False. When using the default the Contrast grid will still be present in the Perform Exam and View/Edit windows but the user will not be required to enter a contrast to save the study. When a value of True is added, the feature will work as intended when released with Build 44.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 6. Code Stream




**Legend:**

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 7. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 42.1 | - | 2.42.1.0.22744 | 2.42.0.0.21261 | 2.42.1.0.22744 | 2.42.1.0.22736 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 42.1 | 1 | 2.42.1.1.22963 | 2.42.0.0.21261 | 2.42.1.1.22963 | 2.42.1.1.22864 | GUI.zip, Web Service, DB updates |
| 42.1 | 2 | 2.42.1.2.23007(3GB) | 2.42.0.0.21261 | 2.42.1.2.23007 | 2.42.1.1.23007 | GUI.zip, Web Service, DB updates |
| 42.1 | 3 | 2.42.1.3.23237(3GB) | 2.42.0.0.21261 | 2.42.1.3.23237 | 2.42.1.1.23007 | GUI.zip, Web Services |
| 42.1 | 4 | 2.42.1.4.23348(3GB) | 2.42.0.0.21261 | 2.42.1.4.23348 | 2.42.1.1.23007 | GUI.zip, Web Services |
| 42.1 | 5 | 2.42.1.5.23406(3GB) | 2.42.0.0.21261 | 2.42.1.5.23406 | 2.42.1.1.23007 | GUI.zip, Web Services |
| 43 | - | 2.43.0.0.23715(3GB) | 2.43.0.0.23171 | 2.43.0.0.23715 | 2.43.0.0.23743 | Full Version Release |
| 43 | 1 | 2.43.0.1.23798(3GB) | 2.43.0.0.23171 | 2.43.0.1.23798 | 2.43.0.1.23770 | GUI.zip, Web Service, DB updates |
| 43 | 2 | 2.43.0.2.24017(3GB) | 2.43.0.0.23171 | 2.43.0.2.24017 | 2.43.0.2.24023 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 3 | 2.43.0.3.24298(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24283 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 3.1 | 2.43.0.3.24450(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24421 | GUI.zip, and DB updates |
| 43 | 3.2 | 2.43.0.3.24450(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24421a | DB updates |
| 43 | 4 | 2.43.0.4.24447(3GB) | 2.43.0.0.23171 | 2.43.0.4.24447 | 2.43.0.4.24442 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 5 | 2.43.0.4.24632(3GB) | 2.43.0.0.23171 | 2.43.0.4.24632 | 2.43.0.4.24560 | GUI.zip, Web Service and DB updates |
| 43 | 6 | 2.43.0.4.24(3GB) | 2.43.0.0.23171 | 2.43.0.4.24 | 2.43.0.4.24 | GUI.zip, Web Service and DB updates |
| 43 | 6.1 | 2.43.0.6.24937(3GB) | 2.43.0.0.23171 | 2.43.0.6.24937 | 2.43.0.6.24914 | GUI.zip, Web Service |
| 43 | 6.2 | 2.43.0.6.24970(3GB) | 2.43.0.0.23171 | 2.43.0.6.24970 | 2.43.0.6.24914 | GUI.zip, Web Service |
| 43 | 7 | 2.43.0.7.25258(3GB) | 2.43.0.0.23171 | 2.43.0.7.25258 | 2.43.0.7.25226 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 8 | 2.43.0.8.25440(3GB) | 2.43.0.0.23171 | 2.43.0.8.25440 | 2.43.0.8.25425 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 9 | 2.43.0.9.25477(3GB) | 2.43.0.0.23171 | 2.43.0.9.25477 | 2.43.0.8.25425 | GUI.zip and Web Service |
| 43 | 10 | 2.43.0.9.25477(3GB) | 2.43.0.0.23171 | 2.43.0.10.25477 | 2.43.0.8.25425 | Web Service |
| 43 | 11 | 2.43.0.11.25512(3GB) | 2.43.0.0.23171 | 2.43.0.11.25512 | 2.43.0.8.25425 | GUI.zip and Web Service |
| 43 | 12 | 2.43.0.12.25554(3GB) | 2.43.0.0.23171 | 2.43.0.12.25554 | 2.43.0.12.25536 | GUI.zip Web Service and DB Updates |
| 43 | 13 | 2.43.0.12.25610(3GB) | 2.43.0.0.23171 | 2.43.0.12.25610 | 2.43.0.12.25536 | GUI.zip and Web Service |
| 43 | 14 | 2.43.0.14.25644(3GB) | 2.43.0.0.23171 | 2.43.0.13.25610 | 2.43.0.12.25536 | GUI.zip |
| 43.1 | - | 2.43.1.0.25850(3GB) | 2.43.0.0.23171 | 2.43.1.0.25850 | 2.43.1.0.25771 | GUI.zip Web Service and DB Updates |
| 43.2 | - | 2.43.2.0.26864(3GB) | 2.43.0.0.23171 | 2.43.2.0.26864 | 2.43.1.0.25771 | GUI.zip and Web Service |
| 44 | - | 2.44.0.0.26570(3GB) | 2.44.0.0.26405 | 2.44.0.0.26570 | 2.44.0.0.26475 | Full Version Release |
| **44.1** | **-** | **2.44.0.0.26984(3GB)** | **2.44.0.0.26405** | **2.44.0.0.26984** | **2.44.0.0.27145** | **Gui.zip, Web Service, and DB** |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 8. Resolved Defects

Bugs Suggested Features and Support Issues resolved in build 2.44.1. The extract is taken from Redmine bug tracking system and only displays defects resolved in 2.44.1.

| Bug # | Priority | Subject | Category | Found Version |
|---|---|---|---|---|
| 9269 | Immediate | B44.1 upgrade scripts are taking too long to run on large database | DB | 2.44.1 |
| 9012 | Immediate | missing reply to information for the secure message | Connect Patient Portal 1.x | 2.44 |
| 8223 | Urgent | IVT WL queries are terribly slow for a 3 Radnet data centers | IVT / Precert | 2.43 |
| 8759 | Urgent | Pending Dictation WL is taking a long time to process results. | Worklists | 2.43.1 |
| 9010 | Urgent | Insurance Eligibility - NPD pricing is missing some billing codes | Insurance Eligibility | 44 |
| 7256 | High | CD Burning - Improve detection of "not enough space" | CD Burning | 2.43 |
| 8463 | High | Insurance Eligibility - Eligibility is preventing scheduling of follow-up | Insurance Eligibility | 43.1 |
| 8653 | High | Insurance Eligibility - update on the order resulting in wrong IVT Intervention flag on the order table. | Insurance Eligibility | 43.1 |
| 8659 | High | All signed pending QA context menu option for verify reports doesn't open proper action and report can be released | Radiology Reporting | 2.44 |
| 8761 | High | QA flag is not removed after verifying edit | Radiology Reporting | 2.44 |
| 9023 | High | Activation issue when using next workflow in dictation screen with reuse on. | Radiology Reporting | 2.44 |
| 9024 | High | Possibility that when you open a reporting screen, RIS get relocated to cursor position. | Radiology Reporting | 2.44 |
| 3538 | Normal | Reception / Technologist wl Precert required column not updated correctly | Worklists | 1.4 |
| 4394 | Normal | Signed pending release WL context menu item missing. | Radiology Reporting | 1.4 |
| 7917 | Normal | CD Burning generate may generate http requests for status updates every second | CD Burning | 2.43.0.11 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 7967 | Normal | Insurance Eligibility - Tier 2 and advanced / complex parsing. | Insurance Eligibility | 43.0.6 |
| 8025 | Normal | Insurance Eligibility - Remaining Copay is incorrectly taken as co-payment amount | Insurance Eligibility | 43.0.12 |
| 8116 | Normal | CD Burning - remember users previous destination preference | CD Burning | 43.1 |
| 8273 | Normal | Burn CD - Destination path label doesn't display path if Auto Select is used | CD Burning | 2.44 |
| 8680 | Normal | MU - Generating of the Icode code needs to be expanded to generate the Icode code at Check-In Status | Meaningful Use | 2.43 |
| 8760 | Normal | ICode expiration date is currently hard codes to 5 days needs to be changed | Connect Patient Portal 1.x | 2.44 |
| 9157 | Normal | Unable to make contrast not required for techs without affecting MU contrast alerts | Technologist | 2.44 |
| 4617 | Low | Expired Insurances | Insurance Managment | 1.41 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 9. Additional Defects Resolved

The following list of defects was reviewed\retested in 2.44.1 and could no longer be reproduced. These defects may have been resolved with a duplicate defect logged in Redmine, resolved inadvertently with the resolution of another defect or work flow has changed so that the logged defect is no longer an issue or a defect was logged against a workflow that no longer is supported (Example – Bug 2124 – We no longer allow orders to be opened in registration window)

| Bug # | Priority | Subject | Found Version |
|---|---|---|---|
| 4574 | High | Outside Reads - history field changed to signs and symptoms | 1.41 |
| 4731 | High | Should not have the ability to click sign twice on a Laterality check message box | 1.41 |
| 5333 | High | Reporting - Attachment viewer "Show More" option doesn't display attachment | 1.41.1 |
| 2124 | Normal | procedure picker does not refresh after checkin | 1.1.2.37.14326 |
| 2764 | Normal | Scheduling - No warning on deleting studies with assigned attachments | 1.1.3.39.15389 |
| 2880 | Normal | Notification for pending signature not displaying when study count is met. | 1.39 |
| 3065 | Normal | Carrier search - Object reference error if search performed more than once | 1.4 |
| 3135 | Normal | Procedure code description in new appointment truncates (the display) of some procedure codes | 1.4 |
| 3175 | Normal | Pending Pacs Correction message needs clean up | 1.4 |
| 3361 | Normal | When cloning multiple Personel, scrolling loses focus on what you select | 1.1.3.39.16026 |
| 3524 | Normal | Reschedule a multi study second time does not include second study | 1.40.004 |
| 3537 | Normal | @accession number search throws error if patient has cancelled orders | 1.4 |
| 3582 | Normal | Reporting - protect sections and delete table raising exceptions | 1.4 |
| 3597 | Normal | Laterality check message on transcribe | 1.4 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| 3600 | Normal | Audit log error when more then one patients audit history is opened | 1.40.006 |
| 3682 | Normal | Delete dictation on a study that was signed by contribute A (maybe b too) | 1.40.007 |
| 3893 | Normal | MT Transcribe & Continue/Close user preference not saving | 1.40.010 |
| 4372 | Normal | Creating a new appointment from the patient search window causes error. | 1.41 |
| 4421 | Normal | Shortcut for Tables not working in report editor (CTRL + T) | 1.41 |
| 4645 | Normal | Inactive procedure codes appear in the Procedure Plan table | 1.41 |
| 4646 | Normal | Schedule group lookup needs default column widths | 1.41 |
| 4901 | Normal | Scheduling - reservation needs to happen when picked | 1.4 |
| 4941 | Normal | Reporting - Autosave timing error | 1.41.002 |
| 4967 | Normal | Reporting - Submit audio in minimized mode throws error. | 1.41.002 |
| 5275 | Normal | Reporting - Adding empty space to field will allow user to sign | 1.41.1 |
| 5319 | Normal | Reporting - closing Attachment Viewer Preferences throws error in reporting window. | 1.41.1 |
| 5320 | Normal | Reporting - Attachment viewer in reporting window - double click to open the report will change to the next scan doc. | 1.41.1 |
| 5502 | Normal | Error when opening a patient merge suggestion: "Source patient not found" | 1.41.002.1 |
| 5519 | Normal | Reporting - pending signature on login and pending signature worklist notifications can be shown at the same time | 1.42 |
| 6033 | Normal | Scheduling - Holiday is not displayed in New Appointment Calendar view. | 1.42 |
| 3886 | Low | Reporting - Default button action on Skip/ Close button | 1.40.010 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| 4027 | Low | Image request - Remove image request, select edit throws error | 1.40.013 |
| 4163 | Low | Perform Exam - Cancelled studies in patient history list have buttons enabled | 1.41.015 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 10. Known Limitations

The following are Bugs Suggested Features and Support Issues found in build 2.44.1. Bugs reported in previous versions are not captured as Known Limitation in this document.

| # | Status | Priority | Subject |
|---|---|---|---|
| 9166 | New | High | Contrast is required on view/edit when contrast setting is set to true and is required |
| 9181 | New | High | Contrast - Perform Exam on non-contrast and contrast study copying contrast/billing codes to non-contrast study |
| 9013 | New | Normal | Preferred Site (c_orderRow.filler_site_code) not auto-populating on Scheduling/Walk-ins |
| 9014 | New | Normal | Preferred Site (c_orderRow.filler_site_code) isn't required when saving an order through "Schedule Later" |
| 9100 | New | Normal | Contrast - If a contrast is made inactive it still is available for selection and could be added to billing codes |
| 9103 | New | Normal | Contrast billing- if a BillingCode is not Active it will still be added to the billing code tab if the Contrast associated to it is added to Contrast grid |
| 9106 | New | Normal | Rescheduling- choosing Schedule Later from the Appointment Book will not change the status of the procedure in Reception WL or Patient folder |
| 9122 | New | Normal | EMR orders - the laterality is sent from external system but is not populated in scheduling window |
| 9139 | New | Normal | EMR order does not reflect correct information on Review tab. |
| 9172 | New | Normal | Contrast - Billing codes added on Perform Exam window don't get pre-cert status added. |
| 9190 | New | Normal | Contrast and Sedation - Manually delete default contrast will remove 2nd contrast code from grid |
| 9117 | In Progress | Normal | EMR order - attempt to schedule a 2nd time and schedule window has incorrect information. |
| 9099 | Peer Testing | Normal | Verify edits context menu option available from Report Drafted WL |
| 8999 | New | Low | Personnel - Domain authentication checkbox being auto-checked with no visual indication |
| 9007 | New | Low | IVT Window - Removing Insurance on exam/practice that doesn't require IV isn't adding exam to IVT WL |
| 9158 | New | Low | EMR order - the phone number is not displayed correctly in WL |
| 9169 | New | Low | System Config  code - 'EnableContrastBillingRelation' |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| | | | the default is set to True, should be set to False |
| 9184 | New | Low | Contrast - Perform Exam - Billing Codes added to empty Billing Code grid do not re-enable the Edit/Delete buttons |
| 9185 | New | Low | Outside Read - alert for no billing codes only appears after clicking save |
| 9116 | Resolved | Low | EMR orders - schedule - The Map Procedures to EMR order window has a double 'the' in the instructions |
| 9009 | Duplicate | Low | Preferred Site dropdown required on scheduling after clicking Save as Order button. |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# User Release Notes

for eRAD RIS
Version 2
Build 44.2

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# Table of Contents

1. Purpose ..... 3
2. Intended Audience ..... 3
3. Installing/Accessing the Application ..... 3
4. Existing Access Strings Required for New Feature in B2.44.2 ..... 4
5. New Features and Enhancements ..... 5
   Delete Signed Report Workflow ..... 5
6. Code Stream ..... 9
7. eRAD RIS Release Version Numbers ..... 10
8. Resolved Defects ..... 11
9. Known Limitations ..... 12

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 1. Purpose

This document describes some of the new features and changes implemented in eRAD RIS as of the end of Sprint 44.2 and subsequent server releases. This version of eRAD RIS is referred to as Build 2.44.2

Only features which can be visually demonstrated to the user will be outlined in this document.

# 2. Intended Audience

This document is created by the RIS Development team for the RadNet RIS management team.

# 3. Installing/Accessing the Application

The installation guide for the eRAD RIS client have been posted to the RadNet Wiki page at http://mdbal01rdtweb/Wiki/

Under the RIS menu click on the rRIS page. The credentials to access the page are:
Username: rRIS
Password: Summerside

*Please note that Build 2.44.2 is considered a new release of the application. It does not require a reinstallation of eRAD RIS. If users choose to reinstall, this is accomplished by navigating to the eRAD RIS shared installation drive and running the CoreInstall.bat file (ex: I:\RISDeployment\CoreInstall.bat)*

If you experience difficulties accessing the application please do not hesitate to contact Darcy Noye with the PEI RIS Development Team.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 4. Existing Access Strings Required for New Feature in B2.44.2

| Setting Placeholder | Setting | Default | Purpose / Controls Access to |
|---|---|---|---|
| Access string / User Group Permission tables | Clinical.VoidStudy | None | Gives access be able to change a signed study to void from the view edit screen |
| Access string / User Group Permission tables | Clinical.RISAdminChangeStatus | None | Allows a RIS administrator to make changes to the status of an exam that might not be possible otherwise |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 5. New Features and Enhancements

## Delete Signed Report Workflow

Occasionally there is a reason for a report to be deleted from a study. This may occur if eRAD RIS receives a blank report that was signed in another system. To assist RIS Administrator's with this task a series of steps can be performed to get the study back to Exam Done with no report or dictation. It must be noted that there is no **"Undo" or "Undelete"** option with this feature. Once the dictation/report is deleted, they cannot be retrieved.

Once a study is in Signed status and the dictation/report needs to be removed from this study RIS Administrators can use a 3 step process to get the Signed study back to Exam Done status without a dictation or report associated.

1.) From the Patient Folder work list open the Signed study in the View/Edit window. In this window there is an option to "Void" the study. Access to the Void button is controlled by pre-existing access string "**Clinical.VoidStudy**" which has a default of None. Clicking on this button will present the user with a confirmatory message. Selecting Yes will close the message and View/Edit window and status of the study will now be in Voided status.

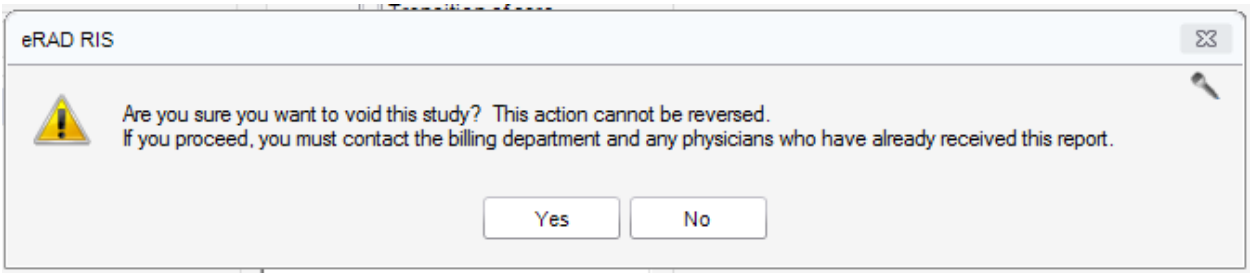



**Figure 5.1 – Void study confirmatory message**

2.) Right click on the "Voided" study to open the context menu. In the menu list select "Change Status to…" which will present a sub menu option of "Manual Status Update…".

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

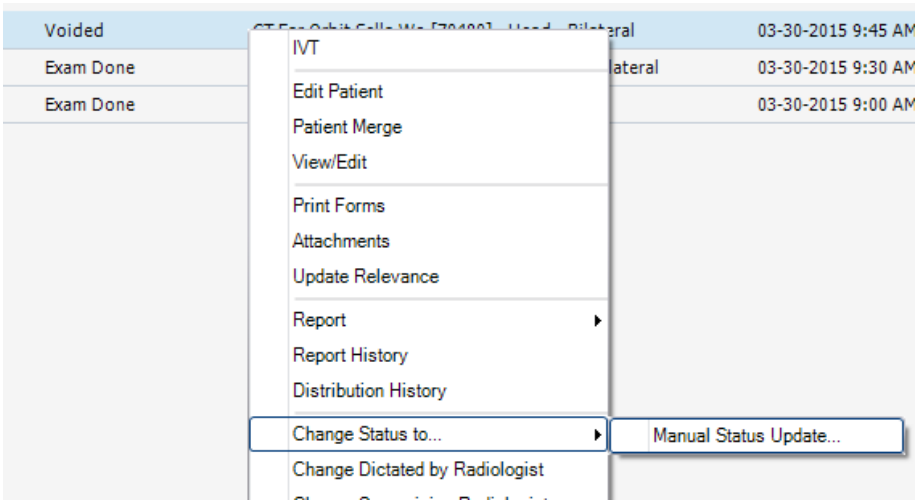



**Figure 5.2 – Manual Status Update menu option**

This will open the Manual Status Update window. In the Move to Status field select Exam Done (the only option).

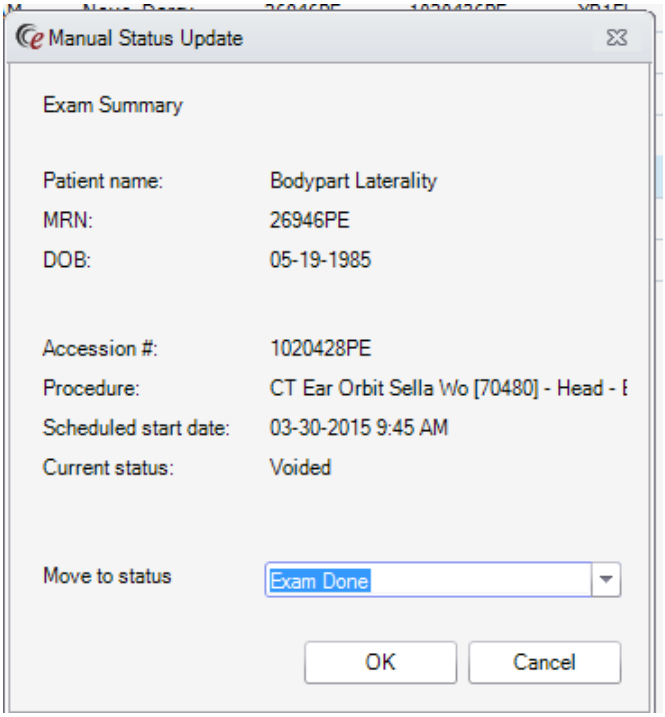



**Figure 5.3 – Manual Status Update window**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

Selecting the OK button will present the user with another confirmatory message as seen in the figure below.

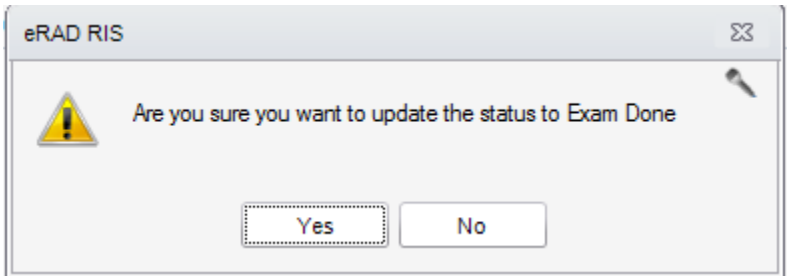



**Figure 5.4 – Manual Status Update confirmatory message**

The status of the study will now be in Exam Done on the work list. At this point the Dictation and or Report will still be available on this study. The report can be viewed from the context menu Report>Preview Report and can also be viewed in Report History and also from within the View/Edit window on the Report tab.

3.) The last step is to access the context menu once more and again select the Change Status to… menu. This time select the "Delete Dictation/Report and Reset Status" sub menu option. The status of the study will remain Exam Done

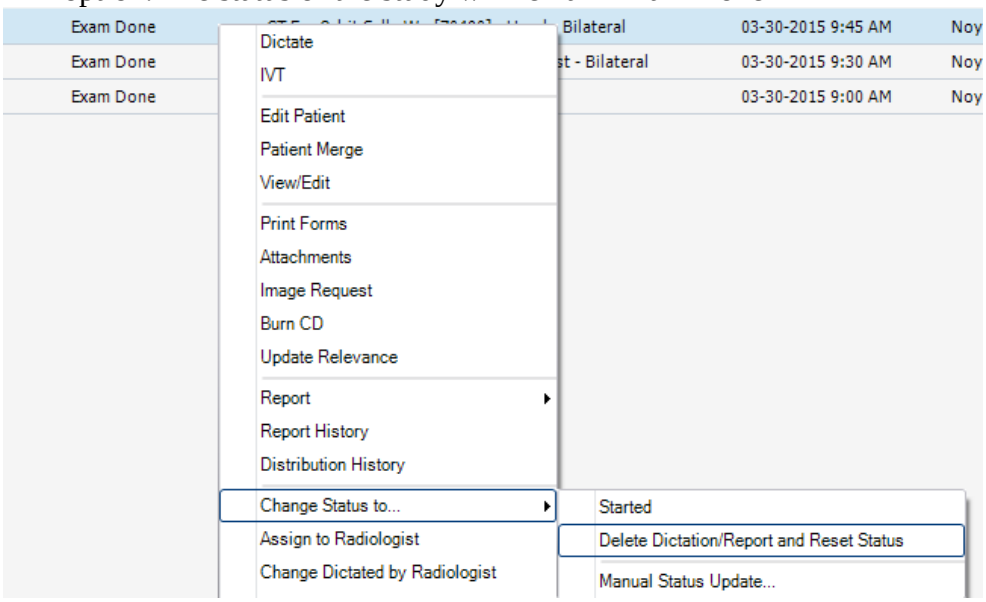



**Figure 5.5 – Deleting Dictation and Report**

Selecting this option will once again present the user with a confirmatory message informing them that this cannot be undone

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

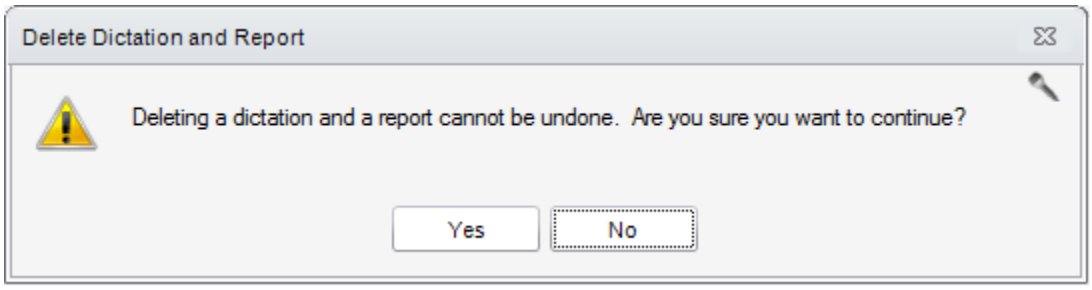



**Figure 5.6 – Delete dictation and report confirmatory message**

Selecting "Yes" will then proceed to delete the dictation and report. The user can then proceed to create a new dictation and report on this study.

The audit History captures the events of deleting a signed report.

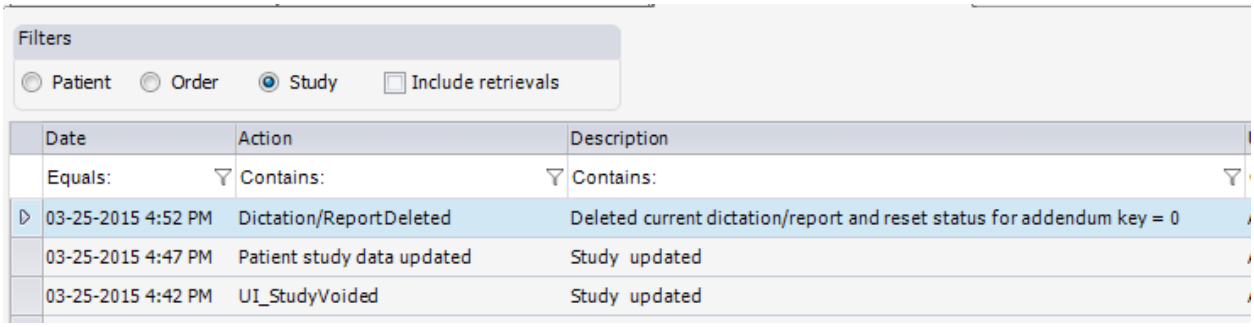
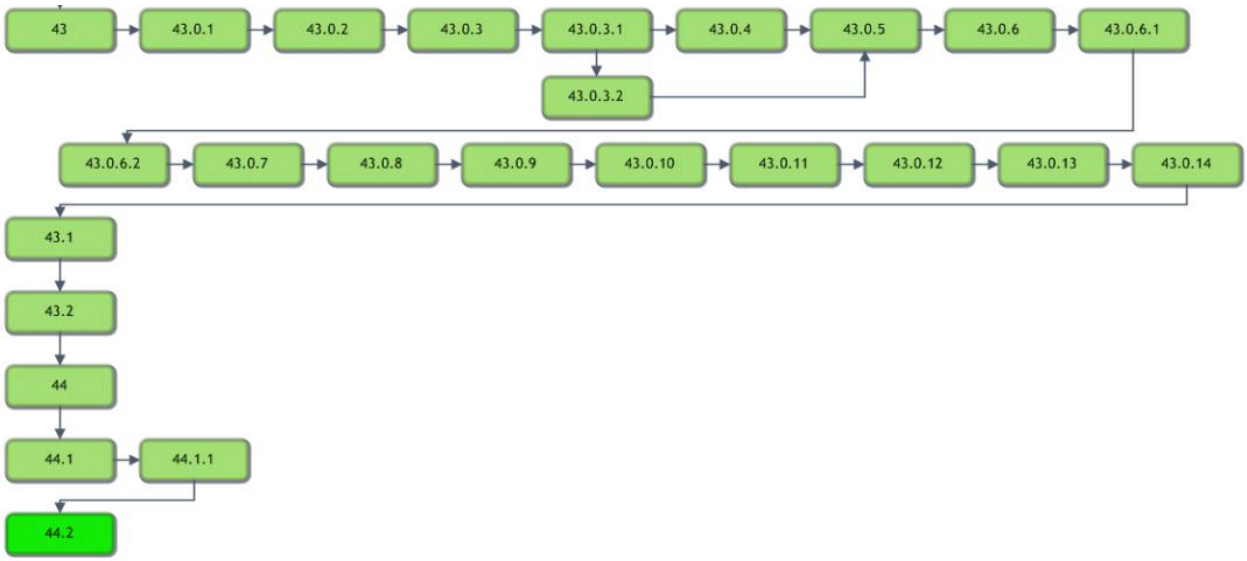



**Figure 5.6 – Audit history captures the workflow steps of deleting a signed report**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 6. Code Stream




**Legend:**

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 7. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 43 | - | 2.43.0.0.23715(3GB) | 2.43.0.0.23171 | 2.43.0.0.23715 | 2.43.0.0.23743 | Full Version Release |
| 43 | 1 | 2.43.0.1.23798(3GB) | 2.43.0.0.23171 | 2.43.0.1.23798 | 2.43.0.1.23770 | GUI.zip, Web Service, DB updates |
| 43 | 2 | 2.43.0.2.24017(3GB) | 2.43.0.0.23171 | 2.43.0.2.24017 | 2.43.0.2.24023 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 3 | 2.43.0.3.24298(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24283 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 3.1 | 2.43.0.3.24450(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24421 | GUI.zip, and DB updates |
| 43 | 3.2 | 2.43.0.3.24450(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24421a | DB updates |
| 43 | 4 | 2.43.0.4.24447(3GB) | 2.43.0.0.23171 | 2.43.0.4.24447 | 2.43.0.4.24442 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 5 | 2.43.0.4.24632(3GB) | 2.43.0.0.23171 | 2.43.0.4.24632 | 2.43.0.4.24560 | GUI.zip, Web Service and DB updates |
| 43 | 6 | 2.43.0.4.24(3GB) | 2.43.0.0.23171 | 2.43.0.4.24 | 2.43.0.4.24 | GUI.zip, Web Service and DB updates |
| 43 | 6.1 | 2.43.0.6.24937(3GB) | 2.43.0.0.23171 | 2.43.0.6.24937 | 2.43.0.6.24914 | GUI.zip, Web Service |
| 43 | 6.2 | 2.43.0.6.24970(3GB) | 2.43.0.0.23171 | 2.43.0.6.24970 | 2.43.0.6.24914 | GUI.zip, Web Service |
| 43 | 7 | 2.43.0.7.25258(3GB) | 2.43.0.0.23171 | 2.43.0.7.25258 | 2.43.0.7.25226 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 8 | 2.43.0.8.25440(3GB) | 2.43.0.0.23171 | 2.43.0.8.25440 | 2.43.0.8.25425 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 9 | 2.43.0.9.25477(3GB) | 2.43.0.0.23171 | 2.43.0.9.25477 | 2.43.0.8.25425 | GUI.zip and Web Service |
| 43 | 10 | 2.43.0.9.25477(3GB) | 2.43.0.0.23171 | 2.43.0.10.25477 | 2.43.0.8.25425 | Web Service |
| 43 | 11 | 2.43.0.11.25512(3GB) | 2.43.0.0.23171 | 2.43.0.11.25512 | 2.43.0.8.25425 | GUI.zip and Web Service |
| 43 | 12 | 2.43.0.12.25554(3GB) | 2.43.0.0.23171 | 2.43.0.12.25554 | 2.43.0.12.25536 | GUI.zip Web Service and DB Updates |
| 43 | 13 | 2.43.0.12.25610(3GB) | 2.43.0.0.23171 | 2.43.0.12.25610 | 2.43.0.12.25536 | GUI.zip and Web Service |
| 43 | 14 | 2.43.0.14.25644(3GB) | 2.43.0.0.23171 | 2.43.0.13.25610 | 2.43.0.12.25536 | GUI.zip |
| 43.1 | - | 2.43.1.0.25850(3GB) | 2.43.0.0.23171 | 2.43.1.0.25850 | 2.43.1.0.25771 | GUI.zip Web Service and DB Updates |
| 43.2 | - | 2.43.2.0.26864(3GB) | 2.43.0.0.23171 | 2.43.2.0.26864 | 2.43.1.0.25771 | GUI.zip and Web Service |
| 44 | - | 2.44.0.0.26570(3GB) | 2.44.0.0.26405 | 2.44.0.0.26570 | 2.44.0.0.26475 | Full Version Release |
| 44.1 | - | 2.44.0.0.26984(3GB) | 2.44.0.0.26405 | 2.44.0.0.26984 | 2.44.0.0.26906 | Gui.zip, Web Service, and DB |
| 44.1 | 1 | 2.44.1.1.27093(3GB) | 2.44.0.0.26405 | 2.44.1.0.26984 | 2.44.1.0.26906 | Gui.zip |
| **44.2** | | **2.44.2.0.27410(3GB)** | **2.44.0.0.26405** | **2.44.2.0.27410** | **2.44.2.0.27365** | **Gui.zip, Web Service, and DB** |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 8. Resolved Defects

Bugs Suggested Features and Support Issues resolved in build 2.44.2. The extract is taken from Redmine bug tracking system and only displays defects resolved in 2.44.2.

| Bug # | Priority | Subject | Category | Found Version |
|---|---|---|---|---|
| 9313 | Urgent | Possible to set side code for outside reads to null via IVT. ***Study will disappear from patient folder. | DB | 2.43.1 |
| 9181 | High | Contrast - Perform Exam on non-contrast and contrast study copying contrast/billing codes to non-contrast study | Technologist | 2.44.1 |
| 9294 | High | Scheduling - Body part list is not filtered down when possible list of values exists | Scheduling | 2.44 |
| 9337 | High | Details result set dates are not correct, versus the review tab and timeslot search | Scheduling | 2.43 |
| 9312 | Normal | IVT screen does not show correct site code for outside reads | IVT / Precert | 2.43.1 |
| 8706 | High | My Pending Dictation Worklist row counts include chair workflow logic, even for regions/practices that are not chair workflow enabled | Worklists | 2.43.1 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 9. Known Limitations

The following are Bugs Suggested Features and Support Issues found in build 2.44.2. Bugs reported in previous versions are not captured as Known Limitation in this document.

| # | Status | Priority | Subject |
|---|---|---|---|
| 9361 | New | High | Reconcile screen does not show correct site code for outside reads |
| 9366 | New | Normal | Addendum Requested flag is not cleared when study is voided |
| 9380 | New | Normal | Error upon selecting "add new row" in BillingCode table |
| 9386 | New | Normal | Edit to Units of Contrast in Billing Codes tab does not immediately reflect the change in the Contrast grid |
| 9388 | New | Normal | Contrast can be saved with Zero saving in the Vials column. |
| 9390 | New | Normal | Contrast is required to be entered by Scheduler if edits are made in View/Edit before patient even arrives. |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# Server Update

For eRAD RIS
Version 2.0
Build 44.2
Update 44.2.1

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Defects Resolved ..... 3
2. Code Stream ..... 4
3. Package Contents ..... 5
4. Intended Audience ..... 7
5. Who is affected ..... 7
6. eRAD RIS Release Version Numbers ..... 8
7. Installing ..... 9

Client/GUI ..... 9
Web Service ..... 10
Database Updates ..... 14

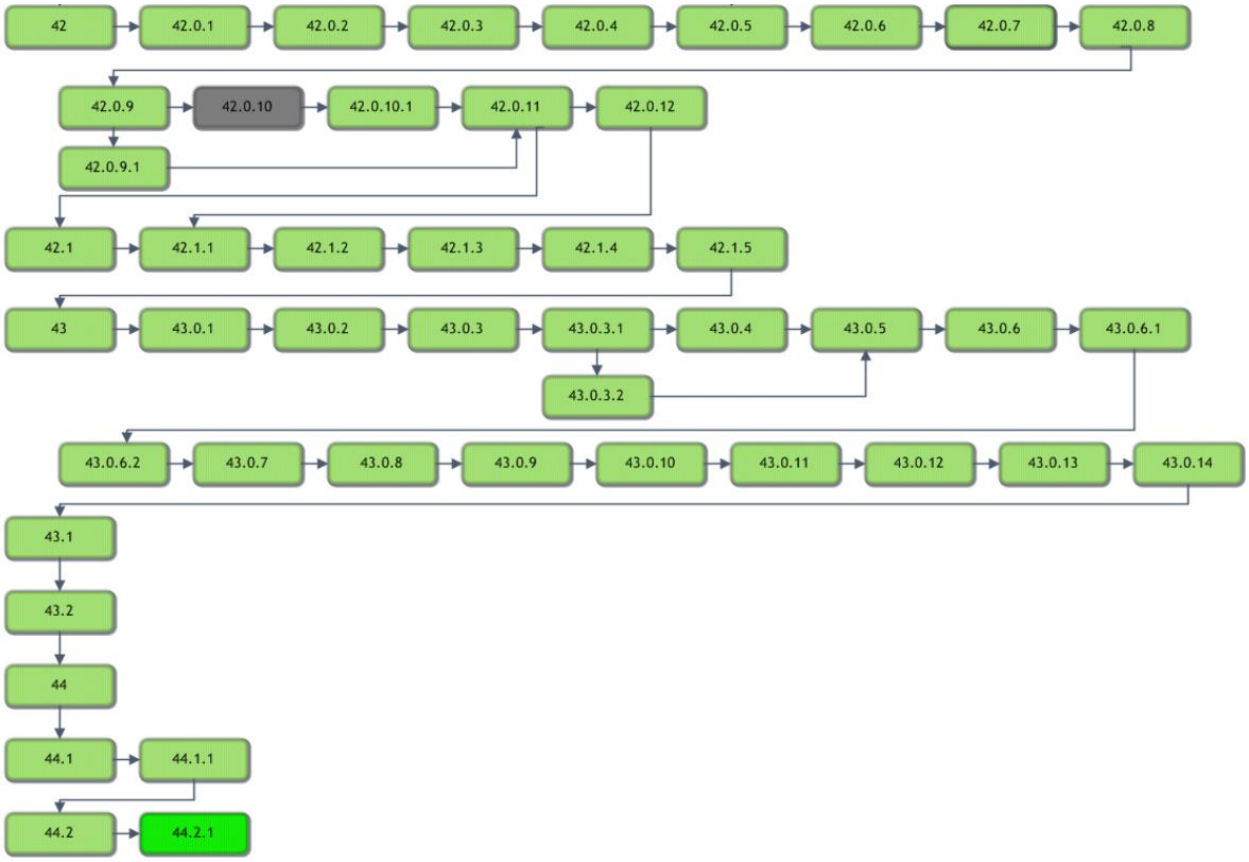
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 1. Defects Resolved

| Redmine # | Tracker | Subject | Priority |
|---|---|---|---|
| 9503 | Bug | Old layout for dictation/editing are not maintained into the 44 upgrade. | Urgent |
| 9504 | Bug | Bacode scanner not opening PS360 report when set to Diagnose on accession number | Urgent |
| 9512 | Bug | Reporting Radiologist - M*Modal interactive dictation performance issues when using encrypt audio method | High |
| 9519 | Bug | Error arriving studies from same order | High |
| 9549 | Bug | the wedge should not expand the virtual table c_order_ref_addresses | High |
| 9505 | Bug | Assigned Radiologist is not recoginized as assigned in the Assign to Radiologist window | Normal |
| 9507 | Bug | AppointmentBook is showing cancelled studies | Normal |
| 9509 | Bug | error changing pre-cert info on registration | Normal |
| 9518 | Bug | CD Burning - HasStudiesChanged incorrectly sums the Images/Sizes when there are multiple studyInstanceUIDs | Normal |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 2. Code Stream




**Legend:**

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 3. Package Contents

Files included for this server update:

1. **GUI_ZIP_Updates** contains 1 file:
    1.1. rRIS_1.3.44.2.1.27959

2. **rRISService** folder contains:
    2.1. ABCpdf.dll
    2.2. ABCpdf9-32.dll
    2.3. ABCpdf9-64.dll
    2.4. Antlr3.Runtime.dll
    2.5. CDSJobManager.dll
    2.6. CDSJobManager.pdb
    2.7. CdsLib.dll
    2.8. CdsLib.xml
    2.9. CdsLib.XmlSerializers.dll
    2.10. CommonLib.dll
    2.11. CommonLib.pdb
    2.12. DDEngine.dll
    2.13. DDEngine.pdb
    2.14. DiffPlex.dll
    2.15. Interop.FAXCOMEXLib.dll
    2.16. Microsoft.Practices.EnterpriseLibrary.Caching.dll
    2.17. Microsoft.Practices.EnterpriseLibrary.Caching.pdb
    2.18. Microsoft.Practices.EnterpriseLibrary.Common.dll
    2.19. Microsoft.Practices.EnterpriseLibrary.Common.pdb
    2.20. Microsoft.Practices.EnterpriseLibrary.Logging.dll
    2.21. Microsoft.Practices.EnterpriseLibrary.Logging.pdb
    2.22. Microsoft.Practices.ServiceLocation.dll
    2.23. Microsoft.Practices.ServiceLocation.pdb
    2.24. Microsoft.Practices.Unity.dll
    2.25. Microsoft.Practices.Unity.Interception.dll
    2.26. Microsoft.Practices.Unity.Interception.pdb
    2.27. Microsoft.Practices.Unity.pdb
    2.28. Microsoft.ReportViewer.Common.dll
    2.29. Microsoft.ReportViewer.WinForms.dll
    2.30. Microsoft.ReportViewer.WinForms.xml
    2.31. Newtonsoft.Json.dll
    2.32. Newtonsoft.Json.xml
    2.33. NLog.dll
    2.34. O2S.Components.PDFRender4NET.dll
    2.35. PdfSharp.dll
    2.36. PDFToImages.exe
    2.37. Radar.Api.Client.dll
    2.38. Radar.Api.Client.pdb
    2.39. Radar.Api.Model.dll
    2.40. Radar.Api.Model.pdb
    2.41. Radar.Common.dll
    2.42. Radar.Common.pdb
    2.43. Radar.Common.WebClient.dll
    2.44. Radar.Common.WebClient.pdb
    2.45. Radar.DirectMessaging.Client.dll
    2.46. Radar.DirectMessaging.Client.pdb
    2.47. Radar.DirectMessaging.Model.dll
    2.48. Radar.DirectMessaging.Model.pdb
    2.49. rRISServices.exe
    2.50. rRISServices.pdb
    2.51. rRISServicesx64.exe
    2.52. ScheduledTaskManager.dll
    2.53. ScheduledTaskManager.pdb
    2.54. ServicesConfigWizard.exe
    2.55. ServicesConfigWizard.pdb
    2.56. SignatureApprovalService.exe
    2.57. SignatureApprovalService.pdb
    2.58. System.Net.Http.dll
    2.59. System.Net.Http.Formatting.dll
    2.60. System.Web.Http.dll
    2.61. System.Web.Http.SelfHost.dll
    2.62. System.Web.Http.SelfHost.xml
    2.63. System.Web.Http.WebHost.dll
    2.64. System.Web.Http.WebHost.xml
    2.65. System.Web.Http.xml
    2.66. System.Web.Mvc.dll
    2.67. System.Web.Mvc.xml
    2.68. System.Web.Optimization.dll
    2.69. System.Web.Razor.dll
    2.70. System.Web.Razor.xml
    2.71. System.Web.WebPages.Deployment.dll
    2.72. System.Web.WebPages.Deployment.xml
    2.73. System.Web.WebPages.dll
    2.74. System.Web.WebPages.Razor.dll
    2.75. System.Web.WebPages.Razor.xml
    2.76. System.Web.WebPages.xml
    2.77. Tourreau.Gilles.FaxDotNet.dll
    2.78. Tourreau.Gilles.FaxDotNet.pdb
    2.79. Tourreau.Gilles.FaxDotNet.xml
    2.80. WCFService.dll
    2.81. WCFService.pdb
    2.82. WCFServiceTests.dll
    2.83. WCFServiceTests.pdb
    2.84. WebApi.dll
    2.85. WebApi.pdb
    2.86. WebGrease.dll
    2.87. Wedge.exe
    2.88. Wedge.pdb

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

2.1.1 **XSL** folder contains:

2.1.1.1. **Stylesheets** folder contains:

A. CDAToHTMLCompleteReport.xslt
B. CDAToHTMLCompleteReportDark.xslt
C. CDAToHTMLImpressionSection.xslt
D. CDATorRIS.xslt
E. CDAToTxt.xslt
F. DocumentModelReport.xslt
G. DocumentModelReportAsXml.xslt
H. **CDA** folder contains:

i. C-CDA.xsl
ii. eRadStylesheet.xsl
iii. generalTemplates.xsl
iv. header.xsl
v. QRDA.xsl
vi. QrdaLevel3_Cypress2.4.0.xsl
vii. QrdaLevel3_ViewHtml.xsl
viii. sectionAdministeredMedications.xsl
ix. sectionAllergies.xsl
x. sectionEncounters.xsl
xi. sectionFindings.xsl
xii. sectionFuncCogStatus.xsl
xiii. sectionImmunizations.xsl
xiv. sectionInstructions.xsl
xv. sectionMedications.xsl
xvi. sectionPlanOfCare.xsl
xvii. sectionProblemList.xsl
xviii. sectionProcedures.xsl
xix. sectionQRDAMeasures.xsl
xx. sectionQRDAPatientData.xsl
xxi. sectionQRDAReporting.xsl
xxii. sectionReasonForVisit.xsl
xxiii. sectionResults.xsl
xxiv. sectionSocialHistory.xsl
xxv. sectionVitalSigns.xsl

2.1.2 **Deploy** folder contains 4 files:

2.1.2.1. applicationsettings.config
2.1.2.2. releaseVersion-connectionstrings.config
2.1.2.3. rRISServices.exe.config
2.1.2.4. rRISServicesx64.exe.config
2.1.2.5. services.config

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 4. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

## 5. Who is affected

Build 44 – 44.2 installs. Server updates are not cumulative. This server update must be applied to 44.2

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 6. eRAD RIS Release Version Numbers

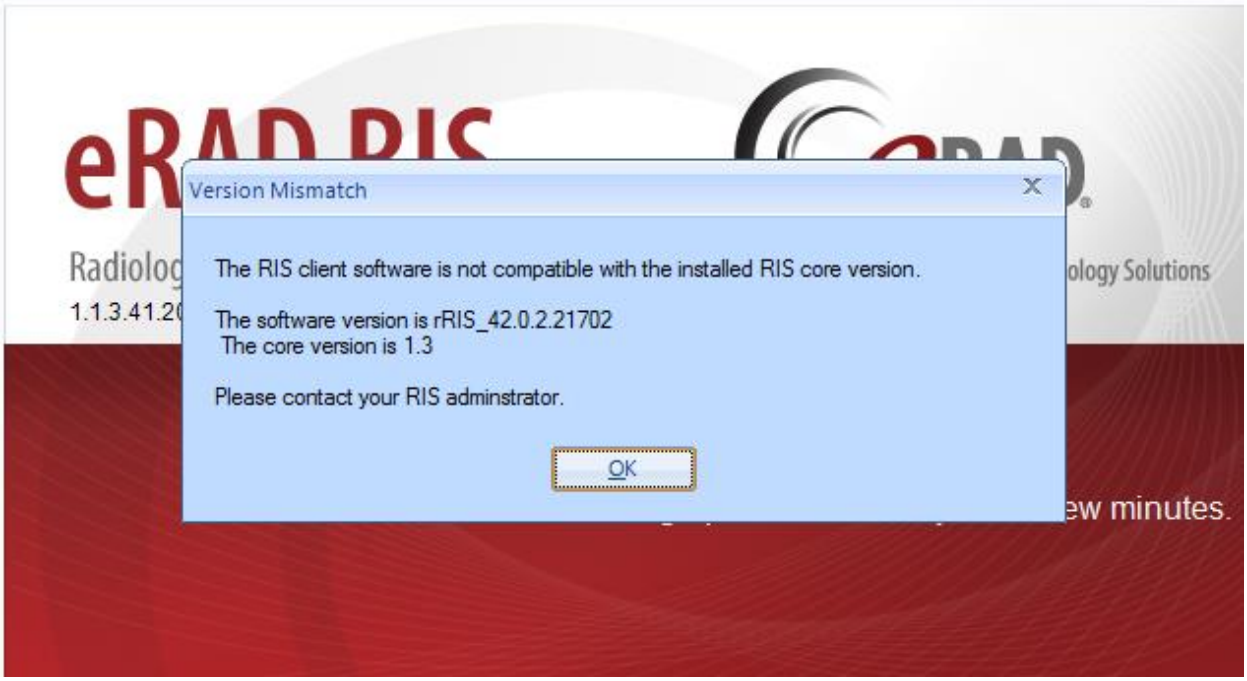
| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 43 | - | 2.43.0.0.23715(3GB) | 2.43.0.0.23171 | 2.43.0.0.23715 | 2.43.0.0.23743 | Full Version Release |
| 43 | 1 | 2.43.0.1.23798(3GB) | 2.43.0.0.23171 | 2.43.0.1.23798 | 2.43.0.1.23770 | GUI.zip, Web Service, DB updates |
| 43 | 2 | 2.43.0.2.24017(3GB) | 2.43.0.0.23171 | 2.43.0.2.24017 | 2.43.0.2.24023 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 3 | 2.43.0.3.24298(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24283 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 3.1 | 2.43.0.3.24450(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24421 | GUI.zip, and DB updates |
| 43 | 3.2 | 2.43.0.3.24450(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24421a | DB updates |
| 43 | 4 | 2.43.0.4.24447(3GB) | 2.43.0.0.23171 | 2.43.0.4.24447 | 2.43.0.4.24442 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 5 | 2.43.0.4.24632(3GB) | 2.43.0.0.23171 | 2.43.0.4.24632 | 2.43.0.4.24560 | GUI.zip, Web Service and DB updates |
| 43 | 6 | 2.43.0.4.24(3GB) | 2.43.0.0.23171 | 2.43.0.4.24 | 2.43.0.4.24 | GUI.zip, Web Service and DB updates |
| 43 | 6.1 | 2.43.0.6.24937(3GB) | 2.43.0.0.23171 | 2.43.0.6.24937 | 2.43.0.6.24914 | GUI.zip, Web Service |
| 43 | 6.2 | 2.43.0.6.24970(3GB) | 2.43.0.0.23171 | 2.43.0.6.24970 | 2.43.0.6.24914 | GUI.zip, Web Service |
| 43 | 7 | 2.43.0.7.25258(3GB) | 2.43.0.0.23171 | 2.43.0.7.25258 | 2.43.0.7.25226 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 8 | 2.43.0.8.25440(3GB) | 2.43.0.0.23171 | 2.43.0.8.25440 | 2.43.0.8.25425 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 9 | 2.43.0.9.25477(3GB) | 2.43.0.0.23171 | 2.43.0.9.25477 | 2.43.0.8.25425 | GUI.zip and Web Service |
| 43 | 10 | 2.43.0.9.25477(3GB) | 2.43.0.0.23171 | 2.43.0.10.25477 | 2.43.0.8.25425 | Web Service |
| 43 | 11 | 2.43.0.11.25512(3GB) | 2.43.0.0.23171 | 2.43.0.11.25512 | 2.43.0.8.25425 | GUI.zip and Web Service |
| 43 | 12 | 2.43.0.12.25554(3GB) | 2.43.0.0.23171 | 2.43.0.12.25554 | 2.43.0.12.25536 | GUI.zip Web Service and DB Updates |
| 43 | 13 | 2.43.0.12.25610(3GB) | 2.43.0.0.23171 | 2.43.0.12.25610 | 2.43.0.12.25536 | GUI.zip and Web Service |
| 43 | 14 | 2.43.0.14.25644(3GB) | 2.43.0.0.23171 | 2.43.0.13.25610 | 2.43.0.12.25536 | GUI.zip |
| 43.1 | - | 2.43.1.0.25850(3GB) | 2.43.0.0.23171 | 2.43.1.0.25850 | 2.43.1.0.25771 | GUI.zip Web Service and DB Updates |
| 43.2 | - | 2.43.2.0.26864(3GB) | 2.43.0.0.23171 | 2.43.2.0.26864 | 2.43.1.0.25771 | GUI.zip and Web Service |
| 44 | - | 2.44.0.0.26570(3GB) | 2.44.0.0.26405 | 2.44.0.0.26570 | 2.44.0.0.26475 | Full Version Release |
| 44.1 | - | 2.44.0.0.26984(3GB) | 2.44.0.0.26405 | 2.44.0.0.26984 | 2.44.0.0.26906 | Gui.zip, Web Service, and DB |
| 44.1 | 1 | 2.44.1.1.27093(3GB) | 2.44.0.0.26405 | 2.44.1.0.26984 | 2.44.1.0.26906 | Gui.zip |
| 44.2 | | 2.44.2.0.27410(3GB) | 2.44.0.0.26405 | 2.44.2.0.27410 | 2.44.2.0.27365 | Gui.zip, Web Service, and DB |
| **44.2** | **1** | **2.44.2.1.27959(3GB)** | **2.44.0.0.26405** | **2.44.2.1.27959** | **2.44.2.1.27909** | **Gui.zip, Web Service, and DB** |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 7. Installing

### Client/GUI

1) Copy and replace the current rRIS…zip file with the rRIS_1.3.44.2.1.27959.zip file provided with this release.
   Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.




If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_44.2.1.27959→ rRIS_1.3.44.2.1.27959
NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

**NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## Web Service

1. The web service upgrade consists of replacing the files in the RIS Web Service directory with the files supplied in the rRISService folder with this build. Always create a backup of the files being replaced. This upgrade includes 90 files in the rRISService folder and 2 sub folders. Of those folders, 1 is a folder titled **"XSL"** that contains a sub folder and files within the subfolder. Another folder is titled **"deploy"** that contains the new .config files that will be deployed with the user of the file called "ServicesConfigWizard.exe" (see instructions below).

## Services Configuration Wizard

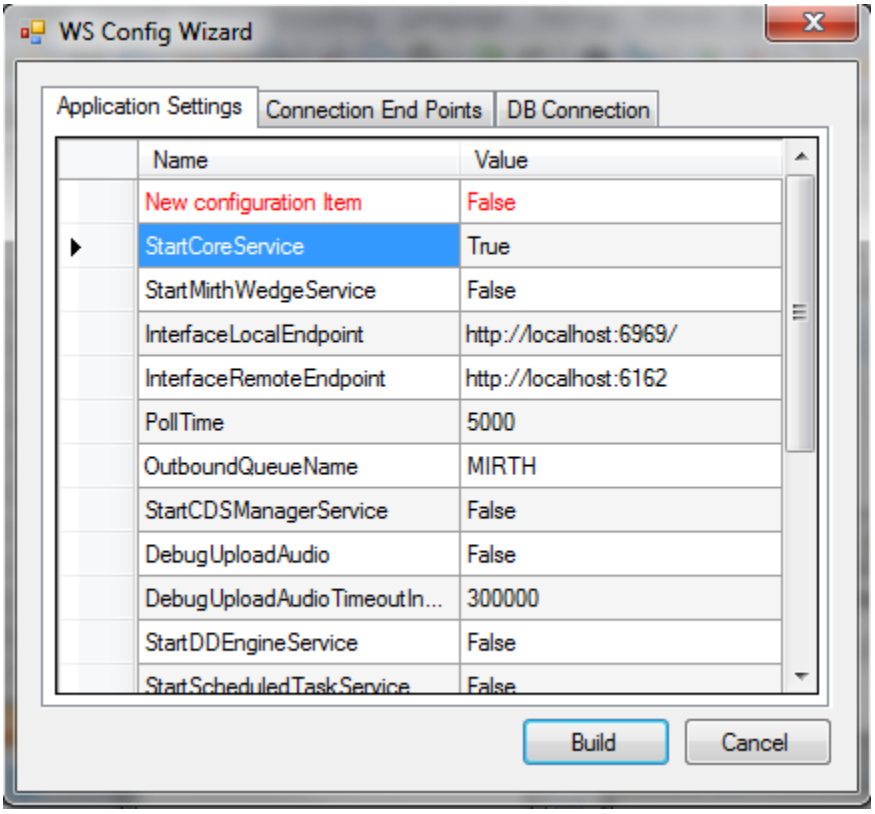
With the release of 42 to decrease the chance of losing configuration setting and missing new configuration options, we will no longer include the configuration files in the release in the main set of files, but they will now exist in a "deploy" folder, which will contain the three site configurable config files; applicationsettings, connectionstrings, services as well as a copy of the rRISServices.exe configuration file. The contents of this folder should not be required to be touched.

On the install of a new service, all files will be copied to the appropriate locations on the server (no configurations will be over written). If instructed or to confirm no new configurations have been added the user can run the new application "ServicesConfigWizard.exe"

This application will read the existing configuration file(s) (if files exist), and compare to the provided new configuration files then will display three tabs, for each configuration file:
**Application Settings:** all existing configuration value will be displayed, if there are any new configuration entries they will be displayed in red.

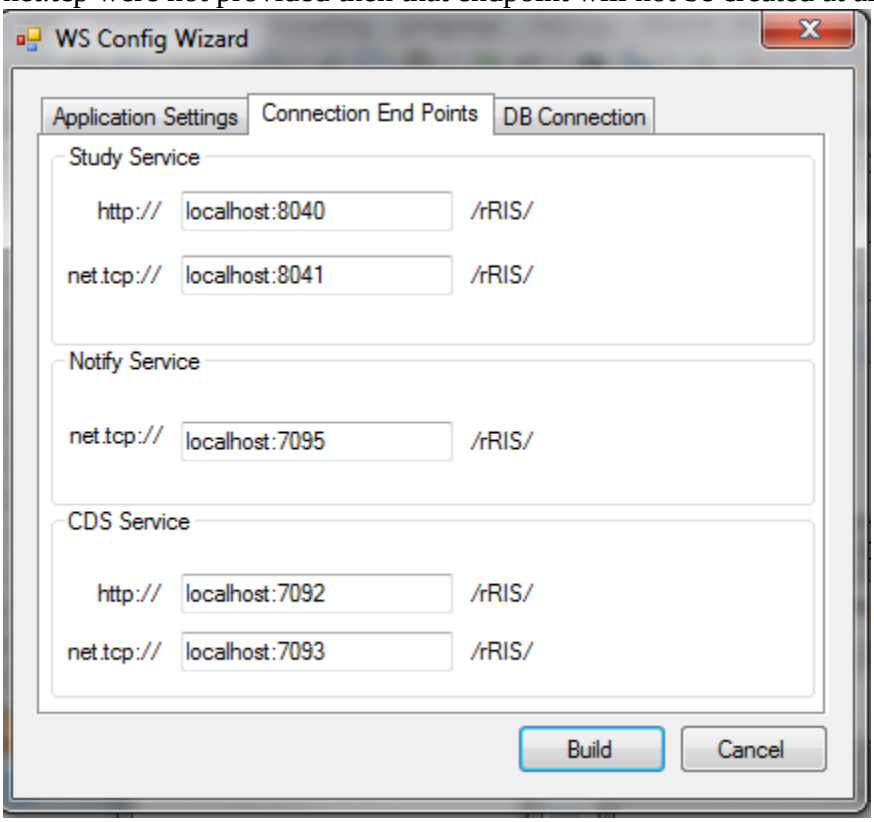
**NOTE:** the rRISServices.exe.config file is also included in the deploy folder. If this file has changes it **will not** update your current file in the Web Service directory. Any changes to this file will require a manual update of the rRISServices.exe.config and rRISServicesx64.exe.config files.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.



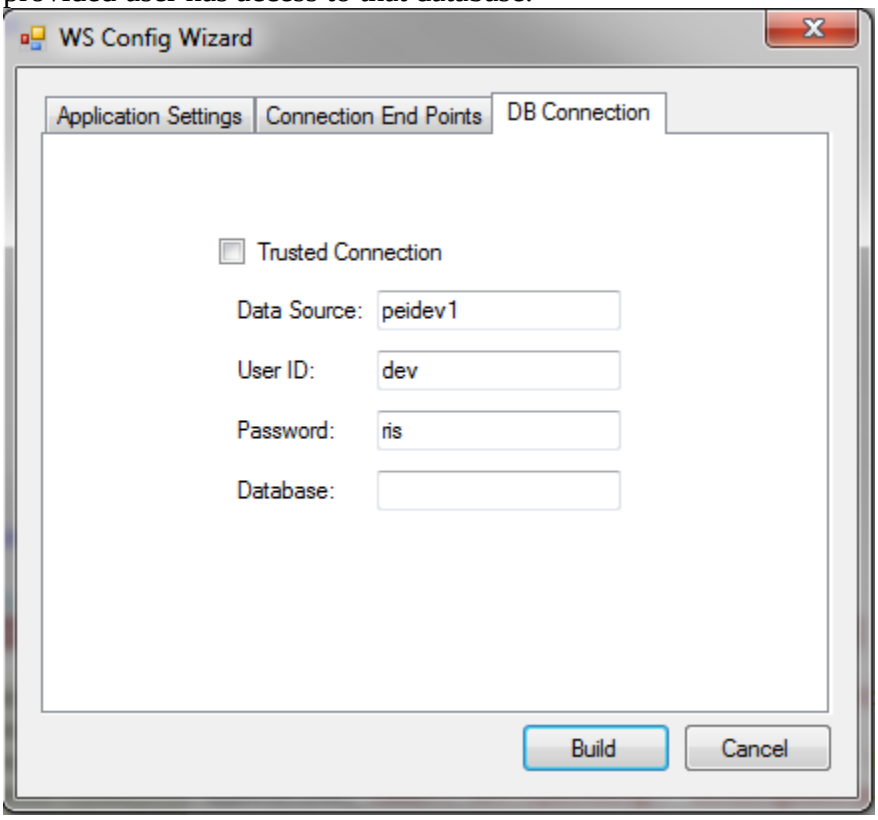

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

**Connection End Points:** will display the existing configuration, if the value is left blank then that entry will not be created, in the case of "Study Service" or "CDS Service" if both http and net.tcp were not provided then that endpoint will not be created at all.




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

**DB Connection:** will display the existing configuration, if the Connection is to be used as a trusted connection, then the user ID and password will become disabled and will not be used, and will rely on the provided database value, When not using the trusted connection, The Database value is not needed but can be used to force a specific database connection as long as the provided user has access to that database.




It is always good practice to do a compare of the .config files.

1) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService.
   *rRISService directories include:*
   *a) rRISService*
   *b) CDS rRISService*
   *c) Wedge rRISService*
   *d) DDE rRISService*

   **Restart each service**.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## Database Updates

Always run the upgrade scripts in a test environment of the actual database to make sure they run cleanly. If any errors occur please contact development.

*Note: There is a new upgrade process introduced with B43.1 called "RunUpgrade.bat". The batch file will open a command window. This process will prompt you for the database server name, database name and authentication credentials. There is no need to run the database upgrade scripts manually as was done in previous releases.*

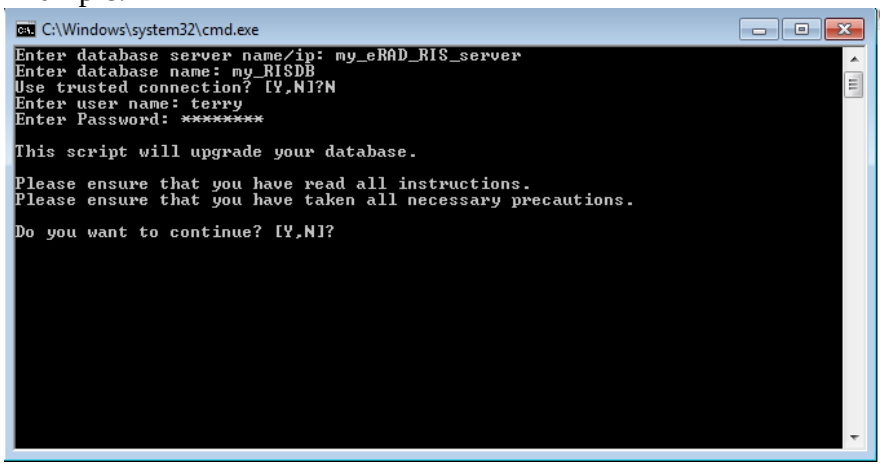
1) From the upgrade folder, double click the "RunUpgrade.bat" command file.

2) Enter the server name, database name and authentication credentials to the database. You have 2 choices for authentication credentials.

3) You can choose to use "Trusted connection". Using this option will pass the identity of the currently logged on user. If this user has "db_owner" access to the eRAD RIS database then feel free to use this options.

4) If you decide not to use "Trusted connection" then you will be prompted for user id and password.

   Example:




5) After the upgrade program has finished you can find the upgrade logs in the "log" folder. The file name will be eRAD_RIS_db_upgrade_timestamp.log, where timestamp is a value representing the date and time the upgrade started. If you see any errors please contact the development team

6) In the Common folder there is a subfolder of MU. The MU folder contains updates to lookups relevant for MU as well as updates for Zip Code table to add the County. Copy the

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

MU folder to the database server before running the batch file. There is a readme file contained in the MU folder. The details have also been included below

a) The mu bulk install process must be run from a path on the database server!
b) Copy Files ImportDataFileUpgradeDB.bat and ImportDataFileUpgradeDB.sql from upgrade folder to a location on the database server(This location will be referred to as the "Script Folder Path".)
c) Copy Folder scripts and Source files from the upgrade folder to "Script Folder Path" ....Note source files must be inside the scripts folder
d) Run bat file
   i) Enter Script Folder path [C:\Temp\SNOMED]:
   ii) Enter database server name/ip: [ie peidev1]
   iii) Enter database name: [ie rRIS_MU]
   iv) Use a trusted connection to log on to SQL Server:
   "N" means you will have to enter db [username] [password]
   "Y" means you have a trusted connection and will not have to enter [username][password]
   v) Do you wish to load SNOMED concept codes?
   "N" no files will be loaded into the l_snomed_concept table
   "Y" yes means l_snomed_concept table will be truncated and reloaded with the latest US concept codes
   Source File [sct2_Concept_Snapshot_US1000124_20140301.txt]
   vi) Do you wish to load SNOMED descriptions codes?
   "N" no files will be loaded into the l_snomed_description table
   "Y" yes means the l_snomed_description table will be truncated and reloaded with the latest US description codes
   Source File [sct2_Description_Snapshot-en_US1000124_20140301.txt]
   vii) Do you wish to load ICD9 to SNOMED mappings codes?
   "N" no files will be loaded into the l_snomed_icd9_map table
   "Y" yes means the l_snomed_icd9_map table will be truncated and reloaded with the latest US ICD9 to SNOMED mapping codes
   Source File [ICD9CM_SNOMED_MAP_1TO1_201312.txt and ICD9CM_SNOMED_MAP_1TOM_201312.txt]
   viii) Do you wish to load ICD10 to SNOMED mappings codes?
   "N" no files will be loaded into the l_snomed_icd10_map table
   "Y" yes means the l_snomed_icd10_map table will be truncated and reloaded with the latest US ICD10 to SNOMED mapping codes
   Source File [xder2_iissscRefset_ExtendedMapSnapshot_US1000124_20131220.txt]
   ix) Do you wish to load US zip codes?
   "N" no files will be loaded into the z_zipCodesWithCounty table
   "Y" yes means the z_zipCodesWithCounty table will be truncated and reloaded with the latest US zip codes
   Source File [5-digit Commercial.csv]

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

**********
Note: the following files should be loaded once only with B43!
**********

x) Do you wish to load CMS codes?
"N" no files will be loaded into the s_mu_code table
"Y" yes means the s_mu_code table will be truncated and reloaded with the latest CMS codes
Source File [s_mu_code.txt]

xi) Do you wish to load HL7 support sets for CCDA?
"N" no files will be loaded into the l_hl7v3_voc_value_set table
"Y" yes means the l_hl7v3_voc_value_set table will be truncated and reloaded with the latest hl7v3_voc_value_set codes
Source File [l_hl7_voc_value_set.txt]

xii) Do you wish to load HL7 support codes for CCDA?
"N" no files will be loaded into the l_hl7v3_voc_value_code table
"Y" yes means the l_hl7v3_voc_value_code table will be truncated and reloaded with the latest l_hl7v3_voc_value_code codes
Source File [l_hl7_voc_value_code.txt]

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Server Update

For eRAD RIS
Version 2.0
Build 44.2
Update 44.2.2

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Resolved Items ..... 3
2. Code Stream ..... 4
3. Package Contents ..... 5
4. Intended Audience ..... 7
5. Who is affected ..... 7
6. eRAD RIS Release Version Numbers ..... 8
7. Installing ..... 9

Web Service ..... 9

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 1. Resolved Items

| Redmine # | Subject | Priority |
|---|---|---|
| 9594 | Interface with the configurability create internal patient for external id if match not found | Normal |

The RIS Services were updated so that if the c_child_patient node has an attribute called create_internal set to Y then if no internal patient is found or is already associated to the external MRN, a new row will be created.

The MIRTH mapping line required to create the attribute looks like:

```
tmp['Patient']['c_child_patient'].@create_internal = 'Y';
```

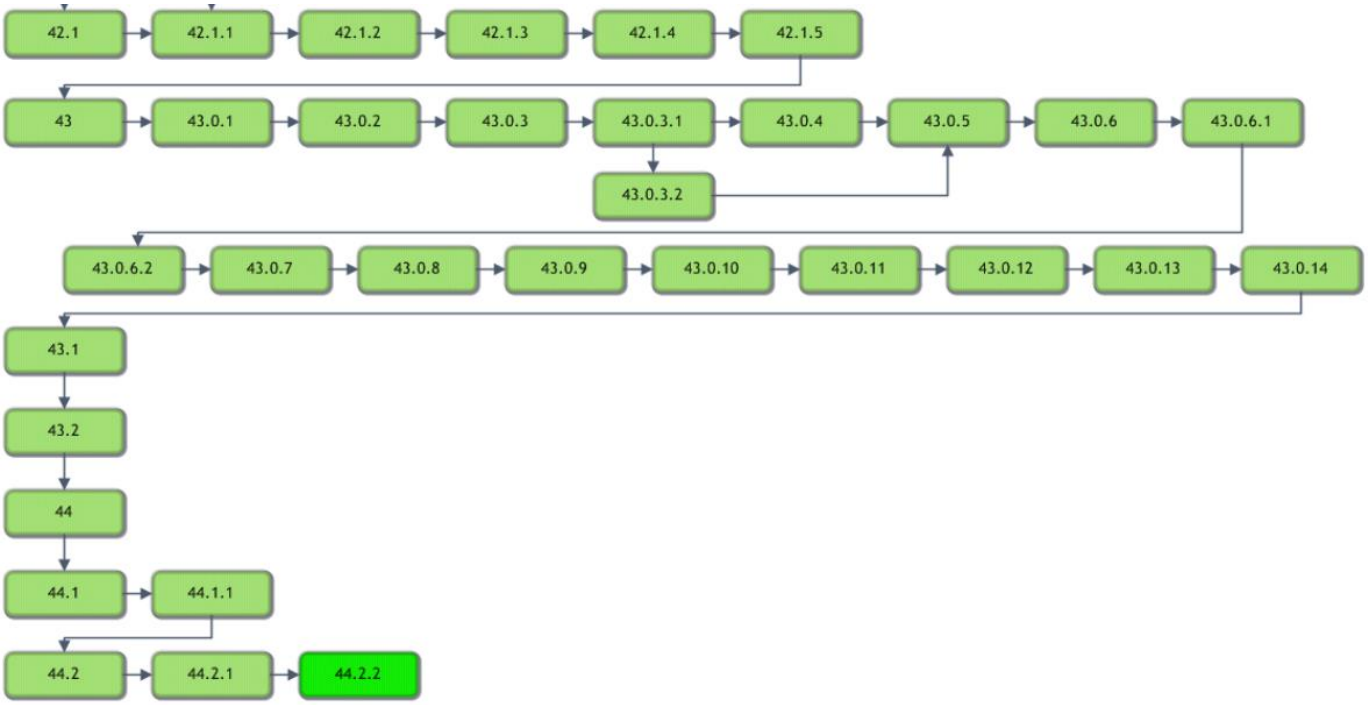
With this attribute on (Y), and the message sent to RIS with only the external identifier and a match is not found we will create an internal MRN for this patient. Alternatively if the attribute is “N” it will behave as it does today, sending the message to RIS and an internal ID will not be created.

In addition to the create_internal attribute, we also included the attributes of require_phone_match and require_gender_match, both valued with 'N'.
Examples:

```
tmp['Patient']['c_child_patient'].@require_phone_match = 'N';
tmp['Patient']['c_child_patient'].@require_gender_match = 'N';
```

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 2. Code Stream




**Legend:**

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 3. Package Contents

1. **rRISService** folder contains:
    1.1. ABCpdf.dll
    1.2. ABCpdf9-32.dll
    1.3. ABCpdf9-64.dll
    1.4. Antlr3.Runtime.dll
    1.5. CDSJobManager.dll
    1.6. CDSJobManager.pdb
    1.7. CdsLib.dll
    1.8. CdsLib.xml
    1.9. CdsLib.XmlSerializers.dll
    1.10. CommonLib.dll
    1.11. CommonLib.pdb
    1.12. DDEngine.dll
    1.13. DDEngine.pdb
    1.14. DiffPlex.dll
    1.15. Interop.FAXCOMEXLib.dll
    1.16. Microsoft.Practices.EnterpriseLibrary.Caching.dll
    1.17. Microsoft.Practices.EnterpriseLibrary.Caching.pdb
    1.18. Microsoft.Practices.EnterpriseLibrary.Common.dll
    1.19. Microsoft.Practices.EnterpriseLibrary.Common.pdb
    1.20. Microsoft.Practices.EnterpriseLibrary.Logging.dll
    1.21. Microsoft.Practices.EnterpriseLibrary.Logging.pdb
    1.22. Microsoft.Practices.ServiceLocation.dll
    1.23. Microsoft.Practices.ServiceLocation.pdb
    1.24. Microsoft.Practices.Unity.dll
    1.25. Microsoft.Practices.Unity.Interception.dll
    1.26. Microsoft.Practices.Unity.Interception.pdb
    1.27. Microsoft.Practices.Unity.pdb
    1.28. Microsoft.ReportViewer.Common.dll
    1.29. Microsoft.ReportViewer.WinForms.dll
    1.30. Microsoft.ReportViewer.WinForms.xml
    1.31. Newtonsoft.Json.dll
    1.32. Newtonsoft.Json.xml
    1.33. NLog.dll
    1.34. O2S.Components.PDFRender4NET.dll
    1.35. PdfSharp.dll
    1.36. PDFToImages.exe
    1.37. Radar.Api.Client.dll
    1.38. Radar.Api.Client.pdb
    1.39. Radar.Api.Model.dll
    1.40. Radar.Api.Model.pdb
    1.41. Radar.Common.dll
    1.42. Radar.Common.pdb
    1.43. Radar.Common.WebClient.dll
    1.44. Radar.Common.WebClient.pdb
    1.45. Radar.DirectMessaging.Client.dll
    1.46. Radar.DirectMessaging.Client.pdb
    1.47. Radar.DirectMessaging.Model.dll
    1.48. Radar.DirectMessaging.Model.pdb
    1.49. rRISServices.exe
    1.50. rRISServices.pdb
    1.51. rRISServicesx64.exe
    1.52. ScheduledTaskManager.dll
    1.53. ScheduledTaskManager.pdb
    1.54. ServicesConfigWizard.exe
    1.55. ServicesConfigWizard.pdb
    1.56. SignatureApprovalService.exe
    1.57. SignatureApprovalService.pdb
    1.58. System.Net.Http.dll
    1.59. System.Net.Http.Formatting.dll
    1.60. System.Web.Http.dll
    1.61. System.Web.Http.SelfHost.dll
    1.62. System.Web.Http.SelfHost.xml
    1.63. System.Web.Http.WebHost.dll
    1.64. System.Web.Http.WebHost.xml
    1.65. System.Web.Http.xml
    1.66. System.Web.Mvc.dll
    1.67. System.Web.Mvc.xml
    1.68. System.Web.Optimization.dll
    1.69. System.Web.Razor.dll
    1.70. System.Web.Razor.xml
    1.71. System.Web.WebPages.Deployment.dll
    1.72. System.Web.WebPages.Deployment.xml
    1.73. System.Web.WebPages.dll
    1.74. System.Web.WebPages.Razor.dll
    1.75. System.Web.WebPages.Razor.xml
    1.76. System.Web.WebPages.xml
    1.77. Tourreau.Gilles.FaxDotNet.dll
    1.78. Tourreau.Gilles.FaxDotNet.pdb
    1.79. Tourreau.Gilles.FaxDotNet.xml
    1.80. WCFService.dll
    1.81. WCFService.pdb
    1.82. WCFServiceTests.dll
    1.83. WCFServiceTests.pdb
    1.84. WebApi.dll
    1.85. WebApi.pdb
    1.86. WebGrease.dll
    1.87. Wedge.exe
    1.88. Wedge.pdb

    2.1.1 **XSL** folder contains:
        2.1.1.1. **Stylesheets** folder contains:
            A. CDAToHTMLCompleteReport.xslt

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

B. CDAToHTMLCompleteReportDark.xslt
C. CDAToHTMLImpressionSection.xslt
D. CDATorRIS.xslt
E. CDAToTxt.xslt
F. DocumentModelReport.xslt
G. DocumentModelReportAsXml.xslt
H. **CDA** folder contains:

i. C-CDA.xsl
ii. eRadStylesheet.xsl
iii. generalTemplates.xsl
iv. header.xsl
v. QRDA.xsl
vi. QrdaLevel3_Cypress2.4.0.xsl
vii. QrdaLevel3_ViewHtml.xsl
viii. sectionAdministeredMedications.xsl
ix. sectionAllergies.xsl
x. sectionEncounters.xsl
xi. sectionFindings.xsl
xii. sectionFuncCogStatus.xsl
xiii. sectionImmunizations.xsl
xiv. sectionInstructions.xsl
xv. sectionMedications.xsl
xvi. sectionPlanOfCare.xsl
xvii. sectionProblemList.xsl
xviii. sectionProcedures.xsl
xix. sectionQRDAMeasures.xsl
xx. sectionQRDAPatientData.xsl
xxi. sectionQRDAReporting.xsl
xxii. sectionReasonForVisit.xsl
xxiii. sectionResults.xsl
xxiv. sectionSocialHistory.xsl
xxv. sectionVitalSigns.xsl

2.1.2 **Deploy** folder contains 4 files:
2.1.2.1. applicationsettings.config
2.1.2.2. releaseVersion-connectionstrings.config
2.1.2.3. rRISServices.exe.config
2.1.2.4. rRISServicesx64.exe.config
2.1.2.5. services.config

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 4. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

## 5. Who is affected

Build 44 – 44.2 installs. Server updates are not cumulative. This server update must be applied to 44.2.1

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 6. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 43 | - | 2.43.0.0.23715(3GB) | 2.43.0.0.23171 | 2.43.0.0.23715 | 2.43.0.0.23743 | Full Version Release |
| 43 | 1 | 2.43.0.1.23798(3GB) | 2.43.0.0.23171 | 2.43.0.1.23798 | 2.43.0.1.23770 | GUI.zip, Web Service, DB updates |
| 43 | 2 | 2.43.0.2.24017(3GB) | 2.43.0.0.23171 | 2.43.0.2.24017 | 2.43.0.2.24023 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 3 | 2.43.0.3.24298(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24283 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 3.1 | 2.43.0.3.24450(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24421 | GUI.zip, and DB updates |
| 43 | 3.2 | 2.43.0.3.24450(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24421a | DB updates |
| 43 | 4 | 2.43.0.4.24447(3GB) | 2.43.0.0.23171 | 2.43.0.4.24447 | 2.43.0.4.24442 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 5 | 2.43.0.4.24632(3GB) | 2.43.0.0.23171 | 2.43.0.4.24632 | 2.43.0.4.24560 | GUI.zip, Web Service and DB updates |
| 43 | 6 | 2.43.0.4.24(3GB) | 2.43.0.0.23171 | 2.43.0.4.24 | 2.43.0.4.24 | GUI.zip, Web Service and DB updates |
| 43 | 6.1 | 2.43.0.6.24937(3GB) | 2.43.0.0.23171 | 2.43.0.6.24937 | 2.43.0.6.24914 | GUI.zip, Web Service |
| 43 | 6.2 | 2.43.0.6.24970(3GB) | 2.43.0.0.23171 | 2.43.0.6.24970 | 2.43.0.6.24914 | GUI.zip, Web Service |
| 43 | 7 | 2.43.0.7.25258(3GB) | 2.43.0.0.23171 | 2.43.0.7.25258 | 2.43.0.7.25226 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 8 | 2.43.0.8.25440(3GB) | 2.43.0.0.23171 | 2.43.0.8.25440 | 2.43.0.8.25425 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 9 | 2.43.0.9.25477(3GB) | 2.43.0.0.23171 | 2.43.0.9.25477 | 2.43.0.8.25425 | GUI.zip and Web Service |
| 43 | 10 | 2.43.0.9.25477(3GB) | 2.43.0.0.23171 | 2.43.0.10.25477 | 2.43.0.8.25425 | Web Service |
| 43 | 11 | 2.43.0.11.25512(3GB) | 2.43.0.0.23171 | 2.43.0.11.25512 | 2.43.0.8.25425 | GUI.zip and Web Service |
| 43 | 12 | 2.43.0.12.25554(3GB) | 2.43.0.0.23171 | 2.43.0.12.25554 | 2.43.0.12.25536 | GUI.zip Web Service and DB Updates |
| 43 | 13 | 2.43.0.12.25610(3GB) | 2.43.0.0.23171 | 2.43.0.12.25610 | 2.43.0.12.25536 | GUI.zip and Web Service |
| 43 | 14 | 2.43.0.14.25644(3GB) | 2.43.0.0.23171 | 2.43.0.13.25610 | 2.43.0.12.25536 | GUI.zip |
| 43.1 | - | 2.43.1.0.25850(3GB) | 2.43.0.0.23171 | 2.43.1.0.25850 | 2.43.1.0.25771 | GUI.zip Web Service and DB Updates |
| 43.2 | - | 2.43.2.0.26864(3GB) | 2.43.0.0.23171 | 2.43.2.0.26864 | 2.43.1.0.25771 | GUI.zip and Web Service |
| 44 | - | 2.44.0.0.26570(3GB) | 2.44.0.0.26405 | 2.44.0.0.26570 | 2.44.0.0.26475 | Full Version Release |
| 44.1 | - | 2.44.0.0.26984(3GB) | 2.44.0.0.26405 | 2.44.0.0.26984 | 2.44.0.0.26906 | Gui.zip, Web Service, and DB |
| 44.1 | 1 | 2.44.1.1.27093(3GB) | 2.44.0.0.26405 | 2.44.1.0.26984 | 2.44.1.0.26906 | Gui.zip |
| 44.2 | | 2.44.2.0.27410(3GB) | 2.44.0.0.26405 | 2.44.2.0.27410 | 2.44.2.0.27365 | Gui.zip, Web Service, and DB |
| 44.2 | 1 | 2.44.2.1.27959(3GB) | 2.44.0.0.26405 | 2.44.2.1.27959 | 2.44.2.1.27909 | Gui.zip, Web Service, and DB |
| 44.2 | 2 | 2.44.2.1.27959(3GB) | 2.44.0.0.26405 | 2.44.2.2.28094 | 2.44.2.1.27909 | Web Service |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# 7. Installing

## Web Service

1. The web service upgrade consists of replacing the files in the RIS Web Service directory with the files supplied in the rRISService folder with this build. Always create a backup of the files being replaced. This upgrade includes 90 files in the rRISService folder and 2 sub folders. Of those folders, 1 is a folder titled **"XSL"** that contains a sub folder and files within the subfolder. Another folder is titled **"deploy"** that contains the new .config files that will be deployed with the user of the file called "ServicesConfigWizard.exe" (see instructions below).

### Services Configuration Wizard

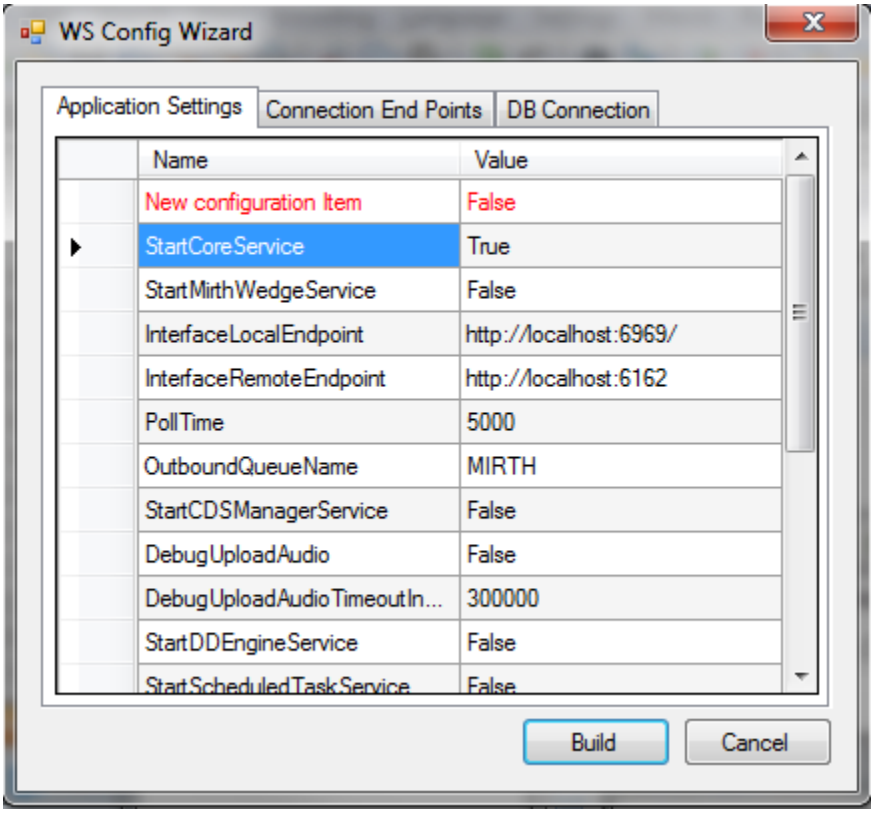
With the release of 42 to decrease the chance of losing configuration setting and missing new configuration options, we will no longer include the configuration files in the release in the main set of files, but they will now exist in a "deploy" folder, which will contain the three site configurable config files; applicationsettings, connectionstrings, services as well as a copy of the rRISServices.exe configuration file. The contents of this folder should not be required to be touched.

On the install of a new service, all files will be copied to the appropriate locations on the server (no configurations will be over written). If instructed or to confirm no new configurations have been added the user can run the new application "ServicesConfigWizard.exe"

This application will read the existing configuration file(s) (if files exist), and compare to the provided new configuration files then will display three tabs, for each configuration file:
**Application Settings:** all existing configuration value will be displayed, if there are any new configuration entries they will be displayed in red.

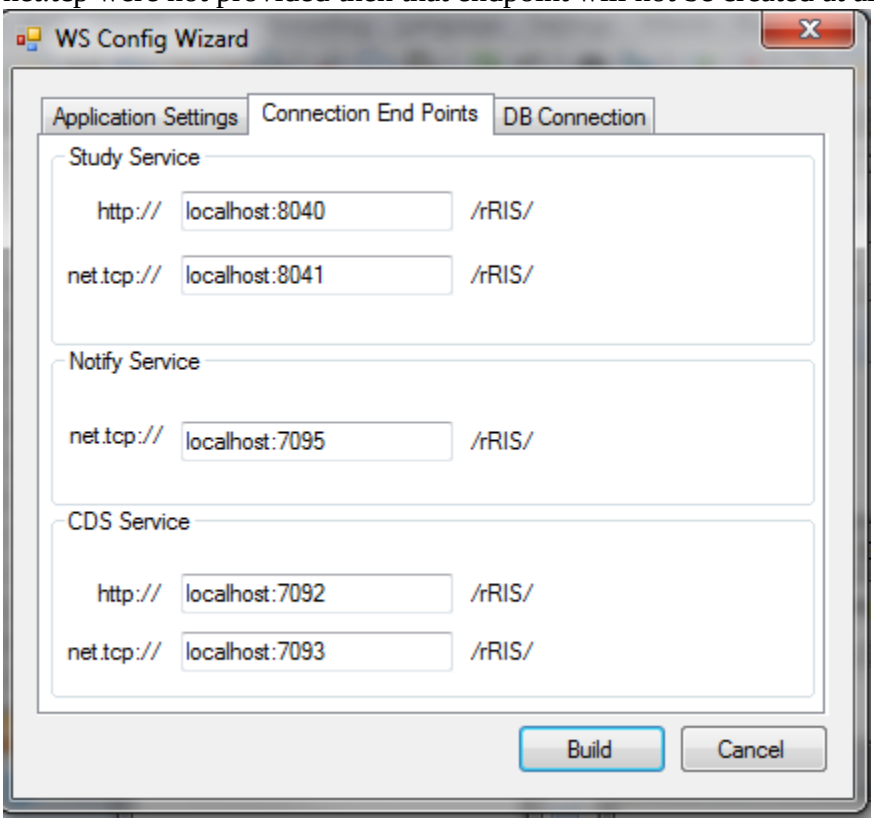
**NOTE:** the rRISServices.exe.config file is also included in the deploy folder. If this file has changes it **will not** update your current file in the Web Service directory. Any changes to this file will require a manual update of the rRISServices.exe.config and rRISServicesx64.exe.config files.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.



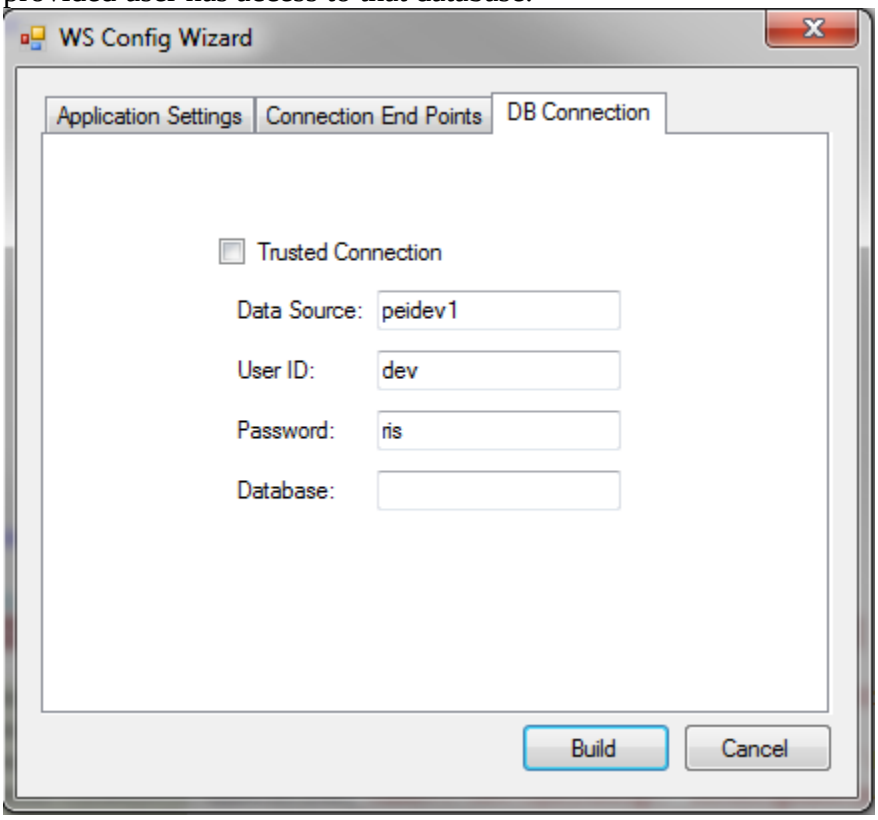

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

**Connection End Points:** will display the existing configuration, if the value is left blank then that entry will not be created, in the case of "Study Service" or "CDS Service" if both http and net.tcp were not provided then that endpoint will not be created at all.




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

**DB Connection:** will display the existing configuration, if the Connection is to be used as a trusted connection, then the user ID and password will become disabled and will not be used, and will rely on the provided database value, When not using the trusted connection, The Database value is not needed but can be used to force a specific database connection as long as the provided user has access to that database.




It is always good practice to do a compare of the .config files.

1) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService.
   *rRISService directories include:*
   *a) rRISService*
   *b) CDS rRISService*
   *c) Wedge rRISService*
   *d) DDE rRISService*

   **Restart each service**.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# User Release Notes

for eRAD RIS
Version 2
Build 44.2

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# Table of Contents

1. Purpose ..... 3
2. Intended Audience ..... 3
3. Installing/Accessing the Application ..... 3
4. Existing Access Strings Required for New Feature in B2.44.2 ..... 4
5. New Features and Enhancements ..... 5
   Delete Signed Report Workflow ..... 5
6. Code Stream ..... 9
7. eRAD RIS Release Version Numbers ..... 10
8. Resolved Defects ..... 11
9. Known Limitations ..... 12

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 1. Purpose

This document describes some of the new features and changes implemented in eRAD RIS as of the end of Sprint 44.2 and subsequent server releases. This version of eRAD RIS is referred to as Build 2.44.2

Only features which can be visually demonstrated to the user will be outlined in this document.

# 2. Intended Audience

This document is created by the RIS Development team for the RadNet RIS management team.

# 3. Installing/Accessing the Application

The installation guide for the eRAD RIS client have been posted to the RadNet Wiki page at http://mdbal01rdtweb/Wiki/

Under the RIS menu click on the rRIS page. The credentials to access the page are:
Username: rRIS
Password: Summerside

*Please note that Build 2.44.2 is considered a new release of the application. It does not require a reinstallation of eRAD RIS. If users choose to reinstall, this is accomplished by navigating to the eRAD RIS shared installation drive and running the CoreInstall.bat file (ex: I:\RISDeployment\CoreInstall.bat)*

If you experience difficulties accessing the application please do not hesitate to contact Darcy Noye with the PEI RIS Development Team.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 4. Existing Access Strings Required for New Feature in B2.44.2

| Setting Placeholder | Setting | Default | Purpose / Controls Access to |
|---|---|---|---|
| Access string / User Group Permission tables | Clinical.VoidStudy | None | Gives access be able to change a signed study to void from the view edit screen |
| Access string / User Group Permission tables | Clinical.RISAdminChangeStatus | None | Allows a RIS administrator to make changes to the status of an exam that might not be possible otherwise |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 5. New Features and Enhancements

## Delete Signed Report Workflow

Occasionally there is a reason for a report to be deleted from a study. This may occur if eRAD RIS receives a blank report that was signed in another system. To assist RIS Administrator's with this task a series of steps can be performed to get the study back to Exam Done with no report or dictation. It must be noted that there is no **"Undo" or "Undelete"** option with this feature. Once the dictation/report is deleted, they cannot be retrieved.

Once a study is in Signed status and the dictation/report needs to be removed from this study RIS Administrators can use a 3 step process to get the Signed study back to Exam Done status without a dictation or report associated.

1.) From the Patient Folder work list open the Signed study in the View/Edit window. In this window there is an option to "Void" the study. Access to the Void button is controlled by pre-existing access string "**Clinical.VoidStudy**" which has a default of None. Clicking on this button will present the user with a confirmatory message. Selecting Yes will close the message and View/Edit window and status of the study will now be in Voided status.

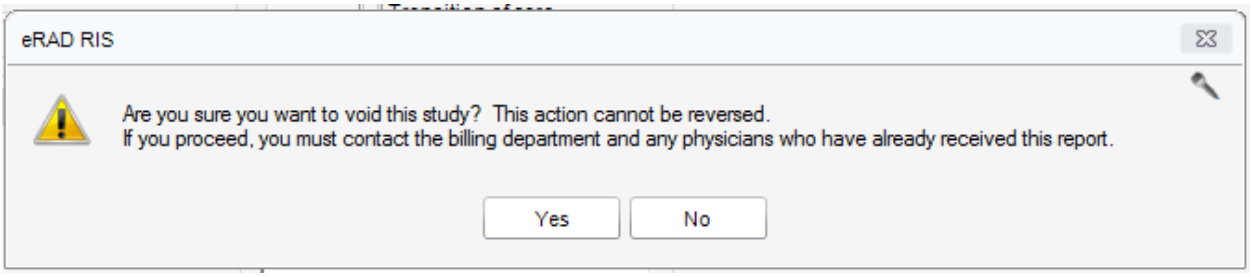



**Figure 5.1 – Void study confirmatory message**

2.) Right click on the "Voided" study to open the context menu. In the menu list select "Change Status to…" which will present a sub menu option of "Manual Status Update…".

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

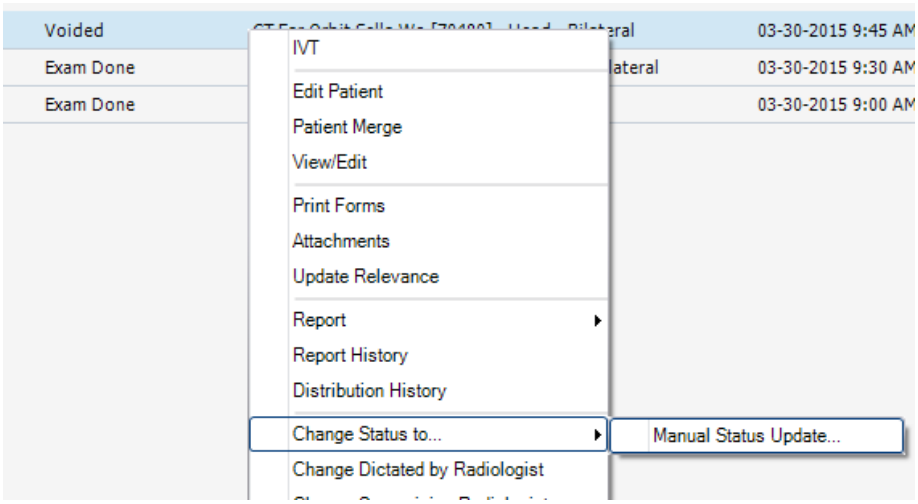



**Figure 5.2 – Manual Status Update menu option**

This will open the Manual Status Update window. In the Move to Status field select Exam Done (the only option).

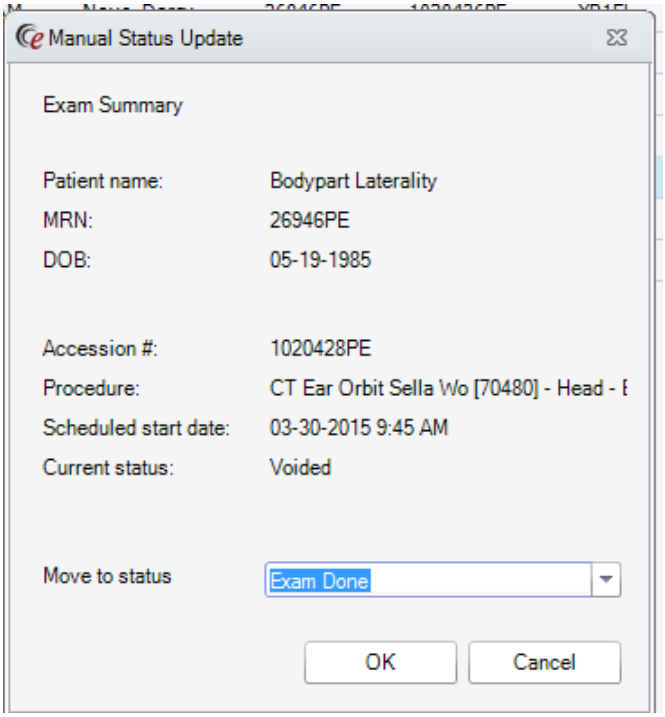



**Figure 5.3 – Manual Status Update window**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

Selecting the OK button will present the user with another confirmatory message as seen in the figure below.

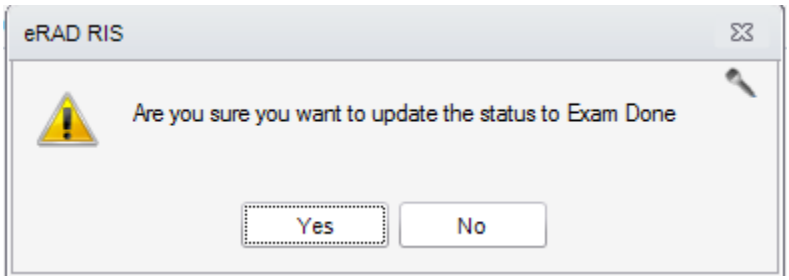



**Figure 5.4 – Manual Status Update confirmatory message**

The status of the study will now be in Exam Done on the work list. At this point the Dictation and or Report will still be available on this study. The report can be viewed from the context menu Report>Preview Report and can also be viewed in Report History and also from within the View/Edit window on the Report tab.

3.) The last step is to access the context menu once more and again select the Change Status to… menu. This time select the "Delete Dictation/Report and Reset Status" sub menu option. The status of the study will remain Exam Done

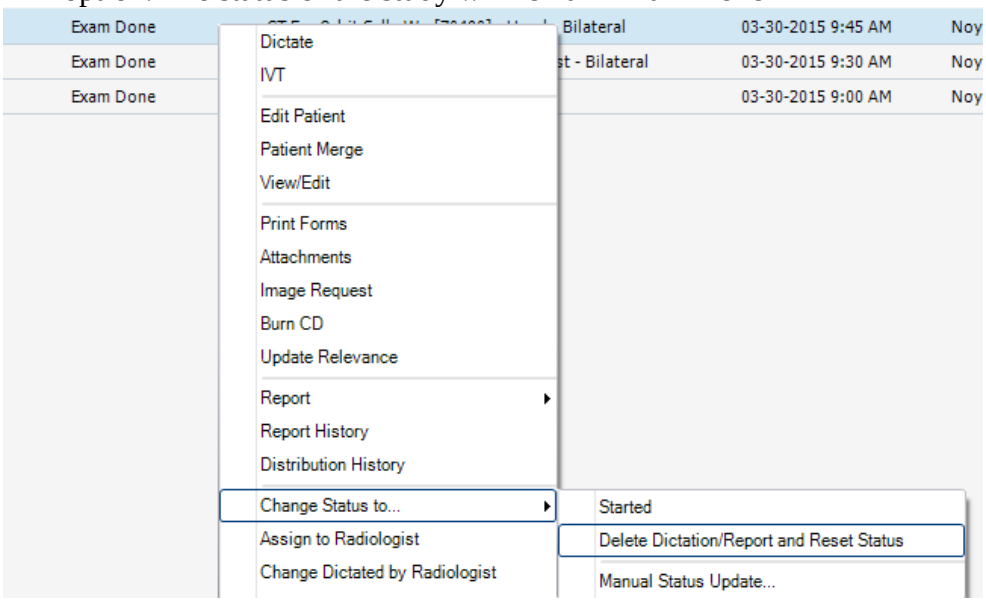



**Figure 5.5 – Deleting Dictation and Report**

Selecting this option will once again present the user with a confirmatory message informing them that this cannot be undone

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

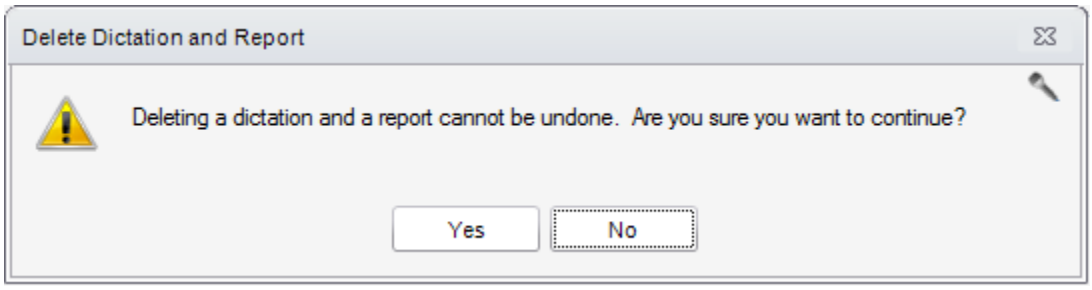



**Figure 5.6 – Delete dictation and report confirmatory message**

Selecting "Yes" will then proceed to delete the dictation and report. The user can then proceed to create a new dictation and report on this study.

The audit History captures the events of deleting a signed report.

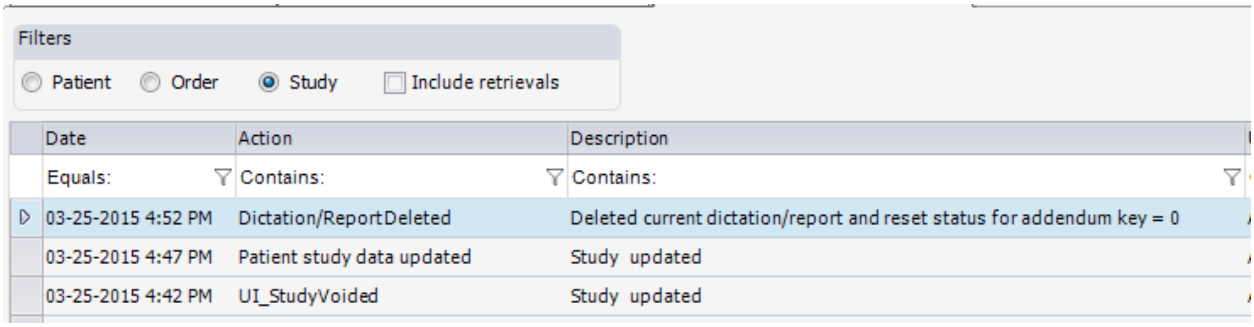
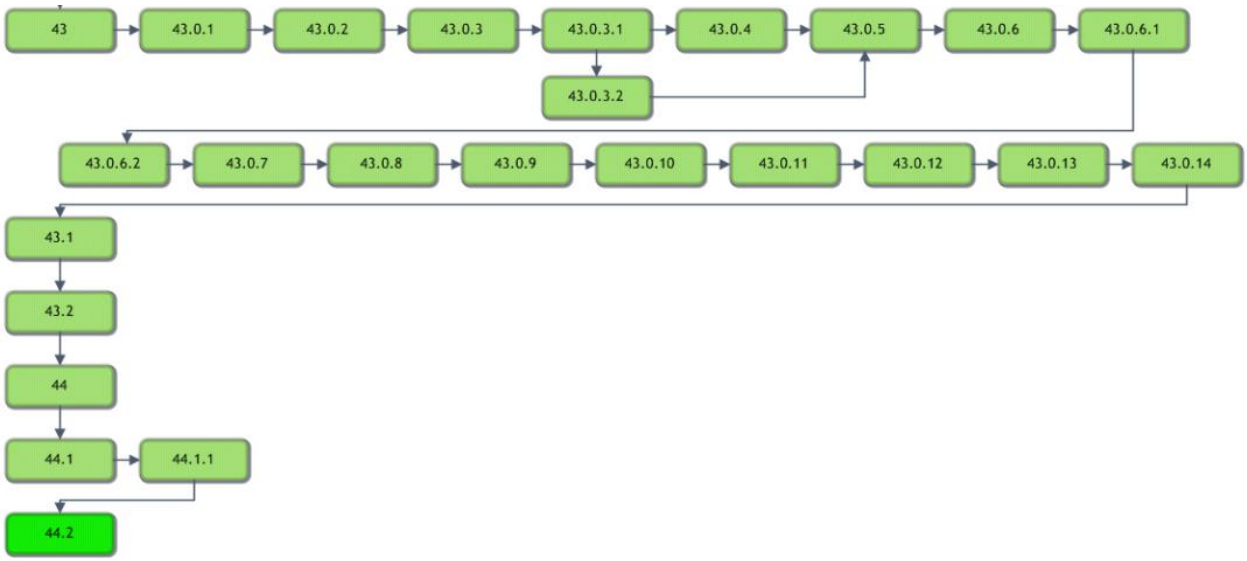



**Figure 5.6 – Audit history captures the workflow steps of deleting a signed report**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 6. Code Stream




**Legend:**

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 7. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 43 | - | 2.43.0.0.23715(3GB) | 2.43.0.0.23171 | 2.43.0.0.23715 | 2.43.0.0.23743 | Full Version Release |
| 43 | 1 | 2.43.0.1.23798(3GB) | 2.43.0.0.23171 | 2.43.0.1.23798 | 2.43.0.1.23770 | GUI.zip, Web Service, DB updates |
| 43 | 2 | 2.43.0.2.24017(3GB) | 2.43.0.0.23171 | 2.43.0.2.24017 | 2.43.0.2.24023 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 3 | 2.43.0.3.24298(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24283 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 3.1 | 2.43.0.3.24450(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24421 | GUI.zip, and DB updates |
| 43 | 3.2 | 2.43.0.3.24450(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24421a | DB updates |
| 43 | 4 | 2.43.0.4.24447(3GB) | 2.43.0.0.23171 | 2.43.0.4.24447 | 2.43.0.4.24442 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 5 | 2.43.0.4.24632(3GB) | 2.43.0.0.23171 | 2.43.0.4.24632 | 2.43.0.4.24560 | GUI.zip, Web Service and DB updates |
| 43 | 6 | 2.43.0.4.24(3GB) | 2.43.0.0.23171 | 2.43.0.4.24 | 2.43.0.4.24 | GUI.zip, Web Service and DB updates |
| 43 | 6.1 | 2.43.0.6.24937(3GB) | 2.43.0.0.23171 | 2.43.0.6.24937 | 2.43.0.6.24914 | GUI.zip, Web Service |
| 43 | 6.2 | 2.43.0.6.24970(3GB) | 2.43.0.0.23171 | 2.43.0.6.24970 | 2.43.0.6.24914 | GUI.zip, Web Service |
| 43 | 7 | 2.43.0.7.25258(3GB) | 2.43.0.0.23171 | 2.43.0.7.25258 | 2.43.0.7.25226 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 8 | 2.43.0.8.25440(3GB) | 2.43.0.0.23171 | 2.43.0.8.25440 | 2.43.0.8.25425 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 9 | 2.43.0.9.25477(3GB) | 2.43.0.0.23171 | 2.43.0.9.25477 | 2.43.0.8.25425 | GUI.zip and Web Service |
| 43 | 10 | 2.43.0.9.25477(3GB) | 2.43.0.0.23171 | 2.43.0.10.25477 | 2.43.0.8.25425 | Web Service |
| 43 | 11 | 2.43.0.11.25512(3GB) | 2.43.0.0.23171 | 2.43.0.11.25512 | 2.43.0.8.25425 | GUI.zip and Web Service |
| 43 | 12 | 2.43.0.12.25554(3GB) | 2.43.0.0.23171 | 2.43.0.12.25554 | 2.43.0.12.25536 | GUI.zip Web Service and DB Updates |
| 43 | 13 | 2.43.0.12.25610(3GB) | 2.43.0.0.23171 | 2.43.0.12.25610 | 2.43.0.12.25536 | GUI.zip and Web Service |
| 43 | 14 | 2.43.0.14.25644(3GB) | 2.43.0.0.23171 | 2.43.0.13.25610 | 2.43.0.12.25536 | GUI.zip |
| 43.1 | - | 2.43.1.0.25850(3GB) | 2.43.0.0.23171 | 2.43.1.0.25850 | 2.43.1.0.25771 | GUI.zip Web Service and DB Updates |
| 43.2 | - | 2.43.2.0.26864(3GB) | 2.43.0.0.23171 | 2.43.2.0.26864 | 2.43.1.0.25771 | GUI.zip and Web Service |
| 44 | - | 2.44.0.0.26570(3GB) | 2.44.0.0.26405 | 2.44.0.0.26570 | 2.44.0.0.26475 | Full Version Release |
| 44.1 | - | 2.44.0.0.26984(3GB) | 2.44.0.0.26405 | 2.44.0.0.26984 | 2.44.0.0.26906 | Gui.zip, Web Service, and DB |
| 44.1 | 1 | 2.44.1.1.27093(3GB) | 2.44.0.0.26405 | 2.44.1.0.26984 | 2.44.1.0.26906 | Gui.zip |
| **44.2** | | **2.44.2.0.27410(3GB)** | **2.44.0.0.26405** | **2.44.2.0.27410** | **2.44.2.0.27365** | **Gui.zip, Web Service, and DB** |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 8. Resolved Defects

Bugs Suggested Features and Support Issues resolved in build 2.44.2. The extract is taken from Redmine bug tracking system and only displays defects resolved in 2.44.2.

| Bug # | Priority | Subject | Category | Found Version |
|---|---|---|---|---|
| 9313 | Urgent | Possible to set side code for outside reads to null via IVT. ***Study will disappear from patient folder. | DB | 2.43.1 |
| 9181 | High | Contrast - Perform Exam on non-contrast and contrast study copying contrast/billing codes to non-contrast study | Technologist | 2.44.1 |
| 9294 | High | Scheduling - Body part list is not filtered down when possible list of values exists | Scheduling | 2.44 |
| 9337 | High | Details result set dates are not correct, versus the review tab and timeslot search | Scheduling | 2.43 |
| 9312 | Normal | IVT screen does not show correct site code for outside reads | IVT / Precert | 2.43.1 |
| 8706 | High | My Pending Dictation Worklist row counts include chair workflow logic, even for regions/practices that are not chair workflow enabled | Worklists | 2.43.1 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 9. Known Limitations

The following are Bugs Suggested Features and Support Issues found in build 2.44.2. Bugs reported in previous versions are not captured as Known Limitation in this document.

| # | Status | Priority | Subject |
|---|---|---|---|
| 9361 | New | High | Reconcile screen does not show correct site code for outside reads |
| 9366 | New | Normal | Addendum Requested flag is not cleared when study is voided |
| 9380 | New | Normal | Error upon selecting "add new row" in BillingCode table |
| 9386 | New | Normal | Edit to Units of Contrast in Billing Codes tab does not immediately reflect the change in the Contrast grid |
| 9388 | New | Normal | Contrast can be saved with Zero saving in the Vials column. |
| 9390 | New | Normal | Contrast is required to be entered by Scheduler if edits are made in View/Edit before patient even arrives. |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# User Release Notes

for eRAD RIS
Version 2
Build 44.3

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# Table of Contents

1. Purpose ..... 3
2. Intended Audience ..... 3
3. Installing/Accessing the Application ..... 3
4. Existing Access Strings Required for New Feature in B2.44.3 ..... 4
5. New Features and Enhancements ..... 5
   Insurance Eligibility – Payment Receipt Showing Insurance and Pricing ..... 5
   Insurance Eligibility – Payments Exceeding Amount to Collect Warning ..... 9
   Insurance Eligibility – Collect Copay When it Exceeds Amount to Collect ..... 11
   Self-Pay Option "Do not share with insurance provider" ..... 12
   Referring Doctor Affiliations Included With MIRTH Messages ..... 13
   Interface to Create Internal System ID for External ID via External System ..... 14
6. Code Stream ..... 15
7. eRAD RIS Release Version Numbers ..... 16
8. Resolved Defects ..... 17
9. Known Limitations ..... 19

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 1. Purpose

This document describes some of the new features and changes implemented in eRAD RIS as of the end of Sprint 44.3 and subsequent server releases. This version of eRAD RIS is referred to as Build 2.44.3

Only features which can be visually demonstrated to the user will be outlined in this document.

# 2. Intended Audience

This document is created by the RIS Development team for the RadNet RIS management team.

# 3. Installing/Accessing the Application

The installation guide for the eRAD RIS client have been posted to the RadNet Wiki page at http://mdbal01rdtweb/Wiki/

Under the RIS menu click on the rRIS page. The credentials to access the page are:
Username: rRIS
Password: Summerside

*Please note that Build 2.44.3 is considered a new release of the application. It does not require a reinstallation of eRAD RIS. If users choose to reinstall, this is accomplished by navigating to the eRAD RIS shared installation drive and running the CoreInstall.bat file (ex: I:\RISDeployment\CoreInstall.bat)*

If you experience difficulties accessing the application please do not hesitate to contact Darcy Noye with the PEI RIS Development Team.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 4. Existing Access Strings Required for New Feature in B2.44.3

| Setting Placeholder | Setting | Default | Purpose / Controls Access to |
|---|---|---|---|
| System Configuration | EligibilityReceiptPath | None | (value = string) Determines the relative path on the report server for eligibility payment receipts |
| System Configuration | MaxPaymentAboveAmountToCollect | 999 | (value = int) Max $ above the amount to collect that will be allowed. |
| System Configuration | MaxPaymentAmount | 6000 | (value = int) Max $ amount that can be paid in a single payment. |
| System Configuration | ShowKeepSelfPayPrivate | False | (value = bool) Determines if RIS will present the 'Do not share with insurance provider' option in the case of self-pay. |
| System Configuration | UsualAndCustomaryInsuranceNumber | None | Insurance number to use when looking up the usual and customary rate, which is displayed on the patient's receipt. |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 5. New Features and Enhancements

## Insurance Eligibility – Payment Receipt Showing Insurance and Pricing

It can be difficult explaining charges to the patient. A report showing the breakdown of the amount to collect is required.

For payment made on visits, where RIS had used eligibility to calculate an amount to collect, RIS will display an alternate receipt. The receipt will list the CPTs and their Usual & Customary rates and the eligibility verified co-insurance, co-pay and deductible portions, plus payment information such as total payments and estimated balance. The receipt creation process archives all this information, so that when we re-print the receipt, it prints exactly the same.

To get the Usual & Customary amount, the new system configuration setting of "**UsualAndCustomaryInsuranceNumber**" (no default value) must be set to the NPD's insurance company for the usual rate fee schedule. If this is not set, then the costs in the report will display as blank. The usual rate is stored for every CPT, even those which do not have Eligibility enabled carrier.

To enable the auto printing and reprinting of the Eligibility Payment Receipt, set the new system configuration setting of "**EligibilityReceiptPath**" (no default value) to the new payment form as shown in the following.

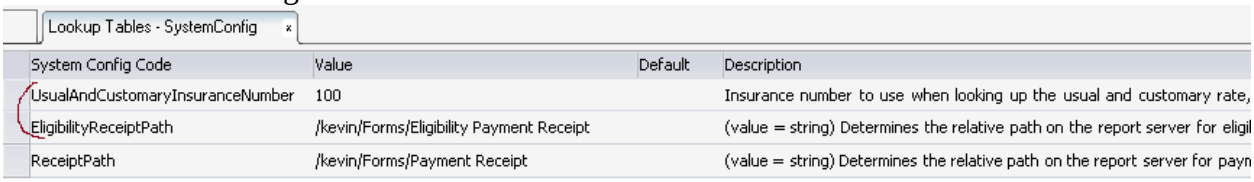



**Figure 5.1 – Displaying new system configuration settings**

The Eligibility Payment receipt will get printed after saving a screen such as Registration or View Edit when there was one or more payments made during the edit. Or receipts can be reprinted by right clicking on one of the payment and choosing "reprint" as shown in the following:

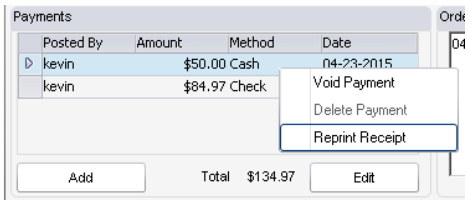



**Figure 5.2 – Reprinting receipt**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

There are two variations on the Eligibility Payment Receipt.

1) A simple receipt where the patient paid for their services in full.
2) Payment estimate change, CPTs could have changed during the exam and patient either needs to be either refunded or pay an additional amount.

In these two cases the receipt will look similar but in the second case will have additional fields such as '**Current Payments**' and '**Previous Payments for this Visit'**.

The following shows a simple receipt where the patient paid using both Cash and Cheque:

LOGO

RECEIPT

April 23, 2015 9:13 AM
RECEIPT # EL-102-39110

Mol, kevin
343 Central St
Summerside, MD 90210
MRN # 24742PE

Insurance Payments are an Estimate Only

**Please write this number on your check:** 39110
**Make checks payable to:** Advanced Radiology

| Service Date | Description | Units | Charge | Total |
|---|---|---|---|---|
| 04/23/2015 | CT ORBIT SELLA/POST FOSSA/EAR C-/C+ | 1 | $ 430.17 | $ 430.17 |
| | | | | $ 430.17 |

| | Deductible Portion | Copay | Coinsurance | Total |
|---|---|---|---|---|
| Estimated Patient Responsibility | $ 100.00 | $ 10.00 | $ 24.97 | $ 134.97 |

| Method | Notes | Amount |
|---|---|---|
| Cash | | $ 50.00 |
| Check #2123 | | $ 84.97 |
| | Total Payments | $ 134.97 |
| | Estimated Patient Balance | $ 0.00 |

**Thank you for your business!**

**Figure 5.3 – Payment receipt display different modes of payment**

After the initial registration, additional CPTs were added and the patient had to return to pay the additional amount. The following is the second payment receipt for this visit:

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| Service Date | Description | Units | Charge | Total |
|---|---|---|---|---|
| 04/23/2015 | CT ORBIT SELLA/POST FOSSA/EAR C-/C+ | 1 | $ 430.17 | $ 430.17 |
| 04/23/2015 | RADIOLOGIC EXAMINATION, ABDOMEN; ANTEROPOSTERIOR AND ADDITIONAL OBLIQUE AND CONE VIEWS | 1 | $ 47.13 | $ 47.13 |
| 04/23/2015 | RADIOLOGIC EXAMINATION, ABDOMEN; SINGLE ANTEROPOSTERIOR VIEW | 1 | $ 29.26 | $ 29.26 |
| | | | | $ 506.56 |

| | Deductible Portion | Copay | Coinsurance | Total |
|---|---|---|---|---|
| Estimated Patient Responsibility | $ 100.00 | $ 10.00 | $ 31.96 | $ 141.96 |

| Method | Notes | Amount |
|---|---|---|
| CreditCard MC 3322 | XR ABDOMEN AP was added after inital registration. Patient paid remaining ESTIMATED balance. | $ 6.99 |
| | Current Payments | $ 6.99 |
| | Previous Payments for This Visit | $ 134.97 |
| | Total Payments | $ 141.96 |
| | Estimated Patient Balance | $ 0.00 |

**Figure 5.4 – Second payment required for additional services receipt**

The Usual and Customary amount is often different from the contracted rate. To help our staff understand how the amount to collect was calculated, we have updated the "Amount to Collect – Details" popup to include a list of CPTs and their rates.

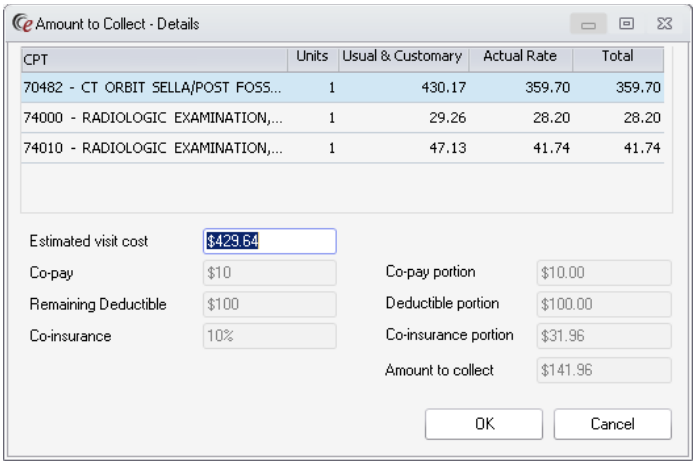



**Figure 5.5 – Amount to Collect Details changes**

A new column titled "Charge For Each Unit Flag" has been added to the Billing Code lookup table. By default we will not charge for multiple units. The RIS will only bill for multiple units if the billing_code lookup's field charge_for_each_unit_flag is set to 'Y'. If charge_for_each_unit_flag is 'N' then the visit cost will only include one charge for the CPT and the Eligibility Payment Receipt and the above Amount to Collect Details will only show that the CPT was charged once.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

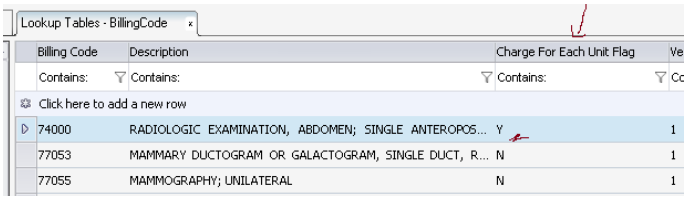



**Figure 5.6 – New column on the Billing Code tab**

Administrators can update multiple billing code in a batch as outlined in the following steps:

1. Filter on the types of billing codes you would like to set to 'Y'

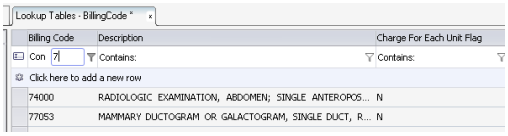



**Figure 5.7 –Filtering billing code table**

2. Set one of the entries to 'Y'
3. Press <CTRL>+A on the keyboard to select all rows
4. Right click on the cell that has the 'Y' from step 2 and select "Assign Cell To Selected Rows"

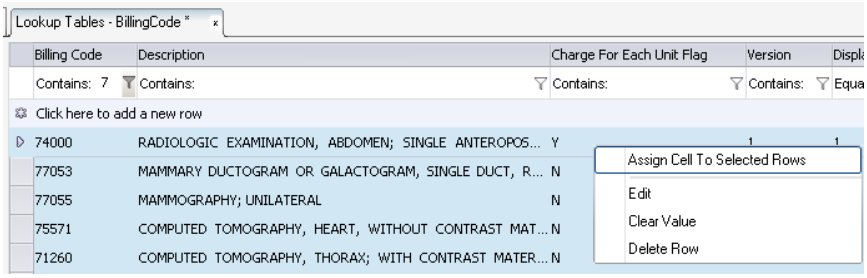



**Figure 5.8 – Assigning multiple rows in billing code with attribute**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Insurance Eligibility – Payments Exceeding Amount to Collect Warning

A popup warning is now displayed, if the amount entered is greater than the remaining amount to collect. The warning is displayed when the cursor focus moves away from the Amount textbox.

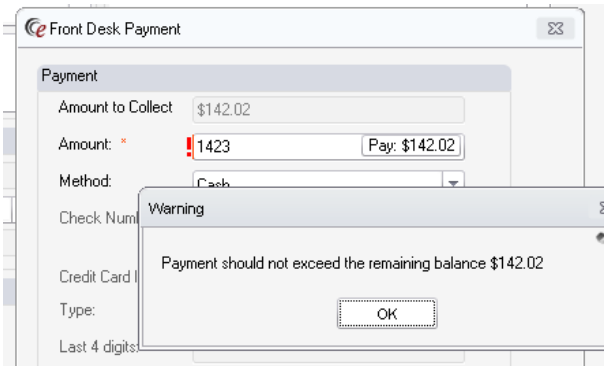



**Figure 5.9 –Warning if payment exceeds amount to collect**

To help users key in the correct remaining balance, we have introduced the "Pay" button. When clicked, the "Amount" text box will get set to the remaining balance. In the above example, clicking the "Pay: $142.02" button sets the amount to 142.02.

Two new system configuration settings have also been introduced. The first is "**MaxPaymentAmount**" that has a default of 6000. This setting will limit the user's ability to enter an amount more than the value set for this configuration setting.

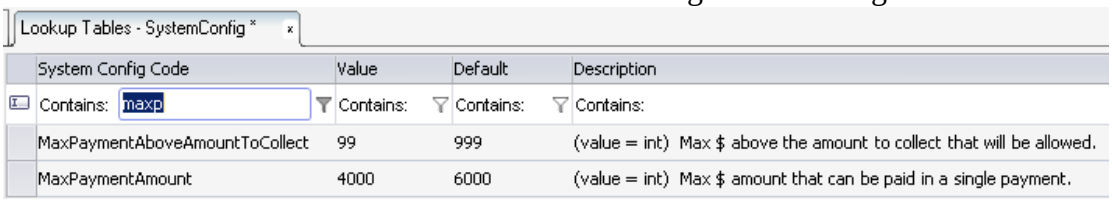



**Figure 5.10 – new configuration settings for payment amounts**

In the example below the user tried to enter a payment amount of $5000.00. The amount to collect is $142.02. Because the value set above for MaxPaymentAmount is $4000.00, we will display a message and inform the user they cannot enter this payment amount.

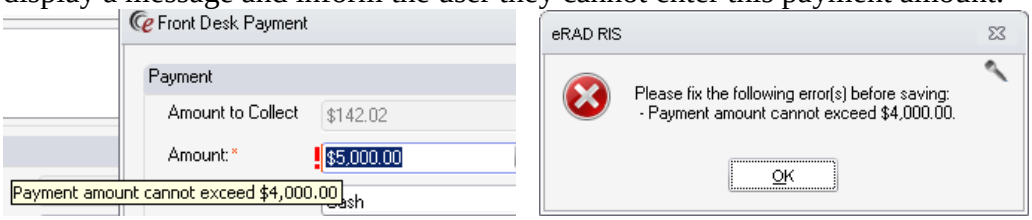



**Figure 5.11 – Message displayed when Amount to Collect exceeds MaxPaymentAmount**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

In the next example the user is trying to enter a payment amount that exceeds the set value for the next new system configuration setting of "**MaxPaymentAboveAmountToCollect**" which has a default of 999. In figure 5.10 the value is set to $99 and the amount to collect is $142.02. Since the payment amount exceeds $99 the user is prevented from entering that amount and the value displayed with these two values added together.

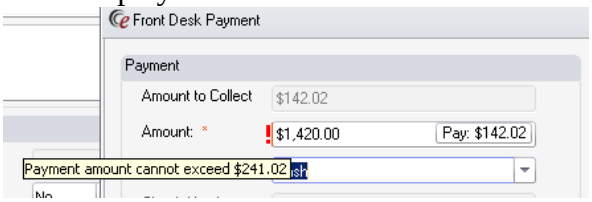



**Figure 5.12 – Amount entered exceeds MaxPaymentAboveAmountToCollect**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Insurance Eligibility – Collect Copay When it Exceeds Amount to Collect

If the amount to collect is less than the copay, the amount to collect will now be that of the copay amount. In the example below you can see that the amount to collect is $56, but the Copay portion is $99. The amount to collect will be $99.

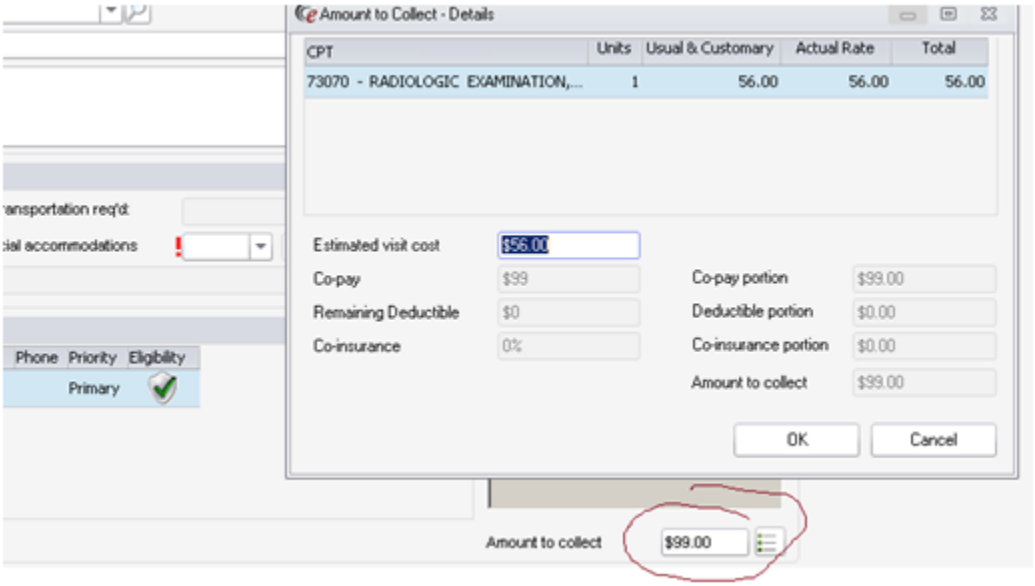



**Figure 5.13 – Amount to Collect will now be the Copay amount.**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Self-Pay Option "Do not share with insurance provider"

When the exam is to have a self-pay method selected from the Billing Method section on the Order tab a new check box will appear. This check box is labeled "Do not share with insurance provider". Functionally in eRAD RIS, it will not affect anything. The flag is set to Y when selected, which is then passed to an external system that will share/not share data with the insurance company.

A new system configuration setting of "**ShowKeepSelfPayPrivate**" which has a default of false will control whether or not this check box will appear when selecting a self-pay option

**Figure 5.14 – Check box displayed when self-pay option used and config setting ShowKeepSelfPayPrivate=Y**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Referring Doctor Affiliations Included With MIRTH Messages

Logic was added to the RIS outbound external interface to include identifiers for the doctors affiliations as part of the expanded study container sent to MIRTH.

The referring doctors affiliation will be included in the c_order.requested_by_address_key.l_person_address node within the study container. A new node called affiliation_list is now a child node of l_person_address. If there are no affiliations this node would be empty. If there 1 or more then a child node called <affiliation_code> node would repeat for each occurrence. See examples below.

```
        <report_cc_delivery_emr_flag>N</report_cc_delivery_emr_flag>
        <report_delivery_do_not_deliver_flag>N</report_delivery_do_not_deliver_flag>
        <report_cc_delivery_do_not_deliver_flag>N</report_cc_delivery_do_not_deliver_flag>
        <report_delivery_email_flag>N</report_delivery_email_flag>
        <report_cc_delivery_email_flag>N</report_cc_delivery_email_flag>
        <affiliation_list />
    </l_person_address>
</requested_by_address_key>
<indication>DAT</indication>
        <report_cc_delivery_emr_flag>N</report_cc_delivery_emr_flag>
        <report_delivery_do_not_deliver_flag>N</report_delivery_do_not_deliver_flag>
        <report_cc_delivery_do_not_deliver_flag>N</report_cc_delivery_do_not_deliver_flag>
        <report_delivery_email_flag>N</report_delivery_email_flag>
        <report_cc_delivery_email_flag>N</report_cc_delivery_email_flag>
        <affiliation_list>
            <affiliation_code>1</affiliation_code>
        </affiliation_list>
    </l_person_address>
</requested_by_address_key>
            <report_cc_delivery_emr_flag>N</report_cc_delivery_emr_flag>
            <report_delivery_do_not_deliver_flag>N</report_delivery_do_not_deliver_flag>
            <report_cc_delivery_do_not_deliver_flag>N</report_cc_delivery_do_not_deliver_flag>
            <report_delivery_email_flag>N</report_delivery_email_flag>
            <report_cc_delivery_email_flag>N</report_cc_delivery_email_flag>
            <affiliation_list>
                <affiliation_code>1</affiliation_code>
                <affiliation_code>109</affiliation_code>
            </affiliation_list>
        </l_person_address>
    </requested_by_address_key>
    <indication>DAT</indication>
```

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Interface to Create Internal System ID for External ID via External System

The RIS Services were updated so that if the c_child_patient node has an attribute called create_internal set to Y then if no internal patient is found or is already associated to the external MRN, a new row will be created.

The MIRTH mapping line required to create the attribute looks like:

```
tmp['Patient']['c_child_patient'].@create_internal = 'Y';
```

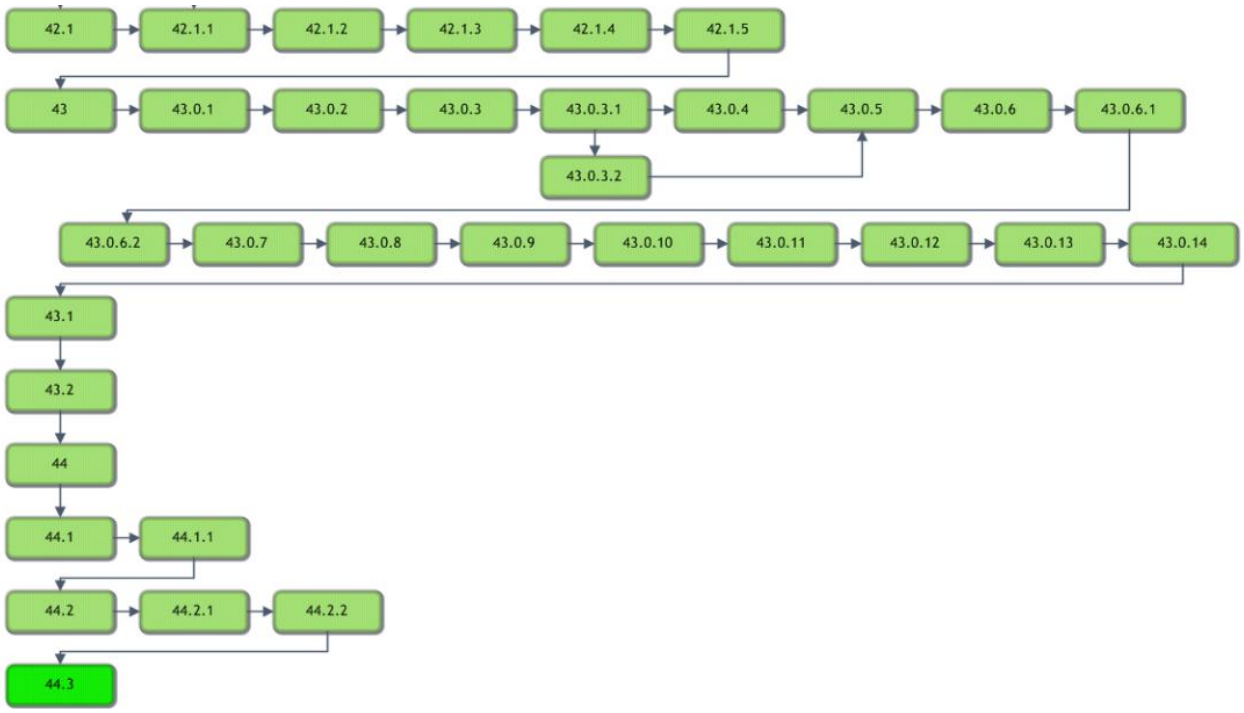
With this attribute on (Y), and the message sent to RIS with only the external identifier and a match is not found we will create an internal MRN for this patient. Alternatively if the attribute is "N" it will behave as it does today, sending the message to RIS and an internal ID will not be created.

In addition to the create_internal attribute, we also included the attributes of require_phone_match and require_gender_match, both valued with 'N'.
Examples:

```
tmp['Patient']['c_child_patient'].@require_phone_match = 'N';
tmp['Patient']['c_child_patient'].@require_gender_match = 'N';
```

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 6. Code Stream




**Legend:**

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 7. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 43 | - | 2.43.0.0.23715(3GB) | 2.43.0.0.23171 | 2.43.0.0.23715 | 2.43.0.0.23743 | Full Version Release |
| 43 | 1 | 2.43.0.1.23798(3GB) | 2.43.0.0.23171 | 2.43.0.1.23798 | 2.43.0.1.23770 | GUI.zip, Web Service, DB updates |
| 43 | 2 | 2.43.0.2.24017(3GB) | 2.43.0.0.23171 | 2.43.0.2.24017 | 2.43.0.2.24023 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 3 | 2.43.0.3.24298(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24283 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 3.1 | 2.43.0.3.24450(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24421 | GUI.zip, and DB updates |
| 43 | 3.2 | 2.43.0.3.24450(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24421a | DB updates |
| 43 | 4 | 2.43.0.4.24447(3GB) | 2.43.0.0.23171 | 2.43.0.4.24447 | 2.43.0.4.24442 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 5 | 2.43.0.4.24632(3GB) | 2.43.0.0.23171 | 2.43.0.4.24632 | 2.43.0.4.24560 | GUI.zip, Web Service and DB updates |
| 43 | 6 | 2.43.0.4.24(3GB) | 2.43.0.0.23171 | 2.43.0.4.24 | 2.43.0.4.24 | GUI.zip, Web Service and DB updates |
| 43 | 6.1 | 2.43.0.6.24937(3GB) | 2.43.0.0.23171 | 2.43.0.6.24937 | 2.43.0.6.24914 | GUI.zip, Web Service |
| 43 | 6.2 | 2.43.0.6.24970(3GB) | 2.43.0.0.23171 | 2.43.0.6.24970 | 2.43.0.6.24914 | GUI.zip, Web Service |
| 43 | 7 | 2.43.0.7.25258(3GB) | 2.43.0.0.23171 | 2.43.0.7.25258 | 2.43.0.7.25226 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 8 | 2.43.0.8.25440(3GB) | 2.43.0.0.23171 | 2.43.0.8.25440 | 2.43.0.8.25425 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 9 | 2.43.0.9.25477(3GB) | 2.43.0.0.23171 | 2.43.0.9.25477 | 2.43.0.8.25425 | GUI.zip and Web Service |
| 43 | 10 | 2.43.0.9.25477(3GB) | 2.43.0.0.23171 | 2.43.0.10.25477 | 2.43.0.8.25425 | Web Service |
| 43 | 11 | 2.43.0.11.25512(3GB) | 2.43.0.0.23171 | 2.43.0.11.25512 | 2.43.0.8.25425 | GUI.zip and Web Service |
| 43 | 12 | 2.43.0.12.25554(3GB) | 2.43.0.0.23171 | 2.43.0.12.25554 | 2.43.0.12.25536 | GUI.zip Web Service and DB Updates |
| 43 | 13 | 2.43.0.12.25610(3GB) | 2.43.0.0.23171 | 2.43.0.12.25610 | 2.43.0.12.25536 | GUI.zip and Web Service |
| 43 | 14 | 2.43.0.14.25644(3GB) | 2.43.0.0.23171 | 2.43.0.13.25610 | 2.43.0.12.25536 | GUI.zip |
| 43.1 | - | 2.43.1.0.25850(3GB) | 2.43.0.0.23171 | 2.43.1.0.25850 | 2.43.1.0.25771 | GUI.zip Web Service and DB Updates |
| 43.2 | - | 2.43.2.0.26864(3GB) | 2.43.0.0.23171 | 2.43.2.0.26864 | 2.43.1.0.25771 | GUI.zip and Web Service |
| 44 | - | 2.44.0.0.26570(3GB) | 2.44.0.0.26405 | 2.44.0.0.26570 | 2.44.0.0.26475 | Full Version Release |
| 44.1 | - | 2.44.0.0.26984(3GB) | 2.44.0.0.26405 | 2.44.0.0.26984 | 2.44.0.0.26906 | Gui.zip, Web Service, and DB |
| 44.1 | 1 | 2.44.1.1.27093(3GB) | 2.44.0.0.26405 | 2.44.1.0.26984 | 2.44.1.0.26906 | Gui.zip |
| 44.2 | | 2.44.2.0.27410(3GB) | 2.44.0.0.26405 | 2.44.2.0.27410 | 2.44.2.0.27365 | Gui.zip, Web Service, and DB |
| 44.2 | 1 | 2.44.2.1.27959(3GB) | 2.44.0.0.26405 | 2.44.2.1.27959 | 2.44.2.1.27909 | Gui.zip, Web Service, and DB |
| 44.2 | 2 | 2.44.2.1.27959(3GB) | 2.44.0.0.26405 | 2.44.2.2.28094 | 2.44.2.1.27909 | Web Service |
| **44.3** | **-** | **2.44.3.0.28292** | **2.44.0.0.26405** | **2.44.3.0.28277** | **2.44.3.0.28138** | **Gui.zip, Web Service, and DB** |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 8. Resolved Defects

Bugs Suggested Features and Support Issues resolved in build 2.44.3. The extract is taken from Redmine bug tracking system and only displays defects resolved in 2.44.3.

| Bug # | Priority | Subject | Category | Found Version |
|---|---|---|---|---|
| 6032 | Normal | Scheduling - New Appointment Calendar - Selecting time on calendar does not check for room availability. | Thick Client GUI | 1.42 |
| 7270 | Normal | Note column in personel causing errors | Admin-Clinical Data | 2.43 |
| 7497 | Normal | biopsy surgeon selection shows referrings and other personnel that are not surgeons | Mammography | 2.43.0.5 |
| 7932 | Normal | An error in the image caching process can terminate RIS | PACS (eRAD) Int - RIS only | 2.43.0.12 |
| 8428 | High | Collection was modified error related to worklist views | Radiology Reporting | 2.43.1 |
| 9150 | High | Insurance Eligibility - CPT costs needed to be multiplied by units | | 43.1 |
| 9323 | High | IVT - MRN isn't read-only on patient tab. | Thick Client GUI | 2.43.2 |
| 9425 | Normal | Amount to collect not updating on Schedule Order/Review screens when blanked out | Billing | 2.44 |
| 9448 | High | Review Tab - Estimated responsibilities when zero should be handled better | Billing | 43.1 |
| 9471 | Normal | Warning needed if selected insurance has a blank policy number | Insurance Eligibility | 43.1 |
| 9480 | Low | Reporting Radiologist - PowerScribe error and crash opening report with powerscribe integration | Radiology Reporting | 2.43.1 |
| 9513 | Normal | AppointmentBook is showing cancelled studies | Scheduling | 2.44.2 |
| 9523 | Urgent | Old layout for dictation/editing are not maintained into the 44 upgrade. | Radiology Reporting | 44 |
| 9524 | Urgent | Bacode scanner not opening PS360 report when set to Diagnose on accession number | Powerscribe Integration | 2.44.2 |
| 9525 | Normal | Assigned Radiologist is not recognized as assigned in the Assign to Radiologist window | Radiology Reporting | 2.44 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 9530 | High | Error arriving studies from same order | Reception | 2.44.2 |
| 9532 | Normal | error changing pre-cert info on registration | Reception | 2.44.2 |
| 9543 | High | Reporting Radiologist - M*Modal interactive dictation performance issues when using encrypt audio method | Radiology Reporting | 2.44.2 |
| 9554 | High | the wedge should not expand the virtual table c_order_ref_addresses | Web Services/DB | 2.44.2 |
| 9555 | Urgent | Post message routine in RIS Services (wedge) fails | Web Services/DB | 2.44.2 |
| 9559 | Normal | validate MS-SQL Server 2008 R2 SP3 | DB | 2.44.2 |
| 9574 | High | Insurance Eligibility - Performance issue as we add more eligibility configurations | | 44.2 |
| 9586 | Normal | DD Engine updates pending lay letters to be cancelled is a causing database blocking | DB | 2.44.2 |
| 9608 | Normal | Reporting Radiologist - Exception on application exit using Powerscribe | Radiology Reporting | 2.44.2 |
| 9632 | Normal | Assigning an exam to a chair in Pending Dictation WL produced an error. | Chair/County workflow | 2.44.3 |
| 9646 | High | Insurance Eligibility - Amount to collect issue in "Perform Exam" | | 44.2 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 9. Known Limitations

The following are Bugs Suggested Features and Support Issues found in build 2.44.3. Bugs reported in previous versions are not captured as Known Limitation in this document.

| # | Status | Priority | Subject |
|---|---|---|---|
| 9634 | New | High | Contrast is being deleted when View/Edit is opened |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# Server Update

For eRAD RIS
Version 2.0
Build 44.3
Update 44.3.1

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Resolved Items ..... 3
2. Code Stream ..... 4
3. Package Contents ..... 5
4. Intended Audience ..... 7
5. Who is affected ..... 7
6. eRAD RIS Release Version Numbers ..... 8
7. Installing ..... 9
   Client/GUI ..... 9
   Web Service ..... 10

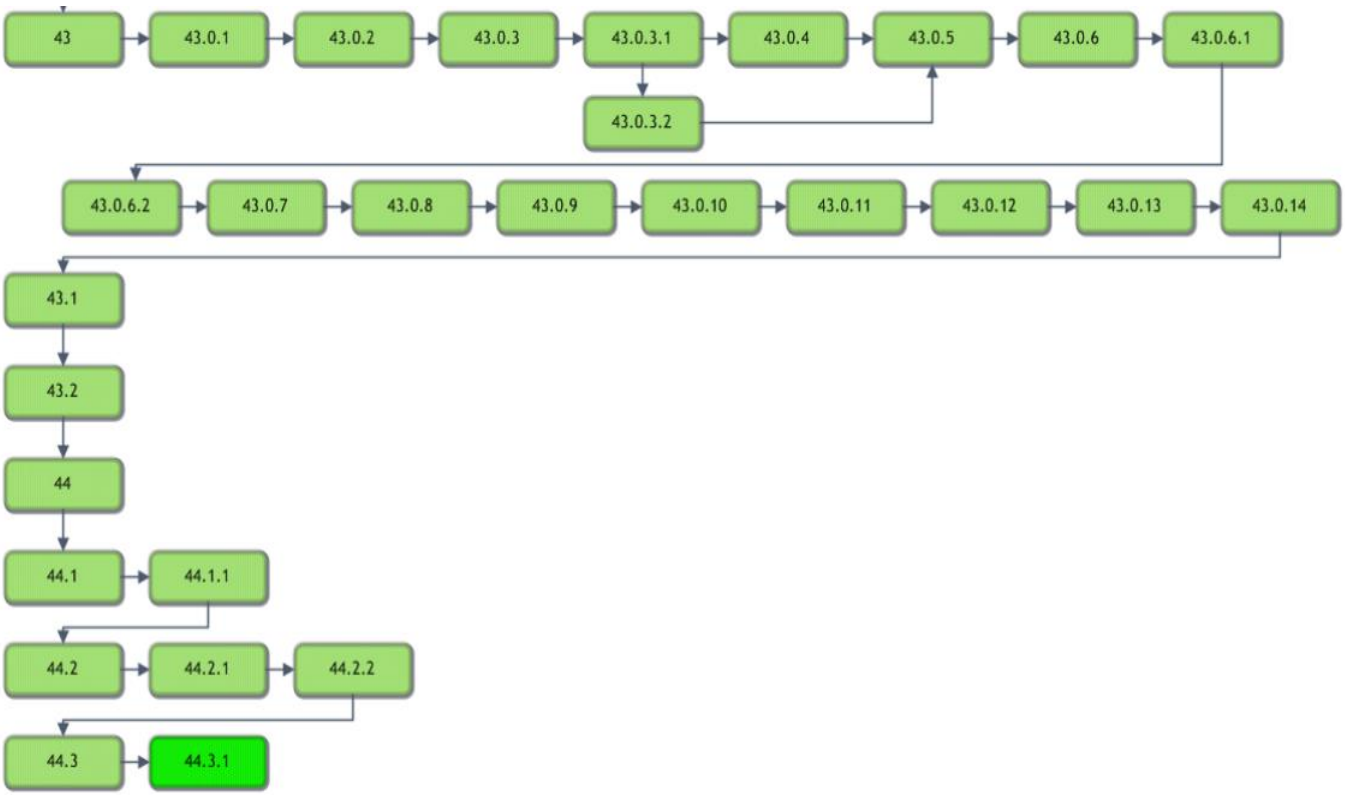
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 1. Resolved Items

| Redmine # | Subject | Priority |
|---|---|---|
| 10019 | Error on Image Request worklist using custom "My Views" that have been grouped | Urgent |
| 9726 | Error when rescheduling a cancelled order. | Urgent |
| 10303 | Send to Patient can display incorrect information in GUI | High |
| 10301 | collection was modified error on scheduling / save as order | Normal |
| 10020 | Insurance Eligibility - Usual&Customary error is preventing View Edit from saving | Normal |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 2. Code Stream




**Legend:**

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 3. Package Contents

Files included for this server update:

1. **GUI_ZIP_Updates** contains 1 file:
   rRIS_1.3.44.3.1.28535

2. **rRISService** folder contains:
   2.1. ABCpdf.dll
   2.2. ABCpdf9-32.dll
   2.3. ABCpdf9-64.dll
   2.4. Antlr3.Runtime.dll
   2.5. CDSJobManager.dll
   2.6. CDSJobManager.pdb
   2.7. CdsLib.dll
   2.8. CdsLib.xml
   2.9. CdsLib.XmlSerializers.dll
   2.10. CommonLib.dll
   2.11. CommonLib.pdb
   2.12. DDEngine.dll
   2.13. DDEngine.pdb
   2.14. DiffPlex.dll
   2.15. Interop.FAXCOMEXLib.dll
   2.16. Microsoft.Practices.EnterpriseLibrary.Caching.dll
   2.17. Microsoft.Practices.EnterpriseLibrary.Caching.pdb
   2.18. Microsoft.Practices.EnterpriseLibrary.Common.dll
   2.19. Microsoft.Practices.EnterpriseLibrary.Common.pdb
   2.20. Microsoft.Practices.EnterpriseLibrary.Logging.dll
   2.21. Microsoft.Practices.EnterpriseLibrary.Logging.pdb
   2.22. Microsoft.Practices.ServiceLocation.dll
   2.23. Microsoft.Practices.ServiceLocation.pdb
   2.24. Microsoft.Practices.Unity.dll
   2.25. Microsoft.Practices.Unity.Interception.dll
   2.26. Microsoft.Practices.Unity.Interception.pdb
   2.27. Microsoft.Practices.Unity.pdb
   2.28. Microsoft.ReportViewer.Common.dll
   2.29. Microsoft.ReportViewer.WinForms.dll
   2.30. Microsoft.ReportViewer.WinForms.xml
   2.31. Newtonsoft.Json.dll
   2.32. Newtonsoft.Json.xml
   2.33. NLog.dll
   2.34. O2S.Components.PDFRender4NET.dll
   2.35. PdfSharp.dll
   2.36. PDFToImages.exe
   2.37. Radar.Api.Client.dll
   2.38. Radar.Api.Client.pdb
   2.39. Radar.Api.Model.dll
   2.40. Radar.Api.Model.pdb
   2.41. Radar.Common.dll
   2.42. Radar.Common.pdb
   2.43. Radar.Common.WebClient.dll
   2.44. Radar.Common.WebClient.pdb
   2.45. Radar.DirectMessaging.Client.dll
   2.46. Radar.DirectMessaging.Client.pdb
   2.47. Radar.DirectMessaging.Model.dll
   2.48. Radar.DirectMessaging.Model.pdb
   2.49. rRISServices.exe
   2.50. rRISServices.pdb
   2.51. rRISServicesx64.exe
   2.52. ScheduledTaskManager.dll
   2.53. ScheduledTaskManager.pdb
   2.54. ServicesConfigWizard.exe
   2.55. ServicesConfigWizard.pdb
   2.56. SignatureApprovalService.exe
   2.57. SignatureApprovalService.pdb
   2.58. System.Net.Http.dll
   2.59. System.Net.Http.Formatting.dll
   2.60. System.Web.Http.dll
   2.61. System.Web.Http.SelfHost.dll
   2.62. System.Web.Http.SelfHost.xml
   2.63. System.Web.Http.WebHost.dll
   2.64. System.Web.Http.WebHost.xml
   2.65. System.Web.Http.xml
   2.66. System.Web.Mvc.dll
   2.67. System.Web.Mvc.xml
   2.68. System.Web.Optimization.dll
   2.69. System.Web.Razor.dll
   2.70. System.Web.Razor.xml
   2.71. System.Web.WebPages.Deployment.dll
   2.72. System.Web.WebPages.Deployment.xml
   2.73. System.Web.WebPages.dll
   2.74. System.Web.WebPages.Razor.dll
   2.75. System.Web.WebPages.Razor.xml
   2.76. System.Web.WebPages.xml
   2.77. Tourreau.Gilles.FaxDotNet.dll
   2.78. Tourreau.Gilles.FaxDotNet.pdb
   2.79. Tourreau.Gilles.FaxDotNet.xml
   2.80. WCFService.dll
   2.81. WCFService.pdb
   2.82. WCFServiceTests.dll
   2.83. WCFServiceTests.pdb
   2.84. WebApi.dll

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

2.85. WebApi.pdb
2.86. WebGrease.dll
2.87. Wedge.exe
2.88. Wedge.pdb

2.1.1 **XSL** folder contains:

2.1.1.1. **Stylesheets** folder contains:

A. CDAToHTMLCompleteReport.xslt
B. CDAToHTMLCompleteReportDark.xslt
C. CDAToHTMLImpressionSection.xslt
D. CDATorRIS.xslt
E. CDAToTxt.xslt
F. DocumentModelReport.xslt
G. DocumentModelReportAsXml.xslt
H. **CDA** folder contains:

i. C-CDA.xsl
ii. eRadStylesheet.xsl
iii. generalTemplates.xsl
iv. header.xsl
v. QRDA.xsl
vi. QrdaLevel3_Cypress2.4.0.xsl
vii. QrdaLevel3_ViewHtml.xsl
viii. sectionAdministeredMedications.xsl
ix. sectionAllergies.xsl
x. sectionEncounters.xsl
xi. sectionFindings.xsl
xii. sectionFuncCogStatus.xsl
xiii. sectionImmunizations.xsl
xiv. sectionInstructions.xsl
xv. sectionMedications.xsl
xvi. sectionPlanOfCare.xsl
xvii. sectionProblemList.xsl
xviii. sectionProcedures.xsl
xix. sectionQRDAMeasures.xsl
xx. sectionQRDAPatientData.xsl
xxi. sectionQRDAReporting.xsl
xxii. sectionReasonForVisit.xsl
xxiii. sectionResults.xsl
xxiv. sectionSocialHistory.xsl
xxv. sectionVitalSigns.xsl

2.1.2 **Deploy** folder contains 4 files:

2.1.2.1. applicationsettings.config
2.1.2.2. releaseVersion-connectionstrings.config
2.1.2.3. rRISServices.exe.config
2.1.2.4. rRISServicesx64.exe.config
2.1.2.5. services.config

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 4. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

## 5. Who is affected

Build 44.2 – 44.3 installs. This server update must be applied to 44.3

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 6. eRAD RIS Release Version Numbers

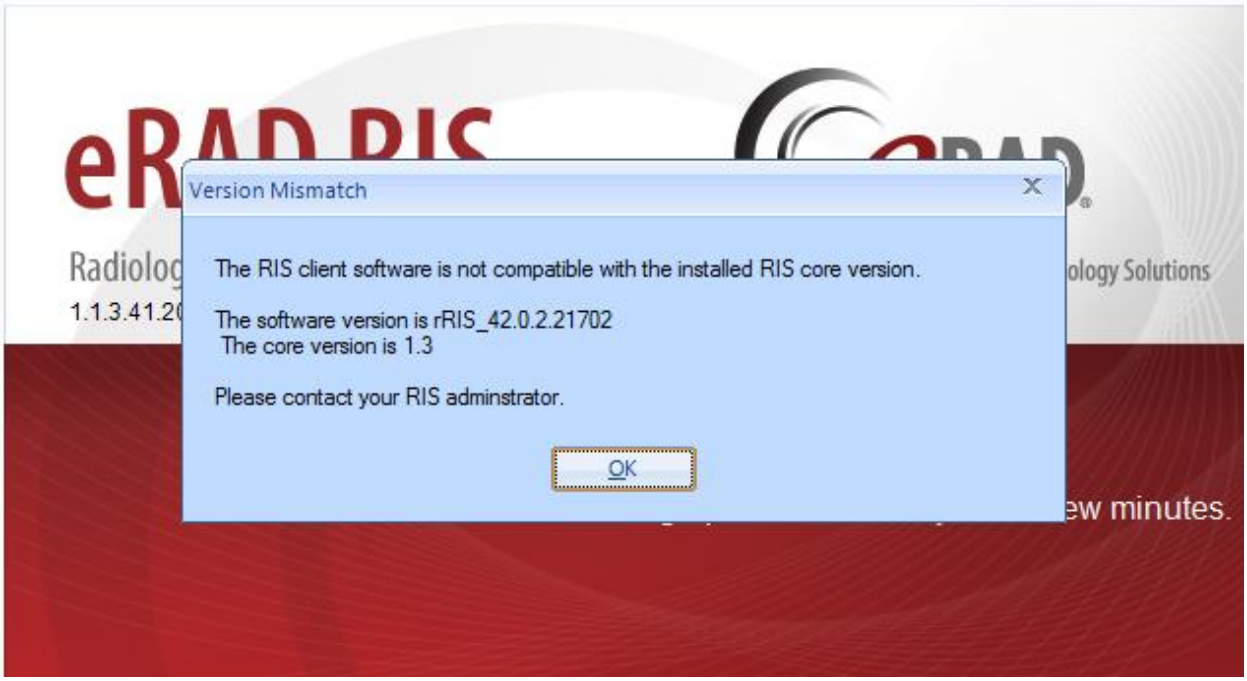
| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 43 | - | 2.43.0.0.23715(3GB) | 2.43.0.0.23171 | 2.43.0.0.23715 | 2.43.0.0.23743 | Full Version Release |
| 43 | 1 | 2.43.0.1.23798(3GB) | 2.43.0.0.23171 | 2.43.0.1.23798 | 2.43.0.1.23770 | GUI.zip, Web Service, DB updates |
| 43 | 2 | 2.43.0.2.24017(3GB) | 2.43.0.0.23171 | 2.43.0.2.24017 | 2.43.0.2.24023 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 3 | 2.43.0.3.24298(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24283 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 3.1 | 2.43.0.3.24450(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24421 | GUI.zip, and DB updates |
| 43 | 3.2 | 2.43.0.3.24450(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24421a | DB updates |
| 43 | 4 | 2.43.0.4.24447(3GB) | 2.43.0.0.23171 | 2.43.0.4.24447 | 2.43.0.4.24442 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 5 | 2.43.0.4.24632(3GB) | 2.43.0.0.23171 | 2.43.0.4.24632 | 2.43.0.4.24560 | GUI.zip, Web Service and DB updates |
| 43 | 6 | 2.43.0.4.24(3GB) | 2.43.0.0.23171 | 2.43.0.4.24 | 2.43.0.4.24 | GUI.zip, Web Service and DB updates |
| 43 | 6.1 | 2.43.0.6.24937(3GB) | 2.43.0.0.23171 | 2.43.0.6.24937 | 2.43.0.6.24914 | GUI.zip, Web Service |
| 43 | 6.2 | 2.43.0.6.24970(3GB) | 2.43.0.0.23171 | 2.43.0.6.24970 | 2.43.0.6.24914 | GUI.zip, Web Service |
| 43 | 7 | 2.43.0.7.25258(3GB) | 2.43.0.0.23171 | 2.43.0.7.25258 | 2.43.0.7.25226 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 8 | 2.43.0.8.25440(3GB) | 2.43.0.0.23171 | 2.43.0.8.25440 | 2.43.0.8.25425 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 9 | 2.43.0.9.25477(3GB) | 2.43.0.0.23171 | 2.43.0.9.25477 | 2.43.0.8.25425 | GUI.zip and Web Service |
| 43 | 10 | 2.43.0.9.25477(3GB) | 2.43.0.0.23171 | 2.43.0.10.25477 | 2.43.0.8.25425 | Web Service |
| 43 | 11 | 2.43.0.11.25512(3GB) | 2.43.0.0.23171 | 2.43.0.11.25512 | 2.43.0.8.25425 | GUI.zip and Web Service |
| 43 | 12 | 2.43.0.12.25554(3GB) | 2.43.0.0.23171 | 2.43.0.12.25554 | 2.43.0.12.25536 | GUI.zip Web Service and DB Updates |
| 43 | 13 | 2.43.0.12.25610(3GB) | 2.43.0.0.23171 | 2.43.0.12.25610 | 2.43.0.12.25536 | GUI.zip and Web Service |
| 43 | 14 | 2.43.0.14.25644(3GB) | 2.43.0.0.23171 | 2.43.0.13.25610 | 2.43.0.12.25536 | GUI.zip |
| 43.1 | - | 2.43.1.0.25850(3GB) | 2.43.0.0.23171 | 2.43.1.0.25850 | 2.43.1.0.25771 | GUI.zip Web Service and DB Updates |
| 43.2 | - | 2.43.2.0.26864(3GB) | 2.43.0.0.23171 | 2.43.2.0.26864 | 2.43.1.0.25771 | GUI.zip and Web Service |
| 44 | - | 2.44.0.0.26570(3GB) | 2.44.0.0.26405 | 2.44.0.0.26570 | 2.44.0.0.26475 | Full Version Release |
| 44.1 | - | 2.44.0.0.26984(3GB) | 2.44.0.0.26405 | 2.44.0.0.26984 | 2.44.0.0.26906 | Gui.zip, Web Service, and DB |
| 44.1 | 1 | 2.44.1.1.27093(3GB) | 2.44.0.0.26405 | 2.44.1.0.26984 | 2.44.1.0.26906 | Gui.zip |
| 44.2 | | 2.44.2.0.27410(3GB) | 2.44.0.0.26405 | 2.44.2.0.27410 | 2.44.2.0.27365 | Gui.zip, Web Service, and DB |
| 44.2 | 1 | 2.44.2.1.27959(3GB) | 2.44.0.0.26405 | 2.44.2.1.27959 | 2.44.2.1.27909 | Gui.zip, Web Service, and DB |
| 44.2 | 2 | 2.44.2.1.27959(3GB) | 2.44.0.0.26405 | 2.44.2.2.28094 | 2.44.2.1.27909 | Web Service |
| 44.3 | - | 2.44.3.0.28292 | 2.44.0.0.26405 | 2.44.3.0.28277 | 2.44.3.0.28138 | Gui.zip, Web Service, and DB |
| **44.3** | **1** | **2.44.3.1.28535(3GB)** | **2.44.0.0.26405** | **2.44.3.1.28535** | **2.44.3.0.28138** | **Gui.zip and Web Service** |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# 7. Installing

## Client/GUI

1) Copy and replace the current rRIS…zip file with the rRIS_1.3.44.3.1.28535.zip file provided with this release.
   Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.




If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_44.3.1.28535→ rRIS_1.3.44.3.1.28535
NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

**NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## Web Service

1. The web service upgrade consists of replacing the files in the RIS Web Service directory with the files supplied in the rRISService folder with this build. Always create a backup of the files being replaced. This upgrade includes 88 files in the rRISService folder and 2 sub folders. Of those folders, 1 is a folder titled **"XSL"** that contains a sub folder and files within the subfolder. Another folder is titled **"deploy"** that contains the new .config files that will be deployed with the user of the file called "ServicesConfigWizard.exe" (see instructions below).

## Services Configuration Wizard

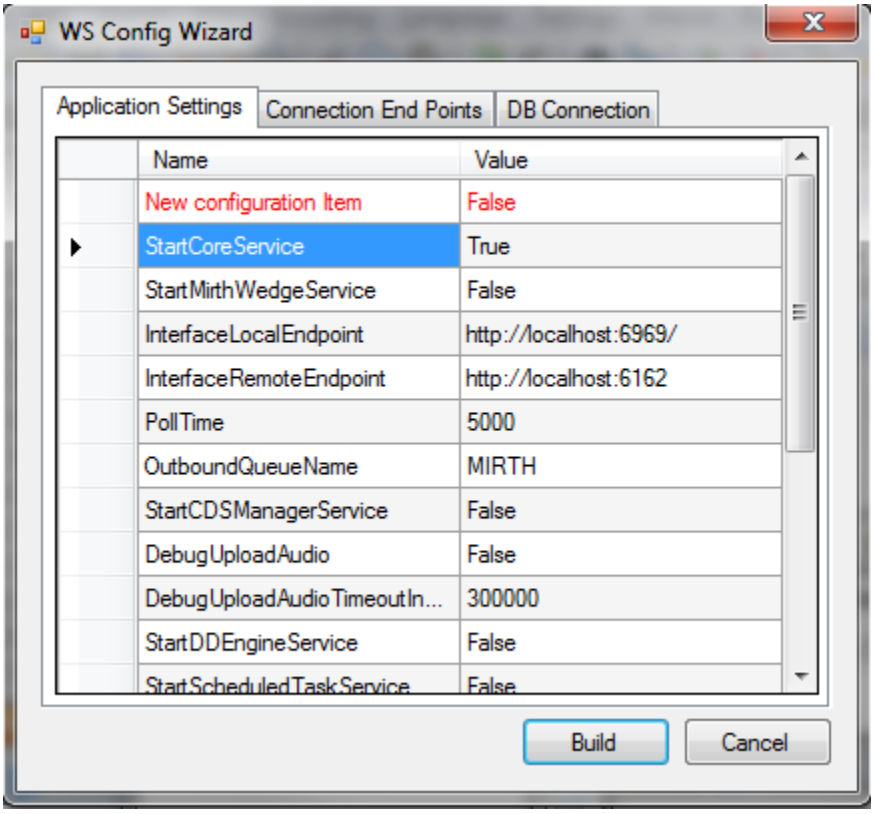
With the release of 42 to decrease the chance of losing configuration setting and missing new configuration options, we will no longer include the configuration files in the release in the main set of files, but they will now exist in a "deploy" folder, which will contain the three site configurable config files; applicationsettings, connectionstrings, services as well as a copy of the rRISServices.exe configuration file. The contents of this folder should not be required to be touched.

On the install of a new service, all files will be copied to the appropriate locations on the server (no configurations will be over written). If instructed or to confirm no new configurations have been added the user can run the new application "ServicesConfigWizard.exe"

This application will read the existing configuration file(s) (if files exist), and compare to the provided new configuration files then will display three tabs, for each configuration file:
**Application Settings:** all existing configuration value will be displayed, if there are any new configuration entries they will be displayed in red.

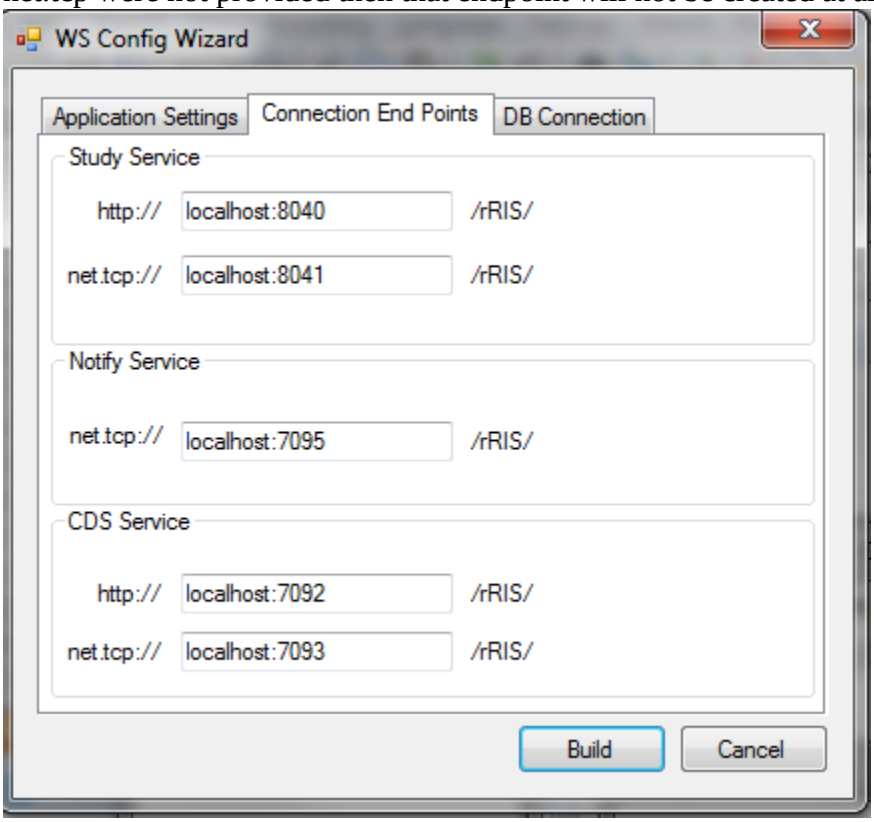
**NOTE:** the rRISServices.exe.config file is also included in the deploy folder. If this file has changes it **will not** update your current file in the Web Service directory. Any changes to this file will require a manual update of the rRISServices.exe.config and rRISServicesx64.exe.config files.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.



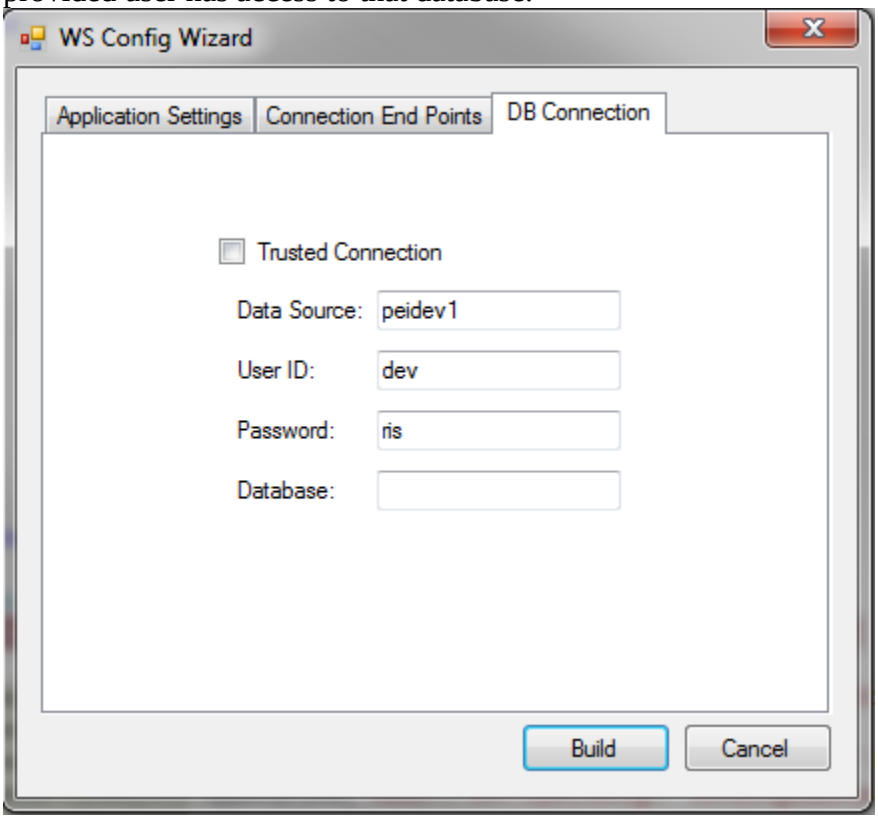

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

**Connection End Points:** will display the existing configuration, if the value is left blank then that entry will not be created, in the case of "Study Service" or "CDS Service" if both http and net.tcp were not provided then that endpoint will not be created at all.




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

**DB Connection:** will display the existing configuration, if the Connection is to be used as a trusted connection, then the user ID and password will become disabled and will not be used, and will rely on the provided database value, When not using the trusted connection, The Database value is not needed but can be used to force a specific database connection as long as the provided user has access to that database.




It is always good practice to do a compare of the .config files.

1) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService.
   *rRISService directories include:*
   *a) rRISService*
   *b) CDS rRISService*
   *c) Wedge rRISService*
   *d) DDE rRISService*

   **Restart each service**.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# User Release Notes

for eRAD RIS
Version 2
Build 44.3

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# Table of Contents

1. Purpose ..... 3
2. Intended Audience ..... 3
3. Installing/Accessing the Application ..... 3
4. Existing Access Strings Required for New Feature in B2.44.3 ..... 4
5. New Features and Enhancements ..... 5
   Insurance Eligibility – Payment Receipt Showing Insurance and Pricing ..... 5
   Insurance Eligibility – Payments Exceeding Amount to Collect Warning ..... 9
   Insurance Eligibility – Collect Copay When it Exceeds Amount to Collect ..... 11
   Self-Pay Option "Do not share with insurance provider" ..... 12
   Referring Doctor Affiliations Included With MIRTH Messages ..... 13
   Interface to Create Internal System ID for External ID via External System ..... 14
6. Code Stream ..... 15
7. eRAD RIS Release Version Numbers ..... 16
8. Resolved Defects ..... 17
9. Known Limitations ..... 19

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 1. Purpose

This document describes some of the new features and changes implemented in eRAD RIS as of the end of Sprint 44.3 and subsequent server releases. This version of eRAD RIS is referred to as Build 2.44.3

Only features which can be visually demonstrated to the user will be outlined in this document.

# 2. Intended Audience

This document is created by the RIS Development team for the RadNet RIS management team.

# 3. Installing/Accessing the Application

The installation guide for the eRAD RIS client have been posted to the RadNet Wiki page at http://mdbal01rdtweb/Wiki/

Under the RIS menu click on the rRIS page. The credentials to access the page are:
Username: rRIS
Password: Summerside

*Please note that Build 2.44.3 is considered a new release of the application. It does not require a reinstallation of eRAD RIS. If users choose to reinstall, this is accomplished by navigating to the eRAD RIS shared installation drive and running the CoreInstall.bat file (ex: I:\RISDeployment\CoreInstall.bat)*

If you experience difficulties accessing the application please do not hesitate to contact Darcy Noye with the PEI RIS Development Team.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 4. Existing Access Strings Required for New Feature in B2.44.3

| Setting Placeholder | Setting | Default | Purpose / Controls Access to |
|---|---|---|---|
| System Configuration | EligibilityReceiptPath | None | (value = string) Determines the relative path on the report server for eligibility payment receipts |
| System Configuration | MaxPaymentAboveAmountToCollect | 999 | (value = int) Max $ above the amount to collect that will be allowed. |
| System Configuration | MaxPaymentAmount | 6000 | (value = int) Max $ amount that can be paid in a single payment. |
| System Configuration | ShowKeepSelfPayPrivate | False | (value = bool) Determines if RIS will present the 'Do not share with insurance provider' option in the case of self-pay. |
| System Configuration | UsualAndCustomaryInsuranceNumber | None | Insurance number to use when looking up the usual and customary rate, which is displayed on the patient's receipt. |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 5. New Features and Enhancements

## Insurance Eligibility – Payment Receipt Showing Insurance and Pricing

It can be difficult explaining charges to the patient. A report showing the breakdown of the amount to collect is required.

For payment made on visits, where RIS had used eligibility to calculate an amount to collect, RIS will display an alternate receipt. The receipt will list the CPTs and their Usual & Customary rates and the eligibility verified co-insurance, co-pay and deductible portions, plus payment information such as total payments and estimated balance. The receipt creation process archives all this information, so that when we re-print the receipt, it prints exactly the same.

To get the Usual & Customary amount, the new system configuration setting of "**UsualAndCustomaryInsuranceNumber**" (no default value) must be set to the NPD's insurance company for the usual rate fee schedule. If this is not set, then the costs in the report will display as blank. The usual rate is stored for every CPT, even those which do not have Eligibility enabled carrier.

To enable the auto printing and reprinting of the Eligibility Payment Receipt, set the new system configuration setting of "**EligibilityReceiptPath**" (no default value) to the new payment form as shown in the following.

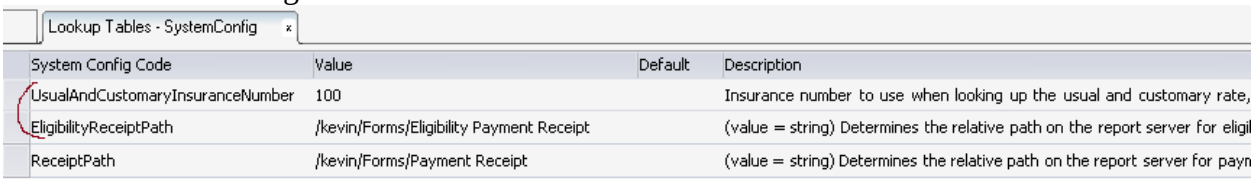



**Figure 5.1 – Displaying new system configuration settings**

The Eligibility Payment receipt will get printed after saving a screen such as Registration or View Edit when there was one or more payments made during the edit. Or receipts can be reprinted by right clicking on one of the payment and choosing "reprint" as shown in the following:

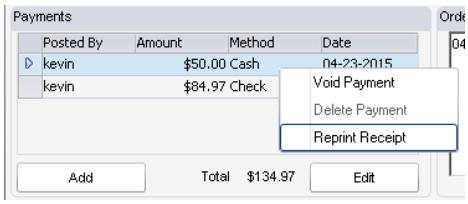



**Figure 5.2 – Reprinting receipt**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

There are two variations on the Eligibility Payment Receipt.

1) A simple receipt where the patient paid for their services in full.
2) Payment estimate change, CPTs could have changed during the exam and patient either needs to be either refunded or pay an additional amount.

In these two cases the receipt will look similar but in the second case will have additional fields such as '**Current Payments**' and '**Previous Payments for this Visit'**.

The following shows a simple receipt where the patient paid using both Cash and Cheque:

LOGO

RECEIPT

April 23, 2015 9:13 AM
RECEIPT # EL-102-39110

Mol, kevin
343 Central St
Summerside, MD 90210
MRN # 24742PE

Insurance Payments are an Estimate Only

**Please write this number on your check:** 39110
**Make checks payable to:** Advanced Radiology

| Service Date | Description | Units | Charge | Total |
|---|---|---|---|---|
| 04/23/2015 | CT ORBIT SELLA/POST FOSSA/EAR C-/C+ | 1 | $ 430.17 | $ 430.17 |
| | | | | $ 430.17 |

| | Deductible Portion | Copay | Coinsurance | Total |
|---|---|---|---|---|
| Estimated Patient Responsibility | $ 100.00 | $ 10.00 | $ 24.97 | $ 134.97 |

| Method | Notes | Amount |
|---|---|---|
| Cash | | $ 50.00 |
| Check #2123 | | $ 84.97 |
| | Total Payments | $ 134.97 |
| | Estimated Patient Balance | $ 0.00 |

**Thank you for your business!**

**Figure 5.3 – Payment receipt display different modes of payment**

After the initial registration, additional CPTs were added and the patient had to return to pay the additional amount. The following is the second payment receipt for this visit:

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| Service Date | Description | Units | Charge | Total |
|---|---|---|---|---|
| 04/23/2015 | CT ORBIT SELLA/POST FOSSA/EAR C-/C+ | 1 | $ 430.17 | $ 430.17 |
| 04/23/2015 | RADIOLOGIC EXAMINATION, ABDOMEN; ANTEROPOSTERIOR AND ADDITIONAL OBLIQUE AND CONE VIEWS | 1 | $ 47.13 | $ 47.13 |
| 04/23/2015 | RADIOLOGIC EXAMINATION, ABDOMEN; SINGLE ANTEROPOSTERIOR VIEW | 1 | $ 29.26 | $ 29.26 |
| | | | | $ 506.56 |

| | Deductible Portion | Copay | Coinsurance | Total |
|---|---|---|---|---|
| Estimated Patient Responsibility | $ 100.00 | $ 10.00 | $ 31.96 | $ 141.96 |

| Method | Notes | Amount |
|---|---|---|
| CreditCard MC 3322 | XR ABDOMEN AP was added after inital registration. Patient paid remaining ESTIMATED balance. | $ 6.99 |
| | Current Payments | $ 6.99 |
| | Previous Payments for This Visit | $ 134.97 |
| | Total Payments | $ 141.96 |
| | Estimated Patient Balance | $ 0.00 |

**Figure 5.4 – Second payment required for additional services receipt**

The Usual and Customary amount is often different from the contracted rate. To help our staff understand how the amount to collect was calculated, we have updated the "Amount to Collect – Details" popup to include a list of CPTs and their rates.

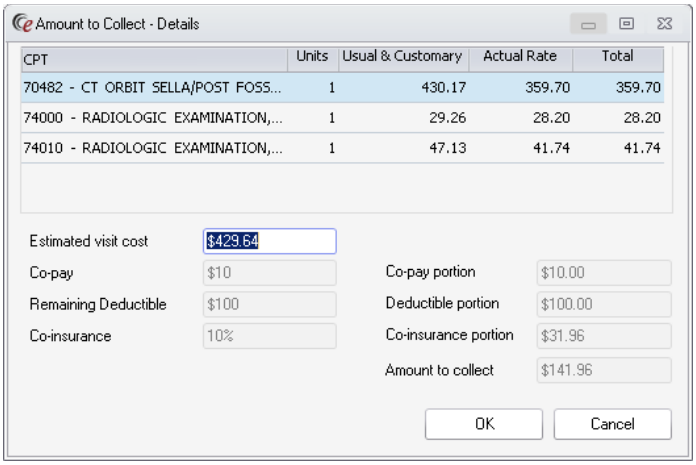



**Figure 5.5 – Amount to Collect Details changes**

A new column titled "Charge For Each Unit Flag" has been added to the Billing Code lookup table. By default we will not charge for multiple units. The RIS will only bill for multiple units if the billing_code lookup's field charge_for_each_unit_flag is set to 'Y'. If charge_for_each_unit_flag is 'N' then the visit cost will only include one charge for the CPT and the Eligibility Payment Receipt and the above Amount to Collect Details will only show that the CPT was charged once.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

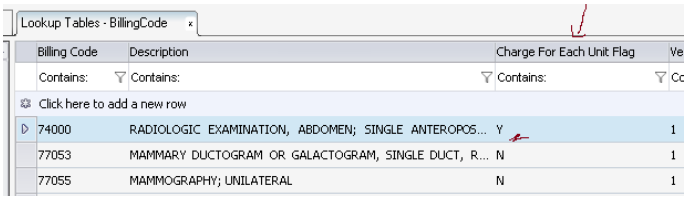



**Figure 5.6 – New column on the Billing Code tab**

Administrators can update multiple billing code in a batch as outlined in the following steps:

1. Filter on the types of billing codes you would like to set to 'Y'

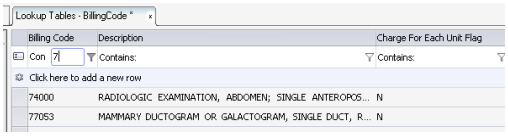



**Figure 5.7 –Filtering billing code table**

2. Set one of the entries to 'Y'
3. Press <CTRL>+A on the keyboard to select all rows
4. Right click on the cell that has the 'Y' from step 2 and select "Assign Cell To Selected Rows"

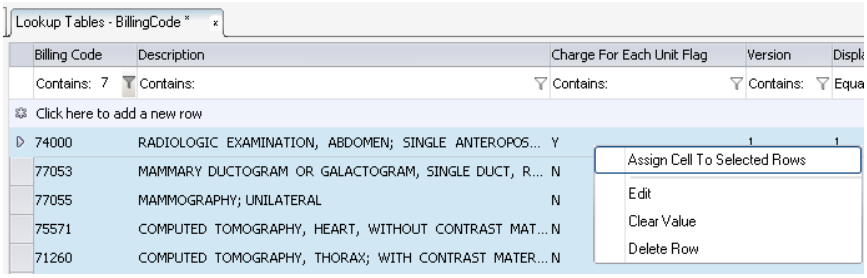



**Figure 5.8 – Assigning multiple rows in billing code with attribute**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Insurance Eligibility – Payments Exceeding Amount to Collect Warning

A popup warning is now displayed, if the amount entered is greater than the remaining amount to collect. The warning is displayed when the cursor focus moves away from the Amount textbox.

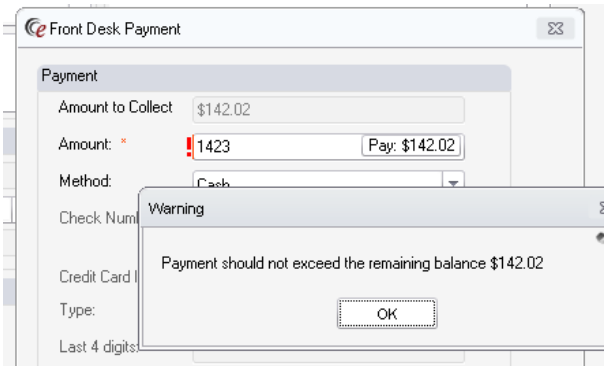



**Figure 5.9 –Warning if payment exceeds amount to collect**

To help users key in the correct remaining balance, we have introduced the "Pay" button. When clicked, the "Amount" text box will get set to the remaining balance. In the above example, clicking the "Pay: $142.02" button sets the amount to 142.02.

Two new system configuration settings have also been introduced. The first is "**MaxPaymentAmount**" that has a default of 6000. This setting will limit the user's ability to enter an amount more than the value set for this configuration setting.

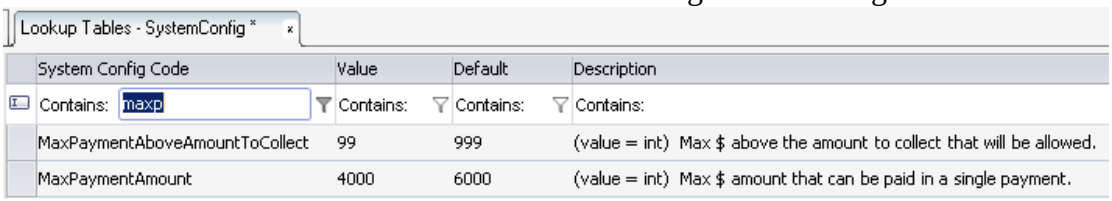



**Figure 5.10 – new configuration settings for payment amounts**

In the example below the user tried to enter a payment amount of $5000.00. The amount to collect is $142.02. Because the value set above for MaxPaymentAmount is $4000.00, we will display a message and inform the user they cannot enter this payment amount.

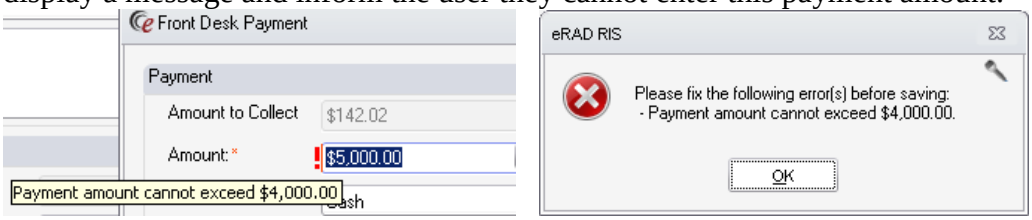



**Figure 5.11 – Message displayed when Amount to Collect exceeds MaxPaymentAmount**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

In the next example the user is trying to enter a payment amount that exceeds the set value for the next new system configuration setting of "**MaxPaymentAboveAmountToCollect**" which has a default of 999. In figure 5.10 the value is set to $99 and the amount to collect is $142.02. Since the payment amount exceeds $99 the user is prevented from entering that amount and the value displayed with these two values added together.

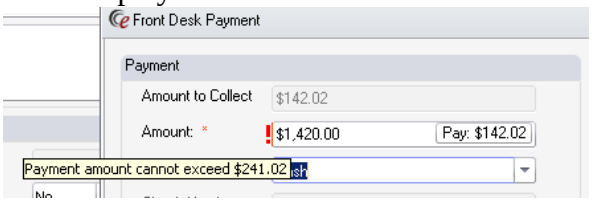



**Figure 5.12 – Amount entered exceeds MaxPaymentAboveAmountToCollect**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Insurance Eligibility – Collect Copay When it Exceeds Amount to Collect

If the amount to collect is less than the copay, the amount to collect will now be that of the copay amount. In the example below you can see that the amount to collect is $56, but the Copay portion is $99. The amount to collect will be $99.

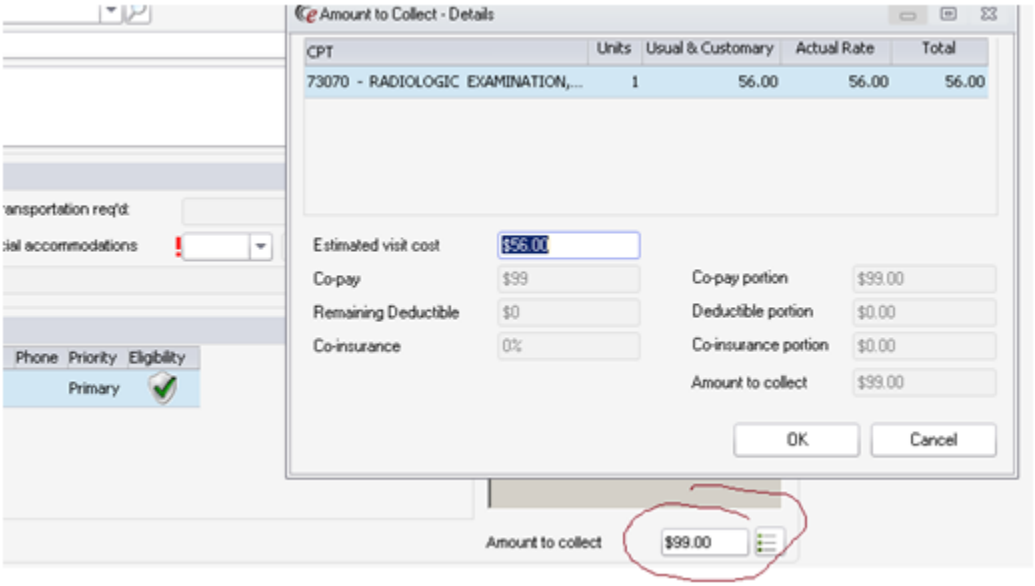



**Figure 5.13 – Amount to Collect will now be the Copay amount.**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Self-Pay Option "Do not share with insurance provider"

When the exam is to have a self-pay method selected from the Billing Method section on the Order tab a new check box will appear. This check box is labeled "Do not share with insurance provider". Functionally in eRAD RIS, it will not affect anything. The flag is set to Y when selected, which is then passed to an external system that will share/not share data with the insurance company.

A new system configuration setting of "**ShowKeepSelfPayPrivate**" which has a default of false will control whether or not this check box will appear when selecting a self-pay option

**Figure 5.14 – Check box displayed when self-pay option used and config setting ShowKeepSelfPayPrivate=Y**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Referring Doctor Affiliations Included With MIRTH Messages

Logic was added to the RIS outbound external interface to include identifiers for the doctors affiliations as part of the expanded study container sent to MIRTH.

The referring doctors affiliation will be included in the c_order.requested_by_address_key.l_person_address node within the study container. A new node called affiliation_list is now a child node of l_person_address. If there are no affiliations this node would be empty. If there 1 or more then a child node called <affiliation_code> node would repeat for each occurrence. See examples below.

```
        <report_cc_delivery_emr_flag>N</report_cc_delivery_emr_flag>
        <report_delivery_do_not_deliver_flag>N</report_delivery_do_not_deliver_flag>
        <report_cc_delivery_do_not_deliver_flag>N</report_cc_delivery_do_not_deliver_flag>
        <report_delivery_email_flag>N</report_delivery_email_flag>
        <report_cc_delivery_email_flag>N</report_cc_delivery_email_flag>
        <affiliation_list />
    </l_person_address>
</requested_by_address_key>
<indication>DAT</indication>
        <report_cc_delivery_emr_flag>N</report_cc_delivery_emr_flag>
        <report_delivery_do_not_deliver_flag>N</report_delivery_do_not_deliver_flag>
        <report_cc_delivery_do_not_deliver_flag>N</report_cc_delivery_do_not_deliver_flag>
        <report_delivery_email_flag>N</report_delivery_email_flag>
        <report_cc_delivery_email_flag>N</report_cc_delivery_email_flag>
        <affiliation_list>
            <affiliation_code>1</affiliation_code>
        </affiliation_list>
    </l_person_address>
</requested_by_address_key>
            <report_cc_delivery_emr_flag>N</report_cc_delivery_emr_flag>
            <report_delivery_do_not_deliver_flag>N</report_delivery_do_not_deliver_flag>
            <report_cc_delivery_do_not_deliver_flag>N</report_cc_delivery_do_not_deliver_flag>
            <report_delivery_email_flag>N</report_delivery_email_flag>
            <report_cc_delivery_email_flag>N</report_cc_delivery_email_flag>
            <affiliation_list>
                <affiliation_code>1</affiliation_code>
                <affiliation_code>109</affiliation_code>
            </affiliation_list>
        </l_person_address>
    </requested_by_address_key>
    <indication>DAT</indication>
```

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Interface to Create Internal System ID for External ID via External System

The RIS Services were updated so that if the c_child_patient node has an attribute called create_internal set to Y then if no internal patient is found or is already associated to the external MRN, a new row will be created.

The MIRTH mapping line required to create the attribute looks like:

```
tmp['Patient']['c_child_patient'].@create_internal = 'Y';
```

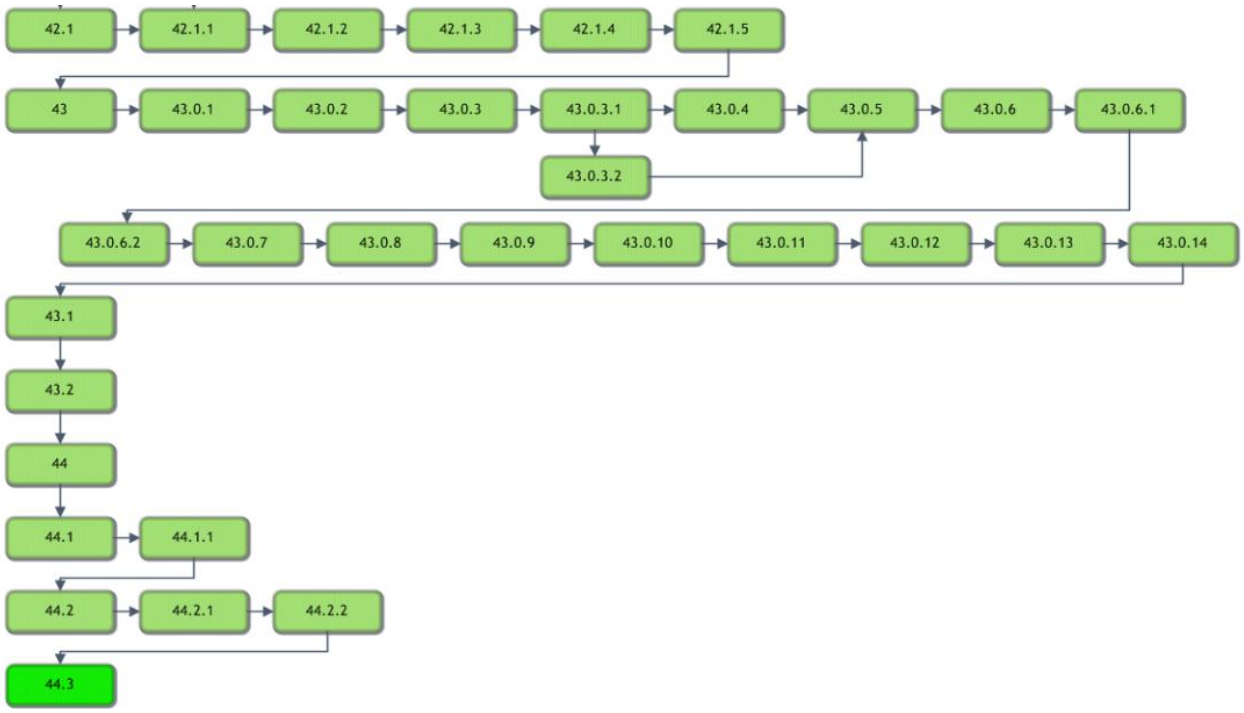
With this attribute on (Y), and the message sent to RIS with only the external identifier and a match is not found we will create an internal MRN for this patient. Alternatively if the attribute is "N" it will behave as it does today, sending the message to RIS and an internal ID will not be created.

In addition to the create_internal attribute, we also included the attributes of require_phone_match and require_gender_match, both valued with 'N'.
Examples:

```
tmp['Patient']['c_child_patient'].@require_phone_match = 'N';
tmp['Patient']['c_child_patient'].@require_gender_match = 'N';
```

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 6. Code Stream




**Legend:**

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 7. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 43 | - | 2.43.0.0.23715(3GB) | 2.43.0.0.23171 | 2.43.0.0.23715 | 2.43.0.0.23743 | Full Version Release |
| 43 | 1 | 2.43.0.1.23798(3GB) | 2.43.0.0.23171 | 2.43.0.1.23798 | 2.43.0.1.23770 | GUI.zip, Web Service, DB updates |
| 43 | 2 | 2.43.0.2.24017(3GB) | 2.43.0.0.23171 | 2.43.0.2.24017 | 2.43.0.2.24023 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 3 | 2.43.0.3.24298(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24283 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 3.1 | 2.43.0.3.24450(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24421 | GUI.zip, and DB updates |
| 43 | 3.2 | 2.43.0.3.24450(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24421a | DB updates |
| 43 | 4 | 2.43.0.4.24447(3GB) | 2.43.0.0.23171 | 2.43.0.4.24447 | 2.43.0.4.24442 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 5 | 2.43.0.4.24632(3GB) | 2.43.0.0.23171 | 2.43.0.4.24632 | 2.43.0.4.24560 | GUI.zip, Web Service and DB updates |
| 43 | 6 | 2.43.0.4.24(3GB) | 2.43.0.0.23171 | 2.43.0.4.24 | 2.43.0.4.24 | GUI.zip, Web Service and DB updates |
| 43 | 6.1 | 2.43.0.6.24937(3GB) | 2.43.0.0.23171 | 2.43.0.6.24937 | 2.43.0.6.24914 | GUI.zip, Web Service |
| 43 | 6.2 | 2.43.0.6.24970(3GB) | 2.43.0.0.23171 | 2.43.0.6.24970 | 2.43.0.6.24914 | GUI.zip, Web Service |
| 43 | 7 | 2.43.0.7.25258(3GB) | 2.43.0.0.23171 | 2.43.0.7.25258 | 2.43.0.7.25226 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 8 | 2.43.0.8.25440(3GB) | 2.43.0.0.23171 | 2.43.0.8.25440 | 2.43.0.8.25425 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 9 | 2.43.0.9.25477(3GB) | 2.43.0.0.23171 | 2.43.0.9.25477 | 2.43.0.8.25425 | GUI.zip and Web Service |
| 43 | 10 | 2.43.0.9.25477(3GB) | 2.43.0.0.23171 | 2.43.0.10.25477 | 2.43.0.8.25425 | Web Service |
| 43 | 11 | 2.43.0.11.25512(3GB) | 2.43.0.0.23171 | 2.43.0.11.25512 | 2.43.0.8.25425 | GUI.zip and Web Service |
| 43 | 12 | 2.43.0.12.25554(3GB) | 2.43.0.0.23171 | 2.43.0.12.25554 | 2.43.0.12.25536 | GUI.zip Web Service and DB Updates |
| 43 | 13 | 2.43.0.12.25610(3GB) | 2.43.0.0.23171 | 2.43.0.12.25610 | 2.43.0.12.25536 | GUI.zip and Web Service |
| 43 | 14 | 2.43.0.14.25644(3GB) | 2.43.0.0.23171 | 2.43.0.13.25610 | 2.43.0.12.25536 | GUI.zip |
| 43.1 | - | 2.43.1.0.25850(3GB) | 2.43.0.0.23171 | 2.43.1.0.25850 | 2.43.1.0.25771 | GUI.zip Web Service and DB Updates |
| 43.2 | - | 2.43.2.0.26864(3GB) | 2.43.0.0.23171 | 2.43.2.0.26864 | 2.43.1.0.25771 | GUI.zip and Web Service |
| 44 | - | 2.44.0.0.26570(3GB) | 2.44.0.0.26405 | 2.44.0.0.26570 | 2.44.0.0.26475 | Full Version Release |
| 44.1 | - | 2.44.0.0.26984(3GB) | 2.44.0.0.26405 | 2.44.0.0.26984 | 2.44.0.0.26906 | Gui.zip, Web Service, and DB |
| 44.1 | 1 | 2.44.1.1.27093(3GB) | 2.44.0.0.26405 | 2.44.1.0.26984 | 2.44.1.0.26906 | Gui.zip |
| 44.2 | | 2.44.2.0.27410(3GB) | 2.44.0.0.26405 | 2.44.2.0.27410 | 2.44.2.0.27365 | Gui.zip, Web Service, and DB |
| 44.2 | 1 | 2.44.2.1.27959(3GB) | 2.44.0.0.26405 | 2.44.2.1.27959 | 2.44.2.1.27909 | Gui.zip, Web Service, and DB |
| 44.2 | 2 | 2.44.2.1.27959(3GB) | 2.44.0.0.26405 | 2.44.2.2.28094 | 2.44.2.1.27909 | Web Service |
| **44.3** | **-** | **2.44.3.0.28292** | **2.44.0.0.26405** | **2.44.3.0.28277** | **2.44.3.0.28138** | **Gui.zip, Web Service, and DB** |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 8. Resolved Defects

Bugs Suggested Features and Support Issues resolved in build 2.44.3. The extract is taken from Redmine bug tracking system and only displays defects resolved in 2.44.3.

| Bug # | Priority | Subject | Category | Found Version |
|---|---|---|---|---|
| 6032 | Normal | Scheduling - New Appointment Calendar - Selecting time on calendar does not check for room availability. | Thick Client GUI | 1.42 |
| 7270 | Normal | Note column in personel causing errors | Admin-Clinical Data | 2.43 |
| 7497 | Normal | biopsy surgeon selection shows referrings and other personnel that are not surgeons | Mammography | 2.43.0.5 |
| 7932 | Normal | An error in the image caching process can terminate RIS | PACS (eRAD) Int - RIS only | 2.43.0.12 |
| 8428 | High | Collection was modified error related to worklist views | Radiology Reporting | 2.43.1 |
| 9150 | High | Insurance Eligibility - CPT costs needed to be multiplied by units | | 43.1 |
| 9323 | High | IVT - MRN isn't read-only on patient tab. | Thick Client GUI | 2.43.2 |
| 9425 | Normal | Amount to collect not updating on Schedule Order/Review screens when blanked out | Billing | 2.44 |
| 9448 | High | Review Tab - Estimated responsibilities when zero should be handled better | Billing | 43.1 |
| 9471 | Normal | Warning needed if selected insurance has a blank policy number | Insurance Eligibility | 43.1 |
| 9480 | Low | Reporting Radiologist - PowerScribe error and crash opening report with powerscribe integration | Radiology Reporting | 2.43.1 |
| 9513 | Normal | AppointmentBook is showing cancelled studies | Scheduling | 2.44.2 |
| 9523 | Urgent | Old layout for dictation/editing are not maintained into the 44 upgrade. | Radiology Reporting | 44 |
| 9524 | Urgent | Bacode scanner not opening PS360 report when set to Diagnose on accession number | Powerscribe Integration | 2.44.2 |
| 9525 | Normal | Assigned Radiologist is not recognized as assigned in the Assign to Radiologist window | Radiology Reporting | 2.44 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 9530 | High | Error arriving studies from same order | Reception | 2.44.2 |
| 9532 | Normal | error changing pre-cert info on registration | Reception | 2.44.2 |
| 9543 | High | Reporting Radiologist - M*Modal interactive dictation performance issues when using encrypt audio method | Radiology Reporting | 2.44.2 |
| 9554 | High | the wedge should not expand the virtual table c_order_ref_addresses | Web Services/DB | 2.44.2 |
| 9555 | Urgent | Post message routine in RIS Services (wedge) fails | Web Services/DB | 2.44.2 |
| 9559 | Normal | validate MS-SQL Server 2008 R2 SP3 | DB | 2.44.2 |
| 9574 | High | Insurance Eligibility - Performance issue as we add more eligibility configurations | | 44.2 |
| 9586 | Normal | DD Engine updates pending lay letters to be cancelled is a causing database blocking | DB | 2.44.2 |
| 9608 | Normal | Reporting Radiologist - Exception on application exit using Powerscribe | Radiology Reporting | 2.44.2 |
| 9632 | Normal | Assigning an exam to a chair in Pending Dictation WL produced an error. | Chair/County workflow | 2.44.3 |
| 9646 | High | Insurance Eligibility - Amount to collect issue in "Perform Exam" | | 44.2 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 9. Known Limitations

The following are Bugs Suggested Features and Support Issues found in build 2.44.3. Bugs reported in previous versions are not captured as Known Limitation in this document.

| # | Status | Priority | Subject |
|---|---|---|---|
| 9634 | New | High | Contrast is being deleted when View/Edit is opened |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# User Release Notes

for eRAD RIS
Version 2
Build 44.4

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD Inc.

# Table of Contents

1. Purpose ..... 3
2. Intended Audience ..... 3
3. Installing/Accessing the Application ..... 3
4. Existing Access Strings Required for New Feature in B2.44.4 ..... 4
5. New Features and Enhancements ..... 5
   Update Patient Insurance via Interface ..... 5
   Ability to Cancel Outside Reads via Interface ..... 7
   Ability to Specify Person Address Key via Interface ..... 7
   Forms and Labels – Site Code added to Printing Criteria ..... 8
   Patient Portal – Configurable Time for Reports and Images Availability ..... 8
6. Code Stream ..... 9
7. eRAD RIS Release Version Numbers ..... 10
8. Resolved Defects ..... 11
9. Known Limitations ..... 12

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD Inc.

# 1. Purpose

This document describes some of the new features and changes implemented in eRAD RIS as of the end of Sprint 44.4 and subsequent server releases. This version of eRAD RIS is referred to as Build 2.44.4

Only features which can be visually demonstrated to the user will be outlined in this document.

# 2. Intended Audience

This document is created by the RIS Development team for the RadNet RIS management team.

# 3. Installing/Accessing the Application

The installation guide for the eRAD RIS client have been posted to the RadNet Wiki page at http://mdbal01rdtweb/Wiki/

Under the RIS menu click on the rRIS page. The credentials to access the page are:
Username: rRIS
Password: Summerside

*Please note that Build 2.44.4 is considered a new release of the application. It does not require a reinstallation of eRAD RIS. If users choose to reinstall, this is accomplished by navigating to the eRAD RIS shared installation drive and running the CoreInstall.bat file (ex: I:\RISDeployment\CoreInstall.bat)*

If you experience difficulties accessing the application please do not hesitate to contact Darcy Noye with the PEI RIS Development Team.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD Inc.

# 4. Existing Access Strings Required for New Feature in B2.44.4

| Setting Placeholder | Setting | Default | Purpose / Controls Access to |
|---|---|---|---|
| System Configuration | PatientPortalImageHoldPeriodDays | 3 | The number of days from the time the study is performed to the date that the patient will be able to see the images. |
| System Configuration | PatientPortalReportHoldPeriodDays | 3 | The number of days from the time a report is signed to the date that the patient will be able to see it. |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD Inc.

# 5. New Features and Enhancements

## Update Patient Insurance via Interface

Patient insurance information needs to come in via the interface. This was previously disabled during development of EMR workflow. In the most common cases an insurance will need to be attached to a visit based on a given accession number.

The interface now allows the incoming message to contain c_patient_insurance and c_visit_x_patient_insurance rows. This allows inbound message to add or update multiple insurance policies and associate one or more of them to the visit referred to in the message. The interface tries to look up the given insurance policy based on the policy number and carrier code, which are considered to be the minimum amount of criteria given. If a row is found for this patient is used, otherwise a new row is added. In order to link to the current visit a c_visit_x_patient_insurance row needs to be included in the message, otherwise the c_patient_insurance is only attached to the patient and not the visit.

The following message will create or update an insurance belonging to the patient and associate that insurance to the visit to which the study identified by the accession number belongs. The patient_insurance_key nodes (in blue) identify that this insurance policy should be attached to this visit, meaning the "Use" checkbox will be selected. If multiple insurances are contained in the message and should be attached to the visit then each must have a unique patient_insurance_key and a corresponding c_visit_x_patient_insurance node.

```
<StudyContainer MainAction="HL7_StudyUpdated">
    <Patient>
        <c_patient_insurance>
            <patient_insurance_key>1</patient_insurance_key>
            <carrier_code>0601053</carrier_code>
            <policy_number>B-88968</policy_number>
            <group_number>123</group_number>
        </c_patient_insurance>
    </Patient>
    <Visit>
        <c_visit_x_patient_insurance>
            <patient_insurance_key>1</patient_insurance_key>
        </c_visit_x_patient_insurance>
    </Visit>
    <Study>
        <c_study>
```

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD Inc.

```
                    <accession_number>1000710</accession_number>
                </c_study>
            </Study>
</StudyContainer>
```

If the section of <Visit> doesn't exist or the node <c_visit_x_patient_insurance> doesn't exist the insurance policy will be added, but will not be used with the visit (Use checkbox will not be selected).

Note that the interface requires only policy_number and carrier_code nodes for the c_patient_insurance table, but it accepts all fields belonging to the c_patient_insurance table.

In addition to a specifying the accession number to associate the insurance other options exists, such as

- <patient_id> with <issuer_of_patient_id>
- <visit_number>

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD Inc.

## Ability to Cancel Outside Reads via Interface

eRAD RIS prevents some status changes via interface once the study is in ExamDone status. For outside reads received from another system we need to be able to cancel them.

The following HL7 main action will cancel a study in Exam Done, Exam Done (Tech Only) and Hold Code Complete status.

```
<StudyContainer MainAction="HL7_StudyCancelled">
    <Study>
        <c_study>
            <accession_number>1000853</accession_number>
        </c_study>
    </Study>
</StudyContainer>
```

## Ability to Specify Person Address Key via Interface

In previous versions when a message with a referring physician was received we couldn't specify which address (if multiple) to use. With the node displayed below, the <requested_by_address_key> will assign the correct address to the study based on the address key.

```
<StudyContainer MainAction="HL7_StudyUpdated">
    <Patient>
    </Patient>
    <Visit>
    </Visit>
    <Order>
        <c_order>
            <_patient_id>10686</_patient_id>
            <_issuer_of_patient_id>system</_issuer_of_patient_id>
            <requested_by_person_key>20180</requested_by_person_key>
            <requested_by_address_key>23752</requested_by_address_key>
        </c_order>
    </Order>
    <Study>
        <c_study>
            <accession_number>1009942</accession_number>
        </c_study>
    </Study>
</StudyContainer>
```

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD Inc.

## Forms and Labels – Site Code added to Printing Criteria

The ability to filter the printing criteria of a form by site has been added. The column "site" works in same manner as the existing columns. By default all sites will be included in the printing criteria. The user will need to manually edit to filter the form by site.

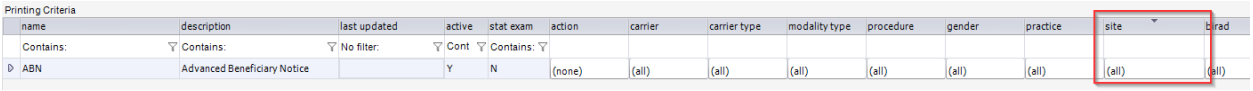



**Figure 5.1 – Site filter added to Forms and Labels Printing Criteria**

Multiple printing criteria rows can be added for each form if the action or availability of the form is different.

## Patient Portal – Configurable Time for Reports and Images Availability

After a report is signed the report itself and the images associated with the report should be held from view for a specific time period via the Patient Portal.

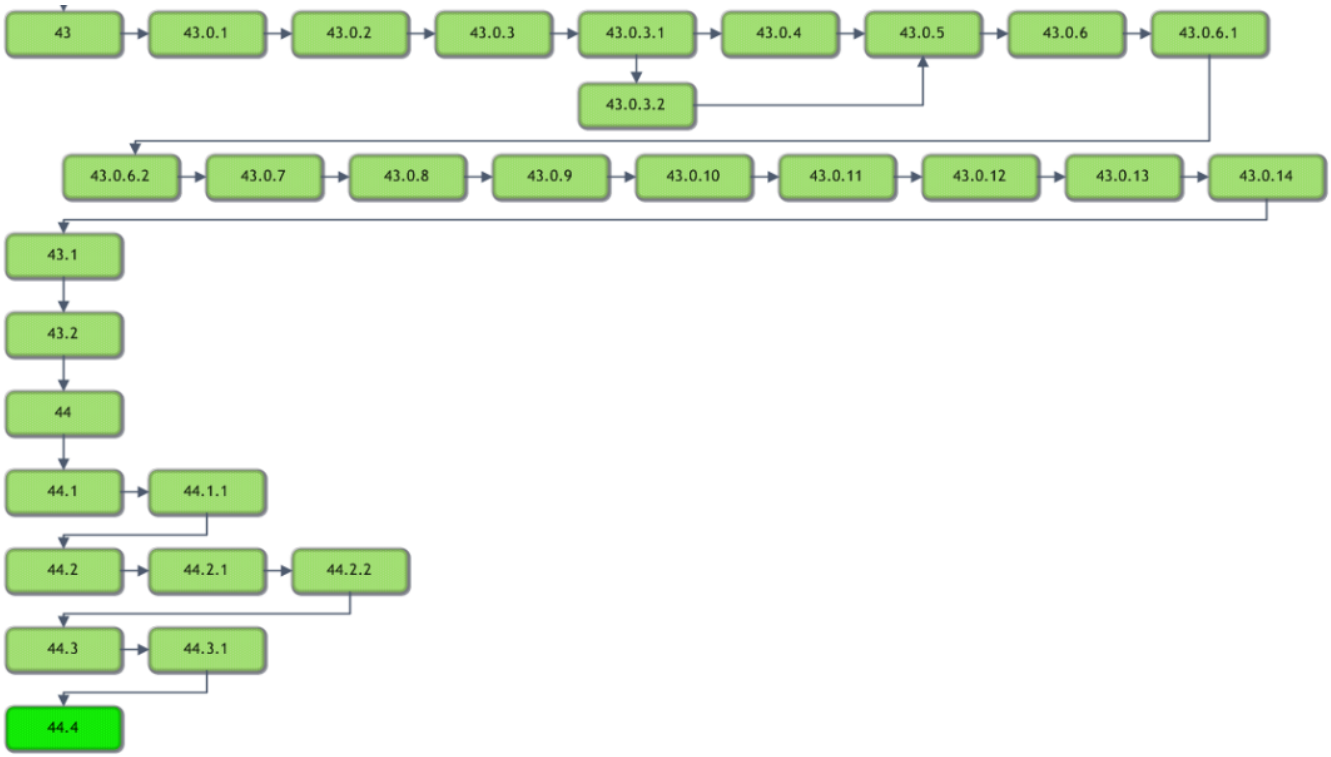
We have introduced 2 new configuration settings to control how long the report and images will be withheld from view on the patient portal.

The system configuration setting of "**PatientPortalImageHoldPeriodDays**" with a default of 3 will determine the number in days from the time the study is performed that the patient will be able to view the images on the patient portal

The system configuration setting of "**PatientPortalReportHoldPeriodDays**" with a default of 3 will determine the number in days from the time the report is signed until the patient can view the report on the patient portal

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD Inc.

# 6. Code Stream




**Legend:**

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD Inc.

# 7. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 43 | - | 2.43.0.0.23715(3GB) | 2.43.0.0.23171 | 2.43.0.0.23715 | 2.43.0.0.23743 | Full Version Release |
| 43 | 1 | 2.43.0.1.23798(3GB) | 2.43.0.0.23171 | 2.43.0.1.23798 | 2.43.0.1.23770 | GUI.zip, Web Service, DB updates |
| 43 | 2 | 2.43.0.2.24017(3GB) | 2.43.0.0.23171 | 2.43.0.2.24017 | 2.43.0.2.24023 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 3 | 2.43.0.3.24298(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24283 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 3.1 | 2.43.0.3.24450(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24421 | GUI.zip, and DB updates |
| 43 | 3.2 | 2.43.0.3.24450(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24421a | DB updates |
| 43 | 4 | 2.43.0.4.24447(3GB) | 2.43.0.0.23171 | 2.43.0.4.24447 | 2.43.0.4.24442 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 5 | 2.43.0.4.24632(3GB) | 2.43.0.0.23171 | 2.43.0.4.24632 | 2.43.0.4.24560 | GUI.zip, Web Service and DB updates |
| 43 | 6 | 2.43.0.4.24(3GB) | 2.43.0.0.23171 | 2.43.0.4.24 | 2.43.0.4.24 | GUI.zip, Web Service and DB updates |
| 43 | 6.1 | 2.43.0.6.24937(3GB) | 2.43.0.0.23171 | 2.43.0.6.24937 | 2.43.0.6.24914 | GUI.zip, Web Service |
| 43 | 6.2 | 2.43.0.6.24970(3GB) | 2.43.0.0.23171 | 2.43.0.6.24970 | 2.43.0.6.24914 | GUI.zip, Web Service |
| 43 | 7 | 2.43.0.7.25258(3GB) | 2.43.0.0.23171 | 2.43.0.7.25258 | 2.43.0.7.25226 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 8 | 2.43.0.8.25440(3GB) | 2.43.0.0.23171 | 2.43.0.8.25440 | 2.43.0.8.25425 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 9 | 2.43.0.9.25477(3GB) | 2.43.0.0.23171 | 2.43.0.9.25477 | 2.43.0.8.25425 | GUI.zip and Web Service |
| 43 | 10 | 2.43.0.9.25477(3GB) | 2.43.0.0.23171 | 2.43.0.10.25477 | 2.43.0.8.25425 | Web Service |
| 43 | 11 | 2.43.0.11.25512(3GB) | 2.43.0.0.23171 | 2.43.0.11.25512 | 2.43.0.8.25425 | GUI.zip and Web Service |
| 43 | 12 | 2.43.0.12.25554(3GB) | 2.43.0.0.23171 | 2.43.0.12.25554 | 2.43.0.12.25536 | GUI.zip Web Service and DB Updates |
| 43 | 13 | 2.43.0.12.25610(3GB) | 2.43.0.0.23171 | 2.43.0.12.25610 | 2.43.0.12.25536 | GUI.zip and Web Service |
| 43 | 14 | 2.43.0.14.25644(3GB) | 2.43.0.0.23171 | 2.43.0.13.25610 | 2.43.0.12.25536 | GUI.zip |
| 43.1 | - | 2.43.1.0.25850(3GB) | 2.43.0.0.23171 | 2.43.1.0.25850 | 2.43.1.0.25771 | GUI.zip Web Service and DB Updates |
| 43.2 | - | 2.43.2.0.26864(3GB) | 2.43.0.0.23171 | 2.43.2.0.26864 | 2.43.1.0.25771 | GUI.zip and Web Service |
| 44 | - | 2.44.0.0.26570(3GB) | 2.44.0.0.26405 | 2.44.0.0.26570 | 2.44.0.0.26475 | Full Version Release |
| 44.1 | - | 2.44.0.0.26984(3GB) | 2.44.0.0.26405 | 2.44.0.0.26984 | 2.44.0.0.26906 | Gui.zip, Web Service, and DB |
| 44.1 | 1 | 2.44.1.1.27093(3GB) | 2.44.0.0.26405 | 2.44.1.0.26984 | 2.44.1.0.26906 | Gui.zip |
| 44.2 | | 2.44.2.0.27410(3GB) | 2.44.0.0.26405 | 2.44.2.0.27410 | 2.44.2.0.27365 | Gui.zip, Web Service, and DB |
| 44.2 | 1 | 2.44.2.1.27959(3GB) | 2.44.0.0.26405 | 2.44.2.1.27959 | 2.44.2.1.27909 | Gui.zip, Web Service, and DB |
| 44.2 | 2 | 2.44.2.1.27959(3GB) | 2.44.0.0.26405 | 2.44.2.2.28094 | 2.44.2.1.27909 | Web Service |
| 44.3 | - | 2.44.3.0.28292 | 2.44.0.0.26405 | 2.44.3.0.28277 | 2.44.3.0.28138 | Gui.zip, Web Service, and DB |
| 44.3 | 1 | 2.44.3.1.28535(3GB) | 2.44.0.0.26405 | 2.44.3.1.28535 | 2.44.3.0.28138 | Gui.zip and Web Service |
| **44.4** | **-** | **2.44.4.0.28762(3GB)** | **2.44.0.0.26405** | **2.44.4.0.28762** | **2.44.4.0.28676** | **Gui.zip, Web Server, DB, Management Report Deployment** |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD Inc.

# 8. Resolved Defects

Bugs Suggested Features and Support Issues resolved in build 2.44.4. The extract is taken from Redmine bug tracking system and only displays defects resolved in 2.44.4.

| Bug # | Priority | Subject | Category | Found Version |
|---|---|---|---|---|
| 10407 | Normal | Dictations by User Report - update column header | Mgt Reports | 2.44 |
| 10372 | High | DTC exception when attempting to manually change status | Web Services/DB | 44.3 |
| 10351 | High | Insurance Eligibility - ?Edit Image Request? is setting the amount to collect to zero | | 44.3 |
| 10343 | Normal | should not be able to view report or images until a release period has passed | Connect Patient Portal 1.x | 1.0.0.0 |
| 10319 | Normal | Edit Send to Job does not perform a referring doctor search | Document Distribution | 2.44.3 |
| 10312 | High | Reporting Radiologist - View menu will not display for radiologists if not granted access to some menu items | Radiology Reporting | 2.44.3 |
| 9698 | Normal | Operations \ OTC QA Report - Potential OTC doubling up | Mgt Reports | 2.43.1 |
| 9675 | Normal | Person address key cannot be specified directly on an inbound message | Interfaces | 2.44 |
| 9656 | Normal | conversion failed error when posting payment for sites with a "-" in the site_code | Web Services/DB | 2.43 |
| 9634 | High | Contrast is being deleted when View/Edit is opened | Scheduling | 2.44.3 |
| 4612 | Normal | IVT - add logic to retain the pre-cert when an exam requires pre-cert and is rescheduled if an expire date is entered<br>NOTE: This feature was released in B44. Corrected issue with expiry date in B44.4 | Thick Client GUI | 2.44.1 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD Inc.

# 9. Known Limitations

The following are Bugs Suggested Features and Support Issues found in build 2.44.4. Bugs reported in previous versions are not captured as Known Limitation in this document.

| # | Status | Priority | Subject |
|---|---|---|---|
| 10440 | New | Normal | Error when adding a contrast to a Cancelled or Discontinued Procedure |
| 10438 | New | Normal | Error when deleting a contrast that has the Max Value exceeded |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD Inc.

# Server Update

For eRAD RIS
Version 2.0
Build 44.4
Update 44.4.1

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# Table of Contents

1. Resolved Items ..... 3
2. Code Stream ..... 4
3. Package Contents ..... 5
4. Intended Audience ..... 7
5. Who is affected ..... 7
6. eRAD RIS Release Version Numbers ..... 8
7. Installing ..... 9
   Client/GUI ..... 9
   Web Service ..... 10

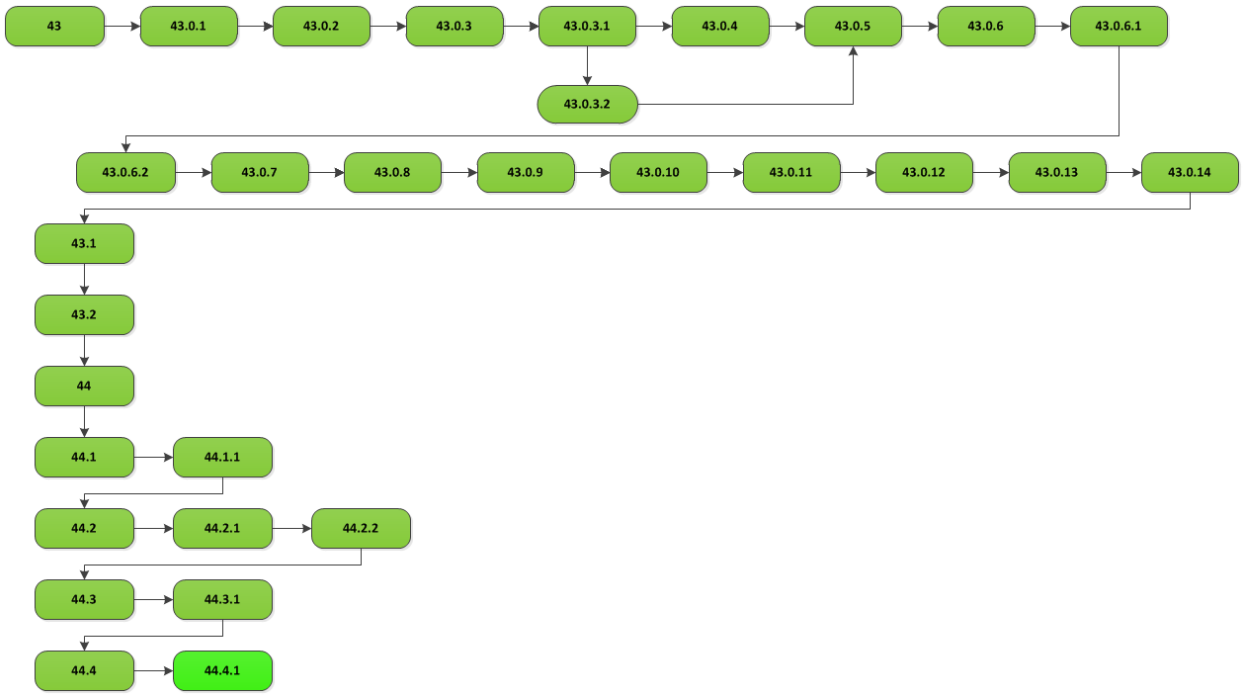
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## 1. Resolved Items

| Redmine # | Subject | Priority |
|---|---|---|
| 10527 | Inserts/updates to c_study_item via interface do not work | Immediate |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## 2. Code Stream




**Legend:**

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## 3. Package Contents

Files included for this server update:

1. **GUI_ZIP_Updates** contains 1 file:
   rRIS_1.3.44.4.1.28953

2. **rRISService** folder contains:
   2.1. ABCpdf.dll
   2.2. ABCpdf9-32.dll
   2.3. ABCpdf9-64.dll
   2.4. Antlr3.Runtime.dll
   2.5. CDSJobManager.dll
   2.6. CDSJobManager.pdb
   2.7. CdsLib.dll
   2.8. CdsLib.xml
   2.9. CdsLib.XmlSerializers.dll
   2.10. CommonLib.dll
   2.11. CommonLib.pdb
   2.12. DDEngine.dll
   2.13. DDEngine.pdb
   2.14. DiffPlex.dll
   2.15. Interop.FAXCOMEXLib.dll
   2.16. Microsoft.Practices.EnterpriseLibrary.Caching.dll
   2.17. Microsoft.Practices.EnterpriseLibrary.Caching.pdb
   2.18. Microsoft.Practices.EnterpriseLibrary.Common.dll
   2.19. Microsoft.Practices.EnterpriseLibrary.Common.pdb
   2.20. Microsoft.Practices.EnterpriseLibrary.Logging.dll
   2.21. Microsoft.Practices.EnterpriseLibrary.Logging.pdb
   2.22. Microsoft.Practices.ServiceLocation.dll
   2.23. Microsoft.Practices.ServiceLocation.pdb
   2.24. Microsoft.Practices.Unity.dll
   2.25. Microsoft.Practices.Unity.Interception.dll
   2.26. Microsoft.Practices.Unity.Interception.pdb
   2.27. Microsoft.Practices.Unity.pdb
   2.28. Microsoft.ReportViewer.Common.dll
   2.29. Microsoft.ReportViewer.WinForms.dll
   2.30. Microsoft.ReportViewer.WinForms.xml
   2.31. Newtonsoft.Json.dll
   2.32. Newtonsoft.Json.xml
   2.33. NLog.dll
   2.34. O2S.Components.PDFRender4NET.dll
   2.35. PdfSharp.dll
   2.36. PDFToImages.exe
   2.37. Radar.Api.Client.dll
   2.38. Radar.Api.Client.pdb
   2.39. Radar.Api.Model.dll
   2.40. Radar.Api.Model.pdb
   2.41. Radar.Common.dll
   2.42. Radar.Common.pdb
   2.43. Radar.Common.WebClient.dll
   2.44. Radar.Common.WebClient.pdb
   2.45. Radar.DirectMessaging.Client.dll
   2.46. Radar.DirectMessaging.Client.pdb
   2.47. Radar.DirectMessaging.Model.dll
   2.48. Radar.DirectMessaging.Model.pdb
   2.49. rRISServices.exe
   2.50. rRISServices.pdb
   2.51. rRISServicesx64.exe
   2.52. ScheduledTaskManager.dll
   2.53. ScheduledTaskManager.pdb
   2.54. ServicesConfigWizard.exe
   2.55. ServicesConfigWizard.pdb
   2.56. SignatureApprovalService.exe
   2.57. SignatureApprovalService.pdb
   2.58. System.Net.Http.dll
   2.59. System.Net.Http.Formatting.dll
   2.60. System.Web.Http.dll
   2.61. System.Web.Http.SelfHost.dll
   2.62. System.Web.Http.SelfHost.xml
   2.63. System.Web.Http.WebHost.dll
   2.64. System.Web.Http.WebHost.xml
   2.65. System.Web.Http.xml
   2.66. System.Web.Mvc.dll
   2.67. System.Web.Mvc.xml
   2.68. System.Web.Optimization.dll
   2.69. System.Web.Razor.dll
   2.70. System.Web.Razor.xml
   2.71. System.Web.WebPages.Deployment.dll
   2.72. System.Web.WebPages.Deployment.xml
   2.73. System.Web.WebPages.dll
   2.74. System.Web.WebPages.Razor.dll
   2.75. System.Web.WebPages.Razor.xml
   2.76. System.Web.WebPages.xml
   2.77. Tourreau.Gilles.FaxDotNet.dll
   2.78. Tourreau.Gilles.FaxDotNet.pdb
   2.79. Tourreau.Gilles.FaxDotNet.xml
   2.80. WCFService.dll
   2.81. WCFService.pdb
   2.82. WCFServiceTests.dll
   2.83. WCFServiceTests.pdb
   2.84. WebApi.dll

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

2.85. WebApi.pdb
2.86. WebGrease.dll
2.87. Wedge.exe
2.88. Wedge.pdb

2.1.1 **XSL** folder contains:

2.1.1.1. **Stylesheets** folder contains:

A. CDAToHTMLCompleteReport.xslt
B. CDAToHTMLCompleteReportDark.xslt
C. CDAToHTMLImpressionSection.xslt
D. CDATorRIS.xslt
E. CDAToTxt.xslt
F. DocumentModelReport.xslt
G. DocumentModelReportAsXml.xslt
H. **CDA** folder contains:

i. C-CDA.xsl
ii. eRadStylesheet.xsl
iii. generalTemplates.xsl
iv. header.xsl
v. QRDA.xsl
vi. QrdaLevel3_Cypress2.4.0.xsl
vii. QrdaLevel3_ViewHtml.xsl
viii. sectionAdministeredMedications.xsl
ix. sectionAllergies.xsl
x. sectionEncounters.xsl
xi. sectionFindings.xsl
xii. sectionFuncCogStatus.xsl
xiii. sectionImmunizations.xsl
xiv. sectionInstructions.xsl
xv. sectionMedications.xsl
xvi. sectionPlanOfCare.xsl
xvii. sectionProblemList.xsl
xviii. sectionProcedures.xsl
xix. sectionQRDAMeasures.xsl
xx. sectionQRDAPatientData.xsl
xxi. sectionQRDAReporting.xsl
xxii. sectionReasonForVisit.xsl
xxiii. sectionResults.xsl
xxiv. sectionSocialHistory.xsl
xxv. sectionVitalSigns.xsl

2.1.2 **Deploy** folder contains 3 files:

2.1.2.1. applicationsettings.config
2.1.2.2. releaseVersion-connectionstrings.config
2.1.2.3. services.config

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## 4. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

## 5. Who is affected

Build 44.4 installs. This server update must be applied to 44.4

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## 6. eRAD RIS Release Version Numbers

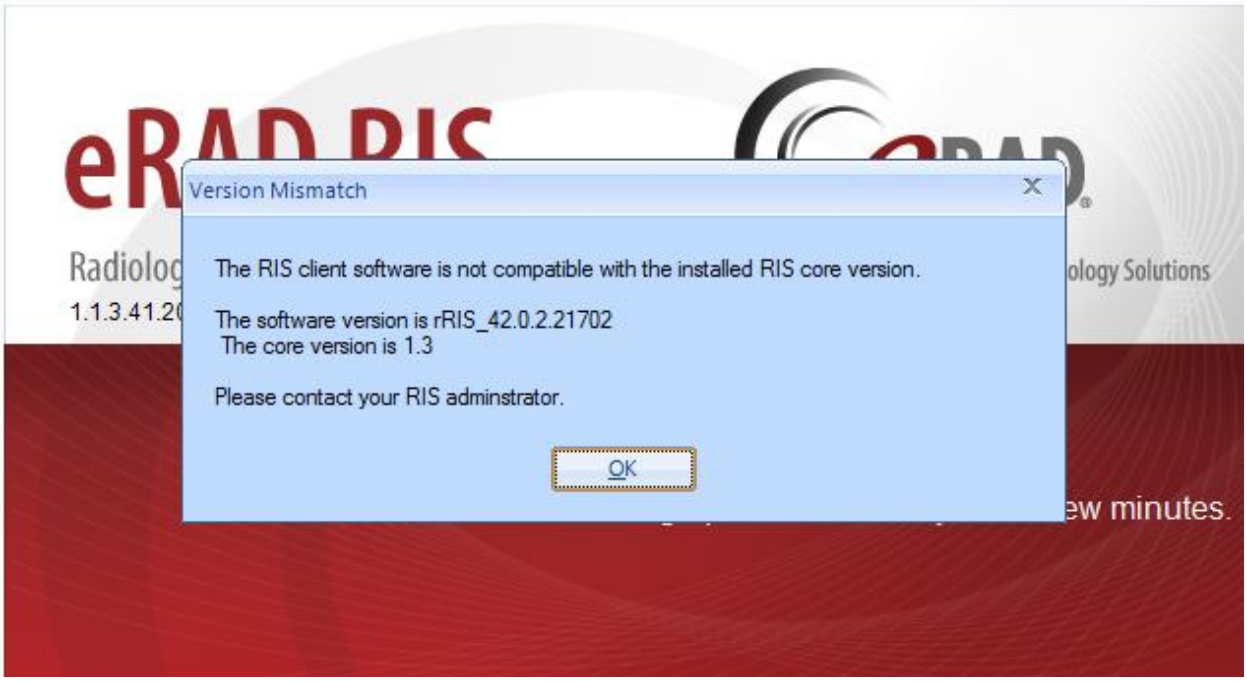
| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 43 | - | 2.43.0.0.23715(3GB) | 2.43.0.0.23171 | 2.43.0.0.23715 | 2.43.0.0.23743 | Full Version Release |
| 43 | 1 | 2.43.0.1.23798(3GB) | 2.43.0.0.23171 | 2.43.0.1.23798 | 2.43.0.1.23770 | GUI.zip, Web Service, DB updates |
| 43 | 2 | 2.43.0.2.24017(3GB) | 2.43.0.0.23171 | 2.43.0.2.24017 | 2.43.0.2.24023 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 3 | 2.43.0.3.24298(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24283 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 3.1 | 2.43.0.3.24450(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24421 | GUI.zip, and DB updates |
| 43 | 3.2 | 2.43.0.3.24450(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24421a | DB updates |
| 43 | 4 | 2.43.0.4.24447(3GB) | 2.43.0.0.23171 | 2.43.0.4.24447 | 2.43.0.4.24442 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 5 | 2.43.0.4.24632(3GB) | 2.43.0.0.23171 | 2.43.0.4.24632 | 2.43.0.4.24560 | GUI.zip, Web Service and DB updates |
| 43 | 6 | 2.43.0.4.24(3GB) | 2.43.0.0.23171 | 2.43.0.4.24 | 2.43.0.4.24 | GUI.zip, Web Service and DB updates |
| 43 | 6.1 | 2.43.0.6.24937(3GB) | 2.43.0.0.23171 | 2.43.0.6.24937 | 2.43.0.6.24914 | GUI.zip, Web Service |
| 43 | 6.2 | 2.43.0.6.24970(3GB) | 2.43.0.0.23171 | 2.43.0.6.24970 | 2.43.0.6.24914 | GUI.zip, Web Service |
| 43 | 7 | 2.43.0.7.25258(3GB) | 2.43.0.0.23171 | 2.43.0.7.25258 | 2.43.0.7.25226 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 8 | 2.43.0.8.25440(3GB) | 2.43.0.0.23171 | 2.43.0.8.25440 | 2.43.0.8.25425 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 9 | 2.43.0.9.25477(3GB) | 2.43.0.0.23171 | 2.43.0.9.25477 | 2.43.0.8.25425 | GUI.zip and Web Service |
| 43 | 10 | 2.43.0.9.25477(3GB) | 2.43.0.0.23171 | 2.43.0.10.25477 | 2.43.0.8.25425 | Web Service |
| 43 | 11 | 2.43.0.11.25512(3GB) | 2.43.0.0.23171 | 2.43.0.11.25512 | 2.43.0.8.25425 | GUI.zip and Web Service |
| 43 | 12 | 2.43.0.12.25554(3GB) | 2.43.0.0.23171 | 2.43.0.12.25554 | 2.43.0.12.25536 | GUI.zip Web Service and DB Updates |
| 43 | 13 | 2.43.0.12.25610(3GB) | 2.43.0.0.23171 | 2.43.0.12.25610 | 2.43.0.12.25536 | GUI.zip and Web Service |
| 43 | 14 | 2.43.0.14.25644(3GB) | 2.43.0.0.23171 | 2.43.0.13.25610 | 2.43.0.12.25536 | GUI.zip |
| 43.1 | - | 2.43.1.0.25850(3GB) | 2.43.0.0.23171 | 2.43.1.0.25850 | 2.43.1.0.25771 | GUI.zip Web Service and DB Updates |
| 43.2 | - | 2.43.2.0.26864(3GB) | 2.43.0.0.23171 | 2.43.2.0.26864 | 2.43.1.0.25771 | GUI.zip and Web Service |
| 44 | - | 2.44.0.0.26570(3GB) | 2.44.0.0.26405 | 2.44.0.0.26570 | 2.44.0.0.26475 | Full Version Release |
| 44.1 | - | 2.44.0.0.26984(3GB) | 2.44.0.0.26405 | 2.44.0.0.26984 | 2.44.0.0.26906 | Gui.zip, Web Service, and DB |
| 44.1 | 1 | 2.44.1.1.27093(3GB) | 2.44.0.0.26405 | 2.44.1.0.26984 | 2.44.1.0.26906 | Gui.zip |
| 44.2 | | 2.44.2.0.27410(3GB) | 2.44.0.0.26405 | 2.44.2.0.27410 | 2.44.2.0.27365 | Gui.zip, Web Service, and DB |
| 44.2 | 1 | 2.44.2.1.27959(3GB) | 2.44.0.0.26405 | 2.44.2.1.27959 | 2.44.2.1.27909 | Gui.zip, Web Service, and DB |
| 44.2 | 2 | 2.44.2.1.27959(3GB) | 2.44.0.0.26405 | 2.44.2.2.28094 | 2.44.2.1.27909 | Web Service |
| 44.3 | - | 2.44.3.0.28292 | 2.44.0.0.26405 | 2.44.3.0.28277 | 2.44.3.0.28138 | Gui.zip, Web Service, and DB |
| 44.3 | 1 | 2.44.3.1.28535(3GB) | 2.44.0.0.26405 | 2.44.3.1.28535 | 2.44.3.0.28138 | Gui.zip and Web Service |
| 44.4 | - | 2.44.4.0.28762(3GB) | 2.44.0.0.26405 | 2.44.4.0.28762 | 2.44.4.0.28676 | Gui.zip, Web Server, DB, Management Report Deployment |
| **44.4** | **1** | **2.44.4.1.28953(3GB)** | **2.44.0.0.26405** | **2.44.4.1.28953** | **2.44.4.0.28676** | **Gui.zip and Web Server** |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# 7. Installing

## Client/GUI

1) Copy and replace the current rRIS…zip file with the rRIS_1.3.44.4.1.28953.zip file provided with this release.
   Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.




If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_44.4.1.28953→ rRIS_1.3.44.4.1.28953
NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

**NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## Web Service

1. The web service upgrade consists of replacing the files in the RIS Web Service directory with the files supplied in the rRISService folder with this build. Always create a backup of the files being replaced. This upgrade includes 88 files in the rRISService folder and 2 sub folders. Of those folders, 1 is a folder titled **"XSL"** that contains a sub folder and files within the subfolder. Another folder is titled **"deploy"** that contains the new .config files that will be deployed with the user of the file called "ServicesConfigWizard.exe" (see instructions below).

## Services Configuration Wizard

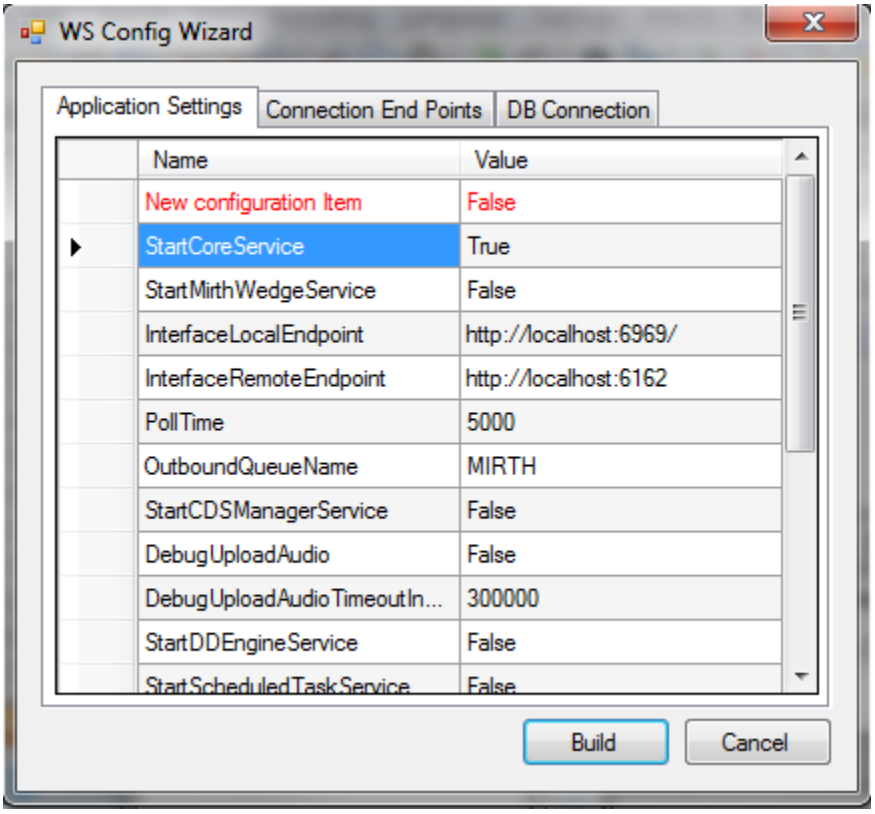
With the release of 42 to decrease the chance of losing configuration setting and missing new configuration options, we will no longer include the configuration files in the release in the main set of files, but they will now exist in a "deploy" folder, which will contain the three site configurable config files; applicationsettings, connectionstrings, services as well as a copy of the rRISServices.exe configuration file. The contents of this folder should not be required to be touched.

On the install of a new service, all files will be copied to the appropriate locations on the server (no configurations will be over written). If instructed or to confirm no new configurations have been added the user can run the new application "ServicesConfigWizard.exe"

This application will read the existing configuration file(s) (if files exist), and compare to the provided new configuration files then will display three tabs, for each configuration file:
**Application Settings:** all existing configuration value will be displayed, if there are any new configuration entries they will be displayed in red.

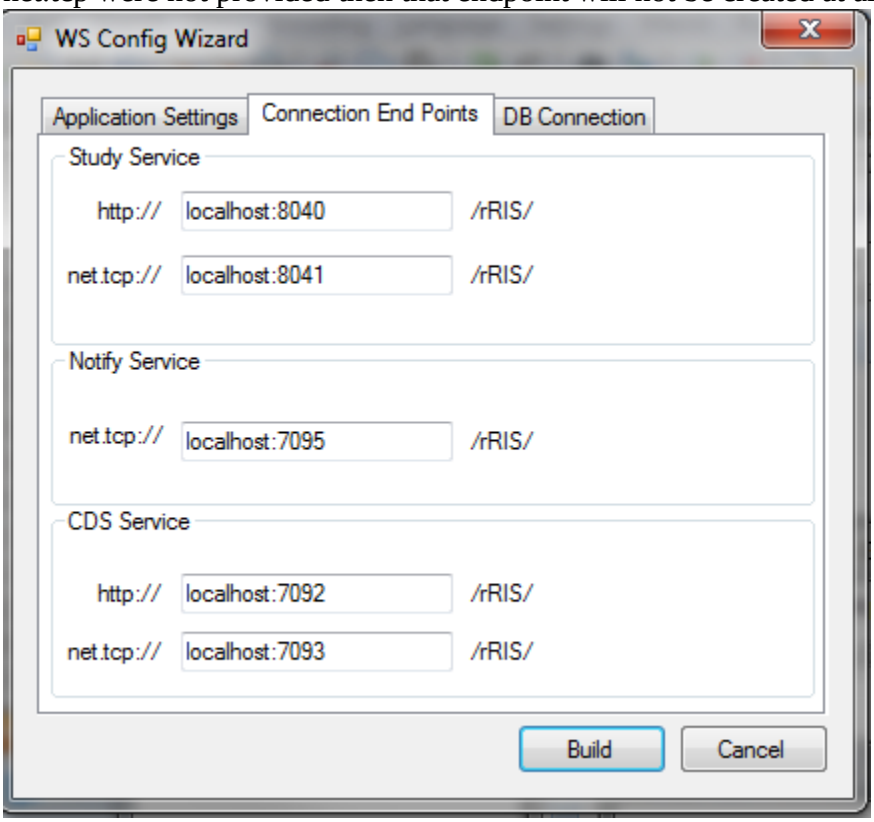
**NOTE:** the rRISServices.exe.config file is also included in the deploy folder. If this file has changes it **will not** update your current file in the Web Service directory. Any changes to this file will require a manual update of the rRISServices.exe.config and rRISServicesx64.exe.config files.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.



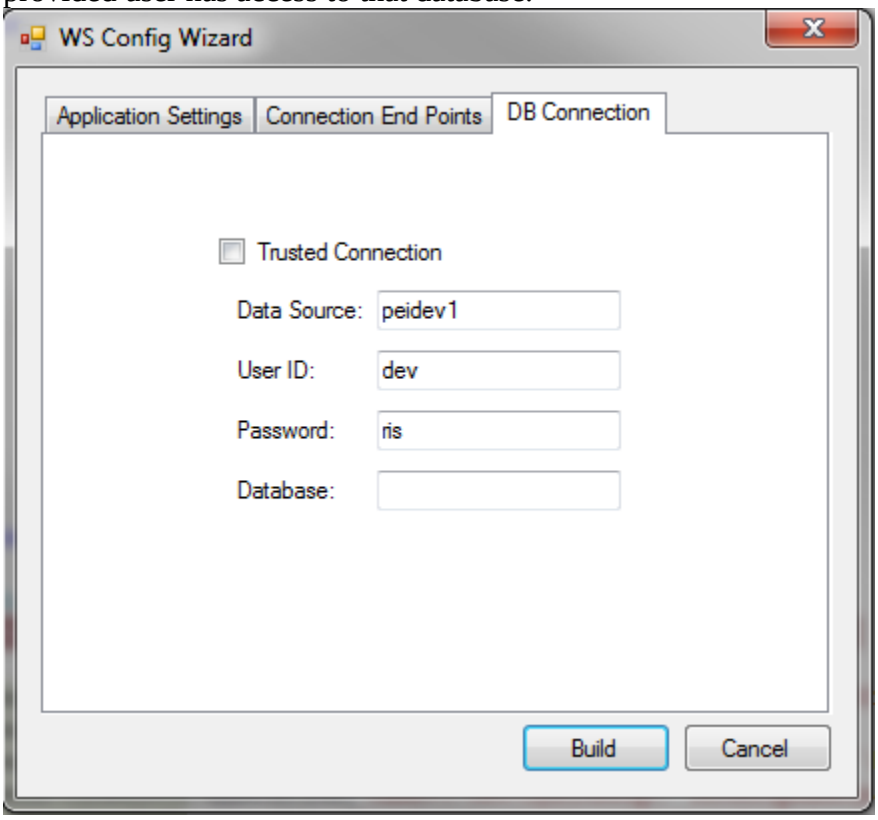

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

**Connection End Points:** will display the existing configuration, if the value is left blank then that entry will not be created, in the case of "Study Service" or "CDS Service" if both http and net.tcp were not provided then that endpoint will not be created at all.




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

**DB Connection:** will display the existing configuration, if the Connection is to be used as a trusted connection, then the user ID and password will become disabled and will not be used, and will rely on the provided database value, When not using the trusted connection, The Database value is not needed but can be used to force a specific database connection as long as the provided user has access to that database.




It is always good practice to do a compare of the .config files.

1) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService.
   *rRISService directories include:*
   *a) rRISService*
   *b) CDS rRISService*
   *c) Wedge rRISService*
   *d) DDE rRISService*

   **Restart each service**.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# Server Update

For eRAD RIS
Version 2.0
Build 44.4
Update 44.4.2

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# Table of Contents

1. Resolved Items ..... 3
2. Code Stream ..... 4
3. Package Contents ..... 5
4. Intended Audience ..... 7
5. Who is affected ..... 7
6. eRAD RIS Release Version Numbers ..... 8
7. Installing ..... 9
   Client/GUI ..... 9
   Web Service ..... 10

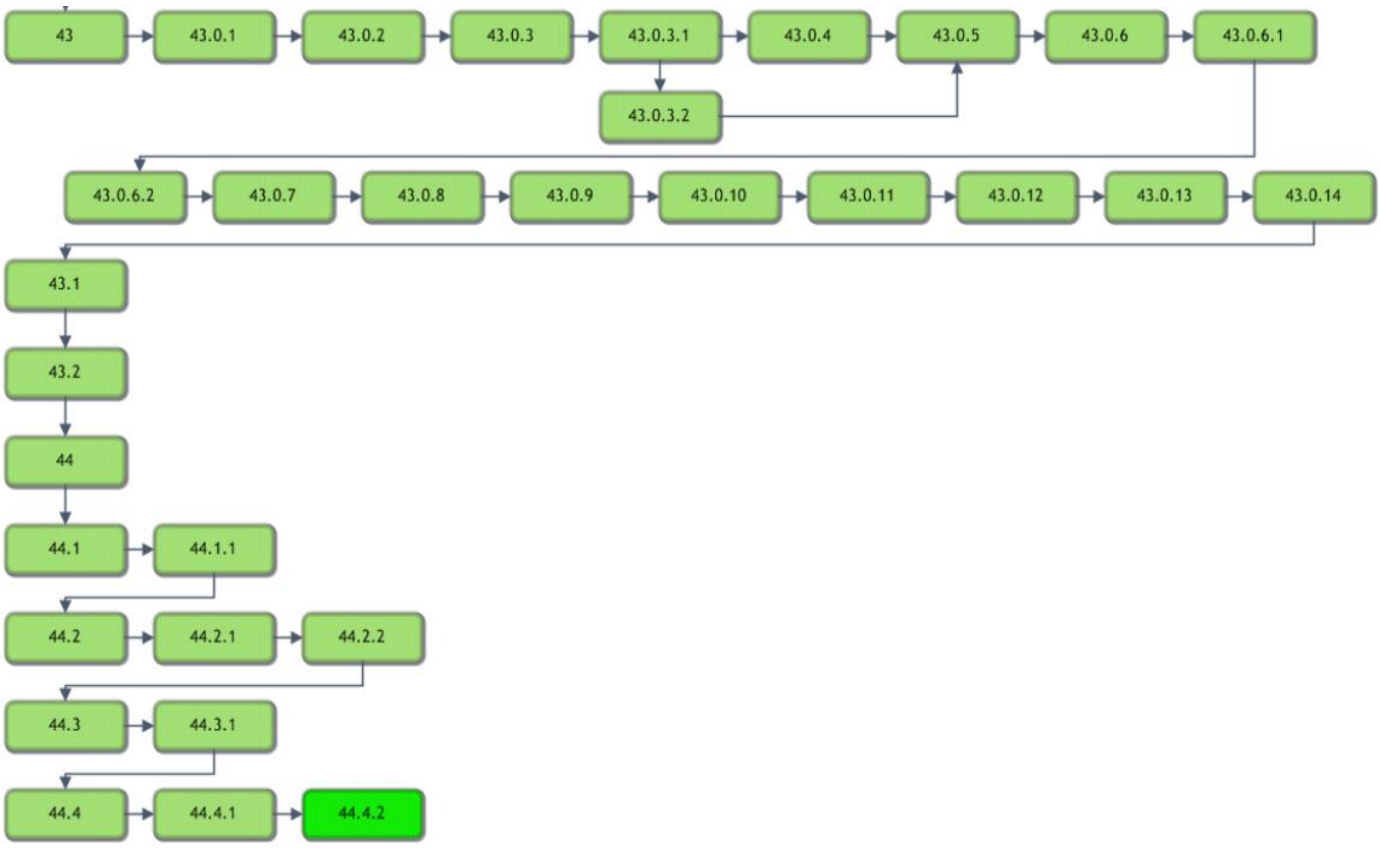
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## 1. Resolved Items

| Redmine # | Subject | Priority |
|---|---|---|
| 10680 | PACS Sync - Images being shown for incorrect study | Urgent |
| 10734 | PowerScribe Integration - When opening failure occur in PS we are not removing reference to the Reporting Screen. | High |
| 9473 | HL7 ReportSigned could produce duplicate addendum | Normal |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## 2. Code Stream




**Legend:**

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## 3. Package Contents

Files included for this server update:

1. **GUI_ZIP_Updates** contains 1 file:
   rRIS_1.3.44.4.2.29327

2. **rRISService** folder contains:
   2.1. ABCpdf.dll
   2.2. ABCpdf9-32.dll
   2.3. ABCpdf9-64.dll
   2.4. Antlr3.Runtime.dll
   2.5. CDSJobManager.dll
   2.6. CDSJobManager.pdb
   2.7. CdsLib.dll
   2.8. CdsLib.xml
   2.9. CdsLib.XmlSerializers.dll
   2.10. CommonLib.dll
   2.11. CommonLib.pdb
   2.12. DDEngine.dll
   2.13. DDEngine.pdb
   2.14. DiffPlex.dll
   2.15. Interop.FAXCOMEXLib.dll
   2.16. Microsoft.Practices.EnterpriseLibrary.Caching.dll
   2.17. Microsoft.Practices.EnterpriseLibrary.Caching.pdb
   2.18. Microsoft.Practices.EnterpriseLibrary.Common.dll
   2.19. Microsoft.Practices.EnterpriseLibrary.Common.pdb
   2.20. Microsoft.Practices.EnterpriseLibrary.Logging.dll
   2.21. Microsoft.Practices.EnterpriseLibrary.Logging.pdb
   2.22. Microsoft.Practices.ServiceLocation.dll
   2.23. Microsoft.Practices.ServiceLocation.pdb
   2.24. Microsoft.Practices.Unity.dll
   2.25. Microsoft.Practices.Unity.Interception.dll
   2.26. Microsoft.Practices.Unity.Interception.pdb
   2.27. Microsoft.Practices.Unity.pdb
   2.28. Microsoft.ReportViewer.Common.dll
   2.29. Microsoft.ReportViewer.WinForms.dll
   2.30. Microsoft.ReportViewer.WinForms.xml
   2.31. Newtonsoft.Json.dll
   2.32. Newtonsoft.Json.xml
   2.33. NLog.dll
   2.34. O2S.Components.PDFRender4NET.dll
   2.35. PdfSharp.dll
   2.36. PDFToImages.exe
   2.37. Radar.Api.Client.dll
   2.38. Radar.Api.Client.pdb
   2.39. Radar.Api.Model.dll
   2.40. Radar.Api.Model.pdb
   2.41. Radar.Common.dll
   2.42. Radar.Common.pdb
   2.43. Radar.Common.WebClient.dll
   2.44. Radar.Common.WebClient.pdb
   2.45. Radar.DirectMessaging.Client.dll
   2.46. Radar.DirectMessaging.Client.pdb
   2.47. Radar.DirectMessaging.Model.dll
   2.48. Radar.DirectMessaging.Model.pdb
   2.49. rRISServices.exe
   2.50. rRISServices.exe.config
   2.51. rRISServices.pdb
   2.52. rRISServicesx64.exe
   2.53. rRISServicesx64.exe.config
   2.54. ScheduledTaskManager.dll
   2.55. ScheduledTaskManager.pdb
   2.56. ServicesConfigWizard.exe
   2.57. ServicesConfigWizard.pdb
   2.58. SignatureApprovalService.exe
   2.59. SignatureApprovalService.pdb
   2.60. System.Net.Http.dll
   2.61. System.Net.Http.Formatting.dll
   2.62. System.Web.Http.dll
   2.63. System.Web.Http.SelfHost.dll
   2.64. System.Web.Http.SelfHost.xml
   2.65. System.Web.Http.WebHost.dll
   2.66. System.Web.Http.WebHost.xml
   2.67. System.Web.Http.xml
   2.68. System.Web.Mvc.dll
   2.69. System.Web.Mvc.xml
   2.70. System.Web.Optimization.dll
   2.71. System.Web.Razor.dll
   2.72. System.Web.Razor.xml
   2.73. System.Web.WebPages.Deployment.dll
   2.74. System.Web.WebPages.Deployment.xml
   2.75. System.Web.WebPages.dll
   2.76. System.Web.WebPages.Razor.dll
   2.77. System.Web.WebPages.Razor.xml
   2.78. System.Web.WebPages.xml
   2.79. Tourreau.Gilles.FaxDotNet.dll
   2.80. Tourreau.Gilles.FaxDotNet.pdb
   2.81. Tourreau.Gilles.FaxDotNet.xml
   2.82. WCFService.dll
   2.83. WCFService.pdb
   2.84. WCFServiceTests.dll

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

2.85. WCFServiceTests.pdb
2.86. WebApi.dll
2.87. WebApi.pdb
2.88. WebGrease.dll
2.89. Wedge.exe
2.90. Wedge.pdb

2.1.1 **XSL** folder contains:

2.1.1.1. **Stylesheets** folder contains:

A. CDAToHTMLCompleteReport.xslt
B. CDAToHTMLCompleteReportDark.xslt
C. CDAToHTMLImpressionSection.xslt
D. CDATorRIS.xslt
E. CDAToTxt.xslt
F. DocumentModelReport.xslt
G. DocumentModelReportAsXml.xslt
H. **CDA** folder contains:

i. C-CDA.xsl
ii. eRadStylesheet.xsl
iii. generalTemplates.xsl
iv. header.xsl
v. QRDA.xsl
vi. QrdaLevel3_Cypress2.4.0.xsl
vii. QrdaLevel3_ViewHtml.xsl
viii. sectionAdministeredMedications.xsl
ix. sectionAllergies.xsl
x. sectionEncounters.xsl
xi. sectionFindings.xsl
xii. sectionFuncCogStatus.xsl
xiii. sectionImmunizations.xsl
xiv. sectionInstructions.xsl
xv. sectionMedications.xsl
xvi. sectionPlanOfCare.xsl
xvii. sectionProblemList.xsl
xviii. sectionProcedures.xsl
xix. sectionQRDAMeasures.xsl
xx. sectionQRDAPatientData.xsl
xxi. sectionQRDAReporting.xsl
xxii. sectionReasonForVisit.xsl
xxiii. sectionResults.xsl
xxiv. sectionSocialHistory.xsl
xxv. sectionVitalSigns.xsl

2.1.2 **Deploy** folder contains 3 files:

2.1.2.1. applicationsettings.config
2.1.2.2. releaseVersion-connectionstrings.config
2.1.2.3. services.config

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## 4. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

## 5. Who is affected

Build 44.4 installs. This server update must be applied to 44.4

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## 6. eRAD RIS Release Version Numbers

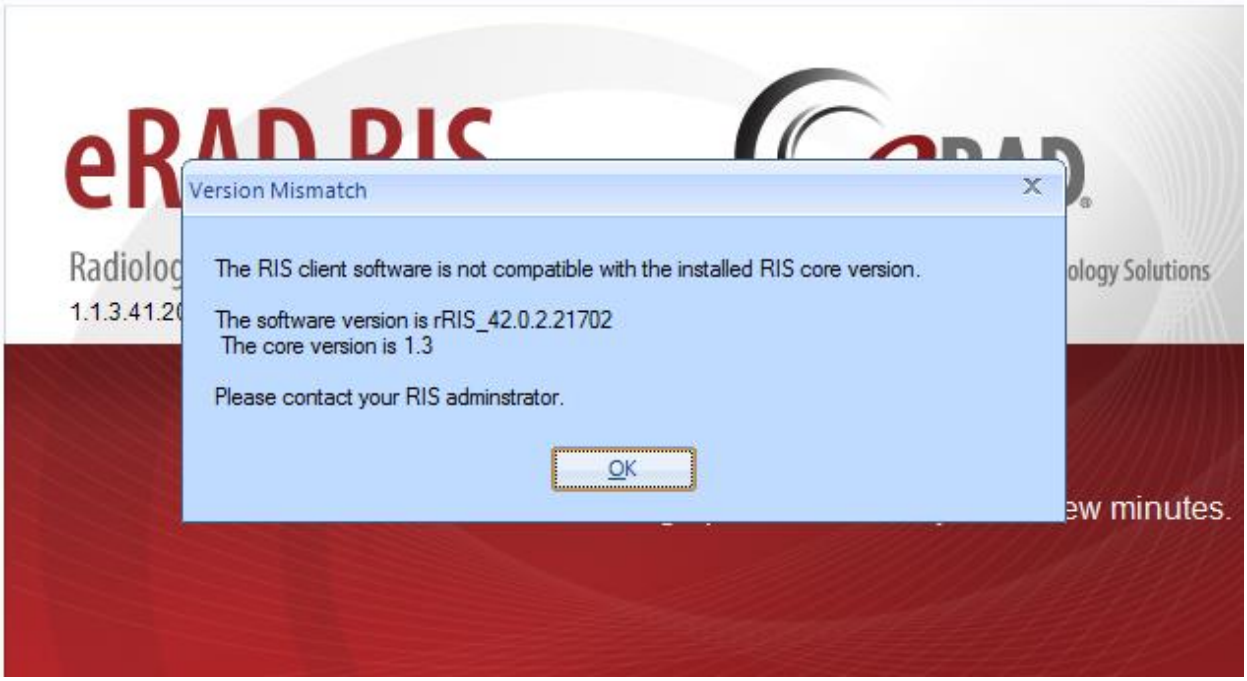
| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 43 | - | 2.43.0.0.23715(3GB) | 2.43.0.0.23171 | 2.43.0.0.23715 | 2.43.0.0.23743 | Full Version Release |
| 43 | 1 | 2.43.0.1.23798(3GB) | 2.43.0.0.23171 | 2.43.0.1.23798 | 2.43.0.1.23770 | GUI.zip, Web Service, DB updates |
| 43 | 2 | 2.43.0.2.24017(3GB) | 2.43.0.0.23171 | 2.43.0.2.24017 | 2.43.0.2.24023 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 3 | 2.43.0.3.24298(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24283 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 3.1 | 2.43.0.3.24450(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24421 | GUI.zip, and DB updates |
| 43 | 3.2 | 2.43.0.3.24450(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24421a | DB updates |
| 43 | 4 | 2.43.0.4.24447(3GB) | 2.43.0.0.23171 | 2.43.0.4.24447 | 2.43.0.4.24442 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 5 | 2.43.0.4.24632(3GB) | 2.43.0.0.23171 | 2.43.0.4.24632 | 2.43.0.4.24560 | GUI.zip, Web Service and DB updates |
| 43 | 6 | 2.43.0.4.24(3GB) | 2.43.0.0.23171 | 2.43.0.4.24 | 2.43.0.4.24 | GUI.zip, Web Service and DB updates |
| 43 | 6.1 | 2.43.0.6.24937(3GB) | 2.43.0.0.23171 | 2.43.0.6.24937 | 2.43.0.6.24914 | GUI.zip, Web Service |
| 43 | 6.2 | 2.43.0.6.24970(3GB) | 2.43.0.0.23171 | 2.43.0.6.24970 | 2.43.0.6.24914 | GUI.zip, Web Service |
| 43 | 7 | 2.43.0.7.25258(3GB) | 2.43.0.0.23171 | 2.43.0.7.25258 | 2.43.0.7.25226 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 8 | 2.43.0.8.25440(3GB) | 2.43.0.0.23171 | 2.43.0.8.25440 | 2.43.0.8.25425 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 9 | 2.43.0.9.25477(3GB) | 2.43.0.0.23171 | 2.43.0.9.25477 | 2.43.0.8.25425 | GUI.zip and Web Service |
| 43 | 10 | 2.43.0.9.25477(3GB) | 2.43.0.0.23171 | 2.43.0.10.25477 | 2.43.0.8.25425 | Web Service |
| 43 | 11 | 2.43.0.11.25512(3GB) | 2.43.0.0.23171 | 2.43.0.11.25512 | 2.43.0.8.25425 | GUI.zip and Web Service |
| 43 | 12 | 2.43.0.12.25554(3GB) | 2.43.0.0.23171 | 2.43.0.12.25554 | 2.43.0.12.25536 | GUI.zip Web Service and DB Updates |
| 43 | 13 | 2.43.0.12.25610(3GB) | 2.43.0.0.23171 | 2.43.0.12.25610 | 2.43.0.12.25536 | GUI.zip and Web Service |
| 43 | 14 | 2.43.0.14.25644(3GB) | 2.43.0.0.23171 | 2.43.0.13.25610 | 2.43.0.12.25536 | GUI.zip |
| 43.1 | - | 2.43.1.0.25850(3GB) | 2.43.0.0.23171 | 2.43.1.0.25850 | 2.43.1.0.25771 | GUI.zip Web Service and DB Updates |
| 43.2 | - | 2.43.2.0.26864(3GB) | 2.43.0.0.23171 | 2.43.2.0.26864 | 2.43.1.0.25771 | GUI.zip and Web Service |
| 44 | - | 2.44.0.0.26570(3GB) | 2.44.0.0.26405 | 2.44.0.0.26570 | 2.44.0.0.26475 | Full Version Release |
| 44.1 | - | 2.44.0.0.26984(3GB) | 2.44.0.0.26405 | 2.44.0.0.26984 | 2.44.0.0.26906 | Gui.zip, Web Service, and DB |
| 44.1 | 1 | 2.44.1.1.27093(3GB) | 2.44.0.0.26405 | 2.44.1.0.26984 | 2.44.1.0.26906 | Gui.zip |
| 44.2 | | 2.44.2.0.27410(3GB) | 2.44.0.0.26405 | 2.44.2.0.27410 | 2.44.2.0.27365 | Gui.zip, Web Service, and DB |
| 44.2 | 1 | 2.44.2.1.27959(3GB) | 2.44.0.0.26405 | 2.44.2.1.27959 | 2.44.2.1.27909 | Gui.zip, Web Service, and DB |
| 44.2 | 2 | 2.44.2.1.27959(3GB) | 2.44.0.0.26405 | 2.44.2.2.28094 | 2.44.2.1.27909 | Web Service |
| 44.3 | - | 2.44.3.0.28292 | 2.44.0.0.26405 | 2.44.3.0.28277 | 2.44.3.0.28138 | Gui.zip, Web Service, and DB |
| 44.3 | 1 | 2.44.3.1.28535(3GB) | 2.44.0.0.26405 | 2.44.3.1.28535 | 2.44.3.0.28138 | Gui.zip and Web Service |
| 44.4 | - | 2.44.4.0.28762(3GB) | 2.44.0.0.26405 | 2.44.4.0.28762 | 2.44.4.0.28676 | Gui.zip, Web Server, DB, Management Report Deployment |
| 44.4 | 1 | 2.44.4.1.28953(3GB) | 2.44.0.0.26405 | 2.44.4.1.28953 | 2.44.4.0.28676 | Gui.zip and Web Server |
| **44.4** | **2** | **2.44.4.2.29327(3GB)** | **2.44.0.0.26405** | **2.44.4.2.29327** | **2.44.4.0.28676** | **Gui.zip and Web Server** |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# 7. Installing

## Client/GUI

1) Copy and replace the current rRIS…zip file with the rRIS_1.3.44.4.2.29327.zip file provided with this release.
   Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.




If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_44.4.2.29327→ rRIS_1.3.44.4.2.29327
NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

**NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## Web Service

1. The web service upgrade consists of replacing the files in the RIS Web Service directory with the files supplied in the rRISService folder with this build. Always create a backup of the files being replaced. This upgrade includes 88 files in the rRISService folder and 2 sub folders. Of those folders, 1 is a folder titled **"XSL"** that contains a sub folder and files within the subfolder. Another folder is titled **"deploy"** that contains the new .config files that will be deployed with the user of the file called "ServicesConfigWizard.exe" (see instructions below).

## Services Configuration Wizard

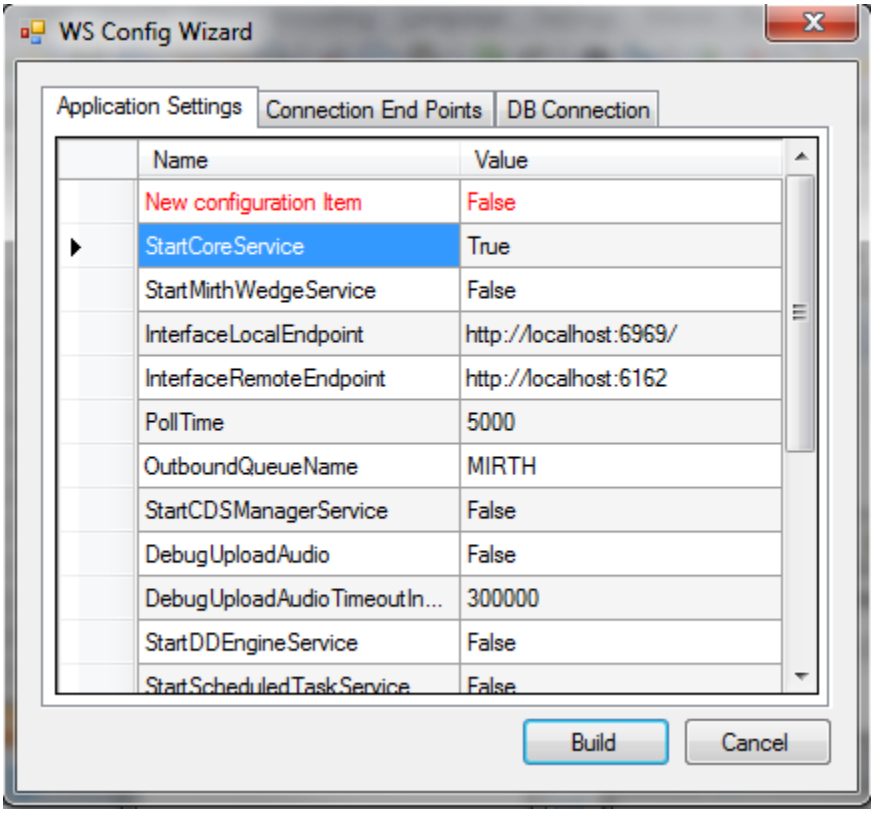
With the release of 42 to decrease the chance of losing configuration setting and missing new configuration options, we will no longer include the configuration files in the release in the main set of files, but they will now exist in a "deploy" folder, which will contain the three site configurable config files; applicationsettings, connectionstrings, services as well as a copy of the rRISServices.exe configuration file. The contents of this folder should not be required to be touched.

On the install of a new service, all files will be copied to the appropriate locations on the server (no configurations will be over written). If instructed or to confirm no new configurations have been added the user can run the new application "ServicesConfigWizard.exe"

This application will read the existing configuration file(s) (if files exist), and compare to the provided new configuration files then will display three tabs, for each configuration file:
**Application Settings:** all existing configuration value will be displayed, if there are any new configuration entries they will be displayed in red.

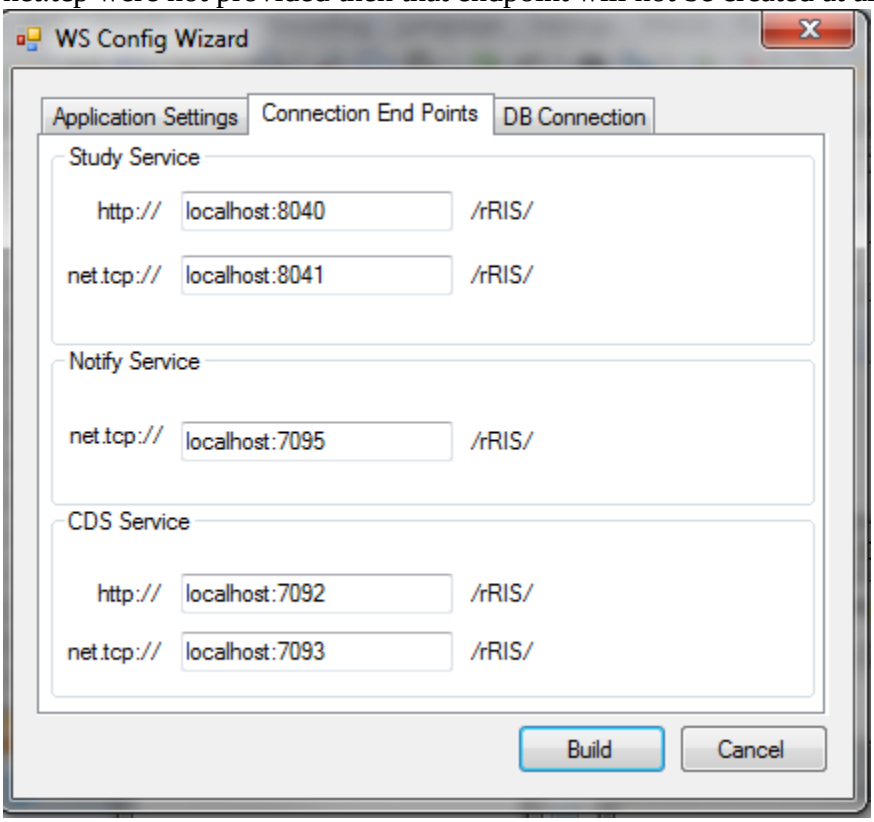
**NOTE:** the rRISServices.exe.config file is also included in the deploy folder. If this file has changes it **will not** update your current file in the Web Service directory. Any changes to this file will require a manual update of the rRISServices.exe.config and rRISServicesx64.exe.config files.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.



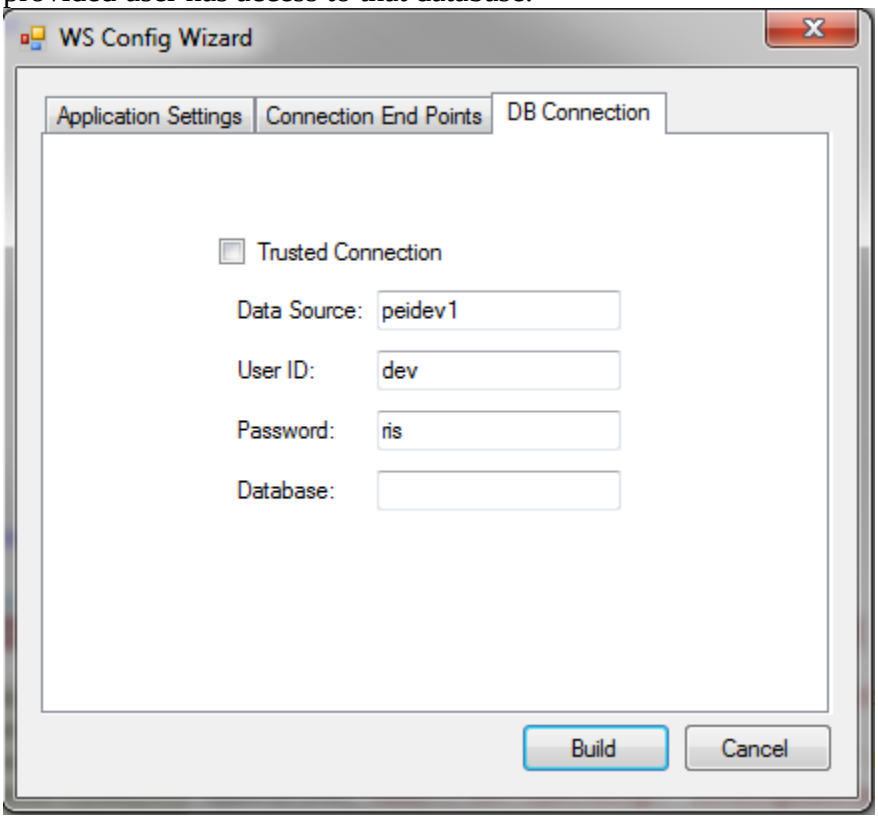

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

**Connection End Points:** will display the existing configuration, if the value is left blank then that entry will not be created, in the case of "Study Service" or "CDS Service" if both http and net.tcp were not provided then that endpoint will not be created at all.




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

**DB Connection:** will display the existing configuration, if the Connection is to be used as a trusted connection, then the user ID and password will become disabled and will not be used, and will rely on the provided database value, When not using the trusted connection, The Database value is not needed but can be used to force a specific database connection as long as the provided user has access to that database.




It is always good practice to do a compare of the .config files.

1) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService.
   *rRISService directories include:*
   *a) rRISService*
   *b) CDS rRISService*
   *c) Wedge rRISService*
   *d) DDE rRISService*

   **Restart each service**.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# Server Update

For eRAD RIS
Version 2.0
Build 44.4
Update 44.4.3

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# Table of Contents

1. Resolved Items ..... 3
2. Code Stream ..... 4
3. Package Contents ..... 5
4. Intended Audience ..... 5
5. Who is affected ..... 5
6. eRAD RIS Release Version Numbers ..... 6
7. Installing ..... 7

Client/GUI ..... 7

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## 1. Resolved Items

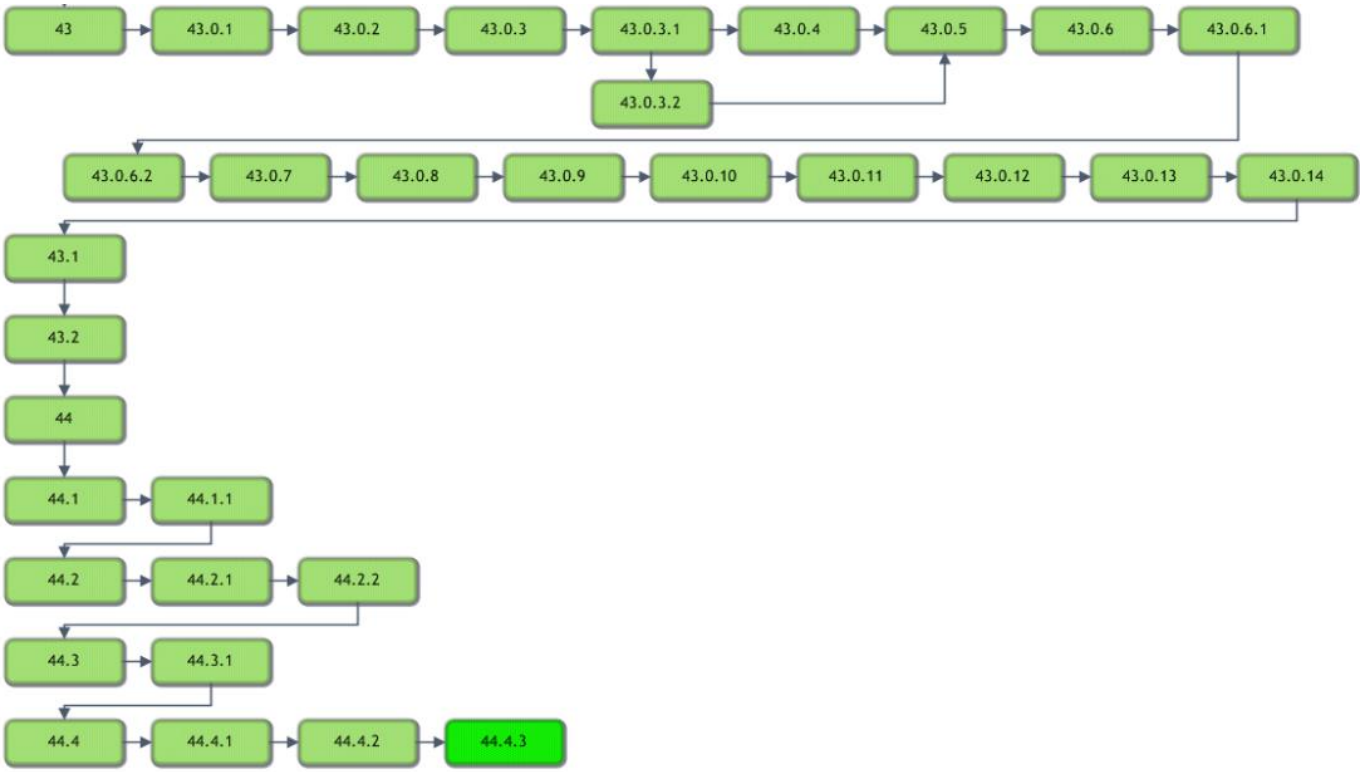
| Redmine # | Subject | Priority |
|---|---|---|
| 11018 | Insurance Eligibility - Need to revert copay feature | High |

Bug #11018 is to remove feature #8412 that was included with Version Release 2.44.3.

Feature #8412 - Collect Copay When it Exceeds Amount to Collect

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## 2. Code Stream




**Legend:**

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## 3. Package Contents

Files included for this server update:

1. **GUI_ZIP_Updates** contains 1 file:
   rRIS_1.3.44.4.3.29722

## 4. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

## 5. Who is affected

Builds 44.3-44.4.2. This server update must be applied to 44.4.2

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## 6. eRAD RIS Release Version Numbers

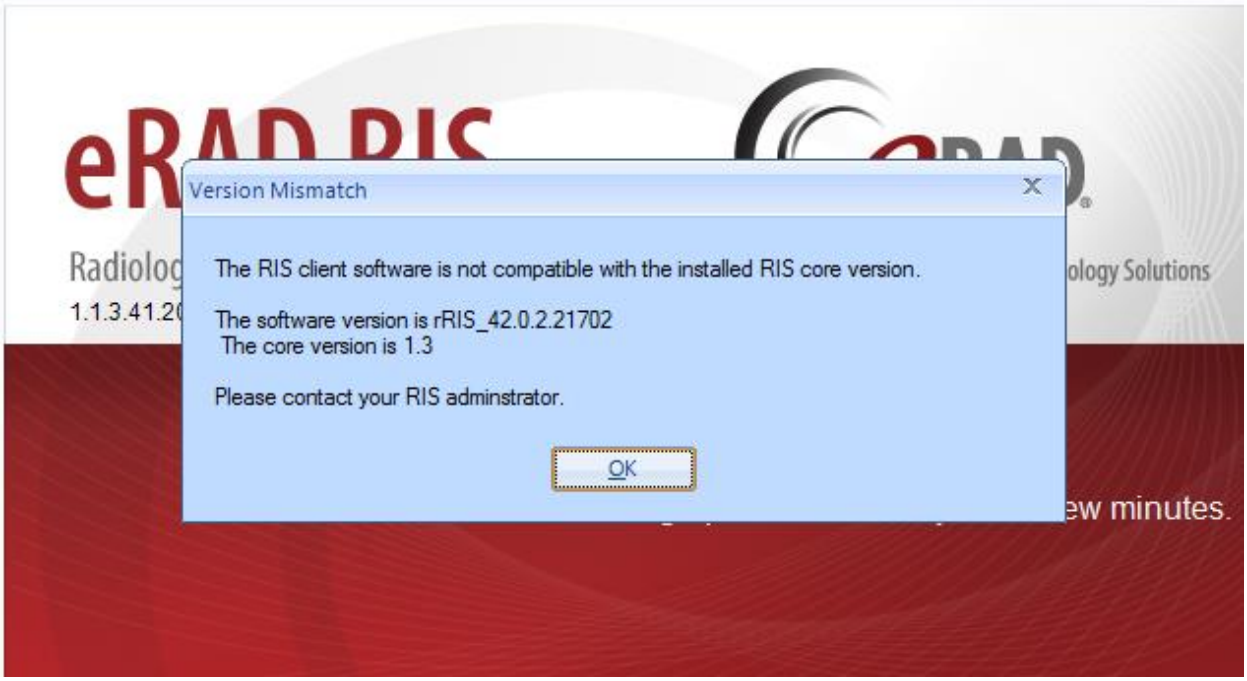
| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 43.1 | - | 2.43.1.0.25850(3GB) | 2.43.0.0.23171 | 2.43.1.0.25850 | 2.43.1.0.25771 | GUI.zip Web Service and DB Updates |
| 43.2 | - | 2.43.2.0.26864(3GB) | 2.43.0.0.23171 | 2.43.2.0.26864 | 2.43.1.0.25771 | GUI.zip and Web Service |
| 44 | - | 2.44.0.0.26570(3GB) | 2.44.0.0.26405 | 2.44.0.0.26570 | 2.44.0.0.26475 | Full Version Release |
| 44.1 | - | 2.44.0.0.26984(3GB) | 2.44.0.0.26405 | 2.44.0.0.26984 | 2.44.0.0.26906 | Gui.zip, Web Service, and DB |
| 44.1 | 1 | 2.44.1.1.27093(3GB) | 2.44.0.0.26405 | 2.44.1.0.26984 | 2.44.1.0.26906 | Gui.zip |
| 44.2 | | 2.44.2.0.27410(3GB) | 2.44.0.0.26405 | 2.44.2.0.27410 | 2.44.2.0.27365 | Gui.zip, Web Service, and DB |
| 44.2 | 1 | 2.44.2.1.27959(3GB) | 2.44.0.0.26405 | 2.44.2.1.27959 | 2.44.2.1.27909 | Gui.zip, Web Service, and DB |
| 44.2 | 2 | 2.44.2.1.27959(3GB) | 2.44.0.0.26405 | 2.44.2.2.28094 | 2.44.2.1.27909 | Web Service |
| 44.3 | - | 2.44.3.0.28292 | 2.44.0.0.26405 | 2.44.3.0.28277 | 2.44.3.0.28138 | Gui.zip, Web Service, and DB |
| 44.3 | 1 | 2.44.3.1.28535(3GB) | 2.44.0.0.26405 | 2.44.3.1.28535 | 2.44.3.0.28138 | Gui.zip and Web Service |
| 44.4 | - | 2.44.4.0.28762(3GB) | 2.44.0.0.26405 | 2.44.4.0.28762 | 2.44.4.0.28676 | Gui.zip, Web Server, DB, Management Report Deployment |
| 44.4 | 1 | 2.44.4.1.28953(3GB) | 2.44.0.0.26405 | 2.44.4.1.28953 | 2.44.4.0.28676 | Gui.zip and Web Service |
| 44.4 | 2 | 2.44.4.2.29327(3GB) | 2.44.0.0.26405 | 2.44.4.2.29327 | 2.44.4.0.28676 | Gui.zip and Web Service |
| **44.4** | **3** | **2.44.4.2.29722(3GB)** | **2.44.0.0.26405** | **2.44.4.2.29327** | **2.44.4.0.28676** | **Gui.zip** |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# 7. Installing

## Client/GUI

1) Copy and replace the current rRIS…zip file with the rRIS_1.3.44.4.2.29722.zip file provided with this release.
   Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.




If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_44.4.2.29722→ rRIS_1.3.44.4.2.29722
NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

**NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# Server Update

For eRAD RIS
Version 2.0
Build 44.4
Update 44.4.999SA

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# Table of Contents

1. Code Stream ..... 3
2. Package Contents ..... 6
3. Intended Audience ..... 6
4. eRAD RIS Release Version Numbers ..... 7
5. Installing ..... 8
   Client/GUI ..... 8

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 1. New Features

Special build requirements came in from our customers in South Africa. In future builds starting with Build 45 we will have the ability to create custom access string to hide fields, tabs, etc…
Build 44.4.999 has been developed in the interim to remove tabs and fields requested.

The following has been removed from view in this build 44.4.999

1. Remove the Patient Origin group box from the Patient tab
2. Remove the Family History group box from the Patient tab
3. Remove Approved Medical Record Access from the Contacts/Demographics tab
4. Remove the MU tab
5. Remove the Image Request tab
6. Remove the Review tab
7. Remove the Contact Log tab
8. Make Special Accommodations a non-mandatory field
9. Make Reason for Exam a non-mandatory field
10. Change the text on the Manage Policies button to "Medical Aids"

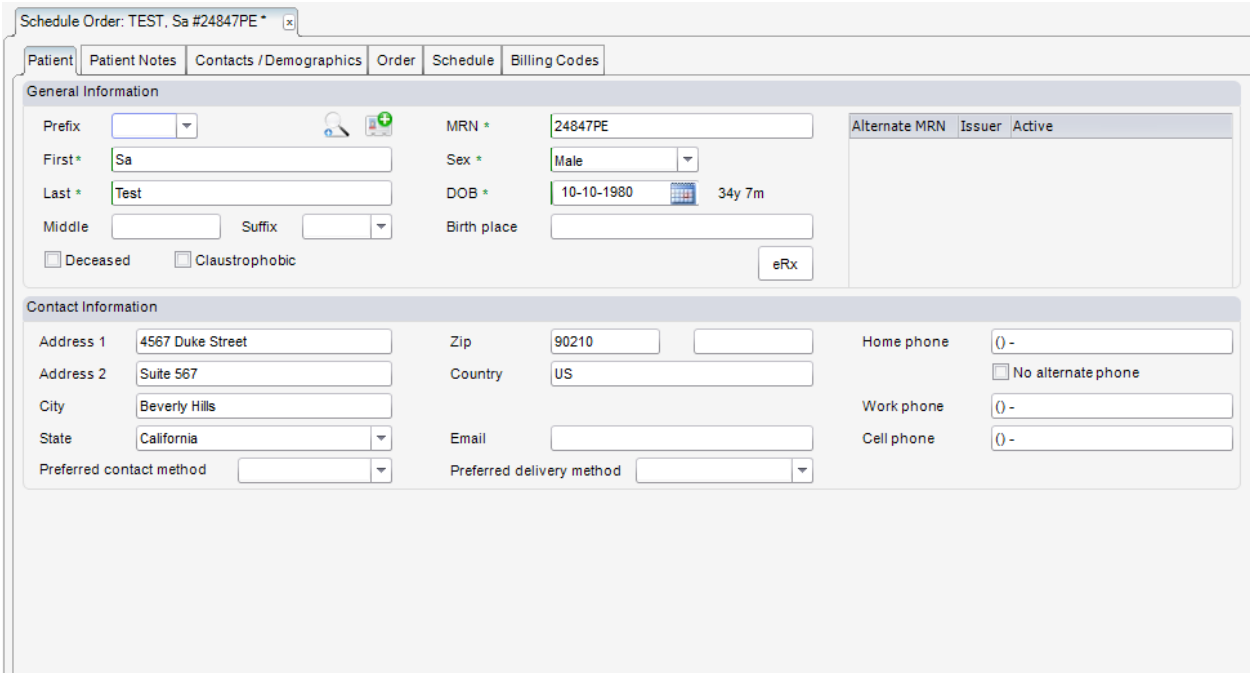


Figure 1 – Patient Tab with Patient Origin and Family History Removed

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

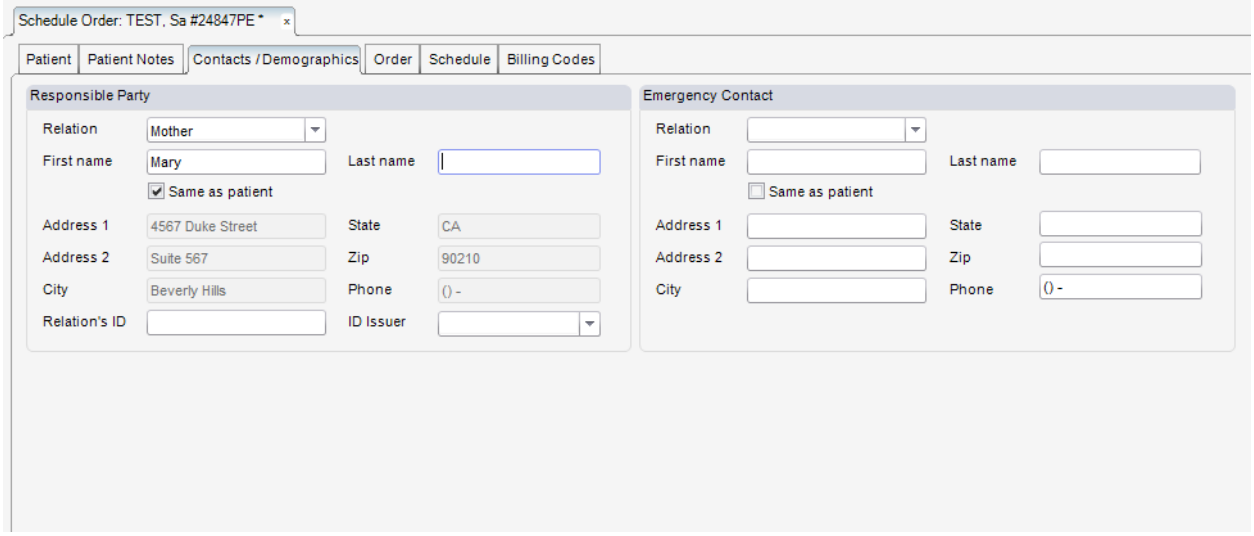



Figure 2 – Contacts/Demographics Tab with Approved Medial Record Access Removed

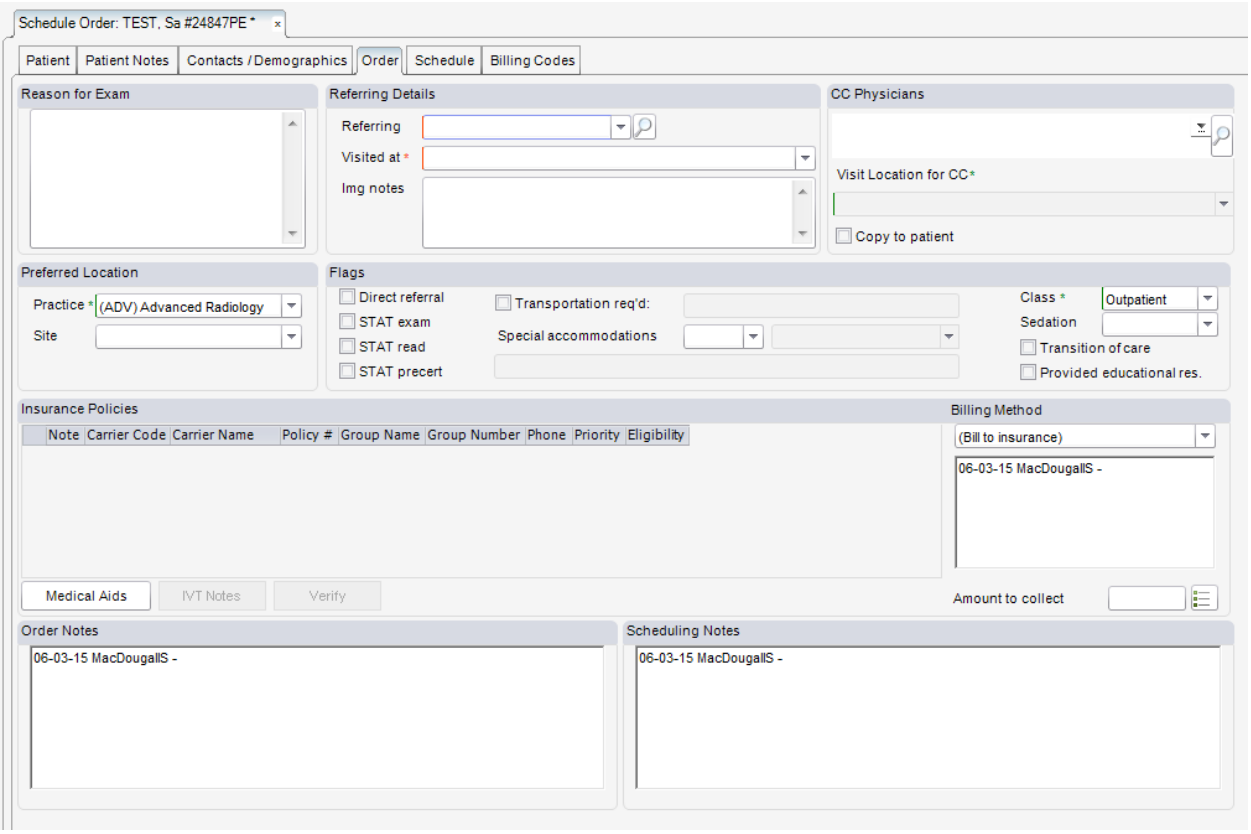
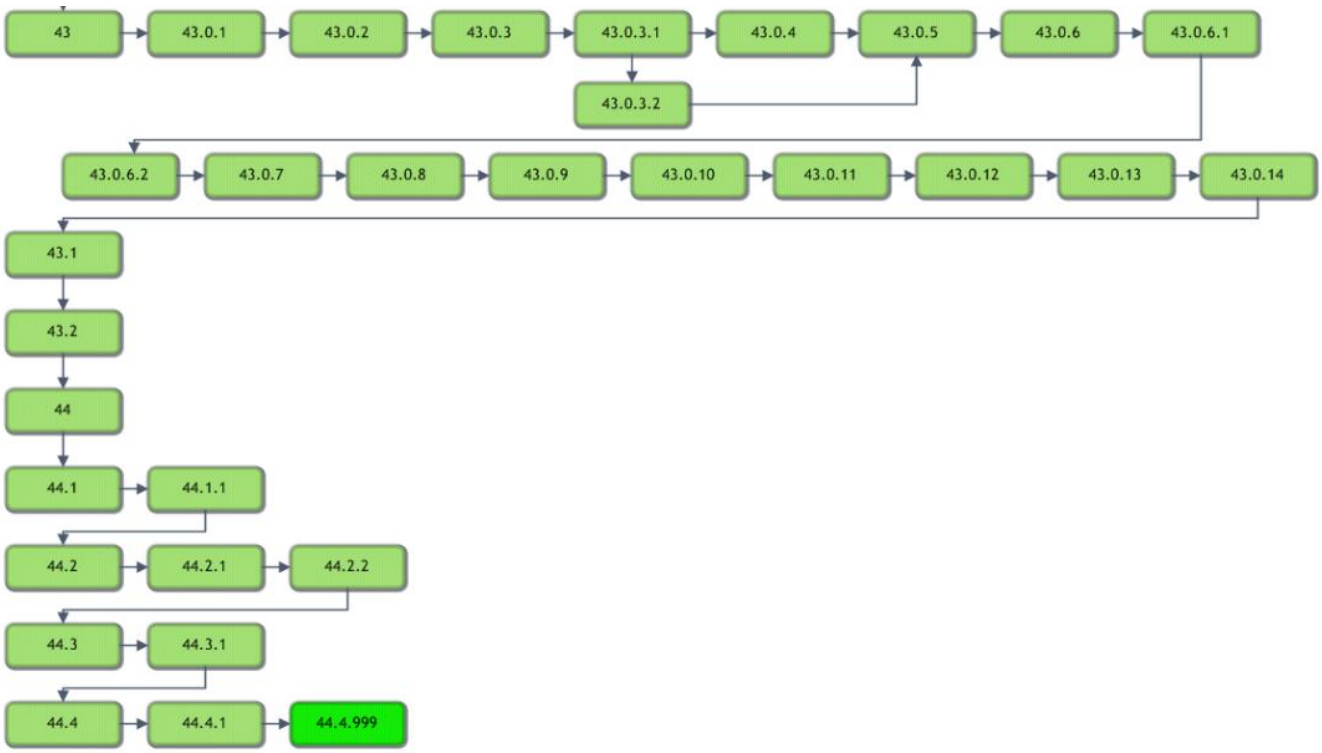



Figure 3 – Order Tab with Medical Aids Button and neither Reason for Exam or Special Accommodations are Required Fields

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 2. Code Stream




**Legend:**

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 3. Package Contents

Files included for this server update:

1. **GUI_ZIP_Updates** contains 1 file:
   rRIS_1.3.44.4.999.29083

## 4. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

## 5. eRAD RIS Release Version Numbers

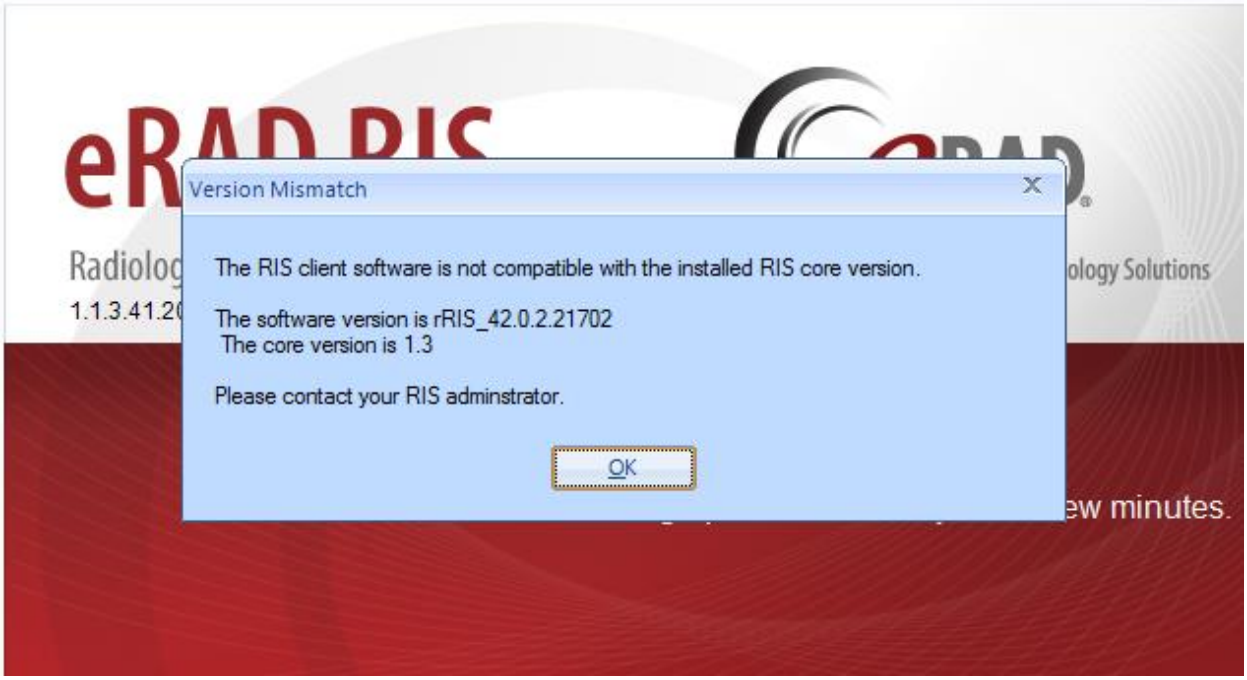
| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 43 | - | 2.43.0.0.23715(3GB) | 2.43.0.0.23171 | 2.43.0.0.23715 | 2.43.0.0.23743 | Full Version Release |
| 43 | 1 | 2.43.0.1.23798(3GB) | 2.43.0.0.23171 | 2.43.0.1.23798 | 2.43.0.1.23770 | GUI.zip, Web Service, DB updates |
| 43 | 2 | 2.43.0.2.24017(3GB) | 2.43.0.0.23171 | 2.43.0.2.24017 | 2.43.0.2.24023 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 3 | 2.43.0.3.24298(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24283 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 3.1 | 2.43.0.3.24450(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24421 | GUI.zip, and DB updates |
| 43 | 3.2 | 2.43.0.3.24450(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24421a | DB updates |
| 43 | 4 | 2.43.0.4.24447(3GB) | 2.43.0.0.23171 | 2.43.0.4.24447 | 2.43.0.4.24442 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 5 | 2.43.0.4.24632(3GB) | 2.43.0.0.23171 | 2.43.0.4.24632 | 2.43.0.4.24560 | GUI.zip, Web Service and DB updates |
| 43 | 6 | 2.43.0.4.24(3GB) | 2.43.0.0.23171 | 2.43.0.4.24 | 2.43.0.4.24 | GUI.zip, Web Service and DB updates |
| 43 | 6.1 | 2.43.0.6.24937(3GB) | 2.43.0.0.23171 | 2.43.0.6.24937 | 2.43.0.6.24914 | GUI.zip, Web Service |
| 43 | 6.2 | 2.43.0.6.24970(3GB) | 2.43.0.0.23171 | 2.43.0.6.24970 | 2.43.0.6.24914 | GUI.zip, Web Service |
| 43 | 7 | 2.43.0.7.25258(3GB) | 2.43.0.0.23171 | 2.43.0.7.25258 | 2.43.0.7.25226 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 8 | 2.43.0.8.25440(3GB) | 2.43.0.0.23171 | 2.43.0.8.25440 | 2.43.0.8.25425 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 9 | 2.43.0.9.25477(3GB) | 2.43.0.0.23171 | 2.43.0.9.25477 | 2.43.0.8.25425 | GUI.zip and Web Service |
| 43 | 10 | 2.43.0.9.25477(3GB) | 2.43.0.0.23171 | 2.43.0.10.25477 | 2.43.0.8.25425 | Web Service |
| 43 | 11 | 2.43.0.11.25512(3GB) | 2.43.0.0.23171 | 2.43.0.11.25512 | 2.43.0.8.25425 | GUI.zip and Web Service |
| 43 | 12 | 2.43.0.12.25554(3GB) | 2.43.0.0.23171 | 2.43.0.12.25554 | 2.43.0.12.25536 | GUI.zip Web Service and DB Updates |
| 43 | 13 | 2.43.0.12.25610(3GB) | 2.43.0.0.23171 | 2.43.0.12.25610 | 2.43.0.12.25536 | GUI.zip and Web Service |
| 43 | 14 | 2.43.0.14.25644(3GB) | 2.43.0.0.23171 | 2.43.0.13.25610 | 2.43.0.12.25536 | GUI.zip |
| 43.1 | - | 2.43.1.0.25850(3GB) | 2.43.0.0.23171 | 2.43.1.0.25850 | 2.43.1.0.25771 | GUI.zip Web Service and DB Updates |
| 43.2 | - | 2.43.2.0.26864(3GB) | 2.43.0.0.23171 | 2.43.2.0.26864 | 2.43.1.0.25771 | GUI.zip and Web Service |
| 44 | - | 2.44.0.0.26570(3GB) | 2.44.0.0.26405 | 2.44.0.0.26570 | 2.44.0.0.26475 | Full Version Release |
| 44.1 | - | 2.44.0.0.26984(3GB) | 2.44.0.0.26405 | 2.44.0.0.26984 | 2.44.0.0.26906 | Gui.zip, Web Service, and DB |
| 44.1 | 1 | 2.44.1.1.27093(3GB) | 2.44.0.0.26405 | 2.44.1.0.26984 | 2.44.1.0.26906 | Gui.zip |
| 44.2 | | 2.44.2.0.27410(3GB) | 2.44.0.0.26405 | 2.44.2.0.27410 | 2.44.2.0.27365 | Gui.zip, Web Service, and DB |
| 44.2 | 1 | 2.44.2.1.27959(3GB) | 2.44.0.0.26405 | 2.44.2.1.27959 | 2.44.2.1.27909 | Gui.zip, Web Service, and DB |
| 44.2 | 2 | 2.44.2.1.27959(3GB) | 2.44.0.0.26405 | 2.44.2.2.28094 | 2.44.2.1.27909 | Web Service |
| 44.3 | - | 2.44.3.0.28292 | 2.44.0.0.26405 | 2.44.3.0.28277 | 2.44.3.0.28138 | Gui.zip, Web Service, and DB |
| 44.3 | 1 | 2.44.3.1.28535(3GB) | 2.44.0.0.26405 | 2.44.3.1.28535 | 2.44.3.0.28138 | Gui.zip and Web Service |
| 44.4 | - | 2.44.4.0.28762(3GB) | 2.44.0.0.26405 | 2.44.4.0.28762 | 2.44.4.0.28676 | Gui.zip, Web Server, DB, Management Report Deployment |
| 44.4 | 1 | 2.44.4.1.28953(3GB) | 2.44.0.0.26405 | 2.44.4.1.28953 | 2.44.4.0.28676 | Gui.zip and Web Server |
| **44.4** | **999** | **2.44.4.1.29083(3GB)** | **2.44.0.0.26405** | **2.44.4.1.28953** | **2.44.4.0.28676** | **Gui.zip** |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# 6. Installing

## Client/GUI

1) Copy and replace the current rRIS…zip file with the rRIS_1.3.44.4.999.29083.zip file provided with this release.
   Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.




If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_44.4.999.29083→ rRIS_1.3.44.4.999.29083
NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

**NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from RADNET, Inc.

# User Release Notes

for eRAD RIS
Version 2
Build 44.4

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD Inc.

# Table of Contents

1. Purpose ..... 3
2. Intended Audience ..... 3
3. Installing/Accessing the Application ..... 3
4. Existing Access Strings Required for New Feature in B2.44.4 ..... 4
5. New Features and Enhancements ..... 5
   Update Patient Insurance via Interface ..... 5
   Ability to Cancel Outside Reads via Interface ..... 7
   Ability to Specify Person Address Key via Interface ..... 7
   Forms and Labels – Site Code added to Printing Criteria ..... 8
   Patient Portal – Configurable Time for Reports and Images Availability ..... 8
6. Code Stream ..... 9
7. eRAD RIS Release Version Numbers ..... 10
8. Resolved Defects ..... 11
9. Known Limitations ..... 12

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD Inc.

# 1. Purpose

This document describes some of the new features and changes implemented in eRAD RIS as of the end of Sprint 44.4 and subsequent server releases. This version of eRAD RIS is referred to as Build 2.44.4

Only features which can be visually demonstrated to the user will be outlined in this document.

# 2. Intended Audience

This document is created by the RIS Development team for the RadNet RIS management team.

# 3. Installing/Accessing the Application

The installation guide for the eRAD RIS client have been posted to the RadNet Wiki page at http://mdbal01rdtweb/Wiki/

Under the RIS menu click on the rRIS page. The credentials to access the page are:
Username: rRIS
Password: Summerside

*Please note that Build 2.44.4 is considered a new release of the application. It does not require a reinstallation of eRAD RIS. If users choose to reinstall, this is accomplished by navigating to the eRAD RIS shared installation drive and running the CoreInstall.bat file (ex: I:\RISDeployment\CoreInstall.bat)*

If you experience difficulties accessing the application please do not hesitate to contact Darcy Noye with the PEI RIS Development Team.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD Inc.

# 4. Existing Access Strings Required for New Feature in B2.44.4

| Setting Placeholder | Setting | Default | Purpose / Controls Access to |
|---|---|---|---|
| System Configuration | PatientPortalImageHoldPeriodDays | 3 | The number of days from the time the study is performed to the date that the patient will be able to see the images. |
| System Configuration | PatientPortalReportHoldPeriodDays | 3 | The number of days from the time a report is signed to the date that the patient will be able to see it. |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD Inc.

# 5. New Features and Enhancements

## Update Patient Insurance via Interface

Patient insurance information needs to come in via the interface. This was previously disabled during development of EMR workflow. In the most common cases an insurance will need to be attached to a visit based on a given accession number.

The interface now allows the incoming message to contain c_patient_insurance and c_visit_x_patient_insurance rows. This allows inbound message to add or update multiple insurance policies and associate one or more of them to the visit referred to in the message. The interface tries to look up the given insurance policy based on the policy number and carrier code, which are considered to be the minimum amount of criteria given. If a row is found for this patient is used, otherwise a new row is added. In order to link to the current visit a c_visit_x_patient_insurance row needs to be included in the message, otherwise the c_patient_insurance is only attached to the patient and not the visit.

The following message will create or update an insurance belonging to the patient and associate that insurance to the visit to which the study identified by the accession number belongs. The patient_insurance_key nodes (in blue) identify that this insurance policy should be attached to this visit, meaning the "Use" checkbox will be selected. If multiple insurances are contained in the message and should be attached to the visit then each must have a unique patient_insurance_key and a corresponding c_visit_x_patient_insurance node.

```
<StudyContainer MainAction="HL7_StudyUpdated">
    <Patient>
        <c_patient_insurance>
            <patient_insurance_key>1</patient_insurance_key>
            <carrier_code>0601053</carrier_code>
            <policy_number>B-88968</policy_number>
            <group_number>123</group_number>
        </c_patient_insurance>
    </Patient>
    <Visit>
        <c_visit_x_patient_insurance>
            <patient_insurance_key>1</patient_insurance_key>
        </c_visit_x_patient_insurance>
    </Visit>
    <Study>
        <c_study>
```

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD Inc.

```
                    <accession_number>1000710</accession_number>
                </c_study>
            </Study>
</StudyContainer>
```

If the section of <Visit> doesn't exist or the node <c_visit_x_patient_insurance> doesn't exist the insurance policy will be added, but will not be used with the visit (Use checkbox will not be selected).

Note that the interface requires only policy_number and carrier_code nodes for the c_patient_insurance table, but it accepts all fields belonging to the c_patient_insurance table.

In addition to a specifying the accession number to associate the insurance other options exists, such as

- <patient_id> with <issuer_of_patient_id>
- <visit_number>

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD Inc.

## Ability to Cancel Outside Reads via Interface

eRAD RIS prevents some status changes via interface once the study is in ExamDone status. For outside reads received from another system we need to be able to cancel them.

The following HL7 main action will cancel a study in Exam Done, Exam Done (Tech Only) and Hold Code Complete status.

```
<StudyContainer MainAction="HL7_StudyCancelled">
    <Study>
        <c_study>
            <accession_number>1000853</accession_number>
        </c_study>
    </Study>
</StudyContainer>
```

## Ability to Specify Person Address Key via Interface

In previous versions when a message with a referring physician was received we couldn't specify which address (if multiple) to use. With the node displayed below, the <requested_by_address_key> will assign the correct address to the study based on the address key.

```
<StudyContainer MainAction="HL7_StudyUpdated">
    <Patient>
    </Patient>
    <Visit>
    </Visit>
    <Order>
        <c_order>
            <_patient_id>10686</_patient_id>
            <_issuer_of_patient_id>system</_issuer_of_patient_id>
            <requested_by_person_key>20180</requested_by_person_key>
            <requested_by_address_key>23752</requested_by_address_key>
        </c_order>
    </Order>
    <Study>
        <c_study>
            <accession_number>1009942</accession_number>
        </c_study>
    </Study>
</StudyContainer>
```

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD Inc.

## Forms and Labels – Site Code added to Printing Criteria

The ability to filter the printing criteria of a form by site has been added. The column "site" works in same manner as the existing columns. By default all sites will be included in the printing criteria. The user will need to manually edit to filter the form by site.

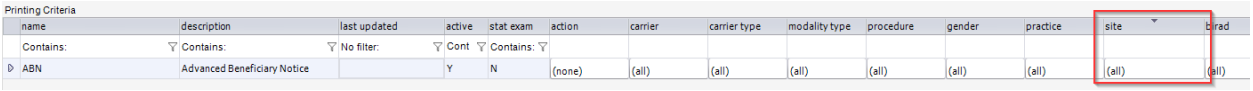



**Figure 5.1 – Site filter added to Forms and Labels Printing Criteria**

Multiple printing criteria rows can be added for each form if the action or availability of the form is different.

## Patient Portal – Configurable Time for Reports and Images Availability

After a report is signed the report itself and the images associated with the report should be held from view for a specific time period via the Patient Portal.

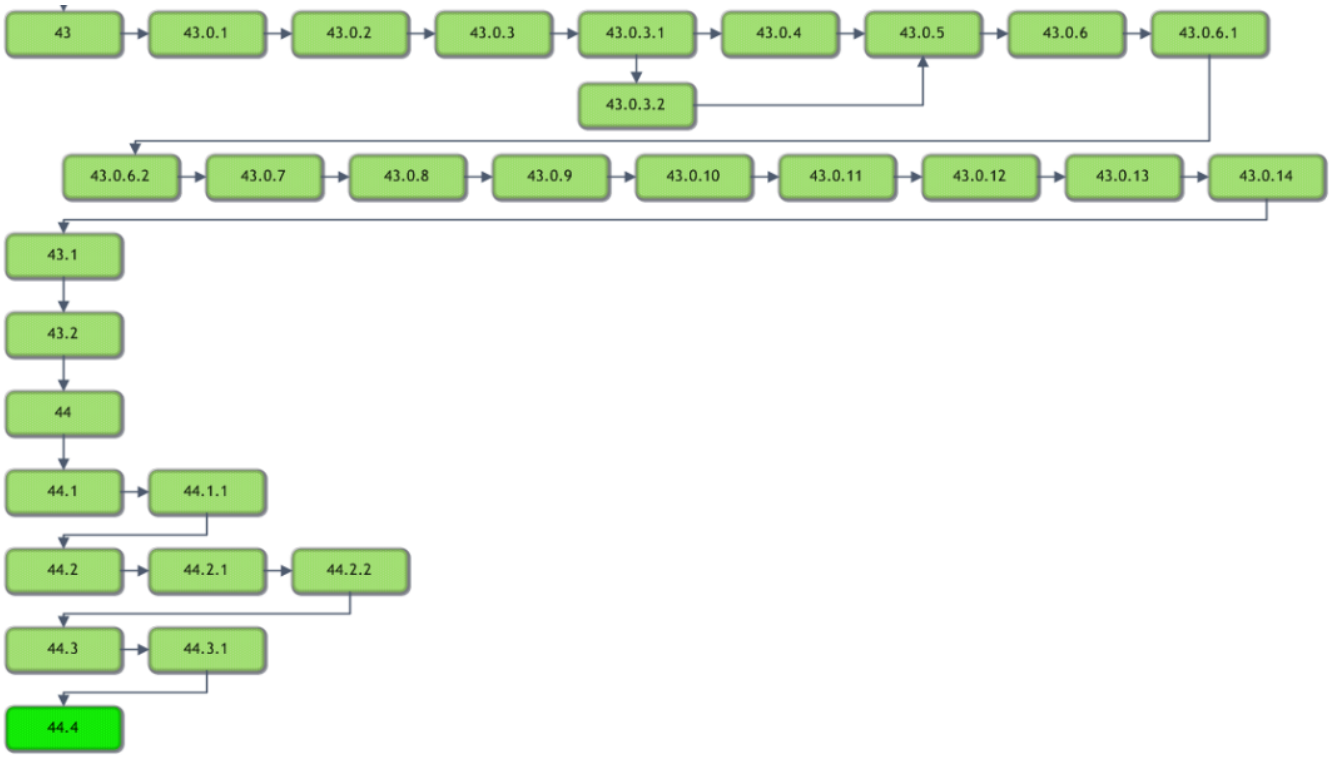
We have introduced 2 new configuration settings to control how long the report and images will be withheld from view on the patient portal.

The system configuration setting of "**PatientPortalImageHoldPeriodDays**" with a default of 3 will determine the number in days from the time the study is performed that the patient will be able to view the images on the patient portal

The system configuration setting of "**PatientPortalReportHoldPeriodDays**" with a default of 3 will determine the number in days from the time the report is signed until the patient can view the report on the patient portal

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD Inc.

# 6. Code Stream




**Legend:**

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD Inc.

# 7. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 43 | - | 2.43.0.0.23715(3GB) | 2.43.0.0.23171 | 2.43.0.0.23715 | 2.43.0.0.23743 | Full Version Release |
| 43 | 1 | 2.43.0.1.23798(3GB) | 2.43.0.0.23171 | 2.43.0.1.23798 | 2.43.0.1.23770 | GUI.zip, Web Service, DB updates |
| 43 | 2 | 2.43.0.2.24017(3GB) | 2.43.0.0.23171 | 2.43.0.2.24017 | 2.43.0.2.24023 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 3 | 2.43.0.3.24298(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24283 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 3.1 | 2.43.0.3.24450(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24421 | GUI.zip, and DB updates |
| 43 | 3.2 | 2.43.0.3.24450(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24421a | DB updates |
| 43 | 4 | 2.43.0.4.24447(3GB) | 2.43.0.0.23171 | 2.43.0.4.24447 | 2.43.0.4.24442 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 5 | 2.43.0.4.24632(3GB) | 2.43.0.0.23171 | 2.43.0.4.24632 | 2.43.0.4.24560 | GUI.zip, Web Service and DB updates |
| 43 | 6 | 2.43.0.4.24(3GB) | 2.43.0.0.23171 | 2.43.0.4.24 | 2.43.0.4.24 | GUI.zip, Web Service and DB updates |
| 43 | 6.1 | 2.43.0.6.24937(3GB) | 2.43.0.0.23171 | 2.43.0.6.24937 | 2.43.0.6.24914 | GUI.zip, Web Service |
| 43 | 6.2 | 2.43.0.6.24970(3GB) | 2.43.0.0.23171 | 2.43.0.6.24970 | 2.43.0.6.24914 | GUI.zip, Web Service |
| 43 | 7 | 2.43.0.7.25258(3GB) | 2.43.0.0.23171 | 2.43.0.7.25258 | 2.43.0.7.25226 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 8 | 2.43.0.8.25440(3GB) | 2.43.0.0.23171 | 2.43.0.8.25440 | 2.43.0.8.25425 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 9 | 2.43.0.9.25477(3GB) | 2.43.0.0.23171 | 2.43.0.9.25477 | 2.43.0.8.25425 | GUI.zip and Web Service |
| 43 | 10 | 2.43.0.9.25477(3GB) | 2.43.0.0.23171 | 2.43.0.10.25477 | 2.43.0.8.25425 | Web Service |
| 43 | 11 | 2.43.0.11.25512(3GB) | 2.43.0.0.23171 | 2.43.0.11.25512 | 2.43.0.8.25425 | GUI.zip and Web Service |
| 43 | 12 | 2.43.0.12.25554(3GB) | 2.43.0.0.23171 | 2.43.0.12.25554 | 2.43.0.12.25536 | GUI.zip Web Service and DB Updates |
| 43 | 13 | 2.43.0.12.25610(3GB) | 2.43.0.0.23171 | 2.43.0.12.25610 | 2.43.0.12.25536 | GUI.zip and Web Service |
| 43 | 14 | 2.43.0.14.25644(3GB) | 2.43.0.0.23171 | 2.43.0.13.25610 | 2.43.0.12.25536 | GUI.zip |
| 43.1 | - | 2.43.1.0.25850(3GB) | 2.43.0.0.23171 | 2.43.1.0.25850 | 2.43.1.0.25771 | GUI.zip Web Service and DB Updates |
| 43.2 | - | 2.43.2.0.26864(3GB) | 2.43.0.0.23171 | 2.43.2.0.26864 | 2.43.1.0.25771 | GUI.zip and Web Service |
| 44 | - | 2.44.0.0.26570(3GB) | 2.44.0.0.26405 | 2.44.0.0.26570 | 2.44.0.0.26475 | Full Version Release |
| 44.1 | - | 2.44.0.0.26984(3GB) | 2.44.0.0.26405 | 2.44.0.0.26984 | 2.44.0.0.26906 | Gui.zip, Web Service, and DB |
| 44.1 | 1 | 2.44.1.1.27093(3GB) | 2.44.0.0.26405 | 2.44.1.0.26984 | 2.44.1.0.26906 | Gui.zip |
| 44.2 | | 2.44.2.0.27410(3GB) | 2.44.0.0.26405 | 2.44.2.0.27410 | 2.44.2.0.27365 | Gui.zip, Web Service, and DB |
| 44.2 | 1 | 2.44.2.1.27959(3GB) | 2.44.0.0.26405 | 2.44.2.1.27959 | 2.44.2.1.27909 | Gui.zip, Web Service, and DB |
| 44.2 | 2 | 2.44.2.1.27959(3GB) | 2.44.0.0.26405 | 2.44.2.2.28094 | 2.44.2.1.27909 | Web Service |
| 44.3 | - | 2.44.3.0.28292 | 2.44.0.0.26405 | 2.44.3.0.28277 | 2.44.3.0.28138 | Gui.zip, Web Service, and DB |
| 44.3 | 1 | 2.44.3.1.28535(3GB) | 2.44.0.0.26405 | 2.44.3.1.28535 | 2.44.3.0.28138 | Gui.zip and Web Service |
| **44.4** | **-** | **2.44.4.0.28762(3GB)** | **2.44.0.0.26405** | **2.44.4.0.28762** | **2.44.4.0.28676** | **Gui.zip, Web Server, DB, Management Report Deployment** |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD Inc.

# 8. Resolved Defects

Bugs Suggested Features and Support Issues resolved in build 2.44.4. The extract is taken from Redmine bug tracking system and only displays defects resolved in 2.44.4.

| Bug # | Priority | Subject | Category | Found Version |
|---|---|---|---|---|
| 10407 | Normal | Dictations by User Report - update column header | Mgt Reports | 2.44 |
| 10372 | High | DTC exception when attempting to manually change status | Web Services/DB | 44.3 |
| 10351 | High | Insurance Eligibility - ?Edit Image Request? is setting the amount to collect to zero | | 44.3 |
| 10343 | Normal | should not be able to view report or images until a release period has passed | Connect Patient Portal 1.x | 1.0.0.0 |
| 10319 | Normal | Edit Send to Job does not perform a referring doctor search | Document Distribution | 2.44.3 |
| 10312 | High | Reporting Radiologist - View menu will not display for radiologists if not granted access to some menu items | Radiology Reporting | 2.44.3 |
| 9698 | Normal | Operations \ OTC QA Report - Potential OTC doubling up | Mgt Reports | 2.43.1 |
| 9675 | Normal | Person address key cannot be specified directly on an inbound message | Interfaces | 2.44 |
| 9656 | Normal | conversion failed error when posting payment for sites with a "-" in the site_code | Web Services/DB | 2.43 |
| 9634 | High | Contrast is being deleted when View/Edit is opened | Scheduling | 2.44.3 |
| 4612 | Normal | IVT - add logic to retain the pre-cert when an exam requires pre-cert and is rescheduled if an expire date is entered<br>NOTE: This feature was released in B44. Corrected issue with expiry date in B44.4 | Thick Client GUI | 2.44.1 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD Inc.

# 9. Known Limitations

The following are Bugs Suggested Features and Support Issues found in build 2.44.4. Bugs reported in previous versions are not captured as Known Limitation in this document.

| # | Status | Priority | Subject |
|---|---|---|---|
| 10440 | New | Normal | Error when adding a contrast to a Cancelled or Discontinued Procedure |
| 10438 | New | Normal | Error when deleting a contrast that has the Max Value exceeded |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD Inc.

# User Release Notes

for eRAD RIS
Version 2
Build 44.5

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD Inc.

# Table of Contents

1. Purpose ..... 3
2. Intended Audience ..... 3
3. Installing/Accessing the Application ..... 3
4. Existing Access Strings Required for New Feature in B2.44.4 ..... 4
5. New Features and Enhancements ..... 5
   Ability to Add Patient Flags ..... 5
   Alert on Referring Physician Selected for Order ..... 8
   Insurance Eligibility – Denied Based On DOS Should Be Conditional ..... 9
   Insurance Eligibility – Fix Calculation of Remaining Deductible ..... 10
   Configurable Site Based Insurance Contract ..... 11
   Alternative Options for Prep Instructions ..... 12
   MModal Version 7.93 ..... 14
6. Code Stream ..... 15
7. eRAD RIS Release Version Numbers ..... 16
8. Resolved Defects ..... 17
9. Known Limitations ..... 18

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD Inc.

# 1. Purpose

This document describes some of the new features and changes implemented in eRAD RIS as of the end of Sprint 44.5 and subsequent server releases. This version of eRAD RIS is referred to as Build 2.44.5

Only features which can be visually demonstrated to the user will be outlined in this document.

# 2. Intended Audience

This document is created by the RIS Development team for the RadNet RIS management team.

# 3. Installing/Accessing the Application

The installation guide for the eRAD RIS client have been posted to the RadNet Wiki page at http://mdbal01rdtweb/Wiki/

Under the RIS menu click on the rRIS page. The credentials to access the page are:
Username: rRIS
Password: Summerside

*Please note that Build 2.44.5 is considered a new release of the application. It does not require a reinstallation of eRAD RIS. If users choose to reinstall, this is accomplished by navigating to the eRAD RIS shared installation drive and running the CoreInstall.bat file (ex: I:\RISDeployment\CoreInstall.bat)*

If you experience difficulties accessing the application please do not hesitate to contact Darcy Noye with the PEI RIS Development Team.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD Inc.

# 4. Existing Access Strings Required for New Feature in B2.44.5

| Setting Placeholder | Setting | Default | Purpose / Controls Access to |
|---|---|---|---|
| Access string and User Group Permissions | Clinical.EditPatientFlags | None | Full access to this enables the user to assign patient flags |
| Access string and User Group Permissions | Clinical.EditPatientFlagsNotes | None | full access to this enables the user to add notes to patient flags |
| Access string and User Group Permissions | Config.LookupEditor.PatientFlag | None | Provides access to the lookup table PatientFlag |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD Inc.

# 5. New Features and Enhancements

## Ability to Add Patient Flags

A new lookup table titled "PatientFlag" has been added in Administration>Configure>General folder. This new table's access is controlled by the access string "**Config.LookupEditor.PatientFlag**"

In this table an administrator can create a set of attributes that can be attached or tagged to a patient, e.g. "DontSchedule", "WriteOffAcct", etc. Based on configuration, these flags can also display a message when the patient is opened in various screens in RIS.

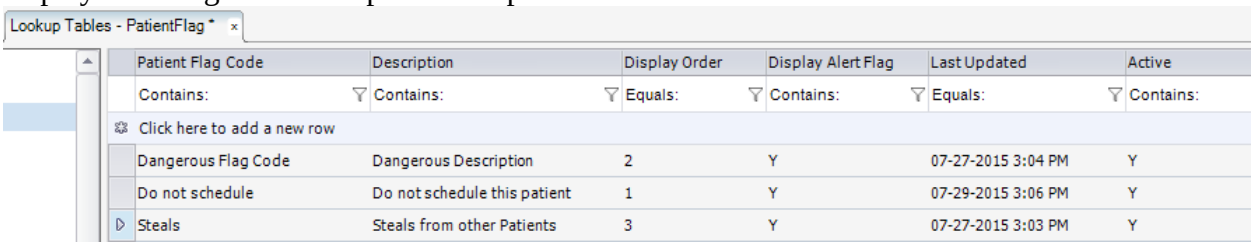



**Figure 5.1 – PatientFlag lookup table**

The patient flags can be displayed or edited from either the patient folder or from the patient general tab on various screens in RIS. The button on the patient general tab for launching the Patient Flags dialog will change in appearance depending on whether or not there are patient flags attached (it will appear more muted if there are no flags).

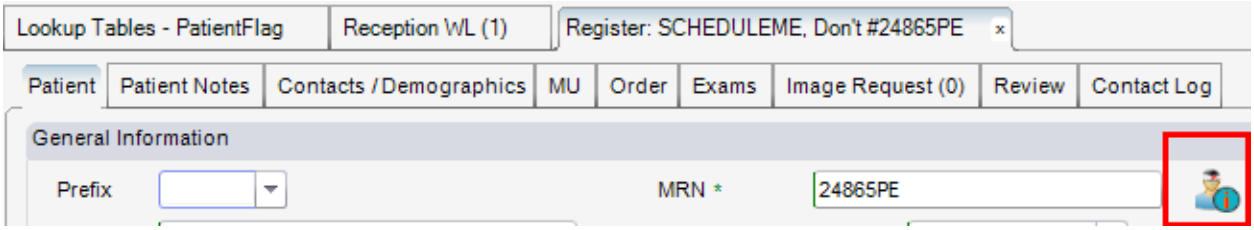



**Figure 5.2 – Patient Flag button on patient tab that has flags attached**

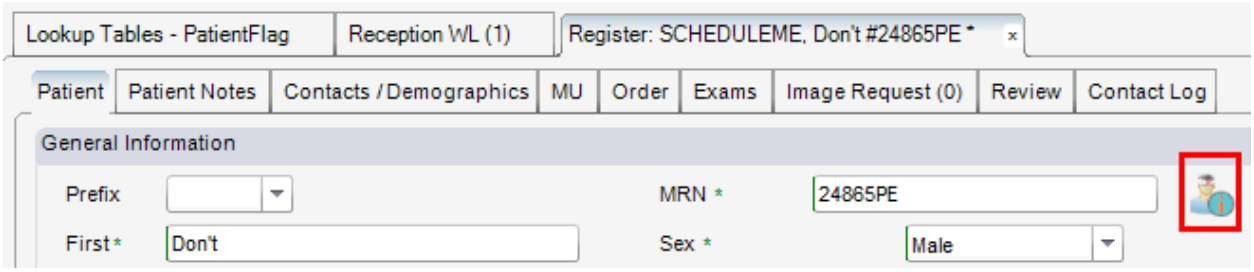



**Figure 5.3 – Patient Flag button on patient tab that doesn't have flags attached**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD Inc.

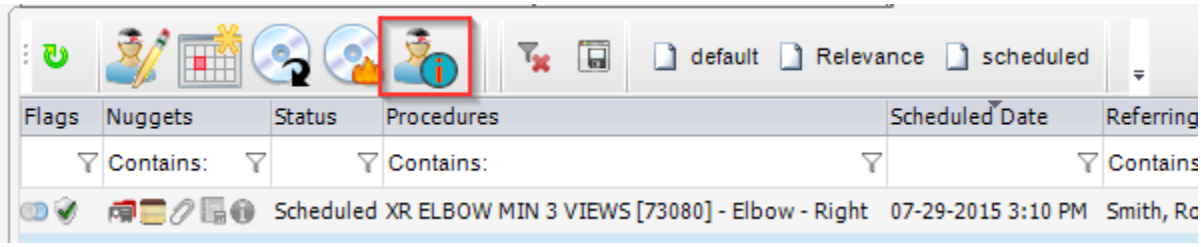



**Figure 5.4 – Accessing/adding patient flags from Patient Folder WL**

Patient Flags can be attached by checking a checkbox next to the description of the desired flag. To add a note, an authorized user can double click the Notes cell on the list of patient flags and begin editing.

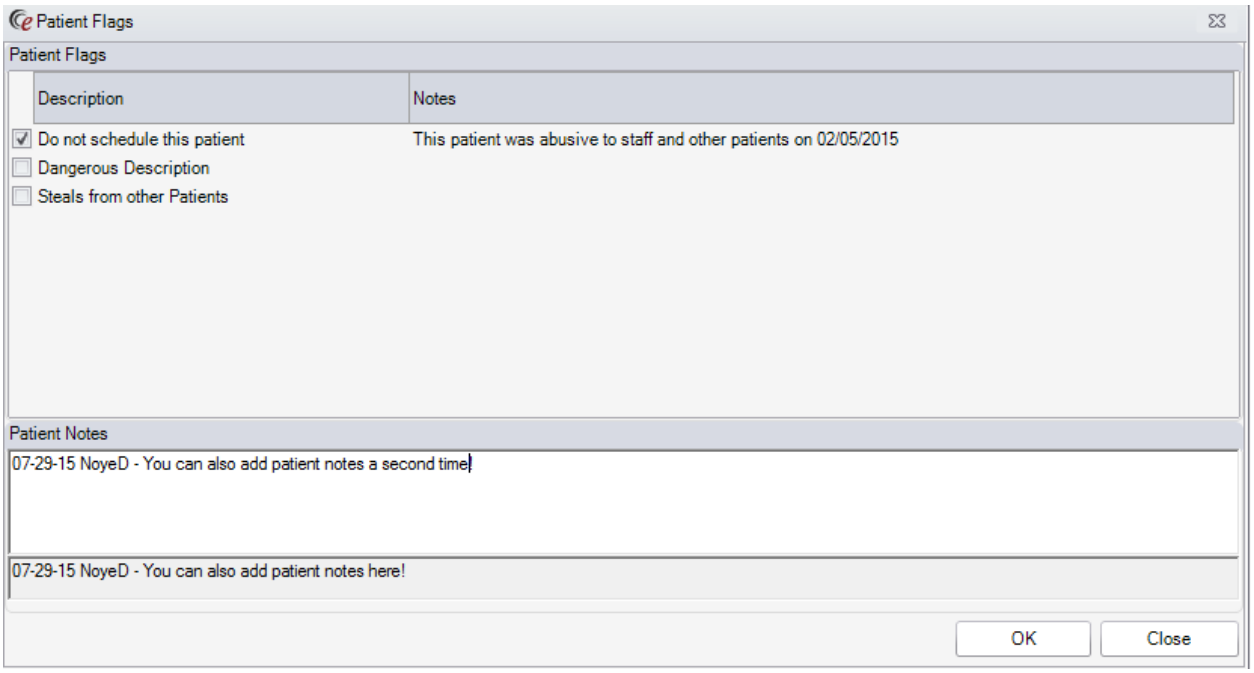



**Figure 5.5 – Patient Flags window**

When this patient is accessed in a data window (e.g. schedule order, view/edit, registration) the alert will display provided the Patient Flag Code in the PatientFlag lookup table has the column Display Alert Flag set to Y (see figure 5.1). The alert however will not appear in any reporting windows (e.g. dictate, sign reports, create/edit report)

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD Inc.

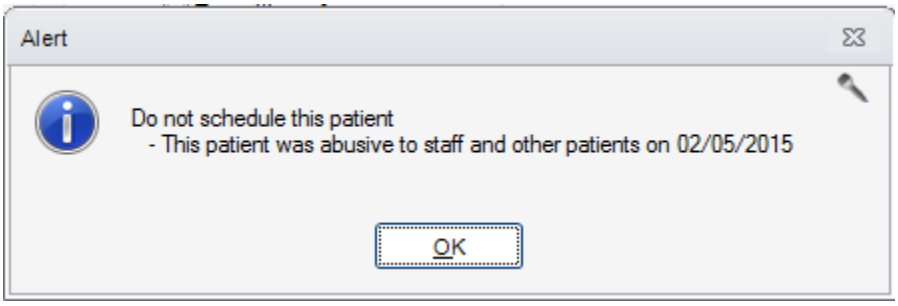



**Figure 5.6 – Patient Flag alert**

Access to add patient flags are controlled by the new access string of "**Clinical.EditPatientFlags**" which has a default value of None. Users with access will have the Patient Flag button available, will be able to open and add patient flag. The access level of ReadOnly would give the user the ability to see the Patient Flags button and open the Patient Flags window to view the available patient flags, but would not be able to assign.

The ability to add notes to the Patient Flag is controlled by the access string "**Clinical.EditPatientFlagsNotes**" which has a default of None. The Notes field allows the user to attach a note of up to 250 characters to the Patient Flag. The Notes will also be displayed in the alert along with the Patient Flag Code.

If a user has Read Only access and attempts to assign a patient flag they will be presented with message informing they don't have permission to assign

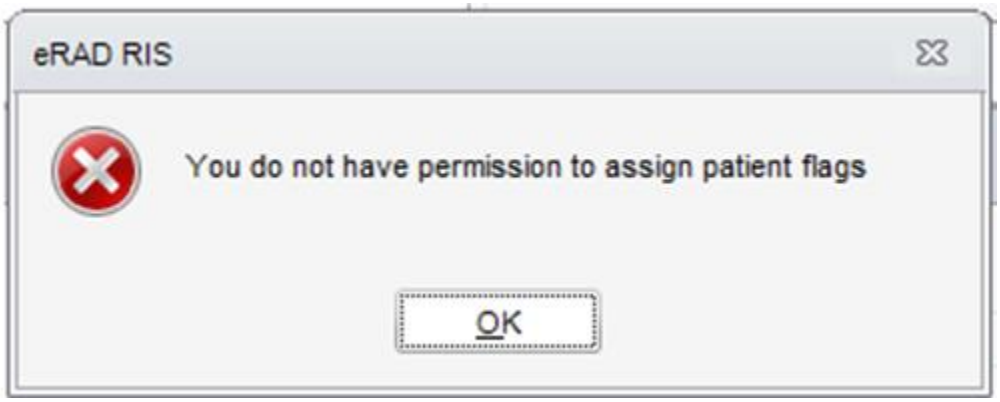



**Figure 5.7 – Message presented to user that cannot assign patient flags**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD Inc.

## Alert on Referring Physician Selected for Order

A new alert has been created to present a pop-up message when a referring physician is selected on the Order Tab. The Personnel table has a new field under the Notes tab titled "Referring Alert Message". This free form text box will accept up to 2000 characters. The check box Display Alert will determine if the alert pop-up message is presented to the user on the order tab when this Referrer is chosen.

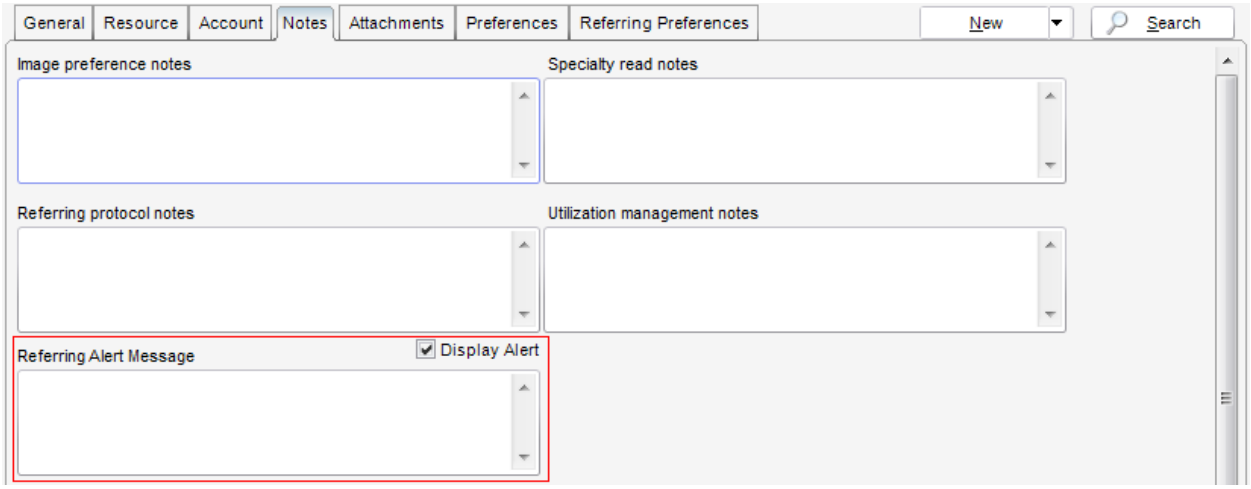



**Figure 5.8 – Referring Alert Message notes field and Display Alert check box**

The alert that is presented to the user is will display the Referrer's name preceded by Alert in the title bar. A check box to acknowledge that the message has been read must be selected in enable the Ok button before the message window can be closed.

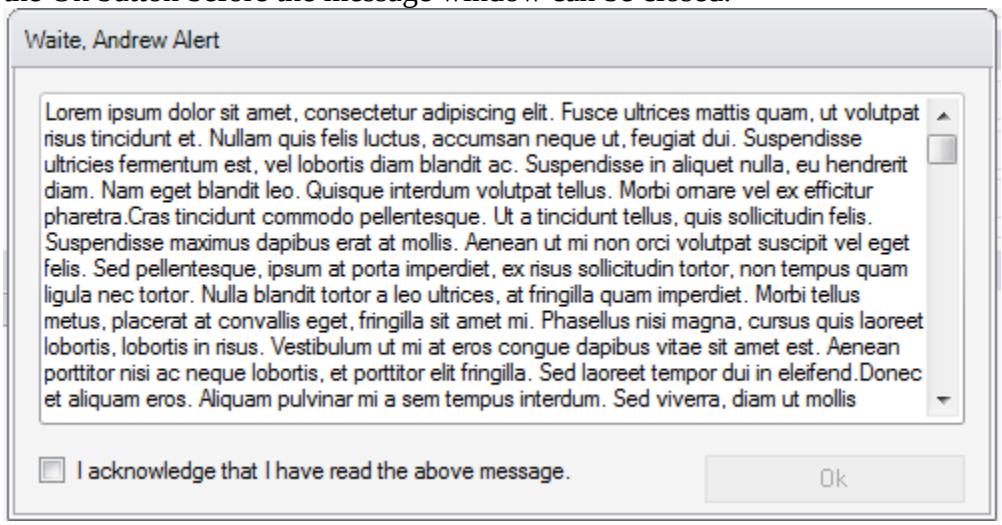



**Figure 5.9 – Referring alert**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD Inc.

## Insurance Eligibility – Denied Based On DOS Should Be Conditional

Some insurance plans are renewed monthly. This can cause an issue if the study is scheduled in current month and the appointment is scheduled for the next month (or any future month).

If plan's start and end are the first and last day of the current month and the appointment is for a different month, then we will ignore the DOS check because this insurance gets renewed every month and therefore can only be checked for dates within the current month.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD Inc.

## Insurance Eligibility – Fix Calculation of Remaining Deductible

When deductible is listed in the service section and no remaining is specified the remaining needs to be calculated.

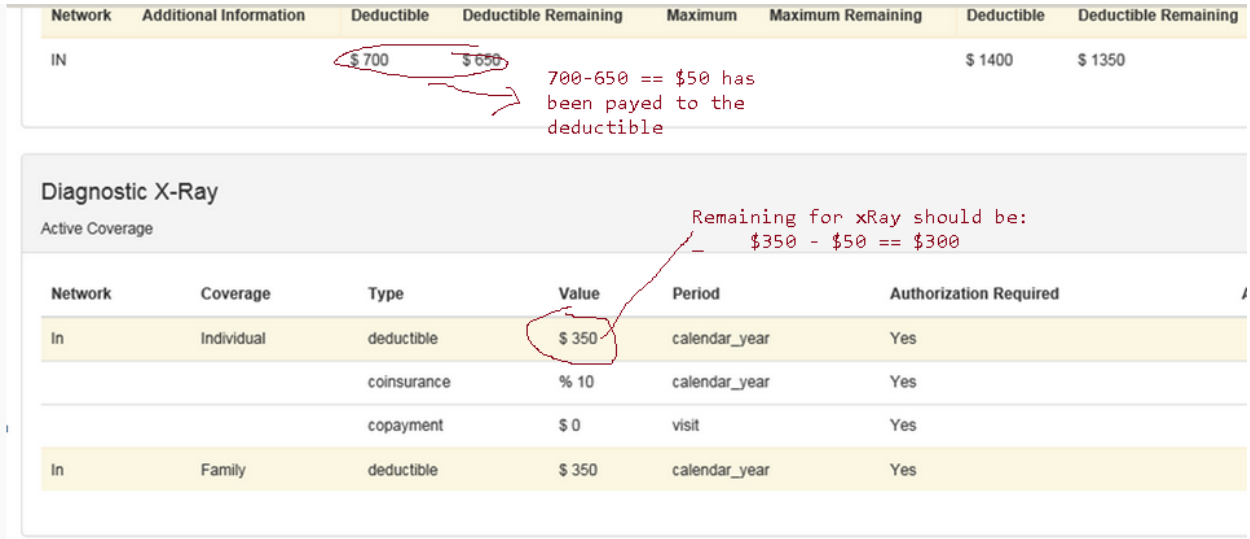



**Figure 5.10 – Calculating the remaining deductible**

The deductible of $700 is listed as an In-network deductible, but for services other than radiology services. The problem is that because "deductible remaining" isn't listed in the service type section, we pull that from the Plan section and get the $650 value. A code change was made to more accurately determine the remaining deductible.

When deductible is listed in the service section and there is no "deductible remaining", we will calculate the deductible remaining as follows:

**Remaining Deductible = ServiceType.deductible – (Plan.Deductible –Plan.DeductibleRemaining)**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD Inc.

## Configurable Site Based Insurance Contract

Currently, when NPD does not have a contracted price we use the selfpay price, which is often way price is too high and is resulting in too many refunds.

Added the site field "default_npd_insurance_number ", which is displayed in the site configuration screen as shown in the following:

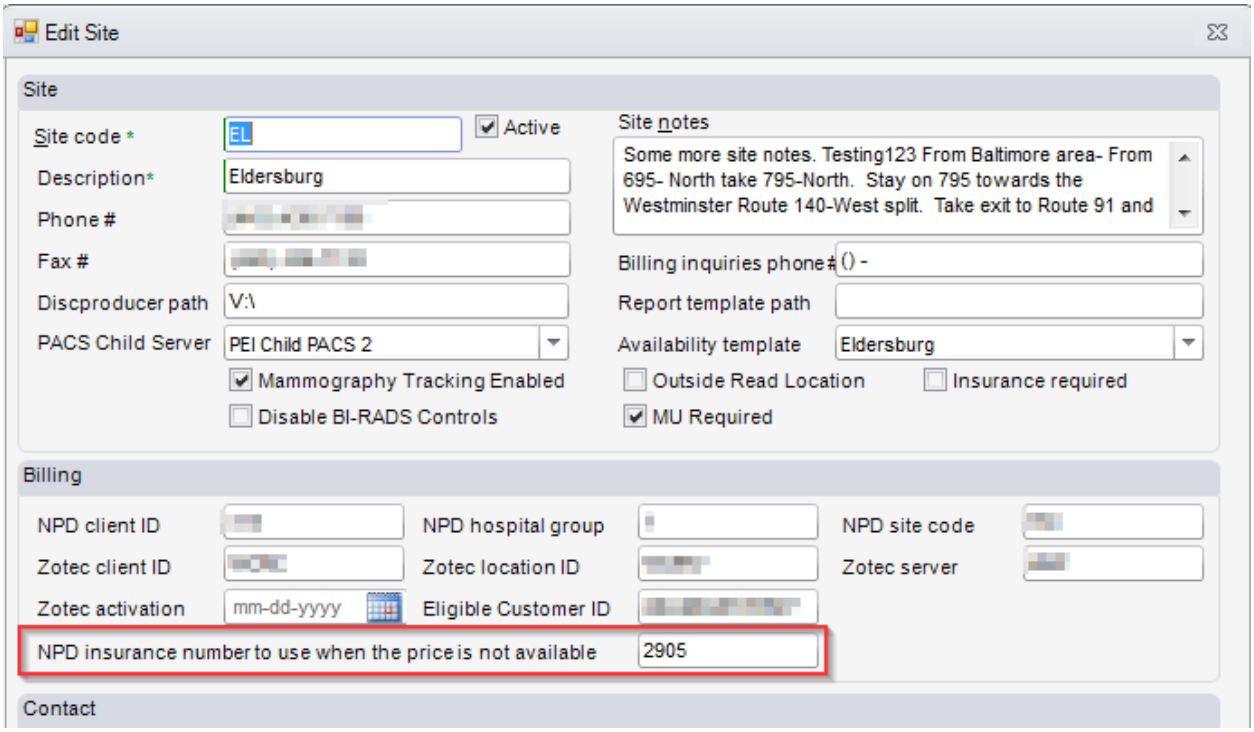



**Figure 5.11 – NPD price field on Site lookup**

When contacting the NPD for contract pricing, we will first try to send the l_carrier.insurance_co_number, but if that field isn't specified, we will attempt to get the pricing from the NPD with the first 4 digits of the carrier_code. If those requests return an NPD result that does not have a price we will then retry the NPD call with this new alternate NPD insurance number. If the NPD insurance number to use when price is not available isn't specified, then we try using the self-pay number 100.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD Inc.

## Alternative Options for Prep Instructions

Although the current prep notes are suitable for some employees, we require the ability to have alternative sets of notes that can be displayed for other users (e.g. some call center users may require a script to be read to the patient verbatim). There should be a user preference that indicates whether an alternative set of notes should be displayed to a user, or if the core notes should be used instead.

Currently, a procedure can have a single prep note attached directly, but that prep note can be overridden at the modality level via the ScheduleGroups lookup table

To start, a new lookup table titled PrepInstructionType has been added. The PrepInstructionType lookup is located under the Procedure folder on the Administration>Configure menu and allows an administrator to define new prep instructions types (e.g. a script).

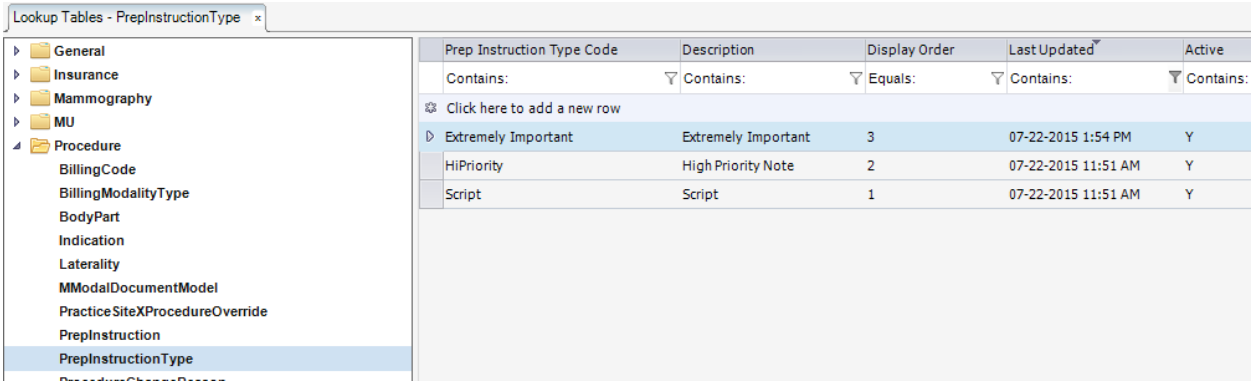



**Figure 5.12 – PrepInstructionType lookup**

After PrepInstructionTypes are defined, the RIS Administrator can use Administration -> Configuration -> PrepInstruction to define the notes to be displayed during scheduling/reception. Prep Instruction Types can be disabled with the Active column, which will prevent notes of that type from being displayed to the user.

The editor for PrepInstructions now shows an arrow that indicates that a prep instruction can be expanded. Once expanded the grid will show the alternative notes (if any) for that prep instruction and a line item that says “Click here to add a new row”. The RIS Administrator can then add as many types of alternative notes as desired.

Alternative notes attached to a prep note can be disabled individually using the Active column.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD Inc.

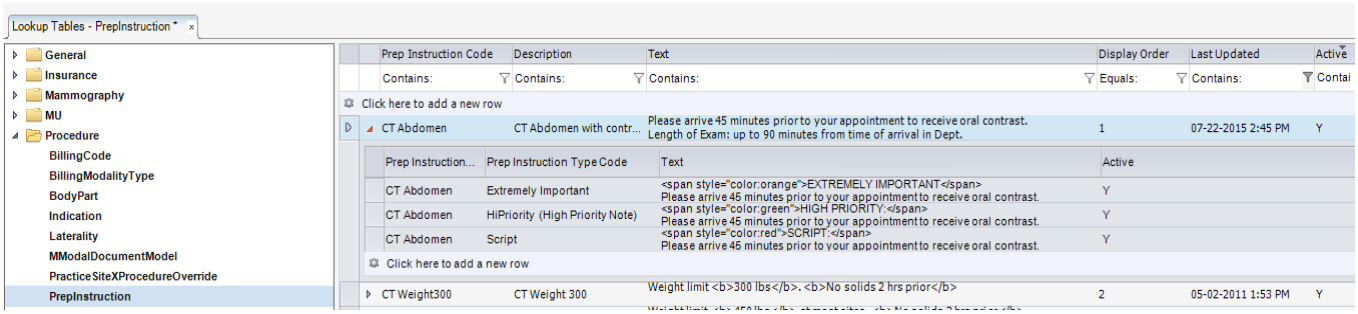



**Figure 5.13 – PrepInsruction table displaying how each can be expanded to show additional configuration**

A new user preference "Prep Instructions Level" has been added under the General tab. The default option will be "Default". The list of available values will be the active items from the PrepInstrucitonsType lookup.

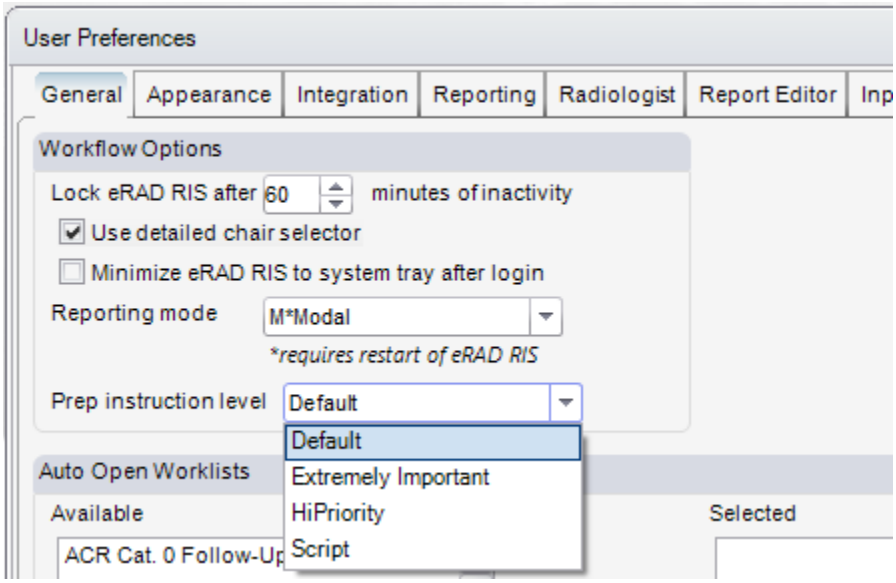



**Figure 5.14 – Prep Instruction Level user preference**

If a user is configure with a custom prep instruction level (e.g. script) but no script exists for a given procedure, then the core prep instructions should be displayed instead.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD Inc.

## MModal Version 7.93

We applied the new libraries provided from M*Modal in our application. This new version uses a new recognizer version (v6).

**PLEASE TAKE NOTE**

To utilize and gain the benefit from this newer recognizer (v6), **M*Modal must be notified so they can make backend changes to the user accounts.**

To get the latest v6 recognizer we will need to notify M*Modal of which users will be using the 7.93 deployment. Otherwise things will function as they did with the existing v5 recognizer.

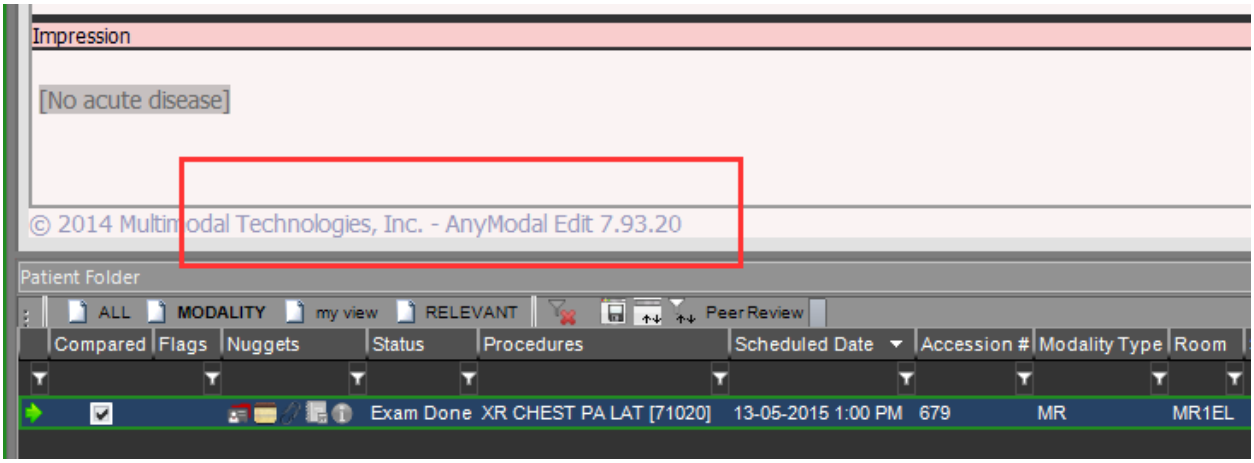
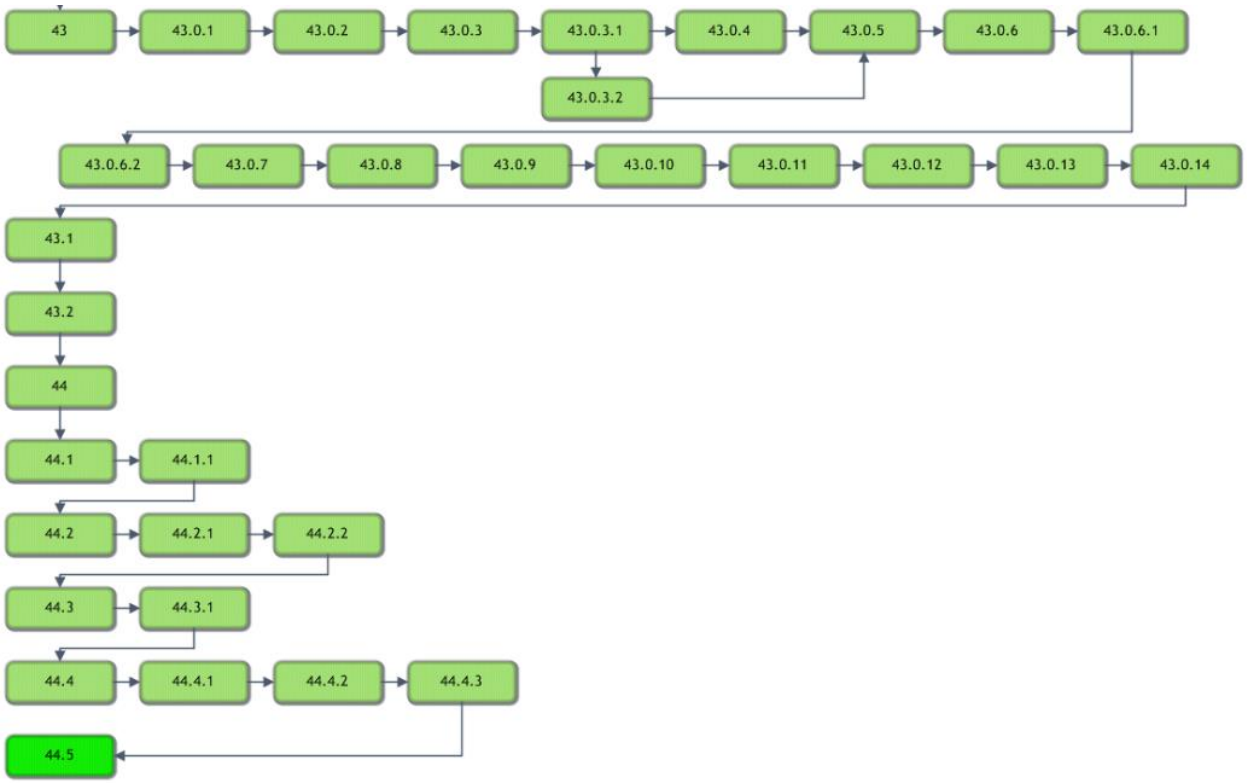



**Figure 5.15 – Reporting window displaying version 7.93**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD Inc.

# 6. Code Stream




**Legend:**

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD Inc.

# 7. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 43 | - | 2.43.0.0.23715(3GB) | 2.43.0.0.23171 | 2.43.0.0.23715 | 2.43.0.0.23743 | Full Version Release |
| 43 | 1 | 2.43.0.1.23798(3GB) | 2.43.0.0.23171 | 2.43.0.1.23798 | 2.43.0.1.23770 | GUI.zip, Web Service, DB updates |
| 43 | 2 | 2.43.0.2.24017(3GB) | 2.43.0.0.23171 | 2.43.0.2.24017 | 2.43.0.2.24023 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 3 | 2.43.0.3.24298(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24283 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 3.1 | 2.43.0.3.24450(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24421 | GUI.zip, and DB updates |
| 43 | 3.2 | 2.43.0.3.24450(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24421a | DB updates |
| 43 | 4 | 2.43.0.4.24447(3GB) | 2.43.0.0.23171 | 2.43.0.4.24447 | 2.43.0.4.24442 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 5 | 2.43.0.4.24632(3GB) | 2.43.0.0.23171 | 2.43.0.4.24632 | 2.43.0.4.24560 | GUI.zip, Web Service and DB updates |
| 43 | 6 | 2.43.0.4.24(3GB) | 2.43.0.0.23171 | 2.43.0.4.24 | 2.43.0.4.24 | GUI.zip, Web Service and DB updates |
| 43 | 6.1 | 2.43.0.6.24937(3GB) | 2.43.0.0.23171 | 2.43.0.6.24937 | 2.43.0.6.24914 | GUI.zip, Web Service |
| 43 | 6.2 | 2.43.0.6.24970(3GB) | 2.43.0.0.23171 | 2.43.0.6.24970 | 2.43.0.6.24914 | GUI.zip, Web Service |
| 43 | 7 | 2.43.0.7.25258(3GB) | 2.43.0.0.23171 | 2.43.0.7.25258 | 2.43.0.7.25226 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 8 | 2.43.0.8.25440(3GB) | 2.43.0.0.23171 | 2.43.0.8.25440 | 2.43.0.8.25425 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 9 | 2.43.0.9.25477(3GB) | 2.43.0.0.23171 | 2.43.0.9.25477 | 2.43.0.8.25425 | GUI.zip and Web Service |
| 43 | 10 | 2.43.0.9.25477(3GB) | 2.43.0.0.23171 | 2.43.0.10.25477 | 2.43.0.8.25425 | Web Service |
| 43 | 11 | 2.43.0.11.25512(3GB) | 2.43.0.0.23171 | 2.43.0.11.25512 | 2.43.0.8.25425 | GUI.zip and Web Service |
| 43 | 12 | 2.43.0.12.25554(3GB) | 2.43.0.0.23171 | 2.43.0.12.25554 | 2.43.0.12.25536 | GUI.zip Web Service and DB Updates |
| 43 | 13 | 2.43.0.12.25610(3GB) | 2.43.0.0.23171 | 2.43.0.12.25610 | 2.43.0.12.25536 | GUI.zip and Web Service |
| 43 | 14 | 2.43.0.14.25644(3GB) | 2.43.0.0.23171 | 2.43.0.13.25610 | 2.43.0.12.25536 | GUI.zip |
| 43.1 | - | 2.43.1.0.25850(3GB) | 2.43.0.0.23171 | 2.43.1.0.25850 | 2.43.1.0.25771 | GUI.zip Web Service and DB Updates |
| 43.2 | - | 2.43.2.0.26864(3GB) | 2.43.0.0.23171 | 2.43.2.0.26864 | 2.43.1.0.25771 | GUI.zip and Web Service |
| 44 | - | 2.44.0.0.26570(3GB) | 2.44.0.0.26405 | 2.44.0.0.26570 | 2.44.0.0.26475 | Full Version Release |
| 44.1 | - | 2.44.0.0.26984(3GB) | 2.44.0.0.26405 | 2.44.0.0.26984 | 2.44.0.0.26906 | Gui.zip, Web Service, and DB |
| 44.1 | 1 | 2.44.1.1.27093(3GB) | 2.44.0.0.26405 | 2.44.1.0.26984 | 2.44.1.0.26906 | Gui.zip |
| 44.2 | | 2.44.2.0.27410(3GB) | 2.44.0.0.26405 | 2.44.2.0.27410 | 2.44.2.0.27365 | Gui.zip, Web Service, and DB |
| 44.2 | 1 | 2.44.2.1.27959(3GB) | 2.44.0.0.26405 | 2.44.2.1.27959 | 2.44.2.1.27909 | Gui.zip, Web Service, and DB |
| 44.2 | 2 | 2.44.2.1.27959(3GB) | 2.44.0.0.26405 | 2.44.2.2.28094 | 2.44.2.1.27909 | Web Service |
| 44.3 | - | 2.44.3.0.28292 | 2.44.0.0.26405 | 2.44.3.0.28277 | 2.44.3.0.28138 | Gui.zip, Web Service, and DB |
| 44.3 | 1 | 2.44.3.1.28535(3GB) | 2.44.0.0.26405 | 2.44.3.1.28535 | 2.44.3.0.28138 | Gui.zip and Web Service |
| 44.4 | - | 2.44.4.0.28762(3GB) | 2.44.0.0.26405 | 2.44.4.0.28762 | 2.44.4.0.28676 | Gui.zip, Web Server, DB, Management Report Deployment |
| 44.4 | 1 | 2.44.4.1.28953(3GB) | 2.44.0.0.26405 | 2.44.4.1.28953 | 2.44.4.0.28676 | Gui.zip and Web Service |
| 44.4 | 2 | 2.44.4.2.29327(3GB) | 2.44.0.0.26405 | 2.44.4.2.29327 | 2.44.4.0.28676 | Gui.zip and Web Service |
| 44.4 | 3 | 2.44.4.2.29722(3GB) | 2.44.0.0.26405 | 2.44.4.2.29327 | 2.44.4.0.28676 | Gui.zip and Web Service |
| **44.5** | **-** | **2.44.5.0.30022(3GB)** | **2.44.0.0.26405** | **2.44.5.0.30022** | **2.44.5.0.29976** | **Gui.zip, Web Server, DB** |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD Inc.

# 8. Resolved Defects

Bugs Suggested Features and Support Issues resolved in build 2.44.5. The extract is taken from Redmine bug tracking system and only displays defects resolved in 2.44.5.

| Bug # | Priority | Subject | Category | Found Version |
|---|---|---|---|---|
| 10728 | High | Length of parameter to l_person.FillByPersonKeys was reduced from 10240 to 1024 | Interfaces | 2.44.4.1 |
| 10890 | High | update a person record to be a surgeon does not get expected behaviour | Person Management | 2.44.1 |
| 10883 | High | error when opening print forms dialog on an order | Forms | 2.44.2 |
| 10799 | Normal | Marketing Report \ Monthly Variance Raw Data | Mgt Reports | 2.44 |
| 10678 | Urgent | RIS hangs if minimized with Image Request WL open | Image request | 2.43.1 |
| 10663 | Normal | Patient Key / Insurance error when scheduling a new patient with insurance and multiple orders | Insurance Managment | 44.1 |
| 10598 | Normal | Wedge selects first address for referring physician if none is specified, ignoring active flag | Interfaces | 2.44.0 |
| 10584 | High | patient portal icode should be created by RIS during check in AND arrived events | Connect Portal 4.x | 2.44.1 |
| 10550 | Normal | CD Import issue with DICOM file containing null patient name and null accession number | CD Import\Export | 44.1 |
| 10400 | Urgent | Error created when inactive study items exist | Scheduling | 43.1 |
| 10347 | Urgent | Confirmation WL does not show weekly closed rooms | Confirmation | 44.3 |
| 9670 | Normal | Insurance Eligibility - We should not deny service on the last day of their plan | Insurance Eligibility | 44.2 |
| 7270 | Normal | Note column in personnel causing errors | Admin-Clinical Data | 2.43 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD Inc.

# 9. Known Limitations

The following are Bugs Suggested Features and Support Issues found in build 2.44.5. Bugs reported in previous versions are not captured as Known Limitation in this document.

| # | Status | Priority | Subject |
|---|---|---|---|
| 11197 | New | Normal | Missing access string for new lookup table PrepInstructionType |
| 11187 | New | Normal | Patients that have the same Patient Flag set cannot be merged |
| 11182 | New | Low | Removing Patient Flag and it's corresponding notes only removes the notes |
| 11157 | New | Normal | Import CD - Study row shouldn't be created if the Study UID already exists in PACS |
| 11151 | New | Low | Clearing Patient Flag notes adds empty string which causes alerts to display extra line with hyphen |
| 11143 | New | Normal | EMR order X show share insurance details when visit key is the same |
| 11130 | New | Normal | Referring Physician alerts get reshown on Checking In |
| 11093 | New | Normal | CC Physician - visit location is not populating the first time you select a physican. |
| 11091 | QE Rejected | Low | Patient Flags special access strings should apply to flag and note |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD Inc.

# Server Update

For eRAD RIS
Version 2.0
Build 44.5
Update 44.5.1

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# Table of Contents

1. New Features ..... 3
2. Resolved Items ..... 4
3. Code Stream ..... 5
4. Package Contents ..... 6
5. Intended Audience ..... 9
6. Who is affected ..... 9
7. eRAD RIS Release Version Numbers ..... 10
8. Installing ..... 11

Client/GUI ..... 11
Web Service ..... 12
Database Updates ..... 16

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## 1. New Features

Users would like to see how long a request has been in progress to cache PACS images for a study. The column should display in minutes since the cache request was made.

A new sortable column titled “Minutes since cache request” has been added to the Pending Dictation WL and the All Pending Dictation WL.

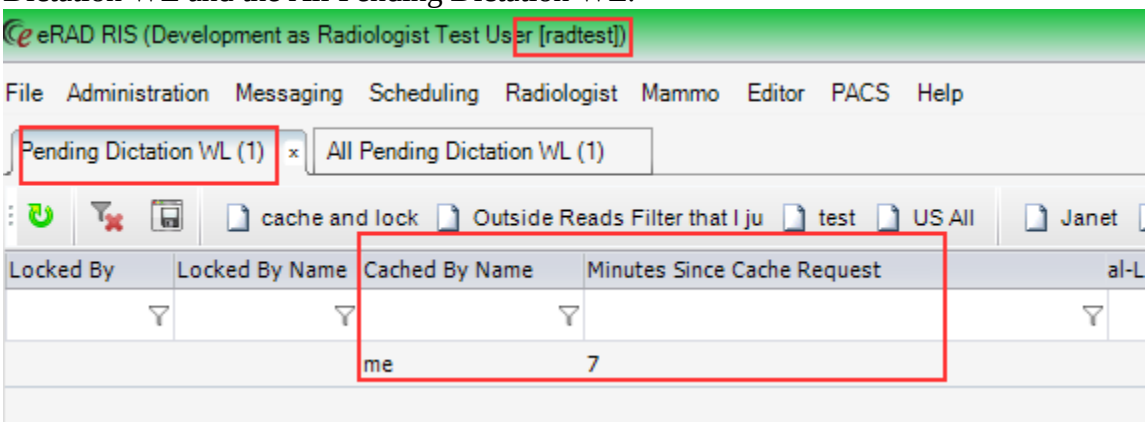



**Figure 1 – Current User on the My Pending Dictation WL**

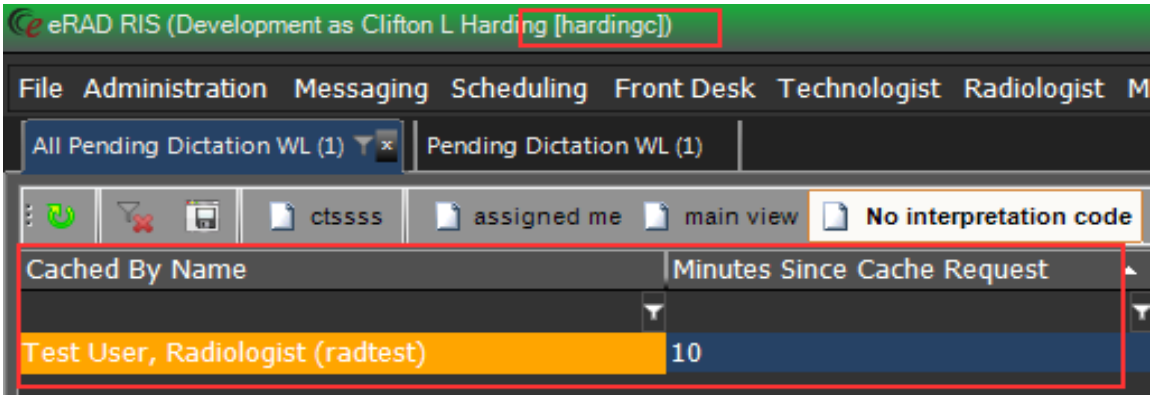



**Figure 2 – Other user viewing All Pending Dictation WL**

This information will allow a user to more accurately estimate if enough time has elapsed for the study to have cached. Conditional formatting can be applied to a Worklist View to visually distinguish when a cache request has surpassed a chosen length of time.

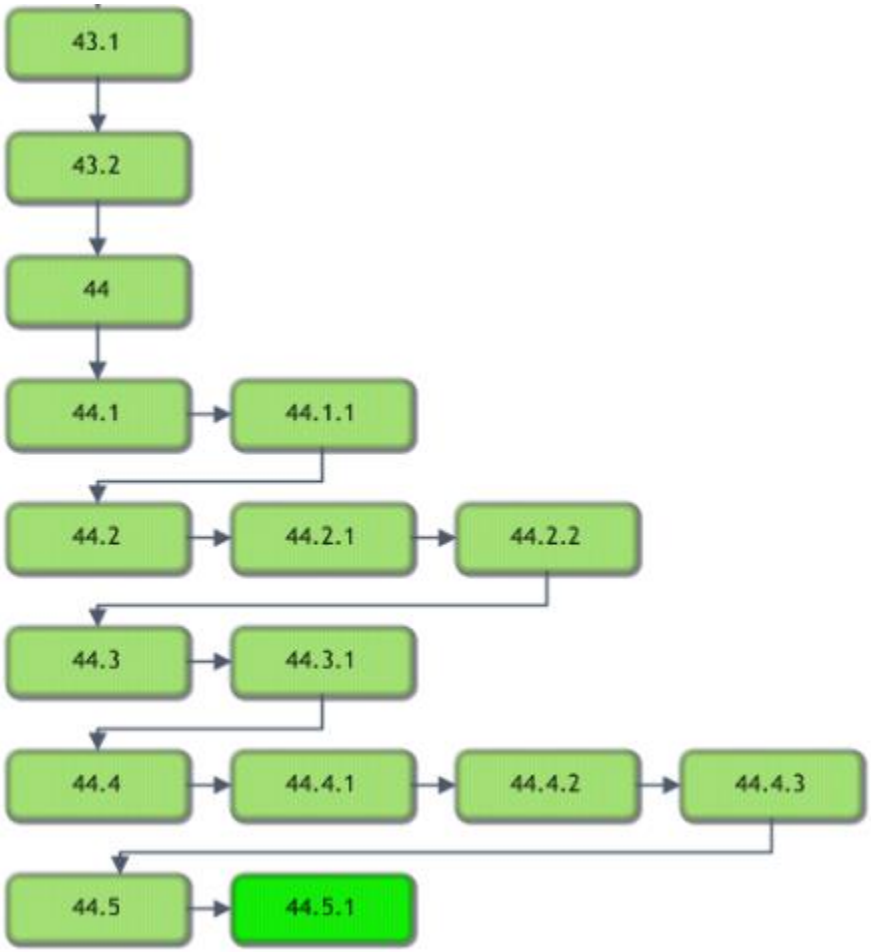
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## 2. Resolved Items

| Redmine # | Subject | Priority |
|---|---|---|
| 11425 | Changing priority in insurance policies grid may not adhere if Mange Policies is opened | High |
| 11420 | incorrect scanner displayed on ViewEdit and PerformExam for outside reads | High |
| 10663 | Patient Key / Insurance error when scheduling a new patient with insurance and multiple orders | Normal |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## 3. Code Stream




**Legend:**

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## 4. Package Contents

Files included for this server update:

1. **GUI_ZIP_Updates** contains 1 file:
   rRIS_1.3.44.5.1.30451

2. **rRISService** folder contains:
   2.1. ABCpdf.dll
   2.2. ABCpdf9-32.dll
   2.3. ABCpdf9-64.dll
   2.4. Antlr3.Runtime.dll
   2.5. CDSJobManager.dll
   2.6. CDSJobManager.pdb
   2.7. CdsLib.dll
   2.8. CdsLib.xml
   2.9. CdsLib.XmlSerializers.dll
   2.10. CommonLib.dll
   2.11. CommonLib.pdb
   2.12. DDEngine.dll
   2.13. DDEngine.pdb
   2.14. DiffPlex.dll
   2.15. Interop.FAXCOMEXLib.dll
   2.16. Microsoft.Practices.EnterpriseLibrary.Caching.dll
   2.17. Microsoft.Practices.EnterpriseLibrary.Caching.pdb
   2.18. Microsoft.Practices.EnterpriseLibrary.Common.dll
   2.19. Microsoft.Practices.EnterpriseLibrary.Common.pdb
   2.20. Microsoft.Practices.EnterpriseLibrary.Logging.dll
   2.21. Microsoft.Practices.EnterpriseLibrary.Logging.pdb
   2.22. Microsoft.Practices.ServiceLocation.dll
   2.23. Microsoft.Practices.ServiceLocation.pdb
   2.24. Microsoft.Practices.Unity.dll
   2.25. Microsoft.Practices.Unity.Interception.dll
   2.26. Microsoft.Practices.Unity.Interception.pdb
   2.27. Microsoft.Practices.Unity.pdb
   2.28. Microsoft.ReportViewer.Common.dll
   2.29. Microsoft.ReportViewer.WinForms.dll
   2.30. Microsoft.ReportViewer.WinForms.xml
   2.31. Newtonsoft.Json.dll
   2.32. Newtonsoft.Json.xml
   2.33. NLog.dll
   2.34. O2S.Components.PDFRender4NET.dll
   2.35. PdfSharp.dll
   2.36. PDFToImages.exe
   2.37. Radar.Api.Client.dll
   2.38. Radar.Api.Client.pdb
   2.39. Radar.Api.Model.dll
   2.40. Radar.Api.Model.pdb
   2.41. Radar.Common.dll
   2.42. Radar.Common.pdb
   2.43. Radar.Common.WebClient.dll
   2.44. Radar.Common.WebClient.pdb
   2.45. Radar.DirectMessaging.Client.dll
   2.46. Radar.DirectMessaging.Client.pdb
   2.47. Radar.DirectMessaging.Model.dll
   2.48. Radar.DirectMessaging.Model.pdb
   2.49. rRISServices.exe
   2.50. rRISServices.exe.config
   2.51. rRISServices.pdb
   2.52. rRISServicesx64.exe
   2.53. rRISServicesx64.exe.config
   2.54. ScheduledTaskManager.dll
   2.55. ScheduledTaskManager.pdb
   2.56. ServicesConfigWizard.exe
   2.57. ServicesConfigWizard.pdb
   2.58. SignatureApprovalService.exe
   2.59. SignatureApprovalService.pdb
   2.60. System.Net.Http.dll
   2.61. System.Net.Http.Formatting.dll
   2.62. System.Web.Http.dll
   2.63. System.Web.Http.SelfHost.dll
   2.64. System.Web.Http.SelfHost.xml
   2.65. System.Web.Http.WebHost.dll
   2.66. System.Web.Http.WebHost.xml
   2.67. System.Web.Http.xml
   2.68. System.Web.Mvc.dll
   2.69. System.Web.Mvc.xml
   2.70. System.Web.Optimization.dll
   2.71. System.Web.Razor.dll
   2.72. System.Web.Razor.xml
   2.73. System.Web.WebPages.Deployment.dll
   2.74. System.Web.WebPages.Deployment.xml
   2.75. System.Web.WebPages.dll
   2.76. System.Web.WebPages.Razor.dll
   2.77. System.Web.WebPages.Razor.xml
   2.78. System.Web.WebPages.xml
   2.79. Tourreau.Gilles.FaxDotNet.dll
   2.80. Tourreau.Gilles.FaxDotNet.pdb
   2.81. Tourreau.Gilles.FaxDotNet.xml
   2.82. WCFService.dll
   2.83. WCFService.pdb
   2.84. WCFServiceTests.dll

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

2.85. WCFServiceTests.pdb
2.86. WebApi.dll
2.87. WebApi.pdb
2.88. WebGrease.dll
2.89. Wedge.exe
2.90. Wedge.pdb

2.1.1 **XSL** folder contains:
2.1.1.1. **Stylesheets** folder contains:
A. CDAToHTMLCompleteReport.xslt
B. CDAToHTMLCompleteReportDark.xslt
C. CDAToHTMLImpressionSection.xslt
D. CDATorRIS.xslt
E. CDAToTxt.xslt
F. DocumentModelReport.xslt
G. DocumentModelReportAsXml.xslt
H. **CDA** folder contains:

i. C-CDA.xsl
ii. eRadStylesheet.xsl
iii. generalTemplates.xsl
iv. header.xsl
v. QRDA.xsl
vi. QrdaLevel3_Cypress2.4.0.xsl
vii. QrdaLevel3_ViewHtml.xsl
viii. sectionAdministeredMedications.xsl
ix. sectionAllergies.xsl
x. sectionEncounters.xsl
xi. sectionFindings.xsl
xii. sectionFuncCogStatus.xsl
xiii. sectionImmunizations.xsl
xiv. sectionInstructions.xsl
xv. sectionMedications.xsl
xvi. sectionPlanOfCare.xsl
xvii. sectionProblemList.xsl
xviii. sectionProcedures.xsl
xix. sectionQRDAMeasures.xsl
xx. sectionQRDAPatientData.xsl
xxi. sectionQRDAReporting.xsl
xxii. sectionReasonForVisit.xsl
xxiii. sectionResults.xsl
xxiv. sectionSocialHistory.xsl
xxv. sectionVitalSigns.xsl

2.1.2 **Deploy** folder contains 3 files:
2.1.2.1. applicationsettings.config
2.1.2.2. releaseVersion-connectionstrings.config
2.1.2.3. services.config

3. **DB** folder contains 3 subfolders and 1 .txt file:
3.1.1. Common folder contains MU folder and 2 .sql files
3.1.1.1. RISMaintenanceJobs.sql
3.1.1.2. rRISCoreData.sql
3.1.1.3. MU Folder contains 1 sub folder, 1 batch file, 1 .sql file and 1 text file
3.1.1.3.1. ImportDataFileUpgradeDB.bat
3.1.1.3.2. ImportDataFileUpgradeDB.sql
3.1.1.3.3. MUreadme.txt
3.1.1.3.4. Scripts folder contains 9 files
3.1.1.3.4.1. 5-digit Commercial.csv
3.1.1.3.4.2. ICD9CM_SNOMED_MAP_1TO1_201312.txt
3.1.1.3.4.3. ICD9CM_SNOMED_MAP_1TOM_201312.txt
3.1.1.3.4.4. l_hl7_voc_value_code.txt
3.1.1.3.4.5. l_hl7_voc_value_set.txt

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

3.1.1.3.4.6. s_mu_code.txt
3.1.1.3.4.7. sct2_Concept_Snapshot_US1000124_20140301.txt
3.1.1.3.4.8. sct2_Description_Snapshot-en_US1000124_20140301.txt
3.1.1.3.4.9. xder2_iissscRefset_ExtendedMapSnapshot_US1000124_20131220.txt

**NOTE:** Always run the upgrade scripts in a test environment of the actual database to make sure they run cleanly. If any errors occur please contact development.

3.2. **NewInstall** folder contains 4 files
- 3.2.1. B44.0 Base Build.sql
- 3.2.2. Create rRIS User.sql
- 3.2.3. CreateDB.sql
- 3.2.4. LoadDefaultConfiguration.sql

3.3. **Upgrade** folder contains 2 subfolders and 1 batch file
- 3.3.1. RunUpgrade.bat
- 3.3.2. **Log** folder is empty
- 3.3.3. **Scripts** folder contains: 40 files
  - 3.3.3.1. _executeSQL.bat
  - 3.3.3.2. _getCurrentVersion.sql
  - 3.3.3.3. _run_scripts.bat
  - 3.3.3.4. B43.0.1.sql
  - 3.3.3.5. B43.0.12.sql
  - 3.3.3.6. b43.0.12_to_b43.1.0_Schema_Upgrade.sql
  - 3.3.3.7. B43.0.2.sql
  - 3.3.3.8. B43.0.3.0.sql
  - 3.3.3.9. B43.0.3.1.sql
  - 3.3.3.10. B43.0.3.2.sql
  - 3.3.3.11. B43.0.4.sql
  - 3.3.3.12. B43.0.5.sql
  - 3.3.3.13. B43.0.6.sql
  - 3.3.3.14. B43.0.7.sql
  - 3.3.3.15. B43.0.8.sql
  - 3.3.3.16. B43.1.0.sql
  - 3.3.3.17. B44.0.0.25942.sql
  - 3.3.3.18. B44.0.0.25974.sql
  - 3.3.3.19. B44.0.0.26019.sql
  - 3.3.3.20. B44.0.0.26037.sql
  - 3.3.3.21. B44.0.0.26158.sql
  - 3.3.3.22. B44.0.0.26207.sql
  - 3.3.3.23. B44.0.0.26321.sql
  - 3.3.3.24. B44.0.0.26384.sql
  - 3.3.3.25. B44.0.0.26412.sql
  - 3.3.3.26. B44.0.0.26475.sql
  - 3.3.3.27. B44.1.0.26906.sql
  - 3.3.3.28. B44.1.0.27145.sql
  - 3.3.3.29. B44.2.0.27365.sql
  - 3.3.3.30. B44.2.1.27909.sql
  - 3.3.3.31. B44.3.0.28076.sql
  - 3.3.3.32. B44.3.0.28111.sql
  - 3.3.3.33. B44.3.0.28127.sql
  - 3.3.3.34. B44.3.0.28138.sql
  - 3.3.3.35. B44.4.0.28609.sql
  - 3.3.3.36. B44.4.0.28676.sql
  - 3.3.3.37. B44.5.0.29775.sql
  - 3.3.3.38. B44.5.0.29835.sql
  - 3.3.3.39. B44.5.0.29935.sql
  - 3.3.3.40. B44.5.0.29976.sql
  - 3.3.3.41. B44.5.1.30449.sql

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## 5. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

## 6. Who is affected

Build 44.5 installs. This server update must be applied to 44.5

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## 7. eRAD RIS Release Version Numbers

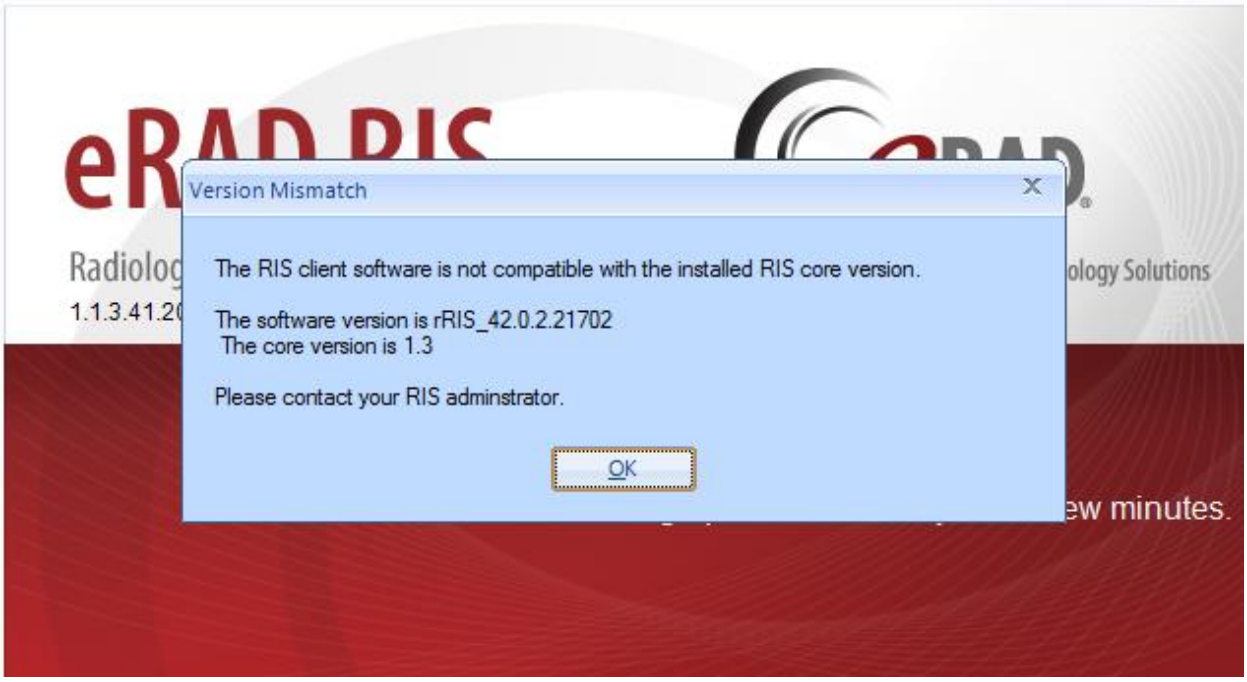
| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 43 | - | 2.43.0.0.23715(3GB) | 2.43.0.0.23171 | 2.43.0.0.23715 | 2.43.0.0.23743 | Full Version Release |
| 43 | 1 | 2.43.0.1.23798(3GB) | 2.43.0.0.23171 | 2.43.0.1.23798 | 2.43.0.1.23770 | GUI.zip, Web Service, DB updates |
| 43 | 2 | 2.43.0.2.24017(3GB) | 2.43.0.0.23171 | 2.43.0.2.24017 | 2.43.0.2.24023 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 3 | 2.43.0.3.24298(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24283 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 3.1 | 2.43.0.3.24450(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24421 | GUI.zip, and DB updates |
| 43 | 3.2 | 2.43.0.3.24450(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24421a | DB updates |
| 43 | 4 | 2.43.0.4.24447(3GB) | 2.43.0.0.23171 | 2.43.0.4.24447 | 2.43.0.4.24442 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 5 | 2.43.0.4.24632(3GB) | 2.43.0.0.23171 | 2.43.0.4.24632 | 2.43.0.4.24560 | GUI.zip, Web Service and DB updates |
| 43 | 6 | 2.43.0.4.24(3GB) | 2.43.0.0.23171 | 2.43.0.4.24 | 2.43.0.4.24 | GUI.zip, Web Service and DB updates |
| 43 | 6.1 | 2.43.0.6.24937(3GB) | 2.43.0.0.23171 | 2.43.0.6.24937 | 2.43.0.6.24914 | GUI.zip, Web Service |
| 43 | 6.2 | 2.43.0.6.24970(3GB) | 2.43.0.0.23171 | 2.43.0.6.24970 | 2.43.0.6.24914 | GUI.zip, Web Service |
| 43 | 7 | 2.43.0.7.25258(3GB) | 2.43.0.0.23171 | 2.43.0.7.25258 | 2.43.0.7.25226 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 8 | 2.43.0.8.25440(3GB) | 2.43.0.0.23171 | 2.43.0.8.25440 | 2.43.0.8.25425 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 9 | 2.43.0.9.25477(3GB) | 2.43.0.0.23171 | 2.43.0.9.25477 | 2.43.0.8.25425 | GUI.zip and Web Service |
| 43 | 10 | 2.43.0.9.25477(3GB) | 2.43.0.0.23171 | 2.43.0.10.25477 | 2.43.0.8.25425 | Web Service |
| 43 | 11 | 2.43.0.11.25512(3GB) | 2.43.0.0.23171 | 2.43.0.11.25512 | 2.43.0.8.25425 | GUI.zip and Web Service |
| 43 | 12 | 2.43.0.12.25554(3GB) | 2.43.0.0.23171 | 2.43.0.12.25554 | 2.43.0.12.25536 | GUI.zip Web Service and DB Updates |
| 43 | 13 | 2.43.0.12.25610(3GB) | 2.43.0.0.23171 | 2.43.0.12.25610 | 2.43.0.12.25536 | GUI.zip and Web Service |
| 43 | 14 | 2.43.0.14.25644(3GB) | 2.43.0.0.23171 | 2.43.0.13.25610 | 2.43.0.12.25536 | GUI.zip |
| 43.1 | - | 2.43.1.0.25850(3GB) | 2.43.0.0.23171 | 2.43.1.0.25850 | 2.43.1.0.25771 | GUI.zip Web Service and DB Updates |
| 43.2 | - | 2.43.2.0.26864(3GB) | 2.43.0.0.23171 | 2.43.2.0.26864 | 2.43.1.0.25771 | GUI.zip and Web Service |
| 44 | - | 2.44.0.0.26570(3GB) | 2.44.0.0.26405 | 2.44.0.0.26570 | 2.44.0.0.26475 | Full Version Release |
| 44.1 | - | 2.44.0.0.26984(3GB) | 2.44.0.0.26405 | 2.44.0.0.26984 | 2.44.0.0.26906 | Gui.zip, Web Service, and DB |
| 44.1 | 1 | 2.44.1.1.27093(3GB) | 2.44.0.0.26405 | 2.44.1.0.26984 | 2.44.1.0.26906 | Gui.zip |
| 44.2 | | 2.44.2.0.27410(3GB) | 2.44.0.0.26405 | 2.44.2.0.27410 | 2.44.2.0.27365 | Gui.zip, Web Service, and DB |
| 44.2 | 1 | 2.44.2.1.27959(3GB) | 2.44.0.0.26405 | 2.44.2.1.27959 | 2.44.2.1.27909 | Gui.zip, Web Service, and DB |
| 44.2 | 2 | 2.44.2.1.27959(3GB) | 2.44.0.0.26405 | 2.44.2.2.28094 | 2.44.2.1.27909 | Web Service |
| 44.3 | - | 2.44.3.0.28292 | 2.44.0.0.26405 | 2.44.3.0.28277 | 2.44.3.0.28138 | Gui.zip, Web Service, and DB |
| 44.3 | 1 | 2.44.3.1.28535(3GB) | 2.44.0.0.26405 | 2.44.3.1.28535 | 2.44.3.0.28138 | Gui.zip and Web Service |
| 44.4 | - | 2.44.4.0.28762(3GB) | 2.44.0.0.26405 | 2.44.4.0.28762 | 2.44.4.0.28676 | Gui.zip, Web Server, DB, Management Report Deployment |
| 44.4 | 1 | 2.44.4.1.28953(3GB) | 2.44.0.0.26405 | 2.44.4.1.28953 | 2.44.4.0.28676 | Gui.zip and Web Service |
| 44.4 | 2 | 2.44.4.2.29327(3GB) | 2.44.0.0.26405 | 2.44.4.2.29327 | 2.44.4.0.28676 | Gui.zip and Web Service |
| 44.4 | 3 | 2.44.4.2.29722(3GB) | 2.44.0.0.26405 | 2.44.4.2.29327 | 2.44.4.0.28676 | Gui.zip and Web Service |
| 44.5 | - | 2.44.5.0.30022(3GB) | 2.44.0.0.26405 | 2.44.5.0.30022 | 2.44.5.0.29976 | Gui.zip, Web Server, DB |
| **44.5** | | **2.44.5.1.30451(3GB)** | **2.44.0.0.26405** | **2.44.5.1.30451** | **2.44.5.1.30449** | **Gui.zip, Web Server, DB** |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# 8. Installing

## Client/GUI

1) Copy and replace the current rRIS…zip file with the rRIS_1.3.44.5.1.30451.zip file provided with this release.
   Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.




If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_44.5.1.30451→ rRIS_1.3.44.5.1.30451
NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

**NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## Web Service

1. The web service upgrade consists of replacing the files in the RIS Web Service directory with the files supplied in the rRISService folder with this build. Always create a backup of the files being replaced. This upgrade includes 88 files in the rRISService folder and 2 sub folders. Of those folders, 1 is a folder titled **"XSL"** that contains a sub folder and files within the subfolder. Another folder is titled **"deploy"** that contains the new .config files that will be deployed with the user of the file called "ServicesConfigWizard.exe" (see instructions below).

## Services Configuration Wizard

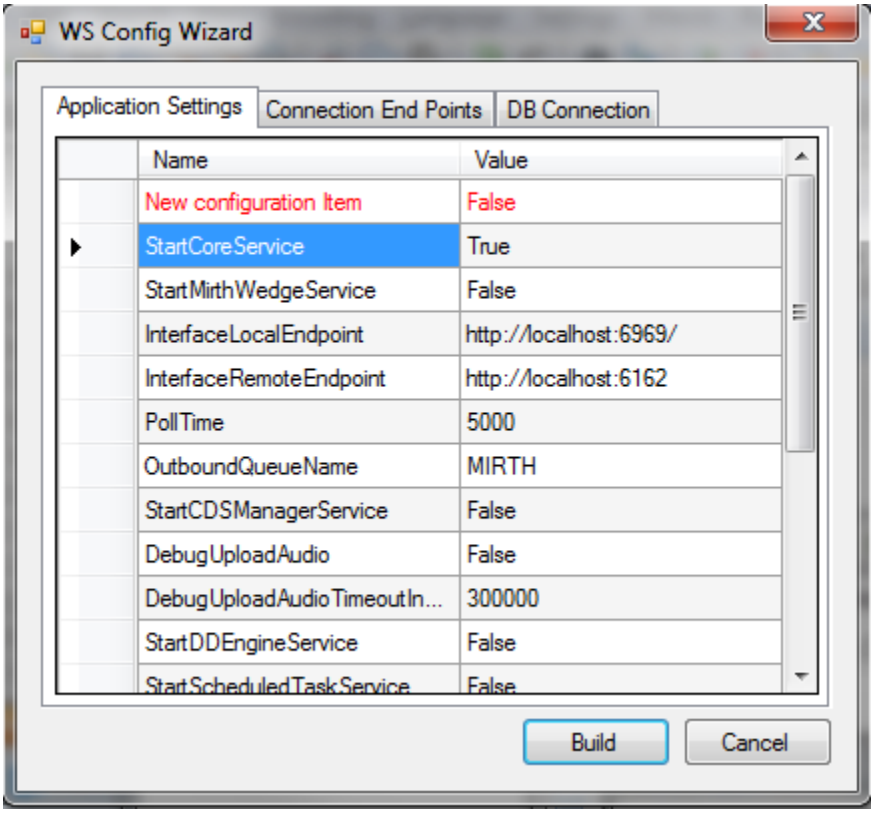
With the release of 42 to decrease the chance of losing configuration setting and missing new configuration options, we will no longer include the configuration files in the release in the main set of files, but they will now exist in a "deploy" folder, which will contain the three site configurable config files; applicationsettings, connectionstrings, services as well as a copy of the rRISServices.exe configuration file. The contents of this folder should not be required to be touched.

On the install of a new service, all files will be copied to the appropriate locations on the server (no configurations will be over written). If instructed or to confirm no new configurations have been added the user can run the new application "ServicesConfigWizard.exe"

This application will read the existing configuration file(s) (if files exist), and compare to the provided new configuration files then will display three tabs, for each configuration file:
**Application Settings:** all existing configuration value will be displayed, if there are any new configuration entries they will be displayed in red.

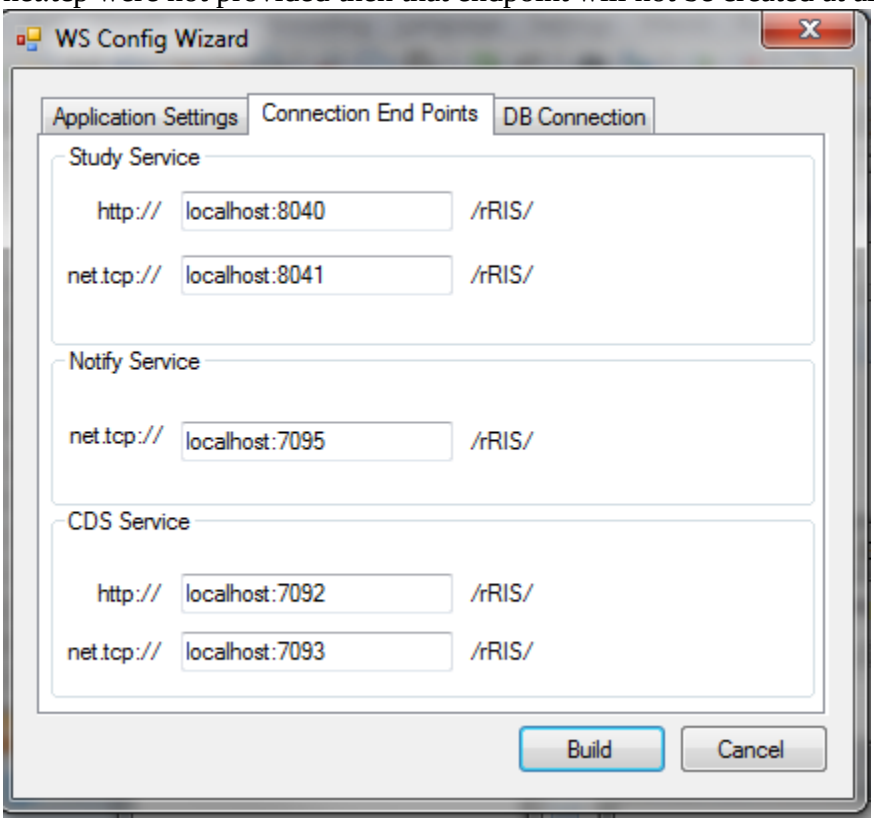
**NOTE:** the rRISServices.exe.config file is also included in the deploy folder. If this file has changes it **will not** update your current file in the Web Service directory. Any changes to this file will require a manual update of the rRISServices.exe.config and rRISServicesx64.exe.config files.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.



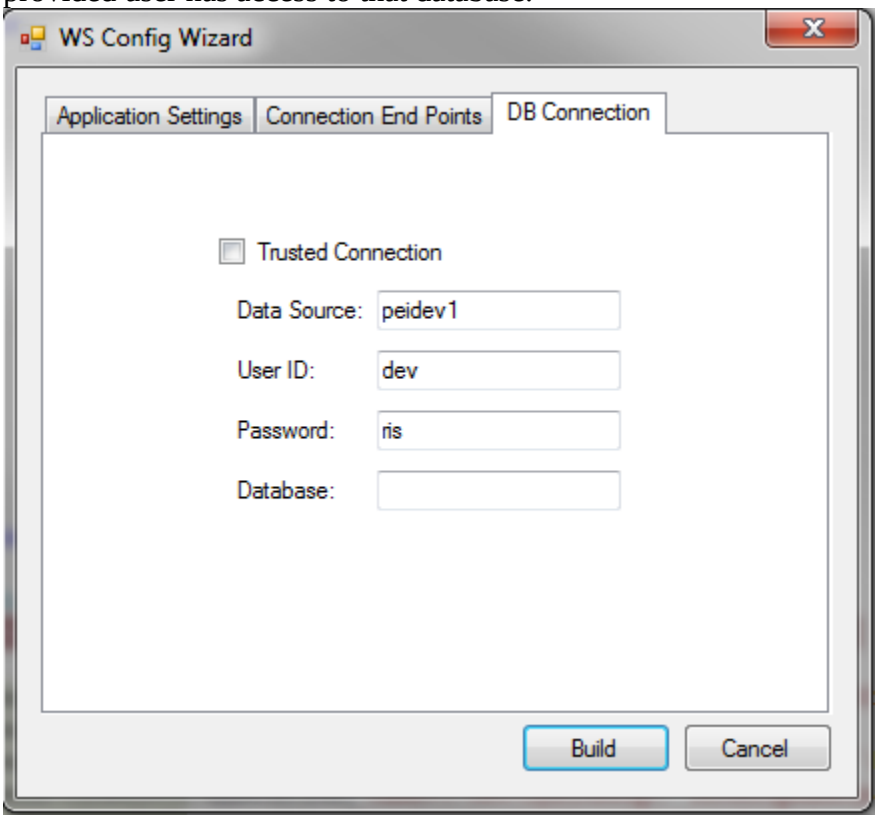

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

**Connection End Points:** will display the existing configuration, if the value is left blank then that entry will not be created, in the case of "Study Service" or "CDS Service" if both http and net.tcp were not provided then that endpoint will not be created at all.




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

**DB Connection:** will display the existing configuration, if the Connection is to be used as a trusted connection, then the user ID and password will become disabled and will not be used, and will rely on the provided database value, When not using the trusted connection, The Database value is not needed but can be used to force a specific database connection as long as the provided user has access to that database.




It is always good practice to do a compare of the .config files.

1) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService.
   *rRISService directories include:*
   *a) rRISService*
   *b) CDS rRISService*
   *c) Wedge rRISService*
   *d) DDE rRISService*

   **Restart each service**.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## Database Updates

Always run the upgrade scripts in a test environment of the actual database to make sure they run cleanly. If any errors occur please contact development.

*Note: There is a new upgrade process introduced with B43.1 called "RunUpgrade.bat". The batch file will open a command window. This process will prompt you for the database server name, database name and authentication credentials. There is no need to run the database upgrade scripts manually as was done in previous releases.*

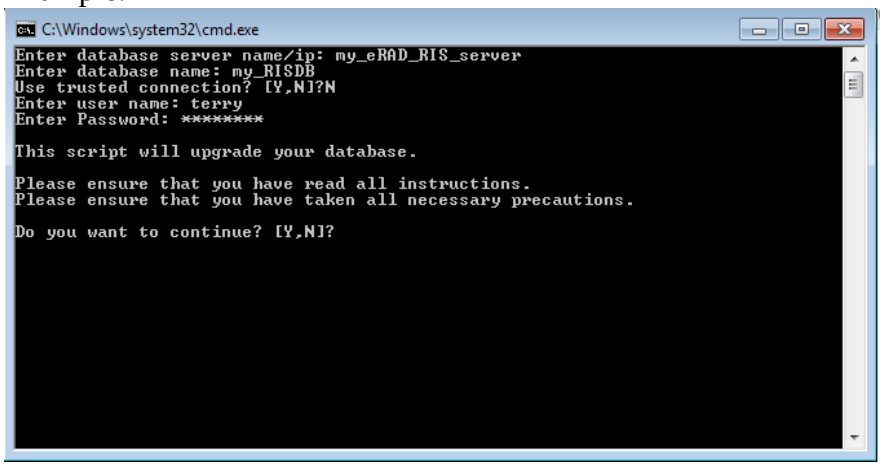
1) From the upgrade folder, double click the "RunUpgrade.bat" command file.

2) Enter the server name, database name and authentication credentials to the database. You have 2 choices for authentication credentials.

3) You can choose to use "Trusted connection". Using this option will pass the identity of the currently logged on user. If this user has "db_owner" access to the eRAD RIS database then feel free to use this options.

4) If you decide not to use "Trusted connection" then you will be prompted for user id and password.

   Example:




5) After the upgrade program has finished you can find the upgrade logs in the "log" folder. The file name will be eRAD_RIS_db_upgrade_timestamp.log, where timestamp is a value representing the date and time the upgrade started. If you see any errors please contact the development team

6) In the Common folder there is a subfolder of MU. The MU folder contains updates to lookups relevant for MU as well as updates for Zip Code table to add the County. Copy the

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

MU folder to the database server before running the batch file. There is a readme file contained in the MU folder. The details have also been included below

a) The mu bulk install process must be run from a path on the database server!
b) Copy Files ImportDataFileUpgradeDB.bat and ImportDataFileUpgradeDB.sql from upgrade folder to a location on the database server(This location will be referred to as the "Script Folder Path".)
c) Copy Folder scripts and Source files from the upgrade folder to "Script Folder Path" ....Note source files must be inside the scripts folder
d) Run bat file
   i) Enter Script Folder path [C:\Temp\SNOMED]:
   ii) Enter database server name/ip: [ie peidev1]
   iii) Enter database name: [ie rRIS_MU]
   iv) Use a trusted connection to log on to SQL Server:
   "N" means you will have to enter db [username] [password]
   "Y" means you have a trusted connection and will not have to enter [username][password]
   v) Do you wish to load SNOMED concept codes?
   "N" no files will be loaded into the l_snomed_concept table
   "Y" yes means l_snomed_concept table will be truncated and reloaded with the latest US concept codes
   Source File [sct2_Concept_Snapshot_US1000124_20140301.txt]
   vi) Do you wish to load SNOMED descriptions codes?
   "N" no files will be loaded into the l_snomed_description table
   "Y" yes means the l_snomed_description table will be truncated and reloaded with the latest US description codes
   Source File [sct2_Description_Snapshot-en_US1000124_20140301.txt]
   vii) Do you wish to load ICD9 to SNOMED mappings codes?
   "N" no files will be loaded into the l_snomed_icd9_map table
   "Y" yes means the l_snomed_icd9_map table will be truncated and reloaded with the latest US ICD9 to SNOMED mapping codes
   Source File [ICD9CM_SNOMED_MAP_1TO1_201312.txt and ICD9CM_SNOMED_MAP_1TOM_201312.txt]
   viii) Do you wish to load ICD10 to SNOMED mappings codes?
   "N" no files will be loaded into the l_snomed_icd10_map table
   "Y" yes means the l_snomed_icd10_map table will be truncated and reloaded with the latest US ICD10 to SNOMED mapping codes
   Source File [xder2_iissscRefset_ExtendedMapSnapshot_US1000124_20131220.txt]
   ix) Do you wish to load US zip codes?
   "N" no files will be loaded into the z_zipCodesWithCounty table
   "Y" yes means the z_zipCodesWithCounty table will be truncated and reloaded with the latest US zip codes
   Source File [5-digit Commercial.csv]

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

**********

Note: the following files should be loaded once only with B43!

**********

x) Do you wish to load CMS codes?
"N" no files will be loaded into the s_mu_code table
"Y" yes means the s_mu_code table will be truncated and reloaded with the latest CMS codes
Source File [s_mu_code.txt]

xi) Do you wish to load HL7 support sets for CCDA?
"N" no files will be loaded into the l_hl7v3_voc_value_set table
"Y" yes means the l_hl7v3_voc_value_set table will be truncated and reloaded with the latest hl7v3_voc_value_set codes
Source File [l_hl7_voc_value_set.txt]

xii) Do you wish to load HL7 support codes for CCDA?
"N" no files will be loaded into the l_hl7v3_voc_value_code table
"Y" yes means the l_hl7v3_voc_value_code table will be truncated and reloaded with the latest l_hl7v3_voc_value_code codes
Source File [l_hl7_voc_value_code.txt]

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# Server Update

For eRAD RIS
Version 2.0
Build 44.5
Update 44.5.2

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# Table of Contents

1. Resolved Items ..... 3
2. Code Stream ..... 4
3. Package Contents ..... 5
4. Intended Audience ..... 8
5. Who is affected ..... 8
6. eRAD RIS Release Version Numbers ..... 9
7. Installing ..... 10

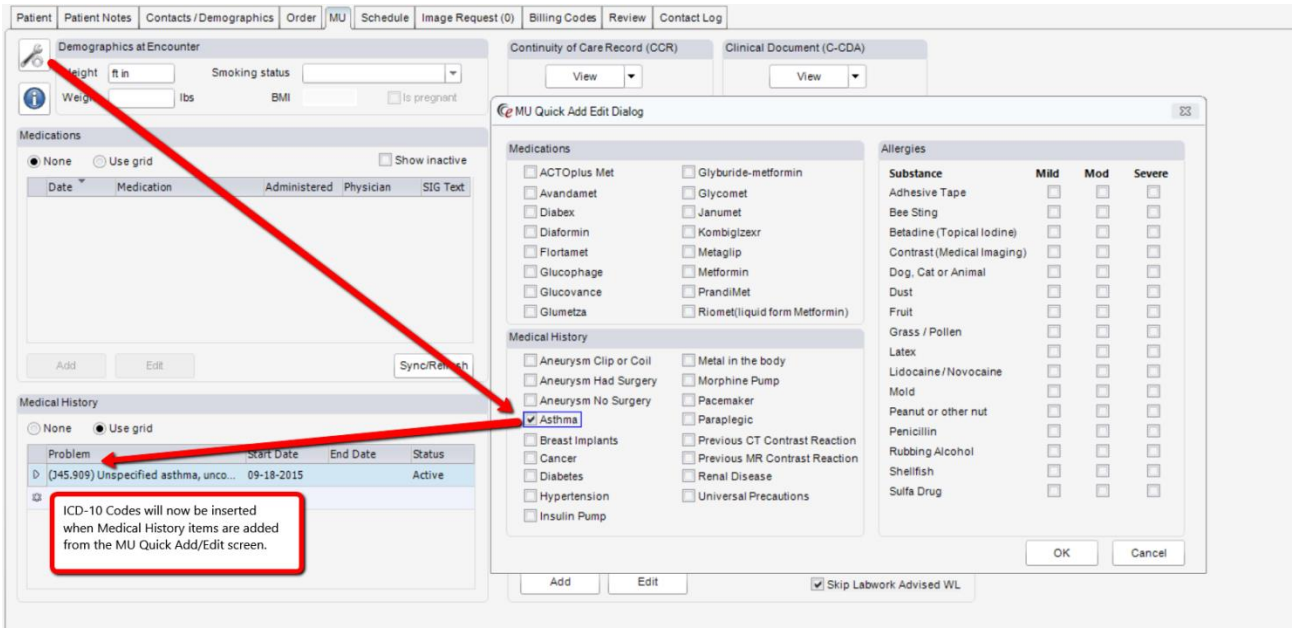
Client/GUI ..... 10
Web Service ..... 11
Database Updates ..... 15

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## 1. Resolved Items

Please Note:

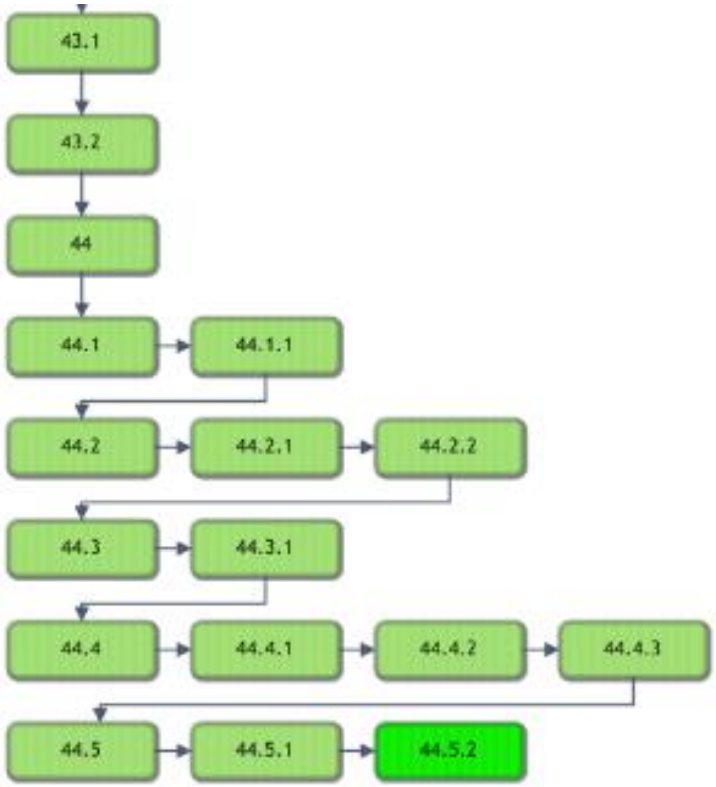
Resolved Items #11581 and #11582 below will impact the functionality of the MU Quick Add/Edit tool. As soon as this update is applied, the MU Quick Add/Edit tool will immediately begin adding any selected Medical History items to the MU grid using ICD-10 codes. This will occur regardless of the ICD-10 Effective Date in the SystemConfiguration settings. As part of the update, a script will convert any existing Medical History that was previously entered for patients using the Quick Add/Edit tool from ICD-9 codes to the equivalent ICD-10 codes. The conversion is based on the CMS General Equivalence Mapping (GEM) table.




| Redmine # | Subject | Priority |
|---|---|---|
| 11636 | CCDA to display proper ICD10 | Normal |
| 11582 | Need to convert historical ICD-9 codes that were added with the Quick Add/Edit tool to ICD-10 codes | Normal |
| 11581 | Need the MU Quick Add/Edit tool to begin adding Medical History using ICD-10 codes instead of ICD-9 | Normal |
| 9620 | MU Quick Add Edit Dialog error when clicking OK - "Column '_problemName' does not belong to table c_patient_problem_list." | Normal |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## 2. Code Stream




**Legend:**

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## 3. Package Contents

Files included for this server update:

1. **GUI_ZIP_Updates** contains 1 file:
   rRIS_1.3.44.5.2.30705

2. **rRISService** folder contains:
   2.1. ABCpdf.dll
   2.2. ABCpdf9-32.dll
   2.3. ABCpdf9-64.dll
   2.4. Antlr3.Runtime.dll
   2.5. CDSJobManager.dll
   2.6. CDSJobManager.pdb
   2.7. CdsLib.dll
   2.8. CdsLib.xml
   2.9. CdsLib.XmlSerializers.dll
   2.10. CommonLib.dll
   2.11. CommonLib.pdb
   2.12. DDEngine.dll
   2.13. DDEngine.pdb
   2.14. DiffPlex.dll
   2.15. Interop.FAXCOMEXLib.dll
   2.16. Microsoft.Practices.EnterpriseLibrary.Caching.dll
   2.17. Microsoft.Practices.EnterpriseLibrary.Caching.pdb
   2.18. Microsoft.Practices.EnterpriseLibrary.Common.dll
   2.19. Microsoft.Practices.EnterpriseLibrary.Common.pdb
   2.20. Microsoft.Practices.EnterpriseLibrary.Logging.dll
   2.21. Microsoft.Practices.EnterpriseLibrary.Logging.pdb
   2.22. Microsoft.Practices.ServiceLocation.dll
   2.23. Microsoft.Practices.ServiceLocation.pdb
   2.24. Microsoft.Practices.Unity.dll
   2.25. Microsoft.Practices.Unity.Interception.dll
   2.26. Microsoft.Practices.Unity.Interception.pdb
   2.27. Microsoft.Practices.Unity.pdb
   2.28. Microsoft.ReportViewer.Common.dll
   2.29. Microsoft.ReportViewer.WinForms.dll
   2.30. Microsoft.ReportViewer.WinForms.xml
   2.31. Newtonsoft.Json.dll
   2.32. Newtonsoft.Json.xml
   2.33. NLog.dll
   2.34. O2S.Components.PDFRender4NET.dll
   2.35. PdfSharp.dll
   2.36. PDFToImages.exe
   2.37. Radar.Api.Client.dll
   2.38. Radar.Api.Client.pdb
   2.39. Radar.Api.Model.dll
   2.40. Radar.Api.Model.pdb
   2.41. Radar.Common.dll
   2.42. Radar.Common.pdb
   2.43. Radar.Common.WebClient.dll
   2.44. Radar.Common.WebClient.pdb
   2.45. Radar.DirectMessaging.Client.dll
   2.46. Radar.DirectMessaging.Client.pdb
   2.47. Radar.DirectMessaging.Model.dll
   2.48. Radar.DirectMessaging.Model.pdb
   2.49. rRISServices.exe
   2.50. rRISServices.exe.config
   2.51. rRISServices.pdb
   2.52. rRISServicesx64.exe
   2.53. rRISServicesx64.exe.config
   2.54. ScheduledTaskManager.dll
   2.55. ScheduledTaskManager.pdb
   2.56. ServicesConfigWizard.exe
   2.57. ServicesConfigWizard.pdb
   2.58. SignatureApprovalService.exe
   2.59. SignatureApprovalService.pdb
   2.60. System.Net.Http.dll
   2.61. System.Net.Http.Formatting.dll
   2.62. System.Web.Http.dll
   2.63. System.Web.Http.SelfHost.dll
   2.64. System.Web.Http.SelfHost.xml
   2.65. System.Web.Http.WebHost.dll
   2.66. System.Web.Http.WebHost.xml
   2.67. System.Web.Http.xml
   2.68. System.Web.Mvc.dll
   2.69. System.Web.Mvc.xml
   2.70. System.Web.Optimization.dll
   2.71. System.Web.Razor.dll
   2.72. System.Web.Razor.xml
   2.73. System.Web.WebPages.Deployment.dll
   2.74. System.Web.WebPages.Deployment.xml
   2.75. System.Web.WebPages.dll
   2.76. System.Web.WebPages.Razor.dll
   2.77. System.Web.WebPages.Razor.xml
   2.78. System.Web.WebPages.xml
   2.79. Tourreau.Gilles.FaxDotNet.dll
   2.80. Tourreau.Gilles.FaxDotNet.pdb
   2.81. Tourreau.Gilles.FaxDotNet.xml
   2.82. WCFService.dll
   2.83. WCFService.pdb
   2.84. WCFServiceTests.dll

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

2.85. WCFServiceTests.pdb
2.86. WebApi.dll
2.87. WebApi.pdb
2.88. WebGrease.dll
2.89. Wedge.exe
2.90. Wedge.pdb

2.1.1 **XSL** folder contains:
2.1.1.1. **Stylesheets** folder contains:
A. CDAToHTMLCompleteReport.xslt
B. CDAToHTMLCompleteReportDark.xslt
C. CDAToHTMLImpressionSection.xslt
D. CDATorRIS.xslt
E. CDAToTxt.xslt
F. DocumentModelReport.xslt
G. DocumentModelReportAsXml.xslt
H. **CDA** folder contains:
i. C-CDA.xsl
ii. eRadStylesheet.xsl
iii. generalTemplates.xsl
iv. header.xsl
v. QRDA.xsl
vi. QrdaLevel3_Cypress2.4.0.xsl
vii. QrdaLevel3_ViewHtml.xsl
viii. sectionAdministeredMedications.xsl
ix. sectionAllergies.xsl
x. sectionEncounters.xsl
xi. sectionFindings.xsl
xii. sectionFuncCogStatus.xsl
xiii. sectionImmunizations.xsl
xiv. sectionInstructions.xsl
xv. sectionMedications.xsl
xvi. sectionPlanOfCare.xsl
xvii. sectionProblemList.xsl
xviii. sectionProcedures.xsl
xix. sectionQRDAMeasures.xsl
xx. sectionQRDAPatientData.xsl
xxi. sectionQRDAReporting.xsl
xxii. sectionReasonForVisit.xsl
xxiii. sectionResults.xsl
xxiv. sectionSocialHistory.xsl
xxv. sectionVitalSigns.xsl

2.1.2 **Deploy** folder contains 3 files:
2.1.2.1. applicationsettings.config
2.1.2.2. releaseVersion-connectionstrings.config
2.1.2.3. services.config

3. **DB** folder contains 3 subfolders and 1 .txt file:
3.1.1. Common folder contains MU folder and 2 .sql files
3.1.1.1. RISMaintenanceJobs.sql
3.1.1.2. rRISCoreData.sql
3.1.1.3. MU Folder contains 1 sub folder, 1 batch file, 1 .sql file and 1 text file
3.1.1.3.1. ImportDataFileUpgradeDB.bat
3.1.1.3.2. ImportDataFileUpgradeDB.sql
3.1.1.3.3. MUreadme.txt
3.1.1.3.4. Scripts folder contains 9 files
3.1.1.3.4.1. 5-digit Commercial.csv
3.1.1.3.4.2. ICD9CM_SNOMED_MAP_1TO1_201312.txt
3.1.1.3.4.3. ICD9CM_SNOMED_MAP_1TOM_201312.txt
3.1.1.3.4.4. l_hl7_voc_value_code.txt
3.1.1.3.4.5. l_hl7_voc_value_set.txt

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

3.1.1.3.4.6. s_mu_code.txt
3.1.1.3.4.7. sct2_Concept_Snapshot_US1000124_20140301.txt
3.1.1.3.4.8. sct2_Description_Snapshot-en_US1000124_20140301.txt
3.1.1.3.4.9. xder2_iissscRefset_ExtendedMapSnapshot_US1000124_20131220.txt

**NOTE:** Always run the upgrade scripts in a test environment of the actual database to make sure they run cleanly. If any errors occur please contact development.

3.2. **NewInstall** folder contains 4 files
- 3.2.1. B44.0 Base Build.sql
- 3.2.2. Create rRIS User.sql
- 3.2.3. CreateDB.sql
- 3.2.4. LoadDefaultConfiguration.sql

3.3. **Upgrade** folder contains 2 subfolders and 1 batch file
- 3.3.1. RunUpgrade.bat
- 3.3.2. **Log** folder is empty
- 3.3.3. **Scripts** folder contains: 40 files
  - 3.3.3.1. _executeSQL.bat
  - 3.3.3.2. _getCurrentVersion.sql
  - 3.3.3.3. _run_scripts.bat
  - 3.3.3.4. B43.0.1.sql
  - 3.3.3.5. B43.0.12.sql
  - 3.3.3.6. b43.0.12_to_b43.1.0_Schema_Upgrade.sql
  - 3.3.3.7. B43.0.2.sql
  - 3.3.3.8. B43.0.3.0.sql
  - 3.3.3.9. B43.0.3.1.sql
  - 3.3.3.10. B43.0.3.2.sql
  - 3.3.3.11. B43.0.4.sql
  - 3.3.3.12. B43.0.5.sql
  - 3.3.3.13. B43.0.6.sql
  - 3.3.3.14. B43.0.7.sql
  - 3.3.3.15. B43.0.8.sql
  - 3.3.3.16. B43.1.0.sql
  - 3.3.3.17. B44.0.0.25942.sql
  - 3.3.3.18. B44.0.0.25974.sql
  - 3.3.3.19. B44.0.0.26019.sql
  - 3.3.3.20. B44.0.0.26037.sql
  - 3.3.3.21. B44.0.0.26158.sql
  - 3.3.3.22. B44.0.0.26207.sql
  - 3.3.3.23. B44.0.0.26321.sql
  - 3.3.3.24. B44.0.0.26384.sql
  - 3.3.3.25. B44.0.0.26412.sql
  - 3.3.3.26. B44.0.0.26475.sql
  - 3.3.3.27. B44.1.0.26906.sql
  - 3.3.3.28. B44.1.0.27145.sql
  - 3.3.3.29. B44.2.0.27365.sql
  - 3.3.3.30. B44.2.1.27909.sql
  - 3.3.3.31. B44.3.0.28076.sql
  - 3.3.3.32. B44.3.0.28111.sql
  - 3.3.3.33. B44.3.0.28127.sql
  - 3.3.3.34. B44.3.0.28138.sql
  - 3.3.3.35. B44.4.0.28609.sql
  - 3.3.3.36. B44.4.0.28676.sql
  - 3.3.3.37. B44.5.0.29775.sql
  - 3.3.3.38. B44.5.0.29835.sql
  - 3.3.3.39. B44.5.0.29935.sql
  - 3.3.3.40. B44.5.0.29976.sql
  - 3.3.3.41. B44.5.1.30449.sql
  - 3.3.3.42. B44.5.2.30554.sql

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## 4. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

## 5. Who is affected

Build 44.5 installs. This server update must be applied to 44.5

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## 6. eRAD RIS Release Version Numbers

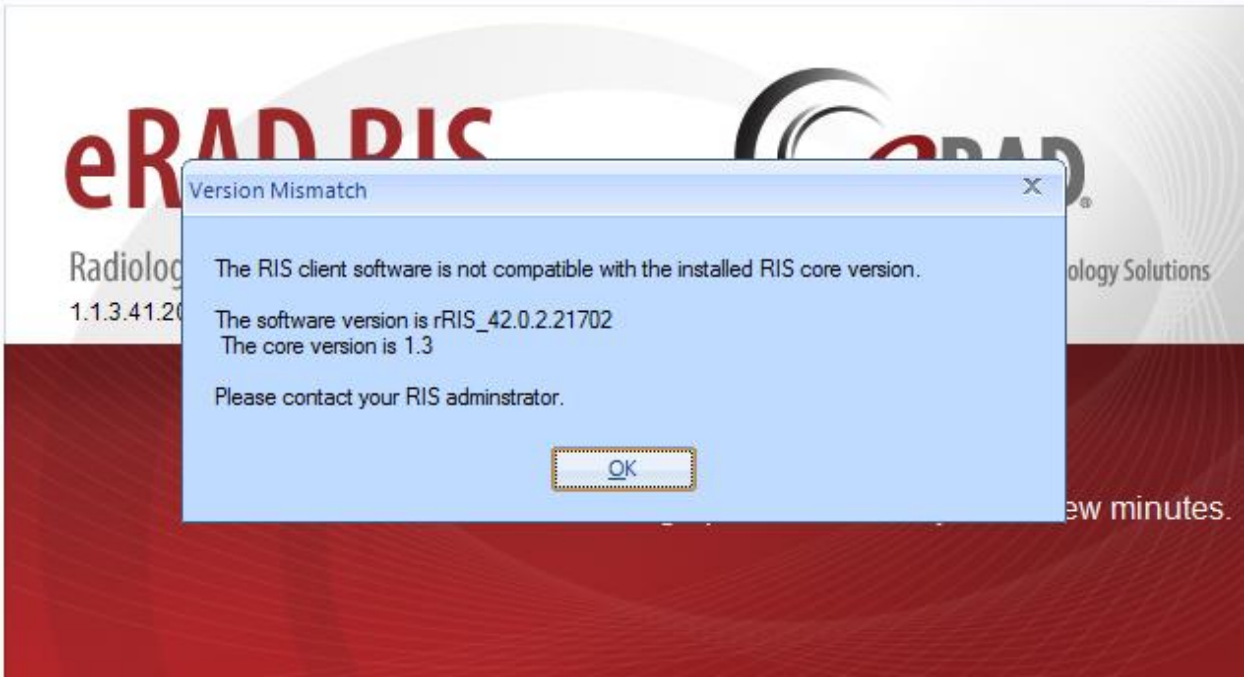
| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 43 | - | 2.43.0.0.23715(3GB) | 2.43.0.0.23171 | 2.43.0.0.23715 | 2.43.0.0.23743 | Full Version Release |
| 43 | 1 | 2.43.0.1.23798(3GB) | 2.43.0.0.23171 | 2.43.0.1.23798 | 2.43.0.1.23770 | GUI.zip, Web Service, DB updates |
| 43 | 2 | 2.43.0.2.24017(3GB) | 2.43.0.0.23171 | 2.43.0.2.24017 | 2.43.0.2.24023 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 3 | 2.43.0.3.24298(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24283 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 3.1 | 2.43.0.3.24450(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24421 | GUI.zip, and DB updates |
| 43 | 3.2 | 2.43.0.3.24450(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24421a | DB updates |
| 43 | 4 | 2.43.0.4.24447(3GB) | 2.43.0.0.23171 | 2.43.0.4.24447 | 2.43.0.4.24442 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 5 | 2.43.0.4.24632(3GB) | 2.43.0.0.23171 | 2.43.0.4.24632 | 2.43.0.4.24560 | GUI.zip, Web Service and DB updates |
| 43 | 6 | 2.43.0.4.24(3GB) | 2.43.0.0.23171 | 2.43.0.4.24 | 2.43.0.4.24 | GUI.zip, Web Service and DB updates |
| 43 | 6.1 | 2.43.0.6.24937(3GB) | 2.43.0.0.23171 | 2.43.0.6.24937 | 2.43.0.6.24914 | GUI.zip, Web Service |
| 43 | 6.2 | 2.43.0.6.24970(3GB) | 2.43.0.0.23171 | 2.43.0.6.24970 | 2.43.0.6.24914 | GUI.zip, Web Service |
| 43 | 7 | 2.43.0.7.25258(3GB) | 2.43.0.0.23171 | 2.43.0.7.25258 | 2.43.0.7.25226 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 8 | 2.43.0.8.25440(3GB) | 2.43.0.0.23171 | 2.43.0.8.25440 | 2.43.0.8.25425 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 9 | 2.43.0.9.25477(3GB) | 2.43.0.0.23171 | 2.43.0.9.25477 | 2.43.0.8.25425 | GUI.zip and Web Service |
| 43 | 10 | 2.43.0.9.25477(3GB) | 2.43.0.0.23171 | 2.43.0.10.25477 | 2.43.0.8.25425 | Web Service |
| 43 | 11 | 2.43.0.11.25512(3GB) | 2.43.0.0.23171 | 2.43.0.11.25512 | 2.43.0.8.25425 | GUI.zip and Web Service |
| 43 | 12 | 2.43.0.12.25554(3GB) | 2.43.0.0.23171 | 2.43.0.12.25554 | 2.43.0.12.25536 | GUI.zip Web Service and DB Updates |
| 43 | 13 | 2.43.0.12.25610(3GB) | 2.43.0.0.23171 | 2.43.0.12.25610 | 2.43.0.12.25536 | GUI.zip and Web Service |
| 43 | 14 | 2.43.0.14.25644(3GB) | 2.43.0.0.23171 | 2.43.0.13.25610 | 2.43.0.12.25536 | GUI.zip |
| 43.1 | - | 2.43.1.0.25850(3GB) | 2.43.0.0.23171 | 2.43.1.0.25850 | 2.43.1.0.25771 | GUI.zip Web Service and DB Updates |
| 43.2 | - | 2.43.2.0.26864(3GB) | 2.43.0.0.23171 | 2.43.2.0.26864 | 2.43.1.0.25771 | GUI.zip and Web Service |
| 44 | - | 2.44.0.0.26570(3GB) | 2.44.0.0.26405 | 2.44.0.0.26570 | 2.44.0.0.26475 | Full Version Release |
| 44.1 | - | 2.44.0.0.26984(3GB) | 2.44.0.0.26405 | 2.44.0.0.26984 | 2.44.0.0.26906 | Gui.zip, Web Service, and DB |
| 44.1 | 1 | 2.44.1.1.27093(3GB) | 2.44.0.0.26405 | 2.44.1.0.26984 | 2.44.1.0.26906 | Gui.zip |
| 44.2 | | 2.44.2.0.27410(3GB) | 2.44.0.0.26405 | 2.44.2.0.27410 | 2.44.2.0.27365 | Gui.zip, Web Service, and DB |
| 44.2 | 1 | 2.44.2.1.27959(3GB) | 2.44.0.0.26405 | 2.44.2.1.27959 | 2.44.2.1.27909 | Gui.zip, Web Service, and DB |
| 44.2 | 2 | 2.44.2.1.27959(3GB) | 2.44.0.0.26405 | 2.44.2.2.28094 | 2.44.2.1.27909 | Web Service |
| 44.3 | - | 2.44.3.0.28292 | 2.44.0.0.26405 | 2.44.3.0.28277 | 2.44.3.0.28138 | Gui.zip, Web Service, and DB |
| 44.3 | 1 | 2.44.3.1.28535(3GB) | 2.44.0.0.26405 | 2.44.3.1.28535 | 2.44.3.0.28138 | Gui.zip and Web Service |
| 44.4 | - | 2.44.4.0.28762(3GB) | 2.44.0.0.26405 | 2.44.4.0.28762 | 2.44.4.0.28676 | Gui.zip, Web Server, DB, Management Report Deployment |
| 44.4 | 1 | 2.44.4.1.28953(3GB) | 2.44.0.0.26405 | 2.44.4.1.28953 | 2.44.4.0.28676 | Gui.zip and Web Service |
| 44.4 | 2 | 2.44.4.2.29327(3GB) | 2.44.0.0.26405 | 2.44.4.2.29327 | 2.44.4.0.28676 | Gui.zip and Web Service |
| 44.4 | 3 | 2.44.4.2.29722(3GB) | 2.44.0.0.26405 | 2.44.4.2.29327 | 2.44.4.0.28676 | Gui.zip and Web Service |
| 44.5 | - | 2.44.5.0.30022(3GB) | 2.44.0.0.26405 | 2.44.5.0.30022 | 2.44.5.0.29976 | Gui.zip, Web Server, DB |
| 44.5 | 1 | 2.44.5.1.30451(3GB) | 2.44.0.0.26405 | 2.44.5.1.30451 | 2.44.5.1.30449 | Gui.zip, Web Server, DB |
| **44.5** | **2** | **2.44.5.2.30705(3GB)** | **2.44.0.0.26405** | **2.44.5.1.30705** | **2.44.5.1.30554** | **Gui.zip, Web Server, DB** |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# 7. Installing

## Client/GUI

1) Copy and replace the current rRIS…zip file with the rRIS_1.3.44.5.2.30705.zip file provided with this release.
   Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.




If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_44.5.2.30705→ rRIS_1.3.44.5.2.30705
NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

**NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## Web Service

1. The web service upgrade consists of replacing the files in the RIS Web Service directory with the files supplied in the rRISService folder with this build. Always create a backup of the files being replaced. This upgrade includes 88 files in the rRISService folder and 2 sub folders. Of those folders, 1 is a folder titled **"XSL"** that contains a sub folder and files within the subfolder. Another folder is titled **"deploy"** that contains the new .config files that will be deployed with the user of the file called "ServicesConfigWizard.exe" (see instructions below).

## Services Configuration Wizard

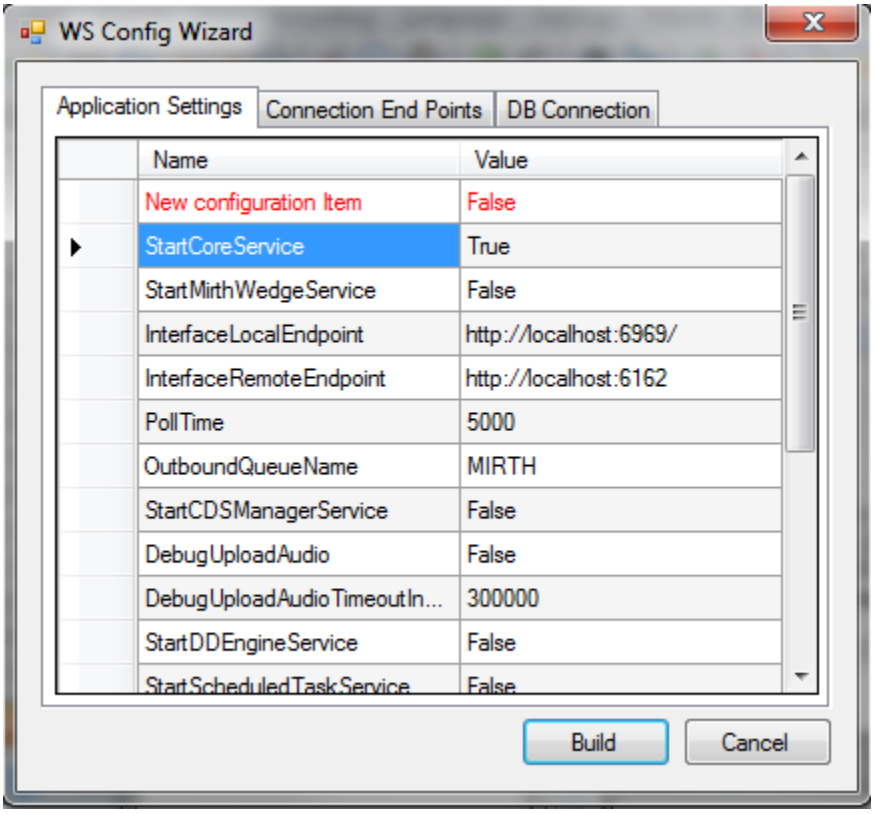
With the release of 42 to decrease the chance of losing configuration setting and missing new configuration options, we will no longer include the configuration files in the release in the main set of files, but they will now exist in a "deploy" folder, which will contain the three site configurable config files; applicationsettings, connectionstrings, services as well as a copy of the rRISServices.exe configuration file. The contents of this folder should not be required to be touched.

On the install of a new service, all files will be copied to the appropriate locations on the server (no configurations will be over written). If instructed or to confirm no new configurations have been added the user can run the new application "ServicesConfigWizard.exe"

This application will read the existing configuration file(s) (if files exist), and compare to the provided new configuration files then will display three tabs, for each configuration file:
**Application Settings:** all existing configuration value will be displayed, if there are any new configuration entries they will be displayed in red.

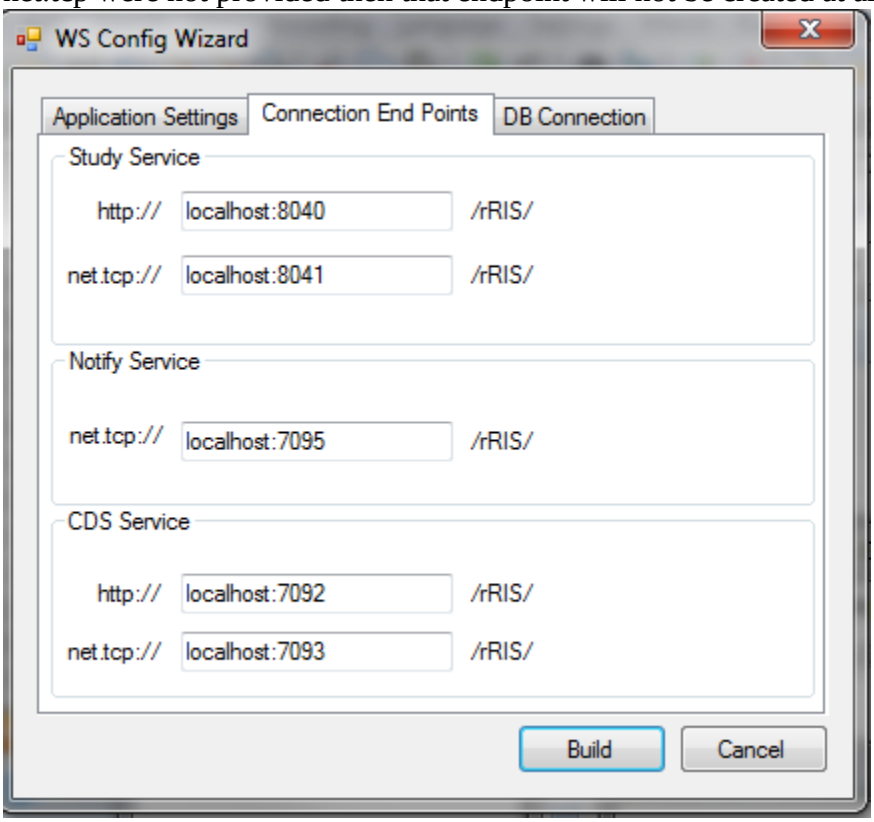
**NOTE:** the rRISServices.exe.config file is also included in the deploy folder. If this file has changes it **will not** update your current file in the Web Service directory. Any changes to this file will require a manual update of the rRISServices.exe.config and rRISServicesx64.exe.config files.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.



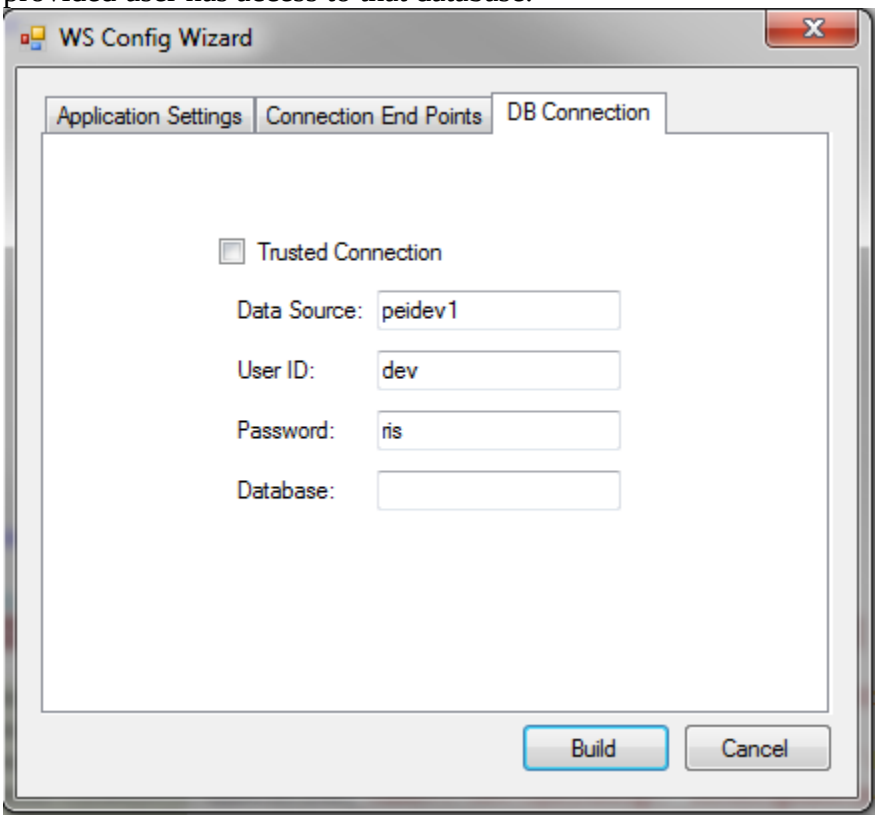

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

**Connection End Points:** will display the existing configuration, if the value is left blank then that entry will not be created, in the case of "Study Service" or "CDS Service" if both http and net.tcp were not provided then that endpoint will not be created at all.




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

**DB Connection:** will display the existing configuration, if the Connection is to be used as a trusted connection, then the user ID and password will become disabled and will not be used, and will rely on the provided database value, When not using the trusted connection, The Database value is not needed but can be used to force a specific database connection as long as the provided user has access to that database.




It is always good practice to do a compare of the .config files.

1) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService.
   *rRISService directories include:*
   *a) rRISService*
   *b) CDS rRISService*
   *c) Wedge rRISService*
   *d) DDE rRISService*

   **Restart each service**.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## Database Updates

Always run the upgrade scripts in a test environment of the actual database to make sure they run cleanly. If any errors occur please contact development.

*Note: There is a new upgrade process introduced with B43.1 called "RunUpgrade.bat". The batch file will open a command window. This process will prompt you for the database server name, database name and authentication credentials. There is no need to run the database upgrade scripts manually as was done in previous releases.*

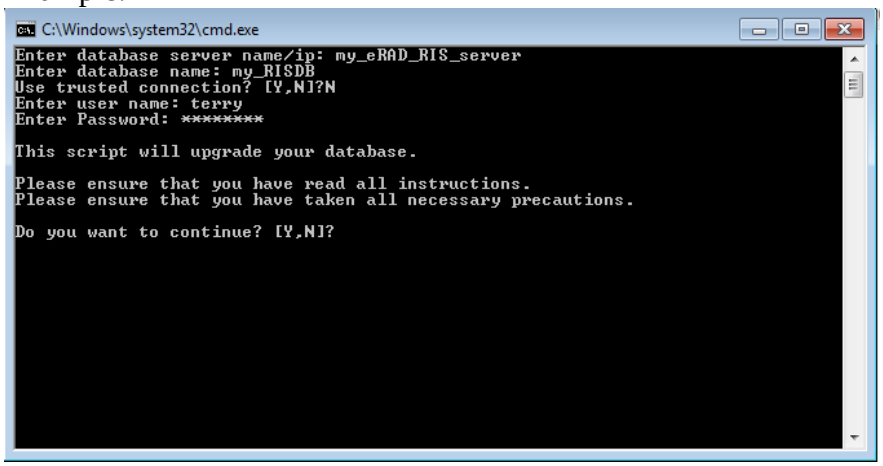
1) From the upgrade folder, double click the "RunUpgrade.bat" command file.

2) Enter the server name, database name and authentication credentials to the database. You have 2 choices for authentication credentials.

3) You can choose to use "Trusted connection". Using this option will pass the identity of the currently logged on user. If this user has "db_owner" access to the eRAD RIS database then feel free to use this options.

4) If you decide not to use "Trusted connection" then you will be prompted for user id and password.

   Example:




5) After the upgrade program has finished you can find the upgrade logs in the "log" folder. The file name will be eRAD_RIS_db_upgrade_timestamp.log, where timestamp is a value representing the date and time the upgrade started. If you see any errors please contact the development team

6) In the Common folder there is a subfolder of MU. The MU folder contains updates to lookups relevant for MU as well as updates for Zip Code table to add the County. Copy the

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

MU folder to the database server before running the batch file. There is a readme file contained in the MU folder. The details have also been included below

a) The mu bulk install process must be run from a path on the database server!
b) Copy Files ImportDataFileUpgradeDB.bat and ImportDataFileUpgradeDB.sql from upgrade folder to a location on the database server(This location will be referred to as the "Script Folder Path".)
c) Copy Folder scripts and Source files from the upgrade folder to "Script Folder Path" ....Note source files must be inside the scripts folder
d) Run bat file
   i) Enter Script Folder path [C:\Temp\SNOMED]:
   ii) Enter database server name/ip: [ie peidev1]
   iii) Enter database name: [ie rRIS_MU]
   iv) Use a trusted connection to log on to SQL Server:
   "N" means you will have to enter db [username] [password]
   "Y" means you have a trusted connection and will not have to enter [username][password]
   v) Do you wish to load SNOMED concept codes?
   "N" no files will be loaded into the l_snomed_concept table
   "Y" yes means l_snomed_concept table will be truncated and reloaded with the latest US concept codes
   Source File [sct2_Concept_Snapshot_US1000124_20140301.txt]
   vi) Do you wish to load SNOMED descriptions codes?
   "N" no files will be loaded into the l_snomed_description table
   "Y" yes means the l_snomed_description table will be truncated and reloaded with the latest US description codes
   Source File [sct2_Description_Snapshot-en_US1000124_20140301.txt]
   vii) Do you wish to load ICD9 to SNOMED mappings codes?
   "N" no files will be loaded into the l_snomed_icd9_map table
   "Y" yes means the l_snomed_icd9_map table will be truncated and reloaded with the latest US ICD9 to SNOMED mapping codes
   Source File [ICD9CM_SNOMED_MAP_1TO1_201312.txt and ICD9CM_SNOMED_MAP_1TOM_201312.txt]
   viii) Do you wish to load ICD10 to SNOMED mappings codes?
   "N" no files will be loaded into the l_snomed_icd10_map table
   "Y" yes means the l_snomed_icd10_map table will be truncated and reloaded with the latest US ICD10 to SNOMED mapping codes
   Source File [xder2_iissscRefset_ExtendedMapSnapshot_US1000124_20131220.txt]
   ix) Do you wish to load US zip codes?
   "N" no files will be loaded into the z_zipCodesWithCounty table
   "Y" yes means the z_zipCodesWithCounty table will be truncated and reloaded with the latest US zip codes
   Source File [5-digit Commercial.csv]

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

**********

Note: the following files should be loaded once only with B43!

**********

x) Do you wish to load CMS codes?
"N" no files will be loaded into the s_mu_code table
"Y" yes means the s_mu_code table will be truncated and reloaded with the latest CMS codes
Source File [s_mu_code.txt]

xi) Do you wish to load HL7 support sets for CCDA?
"N" no files will be loaded into the l_hl7v3_voc_value_set table
"Y" yes means the l_hl7v3_voc_value_set table will be truncated and reloaded with the latest hl7v3_voc_value_set codes
Source File [l_hl7_voc_value_set.txt]

xii) Do you wish to load HL7 support codes for CCDA?
"N" no files will be loaded into the l_hl7v3_voc_value_code table
"Y" yes means the l_hl7v3_voc_value_code table will be truncated and reloaded with the latest l_hl7v3_voc_value_code codes
Source File [l_hl7_voc_value_code.txt]

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# User Release Notes

for eRAD RIS
Version 2
Build 44.6

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD Inc.

# Table of Contents

1. Purpose ..... 3
2. Intended Audience ..... 3
3. Installing/Accessing the Application ..... 3
4. New Settings for B2.44.6 ..... 4
   Access strings ..... 4
   System Config ..... 4
5. New Features and Enhancements ..... 5
   Breast Imaging Updates ..... 5
      Feature 11221 – Biopsy Window Re-Design ..... 5
      Feature 11418 – Manually Create Mammo Tracking Reminders ..... 7
   Insurance Eligibility ..... 10
      Feature 7852 - Reduce number of calls to Eligible API ..... 10
   Radiologist ..... 11
      Feature 11277 – Automate Logging into PowerScribe Immediately After Logging into eRAD RIS ..... 11
   Outbound Messaging ..... 12
      Feature 10564 – Support ICD Data in RIS Outbound Messages ..... 12
6. Code Stream ..... 13
7. eRAD RIS Release Version Numbers ..... 14
8. Resolved Defects ..... 15
9. Known Limitations ..... 17

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD Inc.

# 1. Purpose

This document describes some of the new features and changes implemented in eRAD RIS as of the end of Sprint 44.6 and subsequent server releases. This version of eRAD RIS is referred to as Build 2.44.6

Only features which can be visually demonstrated to the user will be outlined in this document.

# 2. Intended Audience

This document is created by the RIS Development team for the RadNet /eRAD RIS implementation teams.

# 3. Installing/Accessing the Application

The installation guide for the eRAD RIS client have been posted to the RadNet Wiki page at http://mdbal01rdtweb/Wiki/

Under the RIS menu click on the rRIS page. The credentials to access the page are:
Username: rRIS
Password: Summerside

*Please note that Build 2.44.6 is considered a new release of the application. It does not require a reinstallation of eRAD RIS. If users choose to reinstall, this is accomplished by navigating to the eRAD RIS shared installation drive and running the CoreInstall.bat file (ex: I:\RISDeployment\CoreInstall.bat)*

If you experience difficulties accessing the application, please do not hesitate to contact Darcy Noye with the PEI RIS Development Team.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD Inc.

# 4. New Settings for B2.44.6

## Access strings

| Setting | Default | Purpose / Controls Access to |
|---|---|---|
| Clinical.CreateReminder | None | Controls access to the create reminder feature from patient folder. |
| Clinical.EditReminder | None | Controls access to the edit reminder feature from patient folder. |
| Clinical.PreviewTerminatedReport | None | Controls access to previewing reports that have been terminated for voided or discontinued exams. |
| Config.LookupEditor.Complication | None | Grants access to the Complication lookup table located under the Mammography folder from the Configure option under Administration menu |
| Config.LookupEditor.PrepInstructionType | None | Grants access to the PrepInstructionType lookup table located under the Procedure folder from the Configure option under Administration menu |

## System Config

| Setting | Default | Purpose / Controls Access to |
|---|---|---|
| BreastBodyPartCode | N/A | The code for the breast body part. May be used to activate mammo related functionality (e.g. Create Reminder) |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD Inc.

# 5. New Features and Enhancements

## Breast Imaging Updates

### Feature 11221 – Biopsy Window Re-Design

The General section of the Add Mammo Biopsy window has been re-designed to make various labels more intuitive and add additional data collection fields. As displayed in Figure 5.1, Concordance and Complications sections have been added. These additions allow the user to collect additional information that can be made available for future Management Reports or database queries. Also a new option for a Lesion Classification of High Risk Malignant has been added. This allows for the flexibility of categorizing High Risk pathology findings as either Malignant or Benign, while still maintaining their "High Risk" designation. The database was updated to consider the selection of "High Risk Malignant" as Malignant when calculating statistics for MQSA-related management reports (e.g. True/False Positives, Sensitivity, Specificity, etc.). As before, the "High Risk Benign" category is treated as Benign for MQSA statistics.

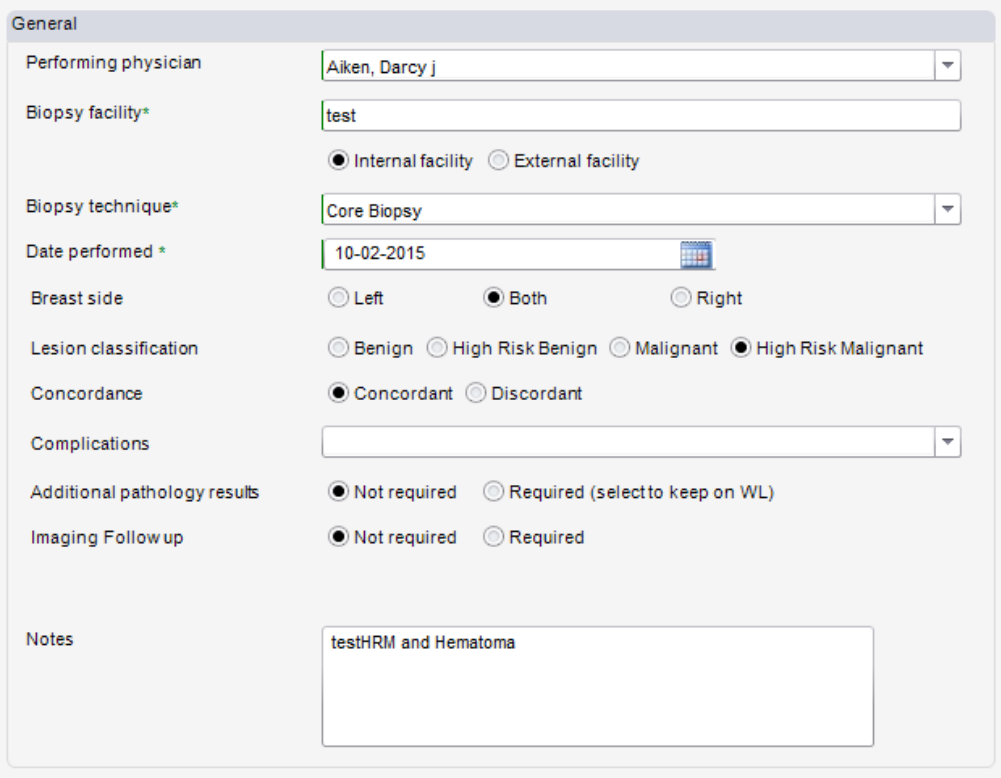



**Figure 5.1 – Biopsy window changes**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD Inc.

The following labels have also been updated to more accurately and precisely identify various data to be collected:

- Performing surgeon → Performing physician
- Biopsy location → Biopsy facility
- Additional surgery → Additional pathology results
- Follow up → Imaging follow up
- Create Follow Up (button available after selecting Follow Up Required) → Create Reminder

Selecting Required for Additional Pathology Results will allow the exam to remain on the ACR Category 4/5 Follow Up WL after saving the pathology results. This allows the Mammo Tracking personnel to continue to monitor the case for outstanding pathology results that may be forthcoming for a repeat biopsy, a biopsy of an additional site that was recommended in the same report, or simply additional surgical pathology if desired. This behavior has not changed, but the terminology has been updated to Additional *Pathology* Results Required/Not Required, as the previous label of Additional *Surgery* Required/Not Required sometimes mislead Mammo Tracking personnel who believed that the purpose was to record whether the patient would be having surgery as a result of the biopsy results.

The Complications list box is populated with values from the new lookup table titled Complications which can be found at Administration menu>Configure>Mammography>Complication.

This new lookup table's access is controlled by access string: "**Config.LookupEditor.Complication**" which has a default of None.

| Complication Code | Description | Display Order | Last Updated | Active |
|---|---|---|---|---|
| Contains: | Contains: | Equals: | Equals: | Contains: |
| Click here to add a new row | | | | |
| HT | Hematoma | 0 | 10-02-2015 11:39 AM | Y |
| IS | Insufficient Sample | 0 | 10-02-2015 11:39 AM | Y |
| PI | Post-procedure Infection | 0 | 10-02-2015 11:39 AM | Y |

**Figure 5.2 – Complication lookup table**

Additional improvements have also been made to the Breast History grid at the top of the Add Mammo Biopsy window, as outlined in the description for Feature 11418 beginning on the following page.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD Inc.

## Feature 11418 – Manually Create Mammo Tracking Reminders

Previously, eRAD RIS did not have a method to manually create breast imaging Reminders, unless pathology results are being entered as follow-up to a BI-RADS® 4 or 5 exam. It is sometimes desirable to create Reminders at other times, particularly for patients who have come to our facilities for biopsies that had been recommended elsewhere and are therefore not on the ACR Category 4/5 Follow Up WL.

**From the Patient Folder:**

A new context menu item (right-click menu) titled Create Reminder has been added in the Patient Folder. Selecting this option will open the Create Reminder window. This new context menu item is controlled by access string "**Clinical.CreateReminder**" with a default of none. The Create Reminder option will be available for procedures that have the body part that is specified in the new system config setting "**BreastBodyPartCode**." This would include both BI-RADS® enabled exams, as well as other breast procedures and biopsies.

Options in the Create Reminder window are: Type of Reminder (Annual, Short Term or Callback), Site and Target Date.

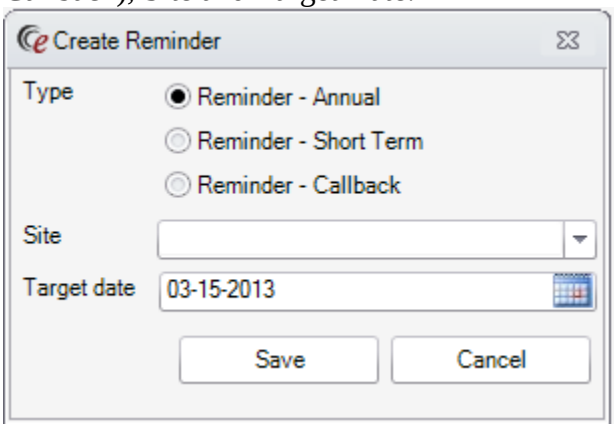



**Figure 5.3 – Create Reminder window accessed from Patient Folder**

The procedure used for a Reminder is determined by the pre-existing system config setting of DefaultMammoFollowUpOrderProcedureCode. The referring physician assigned will be that from the original study that was used to create the Reminder.

Another new context menu item added to the Patient Folder is Edit Reminder. This new context menu option is controlled by access string "**Clinical.EditReminder**" which has a default of None. This option will be available for statuses of Reminder – Annual, Reminder – Short Term, and Reminder – Callback. The purpose is to edit the details for an existing Reminder.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD Inc.

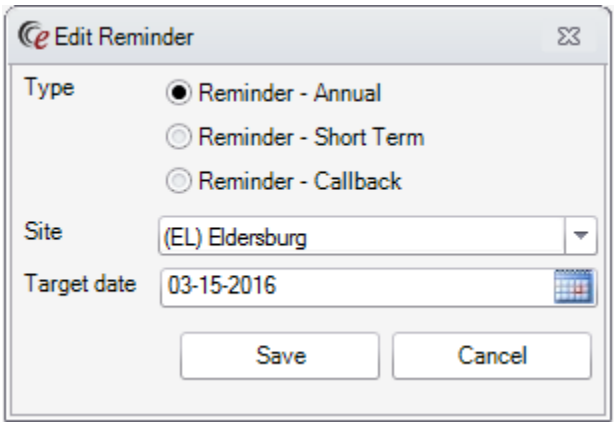



**Figure 5.4 – Edit Reminder window**

## From the Add Mammo Biopsy Window

It is also possible to Create or Edit Reminders from the Add Mammo Biopsy window.

The Breast History grid at the top of this window has been updated in order to provide a comprehensive view of all BI-RADS® enabled exam in any status other than Cancelled or Discontinued, as well as outstanding Reminders.

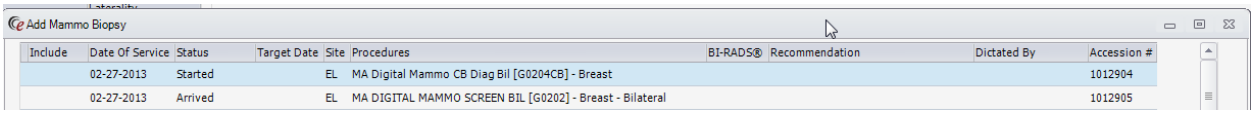



**Figure 5.5 – Add Mammo Biopsy window history**

The "Include" column is used for correlating pathology results with multiple exams; the behavior of this column has not changed, though the checkbox is only displayed for rows that are in the Signed status. The columns displayed in this Breast History grid have also been adjusted to display the most relevant details in a logical order.

From the Breast History grid, the user can now right-click on an existing Reminder and choose Edit Reminder to change the type of Reminder, the site, or the target date.

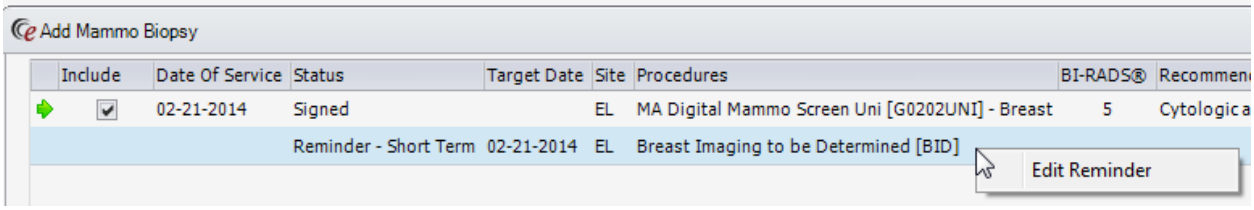



**Figure 5.6 – Edit reminder on existing reminders**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD Inc.

Reminders can also be created in the same manner as before from the Add Mammo Biopsy screen, though some of the terminology has been updated, as described above. The Create Reminder button (previously labeled Create Follow up) becomes available after selecting Additional Pathology Results = Not Required *and* Imaging Follow Up = Required. After clicking the Create Reminder button, the user can enter the type of Reminder, the Site, and the Target Date.

One additional improvement to the Breast History section has been added. To help the user determine what follow-up is necessary, there is a new context menu option available, "Show Report," to display the report on a signed exam.

**Figure 5.7 – Show report option on signed exam**

Select Show Report to open a quick loading view of the report that is similar to the Data Nugget report view.

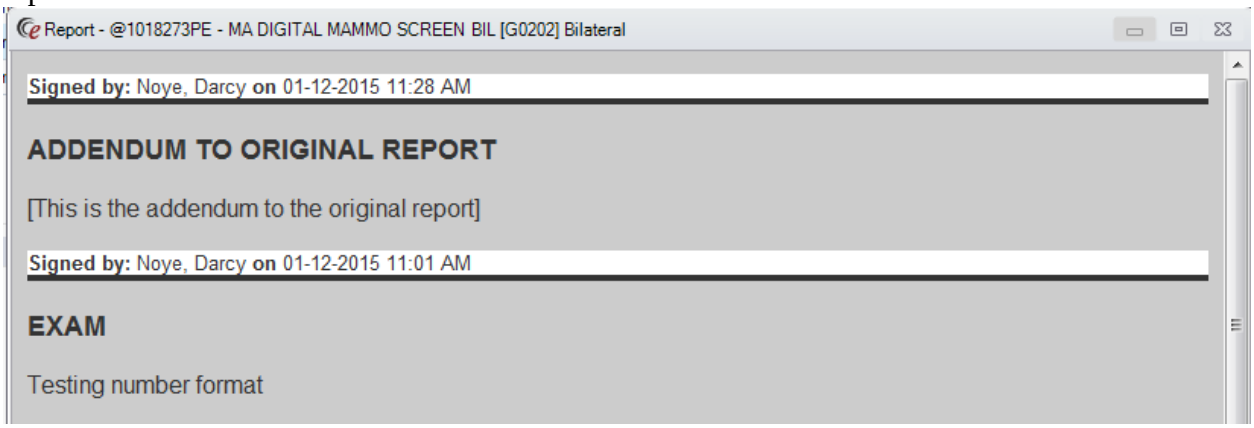



**Figure 5.8 – Show report window**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD Inc.

## Insurance Eligibility

### Feature 7852 - Reduce number of calls to Eligible API

This feature will reduce the number of redundant eligibility checks. We will omit the day-of-service auto eligibility check for the following scenarios:

- The remaining deductible is 0 or not provided and a previous request was valid in the same calendar month.

- More than one insurance policy is selected. In these cases, we don't calculate the amount to collect using deductible, so there is no need to retrieve an up-to-date deductible amount.

- The status or remaining deductible has been overridden. Manual overrides do not require updated deductible amounts for the calculation of the amount to collect.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD Inc.

## Radiologist

### Feature 11277 – Automate Logging into PowerScribe Immediately After Logging into eRAD RIS

eRAD RIS is now launching and logging into PowerScribe immediately after successful login to eRAD RIS if the reporting mode is PowerScribe. eRAD RIS maintains full functionality during this initial login process. If a user opens a case before the PowerScribe login is complete, eRAD RIS will wait for the login process to complete and display the message "Waiting for PowerScribe."

This feature is enabled by default, but users can change this behavior by changing the “Launch on login” user preference on the “Reporting” tab in the “PowerScribe” section.

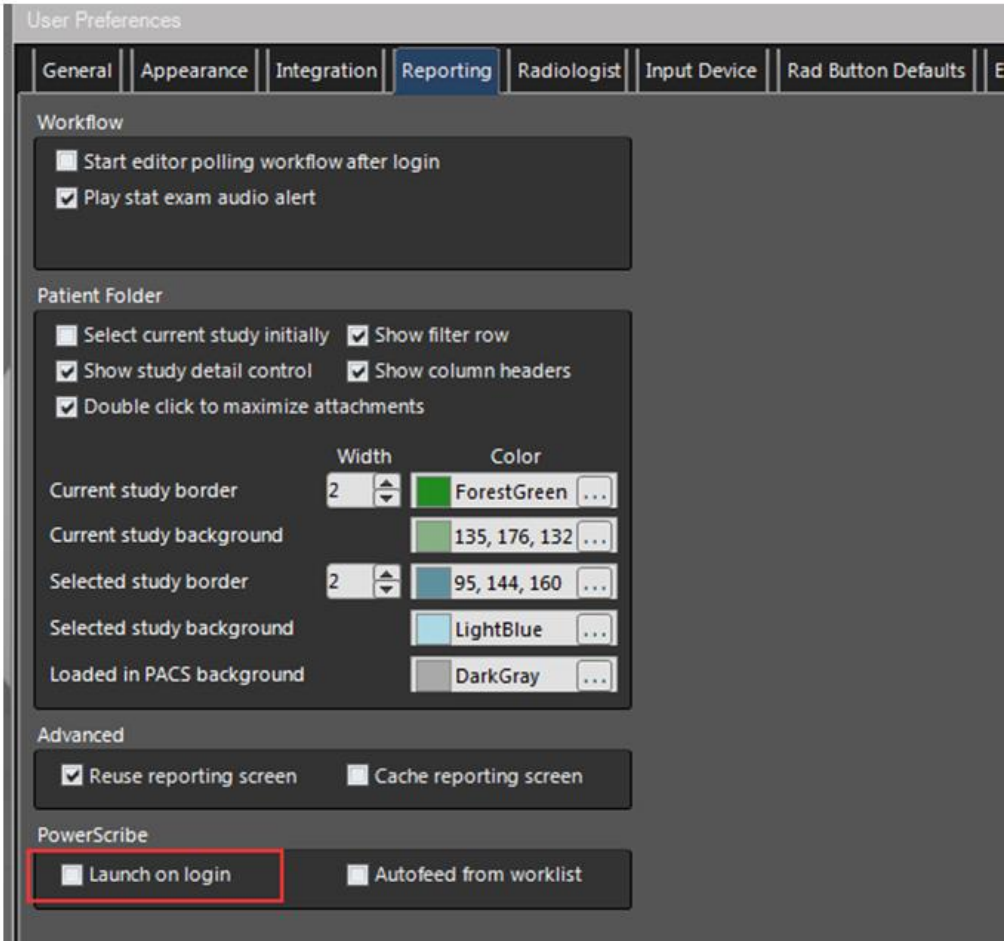



**Figure 5.9 – New user preference for PowerScribe “Launch on login”**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD Inc.

## Outbound Messaging

### Feature 10564 – Support ICD Data in RIS Outbound Messages

eRAD RIS needs to support sending each ICD9 or ICD10 entered in RIS in its own field in the DG1 segment of the HL7 message.

For customers who enter this information on the front end of RIS, they expect that information to be transferred to the billing system without the need to re-enter it in that system.

The problem is a limitation in the XML RIS sends to Mirth. The messages sent did not expand to include the ICD9 or ICD10 codes.

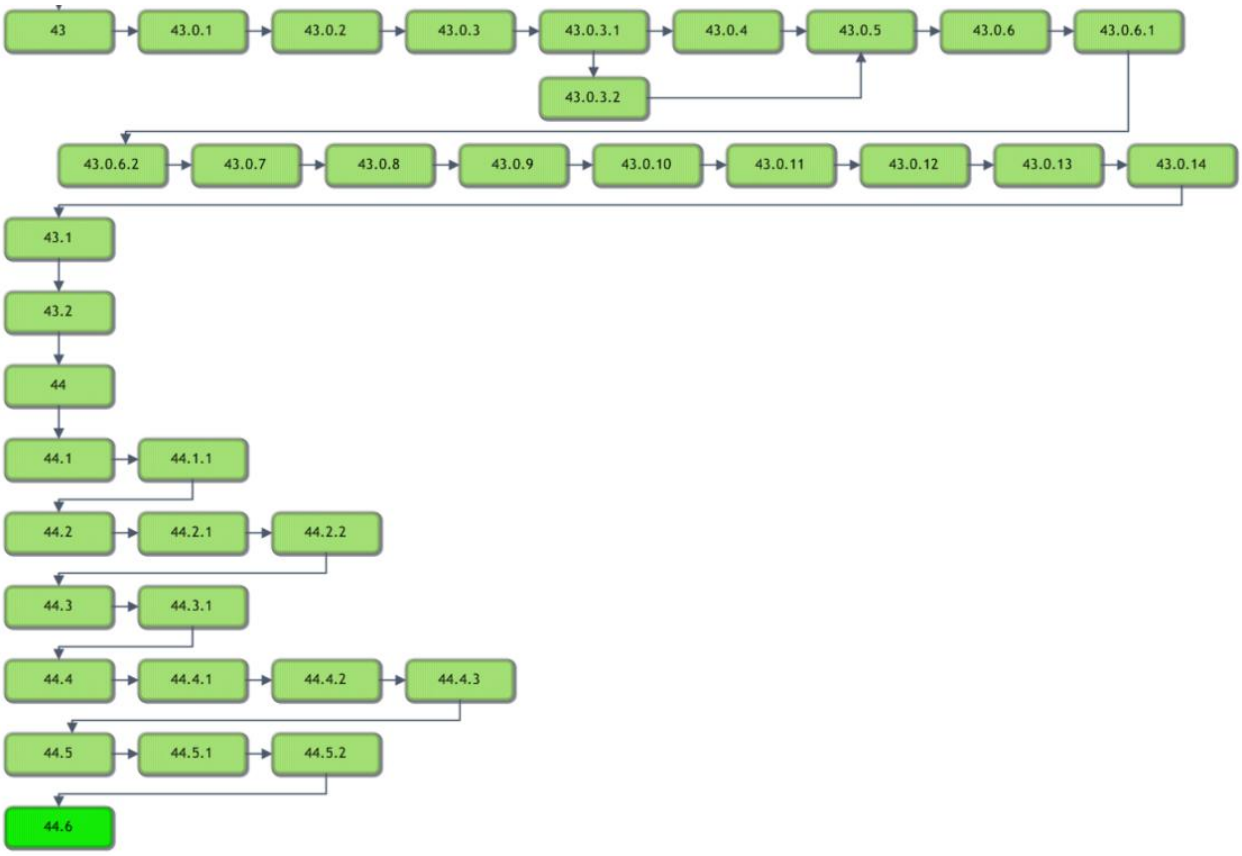
Now messages sent will be expanded to include all of the ICD9 and ICD10 codes. Below is an example of the message with multiple ICD codes being sent. Implementations will need to configure mappings to handle the new nodes.

<c_study_item_indication>
<indication_key><indication_key>2844</indication_key>**<indication_code>257</indication_code><description>TESTICULAR HYPERFUNCTION</description>**<display_order>1</display_order><last_updated>7/21/2011 12:22:35 PM 00:00</last_updated><last_updated_by_user_id>darcy</last_updated_by_user_id><active_flag>Y</active_flag><bloodwork_required_flag>N</bloodwork_required_flag><coding_scheme>ICD9</coding_scheme><code_effective_date>1/1/2001 12:00:00 AM</code_effective_date></indication_key>
<study_item_key>3</study_item_key>
<last_updated_by_user_id>deuce</last_updated_by_user_id>
<last_updated>2015-09-29T12:15:40.6573928-03:00</last_updated>
</c_study_item_indication>
<c_study_item_indication>

<indication_key><indication_key>11556</indication_key>**<indication_code>39.4</indication_code><description>MADURA FOOT ACTINOMYCOTIC INFECTION</description>**<display_order>1</display_order><last_updated>7/21/2011 12:22:35 PM 00:00</last_updated><last_updated_by_user_id>darcy</last_updated_by_user_id><active_flag>Y</active_flag><bloodwork_required_flag>N</bloodwork_required_flag><coding_scheme>ICD9</coding_scheme><code_effective_date>1/1/2001 12:00:00 AM</code_effective_date></indication_key>
<study_item_key>3</study_item_key>
<last_updated_by_user_id>deuce</last_updated_by_user_id>
<last_updated>2015-09-29T14:43:59.5980514-03:00</last_updated>
</c_study_item_indication>

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD Inc.

# 6. Code Stream




**Legend:**

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD Inc.

# 7. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 43 | - | 2.43.0.0.23715(3GB) | 2.43.0.0.23171 | 2.43.0.0.23715 | 2.43.0.0.23743 | Full Version Release |
| 43 | 1 | 2.43.0.1.23798(3GB) | 2.43.0.0.23171 | 2.43.0.1.23798 | 2.43.0.1.23770 | GUI.zip, Web Service, DB updates |
| 43 | 2 | 2.43.0.2.24017(3GB) | 2.43.0.0.23171 | 2.43.0.2.24017 | 2.43.0.2.24023 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 3 | 2.43.0.3.24298(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24283 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 3.1 | 2.43.0.3.24450(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24421 | GUI.zip, and DB updates |
| 43 | 3.2 | 2.43.0.3.24450(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24421a | DB updates |
| 43 | 4 | 2.43.0.4.24447(3GB) | 2.43.0.0.23171 | 2.43.0.4.24447 | 2.43.0.4.24442 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 5 | 2.43.0.4.24632(3GB) | 2.43.0.0.23171 | 2.43.0.4.24632 | 2.43.0.4.24560 | GUI.zip, Web Service and DB updates |
| 43 | 6 | 2.43.0.4.24(3GB) | 2.43.0.0.23171 | 2.43.0.4.24 | 2.43.0.4.24 | GUI.zip, Web Service and DB updates |
| 43 | 6.1 | 2.43.0.6.24937(3GB) | 2.43.0.0.23171 | 2.43.0.6.24937 | 2.43.0.6.24914 | GUI.zip, Web Service |
| 43 | 6.2 | 2.43.0.6.24970(3GB) | 2.43.0.0.23171 | 2.43.0.6.24970 | 2.43.0.6.24914 | GUI.zip, Web Service |
| 43 | 7 | 2.43.0.7.25258(3GB) | 2.43.0.0.23171 | 2.43.0.7.25258 | 2.43.0.7.25226 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 8 | 2.43.0.8.25440(3GB) | 2.43.0.0.23171 | 2.43.0.8.25440 | 2.43.0.8.25425 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 9 | 2.43.0.9.25477(3GB) | 2.43.0.0.23171 | 2.43.0.9.25477 | 2.43.0.8.25425 | GUI.zip and Web Service |
| 43 | 10 | 2.43.0.9.25477(3GB) | 2.43.0.0.23171 | 2.43.0.10.25477 | 2.43.0.8.25425 | Web Service |
| 43 | 11 | 2.43.0.11.25512(3GB) | 2.43.0.0.23171 | 2.43.0.11.25512 | 2.43.0.8.25425 | GUI.zip and Web Service |
| 43 | 12 | 2.43.0.12.25554(3GB) | 2.43.0.0.23171 | 2.43.0.12.25554 | 2.43.0.12.25536 | GUI.zip Web Service and DB Updates |
| 43 | 13 | 2.43.0.12.25610(3GB) | 2.43.0.0.23171 | 2.43.0.12.25610 | 2.43.0.12.25536 | GUI.zip and Web Service |
| 43 | 14 | 2.43.0.14.25644(3GB) | 2.43.0.0.23171 | 2.43.0.13.25610 | 2.43.0.12.25536 | GUI.zip |
| 43.1 | - | 2.43.1.0.25850(3GB) | 2.43.0.0.23171 | 2.43.1.0.25850 | 2.43.1.0.25771 | GUI.zip Web Service and DB Updates |
| 43.2 | - | 2.43.2.0.26864(3GB) | 2.43.0.0.23171 | 2.43.2.0.26864 | 2.43.1.0.25771 | GUI.zip and Web Service |
| 44 | - | 2.44.0.0.26570(3GB) | 2.44.0.0.26405 | 2.44.0.0.26570 | 2.44.0.0.26475 | Full Version Release |
| 44.1 | - | 2.44.0.0.26984(3GB) | 2.44.0.0.26405 | 2.44.0.0.26984 | 2.44.0.0.26906 | Gui.zip, Web Service, and DB |
| 44.1 | 1 | 2.44.1.1.27093(3GB) | 2.44.0.0.26405 | 2.44.1.0.26984 | 2.44.1.0.26906 | Gui.zip |
| 44.2 | | 2.44.2.0.27410(3GB) | 2.44.0.0.26405 | 2.44.2.0.27410 | 2.44.2.0.27365 | Gui.zip, Web Service, and DB |
| 44.2 | 1 | 2.44.2.1.27959(3GB) | 2.44.0.0.26405 | 2.44.2.1.27959 | 2.44.2.1.27909 | Gui.zip, Web Service, and DB |
| 44.2 | 2 | 2.44.2.1.27959(3GB) | 2.44.0.0.26405 | 2.44.2.2.28094 | 2.44.2.1.27909 | Web Service |
| 44.3 | - | 2.44.3.0.28292 | 2.44.0.0.26405 | 2.44.3.0.28277 | 2.44.3.0.28138 | Gui.zip, Web Service, and DB |
| 44.3 | 1 | 2.44.3.1.28535(3GB) | 2.44.0.0.26405 | 2.44.3.1.28535 | 2.44.3.0.28138 | Gui.zip and Web Service |
| 44.4 | - | 2.44.4.0.28762(3GB) | 2.44.0.0.26405 | 2.44.4.0.28762 | 2.44.4.0.28676 | Gui.zip, Web Server, DB, Management Report Deployment |
| 44.4 | 1 | 2.44.4.1.28953(3GB) | 2.44.0.0.26405 | 2.44.4.1.28953 | 2.44.4.0.28676 | Gui.zip and Web Service |
| 44.4 | 2 | 2.44.4.2.29327(3GB) | 2.44.0.0.26405 | 2.44.4.2.29327 | 2.44.4.0.28676 | Gui.zip and Web Service |
| 44.4 | 3 | 2.44.4.2.29722(3GB) | 2.44.0.0.26405 | 2.44.4.2.29327 | 2.44.4.0.28676 | Gui.zip and Web Service |
| 44.5 | - | 2.44.5.0.30022(3GB) | 2.44.0.0.26405 | 2.44.5.0.30022 | 2.44.5.0.29976 | Gui.zip, Web Server, DB |
| 44.5 | 1 | 2.44.5.1.30451(3GB) | 2.44.0.0.26405 | 2.44.5.1.30451 | 2.44.5.1.30449 | Gui.zip, Web Server, DB |
| 44.5 | 2 | 2.44.5.2.30705(3GB) | 2.44.0.0.26405 | 2.44.5.1.30705 | 2.44.5.1.30554 | Gui.zip, Web Server, DB |
| **44.6** | **-** | **2.44.6.0.31341(3GB)** | **2.44.0.0.26405** | **2.44.6.0.31341** | **2.44.6.0.31182** | **Gui.zip, Web Server, DB** |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD Inc.

# 8. Resolved Defects

Bugs, Suggested Features and Support Issues resolved in build 2.44.6. The extract is taken from Redmine bug tracking system and only displays defects resolved in 2.44.6.

| Bug # | Priority | Subject | Category | Found Version |
|---|---|---|---|---|
| 11167 | Urgent | Contacts/Demographics info not resetting on changing patients | Scheduling | 2.44.4.3 |
| 11044 | Urgent | Enhance wedge to support when a rad occupies or vacates a primary chair | Interfaces | |
| 11579 | High | Lab Work Request WL (CPOE) - Addendum Signed Bug | Meaningful Use | 2.44.5.0 |
| 11292 | High | RIS incorrectly stores PACS bookmark after logout from PACS | PACS (eRAD) Int - RIS only | 2.44.4.2 |
| 11288 | High | Users can print/preview unsigned reports without permission. | Radiology Reporting | 2.44.2 |
| 11197 | High | Missing access string for new lookup table PrepInstructionType | Access strings | 2.44.5 |
| 11187 | High | Patients that have the same Patient Flag set cannot be merged | Patient Merge | 2.44.5 |
| 11186 | High | Insurance Eligibility - Medicare DBNull parsing error on address line 2 | Insurance Eligibility | 44.4 |
| 11182 | High | Removing Patient Flag and it's corresponding notes only removes the notes | Scheduling | 2.44.5 |
| 10777 | High | CA - Error adding billing codes | Billing | 2.44.4.1.28953 |
| 10748 | High | Error created when trying to do a confirmation on an exam. | Confirmation | 44.2 |
| 11904 | Normal | Next workflow can open the exact same report that was just closed causing exceptions | Radiology Reporting | 2.44.x |
| 11902 | Normal | Closing PowerScribe 360 after initial sync willl require two attempts from RIS to open a report | Powerscribe Integration | 2.44.x |
| 11889 | Normal | Insurance Eligibility - WL Flag calculation is looking at cancelled studies. | Insurance Eligibility | 44.4 |
| 11887 | Normal | Insurance Eligibility - RIS loops updating the c_eligibilityrequest table | Insurance Eligibility | 44.4 |
| 11840 | Normal | Insurance Eligibility - We need to prevent accepting insurances if 3 of the 4 demographics do not match | Insurance Eligibility | 44.4 |
| 11775 | Normal | Same study can be opened multiple times from pending dictation WL | PACS (eRAD) Integration | 2.44.5.2 |
| 11751 | Normal | CD Import - fails to import all images. | | 44.4 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD Inc.

| | | | | |
|---|---|---|---|---|
| 11572 | Normal | Clean up trace table is cost higher db resources than is needed | DB | 2.44.5 |
| 11568 | Normal | Remove collations from database DDL files | DB | 2.44.5 |
| 11557 | Normal | Missing indexes that affect RIS performance | DB | 2.44.5 |
| 11497 | Normal | The 'minutes since cache requested' and 'cached by Name' columns should be synced up to update at the same time | Worklists | 2.44.5.1 |
| 11421 | Normal | billing codes not added for outside reads | Billing | 2.44.5 |
| 11362 | Normal | Height not Required on Scheduling when auto-entered from previous visit as <empty string> | Meaningful Use | 2.44.5 |
| 11346 | Normal | failed to enable constraint error when using the schedule button on the follow up screen | Mammography | 2.44.4.3 |
| 11307 | Normal | Powerscribe closing open report in eRAD RIS | Powerscribe Integration | 2.43.0.6 |
| 11306 | Normal | Waiting for PowerScribe 360 message box is hiding other focused applications | Powerscribe Integration | 2.43 |
| 11305 | Normal | Reporting Radiologist - PowerScribe initial dictation will open PS but not the report to dictate | Powerscribe Integration | 2.44.2 |
| 11304 | Normal | Reporting Radiologist - PowerScribe addendum interuption cases getting mismatched error with RIS | Powerscribe Integration | 44.2 |
| 11303 | Normal | Reporting Radiologist - PowerScribe issues with fix #7908 and #8143 one is reverting the other to fix different issues. | Powerscribe Integration | 44.2 |
| 11267 | Normal | align patient portal v1.0.x db views to RIS release | Connect Portal 4.x | 2.44.5 |
| 11266 | Normal | Missing access string to prevent a voided exam from having the report previewed and printed | Radiology Reporting | 2.44 |
| 7969 | Normal | Reporting Radiology - RTF to CDA converter bolding text when not bolded in source system | Powerscribe Integration | 2.42.1 |
| 6333 | Normal | Attachments Screen: fails to save for pre-scheduled studies. | Scanning | 1.42 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD Inc.

# 9. Known Limitations

The following are Bugs Suggested Features and Support Issues found in build 2.44.6. Bugs reported in previous versions are not captured as Known Limitation in this document.

| # | Status | Priority | Subject |
|---|---|---|---|
| 11980 | New | Normal | BI-RADS picker is editable - causes Index out of range error |
| 11978 | New | Normal | Appointment book allows any procedure to be scheduled in a room |
| 11966 | New | Normal | Mammo Biopsies Window - Cancel and ESC Key functionality |
| 11948 | New | Normal | PowerScribe - approving an addendum also saves a 2nd exam that is opened. |
| 11934 | New | Normal | Study/Order locks not clearing on closing multi-orders from Walk-In window |
| 11960 | New | Low | Confirmation - Administered checkbox under Medications is always unchecked (visually) |
| 11937 | New | Low | Error on filtering Calculated Time Severity column (Confirmation/Closed Rooms/Reception WL) |
| 11935 | New | Low | Study/Order locks not clearing on closing multi-orders from Schedule Order>Existing Orders prompt |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD Inc.

# User Release Notes

for eRAD RIS
Version 2
Build 44.7

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD Inc.

# Table of Contents

1. Purpose ..... 3
2. Intended Audience ..... 3
3. Installing/Accessing the Application ..... 3
4. New Features and Enhancements ..... 4
   Features 12358 and 12359 – Support XR-29 ..... 4
5. Code Stream ..... 6
6. eRAD RIS Release Version Numbers ..... 7
7. Resolved Defects ..... 8
8. Known Limitations ..... 9

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD Inc.

# 1. Purpose

This document describes some of the new features and changes implemented in eRAD RIS as of the end of Sprint 44.7 and subsequent server releases. This version of eRAD RIS is referred to as Build 2.44.7

Only features which can be visually demonstrated to the user will be outlined in this document.

# 2. Intended Audience

This document is created by the RIS Development team for the RadNet /eRAD RIS implementation teams.

# 3. Installing/Accessing the Application

The installation guide for the eRAD RIS client have been posted to the RadNet Wiki page at http://mdbal01rdtweb/Wiki/

Under the RIS menu click on the rRIS page. The credentials to access the page are:
Username: rRIS
Password: Summerside

*Please note that Build 2.44.7 is considered a new release of the application. It does not require a reinstallation of eRAD RIS. If users choose to reinstall, this is accomplished by navigating to the eRAD RIS shared installation drive and running the CoreInstall.bat file (ex: I:\RISDeployment\CoreInstall.bat)*

If you experience difficulties accessing the application, please do not hesitate to contact Darcy Noye with the PEI RIS Development Team.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD Inc.

# 4. New Features and Enhancements

### Features 12358 and 12359 – Support XR-29

At the start of 2016, Centers for Medicare & Medicaid Services (CMS) will reduce Medicare payment for certain outpatient CT exams performed on scanners that do not meet the radiation dose safety criteria outlined in the XR-29 CT Standard (also known as MITA Smart Dose). Medicare claims submitted for certain CT exams performed on or after January 1, 2016 must be appended with a modifier if the CT scanner was not XR-29 compliant. Two new fields have been added to the RIS lookup tables in order to allow for the appropriate adjustments to be made to the billing file for any customers who must comply with this Medicare requirement.

A new field called XR29 Compliance Date has been added to the Modality lookup table. This will allow the RIS Administrator to specify the date the CT scanner became XR-29 compliant.

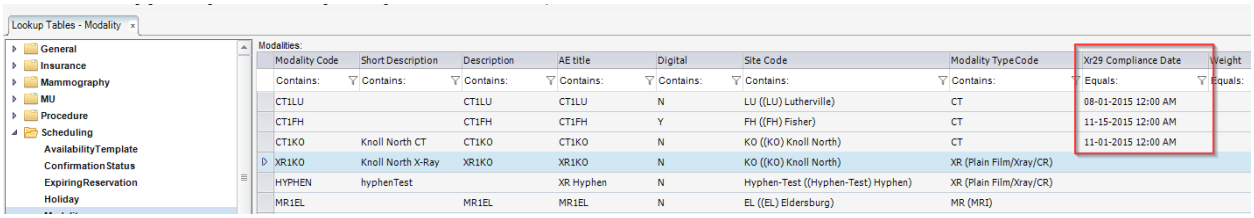



**Figure 5.1 – Modality lookup table displaying new column of Xr29 Compliance Date**

A new field called XR29 Required Flag has been added to the Billing Code lookup table. This will allow the RIS Administrator to specify the CPT codes that require the XR-29 modifier to be added for Medicare claims.

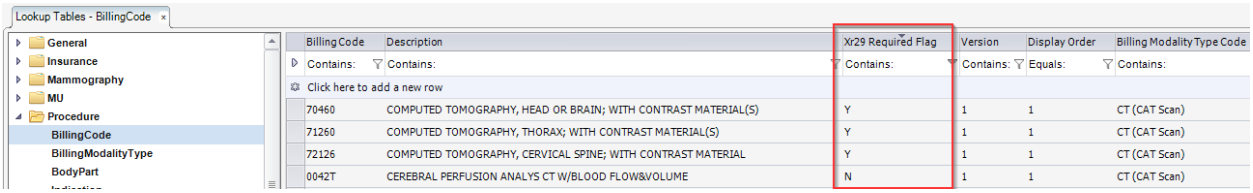



**Figure 5.2 – Billing code lookup table displaying new column of Xr29 Required Flag**

When generating the billing file, the two additional columns can be used to build the logic to determine the appropriate modifier. Please contact the eRAD Support team for assistance with modifying your billing file if you submit claims to Medicare for outpatient CT exams.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD Inc.

A management report has been created to help administrators track which CT scanners are compliant. It is located in the Maintenance folder.

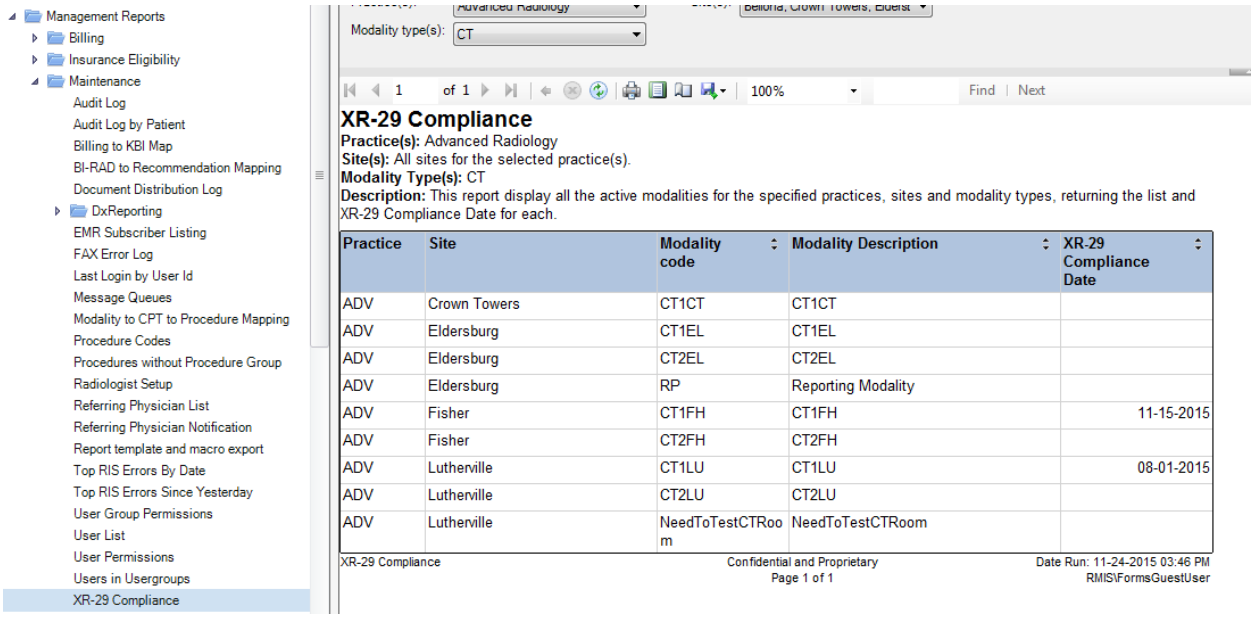
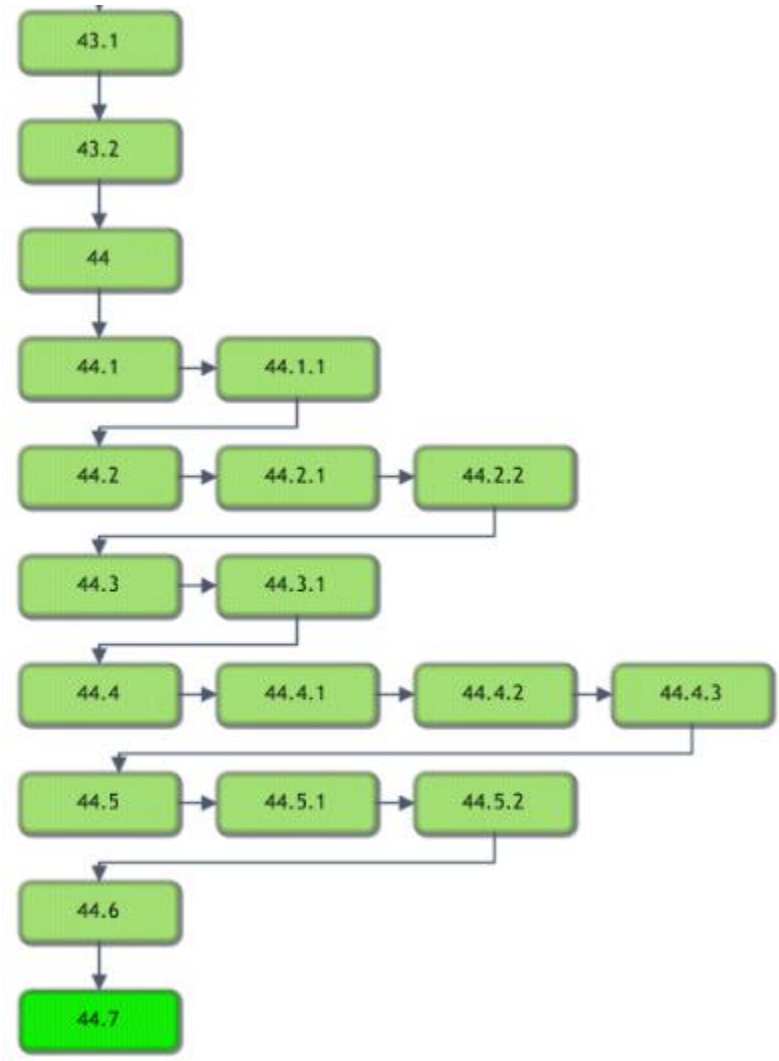



**Figure 5.3 – XR-29 Compliance Management Report**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD Inc.

# 5. Code Stream




**Legend:**

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD Inc.

# 6. eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 43 | - | 2.43.0.0.23715(3GB) | 2.43.0.0.23171 | 2.43.0.0.23715 | 2.43.0.0.23743 | Full Version Release |
| 43 | 1 | 2.43.0.1.23798(3GB) | 2.43.0.0.23171 | 2.43.0.1.23798 | 2.43.0.1.23770 | GUI.zip, Web Service, DB updates |
| 43 | 2 | 2.43.0.2.24017(3GB) | 2.43.0.0.23171 | 2.43.0.2.24017 | 2.43.0.2.24023 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 3 | 2.43.0.3.24298(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24283 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 3.1 | 2.43.0.3.24450(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24421 | GUI.zip, and DB updates |
| 43 | 3.2 | 2.43.0.3.24450(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24421a | DB updates |
| 43 | 4 | 2.43.0.4.24447(3GB) | 2.43.0.0.23171 | 2.43.0.4.24447 | 2.43.0.4.24442 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 5 | 2.43.0.4.24632(3GB) | 2.43.0.0.23171 | 2.43.0.4.24632 | 2.43.0.4.24560 | GUI.zip, Web Service and DB updates |
| 43 | 6 | 2.43.0.4.24(3GB) | 2.43.0.0.23171 | 2.43.0.4.24 | 2.43.0.4.24 | GUI.zip, Web Service and DB updates |
| 43 | 6.1 | 2.43.0.6.24937(3GB) | 2.43.0.0.23171 | 2.43.0.6.24937 | 2.43.0.6.24914 | GUI.zip, Web Service |
| 43 | 6.2 | 2.43.0.6.24970(3GB) | 2.43.0.0.23171 | 2.43.0.6.24970 | 2.43.0.6.24914 | GUI.zip, Web Service |
| 43 | 7 | 2.43.0.7.25258(3GB) | 2.43.0.0.23171 | 2.43.0.7.25258 | 2.43.0.7.25226 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 8 | 2.43.0.8.25440(3GB) | 2.43.0.0.23171 | 2.43.0.8.25440 | 2.43.0.8.25425 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 9 | 2.43.0.9.25477(3GB) | 2.43.0.0.23171 | 2.43.0.9.25477 | 2.43.0.8.25425 | GUI.zip and Web Service |
| 43 | 10 | 2.43.0.9.25477(3GB) | 2.43.0.0.23171 | 2.43.0.10.25477 | 2.43.0.8.25425 | Web Service |
| 43 | 11 | 2.43.0.11.25512(3GB) | 2.43.0.0.23171 | 2.43.0.11.25512 | 2.43.0.8.25425 | GUI.zip and Web Service |
| 43 | 12 | 2.43.0.12.25554(3GB) | 2.43.0.0.23171 | 2.43.0.12.25554 | 2.43.0.12.25536 | GUI.zip Web Service and DB Updates |
| 43 | 13 | 2.43.0.12.25610(3GB) | 2.43.0.0.23171 | 2.43.0.12.25610 | 2.43.0.12.25536 | GUI.zip and Web Service |
| 43 | 14 | 2.43.0.14.25644(3GB) | 2.43.0.0.23171 | 2.43.0.13.25610 | 2.43.0.12.25536 | GUI.zip |
| 43.1 | - | 2.43.1.0.25850(3GB) | 2.43.0.0.23171 | 2.43.1.0.25850 | 2.43.1.0.25771 | GUI.zip Web Service and DB Updates |
| 43.2 | - | 2.43.2.0.26864(3GB) | 2.43.0.0.23171 | 2.43.2.0.26864 | 2.43.1.0.25771 | GUI.zip and Web Service |
| 44 | - | 2.44.0.0.26570(3GB) | 2.44.0.0.26405 | 2.44.0.0.26570 | 2.44.0.0.26475 | Full Version Release |
| 44.1 | - | 2.44.0.0.26984(3GB) | 2.44.0.0.26405 | 2.44.0.0.26984 | 2.44.0.0.26906 | Gui.zip, Web Service, and DB |
| 44.1 | 1 | 2.44.1.1.27093(3GB) | 2.44.0.0.26405 | 2.44.1.0.26984 | 2.44.1.0.26906 | Gui.zip |
| 44.2 | | 2.44.2.0.27410(3GB) | 2.44.0.0.26405 | 2.44.2.0.27410 | 2.44.2.0.27365 | Gui.zip, Web Service, and DB |
| 44.2 | 1 | 2.44.2.1.27959(3GB) | 2.44.0.0.26405 | 2.44.2.1.27959 | 2.44.2.1.27909 | Gui.zip, Web Service, and DB |
| 44.2 | 2 | 2.44.2.1.27959(3GB) | 2.44.0.0.26405 | 2.44.2.2.28094 | 2.44.2.1.27909 | Web Service |
| 44.3 | - | 2.44.3.0.28292 | 2.44.0.0.26405 | 2.44.3.0.28277 | 2.44.3.0.28138 | Gui.zip, Web Service, and DB |
| 44.3 | 1 | 2.44.3.1.28535(3GB) | 2.44.0.0.26405 | 2.44.3.1.28535 | 2.44.3.0.28138 | Gui.zip and Web Service |
| 44.4 | - | 2.44.4.0.28762(3GB) | 2.44.0.0.26405 | 2.44.4.0.28762 | 2.44.4.0.28676 | Gui.zip, Web Server, DB, Management Report Deployment |
| 44.4 | 1 | 2.44.4.1.28953(3GB) | 2.44.0.0.26405 | 2.44.4.1.28953 | 2.44.4.0.28676 | Gui.zip and Web Service |
| 44.4 | 2 | 2.44.4.2.29327(3GB) | 2.44.0.0.26405 | 2.44.4.2.29327 | 2.44.4.0.28676 | Gui.zip and Web Service |
| 44.4 | 3 | 2.44.4.2.29722(3GB) | 2.44.0.0.26405 | 2.44.4.2.29327 | 2.44.4.0.28676 | Gui.zip and Web Service |
| 44.5 | - | 2.44.5.0.30022(3GB) | 2.44.0.0.26405 | 2.44.5.0.30022 | 2.44.5.0.29976 | Gui.zip, Web Server, DB |
| 44.5 | 1 | 2.44.5.1.30451(3GB) | 2.44.0.0.26405 | 2.44.5.1.30451 | 2.44.5.1.30449 | Gui.zip, Web Server, DB |
| 44.5 | 2 | 2.44.5.2.30705(3GB) | 2.44.0.0.26405 | 2.44.5.1.30705 | 2.44.5.1.30554 | Gui.zip, Web Server, DB |
| 44.6 | - | 2.44.6.0.31341(3GB) | 2.44.0.0.26405 | 2.44.6.0.31341 | 2.44.6.0.31182 | Gui.zip, Web Server, DB |
| **44.7** | **-** | **2.44.7.0.32205(3GB)** | **2.44.0.0.26405** | **2.44.7.0.32205** | **2.44.7.0.32125** | **Gui.zip, Web Server, DB, SQLReporting** |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD Inc.

# 7. Resolved Defects

Bugs, Suggested Features and Support Issues resolved in build 2.44.7. The extract is taken from Redmine bug tracking system and only displays defects resolved in 2.44.7.

| Bug # | Priority | Subject | Category | Found Version |
|---|---|---|---|---|
| 12280 | Urgent | PACS images not synced with current report after timeout exceeded in eRAD RIS | PACS (eRAD) Int - RIS only | 2.44.6 |
| 12358 | Normal | Support XR-29 | Thick Client GUI | |
| 12359 | Normal | Create XR-29 management report | Mgt Reports | |
| 12408 | Normal | When prompted "Action required in PACS" and PACS is killed, clicking OK to message should allow you to continue working in RIS without PACS. | PACS (eRAD) Integration | 44.7 |
| 12414 | Normal | PowerScribe error when closing studies with the X on the tab | Powerscribe Integration | 2.44.7 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD Inc.

# 8. Known Limitations

The following are Bugs Suggested Features and Support Issues found in build 2.44.7. Bugs reported in previous versions are not captured as Known Limitation in this document.

| # | Status | Priority | Subject |
|---|---|---|---|
| 12409 | New | Normal | Under certain circumstances, the RIS message "Action required in PACS before continuing" must be acknowledged twice to continue working in RIS |
| 12411 | New | Normal | PACS "Invalid Study file" displays every time you go to the Patient folder |
| 12415 | New | Normal | PACS images getting locked when you exit out of RIS |
| 12422 | New | Normal | After restarting the PACS viewer, not all images are displayed when tabbing through studies that were open before PACS viewer was killed. |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD Inc.

# Server Update

For eRAD RIS
Version 2.0
Build 44.7
Update 44.7.1

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# Table of Contents

1. Resolved Items ..... 3
2. Code Stream ..... 4
3. Package Contents ..... 5
4. Intended Audience ..... 5
5. Who is affected ..... 5
6. eRAD RIS Release Version Numbers ..... 6
7. Installing ..... 7

Client/GUI ..... 7

Web Service ..... 8

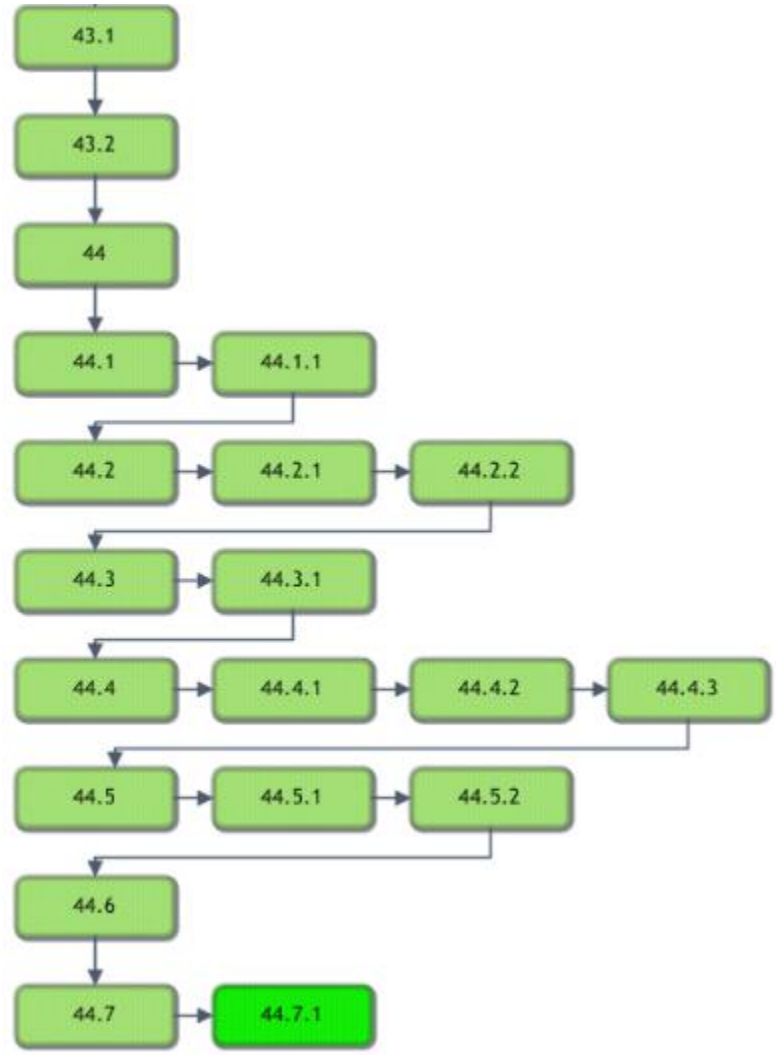
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## 1. Resolved Items

| Redmine # | Subject | Priority |
|---|---|---|
| 12476 | IW or CSH PACS integration - produces an error and crashes RIS | Urgent |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## 2. Code Stream




**Legend:**

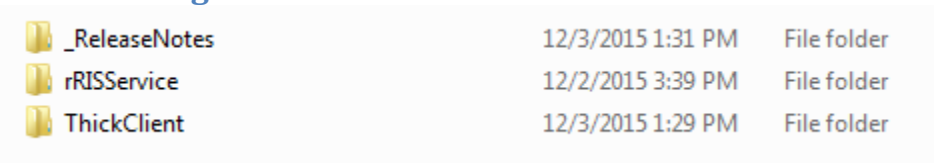
Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## 3. Package Contents




## 4. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

## 5. Who is affected

Build 44.7 installs. This server update must be applied to 44.7

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## 6. eRAD RIS Release Version Numbers

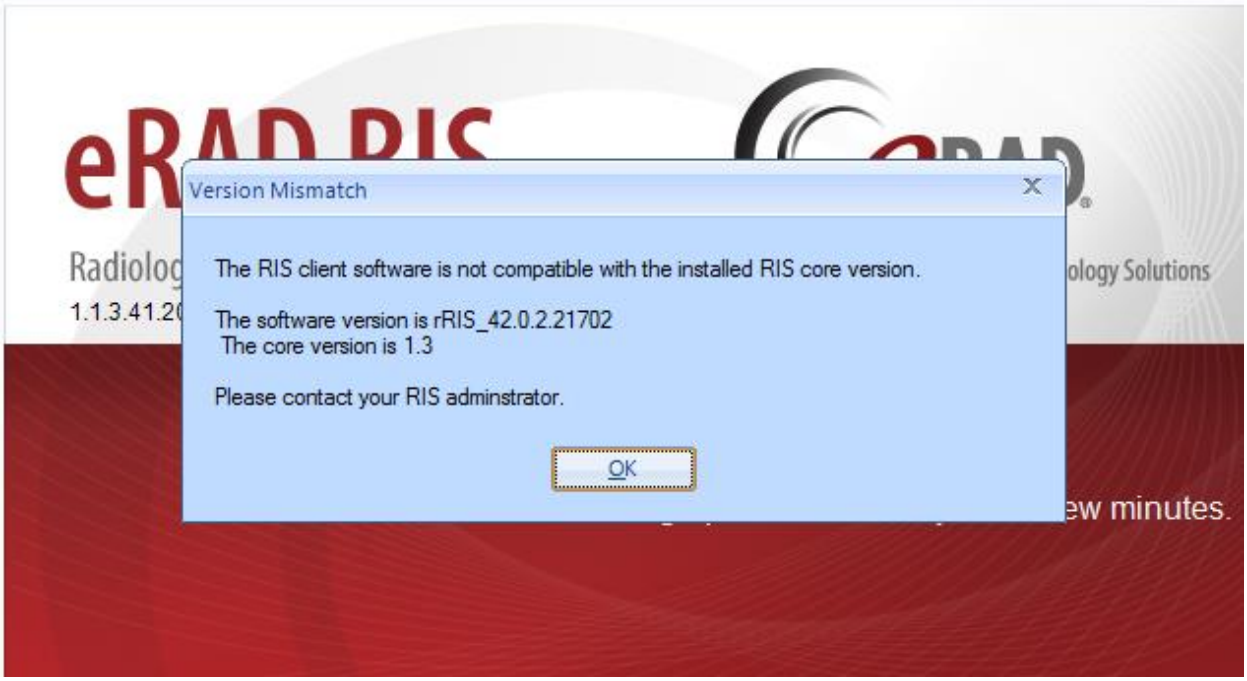
| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 43 | - | 2.43.0.0.23715(3GB) | 2.43.0.0.23171 | 2.43.0.0.23715 | 2.43.0.0.23743 | Full Version Release |
| 43 | 1 | 2.43.0.1.23798(3GB) | 2.43.0.0.23171 | 2.43.0.1.23798 | 2.43.0.1.23770 | GUI.zip, Web Service, DB updates |
| 43 | 2 | 2.43.0.2.24017(3GB) | 2.43.0.0.23171 | 2.43.0.2.24017 | 2.43.0.2.24023 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 3 | 2.43.0.3.24298(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24283 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 3.1 | 2.43.0.3.24450(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24421 | GUI.zip, and DB updates |
| 43 | 3.2 | 2.43.0.3.24450(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24421a | DB updates |
| 43 | 4 | 2.43.0.4.24447(3GB) | 2.43.0.0.23171 | 2.43.0.4.24447 | 2.43.0.4.24442 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 5 | 2.43.0.4.24632(3GB) | 2.43.0.0.23171 | 2.43.0.4.24632 | 2.43.0.4.24560 | GUI.zip, Web Service and DB updates |
| 43 | 6 | 2.43.0.4.24(3GB) | 2.43.0.0.23171 | 2.43.0.4.24 | 2.43.0.4.24 | GUI.zip, Web Service and DB updates |
| 43 | 6.1 | 2.43.0.6.24937(3GB) | 2.43.0.0.23171 | 2.43.0.6.24937 | 2.43.0.6.24914 | GUI.zip, Web Service |
| 43 | 6.2 | 2.43.0.6.24970(3GB) | 2.43.0.0.23171 | 2.43.0.6.24970 | 2.43.0.6.24914 | GUI.zip, Web Service |
| 43 | 7 | 2.43.0.7.25258(3GB) | 2.43.0.0.23171 | 2.43.0.7.25258 | 2.43.0.7.25226 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 8 | 2.43.0.8.25440(3GB) | 2.43.0.0.23171 | 2.43.0.8.25440 | 2.43.0.8.25425 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 9 | 2.43.0.9.25477(3GB) | 2.43.0.0.23171 | 2.43.0.9.25477 | 2.43.0.8.25425 | GUI.zip and Web Service |
| 43 | 10 | 2.43.0.9.25477(3GB) | 2.43.0.0.23171 | 2.43.0.10.25477 | 2.43.0.8.25425 | Web Service |
| 43 | 11 | 2.43.0.11.25512(3GB) | 2.43.0.0.23171 | 2.43.0.11.25512 | 2.43.0.8.25425 | GUI.zip and Web Service |
| 43 | 12 | 2.43.0.12.25554(3GB) | 2.43.0.0.23171 | 2.43.0.12.25554 | 2.43.0.12.25536 | GUI.zip Web Service and DB Updates |
| 43 | 13 | 2.43.0.12.25610(3GB) | 2.43.0.0.23171 | 2.43.0.12.25610 | 2.43.0.12.25536 | GUI.zip and Web Service |
| 43 | 14 | 2.43.0.14.25644(3GB) | 2.43.0.0.23171 | 2.43.0.13.25610 | 2.43.0.12.25536 | GUI.zip |
| 43.1 | - | 2.43.1.0.25850(3GB) | 2.43.0.0.23171 | 2.43.1.0.25850 | 2.43.1.0.25771 | GUI.zip Web Service and DB Updates |
| 43.2 | - | 2.43.2.0.26864(3GB) | 2.43.0.0.23171 | 2.43.2.0.26864 | 2.43.1.0.25771 | GUI.zip and Web Service |
| 44 | - | 2.44.0.0.26570(3GB) | 2.44.0.0.26405 | 2.44.0.0.26570 | 2.44.0.0.26475 | Full Version Release |
| 44.1 | - | 2.44.0.0.26984(3GB) | 2.44.0.0.26405 | 2.44.0.0.26984 | 2.44.0.0.26906 | Gui.zip, Web Service, and DB |
| 44.1 | 1 | 2.44.1.1.27093(3GB) | 2.44.0.0.26405 | 2.44.1.0.26984 | 2.44.1.0.26906 | Gui.zip |
| 44.2 | | 2.44.2.0.27410(3GB) | 2.44.0.0.26405 | 2.44.2.0.27410 | 2.44.2.0.27365 | Gui.zip, Web Service, and DB |
| 44.2 | 1 | 2.44.2.1.27959(3GB) | 2.44.0.0.26405 | 2.44.2.1.27959 | 2.44.2.1.27909 | Gui.zip, Web Service, and DB |
| 44.2 | 2 | 2.44.2.1.27959(3GB) | 2.44.0.0.26405 | 2.44.2.2.28094 | 2.44.2.1.27909 | Web Service |
| 44.3 | - | 2.44.3.0.28292 | 2.44.0.0.26405 | 2.44.3.0.28277 | 2.44.3.0.28138 | Gui.zip, Web Service, and DB |
| 44.3 | 1 | 2.44.3.1.28535(3GB) | 2.44.0.0.26405 | 2.44.3.1.28535 | 2.44.3.0.28138 | Gui.zip and Web Service |
| 44.4 | - | 2.44.4.0.28762(3GB) | 2.44.0.0.26405 | 2.44.4.0.28762 | 2.44.4.0.28676 | Gui.zip, Web Server, DB, Management Report Deployment |
| 44.4 | 1 | 2.44.4.1.28953(3GB) | 2.44.0.0.26405 | 2.44.4.1.28953 | 2.44.4.0.28676 | Gui.zip and Web Service |
| 44.4 | 2 | 2.44.4.2.29327(3GB) | 2.44.0.0.26405 | 2.44.4.2.29327 | 2.44.4.0.28676 | Gui.zip and Web Service |
| 44.4 | 3 | 2.44.4.2.29722(3GB) | 2.44.0.0.26405 | 2.44.4.2.29327 | 2.44.4.0.28676 | Gui.zip and Web Service |
| 44.5 | - | 2.44.5.0.30022(3GB) | 2.44.0.0.26405 | 2.44.5.0.30022 | 2.44.5.0.29976 | Gui.zip, Web Server, DB |
| 44.5 | 1 | 2.44.5.1.30451(3GB) | 2.44.0.0.26405 | 2.44.5.1.30451 | 2.44.5.1.30449 | Gui.zip, Web Server, DB |
| 44.5 | 2 | 2.44.5.2.30705(3GB) | 2.44.0.0.26405 | 2.44.5.1.30705 | 2.44.5.1.30554 | Gui.zip, Web Server, DB |
| 44.5 | 1 | 2.44.5.1.30451(3GB) | 2.44.0.0.26405 | 2.44.5.1.30451 | 2.44.5.1.30449 | Gui.zip, Web Server, DB |
| 44.5 | 2 | 2.44.5.2.30705(3GB) | 2.44.0.0.26405 | 2.44.5.1.30705 | 2.44.5.1.30554 | Gui.zip, Web Server, DB |
| 44.6 | - | 2.44.6.0.31341(3GB) | 2.44.0.0.26405 | 2.44.6.0.31341 | 2.44.6.0.31182 | Gui.zip, Web Server, DB |
| 44.7 | - | 2.44.7.0.32205(3GB) | 2.44.0.0.26405 | 2.44.7.0.32205 | 2.44.7.0.32125 | Gui.zip, Web Server, DB, SQLReporting |
| **44.7** | **1** | **2.44.7.1.32395(3GB)** | **2.44.0.0.26405** | **2.44.7.1.32395** | **2.44.7.0.32125** | **Gui.zip, Web Server** |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# 7. Installing

## Client/GUI

1) Copy and replace the current rRIS…zip file with the rRIS_1.3.44.7.1.32395.zip file provided with this release.
   Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.




If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_44.7.1.32395→ rRIS_1.3.44.7.1.32395
NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

**NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## Web Service

1. The web service upgrade consists of replacing the files in the RIS Web Service directory with the files supplied in the rRISService folder with this build. Always create a backup of the files being replaced. This upgrade includes 88 files in the rRISService folder and 2 sub folders. Of those folders, 1 is a folder titled **"XSL"** that contains a sub folder and files within the subfolder. Another folder is titled **"deploy"** that contains the new .config files that will be deployed with the user of the file called "ServicesConfigWizard.exe" (see instructions below).

## Services Configuration Wizard

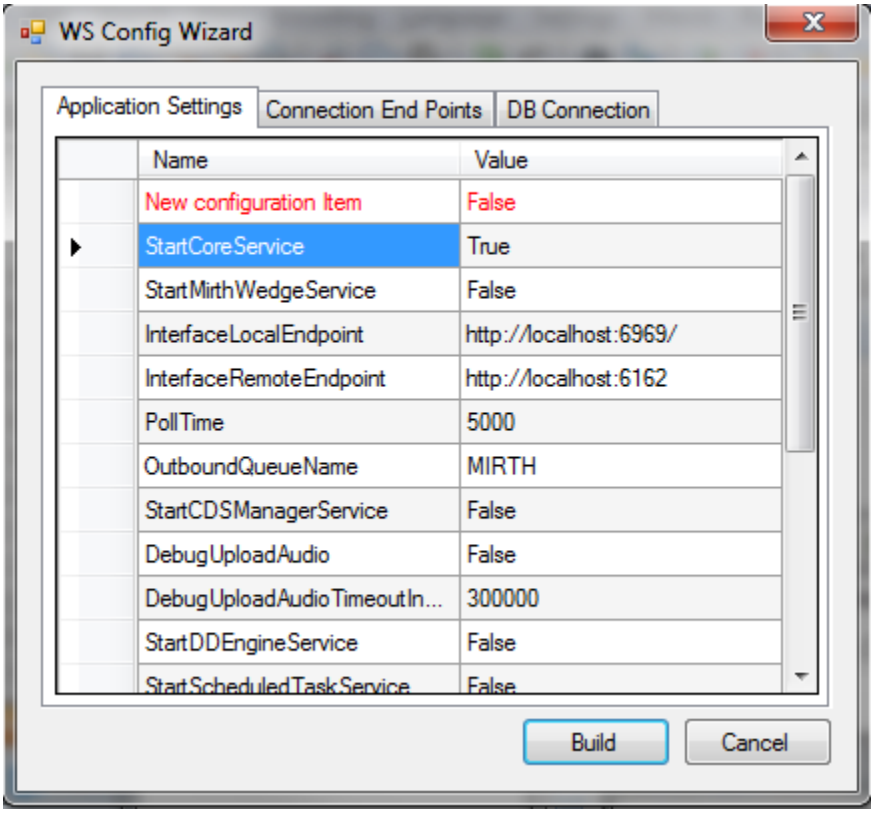
With the release of 42 to decrease the chance of losing configuration setting and missing new configuration options, we will no longer include the configuration files in the release in the main set of files, but they will now exist in a "deploy" folder, which will contain the three site configurable config files; applicationsettings, connectionstrings, services as well as a copy of the rRISServices.exe configuration file. The contents of this folder should not be required to be touched.

On the install of a new service, all files will be copied to the appropriate locations on the server (no configurations will be over written). If instructed or to confirm no new configurations have been added the user can run the new application "ServicesConfigWizard.exe"

This application will read the existing configuration file(s) (if files exist), and compare to the provided new configuration files then will display three tabs, for each configuration file:
**Application Settings:** all existing configuration value will be displayed, if there are any new configuration entries they will be displayed in red.

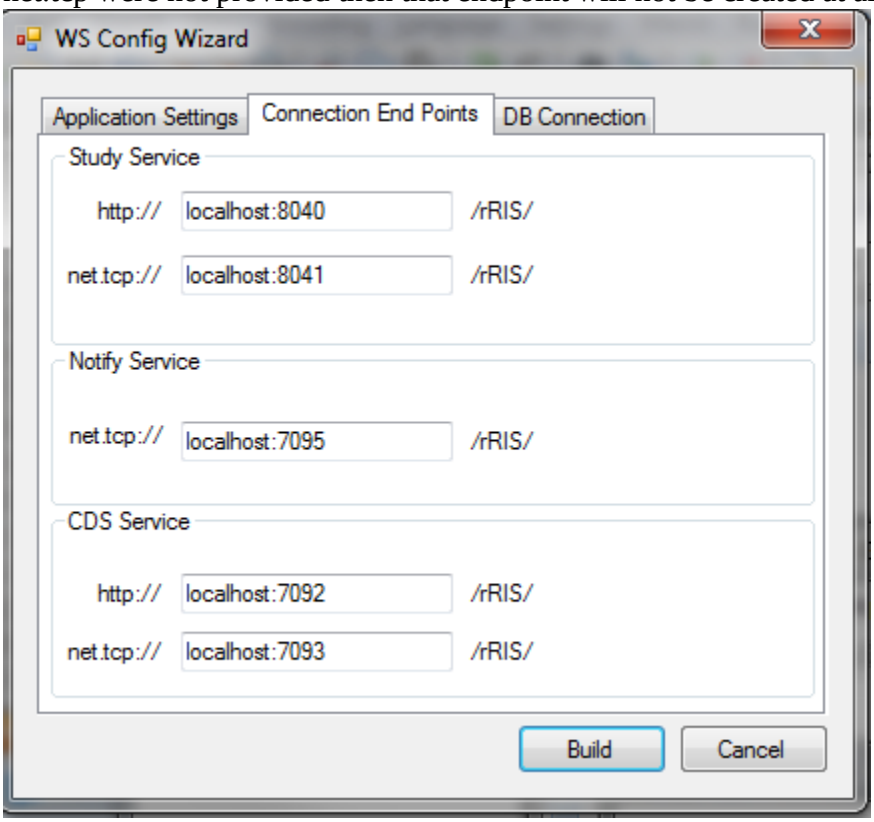
**NOTE:** the rRISServices.exe.config file is also included in the deploy folder. If this file has changes it **will not** update your current file in the Web Service directory. Any changes to this file will require a manual update of the rRISServices.exe.config and rRISServicesx64.exe.config files.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.



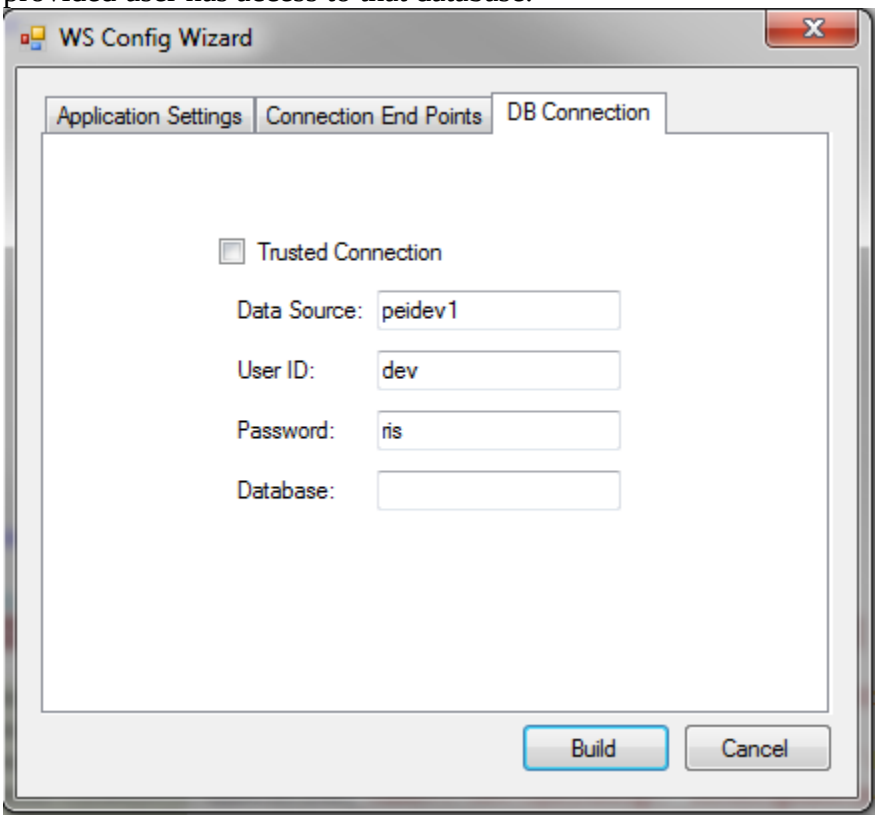

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

**Connection End Points:** will display the existing configuration, if the value is left blank then that entry will not be created, in the case of "Study Service" or "CDS Service" if both http and net.tcp were not provided then that endpoint will not be created at all.




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

**DB Connection:** will display the existing configuration, if the Connection is to be used as a trusted connection, then the user ID and password will become disabled and will not be used, and will rely on the provided database value, When not using the trusted connection, The Database value is not needed but can be used to force a specific database connection as long as the provided user has access to that database.




It is always good practice to do a compare of the .config files.

1) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService.
   *rRISService directories include:*
   *a) rRISService*
   *b) CDS rRISService*
   *c) Wedge rRISService*
   *d) DDE rRISService*

   **Restart each service**.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# Server Update

For eRAD RIS
Version 2.0
Build 44.7
Update 44.7.2

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# Table of Contents

1. Resolved Items ..... 3
2. Code Stream ..... 4
3. Package Contents ..... 5
4. Intended Audience ..... 5
5. Who is affected ..... 5
6. eRAD RIS Release Version Numbers ..... 6
7. Installing ..... 7

Client/GUI ..... 7

Web Service ..... 8

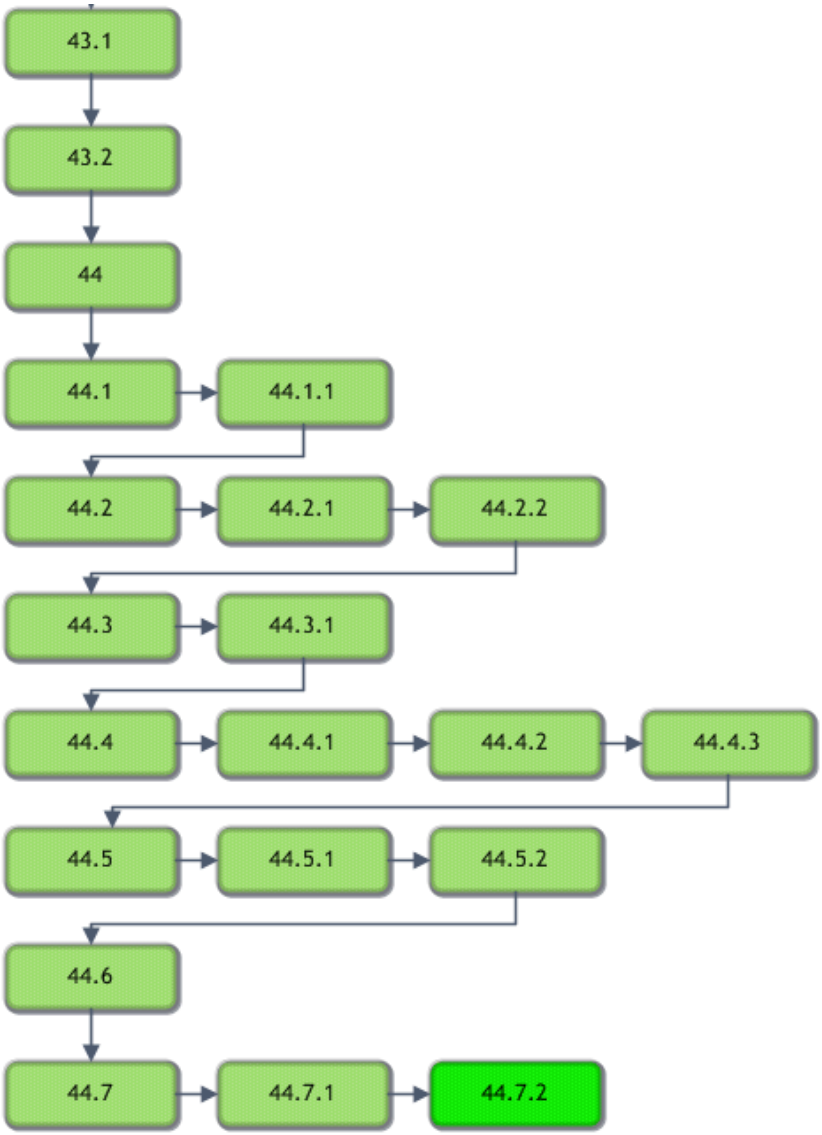
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## 1. Resolved Items

| Redmine # | Subject | Priority |
|---|---|---|
| 12710 | Wedge is throwing Distributed Transaction Errors due to resolving Indication Codes on outbound messages | Immediate |
| 12713 | PACS integration intermittent for both rads and techs | Urgent |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## 2. Code Stream




**Legend:**

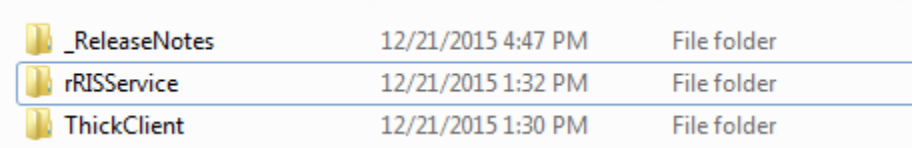
Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## 3. Package Contents




## 4. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

## 5. Who is affected

Build 44.7 installs. This server update must be applied to 44.7

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## 6. eRAD RIS Release Version Numbers

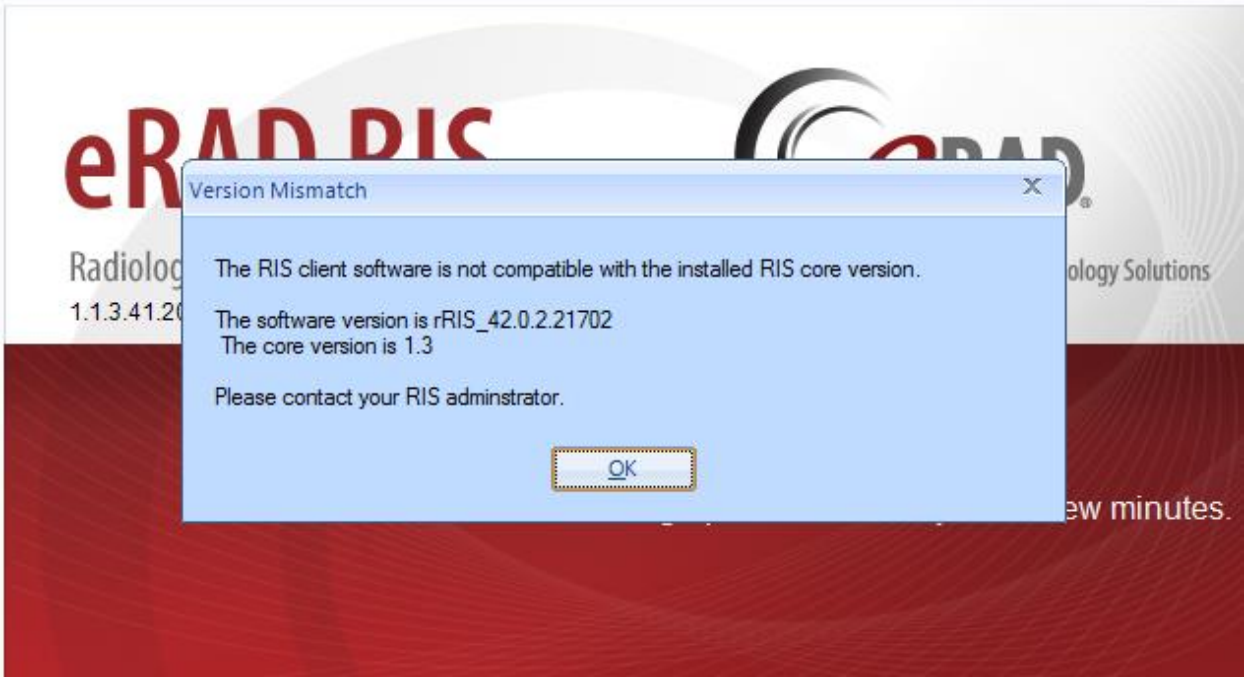
| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 43 | - | 2.43.0.0.23715(3GB) | 2.43.0.0.23171 | 2.43.0.0.23715 | 2.43.0.0.23743 | Full Version Release |
| 43 | 1 | 2.43.0.1.23798(3GB) | 2.43.0.0.23171 | 2.43.0.1.23798 | 2.43.0.1.23770 | GUI.zip, Web Service, DB updates |
| 43 | 2 | 2.43.0.2.24017(3GB) | 2.43.0.0.23171 | 2.43.0.2.24017 | 2.43.0.2.24023 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 3 | 2.43.0.3.24298(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24283 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 3.1 | 2.43.0.3.24450(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24421 | GUI.zip, and DB updates |
| 43 | 3.2 | 2.43.0.3.24450(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24421a | DB updates |
| 43 | 4 | 2.43.0.4.24447(3GB) | 2.43.0.0.23171 | 2.43.0.4.24447 | 2.43.0.4.24442 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 5 | 2.43.0.4.24632(3GB) | 2.43.0.0.23171 | 2.43.0.4.24632 | 2.43.0.4.24560 | GUI.zip, Web Service and DB updates |
| 43 | 6 | 2.43.0.4.24(3GB) | 2.43.0.0.23171 | 2.43.0.4.24 | 2.43.0.4.24 | GUI.zip, Web Service and DB updates |
| 43 | 6.1 | 2.43.0.6.24937(3GB) | 2.43.0.0.23171 | 2.43.0.6.24937 | 2.43.0.6.24914 | GUI.zip, Web Service |
| 43 | 6.2 | 2.43.0.6.24970(3GB) | 2.43.0.0.23171 | 2.43.0.6.24970 | 2.43.0.6.24914 | GUI.zip, Web Service |
| 43 | 7 | 2.43.0.7.25258(3GB) | 2.43.0.0.23171 | 2.43.0.7.25258 | 2.43.0.7.25226 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 8 | 2.43.0.8.25440(3GB) | 2.43.0.0.23171 | 2.43.0.8.25440 | 2.43.0.8.25425 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 9 | 2.43.0.9.25477(3GB) | 2.43.0.0.23171 | 2.43.0.9.25477 | 2.43.0.8.25425 | GUI.zip and Web Service |
| 43 | 10 | 2.43.0.9.25477(3GB) | 2.43.0.0.23171 | 2.43.0.10.25477 | 2.43.0.8.25425 | Web Service |
| 43 | 11 | 2.43.0.11.25512(3GB) | 2.43.0.0.23171 | 2.43.0.11.25512 | 2.43.0.8.25425 | GUI.zip and Web Service |
| 43 | 12 | 2.43.0.12.25554(3GB) | 2.43.0.0.23171 | 2.43.0.12.25554 | 2.43.0.12.25536 | GUI.zip Web Service and DB Updates |
| 43 | 13 | 2.43.0.12.25610(3GB) | 2.43.0.0.23171 | 2.43.0.12.25610 | 2.43.0.12.25536 | GUI.zip and Web Service |
| 43 | 14 | 2.43.0.14.25644(3GB) | 2.43.0.0.23171 | 2.43.0.13.25610 | 2.43.0.12.25536 | GUI.zip |
| 43.1 | - | 2.43.1.0.25850(3GB) | 2.43.0.0.23171 | 2.43.1.0.25850 | 2.43.1.0.25771 | GUI.zip Web Service and DB Updates |
| 43.2 | - | 2.43.2.0.26864(3GB) | 2.43.0.0.23171 | 2.43.2.0.26864 | 2.43.1.0.25771 | GUI.zip and Web Service |
| 44 | - | 2.44.0.0.26570(3GB) | 2.44.0.0.26405 | 2.44.0.0.26570 | 2.44.0.0.26475 | Full Version Release |
| 44.1 | - | 2.44.0.0.26984(3GB) | 2.44.0.0.26405 | 2.44.0.0.26984 | 2.44.0.0.26906 | Gui.zip, Web Service, and DB |
| 44.1 | 1 | 2.44.1.1.27093(3GB) | 2.44.0.0.26405 | 2.44.1.0.26984 | 2.44.1.0.26906 | Gui.zip |
| 44.2 | | 2.44.2.0.27410(3GB) | 2.44.0.0.26405 | 2.44.2.0.27410 | 2.44.2.0.27365 | Gui.zip, Web Service, and DB |
| 44.2 | 1 | 2.44.2.1.27959(3GB) | 2.44.0.0.26405 | 2.44.2.1.27959 | 2.44.2.1.27909 | Gui.zip, Web Service, and DB |
| 44.2 | 2 | 2.44.2.1.27959(3GB) | 2.44.0.0.26405 | 2.44.2.2.28094 | 2.44.2.1.27909 | Web Service |
| 44.3 | - | 2.44.3.0.28292 | 2.44.0.0.26405 | 2.44.3.0.28277 | 2.44.3.0.28138 | Gui.zip, Web Service, and DB |
| 44.3 | 1 | 2.44.3.1.28535(3GB) | 2.44.0.0.26405 | 2.44.3.1.28535 | 2.44.3.0.28138 | Gui.zip and Web Service |
| 44.4 | - | 2.44.4.0.28762(3GB) | 2.44.0.0.26405 | 2.44.4.0.28762 | 2.44.4.0.28676 | Gui.zip, Web Server, DB, Management Report Deployment |
| 44.4 | 1 | 2.44.4.1.28953(3GB) | 2.44.0.0.26405 | 2.44.4.1.28953 | 2.44.4.0.28676 | Gui.zip and Web Service |
| 44.4 | 2 | 2.44.4.2.29327(3GB) | 2.44.0.0.26405 | 2.44.4.2.29327 | 2.44.4.0.28676 | Gui.zip and Web Service |
| 44.4 | 3 | 2.44.4.2.29722(3GB) | 2.44.0.0.26405 | 2.44.4.2.29327 | 2.44.4.0.28676 | Gui.zip and Web Service |
| 44.5 | - | 2.44.5.0.30022(3GB) | 2.44.0.0.26405 | 2.44.5.0.30022 | 2.44.5.0.29976 | Gui.zip, Web Service, DB |
| 44.5 | 1 | 2.44.5.1.30451(3GB) | 2.44.0.0.26405 | 2.44.5.1.30451 | 2.44.5.1.30449 | Gui.zip, Web Service, DB |
| 44.5 | 2 | 2.44.5.2.30705(3GB) | 2.44.0.0.26405 | 2.44.5.1.30705 | 2.44.5.1.30554 | Gui.zip, Web Service, DB |
| 44.5 | 1 | 2.44.5.1.30451(3GB) | 2.44.0.0.26405 | 2.44.5.1.30451 | 2.44.5.1.30449 | Gui.zip, Web Service, DB |
| 44.5 | 2 | 2.44.5.2.30705(3GB) | 2.44.0.0.26405 | 2.44.5.1.30705 | 2.44.5.1.30554 | Gui.zip, Web Service, DB |
| 44.6 | - | 2.44.6.0.31341(3GB) | 2.44.0.0.26405 | 2.44.6.0.31341 | 2.44.6.0.31182 | Gui.zip, Web Service, DB |
| 44.7 | - | 2.44.7.0.32205(3GB) | 2.44.0.0.26405 | 2.44.7.0.32205 | 2.44.7.0.32125 | Gui.zip, Web Service, DB, SQLReporting |
| 44.7 | 1 | 2.44.7.1.32395(3GB) | 2.44.0.0.26405 | 2.44.7.1.32395 | 2.44.7.0.32125 | Gui.zip, Web Service |
| **44.7** | **2** | **2.44.7.2.32694(3GB)** | **2.44.0.0.26405** | **2.44.7.2.32694** | **2.44.7.0.32125** | **Gui.zip, Web Service** |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# 7. Installing

## Client/GUI

1) Copy and replace the current rRIS…zip file with the rRIS_1.3.44.7.2.32694.zip file provided with this release.
   Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.




If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_44.7.2.3694→ rRIS_1.3.44.7.2.32694
NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

**NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## Web Service

1. The web service upgrade consists of replacing the files in the RIS Web Service directory with the files supplied in the rRISService folder with this build. Always create a backup of the files being replaced. This upgrade includes 90 files in the rRISService folder and 2 sub folders. Of those folders, 1 is a folder titled **"XSL"** that contains a sub folder and files within the subfolder. Another folder is titled **"deploy"** that contains the new .config files that will be deployed with the user of the file called "ServicesConfigWizard.exe" (see instructions below).

## Services Configuration Wizard

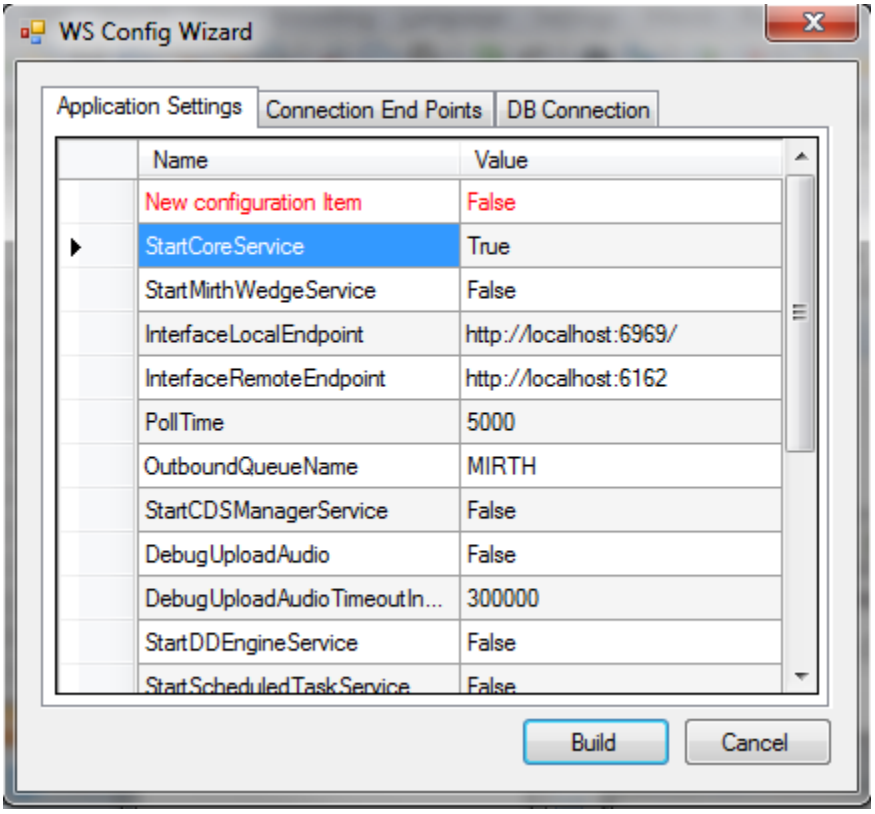
With the release of 42 to decrease the chance of losing configuration setting and missing new configuration options, we will no longer include the configuration files in the release in the main set of files, but they will now exist in a "deploy" folder, which will contain the three site configurable config files; applicationsettings, connectionstrings, services as well as a copy of the rRISServices.exe configuration file. The contents of this folder should not be required to be touched.

On the install of a new service, all files will be copied to the appropriate locations on the server (no configurations will be over written). If instructed or to confirm no new configurations have been added the user can run the new application "ServicesConfigWizard.exe"

This application will read the existing configuration file(s) (if files exist), and compare to the provided new configuration files then will display three tabs, for each configuration file:
**Application Settings:** all existing configuration value will be displayed, if there are any new configuration entries they will be displayed in red.

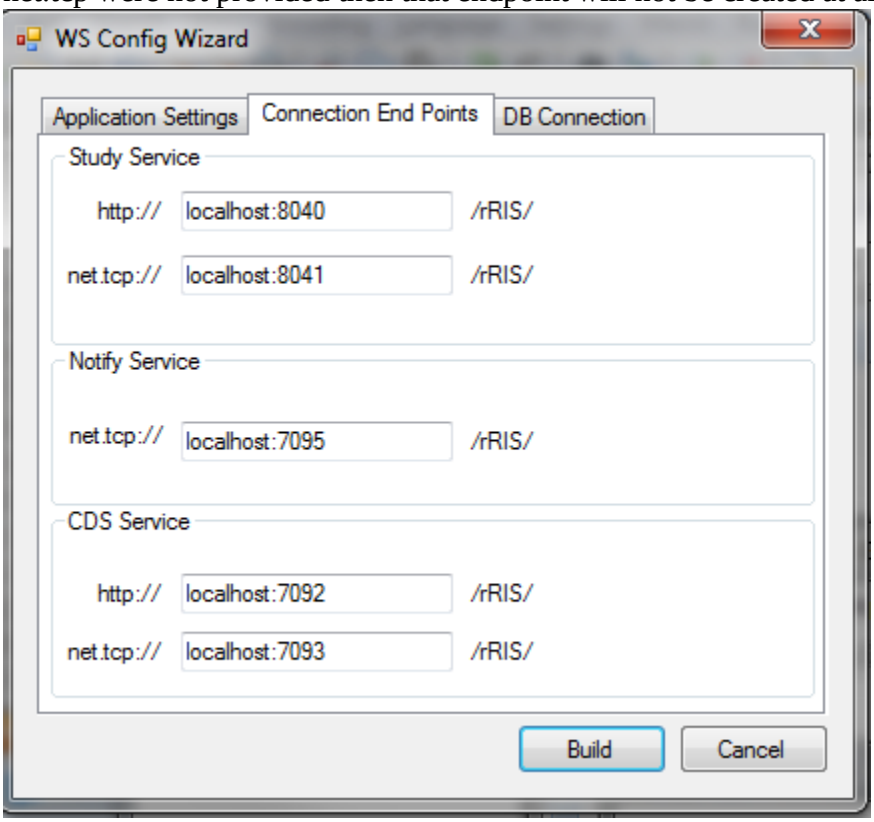
**NOTE:** the rRISServices.exe.config file is also included in the deploy folder. If this file has changes it **will not** update your current file in the Web Service directory. Any changes to this file will require a manual update of the rRISServices.exe.config and rRISServicesx64.exe.config files.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.



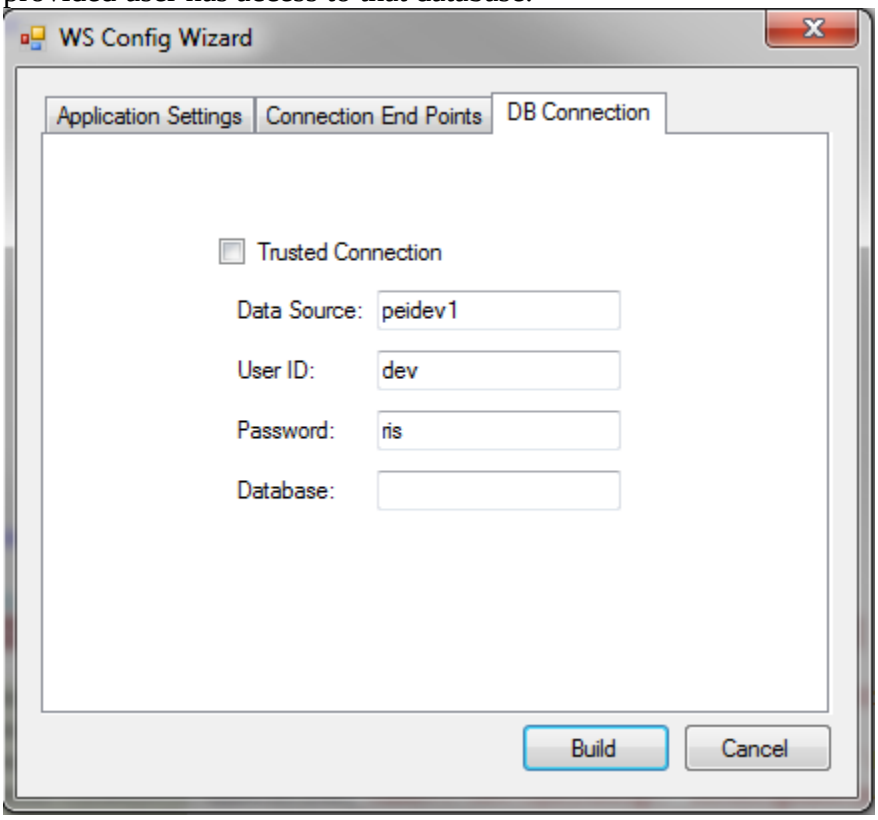

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

**Connection End Points:** will display the existing configuration, if the value is left blank then that entry will not be created, in the case of "Study Service" or "CDS Service" if both http and net.tcp were not provided then that endpoint will not be created at all.




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

**DB Connection:** will display the existing configuration, if the Connection is to be used as a trusted connection, then the user ID and password will become disabled and will not be used, and will rely on the provided database value, When not using the trusted connection, The Database value is not needed but can be used to force a specific database connection as long as the provided user has access to that database.




It is always good practice to do a compare of the .config files.

1) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService.
   *rRISService directories include:*
   *a) rRISService*
   *b) CDS rRISService*
   *c) Wedge rRISService*
   *d) DDE rRISService*

   **Restart each service**.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# Server Update

For eRAD RIS
Version 2.0
Build 44.7
Update 44.7.3

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# Table of Contents

1. Resolved Items ..... 3
2. Code Stream ..... 4
3. Package Contents ..... 5
4. Intended Audience ..... 5
5. Who is affected ..... 5
6. eRAD RIS Release Version Numbers ..... 6
7. Installing ..... 7

Client/GUI ..... 7

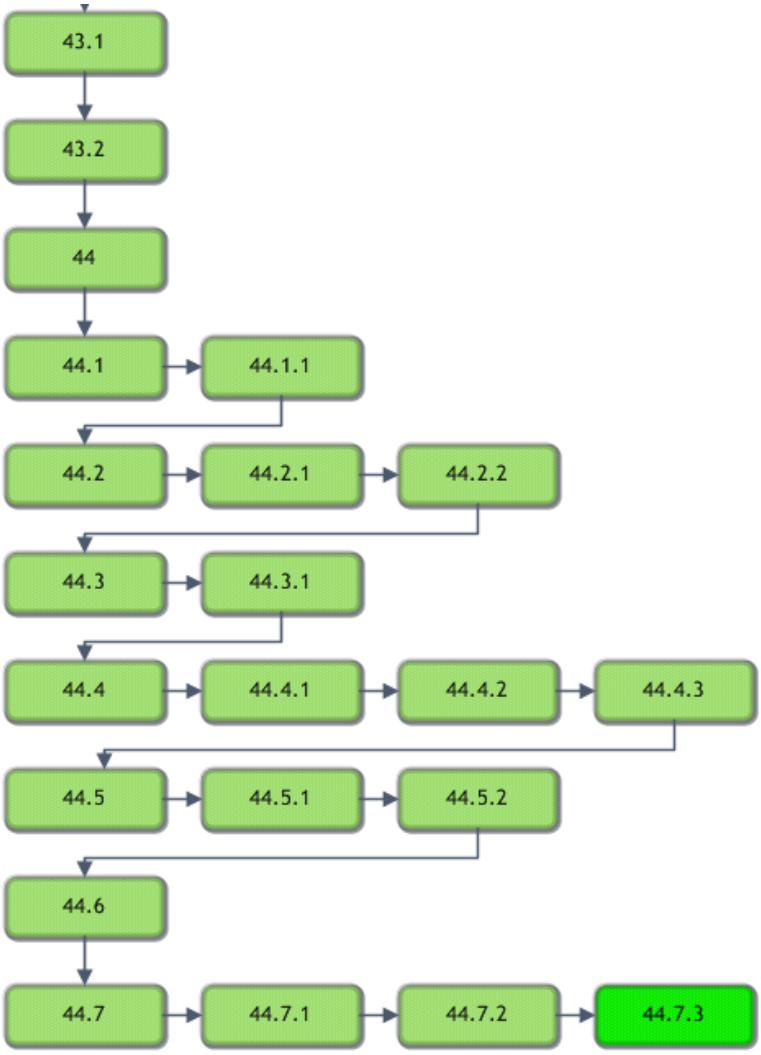
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## 1. Resolved Items

| Redmine # | Subject | Priority |
|---|---|---|
| 12770 | PACS integration is prompting the rads to much with message boxes after the new update | Normal |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## 2. Code Stream




**Legend:**

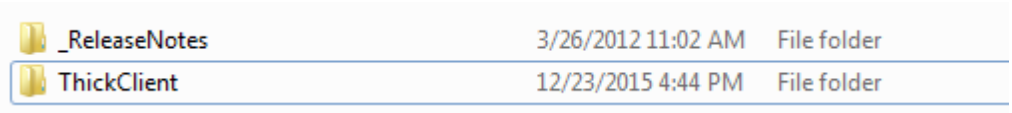
Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## 3. Package Contents




## 4. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

## 5. Who is affected

Build 44.7 installs. This server update must be applied to 44.7.2

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## 6. eRAD RIS Release Version Numbers

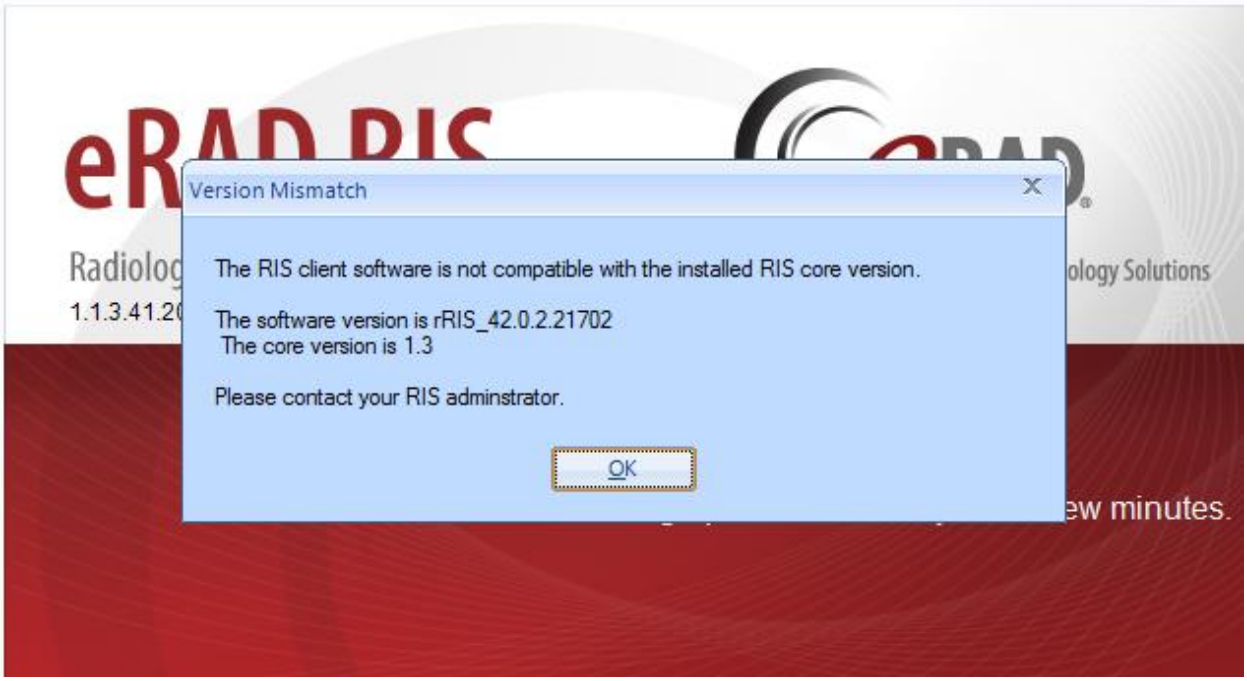
| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 43 | - | 2.43.0.0.23715(3GB) | 2.43.0.0.23171 | 2.43.0.0.23715 | 2.43.0.0.23743 | Full Version Release |
| 43 | 1 | 2.43.0.1.23798(3GB) | 2.43.0.0.23171 | 2.43.0.1.23798 | 2.43.0.1.23770 | GUI.zip, Web Service, DB updates |
| 43 | 2 | 2.43.0.2.24017(3GB) | 2.43.0.0.23171 | 2.43.0.2.24017 | 2.43.0.2.24023 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 3 | 2.43.0.3.24298(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24283 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 3.1 | 2.43.0.3.24450(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24421 | GUI.zip, and DB updates |
| 43 | 3.2 | 2.43.0.3.24450(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24421a | DB updates |
| 43 | 4 | 2.43.0.4.24447(3GB) | 2.43.0.0.23171 | 2.43.0.4.24447 | 2.43.0.4.24442 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 5 | 2.43.0.4.24632(3GB) | 2.43.0.0.23171 | 2.43.0.4.24632 | 2.43.0.4.24560 | GUI.zip, Web Service and DB updates |
| 43 | 6 | 2.43.0.4.24(3GB) | 2.43.0.0.23171 | 2.43.0.4.24 | 2.43.0.4.24 | GUI.zip, Web Service and DB updates |
| 43 | 6.1 | 2.43.0.6.24937(3GB) | 2.43.0.0.23171 | 2.43.0.6.24937 | 2.43.0.6.24914 | GUI.zip, Web Service |
| 43 | 6.2 | 2.43.0.6.24970(3GB) | 2.43.0.0.23171 | 2.43.0.6.24970 | 2.43.0.6.24914 | GUI.zip, Web Service |
| 43 | 7 | 2.43.0.7.25258(3GB) | 2.43.0.0.23171 | 2.43.0.7.25258 | 2.43.0.7.25226 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 8 | 2.43.0.8.25440(3GB) | 2.43.0.0.23171 | 2.43.0.8.25440 | 2.43.0.8.25425 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 9 | 2.43.0.9.25477(3GB) | 2.43.0.0.23171 | 2.43.0.9.25477 | 2.43.0.8.25425 | GUI.zip and Web Service |
| 43 | 10 | 2.43.0.9.25477(3GB) | 2.43.0.0.23171 | 2.43.0.10.25477 | 2.43.0.8.25425 | Web Service |
| 43 | 11 | 2.43.0.11.25512(3GB) | 2.43.0.0.23171 | 2.43.0.11.25512 | 2.43.0.8.25425 | GUI.zip and Web Service |
| 43 | 12 | 2.43.0.12.25554(3GB) | 2.43.0.0.23171 | 2.43.0.12.25554 | 2.43.0.12.25536 | GUI.zip Web Service and DB Updates |
| 43 | 13 | 2.43.0.12.25610(3GB) | 2.43.0.0.23171 | 2.43.0.12.25610 | 2.43.0.12.25536 | GUI.zip and Web Service |
| 43 | 14 | 2.43.0.14.25644(3GB) | 2.43.0.0.23171 | 2.43.0.13.25610 | 2.43.0.12.25536 | GUI.zip |
| 43.1 | - | 2.43.1.0.25850(3GB) | 2.43.0.0.23171 | 2.43.1.0.25850 | 2.43.1.0.25771 | GUI.zip Web Service and DB Updates |
| 43.2 | - | 2.43.2.0.26864(3GB) | 2.43.0.0.23171 | 2.43.2.0.26864 | 2.43.1.0.25771 | GUI.zip and Web Service |
| 44 | - | 2.44.0.0.26570(3GB) | 2.44.0.0.26405 | 2.44.0.0.26570 | 2.44.0.0.26475 | Full Version Release |
| 44.1 | - | 2.44.0.0.26984(3GB) | 2.44.0.0.26405 | 2.44.0.0.26984 | 2.44.0.0.26906 | Gui.zip, Web Service, and DB |
| 44.1 | 1 | 2.44.1.1.27093(3GB) | 2.44.0.0.26405 | 2.44.1.0.26984 | 2.44.1.0.26906 | Gui.zip |
| 44.2 | | 2.44.2.0.27410(3GB) | 2.44.0.0.26405 | 2.44.2.0.27410 | 2.44.2.0.27365 | Gui.zip, Web Service, and DB |
| 44.2 | 1 | 2.44.2.1.27959(3GB) | 2.44.0.0.26405 | 2.44.2.1.27959 | 2.44.2.1.27909 | Gui.zip, Web Service, and DB |
| 44.2 | 2 | 2.44.2.1.27959(3GB) | 2.44.0.0.26405 | 2.44.2.2.28094 | 2.44.2.1.27909 | Web Service |
| 44.3 | - | 2.44.3.0.28292 | 2.44.0.0.26405 | 2.44.3.0.28277 | 2.44.3.0.28138 | Gui.zip, Web Service, and DB |
| 44.3 | 1 | 2.44.3.1.28535(3GB) | 2.44.0.0.26405 | 2.44.3.1.28535 | 2.44.3.0.28138 | Gui.zip and Web Service |
| 44.4 | - | 2.44.4.0.28762(3GB) | 2.44.0.0.26405 | 2.44.4.0.28762 | 2.44.4.0.28676 | Gui.zip, Web Server, DB, Management Report Deployment |
| 44.4 | 1 | 2.44.4.1.28953(3GB) | 2.44.0.0.26405 | 2.44.4.1.28953 | 2.44.4.0.28676 | Gui.zip and Web Service |
| 44.4 | 2 | 2.44.4.2.29327(3GB) | 2.44.0.0.26405 | 2.44.4.2.29327 | 2.44.4.0.28676 | Gui.zip and Web Service |
| 44.4 | 3 | 2.44.4.2.29722(3GB) | 2.44.0.0.26405 | 2.44.4.2.29327 | 2.44.4.0.28676 | Gui.zip and Web Service |
| 44.5 | - | 2.44.5.0.30022(3GB) | 2.44.0.0.26405 | 2.44.5.0.30022 | 2.44.5.0.29976 | Gui.zip, Web Service, DB |
| 44.5 | 1 | 2.44.5.1.30451(3GB) | 2.44.0.0.26405 | 2.44.5.1.30451 | 2.44.5.1.30449 | Gui.zip, Web Service, DB |
| 44.5 | 2 | 2.44.5.2.30705(3GB) | 2.44.0.0.26405 | 2.44.5.1.30705 | 2.44.5.1.30554 | Gui.zip, Web Service, DB |
| 44.5 | 1 | 2.44.5.1.30451(3GB) | 2.44.0.0.26405 | 2.44.5.1.30451 | 2.44.5.1.30449 | Gui.zip, Web Service, DB |
| 44.5 | 2 | 2.44.5.2.30705(3GB) | 2.44.0.0.26405 | 2.44.5.1.30705 | 2.44.5.1.30554 | Gui.zip, Web Service, DB |
| 44.6 | - | 2.44.6.0.31341(3GB) | 2.44.0.0.26405 | 2.44.6.0.31341 | 2.44.6.0.31182 | Gui.zip, Web Service, DB |
| 44.7 | - | 2.44.7.0.32205(3GB) | 2.44.0.0.26405 | 2.44.7.0.32205 | 2.44.7.0.32125 | Gui.zip, Web Service, DB, SQLReporting |
| 44.7 | 1 | 2.44.7.1.32395(3GB) | 2.44.0.0.26405 | 2.44.7.1.32395 | 2.44.7.0.32125 | Gui.zip, Web Service |
| 44.7 | 2 | 2.44.7.2.32694(3GB) | 2.44.0.0.26405 | 2.44.7.2.32694 | 2.44.7.0.32125 | Gui.zip, Web Service |
| **44.7** | **3** | **2.44.7.2.32749(3GB)** | **2.44.0.0.26405** | **2.44.7.2.32694** | **2.44.7.0.32125** | **Gui.zip** |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# 7. Installing

## Client/GUI

1) Copy and replace the current rRIS…zip file with the rRIS_1.3.44.7.3.32749.zip file provided with this release.
   Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.




If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_44.7.3.32749→ rRIS_1.3.44.7.3.32749
NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

**NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# Server Update

For eRAD RIS
Version 2.0
Build 44.7
Update 44.7.4

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# Table of Contents

1. Resolved Items ..... 3
2. Code Stream ..... 4
3. Package Contents ..... 5
4. Intended Audience ..... 5
5. Who is affected ..... 5
6. eRAD RIS Release Version Numbers ..... 6
7. Installing ..... 7

Client/GUI ..... 7

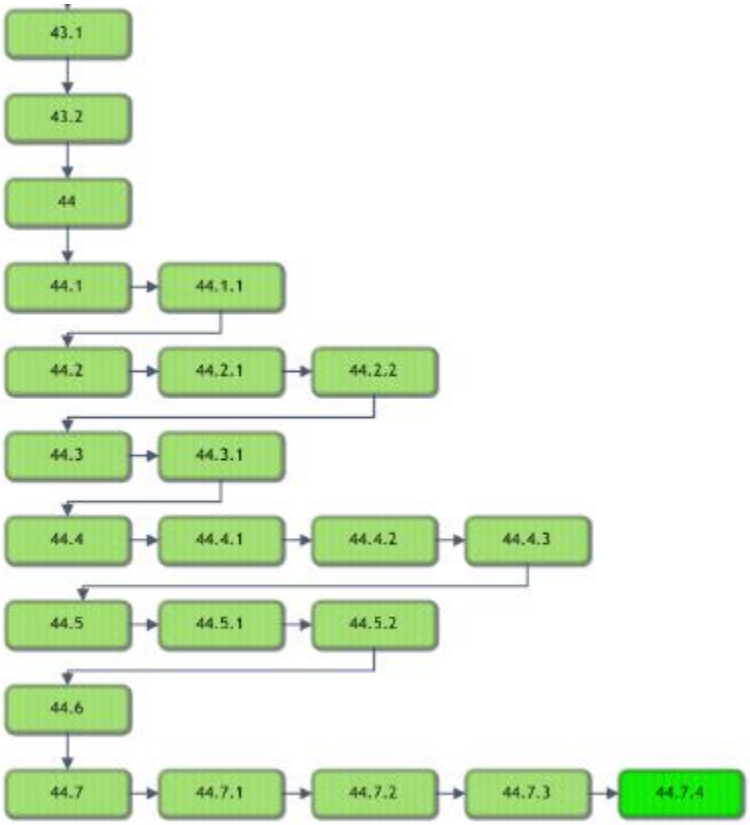
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## 1. Resolved Items

| Redmine # | Subject | Priority |
|---|---|---|
| 12785 | Insurance Eligibility - When scheduling with more than one insurance hourglass does not clear | Normal |
| 12787 | Insurance Eligibility - Timing issue results in incorrect 100% co-insurance amount | Normal |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## 2. Code Stream




**Legend:**

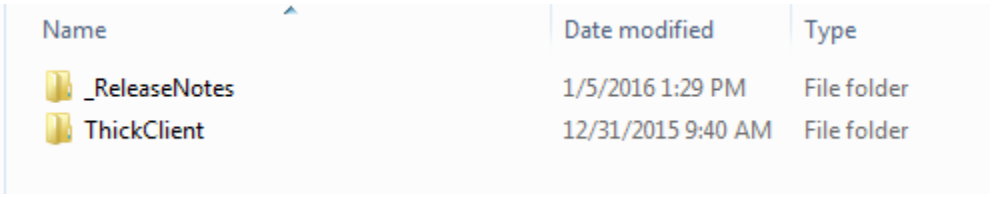
Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## 3. Package Contents




## 4. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

## 5. Who is affected

Build 44.7 installs. This server update must be applied to 44.7.2

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## 6. eRAD RIS Release Version Numbers

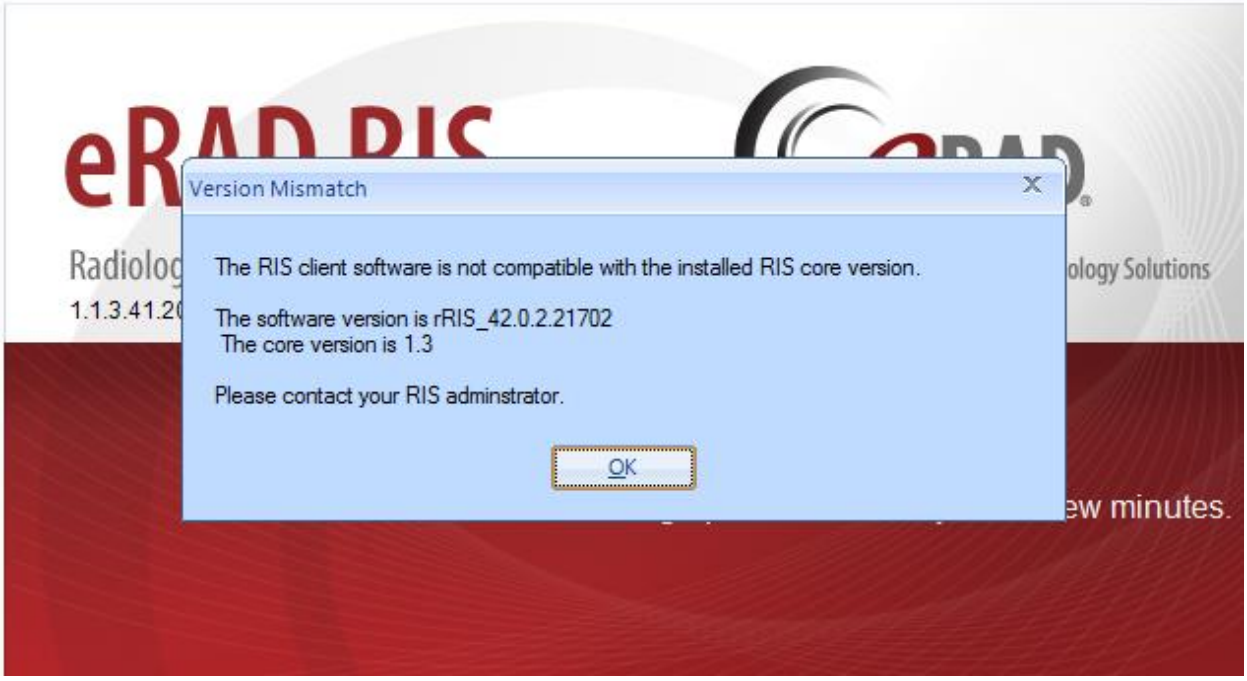
| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 43 | - | 2.43.0.0.23715(3GB) | 2.43.0.0.23171 | 2.43.0.0.23715 | 2.43.0.0.23743 | Full Version Release |
| 43 | 1 | 2.43.0.1.23798(3GB) | 2.43.0.0.23171 | 2.43.0.1.23798 | 2.43.0.1.23770 | GUI.zip, Web Service, DB updates |
| 43 | 2 | 2.43.0.2.24017(3GB) | 2.43.0.0.23171 | 2.43.0.2.24017 | 2.43.0.2.24023 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 3 | 2.43.0.3.24298(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24283 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 3.1 | 2.43.0.3.24450(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24421 | GUI.zip, and DB updates |
| 43 | 3.2 | 2.43.0.3.24450(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24421a | DB updates |
| 43 | 4 | 2.43.0.4.24447(3GB) | 2.43.0.0.23171 | 2.43.0.4.24447 | 2.43.0.4.24442 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 5 | 2.43.0.4.24632(3GB) | 2.43.0.0.23171 | 2.43.0.4.24632 | 2.43.0.4.24560 | GUI.zip, Web Service and DB updates |
| 43 | 6 | 2.43.0.4.24(3GB) | 2.43.0.0.23171 | 2.43.0.4.24 | 2.43.0.4.24 | GUI.zip, Web Service and DB updates |
| 43 | 6.1 | 2.43.0.6.24937(3GB) | 2.43.0.0.23171 | 2.43.0.6.24937 | 2.43.0.6.24914 | GUI.zip, Web Service |
| 43 | 6.2 | 2.43.0.6.24970(3GB) | 2.43.0.0.23171 | 2.43.0.6.24970 | 2.43.0.6.24914 | GUI.zip, Web Service |
| 43 | 7 | 2.43.0.7.25258(3GB) | 2.43.0.0.23171 | 2.43.0.7.25258 | 2.43.0.7.25226 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 8 | 2.43.0.8.25440(3GB) | 2.43.0.0.23171 | 2.43.0.8.25440 | 2.43.0.8.25425 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 9 | 2.43.0.9.25477(3GB) | 2.43.0.0.23171 | 2.43.0.9.25477 | 2.43.0.8.25425 | GUI.zip and Web Service |
| 43 | 10 | 2.43.0.9.25477(3GB) | 2.43.0.0.23171 | 2.43.0.10.25477 | 2.43.0.8.25425 | Web Service |
| 43 | 11 | 2.43.0.11.25512(3GB) | 2.43.0.0.23171 | 2.43.0.11.25512 | 2.43.0.8.25425 | GUI.zip and Web Service |
| 43 | 12 | 2.43.0.12.25554(3GB) | 2.43.0.0.23171 | 2.43.0.12.25554 | 2.43.0.12.25536 | GUI.zip Web Service and DB Updates |
| 43 | 13 | 2.43.0.12.25610(3GB) | 2.43.0.0.23171 | 2.43.0.12.25610 | 2.43.0.12.25536 | GUI.zip and Web Service |
| 43 | 14 | 2.43.0.14.25644(3GB) | 2.43.0.0.23171 | 2.43.0.13.25610 | 2.43.0.12.25536 | GUI.zip |
| 43.1 | - | 2.43.1.0.25850(3GB) | 2.43.0.0.23171 | 2.43.1.0.25850 | 2.43.1.0.25771 | GUI.zip Web Service and DB Updates |
| 43.2 | - | 2.43.2.0.26864(3GB) | 2.43.0.0.23171 | 2.43.2.0.26864 | 2.43.1.0.25771 | GUI.zip and Web Service |
| 44 | - | 2.44.0.0.26570(3GB) | 2.44.0.0.26405 | 2.44.0.0.26570 | 2.44.0.0.26475 | Full Version Release |
| 44.1 | - | 2.44.0.0.26984(3GB) | 2.44.0.0.26405 | 2.44.0.0.26984 | 2.44.0.0.26906 | Gui.zip, Web Service, and DB |
| 44.1 | 1 | 2.44.1.1.27093(3GB) | 2.44.0.0.26405 | 2.44.1.0.26984 | 2.44.1.0.26906 | Gui.zip |
| 44.2 | | 2.44.2.0.27410(3GB) | 2.44.0.0.26405 | 2.44.2.0.27410 | 2.44.2.0.27365 | Gui.zip, Web Service, and DB |
| 44.2 | 1 | 2.44.2.1.27959(3GB) | 2.44.0.0.26405 | 2.44.2.1.27959 | 2.44.2.1.27909 | Gui.zip, Web Service, and DB |
| 44.2 | 2 | 2.44.2.1.27959(3GB) | 2.44.0.0.26405 | 2.44.2.2.28094 | 2.44.2.1.27909 | Web Service |
| 44.3 | - | 2.44.3.0.28292 | 2.44.0.0.26405 | 2.44.3.0.28277 | 2.44.3.0.28138 | Gui.zip, Web Service, and DB |
| 44.3 | 1 | 2.44.3.1.28535(3GB) | 2.44.0.0.26405 | 2.44.3.1.28535 | 2.44.3.0.28138 | Gui.zip and Web Service |
| 44.4 | - | 2.44.4.0.28762(3GB) | 2.44.0.0.26405 | 2.44.4.0.28762 | 2.44.4.0.28676 | Gui.zip, Web Server, DB, Management Report Deployment |
| 44.4 | 1 | 2.44.4.1.28953(3GB) | 2.44.0.0.26405 | 2.44.4.1.28953 | 2.44.4.0.28676 | Gui.zip and Web Service |
| 44.4 | 2 | 2.44.4.2.29327(3GB) | 2.44.0.0.26405 | 2.44.4.2.29327 | 2.44.4.0.28676 | Gui.zip and Web Service |
| 44.4 | 3 | 2.44.4.2.29722(3GB) | 2.44.0.0.26405 | 2.44.4.2.29327 | 2.44.4.0.28676 | Gui.zip and Web Service |
| 44.5 | - | 2.44.5.0.30022(3GB) | 2.44.0.0.26405 | 2.44.5.0.30022 | 2.44.5.0.29976 | Gui.zip, Web Service, DB |
| 44.5 | 1 | 2.44.5.1.30451(3GB) | 2.44.0.0.26405 | 2.44.5.1.30451 | 2.44.5.1.30449 | Gui.zip, Web Service, DB |
| 44.5 | 2 | 2.44.5.2.30705(3GB) | 2.44.0.0.26405 | 2.44.5.1.30705 | 2.44.5.1.30554 | Gui.zip, Web Service, DB |
| 44.5 | 1 | 2.44.5.1.30451(3GB) | 2.44.0.0.26405 | 2.44.5.1.30451 | 2.44.5.1.30449 | Gui.zip, Web Service, DB |
| 44.5 | 2 | 2.44.5.2.30705(3GB) | 2.44.0.0.26405 | 2.44.5.1.30705 | 2.44.5.1.30554 | Gui.zip, Web Service, DB |
| 44.6 | - | 2.44.6.0.31341(3GB) | 2.44.0.0.26405 | 2.44.6.0.31341 | 2.44.6.0.31182 | Gui.zip, Web Service, DB |
| 44.7 | - | 2.44.7.0.32205(3GB) | 2.44.0.0.26405 | 2.44.7.0.32205 | 2.44.7.0.32125 | Gui.zip, Web Service, DB, SQLReporting |
| 44.7 | 1 | 2.44.7.1.32395(3GB) | 2.44.0.0.26405 | 2.44.7.1.32395 | 2.44.7.0.32125 | Gui.zip, Web Service |
| 44.7 | 2 | 2.44.7.2.32694(3GB) | 2.44.0.0.26405 | 2.44.7.2.32694 | 2.44.7.0.32125 | Gui.zip, Web Service |
| 44.7 | 3 | 2.44.7.3.32749(3GB) | 2.44.0.0.26405 | 2.44.7.2.32694 | 2.44.7.0.32125 | Gui.zip |
| **44.7** | **4** | **2.44.7.4.32779 (3GB)** | **2.44.0.0.26405** | **2.44.7.2.32694** | **2.44.7.0.32125** | **Gui.zip** |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# 7. Installing

## Client/GUI

1) Copy and replace the current rRIS…zip file with the rRIS_1.3.44.7.3.32779.zip file provided with this release.
   Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.




If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_44.7.3.32779→ rRIS_1.3.44.7.3.32779
NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

**NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# User Release Notes

for eRAD RIS
Version 2
Build 45

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# Table of Contents

1. Purpose ..... 5
2. Intended Audience ..... 5
3. Installing/Accessing the Application ..... 5
4. New Access Strings and Configuration Settings 45 ..... 6
5. New Features and Enhancements ..... 16
Language Localization and Right to Left Language Support ..... 16
Capture and Display Primary and Alternate Patient Names ..... 17
Patient Search for Hebrew and English Patient Names ..... 18
Capture and Display Patients Fathers Name ..... 19
Support Configurable Date Format ..... 20
Support 24 Hour Time Format ..... 22
Support International Phone Numbers ..... 23
Support Metric Height and Weight ..... 24
Zip Code (Postal Code) changes ..... 25
Limit the Number of Open Patient Tabs via User Groups ..... 26
Order Level Locking ..... 27
Ability to Hide Controls and Data Fields ..... 28
Legacy Reports Opening in Microsoft Word Viewer ..... 29
Support Domain Single Sign On ..... 30
Configurable Client File Storage Paths ..... 31
Portal Launcher ..... 32
Configurable Default Value on Access String table ..... 34
Configurable Weekday, Weekend and Start of Week Values ..... 35
Resource Type Changes in Personnel Editor ..... 37
Patient Search – Search by License # ..... 38
Personnel Editor Message on Referring Address ..... 39
Site Lookup Table Changes ..... 40
Audit History Updates ..... 41
Audit History Logging and Retrieval of Lookup Tables ..... 43
Required Fields Configurability ..... 45
Visit Number Added to Work Lists ..... 51
Cancel Reason Code Added to Orders to Schedule Work List ..... 51
Referring Doctor Column Added to Work Lists ..... 52
Order Number Added to Patient Folder Work List ..... 52
Support Elapsed Time for Contrast on Work List ..... 53
Technologist – Verify Patient ID ..... 55
Contrast Enhancements and Injection Doctor Workflow ..... 56
Technologist – LMP Required Options ..... 57

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

Cancelled Due to Technical Repeat Status ..... 58
Discontinue and Cancel Reason Codes on Notes/Exam Time Tab ..... 59
Search Field Override to Patient When Search Starts With Using Symbols ..... 60
Note Fields Configurability to be Log Controls ..... 61
Overbook Reason Enhancements ..... 65
Send SMS message from Work List ..... 66
Support Linking of Reports ..... 67
Show Patient Notes from Previously Merged Patients Notes ..... 71
Enhanced Alternate MRN ..... 72
Configuration Overbook Reason for Rooms/Modalities ..... 73
New Walk-In Button on Patient Folder ..... 73
DOB Field Enhancements ..... 74
Quick Search Enhancement to Clear Search Criteria ..... 74
Using Preferred Site Value on Reschedule ..... 75
Add X Amount of Minutes to Walk-In Procedure ..... 76
Issuer of ID Added to Existing Order Window ..... 77
Support Automated Appointment Reminder Opt Out ..... 78
Order Notes added to MU Tab ..... 79
New Diabetic Medications For MU ..... 80
Effective Date for Height and Weight ..... 81
Reporting – Embedded Audio Recorder ..... 82
Reporting – eRAD Report Editor ..... 83
General Reporting – Add Editor Appearance Preferences to User Preferences ..... 89
General Reporting – Permissions for Report Integration Types ..... 91
General Reporting – Custom Field for Modality Description ..... 93
General Reporting – Insert Template in the Template Editor ..... 94
General Reporting – Support Pick Lists in Report Editor ..... 95
General Reporting – Technologist Name as Report Field ..... 97
General Reporting – Support DEXA Reporting ..... 98
General Reporting – Zip Code Added to Signed Reports ..... 99
General Reporting – Restrict Exam Dictation to Associated Practice Only ..... 100
General Reporting – Show Only Assigned Studies on My Pending Dictation ..... 101
General Reporting – Assign Radiologist to Procedure Code Group ..... 102
General Reporting – Elapsed Time Pending Signature ..... 108
General Reporting – Show Elapsed Suspended Time on Work Lists ..... 108
General Reporting – Ability to Display Audit History for Peer Review ..... 109
Reporting MModal – Upgrade to MModal Version 7.93 ..... 109
Reporting PowerScribe – PowerMicII Support ..... 110
Document Distribution – Save Patient Preference for Report Distribution ..... 111
Document Distribution – Active Printer Synchronization ..... 111

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

Document Distribution – Verify Printer's Keep Printed Documents Setting ..... 111
Document Distribution – Jobs Created When Transaction Fails ..... 112
Document Distribution – EMR Distribution Jobs Validity Check ..... 113
6. Code Stream ..... 114
7. RIS Release Version Numbers ..... 115
8. Resolved Defects ..... 116
9. Known Limitations ..... 123

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 1. Purpose

This document describes some of the new features and changes implemented in eRAD RIS as of the end of Sprint 44 and subsequent server releases. This version of eRAD RIS is referred to as Build 2.45

Only features which can be visually demonstrated to the user will be outlined in this document.

# 2. Intended Audience

This document is created by the RIS Development team for the RadNet RIS management team.

# 3. Installing/Accessing the Application

The installation guide for the eRAD RIS client have been posted to the RadNet Wiki page at http://mdbal01rdtweb/Wiki/

Under the RIS menu click on the rRIS page. The credentials to access the page are:
Username: rRIS
Password: Summerside

*Please note that Build 2.45 is considered a new core release of the application and will require a reinstallation of eRAD RIS. This is accomplished by navigating to the eRAD RIS shared installation drive and running the CoreInstall.bat file (ex: I:\RISDeployment\CoreInstall.bat)*

If you experience difficulties accessing the application please do not hesitate to contact Darcy Noye with the PEI RIS Development Team.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 4. New Access Strings and Configuration Settings 45

| Setting Placeholder | Setting | Default | Purpose / Controls Access to |
|---|---|---|---|
| Access string / User Group Permission tables | Clinical.AuditHistory.ShowReportPeerReviewed | None | Allows the user to see when reports were peer reviewed in the audit history |
| Access string / User Group Permission tables | Clinical.ChangeStatusCancelTechRepReqd | None | Controls access to the context menu option Change Status CancelTechRepReqd |
| Access string / User Group Permission tables | Clinical.ContrastTimer | None | Enables the user to start and reset the contrast timer on the Technologist WL |
| Access string / User Group Permission tables | Clinical.ExportIsraelMinistryOfHealth | None | Controls access to the menu item to export the XML for the Israeli Ministry of Health |
| Access string / User Group Permission tables | Clinical.PortalLauncher | None | Controls access to the context menu for the Portal Integration Window |
| Access string / User Group Permission tables | Clinical.QuickRadarMessage | None | Controls access to the context menu for the quick RADAR message feature |
| Access string / User Group Permission tables | Clinical.RadarMessage | None | Controls access to the context menu for the RADAR message feature |
| Access string / User Group Permission tables | Clinical.ReportEditor.AdvancedMenu | None | Enables access to the advanced menu in the eRAD report editor |
| Access string / User Group Permission tables | Clinical.VerifyReport | None | Controls access to the Verify Report button on the context menu on work lists |
| Access string / User Group Permission tables | Config.AllowEradReportingIntegration | None | Allows users access to turning on eRAD reporting workflow for themselves or other users if the current user has admin access |
| Access string / User Group Permission tables | Config.AllowExternalReportingIntegration | None | Allows users access to turning on External reporting workflow for themselves or |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| | | | other users if the current user has admin access |
| Access string / User Group Permission tables | Config.AllowMModalReportingIntegration<br><br>Replaces<br><br>Config.AllowMModalConfig | Full | Allows users access to turning on M*Modal reporting workflow for themselves or other users if the current user has admin access |
| Access string / User Group Permission tables | Config.AllowPowerScribeReportingIntegration<br><br>Replaces<br><br>Config.AllowPowerScribeConfig | None | Allows users access to turning on PowerScribe reporting workflow for themselves or other users if the current user has admin access |
| Access string / User Group Permission tables | Config.LookupEditor.AccessString.AllowedToChangeDefaults | None | Controls access to editing the default access level code on access strings |
| Access string / User Group Permission tables | Config.LookupEditor.AccessString.CustomAccessStrings | None | Full access enables the user to add, edit and delete custom access strings |
| Access string / User Group Permission tables | Config.LookupEditor.AdditionalResource | None | lookup table access for Additional Resources |
| Access string / User Group Permission tables | Config.LookupEditor.AuditHistory | None | Allows the user to see the audit log for configuration changes. |
| Access string / User Group Permission tables | Config.LookupEditor.Autotext | None | lookup table access for Autotext |
| Access string / User Group Permission tables | Config.LookupEditor.BrowserConfig | None | Controls access to the Lookup Editor for the BrowserConfiguration used by the Portal Integration Window |
| Access string / User Group Permission tables | Config.LookupEditor.LogControl | None | lookup table access for Log Control |
| Access string / User Group Permission tables | Config.LookupEditor.OrderingOrganization | None | lookup table access for Ordering Organization |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| Access string / User Group Permission tables | Config.LookupEditor.OverbookReason | None | lookup table access for Overbook Reason |
| Access string / User Group Permission tables | Config.LookupEditor.SystemMessage | None | Lookup table access for the System Messages currently used for Portal |
| Access string / User Group Permission tables | Config.LookupEditor.ValidationRules | None | lookup table access for ValidationRules |
| Access string / User Group Permission tables | Menu.File.UserPreferences | Full | Enables access to the User Preference menu option on the File menu. |
| Access string / User Group Permission tables | Portal.MIM | None | Allows access to the MIM section form the referring portal. |
| Access string / User Group Permission tables | Portal.PACS | None | Allows access to the PACS section form the referring portal. |
| Access string / User Group Permission tables | Portal.Referring | None | Allows access to the Referring Portal |
| Access string / User Group Permission tables | Portal.Referring.Admin | None | Allows access to the Referring Portal Administration Login |
| | | | |
| SystemConfig lookup | AllowedReportingIntegrationTypes | 15 | (value = sum of desired types where External = 1, MModal = 2, PS360 = 4 and eRAD = 8) Determines which reporting integration types are allowed on this system. The default equals all reporting modes as 1+2+4+8=15 |
| SystemConfig lookup | DateFormat | MM-dd-yyyy | (value = string) The date format (i.e. MM-dd-yyyy). Only numeric dates are supported. |
| SystemConfig lookup | DaysToKeepClientErrorLog | 60 | (value = int) The number of days to keep an error log after |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| | | | it has been generated. |
| SystemConfig lookup | DefaultAlternateMRNMask | AAAAAAAAAA | (value = string) Default mask for alternate MRNs. Mask rules: # = number only, A = alphanumeric and L = alpha only. |
| SystemConfig lookup | DictationArchiveCurrentLocation | N/A | DictationArchiveCurrentLocation |
| SystemConfig lookup | DictationArchiveDaysOfTheWeek | 0,1,2,3,4,5,6 | (value = string) A comma separated list of days that the dictation archive process will wake up to see if there is work. The list is contains numbers representing the day number within the week, where: 0 is Sunday, 1 is Monday, 2 is Tuesday, 3 is Wednesday, 4 is Thursday, 5 is Friday, 6 is Saturday. For example, a value of 0,1,2,3,4,5,6 means that the archive process will run every day of the week. |
| SystemConfig lookup | DictationArchiveMaxThreads | 6 | (value = int) The maximum number of thread the dictation archive process can use within one process. Default is 6. |
| SystemConfig lookup | DictationArchiveServerNames | N/A | (value = string) A comma separated list of server names that are allowed to run the dictation archive service. |
| SystemConfig lookup | DictationArchiveStartTime | 00:00:00 | (value = time) The time of day in hh:mi format (24 hour) that the dictation archive process can wake up. |
| SystemConfig lookup | DictationArchiveStopTime | 00:00:00 | (value = time) The time of day in hh:mi format (24 hour) that the dictation archive process must stop. Does not have to be greatergreaterIf less than DictationArchiveStartTime then the process will continue to the next day until the time is reached. |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| SystemConfig lookup | DictationMaxSizeInDB | 2147483647 | (value = int) The maximum size in GB that the system will persist dictation directly in the db. When this value is exceeded the dictation archive process will begin (at its next run time interval) to move audio files to the archive. |
| SystemConfig lookup | DictationMinSizeInDB | 2147483647 | (value = int) When dictation archiving is initiated, this is the minimum size in GB that the system will reduce the amount of dictations that are persist directly in the db. |
| SystemConfig lookup | EnforceZipcodeSelection | False | (value = bool) True to force user to select a zip code for signing |
| SystemConfig lookup | GenericIncomingMessagePersonKey | -1 | (value = int) The Person key that will be used when sending secure messages for a non-user messaging instance, i.e. new account setup. |
| SystemConfig lookup | HeightAndWeightFormat | 1 | (value = int) 1 - Imperial (Height - ft in / Weight - lbs), 2 - Metric (Height - cm / Weight - kg) |
| SystemConfig lookup | HeightRequiredEffectiveDate | 1999-01-01 | (value = DateTime yyyy-MM-dd) Date to define when to enable checking if height is required when scheduling or arriving the patient |
| SystemConfig lookup | KillWordViewerAfterLegacyReport | True | (value = bool) True enables RIS to try to 'kill' or close the Word Viewer after opening legacy report in a new instance of the Word Viewer from the reporting screen. |
| SystemConfig lookup | KillWordViewerBeforeLegacyReport | True | (value = bool) True enables RIS to try to 'kill' or close the Word Viewer before opening legacy report in a new instance of the Word Viewer. |
| SystemConfig lookup | MiMS_URL | N/A | URL that will be used for MIM image viewing |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| SystemConfig lookup | OrderLevelLocking | False | (value = bool) True to lock the entire order at once |
| SystemConfig lookup | OverbookReasonFormat | 1 | (value = int) 1 - free text only, 2 - OverbookReason lookup only, or 3 - both free text and the OverbookReason lookup. |
| SystemConfig lookup | PhoneNumberFormatDisabled | False | (value = bool) True to disable the phone number format mask |
| SystemConfig lookup | PortalHelpRequestMessageGroup | N/A | The message group that Help request would be sent too. If no message group is defined then just email will be sent to the configured Portal's send to email address. |
| SystemConfig lookup | PortalImageMigrationToolUrl | N/A | (value = string) URL to custom migration tool for PACS Images. |
| SystemConfig lookup | PortalLauncherEnforceTimeoutInReportingScreen | True | (value = bool) Whether the PortalLauncherSessionTimeout is enforced when the Portal Launcher is open in the reporting screen |
| SystemConfig lookup | PortalLauncherSessionTimeout | 20 | (value = int) The amount of time, in minutes from when the Portal Launcher is opened until it automatically closes. -1 = infinite |
| SystemConfig lookup | PortalLauncherTabLocation | Left | (value = string) Possible values - Left, Right, Top, Bottom. Sets the location of the tabs in the portal launcher window. |
| SystemConfig lookup | PortalNewAccountRequestMessageGroup | N/A | The message group that New Account requests would be sent too. If no message group is defined then just email will be sent to the configured Portal's send to email address. |
| SystemConfig lookup | ReferingPortalDefaultExamTabCriteria | [{"name":"Completed","filter_criteria":{"DayRange":"90","progress_status":["Completed"]},"sort_criteria":{"patient_name":"ASC"},"display_order":1},{"name":"Scheduled","filter_ | (value = string) JSON value to define default filter tab view criteria for the refering portal exams tab. |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| | | criteria":{"DayRange":"90","progress_status":["Scheduled"]},"sort_criteria":{"patient_name":"ASC"},"display_order":2},{"name":"InProgress","filter_criteria":{"DayRange":"90","progress_status":["InProgress"]},"sort_criteria":{"patient_name":"ASC"},"display_order":3}] | |
| SystemConfig lookup | ReferingPortalDefaultOrderTabCriteria | [{"name":"Orders","filter_criteria":{"DayRange":"7"},"sort_criteria":{"patient_name":"ASC"},"display_order":1},{"name":"Under Review","filter_criteria":{"DayRange":"90","um_status":["MDReview","NurseReview"]},"sort_criteria":{"patient_name":"ASC"},"display_order":2},{"name":"Drafted","filter_criteria":{"DayRange":"7","um_status":["Received"]},"sort_criteria":{"patient_name":"ASC"},"system_criteria":{"RowCounter":"true","RowCounterClass":"gray"},"display_order":5}] | (value = string) JSON value to define default filter tab view criteria for the refering portal orders tab. |
| SystemConfig lookup | RegistrationRequiresSubscriberDOB | False | (value = true/false) True will require the subscriber's date of birth to be entered prior to arriving. |
| SystemConfig lookup | RISOutputFilePath | %ApplicationStartUp% | (value = string) Path to directory where RIS will write output files. |
| SystemConfig lookup | ShowDOBCalendar | False | (value = bool) True shows the calendar selection control on Date Of Birth. |
| SystemConfig lookup | StartOfWeek | 1 | (value = int) numaric value of the first day of the work week: 0=Sunday...6=Saturday |
| SystemConfig lookup | TimeFormat | h:mm tt | (value = string) The time format (i.e. h:mm tt) |
| SystemConfig lookup | UMExpirationDays | 90 | (value = int) The number of days until an authorization expires. |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| SystemConfig lookup | WalkinAddMinutes | 0 | (value = int) The amount of time in minutes to add to the scheduled start time for a walk in study. |
| SystemConfig lookup | WeekEndDays | 0,6 | Comma delimited list of of the days of the normal weekend: 0=Sunday...6=Saturday |
| SystemConfig lookup | WeightRequiredEffectiveDate | 1999-01-01 | (value = DateTime yyyy-MM-dd) Date to define when to enable checking if weight is required when scheduling or arriving the patient |
| SystemConfig lookup | WorkWeekDays | 1,2,3,4,5 | Comma delimited list of of the days of the normal work week: 0=Sunday...6=Saturday |
| SystemConfig lookup | ZipCodeCharacterMax | 5 | (value = int) Number of characters needed for zip code validation. |
| SystemConfig lookup | ZipCodeToAddressAutoFill | True | (value = bool) True to have address fields auto-filled when entering a zip code. |
| | | | |
| Applicationsettings.config | ExternalInterfacePlugin | None | This setting contains the name of the plugin to use for sending messages out to an external system.<br>See feature External Web Services Infrastructure for more information |
| Applicationsettings.config | QueueItemReserveTime | 25000 | This setting determines how long the Wedge will reserve a queue item. |
| Applicationsettings.config | DDEQueueItemReserveTime | 25000 | This setting determines how long the DDE will reserve a queue item. |
| Applicationsettings.config | StartExternalInterfaceService | False | When set to True, this setting will enable the External Interface Web services.<br>See feature External Web Services Infrastructure for more information |
| services.config | <service behaviorConfiguration="rRISBehaviorWithDebug" name="WCFService.ServiceImplementation.ExternalInterfaceServ | "http://localhost:7100/rRIS" /> | Used with External Web Services Infrastructure.<br><br>The server_name (localhost) |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| | ice"><br><clear /><br><endpoint address="wsI" binding="wsHttpBinding" bindingConfiguration="wsIBinding"<br>name="wsI" bindingNamespace="http://www.radnet.com/PEI/RIS/ExternalInterfaceService"<br><br>contract="WCFService.ServiceContract.IExternalInterfaceService" listenUriMode="Explicit"><br></endpoint><br><host><br><baseAddresses><br><add baseAddress="http://localhost:7100/rRIS" /><br></baseAddresses><br></host><br><br></service> | | is determined by the host that is running the service. The port (7100) is determined by the endpoint configuration in the services.config configuration file.<br><br>See feature External Web Services Infrastructure for more information |
| rRISServices.exe.config<br><br>rRISServicesx64.exe.config | <binding name="wsIBinding" maxReceivedMessageSize="50000000"><br><security mode="None"/><br></binding> | None | Setting added under the wsHttpBinding node<br><br>See feature External Web Services Infrastructure for more information |
| rRISServices.exe.config<br><br>rRISServicesx64.exe.config | </behavior><br><br><behavior name="rRISBehaviorWithDebug"><br><serviceMetadata httpGetEnabled="true" httpsGetEnabled="true" policyVersion="Policy15"/><br><serviceDebug httpsHelpPageEnabled="true" httpHelpPageEnabled="true" includeExceptionDetailInFaults="true"/><br><serviceCredentials><br><br><serviceCertificate findValue="PEIDEV1" storeLocation="LocalMachine" storeName="My" x509FindType="FindBySubjectName"/> | | Setting added under serviceBehaviours node.<br><br>See feature External Web Services Infrastructure for more information |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| | <userNameAuthentication userNamePasswordValidationMode="Custom" customUserNamePasswordValidatorType="WCFService.MyUserNamePasswordValidator, WCFService"/><br><br></serviceCredentials><br><serviceThrottling maxConcurrentCalls="3000" maxConcurrentSessions="5000" maxConcurrentInstances="5000"/><br></behavior> | | |

## Changes to RIS.exe.config file

The section <listeners> in the ris.exe.config file has been changed in this release. Below you will see the before and after. Text highlight green in the "after" displays the changes.

| Before | After |
|---|---|
| rollFileExistsBehavior="Increment"<br>rollInterval="Hour"<br>header="" footer=""<br><br>fileName="verbose_log/trace.log"<br>formatter="SimpleTextFormatter" /><br></listeners> | rollFileExistsBehavior="Increment"<br>rollInterval="Hour"<br>header="" footer=""<br><br>fileName="/verbose_log/trace.log"<br>formatter="SimpleTextFormatter" /><br></listeners> |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 5. New Features and Enhancements

## Language Localization and Right to Left Language Support

A framework has been constructed to allow other languages to be displayed and utilized in eRAD RIS. This framework consists mostly of a Microsoft standard resource file approach, however the decision was made to not simply use this framework verbatim, as under that model, each screen within RIS would have its own resource file leading to massive repetitiveness (and therefore inconsistency).

Therefore, the core of eRAD RIS application uses a single resource file called LANG.Resx. The deployment of this resource file is performed by the native Microsoft framework.

The first localization language is Hebrew. With this we are also supporting right to left language. All of the user based screens in eRAD RIS.

The configuration screens have not been localized.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Capture and Display Primary and Alternate Patient Names

The Patient tab can display two new fields extended on the patients first and last names. These new fields can be hidden by adding custom access strings

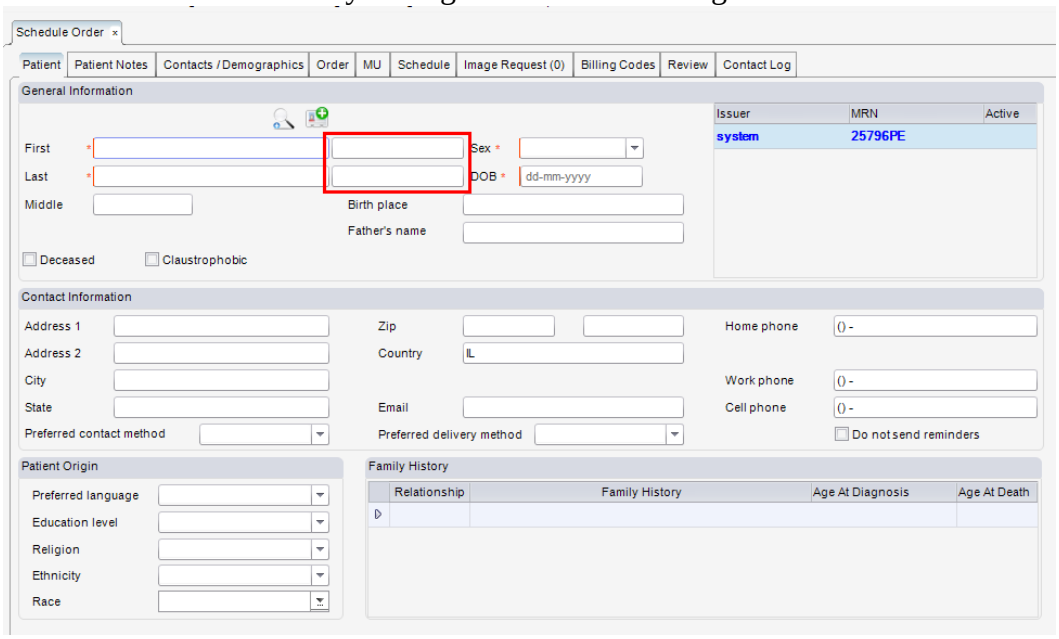



**Figure 5.1 – Alternate Patient First and Last name fields**

To remove this field from view on the patient tab, Service Personnel would need to create a customer access string.

An example would be having the Patients first and last names displayed in a native language, such as Hebrew, and the alternate first and last names displaying the English names (or vice versa)

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Patient Search for Hebrew and English Patient Names

With data entered in the First and Last name fields, as well as data entered in the Alternate First and Last name fields we can use the Patient Search window to locate the patient using either of the names.

Upon searching for a patient, the new alternate name data will be shown in the existing alternate name columns. This column will display any historical names as well as the new alternate names (as historical alternate names).

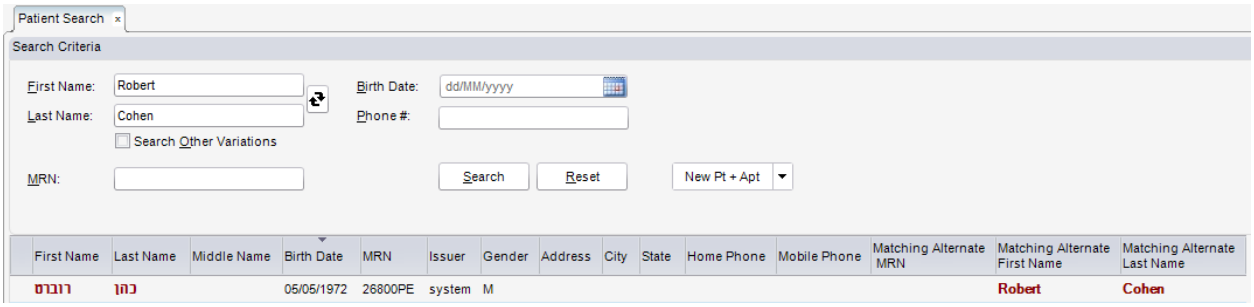



**Figure 5.2 – Patient Search displaying both Hebrew and English names**

In this screen capture the alternate name is the English name. When searching on the English name it displays under that column. The Hebrew name will display in the First and Last name fields.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Capture and Display Patients Fathers Name

In Israel, the father's name is used to reconfirm that the staff has the appropriate patient. The RIS must be able to capture and display the patient's father's name for reception and technologist roles

The field displayed below has been added to the Patient tab.

**Figure 5.3 – Father's Name field on Patient tab**

The field is enabled by default. To remove this field from view on the patient tab, Service Personnel would need to create a customer access string.

NOTE: creating custom access strings in new in Build 45. See feature in this document for more information

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Support Configurable Date Format

eRAD RIS currently utilizes a hardcoded date format of "MM-dd-yyyy" throughout the application. Not all customers want to utilize this format, therefore it needs to be configurable.

A new system configuration setting of "**DateFormat**" has been added and has a default value of "MM-dd-yyyy".

The DateFormat setting allows the system to be configured to use a specific date format.

For example if the customer would like slashes instead of dashes, DateFormat can be set to "MM/dd/yyyy". **Please note that only numeric date formats are supported at this time. The format of dd/MMM/yyyy for example is not a valid date format that is supported in eRAD RIS.**

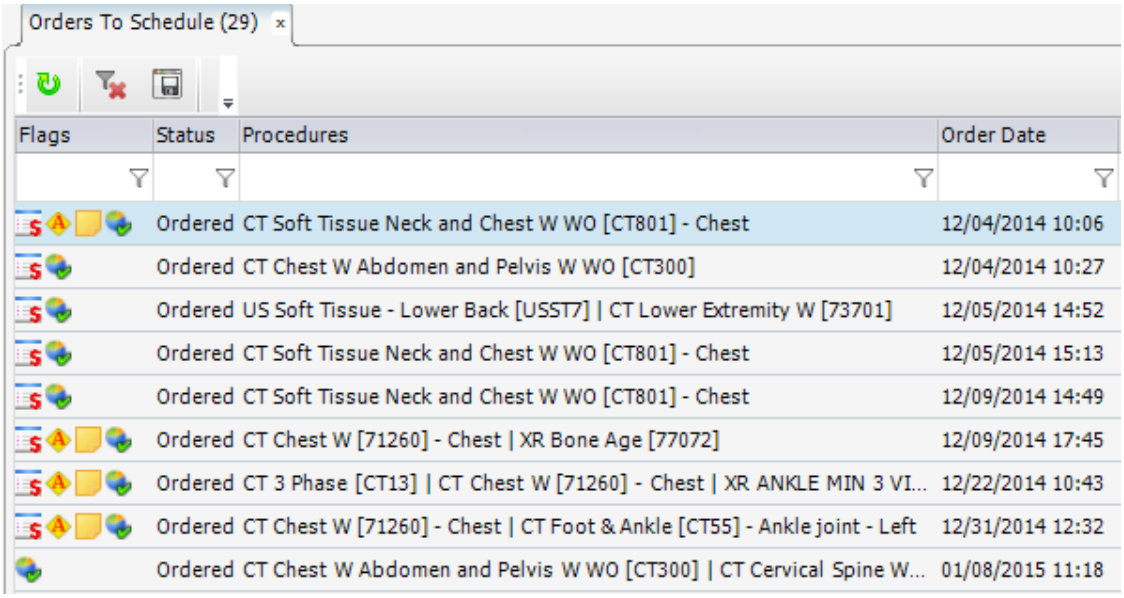



**Figure 5.4 – Example of date format with slashes instead of dashes on work list**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

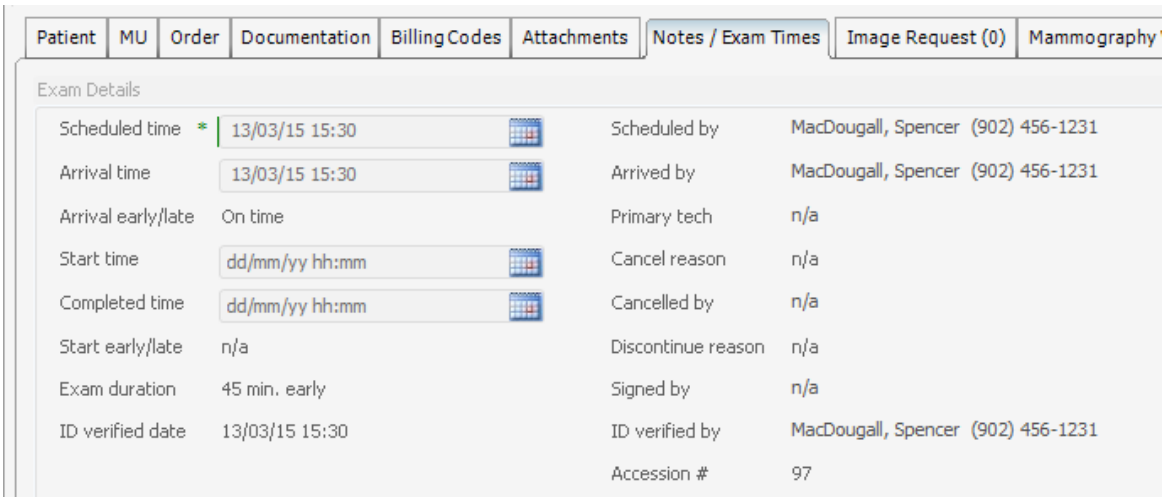



**Figure 5.5 – Example of slashes instead of dashes on data window**

It is also recommended that the DateFormat configuration value matches the short date format set on the client's workstation. The user will be promoted after login if the values do not match.

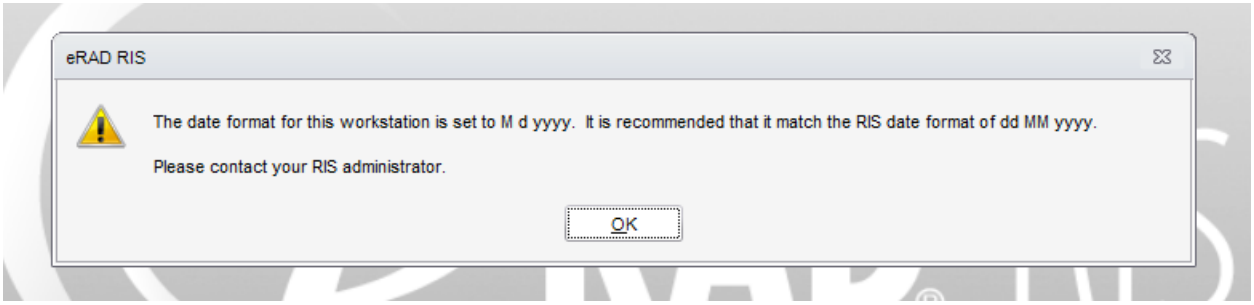



**Figure 5.6 – Message on login of conflicting regional date format and system Configuration setting DateFormat**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Support 24 Hour Time Format

Not all customers use the 12 hour clock as a standard. Therefore eRAD RIS is also required to display time in a 24 hour format.

A new System Configuration value of "**TimeFormat**" has been added to the system with a default value of h:mm tt. All times that are displayed in the system (data forms, worklists, appointment book, etc.) will be based on this configuration value.

The TimeFormat setting allows the system to be configured to use a specific time format. The default value is "h:mm tt". If the customer would like times displayed in a 24 hour format, the TimeFormat setting can be changed to "HH:mm". If the customer wants the 12 hour format but would like to include the leading zero, the TimeFormat setting can be changed to "hh:mm tt".

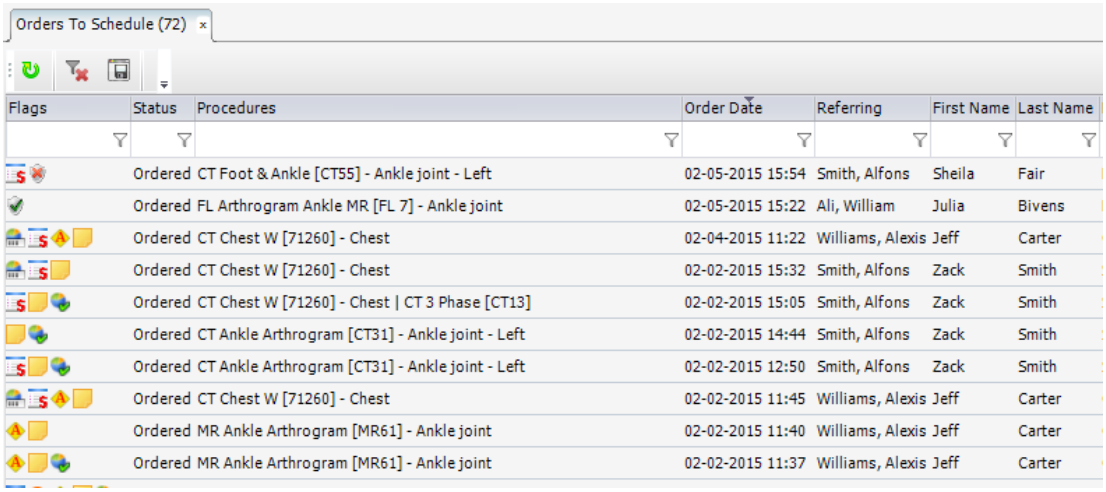



**Figure 5.7 – Work list using 24 hour time format**

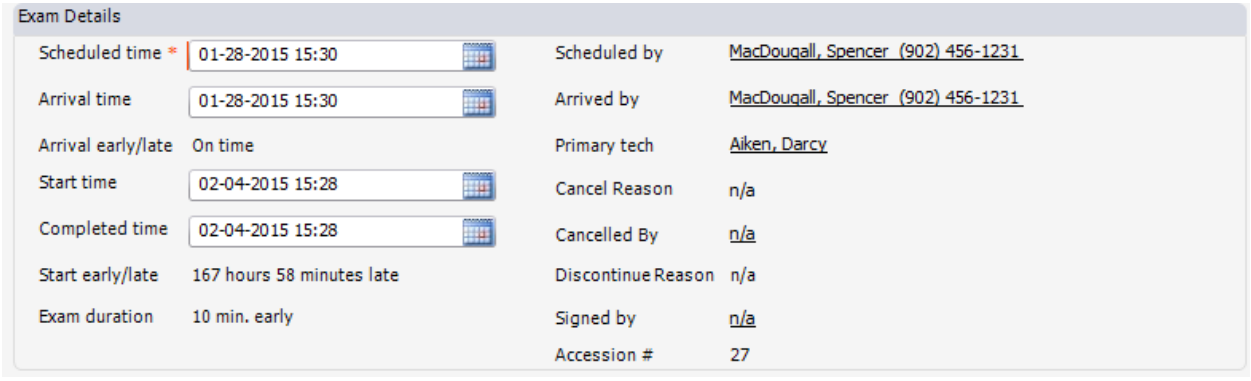



**Figure 5.8 – Data window using 24 hour time format**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Support International Phone Numbers

eRAD RIS is designed to use a phone mask format of (###) ###-#### ########. This format is not acceptable for international customers. There is a requirement to allow the system to be configured to bypass the phone number mask.

A New System Configuration setting of "**PhoneNumberFormatDisabled**" with a default of false has been added to eRAD RIS. If the PhoneNumberFormatDisabled is set to true, the system will ignore the phone number mask and allow the user to enter up to 20 numeric characters. The validation that requires a phone number filed to be at least 10 characters also gets removed when the PhoneNumberFormatDisabled is set to true.

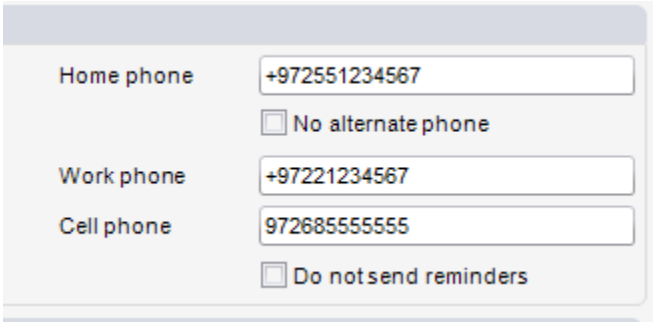



**Figure 5.9 – Phone number mask removed**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Support Metric Height and Weight

eRAD RIS is currently hardcoded to the US standard of feet and inches for height and pounds for weight. The system must support both metric and imperial height and weight formats.

A new System Configuration setting of "**HeightAndWeightFormat**" has been added with a default value of 1.

HeightAndWeightFormat can be set to 1 for Imperial or 2 for Metric.

1. Imperial (Height - ft in / Weight - lbs)
2. Metric (Height - cm / Weight - kg)

The HeightAndWeightFormat will display the patient demographics at encounter in Imperial or Metric formats.

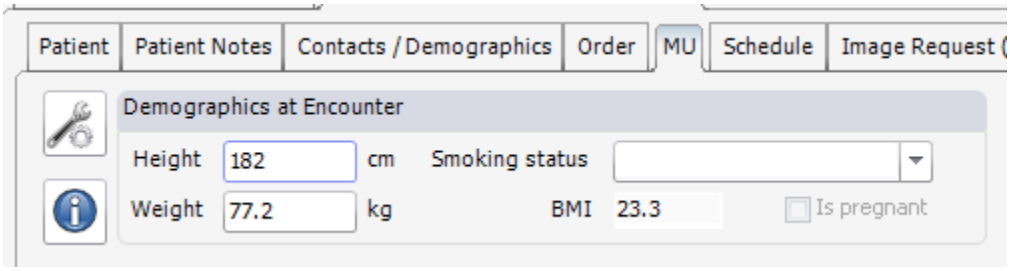



**Figure 5.10 – Height and weight displayed in metric**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Zip Code (Postal Code) changes

Two new System Configuration settings have been added to allow for different lengths of postal codes.

The first setting of "**ZipCodeCharacterMax**" has been added with a default value of 5. This setting controls the number of characters required for validation.

The second new setting is "**ZipCodeToAddressAutoFill**" which has a default value of True. When set to False, the State and Country fields will not auto-populate.

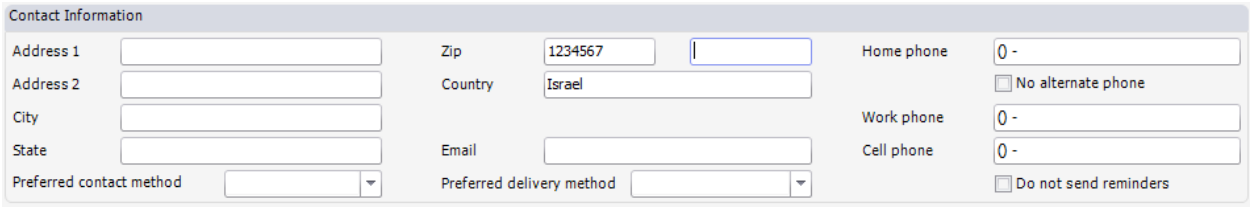



**Figure 5.11 – Zip code field allowing more than 5 characters**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Limit the Number of Open Patient Tabs via User Groups

A new column has been added to the User Group lookup table. The column of Maximum Open Patient Tabs will determine how many patient tabs are permitted to be opened for a user that belongs to the User Group.

| Group Name | Description | Display Order | Maximum Open Tabs | Maximum Open Patient Tabs | Display In Portal Flag | Portal Display Name |
|---|---|---|---|---|---|---|
| Contains: | Contains: | Equals: | Equals: | Equals: | Contains: | Contains: |
| Click here to add a new row | | | | | | |
| MammoTech | Mammo Techniciam | 13 | 20 | 1 | N | |
| SchedulingAdmin | Scheduling Admin | 8 | 20 | 20 | N | |
| Technologist | Technologist | 3 | 20 | 1 | N | |
| Radiologist | Radiologist | 6 | 45 | 20 | N | |
| Administrator | Administrator | 4 | 20 | 20 | N | |

**Figure 5.12 – UserGroup lookup table displaying new column Maximum Open Patient Tabs**

If a user attempts to open more than their allowable amount of patient tabs, they will receive a message informing they must close one before they can proceed.

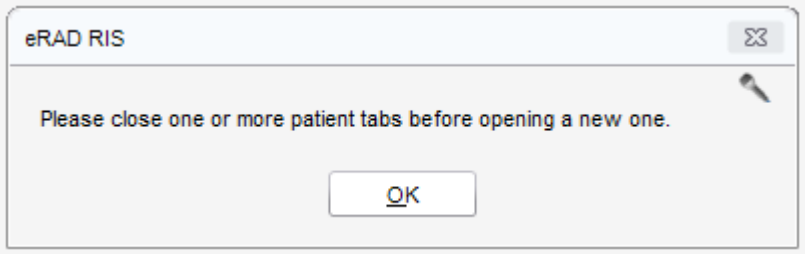



**Figure 5.13 – Informative message if attempt to open more than allowed patient tabs**

If the user belongs to multiple user groups, the user group with the larger value for Maximum Open Patient Tabs will be used. For example, looking at the User Group figure above, if the user belongs to both the Technologist and Administrator User Groups they will be permitted to have 20 patient tabs open.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Order Level Locking

In Build 42 eRAD RIS introduced Non Order Level Locking. In Build 45 eRAD RIS will again support order level locking.

Order level locking will be controlled by a new system configuration setting of "**OrderLevelLocking**" which has a default of False to maintain our existing screen based strategy or True to lock the entire order

The Radiologist work lists have been modified so that they were no longer looking for locks that end with the word Report. Without this change, the locked by column was always null.

When a user attempts to open a locked order they will be given the option to open in read only mode or simply close. There is also an option to break lock, which is permission based so it can be available to administrators only.

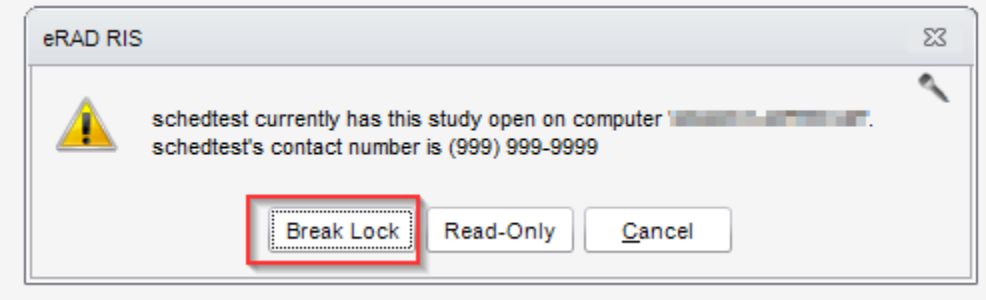



**Figure 5.14 – Locking message. The Break Lock button is permission based**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Ability to Hide Controls and Data Fields

We have many fields in eRAD RIS which are not relevant to all customers.
We have an existing pattern in eRAD RIS for controlling access via access strings. We have included the ability to create custom access strings to show/hide.

This is for the **SERVICE** team only. We have constructed a dynamic access string pattern which will behave in the following manner: Some access strings can now be created by the service team. Based on a predictable known naming convention, the access string will be able to control access to elements without custom code being added to eRAD RIS. At this point, the framework supports 2 patterns – one to control data capture/display elements (ie, fields) and another to control the visibility of an entire tab.

System owned access strings will not be editable in the look up editor, only custom access strings.

**Data Fields**
For these access strings, the acceptable values are:

- FULL (can read and write)
- DISABLED/READONLY (visible, but greyed-out and cannot be modified)
- NONE (not visible)

We do not implement a true 'READONLY' at this time (which would be a non-greyed out control that is not editable). We felt it was not clear to the user that they could not modify the field, as it appears the same as a FULL access field.

**Tabs**
As mentioned, tabs can also be hidden from view. A custom access string can be created by Service Personnel.

For Tab access strings the following values are acceptable.

- FULL (tab is visible and user can click on it)
- DISABLED/READONLY/NONE (tab is not visible)

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Legacy Reports Opening in Microsoft Word Viewer

The system now supports listing a file type in the c_legacy_report table. If the file type is WORD then the system will load the legacy reports in the Microsoft Word Viewer. The files are served to eRAD RIS application from the web service and are saved in a temporary location, similar to existing PDF legacy report functionality.

eRAD RIS will delete the temp file when Microsoft Word Viewer is closed by the user.

If the user leaves the Microsoft Word Viewer open, then when eRAD RIS closes, the viewer will be force killed (this is required to remove the file lock) and the temporary file will be deleted. The Microsoft Word Viewer is read only.

There are two new System Configuration settings for this feature.

"**KillWordViewerBeforeLegacyReport**" with a default value of True. True enables RIS to try to 'kill' or close the Word Viewer before opening legacy report in a new instance of the Word Viewer.

"**KillWordViewerAfterLegacyReport**" with a default value of True. True enables RIS to try to 'kill' or close the Word Viewer after opening legacy report in a new instance of the Word Viewer from the reporting screen.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Support Domain Single Sign On

User will launch RIS with a new command line switch /SSO to invoke single sign on. When a user logs onto their workstation, selecting the eRAD RIS icon from the desktop will automatically log that person in.

This of course only works with Domain users. If the user account created in eRAD RIS and is using eRAD RIS authentication SSO will not work.

There are also a few features within eRAD RIS that doesn't support SSO.

Credential Swap, UI Locking and Logout as they aren't compatible with the SSO model. Also PACS integration will be an issue as we don't have the client's username and password to pass to the PACS server so a user who wishes to launch the PACS viewer will be forced to login the first time.

The user preference for UI locking will be disabled

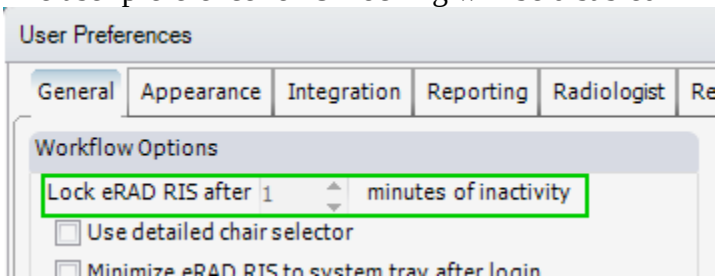



**Figure 5.15 – User preference disabled because of Single Sign On**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Configurable Client File Storage Paths

In previous versions most files were written to the directory in which the application was running from, which was the users profile directory. With the support of Citrix, we will need to have the ability to write the files configurable.

A new System Configuration setting of "**RISOutputFilePath**" has been added with a default value of %ApplicationStartUp%.

RIS now uses this path and then tags it with a folder that matches the current users username and writes output files in that location instead of just in the current start up folder

This value supports a few values that act like environment variables. Here are the available variables you can use instead of an actual path:

| | |
|---|---|
| **%ApplicationData%** | = "C:\\Users\\$user_account\\AppData\\Roaming" |
| **%LocalApplicationData%** | = "C:\\Users\\$user_account\\AppData\\Local" |
| **%CommonApplicationData%** | = "C:\\ProgramData" |
| **%MyDocuments%** | = "C:\\Users\\$user_account\\Documents" |
| **%DesktopDirectory%** | = "C:\\Users\\$user_account\\Desktop" |
| **%ApplicationStartUp%** | = current value AKA RIS's runtime location |

The value can also be just a path like "C:\\some\\folder\\location".

The actual path where the files will be written can have a folder added to it that contains the current logged in username (RIS username). You would add another value to your path: %UserName%.

Let's imagine the current logged in user's username is 'TestUser' and the RISOutputFilePath is set to "C:\\some\\folder\\location%UserName%". The resulting file location will be "**C:\\some\\folder\\location\\TestUser**".

RIS will test the path on login. If it cannot write and delete a test file in this location the follow error:

"Error with output file path" + exception message.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Portal Launcher

Customers require integrations with several portals from within RIS. These various portals require us to be able to pass over various pieces of data in the URL as well as to perform validation on whether a given portal is available for a study/order.

Users now have the option from the Patient folder to launch the portal viewer. A new window in the RIS that contains a tab for each configured portal. The viewer automatically passes data regarding the Patient/Study/Order to the portal via the URL. The portal viewer is also available via a Tool window for the radiologists.

This feature has 3 new System Configuration settings and 2 new Access Strings:

**System Config settings**

PortalLauncherSessionTimeout – Amount of time in minutes before the Portal Launcher window will close automatically. Default: 20

PortalLauncherEnforceTimeoutInReportingScreen - Whether or not any configured timeout will apply when the portal window is open in the reporting screen. Default: True

PortalLauncherTabLocation – Sets location of tabs in portal launcher. Default: Left

**Access Strings**

Config.LookupEditor.BrowserConfig – Controls access to the BrowserConfig Lookup Editor

Clinical.PortalLauncher – Controls the ability to launch the portal viewer from the patient folder and the radiologist tool windows.

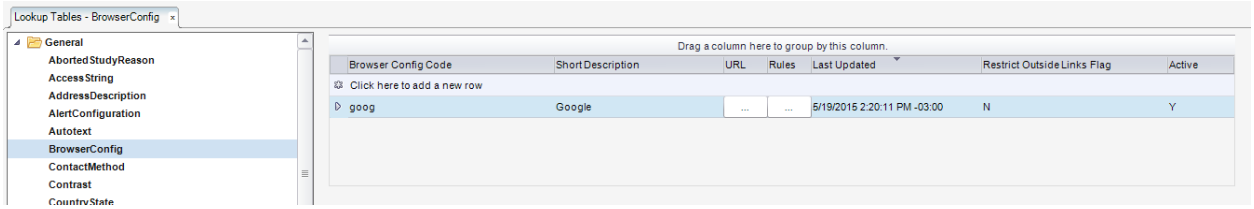



**Figure 5.16 – BrowserConfig lookup table**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

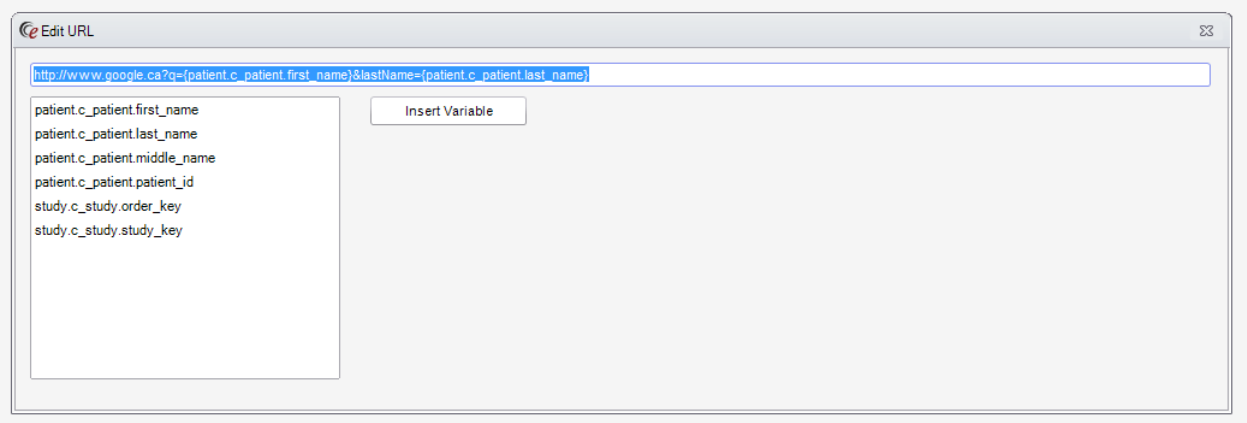



**Figure 5.17 – Window opened from URL button**

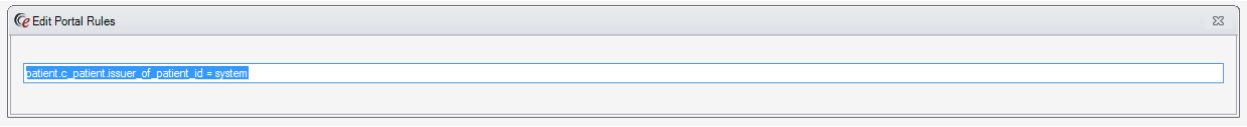



**Figure 5.18 – Editor Portal rules window**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Configurable Default Value on Access String table

The default level of access on the Access String table has been locked down for quite some time.

In Build 45, the Default Access Level Code is once again available. A user can change the default value of the access string and keep it that way after every upgrade.

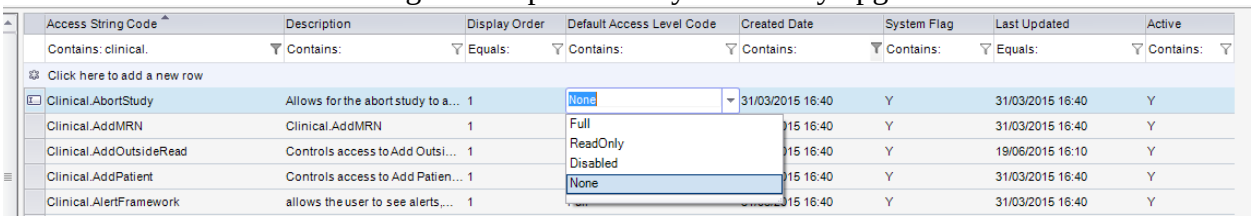



**Figure 5.19 – Ability to change the Default Access Level Code value**

The ability to change the Default Access Level Code is controlled by the access string "**Config.lookupeditor.AccessString.AllowedToChangeDefaults**" which has a default value of None. If FULL the user can edit the default values for access strings.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Configurable Weekday, Weekend and Start of Week Values

In eRAD RIS today the work week is Monday-Friday, weekends are Saturday and Sunday. The work week starts on Monday. In Israel to support Hebrew localization, the work week starts on Sunday thru Thursday and the weekend is Friday and Saturday. We needed a method to change these values.

Three new system configuration settings have been added to control this behaviour. The days are numbered as such: 0=Sunday, 1=Monday, 2=Tuesday, 3=Wednesday, 4=Thursday, 5=Friday and 6=Saturday

"**WorkWeekDays**" which has a default of 1,2,3,4,5, will determine the days of the work week

"**WeekEndDays**" which has a default of 0,6 will determine the days of the weekend

"**StartOfWeek**" with a default value of 1 will determine the first day of the week.

WorkWeekDays and WeekEndDays will determine how to apply the repeating restrictions and closures in the availability template.

StartOfWeek will determine the first day listed for Time Ranges in the Availability Template

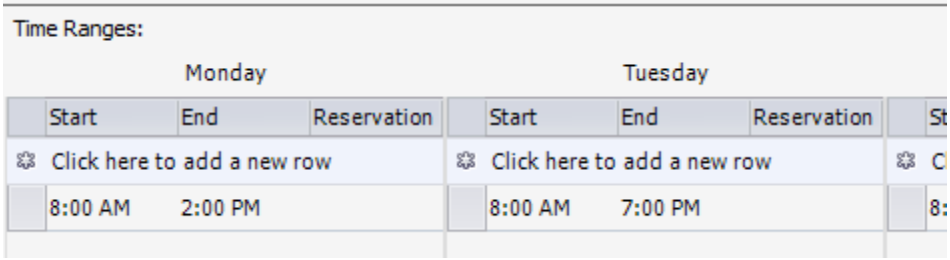



**Figure 5.20 – StartOfWeek = 1 so Monday is the first day listed**

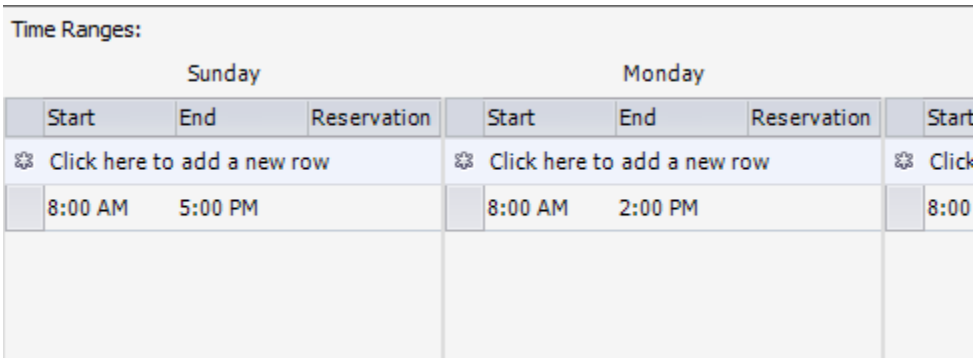



**Figure 5.21 – StartOfWeek = 0 so Sunday is the first day listed**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

It will also determine the first day listed in the Day and time search options on the Schedule tab

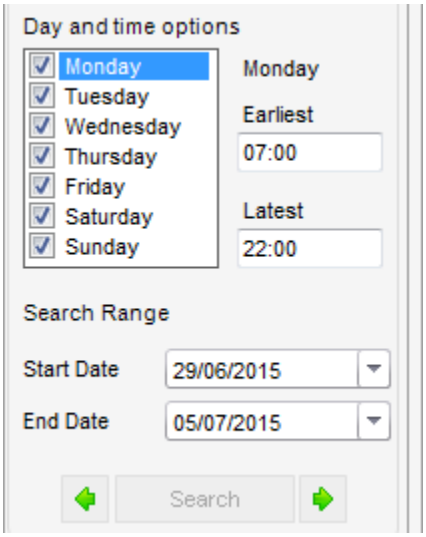



**Figure 5.22 – StartOfWeek = 1 Monday is the first day listed**

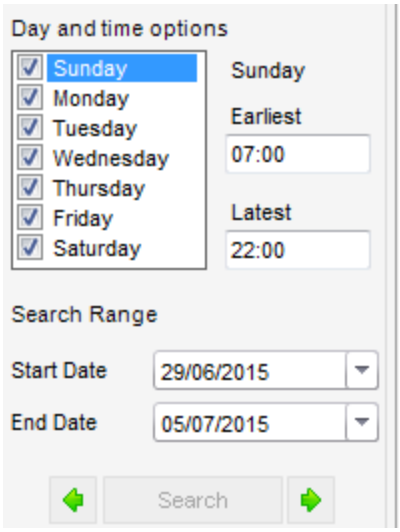



**Figure 5.23 – StartOfWeek = 0 so Sunday is the first day listed**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Resource Type Changes in Personnel Editor

A new lookup table titled AdditionalResource has been added under the User folder on the Administration>Configure menu. The AdditionalResource access is controlled by new access string of "**Config.LookupEditor.AdditionalResource**" that has a default access level of Full.

The lookup table columns are Additional Resource Code, Description, Display Order, Last Updated and Active. The codes added to this table will then be available in a new field in the Personnel table under the Resource tab. This field is a multi-type ahead control that allows the person to belong to multiple resource groups.

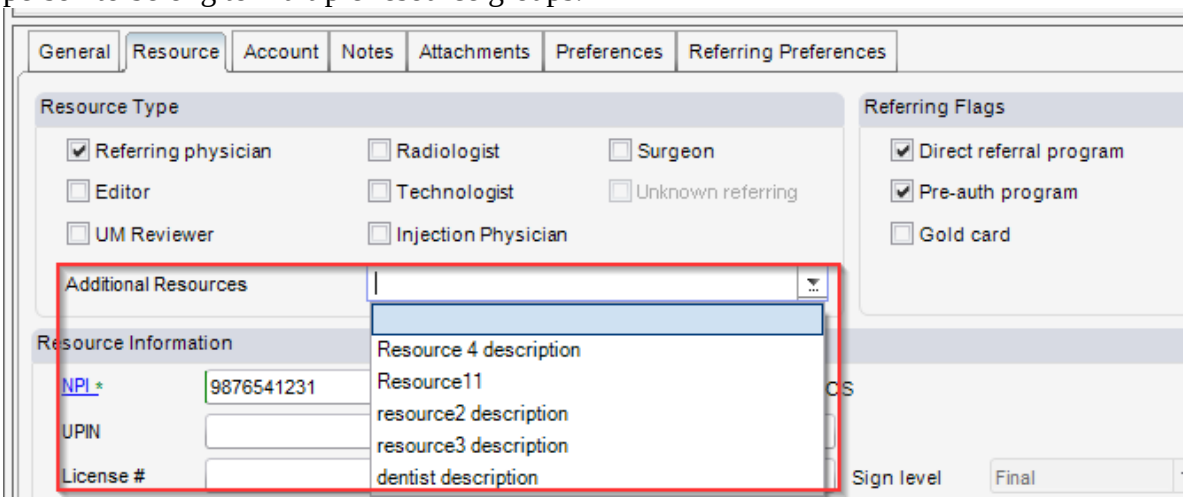



**Figure 5.24 – Additional Resources field in Personnel Editor**

Also a new Resource Type has been added. The Injection Physician checkbox option is available.

**Figure 5.25 – Injection Physician Resources field in Personnel Editor**

This will also be a Type option in the Internal Person Search window and display in the Resource Details column.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Patient Search – Search by License #

The patient search window now allows the user to search by the Physician License #.

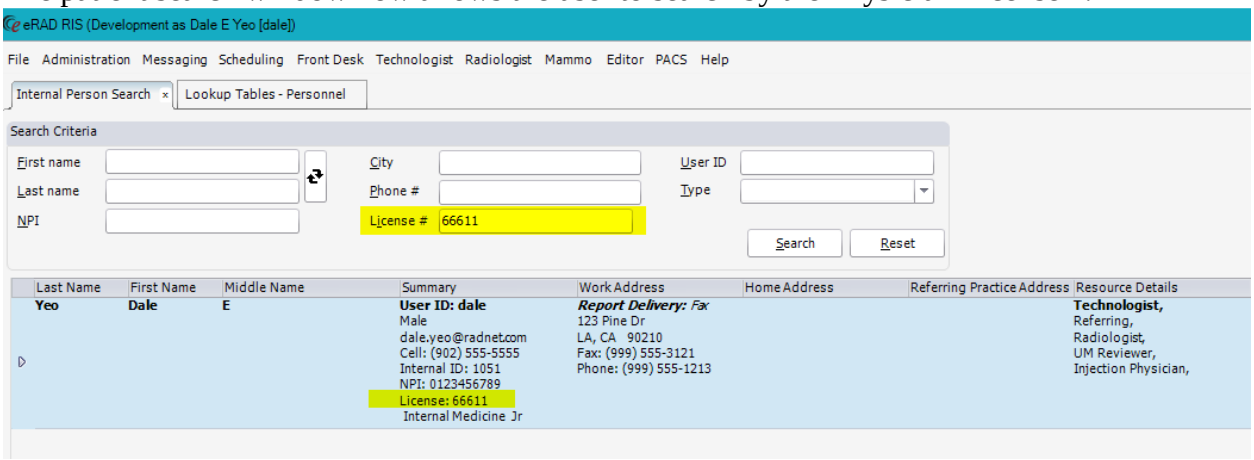



**Figure 5.26 – License # search option**

The License field being referenced in the search is based on the highlighted field in the screenshot below from the personnel editor.

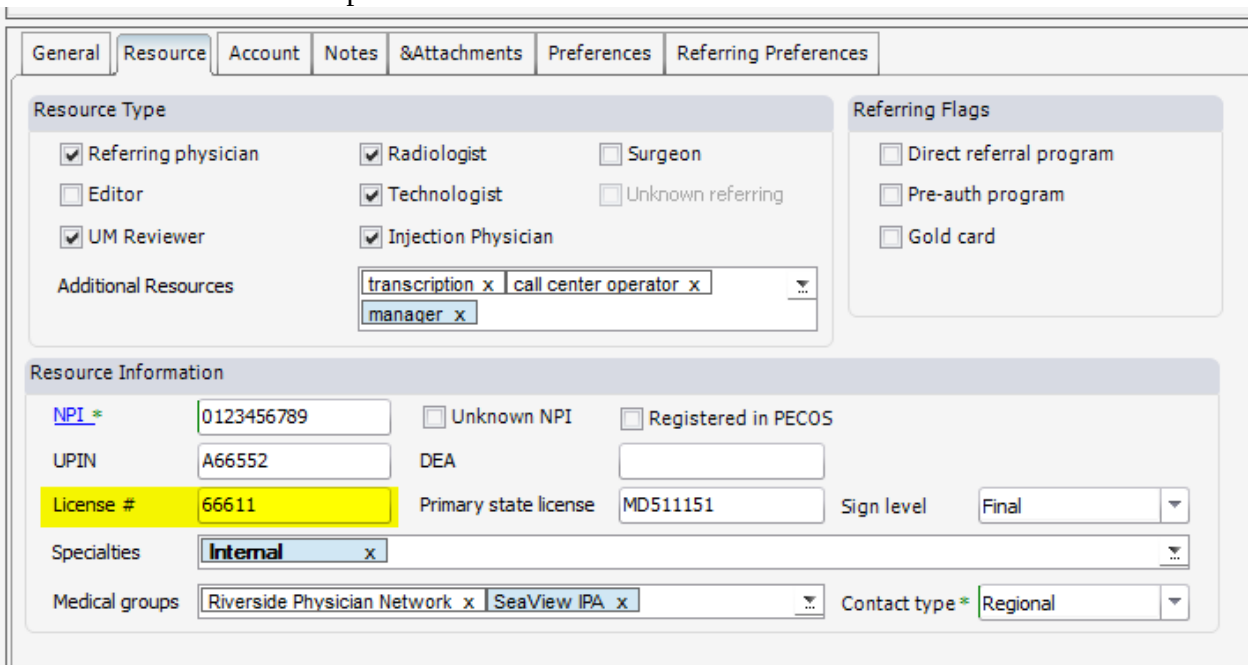



**Figure 5.27 – License # field in Personnel Editor**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Personnel Editor Message on Referring Address

Although the screen will not delete an address that is already in use, to be standard it should prompt "Are you sure you want to remove this address" before proceeding.

A confirmation message “Are you sure you want to remove this address?” has been added when the Remove button is selected with an address selected in the Contact Information section of the General tab.

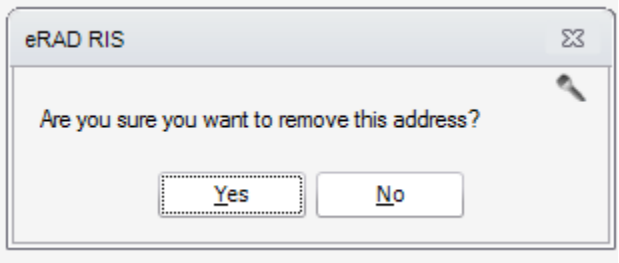



**Figure 5.28 – Confirmation message choosing to remove address from Personnel Editor.**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Site Lookup Table Changes

In previous versions the Organization>Site window has been refactored. The look and feel is now the same as the Practice window.

It has the same functionality as before, except we now have data grouped in a tab page as shown in the following:

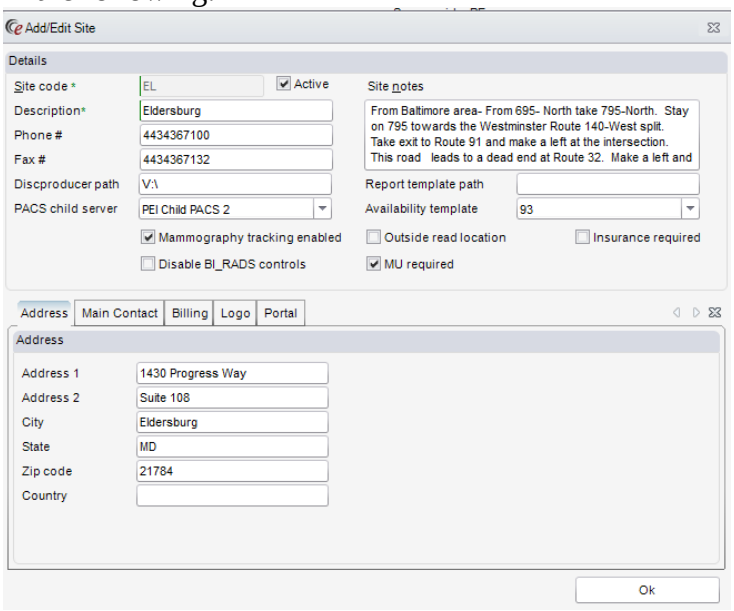



**Figure 5.29 – New look Site window**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Audit History Updates

Additional logging will be displayed in the Audit History. All added and changed values for the following tables and fields.

c_order_item.procedure_code
c_study.scheduled_modality_code
c_study.scheduled_start_date
c_study_item.procedure_code
c_study_item_certification.billing_code

An example of the logged events

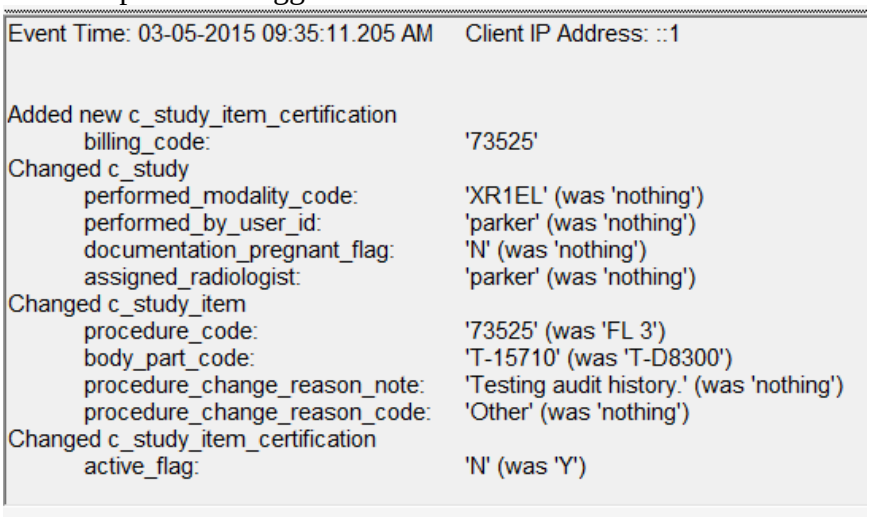



**Figure 5.30 – Audit history additional logging events**

The splitter bar between the audit event list and the details of the event will now remember the last position the user placed it. Looking at the screenshot below you can see the splitter bar has been raised from its initial position. The next time this user opens the Audit History window the splitter bar will be in the same position, saving the user time to adjust.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

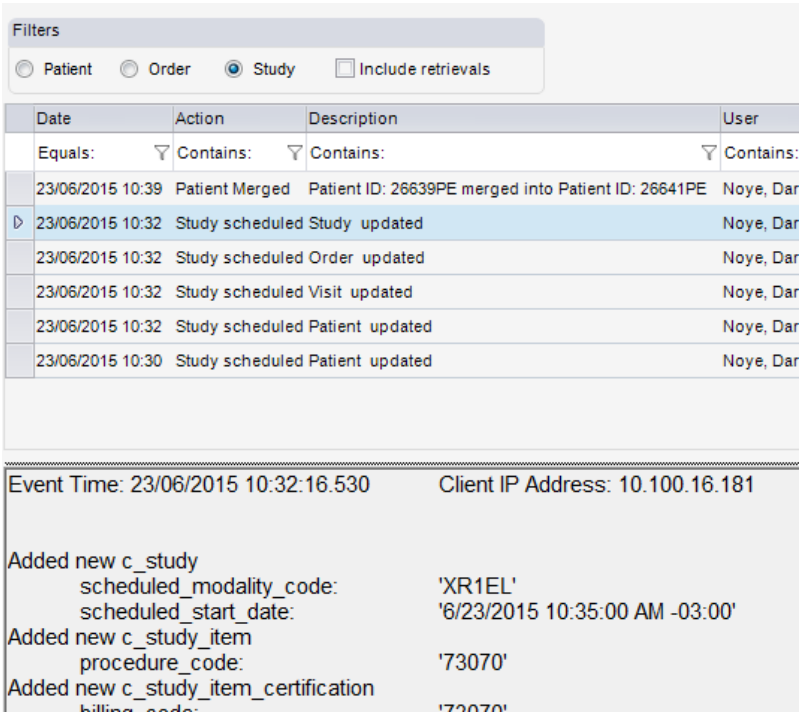



**Figure 5.31 – Splitter Bar keeps last position in Audit History window.**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Audit History Logging and Retrieval of Lookup Tables

We have added an Audit History context menu option from the Administration->Configuration screen. An authorized user can now right click on a lookup table (e.g. SystemConfig) and then choose Audit History and see a list of all of the audited changes that were made. This is controlled by the access string "**Config.LookupEditor.AuditHistory**" which has a default of None.

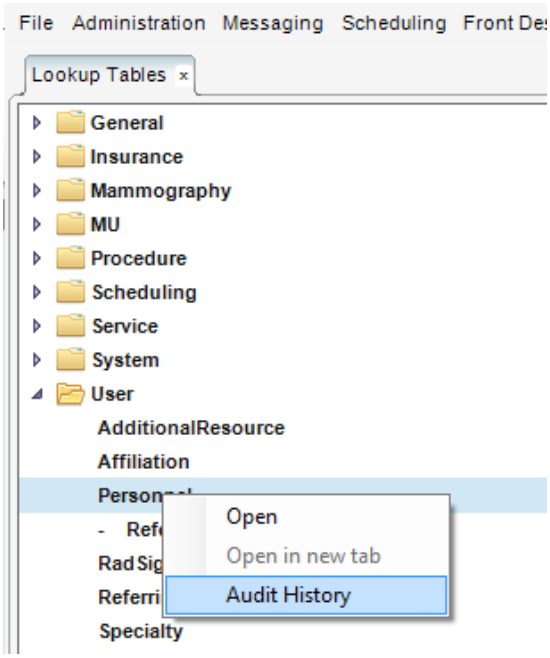



**Figure 5.32 – Audit History on Lookup Table**

The Audit History shows an ordered list of all changes that were made in a specific date range (including the date and the user ID), and when the user clicks an entry on the list, the bottom portion of the screen will display a list of the rows that were modified (added, deleted, or changed) including the before and after versions of the information in the case of modified rows.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

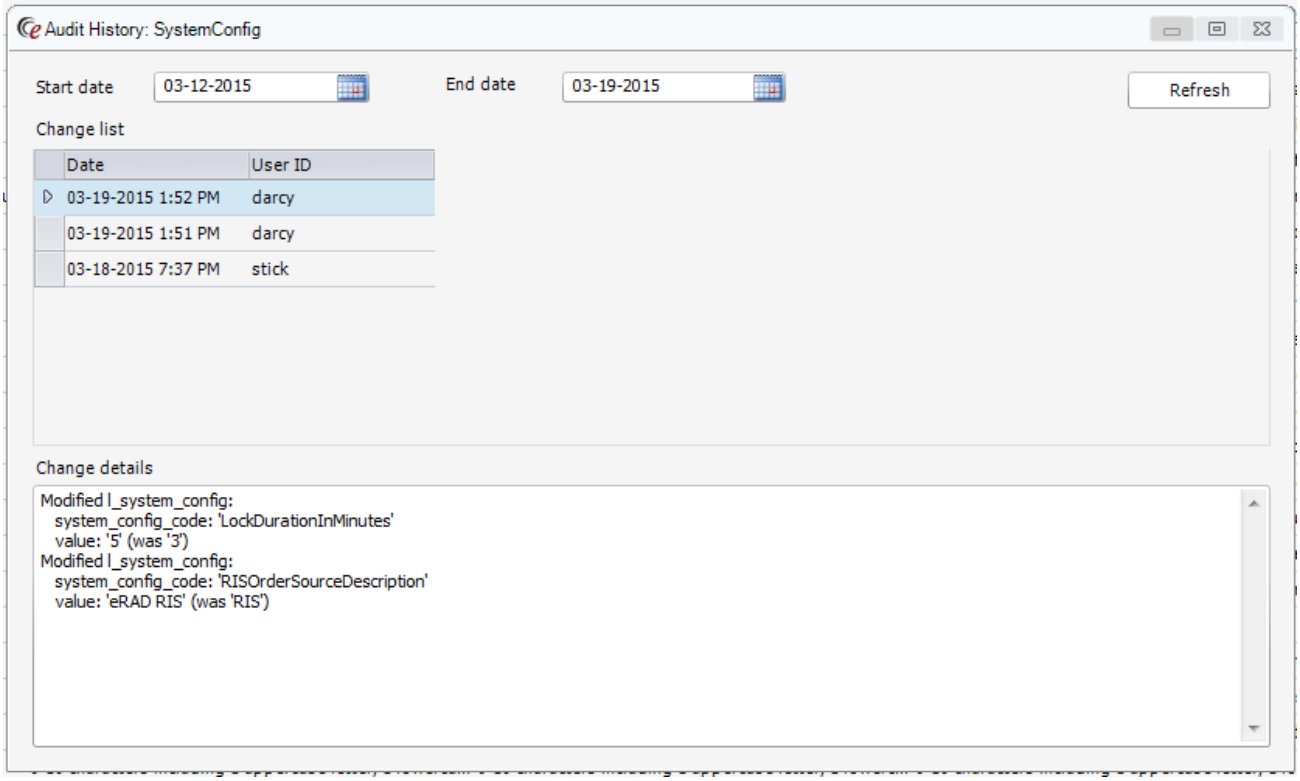



**Figure 5.33 – Audit History showing SystemConfig changes**

Any modified row will show the row's primary key identifier. Any rows that include a user, person, or user group identifier should also include additional information to clarify which user, person or group is being described.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Required Fields Configurability

A new lookup table has been added under the Service folder of the Lookup tables directory. This new lookups access is controlled by access string Config.LookupEditor.ValidationRules that has a default access level of None. As the parent folder suggests, the validation rules should be applied by Service Personnel.

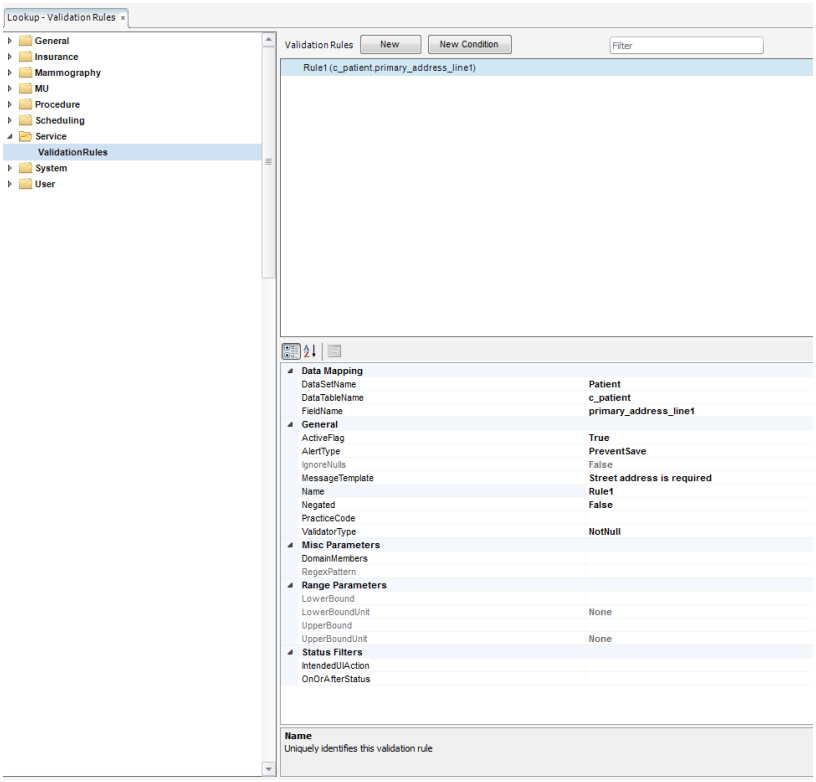



**Figure 5.34 – ValidationRules lookup table**

The topmost portion of the editor provides a "New" button for creating new rules, a "New Condition" button that allows conditional logic to be attached to a rule (e.g. require e-mail address ONLY if preferred delivery method is e-mail), and a filter for searching through the existing rules by name or table/fieldname.

To indicate a field is required, launch the validation rules editor and follow the steps below:

1. Click the "New" button to create a new rule. This will create a new row in the top level panel with a generic name (e.g. Rule2), and the bottom portion of the screen will display a grid of properties that allow the rule to be configured.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

2. Under the "Data Mapping" category, use the drop down boxes to set the DataSet name, DataTableName, and FieldName to indicate which field should be required (e.g. DataSet: Patient, DataTable: c_patient, FieldName: primary_address_line1)
3. Optionally enter a practice, intended UI Action (these correspond to actions in RIS like UI_PatientArrived), and/or OnOrAfterStatus and then Save the changes.

Note – in order for the RIS client to begin enforcing the new validation rules, you must either log out of RIS or choose Help -> Refresh Configuration.
Note that when a screen is loaded that has controls mapped to fields that are required; they should have a red bar painted on the margin of the control to indicate that they are mandatory.

**Figure 5.35 – Address 1 field is now required based on a rule created**

# Validation Rule Properties

**Data Mapping Properties**

1. DataSetName – identifies the dataset that contains the table/column to be validated. The editor currently provides a drop down list with the following values: Patient, Visit, Order, and Study. This field is required for all validation rules
2. DataTableName – identifies the table that contains the column to be validated. The editor provides a list of all tables in the DataSet with the name specified in "DataSetName". This field is required for all validation rules
3. FieldName – identifies the column to be validated. This field is required for all validation rules.

**General Mapping Properties**

1. ActiveFlag – identifies whether this rule is enabled. A rule or condition with ActiveFlag = False will be ignored by the validation framework. This field defaults to true.
2. AlertType – Specifies the result of the validation. The editor has a dropdown list that currently contains two values: Warning, or PreventSave. The evaluation of the rules is the same in either case, but the failure to pass validation is handled differently. As the name suggests, PreventSave is a hard-stop that will prevent the user from proceeding until the data is fixed. A warning will simply display a message to the user to draw their

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

attention to a potential problem. The warning will only be displayed one time for the lifetime of the screen/data the user has open.

3. IgnoreNulls – indicates whether the validation rule should bypass fields that are null. E.g. we may want a rule that will allow null for an e-mail address, but if one is provided, we should verify that it matches a specific pattern. This defaults to false for a "NotNull" ValidatorType but true for all others.
4. MessageTemplate – the message that will be displayed if validation fails. Note that this message will not be used for "NotNull" validators, the Required Fields framework displays its own message e.g. "Address 1. Is required". Note that MessageTemplate does not apply to "Conditions", the parent validation rule's MessageTemplate will be used instead. If no MessageTemplate is specified, the defaults provided by the Enterprise Library will be used (this may not be desirable). If the message template includes "{0}", the "{0}" will be replaced with the value that was validated.
5. Name – unique identifier for a validation rule, the value entered is presented in the top panel of the screen and is searchable using the Filter control. The editor will provide a default value e.g. Rule1. This field is required.
6. Negated – if true, this indicates that the rule should prevent matching values e.g. if a DomainValidator is used with DomainMembers {"a", "b", "c"}, then the rule will only allow values of "a", "b", or "c". If the Negated property is set to true, in this case the values of "a", "b", and "c" would all be unacceptable.
7. PracticeCode – optionally identifies the practice to which the rule applies. If not specified the rule will apply to all practices (this is the default). If the current exam/patient data is associated with a particular practice, we will filter based on that practice. When a screen opens without exam context (e.g. New Patient), we will apply the rules based on the current practice indicated by the "OrgPicker" in RIS.
8. ValidatorType - the following types of Validators are now supported:
    a. NotNull – indicates that the field is required
    b. RangeValidator – indicates that the field should fall within the numeric range specified
    c. DomainValidator – indicates that the field should belong to a list of values (e.g. "Baby", "Toddler", "Child")
    d. StringLengthValidator – indicates that the fields should be alphanumeric text with a length between a specified range
    e. RegexValidator – indicates that the fields should match a regular expression pattern, e.g. `\b[A-Z0-9._%+-]+@[A-Z0-9.-]+\.[A-Z]{2,4}\b` is an e-

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

mail address DateTimeRangeValidator – indicates that the fields should fall within a specific range e.g. 01/01/1970 – 01/01/1999. Note that we are using a case insensitive version of the RegexValidator.

f. DateTimeRangeValidator – indicates that the fields should fall within a specific range e.g. 01/01/1970 – 01/01/1999
g. RelativeDateTimeValidator – indicates that the fields should fall within a specified range relative to the current date/time e.g a birth date could have a lower bound of -120 years and an upper bound of -18 years to enforce the rule that a patient had to be at least 18 years old

**Misc Parameters**

1. DomainMembers – used to specify a list of acceptable values. If Negated is true these values will be prohibited instead. This is required for a DomainValidator.
2. RegexPattern – Identifies the regular expression to be used for a RegexValidator. This is required for a RegexValidator.

**Range Parameters**

LowerBound – Identifies the minimum value in the acceptable range. This could be a numeric value in the case of a RangeValidator or StringLengthValidator, but must be a DateTime in the case of a DateTimeRangeValidator or RelativeDateTimeValidator. This field is required for a RangeValidator, a StringLengthValidator, a DateTimeRangeValidator, or a RelativeDateTimeValidator.
UpperBound – Identifies the maximum value in the acceptable range. See LowerBound for additional notes.
LowerBoundUnit – Identifies the unit of time for the lower bound (e.g. second, minute, hour, day, year). This is required for a RelativeDateTimeValidator.
UpperBoundUnit – Identifies the unit of time for the upper bound (e.g. second, minute, hour, day, year). This is required for a RelativeDateTimeValidator.

**Status Filters**

IntendedUIAction – limits the rule so that it only applies to a particular action (e.g. UI_PatientArrived). The default IntendedUIAction is UI_StudyUpdated, but several screens have been updated with logic to change the IntendedUIAction when the user clicks a status type button (e.g. CheckingIn, Arrive, Start, Complete, etc). Note that if a rule was configured to require a value when the exam is being checked in, there is nothing that would prevent the user from removing the value afterwards when arriving the patient. This field is optional; a blank value will mean that the validation should be applied to all statuses.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

OnOrAfterStatus – limits the rule so that it only applies once an exam hits a particular status. There is a natural ordering applied to statuses so if a field is required OnOrAfterStatus "Arrived", it will also be required by the technologist.

## Conditions

When a rule is selected, a condition can be added so that a validation failure will not be enforced unless all the other conditions tied to that rule are true. To add a condition, click on a rule and then click the "New Condition" button, a condition can then be configured in the same manner as a regular rule (note that the MessageTemplate for a condition is ignored). A condition is nested underneath it's "parent" rule on the top panel of the editor and its name is prefixed with "Condition – "

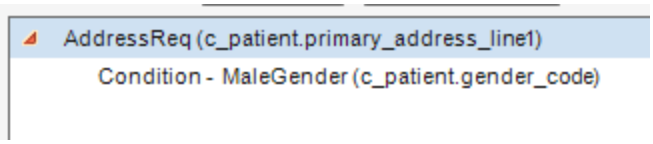



**Figure 5.36 – Example of Condition**

Conditions may be configured to look at other rows in the same study container regardless of which dataset they belong to.

## Warnings

Rules with an alert type of Warning may be useful for building functionality similar to the Alert framework. Rules configured with the Alert framework are potentially more precise but may require a new build of RIS in order to provide new alert types. Rules configured with the ValidationRules framework are dynamic and can be created/configured without a new release of RIS.

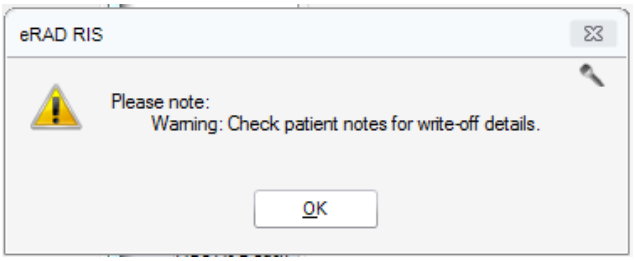



**Figure 5.37 – Warning message created**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

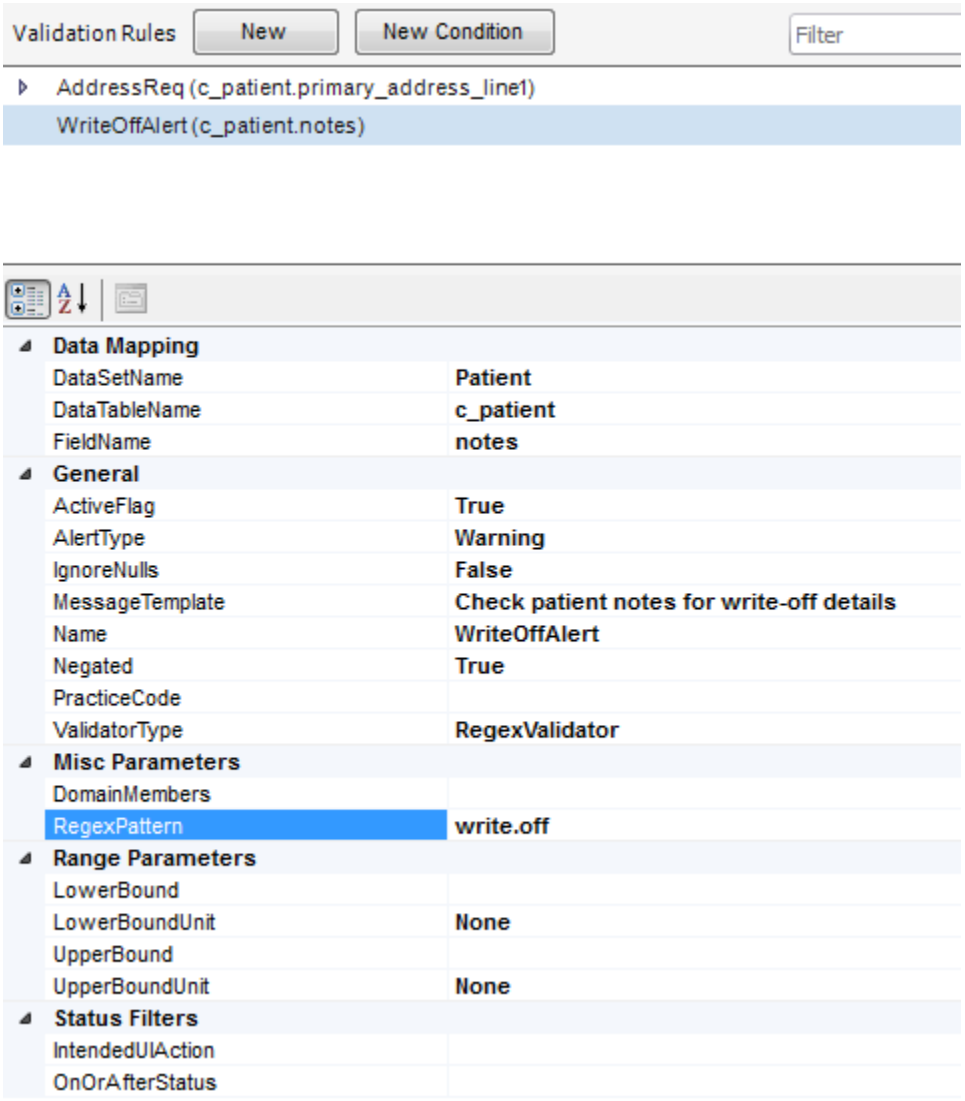



**Figure 5.38 – Validation Rules**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Visit Number Added to Work Lists

Visit number now shows up as the last column in the worklists for Receptionists, Technologists and Transcriptionists. It appears near the center of the Radiologist worklists as these add extra columns for each worklist beyond the basic set.

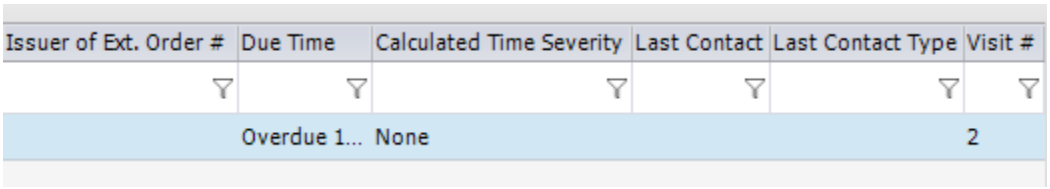



**Figure 5.39 – Visit column added to work lists**

## Cancel Reason Code Added to Orders to Schedule Work List

The column of Cancel Reason has been added to the Orders to Schedule work list.

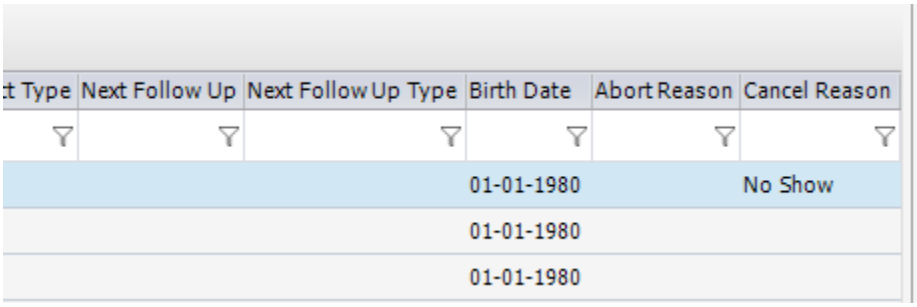



**Figure 5.40 – Cancel Reason on Orders to Schedule work list**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Referring Doctor Column Added to Work Lists

The Closed Room Reschedule and Confirmation work lists now have the Referring Doctor column added.

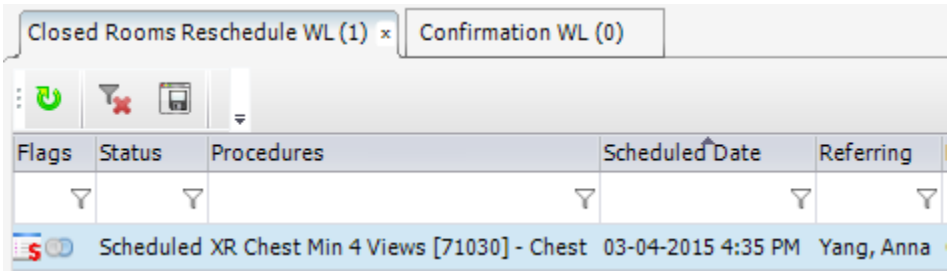



**Figure 5.41 – Referring column**

## Order Number Added to Patient Folder Work List

The Patient Folder WL now has the Order # column.

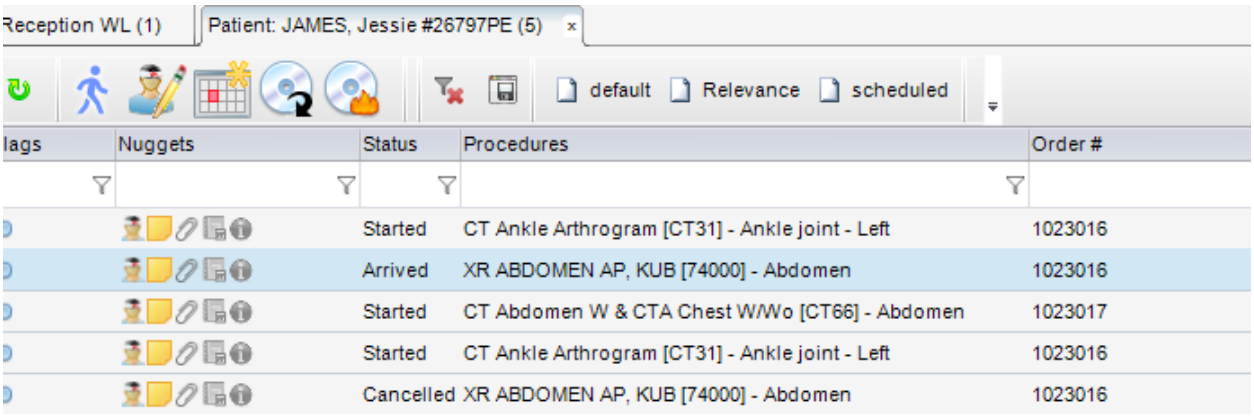
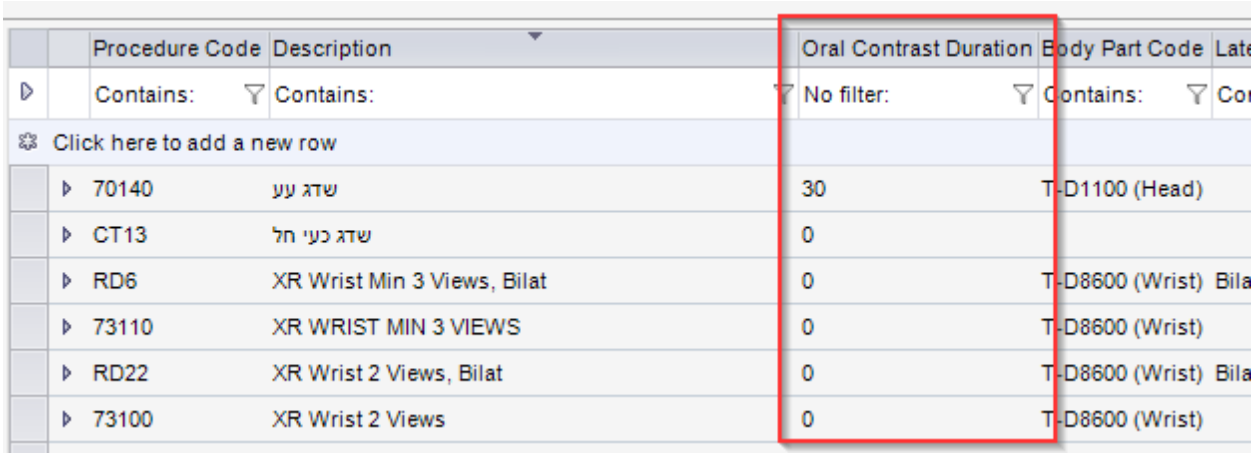



**Figure 5.42 – Order # column on Patient Folder**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Support Elapsed Time for Contrast on Work List

The ProcedureCode lookup table has been enhanced to include an Oral Contrast Duration field. This represents the amount of time in minutes the oral contrast must be administered before the procedure is performed. This field is numeric and defaults to a value of 0.



| Procedure Code | Description | Oral Contrast Duration | Body Part Code | Late |
|---|---|---|---|---|
| Contains: | Contains: | No filter: | Contains: | Cor |
| Click here to add a new row | | | | |
| 70140 | שדג עע | 30 | T-D1100 (Head) | |
| CT13 | שדג כעי חל | 0 | | |
| RD6 | XR Wrist Min 3 Views, Bilat | 0 | T-D8600 (Wrist) | Bila |
| 73110 | XR WRIST MIN 3 VIEWS | 0 | T-D8600 (Wrist) | |
| RD22 | XR Wrist 2 Views, Bilat | 0 | T-D8600 (Wrist) | Bila |
| 73100 | XR Wrist 2 Views | 0 | T-D8600 (Wrist) | |

**Figure 5.43 – Oral Contrast Duration column added to procedure code table**

A Contrast Timer column has been added to the Technologist WL. It counts down the number of minutes since the contrast has been consumed by the patient.

On the context menu of the Technologist WL the "Start Contrast Timer" and "Stop Contrast Timer" context menu items have been added. Access to these options on the context menu are controlled by the access string "**Clinical.ContrastTimer**" which has a default of None.

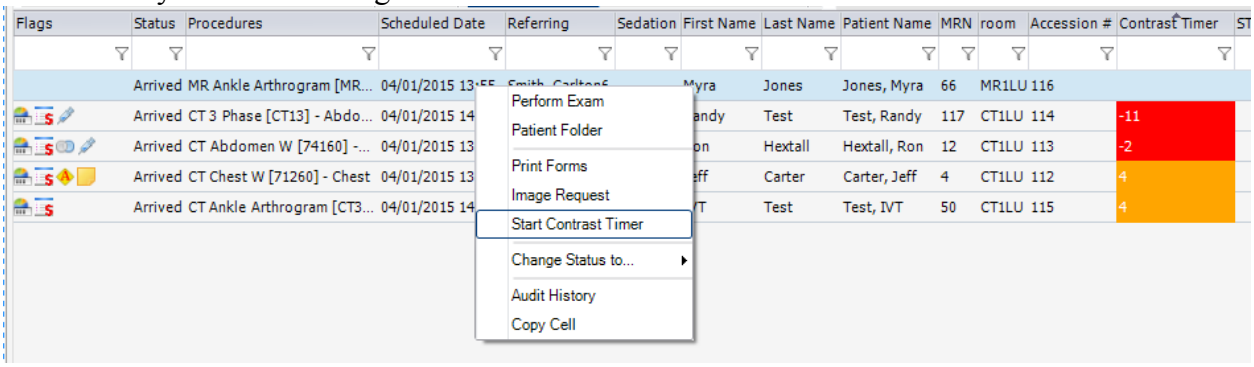



**Figure 5.44 – Start Contrast Timer in context menu**

If the contrast timer has been started, the system will take the oral contrast duration assigned to the procedure code from the study and begin counting the minutes down. The user will have the ability to stop the contrast timer which will basically remove the value from the Technologist

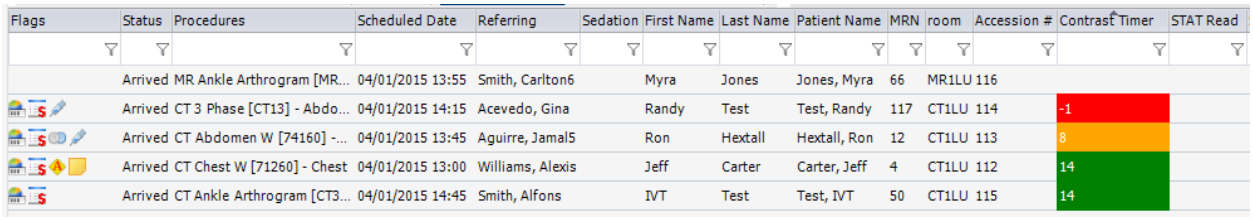
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

WL. Selecting start contrast timer again will start the contrast timer from the oral contrast duration.

If the procedure code for the selected study does not have an oral contrast duration greater than zero, the "Start Contrast Timer" menu item will not be available to the user.

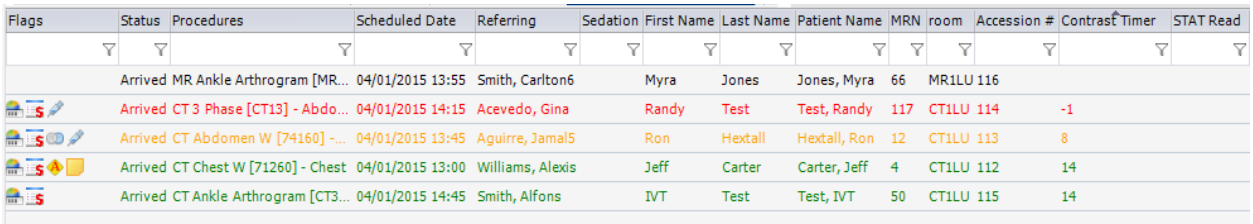
The eRAD RIS service team have the ability to add custom colors to the Technologist WL as a visual indicator for the Contrast Timer. For example, the Conditional Formatting Rules Manager can be setup with the following and then saved as a worklist view:

- Set the RowForeColor to Green if the Contrast Timer is > 10 minutes.
- Set the RowForeColor to Orange if the Contrast Timer is <= 10 and >=1.
- Set the RowForeColor to Red if the Contrast Timer is <= 0.



| Flags | Status | Procedures | Scheduled Date | Referring | Sedation | First Name | Last Name | Patient Name | MRN | room | Accession # | Contrast Timer | STAT Read |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Arrived | MR Ankle Arthrogram [MR... | 04/01/2015 13:55 | Smith, Carlton6 | | Myra | Jones | Jones, Myra | 66 | MR1LU | 116 | | |
| | Arrived | CT 3 Phase [CT13] - Abdo... | 04/01/2015 14:15 | Acevedo, Gina | | Randy | Test | Test, Randy | 117 | CT1LU | 114 | -1 | |
| | Arrived | CT Abdomen W [74160] -... | 04/01/2015 13:45 | Aguirre, Jamal5 | | Ron | Hextall | Hextall, Ron | 12 | CT1LU | 113 | 8 | |
| | Arrived | CT Chest W [71260] - Chest | 04/01/2015 13:00 | Williams, Alexis | | Jeff | Carter | Carter, Jeff | 4 | CT1LU | 112 | 14 | |
| | Arrived | CT Ankle Arthrogram [CT3... | 04/01/2015 14:45 | Smith, Alfons | | IVT | Test | Test, IVT | 50 | CT1LU | 115 | 14 | |

**Figure 5.45 – Conditional Formatting of Technologist WL using CellBackColor**



| Flags | Status | Procedures | Scheduled Date | Referring | Sedation | First Name | Last Name | Patient Name | MRN | room | Accession # | Contrast Timer | STAT Read |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Arrived | MR Ankle Arthrogram [MR... | 04/01/2015 13:55 | Smith, Carlton6 | | Myra | Jones | Jones, Myra | 66 | MR1LU | 116 | | |
| | Arrived | CT 3 Phase [CT13] - Abdo... | 04/01/2015 14:15 | Acevedo, Gina | | Randy | Test | Test, Randy | 117 | CT1LU | 114 | -1 | |
| | Arrived | CT Abdomen W [74160] -... | 04/01/2015 13:45 | Aguirre, Jamal5 | | Ron | Hextall | Hextall, Ron | 12 | CT1LU | 113 | 8 | |
| | Arrived | CT Chest W [71260] - Chest | 04/01/2015 13:00 | Williams, Alexis | | Jeff | Carter | Carter, Jeff | 4 | CT1LU | 112 | 14 | |
| | Arrived | CT Ankle Arthrogram [CT3... | 04/01/2015 14:45 | Smith, Alfons | | IVT | Test | Test, IVT | 50 | CT1LU | 115 | 14 | |

**Figure 5.46 – Conditional Formatting of Technologist WL using RowForeColor**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Technologist – Verify Patient ID

A “Technologist verified ID” checkbox has been added to the documentation tab of the Perform Exam window.

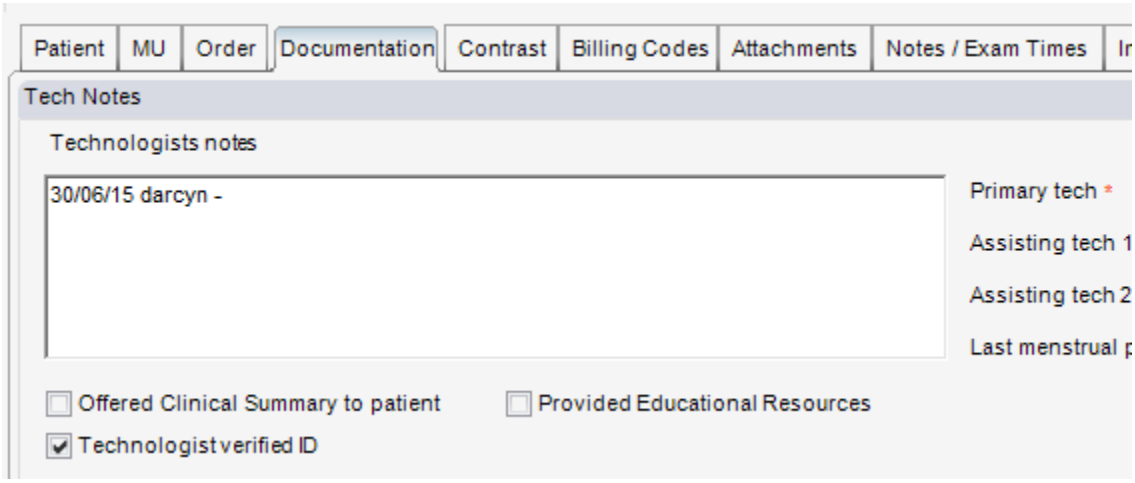



**Figure 5.47 – Technologist verified ID check box**

Once the technologist verifies the patient by checking the Technologist verified ID checkbox, the “ID verified date” and “ID verified by” labels are automatically updated on the Notes / Exam Times tab.

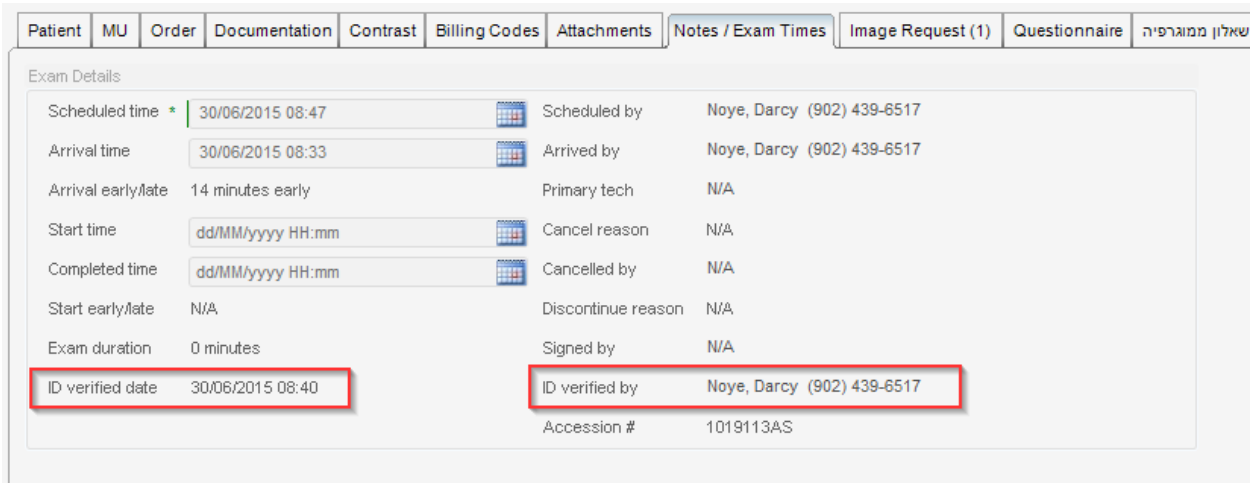



**Figure 5.48 – ID verified date and ID verified by fields added to Notes/Exam Times tab**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Contrast Enhancements and Injection Doctor Workflow

The contrast fields that were once on the Documentation tab have been given their own tab. The Contrast tab will contain the Contrast and Sedation data panes as well as the new Contrast Injection Details data pane.

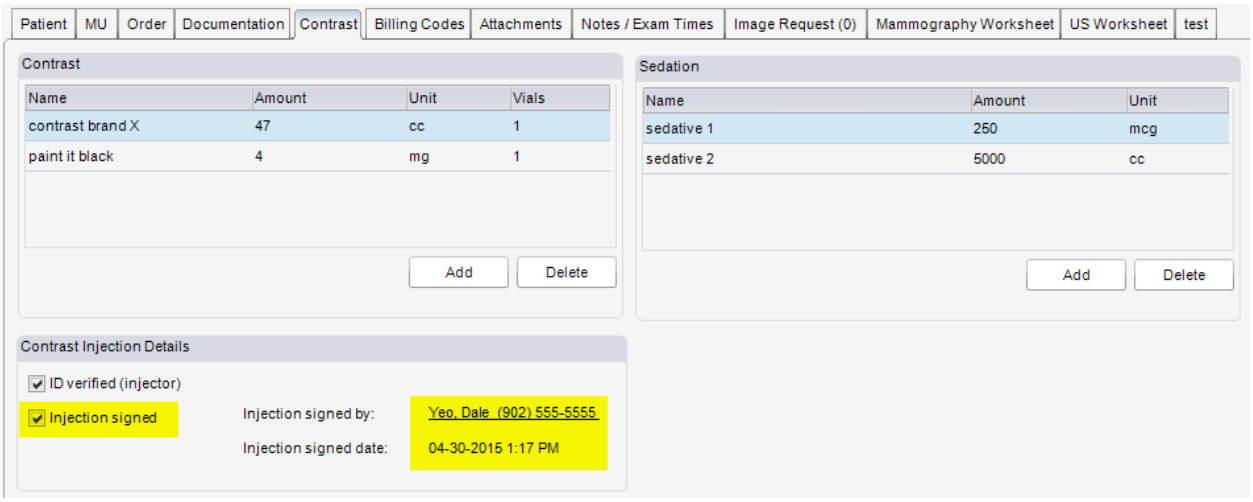



**Figure 5.49 – Contrast tab of Perform Exam window**

Once the Injection signed check box is selected the fields of Injection signed by: and Injection signed date: will auto populate.

The ID verified (injector) and Injection signed check boxes will be enabled if the user has the Resource Type of Injection Physician checked in the Personnel Editor on the Resource tab.

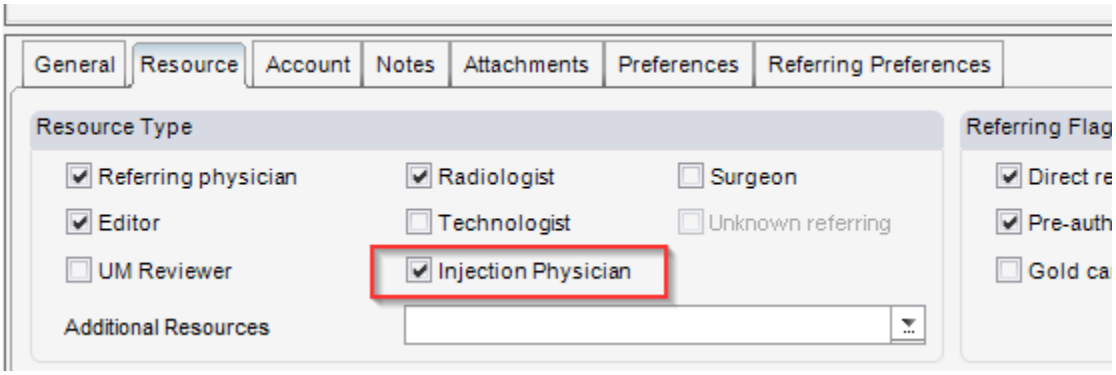
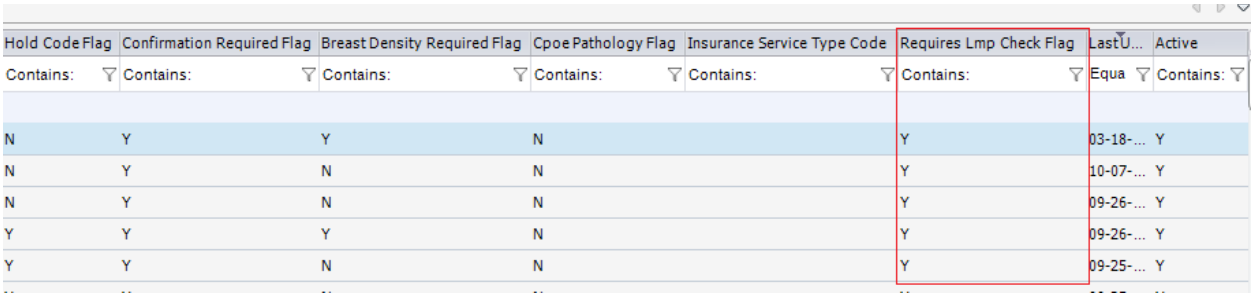



**Figure 5.50 – Injection Physician resource type**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Technologist – LMP Required Options

The ProcedureCode lookup table has a new column added of Requires Lmp Check Flag, which by default has a value of Y and will be located on the right of the ProcedureCode lookup table.



| Hold Code Flag | Confirmation Required Flag | Breast Density Required Flag | Cpoe Pathology Flag | Insurance Service Type Code | Requires Lmp Check Flag | LastU... | Active |
|---|---|---|---|---|---|---|---|
| Contains: | Contains: | Contains: | Contains: | Contains: | Contains: | Equa | Contains: |
| N | Y | Y | N | | Y | 03-18-... | Y |
| N | Y | N | N | | Y | 10-07-... | Y |
| N | Y | N | N | | Y | 09-26-... | Y |
| Y | Y | Y | N | | Y | 09-26-... | Y |
| Y | Y | N | N | | Y | 09-25-... | Y |

**Figure 5.51 – Requires LMP Check Flag column in ProcedureCode lookup table**

With the default set to Y, it will behave as before and the LMP will be required to be completed for female patients that fall between the age range set in the system configuration settings of LMPStartingAge (default of 12) and LMPEndingAge (default of 56).

Below is an example of the LMP field enabled (set to Y on the procedure code) and disabled.

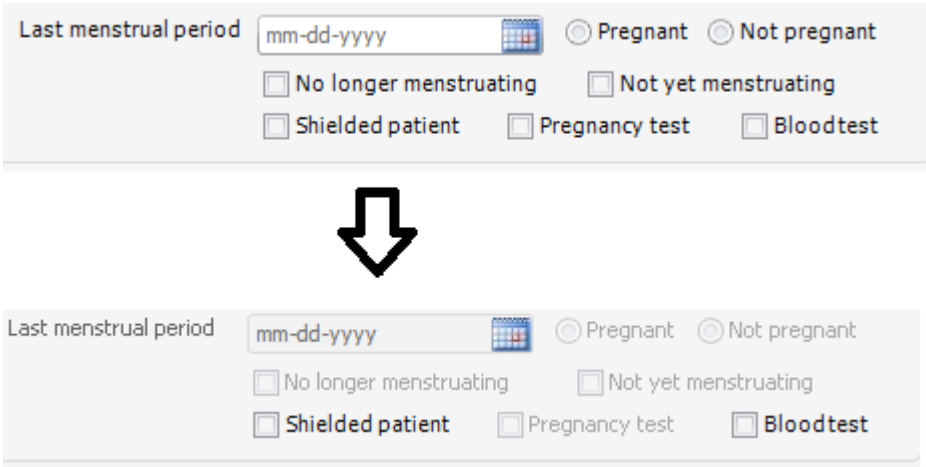



**Figure 5.52 – LMP enabled and disabled for same patient**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Cancelled Due to Technical Repeat Status

A new cancelled status has been added to eRAD RIS. The status of CancelTechRepReqd is an end-state status. No auto order replacement study will be created.

The workflow will have the user access the new status from the context menu option of Change Status to… Cancelled due to required tech repeat. Access to this context menu option is controlled by the access string "**Clinical.ChangeStatusCancelTechRepReqd**" which has a default of None.

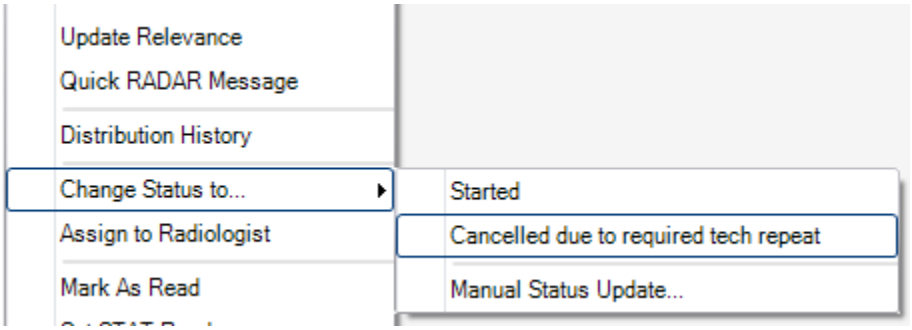



**Figure 5.53 – Context menu option to cancel for tech repeat**

This status uses sequence 0 like the other cancelled statuses. Also it currently is mapped to no portal_status_code (aka NULL).

These items are only viewable in non-status based work lists such as the Patient Folder work list.

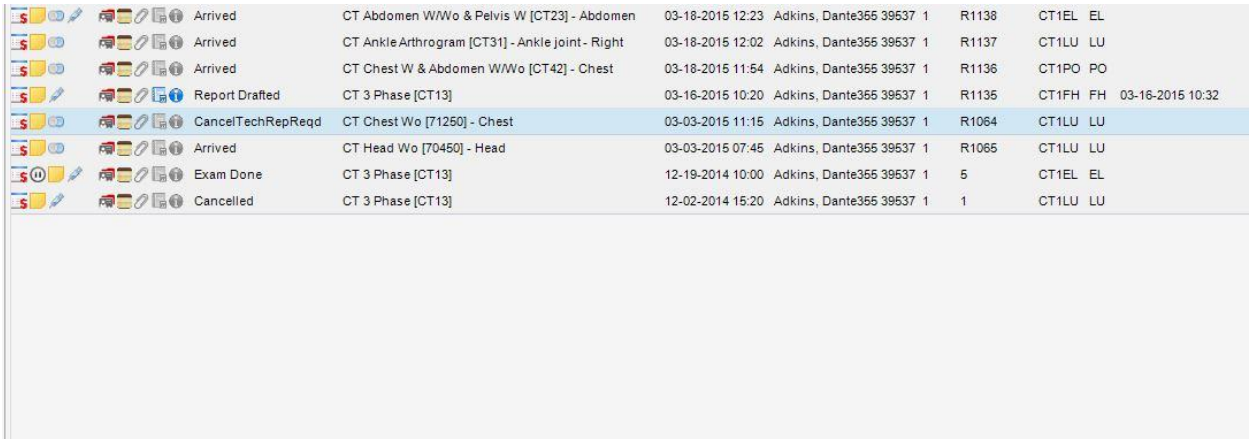



**Figure 5.54 – CancelTechRepReqd status on work list.**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Discontinue and Cancel Reason Codes on Notes/Exam Time Tab

Previously we didn't have anywhere in the application to see the cancelled reason or discontinued reasons. We have added these to the Notes/Exam Time tab in the View/Edit window.

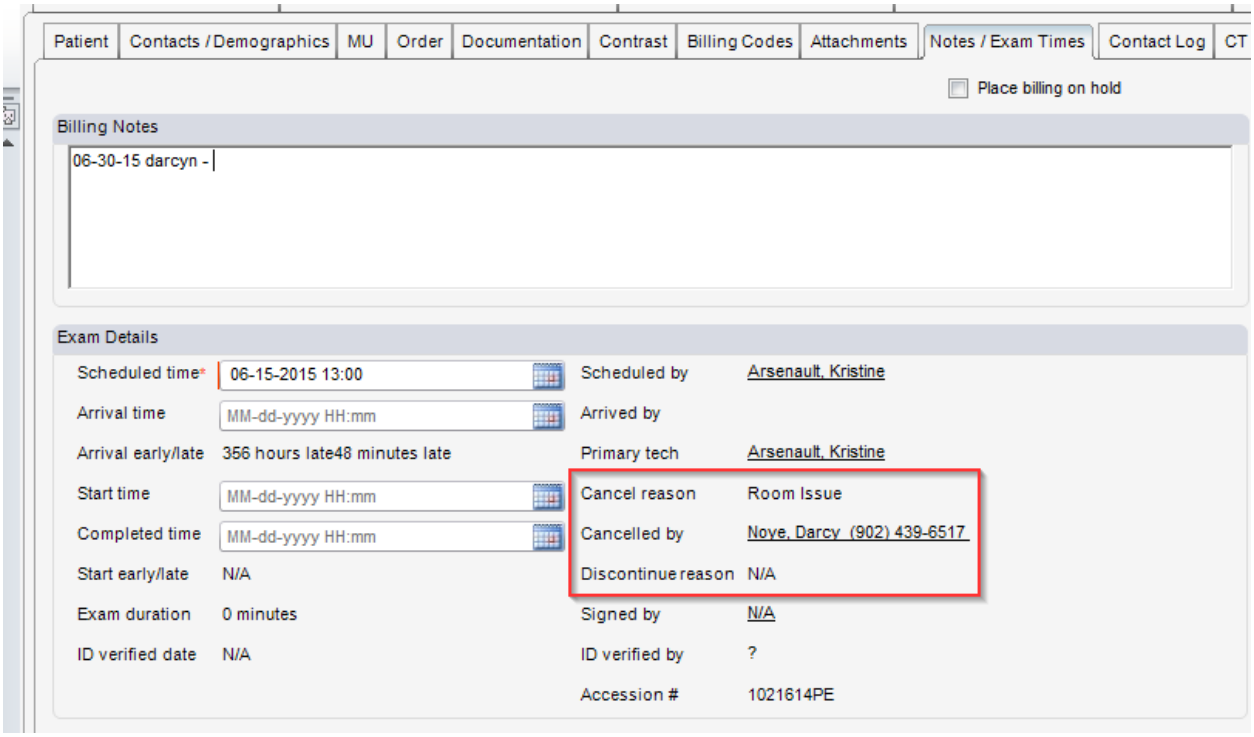



**Figure 5.55 – Displaying where the Cancel and Discontinue reason codes can be viewed.**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Search Field Override to Patient When Search Starts With Using Symbols

When you are in the search field, regardless of what category you might be on (ie patient or internal person or carrier search etc) – if you search using a # or @ that RIS recognizes you are searching for patient data, and doesn't force you to go choose patient option first.

Entering in the # symbol will search for MRN and the @ symbol will search for accession number.

Example: in the figure below the search option is looking to search for site, but with #24063PE entered it will automatically search for a patient and if found it will open the patient folder

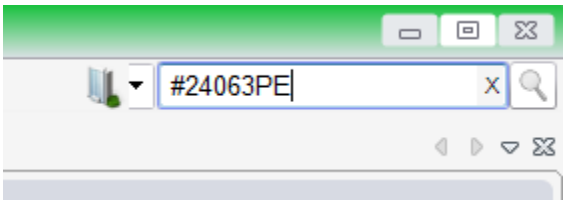



**Figure 5.56 – Search for patient in Site search**

It will also change the quick search to be for patient.

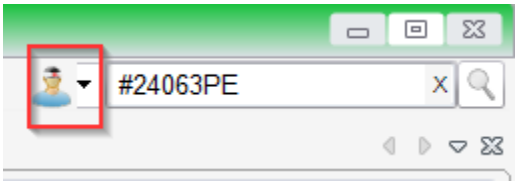



**Figure 5.57 – After performing search**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Note Fields Configurability to be Log Controls

Throughout the application there are many different note fields (AKA log controls). In Build 45 we have introduced the ability change the note field from a free form text field to an auto text field, or a combination of both.

A new lookup table called LogControl has been added under the General directory of the Configure menu option. This lookup's access is controlled by access string "**Config.LookupEditor.LogControl**" and has a default access level of None. This table contains all of the eRAD RIS log controls and the state of the log control is defined in this table.

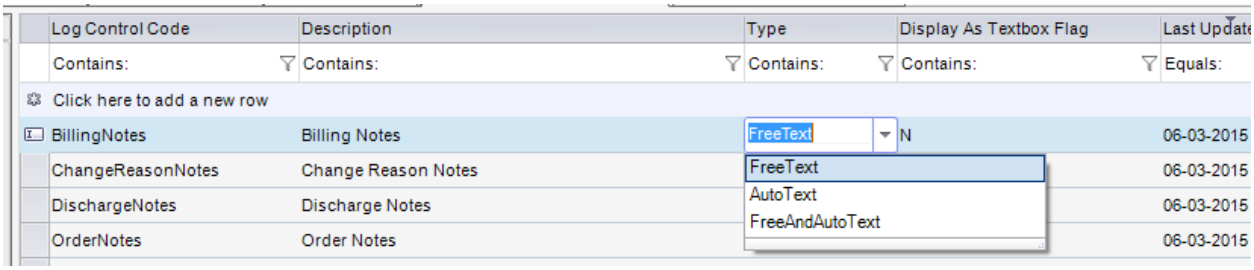



**Figure 5.58– LogControl lookup table**

The LogControl lookup has been modified to include a display_as_textbox_flag column. If the value for display_as_textbox_flag = Y, then the screen will render using a standard textbox and not a log control. Currently, this configuration is only available for the following:

1. Technologist Notes on both the Documentation and New Outside Read screens
2. Signs and Symptoms on both the Documentation and New Outside Read screens
3. Change Reason Note on the Documentation Screen

If a textbox or open text control is to be displayed, open the LogControl lookup table and set the Display as Textbox Flag to 'Y' for the log control code. If a log control is to be displayed, set the Display as Textbox Flag to 'N' and specify if the log control is FreeText, AutoText, or FreeAndAutoText.

Only ChangeReasonNotes, SignsAndSymptoms, and TechNotes support this feature at this time.

If the Display as Textbox Flag is enabled for ChangeReasonNotes, SignsAndSymptoms, or TechNotes, then only FreeText can be chosen as the Type.

Please note that if the RIS is configured to use a LogControl for a field like TechNotes, it can change the appearance of TechNotes in other areas of the application for example diagnostic

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

report templates. The TechNotes will include the date stamp and username with each entry versus just plain text.

If a control that doesn't support "Display As Textbox Flag" has the value set to Y, on save of the lookup the user will be prompted with validation message.

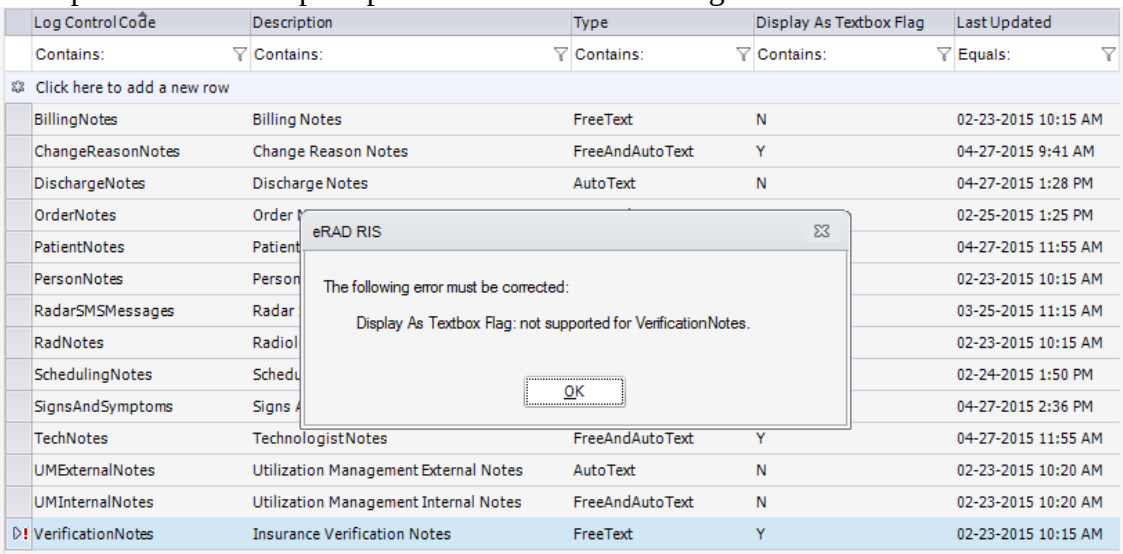



**Figure 5.59 – Validation message informing Log Control doesn't support Display As Textbox Flag**

Another validation message will appear if one of the supported Log Controls has the Display As Textbox Flag = Y and the Type column is something other than FreeText

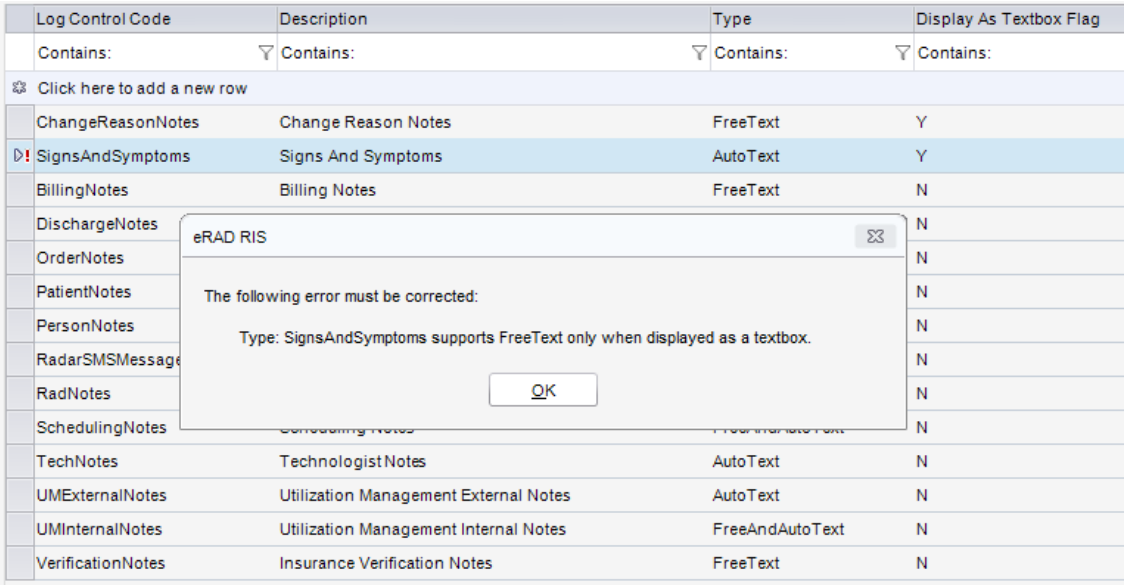



**Figure 5.60 – Validation message informing Log Control must be FreeText when Display As Textbox Flag=Y**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

Auto text that is to be entered in the log control will come from the Autotext lookup table. This lookup table is controlled by the access string "**Config.LookupEditor.Autotext**" which has a default access level of None.

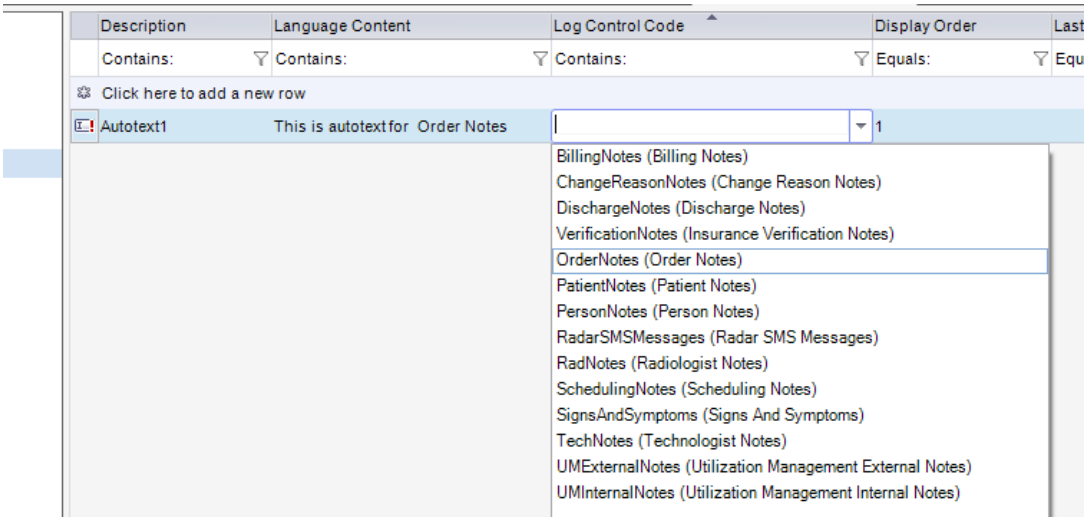



**Figure 5.61 – Autotext lookup table**

With the Order Notes field now configured for Autotext, the Order Notes field will not permit to have free text entered. The Autotext is accessed from a context menu on the notes field.

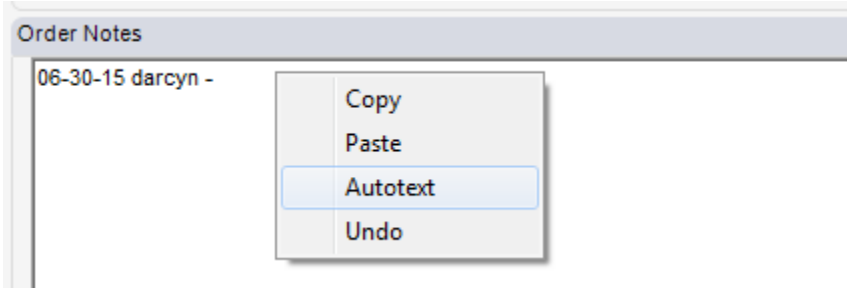



**Figure 5.62 – Context menu with Autotext option for Order Notes field**

Selecting the Autotext context menu option will open a new window titled Autotext. This window will contain the options available for this log control.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

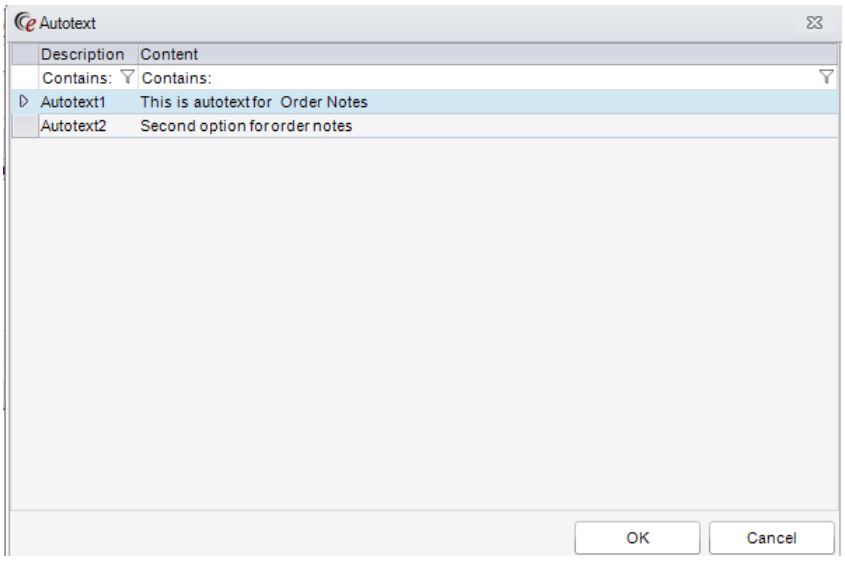



**Figure 5.63 – Autotext window with available options**

If the log control, in this example Order Notes is configured to be free text and auto text, a combination of both can be used in the field.

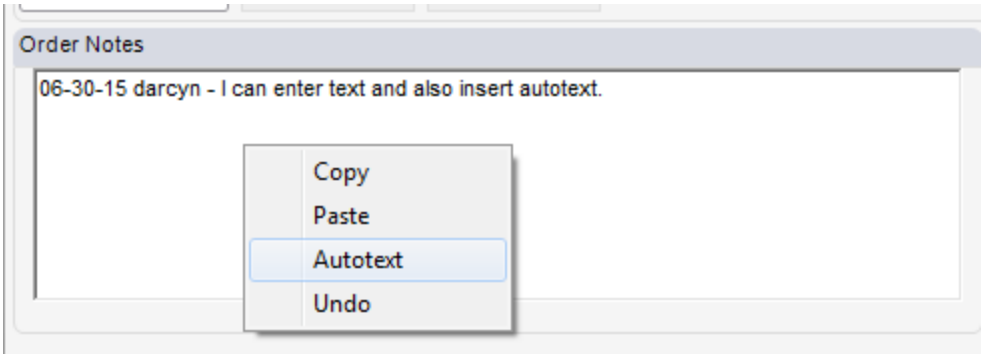
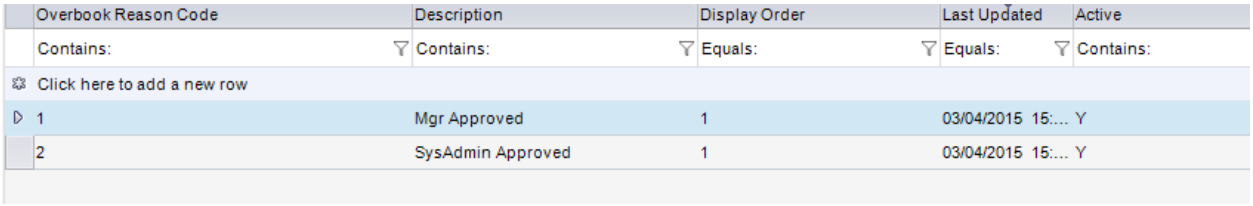



**Figure 5.64 – Free text/Autotext field**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Overbook Reason Enhancements

To continue on from the previous feature, the Overbook Reason field will also have the options of free text, autotext or a combination of both. To start a new lookup table has been created to capture the Overbook Reason Code that can be used if the field is Autotext only or both available to the field. The OverbookReason table access is controlled by the access string of "**Config.LookupEditor.OverbookReason**" which has a default of Full.



| Overbook Reason Code | Description | Display Order | Last Updated | Active |
|---|---|---|---|---|
| Contains: | Contains: | Equals: | Equals: | Contains: |
| Click here to add a new row | | | | |
| 1 | Mgr Approved | 1 | 03/04/2015 15:... | Y |
| 2 | SysAdmin Approved | 1 | 03/04/2015 15:... | Y |

**Figure 5.65 – Overbook Reason lookup table**

If the OverBook reason field is free text, autotext or a combination of both is controlled by a new System Configuration setting called "**OverbookReasonFormat**" has default value of 1.

The possible values are

- 1 - free text only
- 2 - OverbookReason lookup only
- 3 - both free text and the OverbookReason lookup.

The scheduling screen in RIS has been updated to support the above pattern. If the overbook reason utilizes the lookup values, it is important to note that it is the Description field from OverbookReason and not the OverbookReasonCode that is stored in the database.

The Overbook field itself on the scheduling window is controlled by the pre-existing access string of "**Clinical.Schedule.AllowOverbooking**" which has a default access level of None

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Send SMS message from Work List

The option to send a RADAR message from the Reception or Patient Folder WL has been added in B45. The context menu option of Quick RADAR Message has been added with an access string of "**Clinical.QuickRadarMessage**" that controls access to it, which has a default of None.

Selecting this context menu option will open the Quick RADAR Messgae window. The message will have a character limit of 160. Options are SMS (text) or Email. This message can be free text or can be configured to autotext. The patients name, mobile phone number and email address will be displayed in the window.

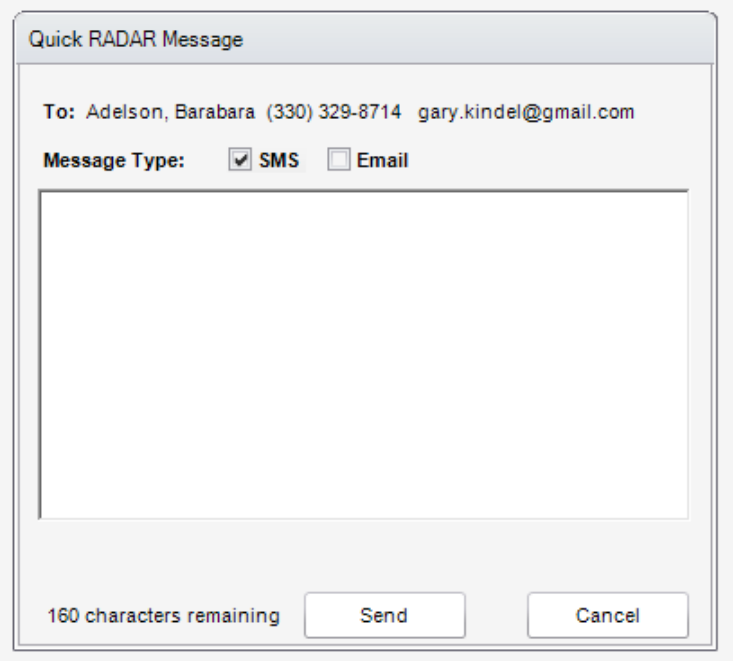



**Figure 5.66 – Quick RADAR Message dialog window**

If the patient selected to send the RADAR message is missing the Email and mobile phone information the user will be presented with the following message.

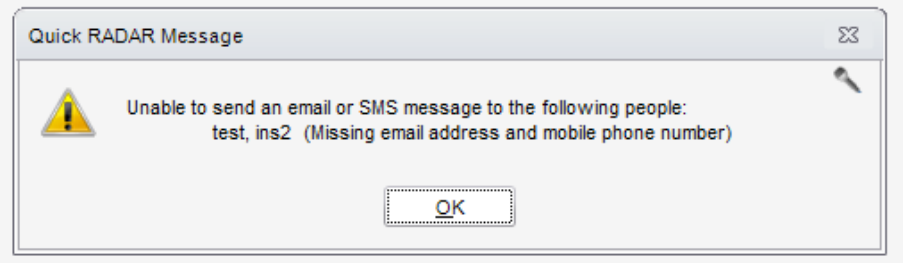



**Figure 5.67 – Quick RADAR Message that patient doesn't have an email or mobile phone number**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Support Linking of Reports

For stage 1 of linked reports, linking is limited to procedure plans that are predefined to be reported together. There is no support for manual linking and unlinking studies for stage 1.

The ProcedurePlan lookup table lookup table has always had the Report Together Flag, but it wasn't being used. Now we will use it for Linked Reporting. When the Report Together Flag is set to Y, the Plan Procedures grid will require one procedure to be set as the Primary Study.

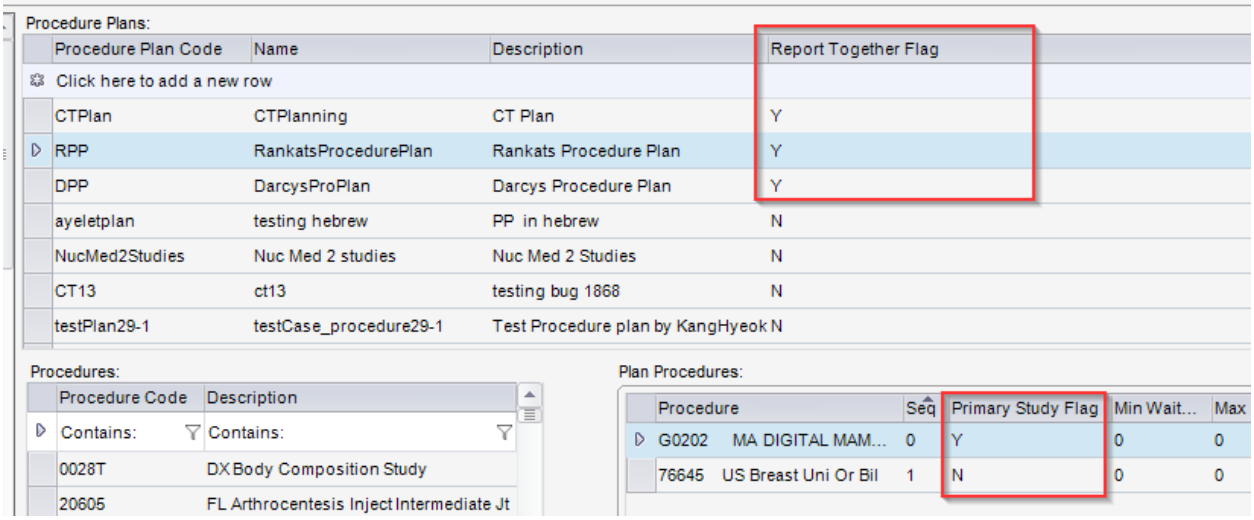



**Figure 5.68 – Procedure Plan lookup table**

The primary study will be the study that is reported on. But before it gets to Exam Done status, the procedure plan will behave just as it did before. After the plan is scheduled the work lists will display a new flags for Primary and Non-Primary studies in the plan.

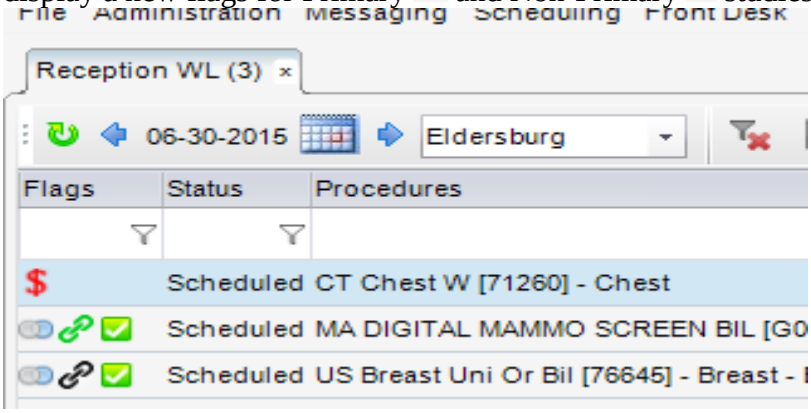



**Figure 5.69 – Linked Reporting flags for primary and non-primary**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

If the primary study is rescheduled on its own, the linked reporting will be broken and the studies belonging to the procedure plan will then become individual studies no longer tied together. This is also true if the procedure is changed during the registration process. If the procedure picker row is remove (red x) or the procedure is removed (black x) and a different procedure is used in its place on the primary study, this will also break the linked reporting.

For the Technologist the procedure plan can be opened in the Perform Exam window. If they are of different modalities, the studies will start and completed as before, even if the studies "Include" option is used. The only change is with the Preferred Radiologist. When a radiologist is assigned to one study it will be auto assigned to the remaining studies in the procedure plan.

The worklists have been enhanced to better identify which studies on the work list belong together in the report together procedure plan. When one of the studies from the procedure plan is selected on the work list, the other studies also part of the procedure plan will have their row color change to pinkish color. In the figure below you can see the Mammo study is selected on the work list and the US Breast study has a pink row color.

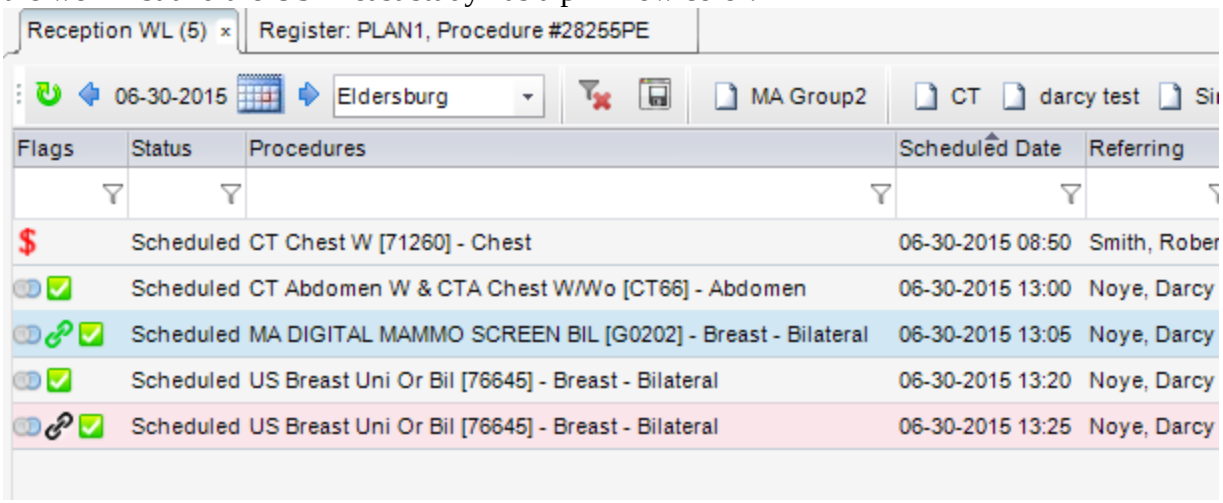



**Figure 5.70 – Row color of report together procedure plans change color**

Once the report together procedure plan has been completed by the Technologist and the studies are not in a status of Exam Done only the primary study will appear on the My Pending Dictation work list. If one or more of the studies needs to be PACS Corrected, none of the studies can be reported on, the option to open the dictate window will not be available until PACS Corrected = Y for all studies in the plan.

From the Patient Folder a user can select to dictate on one of the non-primary studies, but when the Dictate window opens, it will open for the primary study. The template loaded in the report

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

editor and the templates and macros available in the Template Browser data pane will also be based off of the primary study.

In the Patient History data pane in the reporting window, the same pinkish row color will be displayed when one of the studies selected from the report together procedure plan is selected. This is true also if the reporting window is opened on another study belonging to the same patient. Other configurable row colors remain the same. The current and selected study background and boarder will still appear.

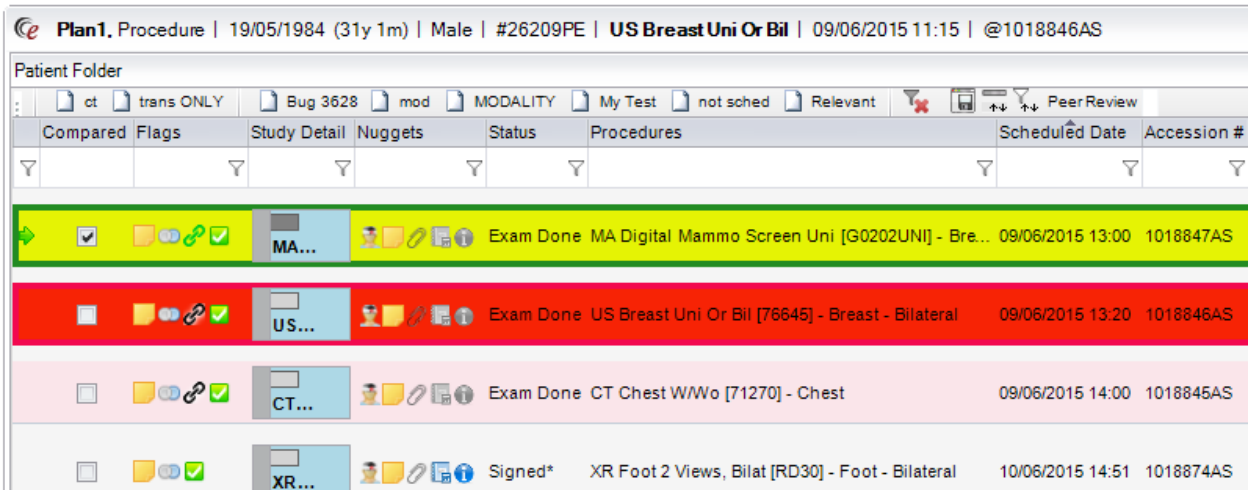



**Figure 5.71 – Patient History data pane**

PACS images will be opened for all studies belonging to the plan. These are not included in the count for user preference "Load Relevant Priors". Relevancy is also based off of the primary study only.

The exam status of the primary study will be reflected on the non-primary studies. Once the primary study status changes from Exam-Done to Report Drafted, from Report Drafted to Transcribed… right up to Signed status, so will the non-primary studies. If the primary study is Voided, the non-primary studies will return to a status of Exam Done and will need to be reported on again, or actioned to be cancelled (aborted or discontinue). If the "Delete Dictation/Report and Reset Status" is used, this will also change the status of the studies in the report together procedure plan to all be Exam Done.

Flags added to any of the studies in the procedure plan will also be copied over to the other studies in the plan. Flags such as Suspended, QA, Problem and Mark As Read will be applied to all studies.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

If one of the studies has the Supervising Radiologist, Assigned Radiologist or Assigned Editor added or changed, this will also be applied to all of the studies in the report together procedure plan.

The QA workflow will only look at the primary study. If a Radiologist or Editor is configured to have every 2nd study sent to QA, the report together procedure plan will only count as one study. So if a report together procedure plan has 3 studies in the plan, this will only count as one.

This is also true for the Daily Statistics counters. If the report together procedure plan has 3 studies that are dictated on, the counter will only count this as 1. Same is true for Signing counter and Editor statistics

Locking of studies post exam done will be that if one of the procedures is opened, it will lock the remaining studies in the procedure plan.

Editor polling will only open the primary study. The non-primary studies will be skipped over and the next available will be opened.

When viewing the final report from the Data Nugget or from the Preview/Print Report context menu option, the primary and non-primary studies will all display the same report.

Document Distribution will send one report based on the primary study. If a manual job is created, again the primary study will be used.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Show Patient Notes from Previously Merged Patients Notes

In build 45 we added a hyperlink to the bottom of the patient notes control, it will appear as a read only label when there are no previous patient notes, or an underlined hyperlink when there are previous patient notes.

When the user clicks the hyperlink, a dialog box pops up and will display the notes for all of the patients that were merged into the current patient, grouped under a header that shows the previous patient name, MRN, and the date of the merge. The user can then use the mouse to highlight the text they want to extract and press Control+C to copy the text to the clipboard so that it can be pasted into the notes section and saved.

All screens that allow the user to add patient notes have been updated with the new feature.

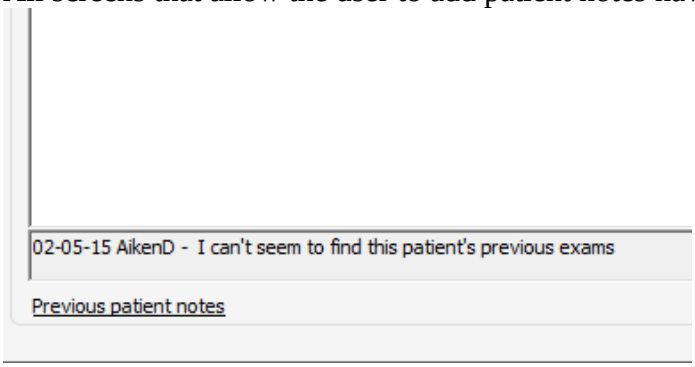



**Figure 5.72 – Hyperlink to access merged patient notes**

Selecting this hyperlink will open the Previous Patient Notes window.

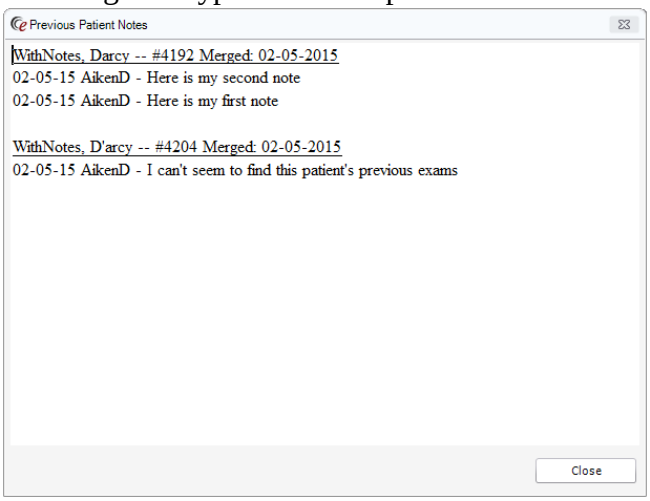



**Figure 5.73 – Previous Patient Notes window**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Enhanced Alternate MRN

The MRN grid on the patient tab has changed. We also moved the system MRN to be in the grid as well.

The Add/Remove options in the context menu have been removed as well as the buttons. The Grid will not have a "Click here to add a new row" option similar to other grids.

Adding and removing MRN rows is still controlled by the existing access strings, "**Clinical.AddMRN**" and "**Clinical.RemoveMRN**".

A special read only blue row has been added to the first position in the grid. This row is to hold and display the system issued MRN. The end user cannot edit or remove this row.

Support for applying masks to the MRNs has been added. There is a default mask that can be configured with the new System Configuration setting of "**DefaultAlternateMRNMask**" that has a default of AAAAAAAAAA.

The Issuer table also has a new column titled Mask so a mash can be defined for each issuer. The column.

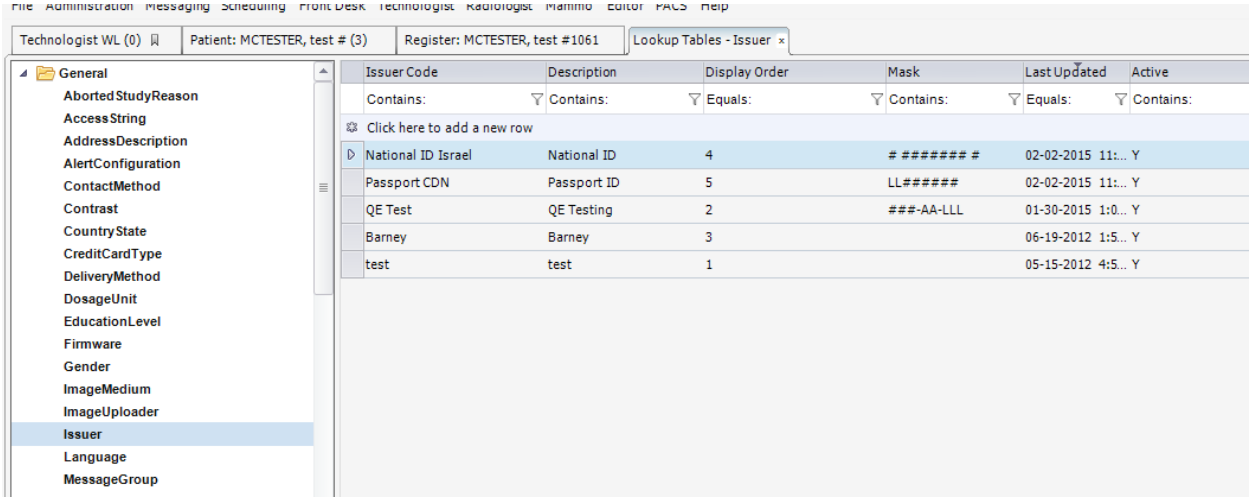



**Figure 5.74 – Mask column added to Issuer table**

Mask rules: # = number only, A = alphanumeric and L = alpha only.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Configuration Overbook Reason for Rooms/Modalities

The Modality lookup has been modified. It now includes an "Allow Overbook Flag". This flag defaults to "N". If enabled, the system will not prompt the user to specify a reason when there is already a procedure booked for the selected time on the scanner. The system will not enforce the overbook reason as a required field.

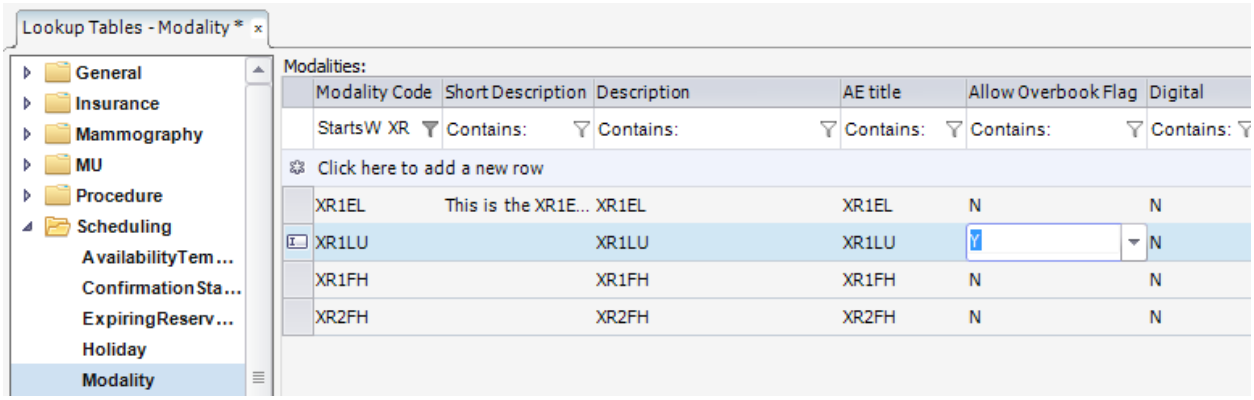



**Figure 5.75 – Modality table with Allow Overbook Flag added**

## New Walk-In Button on Patient Folder

As the title indicates, a new ICON has been added to the Patient Folder to open the Walk-In window.

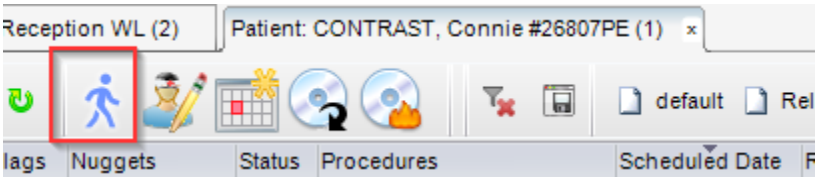



**Figure 5.76 – New Walk-In button on the Patient Folder WL**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## DOB Field Enhancements

Using the calendar control was a bit cumbersome and time expensive trying to find a date. We have enhanced this DOB field on the Patient tab so it is an intelligent date control which will hopefully save the user's time entering in the patient date of birth.

But we will leave it up to the customer to choose which they like to use. A System Configuration setting of "**ShowDOBCalendar**" has been added with a default of false. When set to true the calendar selection control will be displayed and available.

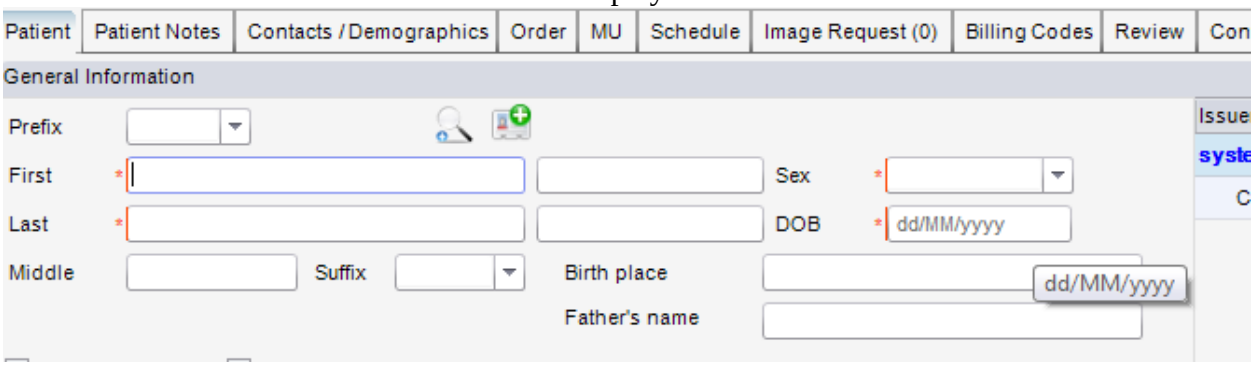



**Figure 5.77 – Changes to DOB field on patient tab**

## Quick Search Enhancement to Clear Search Criteria

When entering a text in to the Quick Search field for Patient, Internal Person, Site, etc… we can easily clear the contents of the search field using the X.

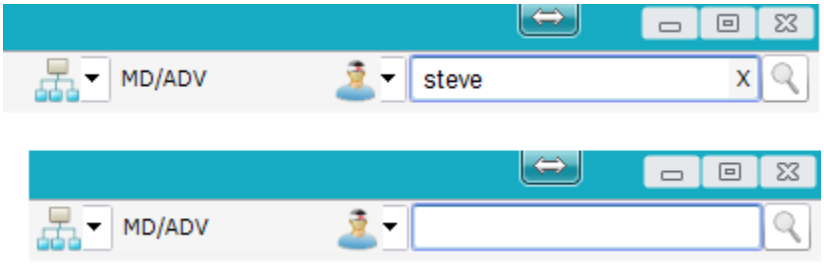



**Figure 5.78 – Quick Search with the X to clear contents**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Using Preferred Site Value on Reschedule

This feature works directly with the System Configuration setting "**ScheduleUsePreferredSite**". When rescheduling the procedure, the Site field in the Search Options on Schedule tab will be defaulted to the site value from the Preferred Site on the Order tab.

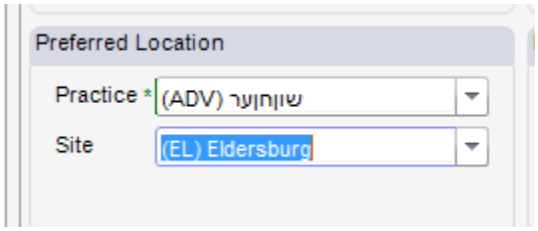



**Figure 5.79 – Preferred Site**

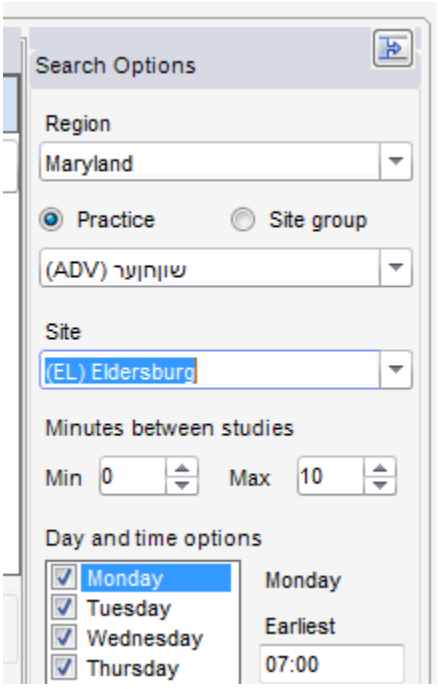



**Figure 5.80 – Search Options Site defaulted**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Add X Amount of Minutes to Walk-In Procedure

Walk-In has always been a "now" time. So when the Walk-In procedure was completed in the Walk-In window, the time of the exam would be current time.

We have added a new System Configuration setting of "**WalkinAddMinutes**" with a default value of 0, that will add time onto the Walk-In's scheduled start time.

For example, with the value set to 11 you can see in the figure below the Scheduled Time is 11 minutes more that current time

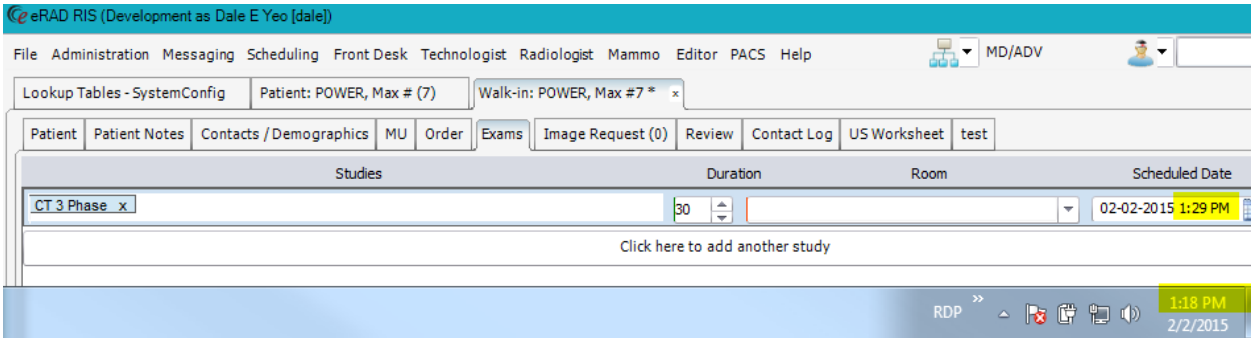



**Figure 5.81 – Walk-in time increased by system configuration setting**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Issuer of ID Added to Existing Order Window

Added a new column to the existing orders dialog box that appears when scheduling and appointment or creating a Walk-In for a patient that has orders to be scheduled. The new column has the caption "Order Source" and will show either the value of the "issuer_of_placer_order_number" column in the order (when specified, this is generally the emr code), or the system configuration value for RISOrderSourceDescription (generally "RIS") for an internally generated order.

If the "issuer_of_placer_order_number" matches an EMR code in the EMR lookup table, the tool tip for the Order Source column will show the full description of the EMR as well as the EMR code.

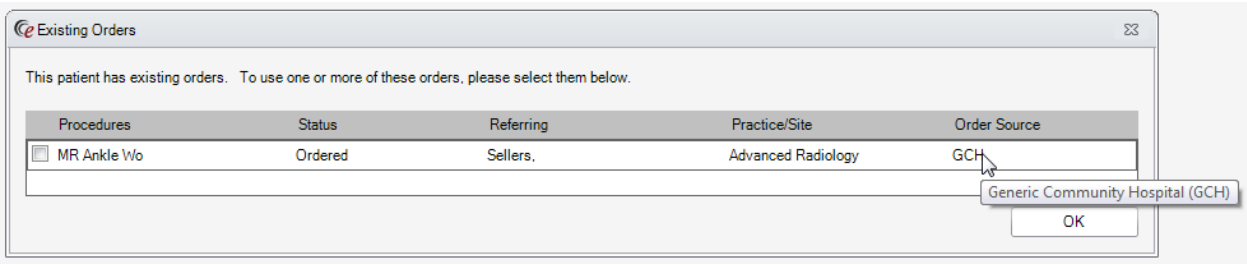



**Figure 5.82 – Existing Orders window with Order Source column added**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Support Automated Appointment Reminder Opt Out

Some patients do not want to have automated appointment reminders. A new checkbox “Do not send reminders” has been added on the Patient tabs, Contact Information data pane.

This will store this field at the patient level. During Implementation, RADAR will still need to reference this flag.

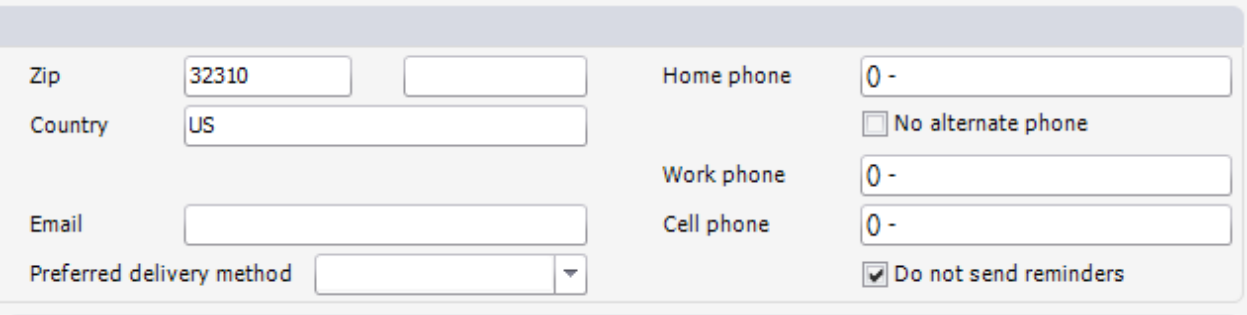



**Figure 5.83 – Checkbox for Do not send reminders**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Order Notes added to MU Tab

The order notes field has been added to the MU tab. As with the Order Notes field on other tabs, it will adhere to the configuration set for Autotext in the  Log Control lookup table

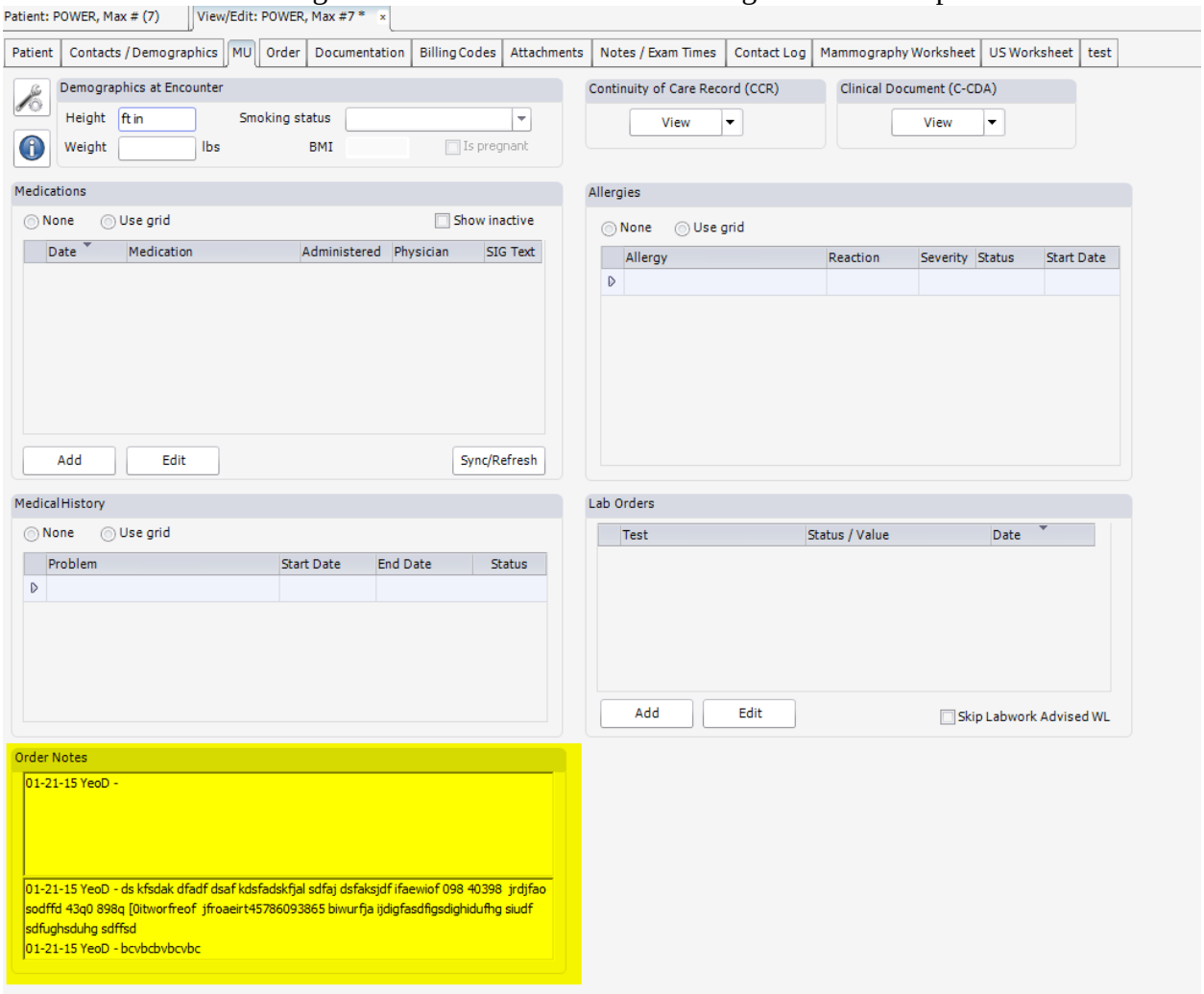



**Figure 5.84 – Order notes on MU tab**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## New Diabetic Medications For MU

Added 4 new diabetic medications to the Quick add/edit screen (Jentadueto, Invokamet, Kazano and Xigduo). Corrected the two medications that were identified as needed corrected (ACTOPlus Met changed to ActoPlus Met and Kombiglzexr changed to Kombiglyze XR). Created a db script that will need to run that will update the c_patient_medication table changing the drug_name from Kombiglzexr to Kombiglyze XR.

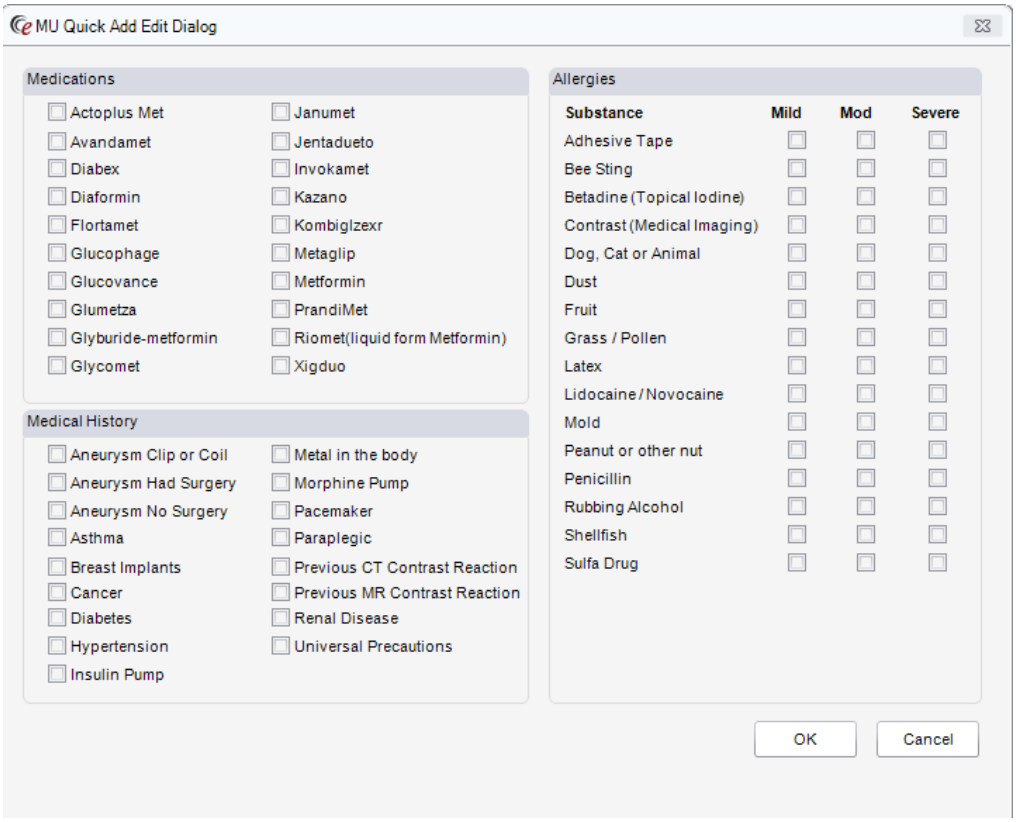



**Figure 5.85 – Quick add edit window displaying additions and changes to Medications**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Effective Date for Height and Weight

With the pre-existing System Configuration settings of HeightRequiredOnArrival, WeightRequiredOnArrival, HeightRequiredOnSchedule and WeightRequiredOnSchedule configured it was making it difficult to check the patient record in the Scheduling or Registration windows if the patient wasn't there at the time. The user would be prompted to complete this data and couldn't save.

We have added 2 new System Configuration settings.

"**HeightRequiredEffectiveDate**" which has a default of "1999-01-01"
Date to define when to enable checking if height is required when scheduling or arriving the patient"

**"WeightRequiredEffectiveDate"** which has a default of "1999-01-01"
Date to define when to enable checking if weight is required when scheduling or arriving the patient"

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – Embedded Audio Recorder

We implemented a new recorder, which can be used by choosing the "eRAD" option in his user preferences. This option is controlled by access string "**Config.AllowEradReportingIntegration**" which has a default of None

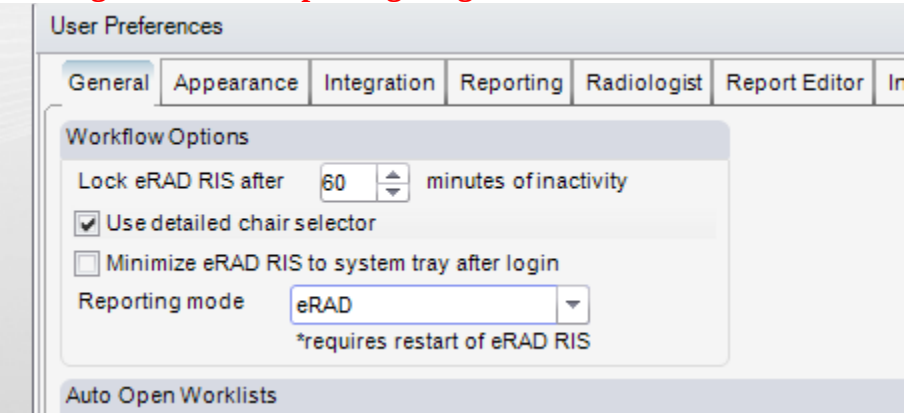



**Figure 5.86 – New user preference**

This new recorder will support record, pause, stop, playback, rewind, fast forward and show playback position (1:40 of 3:22).

Other User Preferences currently supported are Resume playback after rewinding and Insert/overwrite dictation.

It is recommended user then restarts eRad RIS for changes to take effect, and for their previous modes to be uninitialized. Once this change has been made, the user would not notice or see anything different than if they were running in batch mode. The only real differences would be that there is no batch process, audio must go to MTs for transcription and that the report tab in the dictation screen would now say "Digital Audio Report".

Current limitations are a user would not have auto save reports/recovery or the ability to set playback speed wouldn't yield any results.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting – eRAD Report Editor

With the audio recorder we also need to build our own report editor. The report editor would need to be seamless when changing from one editor to another, meaning not losing any functionality. The functionality of the editor will be explained below

**Shortcuts** – All relevant shortcuts have been added. For more information on shortcuts please reference the Shortcuts.docx document

**Command bar** – All relevant buttons have been added. Tooltip values are also present

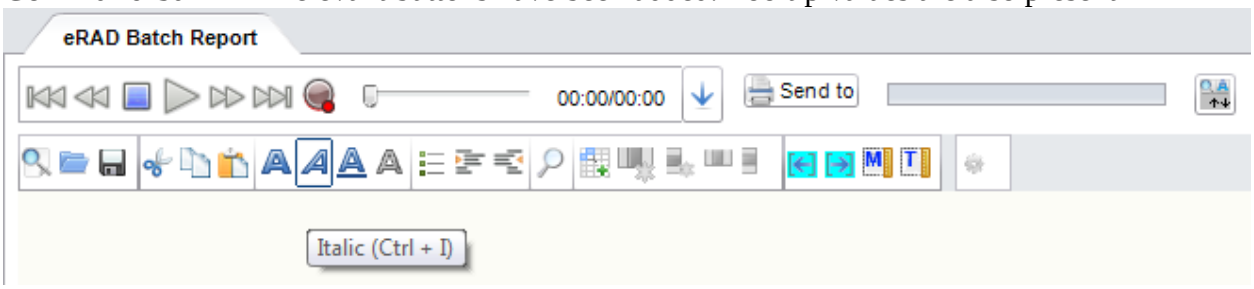



**Figure 5.87 – Command bar**

**Custom Colors in Editor** – The editor will support colors for Font, Background, Field Background, Template Text, Macro Text, Radiologist Edit Text, Transcription Edit Text and QA Edit Text. Also Font Size is available.

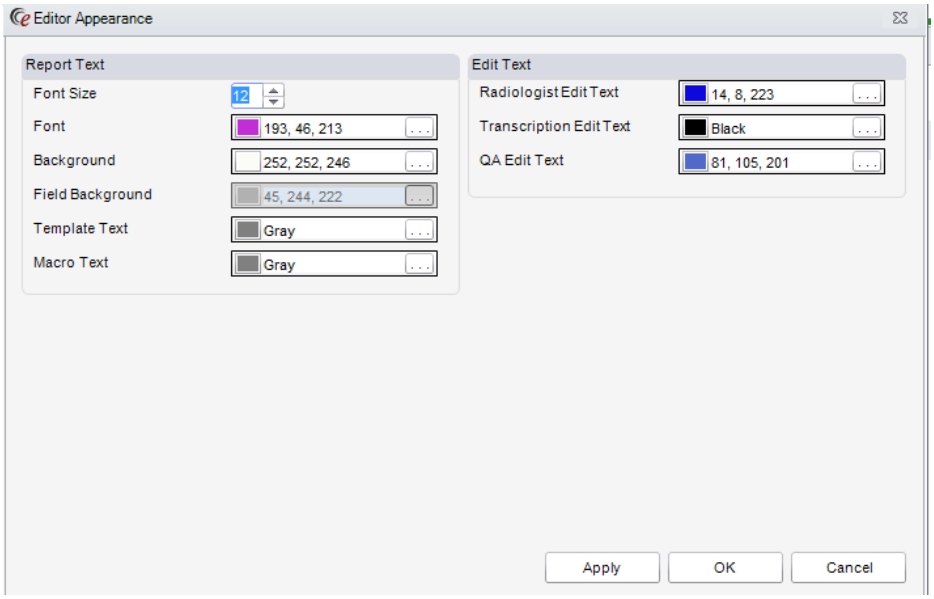



**Figure 5.88 – eRAD Editor Appearance**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

**Text Expander** – A file called TextExpander.txt is used to create a user specific file <userid>_TextExpander.txt.

We will load all those entries into the editor when we create one assuming the user's preference for text expander is set. We read the file and add every line item one by one. We've seen this take as much as 160ms, on initial load, but this is with many other things trying to load for the first time and accessing the disk. After the initial load we see values around 20ms, which doesn't seem to fluctuate much based on the size of the file. We tested as big as we deploy, and as small as 1. Difference was not measurable in load time.

**Next and Previous Field Navigation –** When the template loaded has multiple fields, users will be able to navigate to next and previous fields by use of the mapped buttons on the SpeechMike, the arrow keys on the keyboard, next and previous field buttons on the command bar and using the Fields data pane.

**Tables and Columns in Reports** - New tables can be added via right click content menu option or toolbar button.
We provided the same control that will create default table of 3 columns and 2 rows. This can be modified at the time of table creation or after.

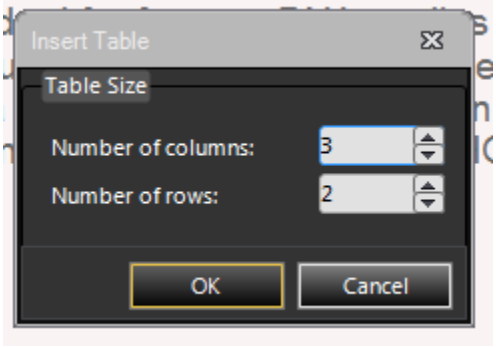



**Figure 5.89 – Insert tables**

After the table is inserted and the cursor is focused in the table more options will be available to the user in the toolbar and the context menu. These options include Insert Column, Insert Row, Delete Column and Delete Row. There are four options only available in the context menu and they are Insert Column Left, Insert Column Right, Insert Row Above and Insert Row Below.

The pre-existing access string of "**Clinical.CreateTableInReport**" which has default of Full is used to control user access to insert tables into a report.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

**Base template support -** In the template/macro lookup editor, we now have a type for "Base Templates" which is only available when the editor type is set to "eRAD". These base templates are created just like any other templates.

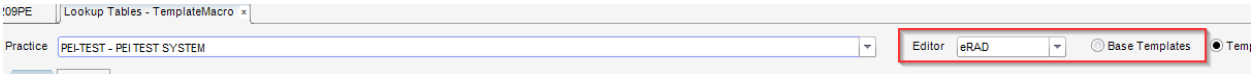



**Figure 5.90 – Creating base templates for eRAD reporting**

These base templates are created just like any other templates with a couple exceptions. They can only be assigned to practices and you do not have the options to set it as template/default/normal. One of the benefits with the eRAD Base Template, is that you can include fields that will be driven by data which you could not do with our M*Modal implementation. This is a great way to produce advanced custom reports quickly and consistently.

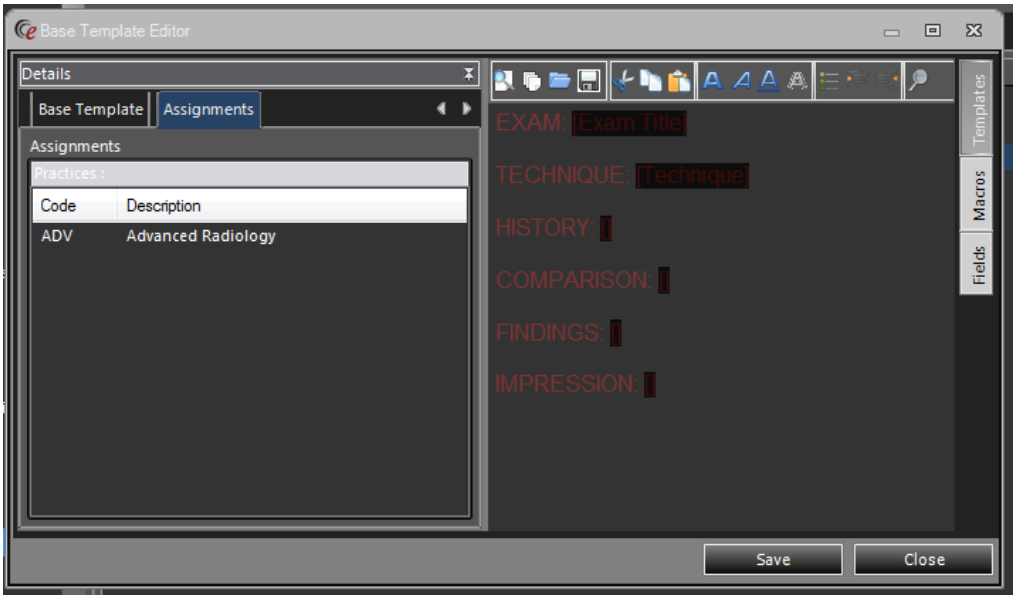



**Figure 5.91 – Creating base templates**

When the user then creates a template, they will have the option to choose a Base Template in the same dropdown used by M*Modal users, this dropdown will populate based on the selected Practice on the same screen. Unlike with M*Modal the user does not require base template in order to save, it is purely optional.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

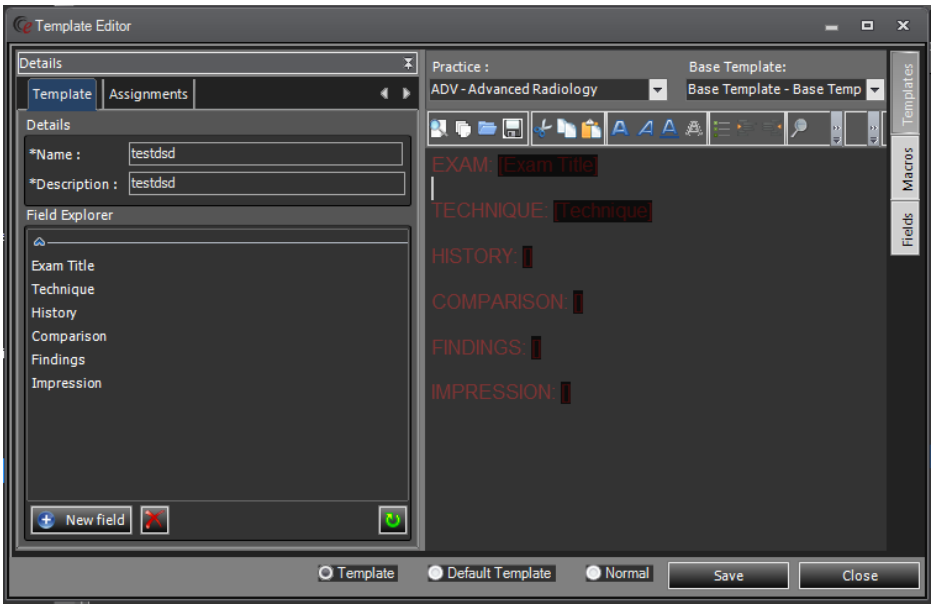



**Figure 5.92 – Base template not required**

Something to note is that we REQUIRE a base template be created for ADDENDUM it should be named "ADDENDUM" and will be used by code to support addendum workflow. Similar to how in M*Modal we required a pair of Base Document Models to support basic workflow.

**Create template from report to support Auto Macros** - We insert bookmark around the field before we populate it, we then use those bookmarks to reconstruct the field when we create a template from the report.

**Advanced menu for reporting window -** A new menu bar with more functionality which can be added to the editor pane at runtime by the user has been added. If the user does not have the correct access, which is "Full", the code removes the menu item from the context menu.

To enable the editor's advanced menu, right click in the editor window to bring up the context menu, and then select the "Editor Advanced Menu" item. This will insert a new menu bar with more functionality above the existing one. To remove the advanced menu, simply bring up the context menu again by right clicking in the editor pane and select "Editor Advanced Menu" to toggle visibility.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

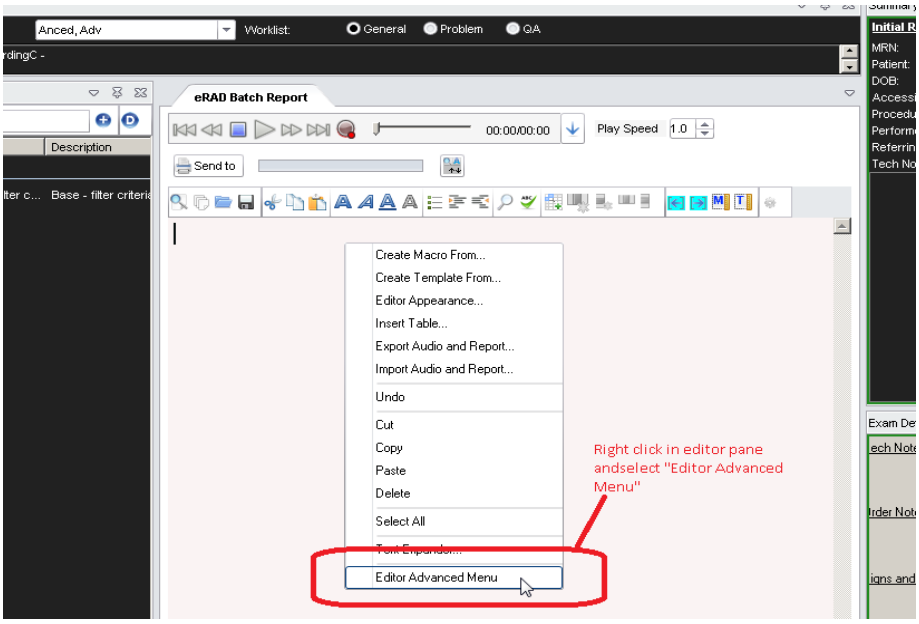



**Figure 5.93 – Access to Advanced menu**

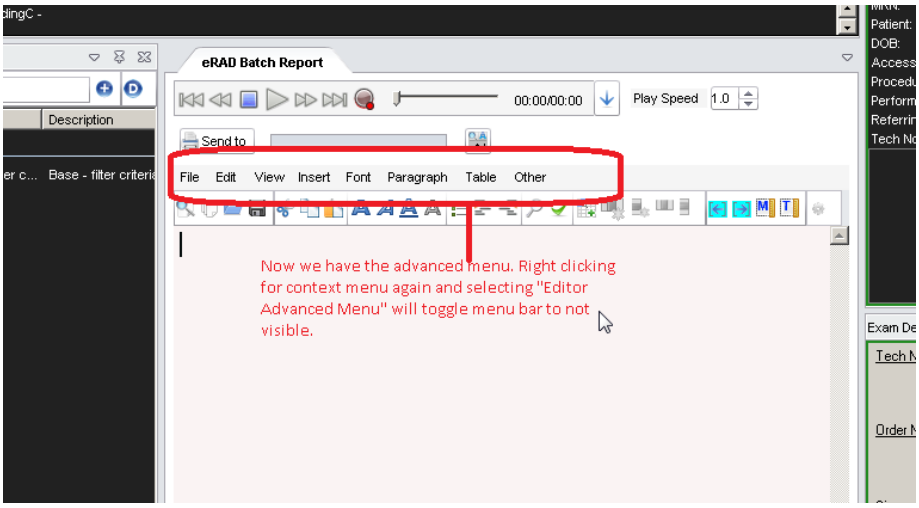



**Figure 5.94 – Displaying advanced menu**

**Support Auto Save in eRAD Editor** - With the new editor control, we need to make sure we can support existing auto save functionality so that when RIS crashes or is terminated, then the user would be prompted to reload reports that were in progress on login.
One thing we needed to do with this editor was to disable its automatic backup feature. When the report was saved over an existing file, it would create a <filename>.BU backup of the existing

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

file before overwriting it. This caused errors as our auto save feature would try to parse these files as unique auto saved reports and would start searching for accession numbers with a .BU suffix.
This feature is only really complete once Feature #7864 is completed, as it takes care of the audio recorder part of this feature. Right now we are having some technical difficulties with that one, it might get delayed into another build.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## General Reporting – Add Editor Appearance Preferences to User Preferences

This screen was available through the right click context menu on the report in the Radiologist/Transcription screens. We changed it a little mostly sizing and alignments so that it would match that of the user preferences screen. We also changed the buttons; we now have an Apply, OK and a Cancel button.

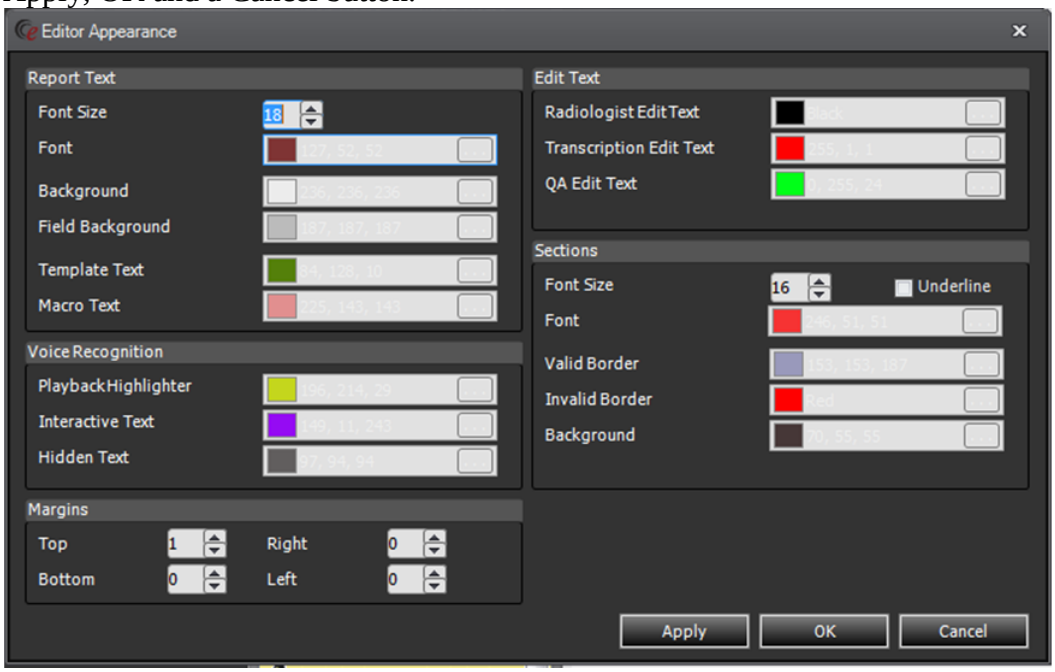



**Figure 5.95 – Editor Appearance**

We then injected them into the user preference screen under the "Report Editor" tab. These are the same control as the above screen they are being reused in this screen. If the user is using eRAD reporting then the "Margins", "Sections" and the "Voice Recognition" groups will not be visible neither from the "User Preferences" screen nor the "Editor Appearance" screen.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

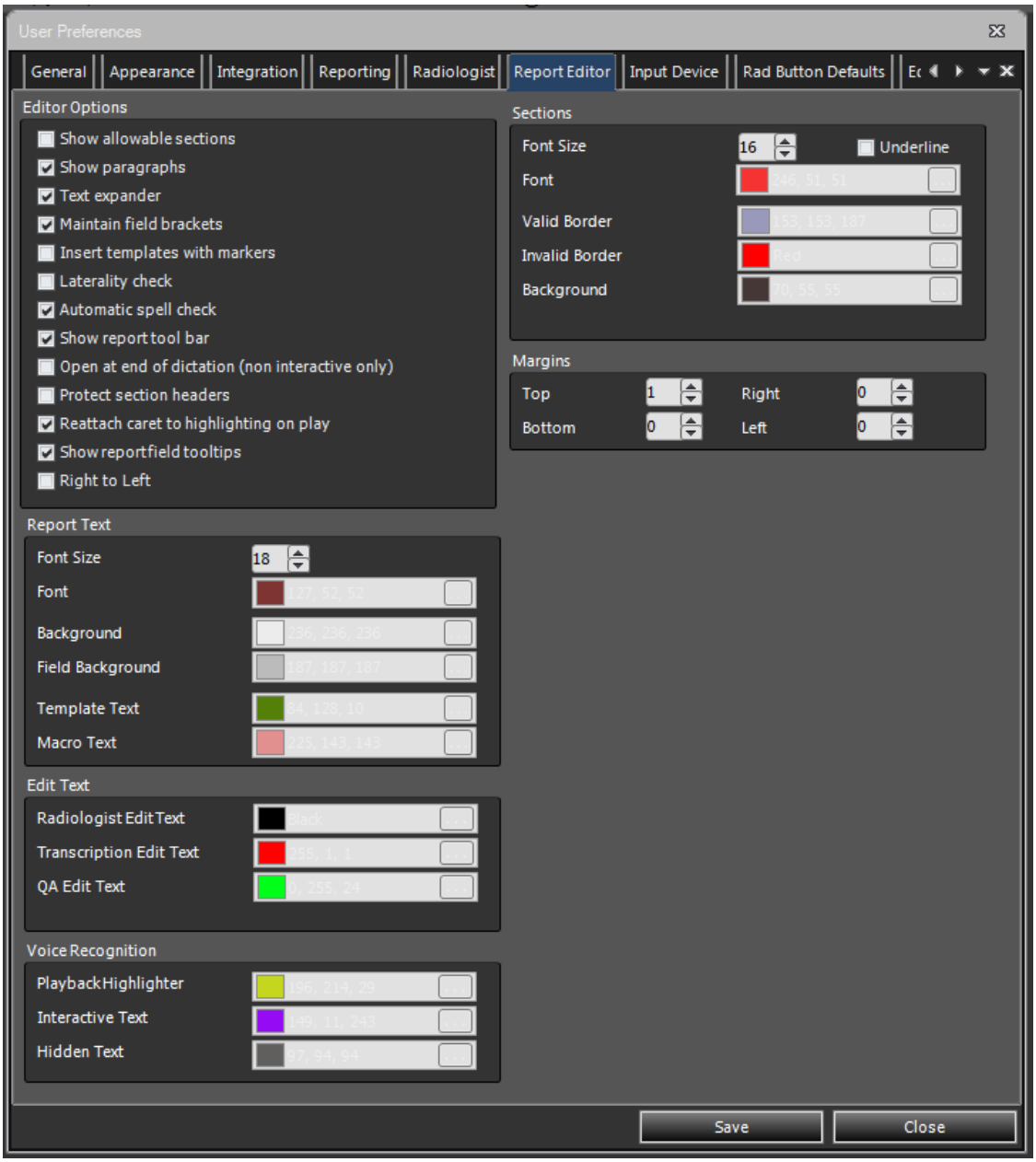



**Figure 5.96 – Editor Appearance in User Preferences**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## General Reporting – Permissions for Report Integration Types

Current report integration types are:

1. eRAD (New type as of build 45 which includes it's own editor "TEEdit" and it's own basic dictation playback/recording device "MCI")
2. External (used to be None)
3. M*Modal
4. PowerScribe 360

The following access strings determine the integration type will be available to be selected in the User Preferences>General> Reporting Mode options

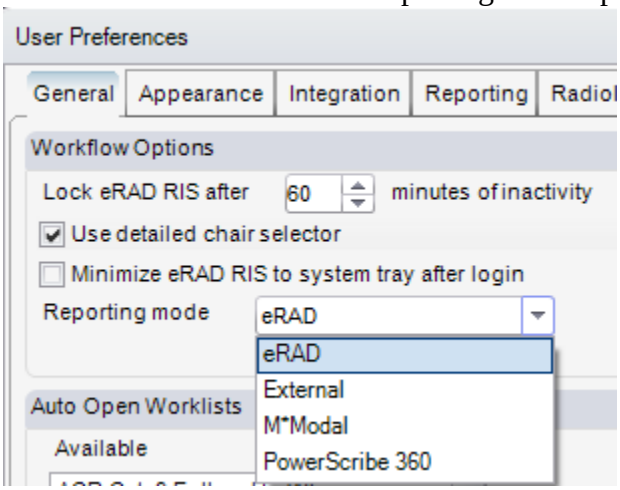



**Figure 5.97 – Reporting modes**

1. **Config.AllowEradReportingIntegration** – has a default of None. Controls access to eRAD reporting mode.
2. **Config.AllowExternalReportingIntegration** – has a default of None. Controls access to External Reporting Mode.
3. **Config.AllowMModalReportingIntegration** – has a default of Full. Controls access to MModal reporting mode
4. **Config.AllowPowerScribeReportingIntegration** – has a default of None. Controls access to PowerScribe 360 reporting mode

A new system configuration setting of "**AllowedReportingIntegrationTypes**" was added to control which reporting modes are available in the system. The default value for the setting is 15. The value is the sum of desired types where External = 1, MModal = 2, PS360 = 4 and eRAD =

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

8. So a value of 10 would mean that both eRAD and MModal are allowed. 15 means all are permitted (1+2+4+8=15).

In the template/macro lookup editor, we now have a drop down to identify which editor we are working with (MModal or eRAD integration). This drop down will default to the editor based on the users reporting mode. The default will always fall back to MModal if it's an available option assuming the user is using neither reporting integration types. It will also only load the values in the drop down if the system config setting and the access string allow for it or if the user is still on a no longer allowed mode. When only 1 value exists in the drop down, the drop down will not be shown.

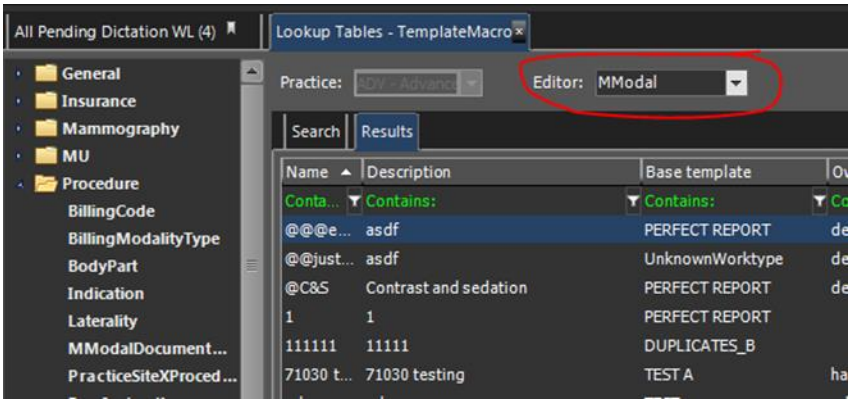



**Figure 5.98 – Template/Macro defaulting to reporting mode**

If the configuration is such that neither MModal nor eRAD Reporting is permitted, then the Template/Macro editor will not open. It will display the following message "The current system configuration doesn't support this lookup editor."

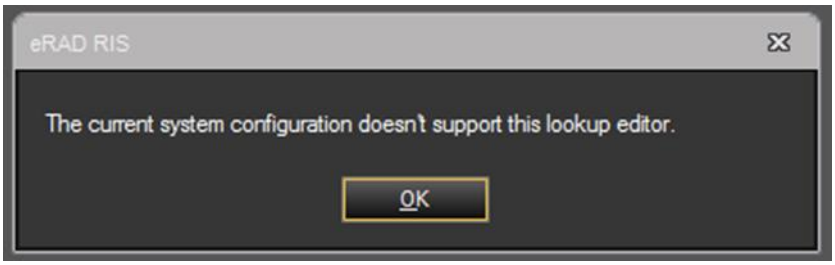



**Figure 5.99 – Message is not configured for MModal or eRAD reporting**

We are now hiding the "Interactive" and the "Interactive info prompt" group boxed in the "Radiologist" tab and the "Voice Recognition", "Margins" and "Sections" group boxes under the "Report Editor" tab for user preferences when the user is using the eRAD integration type.
We changed the text of the report tab on the reporting screen as follows…

- "Interactive Report" is now "M*Modal Interactive Report"

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

- "Batch Report" is now "M*Modal Batch Report"
- "eRAD Batch Report" is a new mode that didn't exist before.
- "Report" for other modes like External or PowerScribe 360

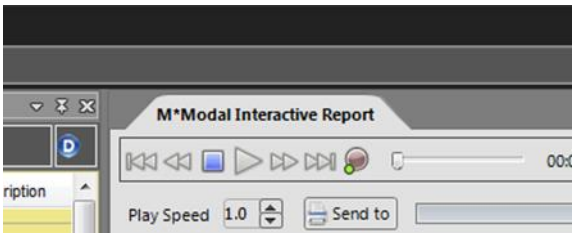



**Figure 5.100 – MModal added to tab name when reporting mode is MModal**

## General Reporting – Custom Field for Modality Description

We added a new custom field in our list of custom fields that maps to the current study item modality report description column. The report description column is set in the Admin>Scheduling>Modality table.

If this value is empty nothing will be placed into the diagnostic report field.

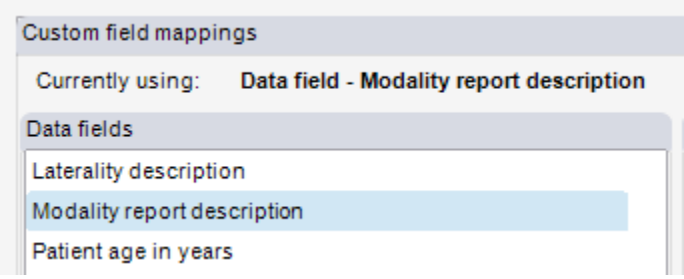



**Figure 5.101 – Modality report description custom field mapping**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## General Reporting – Insert Template in the Template Editor

In the template editor we added a tab on the right hand side that will expand with the list of templates. User double clicks on one and the template will replace all the text in the current editor. We do not merge the documents. This is simply a way to get started using another template.

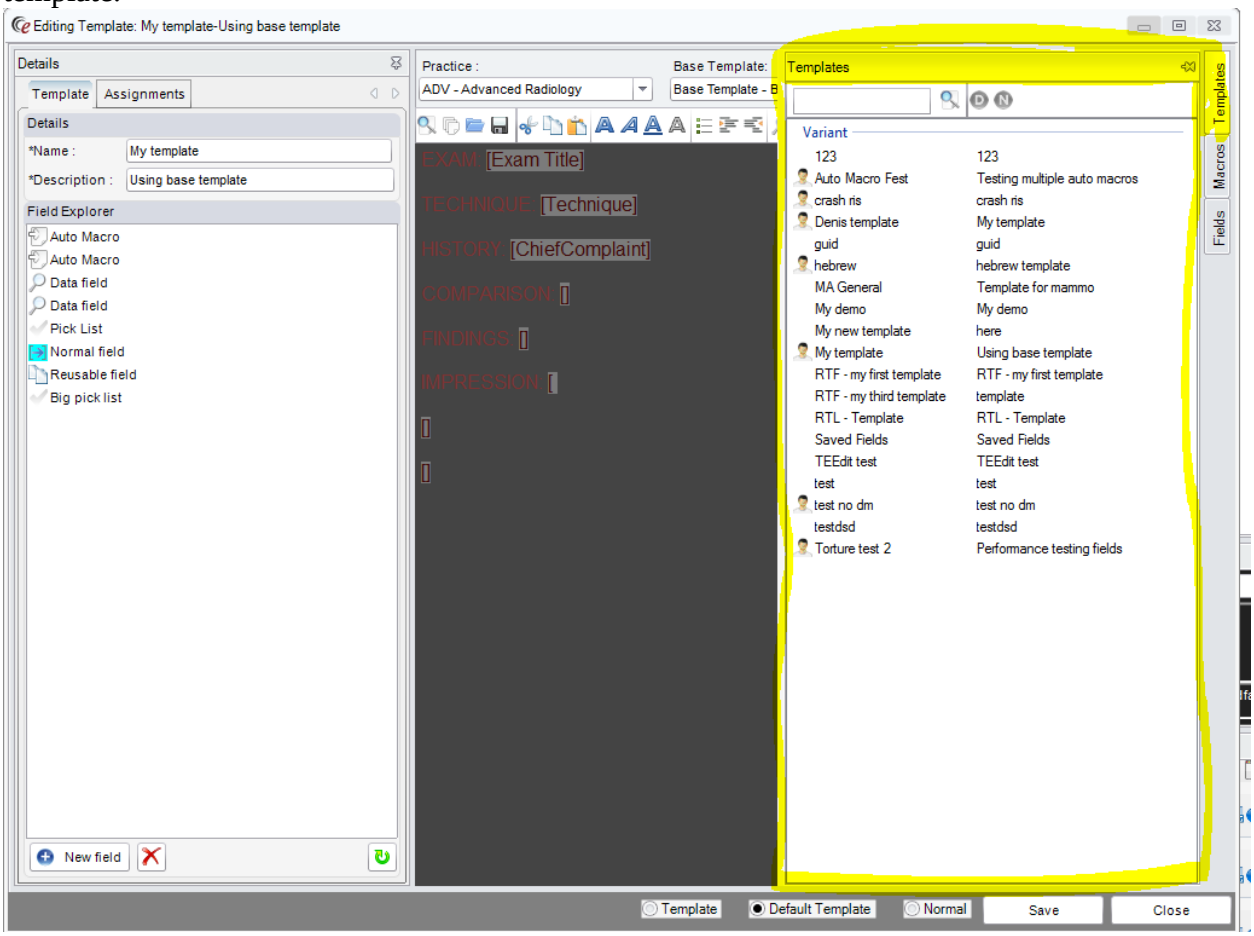



**Figure 5.102 – Inserting existing template into new template**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## General Reporting – Support Pick Lists in Report Editor

We created a new field type called pick list. This option will be available when creating a new field. The field can be named and will show in the field editor as this name.
Users can add option to the pick list type of field and set the following properties on the pick list option.

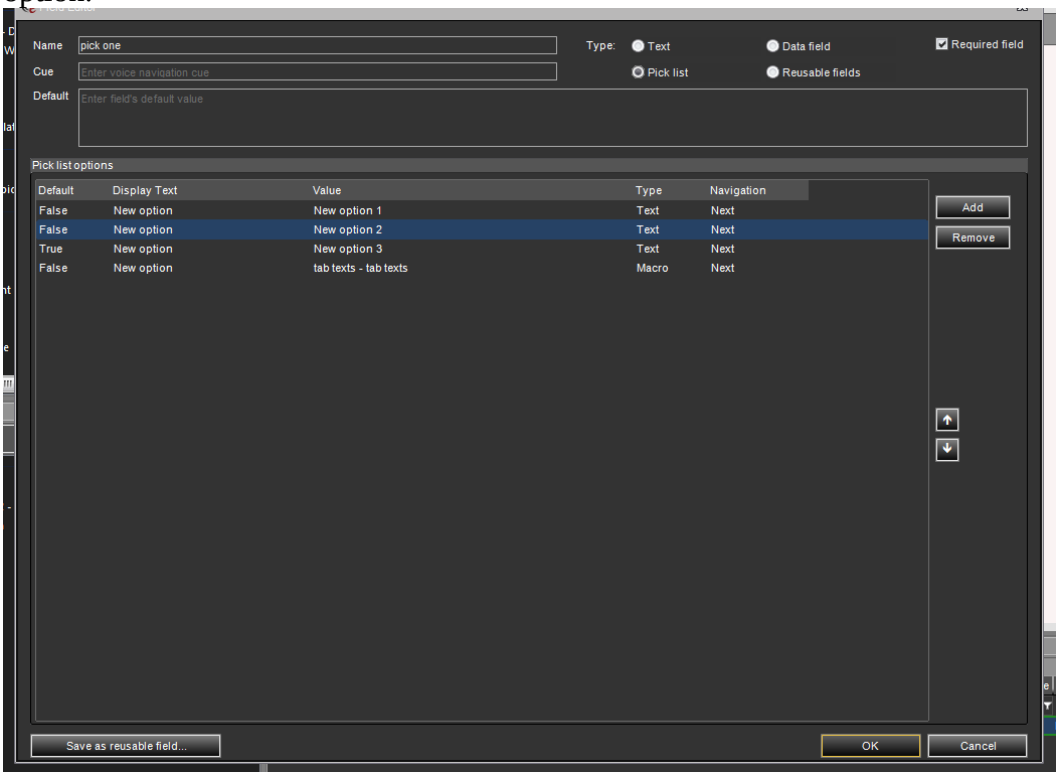



**Figure 5.103 – Pick lists**

**Default** – this will determine if the option will be inserted by default when the pick list is first loaded. This default option will be highlighted when the cursor is located in the field.
**Display Text** – this column will be what the users see in the first column of the "Pick list options" in the "Fields" tool window. Meant to be a short descript name.
**Value** – this column will be one of two scenarios.

- **Type** = "Text" we will simply put this text directly into the field as text.
- **Type** = "Macro" we will try to locate a macro matching on the text entered into the value column. If the macro is not found we will indicate to the user as we do similar to xKeys insertion.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

**Type** – this column will drive the previous value setting. The default for this option is "Text". There are only two options currently "Macro" and "Text".
**Navigation** – this column will determine where the cursor and selection is placed after selected the option. It is a drop down with the following options.

- "Next" – default option will move to the next valid field in the report. Similar to click the next field on the speech mike or shortcut
- "None" – will not do any additional navigation after option selection
- "Previous" – navigate to the previous field

We have the ability to remove an add items in the pick list.
We have the ability to sort the options which is how they will display to the user when creating reports.

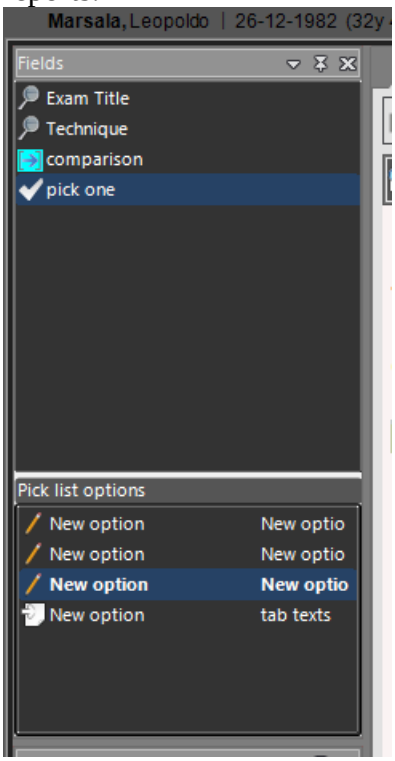



**Figure 5.104 – Adding and removing from pick list**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## General Reporting – Technologist Name as Report Field

We added a new custom field that can be mapped into the diagnostic report that will contain the performing technologist if available.

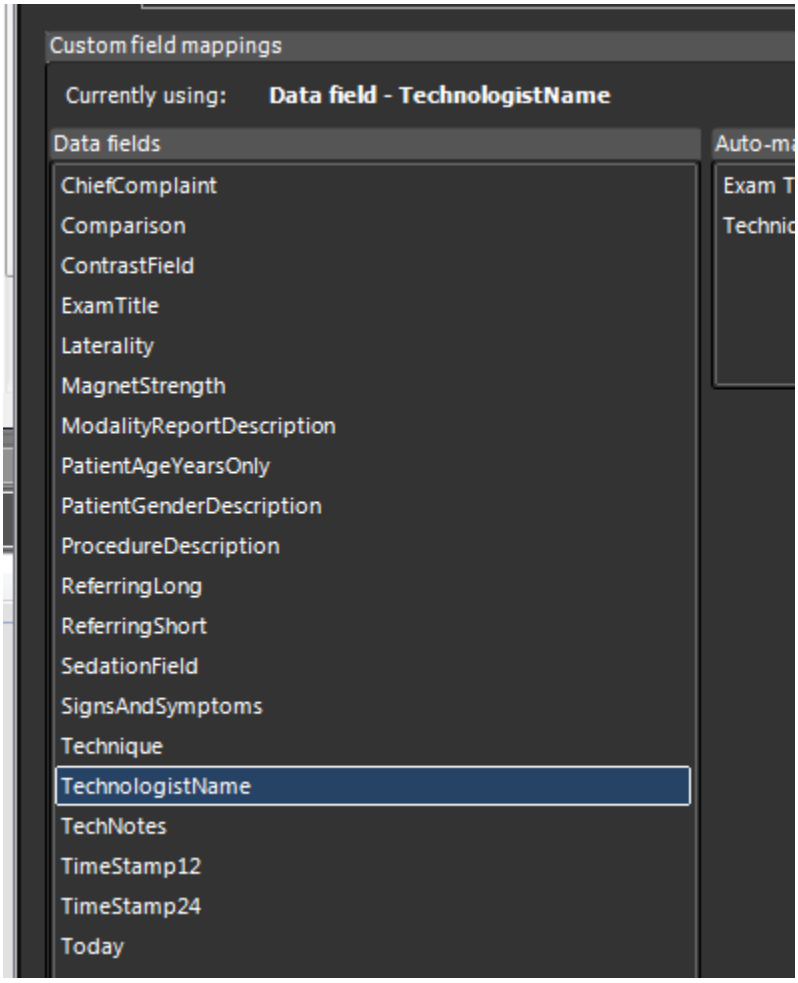



**Figure 5.105 – Tech name as custom field**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## General Reporting – Support DEXA Reporting

Persistence of DEXA values is done in the eRAD RIS database in the c_study_item_dexa table. There will be one row per study item in this table. Typically one row per study until the system supports multiple study items per study.

Loading these DEXA values into the diagnostic reports is done via the template/macro manager tool. In this tool fields can be added and then mapped to the specific DEXA value(s). Current DEXA study values map the field directly to the c_study_item_dexa table. For previous DEXA study values map the field to the c_study_item_dexa_previous table.

Note that we populate the previous dexa table based on performed end date. This will also populate for unsigned studies as it was a performed DEXA exam.

Allowing technologists to create the report prior to the radiologist opening will be addressed in Build 45.1.

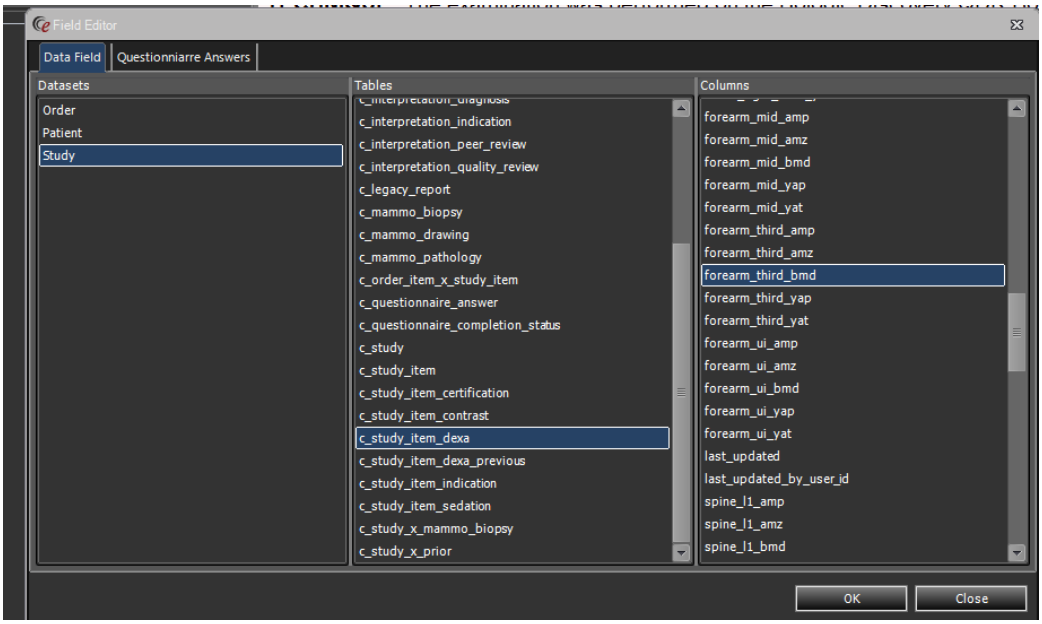



**Figure 5.106 – Support for DEXA reporting**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## General Reporting – Zip Code Added to Signed Reports

The reading location zip code has been requested to be displayed in the report. The zip code is of the reading radiologist is captured in the County Selector or Chair Selector windows.
Chair Selector is enabled in the Practice table, where the County Selector is enabled with the System Configuration setting of "**EnforceCountySelection**" with a default of False.

A new System Configuration setting has been added titled "**EnforceZipcodeSelection**" which has a default of False.

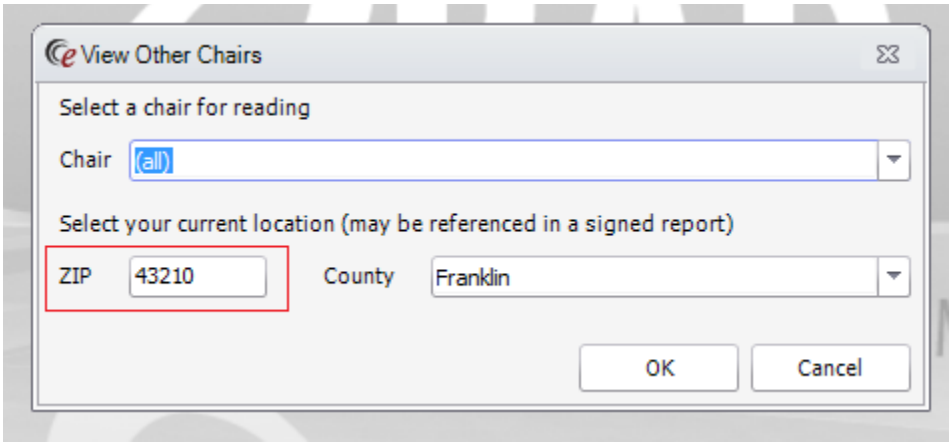



**Figure 5.107 – ZIP for report and can be a required field now**

When the setting is turned on, the user must enter a zip code before reports can be signed. The selected zip code will then be saved when the report is signed.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## General Reporting – Restrict Exam Dictation to Associated Practice Only

We now check the practice code of the study and validate if the radiologist is associated to that practice. If not associated the dictate and sign button will be disabled.

Worklists needed to include the practice code column so the appropriateness checks would function properly. This was mainly a change in the worklist views with the addition of a store procedure used to get the My Signed By Date WL.

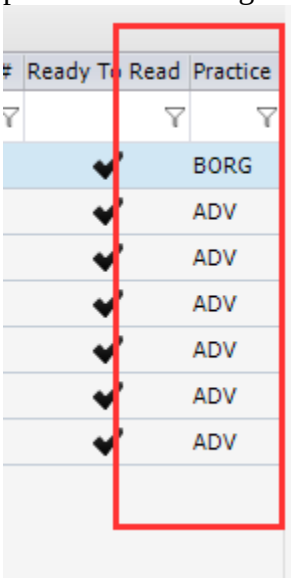



**Figure 5.108 – Practice column**

If using the feature "Report on accession number" (inbound reporting) we check the practice code while opening the dictation screen and indicate to the user they do not have rights to open the study.

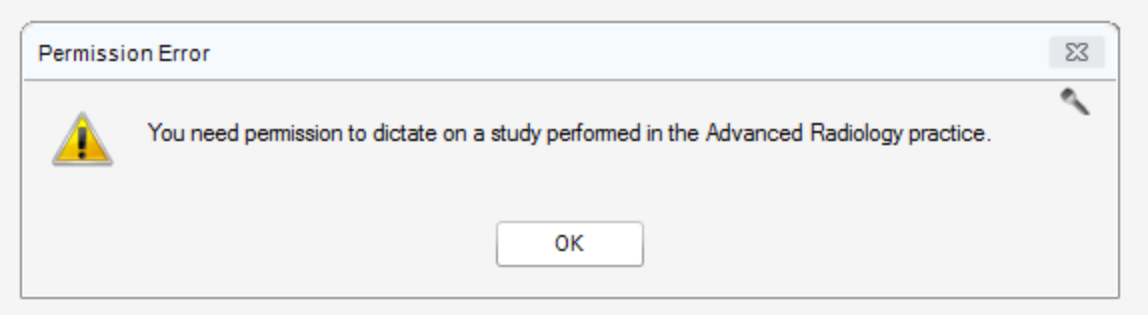



**Figure 5.109 – Message informing cannot dictate because not assigned to practice**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## General Reporting – Show Only Assigned Studies on My Pending Dictation

The Pending Dictation (My) WL in eRAD RIS returns all studies assigned to the logged in user and studies not assigned to anyone.

We added a new practice level setting "Show unassigned studies on Pending Dictation WL". This new setting is default to true (Y) which will replicate pre-existing WL functionality.

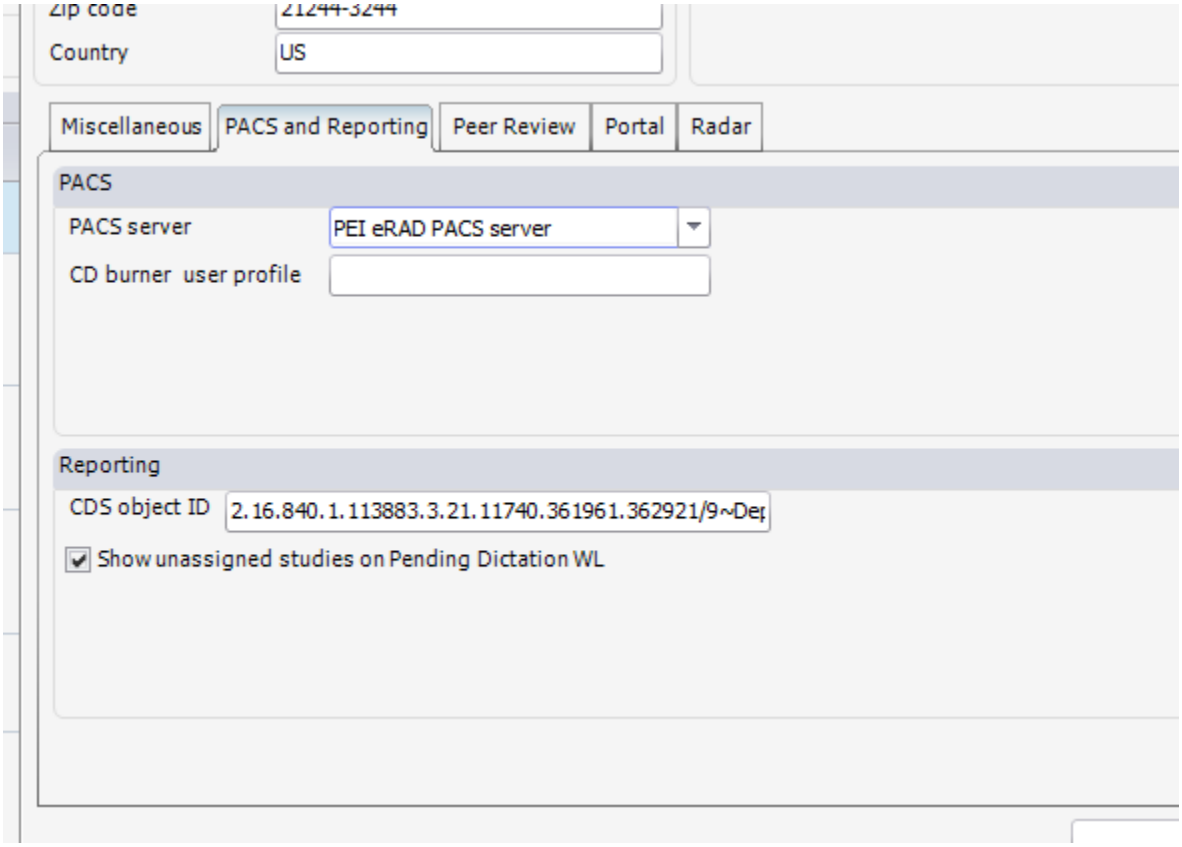



**Figure 5.110 – Preference on practice to show/hide unassigned studies on Pending Dictation**

If the practice chooses not to include unassigned studies on the Pending Dictation WL they can turn this setting off.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## General Reporting – Assign Radiologist to Procedure Code Group

A new lookup table of ReadingGroup has been created and resides under the Procedure directory of the Configure menu.

We created a new custom editor to maintain this feature, it allows to see users/reading groups and procedures all on one screen with the ability to add/remove users and procedures from reading groups as well as creating and deleting reading groups.

The editor will open up as follows, it will list the reading groups in the top left grid, with the user assignments grid bellow, and the procedures on the right.

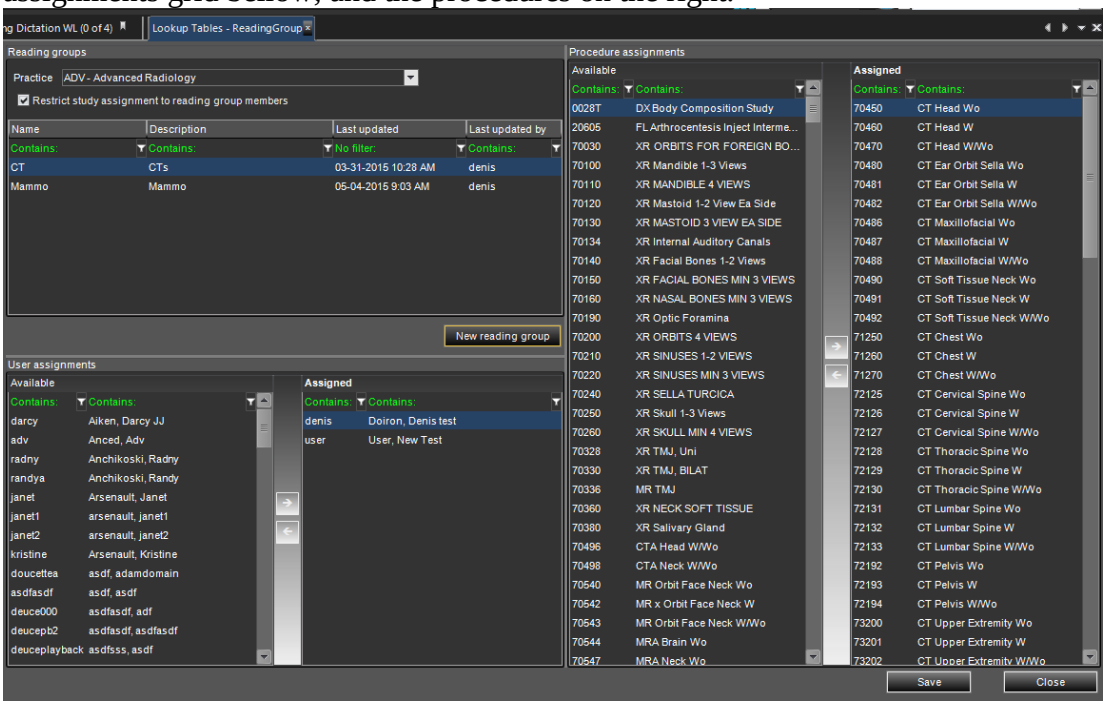



**Figure 5.111 – Reading Group lookup table**

When they choose to create a new reading group, they click the “New” button and a popup form will show asking for the name and the description of the reading group. These fields have validation and the “OK” button will only enable when they pass validation. Hovering over the red exlamation mark will provide information on why it isn’t passing validation.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

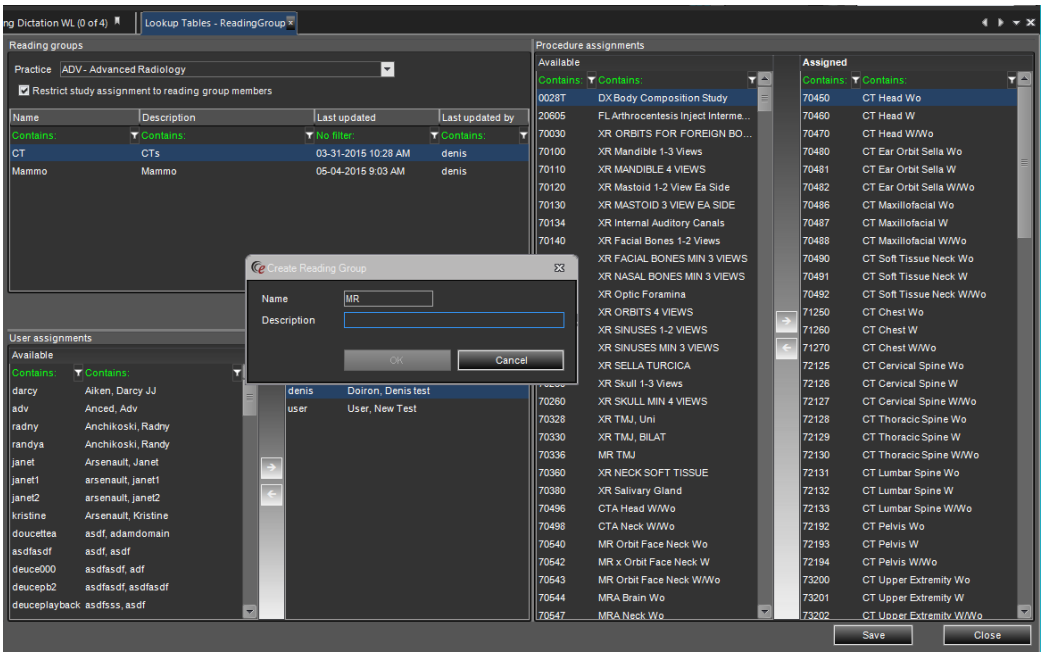



**Figure 5.112 – Reading Group**

The assignments areas are 2 separate grids, one showing the available items, and the other showing the selected items for this reading group. The user then moves item between them either by double clicking items, or using the arrow button between the grids until he/she is happy with the assignments. The user can create or modify multiple reading groups then click “Save” to commit changes to the database.

Users can be assigned to as many reading groups as desired, but procedures can only be assigned to 1 reading group per practice. Once a procedure is assigned to a reading group, it will no longer be in the available list for any other reading groups in that practice.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

From this screen we can also control which practice will limit radiologist assignments to members of appropriate reading groups. This is controlled with the checkmark under the practice selection control.

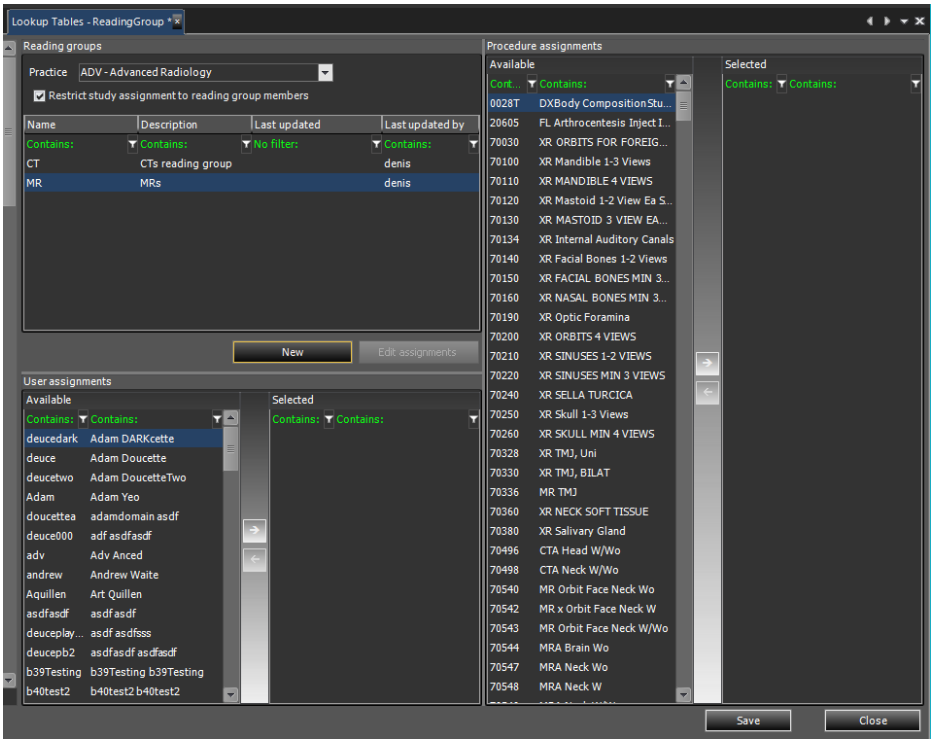



**Figure 5.113 – Reading Group lookup table**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

This is also available to be configured in the “Add/Edit Practice” screen under the “PACS and Reporting” tab.

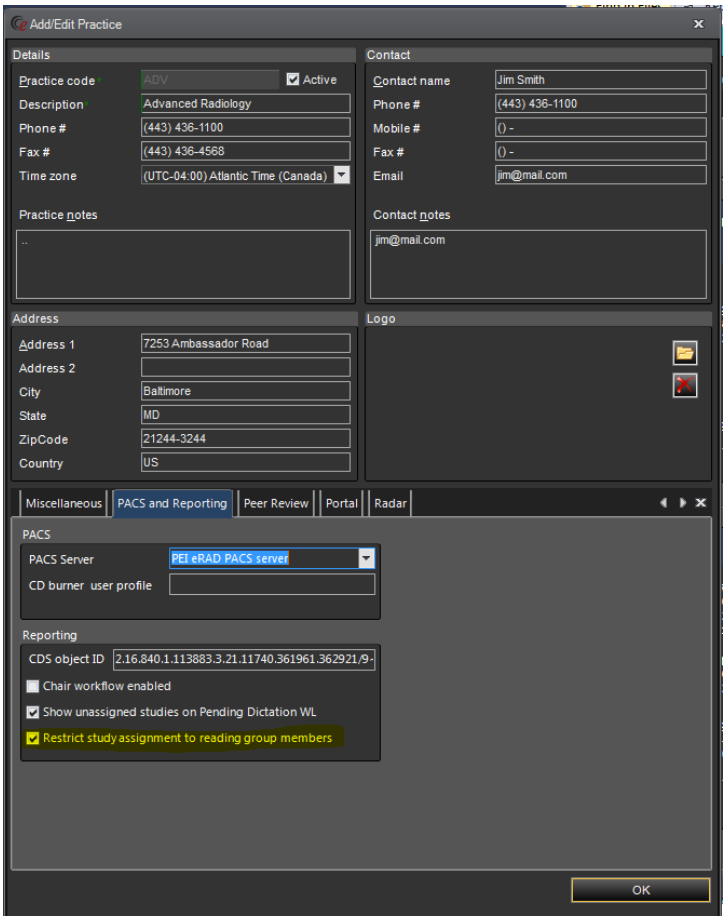



**Figure 5.114 – Preference on practice for reading group**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

Users can also be assigned to reading groups in the personnel editor. Similar to how we assign user groups and schedule groups.

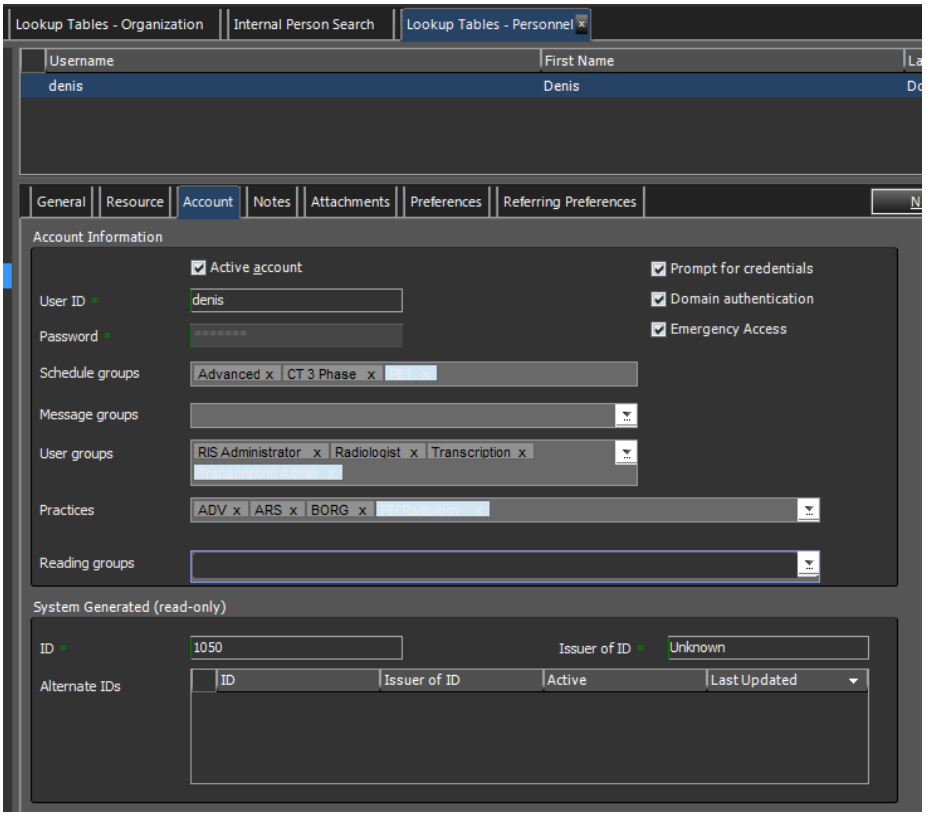



**Figure 5.115 – Assigning Reading Groups in Personnel Editor**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

When the practice is set to "Restrict study assignments to reading group members" we will filter our "Assign to radiologist" dialog to limit the list of users to the currently assigned users or users that are part of all the reading groups of the selected studies. If we are assigning multiple studies as once, the users in the list will be the ones that are allowed to read all cases.

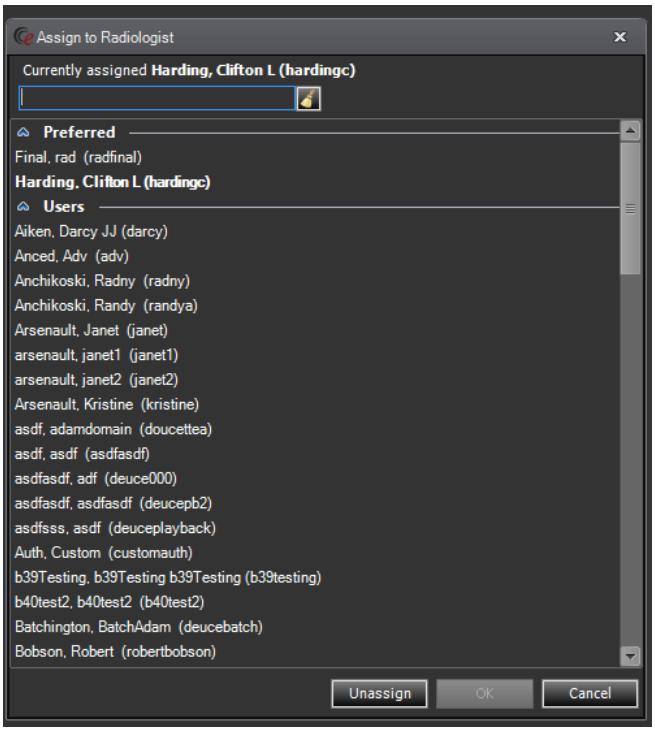



**Figure 5.116 – Assign Radiologist filtered by Reading Group**

A new column has also been added to the work lists. The Reading Group Column will display the Description and Name of the reading group and is available on the Patient Folder WL as well as the Radiology and Editor WL's

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## General Reporting – Elapsed Time Pending Signature

Added new column Elapsed Minutes Pending Signature renames Time Pending Signature to Elapsed Time Pending Signature.

The Elapsed Minutes Pending Signature will allow users to sort, filter and create conditional filters to highlight particular exams that exceed configurable amount of time.

**Figure 5.117 – New columns for time pending signature**

## General Reporting – Show Elapsed Suspended Time on Work Lists

We added two new columns Elapsed Time Suspended and Elapsed Minutes Suspended.

The Elapsed Time Suspended was added for consistency with existing Time Pending Signature.

The Elapsed Minutes Suspended will allow users to sort, filter and create conditional filters to highlight particular exams that exceed configurable amount of time.

Users can multi-select exams and remove the suspended flag.

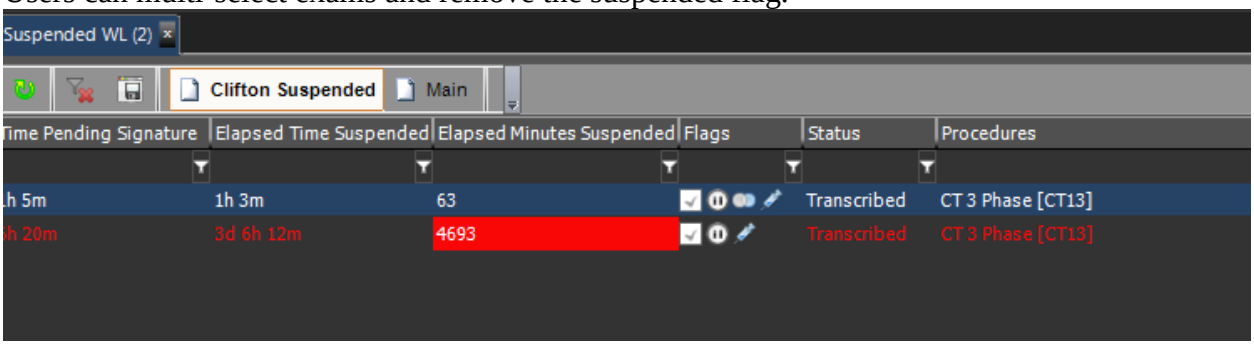



**Figure 5.118 – New columns for time suspended**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## General Reporting – Ability to Display Audit History for Peer Review

When a report was Peer Reviewed it was never captured in the Audit History. This was to hide the details so other users could not see who had Peer Reviewed others studies.

We now control visibility of the "Report Peer Reviewed" audit entries via access string of "**Clinical.AuditHistory.ShowReportPeerReviewed**" which has a default of None.

If the access string is set to "Full" the entry will be displayed. If set to anything else it will be hidden.

## Reporting MModal – Upgrade to MModal Version 7.93

We applied the new libraries provided from M*Modal in our application. This new version uses a new recognizer version (v6). To utilize and gain the benefit from this newer recognizer we must notify M*Modal so they can make backend changes to the users account.

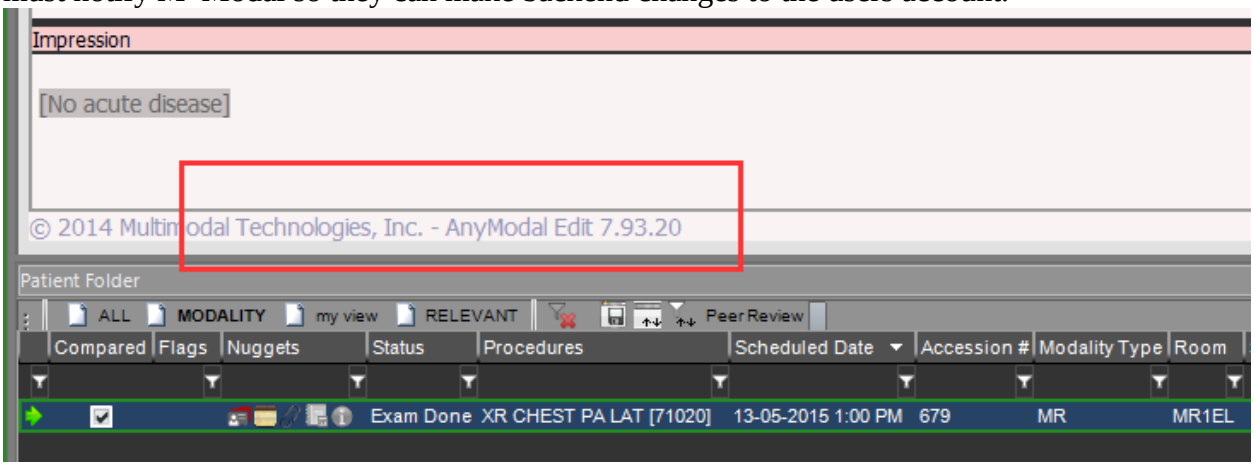



**Figure 5.119 – MModal 7.93**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Reporting PowerScribe – PowerMicII Support

We integrated the PowerMic II device by referencing the Interop.USBMgrLib.dll in the AudioLib and MainApp projects. This library exposed the needed methods and hooks for us to tie into the device button presses.

Below is a screen shot displaying all of the buttons that can be configured in eRAD RIS. Configuration options are the same as the Philips Speech Mike device.
We coded the device to support hot-swapping. You can plug and unplug on the fly and it will be recognized with a message.

If another system is using the Power Mic II as an input device you can set the buttons in eRAD RIS to do "Nothing" so it doesn't conflict with the other application.

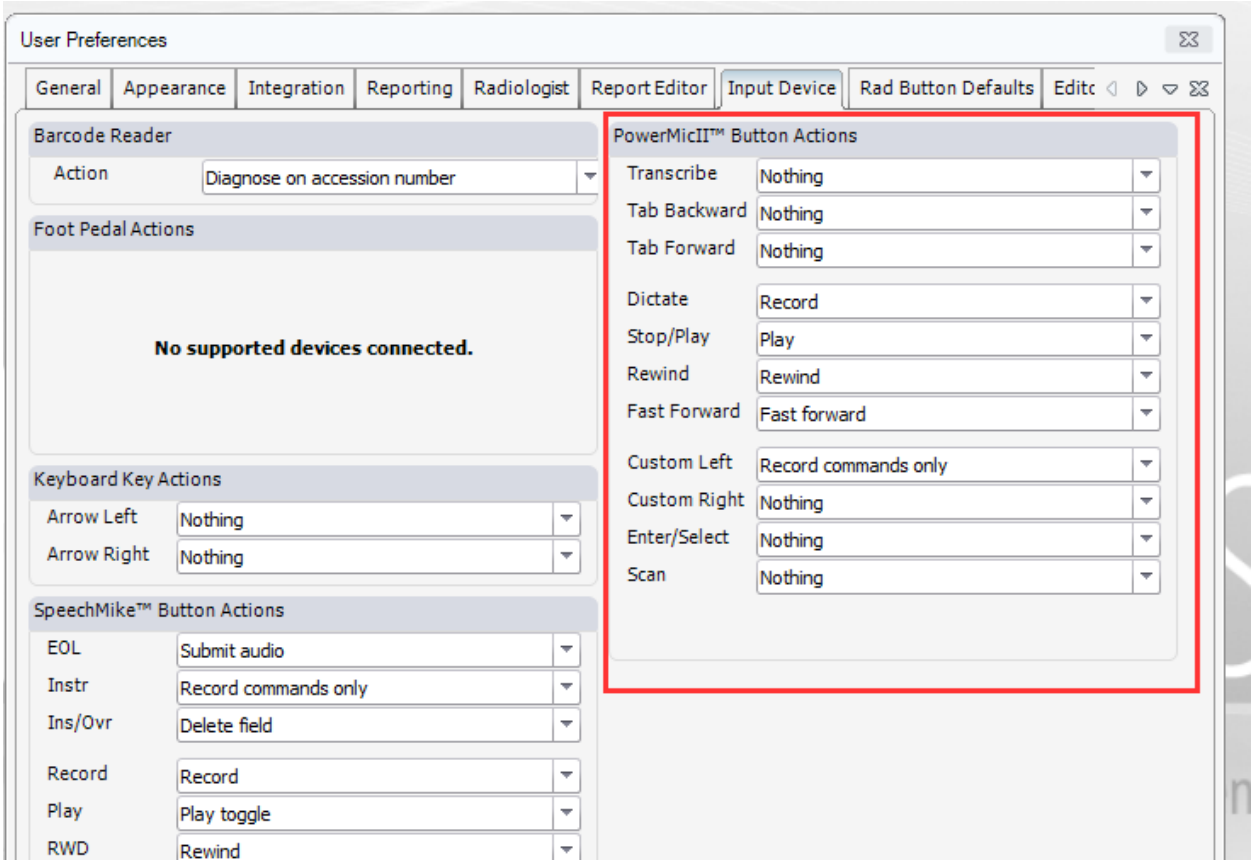



**Figure 5.120 – PowerMic button assignments mapped via user preferences**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Document Distribution – Save Patient Preference for Report Distribution

The patient preference for report distribution will be saved in the order table in a new column of patient_report_delivery_preference. This feature will not be mapped to any screens in RIS, but simply a place in the system to store the data to receive from and/or pass to external systems.

## Document Distribution – Active Printer Synchronization

The DD now starts a task for the queue poller then loops every 10 seconds to poll for new/changed printers each iteration.

If it finds a new printer that is also in the lookup, it will start the worklist worker for this printer. If it finds a printer that is not in the lookup but is currently being worked it will stop the worker. If it finds a printer that no longer has *Keep Printed Documents* turned on then it will stop the worker.

## Document Distribution – Verify Printer's Keep Printed Documents Setting

We now check to make sure the printer has the Keep Printed Documents checked box checked before we submit jobs to it. If it does not, then it will print an error message indicating that printer does not have this setting and will not add it to the list of printers for which is submits jobs. An error message will be printed to the console to indicate that this printer does not have the *Keep Printed Documents* setting on.

Submitting a print job for this printer will now result in the job staying in Pending status.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Document Distribution – Jobs Created When Transaction Fails

All jobs now roll back if any portion of the work of processing the jobs fails to complete. Instead of processing the queue item in one transaction, it is now done in three steps each having its own transaction logic.

The first step involves a database transaction where the action queue row will have its available date time temporarily set to a future date to act as a reservation time period so no other program pulling from this queue can get the same job. This period is based on the database time and a configurable reservation time in the applicationsettings.config file.

The second step is where the actual business logic takes place. This may or may not be done within a transaction, depending on the needs of the program using the queue. The DDE uses a transaction for this step but the Wedge which uses the same code does not.
The third step is within another database transaction and either deletes the action queue row if it was successfully processed or updates it if it was not.

The three step approach has been applied to processing c_action_queue rows one at a time as well as to the strategy of processing all rows grouped by the action_data_key values of their corresponding c_action rows.

Added new settings in the applicationsetting.config file for DDE Service for:
QueueItemReserveTime – This setting determines how long the Wedge will reserve a queue item.
DDEQueueItemReserveTime – This setting determines how long the DDE will reserve a queue item.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Document Distribution – EMR Distribution Jobs Validity Check

EMR distribution jobs should go to error status in the following cases:

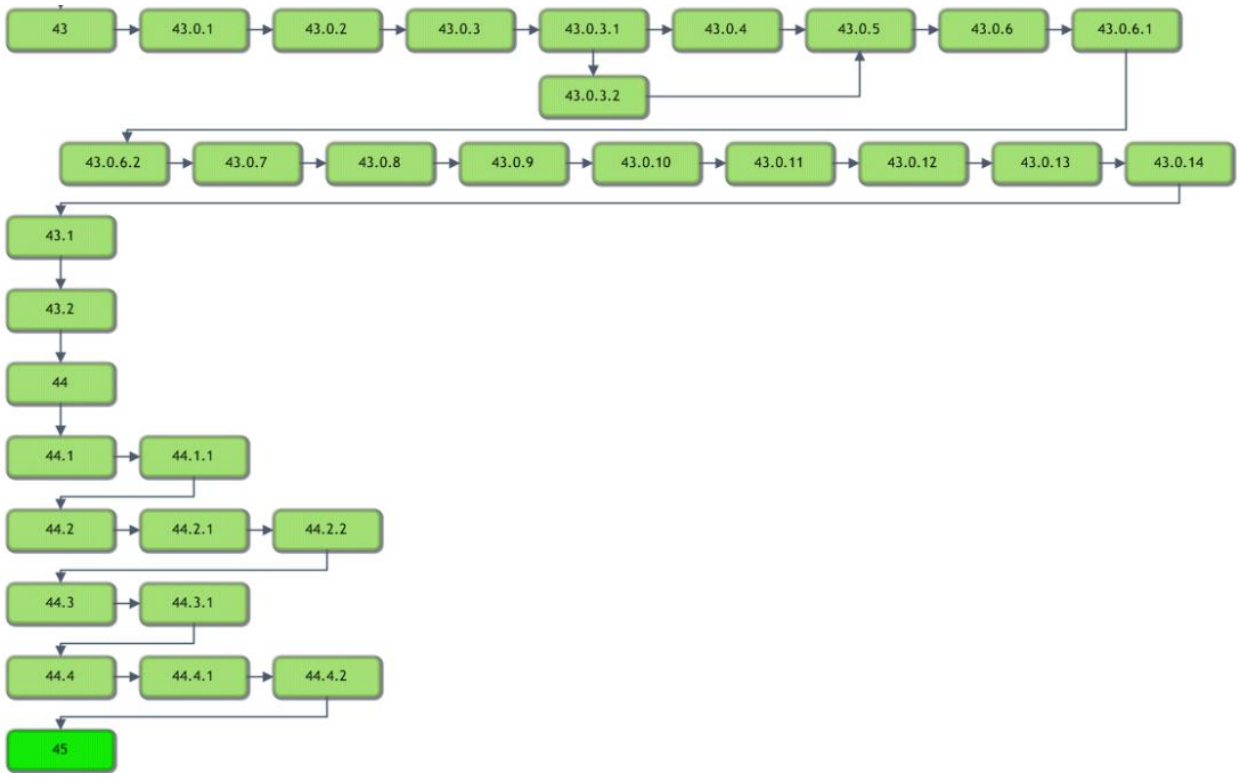
1) The job is related to an EMR order that has multiple studies associated to it and the EMR does not have functionality to account for it.
2) The job is for an order with no placer order number but is destined for an EMR that does not support unsolicited reports.

There were two new columns added to the EMR lookup table to denote the ability of the EMR to accept reports for these cases.

- supports_unsolicited_reports_flag
- supports_multiple_reports_flag

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 6. Code Stream




**Legend:**

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 7. RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 43 | - | 2.43.0.0.23715(3GB) | 2.43.0.0.23171 | 2.43.0.0.23715 | 2.43.0.0.23743 | Full Version Release |
| 43 | 1 | 2.43.0.1.23798(3GB) | 2.43.0.0.23171 | 2.43.0.1.23798 | 2.43.0.1.23770 | GUI.zip, Web Service, DB updates |
| 43 | 2 | 2.43.0.2.24017(3GB) | 2.43.0.0.23171 | 2.43.0.2.24017 | 2.43.0.2.24023 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 3 | 2.43.0.3.24298(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24283 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 3.1 | 2.43.0.3.24450(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24421 | GUI.zip, and DB updates |
| 43 | 3.2 | 2.43.0.3.24450(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24421a | DB updates |
| 43 | 4 | 2.43.0.4.24447(3GB) | 2.43.0.0.23171 | 2.43.0.4.24447 | 2.43.0.4.24442 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 5 | 2.43.0.4.24632(3GB) | 2.43.0.0.23171 | 2.43.0.4.24632 | 2.43.0.4.24560 | GUI.zip, Web Service and DB updates |
| 43 | 6 | 2.43.0.4.24(3GB) | 2.43.0.0.23171 | 2.43.0.4.24 | 2.43.0.4.24 | GUI.zip, Web Service and DB updates |
| 43 | 6.1 | 2.43.0.6.24937(3GB) | 2.43.0.0.23171 | 2.43.0.6.24937 | 2.43.0.6.24914 | GUI.zip, Web Service |
| 43 | 6.2 | 2.43.0.6.24970(3GB) | 2.43.0.0.23171 | 2.43.0.6.24970 | 2.43.0.6.24914 | GUI.zip, Web Service |
| 43 | 7 | 2.43.0.7.25258(3GB) | 2.43.0.0.23171 | 2.43.0.7.25258 | 2.43.0.7.25226 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 8 | 2.43.0.8.25440(3GB) | 2.43.0.0.23171 | 2.43.0.8.25440 | 2.43.0.8.25425 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 9 | 2.43.0.9.25477(3GB) | 2.43.0.0.23171 | 2.43.0.9.25477 | 2.43.0.8.25425 | GUI.zip and Web Service |
| 43 | 10 | 2.43.0.9.25477(3GB) | 2.43.0.0.23171 | 2.43.0.10.25477 | 2.43.0.8.25425 | Web Service |
| 43 | 11 | 2.43.0.11.25512(3GB) | 2.43.0.0.23171 | 2.43.0.11.25512 | 2.43.0.8.25425 | GUI.zip and Web Service |
| 43 | 12 | 2.43.0.12.25554(3GB) | 2.43.0.0.23171 | 2.43.0.12.25554 | 2.43.0.12.25536 | GUI.zip Web Service and DB Updates |
| 43 | 13 | 2.43.0.12.25610(3GB) | 2.43.0.0.23171 | 2.43.0.12.25610 | 2.43.0.12.25536 | GUI.zip and Web Service |
| 43 | 14 | 2.43.0.14.25644(3GB) | 2.43.0.0.23171 | 2.43.0.13.25610 | 2.43.0.12.25536 | GUI.zip |
| 43.1 | - | 2.43.1.0.25850(3GB) | 2.43.0.0.23171 | 2.43.1.0.25850 | 2.43.1.0.25771 | GUI.zip Web Service and DB Updates |
| 43.2 | - | 2.43.2.0.26864(3GB) | 2.43.0.0.23171 | 2.43.2.0.26864 | 2.43.1.0.25771 | GUI.zip and Web Service |
| 44 | - | 2.44.0.0.26570(3GB) | 2.44.0.0.26405 | 2.44.0.0.26570 | 2.44.0.0.26475 | Full Version Release |
| 44.1 | - | 2.44.1.0.26984(3GB) | 2.44.0.0.26405 | 2.44.1.0.26984 | 2.44.1.0.26906 | Gui.zip, Web Service, and DB |
| 44.1 | 1 | 2.44.1.1.27093(3GB) | 2.44.0.0.26405 | 2.44.1.0.26984 | 2.44.1.0.26906 | Gui.zip |
| 44.4 | 2 | 2.44.4.2.29327(3GB) | 2.44.0.0.26405 | 2.44.4.2.29327 | 2.44.4.0.28676 | Gui.zip and Web Server |
| **45** | **-** | **2.45.0.0.29559(3GB)** | **2.45.0.0.26107** | **2.45.0.0.29559** | **2.45.0.0.29558** | **Full Version Release** |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 8. Resolved Defects

Bugs Suggested Features and Support Issues resolved in build 2.45. The extract is taken from Redmine bug tracking system and only displays defects resolved in 2.45.

| Bug # | Priority | Subject | Category | Found Version |
|---|---|---|---|---|
| 8612 | Immediate | DB data dictionary was not being created in B44 or dev branch | DB | 2.44 |
| 9506 | Urgent | view c_frm_reminder_letter missing a status in its filter | DB | 2.43.1 |
| 9355 | Urgent | Possible to set site code for outside reads to null via IVT. ***Study will disappear from patient folder. | DB | 2.43.1 |
| 9205 | Urgent | IVT WL queries are terribly slow for a 3 Radnet data centers | IVT / Precert | 2.43 |
| 8555 | Urgent | Laterality for scheduled procedure is not being initialized as expected. | Scheduling | 43.1 |
| 8411 | Urgent | Patient Name to be included in Email message to RADAR | Document Distribution | 2.43.1 |
| 9619 | High | Collection was modified error related to worklist views | Radiology Reporting | 2.43.1 |
| 9531 | High | Error arriving studies from same order | Reception | 2.44.2 |
| 9514 | High | AppointmentBook is showing cancelled studies | Scheduling | 2.44.2 |
| 9347 | High | Contrast - Perform Exam on non-contrast and contrast study copying contrast/billing codes to non-contrast study | Technologist | 2.44.1 |
| 9334 | High | Scheduling - Body part list is not filtered down when possible list of values exists | Scheduling | 2.44 |
| 9282 | High | Details result set dates are not correct, versus the review tab and timeslot search | Scheduling | 2.43 |
| 9232 | High | Contrast - Perform Exam - CT dose changing while starting exam with multiple studies from same order | Technologist | 2.44.1 |
| 9021 | High | Adding Alternate MRN error in message | Patient Folder | 2.43.1 |
| 8763 | High | QA flag is not removed after verifying edit | Radiology Reporting | 2.44 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 8762 | High | All signed pending QA context menu option for verify edits doesn't open proper action and report can be released | Radiology Reporting | 2.44 |
| 8460 | High | Insurance Eligibility - Copay is asked for when billing codes are configured with "Allow amount to collect with Valid Insurance" set to 'N'. | Insurance Eligibility | 43.1 |
| 8404 | High | New Walkin Button from Patient Search results does not trigger the existing orders prompt | Reception | 2.44 |
| 8132 | High | Marketing - Monthly Variance Report performance issue | Mgt Reports | 2.43.0.14 |
| 8066 | High | MQSA Location Summary Group By BI-RADS - Calculation error | Mgt Reports | 43.0.12 |
| 7837 | High | c_frm_core_view - update view | User Views | 2.43.0.6 |
| 7730 | High | MQSA Location Summary Group By BI-RADS - times out on large installations | Web Services/DB | 2.43.0.6 |
| 6929 | High | Log text box control should display UserID - not a combination of lastname + first initial | All Workflows | 2.42 |
| 6106 | High | error opening merge suggestions due to patient search results | Web Services/DB | 1.41 |
| 10539 | Normal | Arbitration Signed does not save on PerformExam and ViewEdit screen | Technologist | 2.44.3 |
| 9695 | Normal | Undo feature allows user to backspace date/user in notes | Logging | 2.44 |
| 9661 | Normal | Scheduling - Advanced search panel - the time field allows invalid input | Scheduling | 2.43 |
| 9607 | Normal | Login - If you attempt login with blank userid or password you get an error 500 message | Localization | 2.44 |
| 9600 | Normal | patient search is slow when search for first name with "search other variations" turned on and sounds like is used | Patient Search | 2.44.2 |
| 9536 | Normal | error changing pre-cert info on registration | Reception | 2.44.2 |
| 9520 | Normal | Scheduling - Advanced serach - First day of the week should follow the config item for first day of week. | Scheduling | 2.44 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 9482 | Normal | datamodel test case - PrimaryKeyTest() is ignoring tables that it should not be. | DB | 2.43.1 |
| 9477 | Normal | missing database index on c_eligibility_invoice.eligibility_invoice_key | Web Services/DB | 2.43.1 |
| 9469 | Normal | Insurance Eligibility - Warning entries for EligibilitySpecialCondition are not ignored when marked as inactive | Insurance Eligibility | 43.1 |
| 9442 | Normal | Access strings - some flags cannot be visually turned off for users | Admin-Other | 2.44 |
| 9440 | Normal | Template/macro lookup editor shows user names and dates in the wrong format | Radiology Reporting | 2.41 |
| 9367 | Normal | View/Edit - Outside Reads throws error on opening View/Edit. | View Edit | 2.44 |
| 9288 | Normal | a db sql job was causing locks and resulting in slow screen loads | Mammography | 2.43.1 |
| 9285 | Normal | Chair selector - Cancel is not enabled when logging into the application. | Radiology Reporting | 2.43 |
| 9264 | Normal | Color Dialog boxes not persisting custom colors | UI Look and feel | 2.4 |
| 9246 | Normal | CA - job to call c_SummaryMaster failed | DB | 2.43.1 |
| 9234 | Normal | db upgrade scripts will not work if there user supplied credentials | DB | 2.44 |
| 9233 | Normal | Contrast - Changing performed procedure in Perform Exam keeps contrasts but removes their billing codes | Technologist | 2.44.1 |
| 9221 | Normal | Unable to make contrast not required for techs without affecting MU contrast alerts | Technologist | 2.44 |
| 9220 | Normal | ICode expiration date is currently hard codes to 5 days needs to be changed | Connect Patient Portal 1.x | 2.44 |
| 9219 | Normal | MU - Generating of the Icode code needs to be expanded to generate the Icode code at Check-In Status | Meaningful Use | 2.43 |
| 9177 | Normal | RIS DB scheduled jobs should run as a non active directory user. | DB | 2.43.1 |
| 9094 | Normal | Cannot access a disposed object. Object name: 'MainShell'. When exiting application. | Radiology Reporting | 2.44 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 9019 | Normal | Activation issue when using next workflow in dictation screen with reuse on. | Radiology Reporting | 2.44 |
| 9017 | Normal | Collection was modified error on application exit when using Minimized to tray. | Embedded Reporting | 1.39 |
| 9014 | Normal | Preferred Site (c_orderRow.filler_site_code) isn't required when saving an order through "Schedule Later" | Scheduling | 2.44.1 |
| 9013 | Normal | Preferred Site (c_orderRow.filler_site_code) not auto-populating on Scheduling/Walk-ins | Scheduling | 2.44.1 |
| 9000 | Normal | Personnel - Entering password and changing back to the password field later gives "Cannot reuse one of the users last 3 passwords" message. | Person Management | 2.44 |
| 8996 | Normal | Personnel - Unknown NPI and Registered in PECOS checkbox unchecking themselves in certain scenarios. | Person Management | 2.44 |
| 8989 | Normal | Volume level is very high during playback of dications. | Radiology Reporting | 44 |
| 8766 | Normal | Report History Icon - Study Info panel is always empty. | Radiology Reporting | 2.44 |
| 8757 | Normal | Report History - Error on reports drafted that are Batch and Edited by System as long as it's not an addendum | Radiology Reporting | 2.44 |
| 8702 | Normal | Contrast - Amount value is getting reset back to the default when clicking the start button. | Technologist | 2.44 |
| 8676 | Normal | procedure c_UpdateSalesSummary fails when c_study._site_code is null | DB | 2.43.1 |
| 8661 | Normal | precert query that executes thousands of times in large data centers that could be improved with an index | DB | 2.43.1 |
| 8648 | Normal | CDS Console Management menu option should be available regardless of users reporting mode | Radiology Reporting | 2.42.1 |
| 8571 | Normal | Add alternate MRN is using Issuer Code and Responsible Party is using Description from Issuer table | UI Look and feel | 2.44 |
| 8527 | Normal | Error when trying to create a new template for dictation | Radiology Reporting | 2.44 |
| 8511 | Normal | Payment screen:  Last 4 digits of credit card number error and mask are not intuitive. | Payment control | 2.44 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 8470 | Normal | When the PACSIntegration.Override is set to None, get error when you log into RIS | PACS (eRAD) Int - RIS only | 2.44 |
| 8455 | Normal | Error produced if contrast amount is deleted and then the Start or Complete button is selected. | Technologist | 2.44 |
| 8416 | Normal | Connect referring portal is not display quick launch icon | Connect Referring Portal 3.x | 2.43 |
| 8379 | Normal | Title of a Peer Review Report and the title from the folder do not match | Mgt Reports | 2.44 |
| 8378 | Normal | Peer Review Reports are not displaying today's data unless tomorrows date is included in the date range | Mgt Reports | 2.44 |
| 8302 | Normal | Assigned Radiologist is not recoginized as assigned in the Assign to Radiologist window | Radiology Reporting | 2.44 |
| 8301 | Normal | GetExamCountsByChair takes a rather long time to execute | Radiology Reporting | 2.43 |
| 8282 | Normal | Dictation Control - Form that is already visibile cannot be displayed as a modal dialog box. | Radiology Reporting | 2.44 |
| 8184 | Normal | BulkWritable columns operations fails in patient folder if there is an order that is not scheduled in the patient's folder | Patient Folder | 44 |
| 8062 | Normal | IVT Turnaround Report Failing | Mgt Reports | 43.0.14 |
| 8005 | Normal | Radiologist reading location - user prompted twice | Radiology Reporting | 43.0.12 |
| 7995 | Normal | County Selection - DB upgrade issue | DB | 43.0.12 |
| 7977 | Normal | Carrier - Performance issue saving lookup table | Insurance Managment | 43.0.12 |
| 7845 | Normal | Floating windows in reporting cannot be made smaller after opening a reporting screen. | Radiology Reporting | 2.43 |
| 7824 | Normal | Person search - Unknown gender is confusing with unknown referring | Web Services/DB | 2.42 |
| 7792 | Normal | Management Reports - No Date Range displayed on 'Carriers Not Using Insurance Eligibility' report | Mgt Reports | 2.43.08 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 7784 | Normal | Adminsitration - Conditional Tab - exception possible after clearing value | Questionnaire | 2.43.1 |
| 7675 | Normal | Need to alter the varchar(5000) fields to varchar(max) | DB | 2.43 |
| 7576 | Normal | Patients from an Electronic Order are not searchable from the Walk-In screen | Reception | 2.43 |
| 7188 | Normal | County selection screen requires user to click or tab to county field. | UI Look and feel | 2.43 |
| 7171 | Normal | Workflow issue saving order when specfying scanned document at exam level | Scanning | 2.42 |
| 7096 | Normal | Reschedule reason drop down lookup lists - Not ordered correctly | Infrastructure | 2.41 |
| 6360 | Normal | The advanced search icon is small, and needs a hover text to ensure clarity of it's purpose. | Scheduling | 1.42 |
| 5527 | Normal | Reporting - Support for IE10 | Embedded Reporting | 1.4 |
| 2935 | Normal | New Appointment button is available to users who don't have rights to create new appointment | Scheduling | 1.39.001 |
| 1963 | Normal | Scheduling summary screen overlaps windows taskbar. | Thick Client GUI | 1.37 |
| 1339 | Normal | Column chooser appears to have hidden column names available | UI Look and feel | 1.36 |
| 8604 | Low | Race not auto-populating from Confirmation window | UI Look and feel | 2.44 |
| 8577 | Low | Family History not auto-populating in Edit Billing window (BEWL) | UI Look and feel | 2.44 |
| 8564 | Low | Note to radiologist, the acknowledgment warning has a spelling mistake "actionning" should only have 1 n "actioning" | Radiology Reporting | 2.44 |
| 8545 | Low | When an exam is aborted by a tech in the perform exam window, it is removed from the PACS WL, it can be set back to started then completed (exam done) but the exam is not recreated in PACS. | PACS (eRAD) Integration | 2.44 |
| 8248 | Low | Improper english in eRAD RIS warning message. | Thick Client GUI | 2.44 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | |
|---|---|---|---|---|
| 7951 | Low | Unused system config setting for LookupTableIndexTimeToLiveMinutes should be removed | Web Services/DB | 2.43.0.12 |
| 6978 | Low | Message box - poor wording | UI Look and feel | 2.43 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 9. Known Limitations

The following are Bugs Suggested Features and Support Issues found in build 2.45. Bugs reported in previous versions are not captured as Known Limitation in this document.

| # | Status | Priority | Subject |
|---|---|---|---|
| 10568 | In Progress | Urgent | Memory leaks present and memory usage climbing very quickly. |
| 10912 | New | High | EMR with new MRN grid |
| 10910 | New | High | Unable to match EMR patient to internal patient (Duplicate MRN message) |
| 10897 | New | High | Linked Reports - linked_id column should be default of null instead of 0 |
| 10846 | New | High | Questionnaire - Checkboxes cannot save Y and N values |
| 10844 | New | High | Questionnaire - Hebrew questionnaires opened in a browser RTL issue with Save/Finish/Next Page/Previous Page buttons |
| 10840 | New | High | Duplicate MRN issue when using the New Patient button from data window or from patient search |
| 10825 | New | High | Hidden answers are saved as though they were visible |
| 10767 | New | High | M*Modal Interactive Dictionary color problem |
| 10760 | New | High | Walk-In - Existing Orders window showing on Checking In |
| 10712 | New | High | apparent memory leak in user preferences screen |
| 10620 | New | High | Editing pick list option values and hitting enter while cell is in edit mode causes issues |
| 10560 | New | High | Schedule - Able to schedule without a room selected causing exception |
| 8994 | In Progress | High | ris.exe crashes on exit on Windows Server 2012 |
| 10926 | New | Normal | New Reading Group lookup table is missing access string |
| 10924 | New | Normal | Addendum request's assign to rad dropdown does not show *Preferred rads |
| 10922 | New | Normal | Unable to assign to radiologist from the work list for addendums |
| 10920 | New | Normal | Next - Previous navigation - keyboard action- Selecting Previous field or section causes an error when using eRAD editor. |
| 10919 | New | Normal | Change font size feature does not change the size in the menus |
| 10918 | New | Normal | When in the dictation window and using the Next - Previous navigation, hover icon says 'Previous field' |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| | | | regardless if using Next or Previous |
| 10917 | New | Normal | Technologist verified ID is required but not showing any indication that is it. |
| 10916 | New | Normal | Rename column in modality lookup to avoid confusion |
| 10915 | New | Normal | EMR orders missing Contacts/Demographics information |
| 10914 | New | Normal | Error when trying to save an incomplete insurance policy if there is an existing expired policy that is "not shown" |
| 10911 | New | Normal | MRN - Error on hover on empty issuer |
| 10905 | New | Normal | The RIS Icon when launched via Citrix is an 'R' |
| 10900 | New | Normal | When launching RIS via Citrix, default for PACS is Hologic |
| 10899 | New | Normal | Preferred rad - Display order the same on multiple items |
| 10898 | New | Normal | Preferred Rad - Inactive rads can be added to the list |
| 10896 | New | Normal | Open Patient Tab limitation setting is exceeded when Reuse Reporting Screen is checked. |
| 10892 | New | Normal | error when opening context menu from dataset visualizer |
| 10889 | New | Normal | System Config ShowDOBCalendar=False doesn't apply to IVT window |
| 10887 | New | Normal | Dictation files save to external location, when they cannot be found in the Gui the Load Audio button is displayed once then the dictation controls are accessible |
| 10885 | New | Normal | eRAD Report Editor - Clicking/drag dropping is copying selection of text within report |
| 10882 | New | Normal | Visibility Framework - Most fields cannot be set to read-only on Contacts/Demographics tab |
| 10879 | New | Normal | Visibility Framework - Including a study on Perform Exam re-enables read-only fields on Documentation tab |
| 10878 | New | Normal | Visibility Framework - Some fields cannot be set to read-only/hidden |
| 10858 | New | Normal | Validation Framework - Audit History errors in Event Viewer on null value for condition |
| 10857 | New | Normal | Report history ICON missing from toolbar in reporting window |
| 10856 | New | Normal | Reporting - (Hebrew RIS) Copy button on Reporting panes includes \t |
| 10853 | New | Normal | Peer review - skip and continue does not work |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| 10850 | In Progress | Normal | Ability to arrange pages in the questionnaire |
| 10848 | New | Normal | Ability to set the display order for conditional tabs |
| 10836 | New | Normal | Questionnaire - Unable to save blank/null entries for dropdowns that are tied to DB fields |
| 10829 | New | Normal | Polling queue next workflow will try to open interpretation types that the user doesn't have access to |
| 10828 | New | Normal | Tabs on the All Suspended WL should state which WL, ie Rad or Editor |
| 10821 | New | Normal | When using the New Walk-In and New Appointment from patient search if the patient has existing orders the existing orders popup is incorrect |
| 10820 | New | Normal | Unable to remove dates in a date field. |
| 10818 | New | Normal | Object reference error when moving mouse over MRN in the MRN grid when the issuer is not one of the issuer's listed in the l_issuer table (EMR MRN) |
| 10817 | New | Normal | Issuer does not show up for MRN's from EMR's if the issuer is not in the l_issuer table |
| 10813 | New | Normal | Rulesets are evaluated in design mode |
| 10792 | New | Normal | When saving a scheduling availability template, the template selection should remain on that template |
| 10789 | New | Normal | Image Request - not repopulating the location value |
| 10786 | New | Normal | Image request form - phone number - Appears to not populate when only 1 address for the referring |
| 10784 | New | Normal | Action Container should not contain c_primary_interpretation node. |
| 10783 | New | Normal | Order notes on MU tab needs to take into account Order X |
| 10782 | New | Normal | Attached Documents window should have the Minimize option disabled |
| 10775 | New | Normal | Personnel - Modifying Additional Resources doesn't recognize changes after intial save |
| 10763 | New | Normal | Walk-In - Error on Patient Search>Walk-In>Selecting Mutliple orders from Existing Orders window |
| 10761 | New | Normal | Register - MU fields not clearing validation properly |
| 10753 | New | Normal | Visibility Framework - Need a way to hide State field on Image Request window |
| 10751 | New | Normal | Questionnaire-When creating a text box the instructions "Double-click to edit" remain in the text area |
| 10749 | New | Normal | IVT WL - Referring Physician Specialty Column filtering should default to "Contains" |
| 10747 | New | Normal | Visibility Framework - Some fields have additional |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| | | | labels that can't be hidden |
| 10740 | In Progress | Normal | Reading Groups- Changes to assigned/unassigned Users and Procedures are not contributing any update to the Last updated field |
| 10720 | New | Normal | Possible SQL injection on WL queries with parameter order by |
| 10714 | New | Normal | External Scheduling Interface - Issue with GetBookingLock and Expiry |
| 10698 | New | Normal | Opening a 2nd patient folder from patient search causes an error if data nugget is opened for 1st patient. |
| 10697 | New | Normal | Questionnaire- Unable to click and drag to move a question box |
| 10686 | In Progress | Normal | Template/Macro Lookup - context menu option Export List to Excel is not working |
| 10685 | In Progress | Normal | Template/Macro Lookup - context menu export templates defaults file type to cda (xml) |
| 10676 | New | Normal | Assuta External Scheduling Interface - Issue with EndDate |
| 10670 | In Progress | Normal | ERAD Editor - when you edit an existing macro, can easily edit a field when you meant to create a new field. |
| 10666 | New | Normal | Laterality required orders can be misleading to user if there is more than one |
| 10657 | New | Normal | Perform Exam - Body part dropdown isn't filtered initially |
| 10654 | New | Normal | Strange behavior in template created in a previous version of RIS |
| 10618 | New | Normal | When editing pick lists, there is no way to navigate between cells in the grid. |
| 10615 | New | Normal | Word Viewer - closing Word Viewer when closing another reporting tab |
| 10614 | New | Normal | When using "Cache Reporting Screen" User Preference once you open a dictation for Addendum every time you try and open the dictation screen after that you get an error from interpretation_get saying there is no item at index 1 |
| 10612 | New | Normal | Word Report Viewer does not close when closing the patient tab |
| 10597 | New | Normal | Linked Reports - User preference to set current study linked background color. |
| 10577 | QE Rejected | Normal | Priority column is interfering with the new prioritize arrows in the Insurance Policies grid |
| 10575 | New | Normal | Text Expander - adding a new value only saves for the |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| | | | session, log out and back into RIS, value is not saved. |
| 10555 | New | Normal | Picklist - with several options, 1 being Type = macro. The macro has several lines of text that is bulleted, when inserted into report numbering is incorrect. |
| 10553 | QE Rejected | Normal | Configuration module window still mirrors R to L when it should not |
| 10549 | New | Normal | Questionnaire datepickers do not display as RightToLeft when the Questionnaire is RightToLeft |
| 10513 | New | Normal | eRAD Report Editor - Entries made in M*Modal text expander |
| 10508 | New | Normal | db view called c_vw_WL_SignedByDate_My is obsolete. |
| 10491 | New | Normal | There needs to be an access string to disable the 'save as order' button |
| 10465 | New | Normal | Cancel Study - c_previous_referring does not belong to this DataSet |
| 10441 | New | Normal | eRAD Report Editor - field color not applying |
| 10430 | In Progress | Normal | Reports fields with special characters |
| 10419 | QE Rejected | Normal | Worklists - Columns not populated on the signed by date worklist. |
| 10388 | New | Normal | Phillips Speechmike Barcode scanner does not work through Citrix |
| 10387 | New | Normal | Motorola Sybol Scanner does not work in Citrix when not in HID Keyboard Mode |
| 10338 | New | Normal | RUM - Default Body part/Laterality not auto-populating on adding Alternate/Additional procedure |
| 10331 | New | Normal | RUM - Stat Exam flag set from IVT window doesn't change UM required to UM complete flag |
| 10321 | New | Normal | Add/Edit Region dialog box says Add/Edit Site in the title bar. |
| 10316 | New | Normal | Setting RecentPasswordRestrictionCount to 0 or lower disables tracking passwords but does not prevent checking against old passwords in validation |
| 10300 | New | Normal | TE Edit - Advanced Menu - font seems to interfer with the reporting editor's font. |
| 9735 | New | Normal | Missing accesss string - Clinical.ReportEditor.AdvancedMenu |
| 9716 | New | Normal | Editor Appearance -> Color dialog -> system -> some values are saved incorrectly. |
| 9696 | New | Normal | System config items - 'Wedge Groups container' and 'Wedge Unescapes Container' look identical, need clarification. |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| 9690 | In Progress | Normal | After login background screen displays duplicate eRAD RIS logo |
| 9673 | New | Normal | Changes to Billing Codes not updating Amount to Collect on Self Pay |
| 9654 | New | Normal | eligibility service will not run if the connection string doesn't end with ";" |
| 9647 | New | Normal | zip code loookup on IVT screen does not behave the same as zip code lookup on other screens |
| 9643 | New | Normal | log control on tech notes does not enforce 1000 character limit |
| 9642 | In Progress | Normal | Custom fields for time are not working |
| 9486 | New | Normal | Procedure plan site override of min/max times cannot find available times |
| 9422 | New | Normal | User is able to complete an exam that Requires contrast without entering a contrast. |
| 9356 | New | Normal | Contact Log - Saved entries show userID for Contact By |
| 9344 | In Progress | Normal | RUM - STAT Exam - Priority dropdown can be cleared > saved which then causes errors. |
| 9343 | In Progress | Normal | RUM - Body Part dropdown on adding additional/alternative procedure can be saved with invalid text. |
| 9317 | New | Normal | Worklist - Conditional formatting will not set the back color for the entire row. |
| 9297 | New | Normal | Manual Status Update - Discontinued - Not prompted to enter discontinue reason |
| 9291 | New | Normal | Scheduling-Schedule Date box changes from green to red for the same time slot |
| 8991 | New | Normal | Unable to Login with benign error if AllowedPasswordFailAttempts system config is missing |
| 8990 | New | Normal | Questionnaire - Rendering questionnaire not displaying correctly |
| 8988 | New | Normal | old trace log cleanup procedure looks for trace log in the current directory |
| 8516 | New | Normal | Direct Message - Issue attaching CCDA document to New Patient |
| 8279 | New | Normal | issuer_of_id has hard coded default of system |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# Release Notes

# eRAD RIS
# Version 2
# Build 45.1

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 45.1 | | 2.45.1.0.30774(3GB) | 2.45.0.0.26107 | 2.45.1.0.30774 | 2.45.1.0.30738 | Gui.zip, Web Service, DB, SQLReporting, Questionnaire, Citrix support |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# Table of Contents

1. Purpose ..... 5
2. Intended Audience ..... 5
3. Installing/Accessing the Application ..... 5
4. New Settings ..... 6
4.1. New access strings ..... 6
4.2. New system configuration settings ..... 8
4.3. Changes to RIS.exe.config file ..... 10
5. New Features and Enhancements ..... 11

Primary User: Radiologist ..... 11
07293 Automatically open images when signing (user preference) ..... 11
08351 Linked Reports - Simple linked reports (phase 1) ..... 12
10766 Linked Reports - Show linked information in the title bar of reporting window ..... 15
10640 Linked Reports - Create worklist icon and tool tip to display linked information ..... 18
08360 Create 'Finding Follow Up' workflow ..... 20
09371 Ability for users to create diagnostic report prior to radiologist ..... 23
11205 Conditional Fields for Structured Reporting (Phase 1) ..... 26
10488 Legacy Report Viewer - PDF viewer should be managed by RIS ..... 29
10572 Ability to protect a field element in the eRAD report editor ..... 30
9630 Integrate with GE Universal viewer ..... 32
Biopsy Workflow ..... 33
11076 Biopsy Workflow - Ability to Flag a Procedure as a Biopsy ..... 34
11077 Biopsy Workflow - Create Pending Biopsy and All Pending Biopsy Worklists ..... 35
11078 Biopsy Workflow - Notify a radiologist of an assigned pending biopsy ..... 37
11079 Biopsy Workflow – Drawing tool – Add tool to show biopsy locations (annotation tool) ..... 38
11184 Biopsy Workflow - Drawing tool - Add tool for arrow (FNL tool) ..... 40
11083 Biopsy Workflow – Generate a Biopsy Procedure Report (framework) ..... 41
11082 Biopsy Workflow – Ability to collect custom Biopsy Data ..... 45
11271 Biopsy Workflow - Ability to save a form directly to the patient folder ..... 46
11084 Biopsy Workflow - Track biopsies that are awaiting results ..... 47

Mammography ..... 49
9255 Support BIRADS 4a,4b,4c (non-USA sites only) ..... 49

Front Desk ..... 50
8355 Validation on manually entered MRN ..... 50
10534 Support Configurable Autotext for Addendum Notes ..... 52

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

Scheduler/Front Desk ..... 54
10623 Need to have 'Source of Order' as a user-editable field instead of 'Visited At' ..... 54

Scheduler and Technologists ..... 56
10843 Provide Viewer/editor for 'Study Extra Info' ..... 56

All users ..... 59
10700 Questionnaire - Display questionnaire answers in the reporting screen ..... 59
10819 Questionnaire - Allow certain questions to be marked required ..... 60
10849 Questionnaire - Ability to hide a page at runtime ..... 62
10991 Questionnaire - Tab Order should be configurable ..... 63
11000 Questionnaire - Support dark theme ..... 64
11008 Questionnaire - Ability to specify a type of tab ..... 65
11402 Display "Radiologist" type questionnaires and update a corresponding diagnostic report (Report Assistant) ..... 66
11061 Questionnaire - Support cascading dropdowns ..... 67
11417 Questionnaire – Support a type-ahead control that links to personnel and medication lookup tables ..... 69
11172 Questionnaire – Autotext pick list for text controls ..... 71
11242 Questionnaire - Ability to show/hide pages ..... 75
10765 Worklists - Need site description and room description in most worklists ..... 77

Infrastructure ..... 78
8356 Support of non "system" issuer of IDs ..... 78
9562 Support a Secondary Reporting Database ..... 80
11161 Support command line options for RIS client application via the config file ..... 81
10603 Add SLA field to the procedure group table ..... 82
8764 Insurance Eligibility – Support 'or' logic for the medical group string ..... 83

Interface updates ..... 84
11522 New Action needed to submit an order without automatically generating a scanned document ..... 84
8331 Ability to update RIS procedure code tables via an interface ..... 84
11153 Create an Action Queue history table ..... 84

Management reports updates ..... 86
11154 Questionnaire mapping report ..... 86
9213 Linked report management report ..... 86
10416 Referring details report ..... 86

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

6. Code Stream ..... 88
7. RIS Release Version Numbers ..... 89
8. Resolved Defects ..... 90
9. Known Limitations ..... 98

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 1. Purpose

This document describes some of the new features and changes implemented in eRAD RIS in build 2.45.1

Not every feature will be described in this document. Typically only features which can be visually demonstrated to the user are outlined in this document.

# 2. Intended Audience

This document is created by the eRAD RIS Development/Commercialization team for customers of eRAD RIS.

# 3. Installing/Accessing the Application

The installation guide for the eRAD RIS client have been posted to the RadNet Wiki page at http://mdbal01rdtweb/Wiki/

Under the RIS menu click on the rRIS page. The credentials to access the page are:
Username: rRIS
Password: Summerside

If you experience difficulties accessing the application please contact Darcy Noye with the PEI RIS Development Team.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 4. New Settings

## 4.1. New access strings

| Setting | Default | Purpose |
|---|---|---|
| Clinical.AdditionalData | None | Controls access to the Additional Data grid on the Exam tab and the Exam Details tab |
| Clinical.EditExternalMRN | None | Allows editing of external MRN in the MRN grid on the Patient tab. |
| Clinical.EditMRN | None | Allows editing of MRN in the MRN grid on the Patient tab. |
| Clinical.EditPatientFlags | None | Controls access to assign patient flags |
| Clinical.EditPatientFlagsNotes | None | Controls access to assign notes to the patient flags |
| Clinical.FormsAndLabels.AllowSaveAsAttachment | None | Allow user to save a form or label as an attachment from the Print Forms window. |
| ~~Clinical.ReportingEditor~~ | N/A | This access string was obsolete and has been removed. (replaced with Clinical.ReportingTranscription) |
| Clinical.ReportingTranscription | None | Controls access to the Editor's Create/Edit Report Screen |
| Clinical.ResendDictationForRecognition | None | Enables access to the resend dictation for recognition context menu action. |
| Clinical.Schedule.SaveAsOrder | Full | Controls access to the Save As Order/Schedule Later button on Schedule/Reschedule screen, as well as Schedule Later button on Reschedule Reason dialog |
| Config.LookupEditor.DictationArchiveLocation | None | Controls access to the lookup table for the Dictation Archive Location |
| Config.LookupEditor.ExternalReportingSystem | None | Controls access to the External Reporting System lookup table located under the System directory |
| Config.LookupEditor.Finding | None | Controls access to the Finding lookup table located under the Procedure directory. |
| Config.LookupEditor.ImagingCenter | None | Controls access to the Image Center lookup table located under the System directory. These are displayed on the patient and referring portal |
| Config.LookupEditor.LegacyReportArchive | None | lookup table access for the Legacy Report Archive |
| Config.LookupEditor.MarketingDomains | None | lookup table access for Marketing Domains to be used for site groups |
| Config.LookupEditor.PatientFlag | None | lookup table access for PatientFlag located under the General directory |
| Config.LookupEditor.PrepInstructionType | None | lookup table access for Prep Instruction Type located under the Procedure directory |
| Config.LookupEditor.ProcedurePicker | None | lookup table access for Patient Portal Procedure Picker configuration |
| ~~Config.LookupEditor.Questionnaire~~ | N/A | This access string was obsolete and has been removed |
| Config.LookupEditor.ReadingGroup | None | lookup table access for Reading Group located under the Procedure directory |
| Config.LookupEditor.StudyExtraInfo | None | Lookup table access for Study Extra Info located under the System directory |
| Config.LookupEditor.WorkUnit | None | lookup table access for Work Unit located under the Procedure directory |
| Config.QuestionnaireEditor | None | Controls access to the browser-based Questionnaire Editor. |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | |
|---|---|---|
| ~~Flag.ExamStat~~ | N/A | This access string was obsolete and has been removed. (was replaced by Flag.StatExam) |
| Flag.LinkedStudy | Full | Access to see the flag for Primary Linked Study |
| Flag.PrimaryLinkedStudy | Full | Access to see the flag for Primary Linked Study |
| ~~Flag.ReadStat~~ | N/A | This access string was obsolete and has been removed. (was replaced by Flag.StatRead) |
| Reporting.UnprotectDataFields | None | Controls access to the Unprotect Fields button on the reporting screen |
| View.FindingsFollowup | None | Access to see the main menu item "View/Findings Followup" (on dictation screens) |
| View.Portals | None | Access to see the main menu item "View/Portals" (on dictation screens) |
| View.ReportAssistant | None | Access to see the main menu item "View/Report Assistant" (on dictation screens) |
| WL.PatientFolder | Full | Controls access to the Patient Folder worklist context menu item. |
| WL.PendingBiopsyResult | None | WL access for Pending Biopsy Result worklist under Administration menu |
| WL.Rad.FindingFollowup | None | WL access for Finding Followup worklist under Radiologist menu |
| WL.Rad.PendingBiopsy | None | WL access for Pending Biopsy worklist under Radiologist menu |
| WL.Rad.PendingBiopsyAll | None | WL access for Pending Biopsy All worklist under Radiologist menu |
| WLNotification.PendingBiopsyNotify | Full | Enables ability to show worklist driven pending biopsy notifications |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## 4.2. New system configuration settings

| | | |
|---|---|---|
| DefaultIssuerGeneratesPatientID | True | Determines the default issuer of patient ID will generate patient IDs in RIS |
| KillPDFViewerAfterLegacyReport | True | Enables RIS to try to 'kill' or close the PDF Viewer after opening legacy report in a new instance of the PDF Viewer from the reporting screen. |
| KillPDFViewerBeforeLegacyReport | True | Enables RIS to try to 'kill' or close the PDF Viewer before opening legacy report in a new instance of the PDF Viewer. |
| PatientPortalImageHoldPeriodDisplayedDays | 5 | The number of days from the time the study is performed to the date that the patient portal will say that it will be able to see the images. |
| PatientPortalReportHoldPeriodDisplayedDays | 5 | The number of days from the time a report is signed to the date that the patient portal will say that it will become available. |
| PortalAddendumReportMessage | This exam does not have a report because it was not requested by your referring provider. Please contact your referring provider for your results. | The desired message to display to the patient when the study has an addendum assigned to it, and has not been passesd the new Hold back period. |
| PortalImagesHoldBackMessage | Images are currently unavailable. Estimated availability is after {PatientPortalImageHoldPeriodDisplayedDays(dddd, MMM dd, yyyy)} | The desired message to display to the patient when the Images are not available to display due to the hold back period. |
| PortalImageUnAvailableMessage | Images are currently unavailable. Please Get Help to request images. | The desired message to display to the patient when the Images are not available due to the PACS server unavailable. |
| PortalIncompleteStatusReportUnavailableMessage | This exam is currently {portal_status_code}. No report is available for this exam. | The desired message to display to the patient when the report is not available, due to the fact the study is not complete |
| PortalLocationLayoutFormatString | {description} | Desired layout for site and practice drop down fields in the Patient Portal ex. {description} |
| PortalReportHoldBackMessage | This report is currently unavailable. Estimated availability is after {PatientPortalReportHoldPeriodDisplayedDays(dddd, MMM dd, yyyy)} | The desired message to display to the patient when the report is not available to display due to the hold back period. |
| PortalReportUnAvailableMessage | No report is available for this exam. | The desired message to display to the patient when the report is not available due to report server unavailable, or no report |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | |
|---|---|---|
| | | configured. |
| PortalTechOnlyNoReportMessage | This exam does not have a report because it was not requested by your referring provider. Please contact your referring provider for your results. | The desired message to display to the patient when the study is completed as Tech Only and there would not be any report available. |
| RADARMessagePHIReminderText | RADAR Quick Message is not a secure method of communication. Patient health information (PHI) must not be included in this message. All messages sent using RADAR Quick Message must conform to established health privacy rules for unsecured communications. | Defines the PHI warning string that will be displayed on RADAR Quick Message dialog screen. |
| WordViewerPath | | Path to directory where Word Viewer is installed. Used for MS Word legacy reports, path must include EXE name. If left empty, RIS will try to open WordViewer.exe and assume it is available in the current system path. |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## 4.3. Changes to RIS.exe.config file

The section <listeners> in the ris.exe.config file has been changed in this release. Below you will see the before and after. The changes are shown highlighted in green.

| Before | After |
|---|---|
| <appSettings><br><add key="defaultEndPointName"<br>value="NetTcpBinding_IStudyService" /><br><add key="ClientSettingsProvider.ServiceUri" value="" /><br><add key="LookupTableTimeToLiveInMinutes"<br>value="60"/><br><add key="ShouldCloseViewSessionOnThread"<br>value="true"/><br><add key="EnableHighPriorityLookupStrategy"<br>value="true"/> | <appSettings><br><add key="defaultEndPointName"<br>value="NetTcpBinding_IStudyService" /><br><add key="ClientSettingsProvider.ServiceUri" value="" /><br><add key="LookupTableTimeToLiveInMinutes"<br>value="60"/><br><add key="ShouldCloseViewSessionOnThread"<br>value="true"/><br><add key="EnableHighPriorityLookupStrategy"<br>value="true"/><br><add key="CmdLineArgs" value="" /> |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

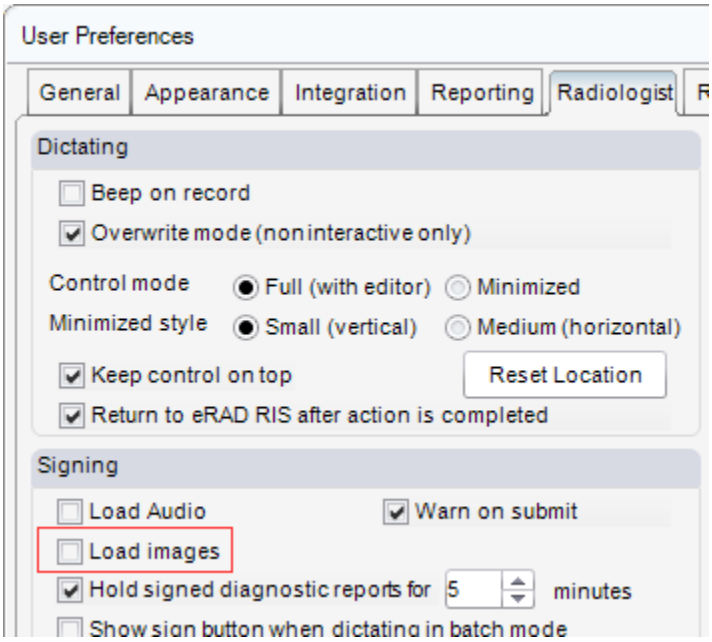
# 5. New Features and Enhancements

## Primary User: Radiologist

### 07293 Automatically open images when signing (user preference)

When a radiologist signs reports (from the pending signature worklist primarily) the images in PACS are not automatically loaded. There is a manual load images button that they can use, but this has to be clicked for each study. There is a desire to have the images automatically load as they do when dictating a report. This would have to be a user preference as not all radiologists will want this feature.

The RIS now has a new user preference in the radiologist tab signing area called Load Images. When set the RIS will load images automatically when opening the study in the Sign Reports window, the same as it does when dictating a study.



*User preferences showing the load images option*

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

**08351 Linked Reports - Simple linked reports (phase 1)**

There is an industry need for the RIS to support having multiple individual studies performed, but to be read and reported as a single entity from the radiologist's perspective.
Since this is a large undertaking, the development team has broken this up into phases, with 45.1 containing the first phase.

To support this, the RIS development team has implemented a simple 'phase 1' of linked reporting. In this simple model, linking is limited to studies in a procedure plan that is predefined to be linked (aka 'reported together'). There is no support for manual linking and unlinking studies for phase 1. The procedure plan table already has a "report_together_flag" which determines if studies should have a single linked report. If the procedure plan is set to report together then one procedure will also need to be set as the primary study. The primary study will be the study that will technically be reported on. The other (secondary) studies in the procedure plan will be linked to the primary.

The ordering, scheduling and registration workflows are unchanged for linked studies. The tech work flow is only changed in one way, when the tech sets an assigned radiologist on one study; the system applies it to all linked studies.

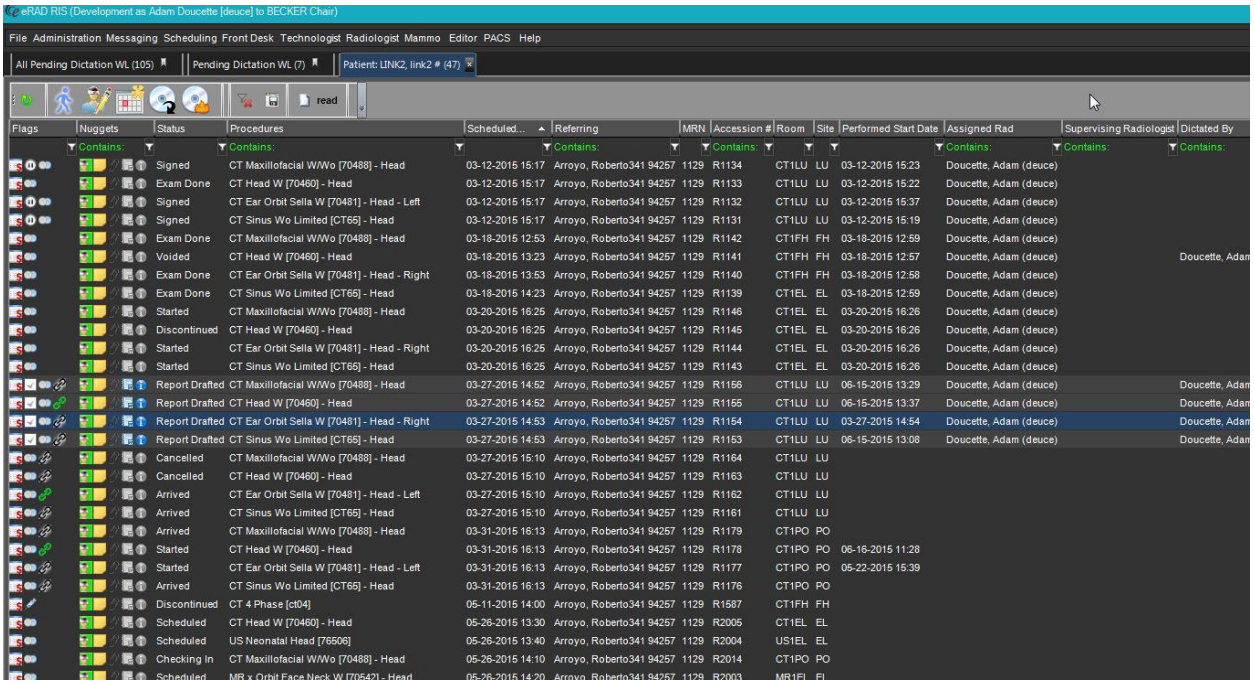
Exams will not show on the 'My Pending Dictation worklist' until all linked studies are PACS corrected and exam done. Then once these conditions are met, RIS shows the primary study on this work list. All of the "my" radiologist and transcriptionist work lists work the same; they only show the primary study.

Unlike the 'My Pending Dictation worklist', the 'All Pending Dictation worklist' will display all linked studies, as individual studies as soon as they are in the status of 'Exam Done' and are PACS corrected. However, if all the 'linked' studies have not reached this state, the studies may not be opened to start dictating. The 'All' worklists show all linked studies.

Opening any linked study in the radiologist or transcriptionist screen will lock all linked studies and will open the primary study regardless of exam selected to be actioned on.
Since the primary study is the item technically opened, you will see the templates and macros for the primary.

Study status updates will happen on all studies once the reporting work flow stage has begun. So when the primary is dictated or signed, this status is reflected on the secondary studies as well. Also the QA and Problem flags are reflected on all studies.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.



*Patient folder showing worklist icons and highlighting*

There are various impacts to existing workflows which are described here:

PACS integration:
PACS will load the primary study as normal, and will load the linked studies as priors. PACS will load only the primary studies relevancy based priors, not based on all linked studies.

Quality Review Distribution:
QA distribution treats linked studies as a single study.

Delete Dictation and Report:
Delete dictation and report will delete the report/dictation and reset all linked studies back to exam done.

Reset/Open Skipped Rows:
Reset open skipped rows will not have to worry about primary studies, as the rad screen will not allow non-primaries to be opened.

XML Drop Files:
XML files are written using the primary studies data
Rad and MT Daily Stats

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

Stats are calculated based on reports actioned upon, not studies. So a linked report of 4 studies is counted as 1.

Auditing:
We are auditing the direct actions taken on a single study key and including the linked_id in the audit trail which provides the link to the primary study.

Document Distribution:
Will not distribute duplicate reports of the linked exams

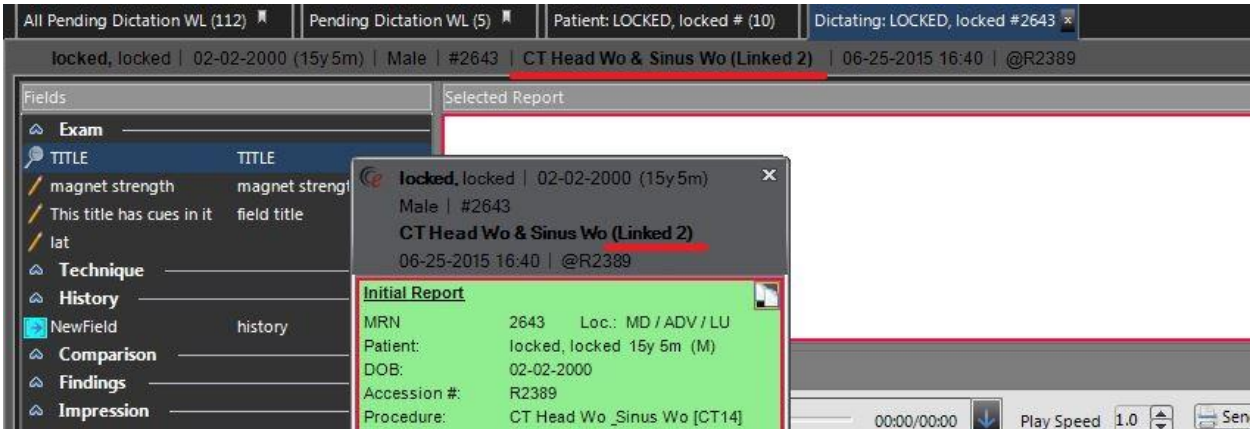
Canceling the Primary study:
If the primary study is cancelled or cancelled due to technical repeat, then the RIS breaks the link. This means the linked ID is set to 0 on all studies and they become their own primary to be reported individually

Report History/Preview Report:
Even when opening a secondary study and invoking these features, the primary report will be displayed and expected.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

### 10766 Linked Reports - Show linked information in the title bar of reporting window

When opening a linked study in the reporting window the RIS need to clearly inform the radiologist of the fact that there are multiple studies in this collection to be read. To do so, the RIS will show the word 'Linked' and the number of studies linked in the title bar after the procedure description.




*Radiologist window showing a linked collection with 2 linked studies.*

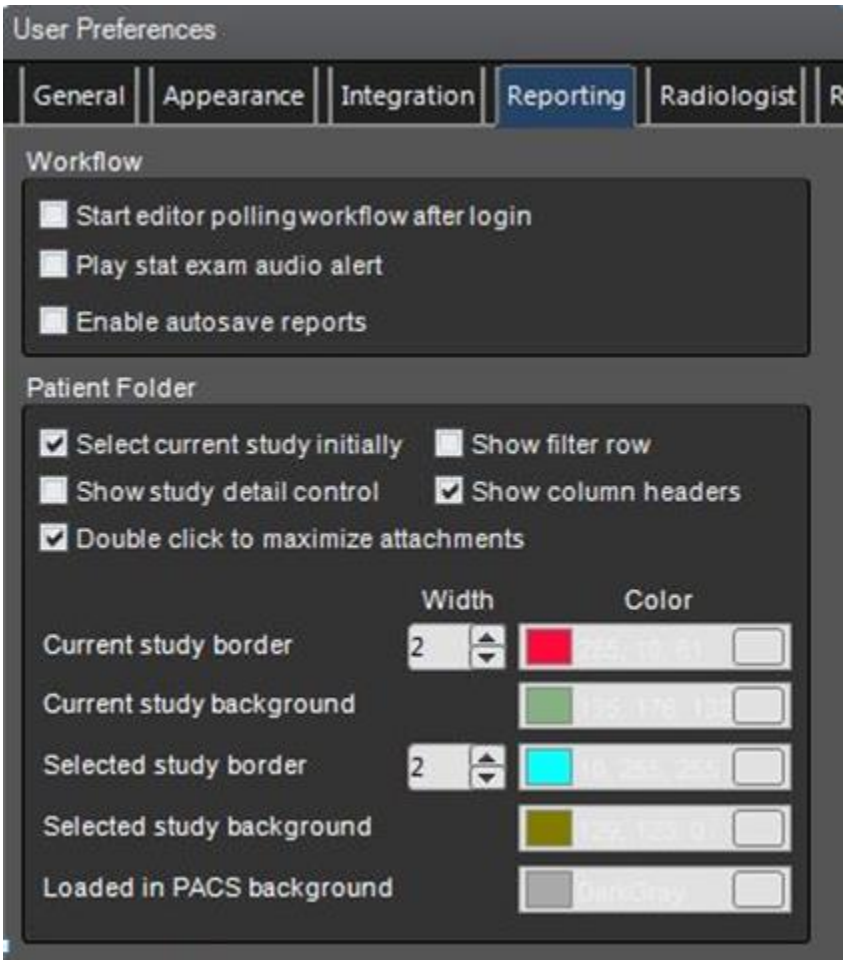
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

### 10597 Linked Reports - Display the current study linked background color in patient folder

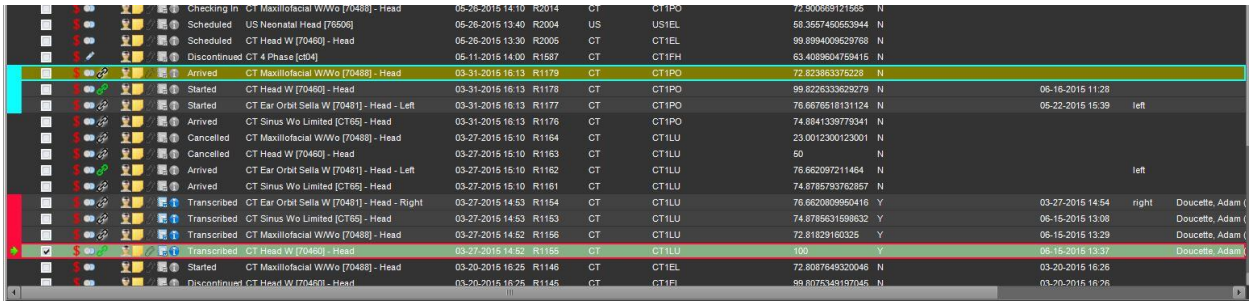
In the patient folder, the RIS needs to visually indicate studies which are linked together. To do so, the RIS now features an icon (a piece of chain) to indicate the studies are linked. To show which ones are linked, the RIS will also show the linked studies with a background color of pink in light mode, (and grey in dark mode) when any study of the linked collection is selected. In this manner, when the user selects a study, they get the visual feedback to tell them there is more than one study attached to the study they have just selected.

In the radiologist's mini-patient folder in the reporting window, the RIS provides similar but enhanced functionality. This patient folder has existing color enhancements known as 'current study border' and 'selected study border'. There is also a column called the 'main study indicator' which shows the current study. The main study indicator column will take on the background color of the current study border color and the column next to the prior study will take on the background color of the selected study border color for the selected.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.




*Existing user preference screen showing the red and teal colors being used by this user.*



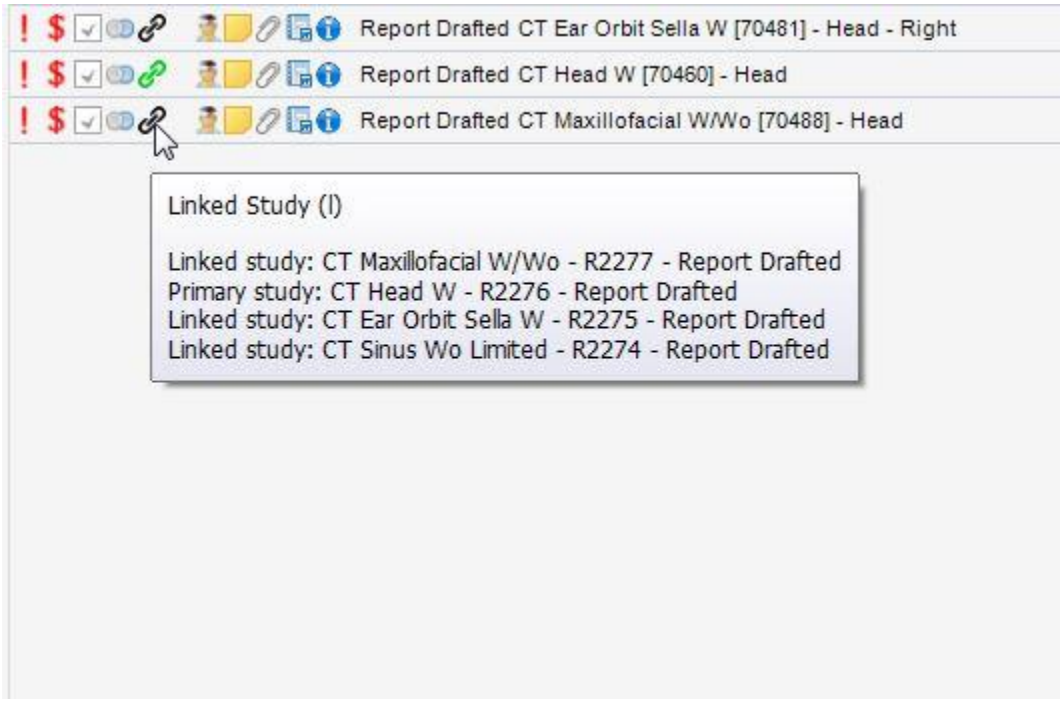
*Patient folder showing the color in the Main Study Indicator column.*

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

**10640 Linked Reports - Create worklist icon and tool tip to display linked information**

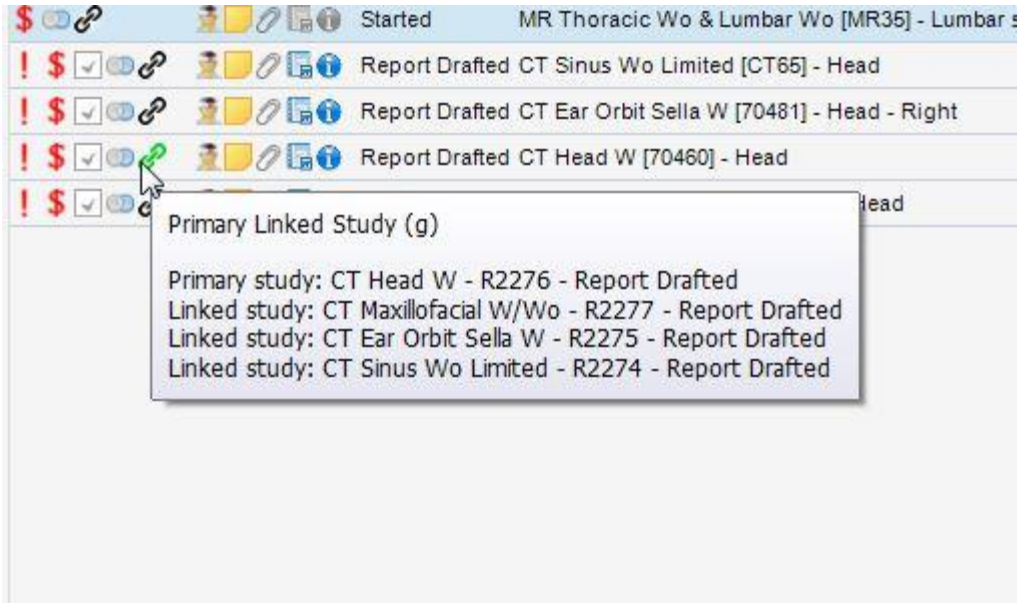
There is a need to show a visual flag and information on various worklists so that a user has detailed information about linked studies.

There is now a flag on several worklists that shows a status about the linked studies. The primary linked study is shown as a green link of chain, while the secondary studies are shows as black links of chain. There is also a tool tip which shows detailed information about all the studies in the linked collection. The tooltip will display all the studies in the linked collection starting with the currently study that the mouse is pointing at, then the primary linked study, followed by the remaining secondary studies. The tooltip will display if they are primary or just linked and display their procedure description, accession number and status.




*Linked study tooltip when the mouse has hovered over a secondary study*

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.




*Linked study tooltip when the mouse has hovered over the primary study*

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

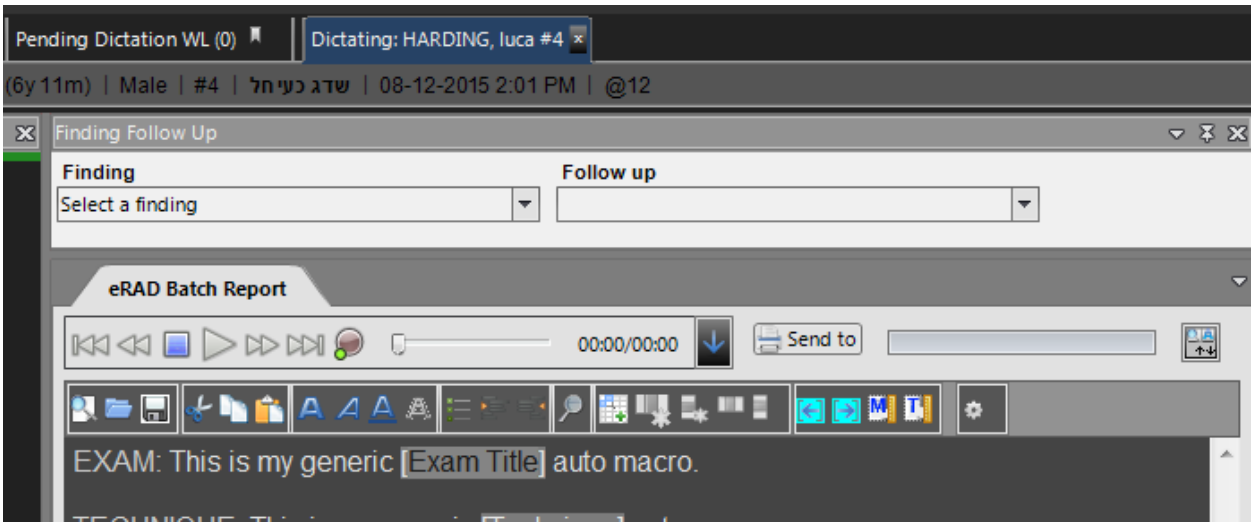
### 08360 Create 'Finding Follow Up' workflow

Includes sub-features:

- 10802 Ability to configure mandatory finding follow up procedures
- 10803 Ability to configure finding a follow up options
- 11549 Management report

There is an industry requirement (initially from Israel) to have a radiologist enter a finding (positive or negative) on certain studies. If the finding is positive, then additional follow up is required. The finding and the follow up should be entered during dictation or transcription of the study. The follow up options need to have a configurable time frame associated with each option. Any studies that require follow up must be placed onto a worklist for someone to review and resolve.

There is now a new panel in the radiologist/transcriptionist window called 'Finding Follow Up'. This window will only appear when the study (procedure code) being read is enabled for the follow up workflow.




*Radiologist window showing 'Finding Follow Up' tool window.*

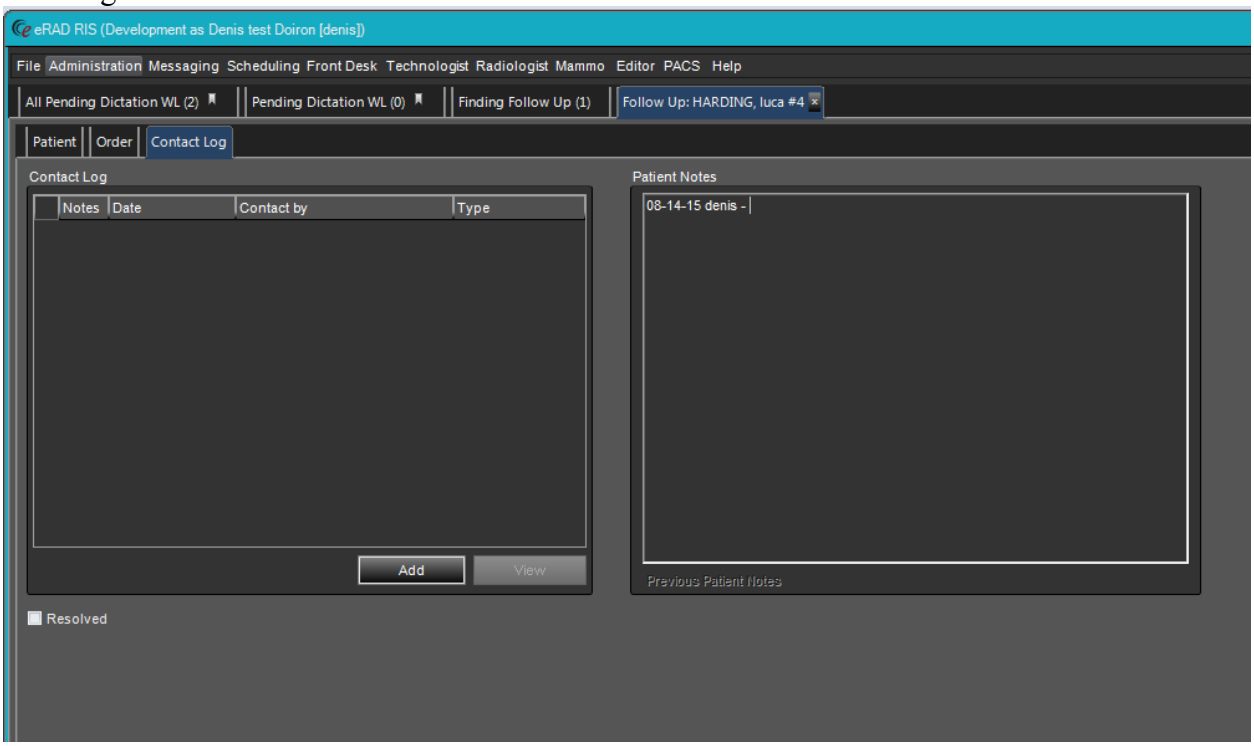
If a finding is required for that study, the radiologist will not be able to sign the report until the drop down is populated. However, the radiologist can send the report to transcription, and the transcrioptionist can populate the value based on the dictation.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

The options available in the finding drop down are populated from entries in the “Finding” lookup table which describes the finding options and the associated follow up options, which are stored in the existing “recommendation” lookup. Each findings option can be linked to many follow up options.

The follow up time frame is stored at the follow up option (recommendation) lookup in the follow up days field.

When the radiologist selects a follow up option the “follow up days” value will determine if it shows on the “Finding Follow Up WL” after signing the report. If the follow up option “follow up days” value is empty then it will not go to the “Finding Follow Up WL”.
From this “Finding Follow Up WL” the follow up can be resolved by right clicking and selecting “Remove Follow Up Required Flag” or by opening the “Follow Up” screen shown below and selecting the ‘resolved’ checkbox.




*Follow up contact log*

From the Follow Up screen the user has access to the contact log and the patient notes as well as the Patient and Order data. If the user completes a contact log entry it will increase the contact attempts counter on the worklist. If the user checks the resolved option then the study will be removed from the worklist.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

From patient folder the users can “Set Follow Up Required” flag on a study from the context menu, which will place the study to the Follow Up Required worklist.

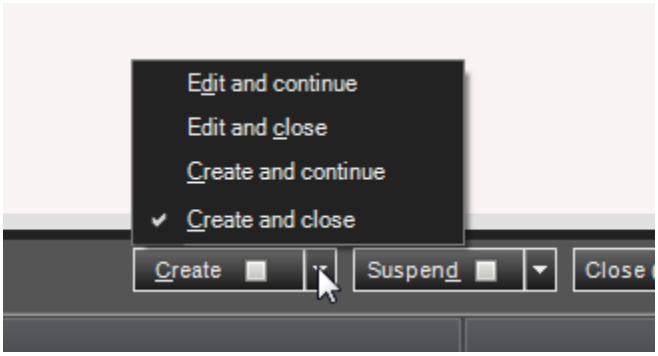
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

**09371 Ability for users to create diagnostic report prior to radiologist**

eRAD RIS creates the radiologist report when the radiologist opens the Dictation screen. There have been frequent customer requests for the ability for a technologist (or transcriptionist) to be able to create the initial report in order to pre-populate some data (or the entire report) and then send the report to the Pending Dictation worklist, or the Pending Signature worklist for the radiologist to complete.

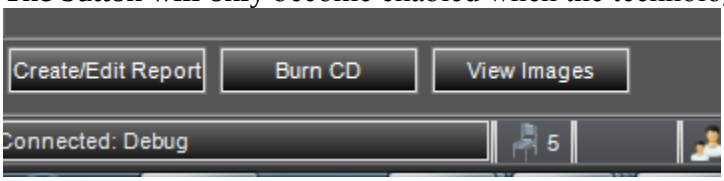
To support this, the "Create/Edit" context menu item (which already existed on the transcription worklist but was limited to studies that already had a report created by the radiologist) has been altered so that it will be enabled on studies that in 'Exam Done' status. Now, if the report does not already exist, this menu item will create the empty report.

There are also two new drop down button options on the "Create/Edit" screen called 'Create and Continue' and 'Create and Close'.




*New button options attached to the Create button*

A "Create/Edit Report" button has also been added to the technologist "Perform Exam" window. The button will only become enabled when the technologist has 'Completed' the study.




*Technologist screen showing the new Create/Edit Report button*

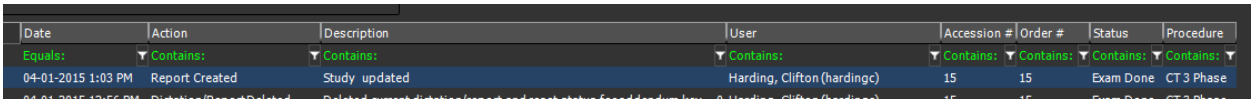
Clicking the button will open a Create/Edit Report screen and the technologist can then view and enter data into the diagnostic report.

In all these cases, the RIS will load the report templates based on the organization structure as there is no 'Dictating Radiologist' at that time in the workflow.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

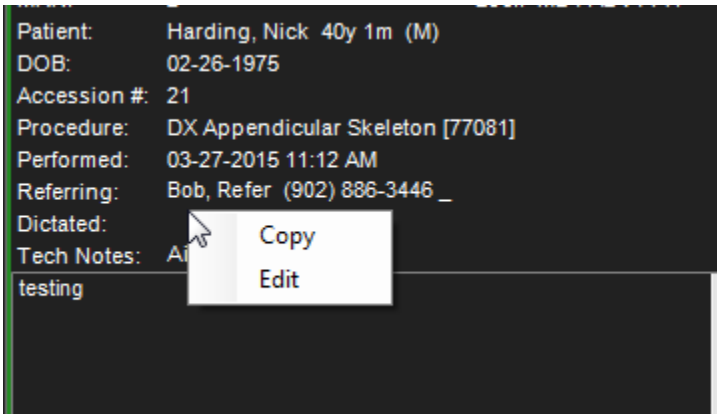
The RIS will not enforce populating BI-RADS drop downs when editors create only, nor will it enforce populating Finding Follow up drop downs when editors create only.

There is a new audit even called Report Created (UI_ReportCreated) - which will show as "Report Created" in the audit history.



*Audit history viewer showing the new audit event*

The RIS will allow the editor to assign to a radiologist when creating or editing the report. This will enable the editor to set the dictating radiologist so it will show on their pending signature worklist. Prior to this change, the summary panel wouldn't show the dictating radiologist if it was empty, but now it shows a blank space and will allow the user to right click and assign a radiologist. This assignment will just be the dictating radiologist and will not populate the dictated date.



*Summary panel showing the blank space where the dictating radiologist would be*

The dictated date (if not yet set) will be populated when the radiologist signs the report.

When the 'Edit and Close/Continue' option is clicked and if the dictating radiologist is not set and the assigned radiologist is not set the RIS will set the dictating radiologist field to be the same as the assigned radiologist. This will allow users in the tech screen to assign to a radiologist as they always did, then create the report and have it show on the pending signature worklist.

When 'Edit and Close/Continue' is clicked and the dictating radiologist is not set and assigned radiologist is not set the RIS will prompt the user for dictating radiologist selection. Without this selection it will not show on a radiologists pending signature worklist. Canceling this dialog is

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

allowed and the study will fall to the ‘All Pending Signature worklist’ with the current user as the dictating radiologist. This was pre-existing logic in eRAD RIS when sending for signature and there was no dictating radiologist.

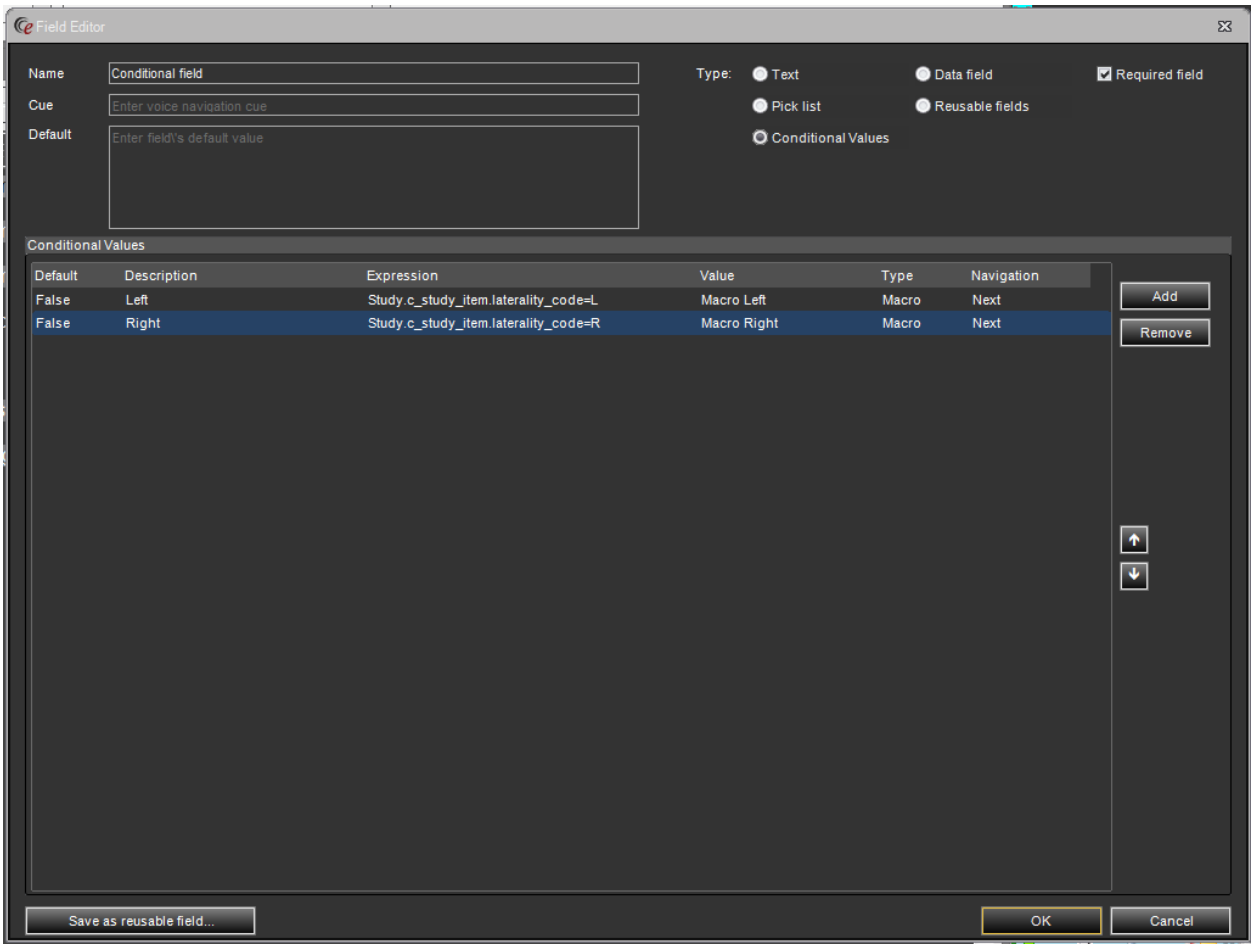
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

### 11205 Conditional Fields for Structured Reporting (Phase 1)

The general industry direction is to provide some form of structured reporting capability in eRAD RIS. This will require many sub-features which will be developed over the coming months. The first feature required is a conditional field which could check a simple logical condition and then automatically populate the report with a specific text or macro. This condition would be based on a data field or questionnaire field being equal to a specified value.

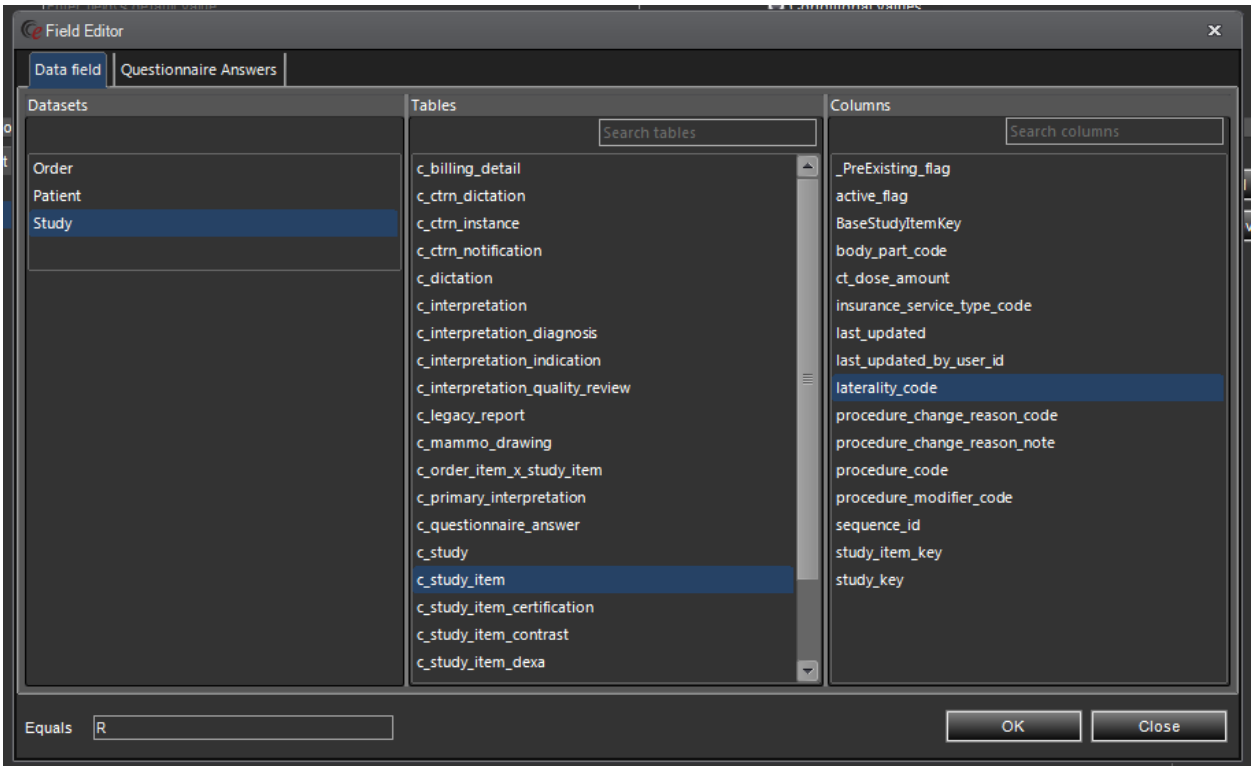
To provide this capability, there is now a new option type in the template macro field editor called `Conditional Values`. When the expression is double clicked to enter edit mode, the advanced data field popup will appear. The advanced data field popup in this case has a "Equals" textbox in the bottom left. When the mapped data field is equal to the value assigned, then its text or macro will get inserted. When no conditions are met, then the default condition will be used, if there are none then the field will stay empty. When multiple conditions are met, the first one will be used.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.




*The field editor showing a conditional field set up on laterality code*

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.




*The advanced field editor popup with the new "Equals" text box.*

The conditional fields will populate when the template is inserted. To repopulate them the template needs to be re-inserted, but then all changes to the report would be lost.

Outstanding Issues

If a conditional field is populated with a macro that contains tables or fields, the original field is deleted, because the RIS can't embed fields or tables in fields. What this means is that in order to repopulate the conditional field based on data changes, the entire template needs to be reloaded, which would lose the user's changes to the report. Phase 2 will aim to remedy this limitation

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

**10488 Legacy Report Viewer - PDF viewer should be managed by RIS**

A customer has requested that the PDF viewer for legacy reports should allow only a single report to be viewed at a time. In other words, it should automatically close the legacy report when a new patient is opened to prevent any possibility of confusion. Since some customers prefer the existing workflow, this must be a configuration option.

The RIS now contains an integrated PDF viewer that supports viewing and printing of PDFs, as well as automated closing from the RIS. There are two new configuration settings:

KillPDFViewerBeforeLegacyReport
(value = bool) True enables RIS to try to 'kill' or close the PDF Viewer before opening legacy report in a new instance of the PDF Viewer.
Default TRUE

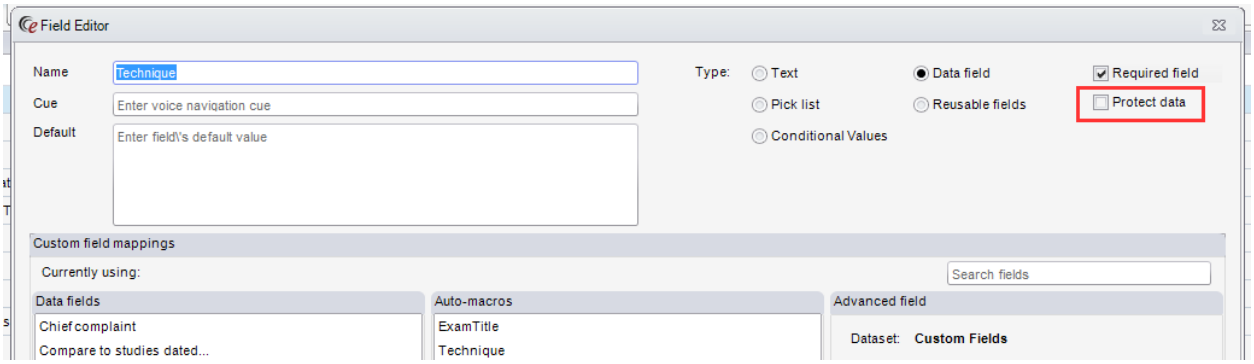
KillPDFViewerAfterLegacyReport
(value = bool) True enables RIS to try to 'kill' or close the PDF Viewer after opening legacy report in a new instance of the PDF Viewer from the reporting screen.
Default TRUE

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

### 10572 Ability to protect a field element in the eRAD report editor

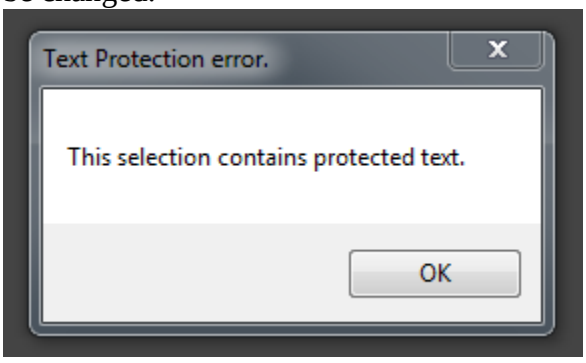
The RIS has the ability to populate diagnostic reports with data from the RIS database. These elements are visually editable by the user, but by design the modification to the data is not saved back to the database field that it came from. Since this may lead to confusion that data should be saved, and since some customers desire this data to be locked down, the RIS should provide a configuration so that this data can be protected from being altered.

The Field Editor tool now includes a checkbox called 'Protect data'. This only applies to data fields and advanced fields.



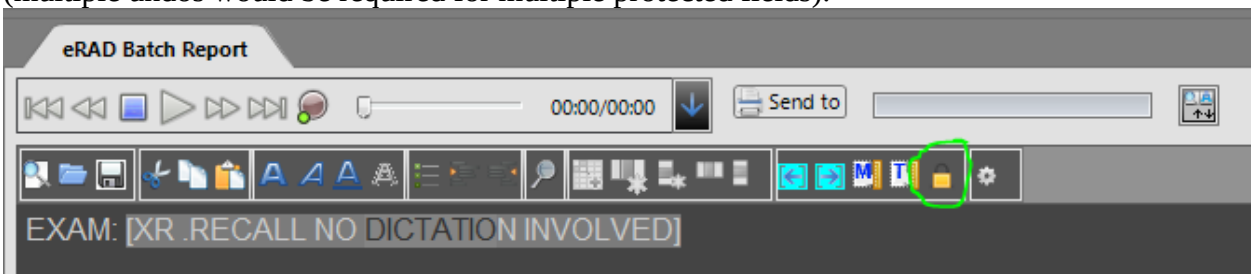
*Field Editor showing new Protect Data option*

When the checkbox is selected, there is a visual font change to show that the field is protected. If the user attempts to modify the text inside this block, the computer will make a "ding" sound. If the user attempts to make a modification to the report by selecting a range of text that includes a protected block, a message box will be displayed saying "This selection contains protected text". This message box is not created by the RIS, so unfortunately the text and behaviour cannot be changed.



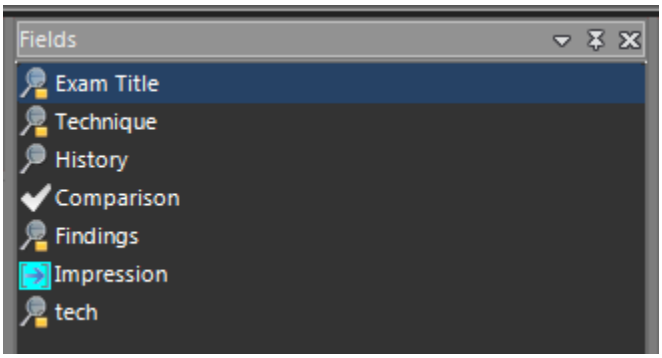

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

The user can unprotect all fields (this is from existing functionality). This can be accomplished only if the user has FULL access to the "Reporting.UnprotectDataFields" access string.
When fields are protected in the report, a button will appear in the report editor's toolbar next to the field navigation buttons. The button will only be visible when fields are protected, once the button is clicked to unprotect fields, all fields will be unprotected and the button will disappear. If the user undoes this action, the button will reappear once all the fields are protected again (multiple undos would be required for multiple protected fields).




*Reporting window showing the locked field indicator*

When fields are protected, they will show up in the report field controls with a small lock on the field icon. This icon will stay there even if the user unprotects them. The lock represents the field's property as defined in the field item editor.




*Fields tool window showing the type along with the small lock indicator*

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

**9630 Integrate with GE Universal viewer**

A customer has requested the ability to integrate the RIS client to the GE Universal Viewer for the radiologist reading environment. This is similar to the integrations that already exist between the eRAD RIS client and eRAD PACS, GE PACS IW, Carestream PACS, and Hologic.

The eRAD RIS client can now be configured to connect to a UV server. The workstation must have the UV PACS client installed on it. Users can launch view sessions, close view sessions, and append new studies into the existing view sessions. Logins are handled in a manner similar to the other PACS integrations in that the first attempt to launch images attempts to log in with the credentials used for eRAD RIS. If this fails the user will be prompted for different credentials.

The integration is based on the performed study instance uid, so an HL7 feed needs to be set up in order to get this information from the PACS to the RIS.

How to enable the feature:

Install the UV PACS viewer on the workstation by logging to the server with Internet Explorer in compatibility mode and installing the viewer.

Configure a UV PACS server in the PACS Server lookup table in RIS. The PACS Server type must be UV and the url field must be filled with the ip or hostname of the server.

Either configure a practice in RIS to use this server or on login use the PACS menu to override the default selection.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

**Biopsy Workflow**

There is a need for a biopsy workflow for Israel that is different than the existing US –based workflow.
The basic workflow is as follows, with additional details in the larger section below:

- A study is configured to require a biopsy
- When that study is received in reception, it is automatically added to a 'Pending Biopsy' worklist for the radiologist to perform
- A notification is sent to the radiologist that the study is ready for the biopsy procedure
- The radiologist performs the biopsy and documents the procedure.
- The radiologist annotates an image with locations of biopsy samples and FLN icons
- A 'Procedure Report' is created that includes pertinent details of the biopsy as well as the drawing.
- The procedure report is stored as an attached image to the study
- Downstream systems are notified of the completed biopsy procedure via an interface
- The study is added to a 'Pending Biopsy Results' worklist
- When the biopsy results are received, the same study is released from the pending worklist – or can be manually released
- The study appears on the (my) 'Pending Dictation' Worklist
- The remainder of the workflow is as per normal diagnostic reporting workflow.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

### 11076 Biopsy Workflow - Ability to Flag a Procedure as a Biopsy

The RIS now contains a new biopsy workflow. In order to know when to enable this workflow, there needs to be a way to associate the procedure to the workflow.

A new column called 'Biopsy Enabled Flag' has been added to the Procedure Code lookup table with a default value of 'N'. Procedure codes that are required to be sent to the Pending Biopsy workflow will have to have the Biopsy Enabled Flag set to 'Y'.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

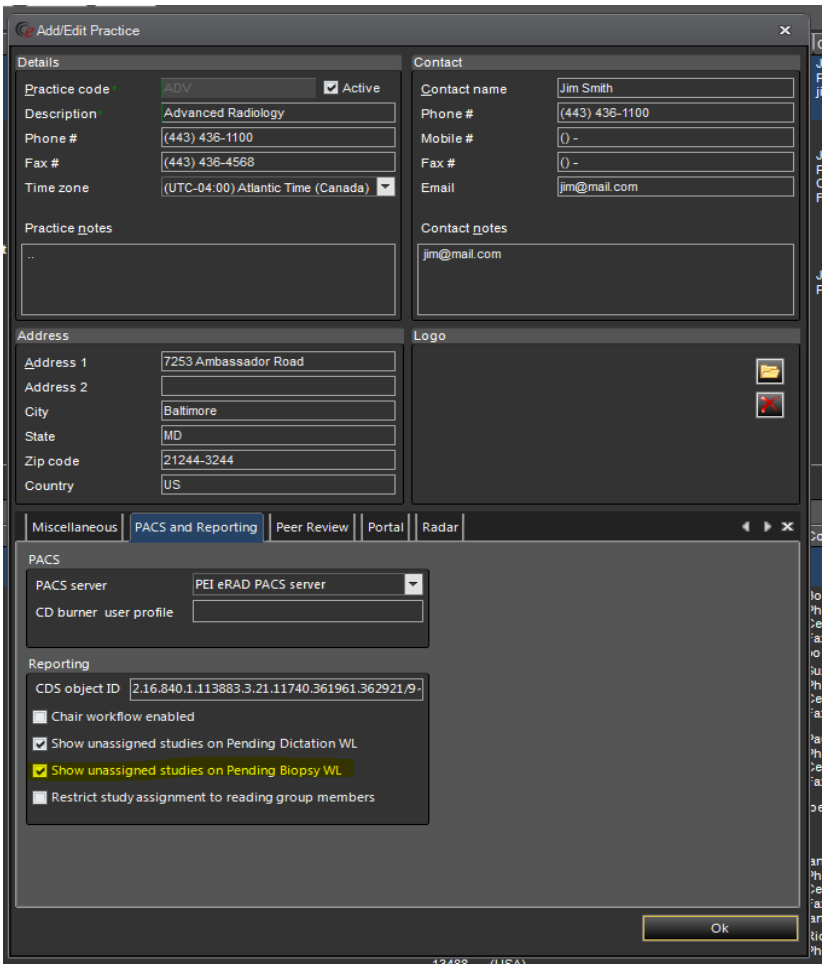
**11077 Biopsy Workflow - Create Pending Biopsy and All Pending Biopsy Worklists**

In order to begin the biopsy process, there needs to be a worklist for the radiologist who performs the biopsy procedure. Therefore, the RIS requires a (my) 'Pending Biopsy' worklist. A senior staff radiologist will also require an 'All Pending Biopsy' worklist.

These worklists have been created and are based on the same statuses as the Technologist WL (Arrived, CheckingIn, Started). The radiologist's (my) Pending Biopsy WL is filtered based on the assigned radiologist. The "Perform Exam" screen will be used by the Radiologist to action the pending biopsies. The pending biopsy work list will show studies in Arrived or Started status that have a procedure code that has the biopsy enabled flag set to 'Y'.

Note:
In the same manner as the (my) Pending Dictation worklist, it is possible to show un-assigned studies on the 'my' pending biopsy worklist. To enable this setting, the following checkbox should be enabled at the practice level:

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.




*Practice maintenance screen showing the new unassigned studies option*

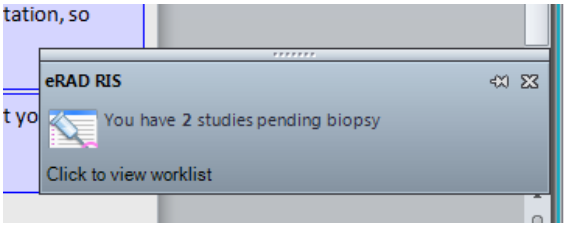
Access Strings:
WL.Rad.PendingBiopsyAll – FULL shows the worklist
WL.Rad.PendingBiopsy – FULL shows the worklist

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

### 11078 Biopsy Workflow - Notify a radiologist of an assigned pending biopsy

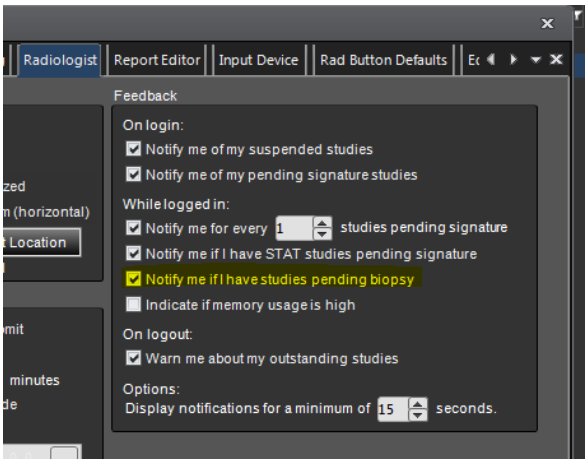
When a radiologist is assigned a biopsy request, he or she will need to be notified.

eRAD RIS now supports a new notification pop-up that will appear for the radiologist when they have a study assigned to them that requires a biopsy.




*Example of a biopsy notification*

There is a user preference that allows the user to turn off this notification.




*The user preference screen showing the new notification option*

Access strings:

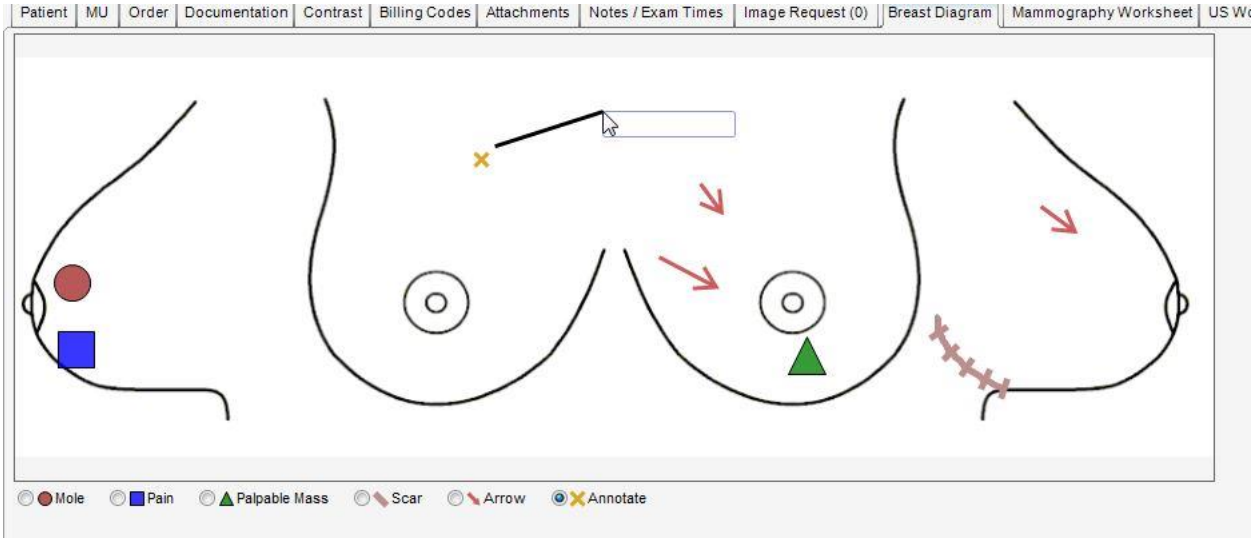
WLNotification.PendingBiopsyNotify" – Default FULL – If set, the notification can appear to the user.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

**11079 Biopsy Workflow – Drawing tool – Add tool to show biopsy locations (annotation tool)**

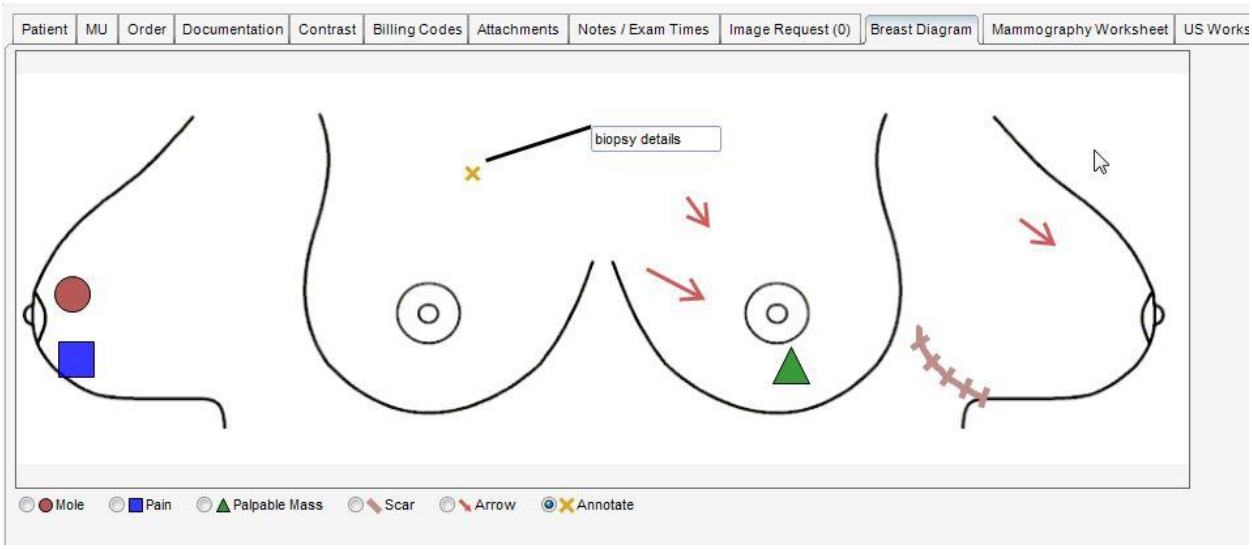
The RIS drawing tool needs to be expanded to include a new tool type which will be used primarily to show the location of a biopsy sample. It is desirable to make this a 'call-out' type tool so that a custom label can be added to each call out, therefore making this tool useful for many other purposes.

eRAD RIS's drawing tool now contains a new tool called 'Annotate'. When selected, the mouse is used to select a starting location for the annotation. Consider this to be the actual location of the biopsy sample in this case, and consider it to act like a 'line' feature in many drawing programs. The user will click down with the left mouse button at the location of the biopsy, and while holding down the left button, will drag the mouse to a new location where the annotation text can be entered. When the user releases the mouse button, the RIS will open a text field where the user can key in the value for the annotation. To delete an annotation, right click on the annotation and select the 'Delete' option.




*Drawing window showing an annotation tool. The user has selected a starting location and is dragging the mouse to a location for the annotation label*

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.




*Drawing window showing an annotation tool. The user has released the mouse button allowing text to be entered for the label*

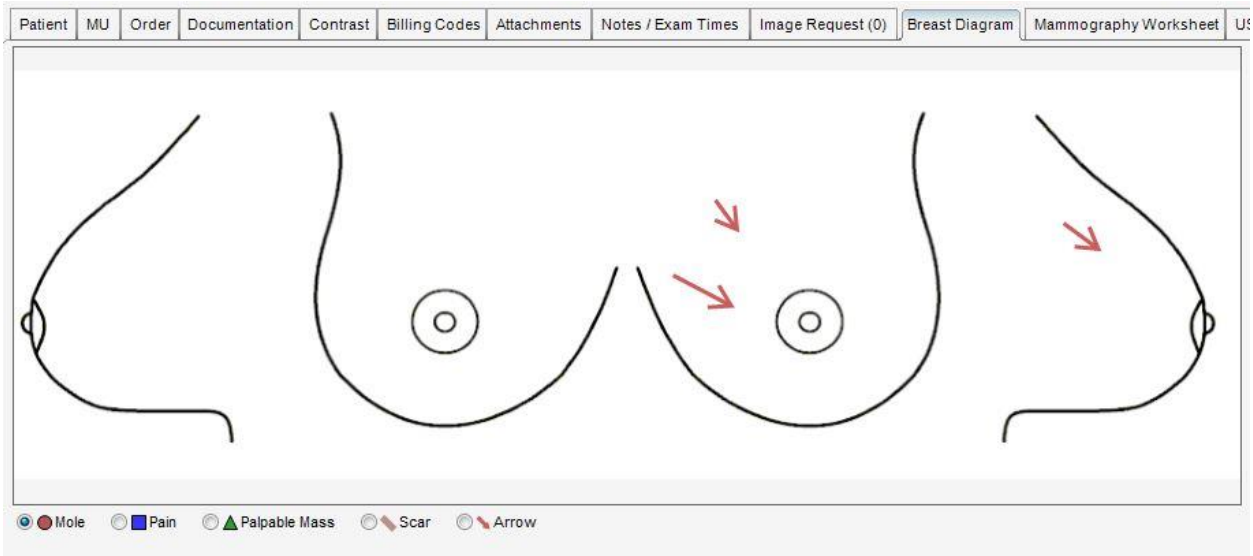
To delete an annotation, right-click on the starting point of the annotation and select 'Delete' from the context menu.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

### 11184 Biopsy Workflow - Drawing tool - Add tool for arrow (FNL tool)

The RIS drawing tool needs to be expanded to include a new tool type resembling an arrow which will be used to represent FNL (fine needle localization).

A new tool has been added called 'Arrow'. To draw an arrow, select the tool type, then click on the image with the left mouse button and while holding down the button drag the mouse to another location. When the mouse button is released, an arrow will be drawn. To delete an arrow, right click on the arrow, and select the 'Delete' option.




*Drawing window showing an FNL (arrow) tool. The user has selected a starting point and dragged the mouse to an end point and released the mouse button. The user has done this 3 times.*

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

**11083 Biopsy Workflow – Generate a Biopsy Procedure Report (framework)**

When the biopsy procedure is marked as completed by a radiologist, a Biopsy Procedure Report is required to be created, printed, stored to the patient's attached images and an XML version needs to be transmitted to an external system. This report must also include the drawing from the drawing tool, along with answers from the questionnaire framework.

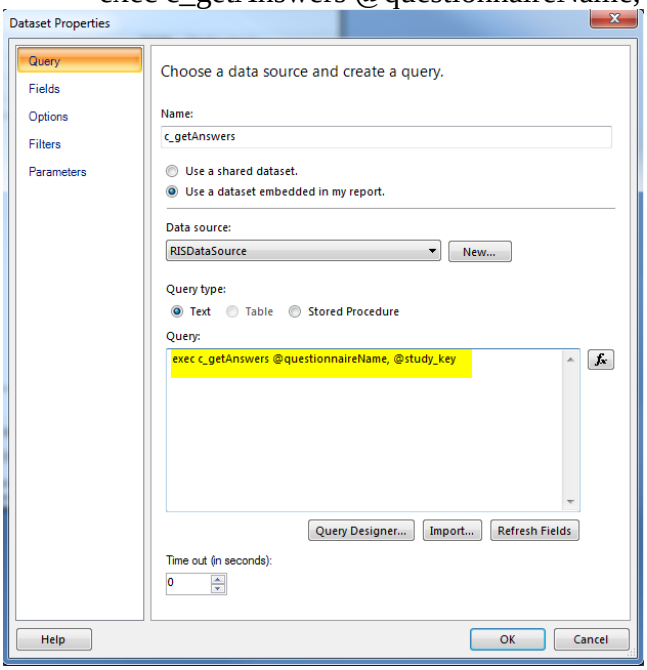
eRAD RIS will generate this report using the existing forms/labels feature. A sample report was created so that service personnel could see how to pull questionnaire answers (the biopsy data entered by the radiologist is stored in these answers) and the drawing into this form.

**How to create the Procedure Report form:**

**This is a more involved setup, usually involving the assistance of eRAD support personnel. For assistance, please contact eRAD Support and reference feature 11083**

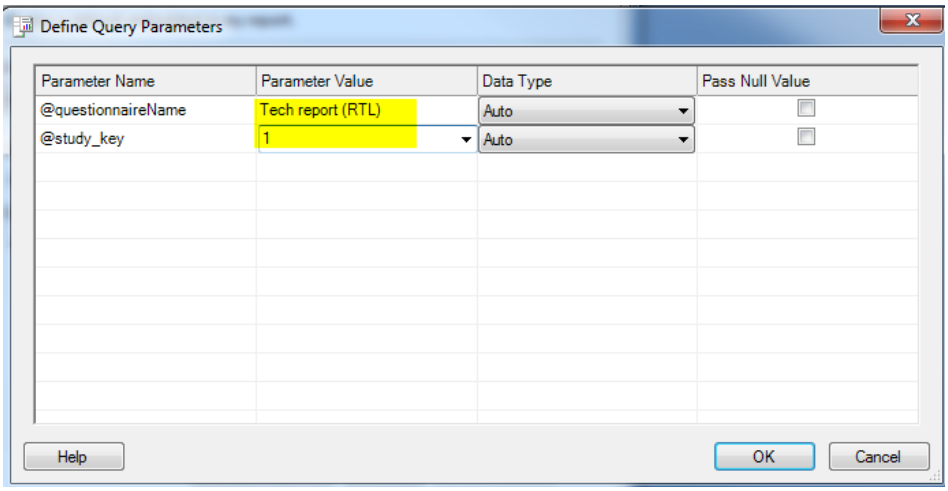
In report builder create a dataset. Set the data source to RISDataSource. Set the query type to Text. Set the query as shown

exec c_getAnswers @questionnaireName, @study_key



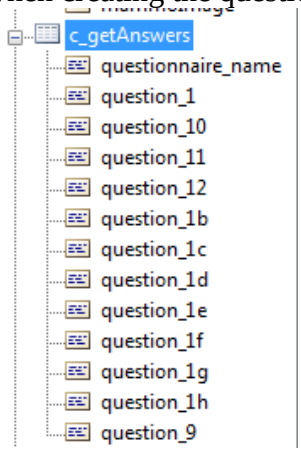

Click the Refresh Fields button, and if prompted enter your sql connection information.
You will be prompted with the Define Query Parameters window.
You will enter the name of the Questionnaire and any study key.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.




The dataset should populate with a list of all the question short names from the questionnaire like this:

Note: In this example question_1 through question_12 are the short names for the questions in the sample questionnaire I referenced. This is why it is helpful to have more meaningful names when creating the questionnaire short names for mapping the data into a SSRS report.




Notice that adding that stored procedure creates 2 report parameters if they did not already exist.

- @questionnaireName,
- @study_key

Notice that the Study_key parameter is what drives the form from the worklist.

**How to include the drawing tool image:**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

To pull the biopsy image into the form, join the image_data from the into the c_mammo_drawing table into your query.

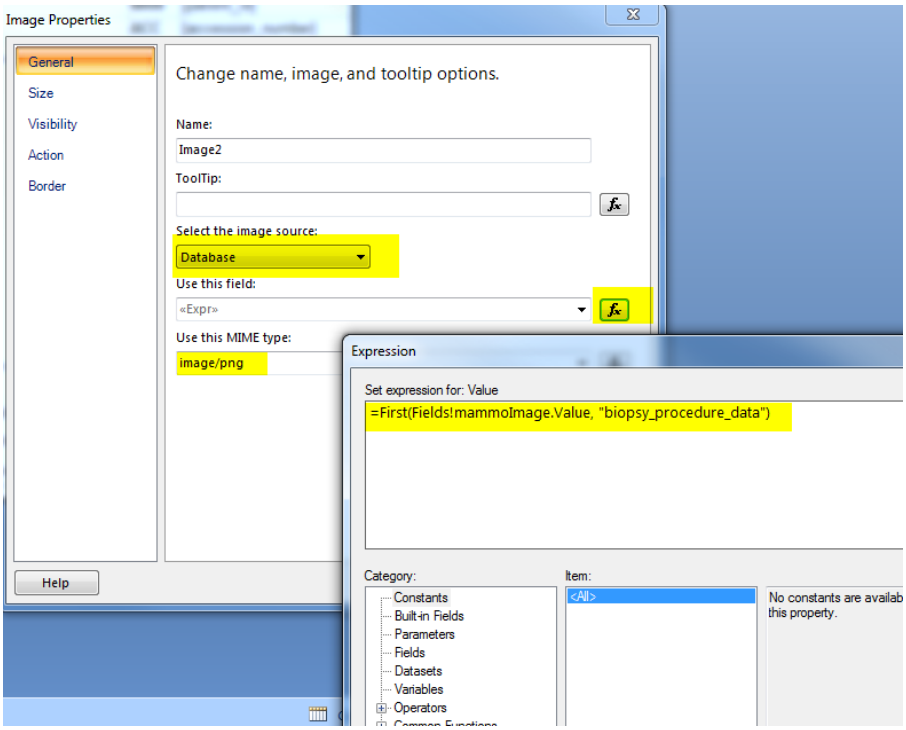
Example:

```
select
        <your patient, study, order or whatever other information you need would be here>
        ,md.image_data as mammoImage
from
        c_study s
        inner join c_patient p on s.patient_key=p.patient_key
        left join c_mammo_drawing md on s.study_key=md.study_key
where
        s.study_key = @study_key
```

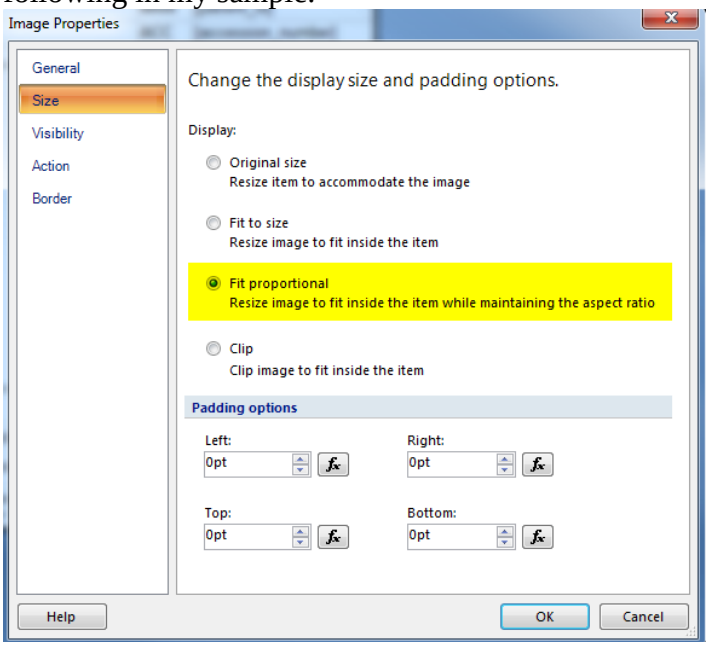
In SSRS report builder put an image where you want it on the form and add information as follows:

- **Select the image source:** Need to be Database
- **Use this field**: Using the little fx (functional expression) button to select the image field from your dataset. In this example I called my dataset biopsy_procedure_data and pulled the field I aliased as mammoImage
- **Use this MIME type**: I selected image/png but you can use what you prefer.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.




You might want to set the Size properties to what suits your needs. best, but I just used the following in my sample.




No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

**11082 Biopsy Workflow – Ability to collect custom Biopsy Data**

During the performing of the biopsy procedure, there is specific data that will have to be collected and entered by the performing radiologist (examples include Modality Type, Study, Pathology Type, Left or Right Breast, Biopsy Location, Color of Specimen Container, BIRAD, etc) In order to provide future enhancement opportunity and not hard-code this single solution, it is desirable to use the conditional tab framework to collect this information, but some enhancements to this framework are required. The Conditional Tab editor needs to include body part and biopsy enabled flag. The RIS will also need to produce a 'Procedure Report' when the biopsy has been performed.

The questionannaire framework will now evaluate the biopsy and body part fields when determining when to display a questionnaire.

The forms and labels editor was modified to support filter criteria that includes Body Part and Biopsy flag. A "companion form" can be created to present the information from the questionnaire, with criteria that specify that the form should be printed whenever the "tech completes the exam" (which is actually the radiologist completing the biopsy procedure)

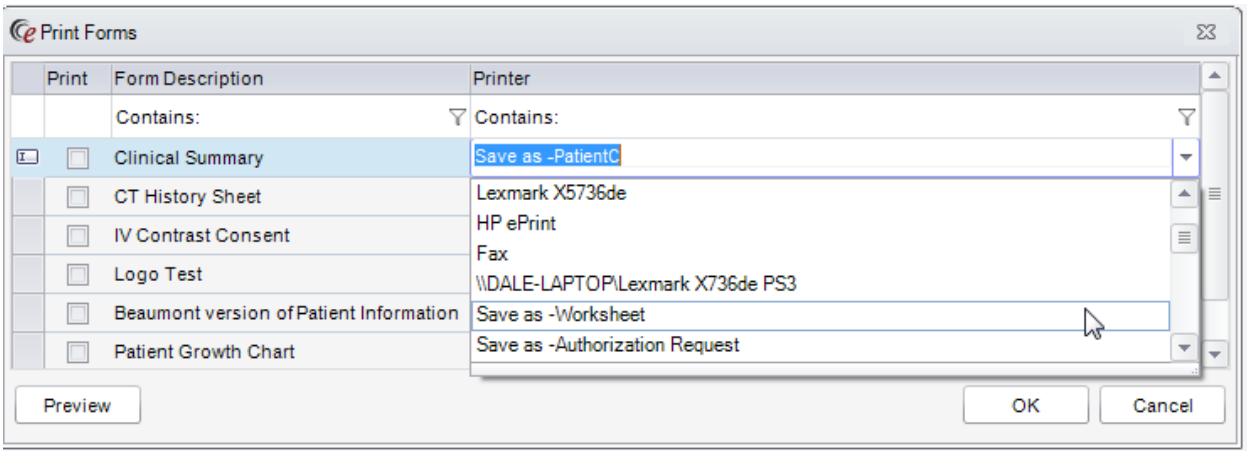
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

### 11271 Biopsy Workflow - Ability to save a form directly to the patient folder

When the biopsy procedure report is created, the user must save it to the patient folder. eRAD RIS needs to support creating a form and saving it directly to the patient folder.

The Print Forms dialog (which can be configured to automatically launch at many points in the workflow) normally contains a list of printers where the document can be printed. This has been enhanced to also contain links to save an image of the document directly to the patient folder. It will appear in the list of printers and 'Save as' and a scanned document type. When selected, the RIS will render the report as an image (using multiple pages if necessary) and store the image as a scan document visible from the patient folder. As per normal RIS functionality, once a destination is selected, the RIS will remember this destination, so the user only has to make this selection once.

If more than one copy of the same document is required (for example, in the requested biopsy workflow there has to be a printed copy of the document as well as the document attached to the patient folder) simply configure the document to appear twice in this dialog by having 2 identical forms created.




*The print forms dialog showing the ability to save the document to the patient folder as a 'worksheet' type.*

Access strings:
Clinical.FormsAndLabels.AllowSaveAsAttachment

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

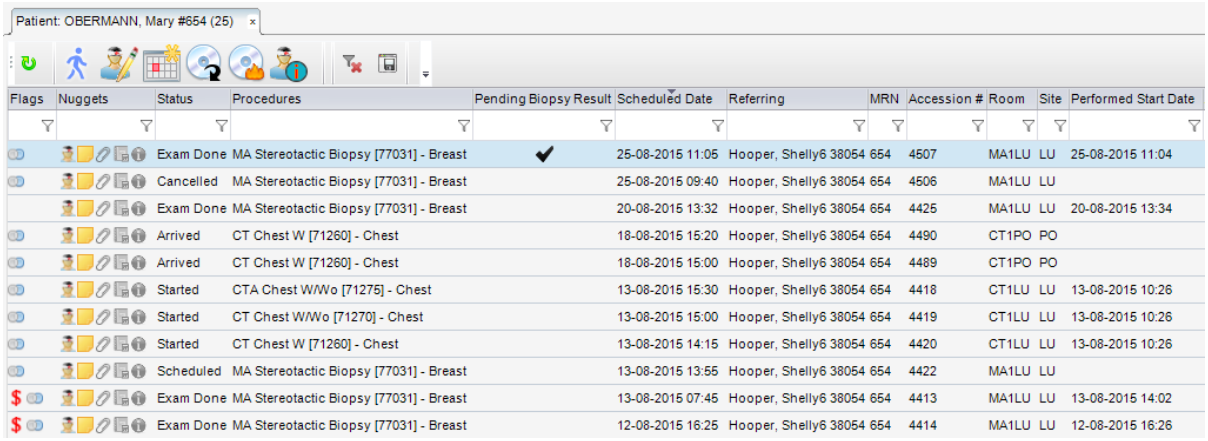
### 11084 Biopsy Workflow - Track biopsies that are awaiting results

As biopsy procedures are completed by the radiologist in RIS and sent to a lab for pathology, there needs to be a means to track that the biopsy has been sent to an external system and is awaiting results.

To accomplish this, a new worklist called Pending Biopsy Result WL has been added to the Administration menu in eRAD RIS. As biopsy procedures are marked as complete by the radiologist, the study will appear on this Pending Biopsy Result worklist. The study will remain on this worklist until the pending_biopsy_result_flag (accessible via the RIS interface) is set to 'N'. Once the interface message is received, the study will be removed from the Pending Biopsy Result WL and a radiologist can now dictate on it from the Pending Dictation worklist.

Should the interface not exist, a user can manually remove a study from the Pending Biopsy Result WL by right clicking and selecting 'Remove Pending Biopsy Result Flag'.

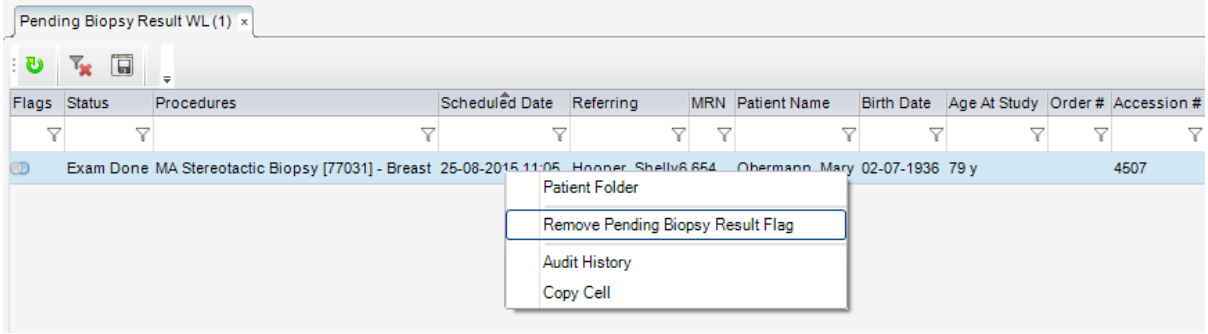
Access strings:
WL.PendingBiopsyResult




| Flags | Nuggets | Status | Procedures | Pending Biopsy Result | Scheduled Date | Referring | MRN | Accession # | Room | Site | Performed Start Date |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Exam Done | MA Stereotactic Biopsy [77031] - Breast | ✔ | 25-08-2015 11:05 | Hooper, Shelly6 38054 654 | | 4507 | MA1LU | LU | 25-08-2015 11:04 |
| | | Cancelled | MA Stereotactic Biopsy [77031] - Breast | | 25-08-2015 09:40 | Hooper, Shelly6 38054 654 | | 4506 | MA1LU | LU | |
| | | Exam Done | MA Stereotactic Biopsy [77031] - Breast | | 20-08-2015 13:32 | Hooper, Shelly6 38054 654 | | 4425 | MA1LU | LU | 20-08-2015 13:34 |
| | | Arrived | CT Chest W [71260] - Chest | | 18-08-2015 15:20 | Hooper, Shelly6 38054 654 | | 4490 | CT1PO | PO | |
| | | Arrived | CT Chest W [71260] - Chest | | 18-08-2015 15:00 | Hooper, Shelly6 38054 654 | | 4489 | CT1PO | PO | |
| | | Started | CTA Chest W/Wo [71275] - Chest | | 13-08-2015 15:30 | Hooper, Shelly6 38054 654 | | 4418 | CT1LU | LU | 13-08-2015 10:26 |
| | | Started | CT Chest W/Wo [71270] - Chest | | 13-08-2015 15:00 | Hooper, Shelly6 38054 654 | | 4419 | CT1LU | LU | 13-08-2015 10:26 |
| | | Started | CT Chest W [71260] - Chest | | 13-08-2015 14:15 | Hooper, Shelly6 38054 654 | | 4420 | CT1LU | LU | 13-08-2015 10:26 |
| | | Scheduled | MA Stereotactic Biopsy [77031] - Breast | | 13-08-2015 13:55 | Hooper, Shelly6 38054 654 | | 4422 | MA1LU | LU | |
| $ | | Exam Done | MA Stereotactic Biopsy [77031] - Breast | | 13-08-2015 07:45 | Hooper, Shelly6 38054 654 | | 4413 | MA1LU | LU | 13-08-2015 14:02 |
| $ | | Exam Done | MA Stereotactic Biopsy [77031] - Breast | | 12-08-2015 16:25 | Hooper, Shelly6 38054 654 | | 4414 | MA1LU | LU | 12-08-2015 16:26 |

*The patient folder showing the Pending Biopsy Result Flag on the Patient Folder*

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.




*The Pending Biopsy Result worklist showing the right-click context menu to manually remove the pending flag*

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# Mammography

### 9255 Support BIRADS 4a,4b,4c (non-USA sites only)

Currently eRAD RIS supports only 'BIRADS 4', and utilizes the recommendation code to distinguish between 4a, 4b, 4c. A non-US customer wants the BIRADS drop down to directly support the categorization of 4a, 4b, 4c.

To support this request, the RIS has been modified to support the additional BIRADS codes. This change technically allows any of the 0-6 BIRAD codes to be extended in the BIRADS table.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# Front Desk

### 8355 Validation on manually entered MRN

All residents of Israel have an Israeli National ID. This is utilized as the MRN in RIS. All National IDs are required to pass a validation referred to as the Luhn Algorithm also known as Mod 10. The RIS must validate the MRN when entered into the system.

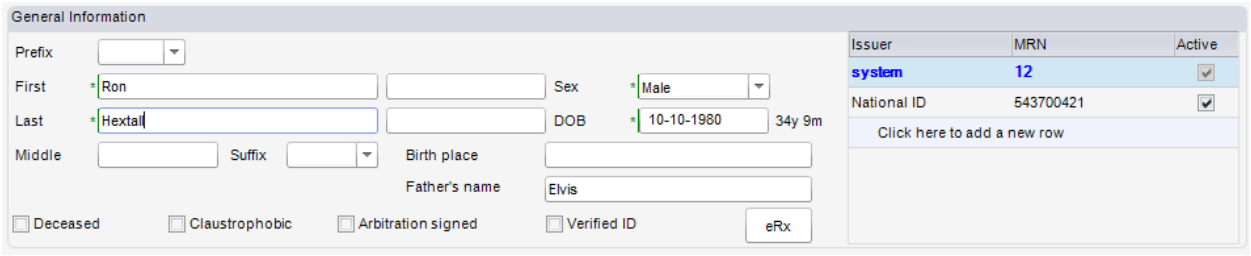
To support this, the RIS now has a simple validation framework for MRN's associated to the issuer. Currently there are two validation types supported, but the framework allows for additional types to be added in the future. The two identity validation types supported today are:

- Mod10 – This validation type will accept (pass) a MRN value through the Mod 10 algorithm and determine if it passes or fails.

- Mod10PrePad – This validation type will pass an MRN value through the Mod 10 algorithm and determine if it passes or fails. It will also pad zeros to the left of the number if it passes validation but is less than the appropriate amount of characters. The appropriate amount of characters is determined by the total amount of characters defined in the Mask for the issuer.

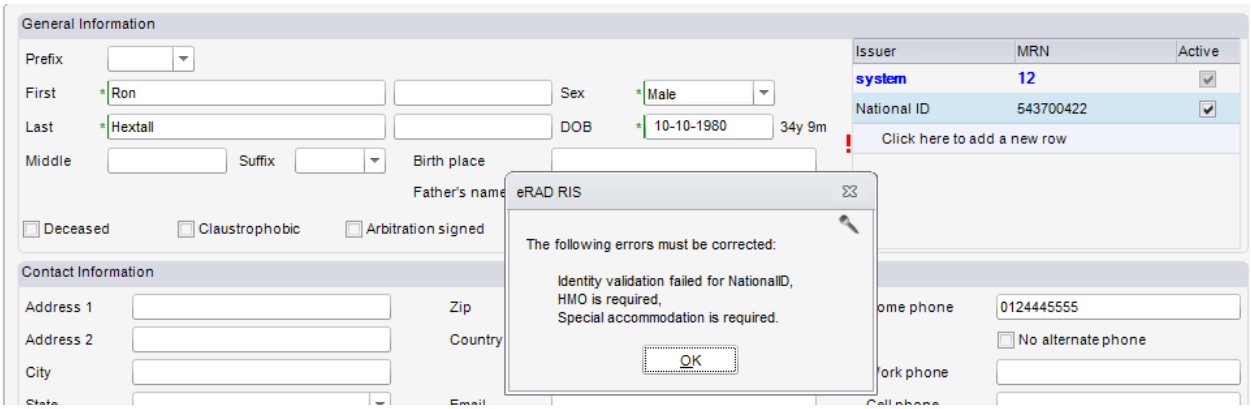
The Patient MRN grid has been enhanced to check for identity validation for the Issuer if configured in the Issuer lookup table. If identity validation fails, an error will be shown to the user which will prevent him or her from saving the MRN.

If identity validation passes but the MRN value is required to be padded with zeros, the appropriate number of zeros will be added to the left of the MRN value.




*General information window showing valid 9 character National ID*

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.



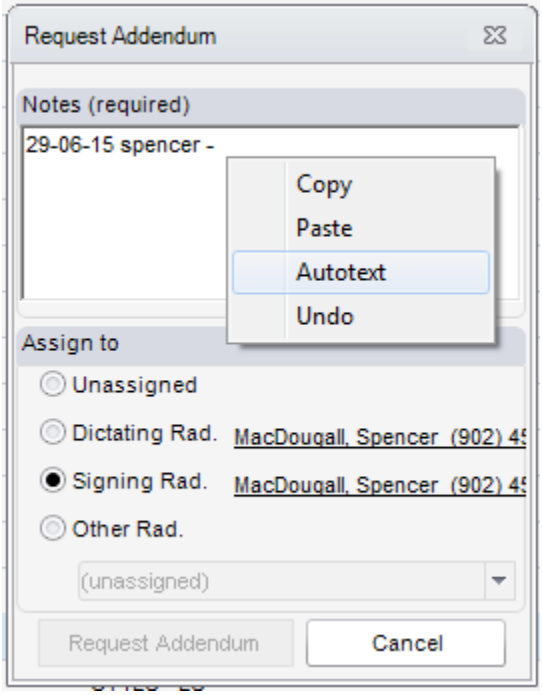

*General information window and error dialog showing invalid ID*

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

### 10534 Support Configurable Autotext for Addendum Notes

A customer has requested that both the Request Addendum and the Reject Addendum forms in the Radiologist workflow support values driven from a lookup rather than just free text.

In build 45.0, the RIS introduced a new feature called Autotext for log controls. To solve this new customer request, these two addendum fields have been updated to support the autotext control. Now the user can right-click on the note area to invoke the autotext feature. As per the existing autotext feature, these text controls can be configured to support free text, a combination of free text and autotext, or purely autotext.

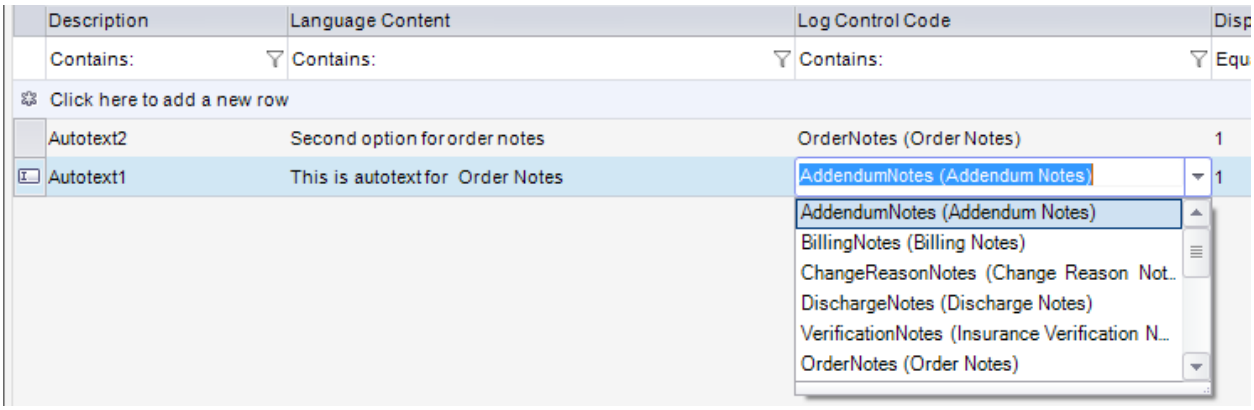



*Request addendum screen showing the right-click autotext option*

How to enable this feature:

To enable this feature a new log control code has been added to the Autotext lookup called "Addendum notes". The administrator can configure autotexts to be associated with this category and will therefore display in these dialogs.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.




*Autotext configuration screen showing the new Addendum Notes option*

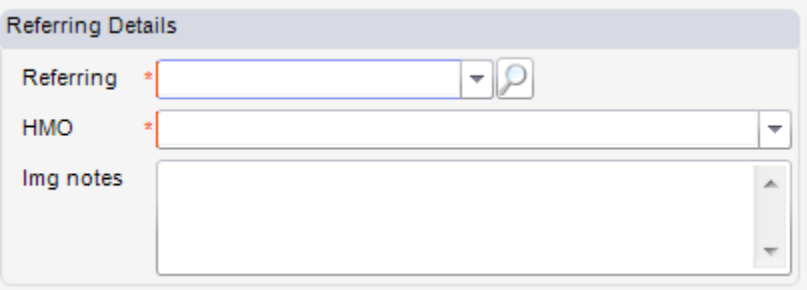
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Scheduler/Front Desk

### 10623 Need to have 'Source of Order' as a user-editable field instead of 'Visited At'

For a specific customer, studies are scheduled in an external CRM system and will not have a 'visited at' populated with the referring physician. The interface will automatically populate a 'source of order' field, and this is how the RIS and its attached system will know where to direct the diagnostic report. Walk-in patients (and VIP's) are directly scheduled in eRAD RIS, therefore the scheduler/receptionist needs to be able to store/edit the 'source of order' so that the RIS knows where to direct the diagnostic report (which is their case is called an HMO). Therefore, it must be possible to edit the 'source of order' in a field within the RIS.

To resolve this need, there is now an ordering organization lookup table, and under the appropriate conditions, this is shown in place of the 'Visited at' in the Referring Details of the order tab.




*Referring Details window showing the source of order field.*

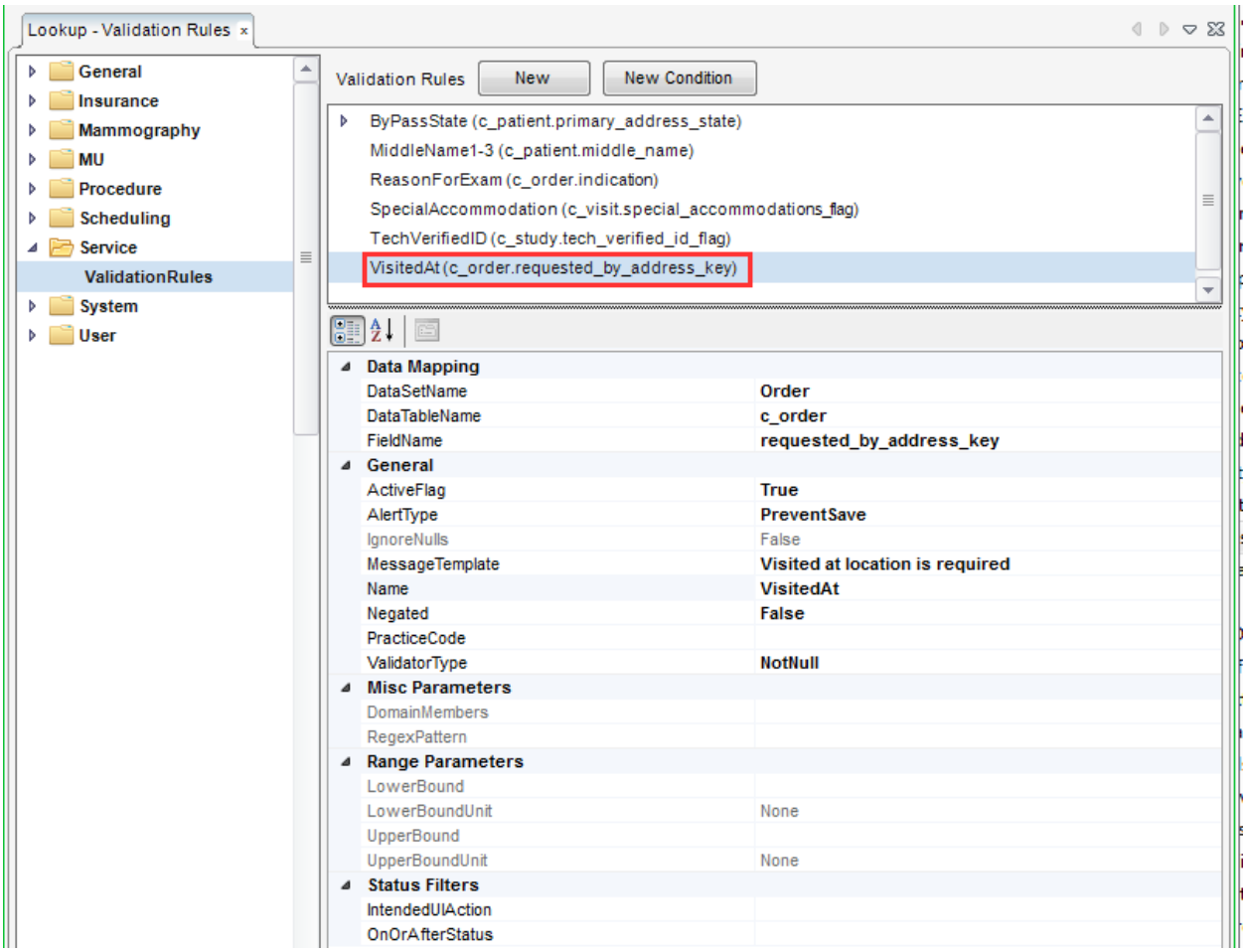
How to enable this feature:

To enable the 'HMO' field, set the following access string to FULL
Custom.Visibility.Data.Order.c_orderRow.ordering_organization_code

To disable the 'Visited at' field set the following access string to NONE
Custom.Visibility.Data.Order.c_orderRow.requested_by_address_key

Outside of this feature (but helpful to mention it here) you will also need to disable the required field for the 'Visited At'

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.




*Validation Rules lookup editor showing the rule which disables the Visited At required field*

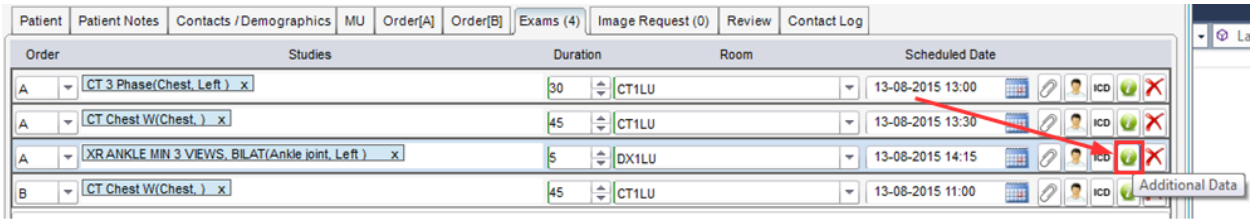
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Scheduler and Technologists

### 10843 - Provide Viewer/editor for 'Study Extra Info'

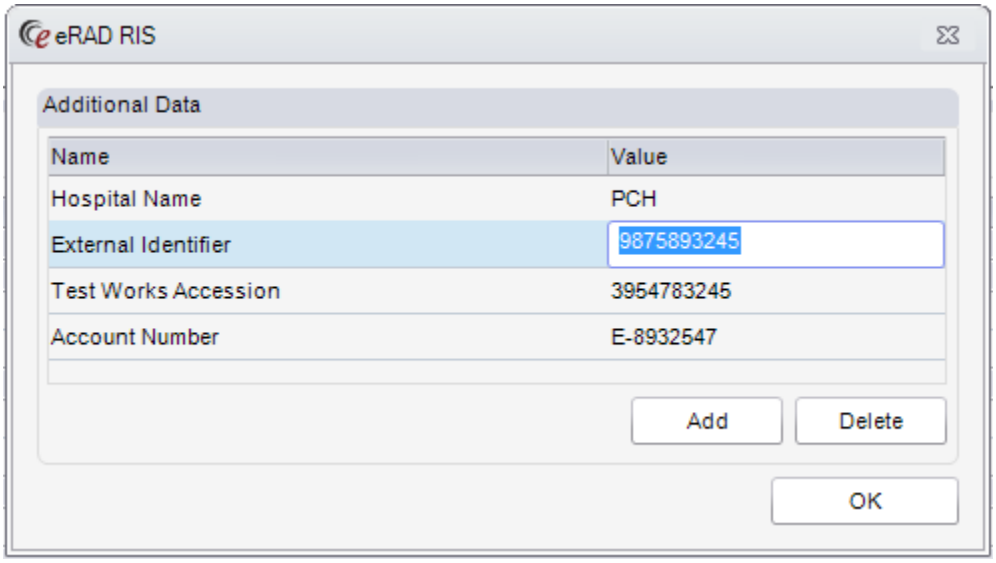
To support dynamic data fields which may be send to eRAD RIS from an external system, the RIS has a special data table known as 'study_extra_info'. While some of these fields are used simply to pass data between systems, there are occasions where the user may need to view and/or add/edit/remove this information.

To allow the viewing and editing, a new button was added to the procedure picker row as shown below:




*Procedure selection screen showing the Additional Data button*

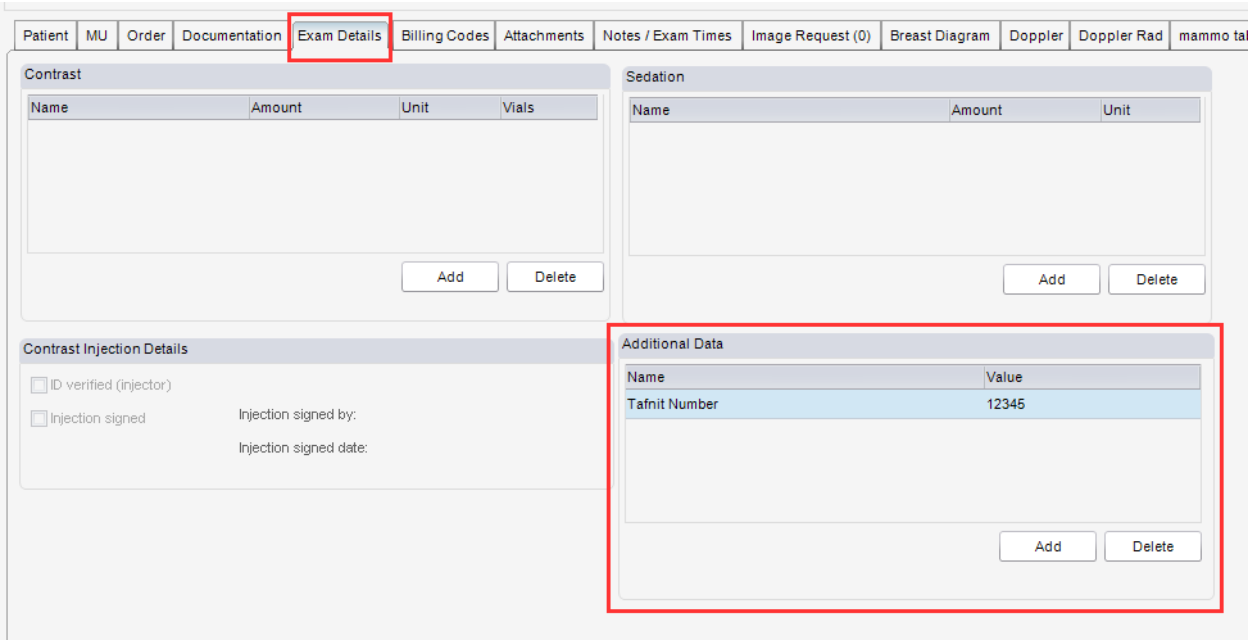
Clicking this button will open the study extra info grid.




*Additional Data popup screen showing the ability to edit a field*

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

To view or edit the addition data from other roles (ie: the Perform Exam and the View/Edit screens) an ‘Additional Data’ grid has been added to the Exam Details tab. Note that this tab used to be called ‘Contrast’, but its purpose has grown beyond just recording contrast.




*Tech screen showing the Exam Details tab and showing the additional data grid*

Access strings:

To control access to these fields both for viewing and the ability to edit, each row in the Additional Data (Study Extra Info lookup table) can be linked to an Access String using the following custom format:

“Custom.Visibility.AdditionalData.[field name]”

For example, the Study Extra Info field for ‘ExternalIdentifier’ will have an associated access String of Custom.Visibility.AdditionalData.ExternalIdentifier.

If no custom Access String is added for the Study Extra Info Code, then the system will automatically grant Full rights.

If a particular User Group requires read-only access to ExternalIdentifier, this can be configured in the User Group Permission Lookup table by selecting the group and specifying the Custom.Visibility.AdditionalData.ExternalIdentifier as read-only.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

The Additional Data grid allows the user to view, modify, add, and delete entries in the c_study_extra_info data table based on the permission framework outlined above. A user must have Full rights in order to add, delete, or edit an entry.

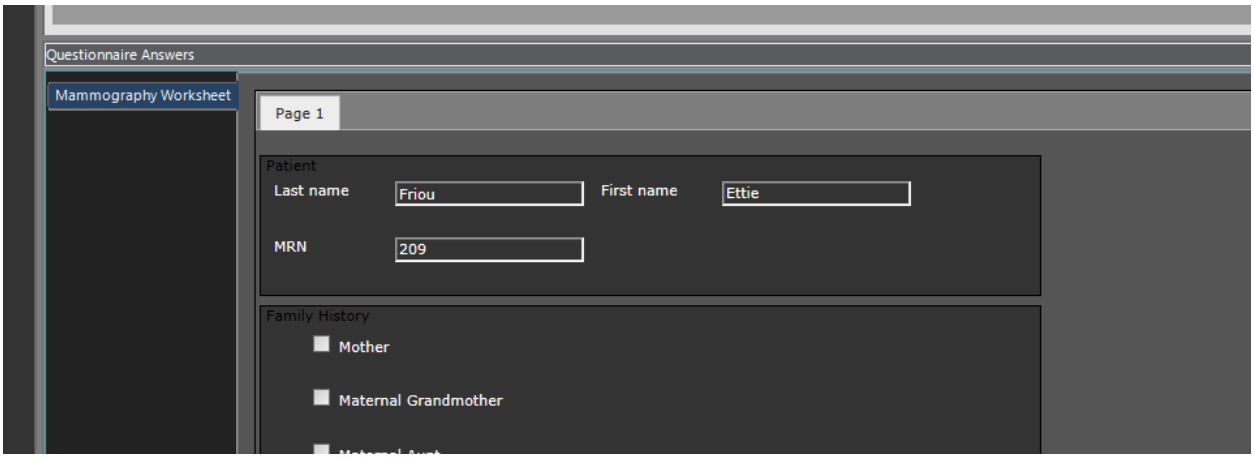
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## All users

### 10700 Questionnaire - Display questionnaire answers in the reporting screen

The new questionnaire (digital forms) feature allows for a customer to create custom questions and store the answers electronically. Radiologists and transcriptionists need a read-only ability to review these answers.

eRAD RIS now contains a new tool window in the reporting screen called 'Questionnaire Answers'. This window can be opened via the View Menu while the reporting screens are open. This new tool window can be docked and saved in the current layout the same as all tool windows. This new tool window will display questionnaires of type "General". (See feature #11008 for more details on conditional tab types). If more than one questionnaire is applicable to a study then each will show as a tab within the viewing window. The screen capture below shows a single Mammography Worksheet questionnaire with a single page of questions and answers.




*Radiologist screen showing the Questionnaire Answers tool window containing a single questionnaire and it's answers*

Access String:
View.QuestionnaireAnswers - used to control if the user can see the tool window

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

### 10819 Questionnaire - Allow certain questions to be marked required

The eRAD RIS questionnaire framework does not currently have a mechanism to enforce when questions are to be answered. The system should permit a question to be marked as required. It must bypass the required check if the question is not visible.

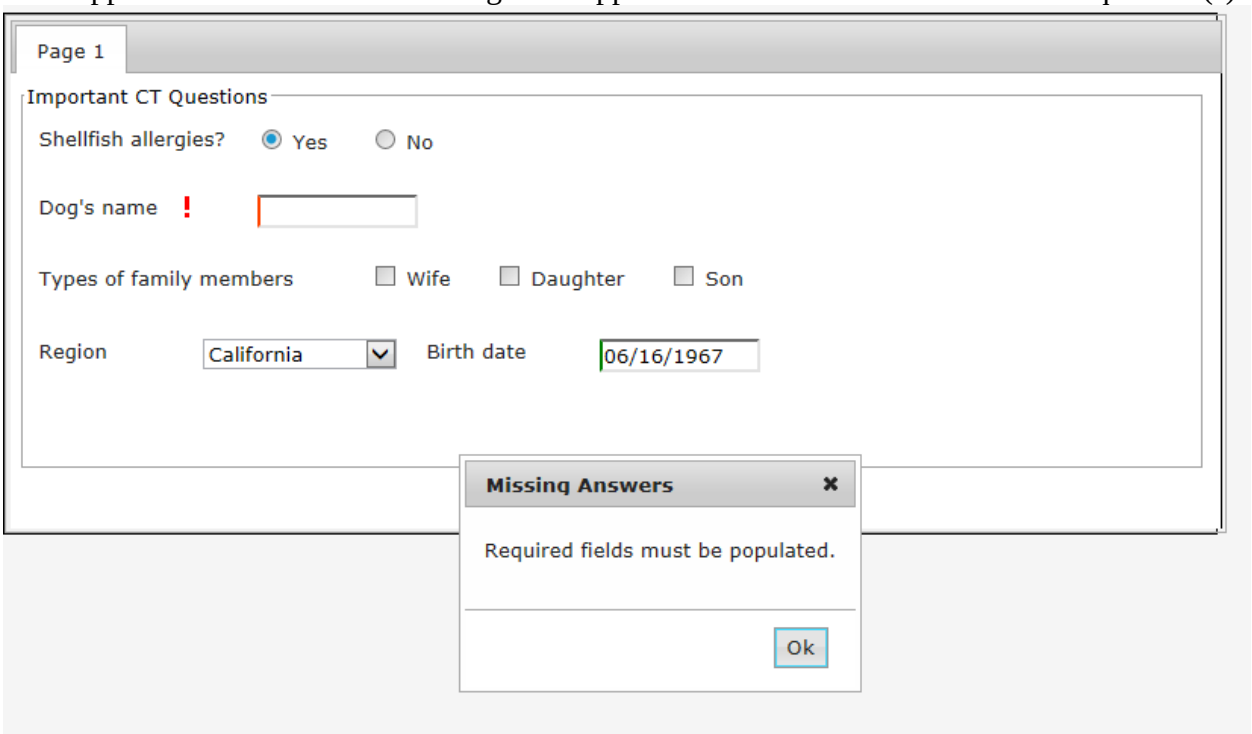
The RIS Admin can now designate questions as required in the questionnaire editor. When the questionnaire is being filled out, required fields are highlighted in red.

*Example question that is required showing the red highlight*

Once the question is answered, the highlight is changed to green to indicate that it is still required, but answered.

*Example question that is required and has been populated*

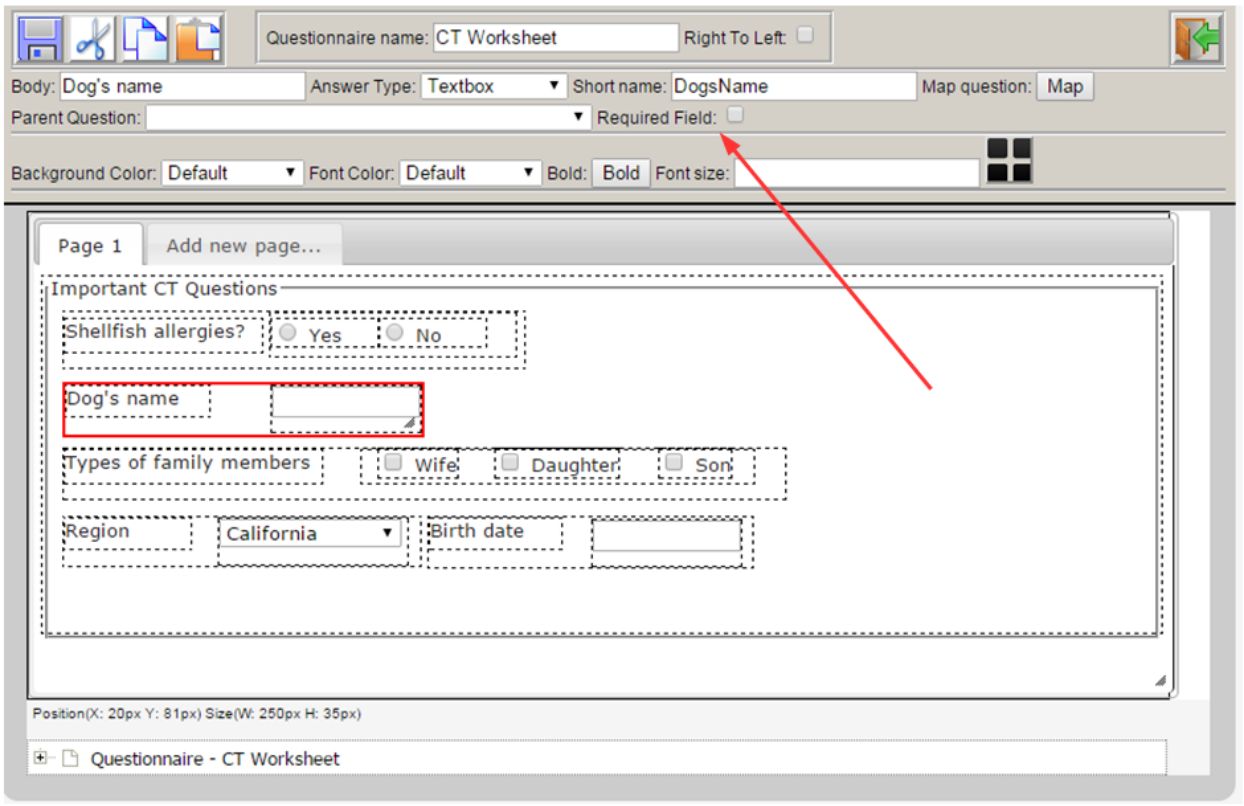
When the user attempts to save, required questions with no answers will have a red exclamation mark appear beside them and a message will appear to remind the user to answer the question(s).




No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

How to enable this feature:

To make a question required, select the question in the questionnaire editor. Once selected, the toolbar will show a checkbox for 'Required Field'.



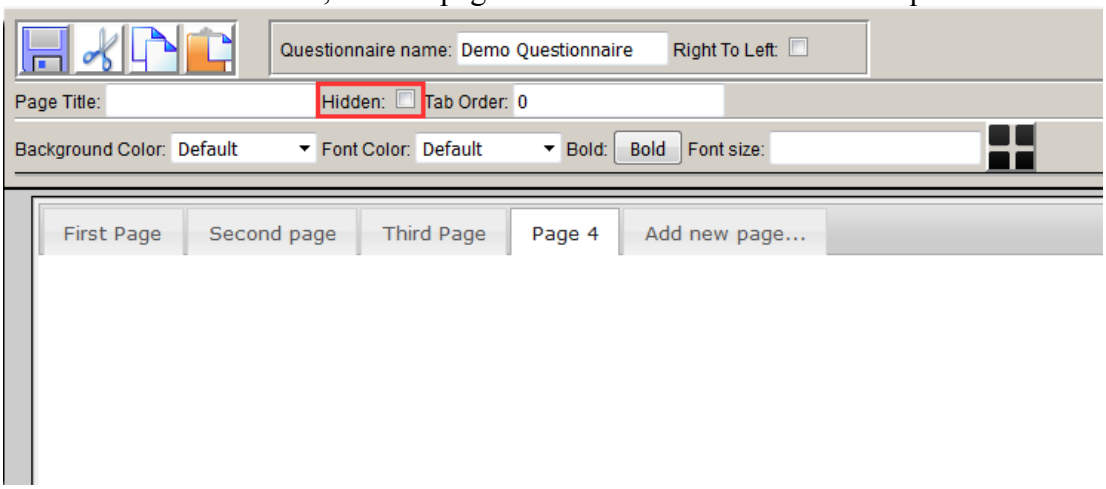

*Questionnaire editor showing the new required field checkbox*

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

### 10849 Questionnaire - Ability to hide a page at runtime

eRAD RIS can use the questionnaire framework to populate fields in the diagnostic report. Typically these expressions will be added to one or more tab pages that will be visible when designing, but should not be visible when the user opens the questionnaire. Therefore, the RIS needs to be able to hide these pages automatically.

To address this need, each tab page in the questionnaire designer now has a checkbox called 'hidden'. When selected, this tab page will not be available when the questionnaire is displayed.



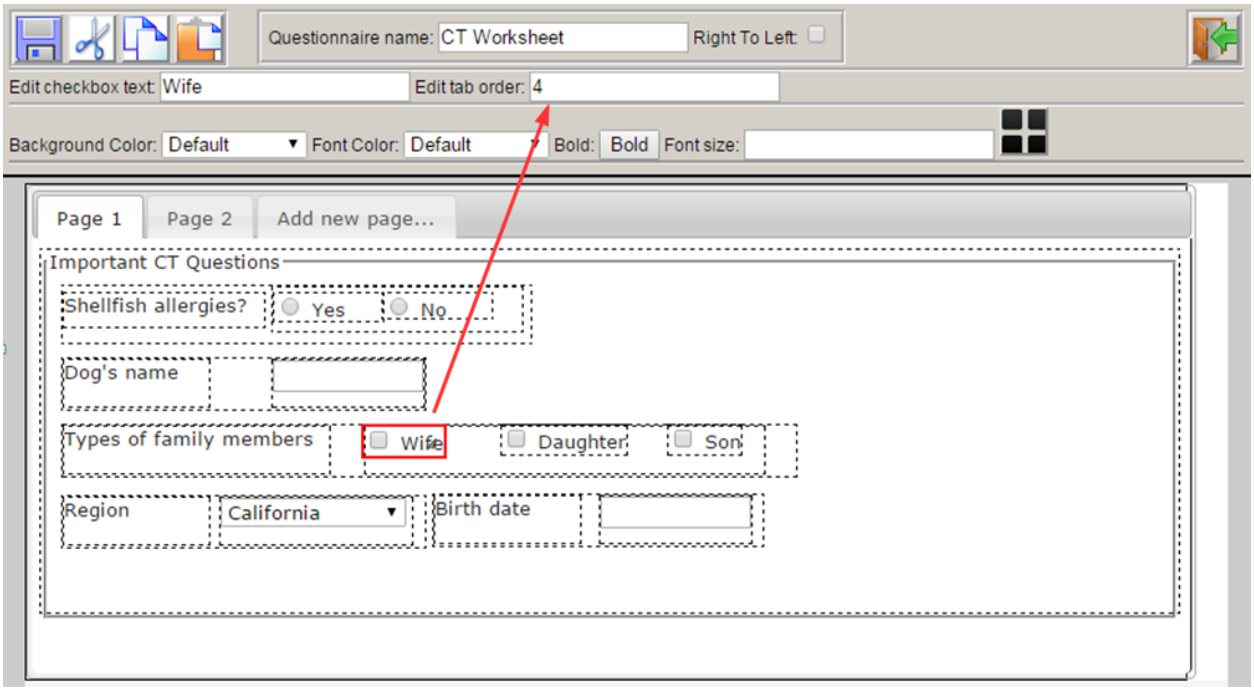

*Questionnaire editor showing the new Hidden checkbox*

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

### 10991 Questionnaire - Tab Order should be configurable

Initially the questionnaire editor automatically assigned the tab order in the same order as the question was created. However when editing questionnaire, there needs to be a way for the administrator to alter this tab order.

The questionnaire editor now allows the RIS Administrator to alter the tab order of the questions on the page. When editing a questionnaire, selecting an answer element will show a new text field on the toolbar called 'Edit tab order'. Tab order should be set to a sequence to allow the user to tab in that same sequence.




No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

### 11000 Questionnaire - Support dark theme

eRAD RIS supports a dark mode theme (primarily for the radiologist) and when viewing a questionnaire in this mode the RIS should automatically display these questions and answers in this same dark mode.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

### 11008 Questionnaire - Ability to specify a type of tab

The questionnaires will currently display to all users when the display criteria matches. However, some questionnaires will only be displayed to the radiologist for example. RIS needs to support a tab type which will help guide if the questionnaire is shown in a particular condition.

To support this need, the RIS now includes a 'Tab Type' in the conditional tab lookup editor. The values are currently only 'General' and 'Radiologist'. Control over which type is displayed is currently hard-coded into various screens in the RIS.

How to enable this feature:

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

### 11402 Display "Radiologist" type questionnaires and update a corresponding diagnostic report (Report Assistant)

eRAD RIS requires a new tool window to display "Radiologist" type conditional tabs (questionnaires). This new tool window will allow users to enter and update questionnaire data and save. Upon saving the questionnaire data, a corresponding diagnostic report can update based on this input. This will allow for simple diagnostic report building using the questionnaire framework.

The new tool window is called ‘Report Assistant’. It is available to anyone inside the reporting screens if they have the appropriate permission. The window includes a ‘Save’ button. After the save is selected the RIS will re-insert the default template into the report editor which can incorporate Users should be aware when using this workflow any changes made to the diagnostic report prior to clicking the save button in the Report Assist tool will be overwritten by the default template and all fields will be evaluated again.

Access strings:

View.ReportAssistant

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

### 11061 Questionnaire - Support cascading dropdowns

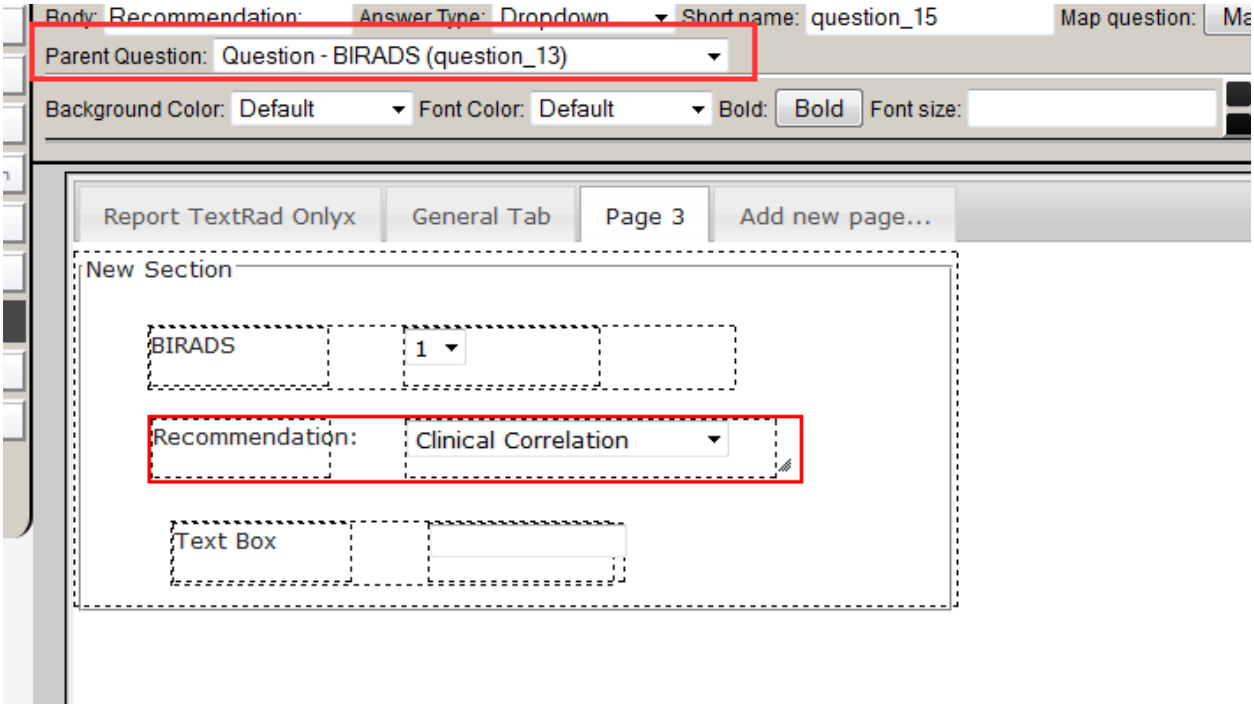
The questionnaire framework currently does not support cascading dropdowns. These dropdowns should have options that are based on a previously selected value from another drop down.

Example: You want to make a drop down list of 'recommendations' but that list of options will vary depending on the value is a previously selected drop down.

To resolve this issue, the questionnaire framework has been updated to support cascading values.

How to configure this feature:

To configure a cascading drop down, select the child drop down field. This will enable a toolbar option called 'Parent Question'.

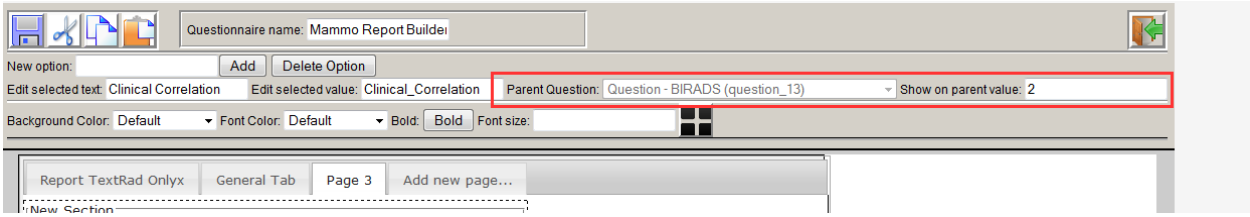



*Questionnaire editor screen showing the parent question field*

The parent question field is a dropdown that will show a list of all questions in the current questionnaire. Select the appropriate parent question.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

Next, add or select an existing option and set the value for when this dropdown option should show.




*Questionnaire editor showing the parent question and the value for the cascade*

If the parent's value matches the dropdown show value it will display otherwise it will be hidden.

If no options are set to display for a specific parent value then the dropdown will be empty with no options available.

The system will automatically select the first option in the drop down list when the parent's value is changed.

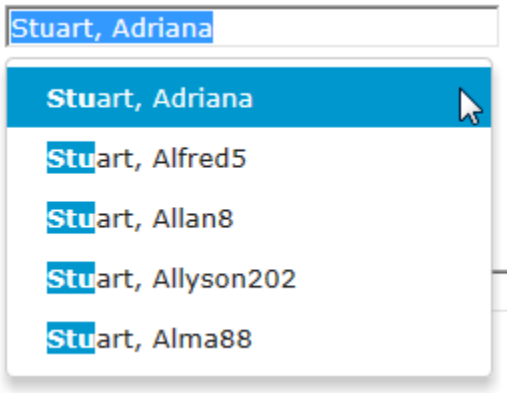
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

**11417 Questionnaire – Support a type-ahead control that links to personnel and medication lookup tables**

The eRAD RIS questionnaire builder needs a drop down list option that links to personnel and medication.

Textbox answer types can now be linked to either personnel or medication from RIS. While it might have been nice to link to any lookup table, that will require a larger framework change so for now only these two lookup tables can be supported.

When the user begins typing in a specially configured text box, a query is executed to retrieve up to 10 suggestions that match. When the user tabs out of the text box, the RIS will save the text they have entered if it is a valid item from the list, or select the first suggestion on the list if it was a partial match (e.g. the user entered Wheel for a last name and the closest suggestion was for Wheeler), or the RIS will clear out the item if there were no suggestions (e.g. if the user entered Wheelz and there were no items that had a word that started with wheelz, the RIS would null out the entry.)




*A questionnaire showing the type-ahead for a name*

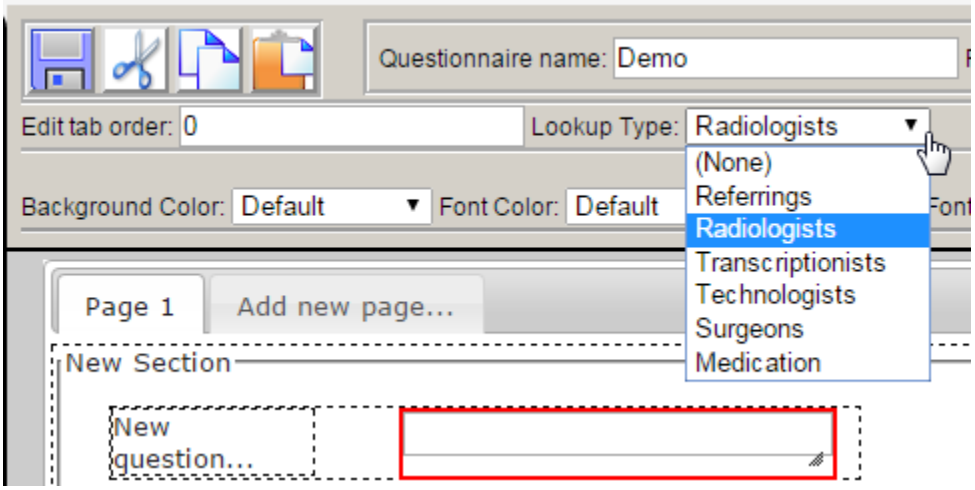
Personnel:
The list of personnel types is currently set to radiologist, referrings, transcriptionists, technologists, and surgeons. The personnel searches all search first name and last name in the same way, but they do a role search (e.g. radiologist_flag = 'Y', technologist_flag = 'Y', etc) as well. If only one word has been entered, the RIS assumes it is a last name. If the RIS finds less than 10 matches on last name, it also search the first name field. If two words are entered, the RIS checks for the existence of a comma and if found, the search assumes lastName, firstName otherwise firstName followed by lastName.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

Medication:
Medication search built in a generic way where the RIS searchs the description field and returns the description and the primary key.

How to configure this feature:

In the questionnaire editor, when you select a control of type textbox answer, you will now get a lookup type option on the toolbar. Select the appropriate type of resource to search.




*Questionnaire editor showing the LookupType option when a textbox answer is selected in the questionnaire editor*

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

### 11172 Questionnaire – Autotext pick list for text controls

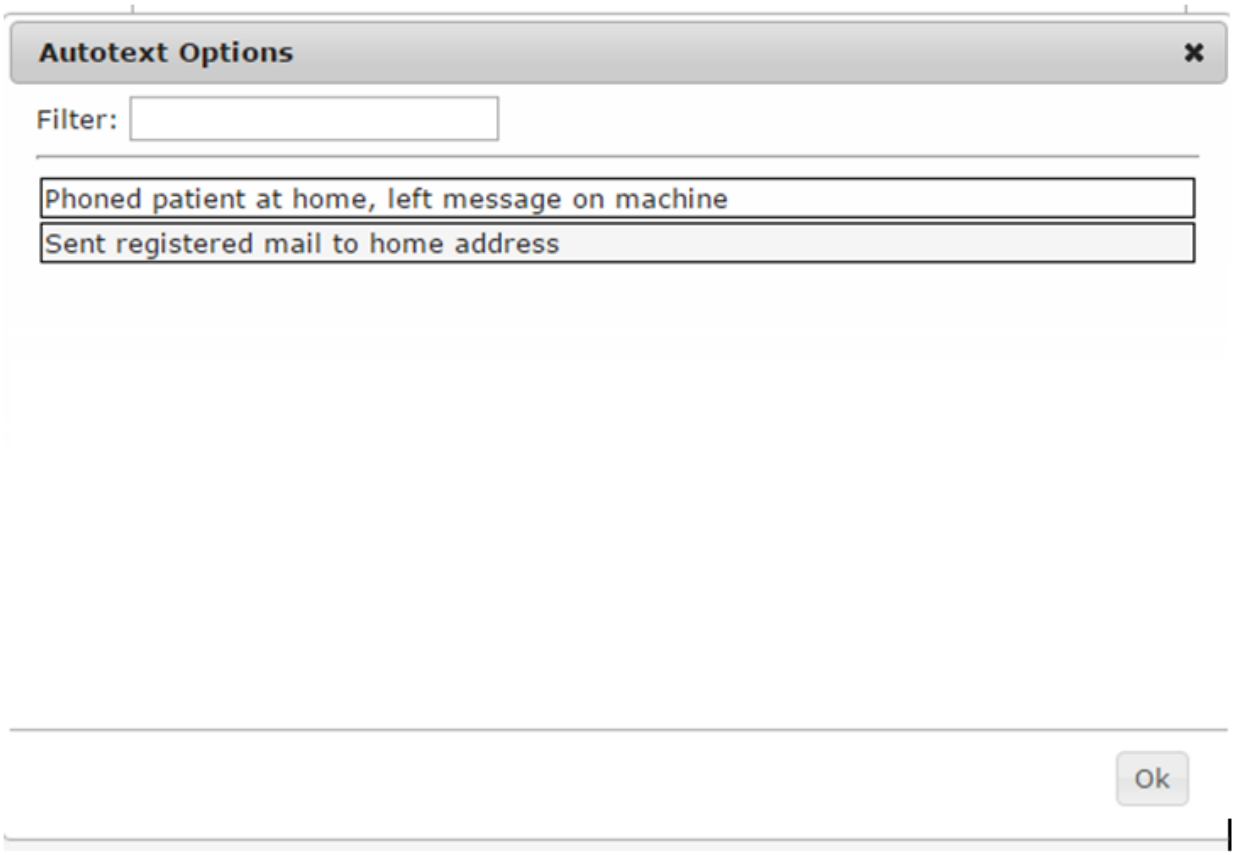
The questionnaire framework needs to support an ‘autotext’ style control, where the user can select one or more values from a list of acceptable values.

eRAD RIS now supports an Autotext style control inside the questionnaire framework. This allows a user to select a value from a drop down list. In addition, the control will allow one or more items to be selected from the list, which will therefore concatenate the selected text

The questionnaire control will appear as a text area with an ellipse button […] When selected, the autotext control will appear

*Example of a text field in a questionnaire with the ellipse button shown*

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

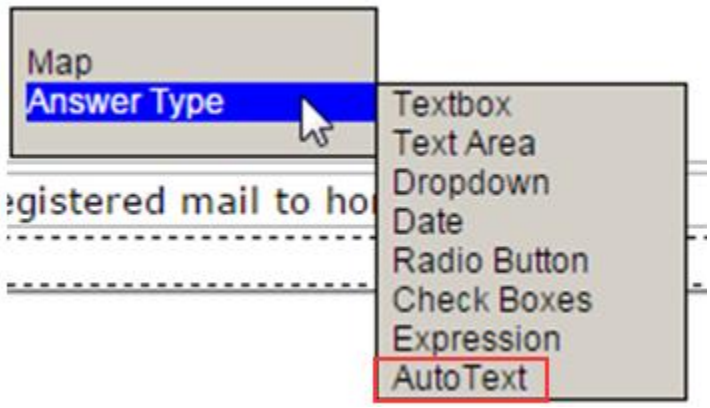



*Example of an autotext inside of the questionnaire framework after the ellipse button is pressed*

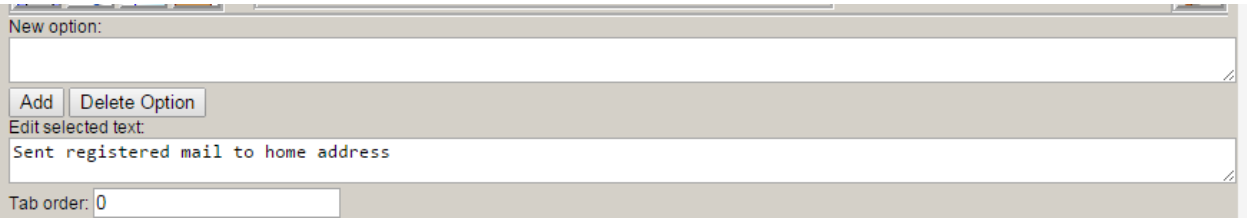
How to configure this feature:

To configure a question to use the autotext control, select the Answer Type option and set the value to ‘AutoText’

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

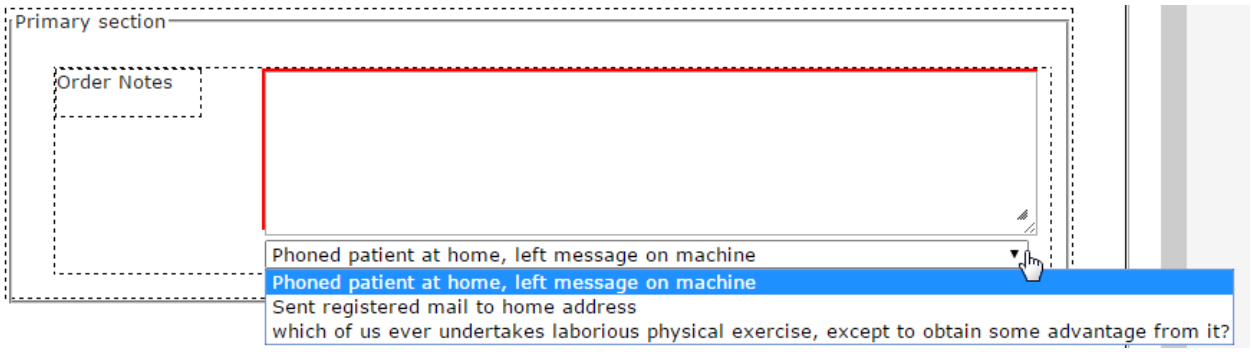



*Questionnaire editor showing the selection of the Auto Text option*




*Questionnaire editor showing the addition of autotext values*

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.




*Questionniare Editor showing the multiple autotext values*

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

### 11242 Questionnaire - Ability to show/hide pages

In the existing Questionnaire editor, the user has ability to show/hide pages from "Manage Rules". However, this only shows/hides the contents of that page. It is preferable to hide the entire tab.

Now, when the page contents are hidden by a ruleset, the page tab itself is also hidden.

Example:

*Questionnaire showing only one tab. A ruleset is in place to show a second page if the dog's name is Toto.*

*Questionnaire showing the second tab when a value was entered to match the ruleset.*

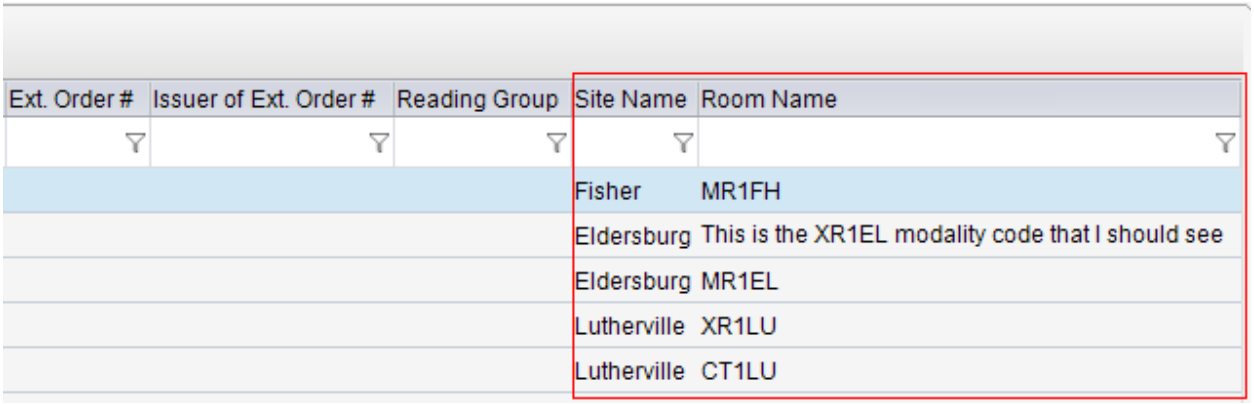
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

### 10765 - Worklists - Need site description and room description in most worklists

Currently, eRAD RIS displays site code and room code (sometimes referred to as modality code) in many worklists. This code value is not always meaningful. A customer has requested the ability to display the site name and the room name in any worklist that currently shows site code and room code.

To resolve this, there are now two new columns for site name and room name.



| Ext. Order # | Issuer of Ext. Order # | Reading Group | Site Name | Room Name |
|---|---|---|---|---|
| | | | Fisher | MR1FH |
| | | | Eldersburg | This is the XR1EL modality code that I should see |
| | | | Eldersburg | MR1EL |
| | | | Lutherville | XR1LU |
| | | | Lutherville | CT1LU |

*A general worklist showing the two new columns*

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# Infrastructure

### 8356 Support of non "system" issuer of IDs

The RIS currently expects the main MRN for a patient to be what we refer to as the 'System' issuer which is typically generated by the RIS. The RIS support other 'non-system' issuers for alternate ID's, and these can be EMR's ID's for patients. The RIS currently has functionality that if it does not have a 'system' ID for the patient, then it expect the user to manually match this patient to a 'system' ID. In the case where a customer has a national MRN of some kind, the RIS should not expect this matching to occur, and must accept a manually entered MRN as the main MRN for the patient.

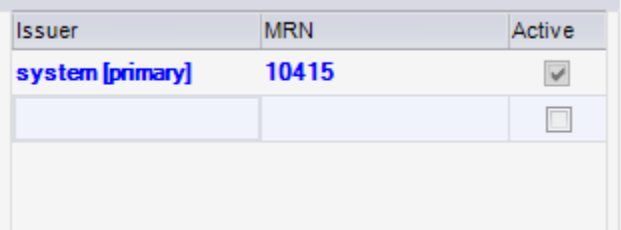
The support this, the RIS has now has a new model for supporting issuers. There is a 'primary' issuer (a RIS MRN, or a national ID, or a passport number for example) and a 'secondary' issuer (an EMR issuer for example which must be matched to a primary issuer). A primary issuer does not have to be matched to primary issuer, but a secondary issuer does – Therefore EMR type MRN's must still be matched to the primary. The RIS can support multiple primary type issuers, such as national ID's, passport numbers etc. There is a configuration setting for "DefaultIssuerOfPatientID" which determines which issuer generates the MRN if the patient is created directly in the RIS.

The RIS also has a new configuration setting to determine if the RIS should automatically generate an MRN for a new patient, or if it should allow the user to key in an MRN. This configuration setting is "DefaultIssuerGeneratesPatientID." The default value for this configuration setting is TRUE which means the existing functionality of RIS generating an ID for a new patient is still in place. However, if DefaultIssuerGeneratesPatientID is FALSE then RIS does not generate an MRNs and patients do not need a default issuer just an issuer that is primary, thus avoiding the need to match EMR patients to internal patients.

As a side note, the DefaultIssuerOfPatientID value now must be in the l_issuer table and should be set to have the primary_issuer_flag column set to Y.

Primary issuers are shown in the MRN grid with word [primary] appended to the end of their name.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.




*MRN grid showing the Primary issuer*

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

**9562 Support a Secondary Reporting Database**

Customers have requested a secondary database instance to use for management reporting so that there will be no impact to the production database if someone runs a large report during working hours.

There can now be a second SSRS reporting data source configured to point to the secondary database. Appropriate reports that don't require real time data will use that data source and thereby hit the secondary database. Configuration must be done by eRAD support personnel.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

### 11161 Support command line options for RIS client application via the config file

In the current version of eRAD RIS, command line options (such as the language selector or the single sign on option) would need to be configured in the shortcut on every workstation and would be lost when a new core install is done. It is desirable to have the a mechanism to globally deploy these command line option

To resolve this need, eRAD RIS now allows administrators to set command line options for all users of the system in the client configuration file.

How to implement this feature:

To implement this option add the command lines you wish to use to the ris.exe.config file in the appSettings node and add a key for value of the CmdLineArgs setting.

```
<appSettings>
  <add key="defaultEndPointName" value="NetTcpBindin
  <add key="ClientSettingsProvider.ServiceUri" value
  <add key="LookupTableTimeToLiveInMinutes" value="6
  <add key="ShouldCloseViewSessionOnThread" value="t
  <add key="EnableHighPriorityLookupStrategy" value=
  <add key="CmdLineArgs" value="" />
  <!--<add key="RowLevelCacheDataSetNamesCSV" value=
  <!-- <add key="MModalDataTransferValue" value="0"/
</appSettings>
```

*Example of ris.exe.config file showing the cmdlineargs key*

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

### 10603 Add SLA field to the procedure group table

A customer has requested a management report that will indicate the turnaround time of a study compared against the agreed upon service level (SLA). Each procedure group can have a different service level.

In order to produce this report, the RIS now has a numeric column added to the procedure group table, where the administrator can enter the expected service level. The management report (being written separately by ELAD) will reference this value to produce this report. The report will be a site level report, not a globally released report

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

**8764 - Insurance Eligibility – Support ‘or’ logic for the medical group string**

The RIS has the ability to use the eligibility special conditions to display a warning when the return does not contain the appropriate medical group string. The RIS has been enhanced in this release to also support <and> and <or> conditions such that more advanced rules can be created on the returned string.

Administrators should be able to create a rule that only fires if the return does not contain "prospect" and does not contain "NUESTRA" also RIS should support the the <OR> operator such as:
Prospect <OR> NUESTRA
This would fire a warning if the return contained Prospect or if the return contains NUESTRA.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Interface updates

### 11522 – New Action needed to submit an order without automatically generating a scanned document

A new main action of HL7_OrderRequested has been created which does not attempt to create a scanned document version of the submitted order

### 8331 – Ability to update RIS procedure code tables via an interface

A stored procedure has been created that will import procedure codes into the RIS. It will perform the following actions:

1. Inserts all new records from the CSV file into the procedure table with the following defaults:
    a. Last updated date with the current date time the procedure was processed
    b. Last updated by user id is stamped as ‘tafnit-‘ & date of processing
    c. Active is set to Y
    d. Display order set to 1
2. Deactivates any RIS procedure codes that are in the RIS table but no longer in the file.
    a. This also updates the last updated date and last updated by user id.
3. Updates any changed information in the procedure description, alternate description in the RIS to match what is in the source file. *Including changes in case sensitivity.

### 11153 – Create an Action Queue history table

A new table was created (c_action_queue_history) that stores a copy of certain fields from the c_action_queue table as each item is removed from the queue. This way the RIS has a history of these messages.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## Management reports updates

### 11154 Questionnaire mapping report

A new report has been created called Questionnaire Data Dictionary under Management Reports \ Maintenance. The report allows you to select from a list of the active questionnaires in RIS, and return the Questions for each questionnaire selected. Fields pulled into the report include the Question Short Name, Question Body, Question Guid and page # all grouped together by the Questionnaire.

### 9213 Linked report management report

The linked report feature essentially allows the radiologist to create a single report from multiple studies. The following management reports were updated with a column called 'Linked Counts' to show the additional studies which were technically read but did not result in a diagnostic report. For example, if the radiologist completed a single report, but it consisted of 3 studies, the report count would be 1, but the linked count would be 2 indicating that the radiologist technically reviewed 3 studies.

- Dictations by User
- Radiologist Dictation Activity by Date
- Radiologist Productivity by User – Mammo
- Radiologist Signing Activity

### 10416 Referring details report

The RIS now includes a new report called Referring Physician Details. This report displays the exams requested by a physician within the dates selected based on date of service. The report is

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

grouped by date the physicians' requested the study.

**Referring Physician Details**

**Date Range:** 01-23-2015 - 07-23-2015
**Physician name searched on:** yeo, da
**Physician selected:** Yeo, Dale E ID:1051
**Description:** This report displays the exams requested by a physician within the dates selected based on date of service. The report is grouped by date the physicians' requested the study.

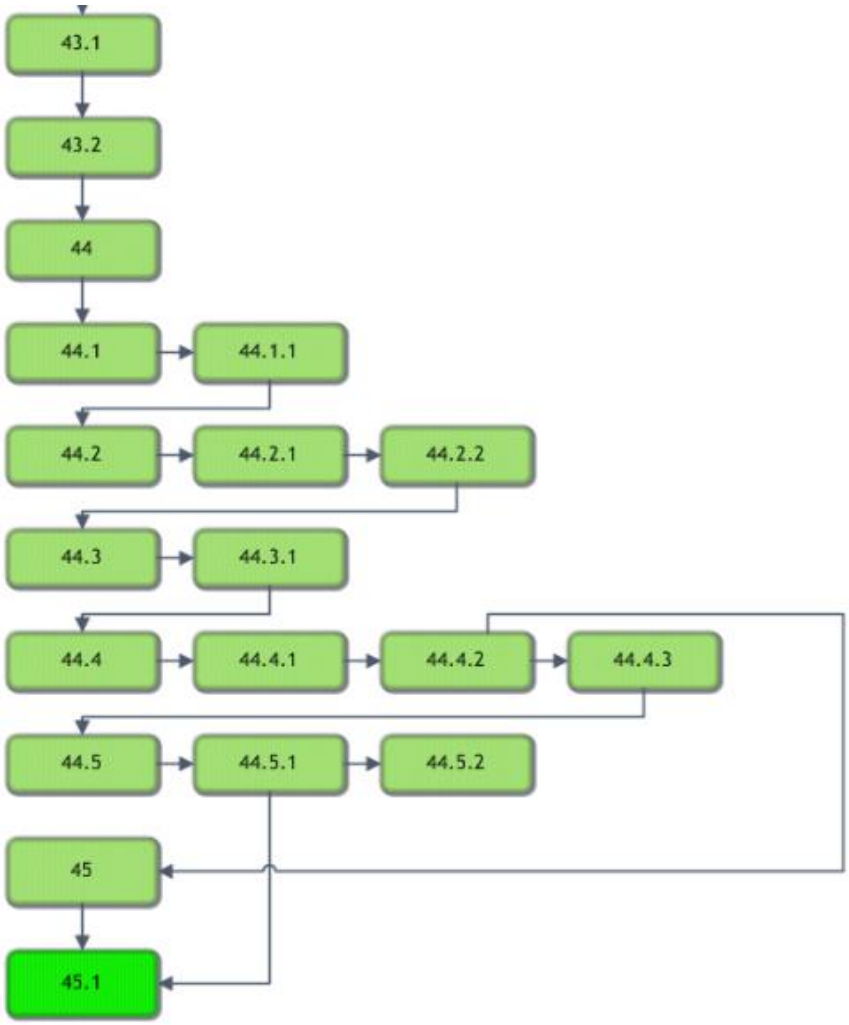
| Request Date | Accession | Patient | Scheduled Date | Status | |
|---|---|---|---|---|---|
| 04-30-2015 | | | | | 1 |
| | 3375 | [redacted] | 05-01-2015 07:45 AM | Scheduled | |
| | | "CT Chest W [CT51] - Chest | | | |
| 05-11-2015 | | | | | 9 |
| | 3379 | [redacted] | 05-11-2015 10:59 AM | ExamDone | |
| | | CT 3 Phase [CT13] | | | |
| | 3378 | [redacted] | 05-11-2015 10:59 AM | ExamDone | |
| | | CT Abdomen Wo [74150] - Abdomen | | | |
| | 3383 | [redacted] | 05-11-2015 11:35 AM | Signed1 | |
| | | CT Chest W [71260] - Chest | | | |
| | 3382 | [redacted] | 05-11-2015 01:35 PM | Signed1 | |
| | | CT 3 Phase [CT13] | | | |
| | 3381 | [redacted] | 05-11-2015 03:35 PM | Signed1 | |
| | | CT Abdomen Wo [74150] - Abdomen | | | |
| | 3384 | [redacted] | 05-11-2015 03:50 PM | Signed1 | |
| | | CT Abdomen Wo [74150] - Abdomen | | | |
| | 3385 | [redacted] | 05-11-2015 01:50 PM | Signed1 | |
| | | CT 3 Phase [CT13] | | | |
| | 3386 | [redacted] | 05-11-2015 11:50 AM | Signed1 | |
| | | CT Chest W [71260] - Chest | | | |
| | 3380 | [redacted] | 05-11-2015 10:59 AM | Dictated | |
| | | CT Chest W [71260] - Chest | | | |
| **Total** | | | | | **10** |

Referring Physician Details | Confidential and Proprietary | Page 1 of 1 | Date Run: 7/23/2015 3:21 PM RMIS\dale

*Example of the Referring Physician Details report*

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 6. Code Stream




**Legend:**

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 7. RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 43 | - | 2.43.0.0.23715(3GB) | 2.43.0.0.23171 | 2.43.0.0.23715 | 2.43.0.0.23743 | Full Version Release |
| 43 | 1 | 2.43.0.1.23798(3GB) | 2.43.0.0.23171 | 2.43.0.1.23798 | 2.43.0.1.23770 | GUI.zip, Web Service, DB updates |
| 43 | 2 | 2.43.0.2.24017(3GB) | 2.43.0.0.23171 | 2.43.0.2.24017 | 2.43.0.2.24023 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 3 | 2.43.0.3.24298(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24283 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 3.1 | 2.43.0.3.24450(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24421 | GUI.zip, and DB updates |
| 43 | 3.2 | 2.43.0.3.24450(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24421a | DB updates |
| 43 | 4 | 2.43.0.4.24447(3GB) | 2.43.0.0.23171 | 2.43.0.4.24447 | 2.43.0.4.24442 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 5 | 2.43.0.4.24632(3GB) | 2.43.0.0.23171 | 2.43.0.4.24632 | 2.43.0.4.24560 | GUI.zip, Web Service and DB updates |
| 43 | 6 | 2.43.0.4.24(3GB) | 2.43.0.0.23171 | 2.43.0.4.24 | 2.43.0.4.24 | GUI.zip, Web Service and DB updates |
| 43 | 6.1 | 2.43.0.6.24937(3GB) | 2.43.0.0.23171 | 2.43.0.6.24937 | 2.43.0.6.24914 | GUI.zip, Web Service |
| 43 | 6.2 | 2.43.0.6.24970(3GB) | 2.43.0.0.23171 | 2.43.0.6.24970 | 2.43.0.6.24914 | GUI.zip, Web Service |
| 43 | 7 | 2.43.0.7.25258(3GB) | 2.43.0.0.23171 | 2.43.0.7.25258 | 2.43.0.7.25226 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 8 | 2.43.0.8.25440(3GB) | 2.43.0.0.23171 | 2.43.0.8.25440 | 2.43.0.8.25425 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 9 | 2.43.0.9.25477(3GB) | 2.43.0.0.23171 | 2.43.0.9.25477 | 2.43.0.8.25425 | GUI.zip and Web Service |
| 43 | 10 | 2.43.0.9.25477(3GB) | 2.43.0.0.23171 | 2.43.0.10.25477 | 2.43.0.8.25425 | Web Service |
| 43 | 11 | 2.43.0.11.25512(3GB) | 2.43.0.0.23171 | 2.43.0.11.25512 | 2.43.0.8.25425 | GUI.zip and Web Service |
| 43 | 12 | 2.43.0.12.25554(3GB) | 2.43.0.0.23171 | 2.43.0.12.25554 | 2.43.0.12.25536 | GUI.zip Web Service and DB Updates |
| 43 | 13 | 2.43.0.12.25610(3GB) | 2.43.0.0.23171 | 2.43.0.12.25610 | 2.43.0.12.25536 | GUI.zip and Web Service |
| 43 | 14 | 2.43.0.14.25644(3GB) | 2.43.0.0.23171 | 2.43.0.13.25610 | 2.43.0.12.25536 | GUI.zip |
| 43.1 | - | 2.43.1.0.25850(3GB) | 2.43.0.0.23171 | 2.43.1.0.25850 | 2.43.1.0.25771 | GUI.zip Web Service and DB Updates |
| 43.2 | - | 2.43.2.0.26864(3GB) | 2.43.0.0.23171 | 2.43.2.0.26864 | 2.43.1.0.25771 | GUI.zip and Web Service |
| 44 | - | 2.44.0.0.26570(3GB) | 2.44.0.0.26405 | 2.44.0.0.26570 | 2.44.0.0.26475 | Full Version Release |
| 44.1 | - | 2.44.1.0.26984(3GB) | 2.44.0.0.26405 | 2.44.1.0.26984 | 2.44.1.0.26906 | Gui.zip, Web Service, and DB |
| 44.1 | 1 | 2.44.1.1.27093(3GB) | 2.44.0.0.26405 | 2.44.1.0.26984 | 2.44.1.0.26906 | Gui.zip |
| 44.4 | 2 | 2.44.4.2.29327(3GB) | 2.44.0.0.26405 | 2.44.4.2.29327 | 2.44.4.0.28676 | Gui.zip and Web Server |
| **45** | **-** | **2.45.0.0.29559(3GB)** | **2.45.0.0.26107** | **2.45.0.0.29559** | **2.45.0.0.29558** | **Full Version Release** |
| **45.1** | | **2.45.1.0.30774(3GB)** | **2.45.0.0.26107** | **2.45.1.0.30774** | **2.45.1.0.30738** | **Gui.zip, Web Service, DB, SQLReporting, Questionnaire, Citrix support** |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 8. Resolved Defects

Bugs, suggested features and support issues resolved in build 2.45.1. The extract is taken from Redmine bug tracking system and only displays defects resolved in 2.45.1.

| Bug # | Priority | Category | Subject |
|---|---|---|---|
| 10668 | Normal | Access strings | Remove redundant access strings: Flag.ExamStat and Flag.ReadStat |
| 11149 | Normal | Access strings | Clinical.ReportingEditor is redundant - should be Clinical.ReportingTranscription |
| 7788 | Normal | Admin-Other | Multiple lookups are missing a default display order value |
| 10733 | Low | Admin-Other | Creating a reading group - Hover text for an error is incorrect |
| 10740 | Normal | Admin-Other | Reading Groups- Changes to assigned/unassigned Users and Procedures is not updating the Last Updated field |
| 10792 | Normal | Admin-Other | When saving a scheduling availability template, the template selection should remain on that template and not reset to first template |
| 10976 | Low | Admin-Other | Tab order in Carrier Search is not in order |
| 10839 | Low | Appointment book | Appointment Book - Message loop on closing Reschedule window with x instead of close if maximum open tabs feature is set to 1 |
| 11035 | Normal | Appointment book | Dragging appointment to new time slot in appointment book throws "Input string was not in a correct format" error |
| 11045 | Normal | CD Burning | CD Burning - When there are multiple studyInstanceUID's may result in error message regarding additional images |
| 11380 | Normal | Confirmation | The Confirmation Status lookup table has a column called confirm_by_default_flag that has no implementation |
| 10583 | Normal | Connect Portal 4.x | Secure Messaging - Subject line should limit the number of characters to the databse field size |
| 10778 | Normal | Connect Referring Portal 3.x | Webapi interface for 'diagnosticreport 'throws an exceptions when "visited at" is null |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| 11022 | Normal | Connect Referring Portal 3.x | Add merge_to_person_key to the l_person API for the Connect 3.x interface |
| 11571 | Normal | DB | Questionnaire - Can't copy/paste in questionnaire editor toolbar text fields |
| 11559 | Normal | DB | Add indexes to increase RIS performance |
| 5740 | Normal | Embedded Reporting | Reporting - SnapInsertToTimeStamps causing editing issues for some users |
| 5985 | Normal | Embedded Reporting | Reporting - A colon in the section title will cause report rendering issues. |
| 8029 | Normal | Embedded Reporting | Input/output device selection not sticking for MModal users |
| 10885 | High | Embedded Reporting | eRAD Report Editor – Clicking + drag dropping within template editor is causing intermittent duplication of text issues. |
| 10912 | High | EMR | New MRN grid needs to support EMR MRN's |
| 9216 | Normal | Insurance Eligibility | Insurance Eligibility - Remaining Copay is incorrectly taken as co-payment amount |
| 10784 | Normal | Interfaces | Action Container should not contain c_primary_interpretation node. |
| 10858 | Normal | Interfaces | Validation Framework – Event viewer records an error when there is a null value condition. |
| 11246 | Normal | Interfaces | Scan Documents via the interface append pages instead of replacing the whole document |
| 11255 | Normal | Interfaces | Patient demographics matching fails if birth_date is not in message |
| 11080 | Normal | Legacy Reports | Biewing a legacy report in WORD format does not work from the WL right click, report - print preview. |
| 10897 | High | Linked Reporting | Linked Reports - linked_id column should be default of null instead of 0 |
| 10856 | Normal | Localization | Reporting - (Hebrew RIS) Copy button on Reporting panes includes \t character |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| 10981 | Normal | Localization | Custom Fields for Contrast and Sedation not localized |
| 10992 | Normal | Localization | Localization – collection of small items to localize |
| 10997 | Normal | Localization | Part of Admin Config is localized when it shouldn't be. |
| 11081 | Normal | Localization | Problem with Report History Data Nugget |
| 11142 | Normal | Localization | De-localize conditional formatting window |
| 9263 | Normal | Mgt - Report - Custom | Move Radnet only reports from the installer to treat them as custom reports. |
| 11168 | Normal | Mgt - Report - Custom | Radiologist dashboard |
| 7743 | Normal | Mgt Reports | Mammo Annual Radiologist Summary - report details should be sorted by month |
| 9615 | Low | Mgt Reports | Mgt Rpt - Referring Physician List - couple of suggestions for easier viewing |
| 11240 | Normal | Mgt Reports | Mgt Reports - Error on selecting multiple Practices (2 Insurance Eligibility Reports) |
| 10900 | Normal | PACS (Non - eRAD) Integration | When launching RIS via Citrix, the default for PACS is Hologic |
| 11034 | Normal | Patient Search | Patient search – Search for 'other variations' needs to configurable |
| 9475 | Normal | Person Management | Personnel - Selecting the dropdown area of a text box can cause the focus to change to another text box |
| 10775 | Normal | Person Management | Personnel - Modifying 'Additional resources' doesn't recognize changes after initial save |
| 10867 | Normal | Person Management | Unknown NPI Flag - NPI field is not disabled when opening a Referring Physician with Unknown NPI checked |
| 11181 | Normal | Person Management | Personnel Merge - Error when source/destination person doesn't have an active RIS account |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| 10936 | Normal | Portal Viewer | Permission Clinical.PortalLauncher doesn't apply to radiology view menu |
| 10813 | Normal | Questionnaire | Questionnaire - Rulesets are evaluated in design mode |
| 10820 | Normal | Questionnaire | Questionnaire - Unable to remove dates in a date field. |
| 10825 | Normal | Questionnaire | Questionnaire - Hidden answers are saved as though they were visible |
| 10836 | Normal | Questionnaire | Questionnaire - Unable to save blank/null entries for dropdowns that are tied to DB fields |
| 10844 | High | Questionnaire | Questionnaire - Hebrew questionnaires opened in a browser RTL issue with Save/Finish/Next Page/Previous Page buttons |
| 10846 | High | Questionnaire | Questionnaire - Checkboxes cannot save Y and N values |
| 11065 | Normal | Questionnaire | Questionnaire Editor - Rules that uses greater than/lesser than don't work properly against numeric values |
| 11068 | Normal | Questionnaire | Questionnaire - RIS populated date fields calendar control doesn't open to the correct date |
| 11073 | Normal | Questionnaire | Questionnaire - Tab title allows for more than 30 characters in RIS (throws error at run time) |
| 11074 | High | Questionnaire | Questionnaire - On Register/Perform Exam, only questionnaires for the study initially opened are shown |
| 11257 | Normal | Questionnaire | Questionnaire - Drop down list cannot be sized |
| 11272 | Normal | Questionnaire | Questionnaire - Newly added sections/questions render improperly until resized. |
| 11290 | Normal | Questionnaire | Questionnaire - Focus is jumping to tree view when clicking questions in the Questionnaire Editor |
| 11057 | Normal | RADAR | Quick RADAR Message - Curly Brackets cannot be entered in message (throws error). |
| 11250 | Normal | RADAR | Quick RADAR Message - To: field is too small |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| 11284 | Normal | RADAR | Quick RADAR Message - SMS messages won't send when over 160 characters |
| 8561 | Normal | Radiology Reporting | Report Fields Control - Update field control when fields are modified in the report |
| 9420 | Normal | Radiology Reporting | Reading group and linked reporting need to come together. |
| 9642 | Normal | Radiology Reporting | Custom fields for time are not working |
| 9709 | Normal | Radiology Reporting | Template/macro editor - field editor - the data fields should be alphabetic order. |
| 10395 | Normal | Radiology Reporting | Action Buttons on reporting screen still respond to shortcuts even when they are not visible |
| 10513 | Normal | Radiology Reporting | eRAD Report Editor - Entries made in M*Modal text expander |
| 10530 | High | Radiology Reporting | When permission is not granted to create new templates or macros, user is able to add, edit , delete fields in the template via the preview window. |
| 10563 | Low | Radiology Reporting | Macro/Template Editing - Creating template from with auto-macro fields will inconsistency |
| 10575 | High | Radiology Reporting | Text Expander - adding a new value only saves for the session, log out and back into RIS, value is not saved. |
| 10670 | Normal | Radiology Reporting | ERAD Editor - when you edit an existing macro, can easily edit a field when you meant to create a new field. |
| 10685 | Normal | Radiology Reporting | Template/Macro Lookup - context menu export templates defaults file type to cda (xml) |
| 10686 | Normal | Radiology Reporting | Template/Macro Lookup - context menu option Export List to Excel is not working |
| 10823 | Normal | Radiology Reporting | Similar Display of Preferred Radiologist and Assigned Radiologist Needed |
| 10829 | Normal | Radiology Reporting | Polling queue next workflow will try to open interpretation types that the user doesn't have access to |
| 10887 | Normal | Radiology Reporting | Dictation files save to external location, when they cannot be found in the Gui the Load Audio button is displayed once then the dictation controls are accessible |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| 10896 | Normal | Radiology Reporting | Open Patient Tab limitation setting is exceeded when Reuse Reporting Screen is checked. |
| 10918 | Normal | Radiology Reporting | When in the dictation window and using the Next - Previous navigation, hover icon says 'Previous field' regardless if using Next or Previous |
| 10920 | Normal | Radiology Reporting | Next - Previous navigation - keyboard action- Selecting Previous field or section causes an error when using eRAD editor. |
| 10924 | Normal | Radiology Reporting | Addendum request's assign to rad dropdown does not show *Preferred rads |
| 10926 | Normal | Radiology Reporting | New Reading Group lookup table is missing access string |
| 10993 | Normal | Radiology Reporting | Reporting - M*Modal Recognizer not updating |
| 11001 | Normal | Radiology Reporting | Birads picker validation issue with localization |
| 11051 | Normal | Radiology Reporting | Picklist - when the option is a macro the navagition doesn't work. |
| 11053 | Normal | Radiology Reporting | In the report , the Scanner value in the technique field should be populated from something other than Report Description column if that column is blank |
| 11054 | Normal | Radiology Reporting | Opening the TemplateMacro lookup editor will display an additional column 'Macro Type" |
| 11276 | Normal | Radiology Reporting | Make the wordviewer executable name/path configurable in sysconfig |
| 11300 | Normal | Radiology Reporting | Pending dictation WL, when you skip and continue if the Interpretation type is blank the study will not open in dictation window |
| 10891 | Normal | Reception | inaproperate error occouring when trying to split orders on registration for an already scheduled study |
| 7071 | Low | Scheduling | Scheduling - Scroll Wheel on mouse does not work in search results grid |
| 10491 | Normal | Scheduling | There needs to be an access string to disable the 'save as order' button |
| 10653 | Normal | Scheduling | Date at top of Details date grid can display a different date than the selected Scheduled Date/time |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| 10868 | Normal | Scheduling | Cannot remove phone number with PhoneNumberFormatDisabled=True |
| 10889 | Normal | Scheduling | System Config ShowDOBCalendar=False doesn't apply to IVT window |
| 10894 | Normal | Scheduling | Preferred Site incorrect on Scheduling site change |
| 11158 | Normal | Technologist | Null object exception when trying to perform exam |
| 2661 | Normal | Thick Client GUI | Template Macro Editor - Double click template or macro |
| 8063 | Normal | Thick Client GUI | Barcode Scanner - Message "Unable to initialize Motorola Barcode Scanner" should not be displayed in left bottom corner if user is not using barcode scanner. |
| 10927 | Normal | Thick Client GUI | Motorola barcode scanner error in application log |
| 11298 | Normal | Thick Client GUI | Unexpected error "splitbutton base : enable check" when opening a study in any QA WL |
| 10811 | Low | UI Look and feel | Cosmetic fixes needed for scheduling calendar |
| 10917 | Normal | UI Look and feel | Technologist verified ID is required but not showing any indication that is it. |
| 11012 | Normal | UI Look and feel | Labels in Register Multiple Studies window are misaligned |
| 11023 | Normal | UI Look and feel | Register multiple studies window has some problems |
| 11024 | Normal | UI Look and feel | Arrive date check window has alignment and wording problems |
| 11220 | Normal | UI Look and feel | Completing a Personnel Merge changes all Yes/No/Cancel prompts to Yes/Cancel/Cancel |
| 11269 | Normal | UI Look and feel | MainStudyIndicator column added when loading worklist views in patient folder. |
| 10753 | Normal | visibility framework | Visibility Framework - Need a way to hide State field on Image Request window |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| 10864 | Normal | visibility framework | Visibility Framework - some fields cannot be set to ReadOnly on Reschedule window |
| 10865 | Normal | visibility framework | Custom Access String - Not being able to hide fields on Walk-In>Existing Orders |
| 10879 | Normal | visibility framework | Visibility Framework - Including a study on Perform Exam re-enables read-only fields on Documentation tab |
| 10882 | Normal | visibility framework | Visibility Framework - Most fields cannot be set to read-only on Contacts/Demographics tab |
| 10706 | Low | Walk-In | Walk-In - Selecting order from Existing Orders window doesn't automatically fill date/time on Exams |
| 10419 | Normal | Worklists | Worklists - Columns not populated on the signed by date worklist. |
| 10859 | Low | Worklists | Reading Group column needs to be added to the All Peer Review Pending Action WL |
| 11038 | Normal | Worklists | Null object reference when hovering over flags column in IVT WL |
| 8425 | Normal | | Insurance Eligibility - Deductible issue when service section has a total deductible of zero but no remaining deductible is specified. |
| 10908 | Normal | | Management report icon showing as Radnet R logo, rather than eRAD 'e' logo |
| 10916 | Normal | | Rename column in modality lookup to avoid confusion |
| 11019 | Normal | | Error on Reschedule with Insurance Eligibility |
| 11239 | Normal | | Word Legacy reports - context menu from worklist tries to treat file as PDF |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# 9. Known Limitations

The following are bugs, suggested features and support issues found in build 2.45.1.
Bugs reported in previous versions are not repeated here.

| # | Status | Priority | Subject |
|---|---|---|---|
| 11702 | New | Normal | "Set Follow Up Required Flag" is not always sending study to Finding Follow Up WL |
| 11703 | New | Low | Amount to Collect field on Order tab missing currency sign ($) |
| 11708 | New | Normal | Amount to collect field shows 4 decimal places in some cases |
| 11712 | New | Normal | Amount to collect on Self-Pay cannot be modified in some cases |
| 11364 | New | Low | An exam is aborted in perform exam window. Status changes to 'discontinued', no Mirth message sent. Order is still in PACS WL. |
| 11584 | New | Normal | Auto macros that start with a field must have a space before the field otherwise 'create template from report' doesn't work correctly |
| 11701 | New | Normal | Biopsy - Missing access strings for Remove and set pending biopsy result |
| 11664 | New | Normal | Biopsy – 'Set Pending Biopsy Result Flag' and 'Remove Pending Biopsy Result Flag' are not localized |
| 11401 | New | Low | Drawing tool – Drawing object can be partially outside of visible area |
| 11524 | New | Low | Drawing tool - context menu available when image option not selected |
| 11694 | New | Normal | Citrix - installer missing the telerik files |
| 11692 | New | Normal | Citrix - log files should have more detail |
| 11491 | New | Normal | Conditional fields navigation setting is not working |
| 11493 | New | Normal | Conditional fields not working in M*Modal |
| 11529 | New | High | Contrast - Leaving contrast/sedation amount/units blank on multi-study order can cause false validation fails |
| 11508 | New | Low | CT dose required - If you open a study where the ct dose was not required at time of performing exam , you cannot save unless this value is entered. |
| 11650 | New | Normal | Data Exception while trying to Reschedule from the Reception WL |
| 11494 | New | Normal | Delimiter for questionnaire answers and not localized. |
| 11570 | New | Normal | Dictation field in Summary Panel in dictation window copy option throws error |
| 11480 | New | Normal | Edit and create menu items for the Edit button should be more descriptive. |
| 11729 | New | Normal | EMR on primary issuer setup not taken into account |
| 11507 | New | Low | Error changing primary study flag after it has already been set |
| 11327 | New | Normal | Intermittent error closing User Preferences |
| 11540 | New | Low | Error on adding new row on MRN grid for unlinked patient |
| 11709 | New | Normal | Field meta data is not being saved when pasting into report template with no fields |
| 11609 | New | Normal | Finding Follow Up - Missing language item for finding code in the finding |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| | | | follow up worklist |
| 11660 | New | Normal | Findings - if procedure 'findings required flag' is set to N, the context menu item (Set Required Followup Flag) in patient folder, should not be visible |
| 11714 | New | Low | Getting casting error when saving View/Edit with no patient gender |
| 11363 | New | Normal | Height/Weight not required while going through Existing Orders prompt |
| 11629 | New | Normal | Image Request WL requires new "name" equivalents columns with description |
| 11587 | New | Normal | In dictation window, the 'find' option doesn't find a word if it only exists in a field |
| 11473 | New | Normal | In the editor window, the shortcut CTRL+ALT+S should be changed because the action button has been renamed from 'transcribe' to 'edit' |
| 11675 | New | Low | Indication required but could not add an indication. |
| 11541 | New | Normal | Linking EMR patient to RIS patient hides system issuer (just a visual glitch) |
| 11383 | New | Low | M*Modal - Remove subsection tool bar option in the report editor |
| 11726 | New | Normal | Management Report - Editor Activity report is not returning results |
| 11724 | New | Normal | Management Report - Radiologist Signing Activity report filters |
| 11744 | New | High | Memory Leak In GridFlagCellElement |
| 11742 | New | Urgent | MemoryLeak in QuestionnaireAnswersView control for radiologist screen |
| 11700 | New | Normal | Missing access strings for setting/removing Follow Up Required Flag |
| 11718 | New | Low | MModal - when creating a template from report where the template has multiple auto macros of the same type, numbering of the auto macros fields in new template is backwards. |
| 11591 | New | Normal | MModal - create a template from report - auto macros are not working correctly. |
| 11715 | New | Normal | MModal - when creating a template from report the auto macro doesn't work correctly |
| 11504 | New | Normal | MModal - When opening an older template in template editor via dication window, get error "Index was outside of the bounds of the array" |
| 11676 | New | Normal | MRN - Issuer dropdown filtering out valid entries |
| 11295 | New | High | Multi-Orders don't display correctly on opening Register |
| 11737 | New | Low | No visual cursor on Access String lookup table |
| 11538 | New | Low | Patient flags not usable in dark mode |
| 11016 | New | Low | Patient folder control has a white background in light mode instead of grey |
| 11357 | New | Low | Patient information was updated in registration window but MIRTH message was not sent to PACS with updated information |
| 11683 | New | Low | Personnel - Modifying pre-saved address followed by Edit>Cancel reverts changes |
| 11391 | New | Low | Policy subscriber description needs to be edited within prompt for matching policies. |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| 11515 | New | High | Portal Launcher - Unable to remove a rule once saved |
| 11483 | New | Normal | Protected Field - Although you cannot insert macros into protected fields, the behavior could be better |
| 11567 | New | Normal | Questionnaire - Date fields require perfect formatting when manually typing in dates |
| 11302 | New | Low | Questionnaire - Display Order on conditional tab should be aligned to left |
| 10999 | New | Low | Questionnaire - Document outline will not reflect tab page order changes |
| 11578 | New | Low | Questionnaire - Expressions only updating on events |
| 11686 | New | Low | Questionnaire - Localization of "Required!" hover text |
| 11661 | New | High | Questionnaire - Mapped date fields problems with dd/MM/yyyy format |
| 11404 | New | Low | Questionnaire - Problem hiding first page through rules |
| 11678 | New | Normal | Questionnaire - Required field message doesn't appear when user is on a different tab |
| 11682 | New | Low | Questionnaire - Required fields exclamation mark not consistent |
| 11580 | New | Low | Questionnaire - Stand-alone textboxes have the Lookup Type dropdown shown |
| 11398 | New | Normal | Questionnaire - Tabbing to checkboxes/radio buttons doesn't highlight them |
| 11593 | New | Low | Questionnaire - Type-Ahead alter images/textboxes by 1 pixel |
| 11561 | New | Low | Questionnaire Answers - Users can close individual questionnaires tabs |
| 11592 | New | High | Questionnaire Answers - Pane isn't read-only in radiologist window |
| 11625 | New | Low | Questionnaire Editor - Creating Rule with Condition "Has answer" prompts for "Value:" |
| 11411 | New | Normal | Questionnaire Editor - Duplicate Short Names created on copy/pasting sections |
| 11674 | New | Normal | Questionnaire Editor - Rules for date fields on calculated dates problem with dd/MM/yyyy |
| 11627 | New | Normal | Questionnaire Editor - Rules on Autotext controls don't work |
| 11396 | New | Normal | Questionnaire Editor assigns duplicate tab title after a page is deleted |
| 11668 | New | Low | Questionnaire Type-Ahead Textbox for Medication returning results with garbage text entered |
| 11696 | New | Normal | Radio buttons may still save an answer when hidden due to a rule on a questionnaire |
| 11739 | New | Normal | Releasing a report sets an unnecessary 2 minute lock |
| 11717 | New | Normal | Remove Follow Up Required Flag - spelling mistake in context menu |
| 11499 | New | Normal | Report Assistant - no scroll bars |
| 11565 | New | Low | Reporting - Create/Edit Report from Tech window shouldn't include 'and Continue' buttons |
| 11589 | New | Low | Reporting - Extra space in BI-RADS required message |
| 11315 | New | Low | Reporting - waiting on selected report when there is no selected report (mouse pointer with spinning wheel) |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| 11719 | New | Low | Responsible Party - ID Issuer dropdown now includes primary issuers |
| 11527 | New | Low | Scantype lookup doesn't allow empty Keyboard shortcut if other scantypes don't have assigned keyboard shortcut |
| 11731 | New | Low | Scheduling - Emergency Contact showing as required on Registration |
| 11384 | New | Normal | Shortcut CTRL+SHIFT+R - return to report tab not working |
| 11573 | New | Normal | Shortcut keys for 'Create and Continue' and 'Create and close' required for the reporting editor |
| 11479 | New | Normal | Should be using the templates and the macros of the assigned radiologist. |
| 11475 | New | Low | Tab order need adjusting for Referring Physician Details report |
| 11488 | New | Low | Tech creating a report from the Perform exam window, the audit log shows the incorrect status if a modification is made in the perform exam window after submitting the report. |
| 11521 | New | High | Template editor - Assignments - Modality type, Procedures or Users Windows - Hitting the Cancel button actually saves the changes |
| 11617 | New | Normal | Template/Macro lookup editor, search option not retrieving results. |
| 11426 | New | Low | Text expander - order of items is different depending if you are in eRAD or MModal reporting mode. |
| 11656 | New | Low | validation message for missing dates on the manage rules screen may be shown twice |
| 11611 | New | Normal | View PDF legacy reports in Reporting window |
| 11560 | New | High | Walk-In - Error on splitting orders after Checking In |
| 11481 | New | Normal | Warning or workflow restriction should be put in place based on reporting mode used |
| 11353 | New | Low | When an Appointment is scheduled, then cancelled but will schedule later, then cancelled altogether, it still remains on the PACS WL. |
| 11505 | New | Low | When importing a template in the template\macro editor, get an error if the practice and base template values are not selected prior to the import. |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# Server Update

For eRAD RIS
Version 2.0
Build 45.1
Update 45.1.1

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# Table of Contents

New Features ..... 3
Questionnaire ..... 3
11685 – Support for Cross Questionnaire Ruleset Actions ..... 3
10819 – Allow Questions to be Marked as Required and Validate on Save ..... 4
Interface Updates ..... 5
11769 – Radiologist Identified by License Number via Interface ..... 5
11555 – Allow for Data Masking on Portal Data Variables ..... 6
Resolved Items ..... 7
Code Stream ..... 9
Package Contents ..... 10
Intended Audience ..... 10
Who is affected ..... 10
eRAD RIS Release Version Numbers ..... 11
Installing ..... 12
Client/GUI ..... 12
Web Service ..... 13
Database Updates ..... 17

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# New Features

## Questionnaire

### 11685 – Support for Cross Questionnaire Ruleset Actions

There is a process that runs when questionnaires are loaded into RIS. Checkboxes with the same short name will be kept in sync with each other provided that they are both open on the same screen, and that their short name begins with "z_linked_".

For example, front desk staff open a procedure in the registration screen that has multiple Questionnaires and each one contains a checkbox called "z_linked_q1". Completing this checkbox will update the checkbox on the other as well. After a checkbox is updated through this linked question process, the rules are automatically triggered so that the behavior will be the same whether the user manually checks the checkbox or the linked question process makes the change.

Currently, this feature only applies to checkboxes.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## 10819 – Allow Questions to be Marked as Required and Validate on Save

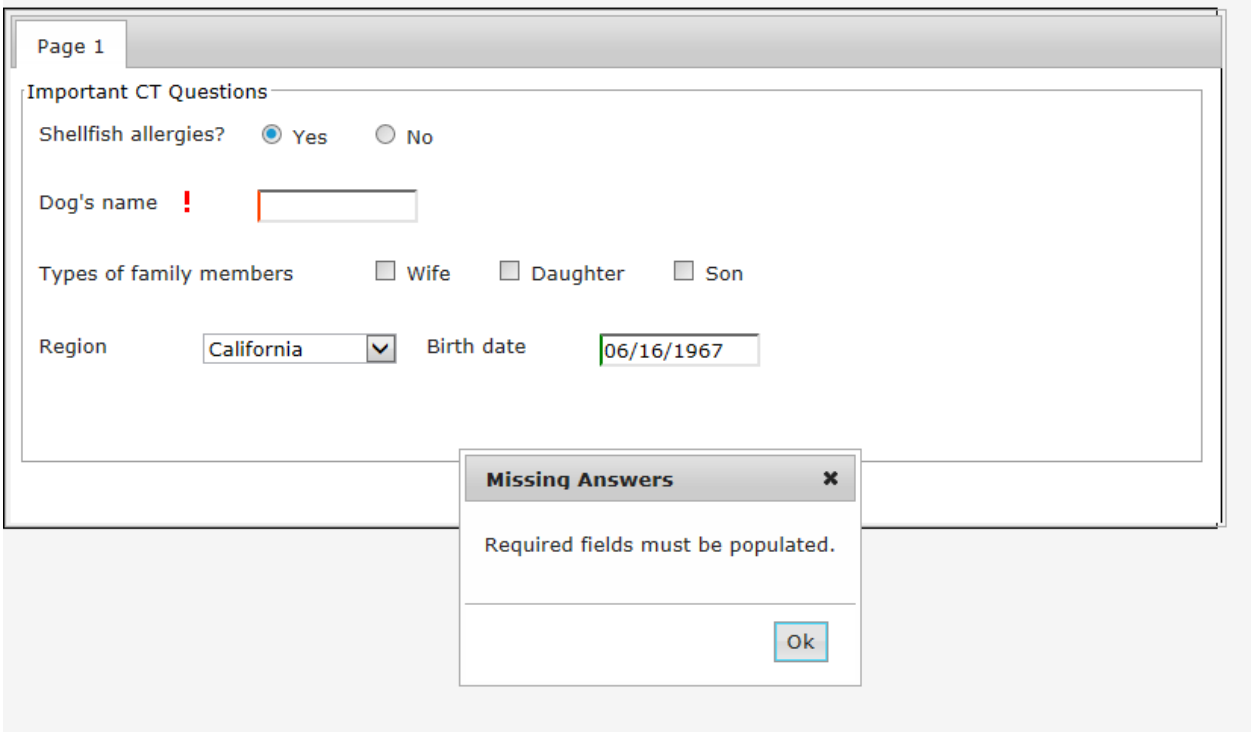
The user can now designate questions to be required fields in the Questionnaire editor.

When completing the questionnaire in the GUI, required fields will be highlighted in red when not answered. Once the required field is completed the red indicator will turn to green. Essentially is works the same as required fields on data windows within eRAD RIS.

Example of red indicator informing user field is required.

When the field has a value, the indicator turns green.

On validation, unanswered required fields will have an exclamation mark appear beside them and a message will appear to remind the user to answer the marked questions. In the event the questionnaire server is unavailable, RIS will allow the user to skip questionnaire validation and save everything else.



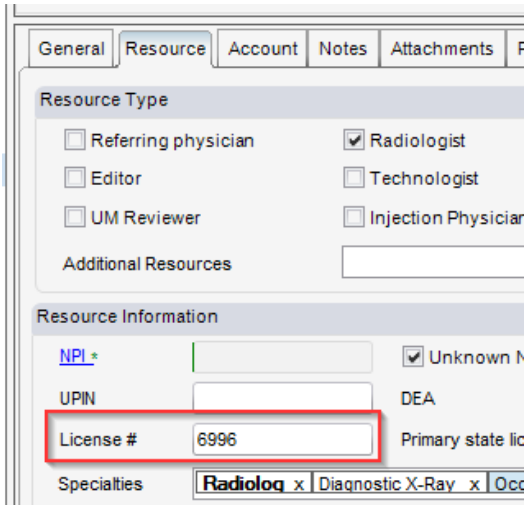

If the field is not visible on the Questionnaire we will bypass this requirement

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## Interface Updates

### 11769 – Radiologist Identified by License Number via Interface

In the Personnel Editor we can store the License number for a Radiologist.




We now support the ability to identify a radiologist from the License # value. If the message received from the external system sends in the License #, we will be able to determine the radiologist and assign appropriately to the study.

If more than one Radiologist User is assigned the same License #, when sent to eRAD RIS, a message will be returned informing that it is a duplicate. Similarly, if the license # doesn't exist, a message will be posted. These messages will only be available in MIRTH Management Console.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## 11555 – Allow for Data Masking on Portal Data Variables

A portal plugin framework was created to support the ability to "massage" or manipulate the data value that is sent in a URL for a portal.

This feature resolves an issue of the leading zeros that may be present on a National ID for example. eRAD RIS will store the leading characters, where a portal may need to have the leading zeros stripped.

When the new PortalPluginIntParser.dll is present in the PortalPlugins folder, using the following data variable in the Portal URL will remove the leading zeros:

{patient.c_patient.patient_id?issuer_of_patient_id=1|**ParseInt**}

This is the only variable supported at this time.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## Resolved Items

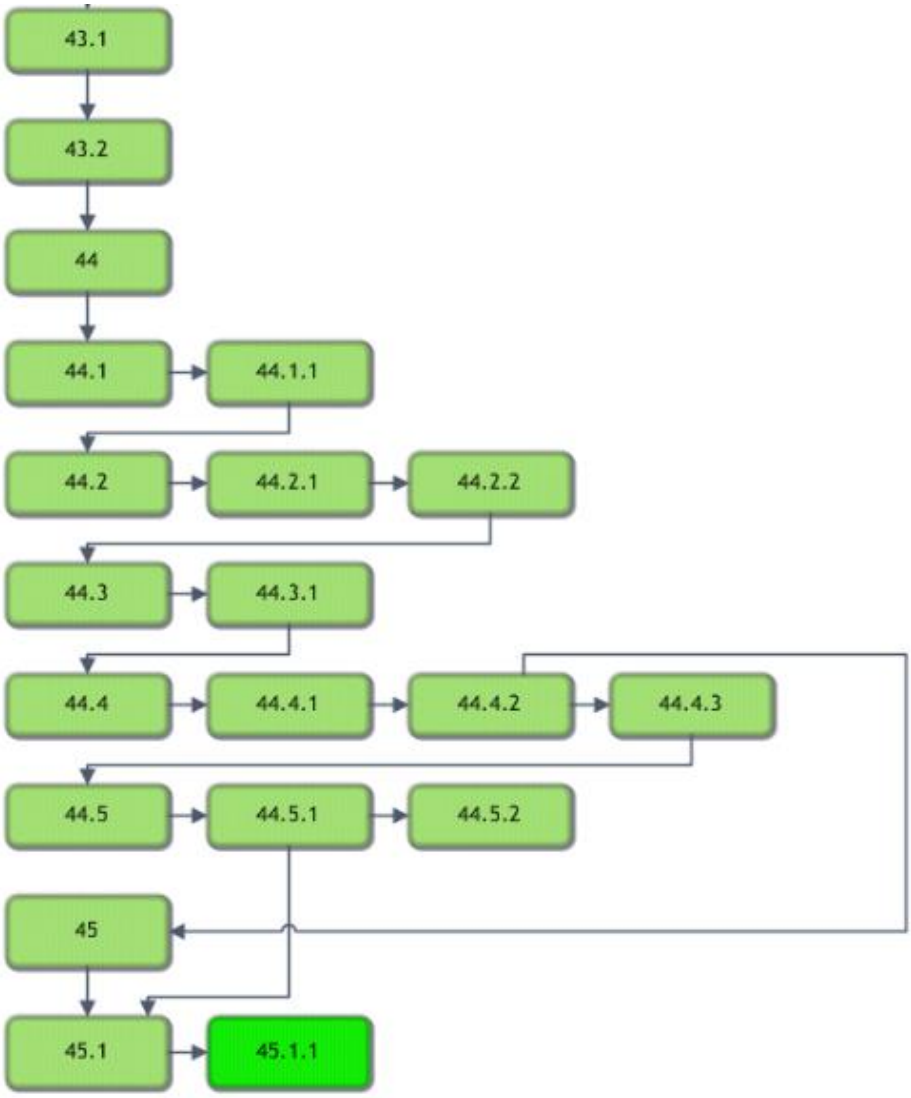
| Redmine # | Subject | Priority |
|---|---|---|
| 11882 | Worklists taking long time to return data - need to modify the worklist views | Immediate |
| 11898 | Unable to map questionnaire data into diagnostic reports in Hebrew culture | Immediate |
| 11742 | MemoryLeak in QuestionnaireAnswersView control for radiologist screen | Urgent |
| 11873 | Scheduling - Opening a scheduled study from appointment book throws error | High |
| 11803 | Exception clicking Bold toolbar button in report editor. | High |
| 11801 | Error loading macros when using conditional fields | High |
| 11785 | Scanner dropdown list in PerformExam and ViewEdit should display modality short description if specified | High |
| 11783 | Error in Field Editor when saving Conditional Values | High |
| 11764 | Findings - Error when submitting a dictation when the findings value is not entered. Cannot submit the dictation. | High |
| 11763 | Support for international date formats | High |
| 11744 | Memory Leak In GridFlagCellElement | High |
| 11727 | MRN - [primary] getting appended to description on Issuer lookup (for primary issuers only) | High |
| 11690 | Discontinued non-primary studies prevent reporting of other linked studies | High |
| 11661 | Questionnaire - Mapped date fields - problems with dd/MM/yyyy format | High |
| 11610 | Cannot merge patients with primary issuer MRN's | High |
| 11592 | Questionnaire Answers pane is not read-only | High |
| 11909 | Drawing control localization changes | Normal |
| 11814 | Inbound Diagnostic Reporting - Leaking a ReportOnAccessionNumber control each time it is opened | Normal |
| 11784 | Client file storage path Config setting RISOutputFilePath doesn't accept the default value | Normal |
| 11746 | MemoryLeak in ReportingRadiologist due to FindingFollowup EventHandler | Normal |
| 11717 | Remove Follow Up Required Flag - spelling mistake in context menu | Normal |
| 11701 | Biopsy - Missing access strings for Remove and Set Pending Biopsy Result | Normal |
| 11700 | Missing access strings for setting/removing Follow Up Required Flag | Normal |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

| | | |
|---|---|---|
| 11693 | Citrix - call to lauch eRAD view session doesn't return a list of open studies. | Normal |
| 11692 | Citrix - log files need to have more details | Normal |
| 11650 | Data Exception while trying to Reschedule from the Reception WL | Normal |
| 11805 | Questionnaire Answers - Users can close individual questionnaire tabs | Low |
| 11788 | Finding follow up recommendation drop down is not using display order | Low |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## Code Stream




**Legend:**

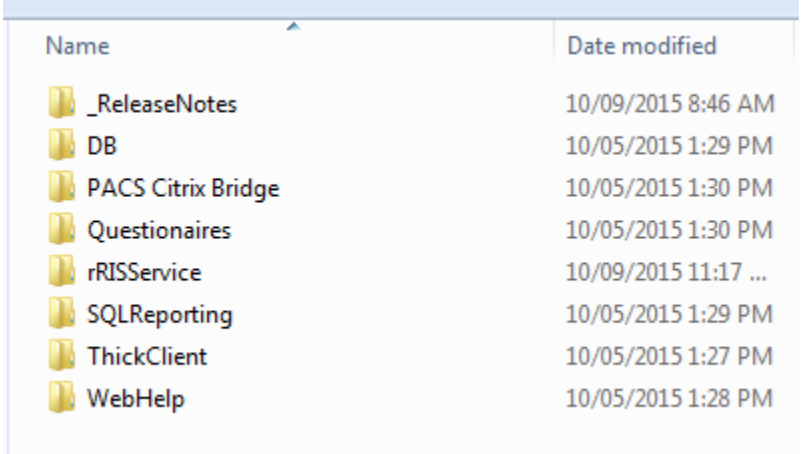
Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## Package Contents




## Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

## Who is affected

Build 45.1 installs.  This server update must be applied to 45.1.1

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## eRAD RIS Release Version Numbers

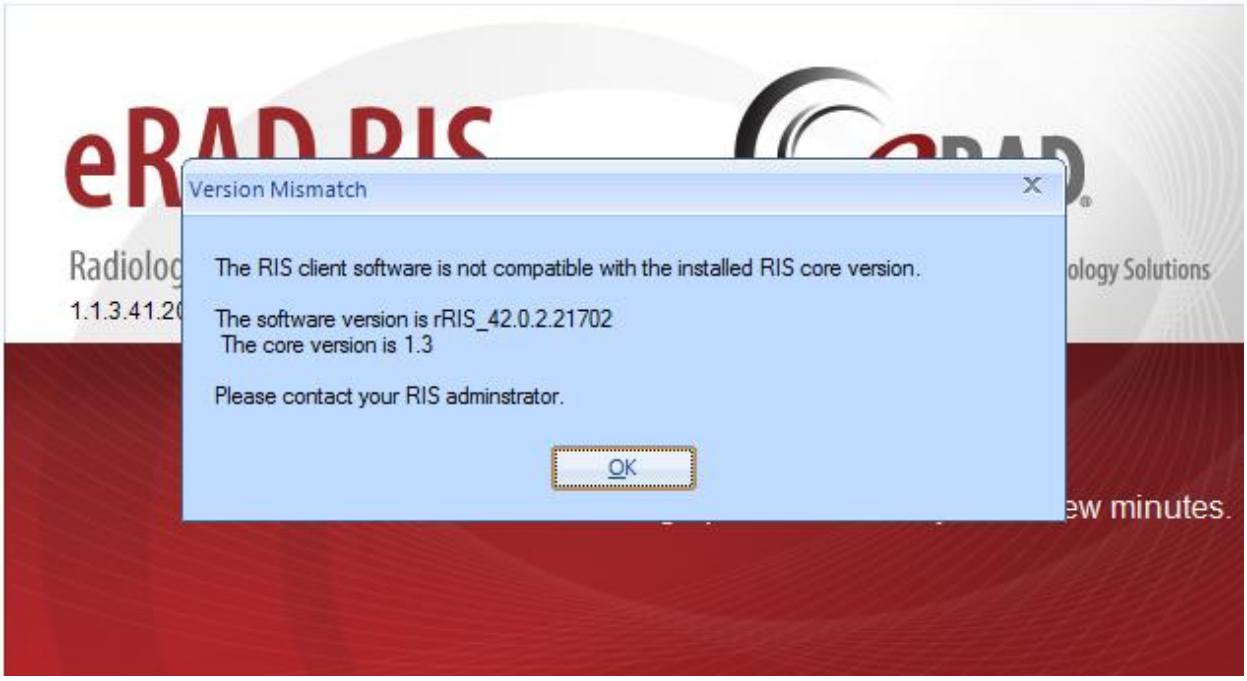
| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 43 | - | 2.43.0.0.23715(3GB) | 2.43.0.0.23171 | 2.43.0.0.23715 | 2.43.0.0.23743 | Full Version Release |
| 43 | 1 | 2.43.0.1.23798(3GB) | 2.43.0.0.23171 | 2.43.0.1.23798 | 2.43.0.1.23770 | GUI.zip, Web Service, DB updates |
| 43 | 2 | 2.43.0.2.24017(3GB) | 2.43.0.0.23171 | 2.43.0.2.24017 | 2.43.0.2.24023 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 3 | 2.43.0.3.24298(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24283 | GUI.zip, Web Service, DB updates and SSRS Deployment |
| 43 | 3.1 | 2.43.0.3.24450(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24421 | GUI.zip, and DB updates |
| 43 | 3.2 | 2.43.0.3.24450(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24421a | DB updates |
| 43 | 4 | 2.43.0.4.24447(3GB) | 2.43.0.0.23171 | 2.43.0.4.24447 | 2.43.0.4.24442 | GUI.zip, Web Service, DB updates and SSRS Deployment |
| 43 | 5 | 2.43.0.4.24632(3GB) | 2.43.0.0.23171 | 2.43.0.4.24632 | 2.43.0.4.24560 | GUI.zip, Web Service and DB updates |
| 43 | 6 | 2.43.0.4.24(3GB) | 2.43.0.0.23171 | 2.43.0.4.24 | 2.43.0.4.24 | GUI.zip, Web Service and DB updates |
| 43 | 6.1 | 2.43.0.6.24937(3GB) | 2.43.0.0.23171 | 2.43.0.6.24937 | 2.43.0.6.24914 | GUI.zip, Web Service |
| 43 | 6.2 | 2.43.0.6.24970(3GB) | 2.43.0.0.23171 | 2.43.0.6.24970 | 2.43.0.6.24914 | GUI.zip, Web Service |
| 43 | 7 | 2.43.0.7.25258(3GB) | 2.43.0.0.23171 | 2.43.0.7.25258 | 2.43.0.7.25226 | GUI.zip, Web Service, DB updates and SSRS Deployment |
| 43 | 8 | 2.43.0.8.25440(3GB) | 2.43.0.0.23171 | 2.43.0.8.25440 | 2.43.0.8.25425 | GUI.zip, Web Service, DB updates and SSRS Deployment |
| 43 | 9 | 2.43.0.9.25477(3GB) | 2.43.0.0.23171 | 2.43.0.9.25477 | 2.43.0.8.25425 | GUI.zip and Web Service |
| 43 | 10 | 2.43.0.9.25477(3GB) | 2.43.0.0.23171 | 2.43.0.10.25477 | 2.43.0.8.25425 | Web Service |
| 43 | 11 | 2.43.0.11.25512(3GB) | 2.43.0.0.23171 | 2.43.0.11.25512 | 2.43.0.8.25425 | GUI.zip and Web Service |
| 43 | 12 | 2.43.0.12.25554(3GB) | 2.43.0.0.23171 | 2.43.0.12.25554 | 2.43.0.12.25536 | GUI.zip Web Service and DB Updates |
| 43 | 13 | 2.43.0.12.25610(3GB) | 2.43.0.0.23171 | 2.43.0.12.25610 | 2.43.0.12.25536 | GUI.zip and Web Service |
| 43 | 14 | 2.43.0.14.25644(3GB) | 2.43.0.0.23171 | 2.43.0.13.25610 | 2.43.0.12.25536 | GUI.zip |
| 43.1 | - | 2.43.1.0.25850(3GB) | 2.43.0.0.23171 | 2.43.1.0.25850 | 2.43.1.0.25771 | GUI.zip Web Service and DB Updates |
| 43.2 | - | 2.43.2.0.26864(3GB) | 2.43.0.0.23171 | 2.43.2.0.26864 | 2.43.1.0.25771 | GUI.zip and Web Service |
| 44 | - | 2.44.0.0.26570(3GB) | 2.44.0.0.26405 | 2.44.0.0.26570 | 2.44.0.0.26475 | Full Version Release |
| 44.1 | - | 2.44.0.0.26984(3GB) | 2.44.0.0.26405 | 2.44.0.0.26984 | 2.44.0.0.26906 | Gui.zip, Web Service, and DB |
| 44.1 | 1 | 2.44.1.1.27093(3GB) | 2.44.0.0.26405 | 2.44.1.0.26984 | 2.44.1.0.26906 | Gui.zip |
| 44.2 | | 2.44.2.0.27410(3GB) | 2.44.0.0.26405 | 2.44.2.0.27410 | 2.44.2.0.27365 | Gui.zip, Web Service, and DB |
| 44.2 | 1 | 2.44.2.1.27959(3GB) | 2.44.0.0.26405 | 2.44.2.1.27959 | 2.44.2.1.27909 | Gui.zip, Web Service, and DB |
| 44.2 | 2 | 2.44.2.1.27959(3GB) | 2.44.0.0.26405 | 2.44.2.2.28094 | 2.44.2.1.27909 | Web Service |
| 44.3 | - | 2.44.3.0.28292 | 2.44.0.0.26405 | 2.44.3.0.28277 | 2.44.3.0.28138 | Gui.zip, Web Service, and DB |
| 44.3 | 1 | 2.44.3.1.28535(3GB) | 2.44.0.0.26405 | 2.44.3.1.28535 | 2.44.3.0.28138 | Gui.zip and Web Service |
| 44.4 | - | 2.44.4.0.28762(3GB) | 2.44.0.0.26405 | 2.44.4.0.28762 | 2.44.4.0.28676 | Gui.zip, Web Server, DB, SSRS Deployment |
| 44.4 | 1 | 2.44.4.1.28953(3GB) | 2.44.0.0.26405 | 2.44.4.1.28953 | 2.44.4.0.28676 | Gui.zip and Web Service |
| 44.4 | 2 | 2.44.4.2.29327(3GB) | 2.44.0.0.26405 | 2.44.4.2.29327 | 2.44.4.0.28676 | Gui.zip and Web Service |
| 44.4 | 3 | 2.44.4.2.29722(3GB) | 2.44.0.0.26405 | 2.44.4.2.29327 | 2.44.4.0.28676 | Gui.zip and Web Service |
| 44.5 | - | 2.44.5.0.30022(3GB) | 2.44.0.0.26405 | 2.44.5.0.30022 | 2.44.5.0.29976 | Gui.zip, Web Server, DB |
| 44.5 | 1 | 2.44.5.1.30451(3GB) | 2.44.0.0.26405 | 2.44.5.1.30451 | 2.44.5.1.30449 | Gui.zip, Web Server, DB |
| **44.5** | **2** | **2.44.5.2.30705(3GB)** | **2.44.0.0.26405** | **2.44.5.1.30705** | **2.44.5.1.30554** | **Gui.zip, Web Server, DB** |
| **45** | **-** | **2.45.0.0.29559(3GB)** | **2.45.0.0.26107** | **2.45.0.0.29559** | **2.45.0.0.29558** | **Full Version Release** |
| **45.1** | **-** | **2.45.1.0.30774(3GB)** | **2.45.0.0.26107** | **2.45.1.0.30774** | **2.45.1.0.30738** | **Gui.zip, Web Service, DB, SQLReporting, Questionnaire, Citrix support** |
| **45.1** | **1** | **2.45.1.1.31175(3GB)** | **2.45.0.0.26107** | **2.45.1.1.31175** | **2.45.1.1.31174** | **Gui.zip, Web Service, DB, SQLReporting, Questionnaire** |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## Installing

### Client/GUI

1) Copy and replace the current rRIS…zip file with the rRIS_1.3.45.1.1.31175.zip file provided with this release.
   Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.




If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_45.1.1.31175→ rRIS_1.3.45.1.1.31175
NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

**NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## Web Service

1. The web service upgrade consists of replacing the files in the RIS Web Service directory with the files supplied in the rRISService folder with this build. Always create a backup of the files being replaced. This upgrade includes 88 files in the rRISService folder and 2 sub folders. Of those folders, 1 is a folder titled **"XSL"** that contains a sub folder and files within the subfolder. Another folder is titled **"deploy"** that contains the new .config files that will be deployed with the user of the file called "ServicesConfigWizard.exe" (see instructions below).

## Services Configuration Wizard

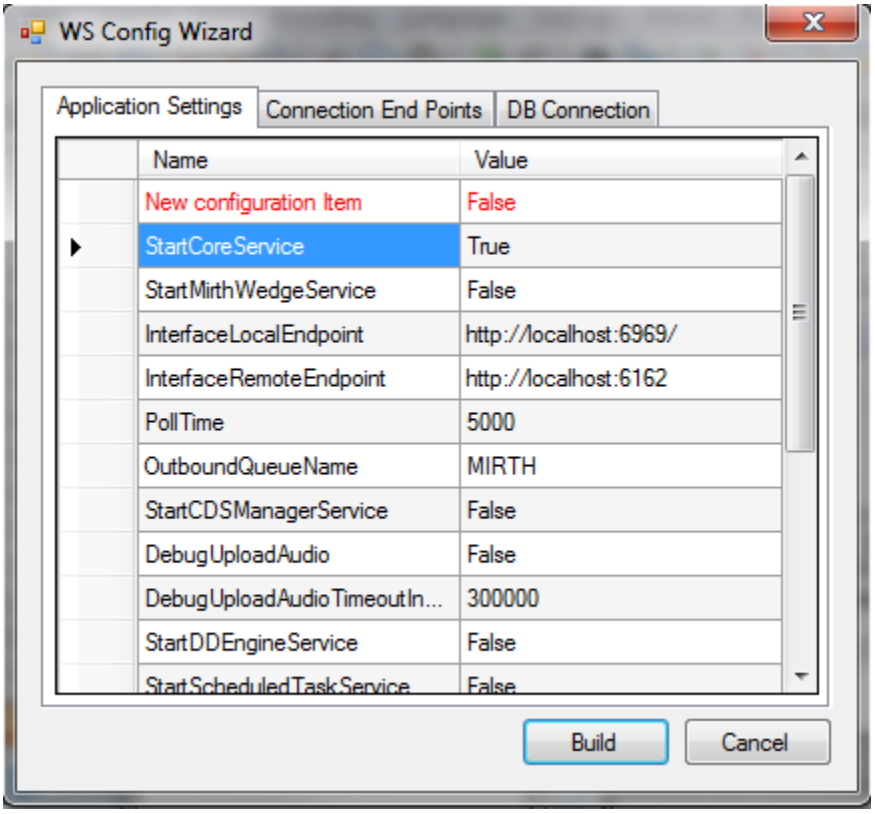
With the release of 42 to decrease the chance of losing configuration setting and missing new configuration options, we will no longer include the configuration files in the release in the main set of files, but they will now exist in a "deploy" folder, which will contain the three site configurable config files; applicationsettings, connectionstrings, services as well as a copy of the rRISServices.exe configuration file. The contents of this folder should not be required to be touched.

On the install of a new service, all files will be copied to the appropriate locations on the server (no configurations will be over written). If instructed or to confirm no new configurations have been added the user can run the new application "ServicesConfigWizard.exe"

This application will read the existing configuration file(s) (if files exist), and compare to the provided new configuration files then will display three tabs, for each configuration file:
**Application Settings:** all existing configuration value will be displayed, if there are any new configuration entries they will be displayed in red.

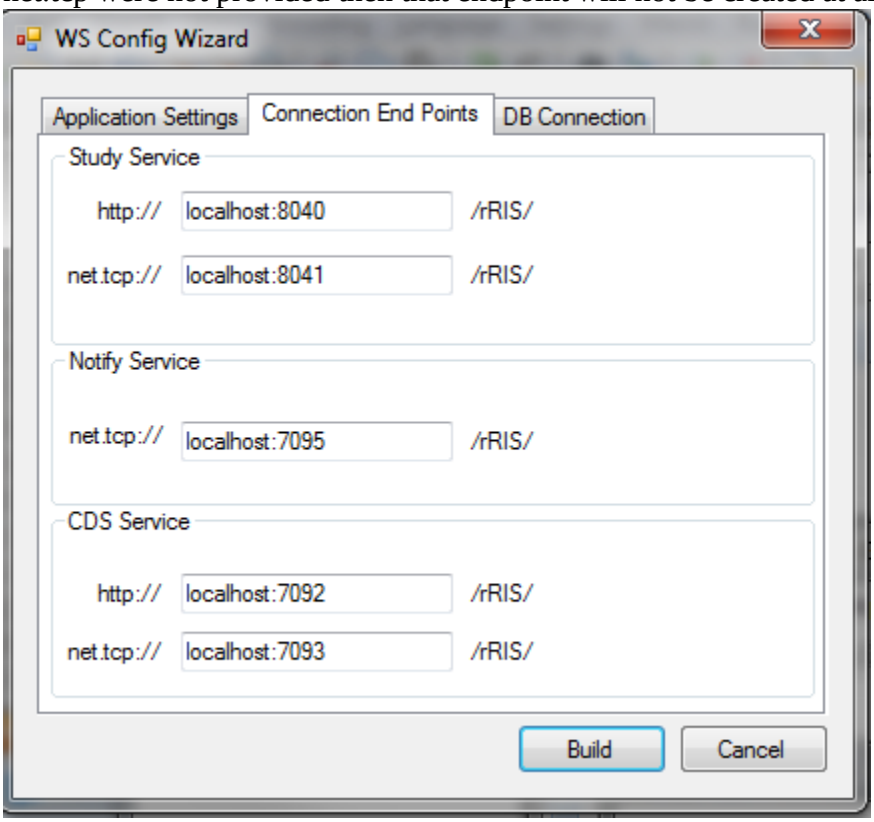
**NOTE:** the rRISServices.exe.config file is also included in the deploy folder. If this file has changes it **will not** update your current file in the Web Service directory. Any changes to this file will require a manual update of the rRISServices.exe.config and rRISServicesx64.exe.config files.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.



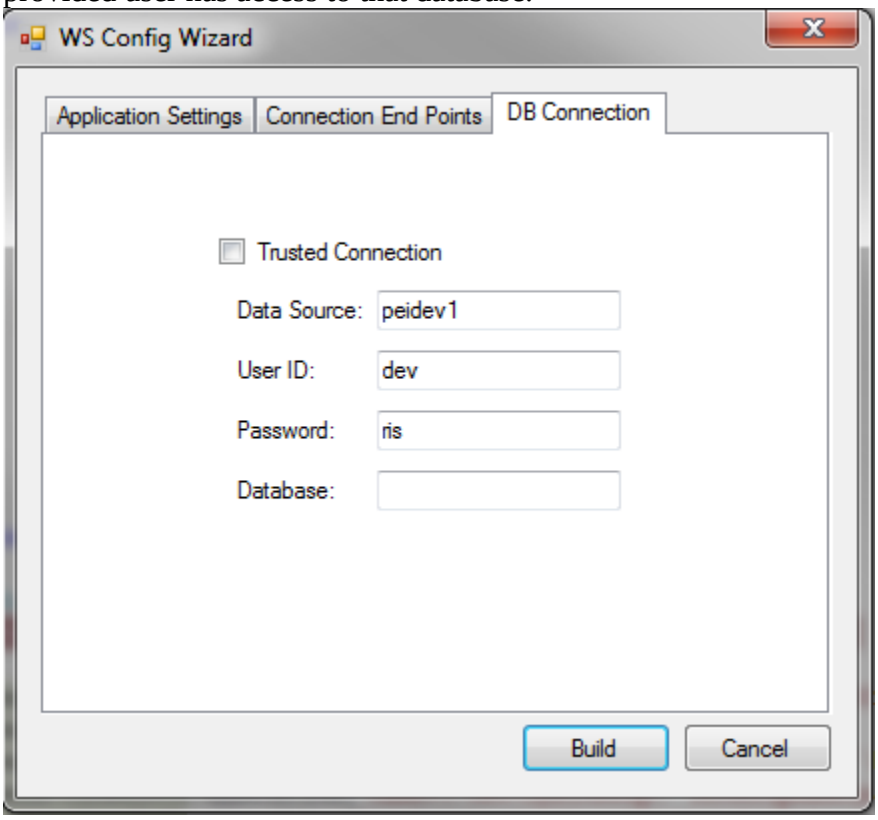

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

**Connection End Points:** will display the existing configuration, if the value is left blank then that entry will not be created, in the case of "Study Service" or "CDS Service" if both http and net.tcp were not provided then that endpoint will not be created at all.




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

**DB Connection:** will display the existing configuration, if the Connection is to be used as a trusted connection, then the user ID and password will become disabled and will not be used, and will rely on the provided database value, When not using the trusted connection, The Database value is not needed but can be used to force a specific database connection as long as the provided user has access to that database.




It is always good practice to do a compare of the .config files.

1) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService.
   *rRISService directories include:*
   *a) rRISService*
   *b) CDS rRISService*
   *c) Wedge rRISService*
   *d) DDE rRISService*

   **Restart each service**.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## Database Updates

Always run the upgrade scripts in a test environment of the actual database to make sure they run cleanly. If any errors occur please contact development.

*Note: There is a new upgrade process introduced with B43.1 called "RunUpgrade.bat". The batch file will open a command window. This process will prompt you for the database server name, database name and authentication credentials. There is no need to run the database upgrade scripts manually as was done in previous releases.*

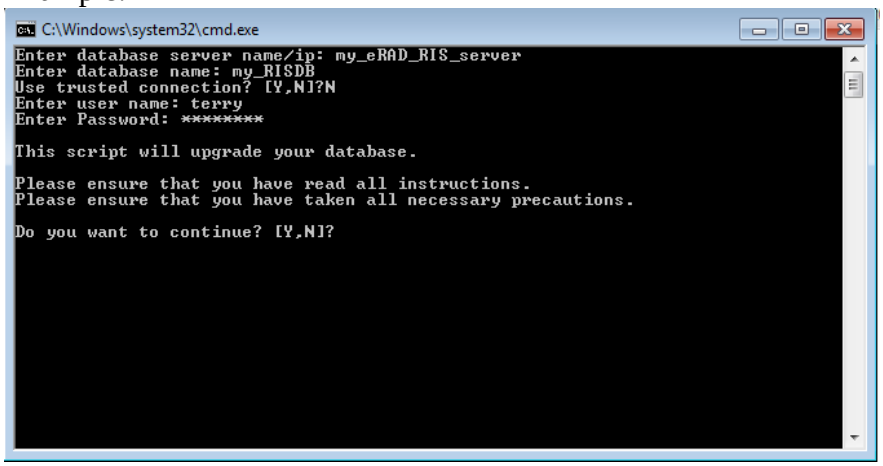
1) From the upgrade folder, double click the "RunUpgrade.bat" command file.

2) Enter the server name, database name and authentication credentials to the database. You have 2 choices for authentication credentials.

3) You can choose to use "Trusted connection". Using this option will pass the identity of the currently logged on user. If this user has "db_owner" access to the eRAD RIS database then feel free to use this options.

4) If you decide not to use "Trusted connection" then you will be prompted for user id and password.

   Example:




5) After the upgrade program has finished you can find the upgrade logs in the "log" folder. The file name will be eRAD_RIS_db_upgrade_timestamp.log, where timestamp is a value representing the date and time the upgrade started. If you see any errors please contact the development team

6) In the Common folder there is a subfolder of MU. The MU folder contains updates to lookups relevant for MU as well as updates for Zip Code table to add the County. Copy the

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

MU folder to the database server before running the batch file. There is a readme file contained in the MU folder. The details have also been included below

a) The mu bulk install process must be run from a path on the database server!
b) Copy Files ImportDataFileUpgradeDB.bat and ImportDataFileUpgradeDB.sql from upgrade folder to a location on the database server(This location will be referred to as the "Script Folder Path".)
c) Copy Folder scripts and Source files from the upgrade folder to "Script Folder Path" ....Note source files must be inside the scripts folder
d) Run bat file
   i) Enter Script Folder path [C:\Temp\SNOMED]:
   ii) Enter database server name/ip: [ie peidev1]
   iii) Enter database name: [ie rRIS_MU]
   iv) Use a trusted connection to log on to SQL Server:
   "N" means you will have to enter db [username] [password]
   "Y" means you have a trusted connection and will not have to enter [username][password]
   v) Do you wish to load SNOMED concept codes?
   "N" no files will be loaded into the l_snomed_concept table
   "Y" yes means l_snomed_concept table will be truncated and reloaded with the latest US concept codes
   Source File [sct2_Concept_Snapshot_US1000124_20140301.txt]
   vi) Do you wish to load SNOMED descriptions codes?
   "N" no files will be loaded into the l_snomed_description table
   "Y" yes means the l_snomed_description table will be truncated and reloaded with the latest US description codes
   Source File [sct2_Description_Snapshot-en_US1000124_20140301.txt]
   vii) Do you wish to load ICD9 to SNOMED mappings codes?
   "N" no files will be loaded into the l_snomed_icd9_map table
   "Y" yes means the l_snomed_icd9_map table will be truncated and reloaded with the latest US ICD9 to SNOMED mapping codes
   Source File [ICD9CM_SNOMED_MAP_1TO1_201312.txt and ICD9CM_SNOMED_MAP_1TOM_201312.txt]
   viii) Do you wish to load ICD10 to SNOMED mappings codes?
   "N" no files will be loaded into the l_snomed_icd10_map table
   "Y" yes means the l_snomed_icd10_map table will be truncated and reloaded with the latest US ICD10 to SNOMED mapping codes
   Source File [xder2_iissscRefset_ExtendedMapSnapshot_US1000124_20131220.txt]
   ix) Do you wish to load US zip codes?
   "N" no files will be loaded into the z_zipCodesWithCounty table
   "Y" yes means the z_zipCodesWithCounty table will be truncated and reloaded with the latest US zip codes
   Source File [5-digit Commercial.csv]

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

**********

Note: the following files should be loaded once only with B43!

**********

x) Do you wish to load CMS codes?
"N" no files will be loaded into the s_mu_code table
"Y" yes means the s_mu_code table will be truncated and reloaded with the latest CMS codes
Source File [s_mu_code.txt]

xi) Do you wish to load HL7 support sets for CCDA?
"N" no files will be loaded into the l_hl7v3_voc_value_set table
"Y" yes means the l_hl7v3_voc_value_set table will be truncated and reloaded with the latest hl7v3_voc_value_set codes
Source File [l_hl7_voc_value_set.txt]

xii) Do you wish to load HL7 support codes for CCDA?
"N" no files will be loaded into the l_hl7v3_voc_value_code table
"Y" yes means the l_hl7v3_voc_value_code table will be truncated and reloaded with the latest l_hl7v3_voc_value_code codes
Source File [l_hl7_voc_value_code.txt]

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# Server Update

For eRAD RIS
Version 2.0
Build 45.1
Update 45.1.3

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# Table of Contents

Resolved Items ..... 3
Code Stream ..... 4
Package Contents ..... 5
Intended Audience ..... 5
Who is affected ..... 5
eRAD RIS Release Version Numbers ..... 6
Installing ..... 7
    Client/GUI ..... 7
    Web Service ..... 8
    Database Updates ..... 12

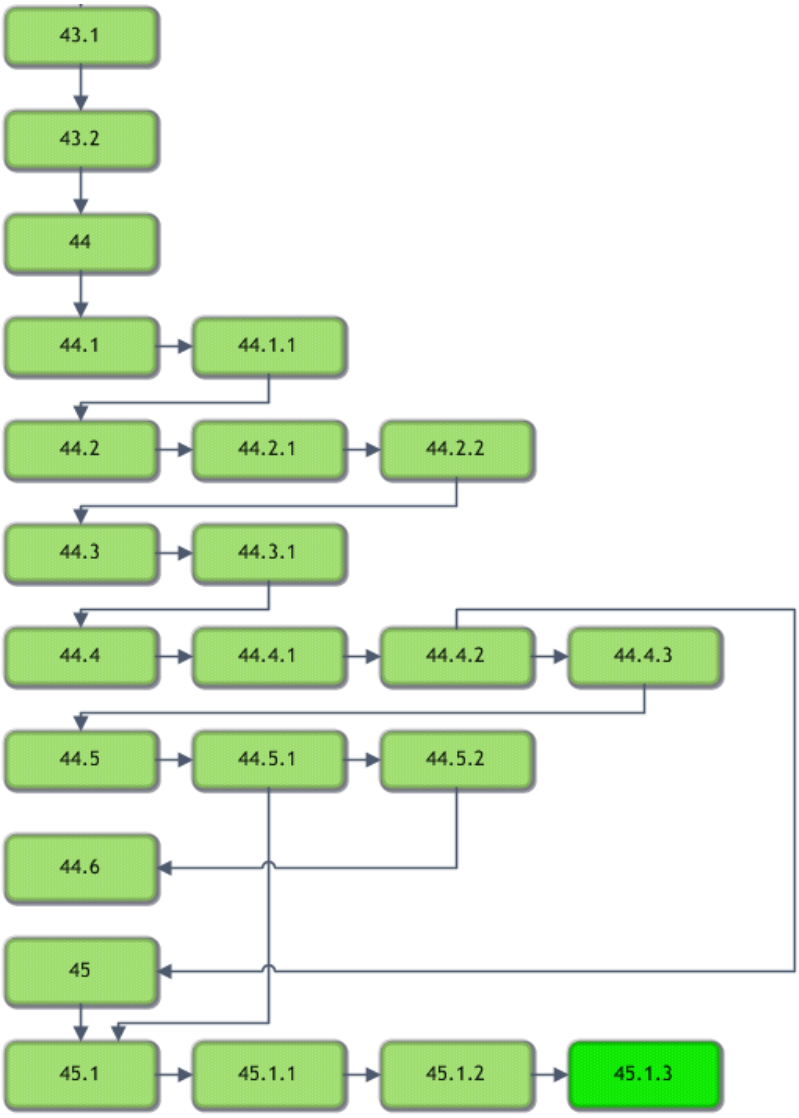
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## Resolved Items

| Redmine # | Subject | Priority |
|---|---|---|
| 12004 | Appointment book load times to slow | Urgent |
| 12002 | CD Import or Legacy Data can overwrite the system MRN | Urgent |
| 12001 | CD Import thows exception if DOS on disk cannot be found and time format is not dd-mm-yyyy | Urgent |
| 11984 | Using the "Print Forms" context menu causes error "The UTC time represented when the offset is applied must be between year 0 and 10,000". Auto printing forms simply do not appearthe . | Urgent |
| 12023 | questionnaires should not reference CSS files from CDN servers | High |
| 12011 | Report Rendering (SSRS) - Reports with tables have an extra line after every row data element | High |
| 12009 | Questionnaire - Expressions are not evaluated after visiblity changes on source questions | High |
| 12003 | Citrix Bridge Installer adds CitrixBridge.exe to HKLM\Software\Microsoft\Window\Run but the path is missing so it fails to start on boot. | High |
| 11972 | Diagnostic report editor not keeping right to left document text flow. | High |
| 11969 | Linked Questionnaire checkboxes don't fire change event | High |
| 11967 | Questionnaires should not be editable after report signature | High |
| 11958 | error logging in to questionnaires from browser using domain auth for some users | High |
| 11955 | Alternate name search feature is causing an exception to be thrown if it finds a matching name | High |
| 11954 | Excessive lines added into the diagnostic reports (nugget and SSRS) after going through RTF to CDA converter | High |
| 11953 | Questionnaire - Users do not get prompted on questionnaire not saving | High |
| 11944 | Ability to configure questionnaires to display in specific screens | High |
| 11936 | Poor performance switching between questionnaire tabs for large questionnaires | High |
| 11997 | Questionnaire expressions cannot refer to other expressions | Normal |
| 11965 | Reporting Radiology - RTF to CDA converter bolding text when not bolded in source system | Normal |
| 11964 | Questionnaire Expression Editor allows the user to make over 26 variables, but does not support more than 26 | Normal |
| 11952 | Questionnaire answers are saved to the database even when no answer is provided | Normal |
| 11951 | Report Assistant is saving all questionnaires regardless of changes | Normal |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## Code Stream




**Legend:**

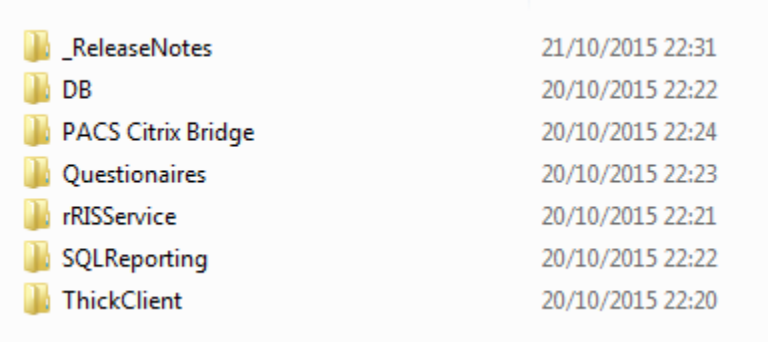
Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## Package Contents




## Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

## Who is affected

Build 45.1 installs.  This server update must be applied to 45.1

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## eRAD RIS Release Version Numbers

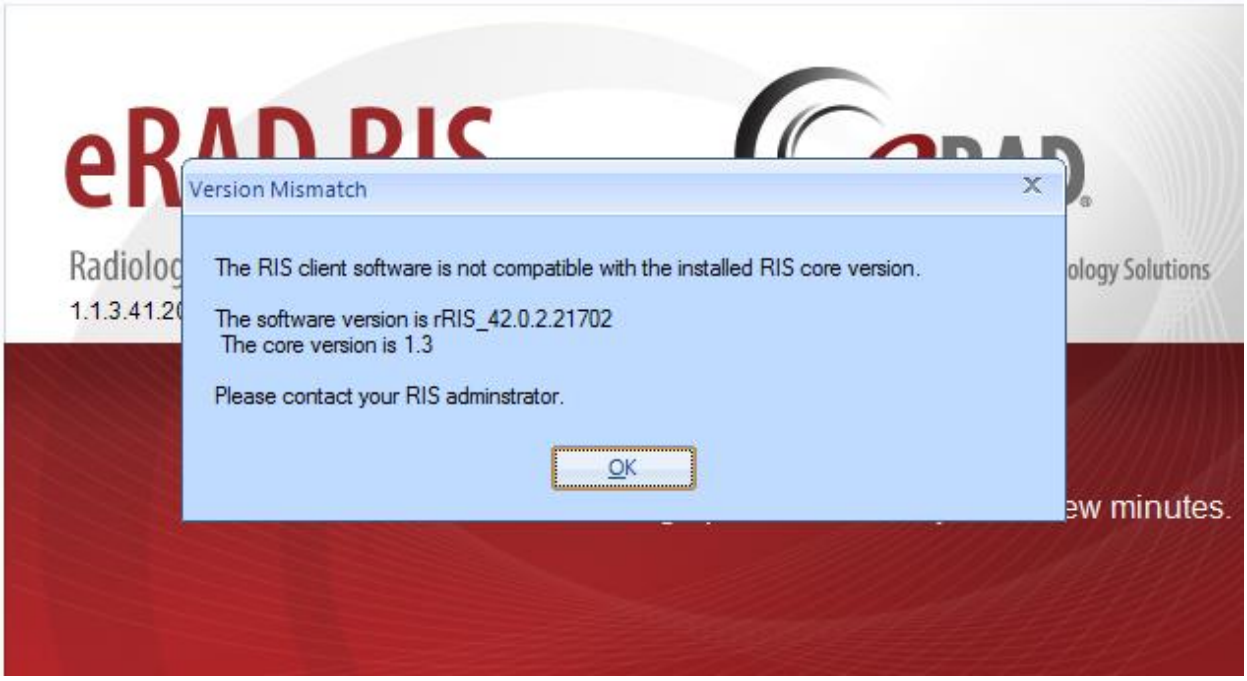
| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 43 | - | 2.43.0.0.23715(3GB) | 2.43.0.0.23171 | 2.43.0.0.23715 | 2.43.0.0.23743 | Full Version Release |
| 43 | 1 | 2.43.0.1.23798(3GB) | 2.43.0.0.23171 | 2.43.0.1.23798 | 2.43.0.1.23770 | GUI.zip, Web Service, DB updates |
| 43 | 2 | 2.43.0.2.24017(3GB) | 2.43.0.0.23171 | 2.43.0.2.24017 | 2.43.0.2.24023 | GUI.zip, Web Service, DB updates and Management Report Deployment |
| 43 | 3 | 2.43.0.3.24298(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24283 | GUI.zip, Web Service, DB updates and SSRS Deployment |
| 43 | 3.1 | 2.43.0.3.24450(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24421 | GUI.zip, and DB updates |
| 43 | 3.2 | 2.43.0.3.24450(3GB) | 2.43.0.0.23171 | 2.43.0.3.24298 | 2.43.0.3.24421a | DB updates |
| 43 | 4 | 2.43.0.4.24447(3GB) | 2.43.0.0.23171 | 2.43.0.4.24447 | 2.43.0.4.24442 | GUI.zip, Web Service, DB updates and SSRS Deployment |
| 43 | 5 | 2.43.0.4.24632(3GB) | 2.43.0.0.23171 | 2.43.0.4.24632 | 2.43.0.4.24560 | GUI.zip, Web Service and DB updates |
| 43 | 6 | 2.43.0.4.24(3GB) | 2.43.0.0.23171 | 2.43.0.4.24 | 2.43.0.4.24 | GUI.zip, Web Service and DB updates |
| 43 | 6.1 | 2.43.0.6.24937(3GB) | 2.43.0.0.23171 | 2.43.0.6.24937 | 2.43.0.6.24914 | GUI.zip, Web Service |
| 43 | 6.2 | 2.43.0.6.24970(3GB) | 2.43.0.0.23171 | 2.43.0.6.24970 | 2.43.0.6.24914 | GUI.zip, Web Service |
| 43 | 7 | 2.43.0.7.25258(3GB) | 2.43.0.0.23171 | 2.43.0.7.25258 | 2.43.0.7.25226 | GUI.zip, Web Service, DB updates and SSRS Deployment |
| 43 | 8 | 2.43.0.8.25440(3GB) | 2.43.0.0.23171 | 2.43.0.8.25440 | 2.43.0.8.25425 | GUI.zip, Web Service, DB updates and SSRS Deployment |
| 43 | 9 | 2.43.0.9.25477(3GB) | 2.43.0.0.23171 | 2.43.0.9.25477 | 2.43.0.8.25425 | GUI.zip and Web Service |
| 43 | 10 | 2.43.0.9.25477(3GB) | 2.43.0.0.23171 | 2.43.0.10.25477 | 2.43.0.8.25425 | Web Service |
| 43 | 11 | 2.43.0.11.25512(3GB) | 2.43.0.0.23171 | 2.43.0.11.25512 | 2.43.0.8.25425 | GUI.zip and Web Service |
| 43 | 12 | 2.43.0.12.25554(3GB) | 2.43.0.0.23171 | 2.43.0.12.25554 | 2.43.0.12.25536 | GUI.zip Web Service and DB Updates |
| 43 | 13 | 2.43.0.12.25610(3GB) | 2.43.0.0.23171 | 2.43.0.12.25610 | 2.43.0.12.25536 | GUI.zip and Web Service |
| 43 | 14 | 2.43.0.14.25644(3GB) | 2.43.0.0.23171 | 2.43.0.13.25610 | 2.43.0.12.25536 | GUI.zip |
| 43.1 | - | 2.43.1.0.25850(3GB) | 2.43.0.0.23171 | 2.43.1.0.25850 | 2.43.1.0.25771 | GUI.zip Web Service and DB Updates |
| 43.2 | - | 2.43.2.0.26864(3GB) | 2.43.0.0.23171 | 2.43.2.0.26864 | 2.43.1.0.25771 | GUI.zip and Web Service |
| 44 | - | 2.44.0.0.26570(3GB) | 2.44.0.0.26405 | 2.44.0.0.26570 | 2.44.0.0.26475 | Full Version Release |
| 44.1 | - | 2.44.0.0.26984(3GB) | 2.44.0.0.26405 | 2.44.0.0.26984 | 2.44.0.0.26906 | Gui.zip, Web Service, and DB |
| 44.1 | 1 | 2.44.1.1.27093(3GB) | 2.44.0.0.26405 | 2.44.1.0.26984 | 2.44.1.0.26906 | Gui.zip |
| 44.2 | | 2.44.2.0.27410(3GB) | 2.44.0.0.26405 | 2.44.2.0.27410 | 2.44.2.0.27365 | Gui.zip, Web Service, and DB |
| 44.2 | 1 | 2.44.2.1.27959(3GB) | 2.44.0.0.26405 | 2.44.2.1.27959 | 2.44.2.1.27909 | Gui.zip, Web Service, and DB |
| 44.2 | 2 | 2.44.2.1.27959(3GB) | 2.44.0.0.26405 | 2.44.2.2.28094 | 2.44.2.1.27909 | Web Service |
| 44.3 | - | 2.44.3.0.28292 | 2.44.0.0.26405 | 2.44.3.0.28277 | 2.44.3.0.28138 | Gui.zip, Web Service, and DB |
| 44.3 | 1 | 2.44.3.1.28535(3GB) | 2.44.0.0.26405 | 2.44.3.1.28535 | 2.44.3.0.28138 | Gui.zip and Web Service |
| 44.4 | - | 2.44.4.0.28762(3GB) | 2.44.0.0.26405 | 2.44.4.0.28762 | 2.44.4.0.28676 | Gui.zip, Web Server, DB, SSRS Deployment |
| 44.4 | 1 | 2.44.4.1.28953(3GB) | 2.44.0.0.26405 | 2.44.4.1.28953 | 2.44.4.0.28676 | Gui.zip and Web Service |
| 44.4 | 2 | 2.44.4.2.29327(3GB) | 2.44.0.0.26405 | 2.44.4.2.29327 | 2.44.4.0.28676 | Gui.zip and Web Service |
| 44.4 | 3 | 2.44.4.2.29722(3GB) | 2.44.0.0.26405 | 2.44.4.2.29327 | 2.44.4.0.28676 | Gui.zip and Web Service |
| 44.5 | - | 2.44.5.0.30022(3GB) | 2.44.0.0.26405 | 2.44.5.0.30022 | 2.44.5.0.29976 | Gui.zip, Web Server, DB |
| 44.5 | 1 | 2.44.5.1.30451(3GB) | 2.44.0.0.26405 | 2.44.5.1.30451 | 2.44.5.1.30449 | Gui.zip, Web Server, DB |
| 44.5 | 2 | 2.44.5.2.30705(3GB) | 2.44.0.0.26405 | 2.44.5.1.30705 | 2.44.5.1.30554 | Gui.zip, Web Server, DB |
| 45 | - | 2.45.0.0.29559(3GB) | 2.45.0.0.26107 | 2.45.0.0.29559 | 2.45.0.0.29558 | Full Version Release |
| 45.1 | - | 2.45.1.0.30774(3GB) | 2.45.0.0.26107 | 2.45.1.0.30774 | 2.45.1.0.30738 | Gui.zip, Web Service, DB, SQLReporting, Questionnaire, Citrix support |
| 45.1 | 1 | 2.45.1.1.31175(3GB) | 2.45.0.0.26107 | 2.45.1.1.31175 | 2.45.1.1.31174 | Gui.zip, Web Service, DB, SQLReporting, Questionnaire |
| 45.1 | 2 | 2.45.1.1.31175(3GB) | 2.45.0.0.26107 | 2.45.1.2.31378 | 2.45.1.1.31174 | Web Service and Citrix Bridge |
| **45.1** | **3** | **2.45.1.3.31452(3GB)** | **2.45.0.0.26107** | **2.45.1.3.31452** | **2.45.1.3.31369** | **GUI.zip, Web Service, DB, Questionnaire and Citrix Bridge** |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## Installing

### Client/GUI

1) Copy and replace the current rRIS…zip file with the rRIS_1.3.45.1.3.31452.zip file provided with this release.
   Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.




If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_45.1.3.31452→ rRIS_1.3.45.1.3.31452
NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

**NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## Web Service

1. The web service upgrade consists of replacing the files in the RIS Web Service directory with the files supplied in the rRISService folder with this build. Always create a backup of the files being replaced. This upgrade includes 88 files in the rRISService folder and 2 sub folders. Of those folders, 1 is a folder titled **"XSL"** that contains a sub folder and files within the subfolder. Another folder is titled **"deploy"** that contains the new .config files that will be deployed with the user of the file called "ServicesConfigWizard.exe" (see instructions below).

## Services Configuration Wizard

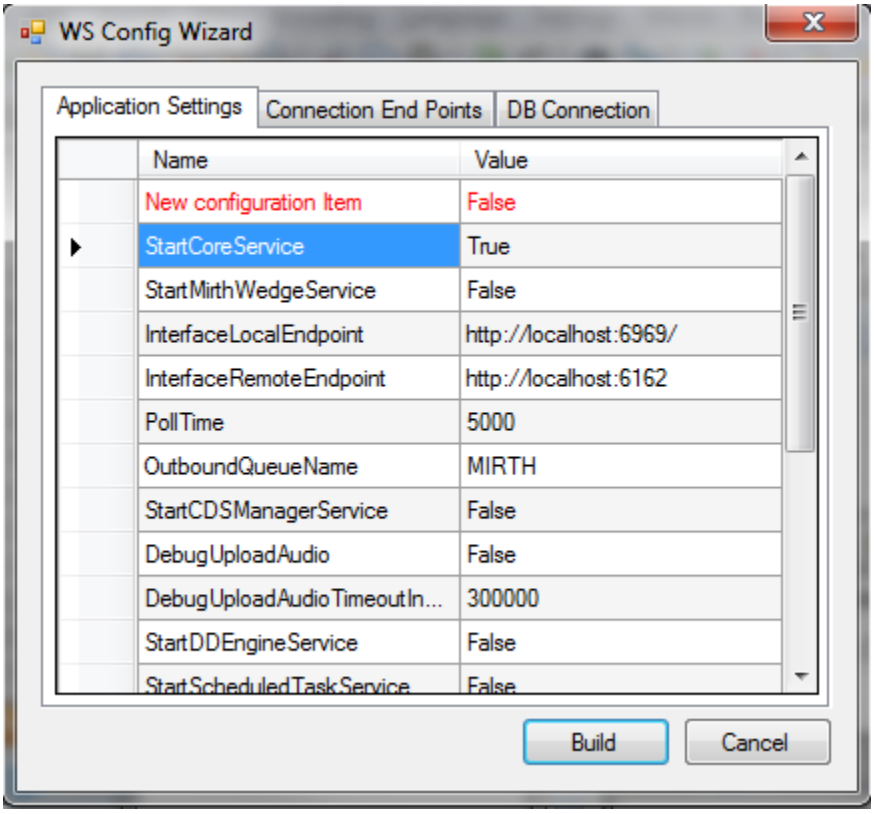
With the release of 42 to decrease the chance of losing configuration setting and missing new configuration options, we will no longer include the configuration files in the release in the main set of files, but they will now exist in a "deploy" folder, which will contain the three site configurable config files; applicationsettings, connectionstrings, services as well as a copy of the rRISServices.exe configuration file. The contents of this folder should not be required to be touched.

On the install of a new service, all files will be copied to the appropriate locations on the server (no configurations will be over written). If instructed or to confirm no new configurations have been added the user can run the new application "ServicesConfigWizard.exe"

This application will read the existing configuration file(s) (if files exist), and compare to the provided new configuration files then will display three tabs, for each configuration file:
**Application Settings:** all existing configuration value will be displayed, if there are any new configuration entries they will be displayed in red.

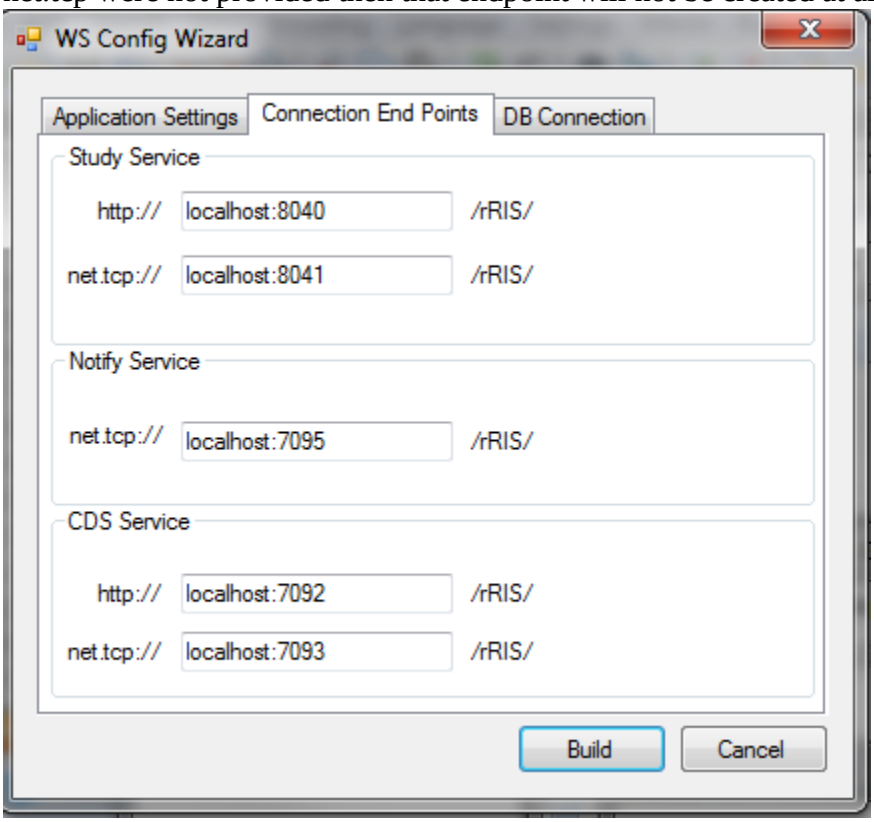
**NOTE:** the rRISServices.exe.config file is also included in the deploy folder. If this file has changes it **will not** update your current file in the Web Service directory. Any changes to this file will require a manual update of the rRISServices.exe.config and rRISServicesx64.exe.config files.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.



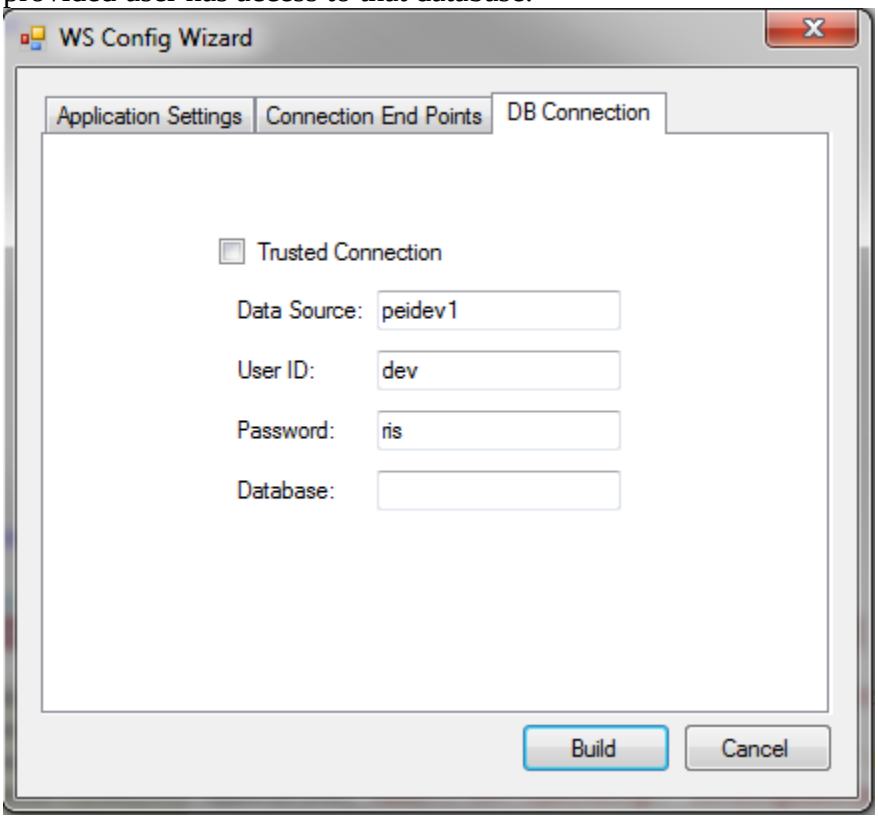

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

**Connection End Points:** will display the existing configuration, if the value is left blank then that entry will not be created, in the case of "Study Service" or "CDS Service" if both http and net.tcp were not provided then that endpoint will not be created at all.




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

**DB Connection:** will display the existing configuration, if the Connection is to be used as a trusted connection, then the user ID and password will become disabled and will not be used, and will rely on the provided database value, When not using the trusted connection, The Database value is not needed but can be used to force a specific database connection as long as the provided user has access to that database.




It is always good practice to do a compare of the .config files.

1) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService.
   *rRISService directories include:*
   *a) rRISService*
   *b) CDS rRISService*
   *c) Wedge rRISService*
   *d) DDE rRISService*

   **Restart each service**.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## Database Updates

Always run the upgrade scripts in a test environment of the actual database to make sure they run cleanly. If any errors occur please contact development.

*Note: There is a new upgrade process introduced with B43.1 called "RunUpgrade.bat". The batch file will open a command window. This process will prompt you for the database server name, database name and authentication credentials. There is no need to run the database upgrade scripts manually as was done in previous releases.*

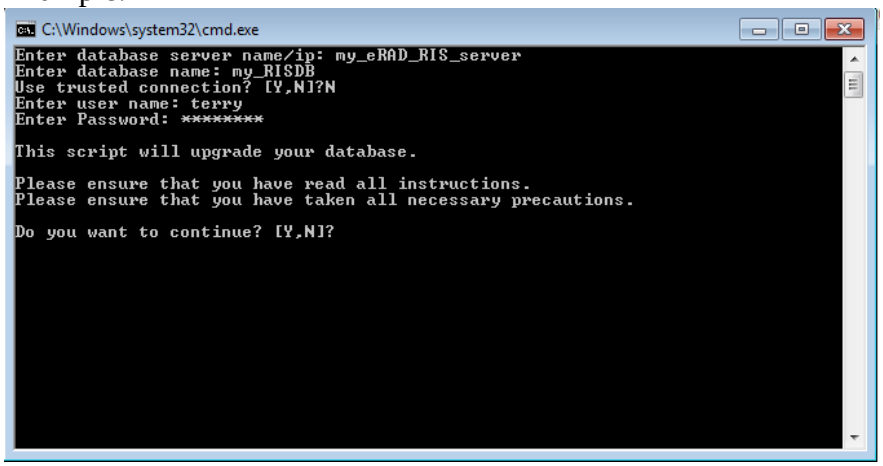
1) From the upgrade folder, double click the "RunUpgrade.bat" command file.

2) Enter the server name, database name and authentication credentials to the database. You have 2 choices for authentication credentials.

3) You can choose to use "Trusted connection". Using this option will pass the identity of the currently logged on user. If this user has "db_owner" access to the eRAD RIS database then feel free to use this options.

4) If you decide not to use "Trusted connection" then you will be prompted for user id and password.

   Example:




5) After the upgrade program has finished you can find the upgrade logs in the "log" folder. The file name will be eRAD_RIS_db_upgrade_timestamp.log, where timestamp is a value representing the date and time the upgrade started. If you see any errors please contact the development team

6) In the Common folder there is a subfolder of MU. The MU folder contains updates to lookups relevant for MU as well as updates for Zip Code table to add the County. Copy the

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

MU folder to the database server before running the batch file. There is a readme file contained in the MU folder. The details have also been included below

a) The mu bulk install process must be run from a path on the database server!
b) Copy Files ImportDataFileUpgradeDB.bat and ImportDataFileUpgradeDB.sql from upgrade folder to a location on the database server(This location will be referred to as the "Script Folder Path".)
c) Copy Folder scripts and Source files from the upgrade folder to "Script Folder Path" ....Note source files must be inside the scripts folder
d) Run bat file
   i) Enter Script Folder path [C:\Temp\SNOMED]:
   ii) Enter database server name/ip: [ie peidev1]
   iii) Enter database name: [ie rRIS_MU]
   iv) Use a trusted connection to log on to SQL Server:
   "N" means you will have to enter db [username] [password]
   "Y" means you have a trusted connection and will not have to enter [username][password]
   v) Do you wish to load SNOMED concept codes?
   "N" no files will be loaded into the l_snomed_concept table
   "Y" yes means l_snomed_concept table will be truncated and reloaded with the latest US concept codes
   Source File [sct2_Concept_Snapshot_US1000124_20140301.txt]
   vi) Do you wish to load SNOMED descriptions codes?
   "N" no files will be loaded into the l_snomed_description table
   "Y" yes means the l_snomed_description table will be truncated and reloaded with the latest US description codes
   Source File [sct2_Description_Snapshot-en_US1000124_20140301.txt]
   vii) Do you wish to load ICD9 to SNOMED mappings codes?
   "N" no files will be loaded into the l_snomed_icd9_map table
   "Y" yes means the l_snomed_icd9_map table will be truncated and reloaded with the latest US ICD9 to SNOMED mapping codes
   Source File [ICD9CM_SNOMED_MAP_1TO1_201312.txt and ICD9CM_SNOMED_MAP_1TOM_201312.txt]
   viii) Do you wish to load ICD10 to SNOMED mappings codes?
   "N" no files will be loaded into the l_snomed_icd10_map table
   "Y" yes means the l_snomed_icd10_map table will be truncated and reloaded with the latest US ICD10 to SNOMED mapping codes
   Source File [xder2_iissscRefset_ExtendedMapSnapshot_US1000124_20131220.txt]
   ix) Do you wish to load US zip codes?
   "N" no files will be loaded into the z_zipCodesWithCounty table
   "Y" yes means the z_zipCodesWithCounty table will be truncated and reloaded with the latest US zip codes
   Source File [5-digit Commercial.csv]

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

**********

Note: the following files should be loaded once only with B43!

**********

x) Do you wish to load CMS codes?
"N" no files will be loaded into the s_mu_code table
"Y" yes means the s_mu_code table will be truncated and reloaded with the latest CMS codes
Source File [s_mu_code.txt]

xi) Do you wish to load HL7 support sets for CCDA?
"N" no files will be loaded into the l_hl7v3_voc_value_set table
"Y" yes means the l_hl7v3_voc_value_set table will be truncated and reloaded with the latest hl7v3_voc_value_set codes
Source File [l_hl7_voc_value_set.txt]

xii) Do you wish to load HL7 support codes for CCDA?
"N" no files will be loaded into the l_hl7v3_voc_value_code table
"Y" yes means the l_hl7v3_voc_value_code table will be truncated and reloaded with the latest l_hl7v3_voc_value_code codes
Source File [l_hl7_voc_value_code.txt]

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# Server Update

For eRAD RIS
Version 2.0
Build 45.1
Update 45.1.8

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# Table of Contents

Resolved Items ..... 3
Code Stream ..... 4
Package Contents ..... 5
Intended Audience ..... 5
Who is affected ..... 5
eRAD RIS Release Version Numbers ..... 6
Installing ..... 7
    Client/GUI ..... 7

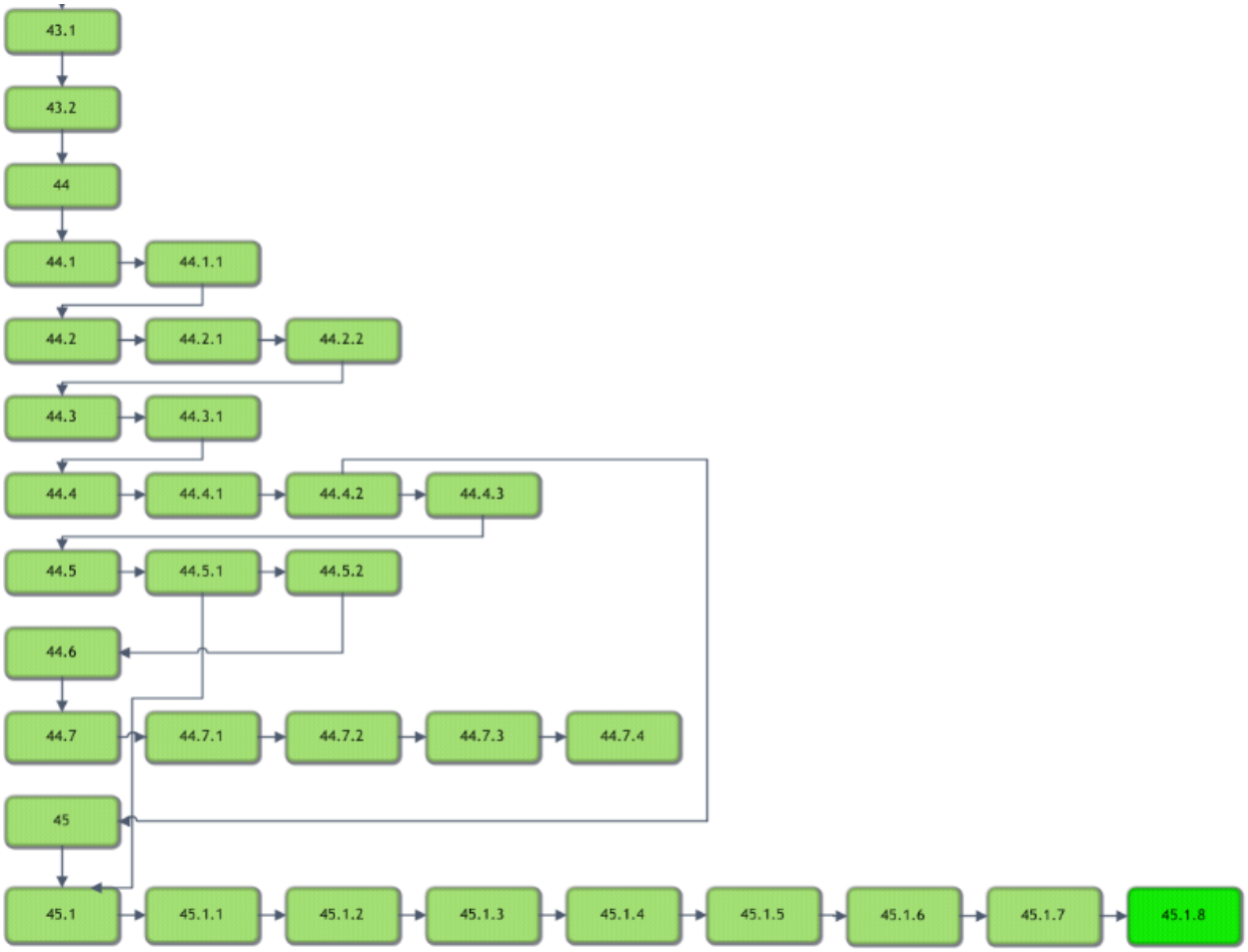
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## Resolved Items

| Redmine # | Subject | Priority |
|---|---|---|
| 13091 | Interpretation persists between studies when signing | Immediate |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## Code Stream




**Legend:**

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## Package Contents

## Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

## Who is affected

Build 45.1 installs.  This server update must be applied to 45.1.6

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## eRAD RIS Release Version Numbers

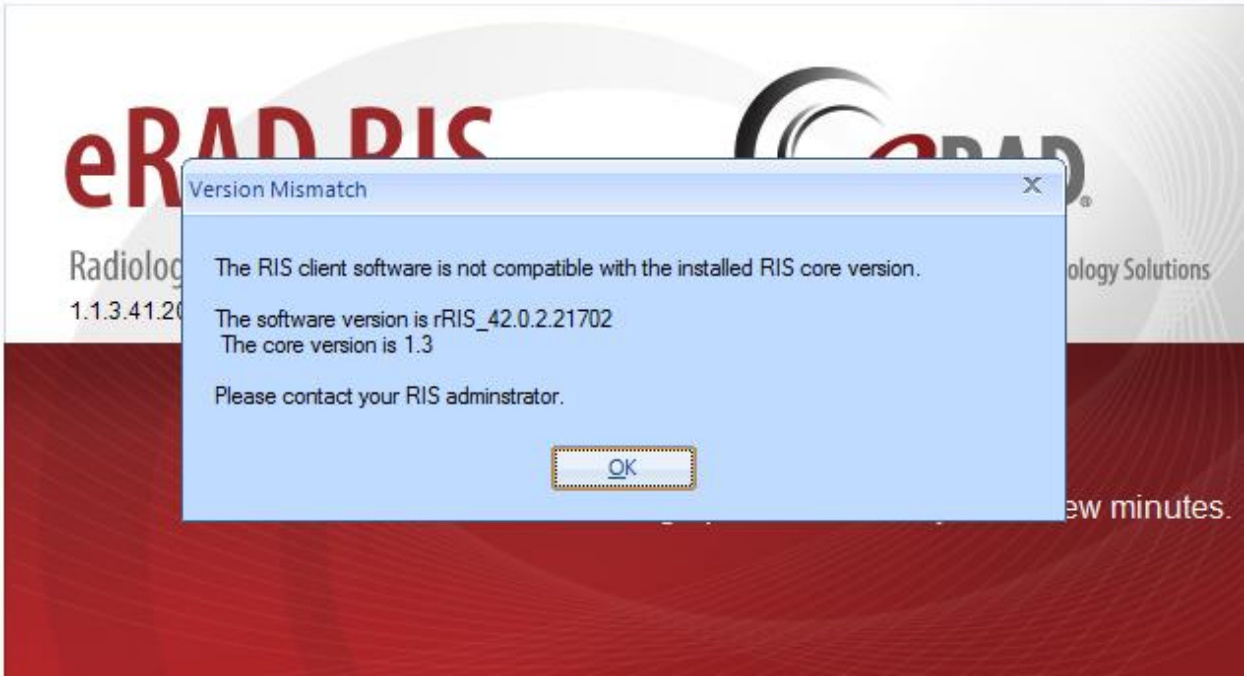
| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 43.1 | - | 2.43.1.0.25850(3GB) | 2.43.0.0.23171 | 2.43.1.0.25850 | 2.43.1.0.25771 | GUI.zip Web Service and DB Updates |
| 43.2 | - | 2.43.2.0.26864(3GB) | 2.43.0.0.23171 | 2.43.2.0.26864 | 2.43.1.0.25771 | GUI.zip and Web Service |
| 44 | - | 2.44.0.0.26570(3GB) | 2.44.0.0.26405 | 2.44.0.0.26570 | 2.44.0.0.26475 | Full Version Release |
| 44.1 | - | 2.44.0.0.26984(3GB) | 2.44.0.0.26405 | 2.44.0.0.26984 | 2.44.0.0.26906 | Gui.zip, Web Service, and DB |
| 44.1 | 1 | 2.44.1.1.27093(3GB) | 2.44.0.0.26405 | 2.44.1.0.26984 | 2.44.1.0.26906 | Gui.zip |
| 44.2 | | 2.44.2.0.27410(3GB) | 2.44.0.0.26405 | 2.44.2.0.27410 | 2.44.2.0.27365 | Gui.zip, Web Service, and DB |
| 44.2 | 1 | 2.44.2.1.27959(3GB) | 2.44.0.0.26405 | 2.44.2.1.27959 | 2.44.2.1.27909 | Gui.zip, Web Service, and DB |
| 44.2 | 2 | 2.44.2.1.27959(3GB) | 2.44.0.0.26405 | 2.44.2.2.28094 | 2.44.2.1.27909 | Web Service |
| 44.3 | - | 2.44.3.0.28292 | 2.44.0.0.26405 | 2.44.3.0.28277 | 2.44.3.0.28138 | Gui.zip, Web Service, and DB |
| 44.3 | 1 | 2.44.3.1.28535(3GB) | 2.44.0.0.26405 | 2.44.3.1.28535 | 2.44.3.0.28138 | Gui.zip and Web Service |
| 44.4 | - | 2.44.4.0.28762(3GB) | 2.44.0.0.26405 | 2.44.4.0.28762 | 2.44.4.0.28676 | Gui.zip, Web Server, DB, SSRS Deployment |
| 44.4 | 1 | 2.44.4.1.28953(3GB) | 2.44.0.0.26405 | 2.44.4.1.28953 | 2.44.4.0.28676 | Gui.zip and Web Service |
| 44.4 | 2 | 2.44.4.2.29327(3GB) | 2.44.0.0.26405 | 2.44.4.2.29327 | 2.44.4.0.28676 | Gui.zip and Web Service |
| 44.4 | 3 | 2.44.4.2.29722(3GB) | 2.44.0.0.26405 | 2.44.4.2.29327 | 2.44.4.0.28676 | Gui.zip and Web Service |
| 44.5 | - | 2.44.5.0.30022(3GB) | 2.44.0.0.26405 | 2.44.5.0.30022 | 2.44.5.0.29976 | Gui.zip, Web Server, DB |
| 44.5 | 1 | 2.44.5.1.30451(3GB) | 2.44.0.0.26405 | 2.44.5.1.30451 | 2.44.5.1.30449 | Gui.zip, Web Server, DB |
| 44.5 | 2 | 2.44.5.2.30705(3GB) | 2.44.0.0.26405 | 2.44.5.1.30705 | 2.44.5.1.30554 | Gui.zip, Web Server, DB |
| 45 | - | 2.45.0.0.29559(3GB) | 2.45.0.0.26107 | 2.45.0.0.29559 | 2.45.0.0.29558 | Full Version Release |
| 45.1 | - | 2.45.1.0.30774(3GB) | 2.45.0.0.26107 | 2.45.1.0.30774 | 2.45.1.0.30738 | Gui.zip, Web Service, DB, SQLReporting, Questionnaire, Citrix support |
| 45.1 | 1 | 2.45.1.1.31175(3GB) | 2.45.0.0.26107 | 2.45.1.1.31175 | 2.45.1.1.31174 | Gui.zip, Web Service, DB, SQLReporting, Questionnaire |
| 45.1 | 2 | 2.45.1.1.31175(3GB) | 2.45.0.0.26107 | 2.45.1.2.31378 | 2.45.1.1.31174 | Web Service and Citrix Bridge |
| 45.1 | 3 | 2.45.1.3.31452(3GB) | 2.45.0.0.26107 | 2.45.1.3.31452 | 2.45.1.3.31369 | GUI.zip, Web Service, DB, Questionnaire and Citrix Bridge |
| 45.1 | 4 | 2.45.1.4.31621(3GB) | 2.45.0.0.26107 | 2.45.1.4.31621 | 2.45.1.4.31599 | GUI.zip, Web Service, DB, Questionnaire and Citrix Bridge |
| 45.1 | 5 | 2.45.1.5.31773(3GB) | 2.45.0.0.26107 | 2.45.1.5.31773 | 2.45.1.5.31771 | GUI.zip, Web Service, DB, Questionnaire |
| 45.1 | 6 | 2.45.1.6.32070(3GB) | 2.45.0.0.26107 | 2.45.1.6.32070 | 2.45.1.6.31936 | GUI.zip, Web Service, DB, Questionnaire, Citrix Bridge |
| 45.1 | 7 | 2.45.1.6.32070(3GB) | 2.45.0.0.26107 | 2.45.1.6.32070 | 2.45.1.6.31936 | Web Service for Wedge only. Version number of Wedge is 45.1.6.32614 |
| **45.1** | **8** | **2.45.1.6.33254(3GB)** | **2.45.0.0.26107** | **2.45.1.6.32070** | **2.45.1.6.31936** | **GUI.zip** |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## Installing

### Client/GUI

1) Copy and replace the current rRIS…zip file with the rRIS_1.3.45.1.8.33254.zip file provided with this release.
   Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.




If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_45.1.8.33254→ rRIS_1.3.45.1.8.33254
NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

**NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# Server Update

For eRAD RIS
Version 2.0
Build 45.1
Update 45.1.9

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# Table of Contents

Resolved Items ..... 3
Code Stream ..... 4
Package Contents ..... 5
Intended Audience ..... 5
Who is affected ..... 5
eRAD RIS Release Version Numbers ..... 6
Installing ..... 7
    Client/GUI ..... 7

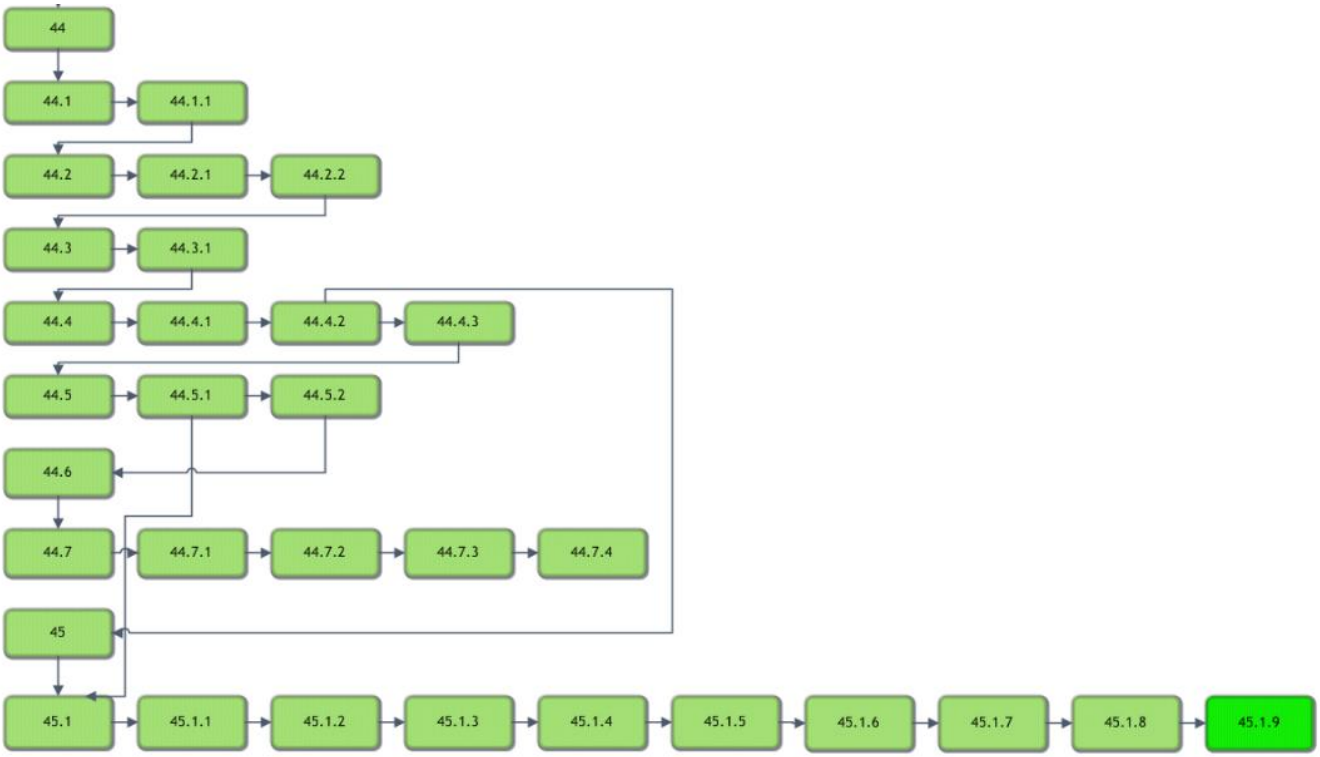
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## Resolved Items

| Redmine # | Subject | Priority |
|---|---|---|
| 12720 | PACS integration intermittent for both Radiologists and technicians | Urgent (next build) |
| 12529 | IW or CSH PACS integration - produces an error and crashes RIS | Urgent (next build) |
| 12427 | PACS images not synced with current report after timeout exceeded in eRAD RIS | Urgent (next build) |
| 12552 | RIS hang during exit | High |
| 12530 | eRAD PACS - Integration - if 2 studies are opened and both do not have images attached. RIS gets stalled until OK is clicked on "Invalid study file" message | Normal |
| 12528 | ERAD PACS - Integration - using the next workflow the 'Waiting for PACS' message times out when relevant studies to open is greater than 0 | Normal |
| 12495 | PACS Integration - Waiting for PACS message, when Cancel is chosen get a "Thread was being aborted" message. | Normal |
| 12428 | When prompted "Action required in PACS" and you kill PACS, clicking OK to message should allow you to continue working in RIS without PACS. | Normal |
| 10672 | PACS Sync - Images can remain shown for previous patient when opening a report to sign off | Normal |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## Code Stream




**Legend:**

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## Package Contents

## Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

## Who is affected

Build 45.1 installs.  This server update must be applied to 45.1.6

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## eRAD RIS Release Version Numbers

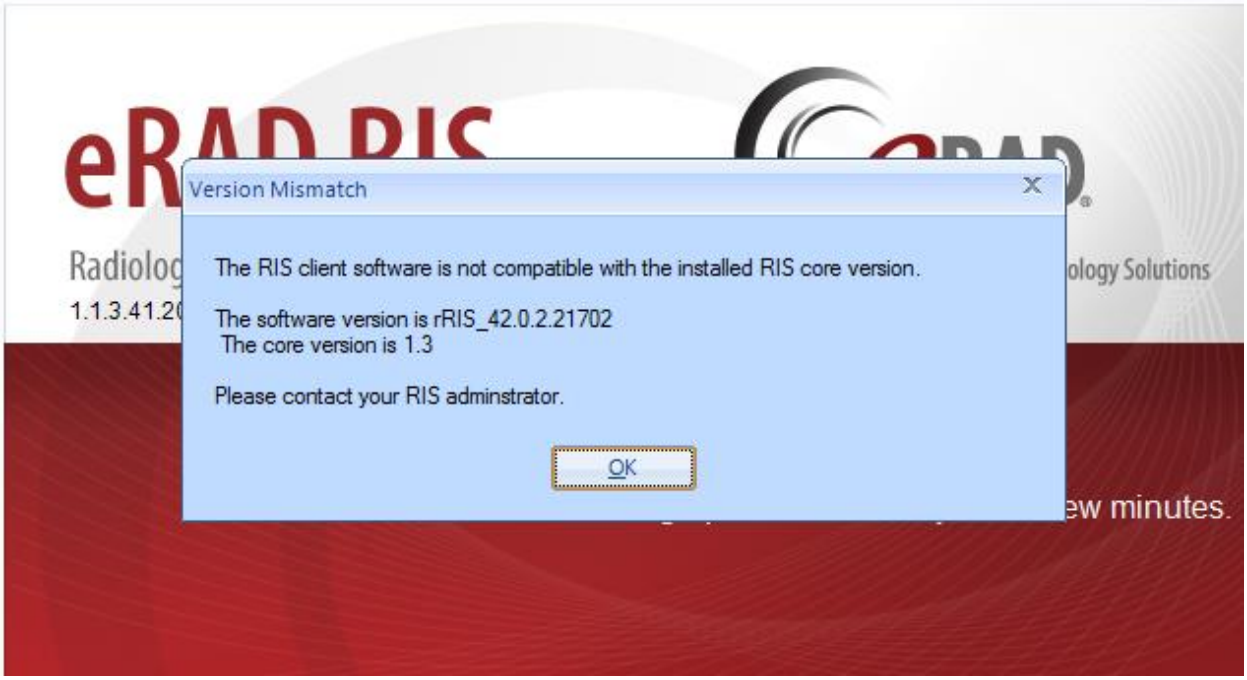
| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 43.1 | - | 2.43.1.0.25850(3GB) | 2.43.0.0.23171 | 2.43.1.0.25850 | 2.43.1.0.25771 | GUI.zip Web Service and DB Updates |
| 43.2 | - | 2.43.2.0.26864(3GB) | 2.43.0.0.23171 | 2.43.2.0.26864 | 2.43.1.0.25771 | GUI.zip and Web Service |
| 44 | - | 2.44.0.0.26570(3GB) | 2.44.0.0.26405 | 2.44.0.0.26570 | 2.44.0.0.26475 | Full Version Release |
| 44.1 | - | 2.44.0.0.26984(3GB) | 2.44.0.0.26405 | 2.44.0.0.26984 | 2.44.0.0.26906 | Gui.zip, Web Service, and DB |
| 44.1 | 1 | 2.44.1.1.27093(3GB) | 2.44.0.0.26405 | 2.44.1.0.26984 | 2.44.1.0.26906 | Gui.zip |
| 44.2 | | 2.44.2.0.27410(3GB) | 2.44.0.0.26405 | 2.44.2.0.27410 | 2.44.2.0.27365 | Gui.zip, Web Service, and DB |
| 44.2 | 1 | 2.44.2.1.27959(3GB) | 2.44.0.0.26405 | 2.44.2.1.27959 | 2.44.2.1.27909 | Gui.zip, Web Service, and DB |
| 44.2 | 2 | 2.44.2.1.27959(3GB) | 2.44.0.0.26405 | 2.44.2.2.28094 | 2.44.2.1.27909 | Web Service |
| 44.3 | - | 2.44.3.0.28292 | 2.44.0.0.26405 | 2.44.3.0.28277 | 2.44.3.0.28138 | Gui.zip, Web Service, and DB |
| 44.3 | 1 | 2.44.3.1.28535(3GB) | 2.44.0.0.26405 | 2.44.3.1.28535 | 2.44.3.0.28138 | Gui.zip and Web Service |
| 44.4 | - | 2.44.4.0.28762(3GB) | 2.44.0.0.26405 | 2.44.4.0.28762 | 2.44.4.0.28676 | Gui.zip, Web Server, DB, SSRS Deployment |
| 44.4 | 1 | 2.44.4.1.28953(3GB) | 2.44.0.0.26405 | 2.44.4.1.28953 | 2.44.4.0.28676 | Gui.zip and Web Service |
| 44.4 | 2 | 2.44.4.2.29327(3GB) | 2.44.0.0.26405 | 2.44.4.2.29327 | 2.44.4.0.28676 | Gui.zip and Web Service |
| 44.4 | 3 | 2.44.4.2.29722(3GB) | 2.44.0.0.26405 | 2.44.4.2.29327 | 2.44.4.0.28676 | Gui.zip and Web Service |
| 44.5 | - | 2.44.5.0.30022(3GB) | 2.44.0.0.26405 | 2.44.5.0.30022 | 2.44.5.0.29976 | Gui.zip, Web Server, DB |
| 44.5 | 1 | 2.44.5.1.30451(3GB) | 2.44.0.0.26405 | 2.44.5.1.30451 | 2.44.5.1.30449 | Gui.zip, Web Server, DB |
| 44.5 | 2 | 2.44.5.2.30705(3GB) | 2.44.0.0.26405 | 2.44.5.1.30705 | 2.44.5.1.30554 | Gui.zip, Web Server, DB |
| 45 | - | 2.45.0.0.29559(3GB) | 2.45.0.0.26107 | 2.45.0.0.29559 | 2.45.0.0.29558 | Full Version Release |
| 45.1 | - | 2.45.1.0.30774(3GB) | 2.45.0.0.26107 | 2.45.1.0.30774 | 2.45.1.0.30738 | Gui.zip, Web Service, DB, SQLReporting, Questionnaire, Citrix support |
| 45.1 | 1 | 2.45.1.1.31175(3GB) | 2.45.0.0.26107 | 2.45.1.1.31175 | 2.45.1.1.31174 | Gui.zip, Web Service, DB, SQLReporting, Questionnaire |
| 45.1 | 2 | 2.45.1.1.31175(3GB) | 2.45.0.0.26107 | 2.45.1.2.31378 | 2.45.1.1.31174 | Web Service and Citrix Bridge |
| 45.1 | 3 | 2.45.1.3.31452(3GB) | 2.45.0.0.26107 | 2.45.1.3.31452 | 2.45.1.3.31369 | GUI.zip, Web Service, DB, Questionnaire and Citrix Bridge |
| 45.1 | 4 | 2.45.1.4.31621(3GB) | 2.45.0.0.26107 | 2.45.1.4.31621 | 2.45.1.4.31599 | GUI.zip, Web Service, DB, Questionnaire and Citrix Bridge |
| 45.1 | 5 | 2.45.1.5.31773(3GB) | 2.45.0.0.26107 | 2.45.1.5.31773 | 2.45.1.5.31771 | GUI.zip, Web Service, DB, Questionnaire |
| 45.1 | 6 | 2.45.1.6.32070(3GB) | 2.45.0.0.26107 | 2.45.1.6.32070 | 2.45.1.6.31936 | GUI.zip, Web Service, DB, Questionnaire, Citrix Bridge |
| 45.1 | 7 | 2.45.1.6.32070(3GB) | 2.45.0.0.26107 | 2.45.1.6.32070 | 2.45.1.6.31936 | Web Service for Wedge only. Version number of Wedge is 45.1.6.32614 |
| 45.1 | 8 | 2.45.1.8.33254(3GB) | 2.45.0.0.26107 | 2.45.1.6.32070 | 2.45.1.6.31936 | GUI.zip |
| **45.1** | **9** | **2.45.1.9.33573(3GB)** | **2.45.0.0.26107** | **2.45.1.6.32070** | **2.45.1.6.31936** | **GUI.zip** |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## Installing

### Client/GUI

1) Copy and replace the current rRIS…zip file with the rRIS_1.3.45.1.9.33573.zip file provided with this release.
   Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.




If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_45.1.9.33573→ rRIS_1.3.45.1.9.33573
NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

**NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# Server Update

For eRAD RIS
Version 2.0
Build 2.2016.1
Update 2.2016.1.0.1

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# Table of Contents

Resolved Items ..... 3
Code Stream ..... 4
Package Contents ..... 5
Intended Audience ..... 5
Who is affected ..... 5
eRAD RIS Release Version Numbers ..... 6
Installing ..... 7
    Client/GUI ..... 7

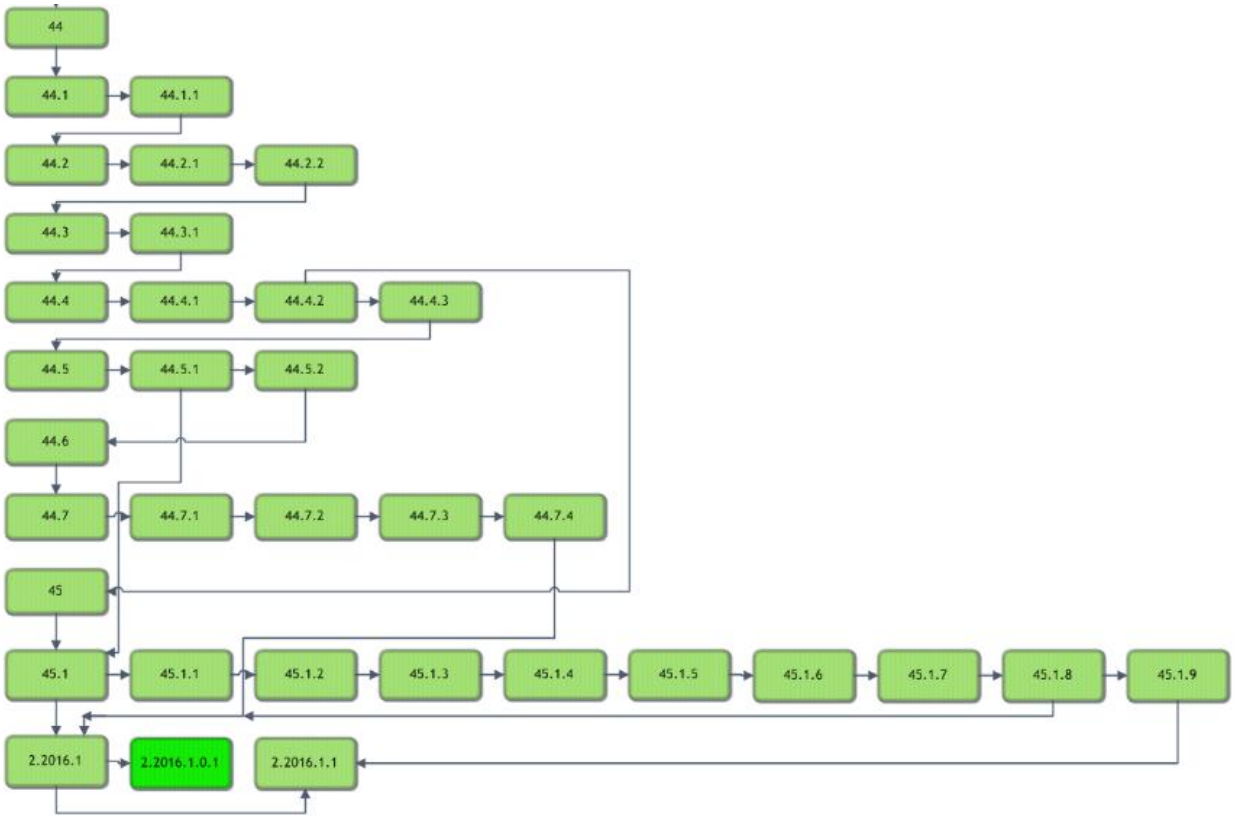
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## Resolved Items

| Redmine # | Subject |
|---|---|
| 13469 | Insurance Eligibility intermittently fails |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## Code Stream




**Legend:**

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## Package Contents

## Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

## Who is affected

This should only be installed at sites that have 2016.1 and intend to use Insurance Eligibility.

It should not be installed at a site that has 2016.1.1 installed, as the change in 2016.1.1 is not included in this release.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 43.1 | - | 2.43.1.0.25850(3GB) | 2.43.0.0.23171 | 2.43.1.0.25850 | 2.43.1.0.25771 | GUI.zip Web Service and DB Updates |
| 43.2 | - | 2.43.2.0.26864(3GB) | 2.43.0.0.23171 | 2.43.2.0.26864 | 2.43.1.0.25771 | GUI.zip and Web Service |
| 44 | - | 2.44.0.0.26570(3GB) | 2.44.0.0.26405 | 2.44.0.0.26570 | 2.44.0.0.26475 | Full Version Release |
| 44.1 | - | 2.44.0.0.26984(3GB) | 2.44.0.0.26405 | 2.44.0.0.26984 | 2.44.0.0.26906 | Gui.zip, Web Service, and DB |
| 44.1 | 1 | 2.44.1.1.27093(3GB) | 2.44.0.0.26405 | 2.44.1.0.26984 | 2.44.1.0.26906 | Gui.zip |
| 44.2 | | 2.44.2.0.27410(3GB) | 2.44.0.0.26405 | 2.44.2.0.27410 | 2.44.2.0.27365 | Gui.zip, Web Service, and DB |
| 44.2 | 1 | 2.44.2.1.27959(3GB) | 2.44.0.0.26405 | 2.44.2.1.27959 | 2.44.2.1.27909 | Gui.zip, Web Service, and DB |
| 44.2 | 2 | 2.44.2.1.27959(3GB) | 2.44.0.0.26405 | 2.44.2.2.28094 | 2.44.2.1.27909 | Web Service |
| 44.3 | - | 2.44.3.0.28292 | 2.44.0.0.26405 | 2.44.3.0.28277 | 2.44.3.0.28138 | Gui.zip, Web Service, and DB |
| 44.3 | 1 | 2.44.3.1.28535(3GB) | 2.44.0.0.26405 | 2.44.3.1.28535 | 2.44.3.0.28138 | Gui.zip and Web Service |
| 44.4 | - | 2.44.4.0.28762(3GB) | 2.44.0.0.26405 | 2.44.4.0.28762 | 2.44.4.0.28676 | Gui.zip, Web Server, DB, SSRS Deployment |
| 44.4 | 1 | 2.44.4.1.28953(3GB) | 2.44.0.0.26405 | 2.44.4.1.28953 | 2.44.4.0.28676 | Gui.zip and Web Service |
| 44.4 | 2 | 2.44.4.2.29327(3GB) | 2.44.0.0.26405 | 2.44.4.2.29327 | 2.44.4.0.28676 | Gui.zip and Web Service |
| 44.4 | 3 | 2.44.4.2.29722(3GB) | 2.44.0.0.26405 | 2.44.4.2.29327 | 2.44.4.0.28676 | Gui.zip and Web Service |
| 44.5 | - | 2.44.5.0.30022(3GB) | 2.44.0.0.26405 | 2.44.5.0.30022 | 2.44.5.0.29976 | Gui.zip, Web Server, DB |
| 44.5 | 1 | 2.44.5.1.30451(3GB) | 2.44.0.0.26405 | 2.44.5.1.30451 | 2.44.5.1.30449 | Gui.zip, Web Server, DB |
| 44.5 | 2 | 2.44.5.2.30705(3GB) | 2.44.0.0.26405 | 2.44.5.1.30705 | 2.44.5.1.30554 | Gui.zip, Web Server, DB |
| 45 | - | 2.45.0.0.29559(3GB) | 2.45.0.0.26107 | 2.45.0.0.29559 | 2.45.0.0.29558 | Full Version Release |
| 45.1 | - | 2.45.1.0.30774(3GB) | 2.45.0.0.26107 | 2.45.1.0.30774 | 2.45.1.0.30738 | Gui.zip, Web Service, DB, SQLReporting, Questionnaire, Citrix support |
| 45.1 | 1 | 2.45.1.1.31175(3GB) | 2.45.0.0.26107 | 2.45.1.1.31175 | 2.45.1.1.31174 | Gui.zip, Web Service, DB, SQLReporting, Questionnaire |
| 45.1 | 2 | 2.45.1.1.31175(3GB) | 2.45.0.0.26107 | 2.45.1.2.31378 | 2.45.1.1.31174 | Web Service and Citrix Bridge |
| 45.1 | 3 | 2.45.1.3.31452(3GB) | 2.45.0.0.26107 | 2.45.1.3.31452 | 2.45.1.3.31369 | GUI.zip, Web Service, DB, Questionnaire and Citrix Bridge |
| 45.1 | 4 | 2.45.1.4.31621(3GB) | 2.45.0.0.26107 | 2.45.1.4.31621 | 2.45.1.4.31599 | GUI.zip, Web Service, DB, Questionnaire and Citrix Bridge |
| 45.1 | 5 | 2.45.1.5.31773(3GB) | 2.45.0.0.26107 | 2.45.1.5.31773 | 2.45.1.5.31771 | GUI.zip, Web Service, DB, Questionnaire |
| 45.1 | 6 | 2.45.1.6.32070(3GB) | 2.45.0.0.26107 | 2.45.1.6.32070 | 2.45.1.6.31936 | GUI.zip, Web Service, DB, Questionnaire, Citrix Bridge |
| 45.1 | 7 | 2.45.1.6.32070(3GB) | 2.45.0.0.26107 | 2.45.1.6.32070 | 2.45.1.6.31936 | Web Service for Wedge only. Version number of Wedge is 45.1.6.32614 |
| 45.1 | 8 | 2.45.1.8.33254(3GB) | 2.45.0.0.26107 | 2.45.1.6.32070 | 2.45.1.6.31936 | GUI.zip |
| 45.1 | 9 | 2.45.1.9.33573(3GB) | 2.45.0.0.26107 | 2.45.1.6.32070 | 2.45.1.6.31936 | GUI.zip |
| 2016.1 | - | 2.16.1.0.33419 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge |
| 2016.1 | 1 | 2.16.1.1.33672 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | GUI.zip |
| **2016.1** | **.0.1** | 2.16.1.0.1 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | **GUI.zip (This is not included in 2016.1.1, version directly above)** |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# Installing

## Client/GUI

1) Copy and replace the current rRIS…zip file with the rRIS_1.3.16.1.0.1.zip file provided with this release.
   Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# Server Update

For eRAD RIS
Version 2.0
Build 2.2016.1
Update 2.2016.1.0.2

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# Table of Contents

Resolved Items ..... 3
Code Stream ..... 4
Package Contents ..... 5
Intended Audience ..... 5
Who is affected ..... 5
eRAD RIS Release Version Numbers ..... 6
Installing ..... 7
    Web Service ..... 7

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

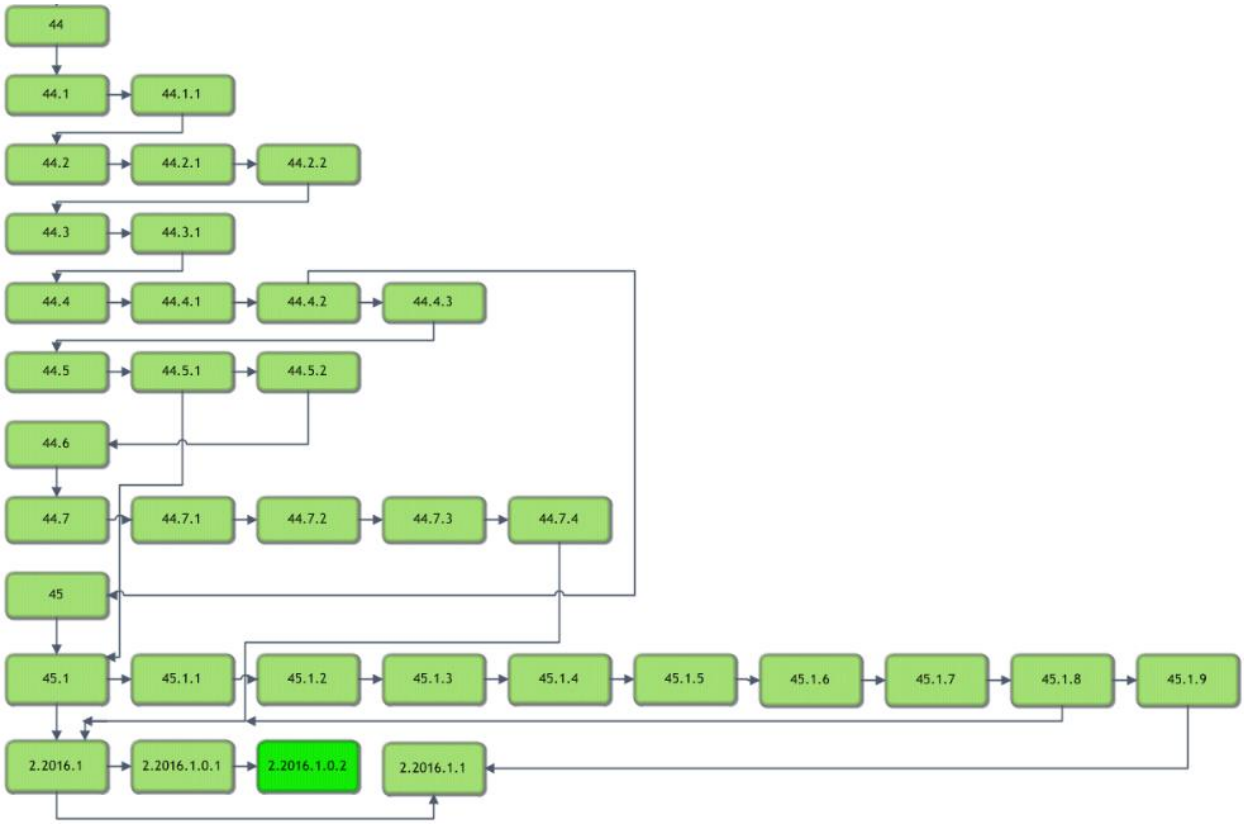
## Resolved Items

| Redmine # | Subject |
|---|---|
| 13512 | Wedge is running slowly due to a new feature where scan documents are retrieved even if no scan document was sent in. |

NOTE: This update is only required to for the Wedge Web Services.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## Code Stream




**Legend:**

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## Package Contents

## Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

## Who is affected

This should only be installed at sites that plan to install 2016.1 or have installed 2016.1.0.1. This is only an update to the Wedge Web Service.

It should not be installed at a site that has 2016.1.1 installed, as the change in 2016.1.1 is not included in this release.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 43.1 | - | 2.43.1.0.25850(3GB) | 2.43.0.0.23171 | 2.43.1.0.25850 | 2.43.1.0.25771 | GUI.zip Web Service and DB Updates |
| 43.2 | - | 2.43.2.0.26864(3GB) | 2.43.0.0.23171 | 2.43.2.0.26864 | 2.43.1.0.25771 | GUI.zip and Web Service |
| 44 | - | 2.44.0.0.26570(3GB) | 2.44.0.0.26405 | 2.44.0.0.26570 | 2.44.0.0.26475 | Full Version Release |
| 44.1 | - | 2.44.0.0.26984(3GB) | 2.44.0.0.26405 | 2.44.0.0.26984 | 2.44.0.0.26906 | Gui.zip, Web Service, and DB |
| 44.1 | 1 | 2.44.1.1.27093(3GB) | 2.44.0.0.26405 | 2.44.1.0.26984 | 2.44.1.0.26906 | Gui.zip |
| 44.2 | | 2.44.2.0.27410(3GB) | 2.44.0.0.26405 | 2.44.2.0.27410 | 2.44.2.0.27365 | Gui.zip, Web Service, and DB |
| 44.2 | 1 | 2.44.2.1.27959(3GB) | 2.44.0.0.26405 | 2.44.2.1.27959 | 2.44.2.1.27909 | Gui.zip, Web Service, and DB |
| 44.2 | 2 | 2.44.2.1.27959(3GB) | 2.44.0.0.26405 | 2.44.2.2.28094 | 2.44.2.1.27909 | Web Service |
| 44.3 | - | 2.44.3.0.28292 | 2.44.0.0.26405 | 2.44.3.0.28277 | 2.44.3.0.28138 | Gui.zip, Web Service, and DB |
| 44.3 | 1 | 2.44.3.1.28535(3GB) | 2.44.0.0.26405 | 2.44.3.1.28535 | 2.44.3.0.28138 | Gui.zip and Web Service |
| 44.4 | - | 2.44.4.0.28762(3GB) | 2.44.0.0.26405 | 2.44.4.0.28762 | 2.44.4.0.28676 | Gui.zip, Web Server, DB, SSRS Deployment |
| 44.4 | 1 | 2.44.4.1.28953(3GB) | 2.44.0.0.26405 | 2.44.4.1.28953 | 2.44.4.0.28676 | Gui.zip and Web Service |
| 44.4 | 2 | 2.44.4.2.29327(3GB) | 2.44.0.0.26405 | 2.44.4.2.29327 | 2.44.4.0.28676 | Gui.zip and Web Service |
| 44.4 | 3 | 2.44.4.2.29722(3GB) | 2.44.0.0.26405 | 2.44.4.2.29327 | 2.44.4.0.28676 | Gui.zip and Web Service |
| 44.5 | - | 2.44.5.0.30022(3GB) | 2.44.0.0.26405 | 2.44.5.0.30022 | 2.44.5.0.29976 | Gui.zip, Web Server, DB |
| 44.5 | 1 | 2.44.5.1.30451(3GB) | 2.44.0.0.26405 | 2.44.5.1.30451 | 2.44.5.1.30449 | Gui.zip, Web Server, DB |
| 44.5 | 2 | 2.44.5.2.30705(3GB) | 2.44.0.0.26405 | 2.44.5.1.30705 | 2.44.5.1.30554 | Gui.zip, Web Server, DB |
| 45 | - | 2.45.0.0.29559(3GB) | 2.45.0.0.26107 | 2.45.0.0.29559 | 2.45.0.0.29558 | Full Version Release |
| 45.1 | - | 2.45.1.0.30774(3GB) | 2.45.0.0.26107 | 2.45.1.0.30774 | 2.45.1.0.30738 | Gui.zip, Web Service, DB, SQLReporting, Questionnaire, Citrix support |
| 45.1 | 1 | 2.45.1.1.31175(3GB) | 2.45.0.0.26107 | 2.45.1.1.31175 | 2.45.1.1.31174 | Gui.zip, Web Service, DB, SQLReporting, Questionnaire |
| 45.1 | 2 | 2.45.1.1.31175(3GB) | 2.45.0.0.26107 | 2.45.1.2.31378 | 2.45.1.1.31174 | Web Service and Citrix Bridge |
| 45.1 | 3 | 2.45.1.3.31452(3GB) | 2.45.0.0.26107 | 2.45.1.3.31452 | 2.45.1.3.31369 | GUI.zip, Web Service, DB, Questionnaire and Citrix Bridge |
| 45.1 | 4 | 2.45.1.4.31621(3GB) | 2.45.0.0.26107 | 2.45.1.4.31621 | 2.45.1.4.31599 | GUI.zip, Web Service, DB, Questionnaire and Citrix Bridge |
| 45.1 | 5 | 2.45.1.5.31773(3GB) | 2.45.0.0.26107 | 2.45.1.5.31773 | 2.45.1.5.31771 | GUI.zip, Web Service, DB, Questionnaire |
| 45.1 | 6 | 2.45.1.6.32070(3GB) | 2.45.0.0.26107 | 2.45.1.6.32070 | 2.45.1.6.31936 | GUI.zip, Web Service, DB, Questionnaire, Citrix Bridge |
| 45.1 | 7 | 2.45.1.6.32070(3GB) | 2.45.0.0.26107 | 2.45.1.6.32070 | 2.45.1.6.31936 | Web Service for Wedge only. Version number of Wedge is 45.1.6.32614 |
| 45.1 | 8 | 2.45.1.8.33254(3GB) | 2.45.0.0.26107 | 2.45.1.6.32070 | 2.45.1.6.31936 | GUI.zip |
| 45.1 | 9 | 2.45.1.9.33573(3GB) | 2.45.0.0.26107 | 2.45.1.6.32070 | 2.45.1.6.31936 | GUI.zip |
| 2016.1 | - | 2.16.1.0.33419 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge |
| 2016.1 | .0.1 | 2.16.1.0.1 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | GUI.zip (This is not included in 2016.1.1, version directly above) |
| **2016.1** | **.0.2** | 2.16.1.0.1 (3GB) | 2.16.1.0.33079 | **2.16.1.0.2** | 2.16.1.0.33416 | **Wedge Web Services only** |
| 2016.1 | 1 | 2.16.1.1.33672 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | GUI.zip |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# Installing

## Web Service

This updated is only required for the Wedge Web Services. The Core RIS Service and Document Distribution Service are not required to be updated.

1. The web service upgrade consists of replacing the files in the RIS Web Service directory with the files supplied in the rRISService folder with this build. Always create a backup of the files being replaced. This upgrade includes 97 files in the rRISService folder and 6 sub folders. Of those folders, 1 is a folder titled **"XSL"** that contains a sub folder and files within the subfolder. Another folder is titled **"deploy"** that contains the new .config files that will be deployed with the user of the file called "ServicesConfigWizard.exe" (see instructions below). Folders ar (Arabic), he (Hebrew), and pt_BR (Brazilian Portuguese) are localization folders. The WedgePlugins folder contains various plugin files for RADAR, MIRTH, Ensemble, etc…

### Services Configuration Wizard

With the release of 42 to decrease the chance of losing configuration setting and missing new configuration options, we will no longer include the configuration files in the release in the main set of files, but they will now exist in a "deploy" folder, which will contain the three site configurable config files; applicationsettings, connectionstrings, and services as well as a copy of the rRISServices.exe configuration file. The contents of this folder should not be required to be touched.

On the install of a new service, all files will be copied to the appropriate locations on the server (no configurations will be over written). If instructed or to confirm no new configurations have been added the user can run the new application "ServicesConfigWizard.exe"

This application will read the existing configuration file(s) (if files exist), and compare to the provided new configuration files then will display three tabs, for each configuration file:
**Application Settings:** all existing configuration value will be displayed, if there are any new configuration entries they will be displayed in red.

**NOTE:** the rRISServices.exe.config file is also included in the deploy folder. If this file has changes it **will not** update your current file in the Web Service directory. Any changes to this file will require a manual update of the rRISServices.exe.config and rRISServicesx64.exe.config files.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# Server Update

For eRAD RIS
Version 2.0
Build 2.2016.1
Update 2.2016.1.0.3

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# Table of Contents

Resolved Items ..... 3
Code Stream ..... 4
Package Contents ..... 5
Intended Audience ..... 5
Who is affected ..... 5
eRAD RIS Release Version Numbers ..... 6
Installing ..... 7
Client/GUI ..... 7
Web Service ..... 7
Database Updates ..... 11

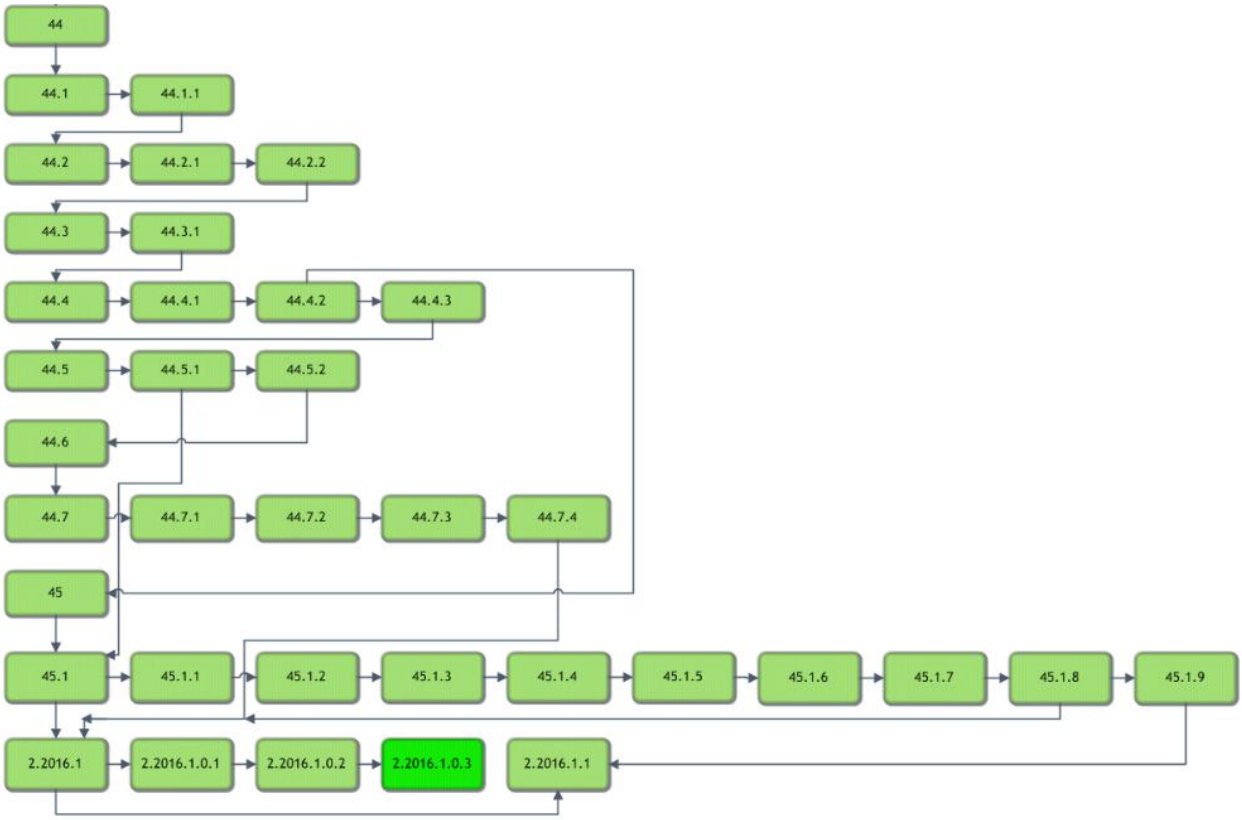
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## Resolved Items

| Redmine # | Subject |
|---|---|
| 13516 | Insurance Eligibility - Portal password submitted in I.E. request may be from an incorrect practice |
| 13514 | Include 'Alternate MRN issuer of ID' on patient search results screen |
| 13513 | Reporting screen tool window may leave previous study data visible in tool windows |
| 13511 | Study may move to another patient in error during walkin process if more than one patient record is open |
| 13508 | Outbound messaging system throws an error on fields that have whitespace values |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## Code Stream




**Legend:**

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## Package Contents

## Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

## Who is affected

This should only be installed at sites that plan to install 2016.1 or have installed 2016.1.0.1. This is only an update to the Wedge Web Service.

It should not be installed at a site that has 2016.1.1 installed, as the change in 2016.1.1 is not included in this release.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 43.1 | - | 2.43.1.0.25850(3GB) | 2.43.0.0.23171 | 2.43.1.0.25850 | 2.43.1.0.25771 | GUI.zip Web Service and DB Updates |
| 43.2 | - | 2.43.2.0.26864(3GB) | 2.43.0.0.23171 | 2.43.2.0.26864 | 2.43.1.0.25771 | GUI.zip and Web Service |
| 44 | - | 2.44.0.0.26570(3GB) | 2.44.0.0.26405 | 2.44.0.0.26570 | 2.44.0.0.26475 | Full Version Release |
| 44.1 | - | 2.44.0.0.26984(3GB) | 2.44.0.0.26405 | 2.44.0.0.26984 | 2.44.0.0.26906 | Gui.zip, Web Service, and DB |
| 44.1 | 1 | 2.44.1.1.27093(3GB) | 2.44.0.0.26405 | 2.44.1.0.26984 | 2.44.1.0.26906 | Gui.zip |
| 44.2 | | 2.44.2.0.27410(3GB) | 2.44.0.0.26405 | 2.44.2.0.27410 | 2.44.2.0.27365 | Gui.zip, Web Service, and DB |
| 44.2 | 1 | 2.44.2.1.27959(3GB) | 2.44.0.0.26405 | 2.44.2.1.27959 | 2.44.2.1.27909 | Gui.zip, Web Service, and DB |
| 44.2 | 2 | 2.44.2.1.27959(3GB) | 2.44.0.0.26405 | 2.44.2.2.28094 | 2.44.2.1.27909 | Web Service |
| 44.3 | - | 2.44.3.0.28292 | 2.44.0.0.26405 | 2.44.3.0.28277 | 2.44.3.0.28138 | Gui.zip, Web Service, and DB |
| 44.3 | 1 | 2.44.3.1.28535(3GB) | 2.44.0.0.26405 | 2.44.3.1.28535 | 2.44.3.0.28138 | Gui.zip and Web Service |
| 44.4 | - | 2.44.4.0.28762(3GB) | 2.44.0.0.26405 | 2.44.4.0.28762 | 2.44.4.0.28676 | Gui.zip, Web Server, DB, SSRS Deployment |
| 44.4 | 1 | 2.44.4.1.28953(3GB) | 2.44.0.0.26405 | 2.44.4.1.28953 | 2.44.4.0.28676 | Gui.zip and Web Service |
| 44.4 | 2 | 2.44.4.2.29327(3GB) | 2.44.0.0.26405 | 2.44.4.2.29327 | 2.44.4.0.28676 | Gui.zip and Web Service |
| 44.4 | 3 | 2.44.4.2.29722(3GB) | 2.44.0.0.26405 | 2.44.4.2.29327 | 2.44.4.0.28676 | Gui.zip and Web Service |
| 44.5 | - | 2.44.5.0.30022(3GB) | 2.44.0.0.26405 | 2.44.5.0.30022 | 2.44.5.0.29976 | Gui.zip, Web Server, DB |
| 44.5 | 1 | 2.44.5.1.30451(3GB) | 2.44.0.0.26405 | 2.44.5.1.30451 | 2.44.5.1.30449 | Gui.zip, Web Server, DB |
| 44.5 | 2 | 2.44.5.2.30705(3GB) | 2.44.0.0.26405 | 2.44.5.1.30705 | 2.44.5.1.30554 | Gui.zip, Web Server, DB |
| 45 | - | 2.45.0.0.29559(3GB) | 2.45.0.0.26107 | 2.45.0.0.29559 | 2.45.0.0.29558 | Full Version Release |
| 45.1 | - | 2.45.1.0.30774(3GB) | 2.45.0.0.26107 | 2.45.1.0.30774 | 2.45.1.0.30738 | Gui.zip, Web Service, DB, SQLReporting, Questionnaire, Citrix support |
| 45.1 | 1 | 2.45.1.1.31175(3GB) | 2.45.0.0.26107 | 2.45.1.1.31175 | 2.45.1.1.31174 | Gui.zip, Web Service, DB, SQLReporting, Questionnaire |
| 45.1 | 2 | 2.45.1.1.31175(3GB) | 2.45.0.0.26107 | 2.45.1.2.31378 | 2.45.1.1.31174 | Web Service and Citrix Bridge |
| 45.1 | 3 | 2.45.1.3.31452(3GB) | 2.45.0.0.26107 | 2.45.1.3.31452 | 2.45.1.3.31369 | GUI.zip, Web Service, DB, Questionnaire and Citrix Bridge |
| 45.1 | 4 | 2.45.1.4.31621(3GB) | 2.45.0.0.26107 | 2.45.1.4.31621 | 2.45.1.4.31599 | GUI.zip, Web Service, DB, Questionnaire and Citrix Bridge |
| 45.1 | 5 | 2.45.1.5.31773(3GB) | 2.45.0.0.26107 | 2.45.1.5.31773 | 2.45.1.5.31771 | GUI.zip, Web Service, DB, Questionnaire |
| 45.1 | 6 | 2.45.1.6.32070(3GB) | 2.45.0.0.26107 | 2.45.1.6.32070 | 2.45.1.6.31936 | GUI.zip, Web Service, DB, Questionnaire, Citrix Bridge |
| 45.1 | 7 | 2.45.1.6.32070(3GB) | 2.45.0.0.26107 | 2.45.1.6.32070 | 2.45.1.6.31936 | Web Service for Wedge only. Version number of Wedge is 45.1.6.32614 |
| 45.1 | 8 | 2.45.1.8.33254(3GB) | 2.45.0.0.26107 | 2.45.1.6.32070 | 2.45.1.6.31936 | GUI.zip |
| 45.1 | 9 | 2.45.1.9.33573(3GB) | 2.45.0.0.26107 | 2.45.1.6.32070 | 2.45.1.6.31936 | GUI.zip |
| 2016.1 | - | 2.16.1.0.33419 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge |
| 2016.1 | .0.1 | 2.16.1.0.1 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | GUI.zip (This is not included in 2016.1.1, version directly above) |
| 2016.1 | .0.2 | 2.16.1.0.1 (3GB) | 2.16.1.0.33079 | 2.16.1.0.2 | 2.16.1.0.33416 | Wedge Web Services only |
| **2016.1** | **.0.3** | **2.16.1.0.3 (3GB)** | **2.16.1.0.33079** | **2.16.1.0.3** | **2.16.1.0.3.00128918** | **GUI.zip, Web Services and DB** |
| 2016.1 | 1 | 2.16.1.1.33672 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | GUI.zip |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# Installing

## Client/GUI

1) Copy and replace the current rRIS…zip file with the rRIS_1.3.2016.1.0.3.zip file provided with this release.
   Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

## Web Service

This updated is only required for the Wedge Web Services. The Core RIS Service and Document Distribution Service are not required to be updated.

1. The web service upgrade consists of replacing the files in the RIS Web Service directory with the files supplied in the rRISService folder with this build. Always create a backup of the files being replaced. This upgrade includes 98 files in the rRISService folder and 6 sub folders. Of those folders, 1 is a folder titled **"XSL"** that contains a sub folder and files within the subfolder. Another folder is titled **"deploy"** that contains the new .config files that will be deployed with the user of the file called "ServicesConfigWizard.exe" (see instructions below). Folders ar (Arabic), he (Hebrew), and pt_BR (Brazilian Portuguese) are localization folders. The WedgePlugins folder contains various plugin files for RADAR, MIRTH, Ensemble, etc…

**Services Configuration Wizard**

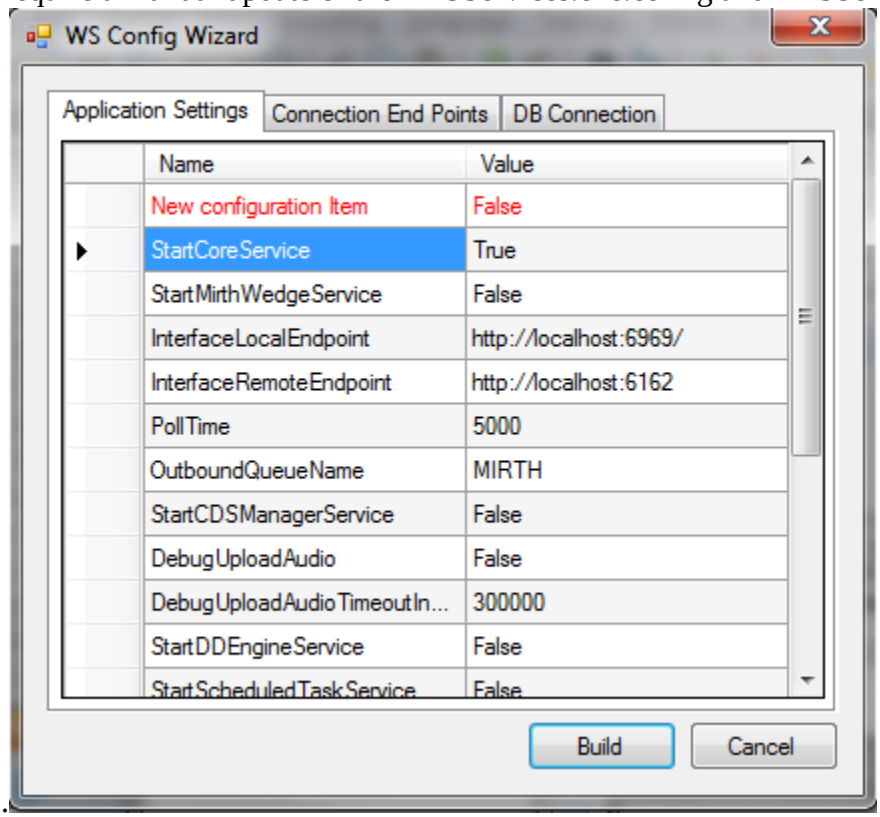
With the release of 42 to decrease the chance of losing configuration setting and missing new configuration options, we will no longer include the configuration files in the release in the main set of files, but they will now exist in a "deploy" folder, which will contain the three site configurable config files; applicationsettings, connectionstrings, and services as well as a copy of the rRISServices.exe configuration file. The contents of this folder should not be required to be touched.

On the install of a new service, all files will be copied to the appropriate locations on the server (no configurations will be over written). If instructed or to confirm no new configurations have been added the user can run the new application "ServicesConfigWizard.exe"

This application will read the existing configuration file(s) (if files exist), and compare to the provided new configuration files then will display three tabs, for each configuration file:
**Application Settings:** all existing configuration value will be displayed, if there are any new configuration entries they will be displayed in red.

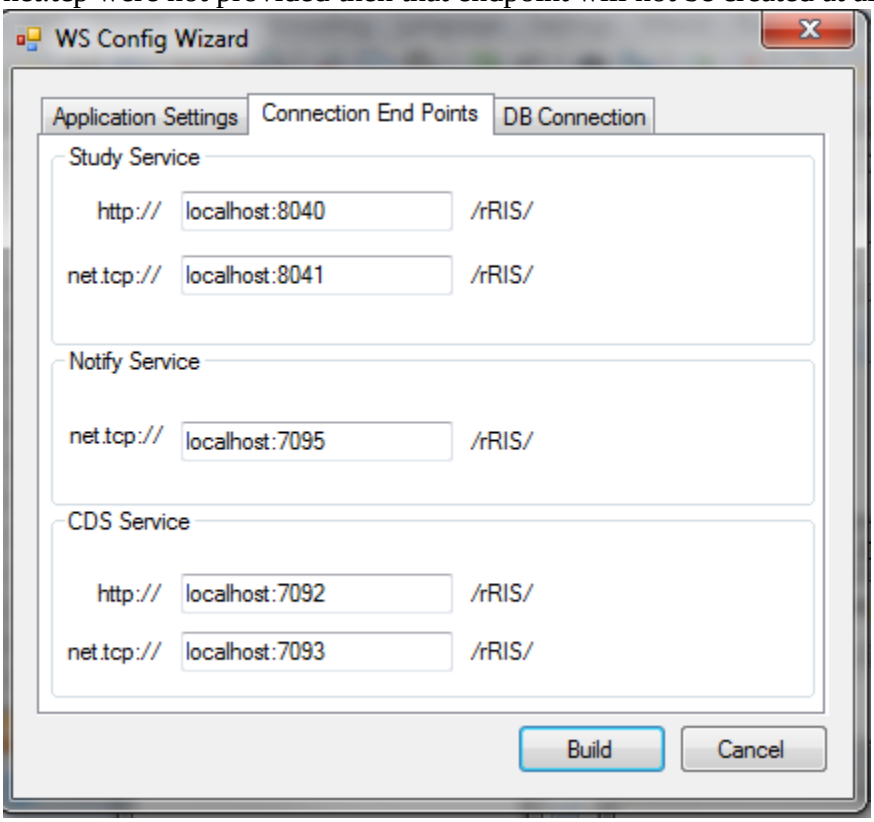
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

**NOTE:** the rRISServices.exe.config file is also included in the deploy folder. If this file has changes it **will not** update your current file in the Web Service directory. Any changes to this file will require a manual update of the rRISServices.exe.config and rRISServicesx64.exe.config files.



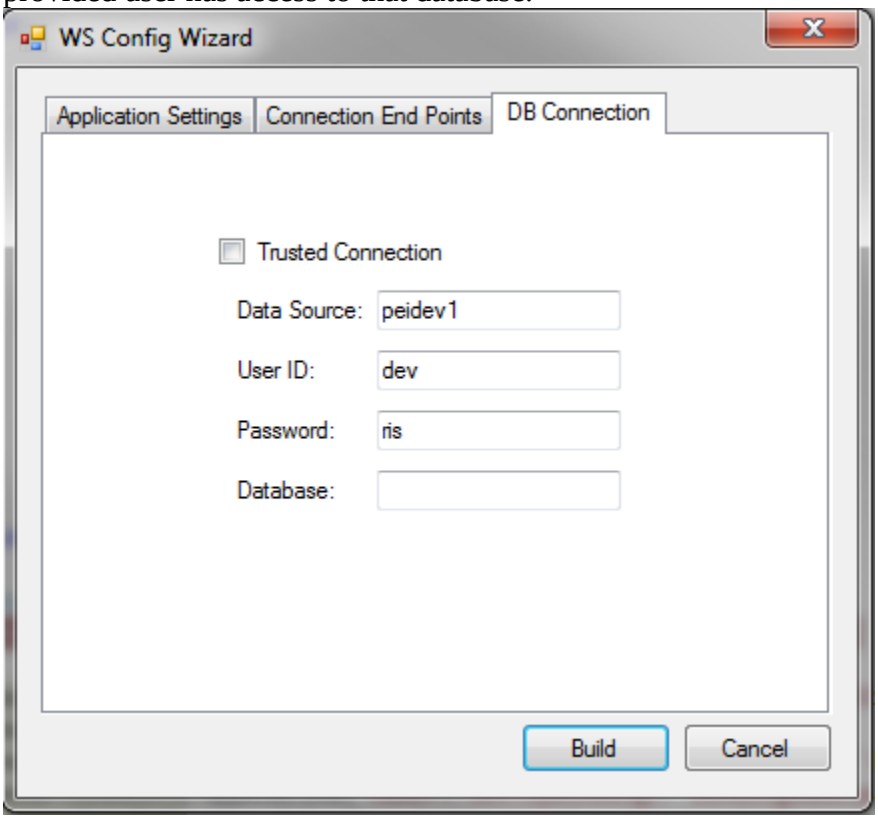

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

**Connection End Points:** will display the existing configuration, if the value is left blank then that entry will not be created, in the case of "Study Service" or "CDS Service" if both http and net.tcp were not provided then that endpoint will not be created at all.




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

**DB Connection:** will display the existing configuration, if the Connection is to be used as a trusted connection, then the user ID and password will become disabled and will not be used, and will rely on the provided database value, When not using the trusted connection, The Database value is not needed but can be used to force a specific database connection as long as the provided user has access to that database.




It is always good practice to do a compare of the .config files.

1) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService.
   *rRISService directories include:*
   *a) rRISService*
   *b) CDS rRISService*
   *c) Wedge rRISService*
   *d) DDE rRISService*

   **Restart each service**.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## Database Updates

Always run the upgrade scripts in a test environment of the actual database to make sure they run cleanly. If any errors occur please contact development.

*Note: There is a new upgrade process introduced with B43.1 called "RunUpgrade.bat". The batch file will open a command window. This process will prompt you for the database server name, database name and authentication credentials. There is no need to run the database upgrade scripts manually as was done in previous releases.*

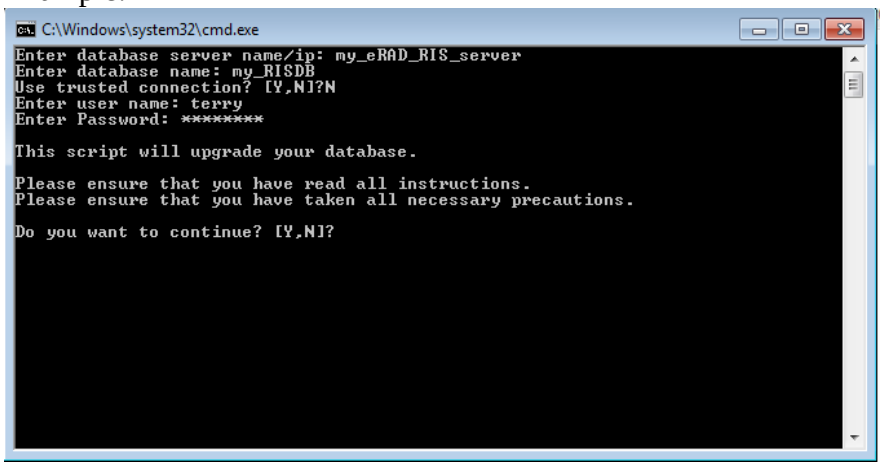
1) From the upgrade folder, double click the "RunUpgrade.bat" command file.

2) Enter the server name, database name and authentication credentials to the database. You have 2 choices for authentication credentials.

3) You can choose to use "Trusted connection". Using this option will pass the identity of the currently logged on user. If this user has "db_owner" access to the eRAD RIS database then feel free to use this options.

4) If you decide not to use "Trusted connection" then you will be prompted for user id and password.

   Example:




5) After the upgrade program has finished you can find the upgrade logs in the "log" folder. The file name will be eRAD_RIS_db_upgrade_timestamp.log, where timestamp is a value representing the date and time the upgrade started. If you see any errors please contact the development team

6) In the Common folder there is a subfolder of MU. The MU folder contains updates to lookups relevant for MU as well as updates for Zip Code table to add the County. Copy the

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

MU folder to the database server before running the batch file. There is a readme file contained in the MU folder. The details have also been included below

a) The mu bulk install process must be run from a path on the database server!
b) Copy Files ImportDataFileUpgradeDB.bat and ImportDataFileUpgradeDB.sql from upgrade folder to a location on the database server(This location will be referred to as the "Script Folder Path".)
c) Copy Folder scripts and Source files from the upgrade folder to "Script Folder Path" ....Note source files must be inside the scripts folder
d) Run bat file
   i) Enter Script Folder path [C:\Temp\SNOMED]:
   ii) Enter database server name/ip: [ie peidev1]
   iii) Enter database name: [ie rRIS_MU]
   iv) Use a trusted connection to log on to SQL Server:
   "N" means you will have to enter db [username] [password]
   "Y" means you have a trusted connection and will not have to enter [username][password]
   v) Do you wish to load SNOMED concept codes?
   "N" no files will be loaded into the l_snomed_concept table
   "Y" yes means l_snomed_concept table will be truncated and reloaded with the latest US concept codes
   Source File [sct2_Concept_Snapshot_US1000124_20140301.txt]
   vi) Do you wish to load SNOMED descriptions codes?
   "N" no files will be loaded into the l_snomed_description table
   "Y" yes means the l_snomed_description table will be truncated and reloaded with the latest US description codes
   Source File [sct2_Description_Snapshot-en_US1000124_20140301.txt]
   vii) Do you wish to load ICD9 to SNOMED mappings codes?
   "N" no files will be loaded into the l_snomed_icd9_map table
   "Y" yes means the l_snomed_icd9_map table will be truncated and reloaded with the latest US ICD9 to SNOMED mapping codes
   Source File [ICD9CM_SNOMED_MAP_1TO1_201312.txt and ICD9CM_SNOMED_MAP_1TOM_201312.txt]
   viii) Do you wish to load ICD10 to SNOMED mappings codes?
   "N" no files will be loaded into the l_snomed_icd10_map table
   "Y" yes means the l_snomed_icd10_map table will be truncated and reloaded with the latest US ICD10 to SNOMED mapping codes
   Source File [xder2_iissscRefset_ExtendedMapSnapshot_US1000124_20131220.txt]
   ix) Do you wish to load US zip codes?
   "N" no files will be loaded into the z_zipCodesWithCounty table
   "Y" yes means the z_zipCodesWithCounty table will be truncated and reloaded with the latest US zip codes
   Source File [5-digit Commercial.csv]

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

**********

Note: the following files should be loaded once only with B43!

**********

x) Do you wish to load CMS codes?
"N" no files will be loaded into the s_mu_code table
"Y" yes means the s_mu_code table will be truncated and reloaded with the latest CMS codes
Source File [s_mu_code.txt]

xi) Do you wish to load HL7 support sets for CCDA?
"N" no files will be loaded into the l_hl7v3_voc_value_set table
"Y" yes means the l_hl7v3_voc_value_set table will be truncated and reloaded with the latest hl7v3_voc_value_set codes
Source File [l_hl7_voc_value_set.txt]

xii) Do you wish to load HL7 support codes for CCDA?
"N" no files will be loaded into the l_hl7v3_voc_value_code table
"Y" yes means the l_hl7v3_voc_value_code table will be truncated and reloaded with the latest l_hl7v3_voc_value_code codes
Source File [l_hl7_voc_value_code.txt]

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# Server Update

For eRAD RIS
Version 2.0
Build 2.2016.1
Update 2.2016.1.0.4

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# Table of Contents

Resolved Items ..... 3
Code Stream ..... 4
Package Contents ..... 5
Intended Audience ..... 5
Who is affected ..... 5
eRAD RIS Release Version Numbers ..... 6
Installing ..... 7
    Client/GUI ..... 7
    Web Service ..... 7

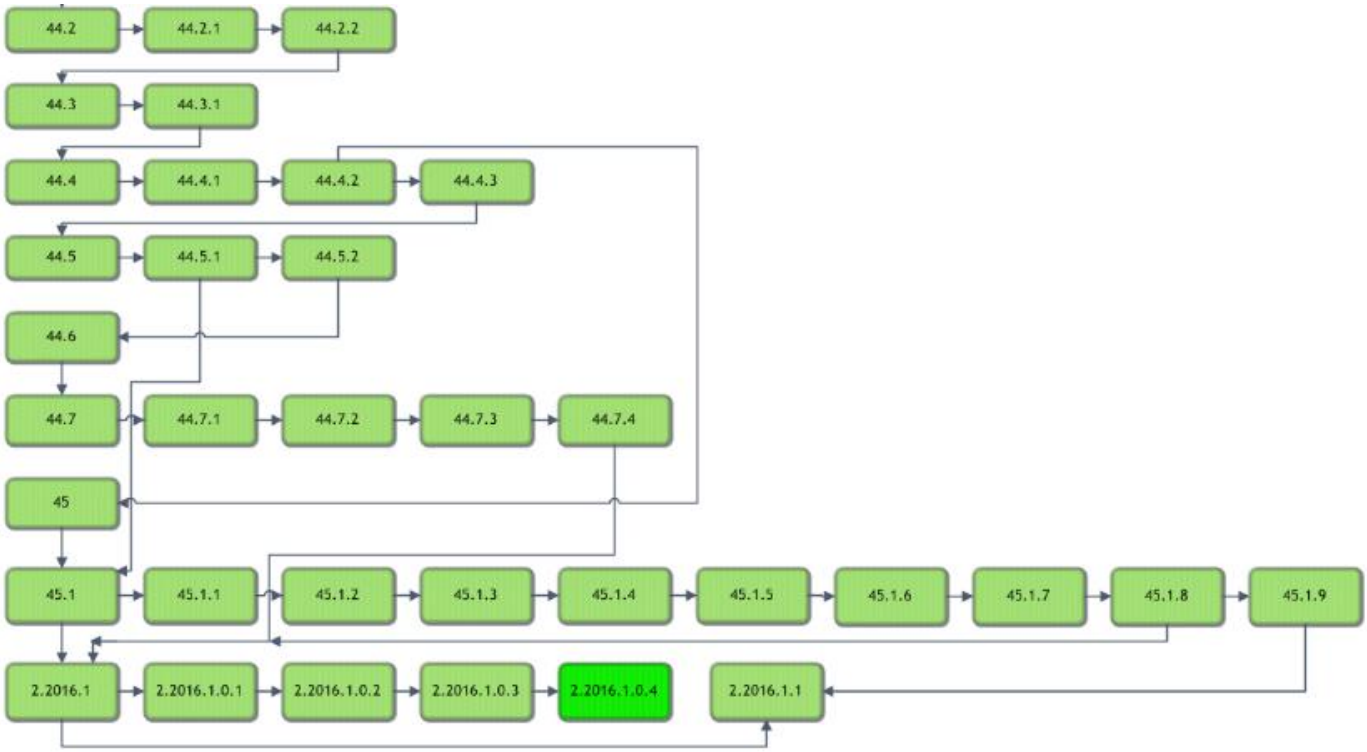
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## Resolved Items

| Redmine # | Subject |
|---|---|
| 13599 | Occasional error 'Implicit conversion from data type nvarchar to varbinary(max)' |
| 13579 | Files missing from RIS deployment ZIP file (Microsoft.SqlServer.Types.dll) |
| 13568 | The 'Matching Alternate MRN Issuer' should only display values related to the 'Matching Alternate MRN' column |
| 13552 | Performed_end_date occasionally not populated causing subsequent errors |
| 13530 | Formatting characters in MRN masks are inadvertently being removed upon save |
| 13525 | In Perform Exam, if a study is selected then de-selected for inclusion, it is still included, even though it is clearly un-checked |
| 13522 | Error scheduling an EMR order 'Cannot insert duplicate key row' when EMR MRN is the same but Issuer ID is different |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## Code Stream




**Legend:**

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## Package Contents

## Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

## Who is affected

This must be installed on systems that are already at version 2.2016.1.0.3

It should not be installed at a site that has 2016.1.1 installed, as the change in 2016.1.1 is not included in this release.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 43.1 | - | 2.43.1.0.25850(3GB) | 2.43.0.0.23171 | 2.43.1.0.25850 | 2.43.1.0.25771 | GUI.zip Web Service and DB Updates |
| 43.2 | - | 2.43.2.0.26864(3GB) | 2.43.0.0.23171 | 2.43.2.0.26864 | 2.43.1.0.25771 | GUI.zip and Web Service |
| 44 | - | 2.44.0.0.26570(3GB) | 2.44.0.0.26405 | 2.44.0.0.26570 | 2.44.0.0.26475 | Full Version Release |
| 44.1 | - | 2.44.0.0.26984(3GB) | 2.44.0.0.26405 | 2.44.0.0.26984 | 2.44.0.0.26906 | Gui.zip, Web Service, and DB |
| 44.1 | 1 | 2.44.1.1.27093(3GB) | 2.44.0.0.26405 | 2.44.1.0.26984 | 2.44.1.0.26906 | Gui.zip |
| 44.2 | | 2.44.2.0.27410(3GB) | 2.44.0.0.26405 | 2.44.2.0.27410 | 2.44.2.0.27365 | Gui.zip, Web Service, and DB |
| 44.2 | 1 | 2.44.2.1.27959(3GB) | 2.44.0.0.26405 | 2.44.2.1.27959 | 2.44.2.1.27909 | Gui.zip, Web Service, and DB |
| 44.2 | 2 | 2.44.2.1.27959(3GB) | 2.44.0.0.26405 | 2.44.2.2.28094 | 2.44.2.1.27909 | Web Service |
| 44.3 | - | 2.44.3.0.28292 | 2.44.0.0.26405 | 2.44.3.0.28277 | 2.44.3.0.28138 | Gui.zip, Web Service, and DB |
| 44.3 | 1 | 2.44.3.1.28535(3GB) | 2.44.0.0.26405 | 2.44.3.1.28535 | 2.44.3.0.28138 | Gui.zip and Web Service |
| 44.4 | - | 2.44.4.0.28762(3GB) | 2.44.0.0.26405 | 2.44.4.0.28762 | 2.44.4.0.28676 | Gui.zip, Web Server, DB, SSRS Deployment |
| 44.4 | 1 | 2.44.4.1.28953(3GB) | 2.44.0.0.26405 | 2.44.4.1.28953 | 2.44.4.0.28676 | Gui.zip and Web Service |
| 44.4 | 2 | 2.44.4.2.29327(3GB) | 2.44.0.0.26405 | 2.44.4.2.29327 | 2.44.4.0.28676 | Gui.zip and Web Service |
| 44.4 | 3 | 2.44.4.2.29722(3GB) | 2.44.0.0.26405 | 2.44.4.2.29327 | 2.44.4.0.28676 | Gui.zip and Web Service |
| 44.5 | - | 2.44.5.0.30022(3GB) | 2.44.0.0.26405 | 2.44.5.0.30022 | 2.44.5.0.29976 | Gui.zip, Web Server, DB |
| 44.5 | 1 | 2.44.5.1.30451(3GB) | 2.44.0.0.26405 | 2.44.5.1.30451 | 2.44.5.1.30449 | Gui.zip, Web Server, DB |
| 44.5 | 2 | 2.44.5.2.30705(3GB) | 2.44.0.0.26405 | 2.44.5.1.30705 | 2.44.5.1.30554 | Gui.zip, Web Server, DB |
| 45 | - | 2.45.0.0.29559(3GB) | 2.45.0.0.26107 | 2.45.0.0.29559 | 2.45.0.0.29558 | Full Version Release |
| 45.1 | - | 2.45.1.0.30774(3GB) | 2.45.0.0.26107 | 2.45.1.0.30774 | 2.45.1.0.30738 | Gui.zip, Web Service, DB, SQLReporting, Questionnaire, Citrix support |
| 45.1 | 1 | 2.45.1.1.31175(3GB) | 2.45.0.0.26107 | 2.45.1.1.31175 | 2.45.1.1.31174 | Gui.zip, Web Service, DB, SQLReporting, Questionnaire |
| 45.1 | 2 | 2.45.1.1.31175(3GB) | 2.45.0.0.26107 | 2.45.1.2.31378 | 2.45.1.1.31174 | Web Service and Citrix Bridge |
| 45.1 | 3 | 2.45.1.3.31452(3GB) | 2.45.0.0.26107 | 2.45.1.3.31452 | 2.45.1.3.31369 | GUI.zip, Web Service, DB, Questionnaire and Citrix Bridge |
| 45.1 | 4 | 2.45.1.4.31621(3GB) | 2.45.0.0.26107 | 2.45.1.4.31621 | 2.45.1.4.31599 | GUI.zip, Web Service, DB, Questionnaire and Citrix Bridge |
| 45.1 | 5 | 2.45.1.5.31773(3GB) | 2.45.0.0.26107 | 2.45.1.5.31773 | 2.45.1.5.31771 | GUI.zip, Web Service, DB, Questionnaire |
| 45.1 | 6 | 2.45.1.6.32070(3GB) | 2.45.0.0.26107 | 2.45.1.6.32070 | 2.45.1.6.31936 | GUI.zip, Web Service, DB, Questionnaire, Citrix Bridge |
| 45.1 | 7 | 2.45.1.6.32070(3GB) | 2.45.0.0.26107 | 2.45.1.6.32070 | 2.45.1.6.31936 | Web Service for Wedge only. Version number of Wedge is 45.1.6.32614 |
| 45.1 | 8 | 2.45.1.8.33254(3GB) | 2.45.0.0.26107 | 2.45.1.6.32070 | 2.45.1.6.31936 | GUI.zip |
| 45.1 | 9 | 2.45.1.9.33573(3GB) | 2.45.0.0.26107 | 2.45.1.6.32070 | 2.45.1.6.31936 | GUI.zip |
| 2016.1 | - | 2.16.1.0.33419 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge |
| 2016.1 | .0.1 | 2.16.1.0.1 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | GUI.zip (This is not included in 2016.1.1, version directly above) |
| 2016.1 | .0.2 | 2.16.1.0.1 (3GB) | 2.16.1.0.33079 | 2.16.1.0.2 | 2.16.1.0.33416 | Wedge Web Services only |
| 2016.1 | .0.3 | 2.16.1.0.3 (3GB) | 2.16.1.0.33079 | 2.16.1.0.3 | 2.16.1.0.3.00128918 | GUI.zip, Web Services and DB |
| **2016.1** | **.0.4** | **2.16.1.0.4 (3GB)** | **2.16.1.0.33079** | **2.16.1.0.4** | **2.16.1.0.3.00128918** | **GUI.zip, Web Services** |
| 2016.1 | 1 | 2.16.1.1.33672 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | GUI.zip |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# Installing

## Client/GUI

1) Copy and replace the current rRIS…zip file with the rRIS_1.3.2016.1.0.4.zip file provided with this release.
   Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

## Web Service

This updated is only required for the Wedge Web Services. The Core RIS Service and Document Distribution Service are not required to be updated.

1. The web service upgrade consists of replacing the files in the RIS Web Service directory with the files supplied in the rRISService folder with this build. Always create a backup of the files being replaced. This upgrade includes 98 files in the rRISService folder and 6 sub folders. Of those folders, 1 is a folder titled **"XSL"** that contains a sub folder and files within the subfolder. Another folder is titled **"deploy"** that contains the new .config files that will be deployed with the user of the file called "ServicesConfigWizard.exe" (see instructions below). Folders ar (Arabic), he (Hebrew), and pt_BR (Brazilian Portuguese) are localization folders. The WedgePlugins folder contains various plugin files for RADAR, MIRTH, Ensemble, etc…

**Services Configuration Wizard**

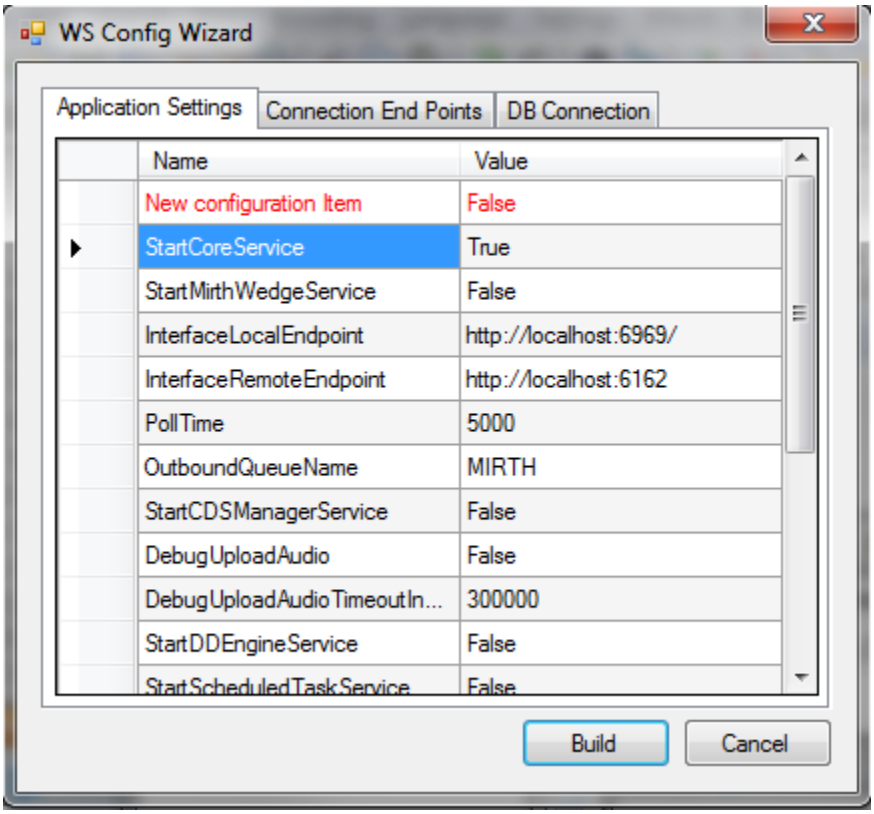
With the release of 42 to decrease the chance of losing configuration setting and missing new configuration options, we will no longer include the configuration files in the release in the main set of files, but they will now exist in a "deploy" folder, which will contain the three site configurable config files; applicationsettings, connectionstrings, and services as well as a copy of the rRISServices.exe configuration file. The contents of this folder should not be required to be touched.

On the install of a new service, all files will be copied to the appropriate locations on the server (no configurations will be over written). If instructed or to confirm no new configurations have been added the user can run the new application "ServicesConfigWizard.exe"

This application will read the existing configuration file(s) (if files exist), and compare to the provided new configuration files then will display three tabs, for each configuration file:
**Application Settings:** all existing configuration value will be displayed, if there are any new configuration entries they will be displayed in red.

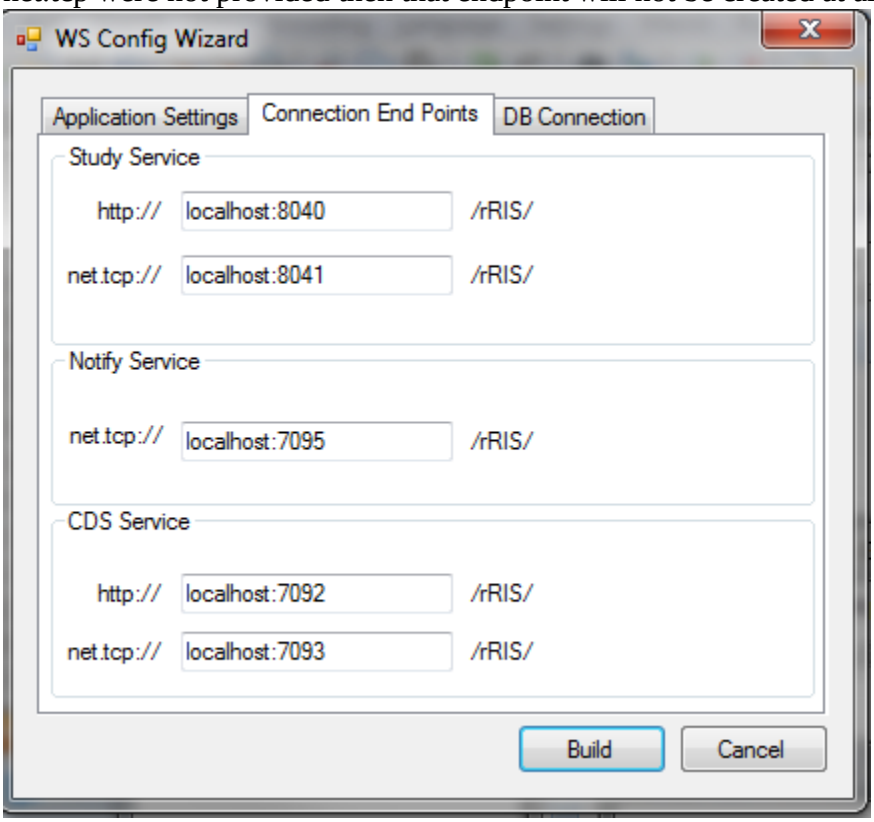
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

**NOTE:** the rRISServices.exe.config file is also included in the deploy folder. If this file has changes it **will not** update your current file in the Web Service directory. Any changes to this file will require a manual update of the rRISServices.exe.config and rRISServicesx64.exe.config files.



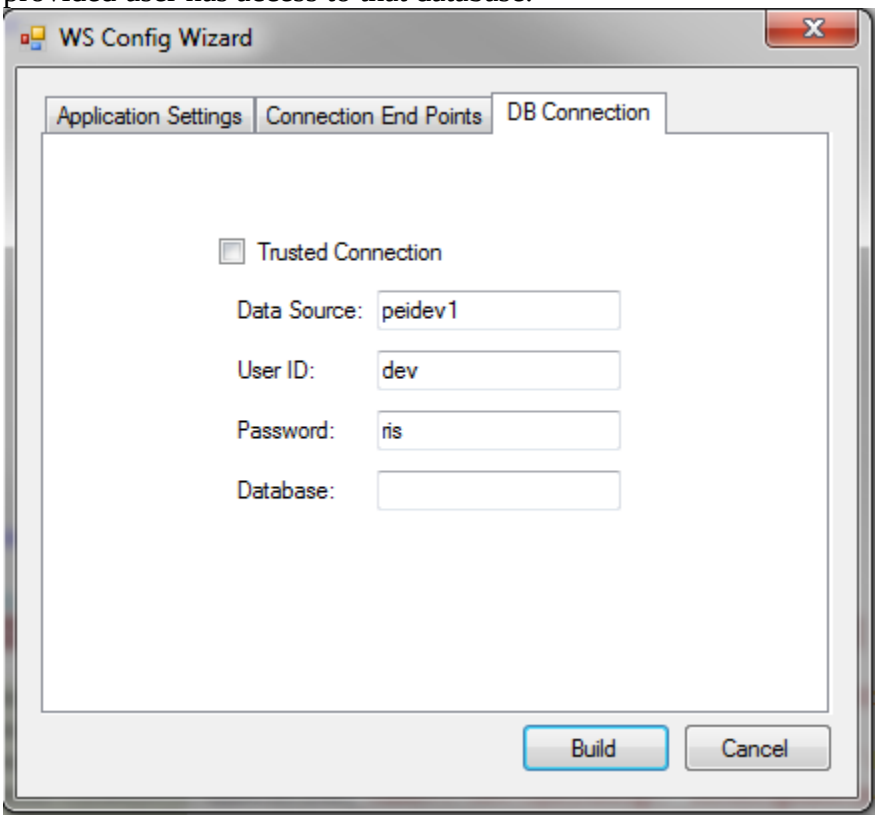

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

**Connection End Points:** will display the existing configuration, if the value is left blank then that entry will not be created, in the case of "Study Service" or "CDS Service" if both http and net.tcp were not provided then that endpoint will not be created at all.




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

**DB Connection:** will display the existing configuration, if the Connection is to be used as a trusted connection, then the user ID and password will become disabled and will not be used, and will rely on the provided database value, When not using the trusted connection, The Database value is not needed but can be used to force a specific database connection as long as the provided user has access to that database.




It is always good practice to do a compare of the .config files.

1) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService.
   *rRISService directories include:*
   *a) rRISService*
   *b) CDS rRISService*
   *c) Wedge rRISService*
   *d) DDE rRISService*

   **Restart each service**.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# Server Update

For eRAD RIS
Version 2.0
Build 2.2016.1
Update 2.2016.1.1

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# Table of Contents

Resolved Items ..... 3
Code Stream ..... 4
Package Contents ..... 5
Intended Audience ..... 5
Who is affected ..... 5
eRAD RIS Release Version Numbers ..... 6
Installing ..... 7
    Client/GUI ..... 7

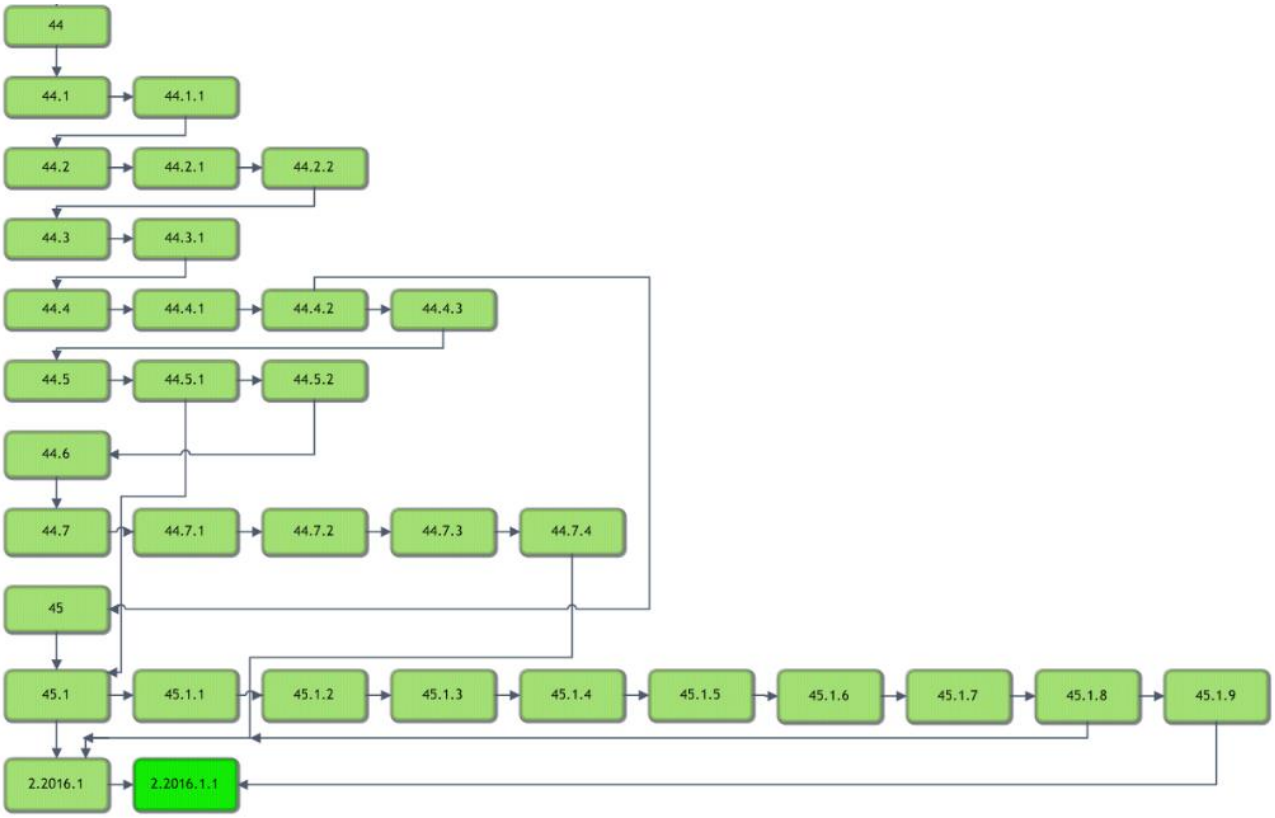
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## Resolved Items

| Redmine # | Subject |
|---|---|
| 13370 | IW or CSH PACS integration - intermittently produces "given key not present" error |
| 13368 | Intermittent issue where View Images button is remaining diabled and PACS Enable/Disable menu remains disabled |
| 13373 | PACS images not synced with current study after timeout exceeded in eRAD RIS |
| 13369 | Intermittent RIS hang during exit |
| 13375 | Powerscribe integration - Closing a study using X on the tab may produce "given key not present" error. |
| 13371 | eRAD PACS Integration - If 2 studies are opened and both do not have images attached, RIS will stall until OK is clicked on "Invalid study file" message |
| 13374 | When RIS prompts "An action is required in PACS" and the user kills PACS manually, the user cannot continue working in RIS. |
| 13376 | eRAD PACS - Integration - using the next workflow the 'Waiting for PACS' message times out when relevant studies to open is greater than 0 |
| 13377 | PACS Integration - When the "Waiting for PACS" message is on the screen, and the user presses Cancel, the RIS should not display a "Thread was being aborted" message box. |
| 13372 | PACS Sync - When images are displayed in reading mode, then the radiologist opens another study to sign off, the images for the first patient remain displayed. |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## Code Stream




**Legend:**

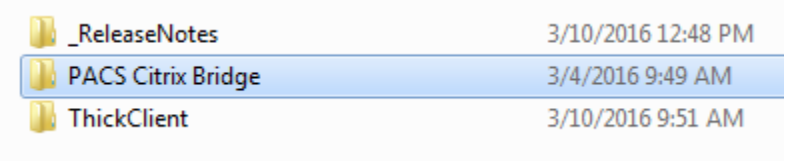
Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## Package Contents




## Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

## Who is affected

Build 2016.1 installs.  This server update must be applied to 2016.1

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## eRAD RIS Release Version Numbers

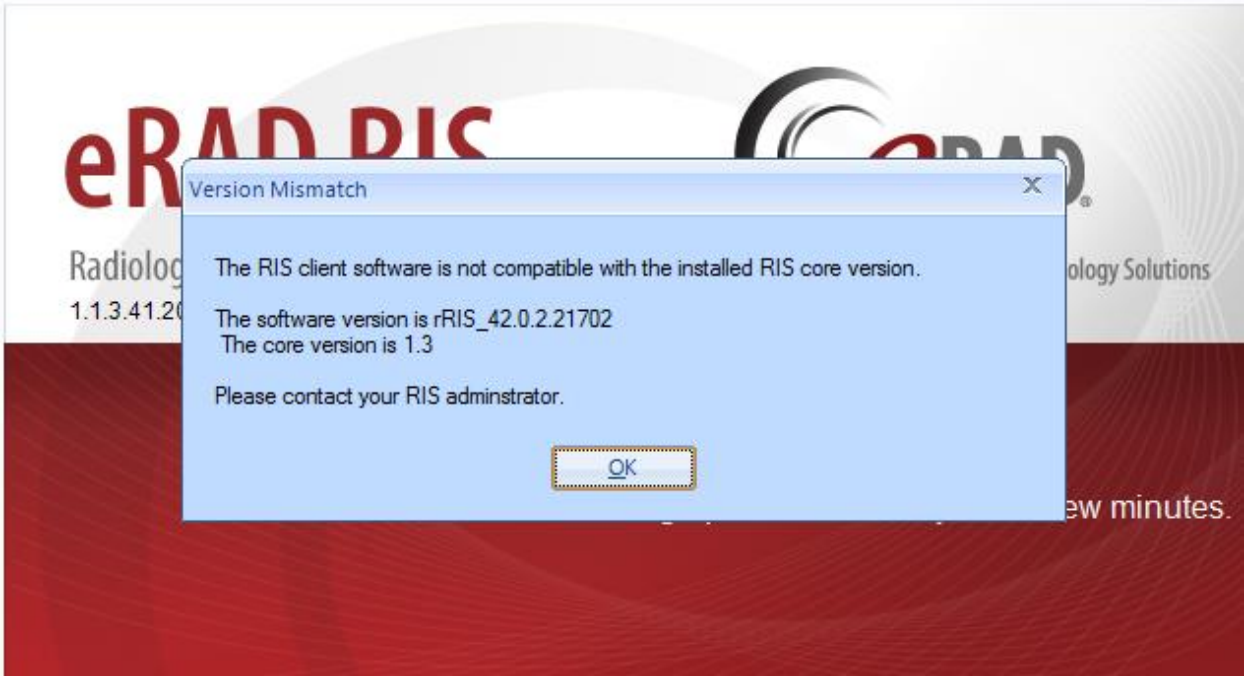
| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 43.1 | - | 2.43.1.0.25850(3GB) | 2.43.0.0.23171 | 2.43.1.0.25850 | 2.43.1.0.25771 | GUI.zip Web Service and DB Updates |
| 43.2 | - | 2.43.2.0.26864(3GB) | 2.43.0.0.23171 | 2.43.2.0.26864 | 2.43.1.0.25771 | GUI.zip and Web Service |
| 44 | - | 2.44.0.0.26570(3GB) | 2.44.0.0.26405 | 2.44.0.0.26570 | 2.44.0.0.26475 | Full Version Release |
| 44.1 | - | 2.44.0.0.26984(3GB) | 2.44.0.0.26405 | 2.44.0.0.26984 | 2.44.0.0.26906 | Gui.zip, Web Service, and DB |
| 44.1 | 1 | 2.44.1.1.27093(3GB) | 2.44.0.0.26405 | 2.44.1.0.26984 | 2.44.1.0.26906 | Gui.zip |
| 44.2 | | 2.44.2.0.27410(3GB) | 2.44.0.0.26405 | 2.44.2.0.27410 | 2.44.2.0.27365 | Gui.zip, Web Service, and DB |
| 44.2 | 1 | 2.44.2.1.27959(3GB) | 2.44.0.0.26405 | 2.44.2.1.27959 | 2.44.2.1.27909 | Gui.zip, Web Service, and DB |
| 44.2 | 2 | 2.44.2.1.27959(3GB) | 2.44.0.0.26405 | 2.44.2.2.28094 | 2.44.2.1.27909 | Web Service |
| 44.3 | - | 2.44.3.0.28292 | 2.44.0.0.26405 | 2.44.3.0.28277 | 2.44.3.0.28138 | Gui.zip, Web Service, and DB |
| 44.3 | 1 | 2.44.3.1.28535(3GB) | 2.44.0.0.26405 | 2.44.3.1.28535 | 2.44.3.0.28138 | Gui.zip and Web Service |
| 44.4 | - | 2.44.4.0.28762(3GB) | 2.44.0.0.26405 | 2.44.4.0.28762 | 2.44.4.0.28676 | Gui.zip, Web Server, DB, SSRS Deployment |
| 44.4 | 1 | 2.44.4.1.28953(3GB) | 2.44.0.0.26405 | 2.44.4.1.28953 | 2.44.4.0.28676 | Gui.zip and Web Service |
| 44.4 | 2 | 2.44.4.2.29327(3GB) | 2.44.0.0.26405 | 2.44.4.2.29327 | 2.44.4.0.28676 | Gui.zip and Web Service |
| 44.4 | 3 | 2.44.4.2.29722(3GB) | 2.44.0.0.26405 | 2.44.4.2.29327 | 2.44.4.0.28676 | Gui.zip and Web Service |
| 44.5 | - | 2.44.5.0.30022(3GB) | 2.44.0.0.26405 | 2.44.5.0.30022 | 2.44.5.0.29976 | Gui.zip, Web Server, DB |
| 44.5 | 1 | 2.44.5.1.30451(3GB) | 2.44.0.0.26405 | 2.44.5.1.30451 | 2.44.5.1.30449 | Gui.zip, Web Server, DB |
| 44.5 | 2 | 2.44.5.2.30705(3GB) | 2.44.0.0.26405 | 2.44.5.1.30705 | 2.44.5.1.30554 | Gui.zip, Web Server, DB |
| 45 | - | 2.45.0.0.29559(3GB) | 2.45.0.0.26107 | 2.45.0.0.29559 | 2.45.0.0.29558 | Full Version Release |
| 45.1 | - | 2.45.1.0.30774(3GB) | 2.45.0.0.26107 | 2.45.1.0.30774 | 2.45.1.0.30738 | Gui.zip, Web Service, DB, SQLReporting, Questionnaire, Citrix support |
| 45.1 | 1 | 2.45.1.1.31175(3GB) | 2.45.0.0.26107 | 2.45.1.1.31175 | 2.45.1.1.31174 | Gui.zip, Web Service, DB, SQLReporting, Questionnaire |
| 45.1 | 2 | 2.45.1.1.31175(3GB) | 2.45.0.0.26107 | 2.45.1.2.31378 | 2.45.1.1.31174 | Web Service and Citrix Bridge |
| 45.1 | 3 | 2.45.1.3.31452(3GB) | 2.45.0.0.26107 | 2.45.1.3.31452 | 2.45.1.3.31369 | GUI.zip, Web Service, DB, Questionnaire and Citrix Bridge |
| 45.1 | 4 | 2.45.1.4.31621(3GB) | 2.45.0.0.26107 | 2.45.1.4.31621 | 2.45.1.4.31599 | GUI.zip, Web Service, DB, Questionnaire and Citrix Bridge |
| 45.1 | 5 | 2.45.1.5.31773(3GB) | 2.45.0.0.26107 | 2.45.1.5.31773 | 2.45.1.5.31771 | GUI.zip, Web Service, DB, Questionnaire |
| 45.1 | 6 | 2.45.1.6.32070(3GB) | 2.45.0.0.26107 | 2.45.1.6.32070 | 2.45.1.6.31936 | GUI.zip, Web Service, DB, Questionnaire, Citrix Bridge |
| 45.1 | 7 | 2.45.1.6.32070(3GB) | 2.45.0.0.26107 | 2.45.1.6.32070 | 2.45.1.6.31936 | Web Service for Wedge only. Version number of Wedge is 45.1.6.32614 |
| 45.1 | 8 | 2.45.1.8.33254(3GB) | 2.45.0.0.26107 | 2.45.1.6.32070 | 2.45.1.6.31936 | GUI.zip |
| 45.1 | 9 | 2.45.1.9.33573(3GB) | 2.45.0.0.26107 | 2.45.1.6.32070 | 2.45.1.6.31936 | GUI.zip |
| 2016.1 | - | 2.16.1.0.33419 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge |
| **2016.1** | **1** | **2.16.1.1.33672 (3GB)** | **2.16.1.0.33079** | **2.16.1.0.33419** | **2.16.1.0.33416** | **GUI.zip** |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## Installing

### Client/GUI

1) Copy and replace the current rRIS…zip file with the rRIS_1.3.16.1.1.33672.zip file provided with this release.
   Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.




If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_16.1.1.33672→ rRIS_1.3.16.1.1.33672
NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

**NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# Release Notes

# eRAD RIS

# Version 2

# Build 2016.1

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 2016.1 | - | 2.16.1.0.33419 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## TABLE OF CONTENTS

1. Purpose ..... 3
2. Intended Audience ..... 3
3. Installing/Accessing the Application ..... 3
4. New Settings ..... 4
4.1. New access strings ..... 4
4.2. New system configuration settings ..... 5
4.3. Changes to Web Services ..... 7
5. New Features and Enhancements ..... 8
6. Code Stream ..... 42
7. RIS Release Version Numbers ..... 43
8. Resolved Defects ..... 45
9. Known Limitations ..... 59

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## PURPOSE

This document describes some of the new features and changes implemented in eRAD RIS in build 2.2016.1

Not every feature will be described in this document. Typically only features which can be visually demonstrated to the user are outlined in this document.

## INTENDED AUDIENCE

This document is created by the eRAD RIS Development/Commercialization team for customers of eRAD RIS.

## INSTALLING/ACCESSING THE APPLICATION

The installation guide for the eRAD RIS client have been posted to the RadNet Wiki page at http://mdbal01rdtweb/Wiki/

Under the RIS menu click on the rRIS page. The credentials to access the page are:

Username: rRIS

Password: Summerside

If you experience difficulties accessing the application, please contact Darcy Noye with the PEI RIS Development Team.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# NEW SETTINGS

## NEW ACCESS STRINGS

| Setting | Default | Purpose |
|---|---|---|
| Clinical.ConnectAnswers.Edit | None | Controls the ability to edit Connect Answers vai the RIS. The Connect Answers are the Patient provided answers to scheduling questions entered via the Patient Portal at the time of scheduling. |
| Clinical.CreateEditSendForDictation | None | Allows the user to send report for dictation from create/edit report screen |
| Clinical.CreateReportFromExamDone | None | Allows the user to create/edit report from exam done status |
| Clinical.FollowUp | Full | Controls access to the Mammo Follow Up screen |
| Clinical.ImportStudies | None | Access to context menu for importing studies into an order |
| Clinical.ImportStudies.AcrossEMRs | None | Access to importing studies into an order from a different EMR |
| Clinical.Linkstudies | None | Access to the manual study linking screen. |
| Clinical.PeerReview.MarkAsCompleted | Full | Allows the user to mark a peer review as completed |
| Clinical.PingMessage | None | Controls access to the Ping message feature. |
| Clinical.PreviewTerminatedReport | None | Controls access to previewing reports that have been terminated such as status like void and discontinued. |
| Config.DigitalFormsEditor<br><br>Replaces<br><br>Config.QuestionnaireEditor | None | Controls access to the browser-based Digital Forms editor. |
| Config.LookupEditor.Complication | None | controls access to the Complication lookup table |
| Config.LookupEditor.CreatedBySystem | None | lookup table access for Created By System |
| Config.LookupEditor.Personnel.ConfirmedRadiologistFlag | None | Access to the edit or view the Confirmed Radiologist Flag |
| Notification.PendingBiopsyNotify<br><br>Replaces<br><br>WLNotification.PendingBiopsyNotify | Full | Enables ability to show worklist driven pending biopsy notifications |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | |
|---|---|---|
| Notification.PendingSignatureWorklist<br><br>Replaces<br><br>WLNotification.PendingSignatureWorklist | Full | Enables ability to show worklist driven pending signature notifications |
| Notification.STATPendingSignature<br><br>Replaces<br><br>WLNotification.STATPendingSignature | Full | Enables ability to show STAT Case Pending Signature notifications |
| Notification.STATPendingSignatureWorklist<br><br>Replaces<br><br>WLNotification.STATPendingSignatureWorklist | Full | Enables ability to show worklist driven STAT Case Pending Signature notifcations |
| Notification.SuspendedNotify<br><br>Replaces<br><br>WLNotification.SuspendedNotify | Full | Enables ability to show suspended notifications |
| View.DigitalFormAnswers<br><br>Replaces<br><br>View.QuestionnaireAnswers | None | Access to see the Digital Form Answers menu item from View menu (visible when dictate window is open on a mammo study) |
| View.SelectedDigitalFormAnswers | Full | Access to see the Selected Digital Form Answers menu item from View menu (visible when dictate window is open) |
| WL.Reception | Full | Controls access to the Reception worklist under Front Desk menu |

## NEW SYSTEM CONFIGURATION SETTINGS

| | | |
|---|---|---|
| BreastBodyPartCode | | The code for the breast body part. May be used to activate mammo related functionality (e.g. Create Reminder) |
| GoogleAPIKey | | A Google Key use to connect to their WEB services for information such as getting geo coordinates for sites, etc. |
| MUMedlinePlusConnectProblemSearchICD10 | mainSearchCriteria.v.cs=2.16.840.1.113883.6.90 | MedlinePlus Connect Problem ICD-10 search specification. |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | |
|---|---|---|
| MUMedlinePlusConnectProblemSearchICD9 | mainSearchCriteria.v.cs=2.16.840.1.113883.6.103 | MedlinePlus Connect Problem ICD-9-CM search specification. |
| MUMedlinePlusConnectProblemSearchSNOMED | mainSearchCriteria.v.cs=2.16.840.1.113883.6.96 | MedlinePlus Connect Problem SNOMED search specification. |
| MUMedlinePlusConnectProblemSearch | Removed | Replaced with MUMedlinePlusConnectProblemSearchICD10<br><br>MUMedlinePlusConnectProblemSearchICD9<br><br>MUMedlinePlusConnectProblemSearchSNOMED |
| NPDServiceAddress | | URI to NPD Service. If blank, we will use the address in the application config. An example URI is: http://10.10.1.23/NPDService/NPDService.asmx |
| NPI_URL | https://npiregistry.cms.hhs.gov/registry/search-results-table?first_name={firstname}&last_name={lastname} | URL to NPI registry including placeholders for {firstname} and {lastname} |
| ReferringAddressCode | Removed | The referring practice address pattern was replaced with a referring doctor address editor.<br><br>Therefore:<br><br>references to ReferringAddressCode config needs to be removed. |
| ReportingImpressionSectionStartText | IMPRESSION | Search string of text to mark the beginning of the impression section. |
| ResetInsuranceVerifiedOnReschedule | False | Determines if insurance verified flag is reset when rescheduling a study |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## CHANGES TO WEB SERVICES

Changes to Web services applicationsettings.config file:

| Setting | Default value | |
|---|---|---|
| LegacyInterfaceMode | True | Changes in 45, 45.1 and 2016.1 for some customers required interface files to be updated. This setting will allow pre-existing customers to continue to use their current interfaces without adjustment. |

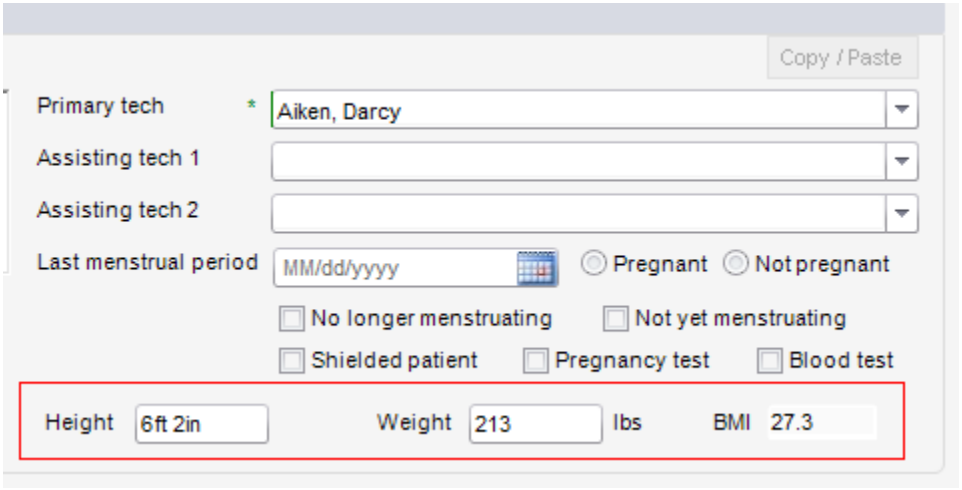
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# NEW FEATURES AND ENHANCEMENTS

## TECHNOLOGIST

### 6477 - DISPLAY THE HEIGHT AND WEIGHT FIELDS ON THE TECH DOCUMENTATION SCREEN

It was observed that at some sites the patient weight was being re-typed into the Order Notes field, to save the technologist from having to select the MU tab simply to see the weight. At other sites, the technologists were taking the extra time to select the MU tab to see the patient weight, or were simply ignoring this step to save time. Therefore, the patient weight, height, and BMI are now also displayed on the tech 'Documentation' tab to eliminate these extra steps.




Technologists can edit the height and weight here, and the values will be updated on the MU tab. BMI is calculated automatically based on the height and weight values.

### 11031 - CREATE GFR CALCULATOR

Glomerular filtration rate (GFR) is a test used to check how well the kidneys are working. Specifically, it estimates how much blood passes through the glomeruli each minute. Glomeruli are the tiny filters in the kidneys that filter waste from the blood.

To eliminate the need for technologists to navigate to an external website or application to calculate GFR, we now have the ability to add a conditional tab that will include a GFR calculator within RIS.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

*Conditional Tab showing GFR calculator*

The calculator uses the following logic:

For creatinine in µmol/L:

$$\text{eGFR} = 32788 \times \text{Serum Creatinine}^{-1.154} \times \text{Age}^{-0.203} \times [1.210\ if\ Black] \times [0.742\ if\ Female]$$

For creatinine in mg/dl:

$$\text{eGFR} = 186 \times \text{Serum Creatinine}^{-1.154} \times \text{Age}^{-0.203} \times [1.210\ if\ Black] \times [0.742\ if\ Female]$$

Creatinine levels in µmol/L can be converted to mg/dL by dividing them by 88.4. The 32788 number above is equal to $186 \times 88.4^{1.154}$.

### How to enable the feature:

## *External customers will be instructed to contact the eRAD Support team for assistance with enabling the GFR calculator.*

*eRAD Support:*

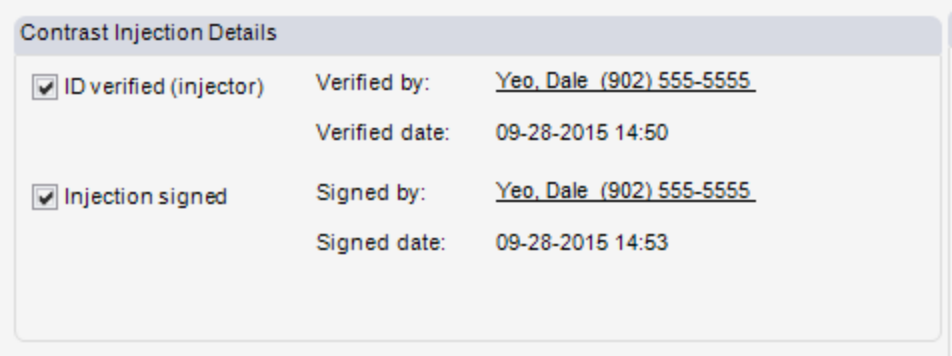
Use the *QuestionnaireUtil* command line utility to publish the calculator, which has been placed in source control under source\DigitalForms\GFR.xml.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

Once deployed, use the Conditional Tabs editor in RIS to configure the calculator to be displayed for the desired screens/studies.

### 11826 - DISPLAY THE USER ID (AND DATE) OF THE TECHNOLOGIST WHO VERIFIED THE ID BESIDE THE TECH VERIFIED ID CHECKBOX ON THE PERFORM EXAM SCREEN

eRAD RIS has the ability for the individual responsible for injecting contrast to indicate that they have verified the patient's ID. RIS will now display and store the name and date of the injection ID verification on the Exam Details tab within the Contrast Injection workflow. If configured to require a sign off by the Injection Physician, the name and date are similarly recorded in this section.




## RADIOLOGIST

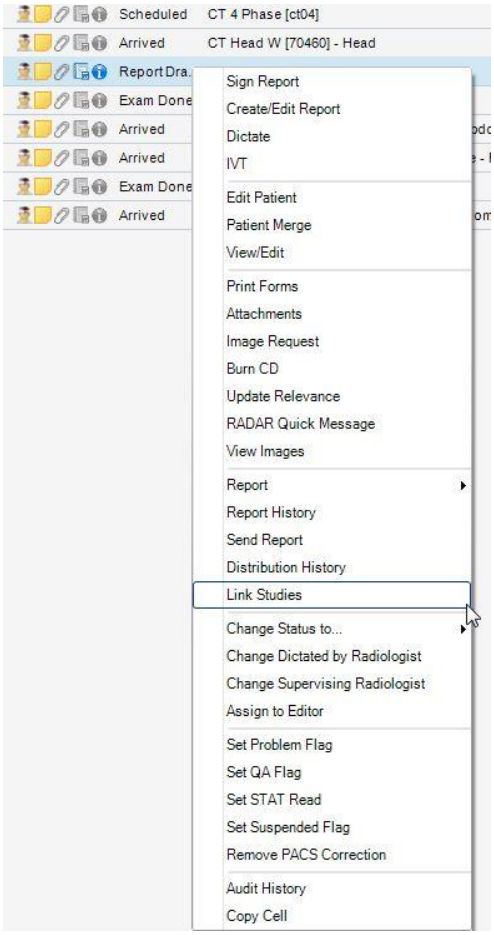
### 10433 - VOICE ENABLED PICK LIST OPTIONS (M*MODAL ONLY)

Pick List options are now voice enabled in M*Modal dictation mode. A voice command can be created for each pick list option and the commands become available when the radiologist selects a picklist field. The cue takes the form of "pick" + display text of the pick list option. There is also a generic cue "pick option" + list position (1, 2, 3, etc.).

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## 12334 - MANUAL LINK AND UNLINK STUDIES CONTEXT MENU

Previously, linked reporting in eRAD RIS could only be done when a Procedure Plan was used, and did not include the ability to manually link or unlink studies on demand. This prevented users from reporting on multiple exams together if they had not initially been scheduled/registered using the appropriate Procedure Plan. It is now possible to manually link or unlink exams in the Patient Folder via the right-click context menu option **Link Studies**. For this phase of linked reporting, the exams must be on the same Order to be eligible for linking.

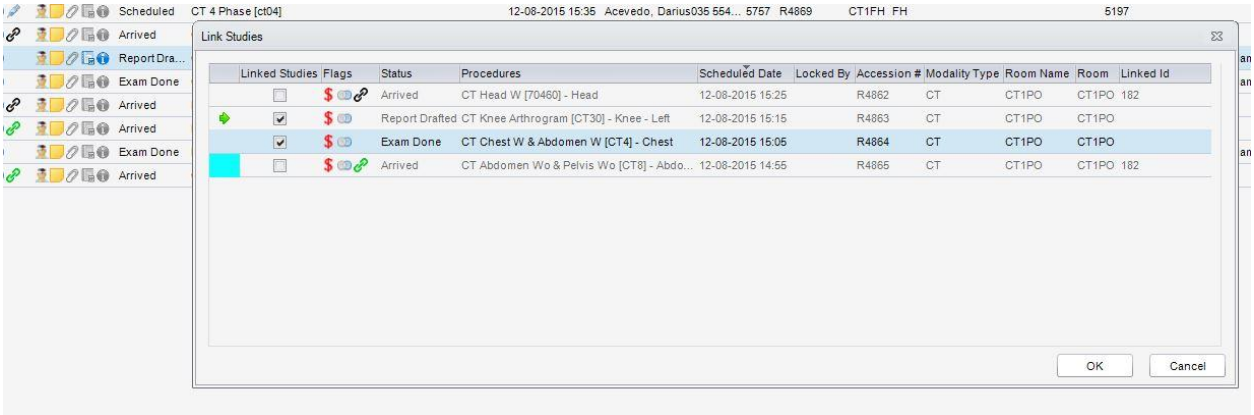



The menu will only be available for exams which qualify as a primary study to link others into.

Manual linking can only occur prior to signing. Exams with existing interpretations cannot be linked into another primary study; they will first have to be reset to Exam Done.

When selecting the Link Studies option, the selected row in the Patient Folder will default as the Primary Study. The following window will open to allow the user to select the exams which should be linked to the Primary Study.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.




The manual linking screen will only show rows from the same order as the targeted primary study. Any row that does not qualify to be linked into the primary study will be a disabled row.

When linking, if the primary exam is post Exam Done status, then secondary exams which are at least at Exam Done will have their status sync with the primary. When *unlinking*, if the primary exam is post Exam Done status, then secondary exams are rest to Exam Done status after being unlinked.

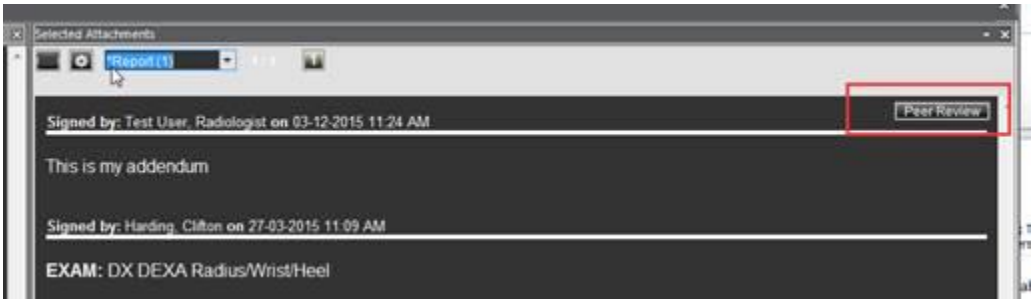
### How to enable the feature:

To manually link or unlink exams, a user must have the access string *Clinical.Linkstudies* set to Full. Default access is none.

## 12682 - MOVE PEER REVIEW ACTION BUTTON TO SELECTED REPORT AND SELECTED ATTACHMENTS PANELS, AND THE REPORT DATA NUGGET

The Peer Review button was located in an area that was inconvenient for many radiologists, due to the placement of panels in their reporting layout. The button has now been moved to the areas in which a radiologist may view a prior report for which they may choose to perform a Peer Review: the panels for Selected Report and Selected Attachments, as well as the Report Data Nugget.

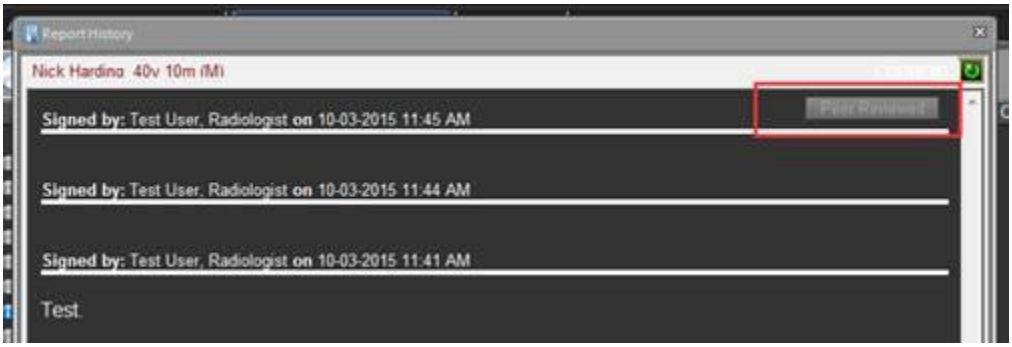
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.




With this change, users can also now peer review via the Report Data Nugget in the main patient folder or within the patient folder panel in the reporting screens.

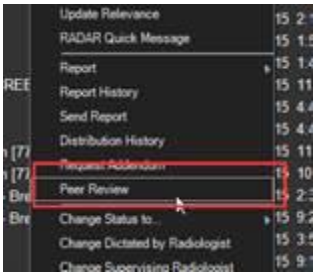
In addition, some rules have been added to enable or disable the Peer Review button appropriately. The button is enabled and visible for all reports the user is permitted to peer review. If the user touched the report (dictated, contributed or signed) the button will *not* be visible. This helps reduce clutter on the screen as it would not be appropriate to peer review one's own report.

If the user previously peer reviewed the report, the button will be visible but disabled. This will indicate to the user that they have already peer reviewed the report. The text in the disabled button will read "Peer Reviewed."




The prior Peer Review access buttons in the context menu and the patient folder panel in the Reporting screen have been removed.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.




**How to enable the feature:**

There is an existing access string "*Clinical.PeerReview*" which needs to be enabled for the button to appear.

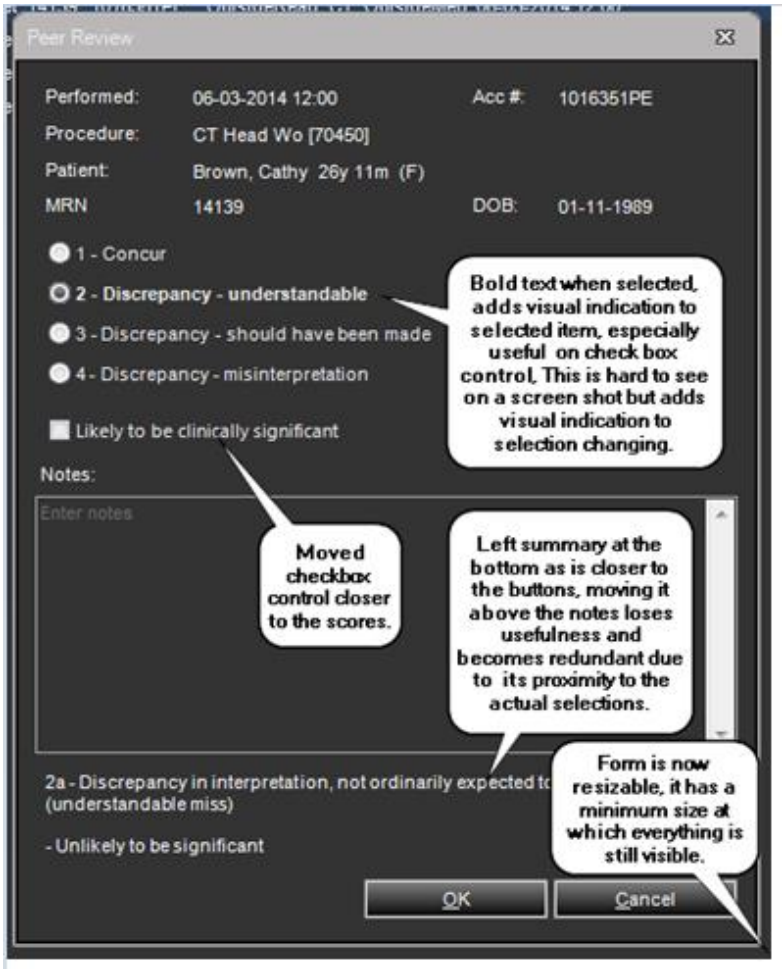
## 12445 - REDESIGN PEER REVIEW WINDOW TO BE MORE INTUITIVE

Improvements were made to make the layout of the Peer Review window more intuitive, particularly when choosing between subcategories. The clinical significance checkbox has been moved and selection cues have been added to bold the active item.

The same changes are reflected in the Peer Review control in the Peer Review QA screen.

The changes result in a workflow with a top down pattern that reduces the need for the user to bounce between the top and bottom of the window, along with reduced visual clutter.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.




These changes are made in an ongoing effort to enhance the Peer Review capabilities in eRAD RIS.

## 8280, 8281 - DIFFERENTIATE BETWEEN AN ACTUAL RADIOLOGIST AND ANOTHER PERSON WITH THE RADIOLOGIST RESOURCE SETTING

It is often necessary to assign radiologist capabilities to a non-radiologist for various operational needs. However, since this user is not accredited as a radiologist, it is dangerous to allow them the power to sign patients' reports.

eRAD RIS now supports an additional flag called 'confirmed radiologist.' This flag can only be assigned by a specific type of system administrator, instead of all users with the 'RIS Administrator' role. When this flag is added or removed, it is stored in an audit trail along with the following information:

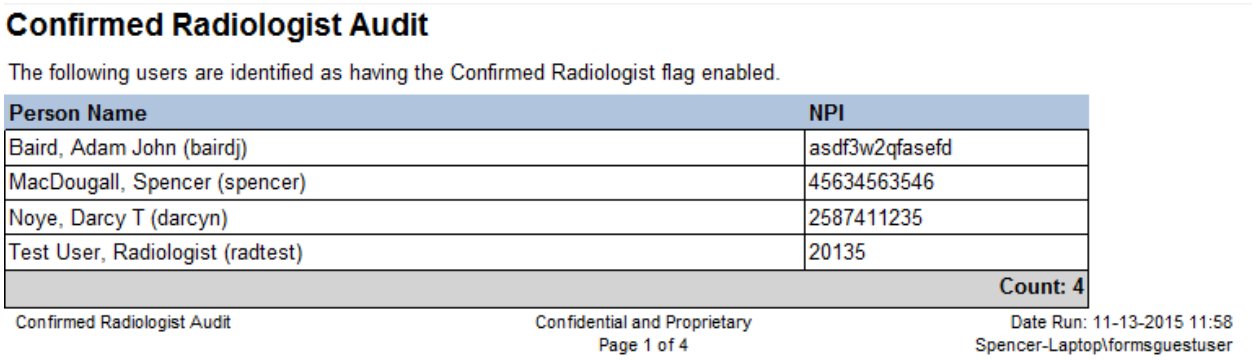
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

- When the flag was changed.
- The user who changed the flag.
- The IP address of the user who changed the flag.
- The radiologist for whom the flag was changed.
- Notes describing the change (e.g. confirmed_radiologist_flag changed from 'N' to 'Y').

The radiologist workflow has been updated so the RIS will track if a report was signed by a 'confirmed radiologist.' This will allow a system administrator to easily track if any diagnostic reports have been signed by someone who has not been flagged as an actual radiologist.

A management report called Confirmed Radiologist Audit has been added to the Maintenance folder in eRAD RIS. It has a data range as a parameter and presents the following information:

a. A listing of all radiologists (full name and NPI) who have the Confirmed Radiologist Flag enabled.



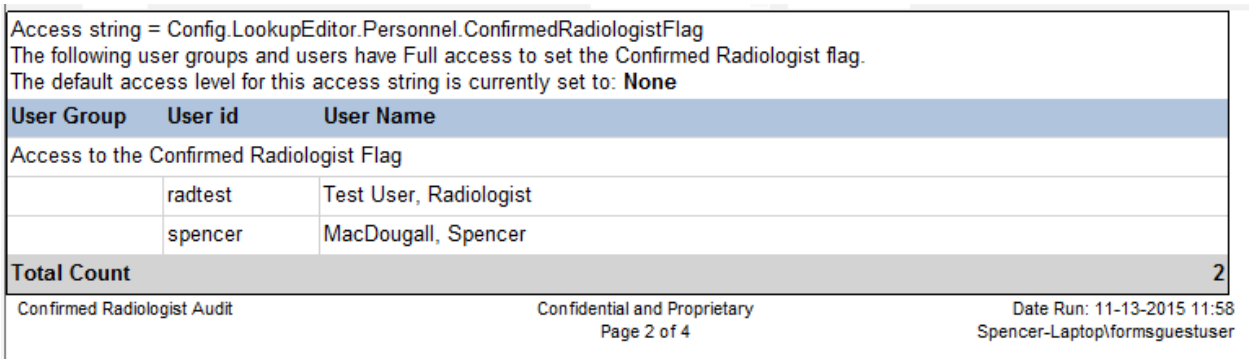
**Confirmed Radiologist Audit**

The following users are identified as having the Confirmed Radiologist flag enabled.

| Person Name | NPI |
|---|---|
| Baird, Adam John (bairdj) | asdf3w2qfasefd |
| MacDougall, Spencer (spencer) | 45634563546 |
| Noye, Darcy T (darcyn) | 2587411235 |
| Test User, Radiologist (radtest) | 20135 |
| | **Count: 4** |

Confirmed Radiologist Audit — Confidential and Proprietary — Page 1 of 4 — Date Run: 11-13-2015 11:58 — Spencer-Laptop\formsguestuser

b. A listing of all users who have **full** access to the *Config.LookupEditor.Personnel.ConfirmedRadiologistFlag* access string which enables the user to set the Confirmed Radiologist flag.



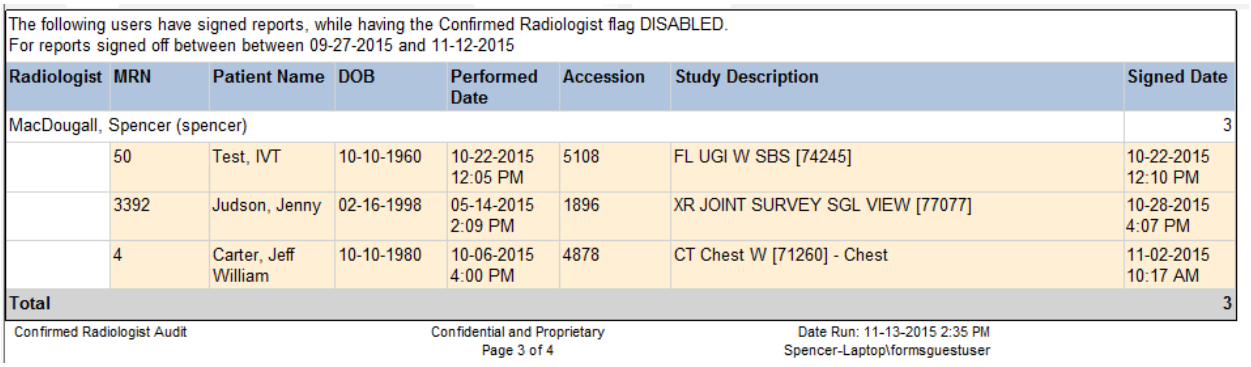
Access string = Config.LookupEditor.Personnel.ConfirmedRadiologistFlag
The following user groups and users have Full access to set the Confirmed Radiologist flag.
The default access level for this access string is currently set to: **None**

| User Group | User id | User Name |
|---|---|---|
| Access to the Confirmed Radiologist Flag | | |
| | radtest | Test User, Radiologist |
| | spencer | MacDougall, Spencer |
| **Total Count** | | **2** |

Confirmed Radiologist Audit — Confidential and Proprietary — Page 2 of 4 — Date Run: 11-13-2015 11:58 — Spencer-Laptop\formsguestuser

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

c. A listing based on the specified date range of all diagnostic reports (user, accession number, study description, date and time) that were signed by a user who ***does not*** have the radiologist flag enabled.

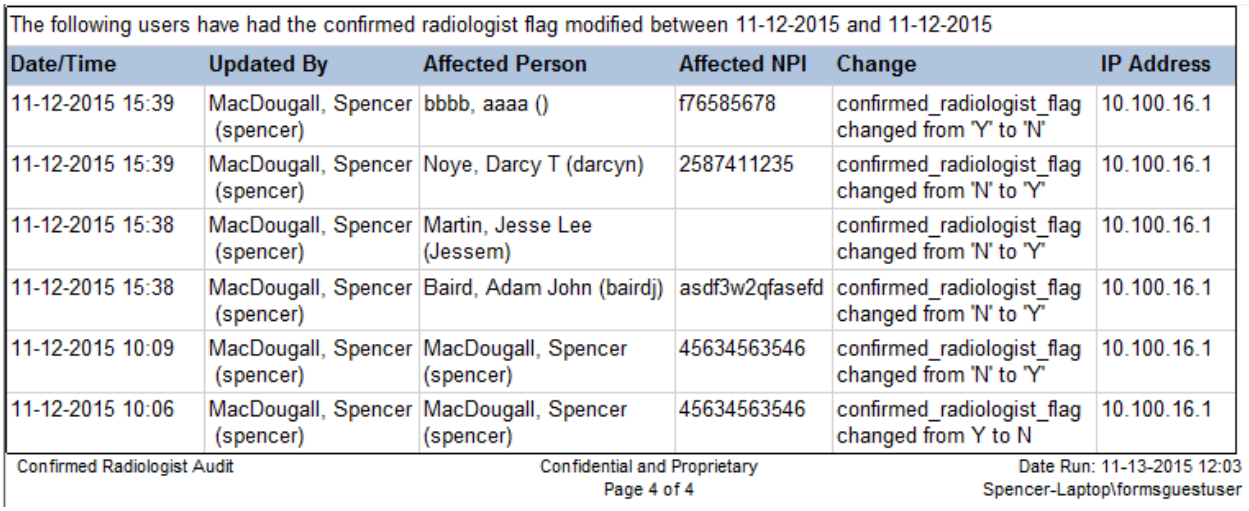


The following users have signed reports, while having the Confirmed Radiologist flag DISABLED.
For reports signed off between between 09-27-2015 and 11-12-2015

| Radiologist | MRN | Patient Name | DOB | Performed Date | Accession | Study Description | Signed Date |
|---|---|---|---|---|---|---|---|
| MacDougall, Spencer (spencer) | | | | | | | 3 |
| | 50 | Test, IVT | 10-10-1960 | 10-22-2015 12:05 PM | 5108 | FL UGI W SBS [74245] | 10-22-2015 12:10 PM |
| | 3392 | Judson, Jenny | 02-16-1998 | 05-14-2015 2:09 PM | 1896 | XR JOINT SURVEY SGL VIEW [77077] | 10-28-2015 4:07 PM |
| | 4 | Carter, Jeff William | 10-10-1980 | 10-06-2015 4:00 PM | 4878 | CT Chest W [71260] - Chest | 11-02-2015 10:17 AM |
| **Total** | | | | | | | 3 |

Confirmed Radiologist Audit | Confidential and Proprietary | Page 3 of 4 | Date Run: 11-13-2015 2:35 PM | Spencer-Laptop\formsguestuser

d. Detailed audit information based on the specified date range of all changes made to the Confirmed Radiologist Flag in the Personnel Lookup Editor. This includes the date and time of the change, the user who made the change, the IP address of the user who made the change, and the radiologist whose account was modified.



The following users have had the confirmed radiologist flag modified between 11-12-2015 and 11-12-2015

| Date/Time | Updated By | Affected Person | Affected NPI | Change | IP Address |
|---|---|---|---|---|---|
| 11-12-2015 15:39 | MacDougall, Spencer (spencer) | bbbb, aaaa () | f76585678 | confirmed_radiologist_flag changed from 'Y' to 'N' | 10.100.16.1 |
| 11-12-2015 15:39 | MacDougall, Spencer (spencer) | Noye, Darcy T (darcyn) | 2587411235 | confirmed_radiologist_flag changed from 'N' to 'Y' | 10.100.16.1 |
| 11-12-2015 15:38 | MacDougall, Spencer (spencer) | Martin, Jesse Lee (Jessem) | | confirmed_radiologist_flag changed from 'N' to 'Y' | 10.100.16.1 |
| 11-12-2015 15:38 | MacDougall, Spencer (spencer) | Baird, Adam John (bairdj) | asdf3w2qfasefd | confirmed_radiologist_flag changed from 'N' to 'Y' | 10.100.16.1 |
| 11-12-2015 10:09 | MacDougall, Spencer (spencer) | MacDougall, Spencer (spencer) | 45634563546 | confirmed_radiologist_flag changed from 'N' to 'Y' | 10.100.16.1 |
| 11-12-2015 10:06 | MacDougall, Spencer (spencer) | MacDougall, Spencer (spencer) | 45634563546 | confirmed_radiologist_flag changed from Y to N | 10.100.16.1 |

Confirmed Radiologist Audit | Confidential and Proprietary | Page 4 of 4 | Date Run: 11-13-2015 12:03 | Spencer-Laptop\formsguestuser

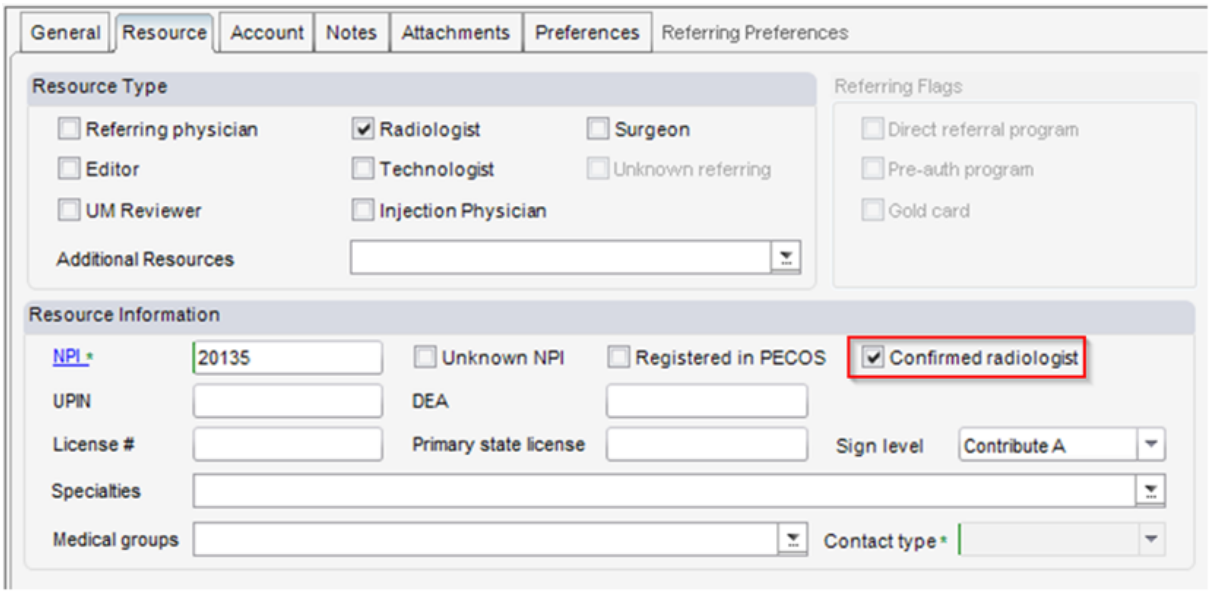
The Confirmed Radiologist Audit report can be configured via SSRS to run and automatically distribute on a weekly basis.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

### How to enable the feature:

To set or remove the Confirmed Radiologist flag, the RIS administrator must first create a user group which has access to set this flag. This is accomplished by creating a group with permission to the *Config.LookupEditor.Personnel.ConfirmedRadiologistFlag* with an Access Level of Full and assign to the appropriate users.

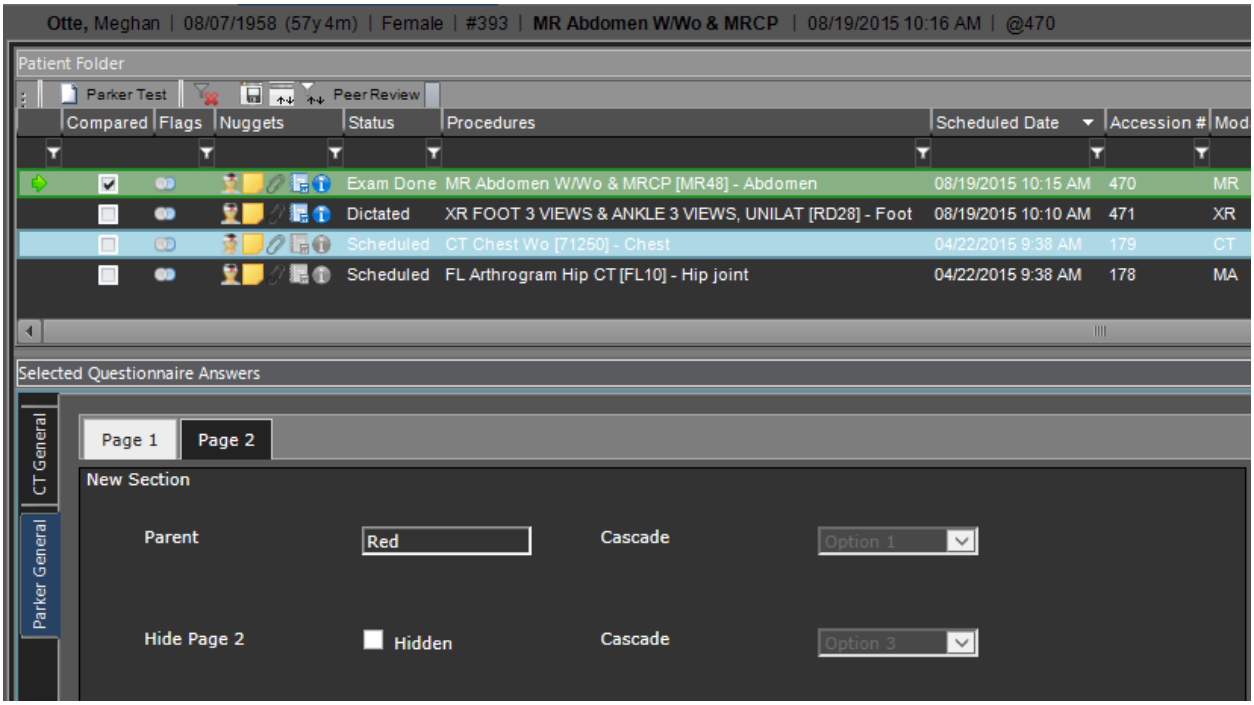
Once the administrator has this permission, the following flag can now be set in the Personnel editor:




## 12598 – ADD "SELECTED DIGITAL FORMS" VIEWER IN REPORTING SCREENS

In the Reporting screen, radiologists required a method to view data from digital forms that were completed for prior studies. A new panel is now available for the Reporting screen: Selected Digital Form Answers. The data displayed in this panel will update to match available Digital Forms for the exam selected in the Patient Folder control, in the same way that the Selected Attachments and Selected Breast Diagram panels function. When the selected row in the patient folder changes, the digital form tabs in the Selected Digital Form Answers panel change to those for the selected row.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.




### How to enable the feature:

To view the new panel, a user must have the access string *View.DigitalFormAnswers* set to Full.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## INSURANCE ELIGIBILITY & VERIFICATION

### 8540 - DO NOT COLLECT ANY COPAY AMOUNT TO COLLECT, IF SECOND INSURANCE IS MEDICAID

It is desired that the RIS not display an amount to collect if the second insurance is Medicaid. This feature can also be used to set the Amount to Collect to zero dollars when any configured insurance carrier is used at any level (primary, secondary, tertiary, etc.).

**How to enable the feature:**

An insurance carrier can be configured to trigger a zero dollar amount to collect by setting the Carrier lookup table column *collect_with_multiple_carriers_flag* to 'N.'

| Carrier Code | Description | Collect With Multiple Carriers Flag | Collect Co Pay Flag | Collect Co Insurance Flag | Collect Deductible Flag | Phone | Fax | Address1 | Address2 |
|---|---|---|---|---|---|---|---|---|---|
| Contains: | Contains: | Contains: | Contains: | Contains: | Contains: | Contains: | Contains: | Contains: | Contains: |
| ZAZ8 | VANTAGE MEDICAL GROUP | Y | Y | Y | Y | | | PO BOX 85909 | |
| ZEET | RPN/BLUE CROSS (CAP) | Y | Y | Y | Y | | | PO BOX 51420 | PO BOX 5.. |
| ZEFC | RPN/BLUE CROSS (FFS) | Y | Y | Y | Y | | | PO BOX 51420 | PO BOX 5.. |
| Cigna | Cigna | Y | Y | Y | Y | | | | |
| greatWest | Great West Life | Y | Y | Y | Y | | | | |
| test | cigna | Y | Y | Y | Y | (123) 123-1233 | (231) 233-... | | |
| medicare | Medicare | N | Y | Y | Y | | | | |

By default, the RIS will always collect the copay amount when there are multiple insurance carriers on an order. However, if the *collect_with_multiple_carriers_flag* is set to equal 'N' for any of the selected carriers, the RIS will not collect any copay and amount to collect will be zero.

### 11155 - ADD CONFIGURATION OPTION TO OMIT COPAY, COINSURANCE OR DEDUCTIBLE BY PAYER OR CARRIER

Occasionally, it may be necessary to temporarily stop collecting copay, coinsurance, and/or remaining deductible for a particular carrier. In the Carrier lookup table, there are now options to set the following flags:

- collect_deductible_flag
- collect_co_insurance_flag
- collect_co_pay_flag

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

Lookup Tables - Carrier *

| Carrier Code | Description | Collect With Multiple Carriers Flag | Collect Co Pay Flag | Collect Co Insurance Flag | Collect Deductible Flag | Phone | Fax | Address1 | Address2 |
|---|---|---|---|---|---|---|---|---|---|
| Contains: | Contains: | Contains: | Contains: | Contains: | Contains: | Contains: | Contains: | Contains: | Contains: |
| ZAZ8 | VANTAGE MEDICAL GROUP | Y | Y | Y | Y | | | PO BOX 85909 | |
| ZEET | RPN/BLUE CROSS (CAP) | Y | Y | Y | Y | | | PO BOX 51420 | PO BOX 5.. |
| ZEFC | RPN/BLUE CROSS (FFS) | Y | Y | Y | Y | | | PO BOX 51420 | PO BOX 5.. |
| Cigna | Cigna | Y | Y | Y | Y | | | | |
| greatWest | Great West Life | Y | Y | Y | Y | | | | |
| test | cigna | Y | Y | Y | Y | (123) 123-1233 | (231) 233-... | | |
| medicare | Medicare | N | Y | Y | Y | | | | |

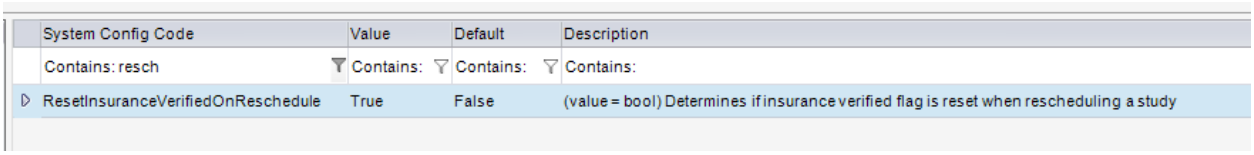
When receiving Eligible API returns, if the flag for deductible, coinsurance, or copay is set to 'N', the value for that component will default to zero. If all three flags are set to 'N,' the amount to collect will be zero dollars.

## 12249 - INSURANCE VERIFIED CHECKBOX DOES NOT RESET WHEN EXAM IS RESCHEDULED

The Insurance Verification Required workflow in eRAD RIS is configured by Modality Type Code. For example, a practice could have Insurance Verification Required enabled for all exams in the CT and MRI modalities. This will push the order to the IVT worklist and also prompt the user to verify the insurance when registering the patient.

Often patients who have had their insurance verified have to reschedule a procedure. Previously, eRAD RIS would not reset the insurance verification status when the procedure was rescheduled. However, some clients may want to re-verify the insurance if the exam is rescheduled for a future date, since the insurance policy could expire.

A new system configuration value called *ResetInsuranceVerifiedOnReschedule* has been added to eRAD RIS with a default value of False.



| System Config Code | Value | Default | Description |
|---|---|---|---|
| Contains: resch | Contains: | Contains: | Contains: |
| ResetInsuranceVerifiedOnReschedule | True | False | (value = bool) Determines if insurance verified flag is reset when rescheduling a study |

If this value is set to True and the insurance verification status is "Verified," the system will reset the insurance verification status to "Required" and push the study back to the IVT worklist.

If the *ResetInsuranceVerifiedOnReschedule* system configuration value is set to False, the insurance verification status will remain as "Verified" when rescheduling.

### How to enable the feature:

Set the *ResetInsuranceVerifiedOnReschedule* system configuration vale to True.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## RECEPTION

### 8615 - ABILITY TO ENTER BLANK CREDIT CARD INFORMATION

The RIS currently requires credit card information to be entered if the payment type is 'credit card.' It was desired by a number of customers to allow the custom validation framework to manage these required fields, which would allow them to be configured as optional.

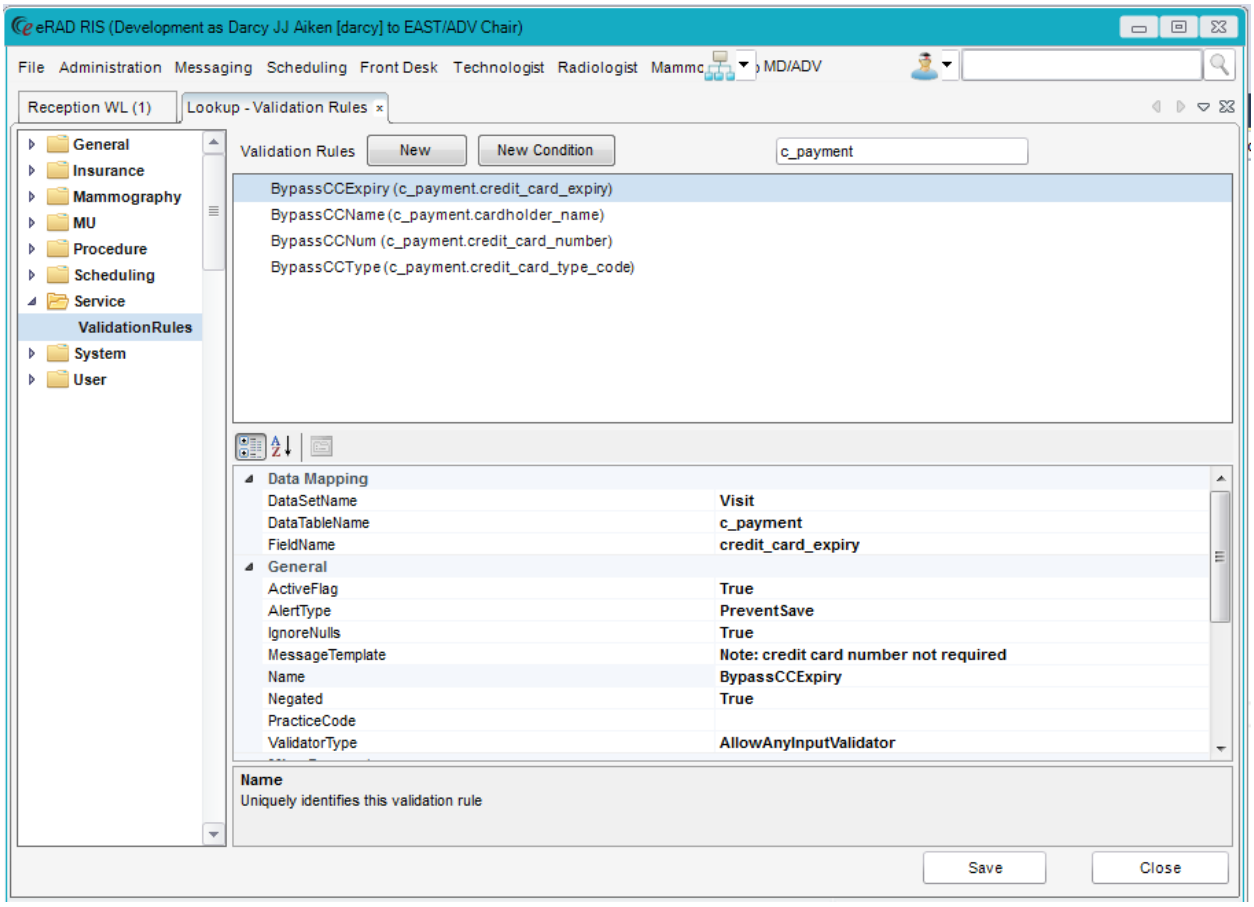
To address this, there is a new validator type '*AllowAnyInputValidator*' which will allow service to configure and override the core validation rules. *AllowAnyInputValidator* will allow a field to be null or contain any value that is permitted by the database.

**How to enable the feature:**

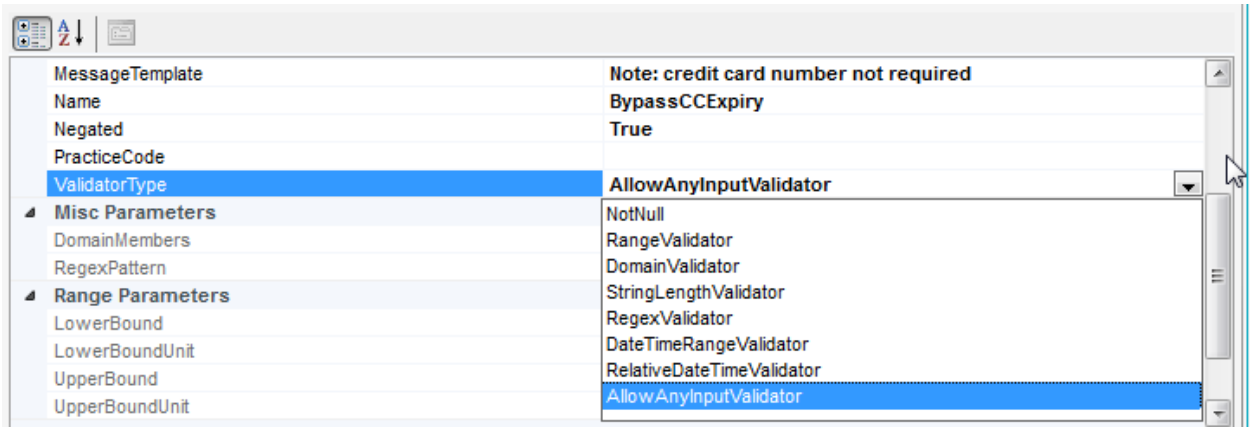
***External customers will be instructed to contact the eRAD Support team for assistance with adjusting validation rules.***

The upgrade scripts will insert new rows into the *l_validation_rule* table on the 4 credit card related fields with active_flag = 'N.' In order to "opt in" to these more relaxed rules, the active_flag can be set to "Y" and once users log in they will obtain the new configuration.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.




*Validation Rules Editor showing the new possible validation rules*




*Specifying a validator type of AllowAnyInputValidator*

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## INTERFACING

### 8667 - REMOVE XML NODES FROM MESSAGE

The messages sent out from RIS to external systems are large and may contain data that is irrelevant to the receiving system. It is desirable to have the ability to configure the data that is sent to the interface engine which will save bandwidth and cpu cycles in the interface engine (Mirth, Ensemble, etc.).

To resolve this concern, the RIS now features a configurable database table of xpath statements that will cause the wedge to remove content from the message. This removal of data can be prior to the expanding nodes such as procedure_code, *_person_key, etc. and some can be after. This removal is performed before the message is sent to Mirth.

Example: The Wedge expands site_code but the downstream recipient does not need the site's last_updated, last_updated_by_user_id, or notes nodes. Notes in particular are sometimes quite large.

**How to enable the feature:**

***External customers will be instructed to contact the eRAD Support team for assistance with adjusting validation rules.***

The *l_queue_container_pruning* table has been created and added to the QueueSubscription lookup table. This enables it to be edited from the configuration editor in the RIS UI. The *l_queue* table has also been added to provide a list of queue names. This change has been retroactively fitted to have a foreign key relation from the *l_queue_subscription* table.

The pruning table has the following columns:

active_flag – determines whether or not the rule is used at all.
execution_order – determines the order in which the statements are used. This ordering takes effect after the rules are split based on the pre_expansion_flag column. This has no effect on the end result but can be used to optimize the pruning.
xpath – determines the nodes to which the pruning rule applies. It is recommended to thoroughly test the xpath in order to verify it behaves correctly before activating the rule. Notepad++ has a pre_expansion_flag. If set to Y, the rule is applied before the lookups are expanded. Otherwise the rule is applied after.
description – describes what nodes the rule is intended to remove.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

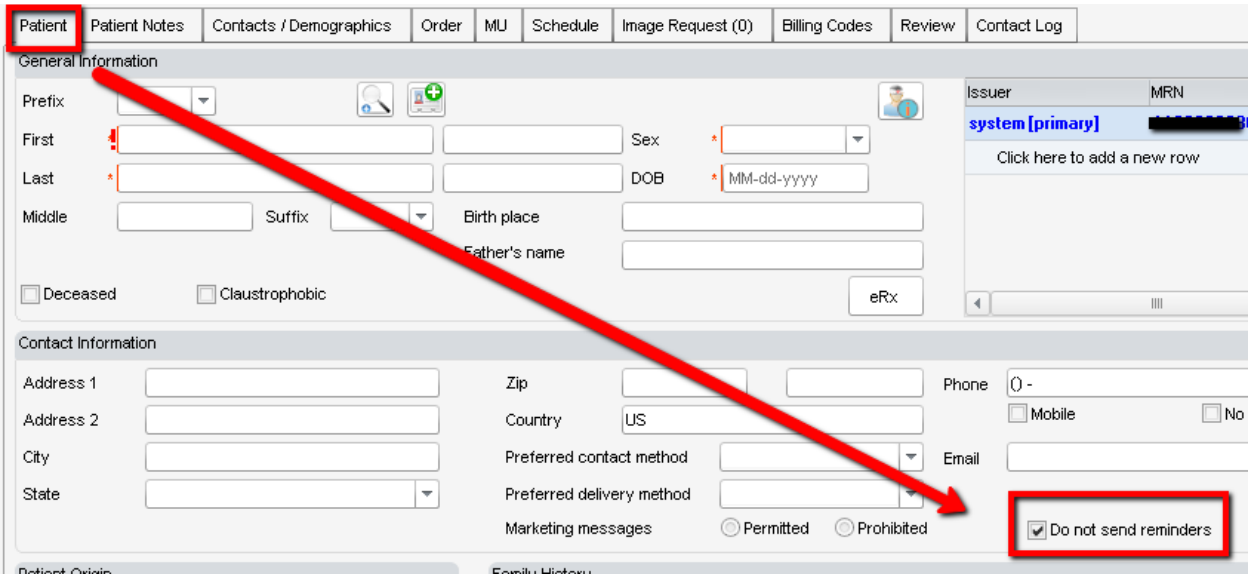
Entries in the table used during development testing looked like this:

| queue_name | active_flag | execution_order | xpath | pre_expansion_flag | description |
|---|---|---|---|---|---|
| MIRTH | Y | 0 | /StudyContainer/Patient/c_patient/deleted_flag | Y | NULL |
| MIRTH | Y | 0 | //l_person/note | N | NULL |
| MIRTH | Y | 0 | //l_child_person[active_flag='N'] | N | NULL |

In order to use this feature, the *LegacyInterfaceMode* flag must be set to False. This feature should be used with caution, as it has the potential to remove too much from the message.

## 11947 - RADAR INTERFACE FOR SITE SPECIFIC REMINDERS/CONFIRMATIONS SHOULD FILTER OUT PATIENTS WHO HAVE 'OPTED-OUT' OF REMINDERS

On the Patient Tab, there is an option to indicate whether the patient would like to opt-out of Reminders. If this box is checked, RADAR will filter these patients out when sending reminders/confirmations.

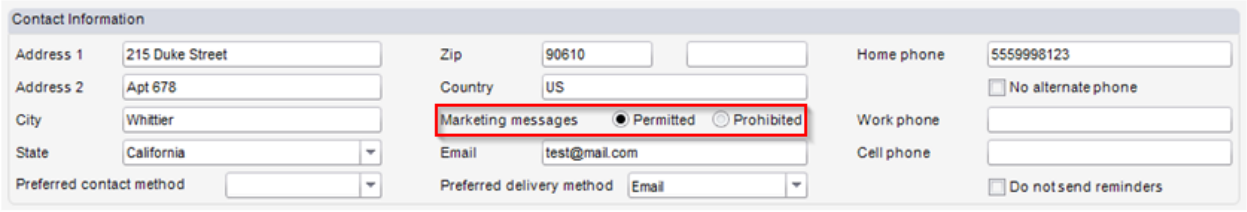



No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## ALL

### 8446 - SUPPORT EMAIL OPT-OUT FOR PATIENTS

Some patients will want to opt-out of email communications for surveys and marketing campaigns. To address this need, two radio buttons have been added to the Contact Information on the patient tab in RIS. The options available under Marketing Messages are “Permitted” and “Prohibited.”

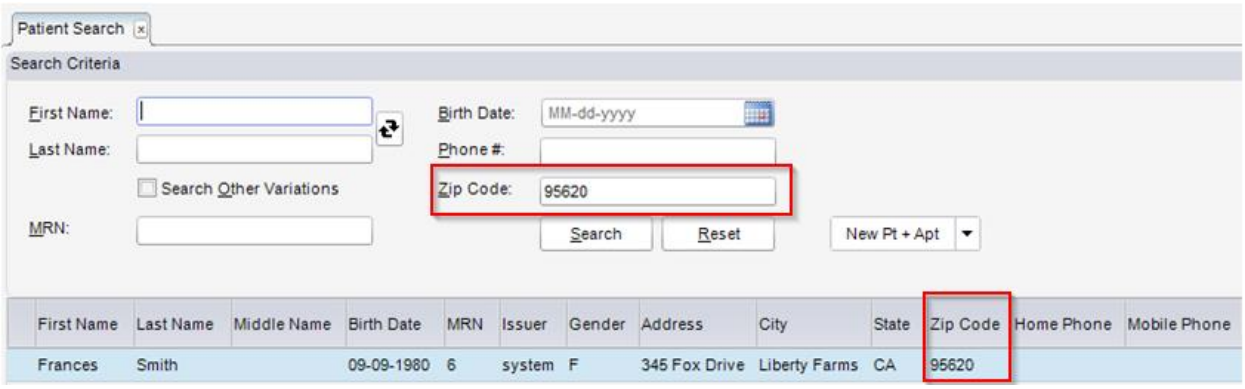



Note that eRAD RIS does not directly distribute marking messages at this time, so this is provided as a data collection point for eventual extraction.

### 7100 – ADD PATIENT ZIP CODE TO PATIENT SEARCH SCREEN

In order to enhance the search results and increase the odds of finding the correct patient, eRAD RIS now supports searching by zip code. This search is based on an **exact match** to the primary zip code of the patient.

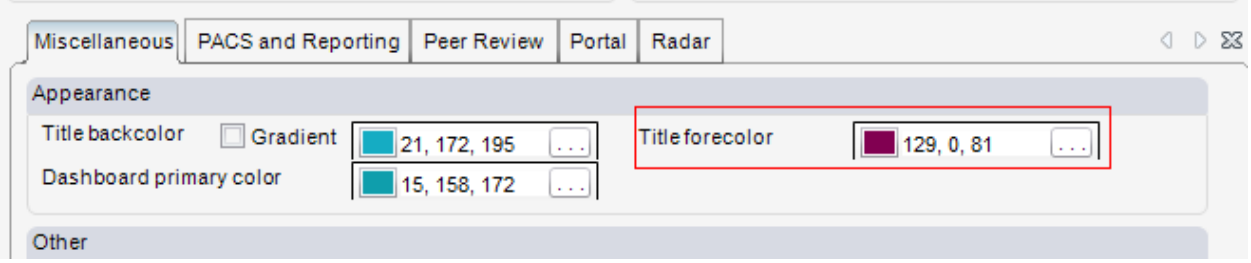
The Zip code column is also included in the returned results grid after the State column.

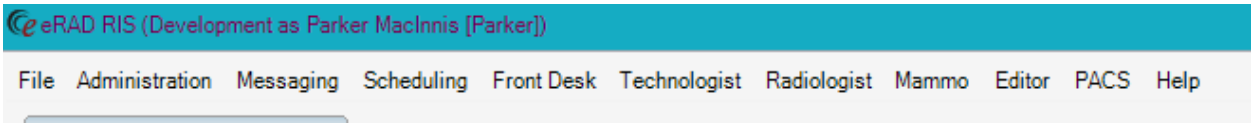



No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## 12645 – ALLOW TEXT COLOR TO BE ADJUSTED IN TITLE BAR OF RIS APPLICATION

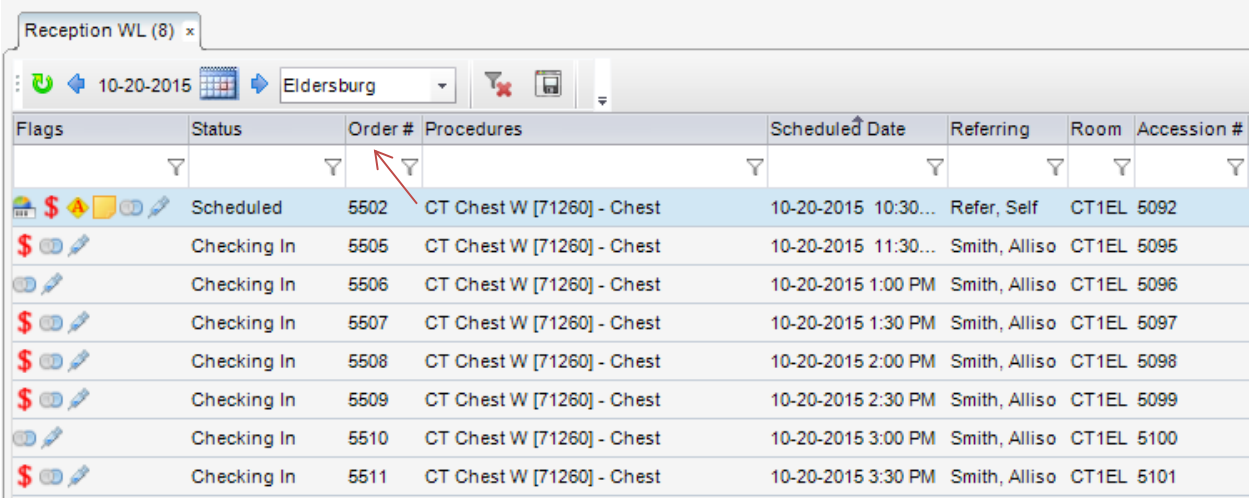
In build 38, the ability was added to change the background border color of the RIS application to enable a visual clue when the user changed practices. The title foreground (text) color could not be set. This could make the title difficult to read when the foreground (text) color was not visually distinct from the chosen background color. This can now be adjusted in the Add/Edit Practice window in the Organization table. If no color is selected, it will default to black, unless the user is in dark theme, which will default to white.




## 12638 - ADD ORDER # COLUMN TO IVT, RECEPTION, AND TECHNOLOGIST WORKLISTS

The Order # column has been added to the IVT, Reception, and Technologist worklists in eRAD RIS.




No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## 8528 - WORKLISTS - CHANGE LOGIC FOR ACTIVITY IN PAST 15 SECONDS TO ALLOW REFRESH IF ACTIVITY IS IN ANOTHER APPLICATION

Worklists in eRAD RIS self-refresh, but there are circumstances where the system automatically suspends refreshing. Imagine for example that the user is about to click on a worklist row, then the RIS refreshes, causing the user's click to now be on a different row. If the user was not aware of this refresh, they may end up opening a study they did not intend to open. To resolve this concern, there is a feature where if the user is actively moving the mouse on the workstation, worklist refreshes are automatically suspended for a period of 15 seconds. However, the user may be working on a different application (e.g. Excel, Word, email, etc.) and while they are active on that other application, the RIS should not disable refreshing. RIS will now differentiate between activity on the RIS and activity on another application. Worklist refresh will not be suspended when activity is occurring in another application.

For supplemental information, here are the rules around worklist refreshing:

- The default WL refresh interval is 1 minute.
- If the RIS screen is locked, the refresh will not occur.
- If RIS is minimized, the refresh will not occur.
- If a radiologist reporting screen is the current tab, the refresh will not occur.
- If a transcription reporting screen is the current tab, the refresh will not occur.
- If the current tab is a WL and there has been mouse or keyboard activity in the past 15 seconds in RIS the refresh will not occur on the current Tab's WL (other WLs will refresh).

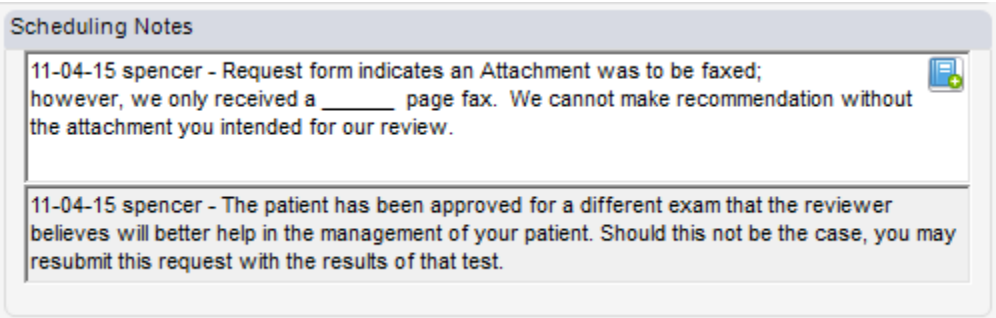
## 12091 - CREATE A VISUAL INDICATOR THAT A LOG CONTROL SUPPORTS AUTOTEXT

The log controls (notes fields) in eRAD RIS can be configured to support Autotext. Customer feedback has indicated that confusion can occur because the user must know to right-click in the log control in order to select 'Autotext' from the context menu. This is not intuitive as the user may try to type free text, but nothing appears if the field is configured for Autotext only and the user may believe the RIS is frozen or waiting for something to refresh.

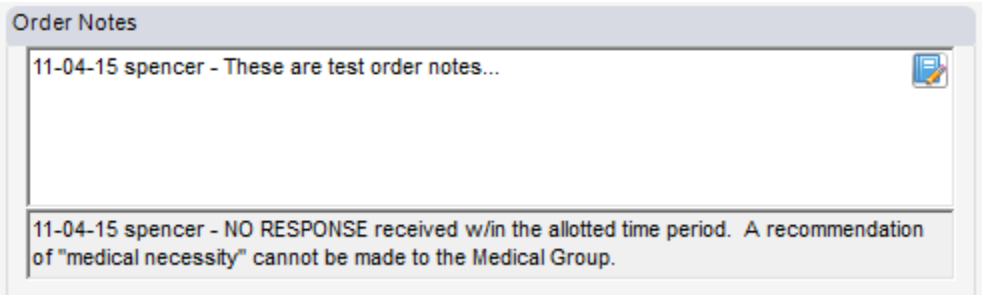
For this reason, if a log control is configured to support Autotext, a visual indicator will now appear.

If the log control supports Autotext, a button will appear in the upper right corner of the control. Clicking this button will launch the Autotext dialog.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.




If the log control supports Free *and* Autotext, a different button will appear in the upper right corner of the control. Clicking this button will launch the Autotext dialog, but the user is also permitted to type or copy into the input area.




If the log control supports Freetext only, no button will appear.

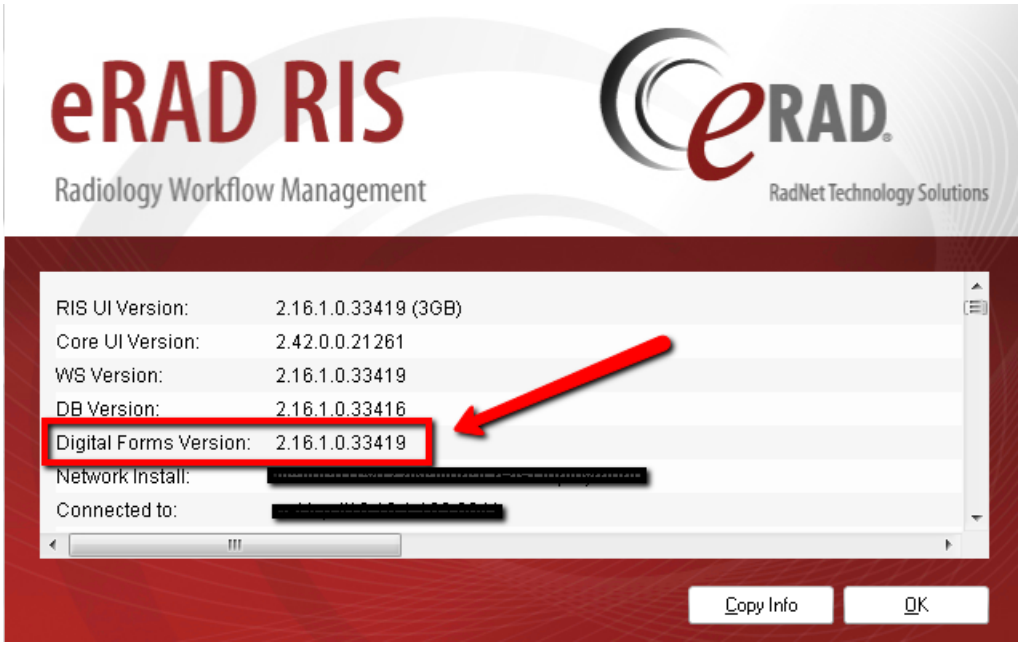
### How to enable the feature:

Log controls are configured for Autotext using the LogControl and Autotext lookups.

## 12140 - HELP ABOUT SCREEN SHOULD CONTAIN THE DIGITAL FORMS VERSION IN ADDITION TO THE OTHER VERSION NUMBERS

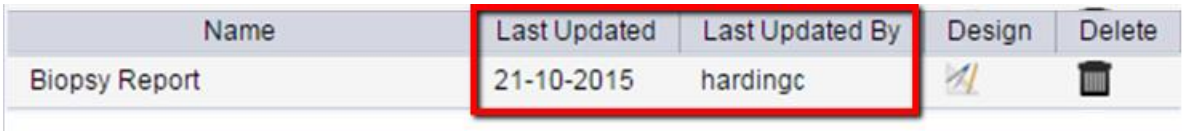
The Help About screen will now display the Digital Forms Version.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.




## 12137 – ADD THE LAST UPDATED DATE AND USER ID AS DATA ELEMENTS IN THE LIST OF DIGITAL FORMS

To assist with the management of Digital Forms, new columns were added to the Digital Forms list on the Administration page of the Digital Forms Editor to display the Last Updated date and the Last Update By User Id.

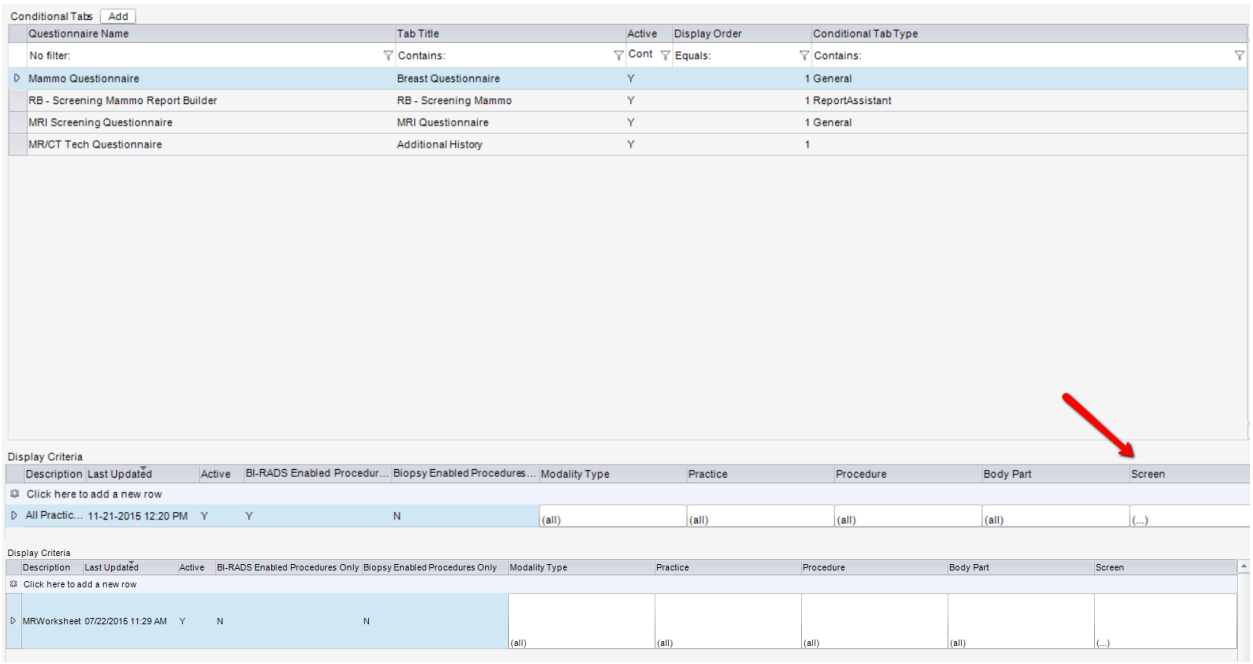



## 11944, 12246 – ABILITY TO CONFIGURE DIGITAL FORMS TO DISPLAY IN SPECIFIC SCREENS

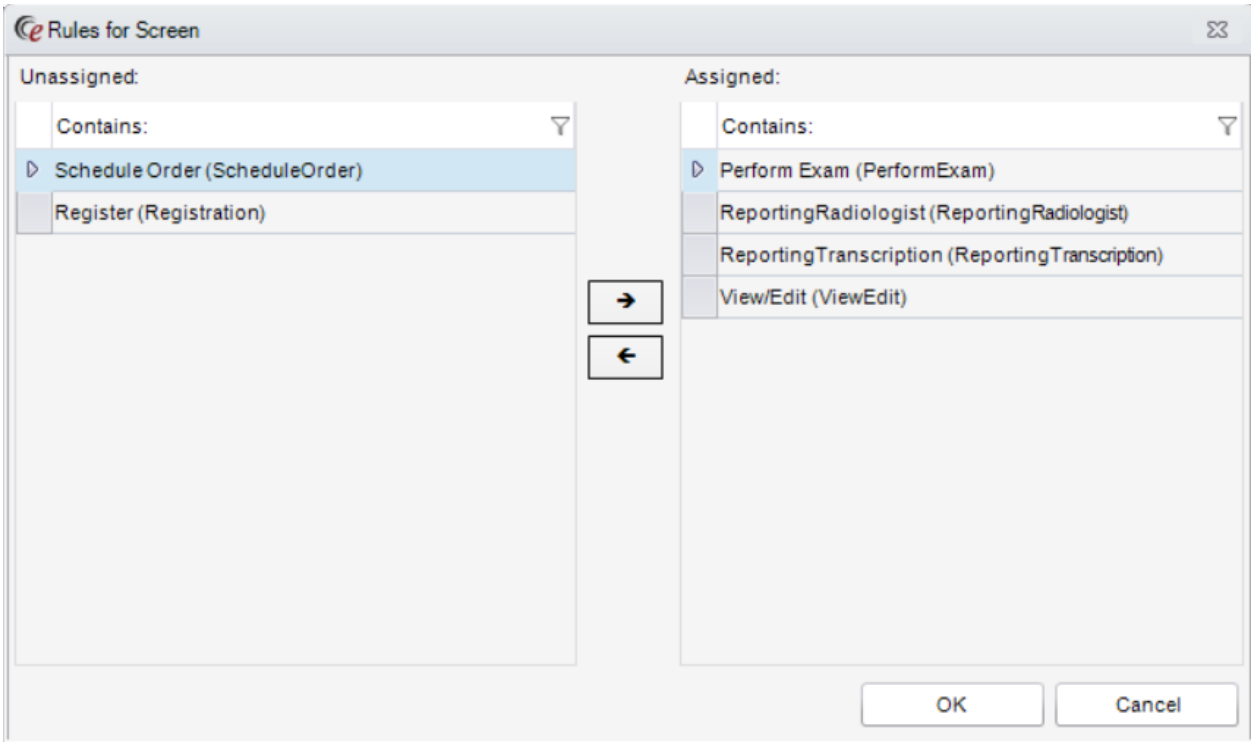
Some digital forms (aka questionnaires) are only applicable to particular screens. RIS now has the ability to indicate whether the conditional tab with the digital form displays for a receptionist but not a technologist, for example.

There is now a Screen criterion in the Conditional Tab editor. This can be left blank and then the conditional tab will be eligible to be displayed on any screen, or the admin can specify one or more screens to which the digital form should be limited.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.




*Display Criteria including the new Screen column*




*Popup dialog for assigning one or more screens*

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

#### How to enable the feature:

After adding the Digital Form to the Conditional Tab editor, specify screen criteria in the lower Display Criteria grid. Leave blank to display the conditional tab containing the Digital Form on any screen.

Note: Conditional Tab Type will now serve a different purpose. The Radiologist type will be displayed to the user as 'ReportAssistant' and will be used to help govern the treatment of a digital form on the radiologist screens.

## 12188, 8136 - ADD FUNCTIONALITY TO ALLOW FOR MORE COMPLEX EMR ORDER MAPPING

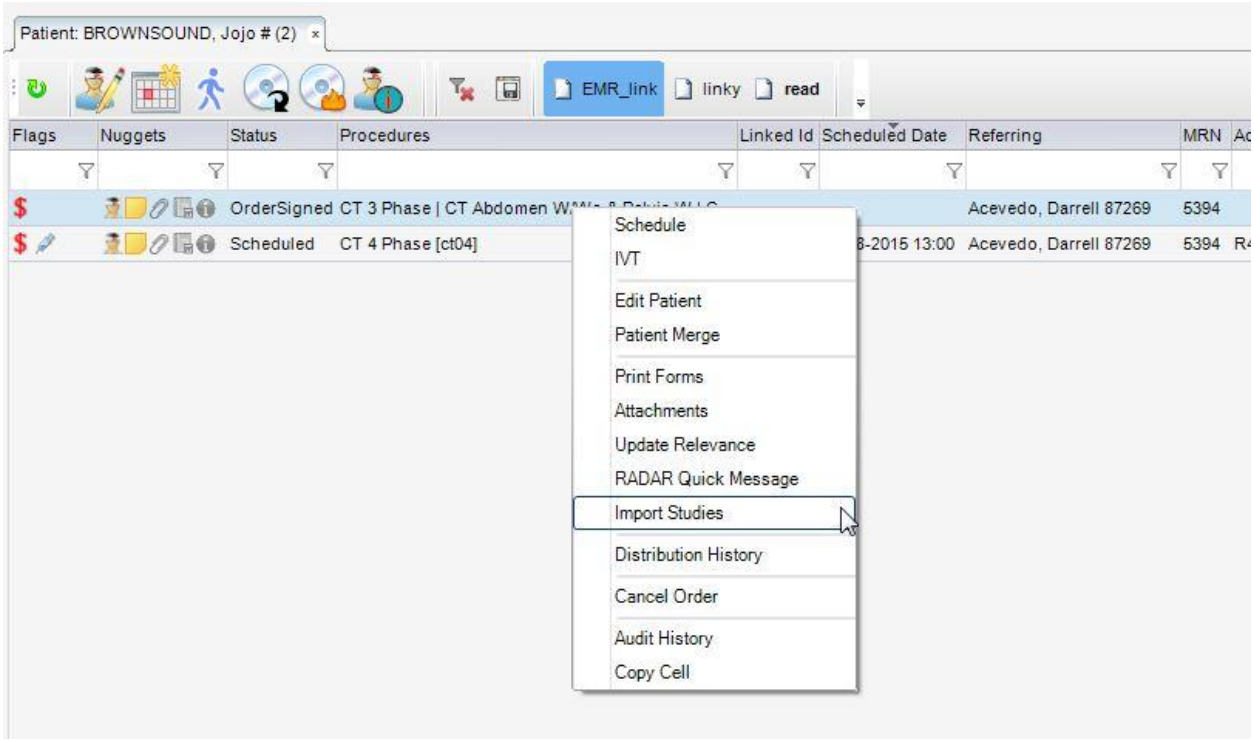
Functionality was added to eRAD RIS to allow an authorized user to import pre-existing scheduled studies into an EMR order on an individual basis. This functionality was added because sometimes users schedule an exam without using the EMR order, and it is necessary to link them up at a later point in the workflow. If the un-used EMR order has multiple exams, a user may have a situation in which some exams have been scheduled and need to be mapped to the EMR order, but the EMR order needs to also remain available to be used for the unscheduled exams. Similarly, there may be a situation in which a patient is scheduled for multiple exams, but only one of them should be mapped to the EMR order. Consider the following examples:

- A referring physician sends an EMR order for a Carotid Ultrasound and a Brain MRI. The ultrasound is scheduled without using the EMR order. This is discovered and an administrator wants to import the scheduled ultrasound into the EMR order. However, the EMR order still needs to also exist in an Ordered status because staff is in the process of obtaining insurance authorization for the Brain MRI and it is not ready for scheduling.
- A referring physician sends an EMR order for a Knee MRI. When the patient is contacted, she also schedules a Pelvic ultrasound that is referred by another physician. An administrator later realizes and wants to import the Knee MRI to the EMR order, but the ultrasound should stay on the existing order.

To handle scenarios of this nature, it is now possible to choose which exams to import from one order into an EMR order. If all exams are selected, the source order is cancelled after all exams are imported to the EMR order. If only a subset of exams is selected, the source order will continue to exist with the remaining studies.

In the case that a user realizes later that additional studies should have been imported to the EMR order, an authorized user can now access the Import Studies window from the right-click context menu in the Patient Folder, even after one or more procedures have already been mapped to an EMR order.

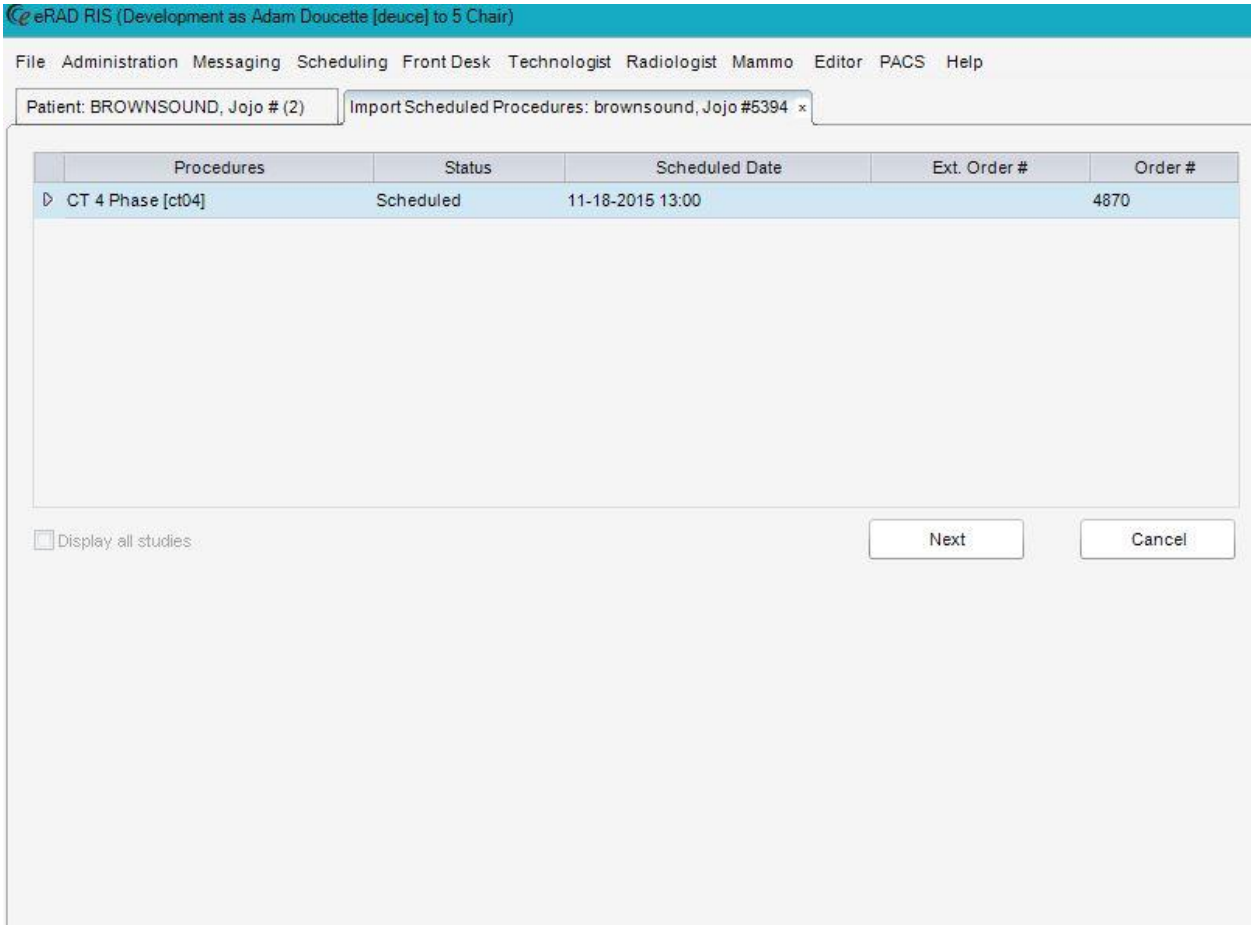
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.




The menu item for Import Studies is available for studies in an *OrderSigned*, *Scheduled*, *CheckingIn*, or *Arrived* status. To access, the user must have the access string **Clinical.ImportStudies** set to Full.

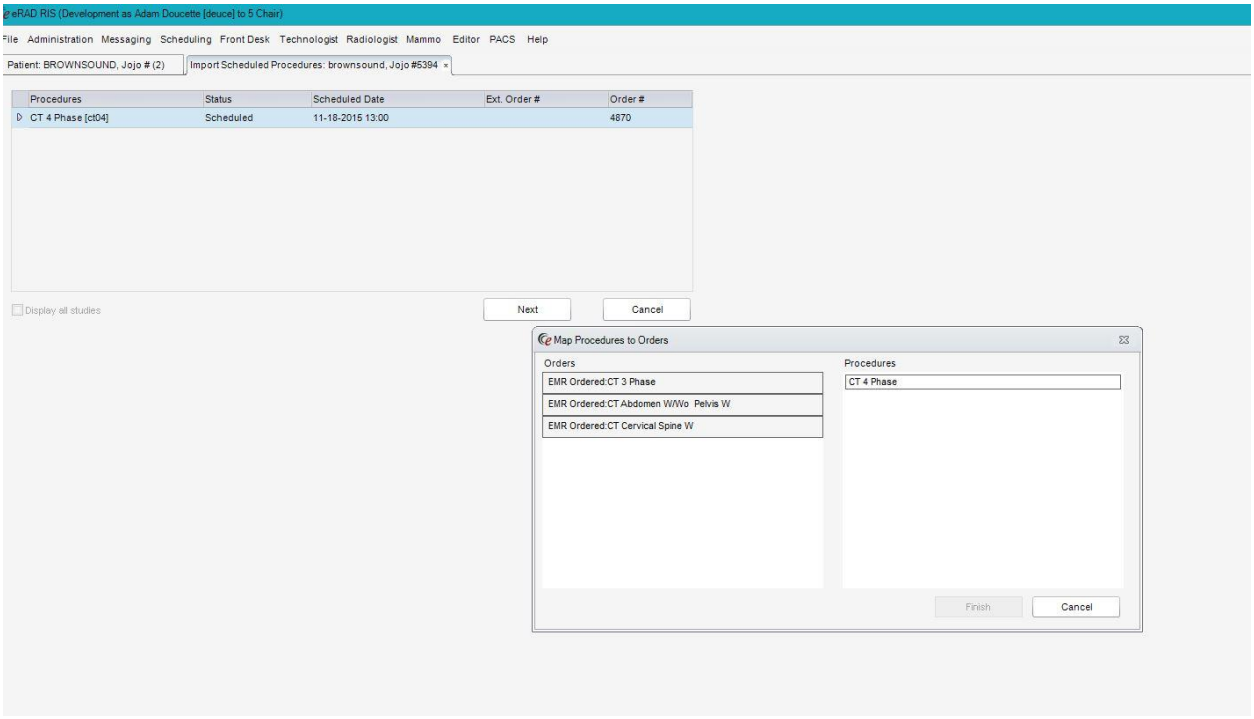
The Import Scheduled Procedures window will open in a new tab.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

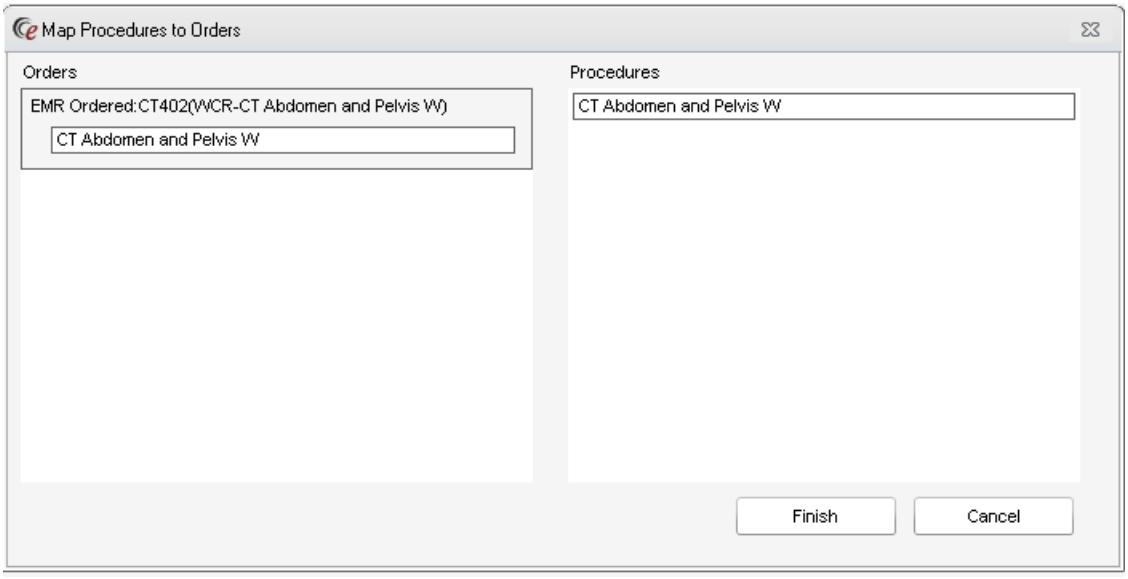



Clicking the Next button will display a pop-up with available Orders on the left and the Procedures on the right.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.



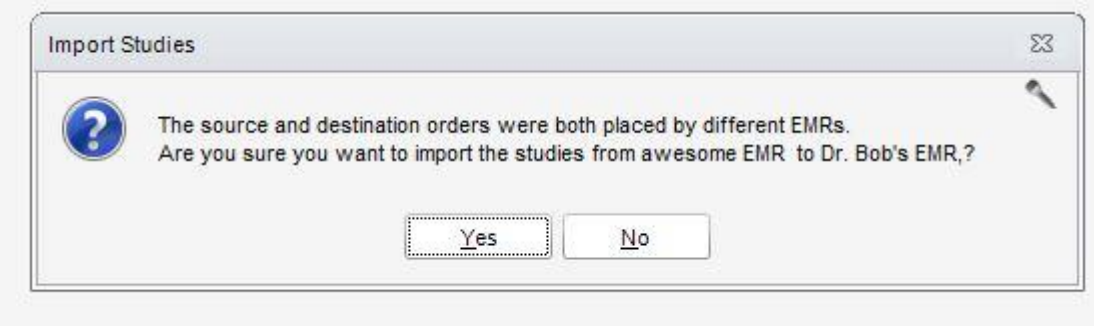

The user can match the Procedure to the appropriate EMR order by dragging.



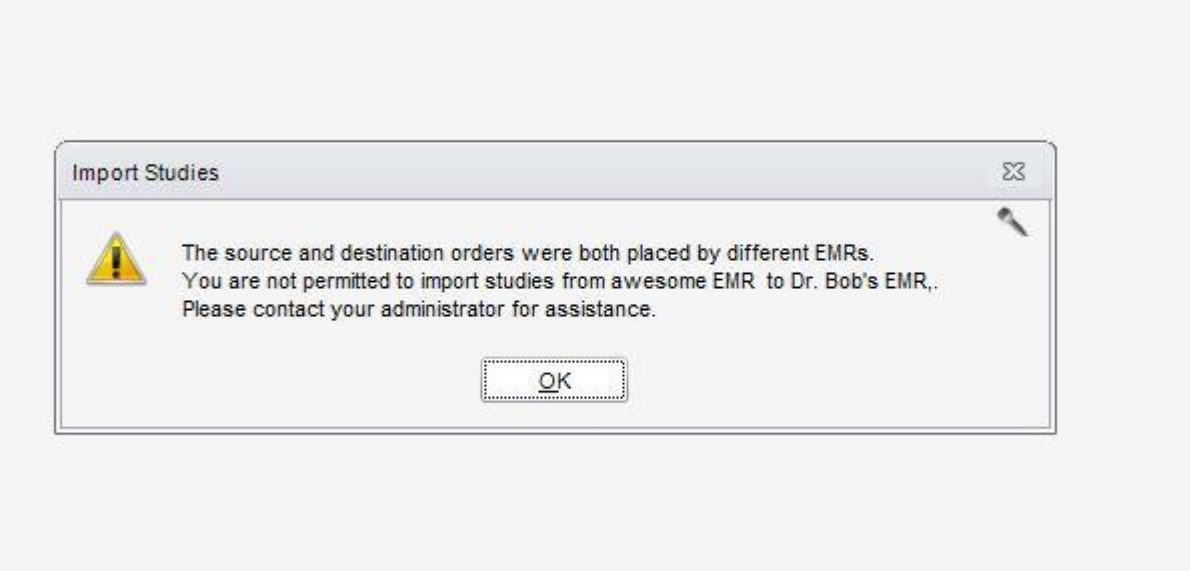

If the Procedure that is being mapped into an EMR order is already associated to a *different* EMR, a user must have additional permissions to continue. Access string **Clinical.ImportStudies.AcrossEMRs** must be set to Full for the user to continue.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

They will be presented with a warning message that must be acknowledged before continuing.




If the user does not have the appropriate access to move studies from one EMR order to another, they will be presented with a message to contact their administrator for assistance.



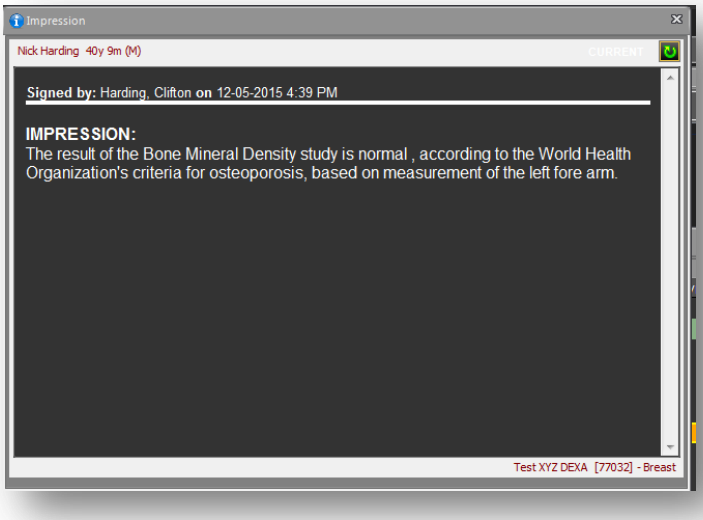

## 12273 - IMPRESSION NUGGET NEEDS TO SUPPORT ERAD AND POWERSCRIBE REPORTING MODES

The Impression data nugget in eRAD RIS now supports PowerScribe 360 and eRAD reporting modes. Previously, the Impression data nugget only supported M*Modal sections named “Impression.” The ‘impression’ string is now configurable so that terms such as ‘conclusion’ or ‘assessment’ can be used to drive the Impression data nugget. This also allows languages other than English to capture the impression in the data nugget.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

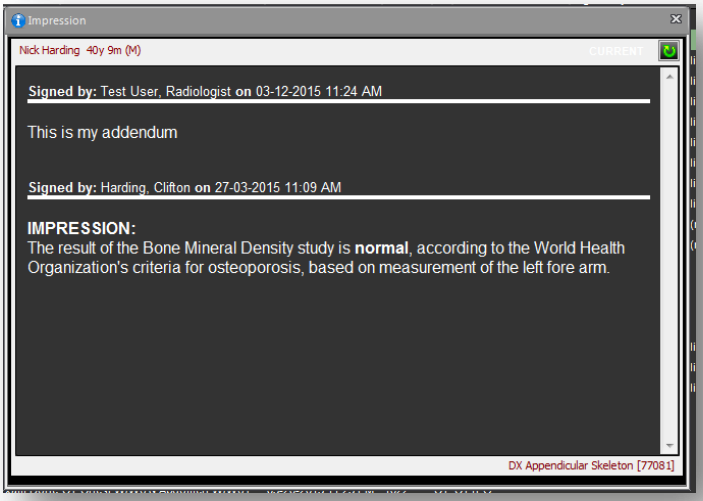
There is now a system configurable value '*ReportingImpressionSectionStartText*' with a default value of 'IMPRESSION'. eRAD RIS will now parse the report RTF (PowerScribe 360 and eRAD reporting modes) looking for the first line that begins with 'ReportingImpressionSectionStartText' value. When found, we select that line and all subsequent lines to be part of the impression.

When using M*Modal reporting mode, we look for sections titled '*ReportingImpressionSectionStartText*' and we will only capture the content within that section.




When a report has an addendum, we show each complete addendum in the impression data nugget (with the most recent addendum first) in addition to the Impression text. We have no way of knowing if the addendum will alter the intent of the impression so we add the complete addendum text.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.




### How to enable the feature:

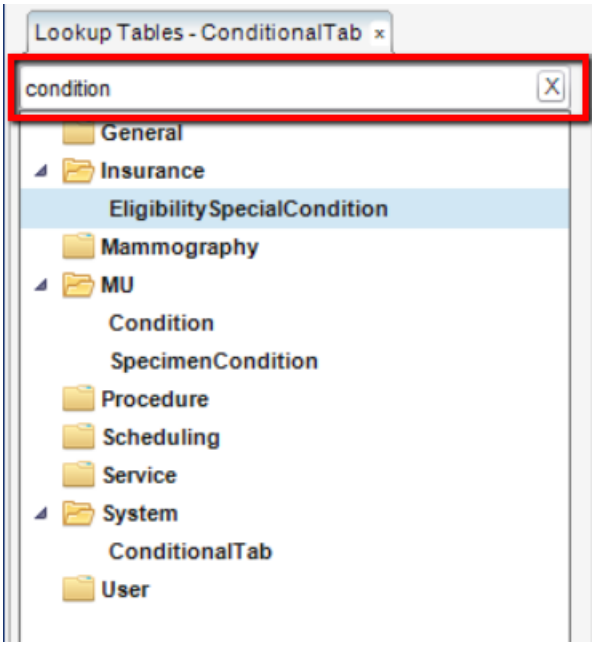
Under System Configuration, select the desired value for '*ReportingImpressionSectionStartText*'. No change is necessary when the default value of 'IMPRESSION' is desired. If a word other than IMPRESSION is used, such as CONCLUSION or a word in a language other than English, the value must be added.

The ability to view the Impression data nugget is controlled by the *DataNugget.Impression* access string as in previous builds. We now also share the access rules controlling the Report data nugget for the Impression data nugget. If the access strings "*Clinical.PreviewPreliminaryReport*" and "*Clinical.PreviewSuspendedReport*" are not set to Full, both the Impression and Report data nuggets will not display when the report is unsigned or suspended, respectively.

## 12457 - SEARCH CAPABILITY IN THE LOOKUP TABLE EDITOR

To assist administrators in quickly locating the desired lookup table, a search box has been added to the lookup editor. Typing in this search field will allow a user to filter the lookup tables by name. Any parent folders that contain lookup tables matching the typed text will be expanded to display the matching lookup. The "X" on the right side of the search box can be clicked to remove the filter. If a user opts not to use the search box, the list of lookup tables can be navigated as usual.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.




## 11968 – MANAGEMENT REPORT: PATIENT EMAIL AND CELL PHONE PERCENTAGES

A new Management Report has been added to display the percentage of email addresses and cell phone (mobile phone) numbers that have been collected in RIS for a given Practice/Site and Date Range. It can be found in the Operations folder.

**Patient Email and Cellphone Percentages**
**Practice:** [redacted]
**Site(s):** All sites for the selected practice(s).
**Date Range:** 08-01-2015 - 10-26-2015
**Description:**This report shows the % of collected cell phone and email addresses for patients who've had studies within the specified practices, sites and date range. Dates are based on when the study was created rather than date of service.
*Note: These numbers could change if a user were to update the patient cellphone or email addresses between the time this report was run and current date.*

| | Aug 2015 | | | Sep 2015 | | | Oct 2015 | | | Total | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Practice/Site | % with Email | % with Cell | Patient Count | % with Email | % with Cell | Patient Count | % with Email | % with Cell | Patient Count | % with Email | % with Cell | Patient Count |
| ⊟ [redacted] | 0% | 100% | 2 | 0% | 2% | 120 | 0% | 3% | 61 | 0% | 3% | 183 |
| [redacted] | 0% | 100% | 1 | 0% | 2% | 60 | 0% | 2% | 60 | 0% | 2% | 121 |
| [redacted] | 0% | 100% | 1 | 0% | 0% | 59 | 0% | 100% | 1 | 0% | 3% | 61 |
| [redacted] | 0% | 0% | | 0% | 100% | 1 | 0% | 0% | | 0% | 100% | 1 |
| ⊞ [redacted] | 0% | 0% | | 0% | 0% | 59 | 0% | 0% | | 0% | 0% | 59 |
| ⊞ [redacted] | 0% | 0% | | 0% | 0% | 59 | 0% | 0% | | 0% | 0% | 59 |
| Total | 0% | 100% | 2 | 0% | 1% | 238 | 0% | 3% | 61 | 0% | 2% | 301 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## 11851 - ADD PHILLIPS SPEECHMIKE DRIVER EXTENSIONS TO CITRIX BRIDGE INSTALLER

To allow for a single installation on the Radiologist workstations, we now bundle the Phillips SpeechMike Citrix extension drivers with the Citrix Bridge installer.

## 11150 - NEW MULTI PHONE / EMAIL PATTERN NEEDS TO BE IMPLEMENTED FOR THE RIS UI UPGRADE SCRIPT

A new upgrade script was required to convert to the new multi- phone/email pattern. File patient phone number ugrade script.sql has been added.

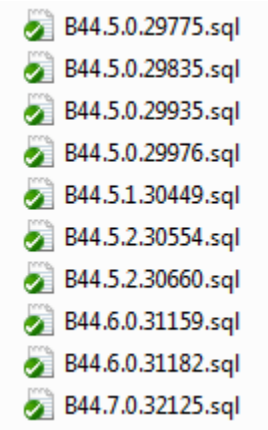
## 12584 - UPGRADE DATABASE FROM B44.5+ CODE STREAM

B45.x (now known as 2016.x) and B44.5+ are 2 active code streams. Over the past 6 months, changes have been made to both streams and commercialized. An upgrade script was written to update a B44.4.0 database to B45.0.0, but since then, B44.5+ and B45+ continued to grow separately with feature additions and bug resolutions. This caused a break in the upgrade path to B45.x (aka 2016.x) if the existing database was upgraded to B44.5 or later in the B44 stream.

The scripts have been updated to upgrade from B44.5+ to B45.x as well as maintain the existing upgrade paths for customers already on the B45 release.

The current B45.0.0.29064.sql script will upgrade the system from 44.4.0.28609 to 45.0.0.29064. This is a large upgrade script that update from the B44 to B45 code stream.

The following B45 upgrade scripts have been added to all of the current B44.5+ upgrade scripts:




No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

This will update a B44.x database to 44.7.0.32125.

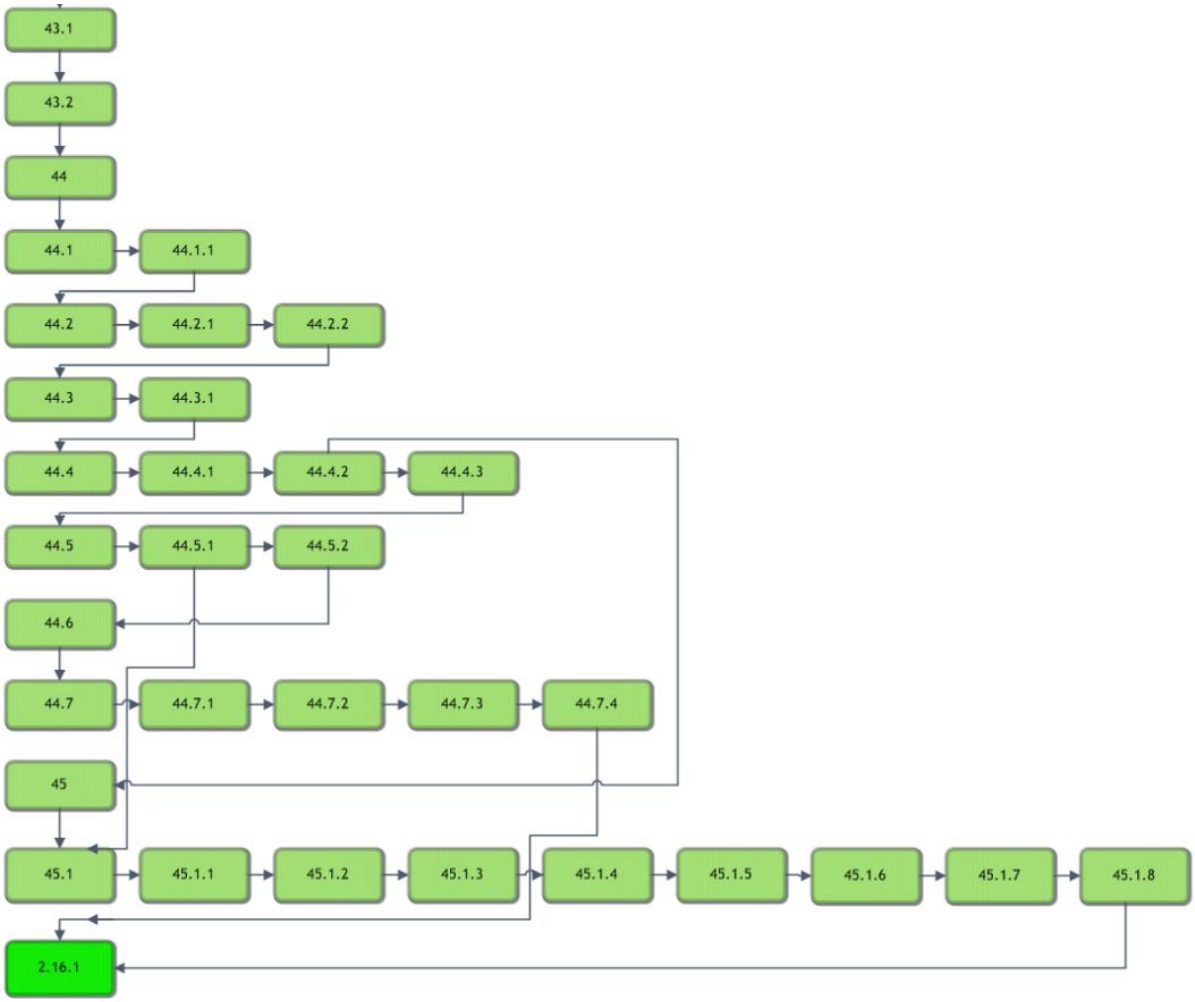
Then there is a “delta” upgrade script to update the database to 45.0.0.29064, which is the first database version in the B45 stream. This script is called “B44.7.0.32125_to_B45.0.0.29064.sql”.

The “runscripts.bat” (an internal upgrade script) has been changed to skip the “B45.0.029064.sql” script if the “B44.7.0.32125_to_B45.0.0.29064.sql” was executed. This results in allowing the database to be upgraded from B44.5+ to B45.0.0.29064 without running the B45.0.029064.sql file, which would have caused errors because it upgrade to the same version, but from a different starting point.

After getting to this point, the database should be 45.0.0.29064. All subsequent scripts in the B45 stream, such as B45.0.0.29070.sql, B45.0.029158, B45.0.0.29270.sql and so on will be executed as normal upgrade process.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## CODE STREAM




**Legend:**

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## RIS RELEASE VERSION NUMBERS

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 43.1 | - | 2.43.1.0.25850(3GB) | 2.43.0.0.23171 | 2.43.1.0.25850 | 2.43.1.0.25771 | GUI.zip Web Service and DB Updates |
| 43.2 | - | 2.43.2.0.26864(3GB) | 2.43.0.0.23171 | 2.43.2.0.26864 | 2.43.1.0.25771 | GUI.zip and Web Service |
| 44 | - | 2.44.0.0.26570(3GB) | 2.44.0.0.26405 | 2.44.0.0.26570 | 2.44.0.0.26475 | Full Version Release |
| 44.1 | - | 2.44.0.0.26984(3GB) | 2.44.0.0.26405 | 2.44.0.0.26984 | 2.44.0.0.26906 | Gui.zip, Web Service, and DB |
| 44.1 | 1 | 2.44.1.1.27093(3GB) | 2.44.0.0.26405 | 2.44.1.0.26984 | 2.44.1.0.26906 | Gui.zip |
| 44.2 | | 2.44.2.0.27410(3GB) | 2.44.0.0.26405 | 2.44.2.0.27410 | 2.44.2.0.27365 | Gui.zip, Web Service, and DB |
| 44.2 | 1 | 2.44.2.1.27959(3GB) | 2.44.0.0.26405 | 2.44.2.1.27959 | 2.44.2.1.27909 | Gui.zip, Web Service, and DB |
| 44.2 | 2 | 2.44.2.1.27959(3GB) | 2.44.0.0.26405 | 2.44.2.2.28094 | 2.44.2.1.27909 | Web Service |
| 44.3 | - | 2.44.3.0.28292 | 2.44.0.0.26405 | 2.44.3.0.28277 | 2.44.3.0.28138 | Gui.zip, Web Service, and DB |
| 44.3 | 1 | 2.44.3.1.28535(3GB) | 2.44.0.0.26405 | 2.44.3.1.28535 | 2.44.3.0.28138 | Gui.zip and Web Service |
| 44.4 | - | 2.44.4.0.28762(3GB) | 2.44.0.0.26405 | 2.44.4.0.28762 | 2.44.4.0.28676 | Gui.zip, Web Server, DB, SSRS Deployment |
| 44.4 | 1 | 2.44.4.1.28953(3GB) | 2.44.0.0.26405 | 2.44.4.1.28953 | 2.44.4.0.28676 | Gui.zip and Web Service |
| 44.4 | 2 | 2.44.4.2.29327(3GB) | 2.44.0.0.26405 | 2.44.4.2.29327 | 2.44.4.0.28676 | Gui.zip and Web Service |
| 44.4 | 3 | 2.44.4.2.29722(3GB) | 2.44.0.0.26405 | 2.44.4.2.29327 | 2.44.4.0.28676 | Gui.zip and Web Service |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | | | | |
|---|---|---|---|---|---|---|
| 44.5 | - | 2.44.5.0.30022(3GB) | 2.44.0.0.26405 | 2.44.5.0.30022 | 2.44.5.0.29976 | Gui.zip, Web Server, DB |
| 44.5 | 1 | 2.44.5.1.30451(3GB) | 2.44.0.0.26405 | 2.44.5.1.30451 | 2.44.5.1.30449 | Gui.zip, Web Server, DB |
| 44.5 | 2 | 2.44.5.2.30705(3GB) | 2.44.0.0.26405 | 2.44.5.1.30705 | 2.44.5.1.30554 | Gui.zip, Web Server, DB |
| 45 | - | 2.45.0.0.29559(3GB) | 2.45.0.0.26107 | 2.45.0.0.29559 | 2.45.0.0.29558 | Full Version Release |
| 45.1 | - | 2.45.1.0.30774(3GB) | 2.45.0.0.26107 | 2.45.1.0.30774 | 2.45.1.0.30738 | Gui.zip, Web Service, DB, SQLReporting, Questionnaire, Citrix support |
| 45.1 | 1 | 2.45.1.1.31175(3GB) | 2.45.0.0.26107 | 2.45.1.1.31175 | 2.45.1.1.31174 | Gui.zip, Web Service, DB, SQLReporting, Questionnaire |
| 45.1 | 2 | 2.45.1.1.31175(3GB) | 2.45.0.0.26107 | 2.45.1.2.31378 | 2.45.1.1.31174 | Web Service and Citrix Bridge |
| 45.1 | 3 | 2.45.1.3.31452(3GB) | 2.45.0.0.26107 | 2.45.1.3.31452 | 2.45.1.3.31369 | GUI.zip, Web Service, DB, Questionnaire and Citrix Bridge |
| 45.1 | 4 | 2.45.1.4.31621(3GB) | 2.45.0.0.26107 | 2.45.1.4.31621 | 2.45.1.4.31599 | GUI.zip, Web Service, DB, Questionnaire and Citrix Bridge |
| 45.1 | 5 | 2.45.1.5.31773(3GB) | 2.45.0.0.26107 | 2.45.1.5.31773 | 2.45.1.5.31771 | GUI.zip, Web Service, DB, Questionnaire |
| 45.1 | 6 | 2.45.1.6.32070(3GB) | 2.45.0.0.26107 | 2.45.1.6.32070 | 2.45.1.6.31936 | GUI.zip, Web Service, DB, Questionnaire, Citrix Bridge |
| 45.1 | 7 | 2.45.1.6.32070(3GB) | 2.45.0.0.26107 | 2.45.1.6.32070 | 2.45.1.6.31936 | **Web Service for Wedge only. Version number of Wedge is 45.1.6.32614** |
| 45.1 | 8 | 2.45.1.8.33254(3GB) | 2.45.0.0.26107 | 2.45.1.6.32070 | 2.45.1.6.31936 | GUI.zip |
| **2016.1** | **-** | 2.16.1.0.33419 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## RESOLVED DEFECTS

Bugs, suggested features and support issues resolved in build 2.2016.1. The extract is taken from Redmine bug tracking system and only displays defects resolved in 2.2016.1.

| Bug # | Priority | Category | Subject |
|---|---|---|---|
| 11894 | Normal | Access strings | Access string rename needed for Notifications |
| 13025 | Normal | Admin-Other | Orphaned configuration setting LocationLayoutFormatString and PortalImageMigrationToolUrl should be removed. |
| 12837 | Normal | Admin-Other | Cannot set a "string" system configuration setting to empty when the system configuration setting has a default |
| 12048 | High | Admin-Other | Medline plus URL change |
| 12044 | High | Admin-Other | PrepInstructionType Lookup missing defaulting of display_order column |
| 11852 | Normal | Admin-Other | Date format with lower case "m" should not be allowed in SystemConfig |
| 11747 | Low | Admin-Other | Access string for WLNotification.* is confusing with the WL prefix. Should be just Notification.* |
| 8134 | Normal | Admin-Other | Unable to add schedule groups if none already exists |
| 7217 | Low | All Workflows | Editing a phone number that contains a zero in the area code requires extra clicks to perform |
| 11923 | High | Appointment book | Appointment Book - Rescheduling more than once creates duplicates (for different times) |
| 12547 | High | Billing | Add/Edit billing codes- An item with the same key has already been added |
| 11741 | Normal | Billing | Adding a billing code after an exam is Signed causes error |
| 11021 | High | Billing | Billing status automatically updated to Pending after "Place billing on hold" is cleared |
| 10317 | Normal | Billing | Billing Notes doesn't refresh properly on Checking In |
| 8036 | High | Billing | Cannot post a payment with a non insurance billing method |
| 11725 | Normal | Billing | Billing screen - c_study_item_certification_RowChanged event has a contrast related exception that happens in the background |
| 9218 | Normal | CD Burning | Destination path label doesn't display path if Auto Select is used |
| 9217 | Normal | CD Burning | Remember users previous destination preference |
| 12028 | Normal | CD Import | After completing a CD import get message InstallDir.txt |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| | | | cannot be found in folder I imported CD from on logout of RIS |
| 12007 | Urgent (next build) | CD Import | CD Import thows exception if DOS on disk cannot be found and time format is not dd-mm-yyyy |
| 12005 | Urgent (next build) | CD Import | CD Import or Legacy Data can overwrite the system MRN |
| 11749 | Normal | CD Import | CD Import - fails to import all images. |
| 10375 | Normal | CD Import | CD Import - Unable to see exam description when font size is Med or Large |
| 8994 | High | Citrix Support | ris.exe crashes on exit on Windows Server 2012 |
| 11960 | Normal | Confirmation | Confirmation - Administered checkbox under Medications is always unchecked (visually) |
| 12173 | High | Connect Portal-Scheduling | Error on importing procedure picker XML |
| 11641 | High | Connect Portal-Scheduling | Search for an appointment solution for 2 or more studies returns for 2 different room and fragmented times |
| 4833 | High | Connect Portal-Scheduling | Appointment search wcf service should not log an error in the application event logs when an appointment solution could not be found. |
| 10767 | High | Dark Mode/Theming | M*Modal Interactive Dictionary color problem |
| 12594 | Normal | DB | Open Capacity pulling in default template when there is an override |
| 12362 | Normal | DB | Phone/fax number fields should be 100 characters in length |
| 12281 | High | DB | Error when previewing addended report in radiologist window |
| 12081 | Normal | DB | Constraint issue CK_l_person_unknown_npi |
| 12036 | Normal | DB | The SPS_ID is missing an index |
| 11645 | Normal | DB | DB Cleanup to remove tables |
| 10508 | Normal | DB | Db view called c_vw_WL_SignedByDate_My is obsolete. |
| 8414 | Normal | DB | Removed former referring practice address references |
| 12413 | Normal | DB | System generated MRN workflow - problem if issuer of patient ID is in issuer look up but is not system |
| 12778 | Normal | Digital Forms | Error when saving digital forms |
| 12687 | Normal | Digital Forms | Cascading drop-downs options have a default 'Show on parent value' of 'test' |
| 12605 | Urgent (next build) | Digital Forms | Previously completed digital forms don't always get carried over on Reschedule |
| 12562 | High | Digital Forms | Required field and Perform Exam actions conflict |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| 12531 | Normal | Digital Forms | Message about server unavailable is displayed on the wrong monitor |
| 12436 | Normal | Digital Forms | Required field validation issues on schedule order |
| 12410 | Normal | Digital Forms | Digital form tabs holding perform exam in memory longer than necessary |
| 12404 | Normal | Digital Forms | Digital Forms Editor - Empty expression with mapped variables causes whole editor to stop functioning |
| 12391 | High | Digital Forms | Read only digital forms should not attempt to save answers |
| 12356 | High | Digital Forms | Error opening perform exam for mammo study |
| 12283 | Normal | Digital Forms | Required fields on digital forms aren't required unless the user looks at the digital form |
| 12263 | Normal | Digital Forms | Issue with logins from the browser redirecting to kiosk login instead of digital form editor |
| 12047 | High | Digital Forms | Linked Digital Form checkboxes don't always set changes made flag |
| 12041 | Normal | Digital Forms | ui-icons_454545_256x240.png missing |
| 12037 | Normal | Digital Forms | Linked checkboxes not synced properly on checkbox toggle |
| 12024 | Normal | Digital Forms | Circular references in expressions can cause unhandled exceptions which cannot be fixed |
| 12016 | Normal | Digital Forms | Flicker on digital form when tabs are rendered first as a list and then redrawn as tabs |
| 12015 | High | Digital Forms | Changes not saved after connection to web server re-established |
| 12014 | High | Digital Forms | If communcation service is interrupted while digital form tabs are being edited, the newly entered data may be lost |
| 11998 | Normal | Digital Forms | Digital forms should not reference CSS files from CDN servers |
| 11943 | Normal | Digital Forms | Digital form answers are saved to the database even when no answer is provided |
| 11940 | Normal | Digital Forms | Report Assistant is saving all digital forms regardless of changes |
| 11917 | Normal | Digital Forms | Digital Form Expression Editor allows the user to make over 26 variables, but does not support more than 26 |
| 11885 | Normal | Digital Forms | Required field exclamation points not clearing on entering data (type-ahead/auto-text only) |
| 11877 | Normal | Digital Forms | Blank required fields on Digital Forms Answers pane prevents workflow |
| 11876 | Normal | Digital Forms | Linked checkboxes not syncing properly in Report Assistant |
| 11874 | High | Digital Forms | Digital Form Editor - Tab order can't be set anymore |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| 11859 | Normal | Digital Forms | Un-including a study should remove any digital form tab(s) that only apply to that study |
| 11831 | Normal | Digital Forms | Saved empty expressions with mapped variables cause error on refresh |
| 11828 | High | Digital Forms | Empty cascading dropdown values do not save properly |
| 11696 | Normal | Digital Forms | Radio buttons may still save an answer when hidden due to a rule |
| 11678 | Normal | Digital Forms | Required field message doesn't appear when on a different tab |
| 11668 | Normal | Digital Forms | Type-Ahead Textbox for Medication returning results with garbage text entered |
| 11627 | High | Digital Forms | A rule based on the value in an autotext field does not work |
| 11603 | Normal | Digital Forms | Localization of autotext form |
| 11067 | Low | Digital Forms | Digital Form Editor - Unable to clear font size to revert to default font size |
| 7780 | Normal | Digital Forms | Conditional Tab - exception raised in display criteria |
| 12943 | High | Document Distribution | Print jobs occur when config setting turned off |
| 5795 | Normal | Embedded Reporting | Object reference error from ReportFields.SelectSection |
| 11606 | Normal | EMR | Editing EMR MRN's needs to focus on MRN (start) |
| 11539 | Normal | EMR | Duplicate MRN on EMR patient causes exception |
| 7899 | Urgent (next build) | EMR | Walk In Scheduling of EMR order does not allow you to see what was ordered by the EMR |
| 12412 | Normal | EMR | EMR order - problems when issuer is the same as an issuer in the l_issuer look up |
| 12271 | Low | eRAD Editor | eRAD Editor - automacro fields added through Fields tab of template/macro editor aren't treated as automacro fields |
| 11995 | High | eRAD Editor | Inserting a text only macro into an optional field inserts it after the field. |
| 11979 | High | eRAD Editor | Subsequent macro insertions may jump to a seemingly random location in a report |
| 11709 | High | eRAD Editor | Field meta data is not being saved when pasting into report template with no fields |
| 11483 | Normal | eRAD Editor | Protected Field - although you cannot insert macros into protected fields, the behavior could be better |
| 12114 | High | Insurance Eligibility | Insurance eligibility service can crash core RIS Services if a database connection error occurs |
| 11750 | Normal | Insurance Eligibility | Special Condition configuration that removes the Plan will cause eligibility to fail. |
| 11712 | Normal | Insurance Eligibility | Amount to collect on Self-Pay cannot be modified in some cases |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| 11708 | Normal | Insurance Eligibility | Amount to collect field shows 4 decimal places in some cases |
| 11706 | High | Insurance Eligibility | Amount to collect on Self-Pay doesn't display for manual entries (non-NPD) |
| 9673 | Normal | Insurance Eligibility | Changes to Billing Codes not updating Amount to Collect on Self Pay |
| 9215 | Normal | Insurance Eligibility | Tier 2 and advanced / complex parsing |
| 9209 | High | Insurance Eligibility | Update on the order resulting in wrong IVT Intervention flag on the order table. |
| 8368 | Normal | Insurance Eligibility | NULL filtering should default to disabled |
| 8040 | Normal | Insurance Eligibility | Alter Coverage.JS insurance details viewer to display details when service type is inactive. |
| 10426 | Normal | Insurance Eligibility | Amount to collect details |
| 8448 | Normal | Insurance Managment | Attempt to alter Group Number or Group Name of Insurance Carriers causes a shift in the list and potential incorrect changes |
| 13144 | Normal | Interfaces | External Interface AppointmentSearch is not working |
| 13012 | Normal | Interfaces | Source code for Ensemble Plugin not up to date with version in Assuta |
| 12850 | High | Interfaces | RIS Wedge causes and exception when attempting to expand c_study_item_certification.downcoded_procedure_code |
| 11911 | Urgent (next build) | Interfaces | Wedge interface channels should not need any modification between 44.x and 45.2 |
| 11865 | Normal | Interfaces | Incorrect error message |
| 11838 | Normal | Interfaces | Inbound user_id fails with poor error message if person is not a user |
| 11676 | Normal | Interfaces | MRN - Issuer dropdown filtering out valid entries |
| 8507 | Normal | Interfaces | Mirth/Wedge matching a referring doctor by NPI does not return the "master" person key |
| 12541 | High | IVT / Precert | Self-Pay exams throw error on opening in IVT |
| 9015 | Normal | IVT / Precert | PreCert status not reflected in Reception WL |
| 8594 | Normal | IVT / Precert | IVT WL, Pre-cert status stays the same when changing insurance at arriving/checking stage. |
| 8147 | High | IVT / Precert | PreCert column on the Orders To Schedule worklist may not match the billing code pre-cert statuses |
| 12366 | High | Linked Reporting | Unable to addend linked studies with voided exam |
| 11985 | Normal | Linked Reporting | Worklist actions not working when primary study is in Arrived, but child studies are in ExamDone |
| 11858 | Normal | Linked Reporting | Prior Report button no longer working from ScheduleOrder |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| 11507 | Normal | Linked Reporting | Error changing primary study flag after it has already been set |
| 12753 | Normal | Localization | Localization required - 'Audit history' context menu option |
| 12555 | Normal | Localization | "Save as Order" translated only to "Save" in Hebrew |
| 12115 | High | Localization | In Hebrew mode, worklists will throw an exception when opening the 'select statuses' filter option |
| 11740 | Low | Localization | Second row of message box sentences is forming from left instead of from right in Hebrew. |
| 11980 | Normal | Mammography | BI-RADS picker is editable - causes Index out of range error |
| 8067 | Normal | Mammography | Missing access string for follow up screen |
| 12576 | Normal | Meaningful Use | C-CDA - Exception when no study data available |
| 12501 | Normal | Meaningful Use | CCDA stylesheets may need to be remapped due to changes in the Raw Container. |
| 12454 | Normal | Meaningful Use | CCDA - administrativeGenderCode is sending over null value when configured incorrectly |
| 11945 | High | Meaningful Use | View MedlinePlus Info doesn't work for ICD10 codes |
| 11916 | Normal | Meaningful Use | Error producing CCDA in view/edit - mu - View CCDA |
| 10526 | Normal | Meaningful Use | New Diabetic Medications |
| 9290 | Low | Meaningful Use | There are 4 access strings related to Labwork that need to be reviewed and possibly modified, in particular Clinincal.Labwork.Request. |
| 8674 | Normal | Meaningful Use | Deleting a Medical History row then changing from "Use grid" to "None" gives error on Save. |
| 8247 | Normal | Meaningful Use | Save as Order - Column 'visit_key' is read only |
| 8103 | Normal | Meaningful Use | Transition of Care |
| 7807 | Normal | Meaningful Use | ProcessCPOEFlag can result in exception if performed end date is null |
| 6900 | Low | Meaningful Use | CCDA preview is displaying requested lab orders under results |
| 11723 | Normal | Mgt - Report - Custom | Procedure c_bi_mqsa not looking at extended birad code |
| 13014 | Normal | Mgt Reports | Peer review report - Review Summary by Radiologist not returning correct results - seems you cannot search for 1 day only. |
| 12543 | Normal | Mgt Reports | Mammo Technologist Summary - Procedure Code suppression |
| 12468 | Normal | Mgt Reports | Report deployment Option 7 deletes the backup folder it deploys from |
| 11658 | Low | Mgt Reports | There are some reports that are sorted by First name not the Last Name |
| 11261 | Normal | Mgt Reports | Core Management Reports - Date time format |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| 13051 | Normal | MModal | Wrong recognizer files being downloaded when the user preferences set to "Automatically download recognizer". |
| 12691 | Normal | MModal | Default field value for Pick List fields do not populate in Macros |
| 12679 | Urgent (next build) | MModal | Error when doing next workflow in M*Modal reporting mode |
| 12650 | High | MModal | Issues with fields in the report editor. |
| 12442 | High | MModal | Pick list selection into a field with dictated or typed text will render incorrectly |
| 12441 | High | MModal | Previous field voice command intermitently not selected in field browser |
| 11849 | High | MModal | Mapped non-required fields showing as required |
| 11715 | High | MModal | When creating a template from report the auto macro doesn't work correctly |
| 11704 | High | MModal | The protect data checkbox in template editor should be removed. |
| 11493 | High | MModal | Conditional fields not working in M*Modal |
| 11319 | High | MModal | MModal field controls - typing over selection |
| 11318 | High | MModal | MModal Report Field Controls - 3 issues with the field controls |
| 11014 | High | MModal | Picklist field changes from a field to plain text when the default value of the picklist is a macro with plain text in it. |
| 11007 | High | MModal | Picklist that has an option that is a macro created in previous version of RIS, when selected in the dictation window, get error, macro cannot be inserted into report. |
| 10759 | Normal | MModal | Performance improvement opportunity in GetCurrentReportFields for MModal |
| 10648 | Normal | MModal | Modifying a macro from within the dictation window, clicking Ok will produce an error |
| 12409 | Normal | PACS (eRAD) Integration | Sometimes you have to click OK twice to RIS message "Action required in PACS before continuing" to continue working in RIS |
| 9633 | High | PACS (eRAD) Integration | When using PS360 and creating an autotext it is possible to hang the PACS viewer |
| 12859 | Normal | PACS (Non - eRAD) Integration | PACS integration is prompting the rads too much with message boxes after the new update. |
| 12351 | Normal | Patient Folder | Assuta in Hebrew mode, Peer review button is not translated |
| 10613 | High | Patient Folder | Data Nuggets do not close when we close the patient folder tab |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| 12779 | High | Patient Merge | Error on Patient Merge |
| 8160 | Normal | Patient Merge | Previous MRNs not showing in Alternate MRN grid after a merge |
| 12056 | High | Payment control | Error adding payment: Column 'Remaining_balance' does not belong to table c_payment |
| 12132 | Normal | Performance | Performance enhancement - Loading Datasets for MModal Document Models while in Erad mode |
| 12131 | Normal | Performance | Performance enhancement - Next workflow |
| 12130 | Normal | Performance | Portal window in reporting screen is re-initializing after already being loaded. |
| 12128 | Normal | Performance | Perform Exam screen repeatedly requests the same data on open |
| 12101 | Normal | Performance | UI performance is poor when switching main tabs in reporting screens |
| 12094 | Normal | Performance | eRAD Reporting Performance - General performance enhancement populating fields |
| 12052 | High | Performance | Performance enhancement - Loading and processing of reporting layouts |
| 12666 | High | Person Management | NPI Link No Longer Valid in Personnel Editor |
| 8372 | Low | Person Management | Buttons are not entirely visible in the Add Radiologists form under the Referring Preferences |
| 12608 | High | Platform | PDFViewer project is requiring .NET Framework 4.5. All other eRAD RIS projects currently only required 4.0. PDF Viewer should require only 4.0. |
| 12040 | Normal | Portal Viewer | Missing top of browser control and tabs |
| 11515 | High | Portal Viewer | Unable to remove a portal launcher rule once added |
| 12580 | Normal | Powerscribe Integration | Wait when launching a report in PowerScribe using the button on the reporting screen. |
| 10743 | Normal | Powerscribe Integration | When failing to open a report in PowerScribe, study keeps returning in next workflow |
| 11251 | Normal | RADAR | Quick RADAR Message - Add Auditing to RADAR messages |
| 11765 | High | Radiology Peer Review | Peer Review - Missing access string for Mark As Completed |
| 12683 | High | Radiology Peer Review | Add peer reviewed count to the daily statistics dashboard |
| 12681 | High | Radiology Peer Review | Peer review button should disable when the user is not able to perform a review |
| 12678 | High | Radiology Peer Review | Peer review screen is not resizable |
| 12677 | High | Radiology Peer Review | Change spelling when loading the peer review QA screen. |
| 13162 | High | Radiology Reporting | Unable to sort exception opening the reporting screens without .net 4.5 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| 13113 | Normal | Radiology Reporting | Error when signing a report |
| 12728 | Normal | Radiology Reporting | Report data nugget is enabled for reports in dictated or exam done status without access to 'Clinical.PreviewPreliminaryReport' |
| 12727 | Normal | Radiology Reporting | Impression data nugget is available when access string are not granted |
| 12667 | High | Radiology Reporting | Datasets are localized creating problems for advanced data fields in all languages other than English |
| 12662 | Low | Radiology Reporting | Custom fields and DataFields are showing on the field control as the same, icon should be different. |
| 12593 | Normal | Radiology Reporting | M*Modal - Invalid field selection when inserting a pick list option set to navigate to previous field |
| 12575 | Urgent (next build) | Radiology Reporting | Selected Report - When failing to load the selected report the previous report images is persisted |
| 12574 | High | Radiology Reporting | Signed studies without a migrated report not presenting message appropriately all the time |
| 12512 | High | Radiology Reporting | Report history control causes an error when opening on a legacy (imported) report |
| 12421 | Urgent (next build) | Radiology Reporting | Report Editor - Populating fields with mixed Hebrew and English words renders incorrectly |
| 12225 | High | Radiology Reporting | Log Control - The Assign to Radiologist Notes do not support AutoText only |
| 12214 | Normal | Radiology Reporting | Improve screen appearance between screen loads "next workflow" |
| 12185 | High | Radiology Reporting | When editing an existing data field, protect check box is not available |
| 12170 | Normal | Radiology Reporting | Adding a conditional field produces an error when entering the expression value in the conditional value grid and clicking OK button in Field Editor window |
| 12129 | Normal | Radiology Reporting | CC Physicians not being cleared in exam details pane on reporting screens (Reuse) |
| 12063 | High | Radiology Reporting | Portal window - TabSelectionChanged error when skipping through cases with Reuse turned on. |
| 12059 | Normal | Radiology Reporting | Preview report in rad screen on addendum before save doesn’t work |
| 12055 | Normal | Radiology Reporting | Portal window loads even when not visible, and it can load before the ParentContentBase is loaded. |
| 12051 | Normal | Radiology Reporting | eRAD Reporting Performance - Calling delete field with the paint argument set to true taking a long time |
| 12039 | Normal | Radiology Reporting | Adding macros with fields in a report that doesn't have a default template causes empty fields when macro is inserted a 2nd time |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| 12022 | Normal | Radiology Reporting | RTL - When adding assignments or procedures to a macro or template the arrow that is highlighted and enabled is pointing the wrong way |
| 12019 | Normal | Radiology Reporting | Create Edit Report from Perform Exam loads templates for current user |
| 12012 | Normal | Radiology Reporting | Reporting Layout - Localization bug |
| 11975 | Normal | Radiology Reporting | RTL - Report Assistant save button on wrong side in RTL |
| 11933 | High | Radiology Reporting | When verifying edits the 'Send for dictation and close/continue' should not be available options |
| 11922 | High | Radiology Reporting | Editor split button options should be controlled by access string and more descriptive naming of options |
| 11912 | High | Radiology Reporting | In right to left mode, the tabs for digital form answers and report assistant tool windows should be on the right |
| 11860 | Normal | Radiology Reporting | Reporting Layouts - When using custom output file path the deployed layouts do not load |
| 11827 | Normal | Radiology Reporting | Error when trying to do an addendum on Legacy reports |
| 11675 | High | Radiology Reporting | Indication required but could not add an indication. |
| 11660 | High | Radiology Reporting | Findings - if procedure 'findings required flag' is set to N, the context menu item (Set Required Followup Flag) in patient folder, should not be available |
| 11615 | Low | Radiology Reporting | Finding Follow Up - audit message after adding and removing follow up is spelled inconsistently |
| 11609 | High | Radiology Reporting | Finding Follow Up - Missing lang item for finding code in the finding follow up worklist |
| 11591 | High | Radiology Reporting | MModal - create a template from report - auto macros are not working correctly. |
| 11573 | High | Radiology Reporting | Shortcut keys for 'Create and Continue' and 'Create and close' required for the reporting editor |
| 11570 | High | Radiology Reporting | Dictation field in Summary Panel in dictation window copy option throws error |
| 11499 | Normal | Radiology Reporting | Report Assistant - no scroll bars |
| 11491 | High | Radiology Reporting | Conditional fields navigation setting is not working |
| 11473 | High | Radiology Reporting | In the editor window, the shortcut CTRL+ALT+S should be changed because the action button has been renamed from 'transcibe' to 'edit' |
| 11005 | High | Radiology Reporting | Template editor - some of the command bar buttons are producing an error, ie: Preview Report |
| 10980 | High | Radiology Reporting | Exceptions raised in Template Macro Lookup working with M*Modal reporting mode |
| 10969 | Normal | Radiology Reporting | TemplateMacro lookup table locks RIS when user has limited reporting modes |
| 10968 | Normal | Radiology Reporting | TemplateMacro lookup table error when user has specific reporting modes |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| 10612 | Normal | Radiology Reporting | Word Report Viewer does not close when closing the patient tab |
| 10482 | High | Radiology Reporting | External Reporting Mode - Unable to mark addendum as read |
| 9639 | High | Radiology Reporting | Error when clicking the Pending Dictation Tab while an exam is loading in Dictation window |
| 9625 | High | Radiology Reporting | Patient history control throws a hidden exception |
| 9564 | Normal | Radiology Reporting | On opening of dictation Window - exam details tool window is incorrect |
| 9306 | Normal | Radiology Reporting | Sign Report button missing on All Signed Pending QA |
| 9305 | Normal | Radiology Reporting | Sign Report button missing on All Dictated WL |
| 9304 | Normal | Radiology Reporting | Sign Report button disabled when in dictated status |
| 9303 | High | Radiology Reporting | After suspending a report and then moving to Dictated or Draft the suspend flag remains |
| 9302 | Normal | Radiology Reporting | Pending Signature WL has context menu Dictate but no button |
| 9257 | High | Radiology Reporting | EditorSpeechControl error when modifying a template or macro for the 1st time after an upgrade. |
| 8055 | Urgent (next build) | Radiology Reporting | Proxy sign - buttons mislabeled |
| 5494 | Normal | Radiology Reporting | Template/Macro editor from lookup editor won't prompt to save changes when closing the screen. |
| 3784 | Normal | Radiology Reporting | Reporting docked windows not maintaining current tab selections |
| 7774 | Low | Radiology Reporting | Bar-code scanning won’t accept lower case letters and converts to symbols |
| 11846 | Urgent (next build) | Reception | A signed study may return to checking in or arrived |
| 11295 | High | Reception | Multi-Orders don't display correctly on opening Register |
| 11230 | High | Reception | Referring physician alert gets shown a second time when clicking the 'Checking In' button |
| 12389 | Normal | Scheduling | Cannot remove procedure from a procedure plan |
| 12029 | Normal | Scheduling | Error appears when cancelling a study from the reschedule window from the appointment book |
| 12017 | Normal | Scheduling | Appointment book load times too slow |
| 11818 | Normal | Scheduling | When trying to reschedule one study out of a procedure plan, get an error if one of the exams in the procedure plan is in exam done status. |
| 11151 | Low | Scheduling | Clearing Patient Flag notes adds empty string which causes alerts to display extra line with hyphen |
| 9578 | Low | Scheduling | Follow Up Date - Can't use 2 digits for year |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| 8408 | Normal | Scheduling | Inactive rooms showing in calendar view. |
| 11949 | High | Structured Reporting | eRAD Editor - When a conditional field exists and the expression is null, auto macros won't populate |
| 12274 | High | Technologist | Should be able to disable tech notes as required field |
| 12252 | High | Technologist | Assigned radiologist dropdown empty on initial opening of Perform Exam |
| 12025 | Normal | Technologist | Hebrew mode: Perform exam window - required flag for tech notes is cut off. |
| 11529 | High | Technologist | Contrast - Leaving contrast/sedation amount/units blank on multi-study order can cause false validation fails |
| 11254 | Normal | Technologist | Study Sedation doesn't work with multiple study items |
| 9617 | Normal | Technologist | Suspended flag remains when documenting multi-study in perform exam screen |
| 9422 | Normal | Technologist | User is able to complete an exam that Requires contrast without entering a contrast. |
| 9186 | Normal | Technologist | Sedation - Changing performed procedure in Perform Exam doesn't remove sedatives |
| 9166 | High | Technologist | Contrast is required on view/edit when contrast setting is set to true and is required |
| 8587 | Normal | Technologist | Contrast amounts that exceed Max Value are acceptable upon Saving in Perform Exam window |
| 12659 | Low | Thick Client GUI | Search in lookup editor is not closing the folders correctly when the delete (x) is clicked. |
| 11946 | Normal | Thick Client GUI | Error logging in to RIS: "The given key was not present in the dictionary" |
| 7936 | Normal | Thick Client GUI | Patient screen icons should have borders (Patient search and New Patient) |
| 6084 | Normal | Thick Client GUI | MU- CCDA problem and vital signs and goals section |
| 6083 | Normal | Thick Client GUI | MU- CCDA Procedure section is incomplete |
| 6050 | Normal | Thick Client GUI | RadNet - Edit Units - sometimes saving units as "1000" arbitrarily |
| 3300 | Low | Thick Client GUI | Scroll bar in lookup editor allows to scroll way below any entries. |
| 2133 | Low | Thick Client GUI | Timing issue between RIS and Jabber |
| 12471 | Normal | UI Look and feel | When closing a lookup editor, it closes the tab completely |
| 12470 | Normal | UI Look and feel | Login screen should select all text when tabbing into username or password fields |
| 11966 | Normal | UI Look and feel | Mammo Biopsies Window - Cancel and ESC Key functionality |
| 11781 | Normal | UI Look and feel | Patient tab tabbing opportunities |
| 11773 | High | UI Look and feel | Follow Up context menu item does not work |
| 11731 | Low | UI Look and feel | Emergency Contact showing as required on Registration |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| 11577 | Normal | UI Look and feel | When skipping though cases, tab title switches from Loading... Assigning.. Dictating... |
| 10919 | Normal | UI Look and feel | Change font size feature does not change the size in the menus |
| 10409 | Normal | UI Look and feel | Insurance policies grid and Manage policies window have columns in different order |
| 9640 | Normal | UI Look and feel | Alert prompt verbiage for inaccurate Units value needs to be changed. |
| 9299 | Normal | UI Look and feel | User preferences screen alignment and spacing. |
| 8543 | Normal | UI Look and feel | Pin at top or bottom of insurance policies does not function |
| 8266 | High | UI Look and feel | When running application without RISDeployment folder the title bar says "eRAD RIS (Developer as UserName)" |
| 8057 | Normal | UI Look and feel | System Config description clean up |
| 7121 | Normal | UI Look and feel | Next workflow doesn't look good at all in between screen loads |
| 8505 | Normal | Unknown Reconcile | Changing an unknown referring doctor on an order performs a partial person merge. |
| 8053 | Normal | Utilization Management | Issue removing rows for additional procedures |
| 12522 | Normal | View Edit | Notes/Exam Times missing edited by user |
| 12350 | Normal | View Edit | Assuta - In the View/edit window there is an action button sitting on top of another action button |
| 12880 | Normal | Web Services/DB | Missing index on study_key in c_questionnaire_answer |
| 12500 | Normal | Web Services/DB | Not all data set column max lengths match those of columns in db |
| 12401 | Normal | Web Services/DB | Fill statement incorrect on c_questionnnaire_completion_status |
| 12247 | Normal | Web Services/DB | The RequestedByAndRequestByAddressKeyRelation wcf test case occasionally fails during build process |
| 12116 | High | Web Services/DB | MU Export Service can terminate Core RIS Services if a database connection error occurs |
| 11046 | High | Web Services/DB | Personnel - Medical Group added to Referring Physician breaks RIS |
| 10814 | Low | Web Services/DB | Reschedule prompt improperly locking studies/orders |
| 12585 | Normal | Worklists | Supervising Dictation work list throws exception |
| 12560 | Normal | Worklists | Referring Portal Patient Folder view only shows scheduled modality for Room Name column |
| 12521 | Normal | Worklists | Patient Folder - Edited by column missing from the worklist |
| 12504 | Normal | Worklists | Patient folder could not be retrieve when connecting to the rRIS_Dev2 database |
| 12458 | High | Worklists | Status localization removed after applying filters |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| 12120 | Urgent (next build) | Worklists | The RIS Service method RefreshWorklistForPatient is no longer being called |
| 12119 | High | Worklists | Worklist Count - is still referencing old deprecated c_vw_client_worklist view |
| 12113 | Urgent (next build) | Worklists | Many worklists are performing very slowly on rRISDev2 database |
| 12096 | High | Worklists | Room Name column on worklists based on scheduled Modality only, not performed Modality |
| 12095 | Normal | Worklists | Patient folder worklist does not show room description |
| 12053 | High | Worklists | System.IndexOutOfRangeException: Index was outside the bounds of the array. |
| 12030 | Normal | Worklists | The signed by date for all worklist timeouts |
| 11879 | Normal | Worklists | No access string for the Reception WL |
| 11629 | Normal | Worklists | Image Request WL requires new "name" equivalents columns with description |
| 10720 | Normal | Worklists | Possible SQL injection on WL queries with parameter order by |
| 8390 | High | Worklists | Inconsistent RIS Filter Results |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

## KNOWN LIMITATIONS

The following are bugs, suggested features and support issues found in build 2.2016.1.

Bugs reported in previous versions are not repeated here.

| # | Status | Priority | Subject |
|---|---|---|---|
| 12933 | New | Normal | Selected Report tool window - When reloading a legacy report, the previously loaded legacy report is displayed first. |
| 12907 | New | High | Reading_stat_flag - right click menu only sets it on the study |
| 12876 | New | Normal | IsCitrixBridgeAlive timed out error. |
| 12838 | New | Normal | Selected Report tool window - When reloading a legacy report, and moving the window around, the report duplicates itself in the tool window. |
| 12746 | New | Normal | Voice cue navigation for datafields and picklists fields not working |
| 12745 | New | Normal | Field Browser - Fields not updating when voice navigation |
| 12725 | New | Normal | Reusable fields are not populating when the template is inserted into a report |
| 12689 | New | Normal | Running RIS in Minimized mode, logging in twice produces a message that ois hidden, have to quit RIS from task manager. |
| 12684 | New | Normal | MModal - create a template from report - data fields are populating. |
| 12617 | New | Normal | Registration screen retrieves the same data more than once |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| 12601 | New | Normal | Calculated columns on insurances are not updated when all insurances are removed |
| 12599 | New | Low | Procedure Picker - Unable to delete Attribute Types |
| 12596 | New | High | Precert information cannot be seen for Order IVT window from cancelled study |
| 12591 | New | Normal | Template/Macros - Conditional field the default column is not working correctly when set to True |
| 12565 | New | Normal | Rad screen - Opening legacy report in patient folder closes legacy report in tool window |
| 12536 | New | Normal | Contrast validation may complain about rows that are not visible |
| 12279 | New | Normal | Unique key violation during walkin process after switching orders |
| 12213 | New | Normal | Cannot filter the Prep Intruction Code column of Procedure Code lookup table if Prep Instruction Code has an apostrophe |
| 12176 | New | Normal | Updates to only issuer_of_patient_id will not result in updates to c_patient_key_data via trigger |
| 12171 | New | Normal | Available_datetime in the action queue is set by RISService box time instead of DB time |
| 12925 | Resolved | Normal | Getting Get Data/DisplayData when editor is MModal and you attempt to dictate an exam when 'Insert template with markers' is turned on. |
| 12894 | Resolved | Normal | Biopsy screen has not been localized |
| 12854 | Resolved | High | Cannot Create/Edit report from perform exam on PACS correction enabled studied. |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| 12835 | Resolved | Normal | Extra character appended to a field |
| 12834 | Resolved | High | Reschedule study can cause other studies from same order awaiting reschedule to fall off worklist |
| 12808 | Resolved | High | "Send to" button on reporting screen allows to fax/print preliminary reports even if user should not have access. |
| 12744 | Resolved | Normal | Attachment viewer on the patient folder (both main and mini) will not load the report initially |
| 12174 | Resolved | Normal | Procedure Picker Scrolling Bar Issue |
| 12842 | New | Normal | Verify Credentials window has spinning blue circle (hour glass) |
| 12425 | New | Normal | Specific identity validation errors |
| 13266 | New | Normal | Editing billing codes |
| 13263 | New | Normal | Template editor lookup, result tab, filter the grid by default = Y, edit one of the templates, get error when saving the template. |
| 13248 | New | High | Peer review window - if font is not set to Small either part of the word or all of the word 'review' is missing in the sentence 'I disagree with this review' |
| 13237 | New | Normal | WL Filter FLag selection is not translated |
| 13224 | New | Normal | When Phone number mask is disabled, the phone numbers are displayed in a mask in the referring addresses lookup table. |
| 13204 | New | High | EMR Ordering - Left over EMR order that is not mapped cannot be accessed again from work lists |
| 13182 | New | Normal | Report that is sent to PACS has the element {BR} displayed in the |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| | | | report. The report in RIS has a bolded section but the same section in the template is not bolded. |
| 13172 | New | Normal | mModal 7.93 dictation commands that do not work. |
| 13049 | New | Normal | Inserting a macro with picklist with default macro option multiple times doesn't work |
| 13011 | New | Normal | Log control fields dont separate auto text |
| 12996 | New | High | EMR Ordering - Left over EMR order that is not mapped cannot be accessed again from work lists |
| 12989 | New | Normal | Import scheduled procedures window is displaying order procedure description instead of scheduled procedure description |
| 12918 | New | Normal | Patient merge - Phone numbers and email addresses unselected if patient merge is opened when patient folder is open |
| 13067 | Peer Testing | Normal | Linked studies dialog OK button should be disabled |
| 13053 | Peer Testing | Normal | Linked studies dialog checkboxes should be disabled |
| 13156 | Resolved | Normal | Hebrew localization for Digital Forms and Selected Digital Forms |
| 13066 | Resolved | Normal | Unable to dictate on linked studies pending pacs correction |
| 13010 | Resolved | Normal | Creating an addendum on a study existing on the QA worklist will remove it from QA worklist - also unclear which version we are reviewing when in QA screen |
| 13009 | Resolved | Normal | Error on reschedule when digital form has not yet loaded |
| 12993 | Resolved | Normal | Increase character limit on External Notification Email Address |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| | | | column for MessageGroup table |
| 12980 | Resolved | Normal | Peer review button enabled when creating addendum even if you previously peer reviewed it |
| 12971 | Resolved | Normal | Error message when opening the Review window from Peer Review WL. |
| 12959 | Resolved | Normal | Questionnaire -when creating rulesets, Check box needs text in order to work |
| 13035 | New | Normal | EMR Orders - Register window only shows 1 of 2 mapped orders |
| 13231 | New | Normal | RadShortcut error possible when loading two peer review cases that prompt the user on open. |
| 13223 | New | Normal | Add payment, check-in and save, receipt is not auto printed |
| 13217 | New | Normal | Aborting a started study can result in an error on the billing codes tab |
| 13212 | New | High | Issues with arrive multiple dialog and timezone |
| 13023 | New | Normal | Some configuration settings are not populating default values in an upgrade or new install |
| 13015 | New | Normal | "PreCert Required" blank when it should be showing Not Required |
| 12972 | New | Normal | MU - Medical history search for ICD codes can only select one at a time |
| 12949 | New | Normal | Referring physician alert not being displayed on Schedule Order/Registration/Walk-In |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

| | | | |
|---|---|---|---|
| 12942 | New | High | Inserting a text macro into a field may produce different results if the field is selected from the report tool window rather than the fields tool window. |
| 12952 | Peer Testing | Normal | Inactive prep instructions still being displayed |
| 13211 | Resolved | Normal | Error scheduled an EMR order when Issuer ID is the same as different Issuer ID for same patient |
| 13161 | Resolved | Normal | Study remains locked by your user, after tentatively signed is released |
| 13077 | Resolved | Normal | Procedure Picker - Unable to use the editor on a new system |
| 13074 | Resolved | Normal | Running ImportDataFileUpgradeDB.bat on a new install causes an exception |
| 13029 | Resolved | Normal | Error on Rechedule from No Show WL and Orders to Schedule WL |
| 13019 | Resolved | Normal | Not able to make changes to date/time in Notes/exam Times in Scheduling and arriving statuses |
| 13006 | Resolved | Normal | Perform Exam - Notes/Exam Times - disabled fields become enabled when including a second study |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from RADNET Inc.

# Server Update

For eRAD RIS
Version 2.0
Build 2.2016.2
Update 2.2016.2.1

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# Table of Contents

Resolved Items ..... 3
Code Stream ..... 4
Package Contents ..... 5
Intended Audience ..... 5
Who is affected ..... 5
eRAD RIS Release Version Numbers ..... 6
Installing ..... 7
    Client/GUI ..... 7
    Citrix Bridge Installer ..... 7

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## Resolved Items

| Redmine # | Subject |
|---|---|
| 13825 | PACS integration will not open sessions reliably via Citrix Bridge |
| 13827 | PACS integration will not close sessions reliably via Citrix Bridge |
| 13845 | The first call to "Show Images" to UV PACS after changing PACS server does not work via Citrix Bridge |
| 13850 | PACS incorrectly indicates "Study is locked" depending on how the user closed the study (via Citrix and non-Citrix) |

Additional information on bug 13850:

Steps to reproduce the "Study is locked" state:

From the Pending Dictation WL, open a study to dictate.
2. Go back to the Pending dictation WL and open a 2nd study.
3. Click on the 1st study's tab → it's images are displayed.
4. Click on the 2nd study → it's images are displayed.
5. While the focus is on the 2nd study, close the study using the x on the tab. → Images are closed and you are returned to the first study – images are displayed for the first study.
7. Close the 1st study via the x on the tab. → Images are closed.
8. Open study 1 again → Images open.

9. Open study 2 again → PACS indicates "Study is locked"

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## Code Stream

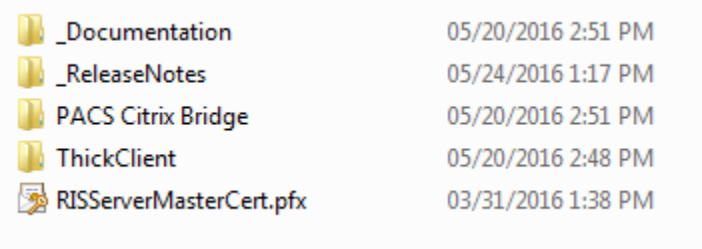
**Legend:**

Light Green = Previously Released software

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## Package Contents




## Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

## Who is affected

Build 2016.2 installs. This server update must be applied to 2016.2

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 43.1 | - | 2.43.1.0.25850(3GB) | 2.43.0.0.23171 | 2.43.1.0.25850 | 2.43.1.0.25771 | GUI.zip Web Service and DB Updates |
| 43.2 | - | 2.43.2.0.26864(3GB) | 2.43.0.0.23171 | 2.43.2.0.26864 | 2.43.1.0.25771 | GUI.zip and Web Service |
| 44 | - | 2.44.0.0.26570(3GB) | 2.44.0.0.26405 | 2.44.0.0.26570 | 2.44.0.0.26475 | Full Version Release |
| 44.1 | - | 2.44.0.0.26984(3GB) | 2.44.0.0.26405 | 2.44.0.0.26984 | 2.44.0.0.26906 | Gui.zip, Web Service, and DB |
| 44.1 | 1 | 2.44.1.1.27093(3GB) | 2.44.0.0.26405 | 2.44.1.0.26984 | 2.44.1.0.26906 | Gui.zip |
| 44.2 | | 2.44.2.0.27410(3GB) | 2.44.0.0.26405 | 2.44.2.0.27410 | 2.44.2.0.27365 | Gui.zip, Web Service, and DB |
| 44.2 | 1 | 2.44.2.1.27959(3GB) | 2.44.0.0.26405 | 2.44.2.1.27959 | 2.44.2.1.27909 | Gui.zip, Web Service, and DB |
| 44.2 | 2 | 2.44.2.1.27959(3GB) | 2.44.0.0.26405 | 2.44.2.2.28094 | 2.44.2.1.27909 | Web Service |
| 44.3 | - | 2.44.3.0.28292 | 2.44.0.0.26405 | 2.44.3.0.28277 | 2.44.3.0.28138 | Gui.zip, Web Service, and DB |
| 44.3 | 1 | 2.44.3.1.28535(3GB) | 2.44.0.0.26405 | 2.44.3.1.28535 | 2.44.3.0.28138 | Gui.zip and Web Service |
| 44.4 | - | 2.44.4.0.28762(3GB) | 2.44.0.0.26405 | 2.44.4.0.28762 | 2.44.4.0.28676 | Gui.zip, Web Server, DB, SSRS Deployment |
| 44.4 | 1 | 2.44.4.1.28953(3GB) | 2.44.0.0.26405 | 2.44.4.1.28953 | 2.44.4.0.28676 | Gui.zip and Web Service |
| 44.4 | 2 | 2.44.4.2.29327(3GB) | 2.44.0.0.26405 | 2.44.4.2.29327 | 2.44.4.0.28676 | Gui.zip and Web Service |
| 44.4 | 3 | 2.44.4.2.29722(3GB) | 2.44.0.0.26405 | 2.44.4.2.29327 | 2.44.4.0.28676 | Gui.zip and Web Service |
| 44.5 | - | 2.44.5.0.30022(3GB) | 2.44.0.0.26405 | 2.44.5.0.30022 | 2.44.5.0.29976 | Gui.zip, Web Server, DB |
| 44.5 | 1 | 2.44.5.1.30451(3GB) | 2.44.0.0.26405 | 2.44.5.1.30451 | 2.44.5.1.30449 | Gui.zip, Web Server, DB |
| 44.5 | 2 | 2.44.5.2.30705(3GB) | 2.44.0.0.26405 | 2.44.5.1.30705 | 2.44.5.1.30554 | Gui.zip, Web Server, DB |
| 45 | - | 2.45.0.0.29559(3GB) | 2.45.0.0.26107 | 2.45.0.0.29559 | 2.45.0.0.29558 | Full Version Release |
| 45.1 | - | 2.45.1.0.30774(3GB) | 2.45.0.0.26107 | 2.45.1.0.30774 | 2.45.1.0.30738 | Gui.zip, Web Service, DB, SQLReporting, Questionnaire, Citrix support |
| 45.1 | 1 | 2.45.1.1.31175(3GB) | 2.45.0.0.26107 | 2.45.1.1.31175 | 2.45.1.1.31174 | Gui.zip, Web Service, DB, SQLReporting, Questionnaire |
| 45.1 | 2 | 2.45.1.1.31175(3GB) | 2.45.0.0.26107 | 2.45.1.2.31378 | 2.45.1.1.31174 | Web Service and Citrix Bridge |
| 45.1 | 3 | 2.45.1.3.31452(3GB) | 2.45.0.0.26107 | 2.45.1.3.31452 | 2.45.1.3.31369 | GUI.zip, Web Service, DB, Questionnaire and Citrix Bridge |
| 45.1 | 4 | 2.45.1.4.31621(3GB) | 2.45.0.0.26107 | 2.45.1.4.31621 | 2.45.1.4.31599 | GUI.zip, Web Service, DB, Questionnaire and Citrix Bridge |
| 45.1 | 5 | 2.45.1.5.31773(3GB) | 2.45.0.0.26107 | 2.45.1.5.31773 | 2.45.1.5.31771 | GUI.zip, Web Service, DB, Questionnaire |
| 45.1 | 6 | 2.45.1.6.32070(3GB) | 2.45.0.0.26107 | 2.45.1.6.32070 | 2.45.1.6.31936 | GUI.zip, Web Service, DB, Questionnaire, Citrix Bridge |
| 45.1 | 7 | 2.45.1.6.32070(3GB) | 2.45.0.0.26107 | 2.45.1.6.32070 | 2.45.1.6.31936 | Web Service for Wedge only. Version number of Wedge is 45.1.6.32614 |
| 45.1 | 8 | 2.45.1.8.33254(3GB) | 2.45.0.0.26107 | 2.45.1.6.32070 | 2.45.1.6.31936 | GUI.zip |
| 45.1 | 9 | 2.45.1.9.33573(3GB) | 2.45.0.0.26107 | 2.45.1.6.32070 | 2.45.1.6.31936 | GUI.zip |
| 2016.1 | - | 2.16.1.0.33419 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge |
| **2016.1** | **1** | **2.16.1.1.33672 (3GB)** | **2.16.1.0.33079** | **2.16.1.0.33419** | **2.16.1.0.33416** | **GUI.zip** |
| **2016.1** | **.0.1** | **2.16.1.0.1 (3GB)** | **2.16.1.0.33079** | **2.16.1.0.33419** | **2.16.1.0.33416** | **GUI.zip (This is not included in 2016.1.1, version directly above)** |
| **2016.1** | **.0.2** | **2.16.1.0.1 (3GB)** | **2.16.1.0.33079** | **2.16.1.0.2** | **2.16.1.0.33416** | **Wedge Web Services only** |
| **2016.1** | **.0.3** | **2.16.1.0.3 (3GB)** | **2.16.1.0.33079** | **2.16.1.0.3** | **2.16.1.0.3.00128918** | **GUI.zip, Web Services and DB** |
| **2016.1** | **.0.4** | **2.16.1.0.4 (3GB)** | **2.16.1.0.33079** | **2.16.1.0.4** | **2.16.1.0.3.00128918** | **GUI.zip, Web Services** |
| **2016.2** | **-** | **2.16.2.0 (3GB)** | **2.16.2.0** | **2.16.2.0** | **2.16.2.0.00172540** | **Full Version Release - GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge** |
| **2016.2** | **1** | **2.16.2.1 (3GB)** | **2.16.2.0** | **2.16.2.0** | **2.16.2.0.00172540** | **GUI.zip and Citrix Bridge** |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# Installing

## Client/GUI

1) Copy and replace the current rRIS…zip file with the eRAD_rRIS_2016.2.1.zip file provided with this release.
   Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

## Citrix Bridge Installer

1) Copy and replace the eRAD RIS Citrix Bridge Installer.exe. Run the Installer on each workstation that will be using Citrix Bridge.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# Server Update

For eRAD RIS
Version 2.0
Build 2.2016.2
Update 2.2016.2.2

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# Table of Contents

Resolved Items ..... 3
Code Stream ..... 4
Package Contents ..... 5
Intended Audience ..... 5
Who is affected ..... 5
eRAD RIS Release Version Numbers ..... 6
Installing ..... 7
Client/GUI ..... 7
Database Updates ..... 7
Citrix Bridge Installer ..... 9

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## Resolved Items

| Redmine # | Subject |
|---|---|
| 14054 | A query scan documents is significantly increasing CPU time on DB |
| 14046 | Insurance Eligibility - IsInsuranceUsingEligbleAPI null reference error |
| 14031 | Saved study data is not displaying on several controls and screens (BI-RADS, Exam Summary, Mammo Drawing) |
| 14026 | Carestream PACS integration is not closing studies |
| 14078 | Adding a new practice causes site(s) from existing practice to be moved |
| 14085 | PACS over Citrix - RIS Crashes when you attempt to open images from mini patient folder in dictation window |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## Code Stream

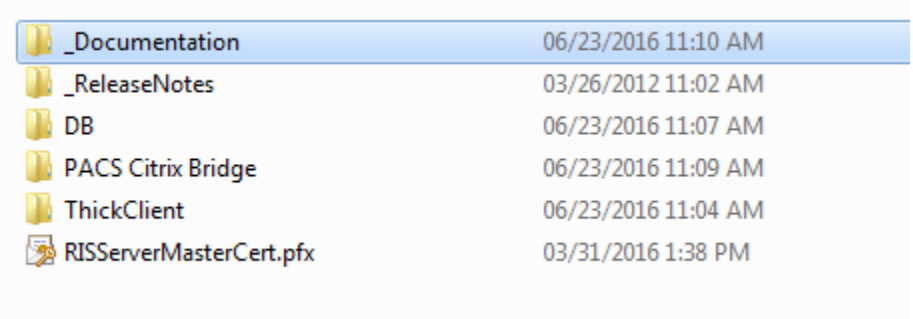
**Legend:**

Light Green = Previously Released software

**Bright Green = Current Release**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## Package Contents




## Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

## Who is affected

Build 2016.2 installs. This server update must be applied to 2016.2

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 43.1 | - | 2.43.1.0.25850(3GB) | 2.43.0.0.23171 | 2.43.1.0.25850 | 2.43.1.0.25771 | GUI.zip Web Service and DB Updates |
| 43.2 | - | 2.43.2.0.26864(3GB) | 2.43.0.0.23171 | 2.43.2.0.26864 | 2.43.1.0.25771 | GUI.zip and Web Service |
| 44 | - | 2.44.0.0.26570(3GB) | 2.44.0.0.26405 | 2.44.0.0.26570 | 2.44.0.0.26475 | Full Version Release |
| 44.1 | - | 2.44.0.0.26984(3GB) | 2.44.0.0.26405 | 2.44.0.0.26984 | 2.44.0.0.26906 | Gui.zip, Web Service, and DB |
| 44.1 | 1 | 2.44.1.1.27093(3GB) | 2.44.0.0.26405 | 2.44.1.0.26984 | 2.44.1.0.26906 | Gui.zip |
| 44.2 | | 2.44.2.0.27410(3GB) | 2.44.0.0.26405 | 2.44.2.0.27410 | 2.44.2.0.27365 | Gui.zip, Web Service, and DB |
| 44.2 | 1 | 2.44.2.1.27959(3GB) | 2.44.0.0.26405 | 2.44.2.1.27959 | 2.44.2.1.27909 | Gui.zip, Web Service, and DB |
| 44.2 | 2 | 2.44.2.1.27959(3GB) | 2.44.0.0.26405 | 2.44.2.2.28094 | 2.44.2.1.27909 | Web Service |
| 44.3 | - | 2.44.3.0.28292 | 2.44.0.0.26405 | 2.44.3.0.28277 | 2.44.3.0.28138 | Gui.zip, Web Service, and DB |
| 44.3 | 1 | 2.44.3.1.28535(3GB) | 2.44.0.0.26405 | 2.44.3.1.28535 | 2.44.3.0.28138 | Gui.zip and Web Service |
| 44.4 | - | 2.44.4.0.28762(3GB) | 2.44.0.0.26405 | 2.44.4.0.28762 | 2.44.4.0.28676 | Gui.zip, Web Server, DB, SSRS Deployment |
| 44.4 | 1 | 2.44.4.1.28953(3GB) | 2.44.0.0.26405 | 2.44.4.1.28953 | 2.44.4.0.28676 | Gui.zip and Web Service |
| 44.4 | 2 | 2.44.4.2.29327(3GB) | 2.44.0.0.26405 | 2.44.4.2.29327 | 2.44.4.0.28676 | Gui.zip and Web Service |
| 44.4 | 3 | 2.44.4.2.29722(3GB) | 2.44.0.0.26405 | 2.44.4.2.29327 | 2.44.4.0.28676 | Gui.zip and Web Service |
| 44.5 | - | 2.44.5.0.30022(3GB) | 2.44.0.0.26405 | 2.44.5.0.30022 | 2.44.5.0.29976 | Gui.zip, Web Server, DB |
| 44.5 | 1 | 2.44.5.1.30451(3GB) | 2.44.0.0.26405 | 2.44.5.1.30451 | 2.44.5.1.30449 | Gui.zip, Web Server, DB |
| 44.5 | 2 | 2.44.5.2.30705(3GB) | 2.44.0.0.26405 | 2.44.5.1.30705 | 2.44.5.1.30554 | Gui.zip, Web Server, DB |
| 45 | - | 2.45.0.0.29559(3GB) | 2.45.0.0.26107 | 2.45.0.0.29559 | 2.45.0.0.29558 | Full Version Release |
| 45.1 | - | 2.45.1.0.30774(3GB) | 2.45.0.0.26107 | 2.45.1.0.30774 | 2.45.1.0.30738 | Gui.zip, Web Service, DB, SQLReporting, Questionnaire, Citrix support |
| 45.1 | 1 | 2.45.1.1.31175(3GB) | 2.45.0.0.26107 | 2.45.1.1.31175 | 2.45.1.1.31174 | Gui.zip, Web Service, DB, SQLReporting, Questionnaire |
| 45.1 | 2 | 2.45.1.1.31175(3GB) | 2.45.0.0.26107 | 2.45.1.2.31378 | 2.45.1.1.31174 | Web Service and Citrix Bridge |
| 45.1 | 3 | 2.45.1.3.31452(3GB) | 2.45.0.0.26107 | 2.45.1.3.31452 | 2.45.1.3.31369 | GUI.zip, Web Service, DB, Questionnaire and Citrix Bridge |
| 45.1 | 4 | 2.45.1.4.31621(3GB) | 2.45.0.0.26107 | 2.45.1.4.31621 | 2.45.1.4.31599 | GUI.zip, Web Service, DB, Questionnaire and Citrix Bridge |
| 45.1 | 5 | 2.45.1.5.31773(3GB) | 2.45.0.0.26107 | 2.45.1.5.31773 | 2.45.1.5.31771 | GUI.zip, Web Service, DB, Questionnaire |
| 45.1 | 6 | 2.45.1.6.32070(3GB) | 2.45.0.0.26107 | 2.45.1.6.32070 | 2.45.1.6.31936 | GUI.zip, Web Service, DB, Questionnaire, Citrix Bridge |
| 45.1 | 7 | 2.45.1.6.32070(3GB) | 2.45.0.0.26107 | 2.45.1.6.32070 | 2.45.1.6.31936 | Web Service for Wedge only. Version number of Wedge is 45.1.6.32614 |
| 45.1 | 8 | 2.45.1.8.33254(3GB) | 2.45.0.0.26107 | 2.45.1.6.32070 | 2.45.1.6.31936 | GUI.zip |
| 45.1 | 9 | 2.45.1.9.33573(3GB) | 2.45.0.0.26107 | 2.45.1.6.32070 | 2.45.1.6.31936 | GUI.zip |
| 2016.1 | - | 2.16.1.0.33419 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge |
| 2016.1 | 1 | 2.16.1.1.33672 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | GUI.zip |
| 2016.1 | .0.1 | 2.16.1.0.1 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | GUI.zip (This is not included in 2016.1.1, version directly above) |
| 2016.1 | .0.2 | 2.16.1.0.1 (3GB) | 2.16.1.0.33079 | 2.16.1.0.2 | 2.16.1.0.33416 | Wedge Web Services only |
| 2016.1 | .0.3 | 2.16.1.0.3 (3GB) | 2.16.1.0.33079 | 2.16.1.0.3 | 2.16.1.0.3.00128918 | GUI.zip, Web Services and DB |
| 2016.1 | .0.4 | 2.16.1.0.4 (3GB) | 2.16.1.0.33079 | 2.16.1.0.4 | 2.16.1.0.3.00128918 | GUI.zip, Web Services |
| 2016.2 | - | 2.16.2.0 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.0.00172540 | Full Version Release - GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge |
| 2016.2 | 1 | 2.16.2.1 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.0.00172540 | GUI.zip and Citrix Bridge |
| **2016.2** | **2** | **2.16.2.2 (3GB)** | **2.16.2.0** | **2.16.2.0** | **2.16.2.2.00243102** | **GUI.zip, DB and Citrix Bridge** |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# Installing

## Client/GUI

1) Copy and replace the current rRIS…zip file with the eRAD_rRIS_2016.2.2.zip file provided with this release.
   Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

## Database Updates

Always run the upgrade scripts in a test environment of the actual database to make sure they run cleanly. If any errors occur please contact development.

*Note: There is a new upgrade process introduced with B43.1 called "RunUpgrade.bat". The batch file will open a command window. This process will prompt you for the database server name, database name and authentication credentials. There is no need to run the database upgrade scripts manually as was done in previous releases.*

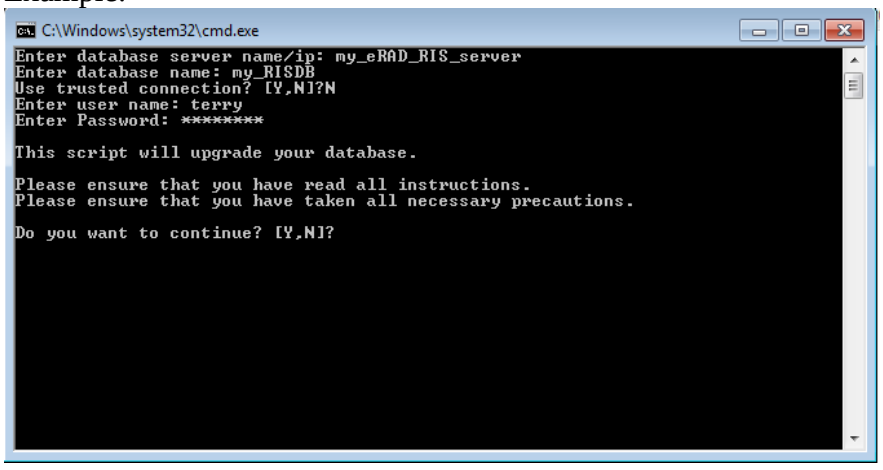
1) From the upgrade folder, double click the "RunUpgrade.bat" command file.

2) Enter the server name, database name and authentication credentials to the database. You have 2 choices for authentication credentials.

3) You can choose to use "Trusted connection". Using this option will pass the identity of the currently logged on user. If this user has "db_owner" access to the eRAD RIS database then feel free to use this options.

4) If you decide not to use "Trusted connection" then you will be prompted for user id and password.

   Example:




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

5) After the upgrade program has finished you can find the upgrade logs in the "log" folder. The file name will be eRAD_RIS_db_upgrade_timestamp.log, where timestamp is a value representing the date and time the upgrade started. If you see any errors please contact the development team

6) In the Common folder there is a subfolder of MU. The MU folder contains updates to lookups relevant for MU as well as updates for Zip Code table to add the County. Copy the MU folder to the database server before running the batch file. There is a readme file contained in the MU folder. The details have also been included below

   a) The mu bulk install process must be run from a path on the database server!
   b) Copy Files ImportDataFileUpgradeDB.bat and ImportDataFileUpgradeDB.sql from upgrade folder to a location on the database server(This location will be referred to as the "Script Folder Path".)
   c) Copy Folder scripts and Source files from the upgrade folder to "Script Folder Path" ....Note source files must be inside the scripts folder
   d) Run bat file
      i) Enter Script Folder path [C:\Temp\SNOMED]:
      ii) Enter database server name/ip: [ie peidev1]
      iii) Enter database name: [ie rRIS_MU]
      iv) Use a trusted connection to log on to SQL Server:
      "N" means you will have to enter db [username] [password]
      "Y" means you have a trusted connection and will not have to enter [username][password]
      v) Do you wish to load SNOMED concept codes?
      "N" no files will be loaded into the l_snomed_concept table
      "Y" yes means l_snomed_concept table will be truncated and reloaded with the latest US concept codes
      Source File [sct2_Concept_Snapshot_US1000124_20140301.txt]
      vi) Do you wish to load SNOMED descriptions codes?
      "N" no files will be loaded into the l_snomed_description table
      "Y" yes means the l_snomed_description table will be truncated and reloaded with the latest US description codes
      Source File [sct2_Description_Snapshot-en_US1000124_20140301.txt]
      vii) Do you wish to load ICD9 to SNOMED mappings codes?
      "N" no files will be loaded into the l_snomed_icd9_map table
      "Y" yes means the l_snomed_icd9_map table will be truncated and reloaded with the latest US ICD9 to SNOMED mapping codes
      Source File [ICD9CM_SNOMED_MAP_1TO1_201312.txt and ICD9CM_SNOMED_MAP_1TOM_201312.txt]
      viii) Do you wish to load ICD10 to SNOMED mappings codes?

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

"N" no files will be loaded into the l_snomed_icd10_map table
"Y" yes means the l_snomed_icd10_map table will be truncated and reloaded with the latest US ICD10 to SNOMED mapping codes
Source File [xder2_iissscRefset_ExtendedMapSnapshot_US1000124_20131220.txt]

ix) Do you wish to load US zip codes?
"N" no files will be loaded into the z_zipCodesWithCounty table
"Y" yes means the z_zipCodesWithCounty table will be truncated and reloaded with the latest US zip codes
Source File [5-digit Commercial.csv]

**********
Note: the following files should be loaded once only with B43!
**********

x) Do you wish to load CMS codes?
"N" no files will be loaded into the s_mu_code table
"Y" yes means the s_mu_code table will be truncated and reloaded with the latest CMS codes
Source File [s_mu_code.txt]

xi) Do you wish to load HL7 support sets for CCDA?
"N" no files will be loaded into the l_hl7v3_voc_value_set table
"Y" yes means the l_hl7v3_voc_value_set table will be truncated and reloaded with the latest hl7v3_voc_value_set codes
Source File [l_hl7_voc_value_set.txt]

xii) Do you wish to load HL7 support codes for CCDA?
"N" no files will be loaded into the l_hl7v3_voc_value_code table
"Y" yes means the l_hl7v3_voc_value_code table will be truncated and reloaded with the latest l_hl7v3_voc_value_code codes
Source File [l_hl7_voc_value_code.txt]

## Citrix Bridge Installer

Copy and replace the eRAD RIS Citrix Bridge Installer.exe. Run the Installer on each workstation that will be using Citrix Bridge.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

RadNet Technology Solutions

**27 May 2016**

# Customer Release Notes

## RIS Version 2

## Build 2016.2

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## TABLE OF CONTENTS

Table of Contents ..... 2

Purpose ..... 5

Intended Audience ..... 5

New Features and Enhancements ..... 6

General ..... 6

12999 – Create a Configurable Default Values Framework ..... 6

7532 – Allow referring physicians to opt out of Marketing Faxes ..... 6

9569 – Add Email Delivery Preference to Search Screen and Address Summary ..... 7

13090 – Capture Patient's County on the Patient Demographics Tab ..... 8

Reception ..... 9

13327 – Imagine Payment Portal Integration ..... 9

Insurance Eligibility & Verification ..... 15

13110 – Update the PAYERS.JSON URL to Resume Ability to Add New Payers ..... 15

13481 – Ability to Configure Eligibility Rules to Ignore the Amount to Collect for an Exam When Certain Insurance Carriers Are Included ..... 16

Technologist ..... 16

12911 – Create a Configuration Option to Default the Logged-In User as the Performing Technologist ..... 16

13157 – Support Tech Only Workflow Based on Procedure Code in Addition to Patient Class ..... 16

Radiologist ..... 17

13069 – Ability to Open Signed Reports in a Radiologist Layout as ReaD-Only ..... 17

PACS Integrations ..... 18

13351 – RIS/PACS Sync Enhancements ..... 18

12915 – GE Universal Viewer – Integrate based on Accession Number Instead of Study Instance UID ..... 20

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

Digital Forms ..... 20

12991 – Load Selected Answers from Previous Digital Form ..... 20

Work Lists ..... 21

7812 – Add a Sedation Required Flag to Work Lists ..... 21

12675 – Add Referring and Patient Type (Class) Columns to Billing Exception and Billing Confirmation Work Lists ..... 21

13613 – Limit the Scope of the IVT Work List to a Set of Sites ..... 22

EMR ..... 23

8158 – EMR Order Reassociation ..... 23

CD Import ..... 25

9511 – option to Retain the Institution Name from the CD or Substitute an Alternative Institution Name for CD Import ..... 25

Interfacing ..... 26

13228 – Receive and Update Billing Codes Via Interface ..... 26

11989 – Configurable XML File Drop ..... 27

Localization ..... 29

13409 – Support Spanish Language in eRAD RIS ..... 29

Platform ..... 29

12697 – Minimum Supported .NET Framework Version is now 4.5.2 ..... 29

13183 – Microsoft SQL Server 2008 R2 SP3 has been validated ..... 29

Code Stream ..... 30

RIS Release Version Numbers ..... 31

New Settings ..... 33

New access strings ..... 33

New system configuration settings ..... 33

Resolved Defects ..... 33

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

Resolved Defects for 2.2016.2 ..... 33

Known Limitations ..... 43

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## PURPOSE

This is the customer Release Notes document for eRAD RIS Version 2016.2.

Not every feature will be described in this document. Typically only features which can be visually demonstrated to the user are outlined here.

## INTENDED AUDIENCE

This document was created by the eRAD RIS Development team and Product Management team for eRAD RIS customers.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

# NEW FEATURES AND ENHANCEMENTS

## GENERAL

### 12999 – CREATE A CONFIGURABLE DEFAULT VALUES FRAMEWORK

eRAD RIS allows the Service Team to add validation rules to improve data integrity and meet custom business needs that are specific to a customer's individual needs. As an expansion of this capability, eRAD RIS now supports the specification of default values for various fields in RIS, based on a configurable set of criteria.

#### *Key Features*

- Almost any field can be selected from Patient, Visit, Order, or Study.
- A field that has a value will not be overwritten by a default value.
- Defaults can be optionally configured so that they apply to a single practice, a particular action undertaken by the user (e.g. StudyStarted), or so they only take effect once a study has reached a certain status in the workflow.
- A default value can be specified as a literal value, e.g. "42" or "routine screening," or it may be a special token value, e.g. $UserID, that will be replaced at runtime (see Special Default Value Tokens).
- Default values may be associated with one or more additional conditions that all must be met before the default will be applied.

**How to enable the Feature:**

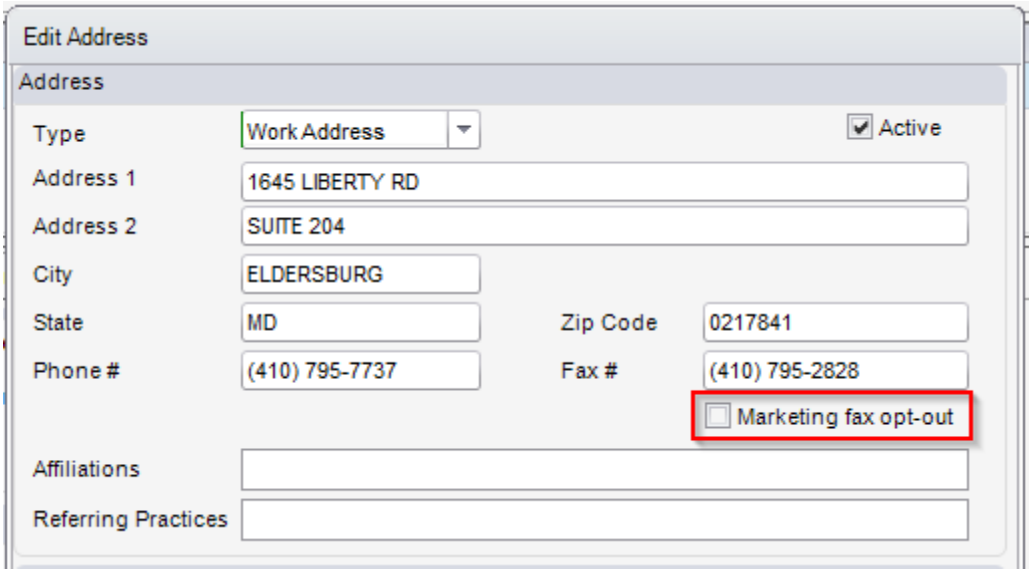
***Please contact the eRAD Support team for assistance.***

### 7532 – ALLOW REFERRING PHYSICIANS TO OPT OUT OF MARKETING FAXES

Some customers send mass faxes out to their referral base as a way of marketing new services or promotions. We have added a feature to indicate when a referring physician does not want to receive these faxes.

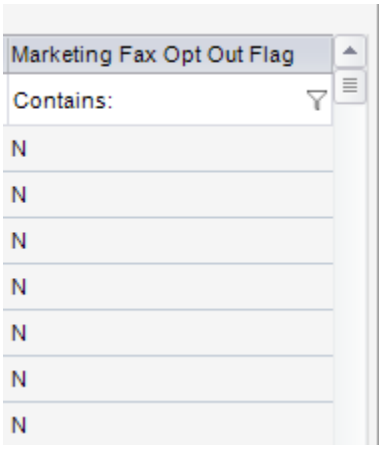
A "Marketing fax opt-out" checkbox has been added to the Personnel table for each address, so that a referring physician can choose to opt out of marketing faxes for one location, but still receive them for another if desired.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.




If the referring physician has multiple addresses, checking the opt-out box for one address's fax number will prompt the user: "Do you wish to opt out for all fax numbers associated to this referring doctor?" Answering yes will check the opt-out box for all fax numbers.

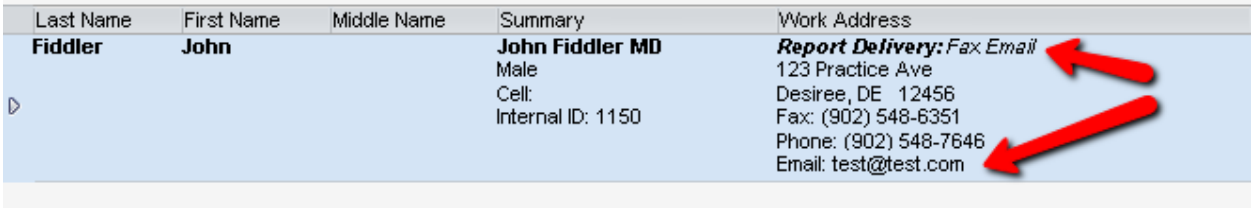
The Referring Addresses lookup also now has a new column to allow setting the flag on multiple address rows.



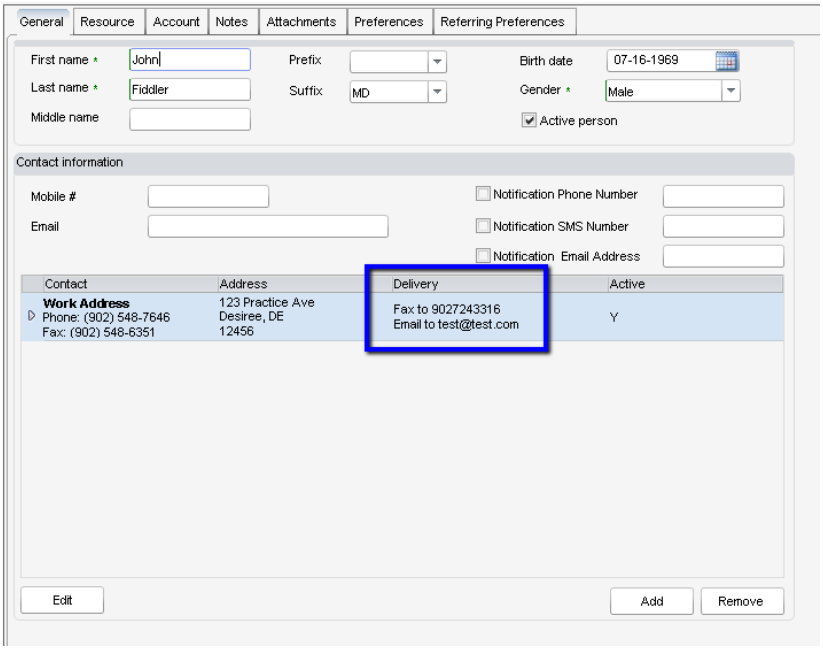

## 9569 – ADD EMAIL DELIVERY PREFERENCE TO SEARCH SCREEN AND ADDRESS SUMMARY

If a referring physician has a report delivery preference of Email, that information is now displayed in the address section on the internal person Search Results screen. Other delivery preferences will continue to be displayed as well.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.




In addition, the Email delivery preference will be visible in the address summary grid within the Personnel editor, under the Delivery column.




## 13090 – CAPTURE PATIENT'S COUNTY ON THE PATIENT DEMOGRAPHICS TAB

In some markets, government regulations require the submission of data which includes the patient's county. This field has been added to the Patient tab in the address section. Entering the patient's zip code will automatically populate the patient's county, unless a particular zip code crosses multiple counties. In those cases, the user will need to manually select the county.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

The County field will be available by default. If desired, it can be hidden by utilizing a custom access string. It can be set as a required field using a validation rule. Please contact eRAD Support with either request.

## RECEPTION

### 13327 – IMAGINE PAYMENT PORTAL INTEGRATION

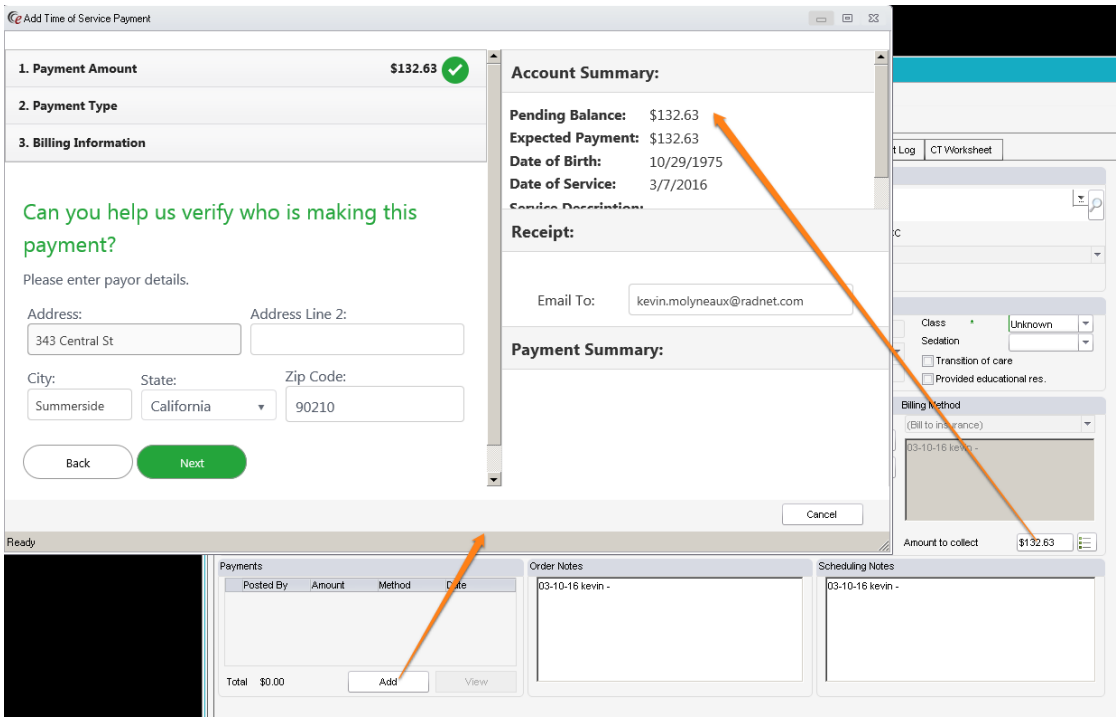
Customers using Imagine Billing now have the ability to seamlessly integrate with the Imagine Payment Portal for time of service payments. eRAD RIS will launch the Payment Portal without the need for the receptionist to re-type any patient information, which should reduce data entry errors and ensure we have the correct patient account.

The "Add" payments button will launch the patient's account in the Imagine Payment Portal in a new window. Within the Payment Portal session, the user can pay with multiple methods such as Cash and Credit Card in one transaction. When they submit the payment via Imagine, one receipt will print for all payments. A row for each payment type will be recorded in the RIS payment grid. Using the "right click / void" context menu in RIS, the user can void each part of the transaction by payment type without needing to relaunch the Payment Portal. Users will also be able to reprint receipts via the right click "Print Receipt" context menu option.

**Details:**

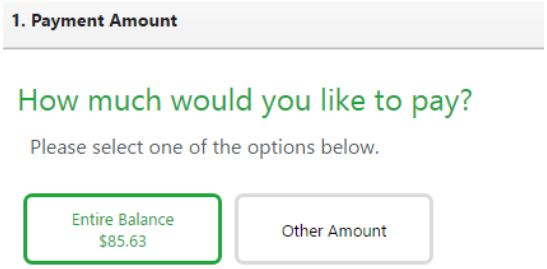
When the user clicks the "Add" payment button for a site that is configured to use the Imagine Payment Portal, the portal is displayed in the following pop-up.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.



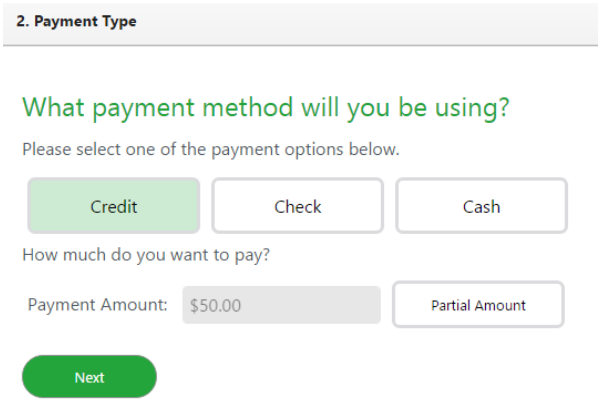

The Pending Balance is pre-populated with the remaining amount to collect value from eRAD RIS, and other key fields, such as email and mailing address, are also pre-populated.

First, the receptionist will be asked to choose the amount the patient is going to pay today. If Other Amount is selected, a payment less than the entire balance can be entered; however, the receptionist will not be allowed to complete the payment process if the amount entered here is not met when splitting the amount across multiple payment types (cash, credit cards, checks, etc.).



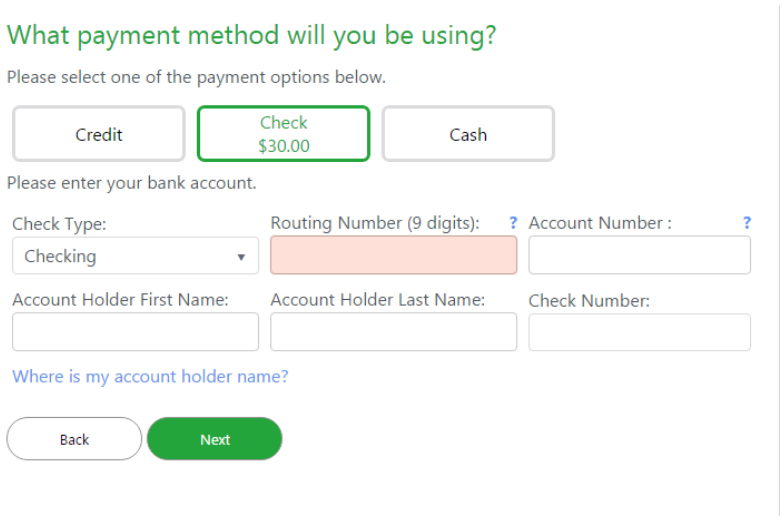

Next, the receptionist will select the type of payment. If the patient is splitting the payment amount between multiple payment methods, click the Partial Amount button to enter the amount for the first payment method.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.




Credit Card and Check payment methods will require additional information.

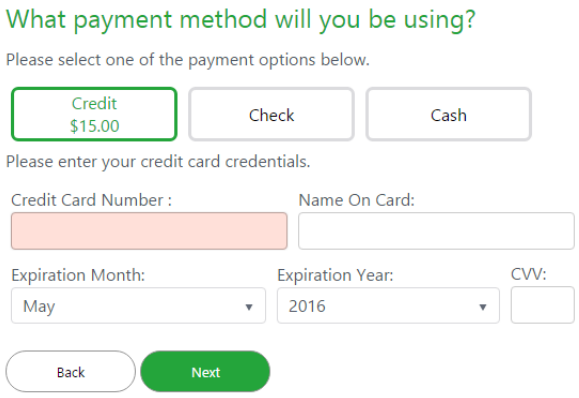
Check:



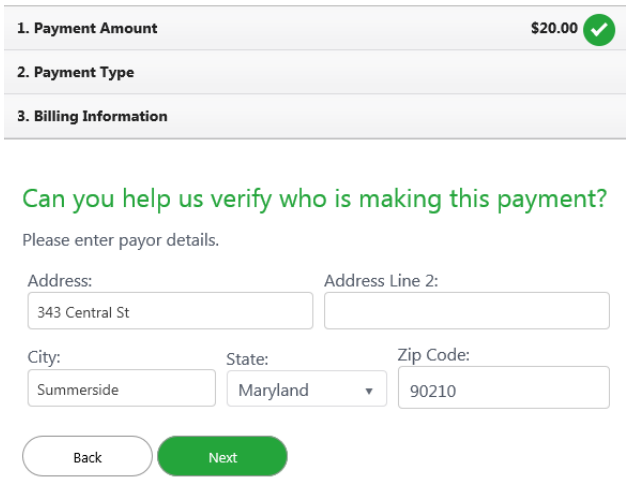

Hovering over the blue question marks on this screen will provide a hint to the user for locating the information on the check.

Credit:

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

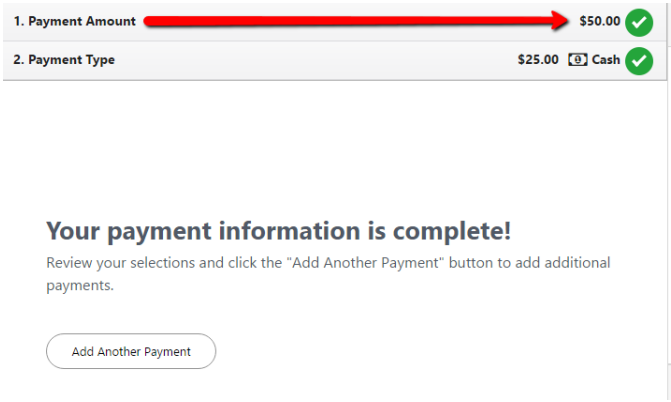



Billing address information will default to the Responsible Party's mailing address but if that address does not exist in RIS, it will default to the patient's address.

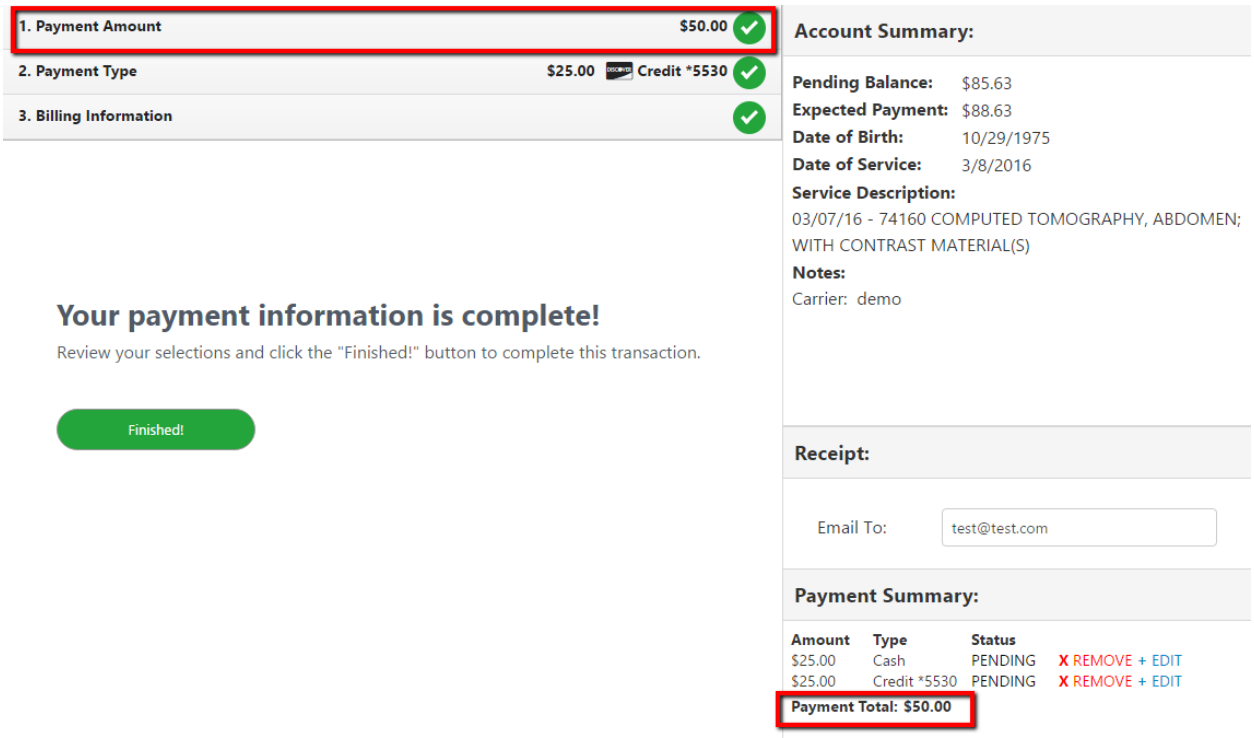



After completing the required information for the payment method, you will be asked to Add Another Payment if the total Payment Amount entered in step 1 has not been reached. (Remember, the Payment Amount can be less than the Pending Balance, but the payments must add up to this manually selected amount.)

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.




When the Payment Amount has been reached (i.e. the Payment Amount and Payment Total match), the receptionist will be presented with a button labeled “Finished!” They must click this button to finalize the payment.

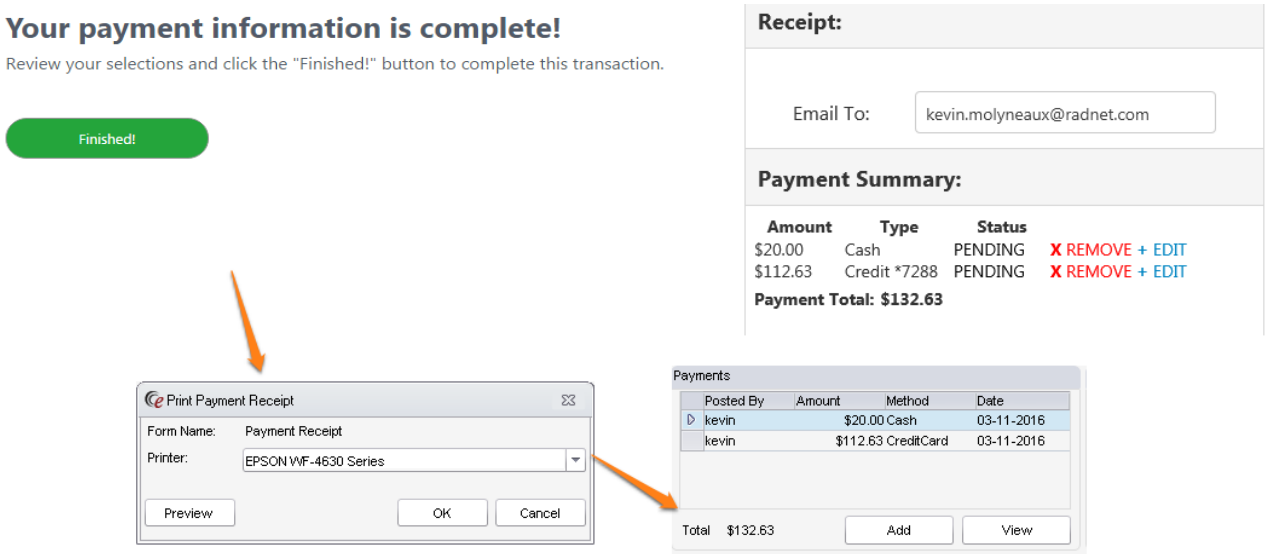



When the user clicks “Finished!” the print receipt dialog is displayed. At this moment, the transaction has been saved in both the Imagine and RIS databases.

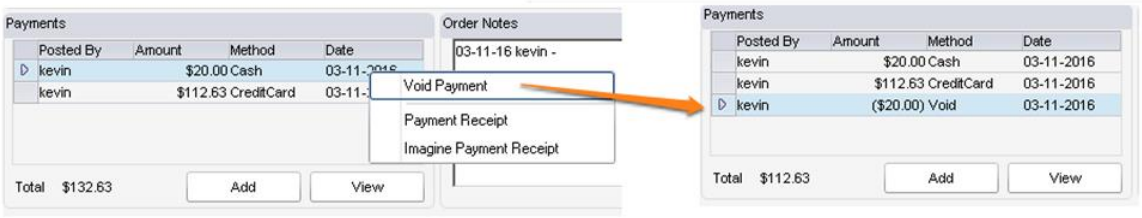
In the following workflow, two payments were collected in one Payment Portal session. There was a cash payment of $20 and the remaining balance was paid with the credit card. When the “Finished!” button is clicked, the “Print

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

Payment Receipt" dialog is presented and the user has the option to Preview or Print the RIS receipt, which details both amounts and includes the billing codes, insurance co-pay, and co-insurance details.

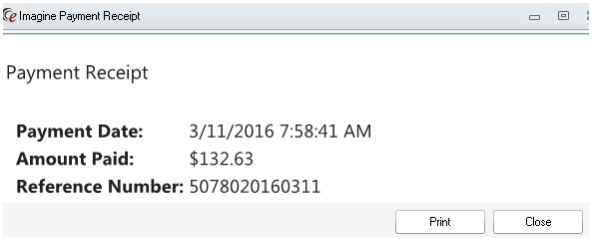



After the payment is made, staff can void portions of the payment. For example in the below image, the user is voiding only the cash portion of the payment ($20).




The Imagine receipt is stored as a PDF in the RIS system. Clicking on the "Imagine Payment Receipt" context menu item (as shown above) displays the PDF and gives the user the option to reprint. This receipt is similar to the receipt emailed to the customer's "Email To" address.

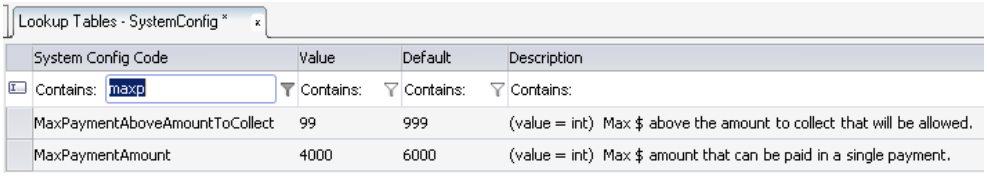
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.




There is also a configuration option to display the Imagine Payment Receipt as part of the Payment Workflow. This workflow configuration setting might be helpful in the future when the Imagine Payment Portal supports payment plans. At that time, the receipt will likely contain details on the payment plan agreement.

Note regarding Amount to Collect limits:

The same configuration options exist for setting a maximum payment amount and a maximum payment above the amount to collect value as previously existed.




| System Config Code | Value | Default | Description |
|---|---|---|---|
| Contains: maxp | Contains: | Contains: | Contains: |
| MaxPaymentAboveAmountToCollect | 99 | 999 | (value = int) Max $ above the amount to collect that will be allowed. |
| MaxPaymentAmount | 4000 | 6000 | (value = int) Max $ amount that can be paid in a single payment. |

Just as before, users will be prevented from entering a collection amount greater than:

MaxPaymentAboveAmountToCollect + AmountToCollect

When the amount to collect is less than the MaxPaymentAmount, then a user will be prevented from entering an amount greater than MaxPaymentAmount.

**How to enable the Feature:**

***Please contact the eRAD Support team for assistance.***

**Important Note: This feature requires client to have IE browser version 9 or newer.**

## INSURANCE ELIGIBILITY & VERIFICATION

### 13110 – UPDATE THE PAYERS.JSON URL TO RESUME ABILITY TO ADD NEW PAYERS

For organizations using the Eligibility feature, eRAD RIS previously gave administrators the ability to pick Eligibility Payer IDs from a list generated from https://www.eligibleapi.com/resources/payers/eligibility.xml once per session. If you believe Eligible API has added newer entries, you need to restart the RIS application.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

Unfortunately, the list at the previous URL has been deprecated. We now retrieve the payer list from: https://account.eligible.com/rest#latest_payers.

### 13481 – ABILITY TO CONFIGURE ELIGIBILITY RULES TO IGNORE THE AMOUNT TO COLLECT FOR AN EXAM WHEN CERTAIN INSURANCE CARRIERS ARE INCLUDED

By default, we always collect the co-pay amount when multiple insurance carriers are active for an order. In some scenarios, money should not be collected if a particular insurance is selected as a secondary insurance. For example, if the patient's secondary insurance is Medicaid, the amount to collect should be 0.

A column titled "*Collect with Multiple Carriers Flag*" has been added to the Carrier lookup table.

| Carrier Code | Description | Collect With Multiple Carriers Flag |
|---|---|---|
| Contains: | Contains: medicaid | Contains: |
| Click here to add a new row | | |
| 1500 | MEDICAID | N |

If set to N, the Amount to Collect will be set to 0 if the insurance is active for an order, regardless of the insurance's priority (primary, secondary, tertiary, etc.).

## TECHNOLOGIST

### 12911 – CREATE A CONFIGURATION OPTION TO DEFAULT THE LOGGED-IN USER AS THE PERFORMING TECHNOLOGIST

The ability to default the performing technologist to the user who is currently logged into RIS has been requested for some time. With the addition of the Default Values framework, described later in this document, we now have the ability to configure this option when desired. If the logged in user is a Technologist and the Performing Technologist field is blank, the logged in user will be defaulted into the field and can be changed if needed.

**How to enable the Feature:**

***Please contact the eRAD Support team for assistance.***

### 13157 – SUPPORT TECH ONLY WORKFLOW BASED ON PROCEDURE CODE IN ADDITION TO PATIENT CLASS

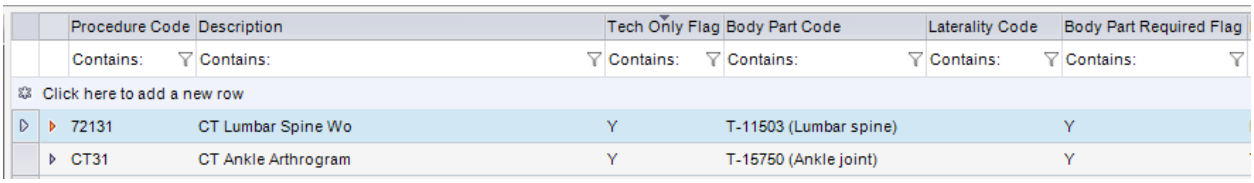
There are scenarios where an eRAD RIS customer is required to only perform a diagnostic procedure and not produce report of the findings. This is referred to as Tech Only workflow. Currently, this is determined by the Class of the patient on the visit. If the class is set to "Tech Only" and the procedure is completed by the

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

technologist, the study is not forwarded to the radiologist for dictation and the status changes to "Exam Done [Tech Only]."

We have expanded the Tech Only workflow to be based on Patient Class ***or*** Procedure Code.

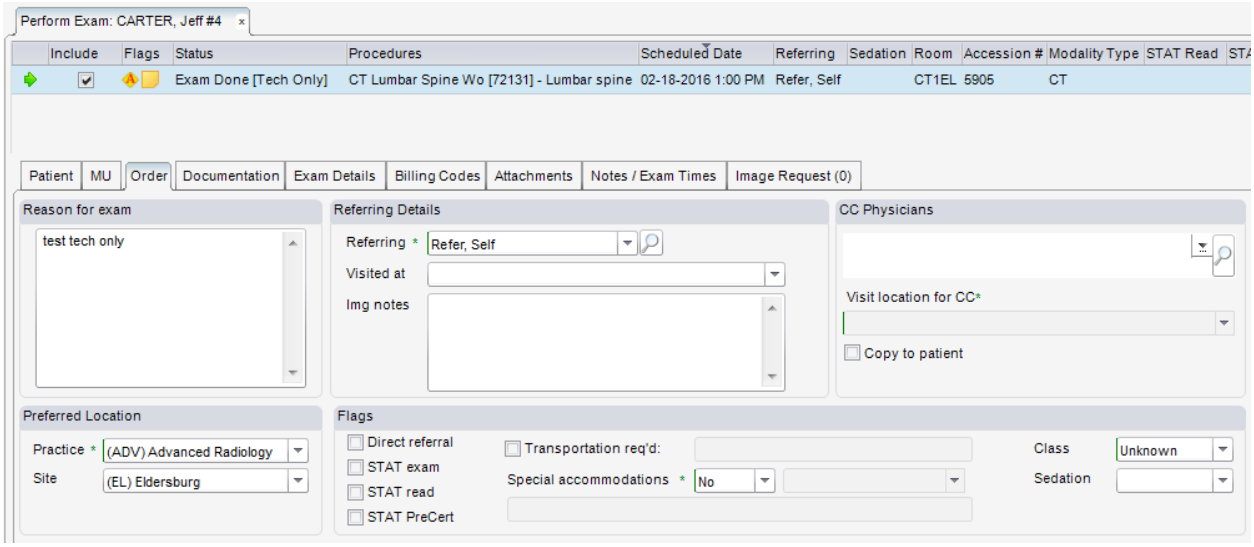
A new field has been added to the Procedure Code lookup called *Tech Only Flag* that defaults to 'N.'



| Procedure Code | Description | Tech Only Flag | Body Part Code | Laterality Code | Body Part Required Flag |
|---|---|---|---|---|---|
| Contains: | Contains: | Contains: | Contains: | Contains: | Contains: |
| Click here to add a new row | | | | | |
| 72131 | CT Lumbar Spine Wo | Y | T-11503 (Lumbar spine) | | Y |
| CT31 | CT Ankle Arthrogram | Y | T-15750 (Ankle joint) | | Y |

If the Tech Only Flag for a procedure code is set to 'Y,' the status will become Exam Done [Tech Only] instead of Exam Done when the procedure is marked as complete.

Upon completion of the exam, the system will check to determine if the patient class is set to 'Tech Only' **OR** if the procedure code for the performed study has the Tech Only Flag set to 'Y.' In either case, the status will advance to Exam Done [Tech Only] and the exam will not fall to the Pending Dictation WL.



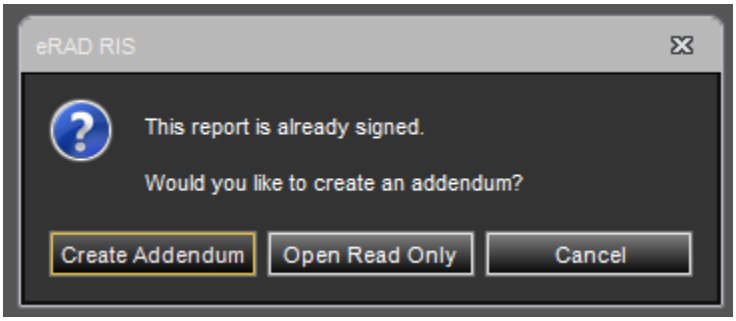

## RADIOLOGIST

### 13069 – ABILITY TO OPEN SIGNED REPORTS IN A RADIOLOGIST LAYOUT AS READ-ONLY

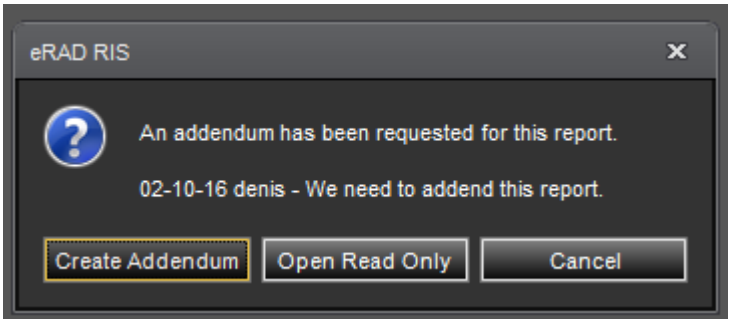
Radiologists sometimes need to look at a prior exam outside of the normal dictation workflow, such as when a referring physician calls to discuss a case. There is a desire to be able to open the case in the Radiologist Layout format, so that all of the data is at their fingertips in the panels to which they are accustomed.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

Now when the radiologist opens a signed report, we have added an option to the Addendum dialog box to open in read only mode.




The Open Read Only option is also available when an addendum has already been requested.




When the screen opens in read only mode, it operates in the same fashion as our existing read only mode that is used when the study is locked or dictated by someone else.

Outstanding issue: When reading in PowerScribe 360, the "Create Addendum" prompt is suppressed in eRAD RIS because PowerScribe issues its own prompt. Therefore, the option to Open Read Only would only be available for PowerScribe users when an addendum has been requested, which is shown in eRAD RIS due to the additional notes about the addendum request. This will be addressed in a future release.

## PACS INTEGRATIONS

### 13351 – RIS/PACS SYNC ENHANCEMENTS

In order to improve the process of keeping RIS and PACS in sync, there are times when RIS will need to wait for PACS and block the user from performing certain actions until the PACS has begun the process of opening the current patient's images. This is accomplished by displaying a message dialog, and disabling the main page on the RIS application under certain circumstances. As a result, RIS will not move faster than PACS creating a situation where the radiologist may be looking at a previous patient's images while reporting on the current patient in RIS.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

There are 3 new dialog boxes which provide feedback and guide/throttle the workflow in order to keep things synchronized. Efforts have been made to decrease the amount of time a radiologist would see or need to interact with the messages, while at the same time reducing risk. For example, as soon as the current patient's images have *started* to load in PACS, we allow the user to move forward in RIS, instead of waiting until the images are completely loaded.

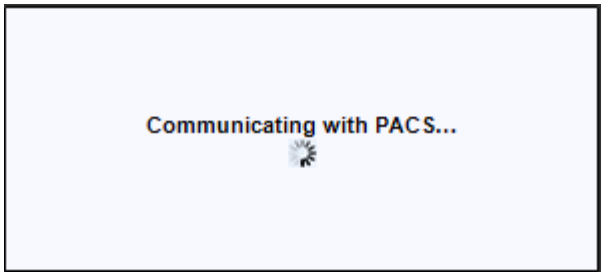
## *Dialog boxes used in RIS PACS Synchronization*

**Communicating with PACS**

This dialog will show when PACS is busy on another exam and RIS has moved on to a new one. If PACS catches up before RIS is finished loading the reporting screen, then this dialog will not be displayed. If PACS is still busy closing or opening a previous exam, the message will be displayed to the radiologist to indicate that the process of updating the PACS images to match the current RIS exam is still underway. When the message does display, it will close on its own as soon as PACS has progressed to opening the current exam, even if the images are still loading.

Examples:

- RIS has a study open, and is waiting for PACS to close the previous study and start opening the current one.
- RIS opened a study that should not show images, it will wait for the previous study to close in PACS.

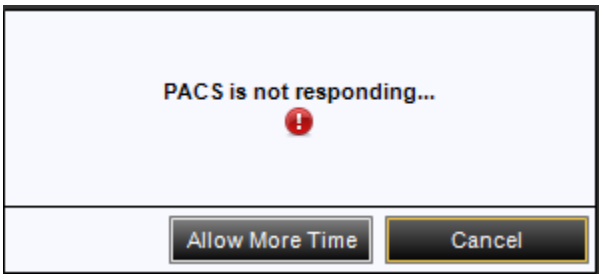



**PACS is not responding**

This dialog will be shown after the "Communicating with PACS" dialog has been displayed for 45 seconds and PACS has not yet begun the process of opening the current exam. If it takes PACS more than 45 seconds to finish working on previous exams and start opening the current one, then this will be shown and user should select "Allow more time" if they believe PACS simply is taking longer to finish. If the user believes PACS is no longer responding, they should select "Cancel" and take appropriate actions to rectify the problem.

Examples:

- PACS took 50 seconds to finish opening the previous study, and another 10 seconds to close it. User should "Allow more time."
- PACS is having problems connecting to the server. User should "Cancel."



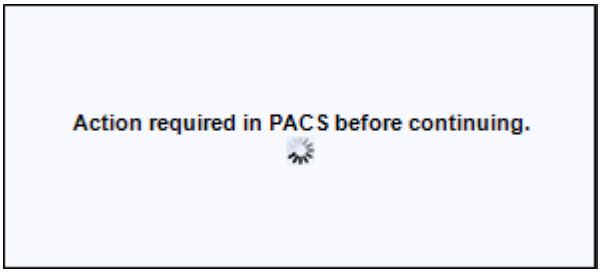

**Action required in PACS before continuing**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

This dialog is to prevent RIS from issuing more requests to PACS while PACS is waiting for user input on one of its own dialogs. When PACS is waiting for the user to "Break a lock or Open read-only," for example, and RIS attempts to issue a new open request, this dialog will be shown until the action has been taken in PACS. Once that happens this dialog will close, and the new open request will be sent over to PACS.

Examples:

- Radiologist skips to the next exam in RIS, while PACS has an open dialog box regarding breaking a lock in PACS.
- PACS opens an exam and displays an error prompt, while radiologist skips to the next exam in RIS.




Special Note for GE PACS-IW: When multiple PACS windows are open, it is possible that the user might be left with the wrong images up. The described synchronization will only work properly if the user only opens one set of images at a time. This is no different than it would have been before. If the radiologist opens a case that cannot or should not display images (signing workflow for example), PACS will close its last set of images, but if there were more open, they will remain open and will be visible.

### 12915 – GE UNIVERSAL VIEWER – INTEGRATE BASED ON ACCESSION NUMBER INSTEAD OF STUDY INSTANCE UID

A customer requested that integration between eRAD RIS and GE Universal Viewer occur by passing the Accession number instead of the Study Instance UID. This is now possible.

## DIGITAL FORMS

### 12991 – LOAD SELECTED ANSWERS FROM PREVIOUS DIGITAL FORM

In cases where a patient has more than one exam that requires a specific Digital Form, we may not want to prompt the user to re-enter all of the answers from scratch. In the future, we may allow Digital Forms to be linked to the patient or order level, but for the current release, we have created a feature to optionally load answers from *recent* versions of the same form and use those answers as defaults.

The time frame for "recent forms" is defined by a new System Configuration setting labeled '*DigitalFormsNumberOfDaysToPullForward*' with a default of 2 days. This can be adjusted as desired.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

A new attribute was added to Digital Forms to enable this functionality on a form by form basis. If the attribute is *not* turned on, there should be no change in the behavior of Digital Forms. If the attribute is on, we will load the most recent answers for the same patient and form, provided any were completed within the configured time frame.

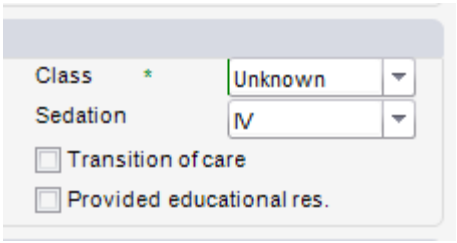
This feature most likely should not be used for Report Assistant Digital Forms that will be populated by the Radiologist as part of the report creation process.

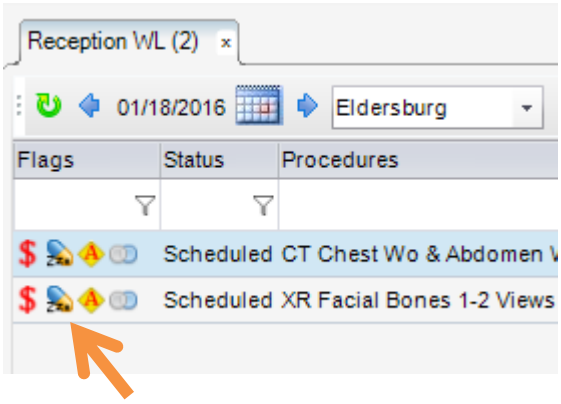
Loading previous answers does not currently work during Scheduling or Walk In workflow. It requires a study that already exists in the database.

## WORK LISTS

### 7812 – ADD A SEDATION REQUIRED FLAG TO WORK LISTS

When Sedation is indicated via the Sedation drop-down on the Order tab, a new flag will appear on the work lists.




The flag does not change depending on the type of sedation, but is intended to draw the user's attention to the fact that some type of sedation is required. It is possible to filter the work list by this flag, if it is desirable to create a Custom View for Sedation patients.

If the user then resets the Sedation drop-down back to null (no option chosen), the flag will be removed.

### 12675 – ADD REFERRING AND PATIENT TYPE (CLASS) COLUMNS TO BILLING EXCEPTION AND BILLING CONFIRMATION WORK LISTS

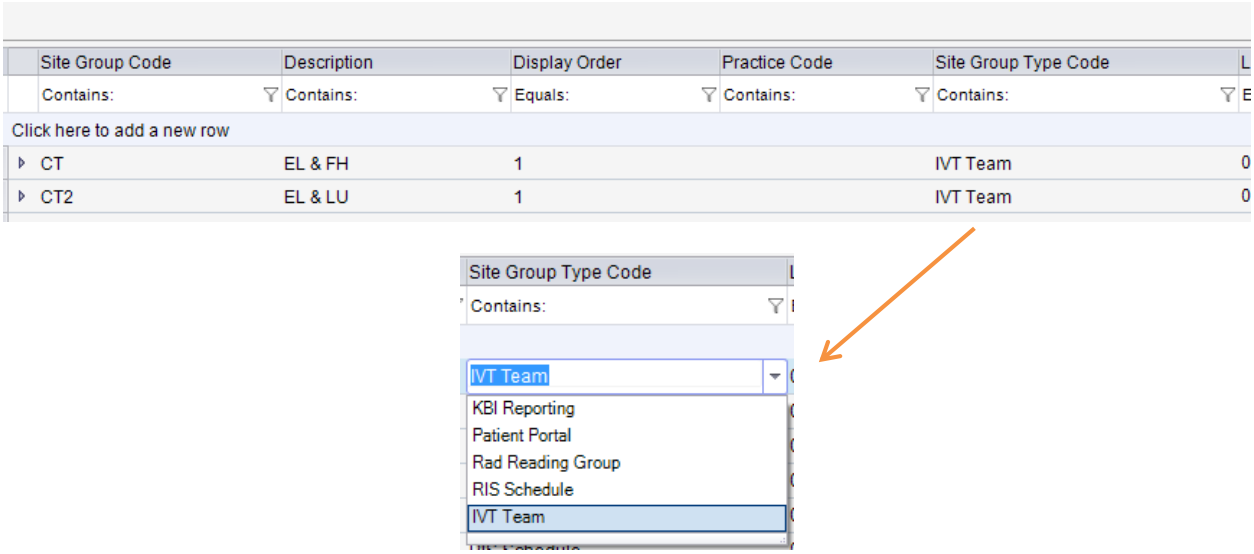
Two new columns were made available on the Billing Exceptions and Billing Confirmation work lists: Referring and Patient Type (Class).

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

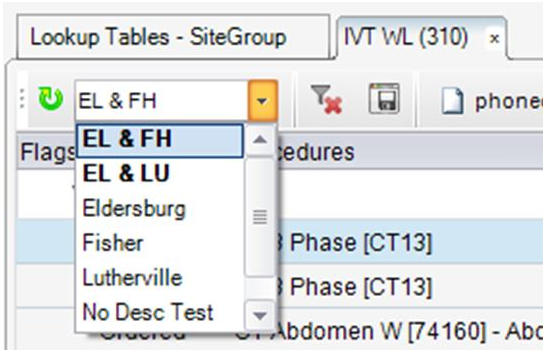
## 13613 – LIMIT THE SCOPE OF THE IVT WORK LIST TO A SET OF SITES

In order to improve IVT work list performance, the IVT work list was constrained to reduce the use of practice-wide work list filters. Several work lists in RIS, such as the Reception WL, have a drop-down list that allows the user to specify a single site; this functionality was enhanced for IVT to allow the user to specify a collection of sites through the use of Site Groups.

Site Groups are a collection of sites that may or may not exist within a single practice. A site group can be configured with a site group type. There is now an *IVT Team* site group type.

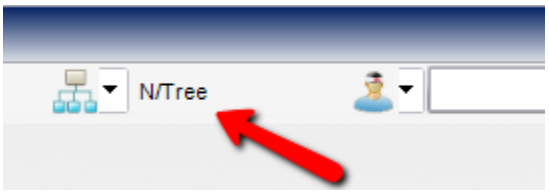



Any site group with a type of IVT Team is eligible to appear in the top left portion of the IVT work list tab. Site groups will be shown in bold above a list of individual sites for the practice currently selected in the Organization Picker.




The list of site groups is filtered to show only those relevant to the current user for their current "Org Picker" selection in the top right portion of RIS.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.



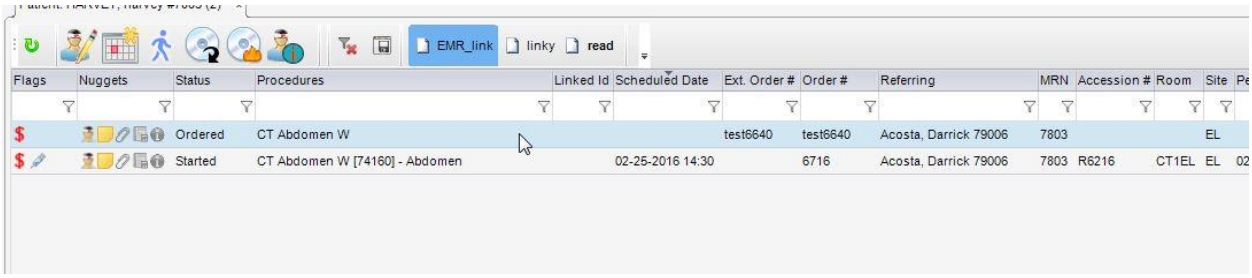

Only the IVT Team site groups that contain the currently selected site or at least one site from within the current practice will be included. There is also an additional filter to ensure that the user is not presented with site groups that contain sites that belong to practices to which the user has not been granted access in the Personnel Editor.

The list of sites and site groups will change as the user changes their currently selected filter in the Org Picker. The user's selected site or site group should be persisted and reloaded from one login session to the next. At this time, the Site Group work list functionality is only available for the IVT work list.

## EMR

### 8158 – EMR ORDER REASSOCIATION

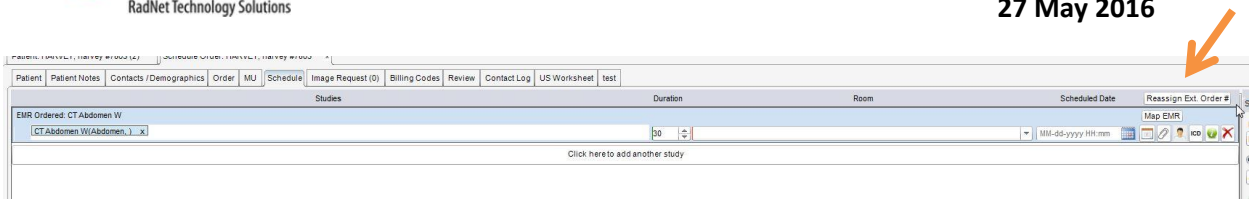
Sometimes exams for EMRs are scheduled without using the electronic order, whether this is accidental or the electronic order was received after the patient called to schedule or register for the exam.



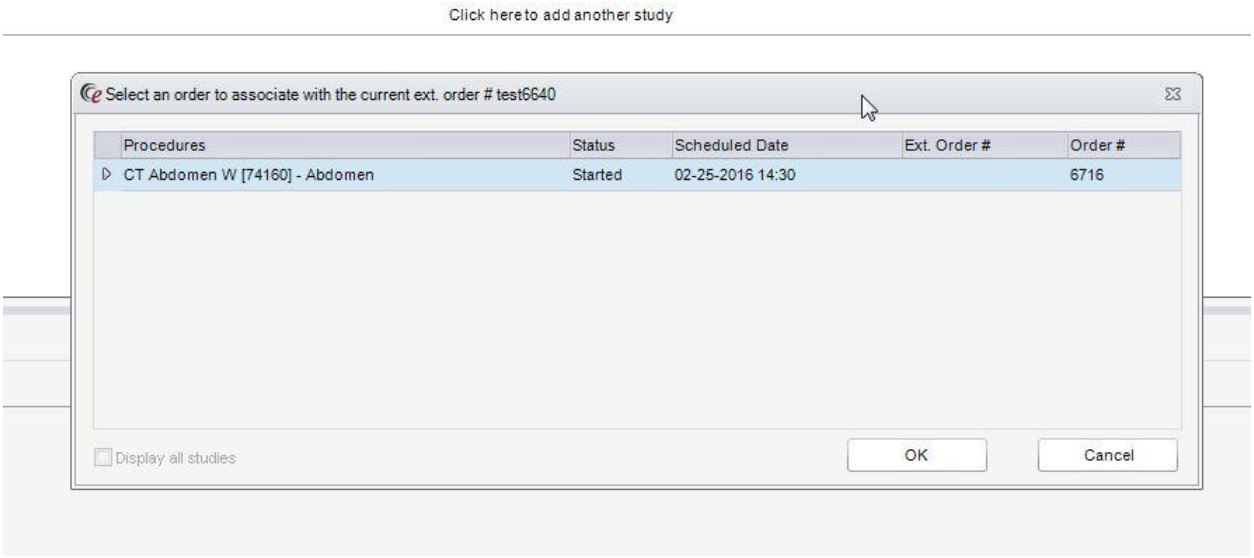

Until now, the process for associating the EMR's external order number and other data from the EMR order after the fact has been laborious and inefficient. eRAD RIS now has the ability to reassign the external order #, issuer, and associated scanned documents to an internal order, without overriding any of the data fields that have already been filled in for the internal order. The external order will be cancelled after it has been copied over to the internal order.

Where the RIS previously displayed the "Import" button on the scheduling screen for EMR orders, we will now display the "Reassign Ext. Order" button.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

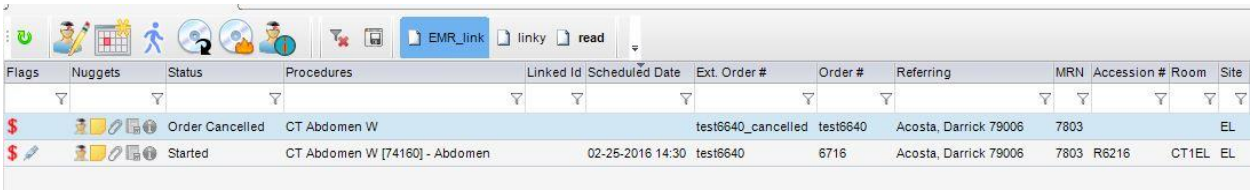



This will bring up the list of orders to choose from as it did before; however it will not have a Next button to load the Import Studies mapping screen, but instead will simply have an OK submission button.




Upon selecting an order and submitting, the selected order will assume the current open EMR order's external order #, issuer and scanned documents.

The original EMR order's placer_order_number will be left intact but appended with "_cancelled." This order is then cancelled.




The report for the exam will now flow to the EMR upon signature as usual.

EMR and non-EMR studies can still be moved to different orders with the Patient Folder right-click menu item Import Studies. This functionality has been left intact and allows for moving exams between orders as needed.

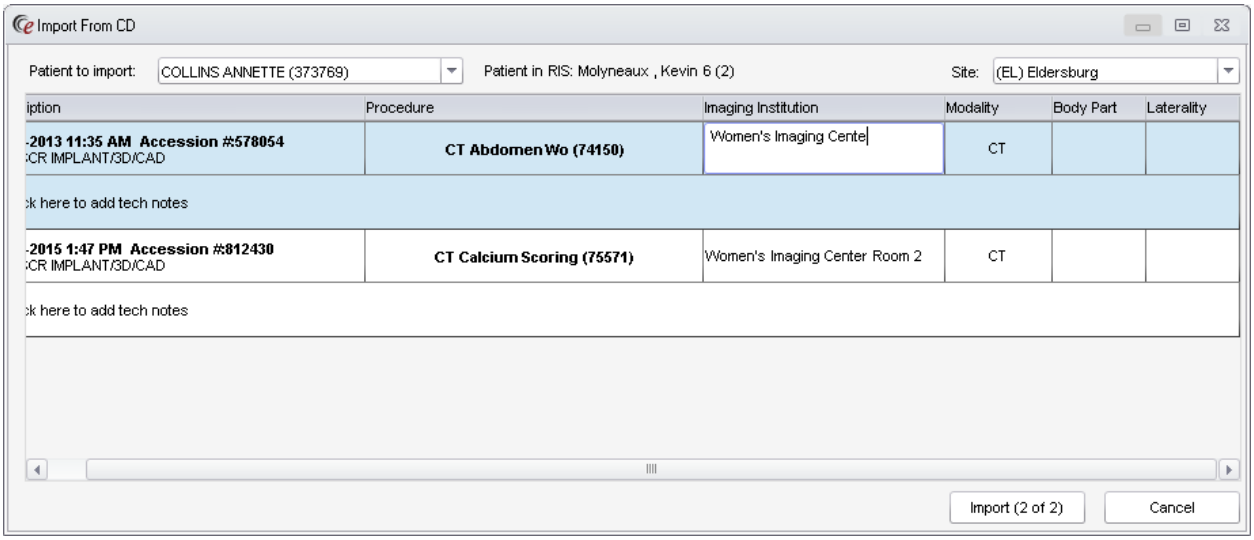
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

# CD IMPORT

## 9511 – OPTION TO RETAIN THE INSTITUTION NAME FROM THE CD OR SUBSTITUTE AN ALTERNATIVE INSTITUTION NAME FOR CD IMPORT

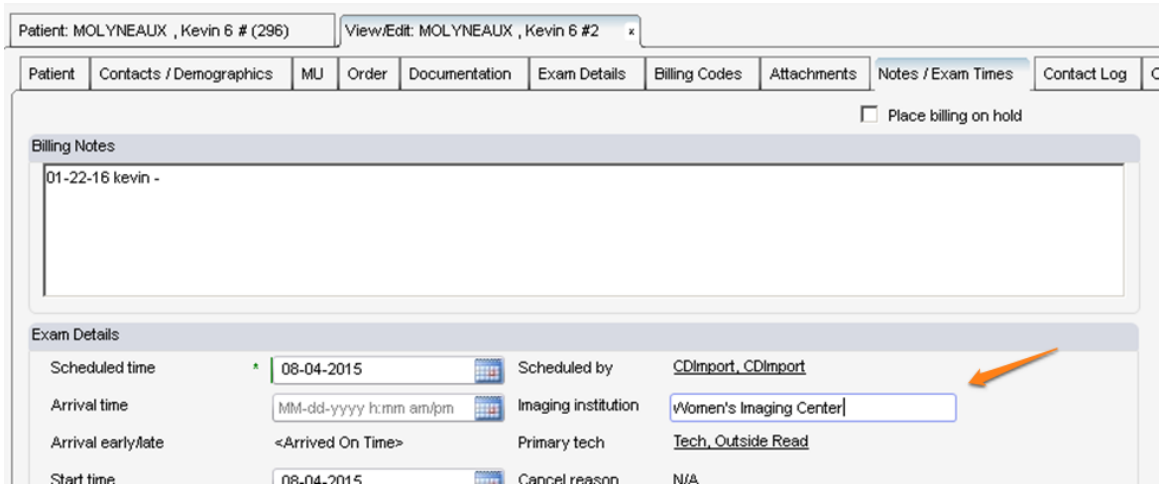
When importing CDs via eRAD RIS, clients have requested the ability to import the Institution Name from the DICOM data on the CD or have the option to coerce their own Institution Name. This allows for more flexibility in how the exams and images are labeled, and allows the radiologist to easily identify where a prior exam was performed when creating the report.

We now take the DICOM field *institution_name* from the CD and store it in the database field *c_study.cd_import_institution_name*. When importing a CD, the institution name will show for each study, as there might be a different institution name per study. In eRAD RIS, the field will always be identified as Imaging Institution as shown in the following:

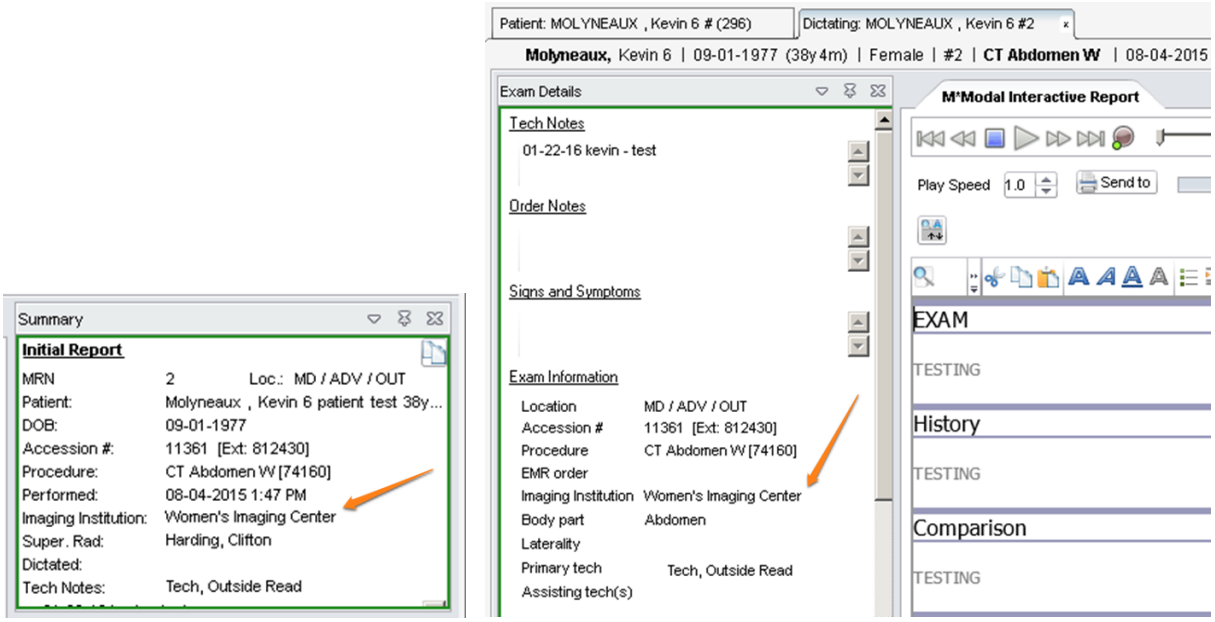



The user can click on the Imaging Institution and edit the contents as shown in the above. Users can also modify the Imaging Institution on the "Notes/ Exam Times" tab after import, by opening in View/Edit mode. The Imaging Institution will only display if the type of exam is a CD Import, which is any study "scheduled" by the user "CDImport." The CD Import is a user account (typically inactive), which must be created to perform a CD Import.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.




Radiologists can see the Imaging Institution in the Summary and Exam Details panels. The Imaging Institution field will only display if the exam was imported via the eRAD RIS CD Import tool.




## INTERFACING

### 13228 – RECEIVE AND UPDATE BILLING CODES VIA INTERFACE

An enhancement was requested to allow a customer interface to be able to send and update billing codes and units.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

These requirements were also requested:

- If update was sent to RIS from the third party system, RIS should not add a billing code to a study (accession #) that was cancelled in RIS.
- If update was sent to RIS from the third party system, the RIS should not add a billing code that is already exists in the study (accession #).

To meet these needs, the external interface service was enhanced to receive and process c_study_item_certification updates.

The message sent to the service can define if updates should or should not be applied to Cancelled studies.

The message can also specify whether the billing codes it contains should replace what is currently in RIS and override the default logic applied based on the procedure code to billing code rules. Any billing codes that should have been added based on the configuration will be added as inactive billing codes.

The schema for the External Interface Service has been updated to include the definition of these two attributes.

The logic that adds missing billing codes to studies based on the procedure code configuration was also updated to not take effect for studies in Cancelled, Discontinued, or Void statuses.

If a message is sent with a c_study_item_certification node, the system will add or update the data provided.

Two new attributes can be applied to the Study node to provide some logic to control the updates.

- update_sic_on_cancelled_study - (Y or N) if attribute is present and set to N, the system will not update the c_study_item_certification data if the studies status is cancelled. Otherwise, updates will happen as normal.
- override_sic – (Y or N) if attribute is present and set to Y, the system will apply the insert/update of the c_study_item_certification data provided in the message and will not allow the automatic addition of the c_study_item_certification data based on procedure code configuration. It will also mark any currently active billing codes inactive if they are not contained in the message.

## 11989 – CONFIGURABLE XML FILE DROP

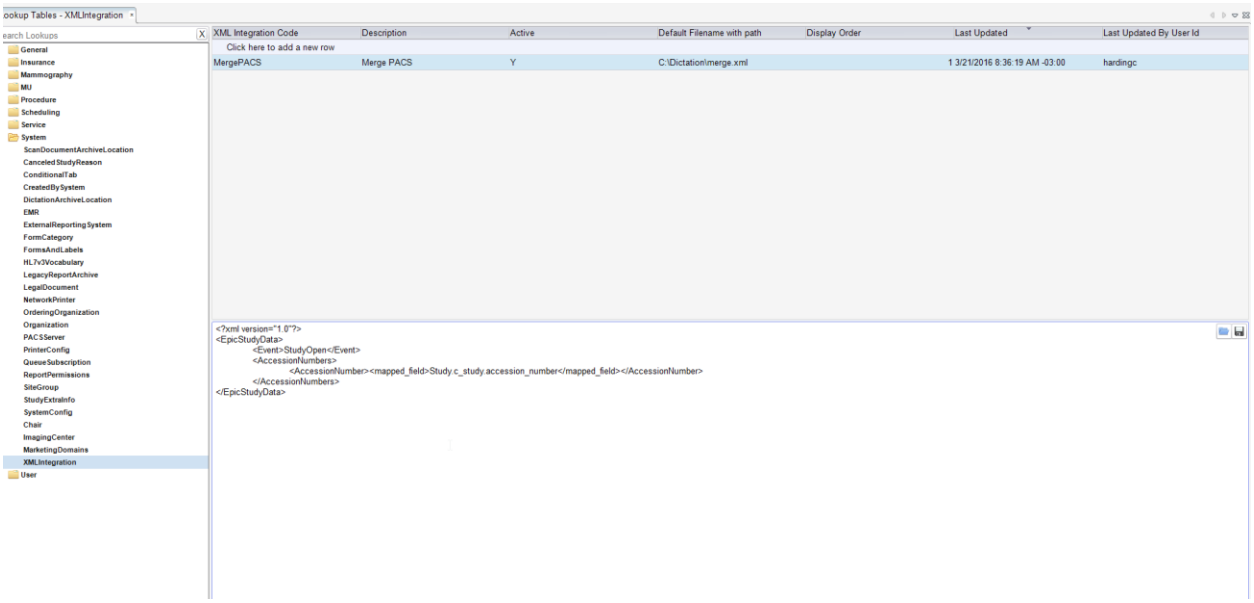
eRAD RIS now has the ability to configure XML files and allow users to write them out when opening or focusing a reporting tab. This functionality was needed for Merge PACS integration, but may be utilized for other possible third party product integrations.

**Administration**

The XML files are stored in a new lookup table, "*XML Integration*," that allows administrators to add, modify or delete entries. Access to the lookup is controlled by the new access string: *Config.LookupEditor.XMLIntegration*.

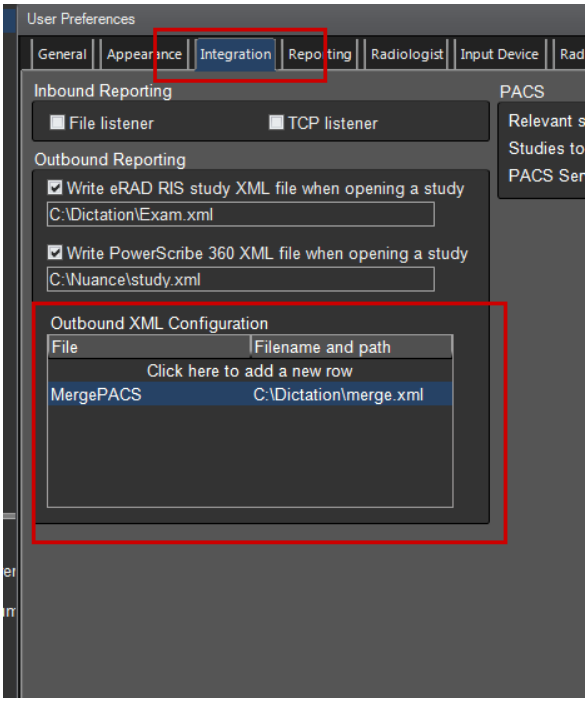
***Please contact the eRAD Support team for assistance with XML file drops.***

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.




**User preferences**

Configuration of which XML file(s) should be written when focusing or opening a reporting tab is done in the user preference screen. This XML integration grid contains a list of files to be written when opening a study. Each file references a lookup value and a path to which it will write. It will assume the default path but allows overriding. The same XML file can be written multiple times.




No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## LOCALIZATION

### 13409 – SUPPORT SPANISH LANGUAGE IN ERAD RIS

Resource files have been added for Spanish language localization. Note that configuration screens have not been localized.

## PLATFORM

### 12697 – MINIMUM SUPPORTED .NET FRAMEWORK VERSION IS NOW 4.5.2

As previously communicated, Microsoft has ended support for .NET framework versions below 4.5.2 and we are raising the minimum requirement for eRAD RIS in response. A .NET folder with the installer for 4.5.2 will be provided with the upgrade.

### 13183 – MICROSOFT SQL SERVER 2008 R2 SP3 HAS BEEN VALIDATED

eRAD RIS has been validated with Microsoft SQL Server 2008 R2 SP3.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## CODE STREAM

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## RIS RELEASE VERSION NUMBERS

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Notes |
|---|---|---|---|---|---|---|
| 43.1 | - | 2.43.1.0.25850(3GB) | 2.43.0.0.23171 | 2.43.1.0.25850 | 2.43.1.0.25771 | GUI.zip Web Service and DB Updates |
| 43.2 | - | 2.43.2.0.26864(3GB) | 2.43.0.0.23171 | 2.43.2.0.26864 | 2.43.1.0.25771 | GUI.zip and Web Service |
| 44 | - | 2.44.0.0.26570(3GB) | 2.44.0.0.26405 | 2.44.0.0.26570 | 2.44.0.0.26475 | Full Version Release |
| 44.1 | - | 2.44.0.0.26984(3GB) | 2.44.0.0.26405 | 2.44.0.0.26984 | 2.44.0.0.26906 | Gui.zip, Web Service, and DB |
| 44.1 | 1 | 2.44.1.1.27093(3GB) | 2.44.0.0.26405 | 2.44.1.0.26984 | 2.44.1.0.26906 | Gui.zip |
| 44.2 | | 2.44.2.0.27410(3GB) | 2.44.0.0.26405 | 2.44.2.0.27410 | 2.44.2.0.27365 | Gui.zip, Web Service, and DB |
| 44.2 | 1 | 2.44.2.1.27959(3GB) | 2.44.0.0.26405 | 2.44.2.1.27959 | 2.44.2.1.27909 | Gui.zip, Web Service, and DB |
| 44.2 | 2 | 2.44.2.1.27959(3GB) | 2.44.0.0.26405 | 2.44.2.2.28094 | 2.44.2.1.27909 | Web Service |
| 44.3 | - | 2.44.3.0.28292 | 2.44.0.0.26405 | 2.44.3.0.28277 | 2.44.3.0.28138 | Gui.zip, Web Service, and DB |
| 44.3 | 1 | 2.44.3.1.28535(3GB) | 2.44.0.0.26405 | 2.44.3.1.28535 | 2.44.3.0.28138 | Gui.zip and Web Service |
| 44.4 | - | 2.44.4.0.28762(3GB) | 2.44.0.0.26405 | 2.44.4.0.28762 | 2.44.4.0.28676 | Gui.zip, Web Server, DB, SSRS Deployment |
| 44.4 | 1 | 2.44.4.1.28953(3GB) | 2.44.0.0.26405 | 2.44.4.1.28953 | 2.44.4.0.28676 | Gui.zip and Web Service |
| 44.4 | 2 | 2.44.4.2.29327(3GB) | 2.44.0.0.26405 | 2.44.4.2.29327 | 2.44.4.0.28676 | Gui.zip and Web Service |
| 44.4 | 3 | 2.44.4.2.29722(3GB) | 2.44.0.0.26405 | 2.44.4.2.29327 | 2.44.4.0.28676 | Gui.zip and Web Service |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

| | | | | | | |
|---|---|---|---|---|---|---|
| 44.5 | - | 2.44.5.0.30022(3GB) | 2.44.0.0.26405 | 2.44.5.0.30022 | 2.44.5.0.29976 | Gui.zip, Web Server, DB |
| 44.5 | 1 | 2.44.5.1.30451(3GB) | 2.44.0.0.26405 | 2.44.5.1.30451 | 2.44.5.1.30449 | Gui.zip, Web Server, DB |
| 44.5 | 2 | 2.44.5.2.30705(3GB) | 2.44.0.0.26405 | 2.44.5.1.30705 | 2.44.5.1.30554 | Gui.zip, Web Server, DB |
| 45 | - | 2.45.0.0.29559(3GB) | 2.45.0.0.26107 | 2.45.0.0.29559 | 2.45.0.0.29558 | Full Version Release |
| 45.1 | - | 2.45.1.0.30774(3GB) | 2.45.0.0.26107 | 2.45.1.0.30774 | 2.45.1.0.30738 | Gui.zip, Web Service, DB, SQLReporting, Questionnaire, Citrix support |
| 45.1 | 1 | 2.45.1.1.31175(3GB) | 2.45.0.0.26107 | 2.45.1.1.31175 | 2.45.1.1.31174 | Gui.zip, Web Service, DB, SQLReporting, Questionnaire |
| 45.1 | 2 | 2.45.1.1.31175(3GB) | 2.45.0.0.26107 | 2.45.1.2.31378 | 2.45.1.1.31174 | Web Service and Citrix Bridge |
| 45.1 | 3 | 2.45.1.3.31452(3GB) | 2.45.0.0.26107 | 2.45.1.3.31452 | 2.45.1.3.31369 | GUI.zip, Web Service, DB, Questionnaire and Citrix Bridge |
| 45.1 | 4 | 2.45.1.4.31621(3GB) | 2.45.0.0.26107 | 2.45.1.4.31621 | 2.45.1.4.31599 | GUI.zip, Web Service, DB, Questionnaire and Citrix Bridge |
| 45.1 | 5 | 2.45.1.5.31773(3GB) | 2.45.0.0.26107 | 2.45.1.5.31773 | 2.45.1.5.31771 | GUI.zip, Web Service, DB, Questionnaire |
| 45.1 | 6 | 2.45.1.6.32070(3GB) | 2.45.0.0.26107 | 2.45.1.6.32070 | 2.45.1.6.31936 | GUI.zip, Web Service, DB, Questionnaire, Citrix Bridge |
| 45.1 | 7 | 2.45.1.6.32070(3GB) | 2.45.0.0.26107 | 2.45.1.6.32070 | 2.45.1.6.31936 | **Web Service for Wedge only. Version number of Wedge is 45.1.6.32614** |
| 45.1 | 8 | 2.45.1.8.33254(3GB) | 2.45.0.0.26107 | 2.45.1.6.32070 | 2.45.1.6.31936 | GUI.zip |
| **2016.1** | - | 2.16.1.0.33419 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge |
| **2016.2** | - | 2.16.2.0 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.0.00172540 | |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

# NEW SETTINGS

## NEW ACCESS STRINGS

| Setting | Default | Purpose |
|---|---|---|
| Config.LookupEditor.XMLIntegration | None | Access to the XML Integration lookup |

## NEW SYSTEM CONFIGURATION SETTINGS

| Setting | Default | Purpose |
|---|---|---|
| DigitalFormsNumberOfDaysToPullForward | 2 | Number of days considered “recent” for carrying forward digital form answers on configured forms |
| DisplayImaginePaymentPortalReceiptInWorkflow | FALSE | To determine whether Imagine version of Payment receipt will print if using Imagine Payment Portal |
| ImaginePaymentPortalAPIURL | | Provided by Imagine Software if applicable |
| ImaginePaymentPortalClientID | | Provided by Imagine Software if applicable |
| ImaginePaymentPortalDataset | | Provided by Imagine Software if applicable |
| ImaginePaymentPortalPassword | | Provided by Imagine Software if applicable |
| ImaginePaymentPortalURL | | Provided by Imagine Software if applicable |
| RISSystemID | | For identifying RIS System for Imagine Payment Portal |

# RESOLVED DEFECTS

## RESOLVED DEFECTS FOR 2.2016.2

Bugs and support issues resolved in build 2.2016.2. The extract is taken from Redmine bug tracking system and only displays defects resolved in 2.2016.2.

| Bug # | Category | Subject |
|---|---|---|

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

| | | |
|---|---|---|
| 12993 | Admin-Monitoring/Alerts | Character limit is too small for 'External Notification Email Address' in the Message Group table |
| 7456 | All Workflows | Changing the procedure to a non-hold code procedure from the patient folder will not push study to pending PACS Correction WL |
| 11471 | Archiving | Work lists that have audio length and audio size columns are displaying a blank values |
| 13584 | CD Import | CD Import intermittently throws an error - The issue is with UTF8 encoded files and the PDU reader defaulting to ASCII |
| 13181 | Digital Forms | A misconfigured digital form can cause an error |
| 13222 | Digital Forms | A required field in a digital form can be left empty and saved |
| 13009 | Digital Forms | An error can be thrown on reschedule when a digital form has not yet loaded |
| 12587 | Digital Forms | Digital Forms editor needs a logout option |
| 13216 | Digital Forms | Parent question field is not updating in the digital form editor |
| 12959 | Digital Forms | When creating rulesets a check box needs text in order to work |
| 13719 | Digital Forms | Unable to load digital form in editor due to 'Undefined variable' error |
| 12835 | eRAD Editor | An extra character is appended to a field |
| 13056 | eRAD Editor | When in read only mode the user can still insert macros and templates into report |
| 12910 | Exam Search | Exam Search screen is very slow to load |
| 13075 | Finding Followup | Finding/Follow up tool window should show if it has data |
| 11842 | Insurance Eligibility | The insurance eligibility manager occasionally throws a null reference error |
| 13416 | Insurance Eligibility | Changing billing codes is not updating the amount to |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

| | | |
|---|---|---|
| | | collect field on self-pay |
| 13002 | Insurance Eligibility | Co-insurance portion field issue in stored procedure c_bi_eligibility_payment_receipt |
| 13016 | Insurance Eligibility | Eligibility and missing units on study_item_certification can cause error on save |
| 13594 | Insurance Eligibility | Eligibility items staying on the IVT work list |
| 12292 | Insurance Eligibility | Failed queries to Medicare are causing Denial Of Service trigger in their system |
| 13415 | Insurance Eligibility | If the initial insurance is not valid and the user overrides to make it approved, the pricing is ignored |
| 13528 | Insurance Eligibility | Intermittent exception occurs which prevents re-submitting insurance |
| 13550 | Insurance Eligibility | The insurance eligibility service queries too often |
| 12803 | Insurance Eligibility | The insurance eligibility portal password is not getting used until a site is selected |
| 13122 | Insurance Eligibility | Usual & Customary field from NPD can return as a string and prevent saving in RIS |
| 13218 | Insurance Management | When saving a payment the max payment amount to collect is not displayed in error message |
| 13038 | Insurance Management | When using insurance eligibility and the last name contains a single quote character, the details screen will not display |
| 9546 | IVT / PreCert | PreCert status doesn't update on IVT WL when a detail is changed on the registration/scheduling/walk-in |
| 13349 | Linked Reporting | Discontinued non-primary exams re-activate and adopt their primary status on status change to primary study |
| 13290 | Linked Reporting | Intermittent null reference error in work lists |
| 13053 | Linked Reporting | Linked studies dialog checkboxes should be disabled |
| 13067 | Linked Reporting | Linked studies dialog OK button should be disabled |
| 13021 | Linked Reporting | Patient Folder control in reporting screen causing a CPU spike |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

| | | |
|---|---|---|
| 12970 | Linked Reporting | ReportCreated action was created and sent for a cancelled linked study |
| 13405 | Linked Reporting | The 'Link Studies' right click menu should not show on orders in patient history |
| 13066 | Linked Reporting | Unable to dictate on linked studies Pending PACS Correction |
| 13164 | Localization | Correct Hebrew text |
| 12685 | Localization | Character (") needs to be supported within the patient notes and other fields |
| 13156 | Localization | Hebrew localization for Digital Forms and Selected Digital Forms |
| 13337 | Localization | Integration messages are not aligned properly when in RTL mode |
| 13308 | Localization | Normals Browser group headers left aligned in right to left mode |
| 12894 | Mammography | Biopsy screen has not been localized |
| 13229 | Mammography | BI-RADS picker not showing on reporting screen |
| 12892 | Mammography | Tab order is incorrect on the mammo biopsy screen for the create reminder button |
| 13286 | Meaningful Use | Error occurs upon accessing the Labwork Advised WL |
| 8164 | Mgt Reports | Radiologist Productivity by User - formatting issues in report |
| 12925 | MModal | Intermittent 'Get Data/DisplayData' error when editor is M*Modal and the user attempts to dictate an exam when 'Insert template with markers' turned on |
| 13336 | PACS (eRAD) Int - RIS only | Disabling PACS integration when images are already shown on PACS will leave the current images open |
| 13497 | PACS (eRAD) Int - RIS only | PACS integration - Unable to enter PACS password |
| 13304 | PACS (eRAD) Int - RIS only | Prefetch studies engine is not logging which studies the RIS is attempting to fetch |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

| | | |
|---|---|---|
| 13302 | PACS (eRAD) Int - RIS only | Prefetch studies is occurring even when PACS integration is disabled |
| 12505 | PACS (eRAD) Integration | When PACS integrated and close studies using the X on tab, the last study's images may remain open |
| 13307 | PACS (eRAD) Integration | PACS loaded status column in the mini patient folder in dictation window is not displaying correct results |
| 12914 | PACS (Non - eRAD) Integration | GE Universal Viewer requires a new parameter to tell it not to load priors automatically |
| 12067 | PACS (Non - eRAD) Integration | GE Universal Viewer requires a new parameter to tell it stream instead of fetch from archive |
| 13752 | PACS (Non - eRAD) Integration | Intermittent PACS error when opening case for signature. |
| 13384 | PACS (Non - eRAD) Integration | IW PACS images can get out of sync with RIS (under very specific condition) |
| 12836 | PACS (Non - eRAD) Integration | PACS integration is prompting the radiologist with too many message boxes after the update to 44.1.7 |
| 13776 | Patient Management | A duplicate MRN error can occur when manually linking an external MRN to existing patient |
| 13223 | Payment control | If you add a payment before performing a 'check in' the receipt will not be automatically printed |
| 13335 | Person Management | Merging an active account person account into an inactive account throws an exception and cannot be merged |
| 13418 | Powerscribe Integration | PS360 - Images can get out of sync when closing via the X on tab |
| 13010 | Radiology Peer Review | Creating an addendum on a study which is in the QA work list will remove it from QA work list - also unclear which version is being reviewed when in QA screen |
| 12980 | Radiology Peer Review | Peer review button is enabled when creating an addendum - even if the same user previously peer reviewed it |
| 12676 | Radiology Peer Review | Peer review reporting layout colors are applied |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

| | | |
|---|---|---|
| | | incorrectly |
| 10853 | Radiology Peer Review | Peer review 'skip and continue' does not work |
| 13706 | Radiology Peer Review | Peer review button is not always showing/hiding appropriately |
| 13402 | Radiology Peer Review | Peer review QA window cursor is always an hour glass instead of a pointer |
| 13112 | Radiology Reporting | Ensure all member variables related to patient/study are reset when preparing to reuse the same control (internal patient safety enhancement) |
| 12971 | Radiology Reporting | An error can occur when opening the Review window from Peer Review WL |
| 13094 | Radiology Reporting | 'Assign To' control causes error when using 'next' workflow |
| 13005 | Radiology Reporting | Attachment viewer is not evaluating all permissions when showing the report |
| 12854 | Radiology Reporting | Cannot Create/Edit report from Perform Exam screen on PACS correction enabled studies. |
| 13421 | Radiology Reporting | Delete dictation and report on a non-primary linked study will delete addendum key 0 |
| 12904 | Radiology Reporting | Emergency Access button shows at all times if user has permission to the button |
| 13219 | Radiology Reporting | Hidden error occurs when multiple popups appear in reporting screen |
| 13242 | Radiology Reporting | In read-only mode, the report editor command bar shows a large empty gap |
| 13361 | Radiology Reporting | Language file has been updated |
| 10626 | Radiology Reporting | M*Modal - Automacros are not inserting when inserted via a macro |
| 9162 | Radiology Reporting | PACS Loaded Status column in reporting window is not populating when user preference set to "Reuse reporting screen" |
| 12857 | Radiology Reporting | Philips Speechmike LED and Foot Pedals do not work |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

| | | |
|---|---|---|
| | | when running RIS via Citrix |
| 11839 | Radiology Reporting | Report assistant - Click save button on report assistant but close on dictation window causes an error |
| 13136 | Radiology Reporting | Report history audio control is shared between tabs instead of unique per tab |
| 12573 | Radiology Reporting | Reporting docked windows are not maintaining their current tab selections and order on initial load. |
| 11695 | Radiology Reporting | RIS crashes when scrolling through the Patient Folder pane in the editing window |
| 13555 | Radiology Reporting | Selecting a supervising radiologist from status bar in RIS will show an hourglass instead of a pointer |
| 12747 | Radiology Reporting | 'Send report for dictation' will not remove suspended flag |
| 12808 | Radiology Reporting | 'Send To' button on reporting screen allows to fax/print preliminary reports even if user should not have access. |
| 11702 | Radiology Reporting | 'Set Follow Up Required Flag' is not always sending study to Finding Follow Up WL |
| 12708 | Radiology Reporting | 'Skip and Continue' then 'Sign and Close' not working with Report Assistant opened and reuse |
| 13050 | Radiology Reporting | STAT and ICD buttons in reporting screens re-order after minimize/maximize |
| 12336 | Radiology Reporting | Template/Macro Editing - exception viewing templates or macros in the browser within the template/macro editor |
| 13539 | Radiology Reporting | The Reject/Edit button behaves as a toggle button instead of single click button |
| 13408 | Radiology Reporting | 'View images', 'View patient folder' and 'View images and patient folder' actions are not working correctly |
| 13252 | Radiology Reporting | 'View Patient Folder' button in reporting screen doesn't cause the data panes to load |
| 13059 | Radiology Reporting | When in read-only mode, the report assistant save button should be disabled |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

| | | |
|---|---|---|
| 13058 | Radiology Reporting | When in read only mode, users can still insert pick list options |
| 13367 | Reception | Registering a second order for same patient + same day prompts user if they want to include the order that was previously arrived |
| 9377 | Scheduling | Cancelling a single study cancels all studies from order in specific scenarios |
| 13029 | Scheduling | Error on Reschedule from No Show WL and Orders to Schedule WL |
| 12952 | Scheduling | Inactive prep instructions still being displayed |
| 13019 | Scheduling | Not able to make changes to date/time in Notes/exam Times in Scheduling and arriving statuses |
| 9486 | Scheduling | Procedure plan site override of min/max times cannot find available times |
| 12834 | Scheduling | Reschedule study can cause other studies from same order awaiting rescheduling to fall off work list |
| 9521 | Scheduling | Scheduling from Existing Orders window doesn't auto-populate Site in Advanced Search |
| 9378 | Scheduling | Scheduling an order can include a cancelled study that was originally scheduled together |
| 13609 | Scheduling | Scheduling screen site groups drop down should not show entries that are non-scheduling site groups |
| 12755 | Service Tools - Installer | Branding issues in client application - incorrect icon and directory naming |
| 13283 | Structured Reporting | Preview report - Tables are not displaying correctly in print preview when an addendum also has a table. |
| 13378 | Technologist | Exam status can revert back to Started when including multiple exams in Perform Exam and starting them separately |
| 13006 | Technologist | Perform Exam - Notes/Exam Times - Disabled fields become enabled when including a second study |
| 7495 | Technologist | Performed modality does not show up on the |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

| | | |
|---|---|---|
| | | documentation window if it is now disabled |
| 9688 | Thick Client GUI | Opening a data window action sometimes results in an empty white tab |
| 11963 | Thick Client GUI | Using the escape key to exit out of adding new site throws an error |
| 13385 | UI Look and feel | Add space in title for Signs & Symptoms |
| 11928 | UI Look and feel | Annotate breast drawing label overlaps radio button in Hebrew |
| 12982 | UI Look and feel | Controls on the Exam Details tab in View Edit needs some adjustments. |
| 12938 | UI Look and feel | Critical Result button not re-enabling on Emergency Access |
| 12941 | UI Look and feel | Drop XML button on reporting base issues |
| 12936 | UI Look and feel | ICD button issues on reporting screen. |
| 13763 | UI Look and feel | IVT WL - Site select has no tool tip |
| 12940 | UI Look and feel | Launch PS360 button issues |
| 13248 | UI Look and feel | Peer review window - if font is larger the sentence 'I disagree with this review' is partially clipped |
| 13233 | UI Look and feel | Phone number mask - cannot enter a '+' at beginning of number if numbers are entered first |
| 12946 | UI Look and feel | Reject/Edit Button in reporting screen issue. |
| 12985 | UI Look and feel | Report History control is partially covered by the Legacy Report button's container |
| 12945 | UI Look and feel | Show PACS images button in reporting screen issues |
| 12937 | UI Look and feel | Stat button on reporting screen does not enable on emergency access |
| 13027 | UI Look and feel | Typo in "Reset Scanner Selection" message |
| 13264 | Upgrade process | Two missing access strings in upgrade scripts |
| 13117 | View Edit | StudyExtraInfo exception logged 31 times |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

| | | |
|---|---|---|
| 9284 | View Edit | View/Edit - Error on opening Billing Codes tab on Discontinued exams |
| 13774 | Walk-In | Error arriving walk-in. Duplicate studies created |
| 12744 | Worklists | Attachment viewer on the patient folder (both main and mini) will not load the report initially |
| 13366 | Worklists | Default custom views must be reset as default after upgrade to 2016.1 |
| 13543 | Worklists | IVT WL are performing badly causing serious over utilization on the CPU |
| 13772 | Worklists | Site group issues on IVT WL when a site_group_code matches a site_code |
| 13748 | Worklists | The PeerReviewPendingQA (All) is taking longer then 2 seconds to run |
| 13237 | Worklists | WL Filter FLag selection is not translated |
| 13585 | Worklists | WL that call the stored function c_GetReportLockByUserID caused a measurable increase in CPU |
| 13045 | Worklists | Work list Columns with Lookup Filters Cause Issues with Filtering and Custom Views |
| 13341 | Web Services/DB | Database view c_vw_client_worklist is no longer valid |
| 13208 | Web Services/DB | Missing index on c_user table |
| 13161 | Web Services/DB | Study remains locked by your user, after tentatively signed is released |
| 13580 | DB | Stored procedure missing a where clause - c_bi_radiologist_signing_activity |
| 13546 | DB | DB upgrade scripts do not correctly populate the c_patient_phone table |
| 13542 | DB | DB missing index |
| 13526 | DB | DB upgrade scripts may deadlock with other competing process |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

| | | |
|---|---|---|
| 13524 | DB | The 2016.1 upgrade scripts take too long to run |
| 13523 | DB | The 2016.1 upgrade scripts from B44.7 cause loss of data |
| 13423 | DB | RIS SQL jobs does not have a schedule for Update Mammo Recall Categories |
| 13210 | DB | Missing index on l_snomed_icd10_map |
| 9732 | DB | Database triggers rolling back transaction hides the error |
| 7654 | DB | B43 MU Scripts - Confirm they were properly imported |
| 12046 | Build | The default browser emulation level of the WebBrowser Control causes javascript errors in many web pages including digital forms |
| 12483 | Build | UV Templates directory is not included in RIS build package |
| 13414 | Mgt Reports | SQL Reporting folder missing custom "Upload" folders with build |
| 13300 | Scanning | Invisible error - Failed to refresh scan history error |
| 13116 | Scheduling | Invisible error - Specified cast exception - cast not valid |

## KNOWN LIMITATIONS

The following are Bugs and Support Issues found in build 2.2016.2. Bugs reported in previous versions are not captured as Known Limitation in this document.

| # | Priority | Category | Subject |
|---|---|---|---|
| 13590 | Low | DB | Inbox messages work list stored procedure always has 0 rows retrieved |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

| | | | |
|---|---|---|---|
| 13474 | High | EMR | EMR patients don't match when attribute c_child_patient create_internal="N" |
| 12989 | Normal | EMR | Import scheduled procedures window is displaying order procedure description instead of scheduled procedure description |
| 13288 | Normal | Image request | Referring physician image requests can be duplicated |
| 13614 | Normal | Meaningful Use | Exporting a CCDA file and running it thru the XDS toolkit should not produce any errors |
| 13172 | Normal | MModal | M*Modal 7.93 dictation commands that do not work |
| 13088 | Low | MModal | M*Modal - fields tool window is not updating immediately |
| 13602 | Normal | PACS (eRAD) Integration | In the reporting window when you click view images when you already have those images open in PACS, receive a prompt asking you to break the lock you have on the images |
| 13791 | Normal | PACS (Non - eRAD) Integration | Hologic PACS - in the mini patient folder, the 'PACS Loaded status' column is populating 'Open' for the relevant studies |
| 13615 | High | Portal Viewer | Portal windows are leaking memory |
| 13788 | Normal | Powerscribe Integration | PS360 - if multiple studies are open in the reporting window, when closing the requested addendum study, 2 studies are closed. |
| 13762 | Normal | Radiology Reporting | Clinical.PreviewSuspendedReport set to NONE, getting different behavior in create/edit window vs dictate window vs sign window. |
| 13182 | Normal | Radiology Reporting | Report that is sent to PACS has the element {BR} displayed in the report. The report in RIS has a bolded section but the same section |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

| | | | |
|---|---|---|---|
| | | | in the template is not bolded. |
| 13049 | Normal | Radiology Reporting | Inserting a macro with picklist with default macro option multiple times doesn't work |
| 13805 | Normal | Scanning | Scan doc association - patient level attachment changed to order level remains associated with other studies |
| 13807 | Normal | Scheduling | Error on close of scheduling and registration in some cases |
| 13810 | High | Scheduling | Cancelling an order twice will result in the procedure field being blank when scheduling it again |
| 13809 | High | Technologist | Error in Technologist WL - Object reference not set to an instance of an object and exam status does not change |
| 13519 | High | Technologist | Assigned Rad list in Perform Exam window is reordered after initial selection |
| 13518 | High | Technologist | Assigned Radiologist is not retained if referrer has preferred radiologist and included study is toggled |
| 13588 | Normal | UI Look and feel | Arrival early/late field calculates for completed studies |
| 13241 | Low | UI Look and feel | In the Carrier search window, the format mask for fax number is not applied |
| 13011 | Normal | UI Look and feel | Log control fields don't separate auto text |
| 13745 | Normal | User Views | Order # column not visible with existing my views |
| 13475 | Normal | View Edit | Problems with billing code adding/editing on View/Edit screen |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

# Server Update

For eRAD RIS
Version 2.0
Build 2.2016.3
Update 2.2016.3.1

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# Table of Contents

Resolved Items ..... 3
Code Stream ..... 4
Package Contents ..... 5
Intended Audience ..... 5
Who is affected ..... 5
eRAD RIS Release Version Numbers ..... 6
Installing ..... 7
Client/GUI ..... 7
Web Service ..... 7
Database Updates ..... 11

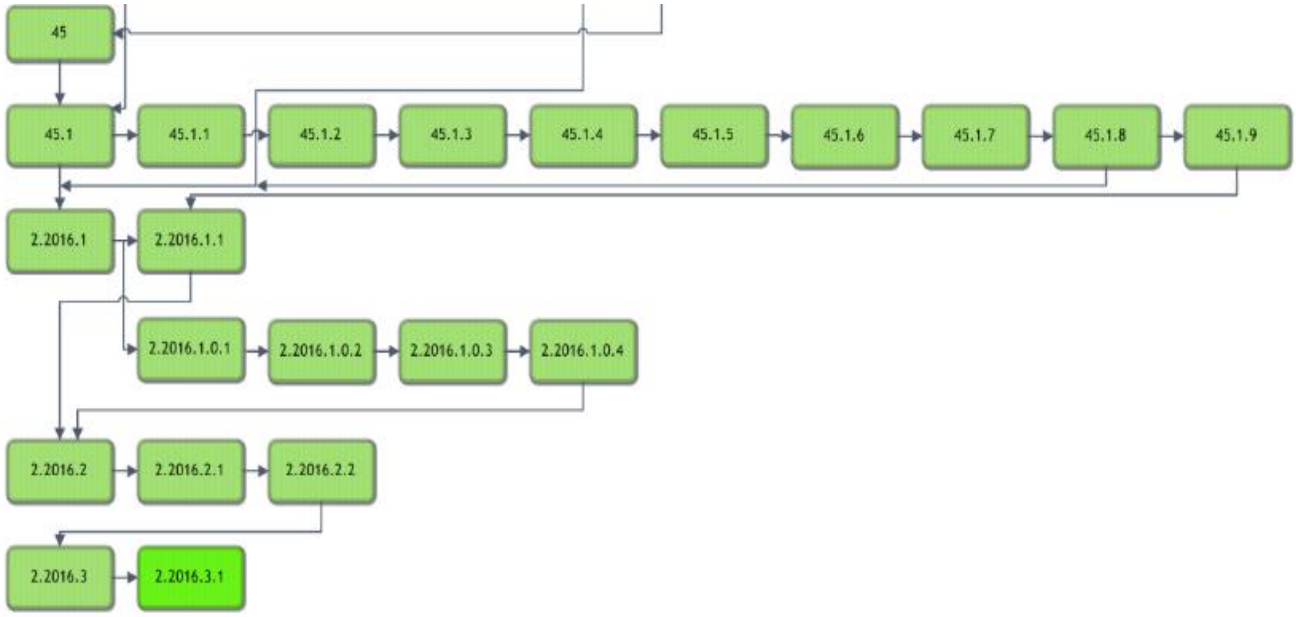
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## Resolved Items

| Redmine # | Subject |
|---|---|
| 14340 | Changing procedure removes study from pending dictation worklist |
| 14259 | Patient folder default view not always loading on reporting screen |
| 14247 | Insurance Eligibility - Medical Group Rule feature not working |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## Code Stream



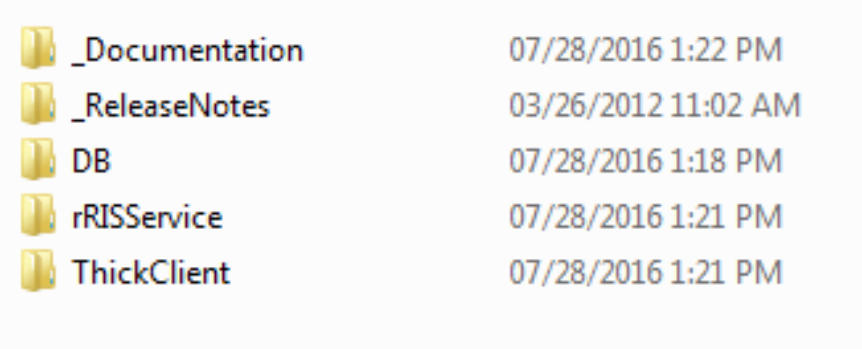

**Legend:**

**Light Green = Previously Released software**

**Bright Green = Current Release**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## Package Contents




## Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

## Who is affected

Build 2016.3 installs. This server update must be applied to 2016.3

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Digital Forms | Notes |
|---|---|---|---|---|---|---|---|
| 43.1 | - | 2.43.1.0.25850(3GB) | 2.43.0.0.23171 | 2.43.1.0.25850 | 2.43.1.0.25771 | | GUI.zip Web Service and DB Updates |
| 43.2 | - | 2.43.2.0.26864(3GB) | 2.43.0.0.23171 | 2.43.2.0.26864 | 2.43.1.0.25771 | | GUI.zip and Web Service |
| 44 | - | 2.44.0.0.26570(3GB) | 2.44.0.0.26405 | 2.44.0.0.26570 | 2.44.0.0.26475 | | Full Version Release |
| 44.1 | - | 2.44.0.0.26984(3GB) | 2.44.0.0.26405 | 2.44.0.0.26984 | 2.44.0.0.26906 | | Gui.zip, Web Service, and DB |
| 44.1 | 1 | 2.44.1.1.27093(3GB) | 2.44.0.0.26405 | 2.44.1.0.26984 | 2.44.1.0.26906 | | Gui.zip |
| 44.2 | | 2.44.2.0.27410(3GB) | 2.44.0.0.26405 | 2.44.2.0.27410 | 2.44.2.0.27365 | | Gui.zip, Web Service, and DB |
| 44.2 | 1 | 2.44.2.1.27959(3GB) | 2.44.0.0.26405 | 2.44.2.1.27959 | 2.44.2.1.27909 | | Gui.zip, Web Service, and DB |
| 44.2 | 2 | 2.44.2.1.27959(3GB) | 2.44.0.0.26405 | 2.44.2.2.28094 | 2.44.2.1.27909 | | Web Service |
| 44.3 | - | 2.44.3.0.28292 | 2.44.0.0.26405 | 2.44.3.0.28277 | 2.44.3.0.28138 | | Gui.zip, Web Service, and DB |
| 44.3 | 1 | 2.44.3.1.28535(3GB) | 2.44.0.0.26405 | 2.44.3.1.28535 | 2.44.3.0.28138 | | Gui.zip and Web Service |
| 44.4 | - | 2.44.4.0.28762(3GB) | 2.44.0.0.26405 | 2.44.4.0.28762 | 2.44.4.0.28676 | | Gui.zip, Web Server, DB, SSRS Deployment |
| 44.4 | 1 | 2.44.4.1.28953(3GB) | 2.44.0.0.26405 | 2.44.4.1.28953 | 2.44.4.0.28676 | | Gui.zip and Web Service |
| 44.4 | 2 | 2.44.4.2.29327(3GB) | 2.44.0.0.26405 | 2.44.4.2.29327 | 2.44.4.0.28676 | | Gui.zip and Web Service |
| 44.4 | 3 | 2.44.4.2.29722(3GB) | 2.44.0.0.26405 | 2.44.4.2.29327 | 2.44.4.0.28676 | | Gui.zip and Web Service |
| 44.5 | - | 2.44.5.0.30022(3GB) | 2.44.0.0.26405 | 2.44.5.0.30022 | 2.44.5.0.29976 | | Gui.zip, Web Server, DB |
| 44.5 | 1 | 2.44.5.1.30451(3GB) | 2.44.0.0.26405 | 2.44.5.1.30451 | 2.44.5.1.30449 | | Gui.zip, Web Server, DB |
| 44.5 | 2 | 2.44.5.2.30705(3GB) | 2.44.0.0.26405 | 2.44.5.1.30705 | 2.44.5.1.30554 | | Gui.zip, Web Server, DB |
| 45 | - | 2.45.0.0.29559(3GB) | 2.45.0.0.26107 | 2.45.0.0.29559 | 2.45.0.0.29558 | | Full Version Release |
| 45.1 | - | 2.45.1.0.30774(3GB) | 2.45.0.0.26107 | 2.45.1.0.30774 | 2.45.1.0.30738 | | Gui.zip, Web Service, DB, SQLReporting, Questionnaire, Citrix support |
| 45.1 | 1 | 2.45.1.1.31175(3GB) | 2.45.0.0.26107 | 2.45.1.1.31175 | 2.45.1.1.31174 | | Gui.zip, Web Service, DB, SQLReporting, Questionnaire |
| 45.1 | 2 | 2.45.1.1.31175(3GB) | 2.45.0.0.26107 | 2.45.1.2.31378 | 2.45.1.1.31174 | | Web Service and Citrix Bridge |
| 45.1 | 3 | 2.45.1.3.31452(3GB) | 2.45.0.0.26107 | 2.45.1.3.31452 | 2.45.1.3.31369 | | GUI.zip, Web Service, DB, Questionnaire and Citrix Bridge |
| 45.1 | 4 | 2.45.1.4.31621(3GB) | 2.45.0.0.26107 | 2.45.1.4.31621 | 2.45.1.4.31599 | | GUI.zip, Web Service, DB, Questionnaire and Citrix Bridge |
| 45.1 | 5 | 2.45.1.5.31773(3GB) | 2.45.0.0.26107 | 2.45.1.5.31773 | 2.45.1.5.31771 | | GUI.zip, Web Service, DB, Questionnaire |
| 45.1 | 6 | 2.45.1.6.32070(3GB) | 2.45.0.0.26107 | 2.45.1.6.32070 | 2.45.1.6.31936 | | GUI.zip, Web Service, DB, Questionnaire, Citrix Bridge |
| 45.1 | 7 | 2.45.1.6.32070(3GB) | 2.45.0.0.26107 | 2.45.1.6.32070 | 2.45.1.6.31936 | | Web Service for Wedge only. Version number of Wedge is 45.1.6.32614 |
| 45.1 | 8 | 2.45.1.8.33254(3GB) | 2.45.0.0.26107 | 2.45.1.6.32070 | 2.45.1.6.31936 | | GUI.zip |
| 45.1 | 9 | 2.45.1.9.33573(3GB) | 2.45.0.0.26107 | 2.45.1.6.32070 | 2.45.1.6.31936 | | GUI.zip |
| 2016.1 | - | 2.16.1.0.33419 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | | GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge |
| 2016.1 | 1 | 2.16.1.1.33672 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | | GUI.zip |
| 2016.1 | .0.1 | 2.16.1.0.1 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | | GUI.zip (This is not included in 2016.1.1, version directly above) |
| 2016.1 | .0.2 | 2.16.1.0.1 (3GB) | 2.16.1.0.33079 | 2.16.1.0.2 | 2.16.1.0.33416 | | Wedge Web Services only |
| 2016.1 | .0.3 | 2.16.1.0.3 (3GB) | 2.16.1.0.33079 | 2.16.1.0.3 | 2.16.1.0.3.00128918 | | GUI.zip, Web Services and DB |
| 2016.1 | .0.4 | 2.16.1.0.4 (3GB) | 2.16.1.0.33079 | 2.16.1.0.4 | 2.16.1.0.3.00128918 | | GUI.zip, Web Services |
| 2016.2 | - | 2.16.2.0 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.0.00172540 | | Full Version Release - GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge |
| 2016.2 | 1 | 2.16.2.1 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.0.00172540 | | GUI.zip and Citrix Bridge |
| 2016.2 | 2 | 2.16.2.2 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.2.00243102 | | GUI.zip, DB and Citrix Bridge |
| 2016.3 | - | 2.16.3.0 (3GB) | 2.16.3.0 | 2.16.3.0 | 2.16.3.0.00257101 | 2.16.3.0 | Full Version Release |
| 2016.3 | 1 | 2.16.3.1 (3GB) | 2.16.3.0 | 2.16.3.1 | 2.16.3.1.00298834 | 2.16.3.0 | GUI.zip, Web Service and DB |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# Installing

## Client/GUI

1) Copy and replace the current rRIS…zip file with the eRAD_rRIS_2016.3.1.zip file provided with this release.
   Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

## Web Service

This updated is only required for the Wedge Web Services. The Core RIS Service and Document Distribution Service are not required to be updated.

1. The web service upgrade consists of replacing the files in the RIS Web Service directory with the files supplied in the rRISService folder with this build. Always create a backup of the files being replaced. This upgrade includes 98 files in the rRISService folder and 6 sub folders. Of those folders, 1 is a folder titled **"XSL"** that contains a sub folder and files within the subfolder. Another folder is titled **"deploy"** that contains the new .config files that will be deployed with the user of the file called "ServicesConfigWizard.exe" (see instructions below). Folders ar (Arabic), he (Hebrew), and pt_BR (Brazilian Portuguese) are localization folders. The WedgePlugins folder contains various plugin files for RADAR, MIRTH, Ensemble, etc…

**Services Configuration Wizard**

With the release of 42 to decrease the chance of losing configuration setting and missing new configuration options, we will no longer include the configuration files in the release in the main set of files, but they will now exist in a "deploy" folder, which will contain the three site configurable config files; applicationsettings, connectionstrings, and services as well as a copy of the rRISServices.exe configuration file. The contents of this folder should not be required to be touched.

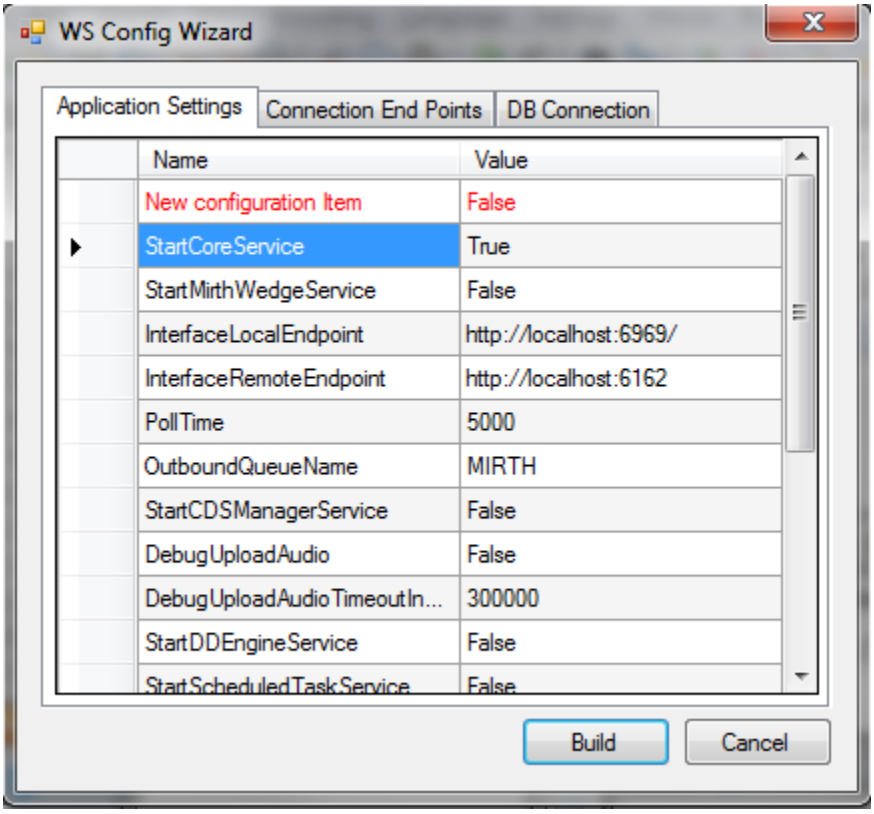
On the install of a new service, all files will be copied to the appropriate locations on the server (no configurations will be over written). If instructed or to confirm no new configurations have been added the user can run the new application "ServicesConfigWizard.exe"

This application will read the existing configuration file(s) (if files exist), and compare to the provided new configuration files then will display three tabs, for each configuration file:
**Application Settings:** all existing configuration value will be displayed, if there are any new configuration entries they will be displayed in red.

**NOTE:** the rRISServices.exe.config file is also included in the deploy folder. If this file has changes it **will not** update your current file in the Web Service directory. Any changes to this file

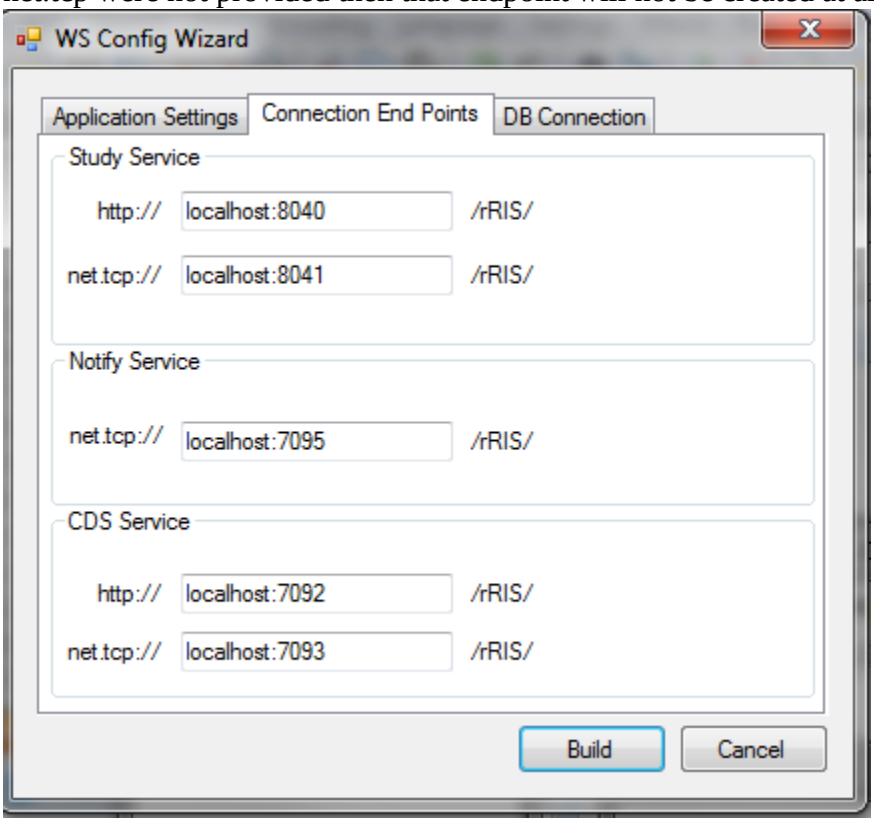
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

will require a manual update of the rRISServices.exe.config and rRISServicesx64.exe.config files.



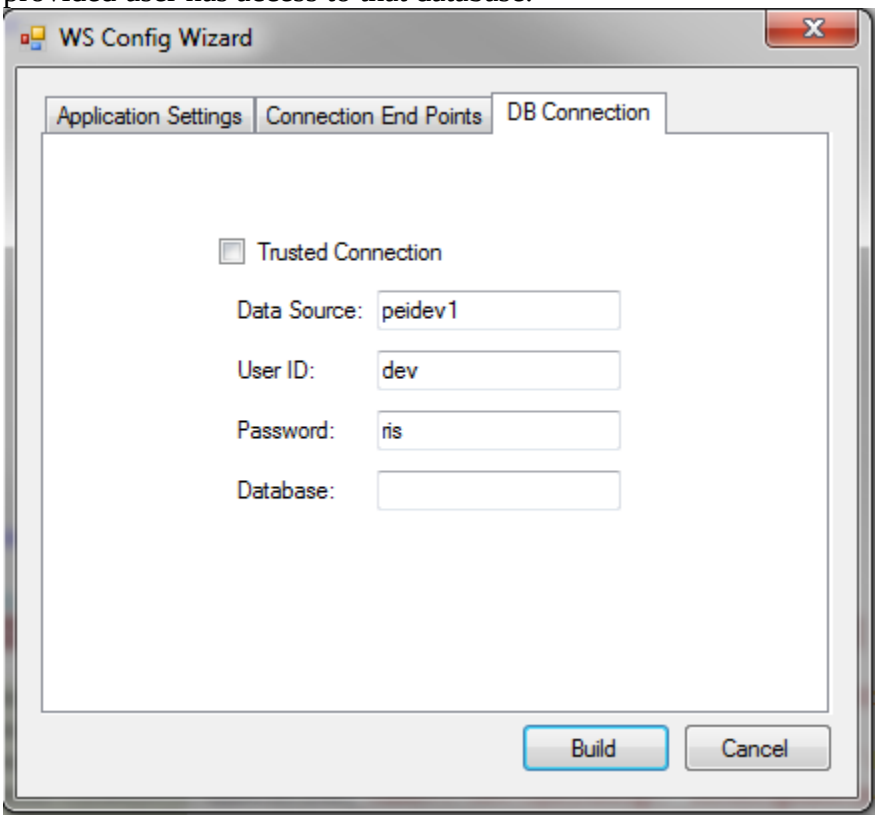

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

**Connection End Points:** will display the existing configuration, if the value is left blank then that entry will not be created, in the case of "Study Service" or "CDS Service" if both http and net.tcp were not provided then that endpoint will not be created at all.




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

**DB Connection:** will display the existing configuration, if the Connection is to be used as a trusted connection, then the user ID and password will become disabled and will not be used, and will rely on the provided database value, When not using the trusted connection, The Database value is not needed but can be used to force a specific database connection as long as the provided user has access to that database.




It is always good practice to do a compare of the .config files.

1) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService.
   *rRISService directories include:*
   *a) rRISService*
   *b) CDS rRISService*
   *c) Wedge rRISService*
   *d) DDE rRISService*

   **Restart each service**.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## Database Updates

Always run the upgrade scripts in a test environment of the actual database to make sure they run cleanly. If any errors occur please contact development.

*Note: There is a new upgrade process introduced with B43.1 called "RunUpgrade.bat". The batch file will open a command window. This process will prompt you for the database server name, database name and authentication credentials. There is no need to run the database upgrade scripts manually as was done in previous releases.*

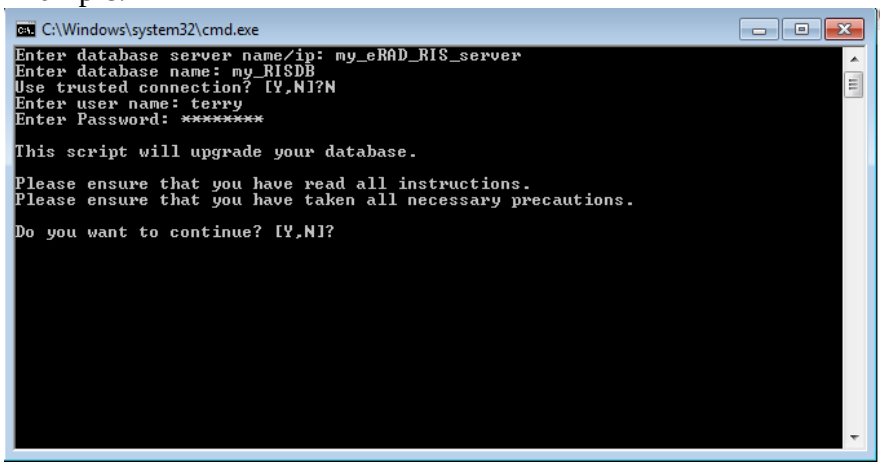
1) From the upgrade folder, double click the "RunUpgrade.bat" command file.

2) Enter the server name, database name and authentication credentials to the database. You have 2 choices for authentication credentials.

3) You can choose to use "Trusted connection". Using this option will pass the identity of the currently logged on user. If this user has "db_owner" access to the eRAD RIS database then feel free to use this options.

4) If you decide not to use "Trusted connection" then you will be prompted for user id and password.

   Example:




5) After the upgrade program has finished you can find the upgrade logs in the "log" folder. The file name will be eRAD_RIS_db_upgrade_timestamp.log, where timestamp is a value representing the date and time the upgrade started. If you see any errors please contact the development team

6) In the Common folder there is a subfolder of MU. The MU folder contains updates to lookups relevant for MU as well as updates for Zip Code table to add the County. Copy the

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

MU folder to the database server before running the batch file. There is a readme file contained in the MU folder. The details have also been included below

a) The mu bulk install process must be run from a path on the database server!
b) Copy Files ImportDataFileUpgradeDB.bat and ImportDataFileUpgradeDB.sql from upgrade folder to a location on the database server(This location will be referred to as the "Script Folder Path".)
c) Copy Folder scripts and Source files from the upgrade folder to "Script Folder Path" ....Note source files must be inside the scripts folder
d) Run bat file
   i) Enter Script Folder path [C:\Temp\SNOMED]:
   ii) Enter database server name/ip: [ie peidev1]
   iii) Enter database name: [ie rRIS_MU]
   iv) Use a trusted connection to log on to SQL Server:
   "N" means you will have to enter db [username] [password]
   "Y" means you have a trusted connection and will not have to enter [username][password]
   v) Do you wish to load SNOMED concept codes?
   "N" no files will be loaded into the l_snomed_concept table
   "Y" yes means l_snomed_concept table will be truncated and reloaded with the latest US concept codes
   Source File [sct2_Concept_Snapshot_US1000124_20140301.txt]
   vi) Do you wish to load SNOMED descriptions codes?
   "N" no files will be loaded into the l_snomed_description table
   "Y" yes means the l_snomed_description table will be truncated and reloaded with the latest US description codes
   Source File [sct2_Description_Snapshot-en_US1000124_20140301.txt]
   vii) Do you wish to load ICD9 to SNOMED mappings codes?
   "N" no files will be loaded into the l_snomed_icd9_map table
   "Y" yes means the l_snomed_icd9_map table will be truncated and reloaded with the latest US ICD9 to SNOMED mapping codes
   Source File [ICD9CM_SNOMED_MAP_1TO1_201312.txt and ICD9CM_SNOMED_MAP_1TOM_201312.txt]
   viii) Do you wish to load ICD10 to SNOMED mappings codes?
   "N" no files will be loaded into the l_snomed_icd10_map table
   "Y" yes means the l_snomed_icd10_map table will be truncated and reloaded with the latest US ICD10 to SNOMED mapping codes
   Source File [xder2_iissscRefset_ExtendedMapSnapshot_US1000124_20131220.txt]
   ix) Do you wish to load US zip codes?
   "N" no files will be loaded into the z_zipCodesWithCounty table
   "Y" yes means the z_zipCodesWithCounty table will be truncated and reloaded with the latest US zip codes
   Source File [5-digit Commercial.csv]

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

**********

Note: the following files should be loaded once only with B43!

**********

x) Do you wish to load CMS codes?
"N" no files will be loaded into the s_mu_code table
"Y" yes means the s_mu_code table will be truncated and reloaded with the latest CMS codes
Source File [s_mu_code.txt]

xi) Do you wish to load HL7 support sets for CCDA?
"N" no files will be loaded into the l_hl7v3_voc_value_set table
"Y" yes means the l_hl7v3_voc_value_set table will be truncated and reloaded with the latest hl7v3_voc_value_set codes
Source File [l_hl7_voc_value_set.txt]

xii) Do you wish to load HL7 support codes for CCDA?
"N" no files will be loaded into the l_hl7v3_voc_value_code table
"Y" yes means the l_hl7v3_voc_value_code table will be truncated and reloaded with the latest l_hl7v3_voc_value_code codes
Source File [l_hl7_voc_value_code.txt]

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# Server Update

For eRAD RIS
Version 2.0
Build 2.2016.3
Update 2.2016.3.2

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# Table of Contents

Resolved Items ..... 3
Code Stream ..... 4
Package Contents ..... 5
Intended Audience ..... 5
Who is affected ..... 5
eRAD RIS Release Version Numbers ..... 6
Installing ..... 7
    Client/GUI ..... 7
    Web Service ..... 7

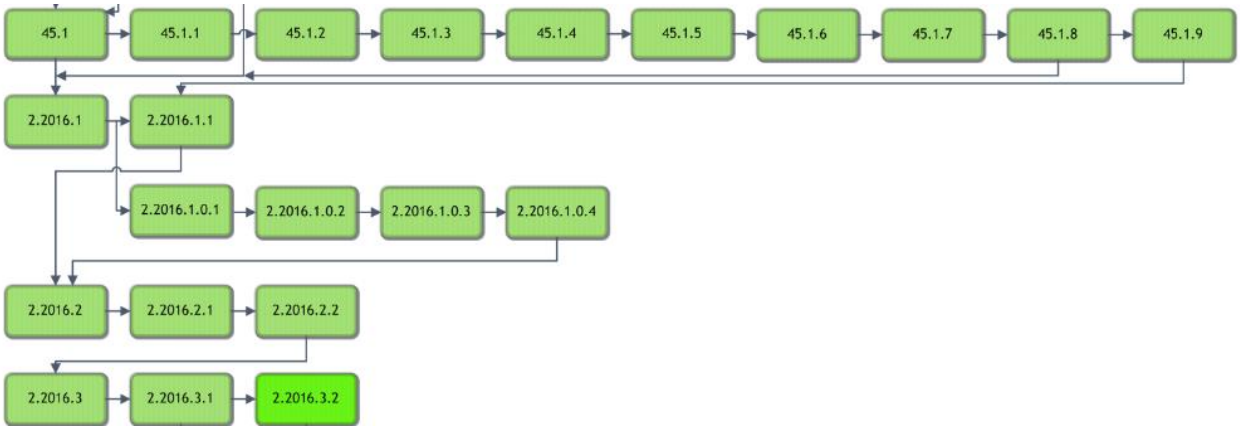
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## Resolved Items

| Redmine # | Subject |
|---|---|
| 14877 | PACS Caching is not caching priors in reverse chronological order |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## Code Stream



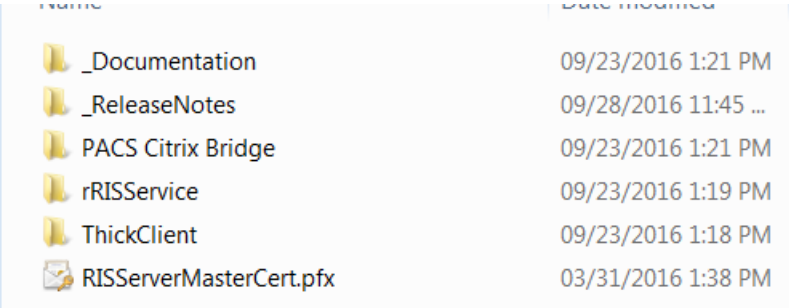

**Legend:**

**Light Green = Previously Released software**

**Bright Green = Current Release**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## Package Contents




## Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

## Who is affected

Build 2016.3 installs. This server update must be applied to 2016.3

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Digital Forms | Notes |
|---|---|---|---|---|---|---|---|
| 43.1 | - | 2.43.1.0.25850(3GB) | 2.43.0.0.23171 | 2.43.1.0.25850 | 2.43.1.0.25771 | | GUI.zip Web Service and DB Updates |
| 43.2 | - | 2.43.2.0.26864(3GB) | 2.43.0.0.23171 | 2.43.2.0.26864 | 2.43.1.0.25771 | | GUI.zip and Web Service |
| 44 | - | 2.44.0.0.26570(3GB) | 2.44.0.0.26405 | 2.44.0.0.26570 | 2.44.0.0.26475 | | Full Version Release |
| 44.1 | - | 2.44.0.0.26984(3GB) | 2.44.0.0.26405 | 2.44.0.0.26984 | 2.44.0.0.26906 | | Gui.zip, Web Service, and DB |
| 44.1 | 1 | 2.44.1.1.27093(3GB) | 2.44.0.0.26405 | 2.44.1.0.26984 | 2.44.1.0.26906 | | Gui.zip |
| 44.2 | | 2.44.2.0.27410(3GB) | 2.44.0.0.26405 | 2.44.2.0.27410 | 2.44.2.0.27365 | | Gui.zip, Web Service, and DB |
| 44.2 | 1 | 2.44.2.1.27959(3GB) | 2.44.0.0.26405 | 2.44.2.1.27959 | 2.44.2.1.27909 | | Gui.zip, Web Service, and DB |
| 44.2 | 2 | 2.44.2.1.27959(3GB) | 2.44.0.0.26405 | 2.44.2.2.28094 | 2.44.2.1.27909 | | Web Service |
| 44.3 | - | 2.44.3.0.28292 | 2.44.0.0.26405 | 2.44.3.0.28277 | 2.44.3.0.28138 | | Gui.zip, Web Service, and DB |
| 44.3 | 1 | 2.44.3.1.28535(3GB) | 2.44.0.0.26405 | 2.44.3.1.28535 | 2.44.3.0.28138 | | Gui.zip and Web Service |
| 44.4 | - | 2.44.4.0.28762(3GB) | 2.44.0.0.26405 | 2.44.4.0.28762 | 2.44.4.0.28676 | | Gui.zip, Web Server, DB, SSRS Deployment |
| 44.4 | 1 | 2.44.4.1.28953(3GB) | 2.44.0.0.26405 | 2.44.4.1.28953 | 2.44.4.0.28676 | | Gui.zip and Web Service |
| 44.4 | 2 | 2.44.4.2.29327(3GB) | 2.44.0.0.26405 | 2.44.4.2.29327 | 2.44.4.0.28676 | | Gui.zip and Web Service |
| 44.4 | 3 | 2.44.4.2.29722(3GB) | 2.44.0.0.26405 | 2.44.4.2.29327 | 2.44.4.0.28676 | | Gui.zip and Web Service |
| 44.5 | - | 2.44.5.0.30022(3GB) | 2.44.0.0.26405 | 2.44.5.0.30022 | 2.44.5.0.29976 | | Gui.zip, Web Server, DB |
| 44.5 | 1 | 2.44.5.1.30451(3GB) | 2.44.0.0.26405 | 2.44.5.1.30451 | 2.44.5.1.30449 | | Gui.zip, Web Server, DB |
| 44.5 | 2 | 2.44.5.2.30705(3GB) | 2.44.0.0.26405 | 2.44.5.1.30705 | 2.44.5.1.30554 | | Gui.zip, Web Server, DB |
| 45 | - | 2.45.0.0.29559(3GB) | 2.45.0.0.26107 | 2.45.0.0.29559 | 2.45.0.0.29558 | | Full Version Release |
| 45.1 | - | 2.45.1.0.30774(3GB) | 2.45.0.0.26107 | 2.45.1.0.30774 | 2.45.1.0.30738 | | Gui.zip, Web Service, DB, SQLReporting, Questionnaire, Citrix support |
| 45.1 | 1 | 2.45.1.1.31175(3GB) | 2.45.0.0.26107 | 2.45.1.1.31175 | 2.45.1.1.31174 | | Gui.zip, Web Service, DB, SQLReporting, Questionnaire |
| 45.1 | 2 | 2.45.1.1.31175(3GB) | 2.45.0.0.26107 | 2.45.1.2.31378 | 2.45.1.1.31174 | | Web Service and Citrix Bridge |
| 45.1 | 3 | 2.45.1.3.31452(3GB) | 2.45.0.0.26107 | 2.45.1.3.31452 | 2.45.1.3.31369 | | GUI.zip, Web Service, DB, Questionnaire and Citrix Bridge |
| 45.1 | 4 | 2.45.1.4.31621(3GB) | 2.45.0.0.26107 | 2.45.1.4.31621 | 2.45.1.4.31599 | | GUI.zip, Web Service, DB, Questionnaire and Citrix Bridge |
| 45.1 | 5 | 2.45.1.5.31773(3GB) | 2.45.0.0.26107 | 2.45.1.5.31773 | 2.45.1.5.31771 | | GUI.zip, Web Service, DB, Questionnaire |
| 45.1 | 6 | 2.45.1.6.32070(3GB) | 2.45.0.0.26107 | 2.45.1.6.32070 | 2.45.1.6.31936 | | GUI.zip, Web Service, DB, Questionnaire, Citrix Bridge |
| 45.1 | 7 | 2.45.1.6.32070(3GB) | 2.45.0.0.26107 | 2.45.1.6.32070 | 2.45.1.6.31936 | | Web Service for Wedge only. Version number of Wedge is 45.1.6.32614 |
| 45.1 | 8 | 2.45.1.8.33254(3GB) | 2.45.0.0.26107 | 2.45.1.6.32070 | 2.45.1.6.31936 | | GUI.zip |
| 45.1 | 9 | 2.45.1.9.33573(3GB) | 2.45.0.0.26107 | 2.45.1.6.32070 | 2.45.1.6.31936 | | GUI.zip |
| 2016.1 | - | 2.16.1.0.33419 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | | GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge |
| 2016.1 | 1 | 2.16.1.1.33672 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | | GUI.zip |
| 2016.1 | .0.1 | 2.16.1.0.1 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | | GUI.zip (This is not included in 2016.1.1, version directly above) |
| 2016.1 | .0.2 | 2.16.1.0.1 (3GB) | 2.16.1.0.33079 | 2.16.1.0.2 | 2.16.1.0.33416 | | Wedge Web Services only |
| 2016.1 | .0.3 | 2.16.1.0.3 (3GB) | 2.16.1.0.33079 | 2.16.1.0.3 | 2.16.1.0.3.00128918 | | GUI.zip, Web Services and DB |
| 2016.1 | .0.4 | 2.16.1.0.4 (3GB) | 2.16.1.0.33079 | 2.16.1.0.4 | 2.16.1.0.3.00128918 | | GUI.zip, Web Services |
| 2016.2 | - | 2.16.2.0 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.0.00172540 | | Full Version Release - GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge |
| 2016.2 | 1 | 2.16.2.1 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.0.00172540 | | GUI.zip and Citrix Bridge |
| 2016.2 | 2 | 2.16.2.2 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.2.00243102 | | GUI.zip, DB and Citrix Bridge |
| 2016.3 | - | 2.16.3.0 (3GB) | 2.16.3.0 | 2.16.3.0 | 2.16.3.0.00257101 | 2.16.3.0 | Full Version Release |
| 2016.3 | 1 | 2.16.3.1 (3GB) | 2.16.3.0 | 2.16.3.1 | 2.16.3.1.00298834 | 2.16.3.0 | GUI.zip, Web Service and DB |
| 2016.3 | 2 | 2.16.3.2 (3GB) | 2.16.3.0 | 2.16.3.2 | 2.16.3.1.00298834 | 2.16.3.0 | GUI.zip, Web Service |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# Installing

## Client/GUI

1) Copy and replace the current rRIS…zip file with the eRAD_rRIS_2016.3.2.zip file provided with this release.
   Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

## Web Service

This updated is only required for the Wedge Web Services. The Core RIS Service and Document Distribution Service are not required to be updated.

1. The web service upgrade consists of replacing the files in the RIS Web Service directory with the files supplied in the rRISService folder with this build. Always create a backup of the files being replaced. This upgrade includes 99 files in the rRISService folder and 6 sub folders. Of those folders, 1 is a folder titled **"XSL"** that contains a sub folder and files within the subfolder. Another folder is titled **"deploy"** that contains the new .config files that will be deployed with the user of the file called "ServicesConfigWizard.exe" (see instructions below). Folders ar (Arabic), he (Hebrew), pt_BR (Brazilian Portuguese) and es-AR (Argentina Spanish) are localization folders. The WedgePlugins folder contains various plugin files for RADAR, MIRTH, Ensemble, etc…

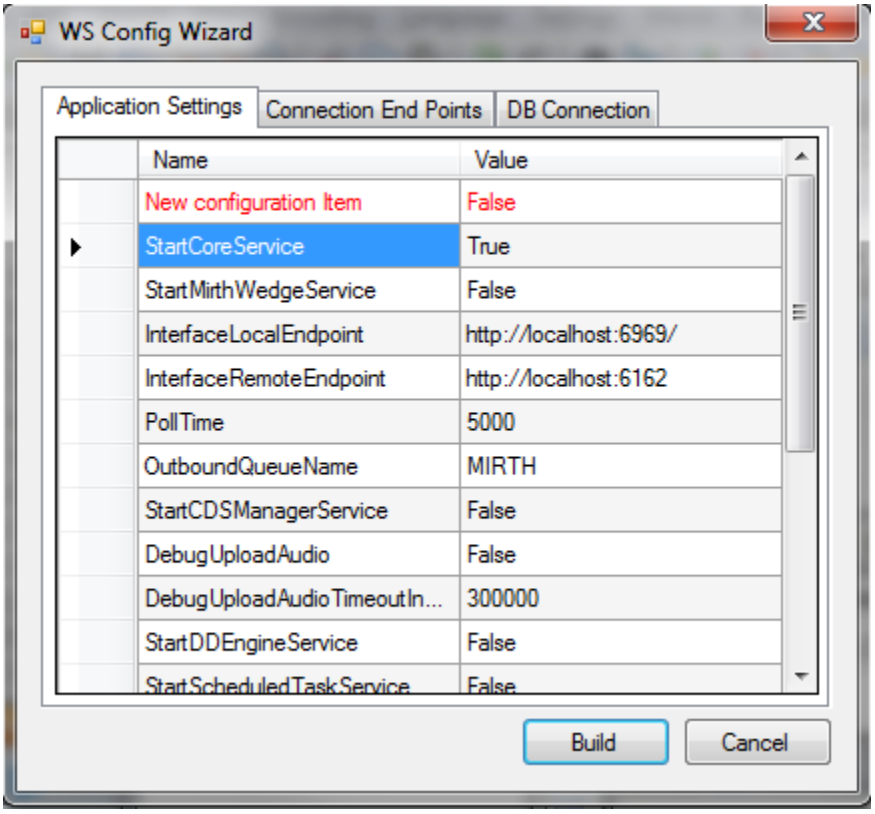
**Services Configuration Wizard**

With the release of 42 to decrease the chance of losing configuration setting and missing new configuration options, we will no longer include the configuration files in the release in the main set of files, but they will now exist in a "deploy" folder, which will contain the three site configurable config files; applicationsettings, connectionstrings, and services as well as a copy of the rRISServices.exe configuration file. The contents of this folder should not be required to be touched.

On the install of a new service, all files will be copied to the appropriate locations on the server (no configurations will be over written). If instructed or to confirm no new configurations have been added the user can run the new application "ServicesConfigWizard.exe"

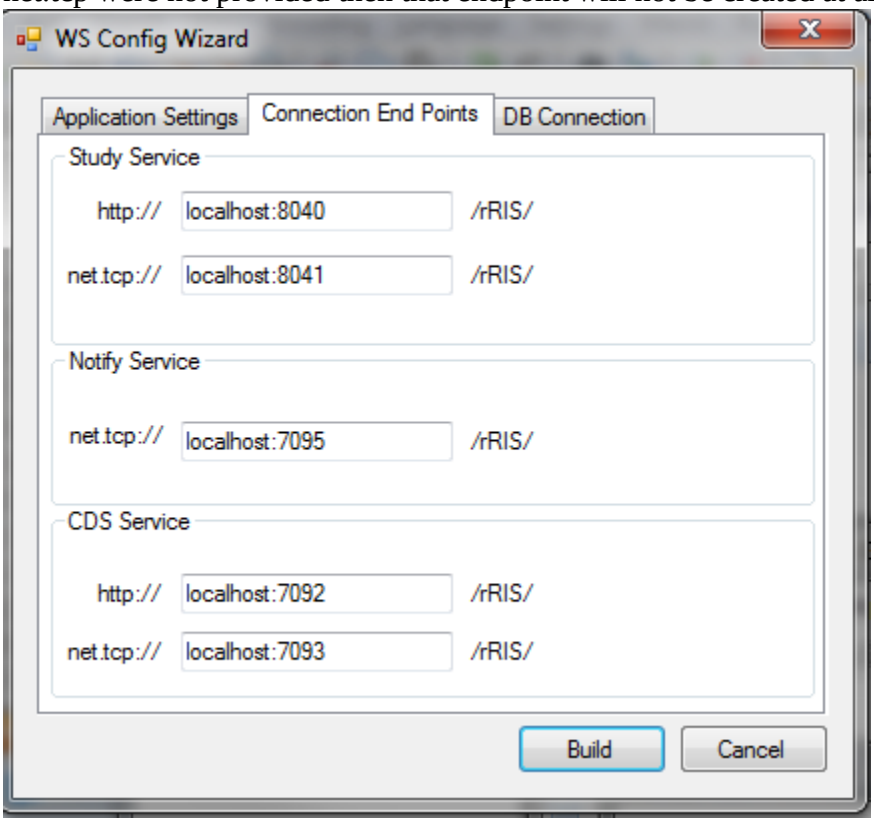
This application will read the existing configuration file(s) (if files exist), and compare to the provided new configuration files then will display three tabs, for each configuration file:
**Application Settings:** all existing configuration value will be displayed, if there are any new configuration entries they will be displayed in red.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.



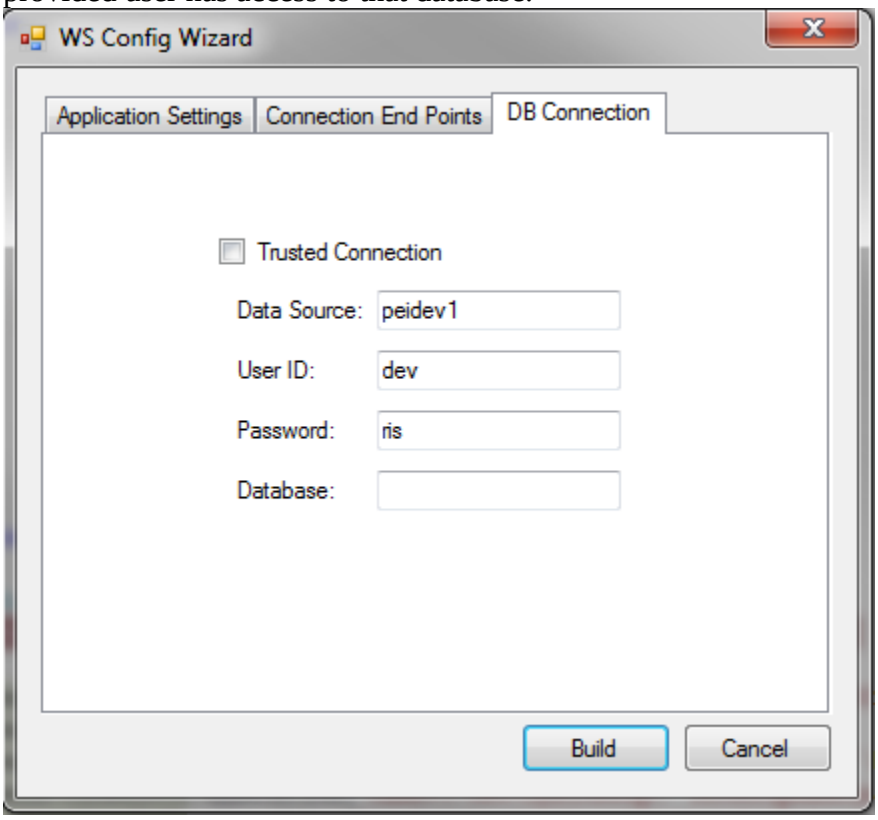

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

**Connection End Points:** will display the existing configuration, if the value is left blank then that entry will not be created, in the case of "Study Service" or "CDS Service" if both http and net.tcp were not provided then that endpoint will not be created at all.




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

**DB Connection:** will display the existing configuration, if the Connection is to be used as a trusted connection, then the user ID and password will become disabled and will not be used, and will rely on the provided database value, When not using the trusted connection, The Database value is not needed but can be used to force a specific database connection as long as the provided user has access to that database.




It is always good practice to do a compare of the .config files.

1) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService.
   *rRISService directories include:*
   *a) rRISService*
   *b) CDS rRISService*
   *c) Wedge rRISService*
   *d) DDE rRISService*

   **Restart each service**.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

15 July 2016

# Customer Release Notes

for eRAD RIS

Version 2

Build 2016.3

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## TABLE OF CONTENTS

Table of Contents ..... 2
Purpose ..... 3
Intended Audience ..... 3
New Settings ..... 4
New access strings ..... 4
New system configuration settings ..... 4
New Features ..... 6
Interfacing ..... 6
5680 - MFN Message Handler ..... 6
Management ReportS ..... 7
10525 - Exam Volume Breakdown by Payor Management Report ..... 7
Insurance Eligibility ..... 8
13547 - Eligibility tables Cleanup to improve performance ..... 8
13065 - Medical Group Rules ENHANCEMENTS ..... 9
13282 - Primary Insurance Warnings ..... 14
Infrastructure ..... 16
11204 - Support "Universal Device ID" ..... 16
13545- MU Post Process Redesign to improve performance ..... 17
13548 - Deprecate c_SummaryMaster objects ..... 18
Referring physician Management ..... 19
13598 - option to prohibit marketing emails from being sent ..... 19
RIS ADMINISTRATION ..... 20
13732 - Capture Order Cancelled Date ..... 20
13773 – Support exporting diagnostic report in MS Word and Other Formats ..... 21
13851 – Patient portal configuration helper ..... 22
Radiologist ..... 23
#13849 - Add PACS dialog messages to eRAD RIS status bar ..... 23
Resolved Defects ..... 24
Known Limitations ..... 30
RIS Release Version Numbers ..... 32
Code Stream Diagram ..... 33

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## PURPOSE

This is the Customer Release Notes document for eRAD RIS Version 2016.3.

Not every feature will be described in this document. Typically, only features which can be visually demonstrated are outlined here.

## INTENDED AUDIENCE

This document was created by the eRAD RIS Development team and Product Management team for eRAD RIS customers.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

# NEW SETTINGS

## NEW ACCESS STRINGS

| Setting | Default | Purpose |
|---|---|---|
| ~~Clinical.RadarMessage~~ | N/A | Removed a duplicate string that was not in use. |
| Config.LookupEditor.Organization.Portal.AdditionalConfiguration | | Allows for the adding/editing of additional portal configuration overrides in the JSON editor. |

## NEW SYSTEM CONFIGURATION SETTINGS

| Setting | Default | Purpose |
|---|---|---|
| RPAllowQuickApproval | False | (value = true/false) Determines if the referring portal user will have the 'Quick Approval' option if not configured to be a referring and not authorized to order on behalf of a referring. |
| RPAppointmentEnabled | False | (value = true/false) Determines if the Referring Portal 'Schedule Appointment' feature will be enabled. |
| RPAuthorizedToOrderNextReview | 5 | (value = number) The interval in days until the Referring provider is prompted to review the list of users authorized to order on their behalf. |
| RPImageNoAccountMessage | | (value = string) The message to display to the referring portal user when image access fails due to not having a valid PACS account. |

The above configuration settings are created in preparation for a future release of our new Referring Physician Portal. There is no need to adjust these settings at this time.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

# eRAD RIS 2016.3 Feature Highlights

Upgrade to eRAD RIS 2016.3 and our New Features will allow you to:

→ Decrease denials by creating special insurance carrier alerts based on plan information in your Eligible API returns.
- Warnings when an incorrect carrier has been selected based on your rules
- Warnings when the priority of carriers is incorrect
  - e.g. Supplemental insurance is entered as Primary

→ Improve system performance.
- Ability to schedule MU database tasks for after hours
- Behind the scenes adjustments to database performance factors

→ Export diagnostic reports in new formats, including Microsoft Word.

→ Assess your exam volume breakdown by payor with a new management report.

→ Configure new user preference options for displaying RIS/PACS communication messages to the radiologist.

→ Allow external systems to query or update RIS look-up tables via interface.

→ Enjoy smoother and more efficient RIS workflow with over 100 resolved defects.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

# NEW FEATURES

## INTERFACING

### 5680 - MFN MESSAGE HANDLER

eRAD RIS now has the ability to allow a remote system to query or update lookup table data. This is limited and secured, and to be used only by an appropriate external system.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## 10525 - EXAM VOLUME BREAKDOWN BY PAYOR MANAGEMENT REPORT

A new core management report has been created called *Exam Volume Breakdown by Payor*. This report generates a pivot style table with a Modality Type across the top of the report and Payor Type down the side of the report. The user of the report can drill-down on the Payor Type to get details of each individual Insurance Payor. This report can query based on Date Range, Payor Type, and of course Practice(s) and Site(s). The report is located in the Operations folder.

**Practice:** Advanced Radiology,American Radilogy 2,American Radiology,Borg/IDE,DATest,Get Well Clinic,PEI Radiology,SIMS Practice,TEST
**Site(s):** All sites for the selected practice(s).
**Date Range:** 05/01/2013 - 05/31/2013
**Payor Types:** All payor types selected.
**Description:** This report displays accession count by insurance payor and modality type based on practice, site(s), date range, and payor type.

| Payor Type | BD | CT | MA | MR | NM | PT | US | XR | Accession Count | |
|---|---|---|---|---|---|---|---|---|---|---|
| ⊞ Automobile Medical (7) | 29 | 1,531 | 4,705 | 2,567 | 84 | 140 | 6,320 | 10,353 | 25,729 | 7.88 % |
| ⊞ Blue Cross (P) | 8 | 688 | 1,945 | 1,056 | 38 | 57 | 2,644 | 4,251 | 10,687 | 3.27 % |
| ⊟ Blue Cross Blue Shield (G) | | 47 | 234 | 99 | 9 | 8 | 248 | 425 | 1,070 | 0.33 % |
| BCBS NCA NASCO (314) | | 19 | 113 | 59 | 5 | 4 | 135 | 193 | 528 | |
| test (CSEK) | | 28 | 121 | 40 | 4 | 4 | 113 | 232 | 542 | |
| ⊞ Central Certification (K) | 5 | 61 | 215 | 115 | 11 | 6 | 277 | 452 | 1,142 | 0.35 % |
| ⊞ Champus (8) | 8 | 344 | 1,062 | 590 | 31 | 46 | 1,459 | 2,314 | 5,854 | 1.79 % |
| ⊞ Commercial Insurance Company (F) | | 38 | 106 | 43 | 3 | 1 | 138 | 233 | 562 | 0.17 % |
| ⊞ Disability (9) | 2 | 70 | 212 | 102 | 3 | 4 | 266 | 437 | 1,096 | 0.34 % |
| ⊞ Exclusive Provider Organization (4) | | 32 | 103 | 71 | 2 | 4 | 109 | 220 | 541 | 0.17 % |
| ⊞ HMO (I) | | 42 | 97 | 56 | 1 | 2 | 121 | 222 | 541 | 0.17 % |
| ⊞ HMO Medicare Risk (6) | | 36 | 92 | 60 | 3 | 4 | 137 | 203 | 535 | 0.16 % |
| ⊞ Indemnity Insurance (5) | | 32 | 90 | 70 | 2 | 4 | 125 | 206 | 529 | 0.16 % |
| ⊞ Liability (S) | 2 | 33 | 118 | 71 | | 3 | 111 | 209 | 547 | 0.17 % |
| ⊞ Liability Medical (R) | 1 | 25 | 109 | 59 | 2 | 3 | 112 | 242 | 553 | 0.17 % |
| ⊞ Medicaid (D) | 1 | 39 | 104 | 55 | 5 | 3 | 123 | 203 | 533 | 0.16 % |
| ⊞ Medicare (C) | | 68 | 214 | 103 | 3 | 6 | 269 | 448 | 1,111 | 0.34 % |
| ⊞ Other (Z) | 316 | 15,950 | 49,925 | 27,496 | 1,068 | 1,540 | 66,427 | 109,424 | 272,146 | 83.40 % |
| ⊞ Other Non-Federal Programs (1) | 2 | 25 | 102 | 56 | 1 | 1 | 128 | 190 | 505 | 0.15 % |
| ⊞ Point of Service (POS) (3) | | 33 | 83 | 52 | 4 | 3 | 136 | 215 | 526 | 0.16 % |
| ⊞ Preferred Provider Organization (2) | 1 | 25 | 88 | 50 | 5 | 1 | 117 | 202 | 489 | 0.15 % |
| ⊞ Self Pay (A) | | 31 | 90 | 46 | 1 | 4 | 135 | 220 | 527 | 0.16 % |
| ⊞ Title V (T) | 1 | 33 | 92 | 67 | 2 | 2 | 135 | 195 | 527 | 0.16 % |
| ⊞ Worker's Compensation (B) | 2 | 23 | 107 | 67 | 3 | 2 | 138 | 235 | 577 | 0.18 % |
| **Total Counts** | **378** | **19,206** | **59,893** | **32,951** | **1,281** | **1,844** | **79,675** | **131,099** | **326,327** | |
| | **0.12 %** | **5.89 %** | **18.35 %** | **10.10 %** | **0.39 %** | **0.57 %** | **24.42 %** | **40.17 %** | | |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## INSURANCE ELIGIBILITY

### 13547 - ELIGIBILITY TABLES CLEANUP TO IMPROVE PERFORMANCE

The eligibility request and response tables contain a large amount of data that is only relevant for a short period of time. eRAD RIS will now trim these tables on a regular interval which will keep the RIS Services running at optimal performance levels.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## 13065 - MEDICAL GROUP RULES ENHANCEMENTS

This feature involves enhancements to informational warnings/alerts for customers using the integration with Eligible API. The intent is to prevent staff members from selecting the wrong insurance carrier by evaluating the medical group data in the return that comes back to RIS via Eligible API. Processing of medical group rules from the *Eligibility Special Conditions* table previously only worked when there was one payer. With multiple payers, the following issues could occur:

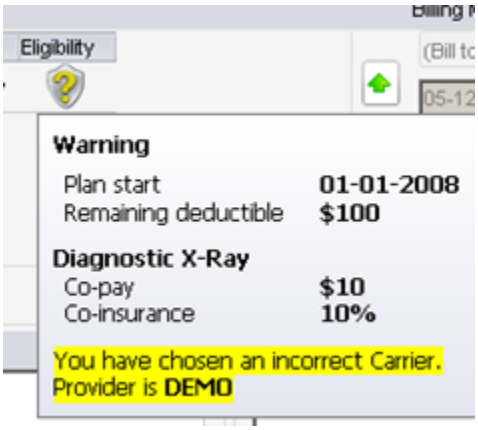
1) The medical group rules report produced duplicate entries.
2) The medical group string check could only apply to one base carrier, which could also cause duplicates and invalid data if multiple rules were configured.
3) Synonyms also needed to support wild cards such as Prospect%.

To resolve these issues, eRAD RIS now supports a new syntax in the *matching_string* field of the *Eligibility Special Conditions* lookup table. This table and the *matching_string* field define when to display a warning indicating an incorrect medical group has been selected. As a refresher, a medical group "string" is simply a piece of text that is found in the information returned from Eligible API in the appropriate section of the return. Remember that you can view the full return by clicking on the Eligible shield.

There are two variations on the medical_group_rule syntax:

- Base Carrier Medical Group Rule
- Simple Medical Group Rule

For both types of rules, an error will be presented to the user in the form of a yellow question mark in the Eligibility shield and a highlighted error message.




A Base Rule means that the string is exclusive to the base carrier. There is only one valid carrier for the string of text in that rule. Simple Rules require that a string of text exists in the return, but it may also exist for other carriers in a group and is not a one-to-one match. It will help the user narrow down the number of appropriate insurance carriers to select from, but if the user picks the wrong carrier from within that group, the Simple Rule will not be able to identify that there is not a correct match.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

To explain the new configurations, examine the following examples. Assume the base carrier is "0100demo." We will create a Base Carrier Medical Group Rule, which validates for this payer that the returned string exists and for all other carriers (for that payer_id) that the string does not exist.

The Base Medical Group Rule for the 0100demo carrier would be:

medical_group_rule:***payer_id=0100demo***:DEMO%:

For the other two carriers in this example, we will create two Simple Medical Group Rules. With simple medical groups rules we only validate for the matching string in the carrier code specified. An example of one of these simple medical group rules is:

medical_group_rule:***PROSPECT%***:

Lookup Tables - EligibilitySpecialCondition *

| Carrier Code | Matching String | Warning Message |
|---|---|---|
| Contains: | Contains: | Contains: |
| Click here to add a new row | | |
| 1468014 - PROSPECT CAL OPTIMA | medical_group_rule:PROSPECT%: | <span style="background-color: #... |
| 0328 - BCBS EMPIRE | medical_group_rule:BCBS%: | <span style="background-color: #... |
| 0100demo - demo | medical_group_rule:payer_id=0100demo:DEMO%: | <span style="background-color: #... |

In the example above, the first two rows are Simple medical Group Rules. The carrier '1468014' will require the text "Prospect" in the return's medical group field and the carrier '0328' will require the text "BCBS." If the required text is missing, the error will display.

The third row is a Base Medical Group Rule (note the "**payer_id=**" in the format). If 0100demo is selected as a carrier and the return does not contain the string "DEMO," the user will get a warning just as with a Simple rule. The difference is that any other carrier that is selected that contains the string "DEMO" will also receive an error. You'll note that carrier '0657' is not listed in the above screen capture because it is not configured for any medical group rules. If that carrier is selected and there is a string of "DEMO" the user will receive an error because that string should only exist for the base carrier '0100demo.' Similarly, if either carrier in the first two rows is selected, the error will display.

### When should I use a Simple Medical Group Rule?

Since Base Rules are configured to be a direct match (the string of text always equals one specific carrier), you need to do a careful analysis of the historical returns for that payer and other payers that may have similar text in their returns. This process is time consuming so it is typical to focus on mapping only the most frequently used payers. Some payers only come up once in a while and the necessary historical data on their Eligible API returns is not available to understand what medical group strings to use. For these reasons, there will always be some payers that will not be mapped to a Base Rule. For these payers, you might use a Simple Medical Group rule that will apply to groups of carriers at the same time. Even if you cannot create a direct match between a string and an individual carrier, you can at least prevent staff from mistakenly choosing a "Prospect" carrier when it is one of the "BCBS" payers.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

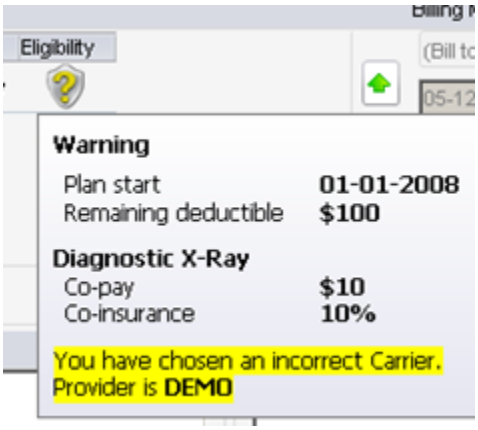
### When should I use a Base Rule?

You should use a Base Rule if the medical group string will never be in another carrier's return. Otherwise, use a Simple Medical Group Rule.

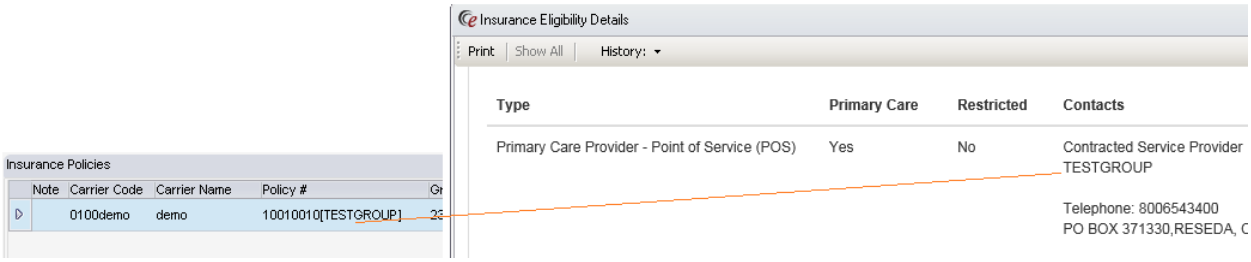
Another feature of the Medical Group Rules is the ability to display a custom message to the user when there is a mismatch. In the "Warning Message" field you can specify a display string such as:

*You have chosen an incorrect Carrier.<br>Provider is {0} *

This will display a highlighted message to the user explaining their incorrect selection. The {0} will be replaced with the Medical Group field from the insurance return.



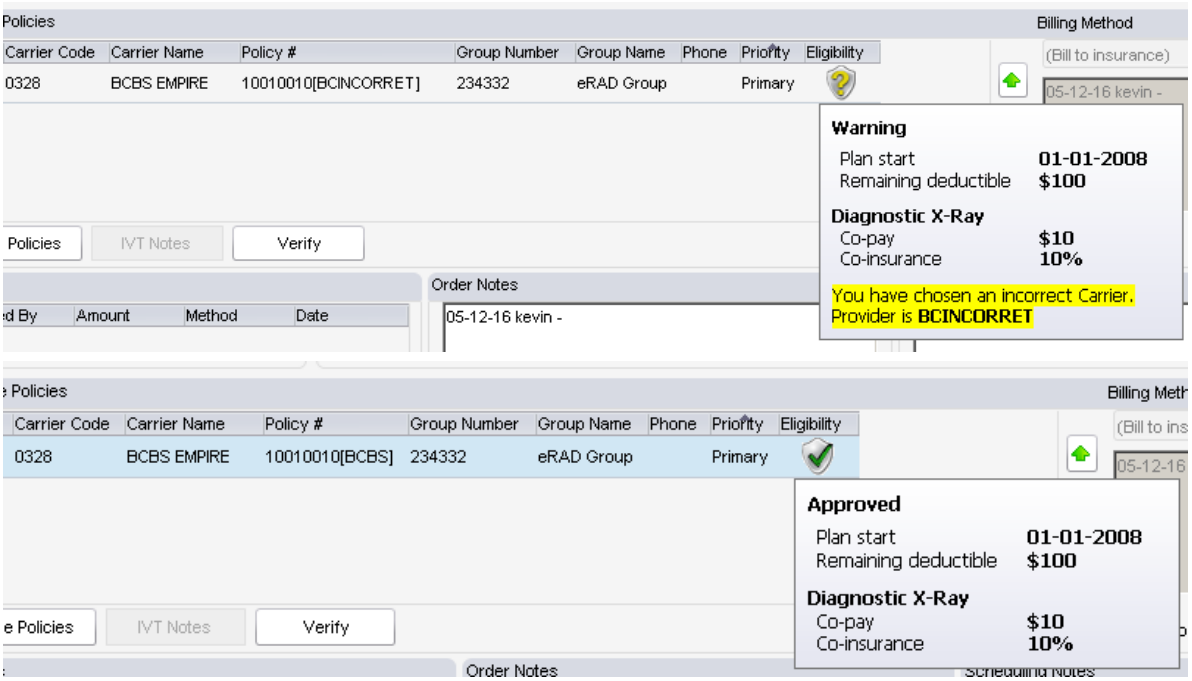

For testing, we have modified the eRad_Demo carrier to include a medical group string in the return, when the policy # ends with brackets containing some string to display as the medical group. For example:



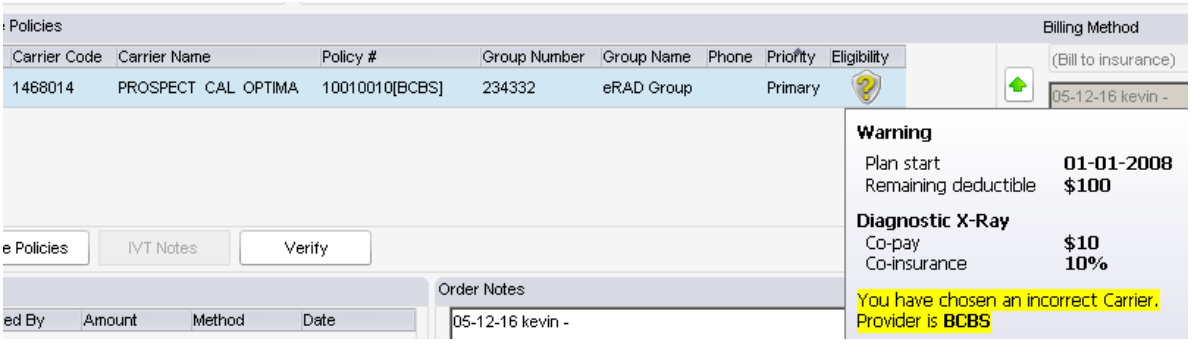

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

To give some additional illustration of these concepts, the following screenshots are some of the test cases using the 4 carriers shown in the previous illustrations.

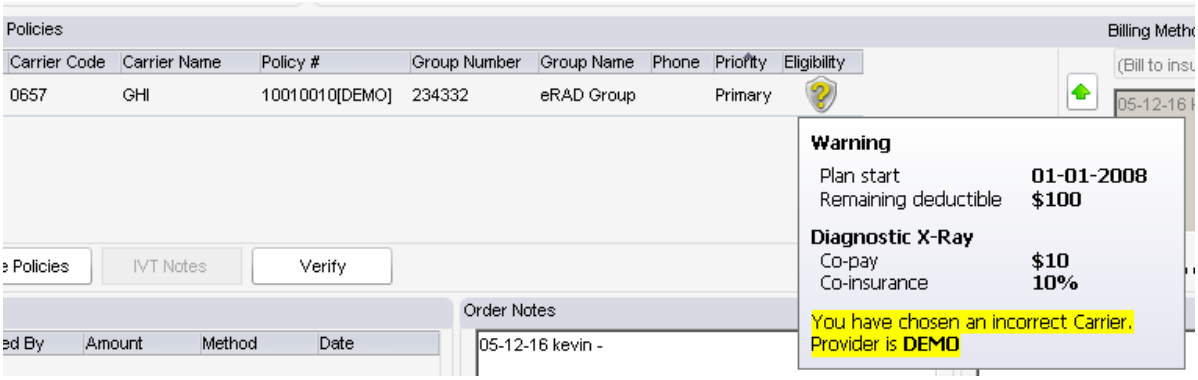
**BCBS EMPIRE:** Rule is that is must start with 'BCBS' and cannot start with 'DEMO'




**PROSPECT CAL OPTIMA:** Rule is that is must start with 'Prospect' and cannot start with 'DEMO'

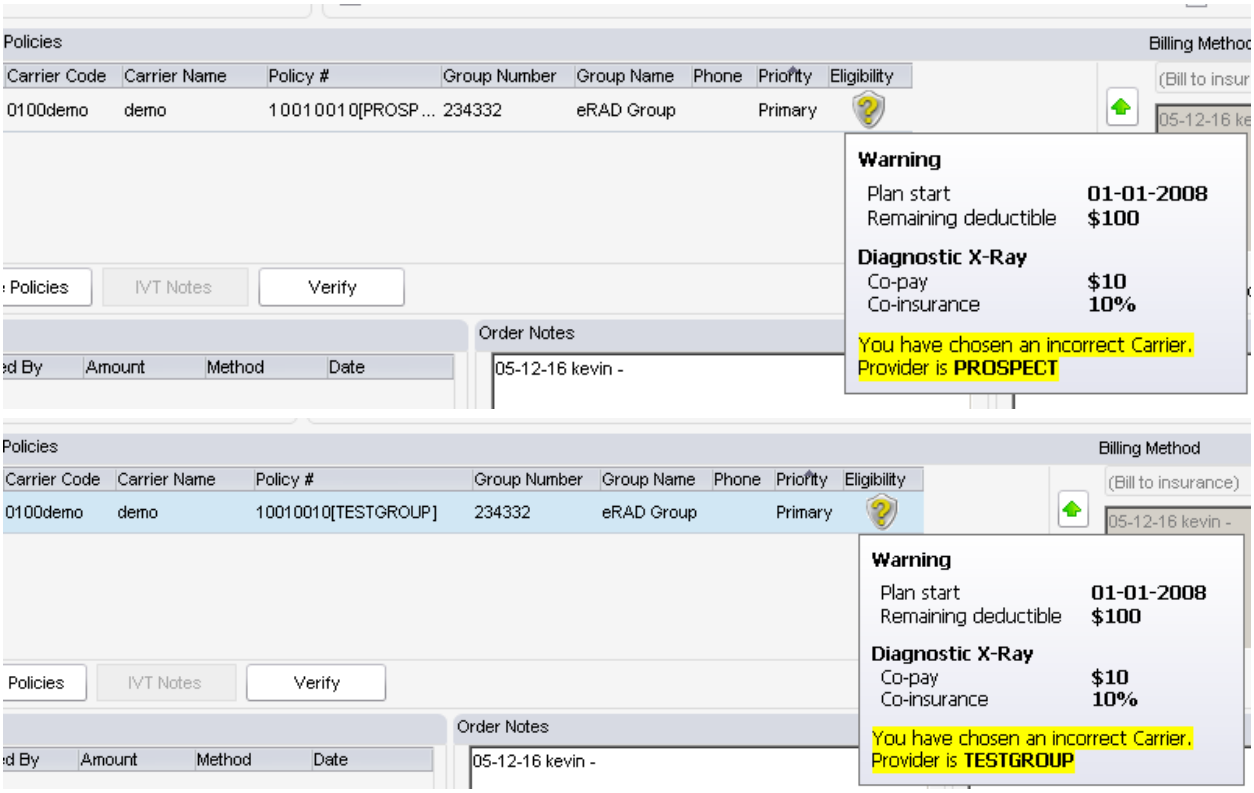



**GHI:** No specific rules; however, but due to 0100demo Base Medical Group Rule it cannot start with 'DEMO'




No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

**demo:** Must start with 'DEMO'




No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

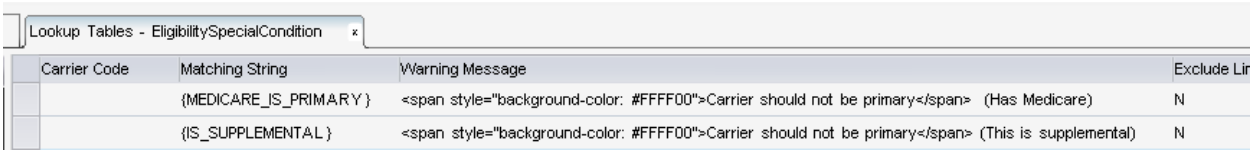
## 13282 - PRIMARY INSURANCE WARNINGS

For customers using Eligible API, we have identified two additional opportunities to assist users in selecting the correct insurance carrier. Two frequent mistakes that lead to denials include:

- Medicare is entered as secondary when it should be primary.
- A supplemental insurance is entered as a primary insurance.

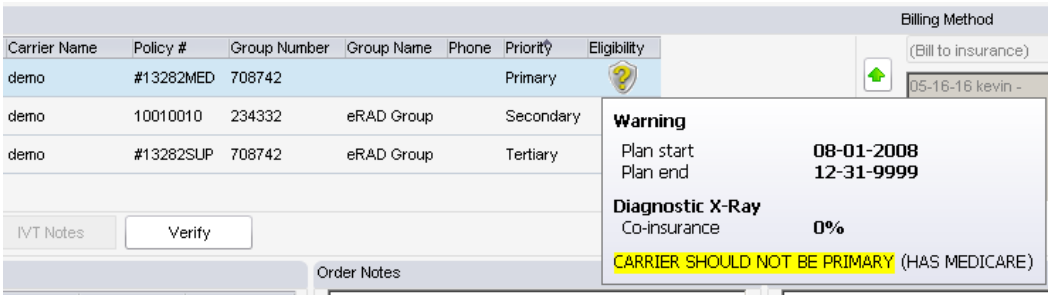
To assist our customers in avoiding denials and potentially missing timely filing deadlines, eRAD RIS can now issue the user a warning if it detects these conditions, based on information in the return from Eligible API.

To enable this feature and configure the custom messages, add entries to the Eligibility Special Condition lookup as shown below:




### Medicare Is Primary:

If a primary insurance has the "Primary Payer MEDICARE" string in the return, this means that the selected carrier is a Medicare supplement and should *not* be listed as primary. When you enable {MEDICARE_IS_PRIMARY} in the Eligibility Special Condition table, eRAD RIS will display the configured warning message under those circumstances.

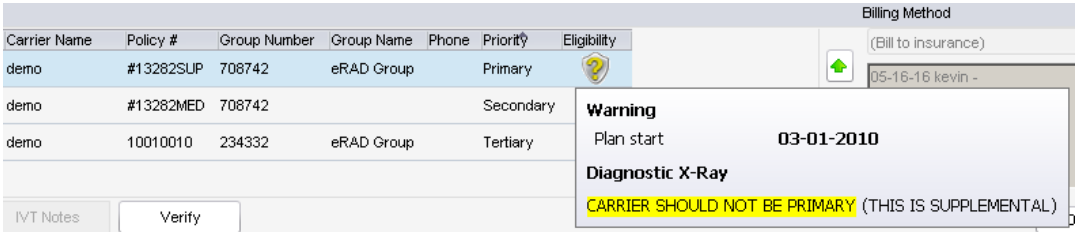



### Insurance Is Supplemental:

If a primary insurance has the "Supplemental Policy" string in the Plan section of the return, this means that the selected carrier is a supplemental insurance (any kind, not necessarily a Medicare supplement) and should *not* be listed as primary. When you enable {IS_SUPPLEMENTAL} in the

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

Eligibility Special Condition table, eRAD RIS will display the configured warning message under those circumstances.




No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## INFRASTRUCTURE

### 11204 - SUPPORT "UNIVERSAL DEVICE ID"

As a result of an upcoming regulatory requirement, eRAD RIS now has a Universal Device ID field (UDID). This field is located on the Help/About screen.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## 13545- MU POST PROCESS REDESIGN TO IMPROVE PERFORMANCE

The eRAD RIS service layer has the ability to process study events immediately after they have happened in order to do such things as update roll up tables for Meaningful Use (MU) statistics. Since this happens immediately, it does slightly slow down the service layer. Since there is no operational reason to update these statistics immediately, it is desired to postpone these updates until a time of day when there is less activity on the system. eRAD RIS now supports the ability to push those events to a designated time of day.

From a customer perspective, this will be automatically enabled after the upgrade, and no action is required of you.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

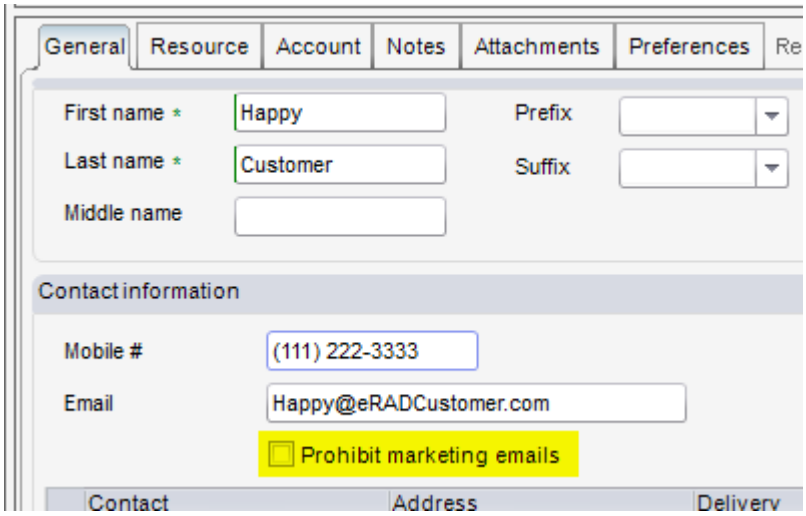
## 13548 - DEPRECATE C_SUMMARYMASTER OBJECTS

There are some objects (stored procedures and tables) in the RIS database that are only used by one customer. These objects do not need to remain in the core of eRAD RIS, and will therefore be removed from the database. This ensures continued optimal performance of the database. The one customer who does use these objects has been updated.

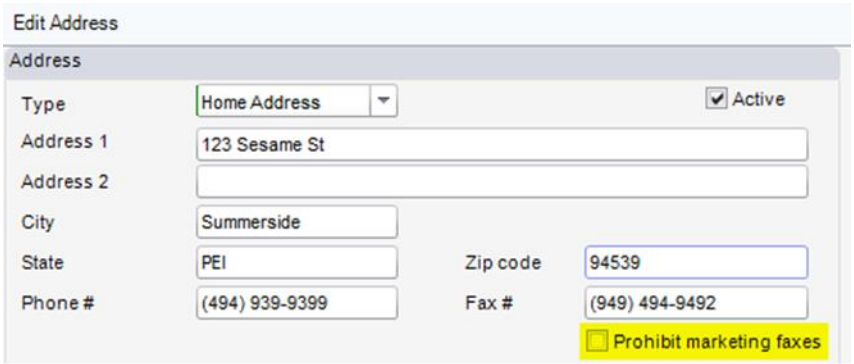
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## 13598 - OPTION TO PROHIBIT MARKETING EMAILS FROM BEING SENT

In the future, the Referring Portal will have the ability to send marketing emails to referring doctors. Some doctors may not want this, so in preparation for this upcoming Referring Portal feature, an option has been added to the referring physician's profile in eRAD RIS to indicate that the portal should not send any marketing emails to their email address. This is set at the referring physician level and cannot be set differently for individual offices (addresses).




This is not to be confused with a feature added in a previous RIS release to prohibit marketing ***faxes***. Marketing faxes are set at the referring physician's address level.




No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

RIS ADMINISTRATION

## 13732 - CAPTURE ORDER CANCELLED DATE

For statistical purposes, eRAD RIS now stores the date an order was cancelled in the database. This can be queried with a custom management report if desired. For clarity, if the order was scheduled, then the Schedule Later option is used (i.e. it is put back on Orders to Schedule), the order cancel date is not populated because the order is still available to be scheduled, it has simply been moved back to an Ordered status. In that case, the **Cancelled Date** would be recorded (since it was actually a scheduled appointment) but the **Order Cancelled Date** would *not* be recorded/stored.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## 13773 – SUPPORT EXPORTING DIAGNOSTIC REPORT IN MS WORD AND OTHER FORMATS

eRAD RIS now supports exporting the diagnostic report in the following formats: MS-Word, PDF, encrypted PDF, image, Excel, MHTML and HTML.

When working with Hebrew, one advantage to exporting in MS-Word is that the MS-Word format fully supports copy/paste in Hebrew. The PDF created by the Microsoft PDF engine within eRAD RIS does not support copy/paste functionality, so the MS-Word format is an advantage in a Hebrew environment.

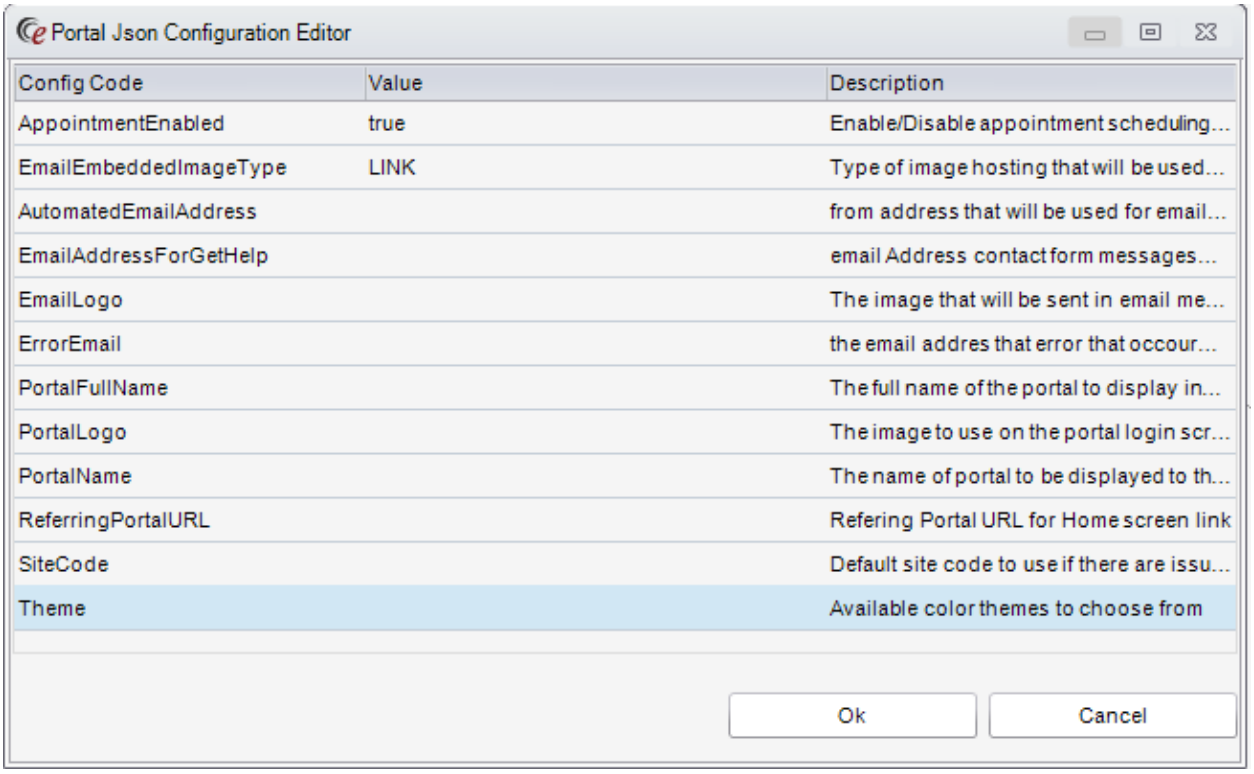
To take advantage of this feature, please contact eRAD Support.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## 13851 – PATIENT PORTAL CONFIGURATION HELPER

The patient portal uses a format called JSON to configure various portal features. This is a complex structure, and a simple typing error can invalidate the configuration. To simplify maintenance and prevent errors, eRAD RIS now has an editing tool that will allow the JSON to be edited without requiring knowledge of JSON and without needing to worry about simple errors.

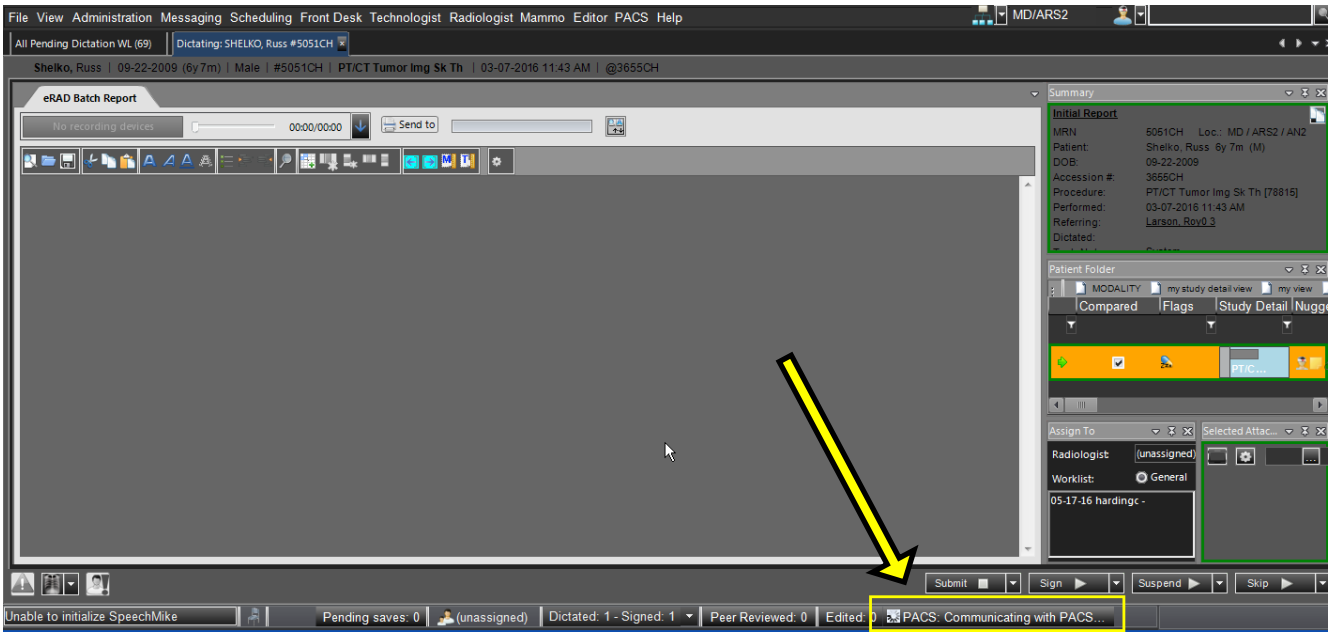
Selecting the […] button will invoke the editor.



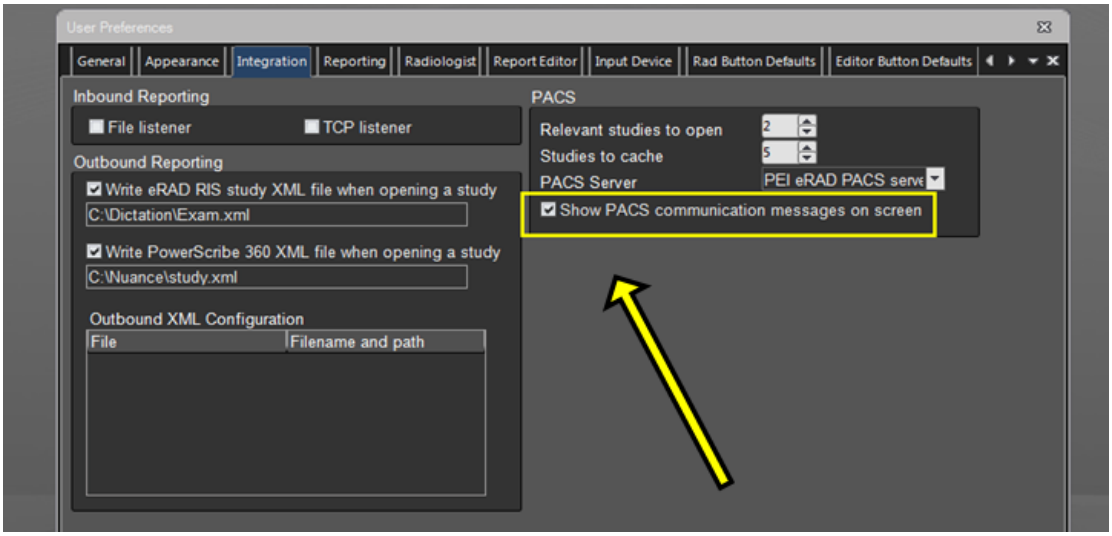

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## #13849 - ADD PACS DIALOG MESSAGES TO ERAD RIS STATUS BAR

eRAD RIS has had many recent enhancements to radiologist messaging when the RIS is communicating to the PACS. The purpose of these messages is to prevent the radiologist from dictating on a new patient before the previous patient's images have been cleared from the PACS viewer. Some radiologists expressed the desire to move the messages to a static notification area instead of a pop-up message. The RIS now has an option to display these PACS status messages to the radiologist in the status strip at the bottom of the RIS screen.




In addition, eRAD RIS has a new user preference to turn off the PACS communication dialog. Users can turn off the PACS dialog in their user preferences under the Integration tab. The default is true (checked).




No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## RESOLVED DEFECTS

Bugs and support issues resolved in build 2.2016.3.

| Bug # | Category | Subject |
|---|---|---|
| 13517 | | Concurrency violation on delete all patients phone numbers from the Phone number edit screen |
| 13291 | Access strings | Access string Clinical.RadarMessage is not in use can be removed |
| 13605 | Admin-Other | Timeout Errors when viewing audit log of changes for Personnel dataset |
| 9283 | Audit History | Assign to Chair context menu creating misleading audit history entries |
| 2862 | Audit History | Request for images (Image Request) are not being audited |
| 13266 | Billing | Editing billing codes issue |
| 13217 | Billing | Aborting a started study can result in an error on the billing codes tab |
| 13485 | CD Burning | Horizontal scroll bar for included studies section in CD Burning window is missing |
| 14055 | Client Install | Core install issue when upgrading from 16.2 to 16.3 |
| 13465 | Dark Mode/Theming | Dark mode - Phone number and Email fields on Patient Tab display white text on white background if more than one option listed |
| 13833 | DB | L_person_address_x_referring_practice is missing FK constraint to l_referring_practice |
| 13636 | DB | Queries to c_study table cannot be optimized by DOS or modality code |
| 13562 | DB | Database trigger performance issues |
| 13455 | DB | SQL Assessment - deprecated SET options found |
| 4749 | DB | The scan document archive process is taking a long time to find scan documents to archive |
| 4747 | DB | Missing index on c_interpretation_quality_review when joining to c_interpretation table |
| 13892 | DB Upgrade scripts | Upgrade Script for RISOutputFilePath |
| 13840 | Digital Forms | Exception occurring when scheduling an order that was previously saved as order when digital form has required field |
| 13311 | Digital Forms | ObjectReference error working with digital forms |
| 13271 | Digital Forms | Digital Forms Editor hang during save on large digital form |
| 11069 | Digital Forms | Digital Form Editor - Session Timeout is too short |
| 13505 | Document Distribution | Document Distribution Engine ignores LegacyInterfaceMode unless the Wedge is also enabled |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

| | | |
|---|---|---|
| 5839 | Embedded Reporting | Edit Templates and Macros icons enabled toggle is backwards |
| 13744 | EMR | External patients can be scheduled in RIS without matching or creating a new internal patient record |
| 13737 | eRAD Editor | eRAD Reporting mode - Conditional fields that are type macro, get error 'Unable to open macro' when opening the dictation window if macro tool window is not loaded. |
| 12942 | eRAD Editor | Inserting a text macro into a field may produce different results if the field is selected from the report tool window rather than the fields tool window. |
| 13486 | Image request | Missing horizontal scroll bar in Image Request screen and window is not resizable |
| 8562 | Image request | Image Request Status column on Patient Folder WL doesn't display status |
| 5943 | Image request | Image Request does NOT show referring doctor's name |
| 13764 | Insurance Eligibility | Error when working with multiple exams at the same time in the perform exam window |
| 13711 | Insurance Eligibility | Excessive audit logging by a "system" service for retrievals |
| 13557 | Insurance Eligibility | Unexpected error processing submit insurance queue |
| 13479 | Insurance Eligibility | Insurance Eligibility - Ignore deductible entry, if remaining and total are both zero |
| 13215 | Insurance Management | Self Pay - changing to a non-NPD enabled site doesn't clear the amount to collect field |
| 10714 | Interfaces | External Scheduling Interface - Issue with GetBookingLock and Expiry |
| 10676 | Interfaces | Assuta External Scheduling Interface - Issue with EndDate |
| 13723 | IVT / Precert | Patient is removed from IVT WL when Precert status is not the same for all exams on the order and one is rescheduled |
| 11992 | IVT / Precert | Precert status doesn't save changes when changed from Schedule Order and View/Edit |
| 13724 | Localization | Messages not localized: 1. User is not logged into PACS, 2. Cannot save because lock is required. |
| 13619 | Localization | When in Scheduling and Front Desk, order tab screen has a word cut off in version QE_HE_2016.2 . |
| 13339 | Localization | PACS login dialog is not localized nor does it support RTL |
| 13338 | Localization | Request to rename field/checkbox in Hebrew under the documentation tab in view/edit |
| 12038 | Localization | Buttons are misleading and inverted for Next/Previous field and Next/Previous portal tab |
| 12586 | Mammography | Manually create reminder window hidden close button when font size set to Large |
| 13819 | Meaningful Use | MU Tab - Allergies Pane - Error appears if Status is |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

| | | |
|---|---|---|
| | | selected before Severity |
| 13595 | Meaningful Use | NPI Invalid message should give more detail |
| 13551 | Meaningful Use | Invalid object name 'c_patient_problem_list' when two users update the same patient's problem list |
| 11363 | Meaningful Use | Height/Weight not required while going through Existing Orders prompt |
| 8516 | Meaningful Use | Direct Message - Issue attaching CCDA document to New Patient |
| 13740 | Mgt Reports | Core report: RTAT by Radiologist procedure group issue |
| 13855 | PACS (eRAD) Int - RIS only | PACS Bookmark remains when closing non-focused tab |
| 11760 | PACS (eRAD) Int - RIS only | PACS integration - Unable to reopen a study using View Images button if PACS is closed after initial open |
| 13801 | PACS (eRAD) Integration | RIS not connecting with PACS when using SSO with RTL localization |
| 13794 | PACS (eRAD) Integration | ERAD PACS - gets confused and displayed incorrect images. |
| 13784 | PACS (eRAD) Integration | Getting messages that aren't correct and images eventually get out of sync when PACS Viewer is not displayed |
| 13604 | PACS (eRAD) Integration | PACS sync issue when switching between multiple tabs under certain circumstances |
| 13482 | PACS (eRAD) Integration | PACS sync - PACS is unable to open current study message displayed too many times |
| 13296 | PACS (eRAD) Integration | PACS prefetching: ArgumentOutOfRangeException |
| 14091 | PACS (Non - eRAD) Integration | UV PACS over Citrix - Mini patient folder and main patient folder not appending images correctly |
| 13717 | PACS (Non - eRAD) Integration | In the XML Integration Lookup table cannot select a file with the xml and save to an existing row |
| 13716 | PACS (Non - eRAD) Integration | Outbound XML configuration grid - the drop down column header should not be displayed and you should not be able to add multiple identical rows |
| 12497 | PACS (Non - eRAD) Integration | IW PACS Integration - When a study cannot be loaded the ‘Study loading problem’ message is hidden, instead 'Waiting for PACS' message is displayed |
| 13725 | Patient Management | MRNs for New Appointments with existing patients - system does not release generated MRN |
| 13553 | Patient Management | System generated MRN not automatically advancing for new patients under some circumstances |
| 12918 | Patient Merge | Patient merge - Phone numbers and email addresses not selected if patient merge is opened when patient folder is open |
| 13401 | Patient Search | When using Patient Search with Last Name ending with the letter 'n' and DOB, the letter ‘n’ is ignored |
| 13760 | Payment control | Foreign Key constraint error when calculating cost of procedure |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

| | | |
|---|---|---|
| 13559 | Payment control | Payment calculator error: object reference not set to an instance of an object |
| 13615 | Portal Viewer | Portal windows are leaking memory |
| 13330 | PowerScribe Integration | PS360 - 'Thread was being aborted' message - inaccurate message and meaningless to user |
| 13587 | Radiology Peer Review | Peer review - the Organization settings do not seem to be saving correctly |
| 13407 | Radiology Peer Review | Peer Review - Value for Notes required at score is affecting what appears on All Peer Review Pending Action WL |
| 13815 | Radiology Reporting | TCP listener (Inbound Reporting) doesn't work when SSO used |
| 13762 | Radiology Reporting | Clinical.OpenStudySuspendedByOtherUser set to NONE, getting different behavior in create/edit window vs dictate window vs sign window. |
| 13746 | Radiology Reporting | Send report option is available on Exam Done studies without a report |
| 13743 | Radiology Reporting | Infinite loop possible when updating supporting reporting files such as text expander, author playback settings, etc. |
| 13730 | Radiology Reporting | RIS produces 2 errors related to 'c_client_worklist' then crashes. |
| 13634 | Radiology Reporting | Radiologist reporting screens hanging when closing from PS360 |
| 13630 | Radiology Reporting | Memory leak in digital form answer view |
| 13628 | Radiology Reporting | M*Modal - edited auto macros reset to the default on subsequent open |
| 13592 | Radiology Reporting | Getting a "ResolveInputOutputDevice" error when opening the dictation window |
| 13437 | Radiology Reporting | When clicking 'Send for dictation' will get prompted that all sections must be entered |
| 13315 | Radiology Reporting | Patient history control error: Cannot access a disposed object |
| 13263 | Radiology Reporting | Template editor lookup, result tab, filter the grid by default = Y, edit one of the templates, get error when saving the template |
| 13251 | Radiology Reporting | Auto Hide for docked patient folder not staying persistent in dictating view |
| 7422 | Radiology Reporting | County Picker does not take in to account the fact that the same county name can exist in multiple states |
| 13531 | Reception | Exception occurs when saving study extra info |
| 13520 | Reception | When changing a Primary/non Primary linked Exam the linking stays intact, Flag isn't removed. |
| 7400 | Reception | Foreign key constraint when checking studies and adding insurance or self pay at time of registration |
| 13566 | Scheduling | When creating a new appointment or new walk in, the |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

| | | |
|---|---|---|
| | | MU pop-up window will not save or close when clicking OK |
| 13563 | Scheduling | From the patient folder, when an ordered study is selected, get an unexpected error when opening the walk-in window |
| 13538 | Scheduling | The start time of a schedule restriction cannot be less than the shortest duration of an exam for that modality after the hour (any hour) |
| 13466 | Scheduling | Phone Number is not copying for "Same as Patient" when Self, Spouse, or Child is selected |
| 13303 | Scheduling | Error loading schedule order |
| 12949 | Scheduling | Referring physician alert not being displayed on Schedule Order/Registration/Walk-In |
| 13809 | Technologist | Get an error in the Technologist WL - Object reference not set to an instance of an object and exam status does not change |
| 13519 | Technologist | Assigned Rad list in Perform Exam window is reordered after initial selection. |
| 13518 | Technologist | Assigned Radiologist is not retained if referrer has preferred radiologist and included study is toggled |
| 13495 | Technologist | When in Perform Exam, clearing Procedure name from Procedure picker and continuing evokes an error message |
| 13359 | Technologist | Exam with contrast that is aborted has contrast removed |
| 13586 | Thick Client GUI | Null reference error after double click on worklist |
| 13567 | Thick Client GUI | PACS Login dialog resize issues |
| 13434 | Thick Client GUI | County information should be cached |
| 13331 | Thick Client GUI | Radgridview / gridflagcellelement memory leak |
| 13299 | Thick Client GUI | Error clearing old trace logs |
| 10394 | Thick Client GUI | eRAD RIS lock screen is only hiding RIS, not technically locking. Shortcut commands and actions in third party systems can still occur |
| 9616 | Thick Client GUI | Referring Preferences - Add Radiologists drop down shows duplicates |
| 2601 | Thick Client GUI | Referring detail on Order tab - add suffix |
| 2350 | Thick Client GUI | No Show WL missing patient folder from context menu |
| 14043 | UI Look and feel | Change text on personnel address from "Marketing fax opt-out" to "Prohibit marketing faxes" |
| 13792 | UI Look and feel | SystemConfig spelling and grammar errors - PortalSchedulingBookingLockTimeout & SchedulingBookingLockTimeout |
| 13625 | UI Look and feel | Improve message given to user for failed MRN mask |
| 13491 | UI Look and feel | Navigation buttons on Portal data pane are disabled |
| 13224 | UI Look and feel | When Phone number mask is disabled, the phone numbers are displayed in a mask in the referring |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

| | | |
|---|---|---|
| | | addresses lookup table |
| 13475 | View Edit | Problems with billing code adding/editing on View/Edit screen |
| 13710 | Web Services | Excessive posting to c_action and c_action_data tables |
| 13608 | Web Services | RIS is marking rows as having changes even when the user didn't make any changes, which causes problem with last_updated_by_user_id |
| 13540 | Web Services | C_GetCancelsByReasons performance issues |
| 13536 | Web Services | Daily cleanup job should purge all expired locks |
| 13089 | Web Services | Problem flag and QA flags do not display correctly on the worklist |
| 6104 | Web Services | Scan document archive services fails access check if temp file already exists |
| 5146 | Web Services | ServicesConfigWizard is not clear that you need to enter the endpoint information in the format protocol://ipaddress:port/rRIS |
| 13751 | Worklists | The TestWorklistExecutionTimes unit test case for GetWLSignedByDateMy is taking longer than expected |
| 13260 | Worklists | Assign to radiologist context menu on worklist does not show for addendum requests |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## KNOWN LIMITATIONS

The following are new bugs found in build 2.2016.3. Bugs reported in previous versions are not captured as Known Limitation in this document.

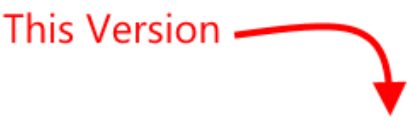
| # | Priority | Category | Subject |
|---|---|---|---|
| 13992 | Normal | Audit History | Audit History is not recording the county and zip code for the signed exam |
| 14052 | Normal | Client Install | Core install - after a successful install, should have a message stating 'install completed successfully' |
| 13886 | Low | Digital Forms | Do not try to save digital forms from RIS when trying to 'Save As Order' |
| 13971 | Low | Documentation | Assigned Radiologist not showing as a required field until you hit save |
| 13983 | Normal | Image request | Navigating from one view to another in the Image request WL |
| 14005 | Normal | IVT / Precert | Verification of Insurance remains after changing insurance companies |
| 14001 | Normal | IVT / Precert | Insurance verification is showing as required when it's approved through an eligibility check |
| 13998 | Normal | IVT / Precert | When changing insurance companies at scheduling, there is an error after verifying another insurance in the order process |
| 13938 | Normal | Localization | Couple of items not localized to Hebrew |
| 13870 | Low | Meaningful Use | eRx - Throws exception if patient's primary phone number starts with "+" |
| 14003 | Normal | MModal | Conditional fields - value is not retained when 'sent to VR' if option is a macro |
| 13967 | Normal | PACS (eRAD) Int - RIS only | On initial opening of a study, should the 'Communicating with PACS' dialog or status bar message be displayed? |
| 13961 | Normal | PACS (eRAD) Int - RIS only | Status bar is displaying incorrect message when waiting for PS360 |
| 14058 | Normal | PACS (eRAD) Integration | PACS images are not getting released when skipping through in 'All Peer Review Pending Action WL' |
| 14025 | Low | PACS (eRAD) Integration | When closing RIS from the Locked screen, images do not close |
| 13953 | Normal | PACS (eRAD) | PACS status bar message is different than PACS dialog message |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

| | | | |
|---|---|---|---|
| | | Integration | |
| 13945 | Normal | PACS (eRAD) Integration | RIS fails to display message for missing priors when the bookmark is not lost |
| 14093 | Low | PACS (Non - eRAD) Integration | CSH PACS - will log you out if it is not chosen upon login to RIS |
| 14039 | Low | PACS (Non - eRAD) Integration | Integration Manager - Add close requested error |
| 13928 | Low | Patient Folder | Required indication (red exclamation) not updating after Patient Race is added |
| 13974 | Normal | Scheduling | Error for 1 patient with 2 procedures at the same time in the same room |
| 13926 | Normal | Scheduling | Required indication (red exclamation) not updating after None is selected for Medications/Allergies/Medical History on the MU tab |
| 14002 | Normal | Service Tools - Installer | RIS Thick Installer Wix Project cleanup |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## RIS RELEASE VERSION NUMBERS




| Version | 2016.1 | 2016.2 | 2016.2 | 2016.2 | 2016.3 |
|---|---|---|---|---|---|
| Hotfix | - | - | 1 | 2 | |
| Window UI | 2.16.1.0.33419 (3GB) | 2.16.2.0 (3GB) | 2.16.2.1 (3GB) | 2.16.2.2 (3GB) | 2.16.3.0 (3GB) |
| Core | 2.16.1.0.33079 | 2.16.2.0 | 2.16.2.0 | 2.16.2.0 | 2.16.2.0 |
| WS | 2.16.1.0.33419 | 2.16.2.0 | 2.16.2.0 | 2.16.2.0 | 2.16.3.0 |
| DB | 2.16.1.0.33416 | 2.16.2.0.00172540 | 2.16.2.0.00172540 | 2.16.2.2.00243102 | 2.16.3.0.00257101 |
| Digital Forms | | | | | |
| | | | | | |
| Patient Portal | | | | | |
| Referring Portal | | | | | |
| Notes | Management Reports, Questionnaire and Citrix Bridge | | Citrix Bridge | Citrix Bridge | |

| Legend |
|---|
| This Release |
| New changes |
| Unchanged |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## CODE STREAM DIAGRAM

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

# Server Update

For eRAD RIS
Version 2.0
Build 2.2016.4
Update 2.2016.4.1

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# Table of Contents

Resolved Items ..... 3
Code Stream ..... 4
Package Contents ..... 5
Intended Audience ..... 5
Who is affected ..... 5
eRAD RIS Release Version Numbers ..... 6
Installing ..... 7
    Client/GUI ..... 7
    Web Service ..... 7

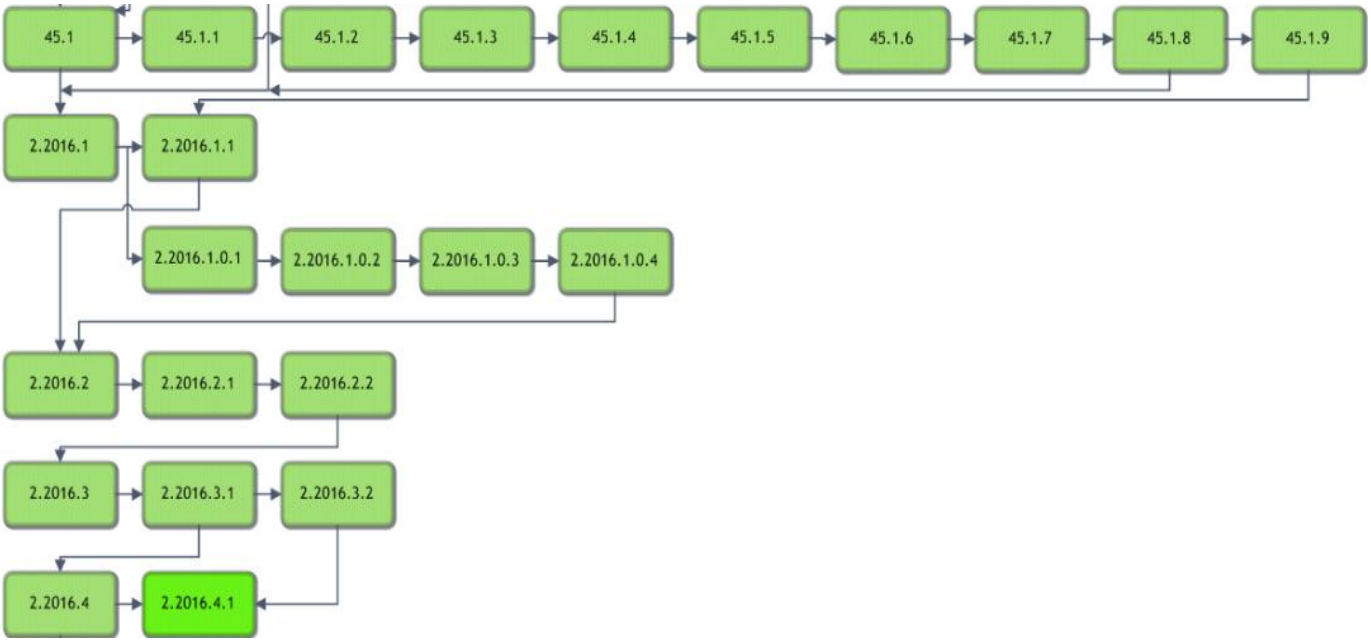
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## Resolved Items

| Redmine # | Subject |
|---|---|
| 14977 | PACS Caching is not caching priors in reverse chronological order |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## Code Stream



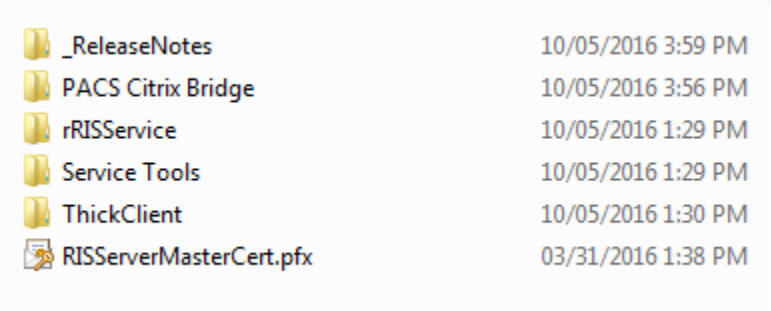

**Legend:**

Light Green = Previously Released software

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## Package Contents




## Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

## Who is affected

Build 2016.4 installs. This server update must be applied to 2016.4

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Digital Forms | Notes |
|---|---|---|---|---|---|---|---|
| 43.1 | - | 2.43.1.0.25850(3GB) | 2.43.0.0.23171 | 2.43.1.0.25850 | 2.43.1.0.25771 | | GUI.zip Web Service and DB Updates |
| 43.2 | - | 2.43.2.0.26864(3GB) | 2.43.0.0.23171 | 2.43.2.0.26864 | 2.43.1.0.25771 | | GUI.zip and Web Service |
| 44 | - | 2.44.0.0.26570(3GB) | 2.44.0.0.26405 | 2.44.0.0.26570 | 2.44.0.0.26475 | | Full Version Release |
| 44.1 | - | 2.44.0.0.26984(3GB) | 2.44.0.0.26405 | 2.44.0.0.26984 | 2.44.0.0.26906 | | Gui.zip, Web Service, and DB |
| 44.1 | 1 | 2.44.1.1.27093(3GB) | 2.44.0.0.26405 | 2.44.1.0.26984 | 2.44.1.0.26906 | | Gui.zip |
| 44.2 | | 2.44.2.0.27410(3GB) | 2.44.0.0.26405 | 2.44.2.0.27410 | 2.44.2.0.27365 | | Gui.zip, Web Service, and DB |
| 44.2 | 1 | 2.44.2.1.27959(3GB) | 2.44.0.0.26405 | 2.44.2.1.27959 | 2.44.2.1.27909 | | Gui.zip, Web Service, and DB |
| 44.2 | 2 | 2.44.2.1.27959(3GB) | 2.44.0.0.26405 | 2.44.2.2.28094 | 2.44.2.1.27909 | | Web Service |
| 44.3 | - | 2.44.3.0.28292 | 2.44.0.0.26405 | 2.44.3.0.28277 | 2.44.3.0.28138 | | Gui.zip, Web Service, and DB |
| 44.3 | 1 | 2.44.3.1.28535(3GB) | 2.44.0.0.26405 | 2.44.3.1.28535 | 2.44.3.0.28138 | | Gui.zip and Web Service |
| 44.4 | - | 2.44.4.0.28762(3GB) | 2.44.0.0.26405 | 2.44.4.0.28762 | 2.44.4.0.28676 | | Gui.zip, Web Server, DB, SSRS Deployment |
| 44.4 | 1 | 2.44.4.1.28953(3GB) | 2.44.0.0.26405 | 2.44.4.1.28953 | 2.44.4.0.28676 | | Gui.zip and Web Service |
| 44.4 | 2 | 2.44.4.2.29327(3GB) | 2.44.0.0.26405 | 2.44.4.2.29327 | 2.44.4.0.28676 | | Gui.zip and Web Service |
| 44.4 | 3 | 2.44.4.2.29722(3GB) | 2.44.0.0.26405 | 2.44.4.2.29327 | 2.44.4.0.28676 | | Gui.zip and Web Service |
| 44.5 | - | 2.44.5.0.30022(3GB) | 2.44.0.0.26405 | 2.44.5.0.30022 | 2.44.5.0.29976 | | Gui.zip, Web Server, DB |
| 44.5 | 1 | 2.44.5.1.30451(3GB) | 2.44.0.0.26405 | 2.44.5.1.30451 | 2.44.5.1.30449 | | Gui.zip, Web Server, DB |
| 44.5 | 2 | 2.44.5.2.30705(3GB) | 2.44.0.0.26405 | 2.44.5.1.30705 | 2.44.5.1.30554 | | Gui.zip, Web Server, DB |
| 45 | - | 2.45.0.0.29559(3GB) | 2.45.0.0.26107 | 2.45.0.0.29559 | 2.45.0.0.29558 | | Full Version Release |
| 45.1 | - | 2.45.1.0.30774(3GB) | 2.45.0.0.26107 | 2.45.1.0.30774 | 2.45.1.0.30738 | | Gui.zip, Web Service, DB, SQLReporting, Questionnaire, Citrix support |
| 45.1 | 1 | 2.45.1.1.31175(3GB) | 2.45.0.0.26107 | 2.45.1.1.31175 | 2.45.1.1.31174 | | Gui.zip, Web Service, DB, SQLReporting, Questionnaire |
| 45.1 | 2 | 2.45.1.1.31175(3GB) | 2.45.0.0.26107 | 2.45.1.2.31378 | 2.45.1.1.31174 | | Web Service and Citrix Bridge |
| 45.1 | 3 | 2.45.1.3.31452(3GB) | 2.45.0.0.26107 | 2.45.1.3.31452 | 2.45.1.3.31369 | | GUI.zip, Web Service, DB, Questionnaire and Citrix Bridge |
| 45.1 | 4 | 2.45.1.4.31621(3GB) | 2.45.0.0.26107 | 2.45.1.4.31621 | 2.45.1.4.31599 | | GUI.zip, Web Service, DB, Questionnaire and Citrix Bridge |
| 45.1 | 5 | 2.45.1.5.31773(3GB) | 2.45.0.0.26107 | 2.45.1.5.31773 | 2.45.1.5.31771 | | GUI.zip, Web Service, DB, Questionnaire |
| 45.1 | 6 | 2.45.1.6.32070(3GB) | 2.45.0.0.26107 | 2.45.1.6.32070 | 2.45.1.6.31936 | | GUI.zip, Web Service, DB, Questionnaire, Citrix Bridge |
| 45.1 | 7 | 2.45.1.6.32070(3GB) | 2.45.0.0.26107 | 2.45.1.6.32070 | 2.45.1.6.31936 | | Web Service for Wedge only. Version number of Wedge is 45.1.6.32614 |
| 45.1 | 8 | 2.45.1.8.33254(3GB) | 2.45.0.0.26107 | 2.45.1.6.32070 | 2.45.1.6.31936 | | GUI.zip |
| 45.1 | 9 | 2.45.1.9.33573(3GB) | 2.45.0.0.26107 | 2.45.1.6.32070 | 2.45.1.6.31936 | | GUI.zip |
| 2016.1 | - | 2.16.1.0.33419 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | | GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge |
| 2016.1 | 1 | 2.16.1.1.33672 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | | GUI.zip |
| 2016.1 | .0.1 | 2.16.1.0.1 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | | GUI.zip (This is not included in 2016.1.1, version directly above) |
| 2016.1 | .0.2 | 2.16.1.0.1 (3GB) | 2.16.1.0.33079 | 2.16.1.0.2 | 2.16.1.0.33416 | | Wedge Web Services only |
| 2016.1 | .0.3 | 2.16.1.0.3 (3GB) | 2.16.1.0.33079 | 2.16.1.0.3 | 2.16.1.0.3.00128918 | | GUI.zip, Web Services and DB |
| 2016.1 | .0.4 | 2.16.1.0.4 (3GB) | 2.16.1.0.33079 | 2.16.1.0.4 | 2.16.1.0.3.00128918 | | GUI.zip, Web Services |
| 2016.2 | - | 2.16.2.0 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.0.00172540 | | Full Version Release - GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge |
| 2016.2 | 1 | 2.16.2.1 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.0.00172540 | | GUI.zip and Citrix Bridge |
| 2016.2 | 2 | 2.16.2.2 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.2.00243102 | | GUI.zip, DB and Citrix Bridge |
| 2016.3 | - | 2.16.3.0 (3GB) | 2.16.3.0 | 2.16.3.0 | 2.16.3.0.00257101 | 2.16.3.0 | Full Version Release |
| 2016.3 | 1 | 2.16.3.1 (3GB) | 2.16.3.0 | 2.16.3.1 | 2.16.3.1.00298834 | 2.16.3.0 | GUI.zip, Web Service and DB |
| 2016.3 | 2 | 2.16.3.2 (3GB) | 2.16.3.0 | 2.16.3.2 | 2.16.3.1.00298834 | 2.16.3.0 | GUI.zip, Web Service |
| 2016.4 | - | 2.16.4.0 (3GB) | 2.16.4.0 | 2.16.4.0 | 2.16.4.0.00301943 | 2.16.4.0 | Full Version Release |
| 2016.4 | 1 | 2.16.4.1 (3GB) | 2.16.4.0 | 2.16.4.1 | 2.16.4.0.00301943 | 2.16.4.0 | GUI and Web Service updates |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# Installing

## Client/GUI

1) Copy and replace the current rRIS…zip file with the eRAD_rRIS_2016.4.1.zip file provided with this release.
   Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

## Web Service

This updated is only required for the Wedge Web Services. The Core RIS Service and Document Distribution Service are not required to be updated.

1. The web service upgrade consists of replacing the files in the RIS Web Service directory with the files supplied in the rRISService folder with this build. Always create a backup of the files being replaced. This upgrade includes 99 files in the rRISService folder and 6 sub folders. Of those folders, 1 is a folder titled **"XSL"** that contains a sub folder and files within the subfolder. Another folder is titled **"deploy"** that contains the new .config files that will be deployed with the user of the file called "ServicesConfigWizard.exe" (see instructions below). Folders ar (Arabic), he (Hebrew), pt_BR (Brazilian Portuguese) and es-AR (Argentina Spanish) are localization folders. The WedgePlugins folder contains various plugin files for RADAR, MIRTH, Ensemble, etc…

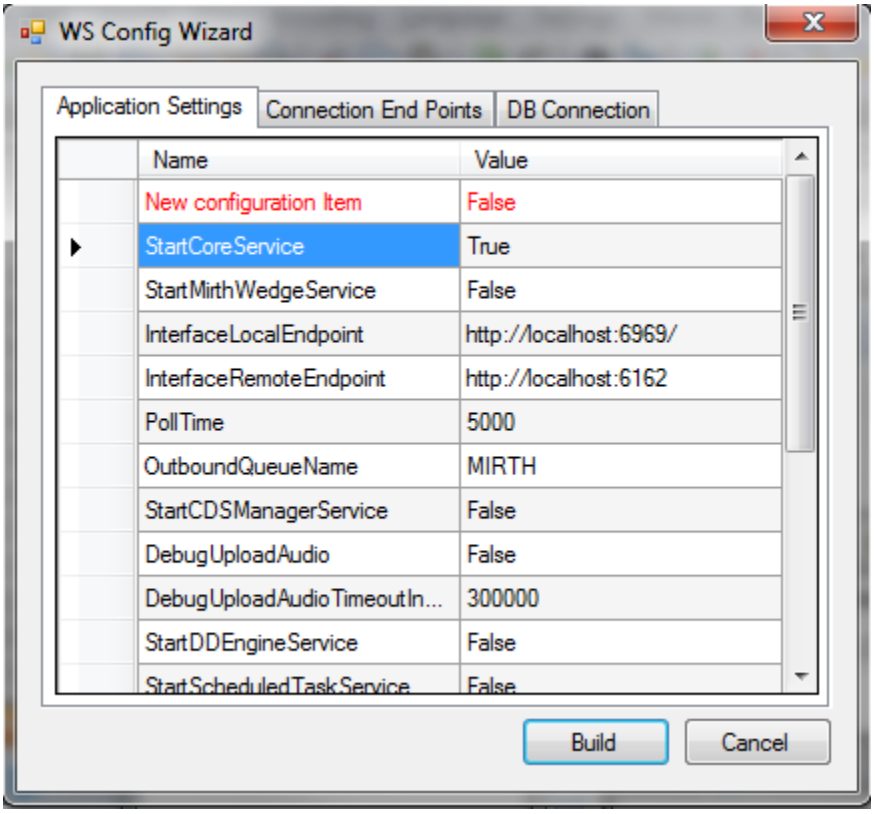
**Services Configuration Wizard**

With the release of 42 to decrease the chance of losing configuration setting and missing new configuration options, we will no longer include the configuration files in the release in the main set of files, but they will now exist in a "deploy" folder, which will contain the three site configurable config files; applicationsettings, connectionstrings, and services as well as a copy of the rRISServices.exe configuration file. The contents of this folder should not be required to be touched.

On the install of a new service, all files will be copied to the appropriate locations on the server (no configurations will be over written). If instructed or to confirm no new configurations have been added the user can run the new application "ServicesConfigWizard.exe"

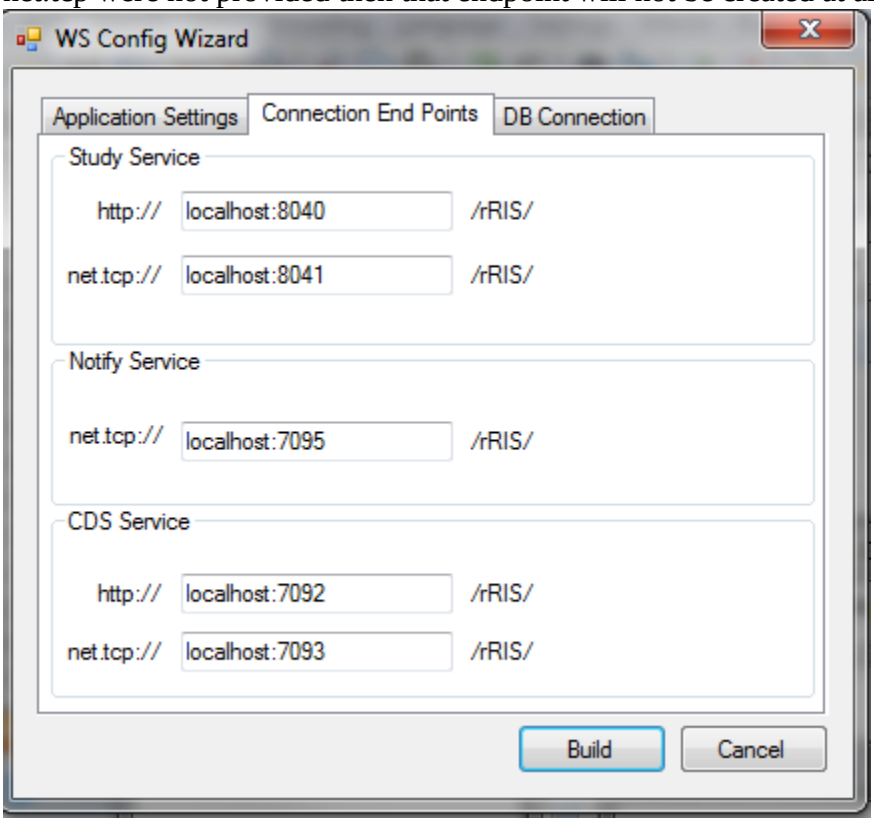
This application will read the existing configuration file(s) (if files exist), and compare to the provided new configuration files then will display three tabs, for each configuration file:
**Application Settings:** all existing configuration value will be displayed, if there are any new configuration entries they will be displayed in red.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.



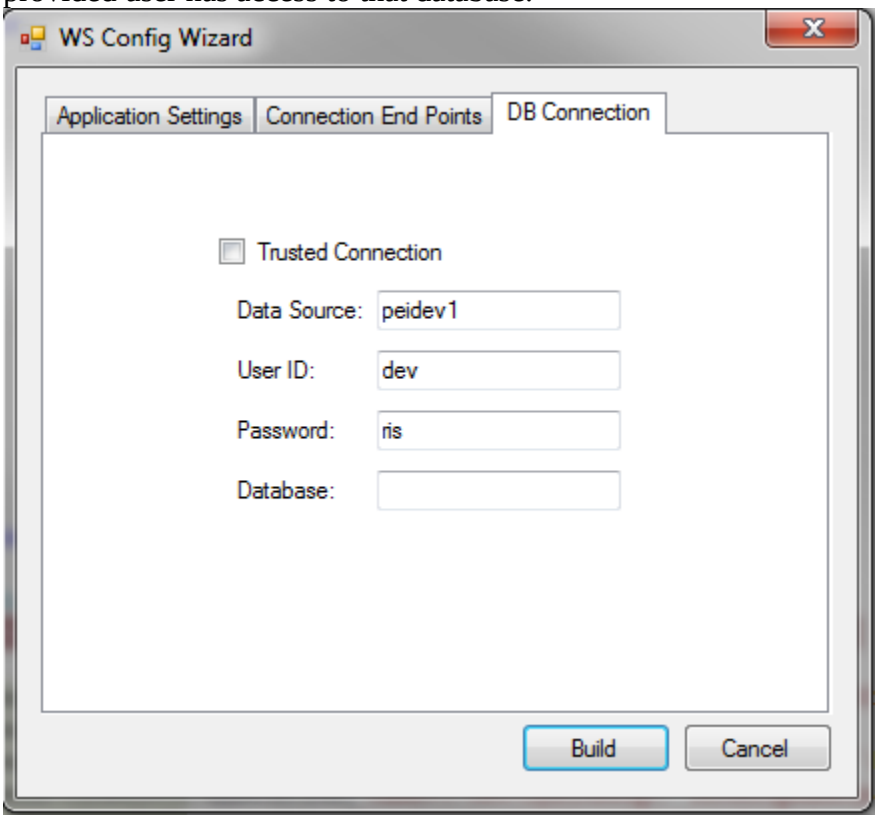

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

**Connection End Points:** will display the existing configuration, if the value is left blank then that entry will not be created, in the case of "Study Service" or "CDS Service" if both http and net.tcp were not provided then that endpoint will not be created at all.




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

**DB Connection:** will display the existing configuration, if the Connection is to be used as a trusted connection, then the user ID and password will become disabled and will not be used, and will rely on the provided database value, When not using the trusted connection, The Database value is not needed but can be used to force a specific database connection as long as the provided user has access to that database.




It is always good practice to do a compare of the .config files.

1) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService.
   *rRISService directories include:*
   *a) rRISService*
   *b) CDS rRISService*
   *c) Wedge rRISService*
   *d) DDE rRISService*

   **Restart each service**.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# Server Update

For eRAD RIS
Version 2.0
Build 2.2016.4
Update 2.2016.4.2

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# Table of Contents

Resolved Items ..... 3
Code Stream ..... 4
Package Contents ..... 5
Intended Audience ..... 5
Who is affected ..... 5
eRAD RIS Release Version Numbers ..... 6
Installing ..... 7
    Client/GUI ..... 7
    Patient Portal ..... 7

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## Resolved Items

eRAD RIS

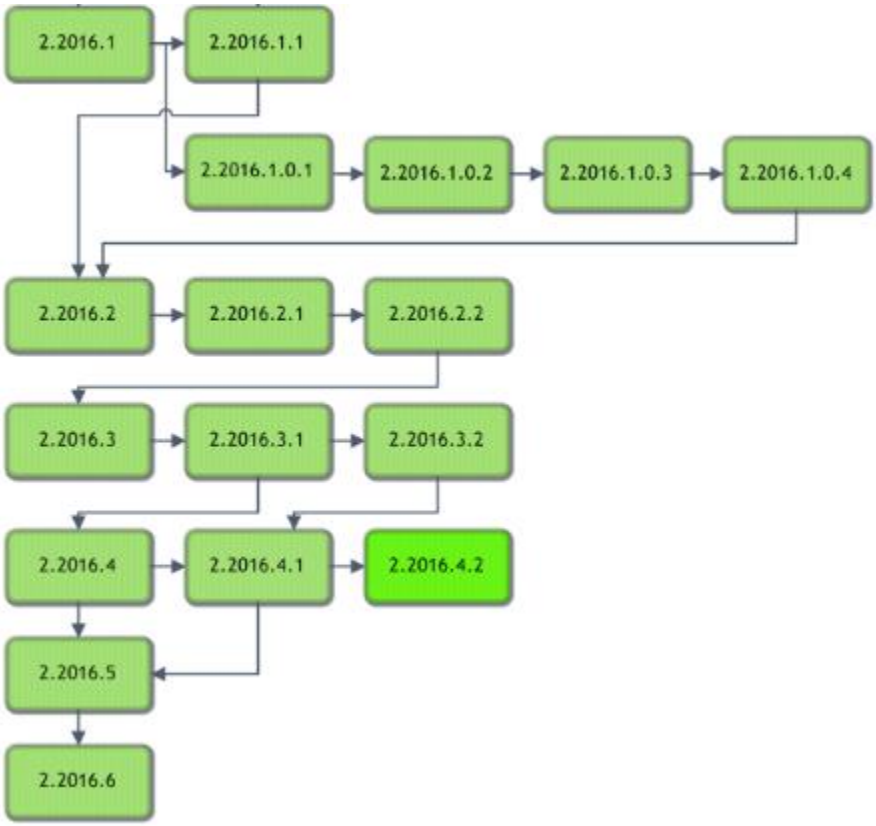
| Redmine # | Subject |
|---|---|
| 15289 | It is now possible to arrive or cancel appointments made as a guest in the Patient Portal. |
| 15288 | Ris.exe is once again marked as LARGEADDRESSAWARE. |

Patient Connect

| Redmine # | Subject |
|---|---|
| 15282 | Preparation instructions have been added to the Appointment Summary Tab. |
| 15281 | An occasional issue with the next button not advancing through the workflow after selecting the provider has been resolved. |
| 15280 | Activity logs are now time stamped with the server time, eliminating a 4-hour discrepancy. |
| 15279 | A change has been made to eliminate rounding up to the next day, in order to prevent additional delay to the report being displayed in the portal. |
| 15278 | The Images tab now disappears when PACS is not defined. |
| 15277 | A message that images are not available is now displayed when eRAD PACS is not defined. |
| 15276 | Both phone and email are now required when using the Get Help form. |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## Code Stream



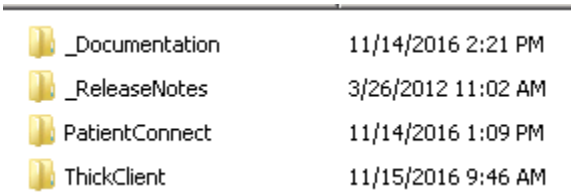

**Legend:**

**Light Green = Previously Released software**

**Bright Green = Current Release**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## Package Contents




## Intended Audience

The intended audience for this document is the RadNet Clinical Systems team and the eRAD Support/Service team.

## Who is affected

Build 2016.4 installs. This server update must be applied to 2016.4.1.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Digital Forms | Notes |
|---|---|---|---|---|---|---|---|
| 43.1 | - | 2.43.1.0.25850(3GB) | 2.43.0.0.23171 | 2.43.1.0.25850 | 2.43.1.0.25771 | | GUI.zip Web Service and DB Updates |
| 43.2 | - | 2.43.2.0.26864(3GB) | 2.43.0.0.23171 | 2.43.2.0.26864 | 2.43.1.0.25771 | | GUI.zip and Web Service |
| 44 | - | 2.44.0.0.26570(3GB) | 2.44.0.0.26405 | 2.44.0.0.26570 | 2.44.0.0.26475 | | Full Version Release |
| 44.1 | - | 2.44.0.0.26984(3GB) | 2.44.0.0.26405 | 2.44.0.0.26984 | 2.44.0.0.26906 | | Gui.zip, Web Service, and DB |
| 44.1 | 1 | 2.44.1.1.27093(3GB) | 2.44.0.0.26405 | 2.44.1.0.26984 | 2.44.1.0.26906 | | Gui.zip |
| 44.2 | | 2.44.2.0.27410(3GB) | 2.44.0.0.26405 | 2.44.2.0.27410 | 2.44.2.0.27365 | | Gui.zip, Web Service, and DB |
| 44.2 | 1 | 2.44.2.1.27959(3GB) | 2.44.0.0.26405 | 2.44.2.1.27959 | 2.44.2.1.27909 | | Gui.zip, Web Service, and DB |
| 44.2 | 2 | 2.44.2.1.27959(3GB) | 2.44.0.0.26405 | 2.44.2.2.28094 | 2.44.2.1.27909 | | Web Service |
| 44.3 | - | 2.44.3.0.28292 | 2.44.0.0.26405 | 2.44.3.0.28277 | 2.44.3.0.28138 | | Gui.zip, Web Service, and DB |
| 44.3 | 1 | 2.44.3.1.28535(3GB) | 2.44.0.0.26405 | 2.44.3.1.28535 | 2.44.3.0.28138 | | Gui.zip and Web Service |
| 44.4 | - | 2.44.4.0.28762(3GB) | 2.44.0.0.26405 | 2.44.4.0.28762 | 2.44.4.0.28676 | | Gui.zip, Web Server, DB, SSRS Deployment |
| 44.4 | 1 | 2.44.4.1.28953(3GB) | 2.44.0.0.26405 | 2.44.4.1.28953 | 2.44.4.0.28676 | | Gui.zip and Web Service |
| 44.4 | 2 | 2.44.4.2.29327(3GB) | 2.44.0.0.26405 | 2.44.4.2.29327 | 2.44.4.0.28676 | | Gui.zip and Web Service |
| 44.4 | 3 | 2.44.4.2.29722(3GB) | 2.44.0.0.26405 | 2.44.4.2.29327 | 2.44.4.0.28676 | | Gui.zip and Web Service |
| 44.5 | - | 2.44.5.0.30022(3GB) | 2.44.0.0.26405 | 2.44.5.0.30022 | 2.44.5.0.29976 | | Gui.zip, Web Server, DB |
| 44.5 | 1 | 2.44.5.1.30451(3GB) | 2.44.0.0.26405 | 2.44.5.1.30451 | 2.44.5.1.30449 | | Gui.zip, Web Server, DB |
| 44.5 | 2 | 2.44.5.2.30705(3GB) | 2.44.0.0.26405 | 2.44.5.1.30705 | 2.44.5.1.30554 | | Gui.zip, Web Server, DB |
| 45 | - | 2.45.0.0.29559(3GB) | 2.45.0.0.26107 | 2.45.0.0.29559 | 2.45.0.0.29558 | | Full Version Release |
| 45.1 | - | 2.45.1.0.30774(3GB) | 2.45.0.0.26107 | 2.45.1.0.30774 | 2.45.1.0.30738 | | Gui.zip, Web Service, DB, SQLReporting, Questionnaire, Citrix support |
| 45.1 | 1 | 2.45.1.1.31175(3GB) | 2.45.0.0.26107 | 2.45.1.1.31175 | 2.45.1.1.31174 | | Gui.zip, Web Service, DB, SQLReporting, Questionnaire |
| 45.1 | 2 | 2.45.1.1.31175(3GB) | 2.45.0.0.26107 | 2.45.1.2.31378 | 2.45.1.1.31174 | | Web Service and Citrix Bridge |
| 45.1 | 3 | 2.45.1.3.31452(3GB) | 2.45.0.0.26107 | 2.45.1.3.31452 | 2.45.1.3.31369 | | GUI.zip, Web Service, DB, Questionnaire and Citrix Bridge |
| 45.1 | 4 | 2.45.1.4.31621(3GB) | 2.45.0.0.26107 | 2.45.1.4.31621 | 2.45.1.4.31599 | | GUI.zip, Web Service, DB, Questionnaire and Citrix Bridge |
| 45.1 | 5 | 2.45.1.5.31773(3GB) | 2.45.0.0.26107 | 2.45.1.5.31773 | 2.45.1.5.31771 | | GUI.zip, Web Service, DB, Questionnaire |
| 45.1 | 6 | 2.45.1.6.32070(3GB) | 2.45.0.0.26107 | 2.45.1.6.32070 | 2.45.1.6.31936 | | GUI.zip, Web Service, DB, Questionnaire, Citrix Bridge |
| 45.1 | 7 | 2.45.1.6.32070(3GB) | 2.45.0.0.26107 | 2.45.1.6.32070 | 2.45.1.6.31936 | | Web Service for Wedge only. Version number of Wedge is 45.1.6.32614 |
| 45.1 | 8 | 2.45.1.8.33254(3GB) | 2.45.0.0.26107 | 2.45.1.6.32070 | 2.45.1.6.31936 | | GUI.zip |
| 45.1 | 9 | 2.45.1.9.33573(3GB) | 2.45.0.0.26107 | 2.45.1.6.32070 | 2.45.1.6.31936 | | GUI.zip |
| 2016.1 | - | 2.16.1.0.33419 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | | GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge |
| 2016.1 | 1 | 2.16.1.1.33672 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | | GUI.zip |
| 2016.1 | .0.1 | 2.16.1.0.1 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | | GUI.zip (This is not included in 2016.1.1, version directly above) |
| 2016.1 | .0.2 | 2.16.1.0.1 (3GB) | 2.16.1.0.33079 | 2.16.1.0.2 | 2.16.1.0.33416 | | Wedge Web Services only |
| 2016.1 | .0.3 | 2.16.1.0.3 (3GB) | 2.16.1.0.33079 | 2.16.1.0.3 | 2.16.1.0.3.00128918 | | GUI.zip, Web Services and DB |
| 2016.1 | .0.4 | 2.16.1.0.4 (3GB) | 2.16.1.0.33079 | 2.16.1.0.4 | 2.16.1.0.3.00128918 | | GUI.zip, Web Services |
| 2016.2 | - | 2.16.2.0 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.0.00172540 | | Full Version Release - GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge |
| 2016.2 | 1 | 2.16.2.1 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.0.00172540 | | GUI.zip and Citrix Bridge |
| 2016.2 | 2 | 2.16.2.2 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.2.00243102 | | GUI.zip, DB and Citrix Bridge |
| 2016.3 | - | 2.16.3.0 | 2.16.3.0 | 2.16.3.0 | 2.16.3.0.00257101 | 2.16.3.0 | Full Version Release |
| 2016.3 | 1 | 2.16.3.1 | 2.16.3.0 | 2.16.3.1 | 2.16.3.1.00298834 | 2.16.3.0 | GUI.zip, Web Service and DB |
| 2016.3 | 2 | 2.16.3.2 | 2.16.3.0 | 2.16.3.2 | 2.16.3.1.00298834 | 2.16.3.0 | GUI.zip, Web Service |
| 2016.4 | - | 2.16.4.0 | 2.16.4.0 | 2.16.4.0 | 2.16.4.0.00301943 | 2.16.4.0 | Full Version Release |
| 2016.4 | 1 | 2.16.4.1 | 2.16.4.0 | 2.16.4.1 | 2.16.4.0.00301943 | 2.16.4.0 | GUI and Web Service updates |
| 2016.4 | 2 | 2.16.4.2 (3GB) | 2.16.4.0 | 2.16.4.1 | 2.16.4.0.00301943 | 2.16.4.0 | GUI and Patient Portal updated |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# Installing

## Client/GUI

Copy and replace the current rRIS…zip file with the eRAD_rRIS_2016.4.2.zip file provided with this release.

Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

## Patient Portal

The RIS Patient Portal deployment folder contains a sub folder called "PatientPortalAppFolder." The "PatientPortalAppFolder" contains the complete set of files necessary for the RIS Patient Portal to run.

To deploy the RIS Patient Portal files, run the "DeployPatientPortal.bat." This batch program is located inside the "PatientPortalAppFolder." Following is some information about this batch program:

- It needs to be run on the server containing the RIS Patient Portal web site.
- It will present the person running the program (installer) a list of web sites on the current server.
- The installer will have to enter the web site for which they want to deploy the patient portal files.
- The program will present details of what it is about to do and ask the installer to confirm in order to proceed.
- The program will write to a log file in the same folder as the DeployPatientPortal.bat.
- It will replace the bin, content, view and scripts folder in the specified web site path.
- It will also replace the web.config and packages.confile files.
- It will add applicationsettings.config, connectionstrings.config and rewriteRules.config if any of those files are not present.
- It will add applicationsettings.config.vx.x.x.x, connectionstrings.config.vx.x.x.x and rewriteRules.config.vx.x.x.x so the installer can review if there are any changes in these files that may need to be implemented in actual .config file.

You can use this batch program to redeploy new releases of the RIS Patient Portal. Please ensure to review the new .config.vx.x.x.x files and release notes to ensure you take advantage of new configuration settings.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# Server Update

For eRAD RIS
Version 2.0
Build 2.2016.4
Update 2.2016.4.3

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# Table of Contents

Resolved Items ..... 3
Code Stream ..... 4
Package Contents ..... 5
Intended Audience ..... 5
Who is affected ..... 5
eRAD RIS Release Version Numbers ..... 6
Installing ..... 7
- Client/GUI ..... 7
- Web Service ..... 7
- Database Updates ..... 11
- Patient Portal ..... 12

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## Resolved Items

### eRAD RIS

| Redmine # | Subject |
|---|---|
| 15583 | Insurance Eligibility - Pin is now only passed to Eligible when appropriate. |
| 15537 | An issue that could prevent a worklist from refreshing under certain conditions was resolved. |
| 14744 | Exams scheduled in the Patient Portal using Guest mode now remain visible in the portal after being merged with internal patient ID. |

The following are bugs identified and fixed in a newer version and the changes were brought back and fixed in 2016.4.3.

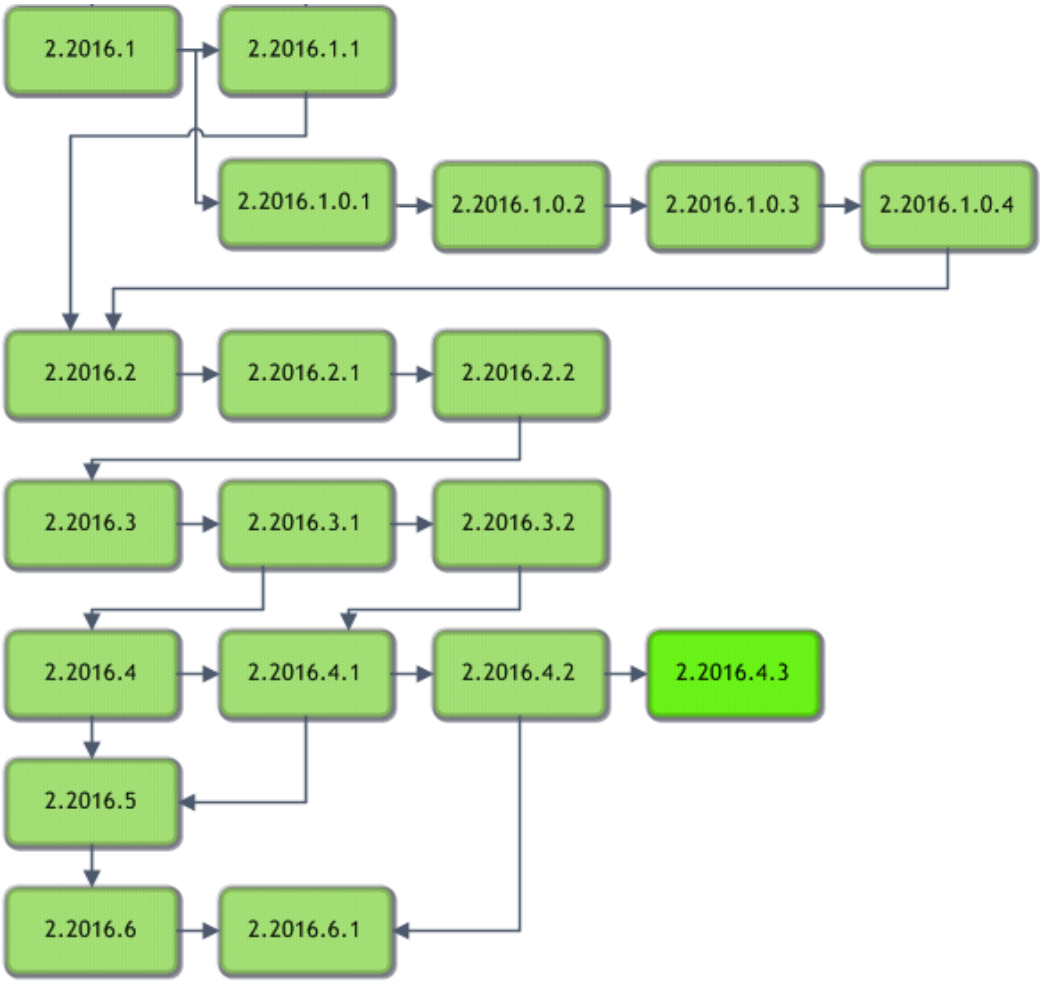
| Redmine # | Subject | Original resolved version |
|---|---|---|
| 15602 | Inconsistencies with displaying referring alerts when scheduling appointments with multiple orders have been resolved. | 2016.6 |
| 15542 | Setting the referring physician alert checkbox will no longer prompt that "Another user may have made conflicting changes" when making future updates to the referring physician's account. | 2016.5 |
| 15541 | The referring physician alert is displaying properly when the registration window is opened. | 2016.6 |

### Patient Connect

| Redmine # | Subject |
|---|---|
| 15623 | A small verbiage change was made for the Prescription step (capitalization). |
| 15622 | A verbiage change was made for the "Select your provider" step. |
| 15540 | Creating a Patient Portal account is possible without timing out when using verification code. |
| 15535 | Some messaging changes were made for the Create Appointment workflow. |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## Code Stream



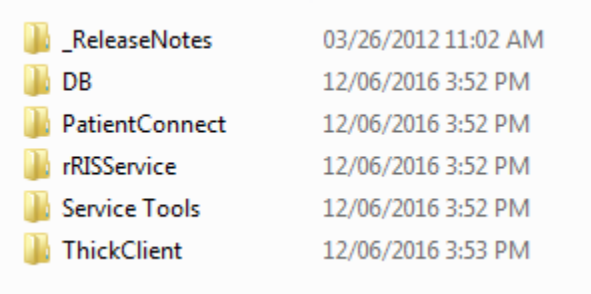

**Legend:**

**Light Green = Previously Released software**

**Bright Green = Current Release**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## Package Contents




## Intended Audience

The intended audience for this document is the RadNet Clinical Systems team and the eRAD Support/Service team.

## Who is affected

Build 2016.4 installs. This server update must be applied to 2016.4 →2016.4.2.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Digital Forms | Notes |
|---|---|---|---|---|---|---|---|
| 43.1 | - | 2.43.1.0.25850(3GB) | 2.43.0.0.23171 | 2.43.1.0.25850 | 2.43.1.0.25771 | | GUI.zip Web Service and DB Updates |
| 43.2 | - | 2.43.2.0.26864(3GB) | 2.43.0.0.23171 | 2.43.2.0.26864 | 2.43.1.0.25771 | | GUI.zip and Web Service |
| 44 | - | 2.44.0.0.26570(3GB) | 2.44.0.0.26405 | 2.44.0.0.26570 | 2.44.0.0.26475 | | Full Version Release |
| 44.1 | - | 2.44.0.0.26984(3GB) | 2.44.0.0.26405 | 2.44.0.0.26984 | 2.44.0.0.26906 | | Gui.zip, Web Service, and DB |
| 44.1 | 1 | 2.44.1.1.27093(3GB) | 2.44.0.0.26405 | 2.44.1.0.26984 | 2.44.1.0.26906 | | Gui.zip |
| 44.2 | | 2.44.2.0.27410(3GB) | 2.44.0.0.26405 | 2.44.2.0.27410 | 2.44.2.0.27365 | | Gui.zip, Web Service, and DB |
| 44.2 | 1 | 2.44.2.1.27959(3GB) | 2.44.0.0.26405 | 2.44.2.1.27959 | 2.44.2.1.27909 | | Gui.zip, Web Service, and DB |
| 44.2 | 2 | 2.44.2.1.27959(3GB) | 2.44.0.0.26405 | 2.44.2.2.28094 | 2.44.2.1.27909 | | Web Service |
| 44.3 | - | 2.44.3.0.28292 | 2.44.0.0.26405 | 2.44.3.0.28277 | 2.44.3.0.28138 | | Gui.zip, Web Service, and DB |
| 44.3 | 1 | 2.44.3.1.28535(3GB) | 2.44.0.0.26405 | 2.44.3.1.28535 | 2.44.3.0.28138 | | Gui.zip and Web Service |
| 44.4 | - | 2.44.4.0.28762(3GB) | 2.44.0.0.26405 | 2.44.4.0.28762 | 2.44.4.0.28676 | | Gui.zip, Web Server, DB, SSRS Deployment |
| 44.4 | 1 | 2.44.4.1.28953(3GB) | 2.44.0.0.26405 | 2.44.4.1.28953 | 2.44.4.0.28676 | | Gui.zip and Web Service |
| 44.4 | 2 | 2.44.4.2.29327(3GB) | 2.44.0.0.26405 | 2.44.4.2.29327 | 2.44.4.0.28676 | | Gui.zip and Web Service |
| 44.4 | 3 | 2.44.4.2.29722(3GB) | 2.44.0.0.26405 | 2.44.4.2.29327 | 2.44.4.0.28676 | | Gui.zip and Web Service |
| 44.5 | - | 2.44.5.0.30022(3GB) | 2.44.0.0.26405 | 2.44.5.0.30022 | 2.44.5.0.29976 | | Gui.zip, Web Server, DB |
| 44.5 | 1 | 2.44.5.1.30451(3GB) | 2.44.0.0.26405 | 2.44.5.1.30451 | 2.44.5.1.30449 | | Gui.zip, Web Server, DB |
| 44.5 | 2 | 2.44.5.2.30705(3GB) | 2.44.0.0.26405 | 2.44.5.1.30705 | 2.44.5.1.30554 | | Gui.zip, Web Server, DB |
| 45 | - | 2.45.0.0.29559(3GB) | 2.45.0.0.26107 | 2.45.0.0.29559 | 2.45.0.0.29558 | | Full Version Release |
| 45.1 | - | 2.45.1.0.30774(3GB) | 2.45.0.0.26107 | 2.45.1.0.30774 | 2.45.1.0.30738 | | Gui.zip, Web Service, DB, SQLReporting, Questionnaire, Citrix support |
| 45.1 | 1 | 2.45.1.1.31175(3GB) | 2.45.0.0.26107 | 2.45.1.1.31175 | 2.45.1.1.31174 | | Gui.zip, Web Service, DB, SQLReporting, Questionnaire |
| 45.1 | 2 | 2.45.1.1.31175(3GB) | 2.45.0.0.26107 | 2.45.1.2.31378 | 2.45.1.1.31174 | | Web Service and Citrix Bridge |
| 45.1 | 3 | 2.45.1.3.31452(3GB) | 2.45.0.0.26107 | 2.45.1.3.31452 | 2.45.1.3.31369 | | GUI.zip, Web Service, DB, Questionnaire and Citrix Bridge |
| 45.1 | 4 | 2.45.1.4.31621(3GB) | 2.45.0.0.26107 | 2.45.1.4.31621 | 2.45.1.4.31599 | | GUI.zip, Web Service, DB, Questionnaire and Citrix Bridge |
| 45.1 | 5 | 2.45.1.5.31773(3GB) | 2.45.0.0.26107 | 2.45.1.5.31773 | 2.45.1.5.31771 | | GUI.zip, Web Service, DB, Questionnaire |
| 45.1 | 6 | 2.45.1.6.32070(3GB) | 2.45.0.0.26107 | 2.45.1.6.32070 | 2.45.1.6.31936 | | GUI.zip, Web Service, DB, Questionnaire, Citrix Bridge |
| 45.1 | 7 | 2.45.1.6.32070(3GB) | 2.45.0.0.26107 | 2.45.1.6.32070 | 2.45.1.6.31936 | | Web Service for Wedge only. Version number of Wedge is 45.1.6.32614 |
| 45.1 | 8 | 2.45.1.8.33254(3GB) | 2.45.0.0.26107 | 2.45.1.6.32070 | 2.45.1.6.31936 | | GUI.zip |
| 45.1 | 9 | 2.45.1.9.33573(3GB) | 2.45.0.0.26107 | 2.45.1.6.32070 | 2.45.1.6.31936 | | GUI.zip |
| 2016.1 | - | 2.16.1.0.33419 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | | GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge |
| 2016.1 | 1 | 2.16.1.1.33672 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | | GUI.zip |
| 2016.1 | .0.1 | 2.16.1.0.1 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | | GUI.zip (This is not included in 2016.1.1, version directly above) |
| 2016.1 | .0.2 | 2.16.1.0.1 (3GB) | 2.16.1.0.33079 | 2.16.1.0.2 | 2.16.1.0.33416 | | Wedge Web Services only |
| 2016.1 | .0.3 | 2.16.1.0.3 (3GB) | 2.16.1.0.33079 | 2.16.1.0.3 | 2.16.1.0.3.00128918 | | GUI.zip, Web Services and DB |
| 2016.1 | .0.4 | 2.16.1.0.4 (3GB) | 2.16.1.0.33079 | 2.16.1.0.4 | 2.16.1.0.3.00128918 | | GUI.zip, Web Services |
| 2016.2 | - | 2.16.2.0 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.0.00172540 | | Full Version Release - GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge |
| 2016.2 | 1 | 2.16.2.1 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.0.00172540 | | GUI.zip and Citrix Bridge |
| 2016.2 | 2 | 2.16.2.2 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.2.00243102 | | GUI.zip, DB and Citrix Bridge |
| 2016.3 | - | 2.16.3.0 | 2.16.3.0 | 2.16.3.0 | 2.16.3.0.00257101 | 2.16.3.0 | Full Version Release |
| 2016.3 | 1 | 2.16.3.1 | 2.16.3.0 | 2.16.3.1 | 2.16.3.1.00298834 | 2.16.3.0 | GUI.zip, Web Service and DB |
| 2016.3 | 2 | 2.16.3.2 | 2.16.3.0 | 2.16.3.2 | 2.16.3.1.00298834 | 2.16.3.0 | GUI.zip, Web Service |
| 2016.4 | - | 2.16.4.0 | 2.16.4.0 | 2.16.4.0 | 2.16.4.0.00301943 | 2.16.4.0 | Full Version Release |
| 2016.4 | 1 | 2.16.4.1 | 2.16.4.0 | 2.16.4.1 | 2.16.4.0.00301943 | 2.16.4.0 | GUI and Web Service updates |
| 2016.4 | 2 | 2.16.4.2 (3GB) | 2.16.4.0 | 2.16.4.1 | 2.16.4.0.00301943 | 2.16.4.0 | GUI and Patient Portal updated |
| 2016.4 | 3 | 2.16.4.3 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | GUI, Web Services, DB and Patient Portal updated |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# Installing

## Client/GUI

Copy and replace the current rRIS…zip file with the eRAD_rRIS_2016.4.3.zip file provided with this release.

Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

## Web Service

This updated is only required for the Wedge Web Services. The Core RIS Service and Document Distribution Service are not required to be updated.

1. The web service upgrade consists of replacing the files in the RIS Web Service directory with the files supplied in the rRISService folder with this build. Always create a backup of the files being replaced. This upgrade includes 107 files in the rRISService folder and 7 sub folders. Of those folders, 1 is a folder titled **"XSL"** that contains a sub folder and files within the subfolder. Another folder is titled **"deploy"** that contains the new .config files that will be deployed with the user of the file called "ServicesConfigWizard.exe" (see instructions below). Folders ar (Arabic), he (Hebrew), pt_BR (Brazilian Portuguese) and es-AR (Argentina Spanish) are localization folders. The WedgePlugins folder contains various plugin files for RADAR, MIRTH, Ensemble, etc…

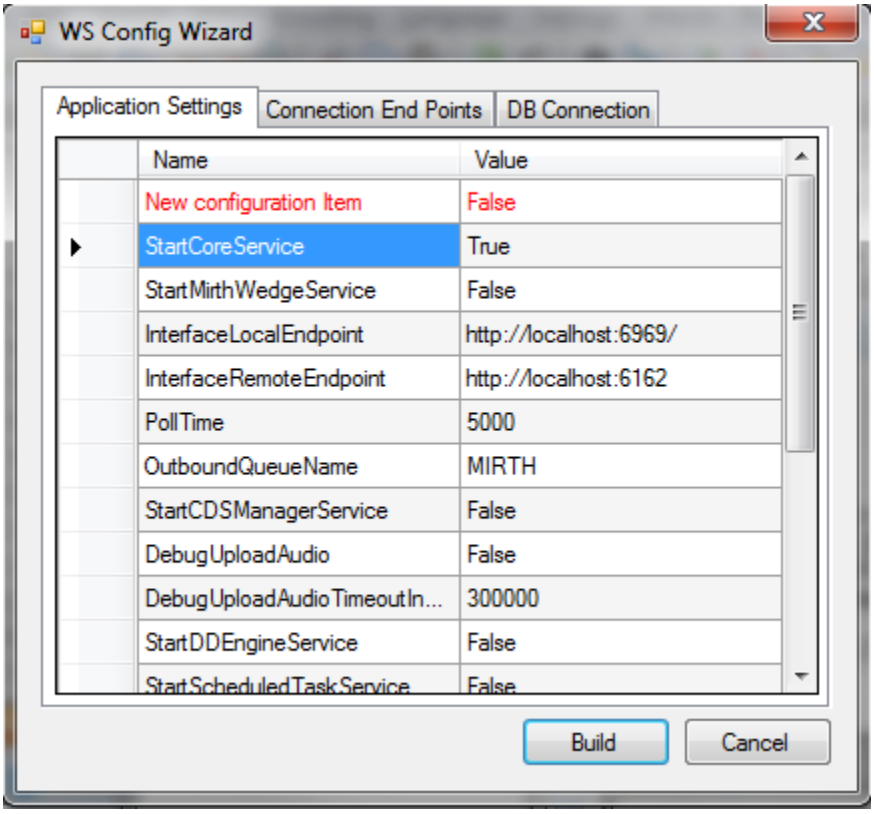
**Services Configuration Wizard**

With the release of 42 to decrease the chance of losing configuration setting and missing new configuration options, we will no longer include the configuration files in the release in the main set of files, but they will now exist in a "deploy" folder, which will contain the three site configurable config files; applicationsettings, connectionstrings, and services as well as a copy of the rRISServices.exe configuration file. The contents of this folder should not be required to be touched.

On the install of a new service, all files will be copied to the appropriate locations on the server (no configurations will be over written). If instructed or to confirm no new configurations have been added the user can run the new application "ServicesConfigWizard.exe"

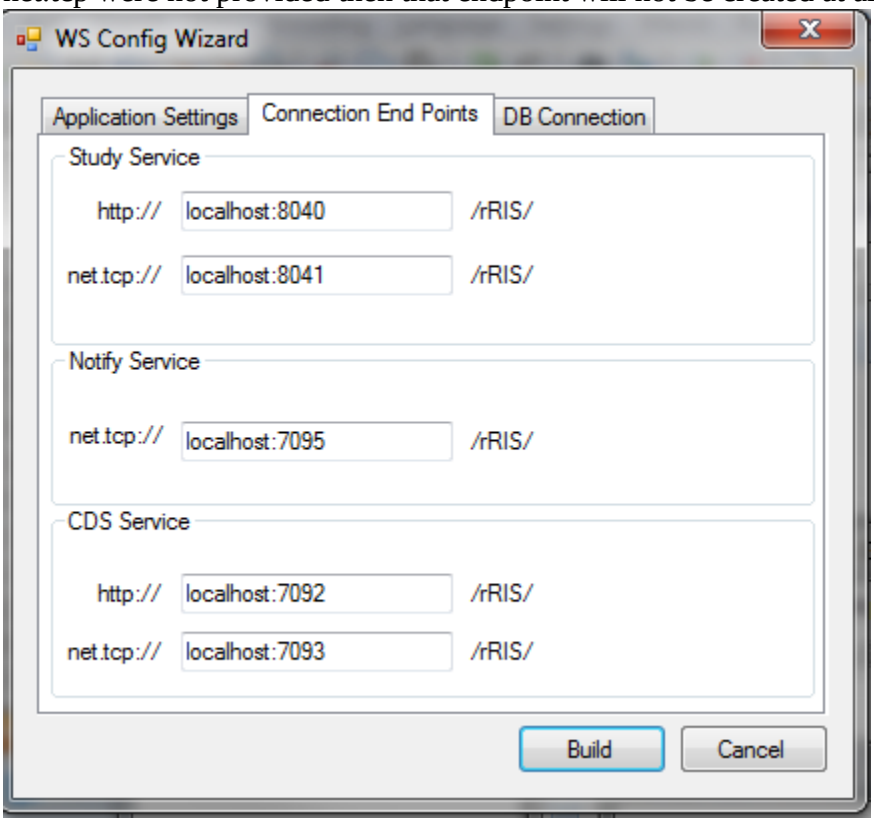
This application will read the existing configuration file(s) (if files exist), and compare to the provided new configuration files then will display three tabs, for each configuration file:
**Application Settings:** all existing configuration value will be displayed, if there are any new configuration entries they will be displayed in red.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.



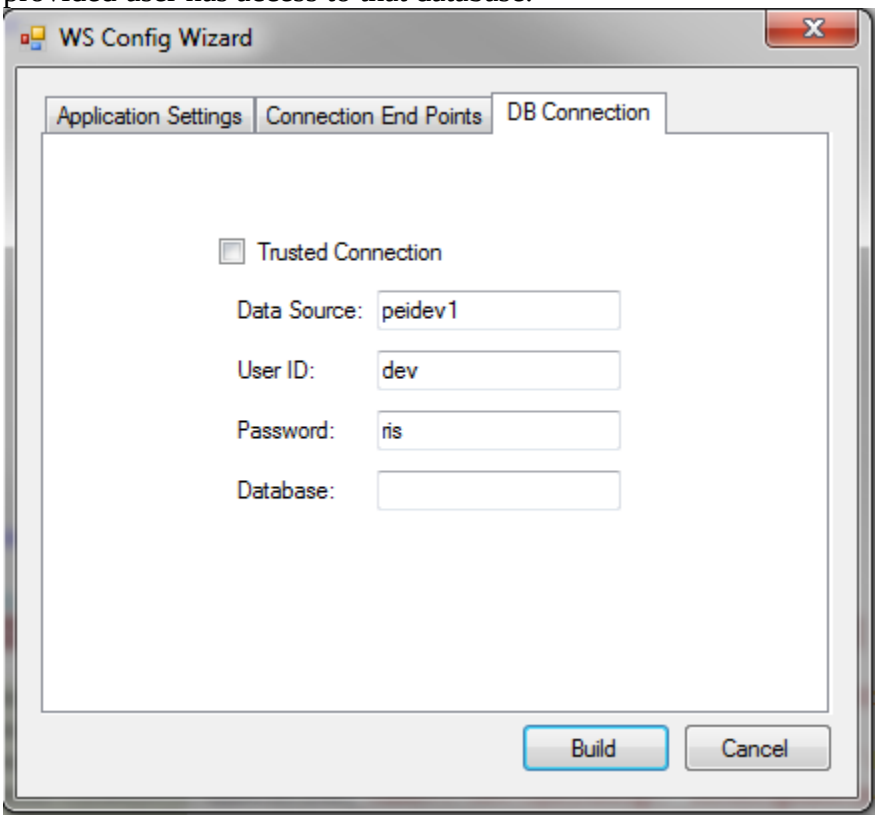

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

**Connection End Points:** will display the existing configuration, if the value is left blank then that entry will not be created, in the case of "Study Service" or "CDS Service" if both http and net.tcp were not provided then that endpoint will not be created at all.




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

**DB Connection:** will display the existing configuration, if the Connection is to be used as a trusted connection, then the user ID and password will become disabled and will not be used, and will rely on the provided database value, When not using the trusted connection, The Database value is not needed but can be used to force a specific database connection as long as the provided user has access to that database.




It is always good practice to do a compare of the .config files.

1) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService.
   *rRISService directories include:*
   *a) rRISService*
   *b) CDS rRISService*
   *c) Wedge rRISService*
   *d) DDE rRISService*

   **Restart each service**.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## Database Updates

Always run the upgrade scripts in a test environment of the actual database to make sure they run cleanly. If any errors occur please contact development.

*Note: There is a new upgrade process introduced with B43.1 called "RunUpgrade.bat". The batch file will open a command window. This process will prompt you for the database server name, database name and authentication credentials. There is no need to run the database upgrade scripts manually as was done in previous releases.*

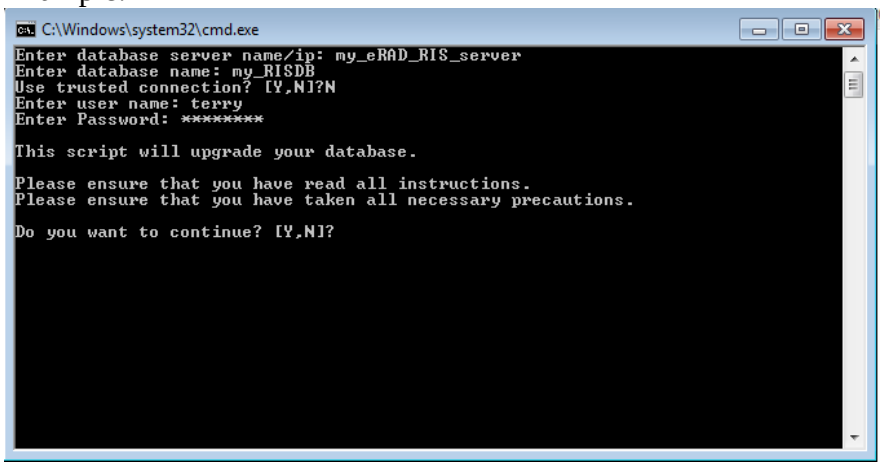
1) From the upgrade folder, double click the "RunUpgrade.bat" command file.

2) Enter the server name, database name and authentication credentials to the database. You have 2 choices for authentication credentials.

3) You can choose to use "Trusted connection". Using this option will pass the identity of the currently logged on user. If this user has "db_owner" access to the eRAD RIS database then feel free to use this options.

4) If you decide not to use "Trusted connection" then you will be prompted for user id and password.

   Example:




5) After the upgrade program has finished you can find the upgrade logs in the "log" folder. The file name will be eRAD_RIS_db_upgrade_timestamp.log, where timestamp is a value representing the date and time the upgrade started. If you see any errors please contact the development team

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## Patient Portal

The RIS Patient Portal deployment folder contains a sub folder called "PatientPortalAppFolder." The "PatientPortalAppFolder" contains the complete set of files necessary for the RIS Patient Portal to run.

To deploy the RIS Patient Portal files, run the "DeployPatientPortal.bat." This batch program is located inside the "PatientPortalAppFolder." Following is some information about this batch program:

- It needs to be run on the server containing the RIS Patient Portal web site.
- It will present the person running the program (installer) a list of web sites on the current server.
- The installer will have to enter the web site for which they want to deploy the patient portal files.
- The program will present details of what it is about to do and ask the installer to confirm in order to proceed.
- The program will write to a log file in the same folder as the DeployPatientPortal.bat.
- It will replace the bin, content, view and scripts folder in the specified web site path.
- It will also replace the web.config and packages.confile files.
- It will add applicationsettings.config, connectionstrings.config and rewriteRules.config if any of those files are not present.
- It will add applicationsettings.config.vx.x.x.x, connectionstrings.config.vx.x.x.x and rewriteRules.config.vx.x.x.x so the installer can review if there are any changes in these files that may need to be implemented in actual .config file.

You can use this batch program to redeploy new releases of the RIS Patient Portal. Please ensure to review the new .config.vx.x.x.x files and release notes to ensure you take advantage of new configuration settings.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# Server Update

For eRAD RIS
Version 2.0
Build 2.2016.4
Update 2.2016.4.4

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# Table of Contents

Resolved Items ..... 3
Code Stream ..... 4
Package Contents ..... 5
Intended Audience ..... 5
Who is affected ..... 5
eRAD RIS Release Version Numbers ..... 6
Installing ..... 7
    Client/GUI ..... 7

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

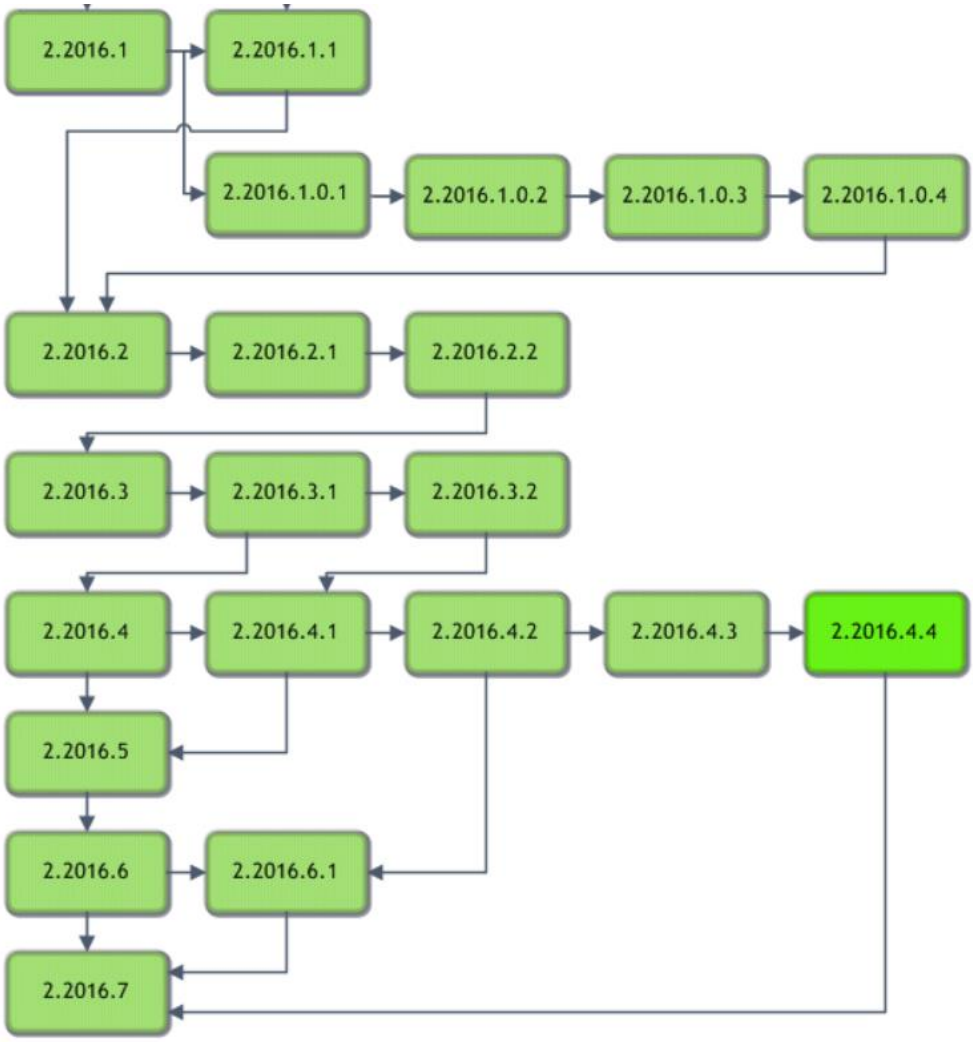
## Resolved Items

**eRAD RIS**

| Redmine # | Subject |
|---|---|
| 15719 | When Reason for Exam is changed from a Log Control to a Text Box, previously entered text is no longer displayed in the field |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## Code Stream




**Legend:**

Light Green = Previously Released software

**Bright Green = Current Release**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## Package Contents

## Intended Audience

The intended audience for this document is the RadNet Clinical Systems team and the eRAD Support/Service team.

## Who is affected

Build 2016.4 installs. This server update must be applied to 2016.4 →2016.4.3.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Digital Forms | Notes |
|---|---|---|---|---|---|---|---|
| 43.1 | - | 2.43.1.0.25850(3GB) | 2.43.0.0.23171 | 2.43.1.0.25850 | 2.43.1.0.25771 | | GUI.zip Web Service and DB Updates |
| 43.2 | - | 2.43.2.0.26864(3GB) | 2.43.0.0.23171 | 2.43.2.0.26864 | 2.43.1.0.25771 | | GUI.zip and Web Service |
| 44 | - | 2.44.0.0.26570(3GB) | 2.44.0.0.26405 | 2.44.0.0.26570 | 2.44.0.0.26475 | | Full Version Release |
| 44.1 | - | 2.44.0.0.26984(3GB) | 2.44.0.0.26405 | 2.44.0.0.26984 | 2.44.0.0.26906 | | Gui.zip, Web Service, and DB |
| 44.1 | 1 | 2.44.1.1.27093(3GB) | 2.44.0.0.26405 | 2.44.1.0.26984 | 2.44.1.0.26906 | | Gui.zip |
| 44.2 | | 2.44.2.0.27410(3GB) | 2.44.0.0.26405 | 2.44.2.0.27410 | 2.44.2.0.27365 | | Gui.zip, Web Service, and DB |
| 44.2 | 1 | 2.44.2.1.27959(3GB) | 2.44.0.0.26405 | 2.44.2.1.27959 | 2.44.2.1.27909 | | Gui.zip, Web Service, and DB |
| 44.2 | 2 | 2.44.2.1.27959(3GB) | 2.44.0.0.26405 | 2.44.2.2.28094 | 2.44.2.1.27909 | | Web Service |
| 44.3 | - | 2.44.3.0.28292 | 2.44.0.0.26405 | 2.44.3.0.28277 | 2.44.3.0.28138 | | Gui.zip, Web Service, and DB |
| 44.3 | 1 | 2.44.3.1.28535(3GB) | 2.44.0.0.26405 | 2.44.3.1.28535 | 2.44.3.0.28138 | | Gui.zip and Web Service |
| 44.4 | - | 2.44.4.0.28762(3GB) | 2.44.0.0.26405 | 2.44.4.0.28762 | 2.44.4.0.28676 | | Gui.zip, Web Server, DB, SSRS Deployment |
| 44.4 | 1 | 2.44.4.1.28953(3GB) | 2.44.0.0.26405 | 2.44.4.1.28953 | 2.44.4.0.28676 | | Gui.zip and Web Service |
| 44.4 | 2 | 2.44.4.2.29327(3GB) | 2.44.0.0.26405 | 2.44.4.2.29327 | 2.44.4.0.28676 | | Gui.zip and Web Service |
| 44.4 | 3 | 2.44.4.2.29722(3GB) | 2.44.0.0.26405 | 2.44.4.2.29327 | 2.44.4.0.28676 | | Gui.zip and Web Service |
| 44.5 | - | 2.44.5.0.30022(3GB) | 2.44.0.0.26405 | 2.44.5.0.30022 | 2.44.5.0.29976 | | Gui.zip, Web Server, DB |
| 44.5 | 1 | 2.44.5.1.30451(3GB) | 2.44.0.0.26405 | 2.44.5.1.30451 | 2.44.5.1.30449 | | Gui.zip, Web Server, DB |
| 44.5 | 2 | 2.44.5.2.30705(3GB) | 2.44.0.0.26405 | 2.44.5.1.30705 | 2.44.5.1.30554 | | Gui.zip, Web Server, DB |
| 45 | - | 2.45.0.0.29559(3GB) | 2.45.0.0.26107 | 2.45.0.0.29559 | 2.45.0.0.29558 | | Full Version Release |
| 45.1 | - | 2.45.1.0.30774(3GB) | 2.45.0.0.26107 | 2.45.1.0.30774 | 2.45.1.0.30738 | | Gui.zip, Web Service, DB, SQLReporting, Questionnaire, Citrix support |
| 45.1 | 1 | 2.45.1.1.31175(3GB) | 2.45.0.0.26107 | 2.45.1.1.31175 | 2.45.1.1.31174 | | Gui.zip, Web Service, DB, SQLReporting, Questionnaire |
| 45.1 | 2 | 2.45.1.1.31175(3GB) | 2.45.0.0.26107 | 2.45.1.2.31378 | 2.45.1.1.31174 | | Web Service and Citrix Bridge |
| 45.1 | 3 | 2.45.1.3.31452(3GB) | 2.45.0.0.26107 | 2.45.1.3.31452 | 2.45.1.3.31369 | | GUI.zip, Web Service, DB, Questionnaire and Citrix Bridge |
| 45.1 | 4 | 2.45.1.4.31621(3GB) | 2.45.0.0.26107 | 2.45.1.4.31621 | 2.45.1.4.31599 | | GUI.zip, Web Service, DB, Questionnaire and Citrix Bridge |
| 45.1 | 5 | 2.45.1.5.31773(3GB) | 2.45.0.0.26107 | 2.45.1.5.31773 | 2.45.1.5.31771 | | GUI.zip, Web Service, DB, Questionnaire |
| 45.1 | 6 | 2.45.1.6.32070(3GB) | 2.45.0.0.26107 | 2.45.1.6.32070 | 2.45.1.6.31936 | | GUI.zip, Web Service, DB, Questionnaire, Citrix Bridge |
| 45.1 | 7 | 2.45.1.6.32070(3GB) | 2.45.0.0.26107 | 2.45.1.6.32070 | 2.45.1.6.31936 | | Web Service for Wedge only. Version number of Wedge is 45.1.6.32614 |
| 45.1 | 8 | 2.45.1.8.33254(3GB) | 2.45.0.0.26107 | 2.45.1.6.32070 | 2.45.1.6.31936 | | GUI.zip |
| 45.1 | 9 | 2.45.1.9.33573(3GB) | 2.45.0.0.26107 | 2.45.1.6.32070 | 2.45.1.6.31936 | | GUI.zip |
| 2016.1 | - | 2.16.1.0.33419 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | | GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge |
| 2016.1 | 1 | 2.16.1.1.33672 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | | GUI.zip |
| 2016.1 | .0.1 | 2.16.1.0.1 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | | GUI.zip (This is not included in 2016.1.1, version directly above) |
| 2016.1 | .0.2 | 2.16.1.0.1 (3GB) | 2.16.1.0.33079 | 2.16.1.0.2 | 2.16.1.0.33416 | | Wedge Web Services only |
| 2016.1 | .0.3 | 2.16.1.0.3 (3GB) | 2.16.1.0.33079 | 2.16.1.0.3 | 2.16.1.0.3.00128918 | | GUI.zip, Web Services and DB |
| 2016.1 | .0.4 | 2.16.1.0.4 (3GB) | 2.16.1.0.33079 | 2.16.1.0.4 | 2.16.1.0.3.00128918 | | GUI.zip, Web Services |
| 2016.2 | - | 2.16.2.0 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.0.00172540 | | Full Version Release - GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge |
| 2016.2 | 1 | 2.16.2.1 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.0.00172540 | | GUI.zip and Citrix Bridge |
| 2016.2 | 2 | 2.16.2.2 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.2.00243102 | | GUI.zip, DB and Citrix Bridge |
| 2016.3 | - | 2.16.3.0 | 2.16.3.0 | 2.16.3.0 | 2.16.3.0.00257101 | 2.16.3.0 | Full Version Release |
| 2016.3 | 1 | 2.16.3.1 | 2.16.3.0 | 2.16.3.1 | 2.16.3.1.00298834 | 2.16.3.0 | GUI.zip, Web Service and DB |
| 2016.3 | 2 | 2.16.3.2 | 2.16.3.0 | 2.16.3.2 | 2.16.3.1.00298834 | 2.16.3.0 | GUI.zip, Web Service |
| 2016.4 | - | 2.16.4.0 | 2.16.4.0 | 2.16.4.0 | 2.16.4.0.00301943 | 2.16.4.0 | Full Version Release |
| 2016.4 | 1 | 2.16.4.1 | 2.16.4.0 | 2.16.4.1 | 2.16.4.0.00301943 | 2.16.4.0 | GUI and Web Service updates |
| 2016.4 | 2 | 2.16.4.2 (3GB) | 2.16.4.0 | 2.16.4.1 | 2.16.4.0.00301943 | 2.16.4.0 | GUI and Patient Portal updated |
| 2016.4 | 3 | 2.16.4.3 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | GUI, Web Services, DB and Patient Portal updated |
| 2016.4 | 3 | 2.16.4.4 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | GUI |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## Installing

### Client/GUI

Copy and replace the current rRIS…zip file with the eRAD_rRIS_2016.4.4.zip file provided with this release.

Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# Server Update

For eRAD RIS
Version 2.0
Build 2.2016.4
Update 2.2016.4.5

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# Table of Contents

Resolved Items ..... 3
Code Stream ..... 4
Package Contents ..... 5
Intended Audience ..... 5
Who is affected ..... 5
eRAD RIS Release Version Numbers ..... 6
Installing ..... 7
    Client/GUI ..... 7

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

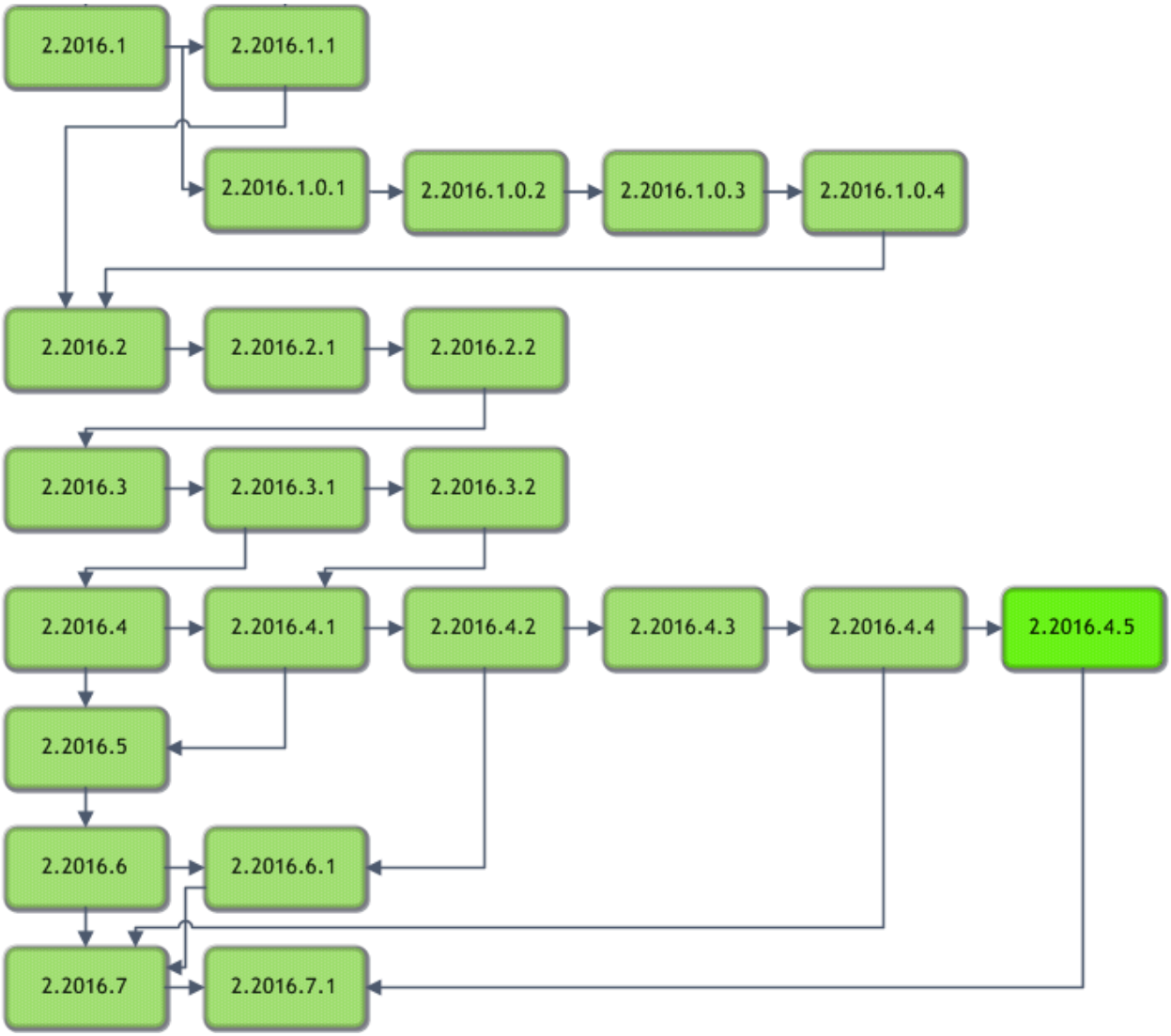
## Resolved Items

**eRAD RIS**

| Redmine # | Subject |
|---|---|
| 15832 | Voiding payments made in the Imagine Payment Portal no longer generates an error when multiple Dataset IDs (tax IDs) are configured. |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## Code Stream




**Legend:**

Light Green = Previously Released software

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## Package Contents

## Intended Audience

The intended audience for this document is the RadNet Clinical Systems team and the eRAD Support/Service team.

## Who is affected

Build 2016.4 installs. This server update must be applied to 2016.4.4. The resolved defect impacts customers using the Imagine Payment Portal, only if they have multiple Dataset IDs configured.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Digital Forms | Notes |
|---|---|---|---|---|---|---|---|
| 43.1 | - | 2.43.1.0.25850(3GB) | 2.43.0.0.23171 | 2.43.1.0.25850 | 2.43.1.0.25771 | | GUI.zip Web Service and DB Updates |
| 43.2 | - | 2.43.2.0.26864(3GB) | 2.43.0.0.23171 | 2.43.2.0.26864 | 2.43.1.0.25771 | | GUI.zip and Web Service |
| 44 | - | 2.44.0.0.26570(3GB) | 2.44.0.0.26405 | 2.44.0.0.26570 | 2.44.0.0.26475 | | Full Version Release |
| 44.1 | - | 2.44.0.0.26984(3GB) | 2.44.0.0.26405 | 2.44.0.0.26984 | 2.44.0.0.26906 | | Gui.zip, Web Service, and DB |
| 44.1 | 1 | 2.44.1.1.27093(3GB) | 2.44.0.0.26405 | 2.44.1.0.26984 | 2.44.1.0.26906 | | Gui.zip |
| 44.2 | | 2.44.2.0.27410(3GB) | 2.44.0.0.26405 | 2.44.2.0.27410 | 2.44.2.0.27365 | | Gui.zip, Web Service, and DB |
| 44.2 | 1 | 2.44.2.1.27959(3GB) | 2.44.0.0.26405 | 2.44.2.1.27959 | 2.44.2.1.27909 | | Gui.zip, Web Service, and DB |
| 44.2 | 2 | 2.44.2.1.27959(3GB) | 2.44.0.0.26405 | 2.44.2.2.28094 | 2.44.2.1.27909 | | Web Service |
| 44.3 | - | 2.44.3.0.28292 | 2.44.0.0.26405 | 2.44.3.0.28277 | 2.44.3.0.28138 | | Gui.zip, Web Service, and DB |
| 44.3 | 1 | 2.44.3.1.28535(3GB) | 2.44.0.0.26405 | 2.44.3.1.28535 | 2.44.3.0.28138 | | Gui.zip and Web Service |
| 44.4 | - | 2.44.4.0.28762(3GB) | 2.44.0.0.26405 | 2.44.4.0.28762 | 2.44.4.0.28676 | | Gui.zip, Web Server, DB, SSRS Deployment |
| 44.4 | 1 | 2.44.4.1.28953(3GB) | 2.44.0.0.26405 | 2.44.4.1.28953 | 2.44.4.0.28676 | | Gui.zip and Web Service |
| 44.4 | 2 | 2.44.4.2.29327(3GB) | 2.44.0.0.26405 | 2.44.4.2.29327 | 2.44.4.0.28676 | | Gui.zip and Web Service |
| 44.4 | 3 | 2.44.4.2.29722(3GB) | 2.44.0.0.26405 | 2.44.4.2.29327 | 2.44.4.0.28676 | | Gui.zip and Web Service |
| 44.5 | - | 2.44.5.0.30022(3GB) | 2.44.0.0.26405 | 2.44.5.0.30022 | 2.44.5.0.29976 | | Gui.zip, Web Server, DB |
| 44.5 | 1 | 2.44.5.1.30451(3GB) | 2.44.0.0.26405 | 2.44.5.1.30451 | 2.44.5.1.30449 | | Gui.zip, Web Server, DB |
| 44.5 | 2 | 2.44.5.2.30705(3GB) | 2.44.0.0.26405 | 2.44.5.1.30705 | 2.44.5.1.30554 | | Gui.zip, Web Server, DB |
| 45 | - | 2.45.0.0.29559(3GB) | 2.45.0.0.26107 | 2.45.0.0.29559 | 2.45.0.0.29558 | | Full Version Release |
| 45.1 | - | 2.45.1.0.30774(3GB) | 2.45.0.0.26107 | 2.45.1.0.30774 | 2.45.1.0.30738 | | Gui.zip, Web Service, DB, SQLReporting, Questionnaire, Citrix support |
| 45.1 | 1 | 2.45.1.1.31175(3GB) | 2.45.0.0.26107 | 2.45.1.1.31175 | 2.45.1.1.31174 | | Gui.zip, Web Service, DB, SQLReporting, Questionnaire |
| 45.1 | 2 | 2.45.1.1.31175(3GB) | 2.45.0.0.26107 | 2.45.1.2.31378 | 2.45.1.1.31174 | | Web Service and Citrix Bridge |
| 45.1 | 3 | 2.45.1.3.31452(3GB) | 2.45.0.0.26107 | 2.45.1.3.31452 | 2.45.1.3.31369 | | GUI.zip, Web Service, DB, Questionnaire and Citrix Bridge |
| 45.1 | 4 | 2.45.1.4.31621(3GB) | 2.45.0.0.26107 | 2.45.1.4.31621 | 2.45.1.4.31599 | | GUI.zip, Web Service, DB, Questionnaire and Citrix Bridge |
| 45.1 | 5 | 2.45.1.5.31773(3GB) | 2.45.0.0.26107 | 2.45.1.5.31773 | 2.45.1.5.31771 | | GUI.zip, Web Service, DB, Questionnaire |
| 45.1 | 6 | 2.45.1.6.32070(3GB) | 2.45.0.0.26107 | 2.45.1.6.32070 | 2.45.1.6.31936 | | GUI.zip, Web Service, DB, Questionnaire, Citrix Bridge |
| 45.1 | 7 | 2.45.1.6.32070(3GB) | 2.45.0.0.26107 | 2.45.1.6.32070 | 2.45.1.6.31936 | | Web Service for Wedge only. Version number of Wedge is 45.1.6.32614 |
| 45.1 | 8 | 2.45.1.8.33254(3GB) | 2.45.0.0.26107 | 2.45.1.6.32070 | 2.45.1.6.31936 | | GUI.zip |
| 45.1 | 9 | 2.45.1.9.33573(3GB) | 2.45.0.0.26107 | 2.45.1.6.32070 | 2.45.1.6.31936 | | GUI.zip |
| 2016.1 | - | 2.16.1.0.33419 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | | GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge |
| 2016.1 | 1 | 2.16.1.1.33672 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | | GUI.zip |
| 2016.1 | .0.1 | 2.16.1.0.1 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | | GUI.zip (This is not included in 2016.1.1, version directly above) |
| 2016.1 | .0.2 | 2.16.1.0.1 (3GB) | 2.16.1.0.33079 | 2.16.1.0.2 | 2.16.1.0.33416 | | Wedge Web Services only |
| 2016.1 | .0.3 | 2.16.1.0.3 (3GB) | 2.16.1.0.33079 | 2.16.1.0.3 | 2.16.1.0.3.00128918 | | GUI.zip, Web Services and DB |
| 2016.1 | .0.4 | 2.16.1.0.4 (3GB) | 2.16.1.0.33079 | 2.16.1.0.4 | 2.16.1.0.3.00128918 | | GUI.zip, Web Services |
| 2016.2 | - | 2.16.2.0 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.0.00172540 | | Full Version Release - GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge |
| 2016.2 | 1 | 2.16.2.1 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.0.00172540 | | GUI.zip and Citrix Bridge |
| 2016.2 | 2 | 2.16.2.2 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.2.00243102 | | GUI.zip, DB and Citrix Bridge |
| 2016.3 | - | 2.16.3.0 | 2.16.3.0 | 2.16.3.0 | 2.16.3.0.00257101 | 2.16.3.0 | Full Version Release |
| 2016.3 | 1 | 2.16.3.1 | 2.16.3.0 | 2.16.3.1 | 2.16.3.1.00298834 | 2.16.3.0 | GUI.zip, Web Service and DB |
| 2016.3 | 2 | 2.16.3.2 | 2.16.3.0 | 2.16.3.2 | 2.16.3.1.00298834 | 2.16.3.0 | GUI.zip, Web Service |
| 2016.4 | - | 2.16.4.0 | 2.16.4.0 | 2.16.4.0 | 2.16.4.0.00301943 | 2.16.4.0 | Full Version Release |
| 2016.4 | 1 | 2.16.4.1 | 2.16.4.0 | 2.16.4.1 | 2.16.4.0.00301943 | 2.16.4.0 | GUI and Web Service updates |
| 2016.4 | 2 | 2.16.4.2 (3GB) | 2.16.4.0 | 2.16.4.1 | 2.16.4.0.00301943 | 2.16.4.0 | GUI and Patient Portal updated |
| 2016.4 | 3 | 2.16.4.3 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | GUI, Web Services, DB and Patient Portal updated |
| 2016.4 | 4 | 2.16.4.4 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | GUI |
| 2016.4 | 5 | 2.16.4.5 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | GUI |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## Installing

### Client/GUI

Copy and replace the current rRIS…zip file with the eRAD_rRIS_2016.4.5.zip file provided with this release.

Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# Server Update

For eRAD RIS
Version 2.0
Build 2.2016.4
Update 2.2016.4.6

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# Table of Contents

Resolved Items ..... 3
Code Stream ..... 4
Package Contents ..... 5
Intended Audience ..... 5
Who is affected ..... 5
eRAD RIS Release Version Numbers ..... 6
Installing ..... 7
    Client/GUI ..... 7

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

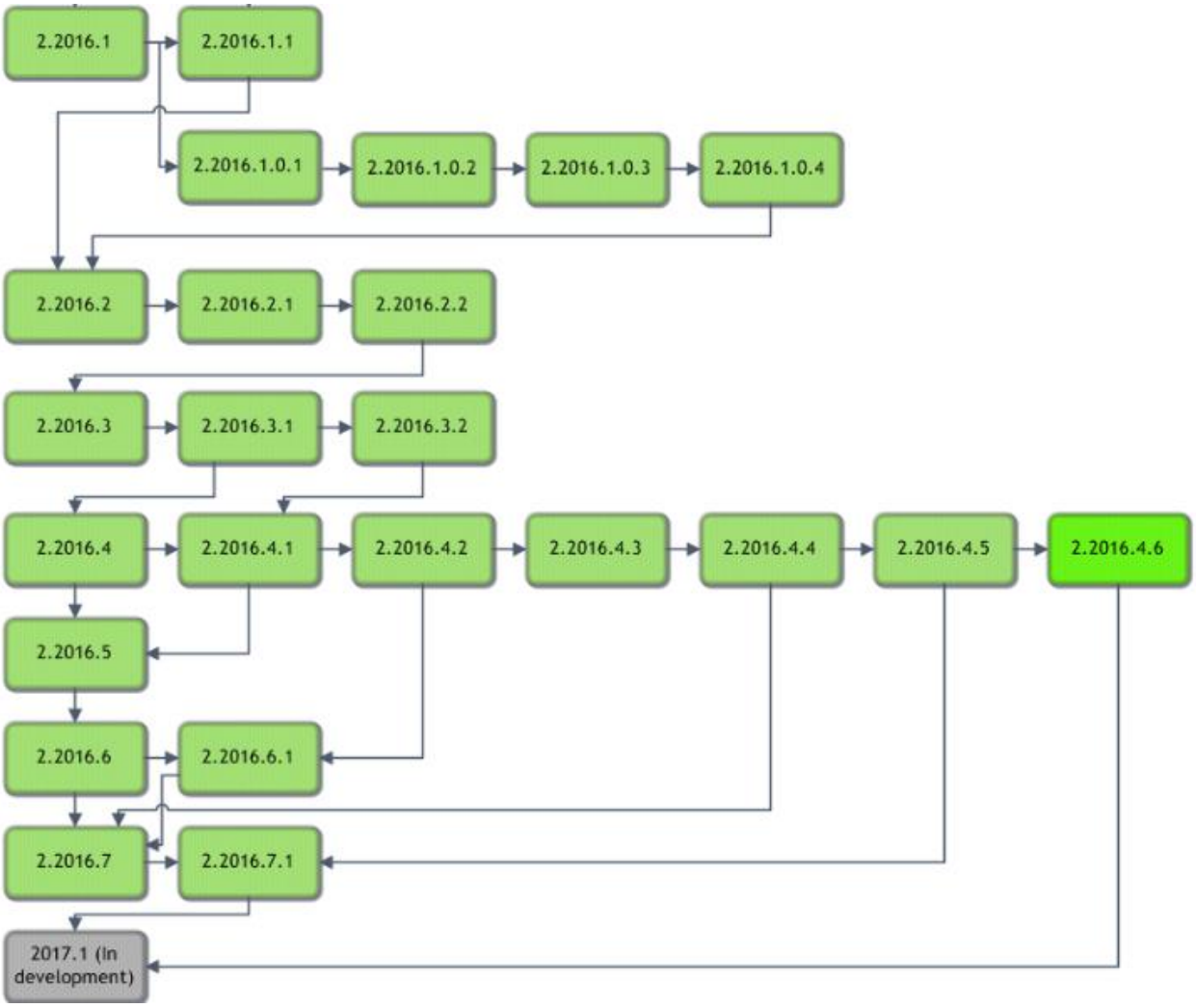
## Resolved Items

**eRAD RIS**

| Redmine # | Subject |
|---|---|
| 15925 | Spell checker dictionaries not loading for all eRAD RIS users unless they open a reporting screen |
| 15955 | Spell check suggestions on context menu are less that helpful (may not be coming from the selected dictionary) |
| 15923 | Log Control context menu not showing when in textbox only mode |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## Code Stream




**Legend:**

Light Green = Previously Released software

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## Package Contents

## Intended Audience

The intended audience for this document is the RadNet Clinical Systems team and the eRAD Support/Service team.

## Who is affected

Build 2016.4 installs. This server update must be applied to 2016.4.3 as this version had DB and Web Service updates. Versions 2016.4.4 and 2016.4.5 were GUI only releases.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Digital Forms | Notes |
|---|---|---|---|---|---|---|---|
| 43.1 | - | 2.43.1.0.25850(3GB) | 2.43.0.0.23171 | 2.43.1.0.25850 | 2.43.1.0.25771 | | GUI.zip Web Service and DB Updates |
| 43.2 | - | 2.43.2.0.26864(3GB) | 2.43.0.0.23171 | 2.43.2.0.26864 | 2.43.1.0.25771 | | GUI.zip and Web Service |
| 44 | - | 2.44.0.0.26570(3GB) | 2.44.0.0.26405 | 2.44.0.0.26570 | 2.44.0.0.26475 | | Full Version Release |
| 44.1 | - | 2.44.0.0.26984(3GB) | 2.44.0.0.26405 | 2.44.0.0.26984 | 2.44.0.0.26906 | | Gui.zip, Web Service, and DB |
| 44.1 | 1 | 2.44.1.1.27093(3GB) | 2.44.0.0.26405 | 2.44.1.0.26984 | 2.44.1.0.26906 | | Gui.zip |
| 44.2 | | 2.44.2.0.27410(3GB) | 2.44.0.0.26405 | 2.44.2.0.27410 | 2.44.2.0.27365 | | Gui.zip, Web Service, and DB |
| 44.2 | 1 | 2.44.2.1.27959(3GB) | 2.44.0.0.26405 | 2.44.2.1.27959 | 2.44.2.1.27909 | | Gui.zip, Web Service, and DB |
| 44.2 | 2 | 2.44.2.1.27959(3GB) | 2.44.0.0.26405 | 2.44.2.2.28094 | 2.44.2.1.27909 | | Web Service |
| 44.3 | - | 2.44.3.0.28292 | 2.44.0.0.26405 | 2.44.3.0.28277 | 2.44.3.0.28138 | | Gui.zip, Web Service, and DB |
| 44.3 | 1 | 2.44.3.1.28535(3GB) | 2.44.0.0.26405 | 2.44.3.1.28535 | 2.44.3.0.28138 | | Gui.zip and Web Service |
| 44.4 | - | 2.44.4.0.28762(3GB) | 2.44.0.0.26405 | 2.44.4.0.28762 | 2.44.4.0.28676 | | Gui.zip, Web Server, DB, SSRS Deployment |
| 44.4 | 1 | 2.44.4.1.28953(3GB) | 2.44.0.0.26405 | 2.44.4.1.28953 | 2.44.4.0.28676 | | Gui.zip and Web Service |
| 44.4 | 2 | 2.44.4.2.29327(3GB) | 2.44.0.0.26405 | 2.44.4.2.29327 | 2.44.4.0.28676 | | Gui.zip and Web Service |
| 44.4 | 3 | 2.44.4.2.29722(3GB) | 2.44.0.0.26405 | 2.44.4.2.29327 | 2.44.4.0.28676 | | Gui.zip and Web Service |
| 44.5 | - | 2.44.5.0.30022(3GB) | 2.44.0.0.26405 | 2.44.5.0.30022 | 2.44.5.0.29976 | | Gui.zip, Web Server, DB |
| 44.5 | 1 | 2.44.5.1.30451(3GB) | 2.44.0.0.26405 | 2.44.5.1.30451 | 2.44.5.1.30449 | | Gui.zip, Web Server, DB |
| 44.5 | 2 | 2.44.5.2.30705(3GB) | 2.44.0.0.26405 | 2.44.5.1.30705 | 2.44.5.1.30554 | | Gui.zip, Web Server, DB |
| 45 | - | 2.45.0.0.29559(3GB) | 2.45.0.0.26107 | 2.45.0.0.29559 | 2.45.0.0.29558 | | Full Version Release |
| 45.1 | - | 2.45.1.0.30774(3GB) | 2.45.0.0.26107 | 2.45.1.0.30774 | 2.45.1.0.30738 | | Gui.zip, Web Service, DB, SQLReporting, Questionnaire, Citrix support |
| 45.1 | 1 | 2.45.1.1.31175(3GB) | 2.45.0.0.26107 | 2.45.1.1.31175 | 2.45.1.1.31174 | | Gui.zip, Web Service, DB, SQLReporting, Questionnaire |
| 45.1 | 2 | 2.45.1.1.31175(3GB) | 2.45.0.0.26107 | 2.45.1.2.31378 | 2.45.1.1.31174 | | Web Service and Citrix Bridge |
| 45.1 | 3 | 2.45.1.3.31452(3GB) | 2.45.0.0.26107 | 2.45.1.3.31452 | 2.45.1.3.31369 | | GUI.zip, Web Service, DB, Questionnaire and Citrix Bridge |
| 45.1 | 4 | 2.45.1.4.31621(3GB) | 2.45.0.0.26107 | 2.45.1.4.31621 | 2.45.1.4.31599 | | GUI.zip, Web Service, DB, Questionnaire and Citrix Bridge |
| 45.1 | 5 | 2.45.1.5.31773(3GB) | 2.45.0.0.26107 | 2.45.1.5.31773 | 2.45.1.5.31771 | | GUI.zip, Web Service, DB, Questionnaire |
| 45.1 | 6 | 2.45.1.6.32070(3GB) | 2.45.0.0.26107 | 2.45.1.6.32070 | 2.45.1.6.31936 | | GUI.zip, Web Service, DB, Questionnaire, Citrix Bridge |
| 45.1 | 7 | 2.45.1.6.32070(3GB) | 2.45.0.0.26107 | 2.45.1.6.32070 | 2.45.1.6.31936 | | Web Service for Wedge only. Version number of Wedge is 45.1.6.32614 |
| 45.1 | 8 | 2.45.1.8.33254(3GB) | 2.45.0.0.26107 | 2.45.1.6.32070 | 2.45.1.6.31936 | | GUI.zip |
| 45.1 | 9 | 2.45.1.9.33573(3GB) | 2.45.0.0.26107 | 2.45.1.6.32070 | 2.45.1.6.31936 | | GUI.zip |
| 2016.1 | - | 2.16.1.0.33419 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | | GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge |
| 2016.1 | 1 | 2.16.1.1.33672 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | | GUI.zip |
| 2016.1 | .0.1 | 2.16.1.0.1 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | | GUI.zip (This is not included in 2016.1.1, version directly above) |
| 2016.1 | .0.2 | 2.16.1.0.1 (3GB) | 2.16.1.0.33079 | 2.16.1.0.2 | 2.16.1.0.33416 | | Wedge Web Services only |
| 2016.1 | .0.3 | 2.16.1.0.3 (3GB) | 2.16.1.0.33079 | 2.16.1.0.3 | 2.16.1.0.3.00128918 | | GUI.zip, Web Services and DB |
| 2016.1 | .0.4 | 2.16.1.0.4 (3GB) | 2.16.1.0.33079 | 2.16.1.0.4 | 2.16.1.0.3.00128918 | | GUI.zip, Web Services |
| 2016.2 | - | 2.16.2.0 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.0.00172540 | | Full Version Release - GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge |
| 2016.2 | 1 | 2.16.2.1 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.0.00172540 | | GUI.zip and Citrix Bridge |
| 2016.2 | 2 | 2.16.2.2 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.2.00243102 | | GUI.zip, DB and Citrix Bridge |
| 2016.3 | - | 2.16.3.0 | 2.16.3.0 | 2.16.3.0 | 2.16.3.0.00257101 | 2.16.3.0 | Full Version Release |
| 2016.3 | 1 | 2.16.3.1 | 2.16.3.0 | 2.16.3.1 | 2.16.3.1.00298834 | 2.16.3.0 | GUI.zip, Web Service and DB |
| 2016.3 | 2 | 2.16.3.2 | 2.16.3.0 | 2.16.3.2 | 2.16.3.1.00298834 | 2.16.3.0 | GUI.zip, Web Service |
| 2016.4 | - | 2.16.4.0 | 2.16.4.0 | 2.16.4.0 | 2.16.4.0.00301943 | 2.16.4.0 | Full Version Release |
| 2016.4 | 1 | 2.16.4.1 | 2.16.4.0 | 2.16.4.1 | 2.16.4.0.00301943 | 2.16.4.0 | GUI and Web Service updates |
| 2016.4 | 2 | 2.16.4.2 (3GB) | 2.16.4.0 | 2.16.4.1 | 2.16.4.0.00301943 | 2.16.4.0 | GUI and Patient Portal updated |
| 2016.4 | 3 | 2.16.4.3 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | GUI, Web Services, DB and Patient Portal updated |
| 2016.4 | 4 | 2.16.4.4 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | GUI |
| 2016.4 | 5 | 2.16.4.5 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | GUI |
| 2016.4 | 6 | 2.16.4.6 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | GUI |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## Installing

### Client/GUI

Copy and replace the current rRIS…zip file with the eRAD_rRIS_2016.4.6.zip file provided with this release.

Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

October 2016

# Customer Release Notes

## for eRAD RIS

## Version 2

## Build 2016.4

Important Notes: This version requires a Core Install. Also, any M*Modal files will need to be manually copied to the new home location for Feature #7572 (see page 36-38).

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## TABLE OF CONTENTS

Table of Contents ..... 2
Purpose ..... 4
Intended Audience ..... 4
New Settings ..... 5
New access strings ..... 5
New system configuration settings ..... 5
New Features ..... 7
Scheduling and Registration ..... 8
11925 – Responsible Party's date of birth can now be captured ..... 8
13103 – Procedure Plans can now book rooms simultaneously ..... 9
Insurance Eligibility ..... 11
13611 – Eligible API integration now allows exceptions for collecting funds based on Payer (or Carrier) and Billing Modality Type ..... 11
Imagine Payment Portal ..... 14
13902 – Imagine Payment Portal integration now supports configuring TSYS account identifiers at a Site level ..... 14
Forms and Labels ..... 15
12043 – A default quantity can be set for printing forms and labels ..... 15
11490 – Automated Form and Label printing now supports additional criteria including exam status, preferred language, contrast, and billing code ..... 16
Digital Forms ..... 17
11514 – Digital Forms questions that have been removed can now be restored ..... 17
Meaningful Use ..... 18
13659 – Implantable Devices can now be documented in accordance with upcoming MU Requirements ..... 18
13844 – A section for Implantable Devices in now displayed in the C-CDA ..... 22
Outside Reads ..... 23
13733 – Indication Codes can now be added when creating an Outside Read ..... 23
Work Lists ..... 24
13803/13804 – Work Lists can now be configured to refresh at different intervals ..... 24
Interfacing ..... 26
8666 – Messages transmitted via Mirth can be filtered to decrease unnecessary messaging ..... 26
Infrastructure ..... 27
7572 – RIS now supports installation to a shared location on the workstation (as opposed to individual Windows user profiles) ..... 27
Referring Physician Management ..... 28
9522 – Marketing representatives can now be associated to a referring physician ..... 28
RIS Administration ..... 29
3667 – Log controls and text boxes support spell check ..... 29
13935 – System Configuration table now enforces more streamlined data entry ..... 30
13818 – Opening the Patient Folder is now shown in the Audit History ..... 31
Document Management ..... 32

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

13808 – Users can now “print” from other applications and autmomatically save the document as an attachment in RIS (No paper or scanner required) ..... 32
RADAR ..... 34
13438 – RADAR Nudge Integration ..... 34
Resolved Defects ..... 44
Known Limitations ..... 47
RIS Release Version Numbers ..... 48
Code Stream Diagram ..... 49

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## PURPOSE

This is the Customer Release Notes document for eRAD RIS Version 2016.4.

Not every feature will be described in this document. Typically, only features which can be visually demonstrated are outlined here.

## INTENDED AUDIENCE

This document was created by the eRAD RIS Development team and Product Management team for eRAD RIS customers.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

# NEW SETTINGS

## NEW ACCESS STRINGS

| Setting | Default | Purpose |
|---|---|---|
| REMOVED Clinical.DeleteDictationReportAndReset | | N/A |
| REMOVED Clinical.PingMessage | | N/A |
| REMOVED Config.LookupEditor.UMCommonLanguage | | N/A |
| Clinical.RADARSecureMessage | None | Controls access to the Nudge message feature. |
| Config.LookupEditor.EligibilityLimitPayment | None | Controls access in the look-up table editor for Eligibility Limit Payment. |
| Config.LookupEditor.WorklistPreference | None | Controls access to the look-up table for WorklistPreference. |

## NEW SYSTEM CONFIGURATION SETTINGS

| Setting | Default | Purpose |
|---|---|---|
| DefaultWorklistRefreshInterval | 5 | (value = int in minutes) Default minutes between work list refreshes. If 0, work list refreshes are disabled. |
| EnableLimitedDBUpdates | True | (value = bool) If enabled, only data rows that contain data different from original values will be updated to the database. |
| MUImplantableDeviceUrl | https://accessgudid.nlm.nih.gov/api/v1/ | (value = string) GUDID Base URL. |
| OptimizedDataSetAssignments | True | (value = bool) It is recommended to keep this set to true. If true, internal assignments only happen when there is an actual difference in the data; otherwise, RIS will always perform the assignment, which will trigger extra events to fire. |
| RADARSecureMessagePort | 0 | (value = int) Configure the port number for the Nudge integration. |
| RADARSecureMessageReportDisclaimer | This report is not for treatment | (value = string) Defines the disclaimer sentence to the report in Nudge integration. |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

| | | |
|---|---|---|
| | purposes. | |
| RADARSecureMessageServer | | (value = string) Configure the server for the Nudge integration. |
| RADARSecureMessageTitle | <last_name>, <first_name> \| #<patient_id> \| @<accession_number> | (value = string) Configure the subject line for a RADAR Nudge conversation. |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

Upgrade to eRAD RIS 2016.4 and our New Features will allow you to:

→ Send "documents" (emails, excerpts from websites, etc.) from external applications to a patient's Attachments in RIS without physically printing and scanning.

→ Utilize spell checking for notes fields throughout eRAD RIS, especially those that are mapped into diagnostic reports.

→ Allow radiologists to securely and efficiently communicate with staff and referring providers via an integrated RADAR Nudge instant messaging application.

→ Install RIS to a shared location on the workstation (instead of individual Windows user profiles).

→ Book time for a patient in multiple rooms simultaneously to prevent overbooking a shared radiologist or technologist resource.

→ Improve system performance.

- Configurable work list refresh intervals
- Behind the scenes adjustments to database performance factors

→ Enjoy smoother and more efficient RIS workflow with over 50 resolved defects.

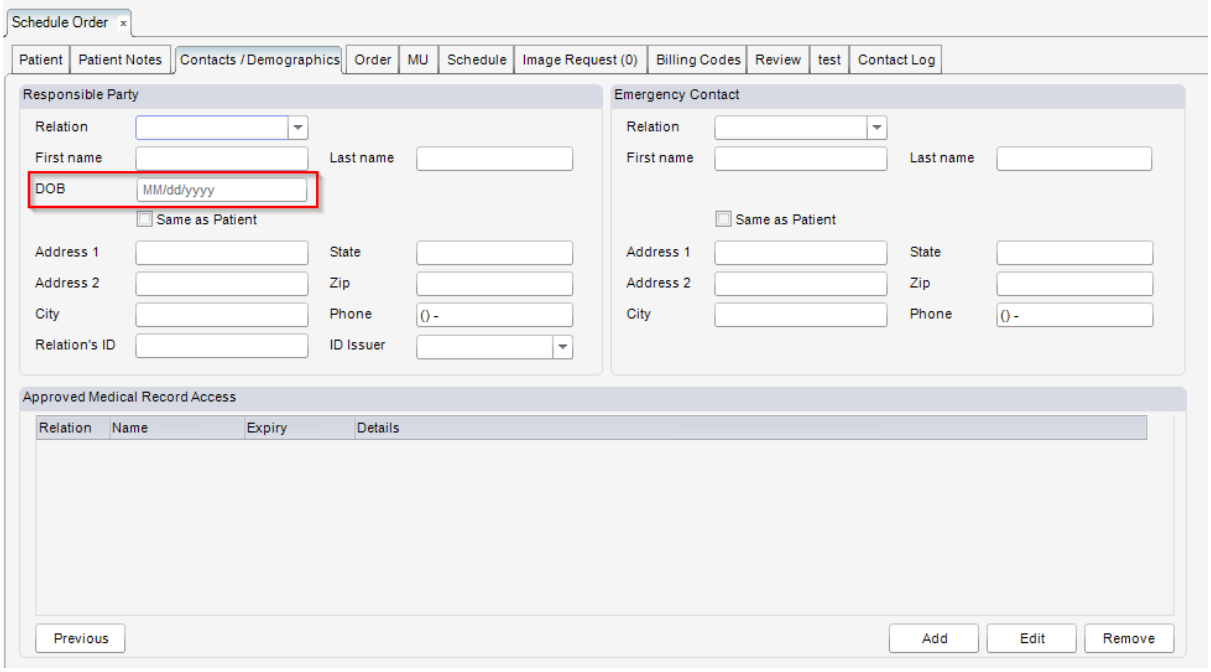
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

# NEW FEATURES

## SCHEDULING AND REGISTRATION

### 11925 – RESPONSIBLE PARTY'S DATE OF BIRTH CAN NOW BE CAPTURED

A field for the Responsible Party's DOB has been added to the Contact/Demographics tab in the Responsible Party section.




Some customers require this information for billing purposes and the new field will allow interested customers to capture this data. If you would like to make this a required field, please let the eRAD Support team know that you would like to configure a Validation Rule to require Responsible Party DOB.

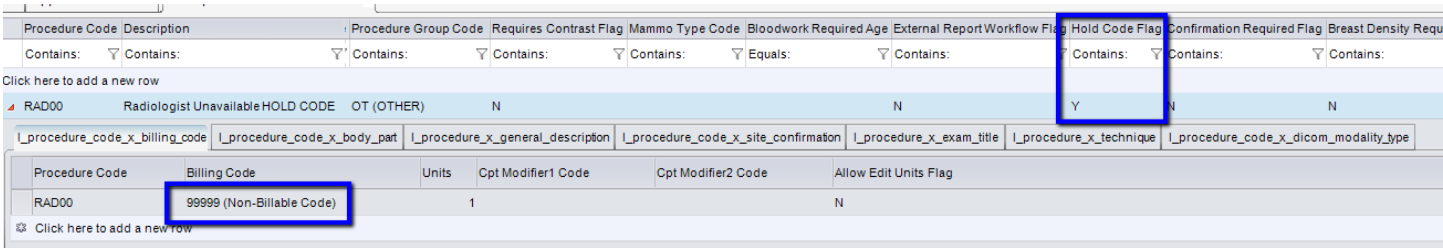
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## 13103 – PROCEDURE PLANS CAN NOW BOOK ROOMS SIMULTANEOUSLY

In some cases, it is desirable to book a patient in two rooms at the same time. Perhaps the patient is having a biopsy in one room, but the mammography room needs to be available for a period of time in the middle of that biopsy, in order for the technologist to take an image of the specimen on the mammo unit. Or perhaps a patient is scheduled for a Fluoroscopy exam and a "Hold Code" is needed in the site's biopsy room, in order to avoid having multiple radiologist-assisted exams at the same time.

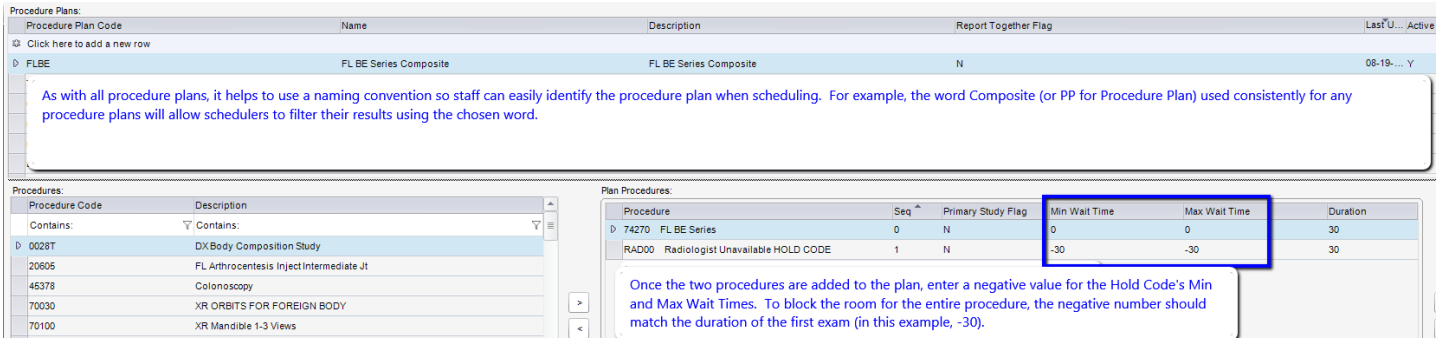
In order to accommodate this workflow, it is now possible to add negative values in the Min/Max Wait Times when creating Procedure Plans.

Example #1: An administrator wants to create a procedure plan for a Fluoro exam that requires a radiologist; it is important to ensure that simultaneous appointments are not scheduled in the biopsy room. Before creating the procedure plan, an appropriate Hold Code should be created to block the biopsy room. When setting up the procedure, the administrator marks the Hold Code as *Hold Code Flag = Y* and associates a No Charge Billing Code, like so:



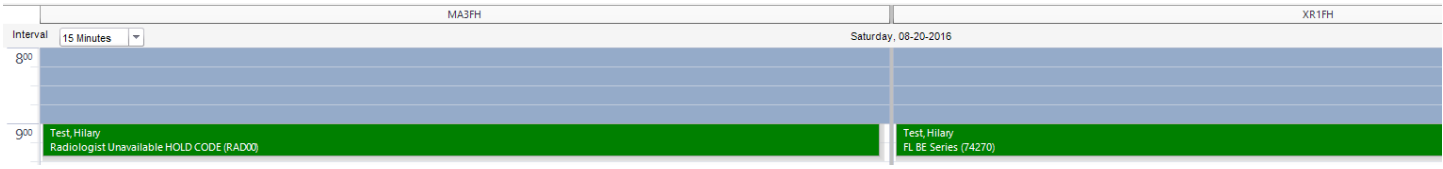

In order for the Time Slot Search to find appointment slots where both the Fluoro Room and the Biopsy Room are available, the new Hold Code is added to the appropriate Schedule Group for the room to be blocked.

Next, the Procedure Plan is created as demonstrated in the image below:

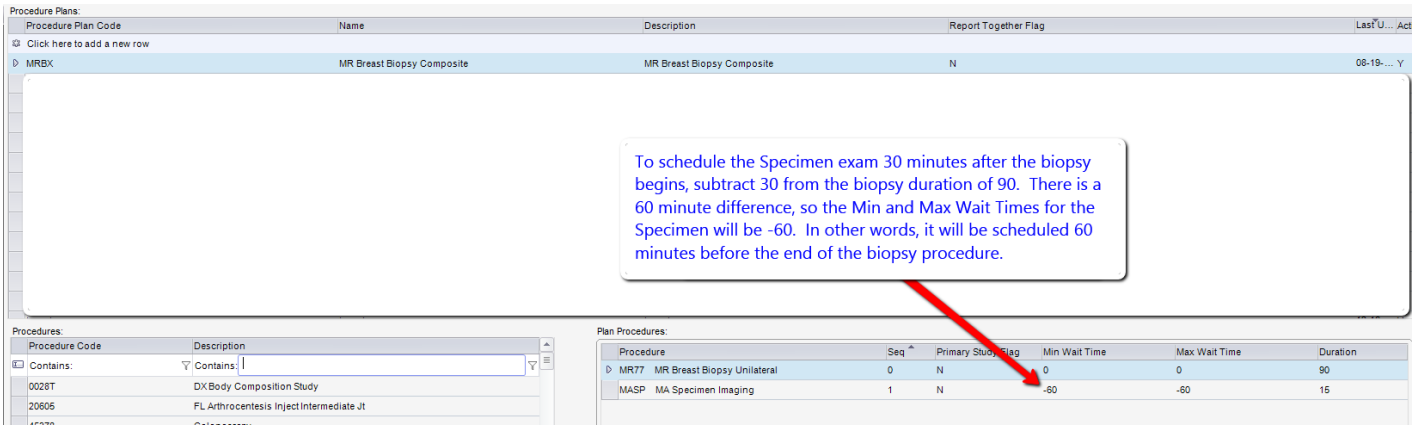



Now, if the procedure plan "FL BE Series Composite" is used when scheduling, it will expand out to include the two procedures (the Fluoro and the Hold Code for the Biopsy Room), the Time Slot Search will automatically find appointment slots where there is availability in both the Biopsy and Fluoro rooms, and exams will be booked for the same period of time in both rooms like so:

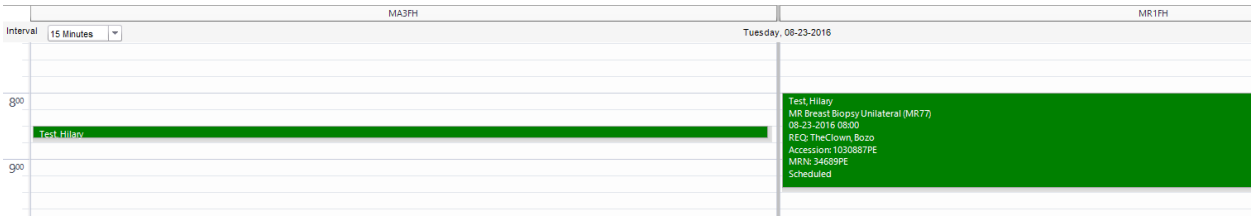
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.



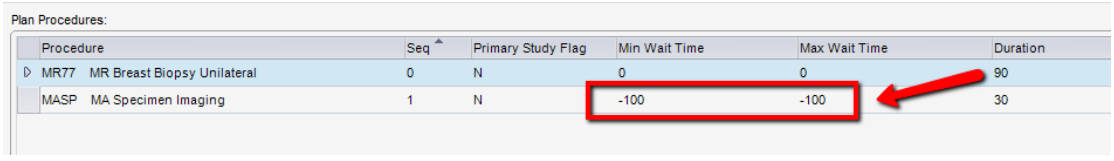

Example #2: An administrator wants to create a Procedure Plan that books a Specimen exam in the Mammo Room during the middle of an MRI Guided Breast Biopsy to ensure that the Mammo unit is available when the biopsy tech needs to obtain a specimen image. Both exams are billable, so a Hold Code is not needed. This procedure plan will be set up to book the Specimen exam in the Mammo room after the biopsy has been in progress for 30 minutes and it will take the technologist 15 minutes to perform the Specimen image. The procedure plan would look like this:




Here's how the scheduled procedure plan looks in the Appointment Book:




Please note that the Min/Max Wait Time should never be set to cause the second exam to occur *before* the beginning of the first exam. If this is done, schedulers will not find results when searching for appointment slots. In other words, don't make the negative Min/Max Wait Times higher than the exam duration for the first exam. Don't do this:



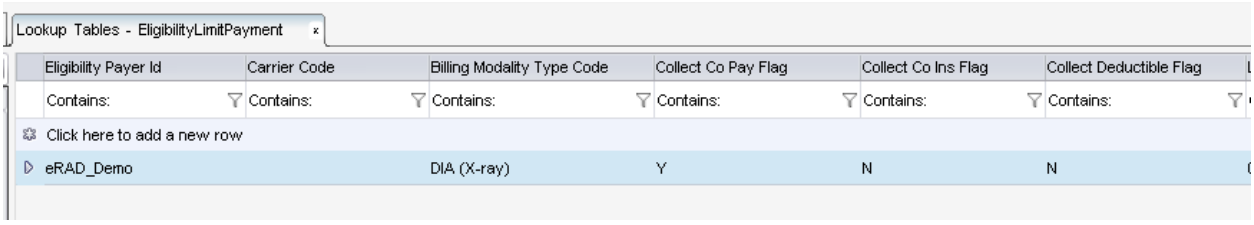

Recommendation: when using this workflow, it is advisable to set the exam Duration on the Procedure Plan, as shown in the examples above. If it is left blank, the default duration on the Procedure Code will be applied, unless there is an override set for the room. However, setting the Duration within the Procedure Plan will override everything else when the Procedure Plan is used. This will be helpful in avoiding unintentional variations caused by room duration overrides that are not obvious from within this table.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## 13611 – ELIGIBLE API INTEGRATION NOW ALLOWS EXCEPTIONS FOR COLLECTING FUNDS BASED ON PAYER (OR CARRIER) AND BILLING MODALITY TYPE

This feature is for clients taking advantage of our automated insurance eligibility feature via Eligible API. Some payers or insurance carriers make exceptions when collecting co-pays, co-insurance, or deductible for certain modality types. For example, it is common for some payers to waive the co-pay for x-ray exams.

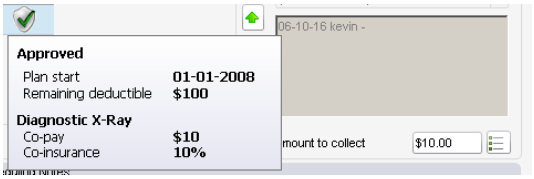
To accommodate for this, a new look-up table named *Eligibility Limit Payment* was added. This table allows for the configuration of exclusions based on modality type and payer/carrier.




In the above example, for all visits with a carrier using the "eRAD_Demo" Eligibility payer id, RIS will not collect co-insurance or deductible when the modality type is X-ray. Only co-pay will be collected (i.e. the value in the Amount to Collect field will only include the amount for co-pay).

Notice that the Carrier Code column in the example above is blank. When configuring rules, it is possible to either fill in the Carrier Code ***or*** the Eligibility Payer ID. When evaluating which rules to use, the system will first attempt to find a matching *carrier_code* rule. If none exist, it will look for a rule by *payer_id*.

The values for any collection categories will still be visible in the information returned from Eligible, even if a limitation rule applies (as displayed below).

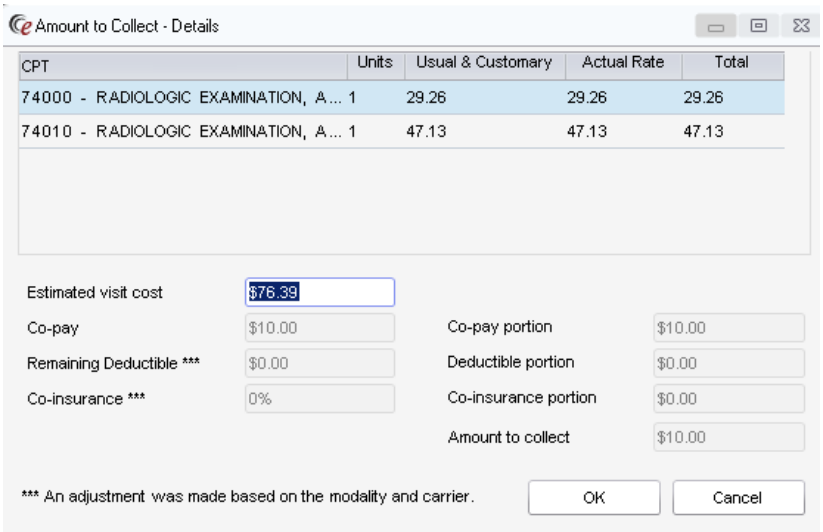



However, despite the remaining deductible and 10% co-insurance requirement listed in the above example, the sample rule configured in the *EligibilityLimitPayment* table will prevent that amount from being added to the Amount to Collect and only the co-pay will apply.

The "Amount to Collect – Details" screen shows the actual values that were used in the calculation. Because the information from Eligible will differ from the values displayed in the Amount to Collect – Details screen when a rule

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

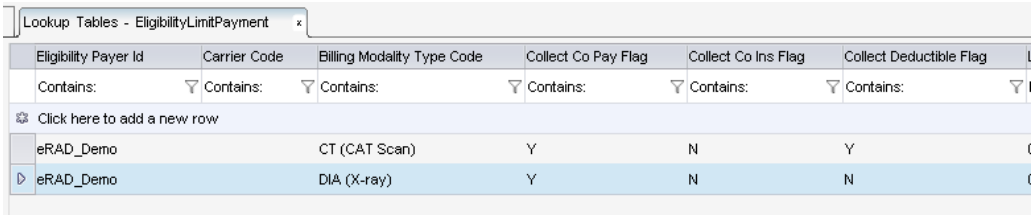
is in effect to ignore a particular payment category, a note will be displayed to indicate that an adjustment was made:




The deductible and co-insurance have been zeroed out above, and the asterisks and corresponding note indicate that an adjustment was made for each.

If a CT study is added to the same visit, the 10% co-insurance or deductible would no longer be suppressed since there are no "Eligibility Limit Payment" rows configured for the CT modality type.

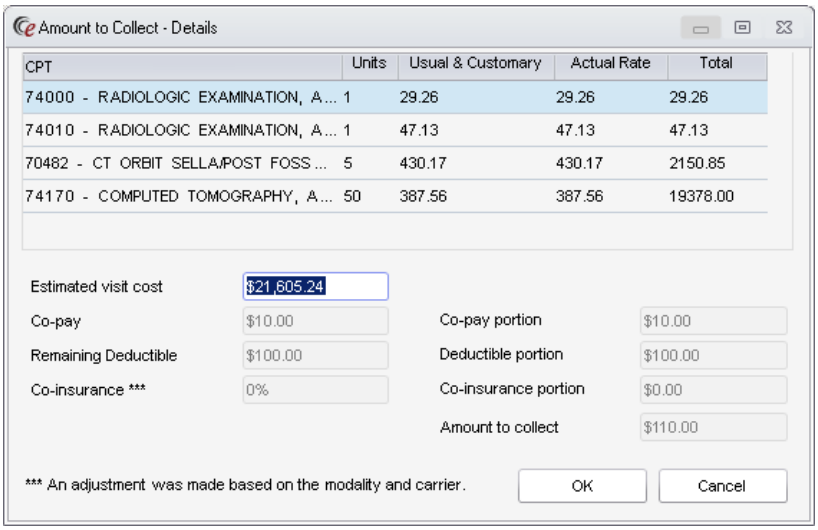
When multiple modality types are scheduled, such as an X-ray and a CT, the system will only prevent collections if an 'N' exists on ***all*** matching "Eligibility Limit Payment" rows. For example, in the following image, there is now an additional rule to not collect the co-insurance for a CT study.




If a patient is scheduled for an X-ray and a CT, the rules are combined; and the only value prevented for collection is the co-insurance (both modality types list N for co-insurance).

In that case, Amount to Collect – Details would look like so:

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.




Note that the co-insurance is excluded, but the co-pay and remaining deductible are applied.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## 13902 – IMAGINE PAYMENT PORTAL INTEGRATION NOW SUPPORTS CONFIGURING TSYS ACCOUNT IDENTIFIERS AT A SITE LEVEL

In eRAD RIS, the *DataSet ID* used for the Imagine Payment Portal integration is a global setting in the system configuration table. The DataSet relates to the TSYS account identifier, which sometimes needs to be configurable at the site level.

To resolve this issue, eRAD RIS will specify the DataSet ID at the site level when required using the Imagine Site Code field. If the Imagine Site Code contains a colon (:), the characters in front of the colon will be sent to Imagine as the DataSet ID and characters after the colon will be sent as the Online Provider ID. For example, given an Imagine Site Code of **123:ABC**, 123 is the DataSet ID and ABC will be sent as the Online Provider ID. The syntax is:

Imagine Site Code = <DataSetID>:<OnlineProviderID>

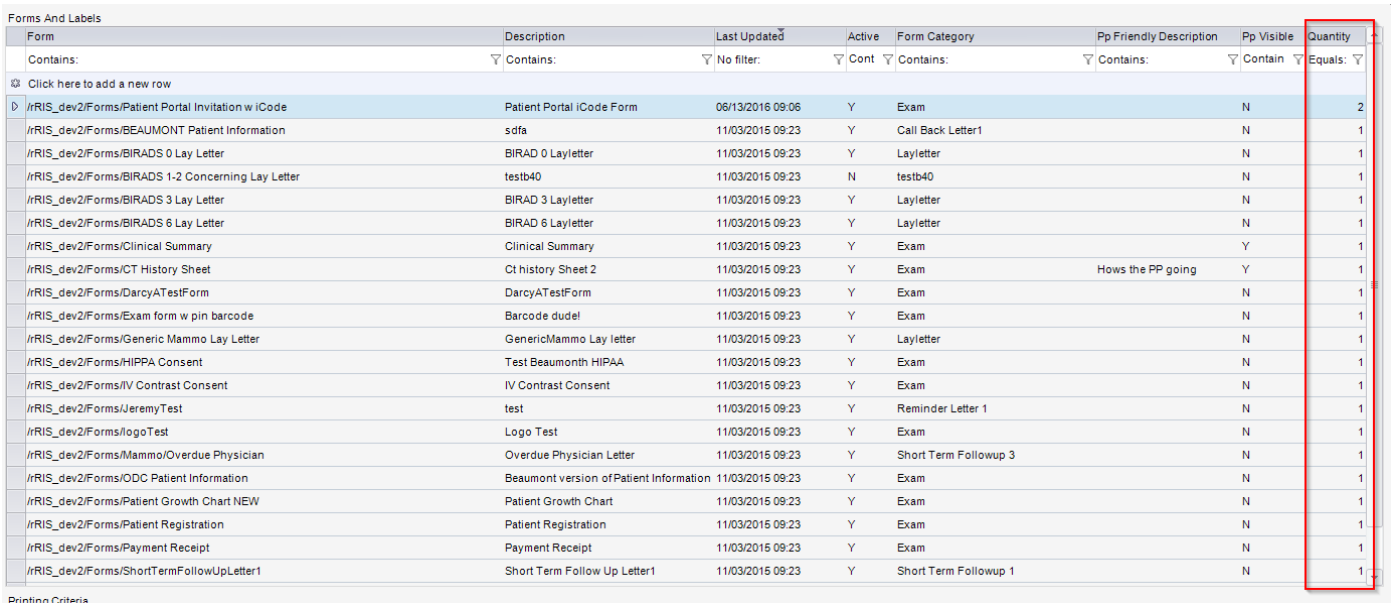
If the <DataSetID>: portion is omitted, then the default DataSet ID from the global System Configuration will be used.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## 12043 – A DEFAULT QUANTITY CAN BE SET FOR PRINTING FORMS AND LABELS

Sometimes labels or forms require multiple printed copies. Today this is supported by adding multiple copies of the same label, and mapping accordingly. To simplify this, there is now a *Quantity* field in the Forms and Labels look-up table, as well as the Print Forms dialog.

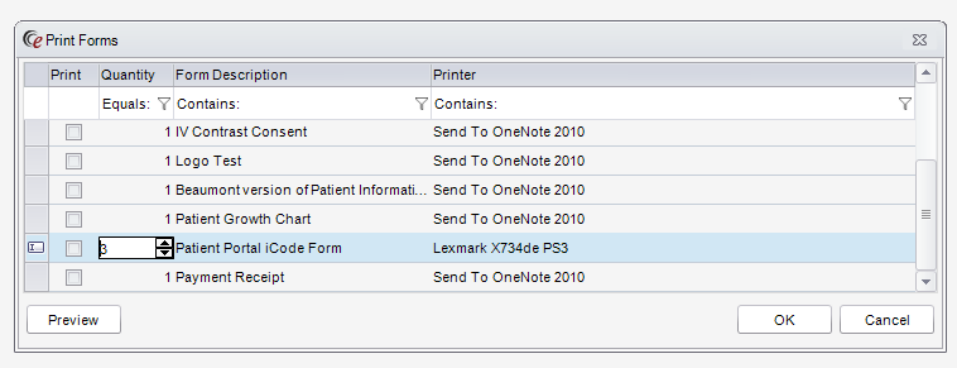
In the Forms and Labels table, a RIS Administrator can define a default quantity between 1 and 9 for each form/label.


Forms And Labels

| Form | Description | Last Updated | Active | Form Category | Pp Friendly Description | Pp Visible | Quantity |
|---|---|---|---|---|---|---|---|
| Contains: | Contains: | No filter: | Cont | Contains: | Contains: | Contain | Equals: |
| Click here to add a new row | | | | | | | |
| /rRIS_dev2/Forms/Patient Portal Invitation w iCode | Patient Portal iCode Form | 06/13/2016 09:06 | Y | Exam | | N | 2 |
| /rRIS_dev2/Forms/BEAUMONT Patient Information | sdfa | 11/03/2015 09:23 | Y | Call Back Letter1 | | N | 1 |
| /rRIS_dev2/Forms/BIRADS 0 Lay Letter | BIRAD 0 Layletter | 11/03/2015 09:23 | Y | Layletter | | N | 1 |
| /rRIS_dev2/Forms/BIRADS 1-2 Concerning Lay Letter | testb40 | 11/03/2015 09:23 | N | testb40 | | N | 1 |
| /rRIS_dev2/Forms/BIRADS 3 Lay Letter | BIRAD 3 Layletter | 11/03/2015 09:23 | Y | Layletter | | N | 1 |
| /rRIS_dev2/Forms/BIRADS 6 Lay Letter | BIRAD 6 Layletter | 11/03/2015 09:23 | Y | Layletter | | N | 1 |
| /rRIS_dev2/Forms/Clinical Summary | Clinical Summary | 11/03/2015 09:23 | Y | Exam | | Y | 1 |
| /rRIS_dev2/Forms/CT History Sheet | Ct history Sheet 2 | 11/03/2015 09:23 | Y | Exam | Hows the PP going | Y | 1 |
| /rRIS_dev2/Forms/DarcyATestForm | DarcyATestForm | 11/03/2015 09:23 | Y | Exam | | N | 1 |
| /rRIS_dev2/Forms/Exam form w pin barcode | Barcode dudel | 11/03/2015 09:23 | Y | Exam | | N | 1 |
| /rRIS_dev2/Forms/Generic Mammo Lay Letter | GenericMammo Lay letter | 11/03/2015 09:23 | Y | Layletter | | N | 1 |
| /rRIS_dev2/Forms/HIPPA Consent | Test Beaumonth HIPAA | 11/03/2015 09:23 | Y | Exam | | N | 1 |
| /rRIS_dev2/Forms/IV Contrast Consent | IV Contrast Consent | 11/03/2015 09:23 | Y | Exam | | N | 1 |
| /rRIS_dev2/Forms/JeremyTest | test | 11/03/2015 09:23 | Y | Reminder Letter 1 | | N | 1 |
| /rRIS_dev2/Forms/logoTest | Logo Test | 11/03/2015 09:23 | Y | Exam | | N | 1 |
| /rRIS_dev2/Forms/Mammo/Overdue Physician | Overdue Physician Letter | 11/03/2015 09:23 | Y | Short Term Followup 3 | | N | 1 |
| /rRIS_dev2/Forms/ODC Patient Information | Beaumont version of Patient Information | 11/03/2015 09:23 | Y | Exam | | N | 1 |
| /rRIS_dev2/Forms/Patient Growth Chart NEW | Patient Growth Chart | 11/03/2015 09:23 | Y | Exam | | N | 1 |
| /rRIS_dev2/Forms/Patient Registration | Patient Registration | 11/03/2015 09:23 | Y | Exam | | N | 1 |
| /rRIS_dev2/Forms/Payment Receipt | Payment Receipt | 11/03/2015 09:23 | Y | Exam | | N | 1 |
| /rRIS_dev2/Forms/ShortTermFollowUpLetter1 | Short Term Follow Up Letter1 | 11/03/2015 09:23 | Y | Short Term Followup 1 | | N | 1 |

Printing Criteria

When printing, the user has the option to adjust the default. This is done by changing the number in the Quantity column from within the Print Forms dialog box.



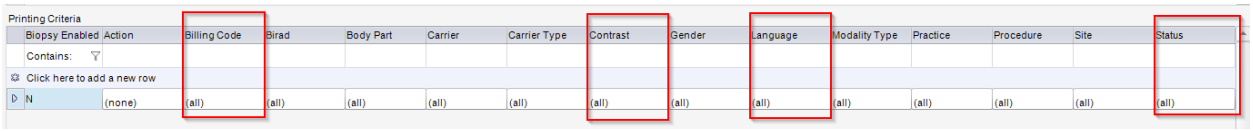

Adjustments in this dialog are **not** saved and the default will be listed when next displayed.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## 11490 – AUTOMATED FORM AND LABEL PRINTING NOW SUPPORTS ADDITIONAL CRITERIA INCLUDING EXAM STATUS, PREFERRED LANGUAGE, CONTRAST, AND BILLING CODE

Additional criteria for triggering Forms and Labels have been added to allow for filtering based on Exam Status, Preferred Language, Contrast Required, and Billing Code.

In the Forms and Labels configuration table, the new columns are now available and all criteria columns are alphabetized.




Just as with the existing criteria types, click the cell to open the criteria selection window. Use the arrow buttons to add or remove values.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## 11514 – DIGITAL FORMS QUESTIONS THAT HAVE BEEN REMOVED CAN NOW BE RESTORED

There is now a process that will enable eRAD Support to restore questions that have been removed from a Digital Form. The process will also restore the question's connection with previously collected data.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## 13659 – IMPLANTABLE DEVICES CAN NOW BE DOCUMENTED IN ACCORDANCE WITH UPCOMING MU REQUIREMENTS

As our U.S. customers are likely aware, the Meaningful Use (MU) program will be evolving into a different form and the Meaningful Use name will no longer be the most accurate way to refer to information collected on this tab. The MU tab will continue to exist in eRAD RIS, indeed it will expand to incorporate other functions required by regulatory programs; however, it will now be renamed as the "Clinical" tab.

As part of preparation for eRAD RIS to obtain its 2017 ONC Health IT Certification, eRAD RIS will now comply with the following requirements.

The application must:

- **Enable a user to record and access a list of Unique Device Identifiers (UDIs) associated with the patient's Implantable Device(s).**
- **The following identifiers from a Unique Device Identifier (UDIs) must be parsed.**
  - **Device Identifier**
  - **Identifiers from the Production Identifier:**
    - **Batch/lot number**
    - **Serial Number**
    - **Expiration Date**
    - **Date a specific device as manufactured; and**
    - **For an HCT/P regulated as a device, the distinct identification code.**
- **Retrieve the following attributes associated with a UDI, from the Global Unique Device Identification Database (GUDID) using one of the methods under the FDA's GUDID guidance, which includes but not limited to the GUDID's web interface, web services, and downloadable module:**
  - **Description of the implantable device referenced by at least one of the following:**
    - **"GMDN PT Name" attribute associated with the Device Identifier in the Global Unique Device Identification Database *OR***
    - **"SNOMED CT® Description" (mapped to the "GMDN PT Name" attribute)**
  - **The following Global Unique Device Identification Database entries:**
    - **Brand Name**
    - **Version or Model**
    - **Company Name**
    - **What MRI safety information does the labeling contain; And**
    - **Device required to be labeled as containing natural rubber latex and dry natural rubber.**
- **UDI Issuing Agencies currently use three different formats for UDIs. Test data will be provided to accommodate each format type. For more information on these issuing agencies, please see:**

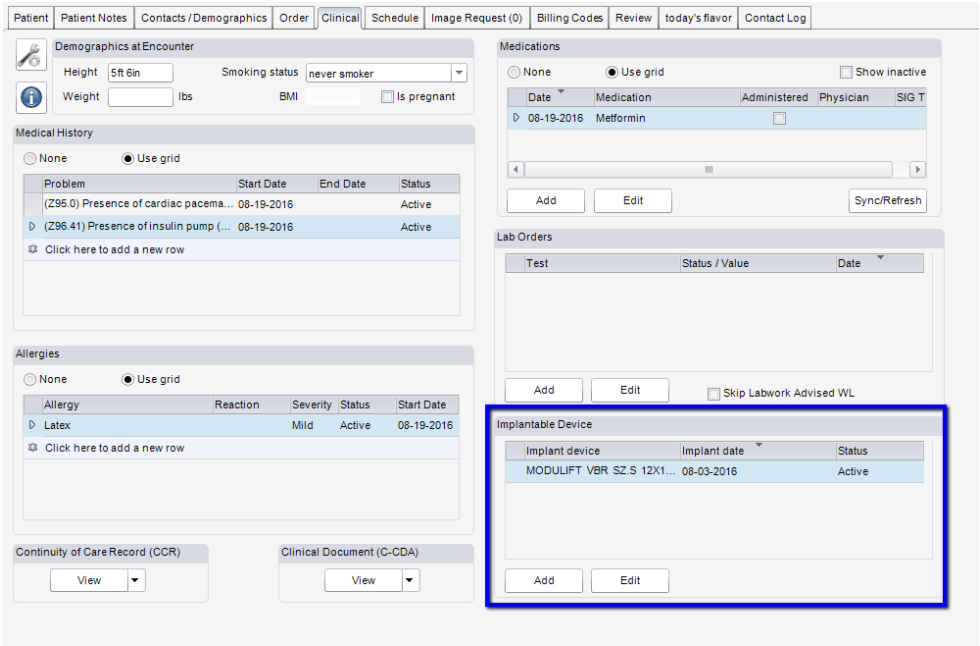
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

http://www.fda.gov/MedicalDevices/DeviceRegulationandGuidance/UniqueDeviceIdentification/UDIIssuingAgencies/default.htm

- **Display to a user an Implantable Device List consisting of:**
  - **Active Unique Device Identifiers for a patient; and**
  - **For each active Unique Device Identifier recorded for a patient, the description of the implantable device using "GMDN PT Name" or "SNOMED CT Description"**
  - **A method to access all Unique Device Identifiers recorded for a patient.**
- **For each Unique Device Identifier recorded for a patient, enable a user to access:**
  - **Unique Device Identifier**
  - **Description of the implantable device (using either "GMDN PT Name" or "SNOMED CT Description")**
  - **Identifiers associated with the Unique Device Identifier (using the "Device and Product Identifiers" described above)**
  - **Attributes associated with the Unique Device Identifier (using "Global Unique Device Identification Database" entries described above)**
- **Enable a user to change the status of a Unique Device Identifier recorded for a patient**
- **Unique Device Identifier(s) part of the Common Clinical Data Set.**

In this context, "implantable device" is defined (as it is in 21 CFR 801.3) as a device that is intended to be placed in a surgically or naturally formed cavity of the human body. A device is regarded as an implantable device for the purpose of this feature only if it is intended to remain implanted continuously for a period of 30 days or more, unless the Commissioner of Food and Drugs determines otherwise in order to protect human health.

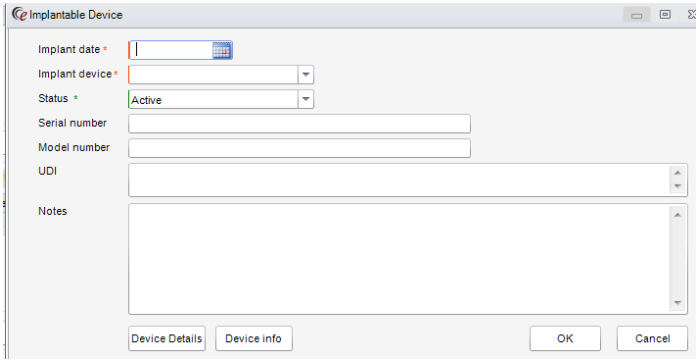
There is a new section in the "Clinical" tab called *Implantable Device*, which is used to display the active and inactive implant devices recorded for a patient. An **important distinction** is that the Implantable Device Section is intended, per CEHRT requirements, to include qualifying devices that are to be implanted during the patient's procedures ***at your facility***, such as the placement of a biopsy marker, drain, or stent. Recording the patient's ***history*** of having a device, such as a pacemaker, implanted at an *outside* medical institution should continue to be done in the Medical History section.




*Note that some pre-existing grids have been shifted to allow for the new Implantable Device grid.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

Users can click the Add button to add new implantable devices to the patient's record or they can click the Edit button to edit any implantable devices that are already associated to the patient.




The implant device is selected from a new lookup *ImplantDevice* and the user must enter at a minimum the implant date, implant device, and the status of the implant. Serial number, model number, and UDI of the device can optionally be added, along with any notes. The UDI field can store either the DI (Device Identifier) or the UDI which consists of two parts: the DI (Device Identifier) and PI (Product Identifier). Note: if the user enters the device UDI (DI + PI), it is possible to see additional information by clicking the *Device Info* button, which will show the batch/lot number, serial number, expiration date, manufactured date and the device identifier which is retrieved via a call to the Global Unique Device Identification Database (GUDID).

There is a new system configuration setting for *MUImplantableDeviceUrl* which will be used to store the URL to the Global Unique Device Identification Database (GUDID), in order to display the device details or to parse the UDI (Unique Device Id).

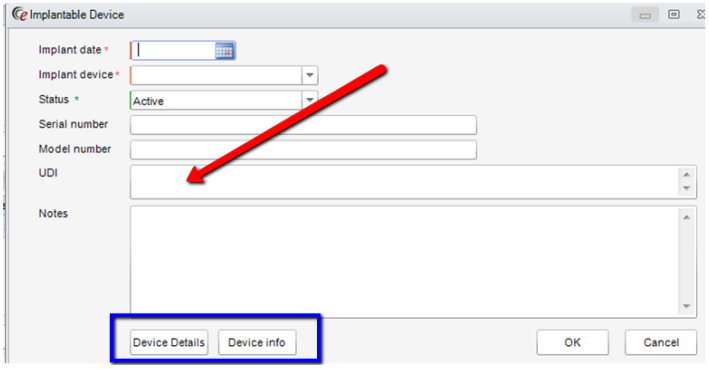
Examples:

- Device Identifier (DI)
  - 08717648200274
- Unique Device ID (UDI)
  - =/08717648200274=,000025=A99971312345600=>014032=}013032&,1000000000000XYZ123

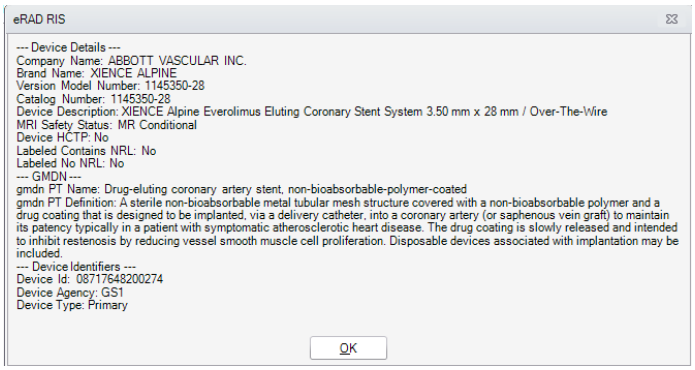
There are currently three FDA accredited issuing agencies for UDI numbers (GS1, HIBCC, and ICCBBA) and all three have different formats for displaying the UDI. eRAD RIS is capable of handling all three formats.

Once either the DI or UDI is entered in the UDI field, the user will also be able to view the device details by clicking the *Device Details* button which will display to the user the brand name, version or model number, company name, MRI safety information and information about the device such as whether it contains natural rubber latex. This information can be copy/pasted into the Notes section if desired.

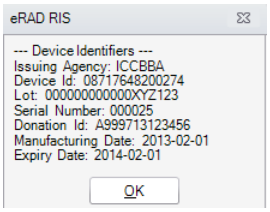
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.




Example of Device Details results when the UDI is entered:




Example of Device Info results when the UDI is entered:




Consistent with the policy that UDI's should not be deleted from the implantable device list or from a patient's electronic health record, a UDI that has been designated inactive must still be accessible so that users can view information about the device, even if it was explanted or recorded in error.

The *Device Details* and *Device Info* buttons are hidden if the system configuration setting *MUImplantableDeviceUrl* is empty.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## 13844 – A SECTION FOR IMPLANTABLE DEVICES IN NOW DISPLAYED IN THE C-CDA

An Implantable Device section has been added to the C-CDA to record any materials placed during the procedure, such as stents, tubes, or drains.

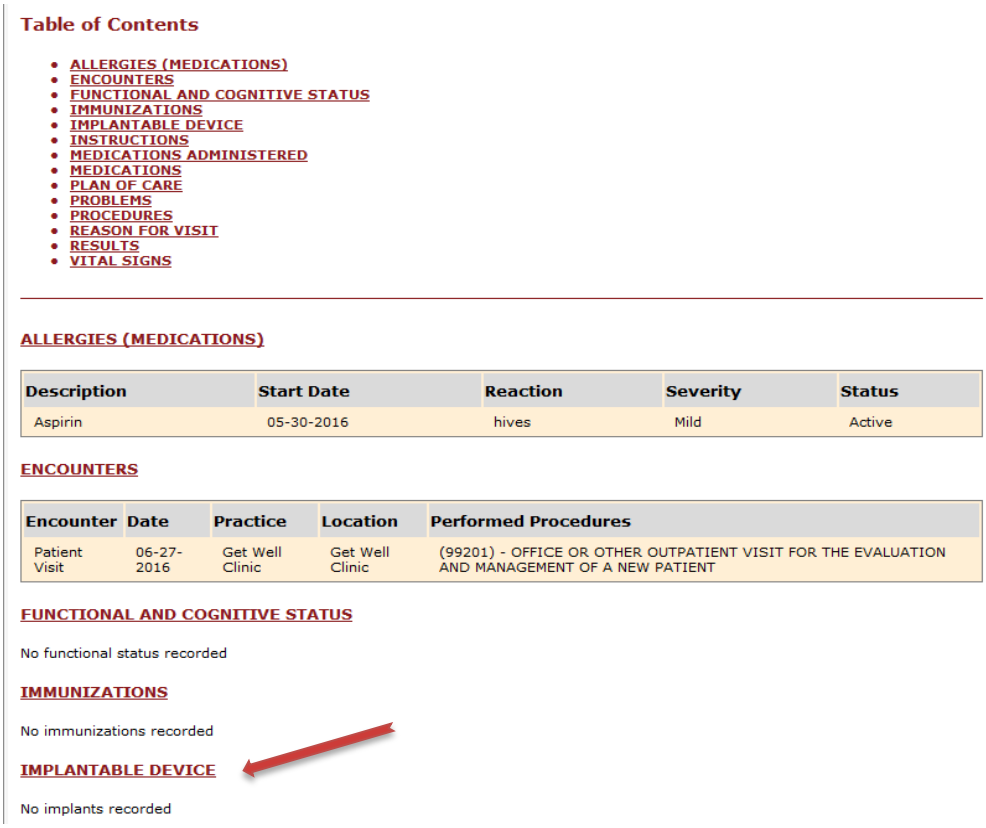


**Table of Contents**

- ALLERGIES (MEDICATIONS)
- ENCOUNTERS
- FUNCTIONAL AND COGNITIVE STATUS
- IMMUNIZATIONS
- IMPLANTABLE DEVICE
- INSTRUCTIONS
- MEDICATIONS ADMINISTERED
- MEDICATIONS
- PLAN OF CARE
- PROBLEMS
- PROCEDURES
- REASON FOR VISIT
- RESULTS
- VITAL SIGNS

**ALLERGIES (MEDICATIONS)**

| Description | Start Date | Reaction | Severity | Status |
|---|---|---|---|---|
| Aspirin | 05-30-2016 | hives | Mild | Active |

**ENCOUNTERS**

| Encounter | Date | Practice | Location | Performed Procedures |
|---|---|---|---|---|
| Patient Visit | 06-27-2016 | Get Well Clinic | Get Well Clinic | (99201) - OFFICE OR OTHER OUTPATIENT VISIT FOR THE EVALUATION AND MANAGEMENT OF A NEW PATIENT |

**FUNCTIONAL AND COGNITIVE STATUS**

No functional status recorded

**IMMUNIZATIONS**

No immunizations recorded

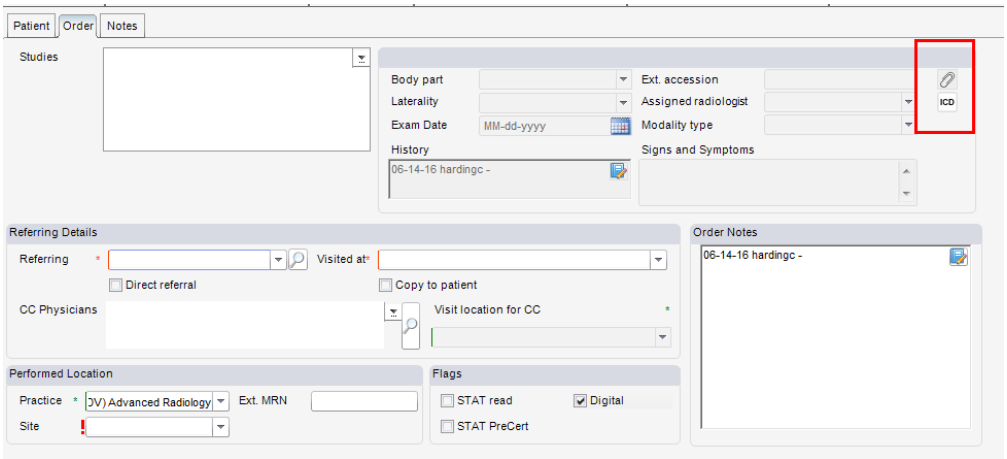
**IMPLANTABLE DEVICE**

No implants recorded

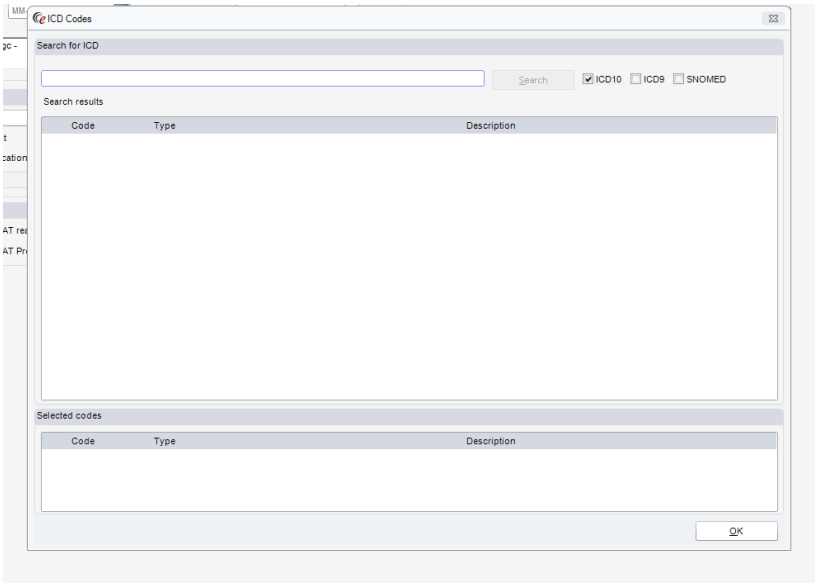
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## 13733 – INDICATION CODES CAN NOW BE ADDED WHEN CREATING AN OUTSIDE READ

Previously, indication codes (e.g. ICD-10 codes) could not be added to an Outside Read until after it was created, via the View/Edit screen. To make this process more efficient, an ICD button has been added to the Outside Read Order tab.



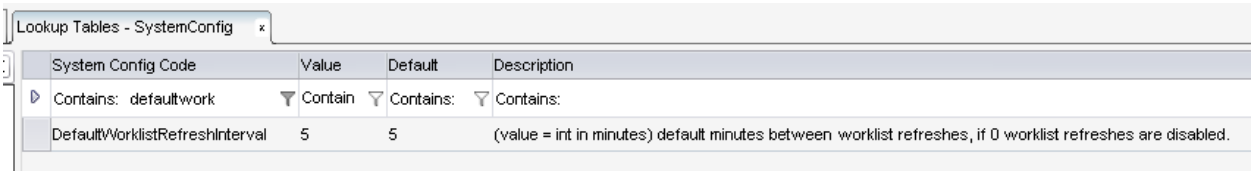

This button is controlled by the existing access string *Clinical.Schedule.AssignIcdCode*. The ICD Codes pop-up window will function as it does in other areas of the application, except that Reason for Exam is not visible, as it is not a part of the Outside Read process. ICD codes will be applied to the selected study. The ICD button will be disabled until a study has been added.

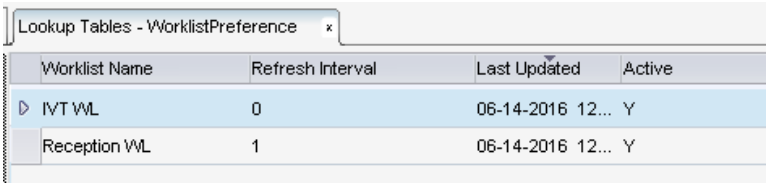



No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## 13803/13804 – WORK LISTS CAN NOW BE CONFIGURED TO REFRESH AT DIFFERENT INTERVALS

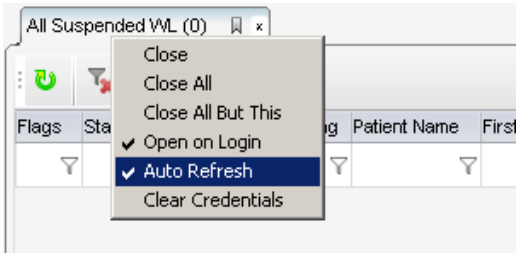
Large work lists with frequent refreshes, such as the IVT WL, create a significant impact on system performance. To alleviate this, a System Configuration setting named *DefaultWorklistRefreshInterval* and a new look-up table named *Worklist Preference* have been added to allow a RIS Administrator to configure a longer interval between automatic work list refreshes.



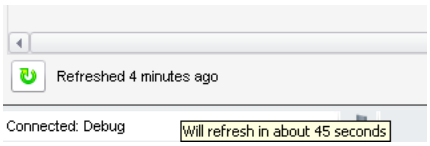




The work list refresh interval is specified in minutes. When set to **zero or less**, the work list refreshes are disabled and users must click the refresh button to refresh manually. Work list refresh intervals should typically be in the 1-10 minute range, though they can be set for longer. Previously, all work lists would refresh every minute.

The "Auto Refresh" checkbox that allowed a user to turn off the refresh has been moved to the work list tab's context menu.




Beneath the work list on the left, there is now a label explaining when the last work list refresh took place, whether automatic or manual. Hovering the cursor over this label will display a tooltip that indicates when the next automatic refresh will occur. There is also an additional Refresh button next to this label, in case the user does not want to wait for the next auto-refresh. Clicking the button will refresh the work list immediately.




No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

The label updates every 5 seconds and the times listed are rounded as follows:

- Just now
- 15 seconds
- 30 seconds
- 45 seconds
- a minute
- x minutes
- an hour
- x hours

The tooltip explaining when the next refresh will occur is rounded as follows:

- x minutes
- a minute
- 45 seconds
- 30 seconds
- 15 seconds
- Soon

If the work list is not configured to auto-refresh, the tooltip will indicate: “This work list does not auto refresh.”

As before, auto-refresh will not occur under some circumstances even if the designated interval has elapsed. The following scenarios will prevent a work list refresh:

- RIS is locked.
- RIS is minimized.
- Work list has received mouse or keyboard activity in the past 15 seconds. Previously, mouse movements would also cause a delay, but this has been changed to only include click events.

If the user continues to type or click items on the work list and does not move away from that work list, then the work list will not auto-refresh and hovering will display the message “Will refresh soon.” This is done to prevent a work list refresh from changing the list just as a user is clicking on an item, which could result in the wrong item inadvertently being opened.

The following permission string has been added to control access to the new WorklistPreference editor: *Config.LookupEditor.WorklistPreference*.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## 8666 – MESSAGES TRANSMITTED VIA MIRTH CAN BE FILTERED TO DECREASE UNNECESSARY MESSAGING

In order to allow for more granular filtering in Mirth, a new function will allow for message filtering based on logic surrounding metadata. This will allow the ability to suppress messages due to metadata changes that are not deemed significant.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## 7572 – RIS NOW SUPPORTS INSTALLATION TO A SHARED LOCATION ON THE WORKSTATION (AS OPPOSED TO INDIVIDUAL WINDOWS USER PROFILES)

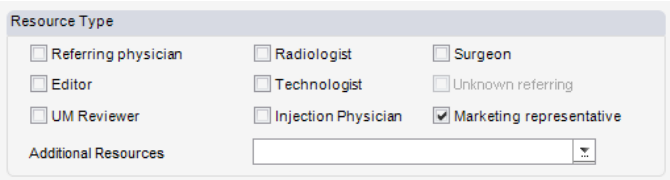
This feature includes two major changes for installation file management. The directory which is used to store the build zips and installed build files has been relocated, so these files can be shared among the various users of a system. Secondly, there is a process to cleanup old RIS builds, anything older than the last 2 builds (including the current build). As this cleanup previously only occurred when switching systems, this will reduce the footprint of the install directory if the user is only ever using one system.

The user should not experience any change in the usage of the system, other than perhaps noticing a reduction of hard drive space required for installation of the RIS GUI. Users also may notice a slight delay in startup if there are multiple old builds which need to be removed.

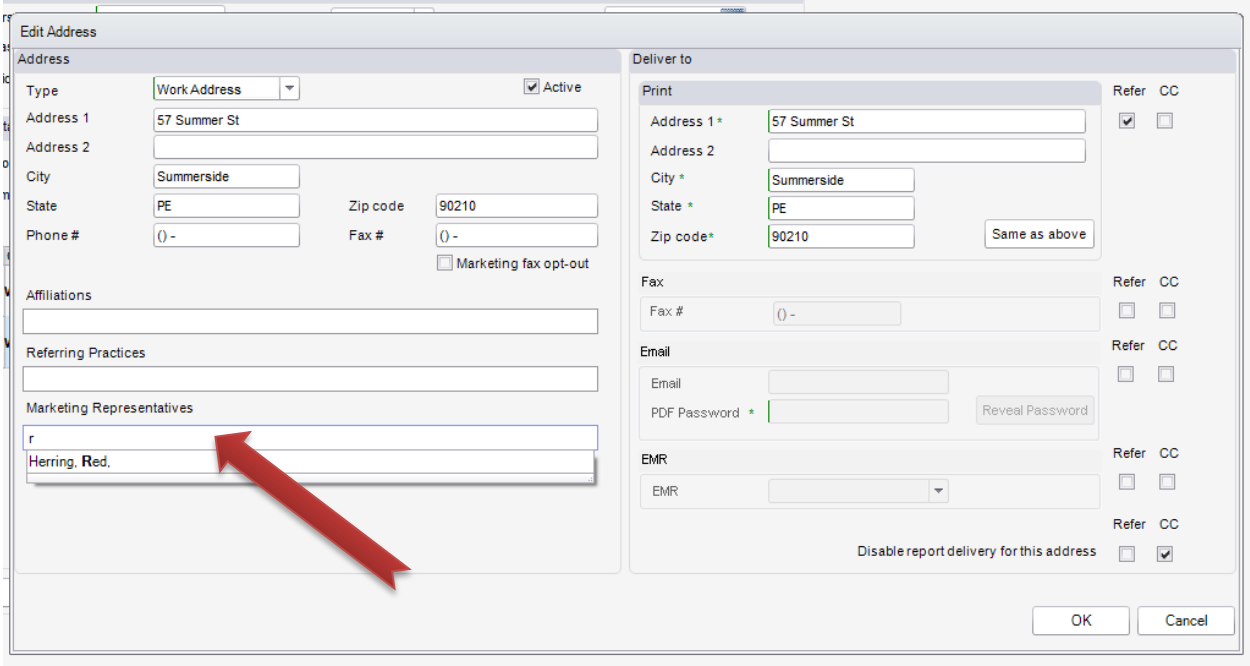
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## 9522 – MARKETING REPRESENTATIVES CAN NOW BE ASSOCIATED TO A REFERRING PHYSICIAN

To support the need for more informative management reports, there is a new Resource Type titled *Marketing representative*.




Each referring address will have a setting for marketing representatives, which will be selected via a multi-select type-ahead. This multi-select will only display users with a resource type of *Marketing representative*.




No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

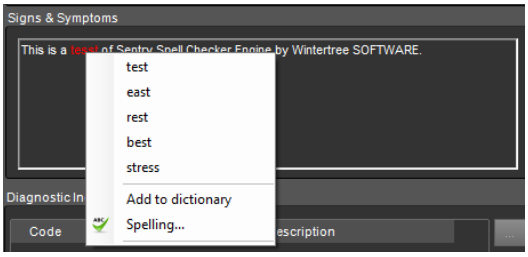
## 3667 – LOG CONTROLS AND TEXT BOXES SUPPORT SPELL CHECK

A spell check feature has been added to some of our controls, in order to provide users with spell checking when typing in a variety of notes fields. This is particularly helpful when turned on for text boxes that are pulled into report templates. "Sentry Spell Checker Engine" (Wintertree) has been implemented in eRAD RIS, which is the same spell checker as is used by the M*Modal editor. It will also use the same dictionaries as configured for M*Modal today, reflecting any changes made in the M*Modal editor that affect the dictionary.

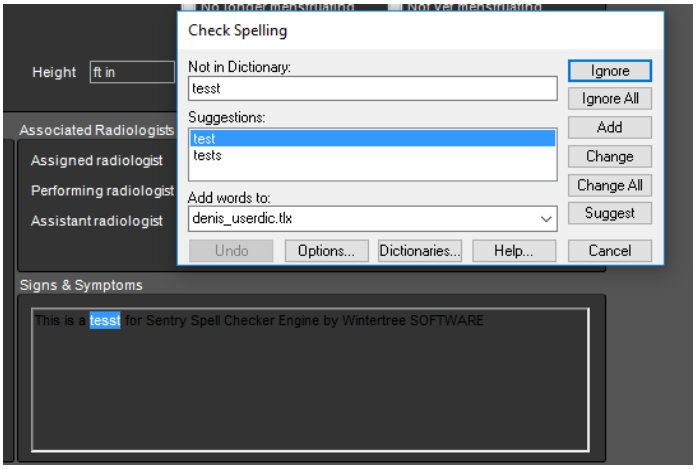
Spelling errors are indicated as the user types with misspelled words displayed in red text.

In order to enable the feature, the *spellcheck_enabled_flag* on the *LogControl* look-up table needs to be set to "Y" for the controls in question.

Right clicking on the misspelled words will show a context menu of up to 5 suggestions, as well as an option to add the word to the dictionary and an option to open the "Spelling…" dialog.




The Spelling dialog shows additional information.



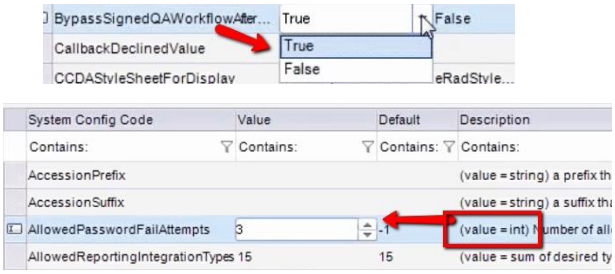

If the control already had a context menu defined, the spell checker options will be shown above the existing items.

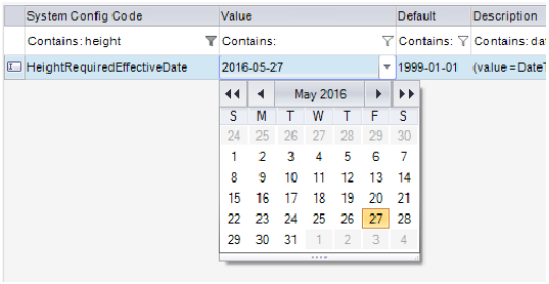
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## 13935 – SYSTEM CONFIGURATION TABLE NOW ENFORCES MORE STREAMLINED DATA ENTRY

When choosing system values in the System Configuration look-up table, administrators are required to enter a variety of types of data. Sometimes it is a Date or Time value, a true or false selection, or even a code from another look-up table, such as the Procedure Code table. Historically, system values were entered in a text field and it was up to the administrator to follow the required format when creating their text entry. As eRAD RIS continues to evolve, the values entered into the System Configuration table will grow more complex. In order for the administrator to more efficiently enter this information, and to drive consistency, eRAD RIS will now offer more advanced controls when entering values in System Configuration.

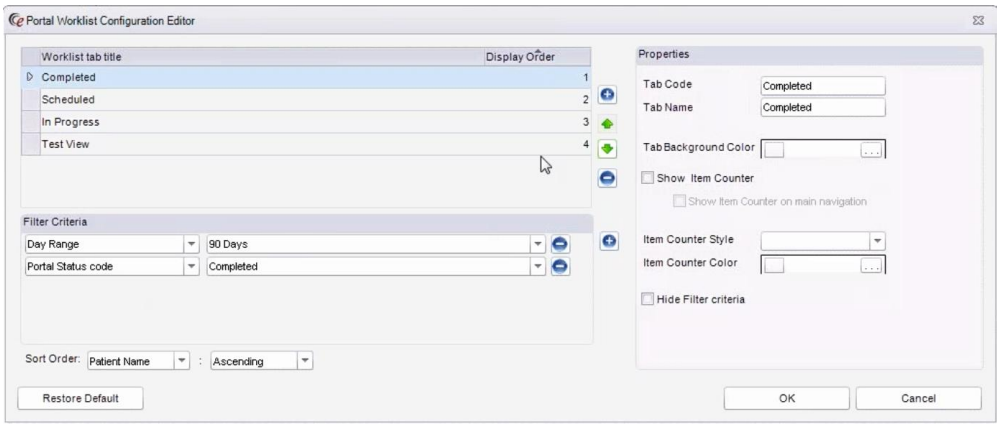
Version 2016.4 will introduce some basic controls such as: numeric spinner controls for values that should be a number (integer), calendar controls for dates, and drop-down selections for True/False selections.




True/False options may have previously been represented by a Y or N value, as opposed to True or False. Any data that was previously entered as Y or N will ***not*** need to be updated and will behave just as before. However, if the value is edited, the administrator will at that time be forced to select True or False in accordance with the new control.

While the above controls are simple, future controls will launch their own editor to allow a variety of selections in an easy to understand display. These selections will then be formatted and stored in the Value field without requiring the administrator to follow complicated format rules.




*Future SystemConfiguration controls may launch multi-step editors like the one above.*

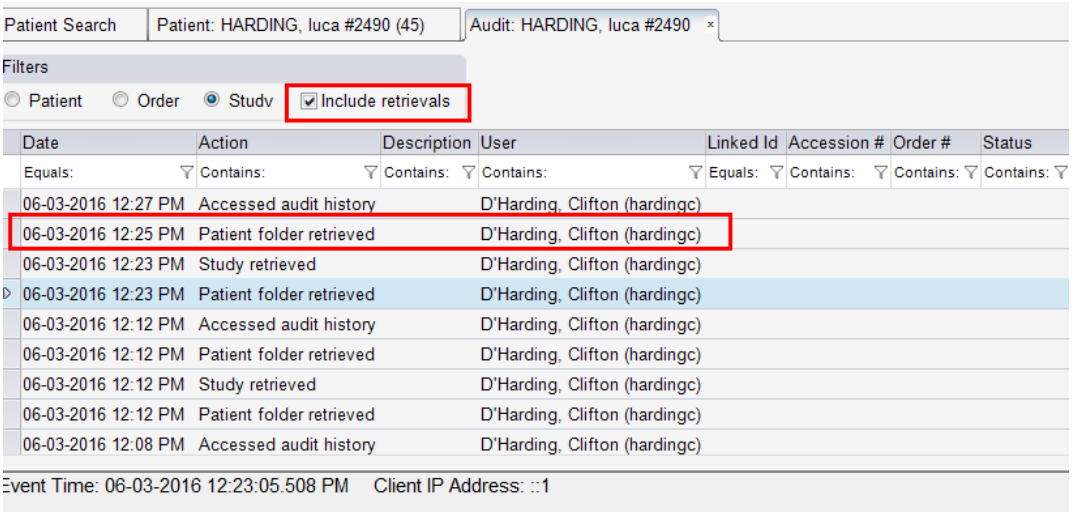
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## 13818 – OPENING THE PATIENT FOLDER IS NOW SHOWN IN THE AUDIT HISTORY

When users open the Patient Folder in eRAD RIS, it is desirable to audit who opened it and when. There is a new web service method created, *GetPatientFolderWithAudit*, that will write an audit entry in the audit table.

eRAD RIS will write a new entry in the audit table when opening the Patient Folder and when previewing the Patient Folder in the patient search results screen. This new entry is called *Patient folder retrieved*.

When looking for the audit message, users must check the *Include retrievals* option.

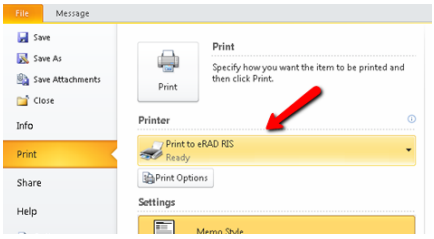



No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

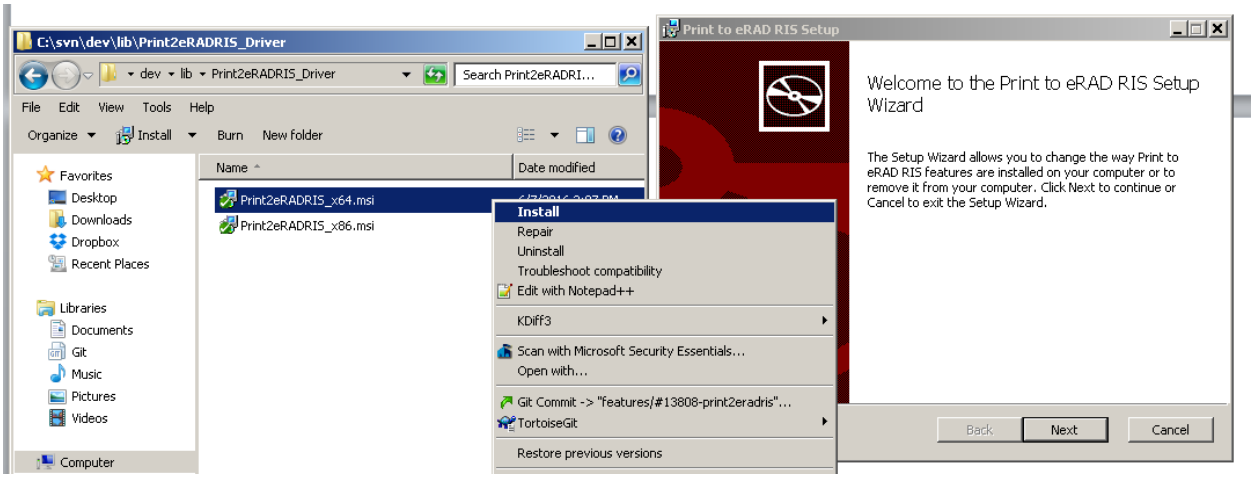
## 13808 – USERS CAN NOW "PRINT" FROM OTHER APPLICATIONS AND AUTMOMATICALLY SAVE THE DOCUMENT AS AN ATTACHMENT IN RIS (NO PAPER OR SCANNER REQUIRED)

In an effort to eliminate a tedious task in which users print content from other applications, such as Internet Explorer, and then manually scan that paper back into RIS, an eRAD RIS print driver has been created, which will print directly into a patient's Attachments.

Users can install the optional *Print to eRAD RIS* print driver. When RIS is open and the current screen has an Attachments tab, or if an attachment pop-up dialog is open, the user can print from another application (Outlook, Internet Explorer, Word, etc.) to the *Print to eRAD RIS* option (instead of a physical printer), which will send the pages to RIS as attachments for the currently selected patient.

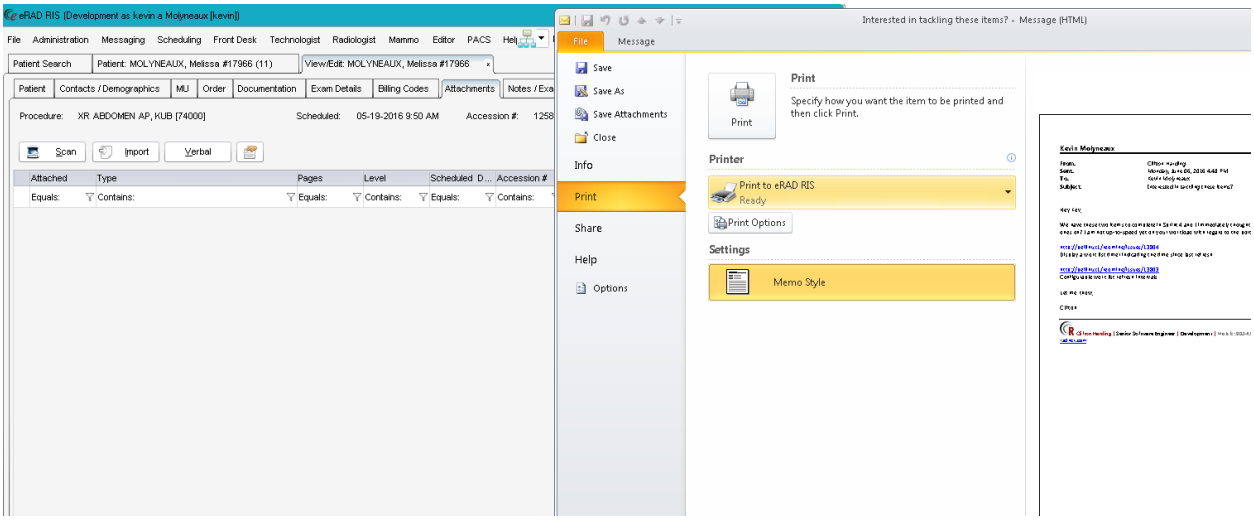



There are 64 and 32 bit versions of the *Print to eRAD RIS* virtual print driver. These will be provided to customers with the intent that local IT staff will install the print driver. You can install the driver manually as shown in the following screenshot:

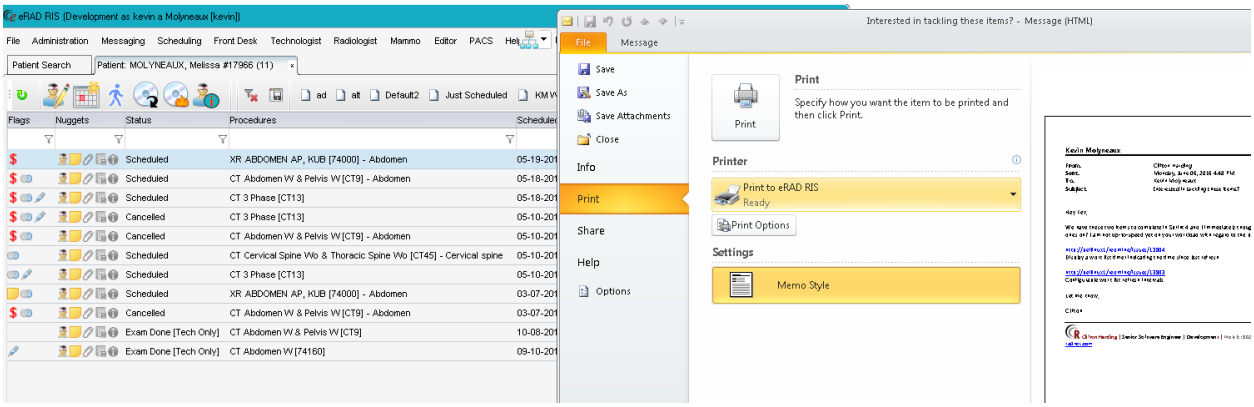



No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

The following screenshot illustrates printing from MS Outlook directly into the RIS attachments:




If a user attempts to use Print to RIS when they do not have an attachments screen open in RIS (either an open attachments window or a screen with an Attachments sub-tab—e.g. View/Edit, Perform Exam, etc.), Print to RIS will not allow the user to proceed.




The user will receive a warning explaining that a qualifying screen must be open in eRAD RIS before initiating the Print to RIS process.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## 13438 – RADAR NUDGE INTEGRATION

The goal of this feature is to integrate eRAD RIS with the RADAR Nudge desktop application. RADAR Nudge is a stand-alone secure instant messaging system. It supports secure communication across multiple client applications. The integration to eRAD RIS will be seamless (appear to be a single application) and will allow a radiologist who is logged into eRAD RIS to quickly and securely initiate a Nudge conversation with the study-appropriate referring doctor, transcriptionist, primary technologist or even the contributing, dictating or signing radiologist. The conversation can be supplemented with a one-button insertion of the exam summary, the impression from the diagnostic report, or even the full report (if available). Nudge's screen capture tools will even allow the capture and transmission of an image to supplement the conversation.

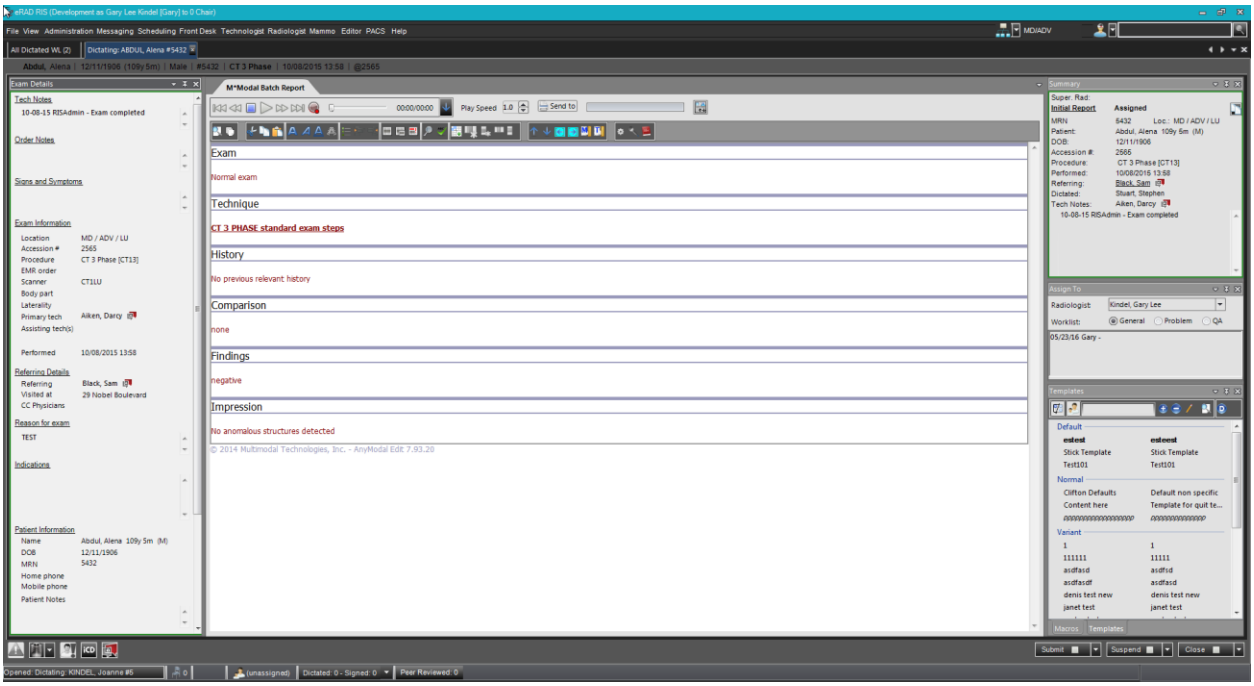
The integrated solution will permit the radiologist to find the appropriate person with whom to communicate without having to search from a large list of Nudge users; instead he/she will be able to select the correct person from a short list of people who are related to the current study. Opening a "new" conversation from the same study and to the same recipient will in fact re-open and continue the original conversation.

Based on the features of the RADAR Nudge application itself, the contents of a conversation that is initiated from eRAD RIS is maintained and viewable regardless of how the conversation continues: on an Apple device via the Apple IOS application, the Android application, the internet web application, or even the Windows application. The entire conversation is viewable at all times from all devices. Once initiated, the conversation is retained forever within the Nudge application in relation to the study. Therefore at any time, the relevant conversation can be opened and reviewed.

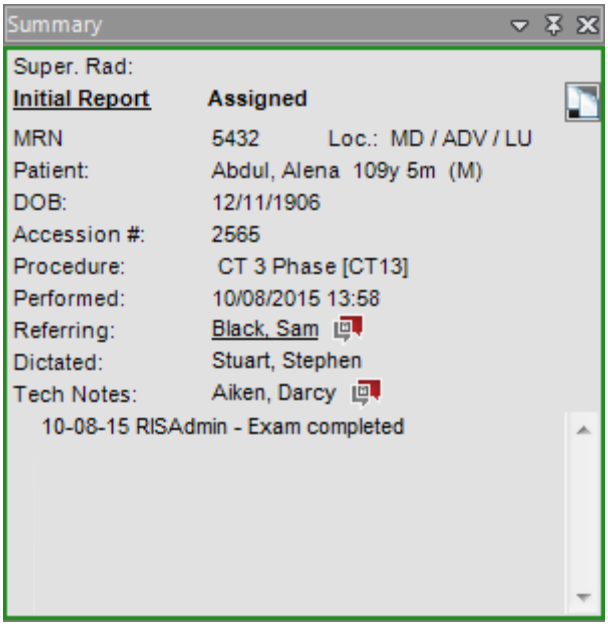
### General Workflow

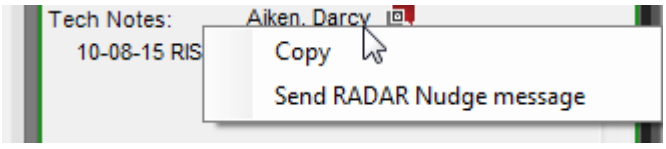
The following image shows a typical radiologist reporting screen. Notice there are three new components: Nudge icons on the Summary and Exam Details panels, as well as a Nudge button at the bottom of the reporting screen.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.



In the Summary tool window, there is a RADAR Nudge icon beside each Nudge-enabled user. In the example below, the referring doctor and the technologist are both registered Nudge users, and are the relevant individuals in this study. Therefore the icon becomes visible. If the radiologist wishes to initiate a conversation with these users, he/she simply clicks on the icon, or can right-click and select **SEND RADAR NUDGE MESSAGE**.



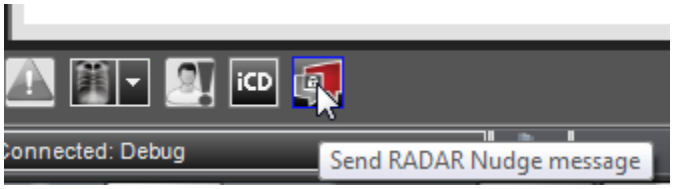

Notice as well that the Exam Details panel has been modified to support the same icon when the appropriate user is Nudge-enabled. The difference is that this panel can support additional user types. It will include:

- Referring physician
- Transcriptionist

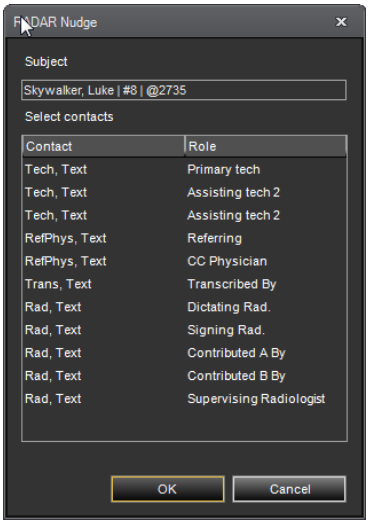
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

- Primary technologist
- Assisting technologists
- CC Physicians
- Dictating Radiologist
- Signing Radiologist
- Supervising Radiologist
- Contributing Radiologist

At the bottom of the radiologist screen is a Nudge icon.



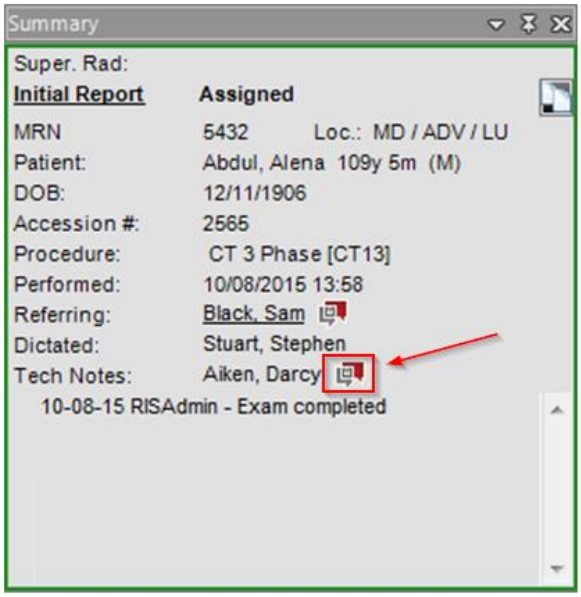

Selecting this icon will load a form that shows all of the Nudge users who are associated to this study. This will permit a group chat, as multiple people can be selected from this list.



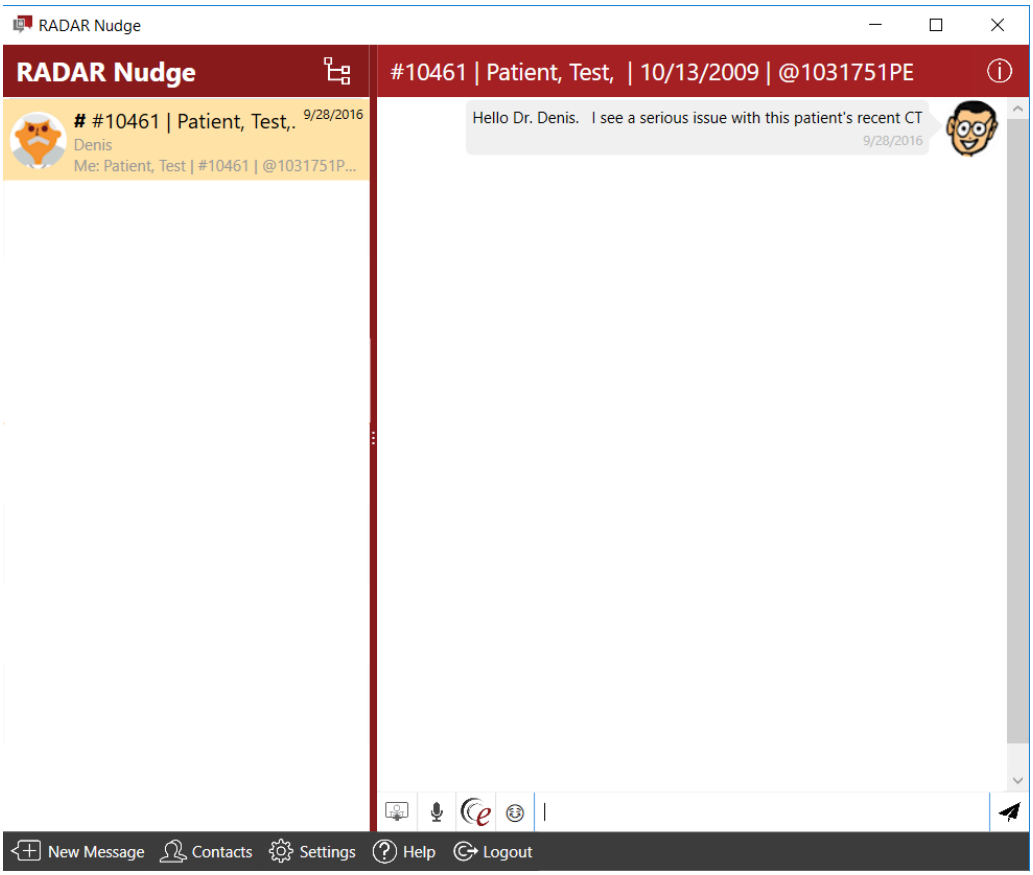

## Interacting with Nudge via eRAD RIS

Select the Nudge application via the Nudge Icon:

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

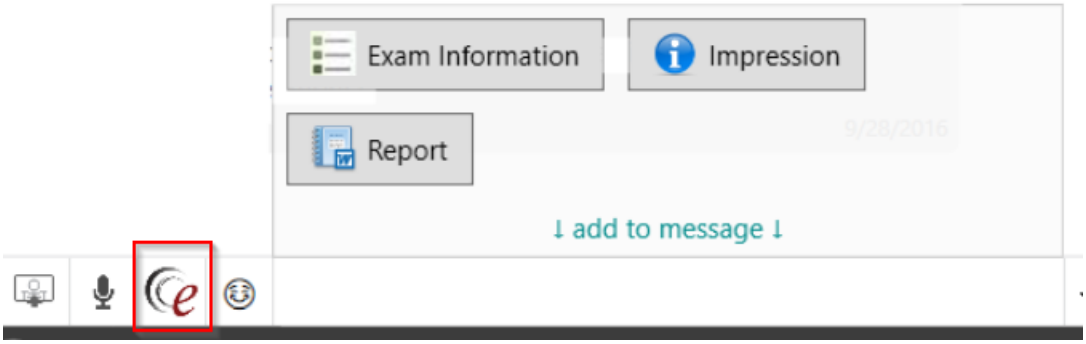



Type a message to the recipient in the messaging pop-up window:




Pressing the button to the left of the text entry area will activate a panel to display additional input buttons.

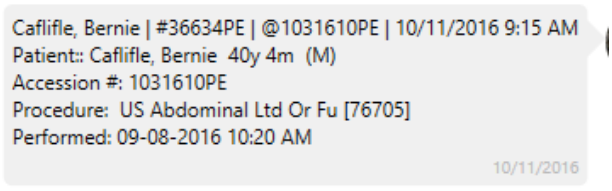
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.




Exam Information button: Adds exam summary from current study in dictation/reporting screen to the Nudge message.

The text automatically includes:

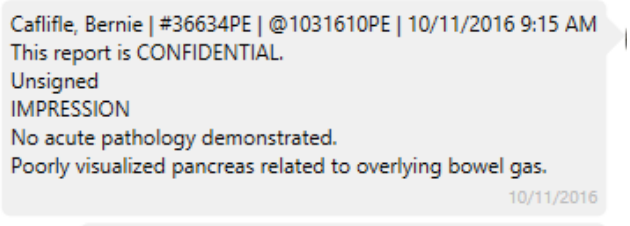
- Exam summary header: last name, first name | #patient id | @accession number | date time (when text was generated).
- Exam summary: patient name, age, accession, procedure, and when procedure was performed.




Impression button: Adds the Impression section of the report from the current study in dictation/reporting screen to the Nudge message, if available.

The text added includes:

- Exam summary header: last name, first name | #patient id | @accession number | date time (when text was generated).
- Disclaimer text. (See the "How to enable this feature" section for instructions on modifying the disclaimer.)
- Report signature status: either "Unsigned" or "Signed by [name] on [date, time]"
- Impression text from report in plain text format.

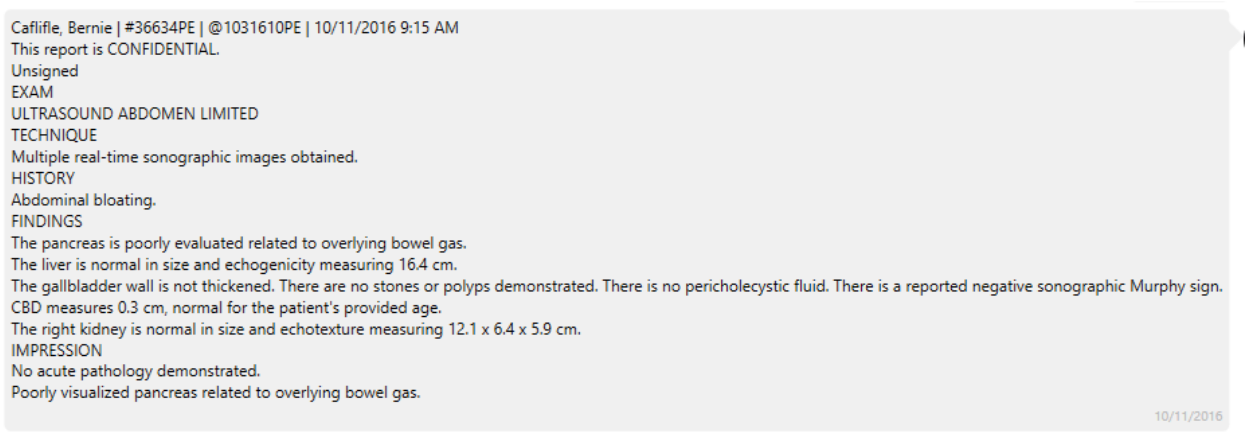



No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

Report button: Adds the report text from current study in dictation/reporting screen to the Nudge message, if available.

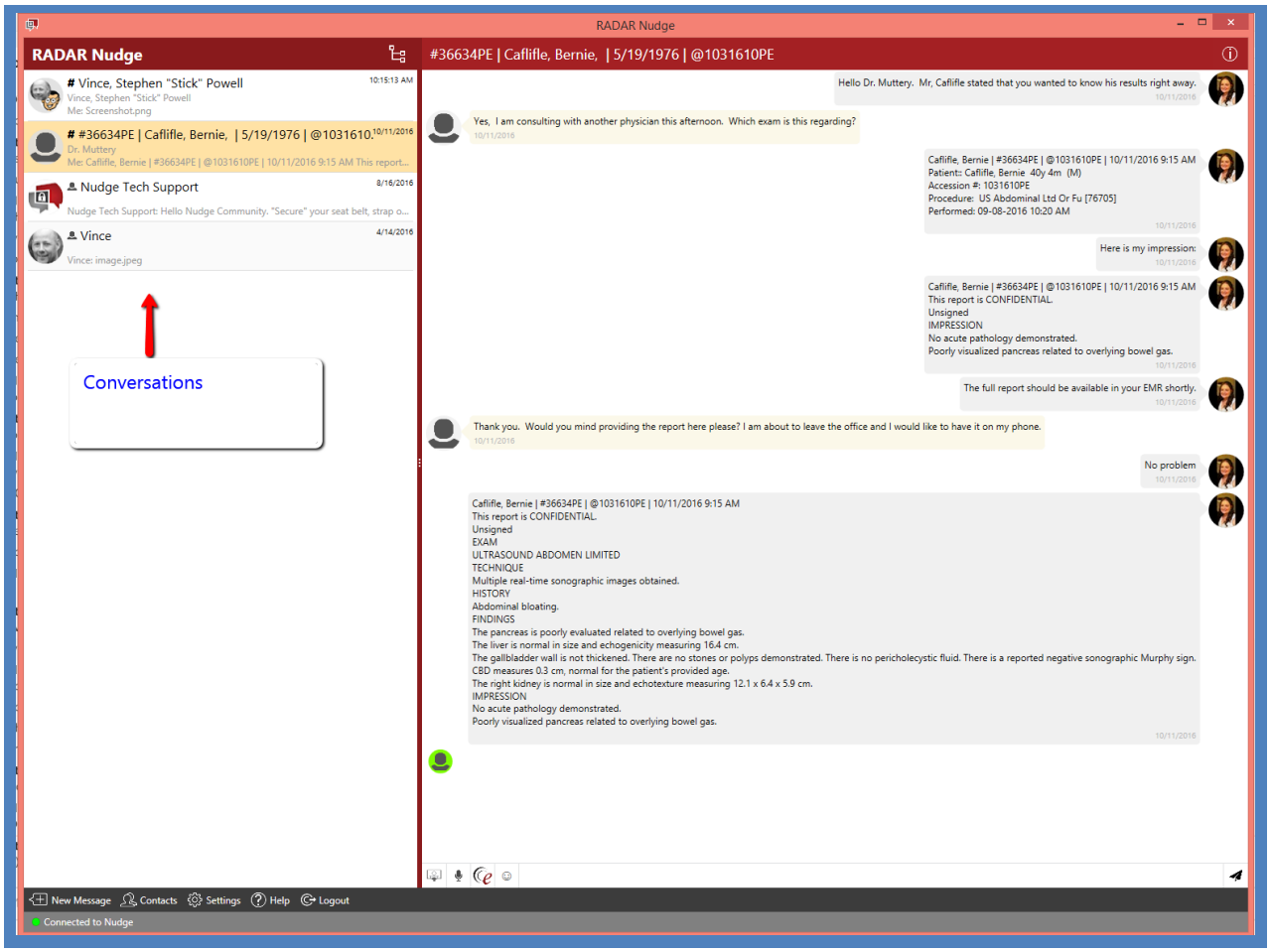
The text added includes:

- Exam summary header: last name, first name | #patient id | @accession number | date time (when text was generated).
- Disclaimer text. (See the "How to enable this feature" section for instructions on modifying the disclaimer.)
- Report signature status: either "Unsigned" or "Signed by [name] on [date, time]"
- Report text in plain text format.




After the initial message is initiated from RIS, the radiologist can continue the conversation in the separate Nudge window. It is possible to have multiple conversations regarding different patients at once. They can be managed from the Nudge application as shown below.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.




## How to enable the feature

Please contact eRAD Support if you are interested in RADAR Nudge, or if you are an existing user of the stand-alone RADAR Nudge and would like the integration.

New System Configuration settings are available for the following:

**RADARSecureMessageServer** = (the name of the RADAR server)

Example: ReleaseServer

This will be provided by eRAD Support and is required for RADAR Nudge integration.

**RADARSecureMessagePort** = (port number)

Example: 14093

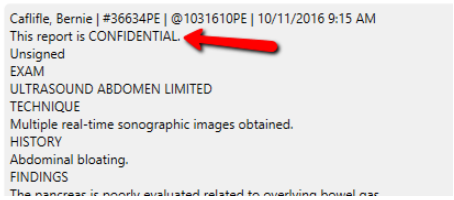
This will be provided by eRAD Support and is required for RADAR Nudge integration.

**RADARSecureMessageReportDisclaimer** = (string to append to the Nudge conversation when the user clicks the 'report' button)

Default: This report is not for treatment purposes.

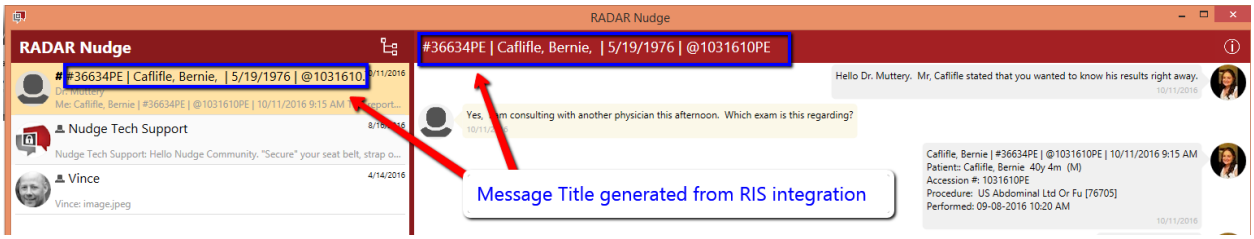
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

| System Config Code | Value | Default | Description |
|---|---|---|---|
| Contains: | Contains: | Contains: tr | Contains: nudge |
| RADARSecureMessageReportDisclaimer | This report is CONFIDENTIAL. | This report is not for treatment purposes. | (value = string) Defines the disclaimer sentence to the report in Nudge integration. |




**RADARSecureMessageTitle** = (configuration parameter for conversation title).

Default: <last_name>, <first_name> | #<patient_id> | @<accession_number>'

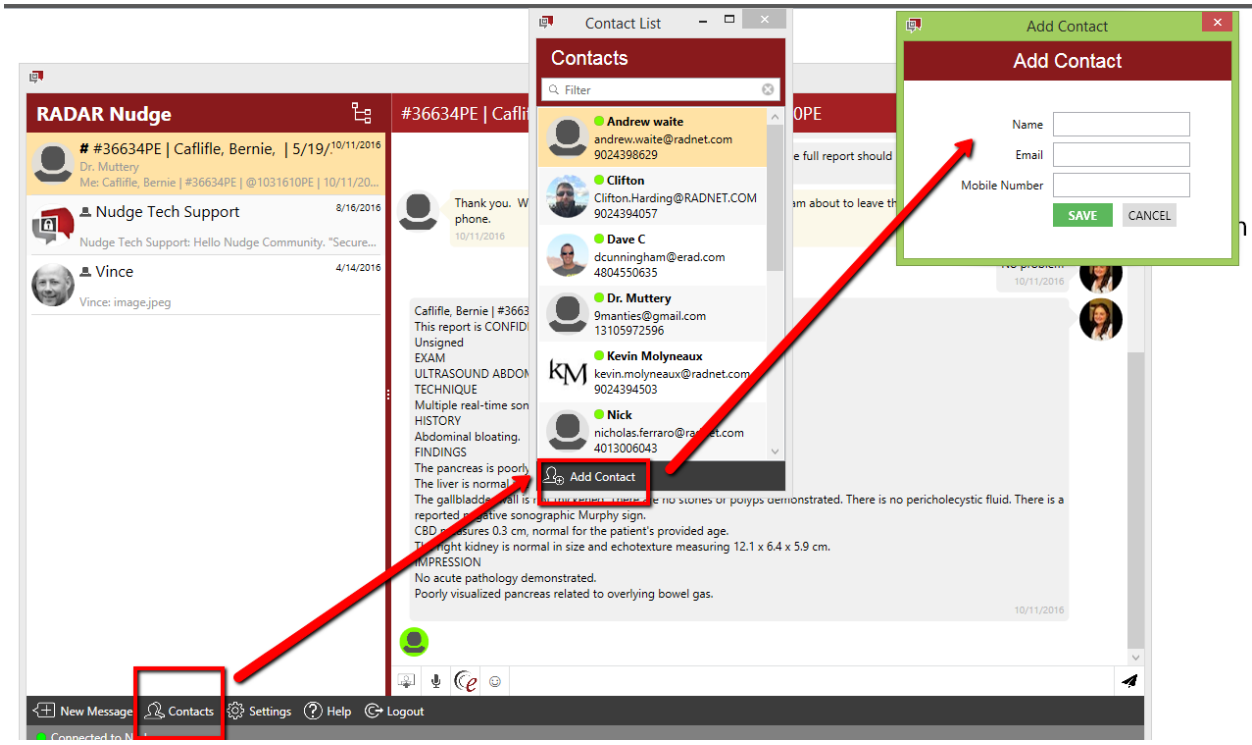



## How to configure a User to use Nudge integration

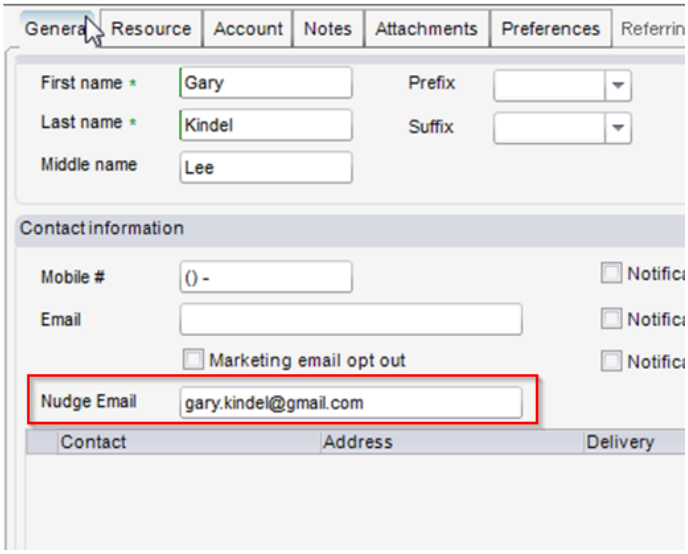
In order to take advantage of RADAR Nudge, referring physicians, as well as internal users such as radiologists, will need to be registered for a RADAR Nudge account and the Nudge client will need to be installed on their workstation.

- Register each user with a RADAR Nudge account. Current Nudge users can send an invitation to join by adding a contact and providing the name and email or mobile number.
  - https://messaging.myradarconnect.com/registration

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.




- Install the RADAR Nudge Client on the appropriate workstations.
  - https://messaging.myradarconnect.com/
- Configure the Nudge email in eRAD RIS's Personnel manager:




- Set the access string to *Clinicial.RADARSecureMessage* to Full for any pertinent User Groups.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

The Nudge button at the bottom of the screen should be visible when:

- Current eRAD RIS user has a Nudge email address configured in Personnel editor.
  *and*
- User has access string *Clinicial.RADARSecureMessage* set to Full.

The Nudge icon in the Summary tool window (beside the person hyperlink) is visible when:

- Current eRAD RIS user has a Nudge email address.
  *and*
- User has access string *Clinicial.RADARSecureMessage* set to Full.
  *and*
- Person related to the hyperlink has a Nudge email configured in Personnel editor.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## RESOLVED DEFECTS

Bugs and support issues resolved in build 2.2016.4.

| Bug # | Category | Subject |
|---|---|---|
| 14346 | Admin-Clinical Data | Cannot add new rows to PrintConfig look-up table |
| 3066 | Admin-Other | When editing the referring address, the close button is almost hidden |
| 6979 | Admin-Other | Unable to save business hour templates to organization site |
| 14198 | Admin-Other | Practice and site logos are deleted on save of look-up table |
| 13818 | Audit History | Audit opening patient folder |
| 13902 | Billing | Imagine Payment Portal - Mapping issue with DataSet ID |
| 13927 | Billing | Studies that fail to post to billing still get the 'coding submitted date' populated |
| 14203 | Build | Missing DLL error when converting HTML to a PDF |
| 13313 | CD Import | NullReference error during CD Import |
| 13806 | CD Import | Making a site inactive will not make it disappear from the CD Import list |
| 6767 | Dark Mode/Theming | Dark mode - Buttons seem to have 2 disabled states |
| 13445 | DB | c_audit (transaction history) query for user id and date is slow |
| 13446 | DB | SQL Assessment - duplicate indexes |
| 13590 | DB | Inbox messages work list stored procedure always has 0 rows retrieved |
| 13936 | DB | Database triggers should check to see if data has changed before firing its logic |
| 13973 | DB | Trigger [c_order_set_unknown_carrier_flag] could be setting the _unknown_carrier_flag incorrectly due to multiple carriers being returned by the trigger's query |
| 14032 | DB | IVT WL doesn’t update Carrier column when carrier is removed |
| 13023 | DB Upgrade scripts | Some configuration settings are not populating default values in an upgrade or new install |
| 13786 | Digital Forms | When creating rule sets in Digital Forms, the Action defaults to Hide Page 1 |
| 13920 | Digital Forms | Script error on Digital Forms with autotext boxes when IE 8 is used |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

| | | |
|---|---|---|
| 13735 | IVT / Precert | IVT items stay on work list if there is a failed eligibility response and then the carrier's eligibility-payer-id is removed |
| 13993 | IVT / Precert | When a Billing code's precert status is changed to Required via ViewEdit, the item does not fall to the IVT WL or update the IVT flags |
| 13612 | Meaningful Use | Direct Message - 'problems importing patient information' message should include more information |
| 13614 | Meaningful Use | Exporting a C-CDA file and running it through the XDS toolkit should not produce any errors |
| 14004 | Outside Read | Outside read with exception is possible after study deletion |
| 13312 | PACS (eRAD) Integration | NullReference error in PACSFormHelper |
| 14169 | Patient Merge | Patient merge - preferred order of phone and email now associated with source patient |
| 13861 | Radiology Peer Review | Peer review button should not be available on the 'All peer review pending action WL' -> Peer review window. |
| 5188 | Radiology Reporting | "Delete previous list" and "delete next list" no longer supported M*Modal commands |
| 11521 | Radiology Reporting | Template editor - Assignments - Modality type, Procedures or Users Windows - Hitting the Cancel button actually saves the changes |
| 13301 | Radiology Reporting | Object reference error in Transcription/Editor screen |
| 13805 | Scanning | Scanned document association - patient level attachment changed to order level remains associated with other studies |
| 6722 | Scheduling | Site Group feature - fails to include Site Group in list in some cases |
| 14018 | Scheduling | Auto-fill of first name and last name for responsible party not working if Self is chosen and previous data present |
| 13839 | Service Tools - Installer | The db installation / upgrade program logs the user id and pw in plain text |
| 13843 | Service Tools - Installer | RIS DB Installer - Error when installing MU Data |
| 6196 | Thick Client GUI | Tech Status Change is not applied if the front desk has the study open |
| 13988 | Thick Client GUI | RIS marks some rows as "Modified" even when there are no changes |
| 14035 | Thick Client GUI | Out of Memory exception |
| 13745 | User Views | Order # column not visible with existing my views |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

| | | |
|---|---|---|
| 11956 | Patient Search | Combining an alternate first name and regular last name is not returning the expected search results |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## KNOWN LIMITATIONS

The following are new bugs found in build 2.2016.4. Bugs reported in previous versions are not captured as Known Limitations in this document.

| # | Category | Subject |
|---|---|---|
| 14153 | Digital Forms | When trying to delete a digital form question that already has saved answers, the displayed error message is missing clarifying text. |
| 14170 | Reception | When text already exists in responsible party but the relation is changed, the text remains the same (the only time change occurs is when self is the option and then name and family name changes). |
| 14201 | Patient Merge | Patient Merge preferred order phone number and email buttons are enabled and will raise an exception. |
| 14222 | Service Tools | The Edit window displays an error if tabs are closed. |
| 14239 | Forms | The Last Updated field is not updating in the Printing Criteria Grid. |
| 14295 | Meaningful Use | Exporting a C-CDA file and running it through the XDS toolkit produces errors related to Implant. |
| 14296 | Meaningful Use | Exporting a C-CDA file and running it through the XDS toolkit produces ethnic group errors if Ethnicity = Unknown. |
| 14312 | Scanning | Windows 10 – “Photos” application not compatible with "Print to eRAD RIS" feature. |
| 14313 | CD Import | Exception error logged when importing files from CD. |
| 14321 | CD Import | Loading From CD progress bar cut off in Windows 10. |
| 14356 | Outside Read | When creating an outside read, there is no validation on Exam Date. |
| 14406 | Citrix Bridge | When using RIS over Citrix, if RIS locks up unexpectedly, the user cannot terminate the session and gets an error instead. |
| 14416 | Radiology Reporting | QA Workflow - Send for Dictation and Close moves study to Report Drafted status. |
| 14419 | Image request | Image request window displays intermittent errors. |
| 14424 | Insurance Eligibility | Cannot remove eligibility override unless carrier is removed from "in use." |
| 14426 | Service Tools - Installer | Current core install issues - Windows 10. |
| 14429 | UI Look and feel | The log control Autotext inserts text after manually entered text even though the cursor was in front. |
| 14487 | Radar - Nudge | Nudge Impression and Report button do not work with PS360. |

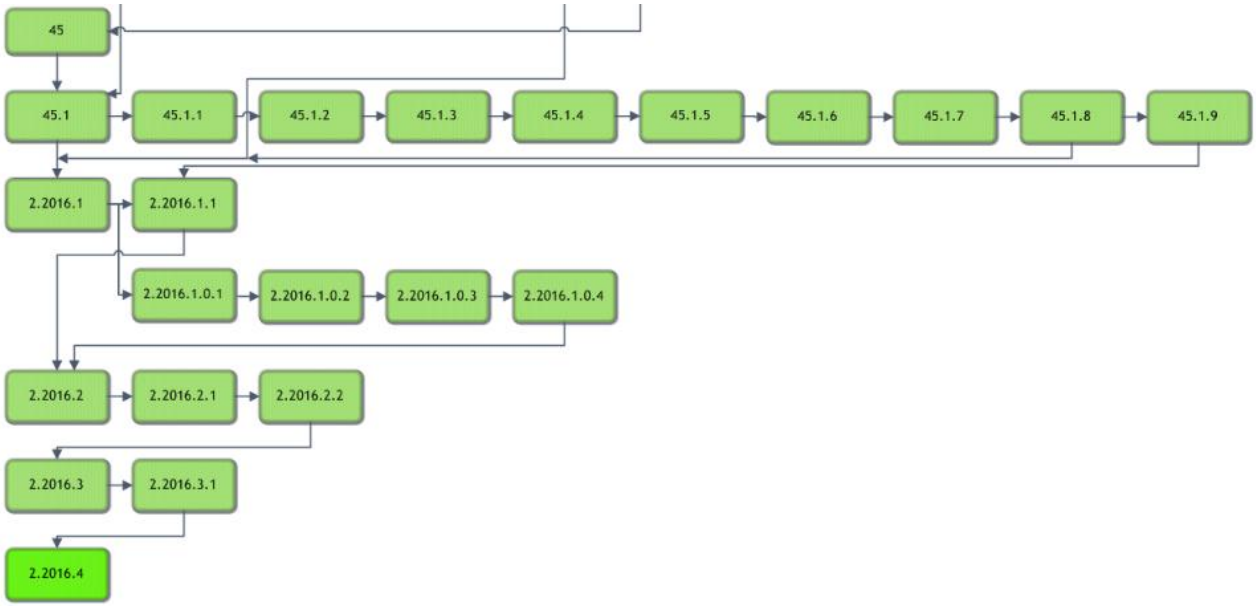
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## RIS RELEASE VERSION NUMBERS

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Digital Forms | Notes |
|---|---|---|---|---|---|---|---|
| 2016.1 | - | 2.16.1.0.33419 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | | GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge |
| 2016.1 | 1 | 2.16.1.1.33672 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | | GUI.zip |
| 2016.1 | .0.1 | 2.16.1.0.1 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | | GUI.zip (This is not included in 2016.1.1, version directly above) |
| 2016.1 | .0.2 | 2.16.1.0.1 (3GB) | 2.16.1.0.33079 | 2.16.1.0.2 | 2.16.1.0.33416 | | Wedge Web Services only |
| 2016.1 | .0.3 | 2.16.1.0.3 (3GB) | 2.16.1.0.33079 | 2.16.1.0.3 | 2.16.1.0.3.00128918 | | GUI.zip, Web Services and DB |
| 2016.1 | .0.4 | 2.16.1.0.4 (3GB) | 2.16.1.0.33079 | 2.16.1.0.4 | 2.16.1.0.3.00128918 | | GUI.zip, Web Services |
| 2016.2 | - | 2.16.2.0 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.0.00172540 | | Full Version Release - GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge |
| 2016.2 | 1 | 2.16.2.1 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.0.00172540 | | GUI.zip and Citrix Bridge |
| 2016.2 | 2 | 2.16.2.2 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.2.00243102 | | GUI.zip, DB and Citrix Bridge |
| 2016.3 | - | 2.16.3.0 (3GB) | 2.16.3.0 | 2.16.3.0 | 2.16.3.0.00257101 | 2.16.3.0 | Full Version Release |
| 2016.3 | 1 | 2.16.3.1 | 2.16.3.0 | 2.16.3.1 | 2.16.3.1.00298834 | 2.16.3.0 | GUI.zip, Web Service and DB |
| 2016.4 | - | 2.16.4.0 | 2.16.4.0 | 2.16.4.0 | 2.16.4.0.00301943 | 2.16.4.0 | Full Version Release |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## CODE STREAM DIAGRAM




No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

# Customer Release Notes

for eRAD RIS

Version 2

Build 2016.5

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## TABLE OF CONTENTS

Table of Contents ..... 2
Purpose ..... 3
Intended Audience ..... 3
New Settings ..... 4
New access strings ..... 4
New system configuration settings ..... 5
New Features ..... 6
PowerScribe Integration ..... 6
Feature #13721 – Prompt the radiologist to discard or save when closing a draft after using interrupt workflow ..... 6
General Worklist enhancements ..... 7
Feature #14138 – Add Attachments more efficiently from the All Problem work list ..... 7
Feature #7125 – View patient's preferred language from Orders to Schedule, Reception, and Technologist work lists ..... 8
Feature #7500 – View whether a patient has an Amount to Collect from the Reception and Confirmation work lists ..... 9
RIS Administration ..... 10
Feature #14150 – New Access String designed to prevent User Groups created for the upcoming Provider Portal from logging into the RIS client ..... 10
Resolved Defects ..... 11
Known Limitations ..... 13
RIS Release Version Numbers ..... 14
Code Stream Diagram ..... 15

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## PURPOSE

This is the Customer Release Notes document for eRAD RIS Version 2.2016.5.

Not every feature will be described in this document. Typically, only features which can be visually demonstrated are outlined here.

## INTENDED AUDIENCE

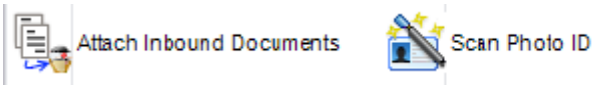
The intended audience for this document is the RIS Administration team for eRAD RIS customers.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## NEW SETTINGS

In 2016.5, development was initiated for some feature sets that will be available in the next version of eRAD RIS. The following settings are related to this functionality. Please leave the default settings at this time; more information regarding these features will be available for your next upgrade.

Note that there are two new menu items that will only be visible to full RIS Administrators. These menu items are for functionality that will be available in the next eRAD RIS upgrade.




## NEW ACCESS STRINGS

| Setting | Default | Purpose |
|---|---|---|
| Clinical.ACRSelect | None | This will allow access to use the ACR Select functionality for the upcoming Utilization Management workflow. |
| Clinical.AttachInboundDocuments | None | Access to the Attach Inbound Documents screen. |
| Clinical.AttachInboundDocuments.BreakLock | None | Access to Break Lock functionality on the Attach Inbound Documents screen. |
| Config.LookupEditor.DocumentDeleteReason | None | Look-up table access for Document Delete Reason (options displayed to user when deleting a document from the Inbound Documents workflow). |
| Config.LookupEditor.ReportingOption | None | Access to look-up table for Reporting Options. |
| RIS.WindowsClient.Login | Full | Allows access to the RIS Windows client application. |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## NEW SYSTEM CONFIGURATION SETTINGS

| Setting | Default | Purpose |
|---|---|---|
| ACRSelectToken | | (value = string) Token for ACR Select to identify which site is contacting them. |
| ACRSelectURL | | (value = string) URL for ACR Select site. |
| REMOVED LimitOpenReportingWithPowerScribeCount | | |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

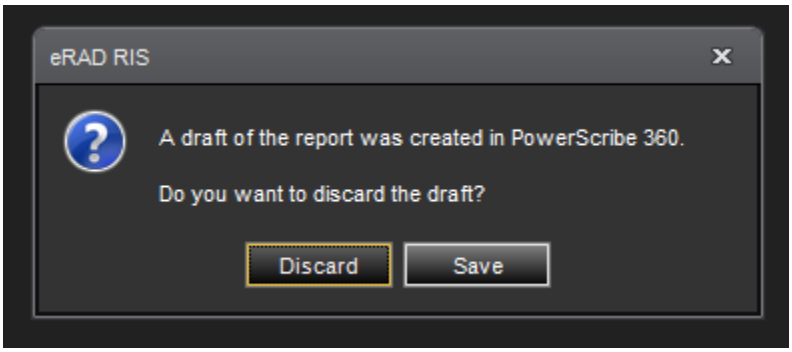
# NEW FEATURES

## POWERSCRIBE INTEGRATION

### FEATURE #13721 – PROMPT THE RADIOLOGIST TO DISCARD OR SAVE WHEN CLOSING A DRAFT AFTER USING INTERRUPT WORKFLOW

When dictating with PowerScribe 360, opening a new report or otherwise switching to a different report tab (also known as the interrupt workflow) will automatically create a draft in PowerScribe 360 so that the radiologist can resume the draft after clicking back to that tab in RIS. If nothing has been changed on the first report and the tab is eventually closed without any changes, the draft in PowerScribe 360 is unnecessary as no changes were made to the report.

To decrease the number of unwanted PowerScribe 360 drafts, RIS will now present a prompt to save or discard drafts that are created in this fashion.




The prompt will only occur if the draft was forced when the radiologist switched report tabs *and* the radiologist closes the report tab in RIS without taking another action on the report in PowerScribe.

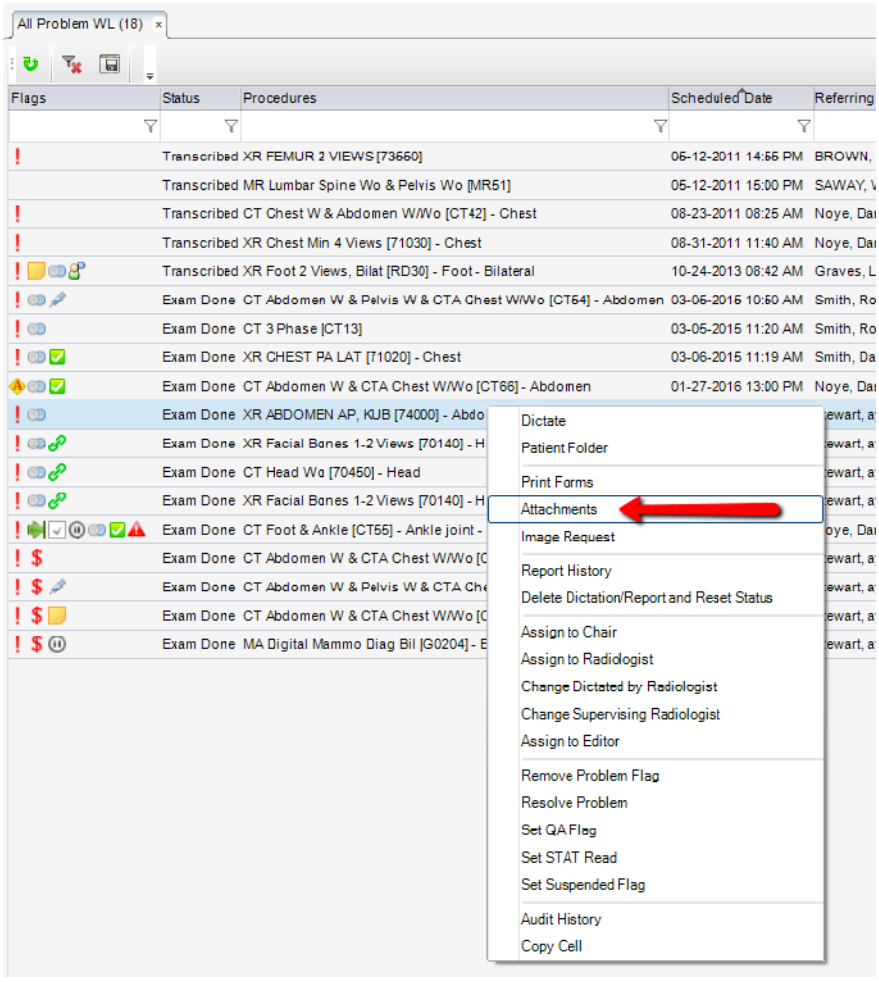
Please note that if the report is closed from PowerScribe 360, then the prompt will not display in RIS.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## GENERAL WORKLIST ENHANCEMENTS

### FEATURE #14138 – ADD ATTACHMENTS MORE EFFICIENTLY FROM THE ALL PROBLEM WORK LIST

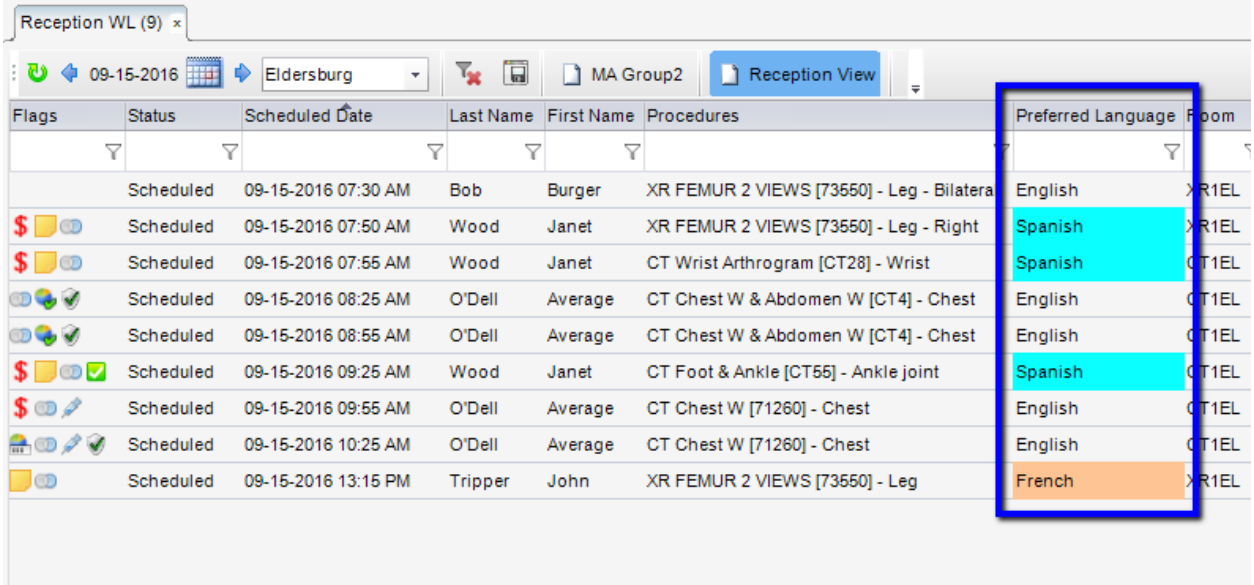
Radiologists often add a study to the Problem WL because a scanned document, such as a technologist worksheet, is either missing from the Attachments or is incomplete and requires additional information. In those cases, users working the Problem WL often need to scan new documents. Therefore, it is now possible to open the Attachments screen directly from the All Problem work list by right-clicking on a study and choosing the Attachments option from the context menu.




No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #7125 – VIEW PATIENT'S PREFERRED LANGUAGE FROM ORDERS TO SCHEDULE, RECEPTION, AND TECHNOLOGIST WORK LISTS

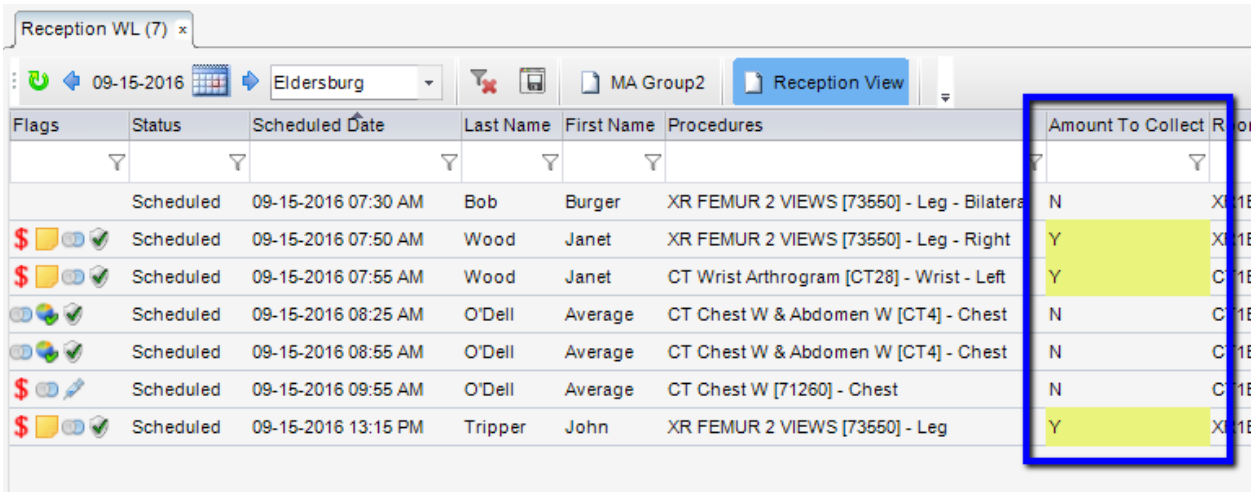
Users often find it helpful to know a patient's preferred language while viewing a work list. Filtering, sorting, or creating Custom Views to highlight specific languages makes it easy to match up a patient with the staff member who speaks the preferred language, or calls attention to a potential need for an interpreter service. For these reasons, a column to display the patient's preferred language is now available on the Orders to Schedule, Reception, and Technologist work lists.




No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #7500 – VIEW WHETHER A PATIENT HAS AN AMOUNT TO COLLECT FROM THE RECEPTION AND CONFIRMATION WORK LISTS

When viewing the Confirmation or Reception work lists, it can be helpful to see whether or not there is an amount listed in Amount to Collect. This allows staff to more quickly identify whether payment needs to be collected. A new column titled *Amount to Collect* will simply display a Y or N to indicate if there is an amount listed in the Amount to Collect field. Y will show for Yes when there is a value. N will display for No when there is no value or the value is $0.00. Conditional formatting can be applied to draw attention to patients who need to make a payment. Please note that the column will only indicate that there is a value in the Amount to Collect field; it does not update when a payment has been made.




No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## RIS ADMINISTRATION

### FEATURE #14150 – NEW ACCESS STRING DESIGNED TO PREVENT USER GROUPS CREATED FOR THE UPCOMING PROVIDER PORTAL FROM LOGGING INTO THE RIS CLIENT

In the near future, eRAD RIS will release the fully integrated referring portal. To ensure the referring users will only be allowed to access the portal and not the main RIS application, a new access string has been created. The new access string is: *RIS.WindowsClient.Login*

If a regular RIS user does not have FULL permission for this access string, they will be unable to login to the RIS Windows Client and will receive the following error message:

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## RESOLVED DEFECTS

Bugs and support issues resolved in build 2.2016.5.

| Bug # | Category | Subject |
|---|---|---|
| 8211 | Admin-Other | Log file reader displayed a decryption error despite accurately decrypting logs. |
| 14079 | Admin-Other | Certain keys acting as shortcuts in the Organization table were removed. |
| 14375 | Admin-Rooms | Closed Rooms Reschedule WL showed exams scheduled outside of a room closure under certain conditions. |
| 14292 | Digital Forms | Warning for blank required fields in Digital Form did not display properly. |
| 14195 | eRAD Service Tools | Standard look-up table editors and custom editors that have a code column as unique identifier had potential to have child table rows moved from existing parent row to newly created row. |
| 14005 | IVT / PreCert | Insurance verification was not resetting appropriately after carrier was changed under certain conditions. |
| 14236 | IVT / PreCert | PreCert status updates were reverting back to previous status if an insurance carrier was added from the IVT screen. |
| 13859 | Legacy Reports | When using the PDF viewer for legacy reports, the window is cleared but not closed when the viewer is opened for a second patient. |
| 14041 | Localization | Payments could not be recorded in currencies other than dollars or shekels. |
| 2262 | PACS (eRAD) Int - RIS only | When a technologist clicked View Images, there was no indication that the request was being processed. |
| 6538 | Powerscribe Integration | The User Group setting for maximum number of open PowerScribe dictation tabs was overridden by the System Configuration setting. |
| 14271 | Powerscribe Integration | PowerScribe dictation screen sometimes closes when opening/viewing another PowerScribe 360 report after modifying the first. |
| 14207 | Radar - Nudge | Impression input button in RADAR Nudge was not including impression text in the Nudge message if report mode was eRAD or PS360. |
| 3681 | Radiology Reporting | Interactive Info Prompt sizing issue for M*Modal reporting. |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

| | | |
|---|---|---|
| 13501 | Radiology Reporting | When reporting mode is PS360, clicking Dictate on a signed report that was created using eRAD or M*Modal reporting would issue a PowerScribe prompt to create a temporary order, instead of RIS prompting the user to choose to dictate an addendum or open in Read Only. |
| 13510 | Radiology Reporting | Restored the ability to multi-select exams in the Patient Folder and Assign to Radiologist. |
| 13515 | Radiology Reporting | Report history was showing addendum in the version view. |
| 13782 | Radiology Reporting | eRAD Reporting mode was formatting text as a field when immediately outside the field. |
| 13820 | Radiology Reporting | "Specified cast is not valid" error was occurring when signing in next workflow. |
| 14094 | Radiology Reporting | "Object reference" error was occurring in Edit Templates and Macros from Radiologist menu. |
| 14140 | Radiology Reporting | If a referring was also a surgeon, the referring name did not display in the radiologist's summary window. |
| 14158 | Radiology Reporting | In Exam Details in the reporting screen, "Assisting Tech 2" was displayed instead of "Assisting Tech 1." |
| 14402 | Radiology Reporting | Opening the report data nugget was not possible when the interpretation type was null. |
| 13837 | Scanning | Order level Scan Types could not be assigned in Attachment viewer. |
| 14081 | Scanning | Imported or scanned attachments could not be saved from the Image Request WL. |
| 10721 | Scheduling | Multiple consecutive availability template time blocks were not treated as one merged block. |
| 11978 | Scheduling | When force scheduling from the appointment book, any procedure could be scheduled in any room. |
| 13810 | Scheduling | Cancelling an order twice would result in a blank procedure field when scheduling it again. |
| 14214 | Scheduling | Studies could continue to be added to the same order by canceling and rescheduling with the original canceled study repeatedly, instead of using the most recent canceled exam. |
| 14361 | Scheduling | Studies were incorrectly remaining on the Labwork Advised Work List when the "Skip Labwork Advised WL" checkbox was checked. |
| 14635 | Technologist | Object reference error was occurring for some EMR exams when starting or completing exam. |
| | | |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## KNOWN LIMITATIONS

The following are new bugs found in build 2.2016.5. Bugs reported in previous versions are not captured as Known Limitation in this document.

| # | Subject |
|---|---|
| 14754 | Report history audio control is shared between tabs. |
| 14504 | Exams are not getting locked at Started status. |
| 14520 | Fields are overwritten when inserting macros containing fields. |
| 14533 | Using PowerScribe 360, RIS can crash under certain conditions when using skip and continue and ignoring PS prompt. |
| 14622 | Template/Macro look-up editor's grid becomes un-editable if editing a row before saving previous changes in the grid. |
| 14636 | When viewing images in IW PACS from the Patient Folder and switching to another tab, images are not redisplayed after switching back to the Patient Folder. |
| 14645 | The Register option should not be available for unscheduled Reminder – Callback exams. An error will occur if the option is selected. (Using the Reminder from the Existing Orders prompt when doing a new Walk In functions appropriately.) |
| 14646 | PACS Integration – when switching between multiple open dictations with priors manually appended to the PACS Viewer, some of the manually added priors do not stay in the viewer when returning to the tab. |
| 14723 | Mark as Read - creates an interpretation row if marked as read from within dictation window, but does not create a row if marked as read from context menu. |
| 14676 | Scanning and Attachments – When changing the scan type on a previously saved attachment using the "Classify Remaining As..." option, the scan type will change but the document level may not automatically change. |
| 14696 | MFN Update for Personnel only updates based on person_key. |
| 14794 | Patient Merge does not mark as duplicate if a reverse merge is suggested for the same two patient accounts. |
| 14528 | RADAR Nudge causes a Windows error when Cancel is selected at Nudge login. |
| 14498 | Print to eRAD RIS - Output directory only cleans up print jobs/images when RIS is running. |
| 14617 | When editing an unknown Referrer via the Unknown Reconciliation WL and then changing to a known Referrer, a message prompt is asking for the unknown referring's address. |
| 14624 | Temporary issue displaying Patient Folder information on tab title after selecting a previous Personnel merge from the Recent Actions list. |
| 14657 | Manually changing an exam to Report Drafted should not be allowed. |
| 14729 | When using the "Chair Selector" hotkey (F12) while a context menu is open, RIS will crash. |
| 14225 | Legacy report does not properly support .docx files. |
| 14241 | Report data nugget immediately closes when viewing a legacy PDF report a second time. |
| 14482 | Ctrl + S shortcut does not behave as expected in several look-up editors. |
| 14590 | Error in message resolver when Condition Code is invalid. |
| 14627 | When importing an electronic order to an existing eRAD RIS order that has a cancelled procedure, the electronic order will not display as Order Canceled in the Patient Folder. |

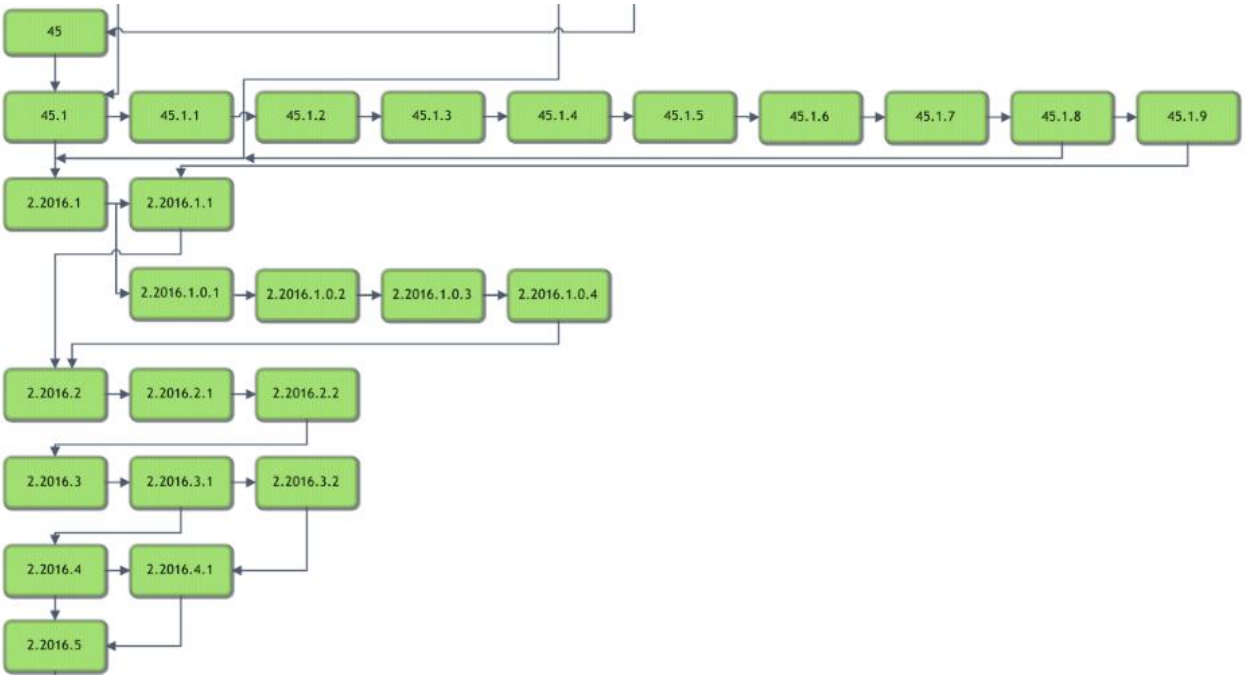
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## RIS RELEASE VERSION NUMBERS

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Digital Forms | Notes |
|---|---|---|---|---|---|---|---|
| 2016.1 | - | 2.16.1.0.33419 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | | GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge |
| 2016.1 | 1 | 2.16.1.1.33672 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | | GUI.zip |
| 2016.1 | .0.1 | 2.16.1.0.1 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | | GUI.zip (This is not included in 2016.1.1, version directly above) |
| 2016.1 | .0.2 | 2.16.1.0.1 (3GB) | 2.16.1.0.33079 | 2.16.1.0.2 | 2.16.1.0.33416 | | Wedge Web Services only |
| 2016.1 | .0.3 | 2.16.1.0.3 (3GB) | 2.16.1.0.33079 | 2.16.1.0.3 | 2.16.1.0.3.00128918 | | GUI.zip, Web Services and DB |
| 2016.1 | .0.4 | 2.16.1.0.4 (3GB) | 2.16.1.0.33079 | 2.16.1.0.4 | 2.16.1.0.3.00128918 | | GUI.zip, Web Services |
| 2016.2 | - | 2.16.2.0 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.0.00172540 | | Full Version Release - GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge |
| 2016.2 | 1 | 2.16.2.1 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.0.00172540 | | GUI.zip and Citrix Bridge |
| 2016.2 | 2 | 2.16.2.2 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.2.00243102 | | GUI.zip, DB and Citrix Bridge |
| 2016.3 | - | 2.16.3.0 (3GB) | 2.16.3.0 | 2.16.3.0 | 2.16.3.0.00257101 | 2.16.3.0 | Full Version Release |
| 2016.3 | 1 | 2.16.3.1 | 2.16.3.0 | 2.16.3.1 | 2.16.3.1.00298834 | 2.16.3.0 | GUI.zip, Web Service and DB |
| 2016.4 | - | 2.16.4.0 | 2.16.4.0 | 2.16.4.0 | 2.16.4.0.00301943 | 2.16.4.0 | Full Version Release |
| 2016.5 | - | 2.16.5.0 | 2.16.5.0 | 2.16.5.0 | 2.16.5.0.00349303 | 2.16.5.0 | Full Version Release |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## CODE STREAM DIAGRAM




No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

# Customer Release Notes

for eRAD RIS

Version 2

Build 2016.7

(includes features from 2016.6)

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

RadNet Technology Solutions

## TABLE OF CONTENTS


Table of Contents ..... 2
Purpose ..... 4
Intended Audience ..... 4
New Settings ..... 5
New access strings ..... 5
New system configuration settings ..... 7
Web Service Changes ..... **Error! Bookmark not defined.**
New Features ..... 10
Scheduling and Registration ..... 10
Feature #14663 – Ability to replicate an existing order to schedule a new appointment ..... 10
feature #14829 – Display Existing Orders reminder when scheduling from an item already in an Ordered status ..... 11
Feature #7302, 8006 – Use data from driver's license 2D Barcode to optimize reception workflow ..... 12
PreCertification Rules ..... 17
Feature #11048, 14724 – PreCert Rules Editor Redesign: Manage PreCert Groups ..... 17
Insurance Eligibility ..... 23
Feature #14509 – Ability to Override the Total Visit Cost ..... 23
Insurance Management ..... 24
feature #8755 – Employer Direct functionality for special contracts ..... 24
Technologist Workflow ..... 26
Feature #14569 – Display Injection Signed date and time stamp on the Notes/Exam Times tab ..... 26
Feature #14567 – Filter Contrast options by Modality Type ..... 27
Radiologist Workflow ..... 28
Feature #14571 – Active Billing Codes added to the Exam Details panel ..... 28
Feature #14144 – Report Editor, PACS server, and number of priors to load/cache are now configurable for a variety of criteria ..... 29
Feature #8547, 15123 – Redesign of Critical Result Management (Phase 1) ..... 35
Feature #14502, 3723 – Folder structure for collecting cases of interest, teaching files, and other reference needs ..... 40
Feature #14775 – Read Only Reporting screen for radiologists and other staff ..... 43
Feature #10370 – Support for reverse chronological image caching and loading ..... 45
General Worklist Enhancements ..... 46
Feature #14634 – New columns for Reception and Technologist Worklists: Checked In Time and Arrived Time ..... 46
Feature #14541, 14572, 14808 – New columns added to several Radiologist worklists ..... 47
Feature #7091 – IVT option added to context menu on Orders to Schedule WL ..... 48
Feature #14813 – Ability to set the Assistant Radiologist via context menu from Pending Dictation and All Pending Dictation Worklists ..... 49
Document Management: Inbound document process (Inbound Faxing Support) ..... 50
Feature #7395 – Receive and process Inbound Documents (such as faxes) via RIS ..... 50
RADAR Communication ..... 56
Feature #14145 – Integration with RADAR SecurePIC ..... 56
PACS Integration ..... 61
Feature #13720 – Sectra PACS Integration ..... 61



No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

Feature #13256 – INFINITT PACS Viewer Integration ..... 62
RIS Administration ..... 63
Feature #6391 – Grant access to create Room Closures or Restrictions on a per Practice basis ..... 63
Feature #14458 – Restrict access to enable/disable Domain Authentication ..... 64
Patient Management ..... 65
Feature #14818 – Control which screens display Patient Flag Alerts ..... 65
Feature #13812 – Support for PIX / PDQ ..... 67
Miscellaneous User Experience ..... 68
Feature #14341 – Ability to copy from MRN grid ..... 68
Feature #13909 – Enable Billing Notes field when an insurance carrier is selected ..... 68
Resolved Defects - 2.2016.6 ..... 69
Resolved Defects - 2.2016.7 ..... 72
Known Limitations - 2.2016.6 ..... 74
Known Limitations - 2.2016.7 ..... 75
RIS Release Version Numbers ..... 77
Code Stream Diagram ..... 78

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## PURPOSE

This is the Customer Release Notes document for eRAD RIS Version 2.2016.7. It includes features for 2.2016.7 and 2.2016.6.

Not every feature will be described in this document. Typically, only features which can be visually demonstrated are outlined here.

## INTENDED AUDIENCE

This document was created by the eRAD RIS Development team and Product Management team for eRAD RIS customers.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## NEW SETTINGS

Please see accompanying document for Utilization Management settings.

### NEW ACCESS STRINGS

| Setting | Default | Purpose |
|---|---|---|
| Clinical.ExternalSearch | None | Allows a user to perform an external patient search. |
| Clinical.PIXQuery | None | Allows a user to perform an identifier query. |
| Config.LookupEditor.PIXPDQServers | None | Controls access to the look-up table PIXPDQServers. |
| Clinical.ScheduleFrom | None | Controls access to the "Schedule From" menu item for scheduling a new exam using information from the selected row on the Patient Folder. |
| Clinical.Visit.Cost.Override | None | Allows a user to override the total visit cost. |
| Config.LookupEditor.DocumentType | None | Controls access to the look-up table for Document Type. |
| Config.LookupEditor.EmployerDirect | None | Controls access to the look-up table for Employer Direct. |
| Config.LookupEditor.Personnel.DomainAuthentication | Full | Functionality to enable/disable the ability to change a user's authentication type. |
| WL.Folders | None | Allows access to Folder worklists under the File menu -> Folders option. |
| Config.LookupEditor.Modality.ViewAllPractices | None | Allows a user of the modality editor to see/edit all rooms across all practices. |
| ~~Config.LookupEditor.Modality.PracticeSpecific~~ | N/A | Removed from the application. Replaced with Config.LookupEditor.Modality.ViewAllPractices. |
| ~~Config.LookupEditor.Modality.ViewAll~~ | N/A | Removed from the application. |

| | | |
|---|---|---|
| WL.CriticalResults | None | Allows access to the All Critical Results WL via the Administration menu. |
| WL.Rad.MyCriticalResults | Full | Allows access to the (My) Critical Results WL. |
| WL.Rad.CriticalResults<br>Replaced with<br>WL.Rad.CriticalResultsAll | None | Allows access to the All Critical Results WL via the Radiologist menu. |
| Config.LookupEditor.CTRMCategory | None | Allows access to the look-up table for CTRM Category. |
| clinical.CTRNNotification<br>Replaced with<br>Clinical.CTRMNotification | None | Allows user to add a critical result notification. |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

| | | |
|---|---|---|
| Config.LookupEditor.ContactLogMethod | None | Allows access to the look-up table for Contact Log Method. |
| Clinical.ChangeAssistantRadiologist | None | Allows user to access the Change Assistant Radiologist context menu option. |
| Clinical.RADARSecurePIC | None | Allows user to send a RADAR SecurePIC request. |
| Clinical.ScanDocs.AllowMarkAsReviewed | None | Allows user to modify the Reviewed status of an attachment received via SecurePIC. |
| Clinical.ViewStudy | None | Allows user to open the View Study screen. |
| Config.LookupEditor.ImplantDevice | None | Allows access to the look-up table for Implant Device. |
| Config.LookupEditor.PreCertGroups | None | Allows access to the look-up table for PreCertGroups. |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## NEW SYSTEM CONFIGURATION SETTINGS

| Setting | Default | Purpose |
|---|---|---|
| PIXPDQCurrentServer | | (value = string) The full URL for the Mirth channel handling the PIX and PDQ queries. |
| PIXPDQQueryTimeout | 10 | (value = int) Number of seconds of timeout before RIS considers the request in error. |

| | | |
|---|---|---|
| ~~CTRMEnabled~~ | | This setting has been removed. |
| AttachmentResolutionWhenSizeExceedsMax | 150 | When an attachment page exceeds the 'MaxAttachmentSizeKB' the image will be resized based on this value. |
| EnableRADARInboundMessageProcessing | False | Enables inbound RADAR messages. |
| MaxAttachmentSizeKB | 50 | If an attachment page is larger than this amount in KB, then RIS will resize the resolution of the image based on a 11in high document at the resolution of 'AttachmentResolutionWhenSizeExceedsMax.' |
| RADARInboundMessageClientId | No default | The RADAR account for the RADAR SignalR inbound message channel. |
| RADARInboundMessagePassword | No default | The RADAR account password for the RADAR SignalR inbound message channel. |
| RADARInboundMessageServerUrl | No default | The URL for the RADAR SignalR inbound message channel. |
| RelevanceWeightingFactorBodyPart | 20 | When calculating a relevance score, this is the weight that will be applied to the body part matches (that are not part of the keyword matching). If all relevance weighting factors are set to zero, the relevant scores will only include the date. |
| RelevanceWeightingFactorContrast | 4 | When calculating a relevance score, this is the weight that will be applied to the contrast part of the procedure. If all relevance weighting factors are set to zero, the relevant scores will only include the date. |
| RelevanceWeightingFactorKeywords | 15 | When calculating a relevance score, this is the weight that will be applied to the relevant keyword matches. If all relevance weighting factors are set to zero, the relevant scores will only include the date. |
| RelevanceWeightingFactorLaterality | 50 | When calculating a relevance score, this is the weight that will be applied to the laterality matches. If all relevance weighting factors are set to zero, the relevant scores will only include the date. |
| RelevanceWeightingFactorModality | 8 | When calculating a relevance score, this is the weight that will be applied to the modality type matches. If all |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

| | | |
|---|---|---|
| | | relevance weighting factors are set to zero, the relevant scores will only include the date. |
| RelevanceWeightingFactorOtherWords | 3 | When calculating a relevance score, this is the weight that will be applied to any other words that happen to match. If all relevance weighting factors are set to zero, the relevant scores will only include the date. |
| UseUTF8ForWedgeOutboundEncoder | False | Determine whether the Wedge encodes items using the utf-8 character set or uses the system default (likely Windows-1255). |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## Upgrade to eRAD RIS release, 2016.7, and New Features will allow you to:

→ Read **driver's license barcodes** with a document scanner to launch registration workflow for the appropriate RIS patient.

→ Manage PreCertification Rules in groups instead of individual carriers with a **redesigned PreCertification configuration** framework.

→ Capture **inbound faxes** and other documents in the RIS with worklist-based document routing workflow.

→ Configure options to **automatically launch** the appropriate PACS viewer and reporting mode, plus preferences about how many priors to launch or cache, based on a variety of study criteria.

→ Organize **studies of interest** into a folder structure for future reference—great for teaching files, tumor boards, and more.

→ Initiate a text message to a patient's phone and securely receive a picture message back in the RIS using **RADAR SecurePIC**—particularly helpful to review referrals and insurance cards when scheduling over the phone.

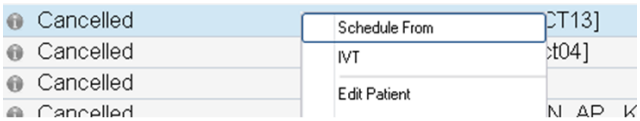
→ Integrate **utilization management** workflow for evaluating appropriate use criteria and medical necessity.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## SCHEDULING AND REGISTRATION

### FEATURE #14663 – ABILITY TO REPLICATE AN EXISTING ORDER TO SCHEDULE A NEW APPOINTMENT

Often a patient needs to schedule a follow-up exam or an annual screening exam that shares all or most of the same information with an exam they have had in the past. In these cases, copying the information from a previous exam can be a time saver: if the referring provider, insurance, special accommodations, reason for exam, etc., are the same as before, the scheduler can more quickly create an appointment for the patient if those items can be copied over. To accomplish this, a new "Schedule From" option is available in the right click menu (context menu) in the Patient Folder.




Selecting this option allows a user to initiate a Scheduling event that copies (clones) all of the data from the selected row (referring and CC doctors, Reason for Exam, insurance information, procedure, etc.). This menu option is available for any study in the Patient Folder, regardless of status. After the exam information is copied to the new order, there is no longer a link between the new order and the original order. The scheduler can make updates to the new order with no impact on the order from which it was initiated.

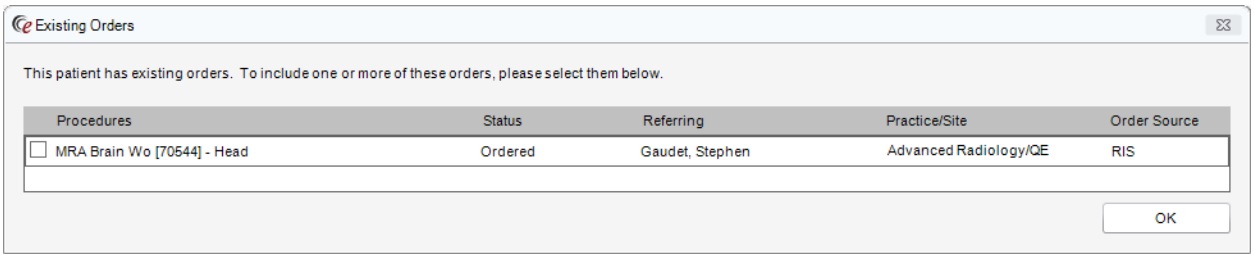
The data from the selected study will be used to load the "Schedule Order" screen. From here, the scheduler can make any necessary changes and either save as an order or proceed to schedule an appointment.

To utilize this feature, a user must belong to a User Group with FULL access to the new access string: *Clinical.ScheduleFrom*.

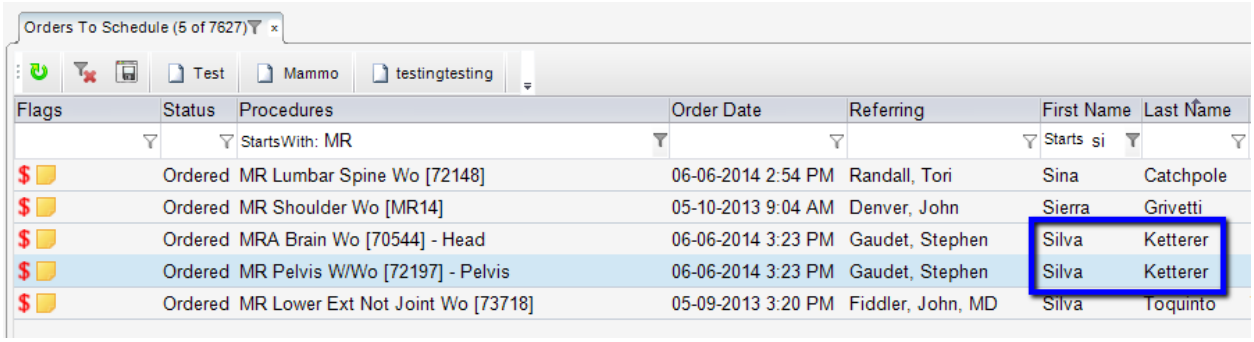
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #14829 – DISPLAY EXISTING ORDERS REMINDER WHEN SCHEDULING FROM AN ITEM ALREADY IN AN ORDERED STATUS

Previously, the Existing Orders reminder only occurred when scheduling a new Order or Walk In. However, even if scheduling from the Patient Folder or the Orders to Schedule worklist, schedulers can sometimes miss that there is more than one Order available. eRAD RIS will now display the Existing Orders reminder when scheduling a *different* existing order.




When opening an Order from the Orders to Schedule WL or Patient Folder, the reminder will display for the scheduler to choose whether or not they would like to also schedule the other order(s).

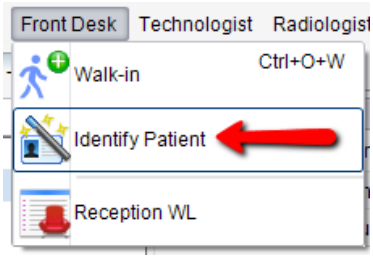



No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #7302, 8006 – USE DATA FROM DRIVER'S LICENSE 2D BARCODE TO OPTIMIZE RECEPTION WORKFLOW

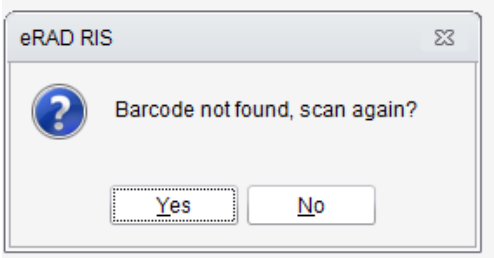
In order to improve the check-in times at the front desk, eRAD RIS will now provide an option to locate a patient by scanning a driver's license and using the image of the 2D barcode on the back of the license to identify and search by key demographics for that license to find likely matches.

To begin, place the patient's driver's license in the scanner and select the *Identify Patient* option under the Front Desk menu.



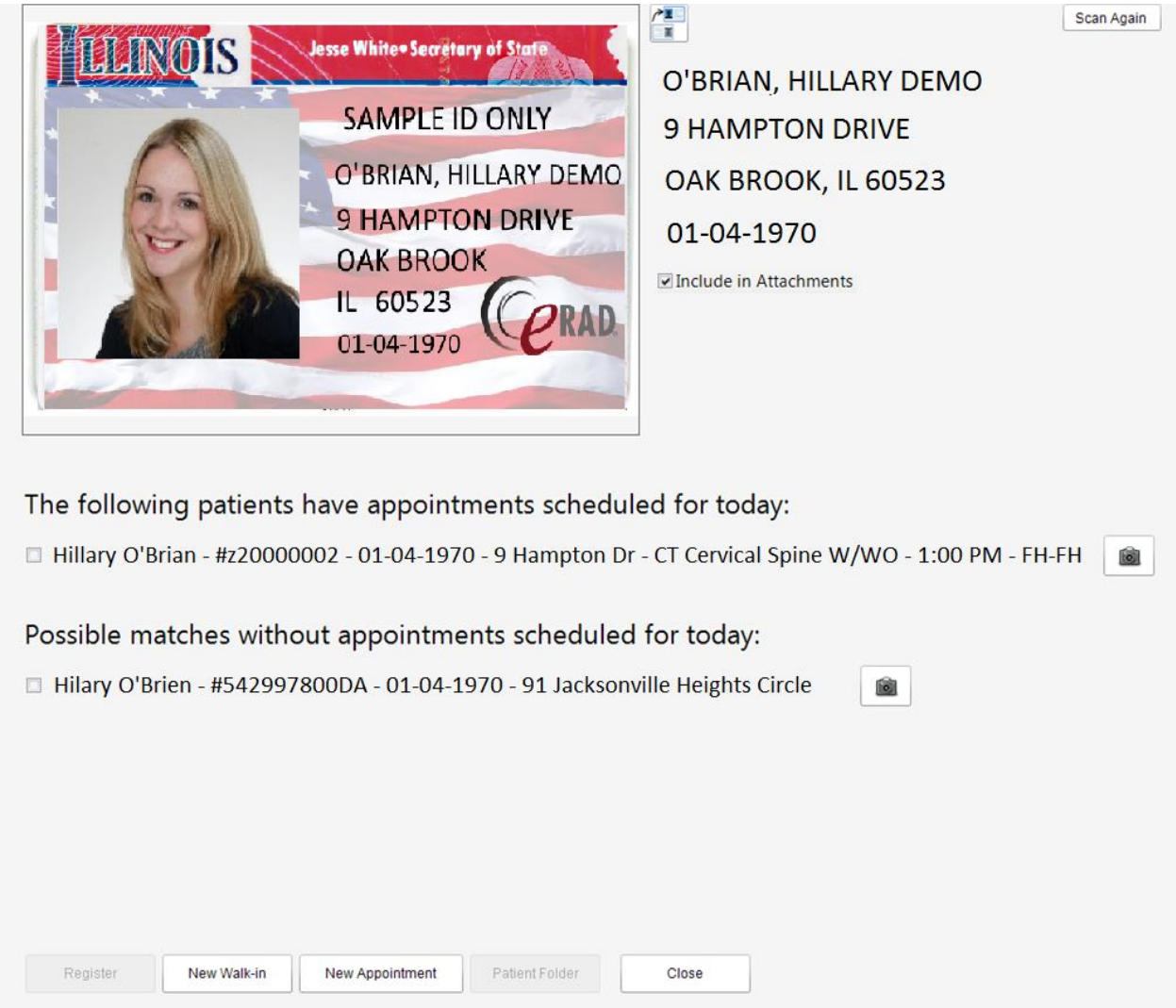

RIS will immediately proceed to scan the license, which will initiate a search using the name and birth date from the barcode on the driver's license. RIS will categorize the results such that matching patients who are scheduled for today will be presented first, as the most likely match. If there is only one exact match for a patient and that patient has an exam scheduled for today, RIS will automatically open the exam in Registration mode. If there are multiple matches, the user will be presented with a summary of the information from the card, the search results, and a list of actions that can be taken.

If the barcode could not be read, the following message will be displayed.

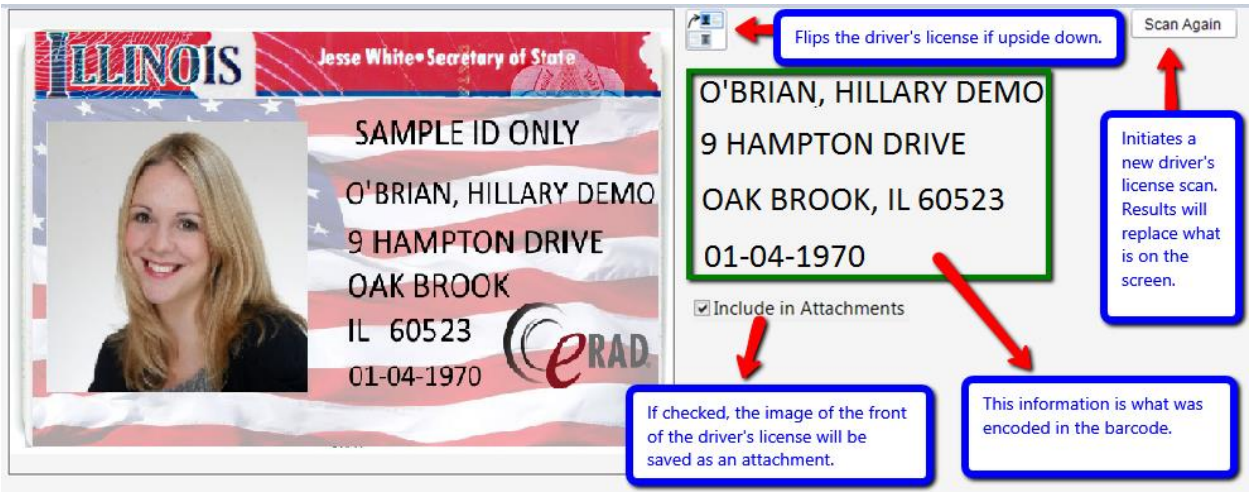



When the barcode is successfully interpreted, the following screen will display.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.




The image below describes various components visible on the top section of the screen.




No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## SEARCH RESULT PRESENTATION

The search result entries are broken up into two categories, those with scheduled exams for today and those without scheduled exams for today. Those patients with one or more scheduled exams today will be displayed as follows:

<First name> <Last name> - #<MRN> - <DOB> – <street address> – <first procedure description> – <first procedure start time> - <first procedure's site_code>

Below those results, patients without exams scheduled for today will be displayed as follows:

<First name> <Last name> - #<MRN> - <DOB> - <street address>

If no matches are found, a message will be displayed in the search results area that no matches were found.

If any of the matching patients have a driver's license on file as an attachment, the camera icon will display next to the patient's information.

Clicking that button will open a small window with an image of the most recent scanned driver's license for easy comparison to the current driver's license.

## SEARCH RESULT SORT ORDER

Within each category, patient search results are sorted based on a point system that attempts to ensure the most relevant patients are at the top of the list. Relevancy points are assigned as follows:

| Description | Points |
|---|---|
| Exams scheduled at currently selected site | 20 |
| Exams scheduled today (regardless of location) | 20 |
| Exact match on last name | 10 |
| Exact match on first name | 10 |
| Exact match on street address | 10 |

Any results with the same relevancy score will be sorted alphabetically by last name and then first name.

## ACTION BUTTONS

The following buttons are displayed at the bottom of the patient search results. Only the buttons relevant to the results selected will be active.

| Button | Description |
|---|---|
| Register | Opens the first scheduled order in registration mode. A study selection dialog box may be displayed if there are multiple orders to be registered for the patient. This button is only enabled if the selected patient has exams |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

| | |
|---|---|
| | that are Scheduled, Checking In, or Arrived for today. |
| New Walk-in | Opens the walk-in screen. If the user first selects a patient, the screen will open the existing patient, otherwise it will be opened in "new patient" mode with information pre-filled from the driver's license (name, DOB, partial address info, etc.). This button is always enabled. |
| New Appointment | Opens the schedule order screen. If the user first selects a patient, the screen will open the existing patient, otherwise it will be opened in "new patient" mode with information pre-filled from the driver's license. This button is always enabled. |
| Patient Folder | Opens the Patient Folder of the selected patient. This button is only enabled if a patient is selected. |
| Close | Closes the Identify Patient screen. |

## "INCLUDE IN ATTACHMENTS" CHECKBOX

If the "Include in Attachments" checkbox is checked, New Walk-In, Register, and New Appointment will launch a screen with the Verified ID box checked and the scanned copy of the photo ID (front and back) attached to the scanned documents and automatically categorized as the corresponding *PhotoIDScanDocumentType*.

If a patient has a photo ID on file, the user is able to uncheck this box if attaching another copy is undesired. There is a new Practice-level setting that controls the default value of this checkbox.

## VARIATION IN NORTH AMERICAN DRIVER'S LICENSES

This feature was designed using driver's licenses from the United States and Canada. The technology may need to be adjusted to support other international barcodes. There are a few states or provinces that encrypt information on the barcode or store it in a different format. These are exceptions to the rule, but testing with local driver's licenses prior to implementing the workflow is recommended.

## A NOTE ON SCANNER EQUIPMENT

Two popular types of document scanners have been tested with this workflow: the Canon DR-2010C and the Fujitsu fi-6110. Other duplex scanners are also likely to successfully handle the barcode, but would require some initial testing before implementing the workflow.

At this time, testing/workflow modification has not taken place for scanners that do not support duplex (two-sided) scanning.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## HOW TO ENABLE THE FEATURE

1. Associate the access string *Clinical.ReceptionBarcodeWorkflow* with one or more User Groups set to Full.
2. The Scan Type identified by the existing system configuration setting for *PhotoIDScanDocumentType* is used to govern the configuration of the photo ID scan. In order to reduce the risk of a failure to scan, the following settings may override the configuration specified in the Scan Type configuration:
    a. Resolution – if RIS is configured with less than 210 DPI, then RIS will override to use 210.
    b. Duplex Flag – if RIS is configured with duplex flag = "N", then RIS will override to use "Y."
    c. Auto Deskew Flag – if RIS is configured with auto deskew flag = "N", then RIS will override to use "Y."
    d. In testing, 4''x 2.75'' was used on *PhotoIDScanDocumentType*.

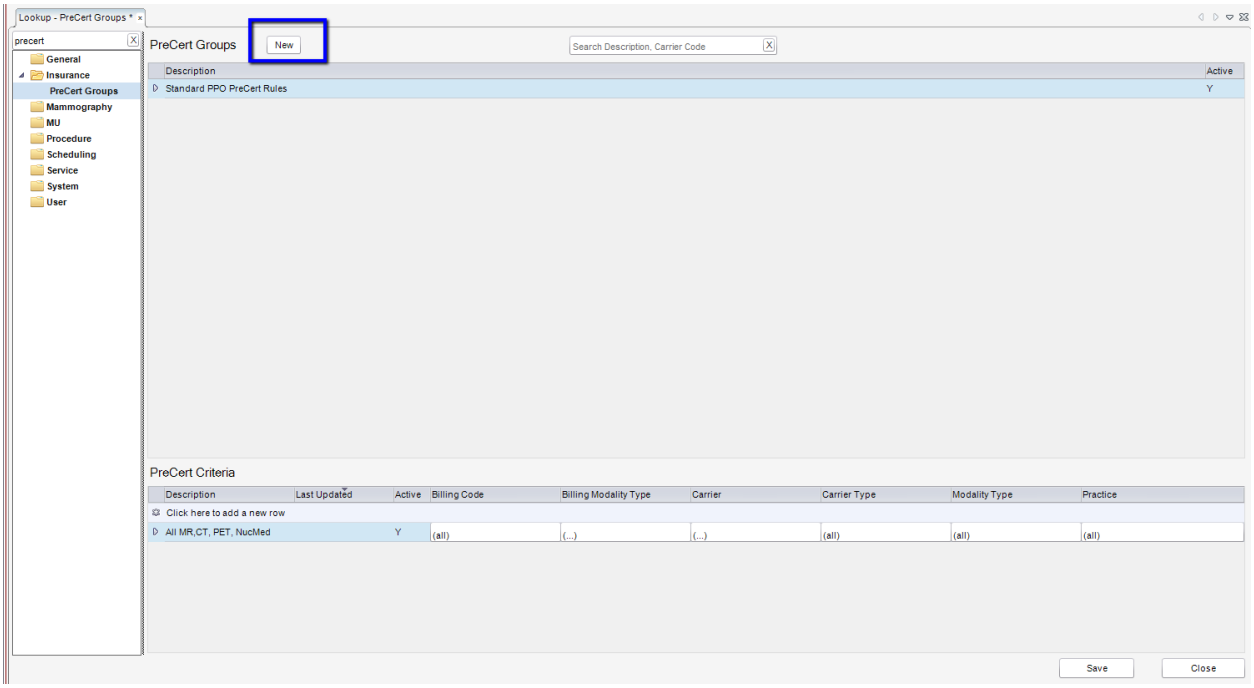
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #11048, 14724 – PRECERT RULES EDITOR REDESIGN: MANAGE PRECERT GROUPS

PreCertification rules have historically been difficult to manage because they had to be configured separately for every insurance carrier. Not only was this time consuming to manage, but the number of PreCert Rules a RIS Administrator was required to build for every carrier could sometimes slow down system performance, particularly if every carrier had very granular, Billing Code level rules. This method of managing PreCert rules was not reflective of the fact that large groups of carriers have the same PreCert rules, and any future changes to PreCert Rules would likely apply to every carrier in that group.

eRAD RIS now has a new editor to reflect this fact: *PreCert Groups*. An administrator can now create and name groups of carriers which fall under the same PreCert requirements, then create rulesets for the entire group to define those requirements. A PreCert Group can have one or more rulesets that include the following criteria: billing code, billing modality type, carrier, carrier type, modality type, and practice. If an order or study matches the criteria for any rulesets based on its insurance carrier, it will be marked as PreCert Required.

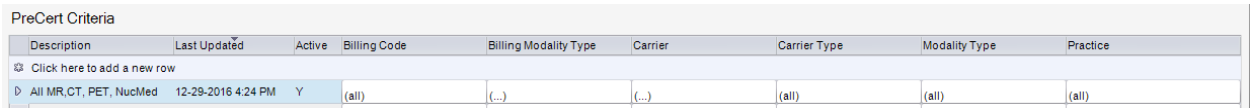
The new editor can be found under Administration -> Configuration -> Insurance -> PreCert Groups. PreCert Groups can include as many insurance carriers as necessary, or can be as small as just one carrier.




No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

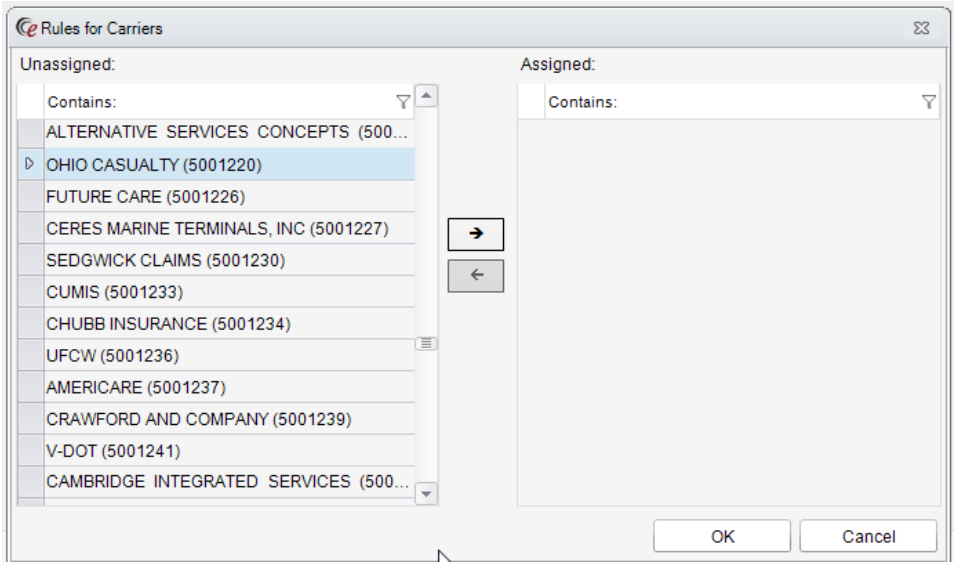
To create a new PreCert Group, click “New” and then enter a useful description to identify the new PreCert group. Note that any word added to the description can be used to find the group later via the search bar.

Next, create the criteria under which PreCert should be required in the bottom section of the screen. This works in the same fashion as creating criteria for printing Forms.




Because there may be multiple rulesets for the PreCert Group, it is helpful to give each ruleset a Description. The criteria will initially default to include “All,” meaning PreCert would be required for every exam under any circumstance. To narrow the criteria under which an exam would fall to the IVT worklist for PreCertification, first choose one of the categories: billing code, billing modality type, carrier, carrier type, modality type, or practice.

Selecting the “Carrier” category will open a new window with a full list of available carriers on the left (Unassigned) and a blank list on the right. Any Carriers to be associated with the rule will be selected and moved to the right side in the Assigned column, using the arrow pointing right. Carriers can be multi-selected by holding down the CTRL key while clicking the desired carriers, then clicking the arrow pointing to the right.




The filter row can be useful for quickly finding carriers of a certain type. For example, to create a rule for Attorney accounts, filtering by ATTY or Attorney or Law may help to quickly identify a chunk of carriers to move to the Assigned column. Alternatively, if all of the desired carriers are included in a particular Carrier Type, such as Attorney, leave the Carrier category as is and instead use the Carrier Type category.

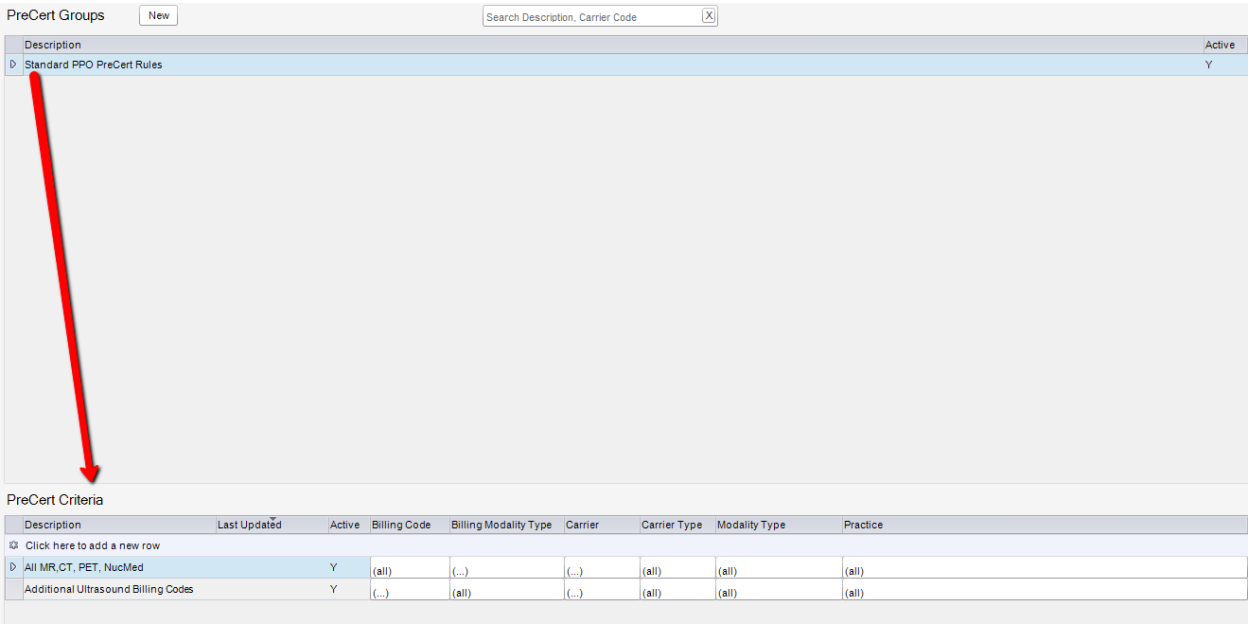
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

After configuring the ruleset to constrain it to a set of carriers, either using Carrier or Carrier Type, the administrator can then select one of three ways to determine which orders/studies will require PreCertification: Billing Code, Modality Type Code, and Billing Modality Type Code.

Modality Type Code and Billing Modality Type Code are two similar concepts, though the former is attached to a modality and the latter to a billing code. Billing Modality Type codes provide another means to group billing codes together in a way that may be more useful for billing purposes.

Billing Code is the most granular method for describing PreCert rules and would ideally be used only in cases where Modality Type Code and Billing Modality Type Code are too broad. For example, some contracts require PreCertification for only certain types of Ultrasound studies. In that case, select the Billing Code category and choose only those billing codes that require PreCert.

A PreCert Group can have multiple rulesets. If any rulesets match, then the given order or study will require PreCertification. In the following example, two rulesets have been configured for a PreCert Group named "Standard PPO PreCert Rules."




The first ruleset was configured to include all MR, CT, PET and Nuclear Medicine procedures based on Billing Modality Type. The second ruleset was added to include some specific Ultrasound Billing Codes. Adding the Ultrasound using Billing Codes instead of one of the Modality Type options prevents situations where all codes for a Modality Type fall to the IVT WL when only a small portion actually need PreCertification. Both rulesets were configured to use the same Carriers and were applied to all Practices.

When looking at rulesets that have already been configured, the "(…)" indicates that selections were made and clicking will open a window to view or change the selections. Otherwise, "(all)" means that no filtering has been done using that category.

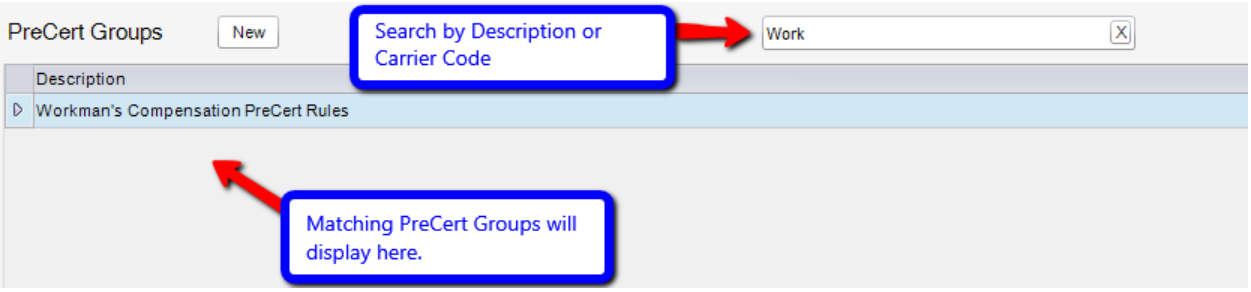
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

The following requirements must be followed:

1) A ruleset must include one of the following types of filters: Billing Code, Modality Type Code, or Billing Modality Type Code.
2) A ruleset must also include either a Carrier filter or a Carrier Type filter.
3) A carrier can only be included in one PreCert group.

## PRECERT GROUP SEARCH

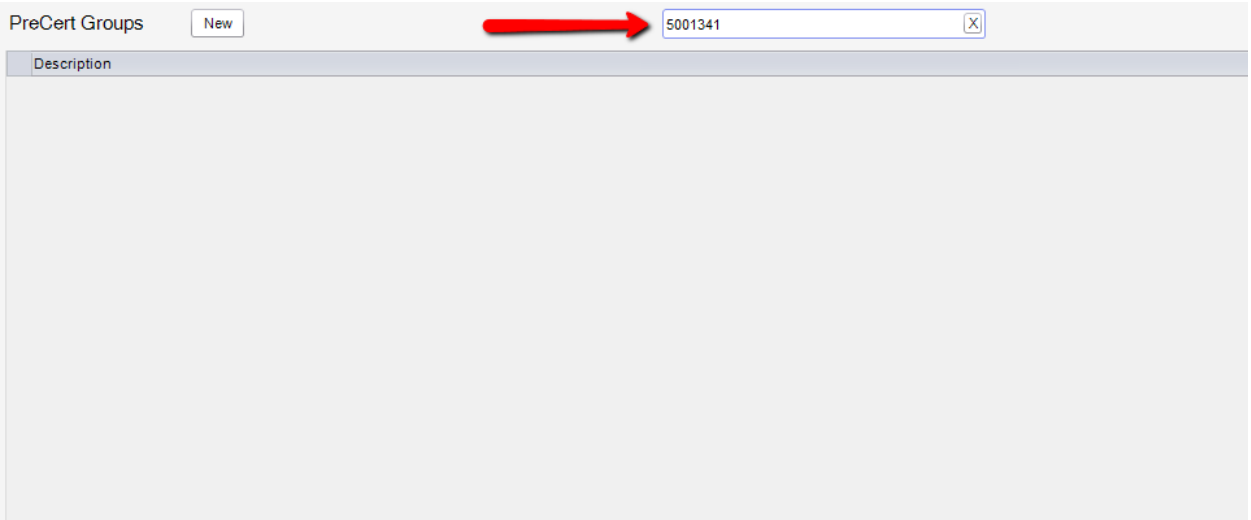
A search bar at the top of the screen allows the user to search for PreCert Groups based on any words in the description. It is also possible to search by Carrier Code, which is helpful when the PreCert Group to which a carrier belongs is not known by the user. A carrier code search will show all matching rulesets for the PreCert Group that includes the specified carrier.




## ACCESSING PRECERT GROUPS FROM THE CARRIER LOOK-UP TABLE

The Carrier look-up table can be used to launch the PreCert Groups editor and automatically apply a filter to find the PreCert Group to which the carrier belongs. For example, if an administrator is making a change to a carrier in the Carrier table and also need to adjust the PreCert Rules at that time, they can right click the carrier in the Carrier look-up table and choose PreCert Group in order to open the PreCert Groups editor.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

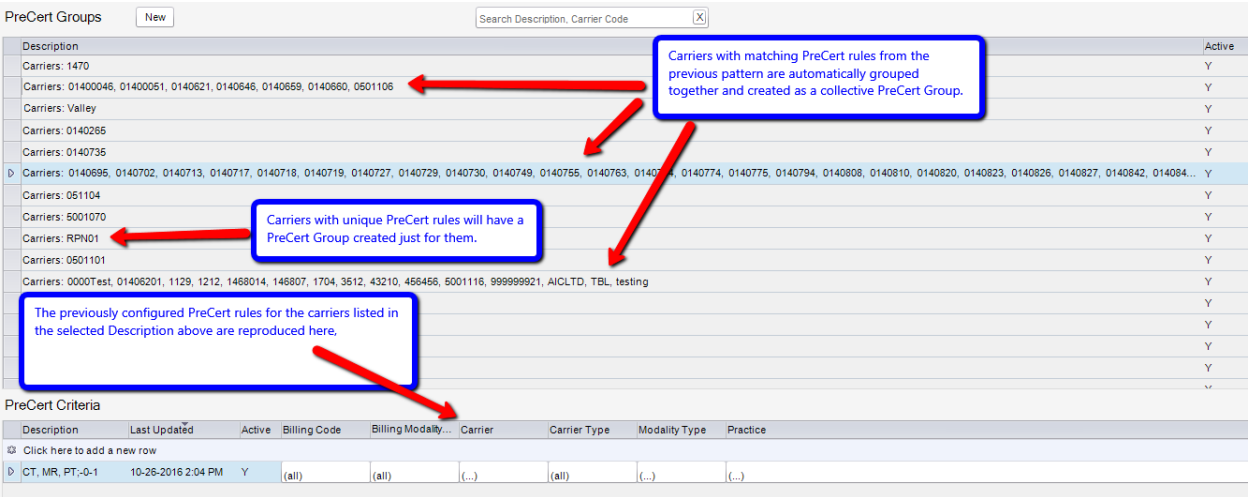



Above, the Carrier code for the selected carrier was automatically searched. No results appear because the carrier does not belong to any PreCert Groups (i.e. no PreCert rules are set for this carrier). To create a PreCert Group, click the New button.

To utilize the new PreCert Group editor in the Configuration tables, users must belong to a User Group set to Full for the access string *Config.LookupEditor.PreCertGroups.*

## IMPACT ON PRECERT RULES CONFIGURED USING THE PREVIOUS PRECERT RULE EDITOR

As part of the upgrade to 2016.7, existing PreCert rules will automatically be converted to the new pattern. A script will identify which carriers have identical PreCert rules. These carriers will then be put together in a PreCert Group and the previous rules will be replicated for that group.




No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

A temporary PreCert Group description will be assigned, which simply lists the Carrier codes included: "Carriers: 01254, 841211, 55229." At their convenience, RIS Administrators will likely want to evaluate these groups. Perhaps some carriers have matching PreCert requirements today, but should actually be split into two groups because they are likely to be handled differently in the future. Or perhaps some carriers had been given the same PreCert rules in the past, but some of those carriers may benefit from some fine tuning by Billing Code, now that the PreCert Group editor makes this possible. It is also possible that more meaningful descriptions may be created by looking at the carriers that were grouped together and identifying that they share some common characteristic, such as "Workman's Compensation" carriers.

Any questions regarding this new PreCert Group pattern or the migration process can be directed to eRAD Support for clarification.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

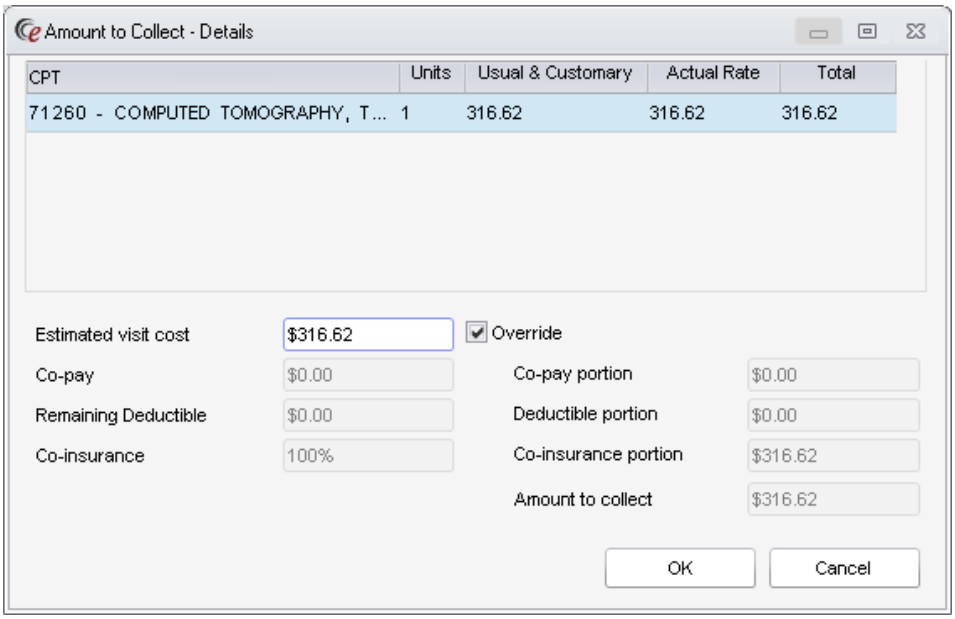
## FEATURE #14509 – ABILITY TO OVERRIDE THE TOTAL VISIT COST

When using the Eligible API integration and utilizing National Payor Database for pricing information, there is sometimes a need for users to override the Total Visit Cost. For example, the visit cost for Medi-cal patients needs to be calculated from a website, instead of the NPD. In cases such as these, a user needs to override the visit cost with the correct amount in order for financial reports to properly balance.

There is now an Override checkbox that can be accessed under the following conditions:

- The user belongs to a User Group with Full access to a new Access String labeled *Clinical.Visit.Cost.Override*.
- The insurance is configured to be validated via Eligible API.
- The National Payor Database is used for cost.

Clicking the Override checkbox will allow the user to specify an alternate estimated visit cost, as shown below.



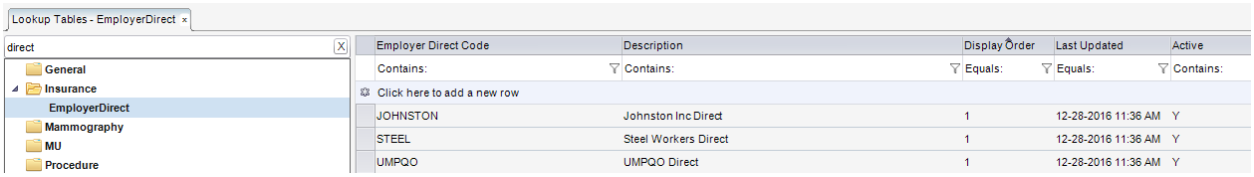

If a user does not have Full access to the *Clinical.Visit.Cost.Override* access string, they will only see the Override checkbox if it has already been checked by a user with the permission. This will indicate to the user that the estimated visit cost has been altered, but they will not have permission to uncheck the box or alter the amount in the estimated visit cost field.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

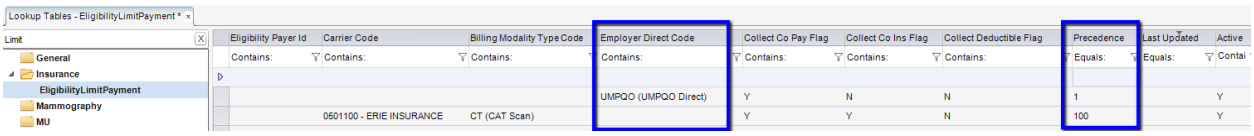
## FEATURE #8755 – EMPLOYER DIRECT FUNCTIONALITY FOR SPECIAL CONTRACTS

A request was made to support marketing efforts to offer employer groups special contracts to redirect imaging from high cost environments to lower cost imaging centers/departments. When referred via a contracted employer group, the contracted pricing will need to override the standard pricing for a patient's insurance carrier. In order to support this pricing in the billing extract and allow for data mining to evaluate the success of these marketing efforts, eRAD RIS now has the ability to capture a new attribute within RIS, attached to the insurance at the patient level. This attribute, called *Employer Direct*, allows an administrator to override the *Eligibility Limit Payment* settings, if the requirement to collect co-pay, co-insurance or deductible differs as part of the contract, and allows for the configuration to pass an alternate insurance code in the billing extract to ensure that the contracted pricing is applied.

Employer Groups participating in the Employer Direct program can be added in a new Employer Direct look-up table.



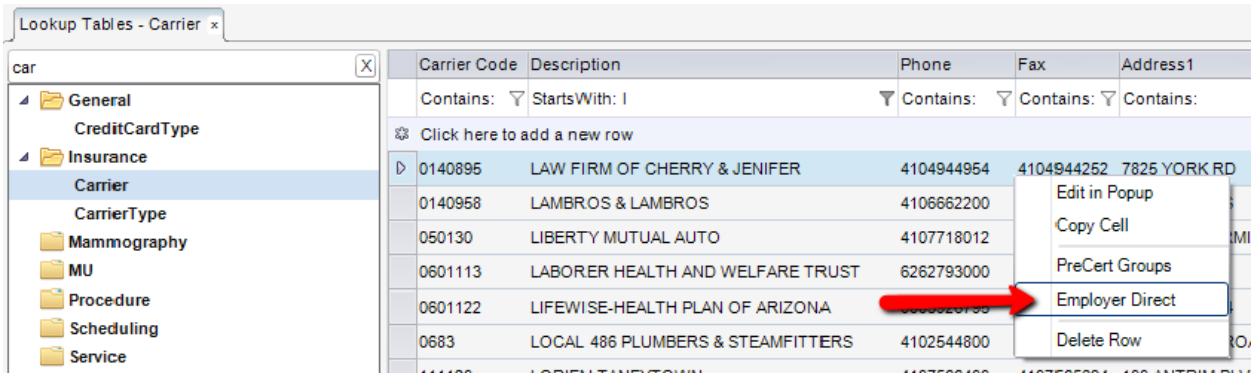

The Eligibility Limit Payment look-up table has a new column to select an Employer Direct Code, in case it is necessary to alter whether co-pay, co-insurance, or deductible are collected based on the contract.



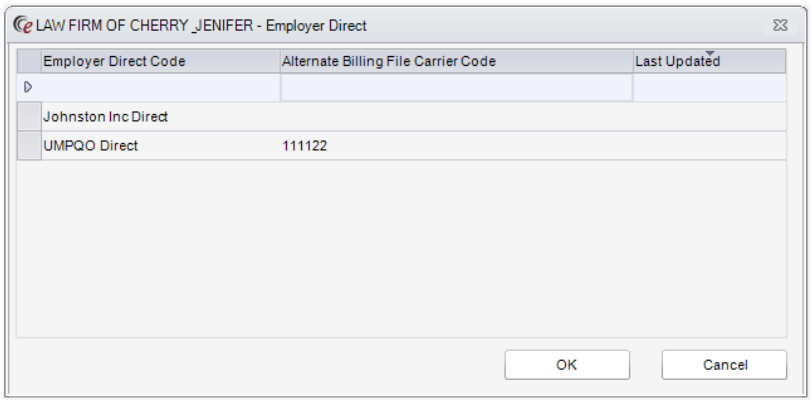

Using this table, there are several ways to configure limited payments. In the example pictured above, Erie Insurance should not collect the deductible for exams with a Billing Modality Type Code of CT, but should collect co-insurance and co-pay. However, if a patient with that same insurance carrier is referred by the UMPQO Employer Direct group, the contract specifies that only the co-pay should be collected, regardless of the insurance carrier. To handle this level of specificity, the Eligibility Limit Payment table now has a *Precedence* column. By giving a rule a **lower** Precedence number, that rule will be evaluated and applied first. Because the Precedence value for the rule for the Employer Direct group UMPQO is lower than the value for the rule for Erie Insurance CTs, the UMPQO rule would be applied first and the co-insurance *and* deductible would be ignored when calculating the Amount to Collect.

To specify which *Employer Direct* codes are applicable to an insurance carrier, the child look-up table *l_carrier_x_employer_direct* was added to the Carrier editor. This mapping is accessible by right clicking on a carrier and choosing "Employer Direct" as shown in the following screenshot.

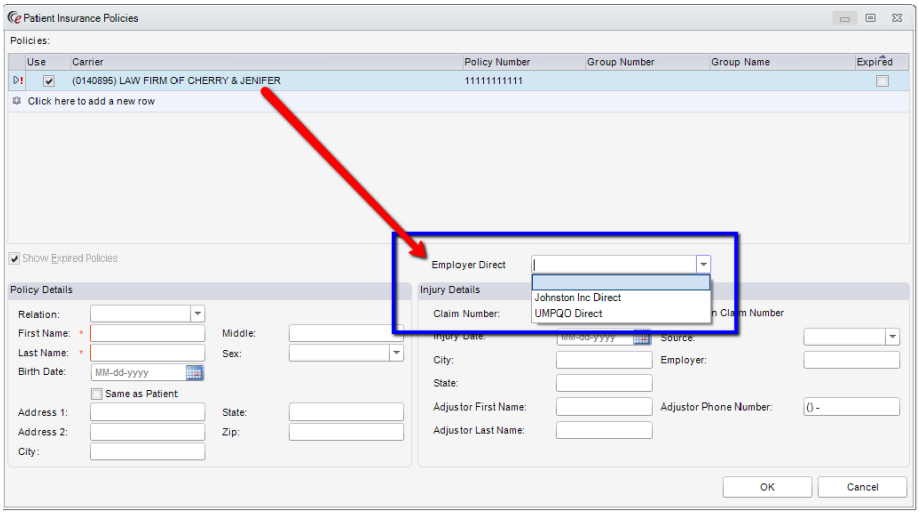
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.




A new window will open to add the applicable Employer Direct codes; it is also possible to specify an alternate Carrier Code that should be substituted in the billing extract.



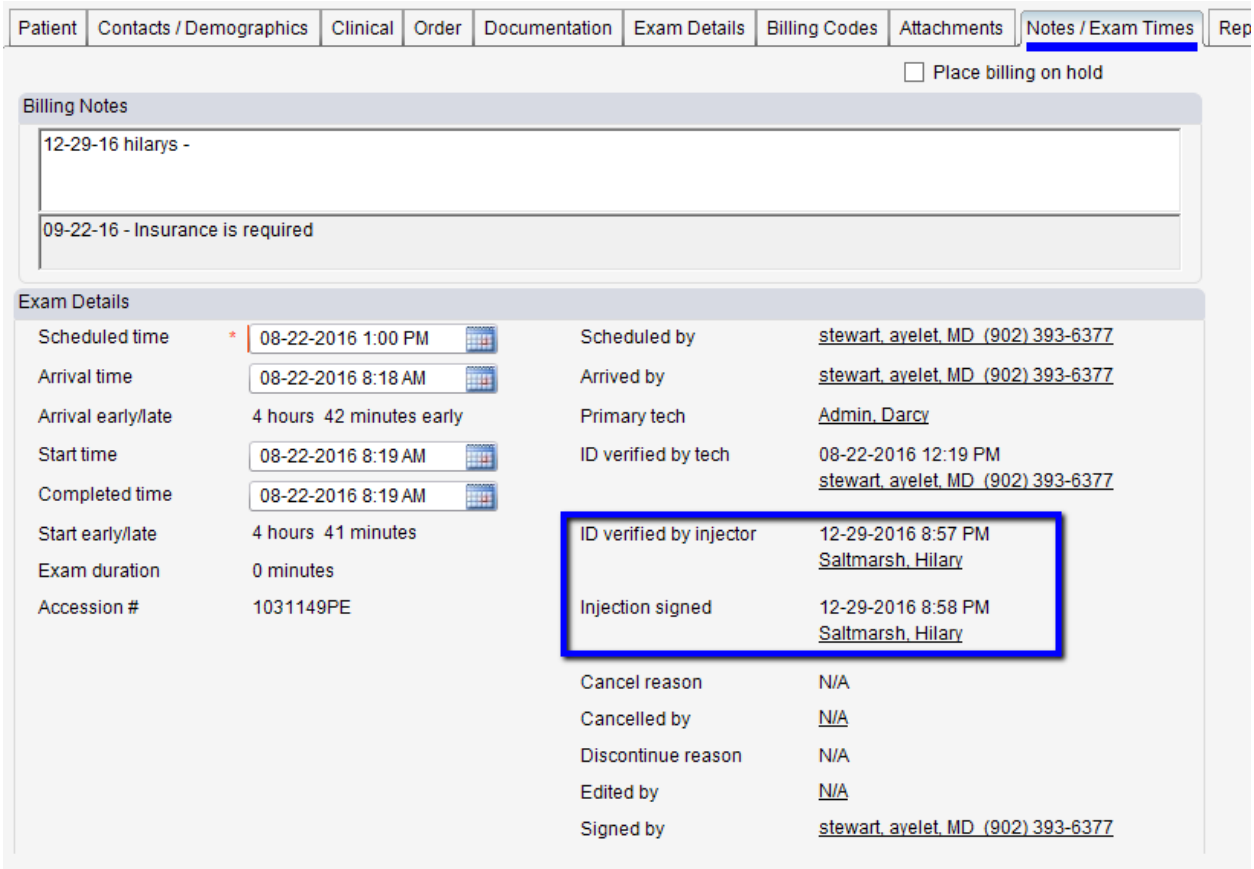

When an order has been referred by an Employer Direct group, the RIS user now has the ability to specify the correct Employer Direct code, in order to drive the appropriate workflow. When the user selects an insurance carrier in the Manage Policies window, an *Employer Direct* dropdown will display as shown in the following screenshot. This dropdown will only appear if one or more Employer Direct codes are associated to the insurance carrier. If there are no associated Employer Direct codes, then the dropdown will not be displayed.




No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #14569 – DISPLAY INJECTION SIGNED DATE AND TIME STAMP ON THE NOTES/EXAM TIMES TAB

In some countries, contrast injections are performed by an individual other than the technologist. The individual performing the contrast injection is required to separately verify the patient's identity and then sign off on the injection when it is complete. This workflow has been accommodated in eRAD RIS, but the time stamps were not previously included on the Notes / Exam Times tab. The information has now been added to that tab as displayed below.

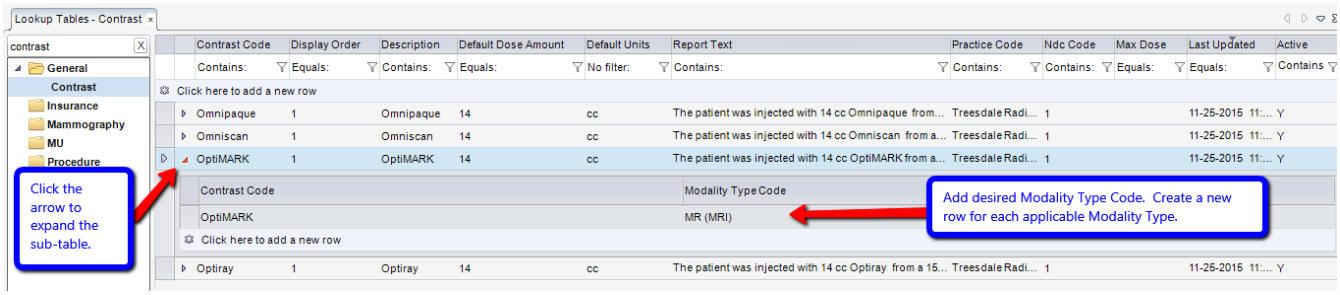



No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

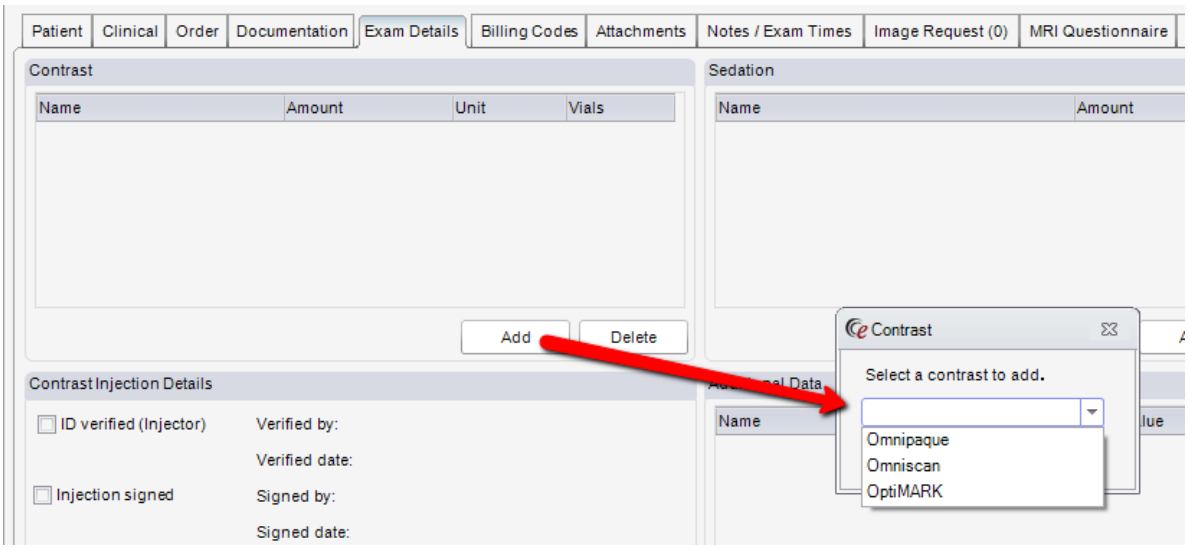
## FEATURE #14567 – FILTER CONTRAST OPTIONS BY MODALITY TYPE

When a technologist enters contrast for an exam on the Exam Details tab, they were previously presented with a list of all of the Contrast options listed in the Contrast look-up table. Some contrast options will never be used in a given modality, so it is now possible to only present the contrast options that are relevant for the exam being performed, based on the Modality Type.

To configure the applicable Modality Types in the Contrast look-up table, click the arrow next to the Contrast to expand the sub-table.



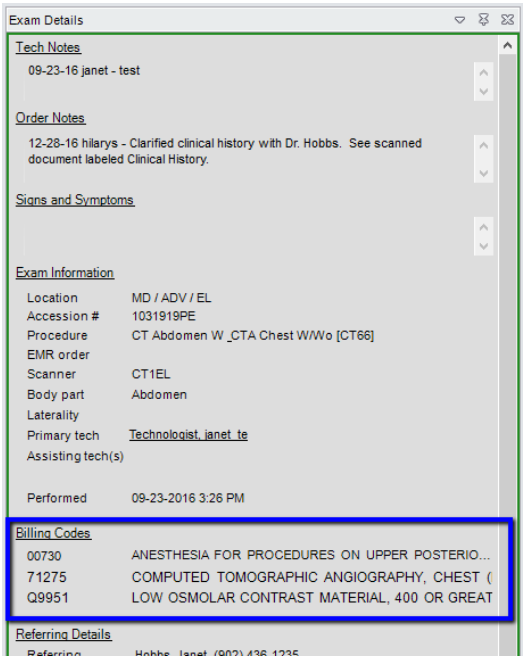

Add each desired Modality Type on a new row by selecting the Modality Type Code from the dropdown list. The Contrast will now only display as an option when choosing contrast for exams in the associated Modality Types, making the technologist's selection more efficient and less prone to error.




No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #14571 – ACTIVE BILLING CODES ADDED TO THE EXAM DETAILS PANEL

Customers have requested the ability for the radiologist to view the active Billing Codes from within the Reporting screen. The Exam Details data pane now has a section which lists the exam's active billing codes. The information is Read Only and displays both the code and the description for each active billing code on a new line. If more than three billing codes are listed, a vertical scroll bar will appear so that the radiologist can scroll down to view additional codes. The width of the panel can be stretched to see longer descriptions if needed.




No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #14144 – REPORT EDITOR, PACS SERVER, AND NUMBER OF PRIORS TO LOAD/CACHE ARE NOW CONFIGURABLE FOR A VARIETY OF CRITERIA

Radiologists may need the flexibility of using a different PACS server or report editor depending on the type of study they are reading or where it was performed. It is also often desirable to define a different number of priors to load or to cache depending on the type of study. In order to accommodate these needs, a new configuration editor has been created: *ReportingOptions*.

The configuration allows the administrator to optionally set the following values:

- PACS server
- Number of Priors to Load
- Number of Priors to Cache
- Reporting Editor

Based on these criteria:

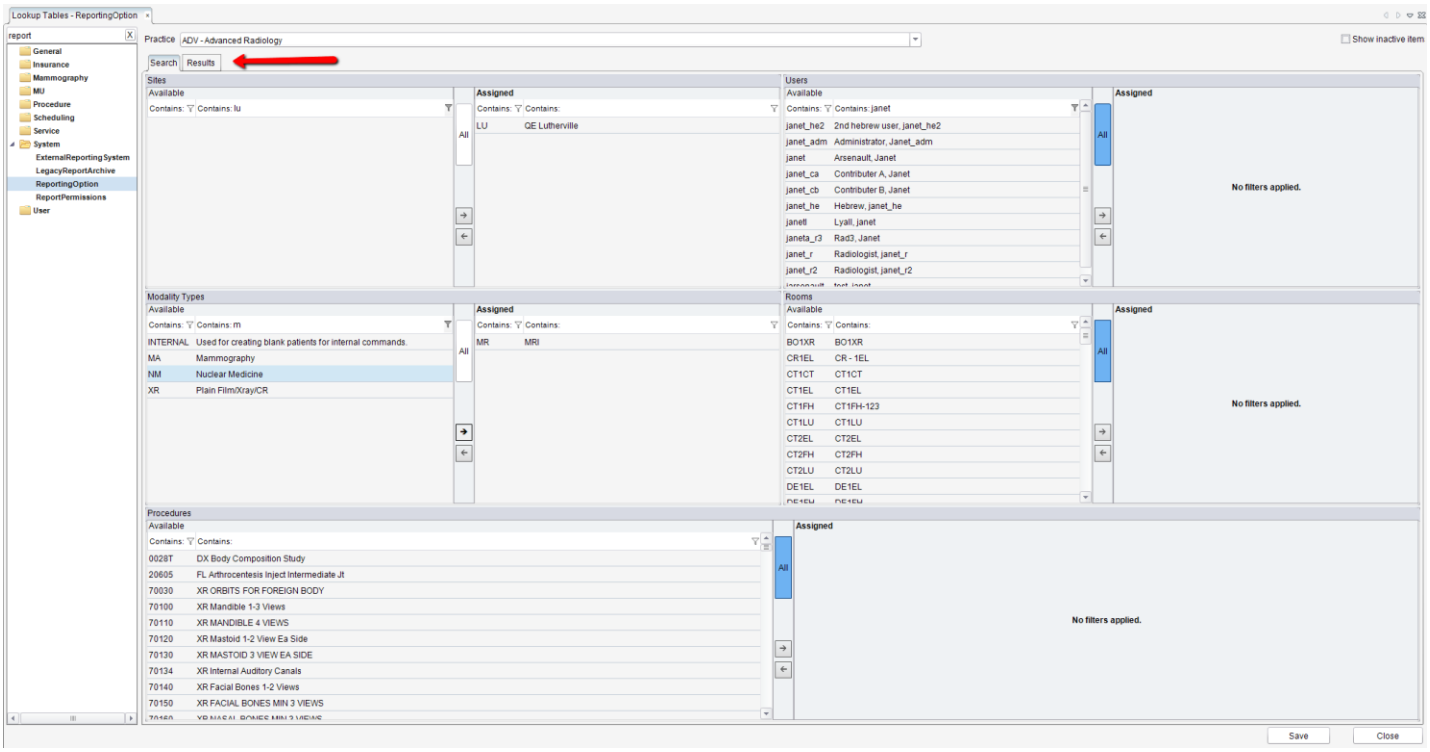
- Practice
- Site
- Modality Type
- Modality
- Procedure Code
- User

Based on the settings defined in the Reporting Options editor, the RIS will evaluate which PACS server and reporting editor to launch for each study as the radiologist moves through their Pending Dictation worklist. The number of priors to load and cache will automatically adjust as well, if the indicated PACS server supports caching. Automatically adjusting these factors according to the study will create a more efficient radiologist experience.

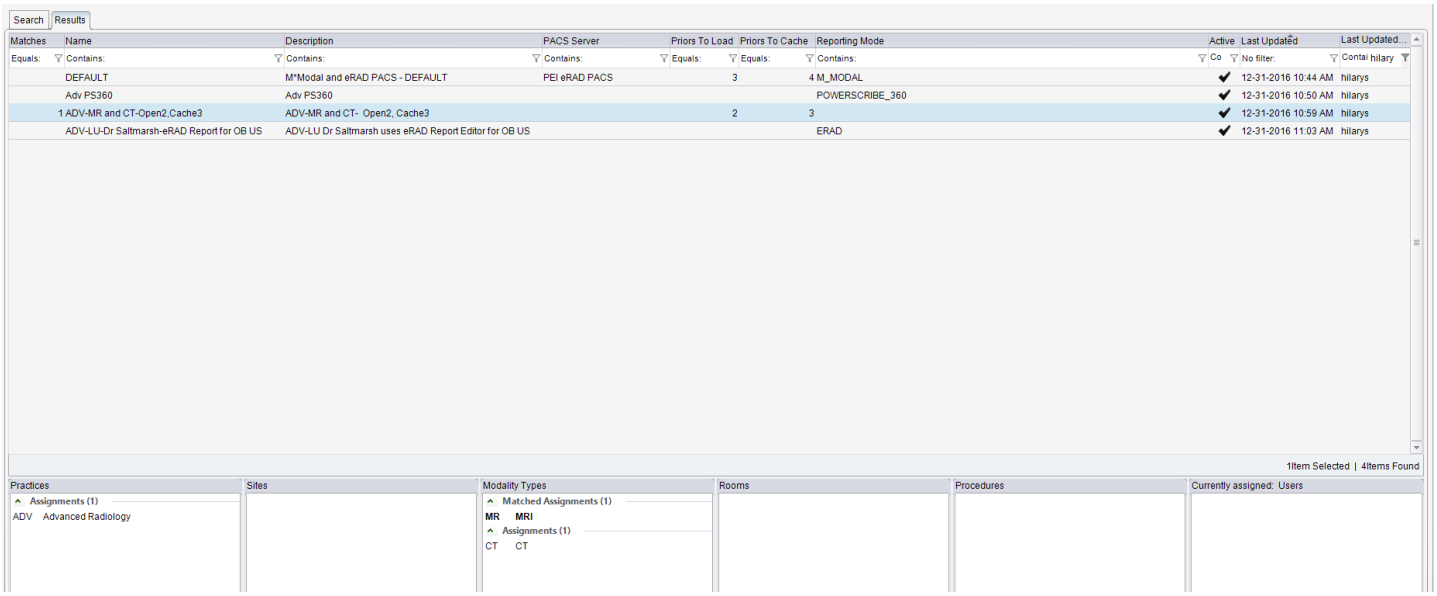
The Reporting Options look-up table editor is used to overlay more specific criteria on top of the existing general settings. These rules can specify a combination of PACS server, report editor and number of priors *and* the situations in which they should be used. The editor follows the same pattern as the Template/Macro editor, with a Search tab and a Results tab.

To view all of the settings that are applicable to the MRI modality type at the Lutherville site, on the Search tab select MRI and Lutherville on the Sites and Modality Types sections.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.




Then switch to the Results tab to see any matching rules.

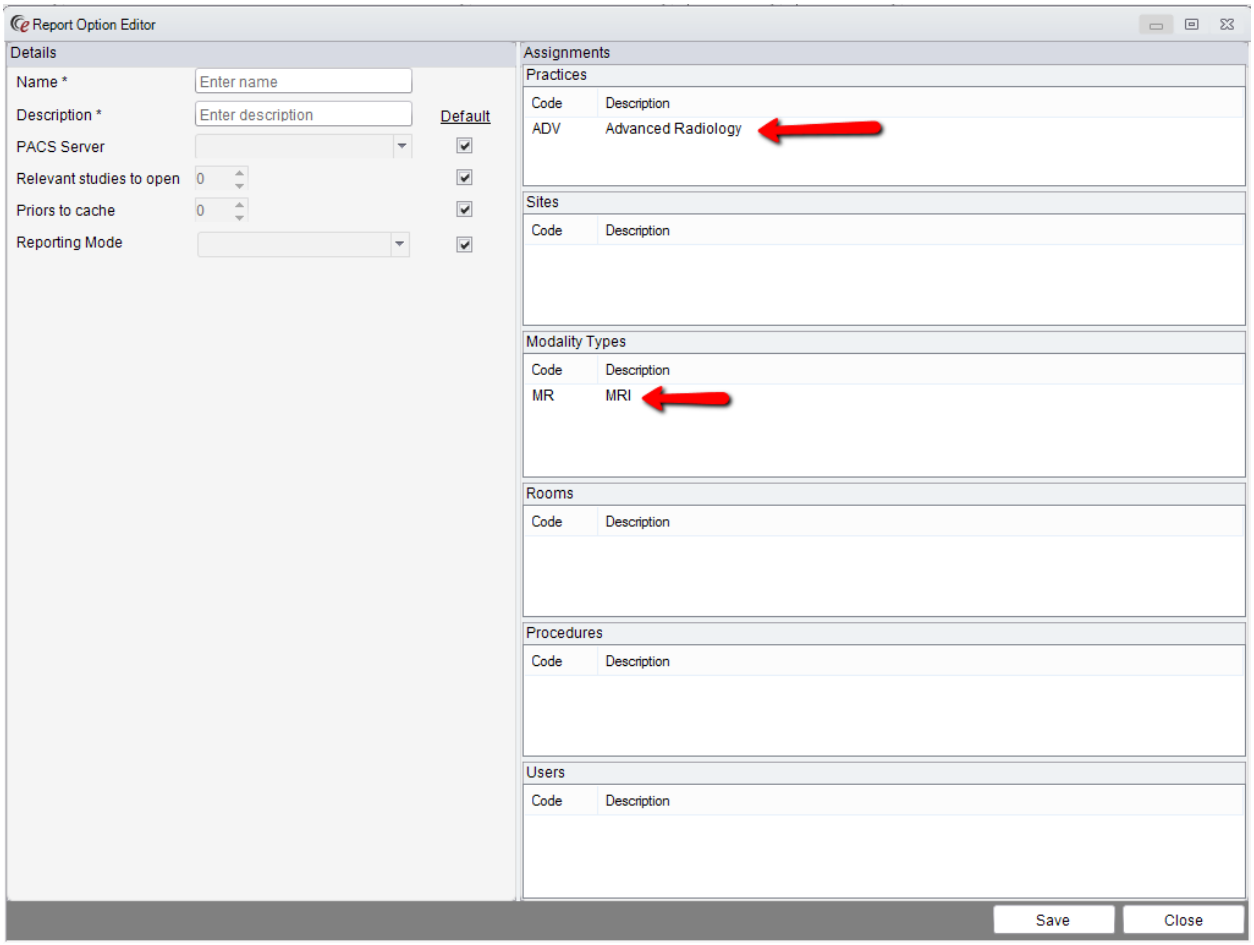



The four entries on the Results tab are either specific to MRI *or* do not have a Modality Type filter at all. Information about the rule can be seen in the columns and also in the criteria boxes at the bottom of the screen. For instance, the selected rule shows that 2 priors will load and 3 priors will cache for all sites at the Advanced practice when the modality type is MRI or CT.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

To create a new rule, click one of the buttons at the bottom of the screen:

"Create using filter criteria" will automatically apply the criteria used on the Search tab to the new rule (e.g. MRI at the Advanced practice). "Create from scratch" will start without any criteria applied for the rule.

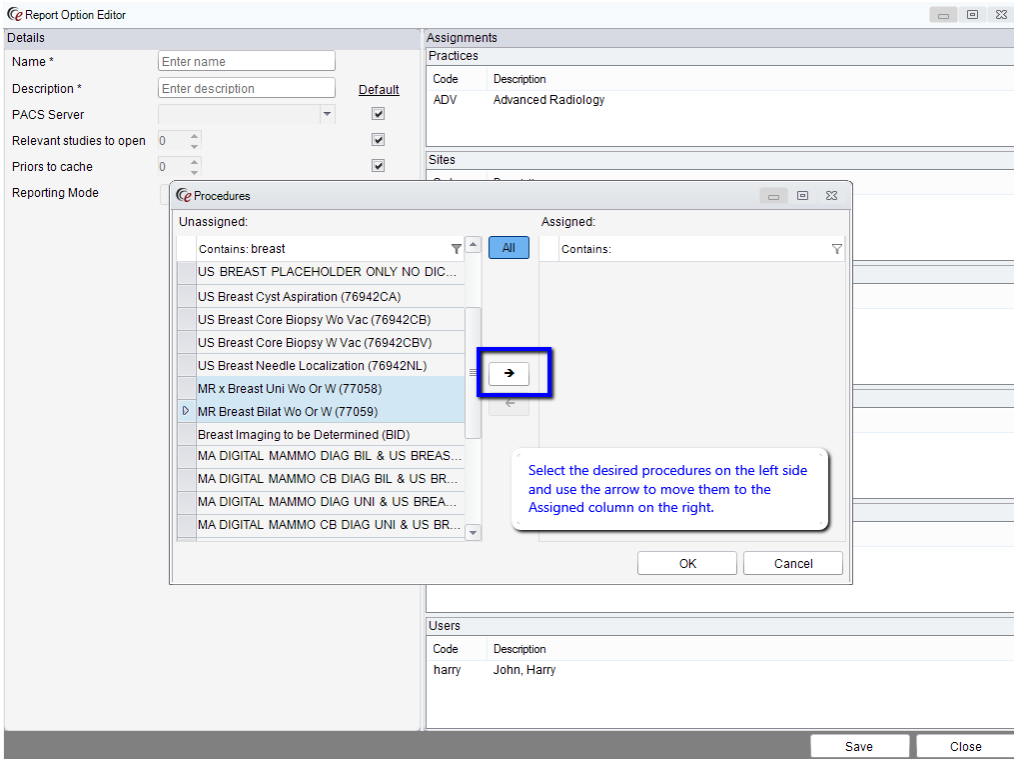



The above editor was opened with the "Create using filter criteria" option, so the Practice and Modality Types sections are prepopulated with Advanced and MRI. The next step is to give the new rule a Name and Description. In case it is not desirable to create a more detailed description, the description field will default to the Name text and can be updated to a full description when desired.

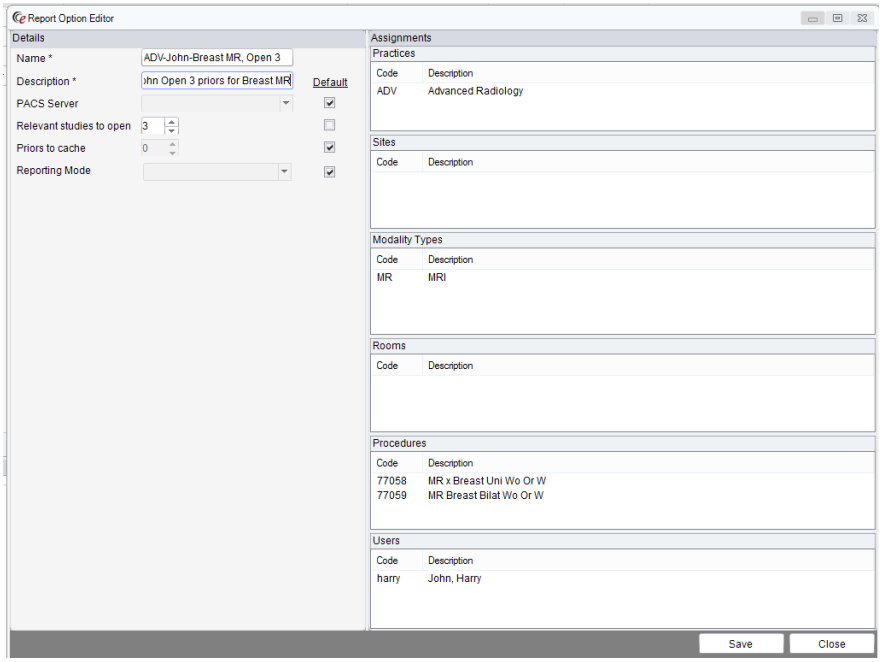
The PACS Server, Relevant studies to open, Priors to cache, and Reporting Mode start out with the Default box checked. To adjust any of the factors for the current rule, uncheck the box and enter the desired value. To create a rule for Dr. John to have 3 relevant priors open for MRI (different than the Practice-level rule to open 2 priors), set Relevant studies to open to 3 and add Dr. John to the Users box (right click the box to open the selection window).

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

To further define the rule to only apply for Breast MRI, select the desired procedures in the Procedures box.

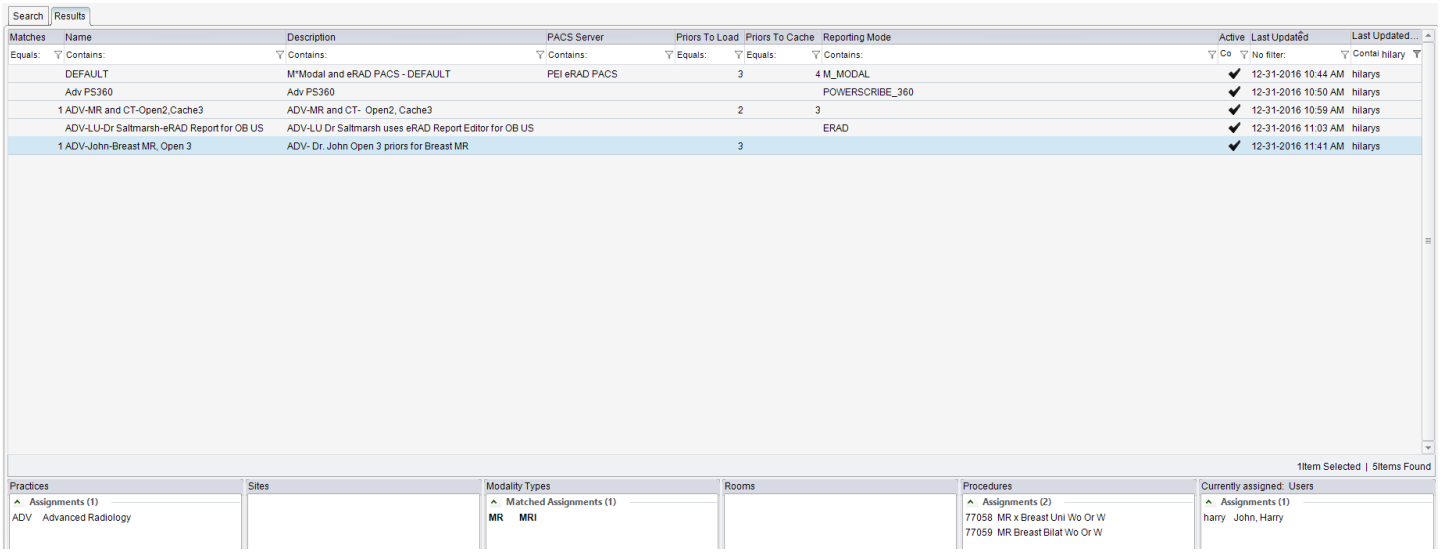



When all of the criteria are entered for the rule, click Save to finalize.




No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

The rule will now appear on the Results tab.




Because the rule for Dr. John is more specific than the general rule for opening 2 priors for MRI, when Dr. John opens a Breast MRI procedure, eRAD RIS will automatically request that PACS opens 3 priors.

The same strategy can be applied to dynamically open a different PACS or reporting editor depending on the defined rules.

To use this Reporting Option look-up table editor, a user must belong to a User Group with Full access to the new Access String: *Config.LookupEditor.ReportingOption*.

## DYNAMIC PACS

As the user moves through the Pending Dictation worklist, each study is evaluated and the proper PACS opened. If multiple dictation tabs are opened, the proper PACS viewer is opened for each one and any other PACS view sessions are hidden or closed, regardless of whether or not they are from the same type of PACS.

## DYNAMIC REPORTING MODES

Up until now, when a user needed to switch reporting modes, for example, from M*Modal to PowerScribe360, they needed to change their user preference, save, and restart RIS. This feature will allow a user to move through a worklist which necessitates multiple types of reporting modes using Next workflow and the Reporting screen will display in the appropriate mode as they action and continue through the worklist.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## ALLOWABLE REPORTING MODES BASED ON SYSTEM CONFIG AND ACCESS STRINGS

The modes that are allowed to open are those included in the system configuration setting *AllowedReportingIntegrationTypes,* as long as the user has access to the mode based on the corresponding pre-existing access strings:

- *Config.AllowPowerScribeReportingIntegration*
- *Config.AllowMModalReportingIntegration*
- *Config.AllowEradReportingIntegration*
- *Config.AllowExternalReportingIntegration*

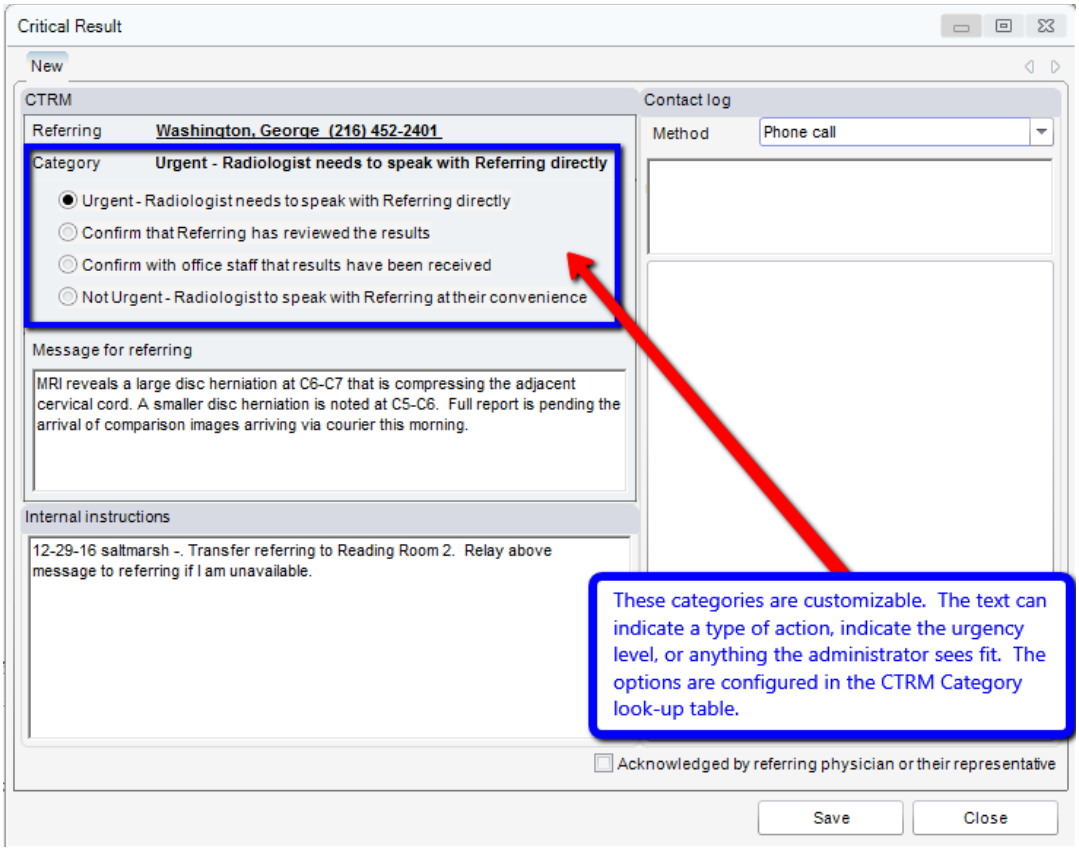
Note that if a reporting mode is turned off, or disallowed, any users that are still set up to use that mode as their primary mode will still have access to its corresponding editor. This allows users to complete existing cases and be switched over when they are ready and trained on the new mode.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

In preparation for the addition of some advanced Critical Result Management options, including the ability to resolve critical notifications via RADAR Nudge and the Connect Provider Portal (to be incorporated in a future phase of development), some of the base functionality of CTRM workflow has been redesigned.

Critical Results are still initiated from the Reporting screen using the button in the bottom left corner of the screen, as indicated below.

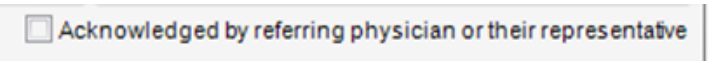
There have been a number of changes to the Critical Result entry screen, pictured below. One new option is the ability to define custom critical result categories. Use the new look-up table, *CTRM Category,* to create options to fit any workflow, whether they are longer descriptions defining an action plan for result communication or short descriptions of the level of urgency.




There are also separate notes fields to include internal instructions for radiology staff or a message to be shared with the referring.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

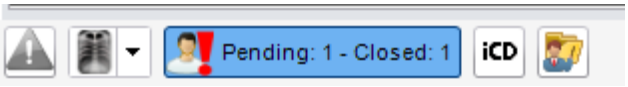
For recording contact attempts, there is a new Contact Log section and a checkbox to resolve the critical result notification when it is acknowledged by the referring physician or their representative (previously, this checkbox was labeled Resolve, which could be misleading).



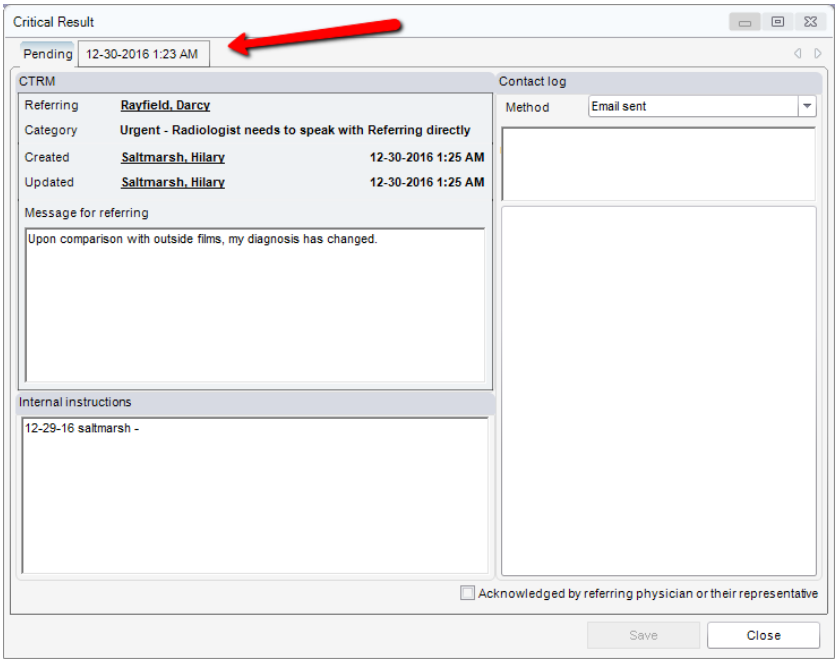

Attention was given to require as little input as possible when creating the Critical Result. The only required input is the selection of the Critical Result Category. The critical result will automatically be associated with the patient's referring physician, and all other fields are optional. It is possible for the radiologist to create the critical result and mark immediately mark it as acknowledged in the event that they make contact with the patient's provider at that time.

Another important difference is that the critical result will be saved as soon as the Save button is clicked, without a need for the report to be dictated or signed. Upon clicking Save, the critical result will immediately fall to the Critical Results WL and All Critical Results WL.

It is possible for more than one Critical Result to be created for the same study, however, only one ***pending*** critical result can exist at one time. If a critical result is acknowledged, but further developments require another critical result notification for that study, a new critical result can be created and all critical results will be separately recorded and viewable. Previous critical results are Read Only once they have been acknowledged. Example:




*Critical Result button, displaying multiple critical results.*



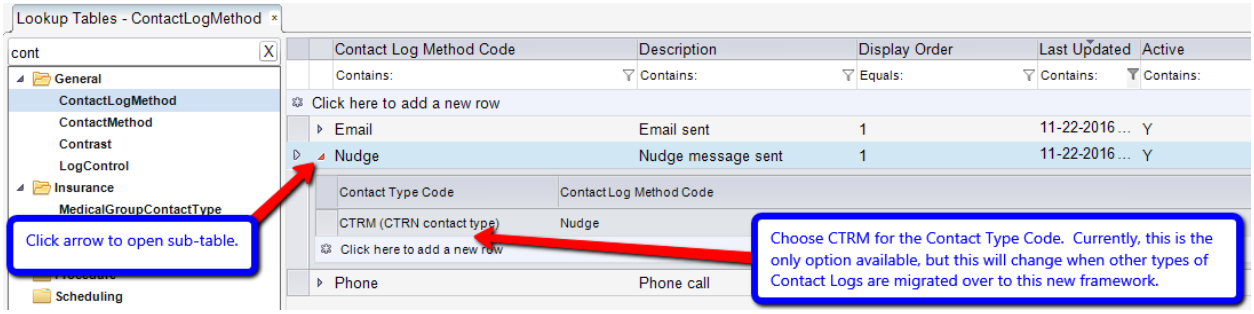

*Critical Result entry screen with multiple tabs for the two critical results created for the study.*

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## CONTACT LOG CHANGES FOR CTRM

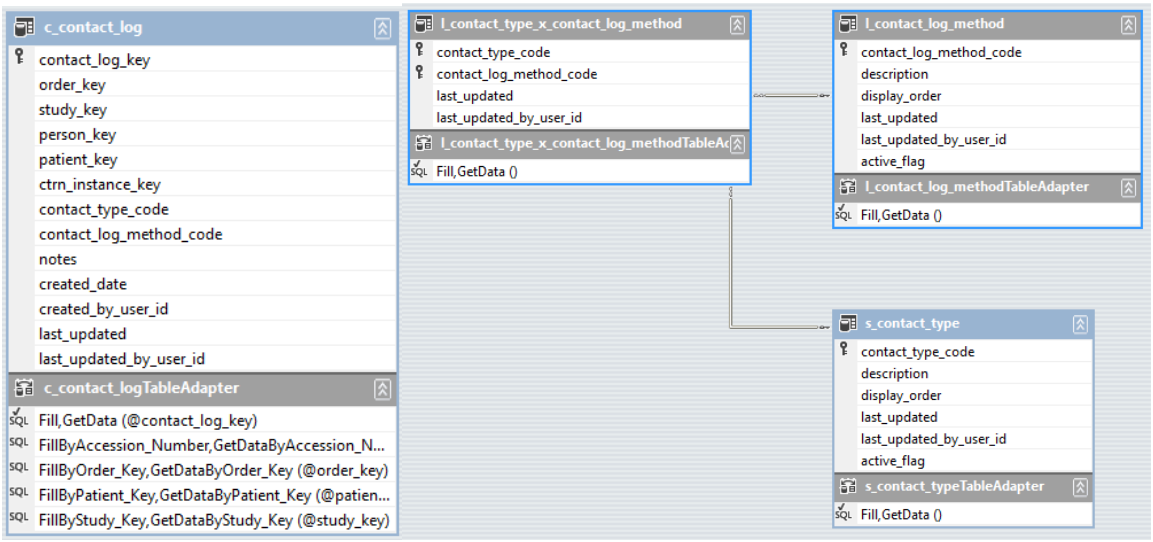
The Contact Log in the CTRM redesign works similarly to the Contact Log in other areas of the application. However, some key differences exist because a new framework has been applied to the CTRM Contact Log which separates it from all other Contact Logs in RIS. Eventually, other types of Contact Logs will migrate to the new framework. The main goal of the change in the Contact Log pattern is to keep the CTRM options separate from other Contact Log options, thereby providing a shorter list of CTRM specific Contact Types to choose from, as well as segregating the messages themselves, so that all Contact Log entries viewed in the Critical Result workflow are applicable and not mixed in with contacts regarding scheduling or mammography follow-up, for example.

To do this, a new look-up table was created: *Contact Log Method*. Create entries for any Contact Log Methods that are pertinent to Critical Results workflow, then click the arrow to the left of each entry to open the sub-table.




In the sub-table, choose a Contact Type Code of CTRM, as described in the picture above.

Here is a look at the data structures:




No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## CRITICAL RESULTS WL AND ALL CRITICAL RESULTS WL

There are now three different ways to access or monitor critical results via worklist. Under the Radiologist menu, it is possible to review outstanding critical results created by the logged in user on the Critcal Results WL or to review all outstanding critical results (regardless of who initiated them) on the All Critical Results WL. Because the All Critical Results WL is likely monitored by administrative personnel, it is also accessible under the Administration menu.

There are some helpful columns to be aware of for managing these worklists:

| Last Contact Log Date | Last Contact Log Method | Last Contact Log Note | Contact Log Count |
|---|---|---|---|
| 12-30-2016 12:28 AM | Nudge | Sent message re: herniation via Nudge | 2 |

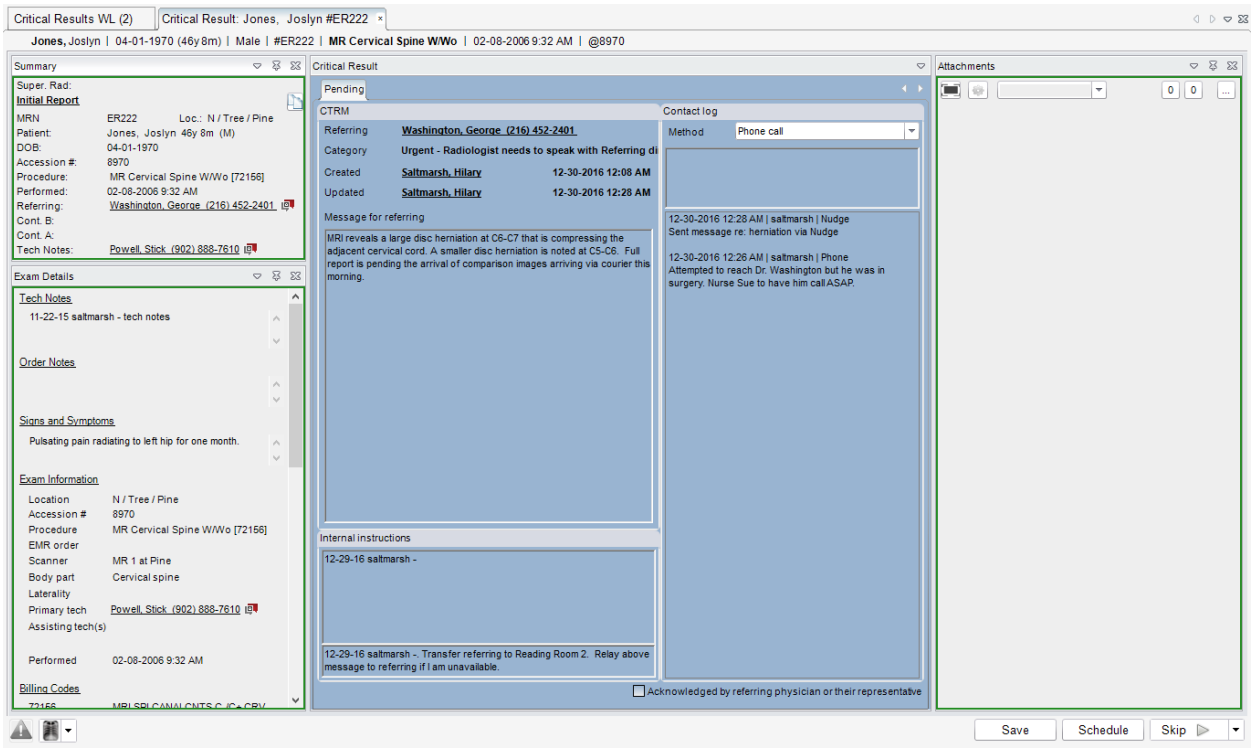
| Elapsed Time Since Created |
|---|
| 4h 1m |
| 2h 44m |

## CRITICAL RESULTS SCREEN

From any of these worklists, clicking the *Edit* button opens a new Critical Result screen which allows the user to edit the notes, record contact attempts, and mark the critical result as Acknowledged.

Modeled off of the Reporting screen, this screen has a number of tool panels which can be arranged according to preference and saved as a layout with a type of “Critical Results.” Even administrators without reporting permissions have the ability to create these layouts for managing the All Critical Results WL from the Administration menu.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.




If a report is available for the study, it will be displayed as an HTML version (like the Report Nugget) in a panel.

Note that in this screen, there is not a separate Save button within the Critical Result tool panel (unlike the tool panel in the Reporting screen). To save changes in this screen, the parent screen must be saved by clicking the Save button in the bottom right corner. In the event that an urgent follow-up exam is required, a Schedule button is provided from this screen as well. In an effort to save time, the originating study's information will be cloned for the new Schedule Order event, which can be updated as needed.

The Skip button works in the same way as in the Reporting screen, allowing the user to move to the next item on the Critical Results WL.

## HOW TO ENABLE THE FEATURE

1) Add some CTRM Categories in the look-up table.
2) Add some Contact Log Methods in the look-up table.
   a) Associate these to the "CTRM" Contact Log Type by clicking the arrow to expand the sub-table.
3) Provide any pertinent User Groups with the required access strings:
   a) WL.CriticalResults --Provides access to the All Critical Results WL from "Administration" menu.
   b) WL.Rad.CriticalResultsAll --Provides access to **All** Critical Results WL from "Radiologist" menu.
   c) WL.Rad.MyCriticalResults --Provides access to the Critical Results WL from "Radiologist" menu to view critical results created by the logged in user.
   d) Config.LookupEditor.CTRMCategory --Provides access to the CTRM Category look-up editor.
   e) Config.LookupEditor.ContactLogMethod --Provides access to the Contact Log Method look-up editor.

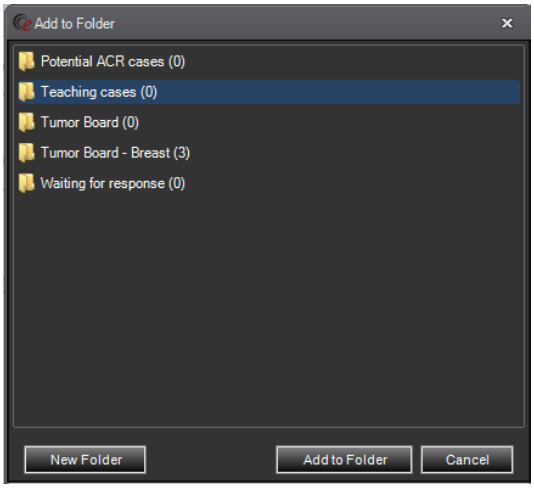
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #14502, 3723 – FOLDER STRUCTURE FOR COLLECTING CASES OF INTEREST, TEACHING FILES, AND OTHER REFERENCE NEEDS

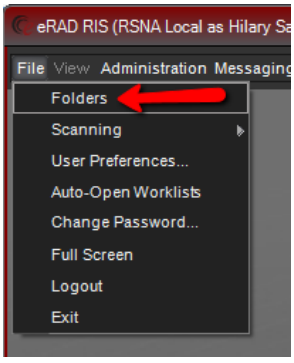
Radiologists participating in Tumor Boards or presenting teaching cases have asked for a method to store studies in a folder structure by category for future reference. Radiologists can now create folders by category and select studies to add to those folders without leaving normal workflow.

From the Reporting screen, a radiologist can add the current study to a folder by clicking the button below.

This button will launch a window for the radiologist to select one of their existing folders or create a new folder.

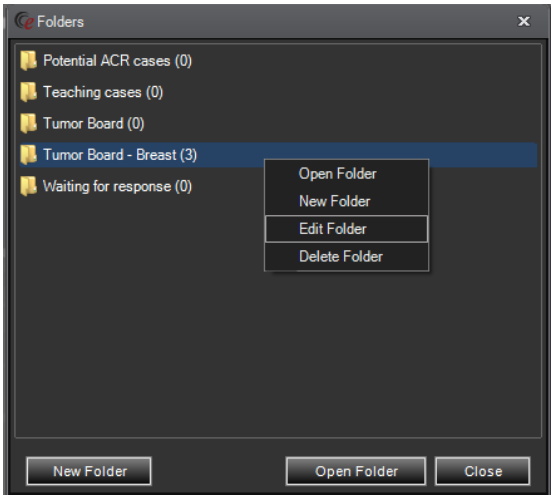



If a user wishes to view the contents of a folder, or simply wants to manage their folders, this can be done by clicking the File menu, then selecting Folders.

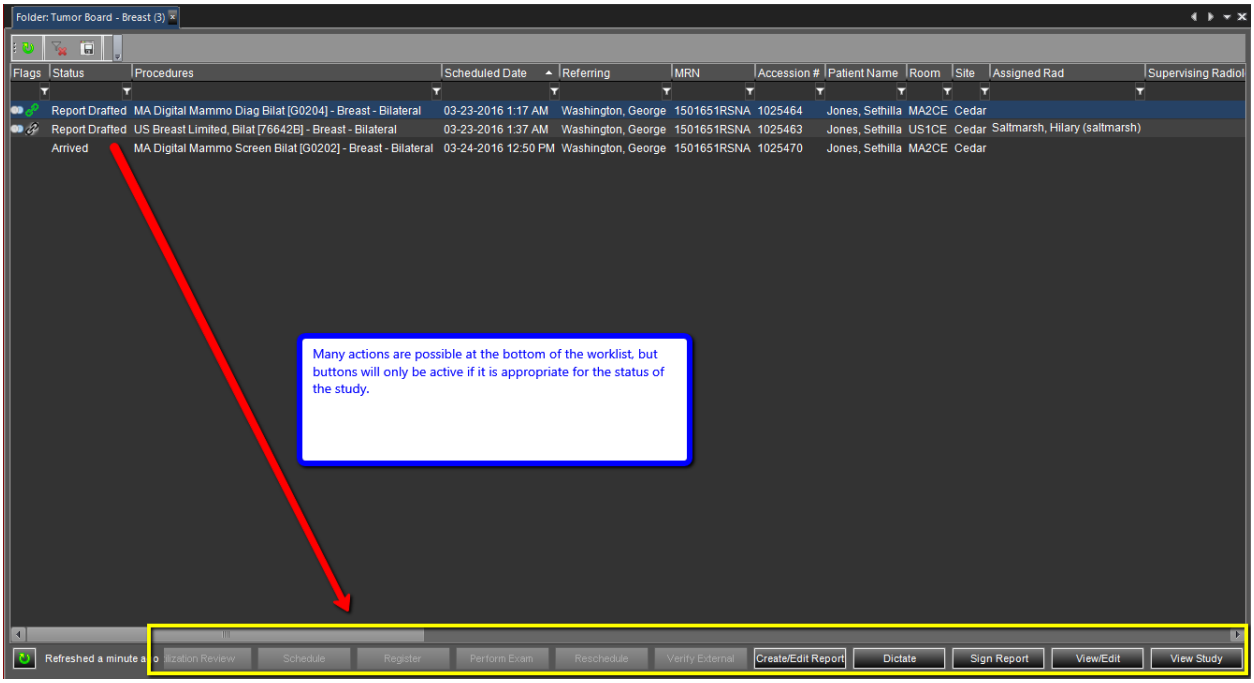



The resulting pop-up window will allow the user to open any folder with studies associated, or they can right click for additional options, such as Delete Folder or Edit Folder, which allows editing of the Folder name.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.




When a folder is opened, any studies that were assigned to that folder will be listed on a worklist in a new tab. The tab name will be "Folder: [Name of Folder]."

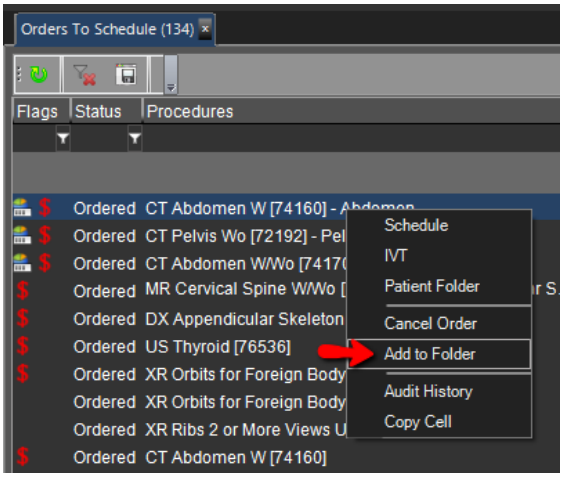



A wide variety of actions are possible via the buttons at the bottom of the worklist or the right click menu options. Depending on the status of the exam and the user's permissions, only applicable buttons or menu items will be available.

Folders aren't just for radiologists. Any user can create folders that are useful for their particular needs, such as a lead technologist looking for images with ideal positioning for ACR testing or a scheduling manager gathering a list of examples to use for a staff training session. To add a study (or an order) to a folder from outside of the

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

Reporting screen, simply right click on an item from a worklist or from the Patient Folder and look for a context menu option called “Add to Folder.” Almost all worklists will have this option.



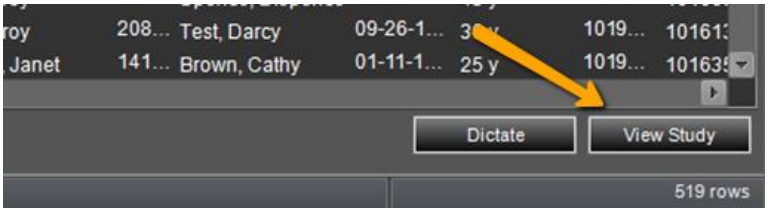

To remove an item from a folder, simply right click the item from the Folder worklist and select the option Remove from Folder.

To grant access to this feature, a user must belong to a User Group with Full access to the new Access String, *WL.Folders*.

At this time, the folders are personal folders only, but the ability to create shared folders or sub-folders will be added in the near future. There is not a limit to the number of folder categories a user can create.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

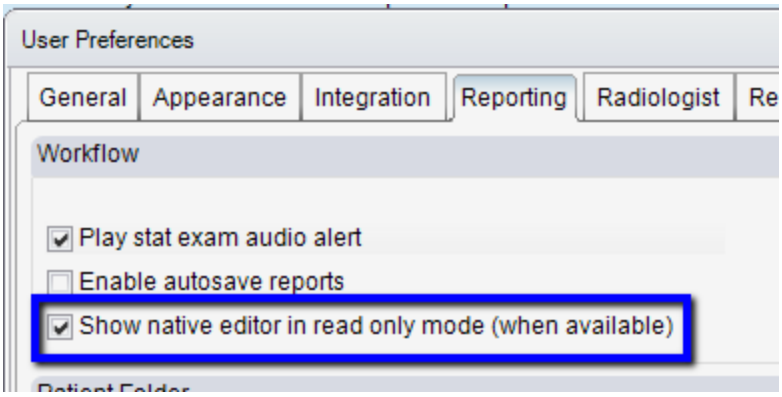
Radiologists and other staff members require an option to open reports in a Reporting screen mode without automatically creating an addendum or launching the full dictation process. This can now be accomplished via a new button called ***View Study*** which will bypass the create addendum prompt and cleanly open the reporting screen (read only) with PACS images.




The new *View Study* button and context menu have been added to all worklists where the "Dictate" button existed. This new button will open the dictate screen in a read only mode, without prompting the user.

A new *Read Only Report Viewer* has been created which will show the report at it would be shown in the report data nugget: it doesn't show an audio control and it will display instead of the native report editor. This viewer will be shown by default all the time for every reporting mode. For example, if an exam was dictated in PowerScribe and the report is opened with View Study, the report will be displayed in a panel in the View Study screen, as opposed to launching PowerScribe.

The user can change a user preference called *Show native editor in read only mode (when available)* which is available on the Reporting tab in the User Preference screen.

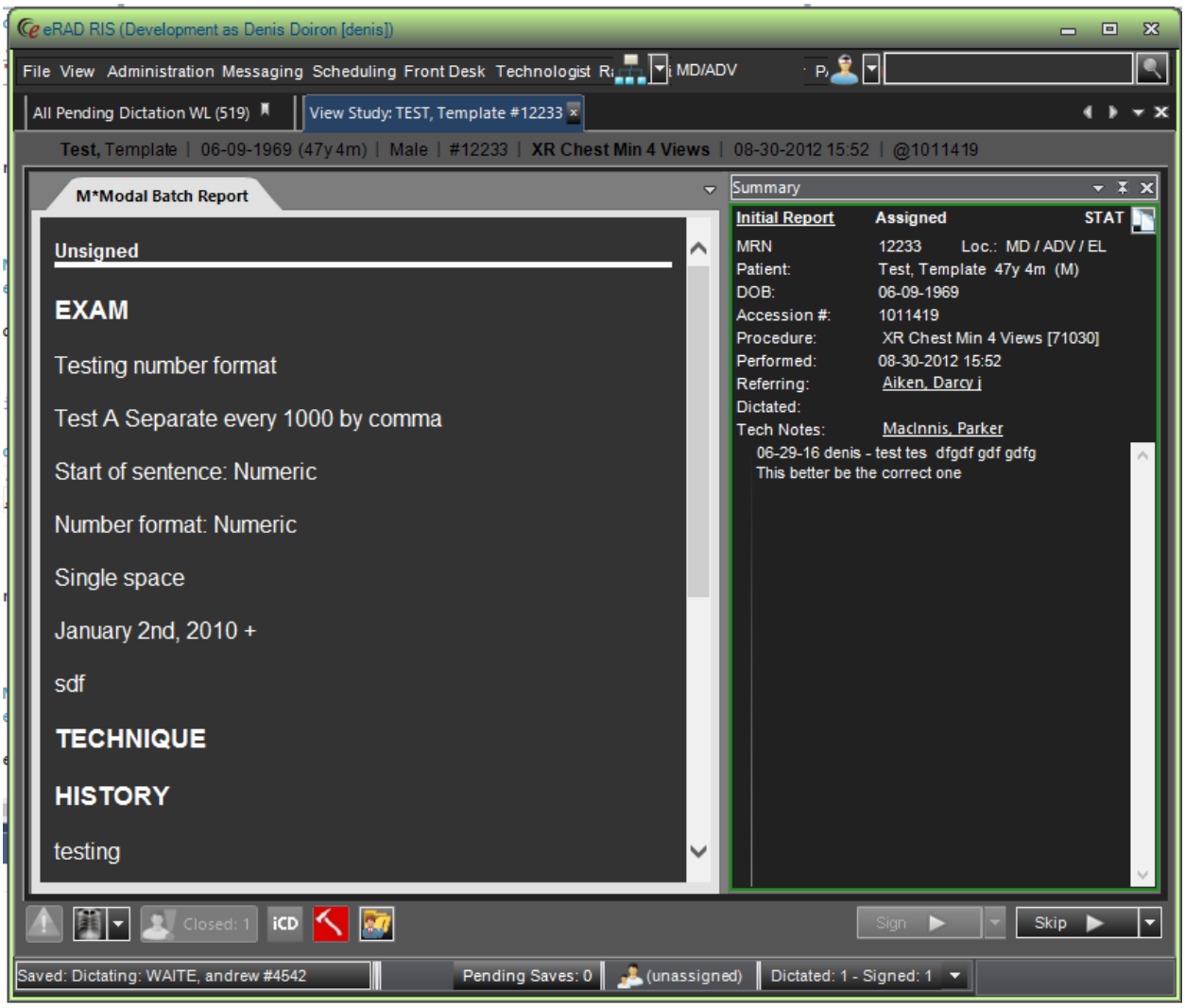



When this is checked, the native editor will be used in read only mode and will have the audio control available. If the user is not allowed to use the native editor due to access string or system configuration settings, then the *Read Only Report Viewer* will be shown in its place.

The button and context menu item will be enabled on all studies from Exam Done forward, as long as there is an interpretation on the study. There is a feature logged to expand this functionality.

In order to access the View Study option, a user must belong to a User Group with an access level of Full for the new access string *Clinical.ViewStudy*.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.




No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

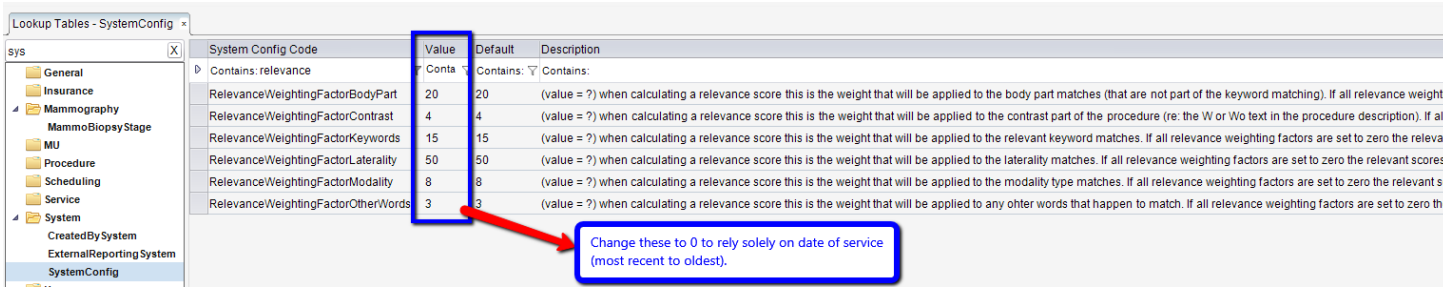
## FEATURE #10370 – SUPPORT FOR REVERSE CHRONOLOGICAL IMAGE CACHING AND LOADING

Previously, relevancy rules discounted the importance of chronology when scoring prior studies to display the most relevant priors regardless of when they were performed. Radiologists have requested that caching be based on relevancy + chronology to ensure that the most recent exams are cached first.

To accomplish this, it is now possible to adjust how various factors are weighted when calculating relevancy. There are six relevancy factors listed in the System Configuration table:

(1) *RelevanceWeightingFactorBodyPart*
(2) *RelevanceWeightingFactorContrast*
(3) *RelevanceWeightingFactorKeywords*
(4) *RelevanceWeightingFactorLaterality*
(5) *RelevanceWeightingFactorModality*
(6) *RelevanceWeightingFactorOtherWords*

Set each weighting factor to zero to rely solely on the date of service, from the most recent study to the oldest.



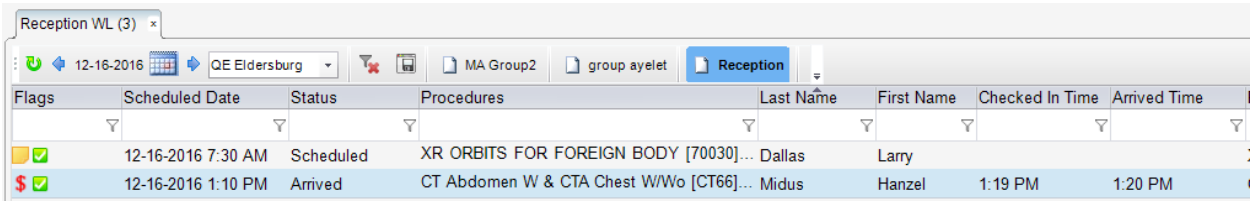

Sometimes, setting the Modality and OtherWords factors to zero will make a notable difference, while leaving the other relevancy settings intact.

At this time, these settings must be changed for the entire system and do not allow for individual user preferences. To leave Relevancy as it has been in the past, no changes are necessary.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #14634 – NEW COLUMNS FOR RECEPTION AND TECHNOLOGIST WORKLISTS: CHECKED IN TIME AND ARRIVED TIME

When technologists share patients between rooms or scheduled patients arrive early or late for their appointments, it can be helpful to know the times the patient was marked as Checked In or Arrived. New columns for *Checked In Time* and *Arrived Time* have been added to the Reception and Technologist worklists. These columns can also be helpful for identifying if an unusually long amount of time has passed since a patient was marked as Checking In but has not yet been Arrived, which can indicate that the patient may need assistance with registration questions or that a step was missed in the Registration process.




No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #14541, 14572, 14808 – NEW COLUMNS ADDED TO SEVERAL RADIOLOGIST WORKLISTS

When radiologists receive calls from providers wishing to discuss a patient's results, they often utilize worklists to locate the study. Providers commonly have the patient's date of birth handy and radiologists indicated that they would like to see this information on the worklists in order to quickly confirm that they are selecting the correct patient. A DOB column has therefore been added to the following worklists that are commonly used for this purpose:

- Dictated by Date WL
- All Dictated WL
- Finding Follow-up WL

Additionally, columns to indicate the *Performing Radiologist* and the *Assistant Radiologist* have been added to the All Pending Dictation and Pending Dictation worklists.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

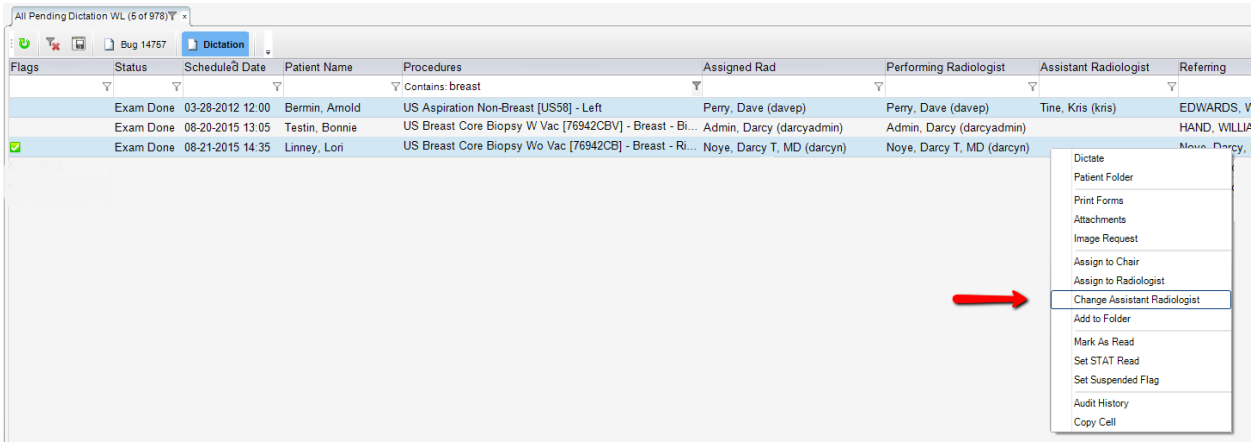
## FEATURE #7091 – IVT OPTION ADDED TO CONTEXT MENU ON ORDERS TO SCHEDULE WL

Schedulers sometimes need to launch the IVT workflow directly from the Orders to Schedule worklist. It is now possible to right click a row on the Orders to Schedule worklist and select *IVT*.

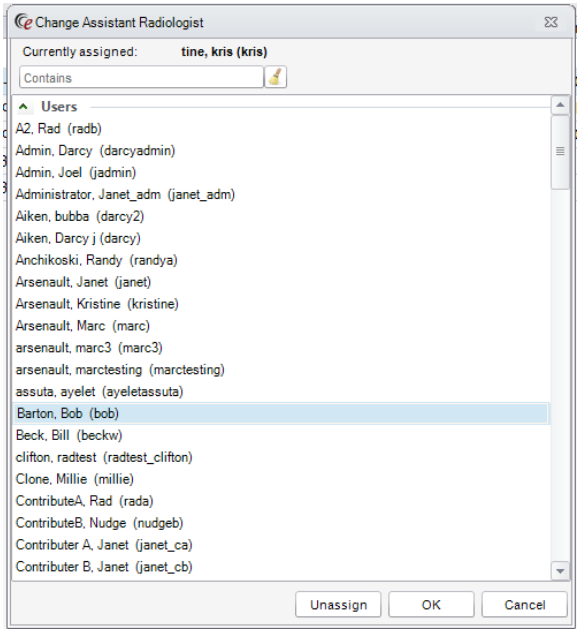
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #14813 – ABILITY TO SET THE ASSISTANT RADIOLOGIST VIA CONTEXT MENU FROM PENDING DICTATION AND ALL PENDING DICTATION WORKLISTS

Some users need to multi-select studies from the Pending Dictation WL or All Pending Dictation WL and set the Assistant Radiologist. It is now possible to right click a row on these worklists and select *Change Assistant Radiologist*. Multi-select can be accomplished by holding the CTRL key, selecting the desired rows, and then right clicking any highlighted row to select *Change Assistant Radiologist*.




A new window will open to allow the selection of the Assistant Radiologist. It functions in the same way as the Assign Radiologist window. A radiologist can be selected from the list or the filter can be used to search for a radiologist. Click the Unassign button to clear the Assistant Radiologist without replacing with a new name.




In order to access the Change Assistant Radiologist in the context menu, users must belong to a User Group with Full access to the new access string: *Clinical.ChangeAssistantRadiologist*.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #7395 – RECEIVE AND PROCESS INBOUND DOCUMENTS (SUCH AS FAXES) VIA RIS

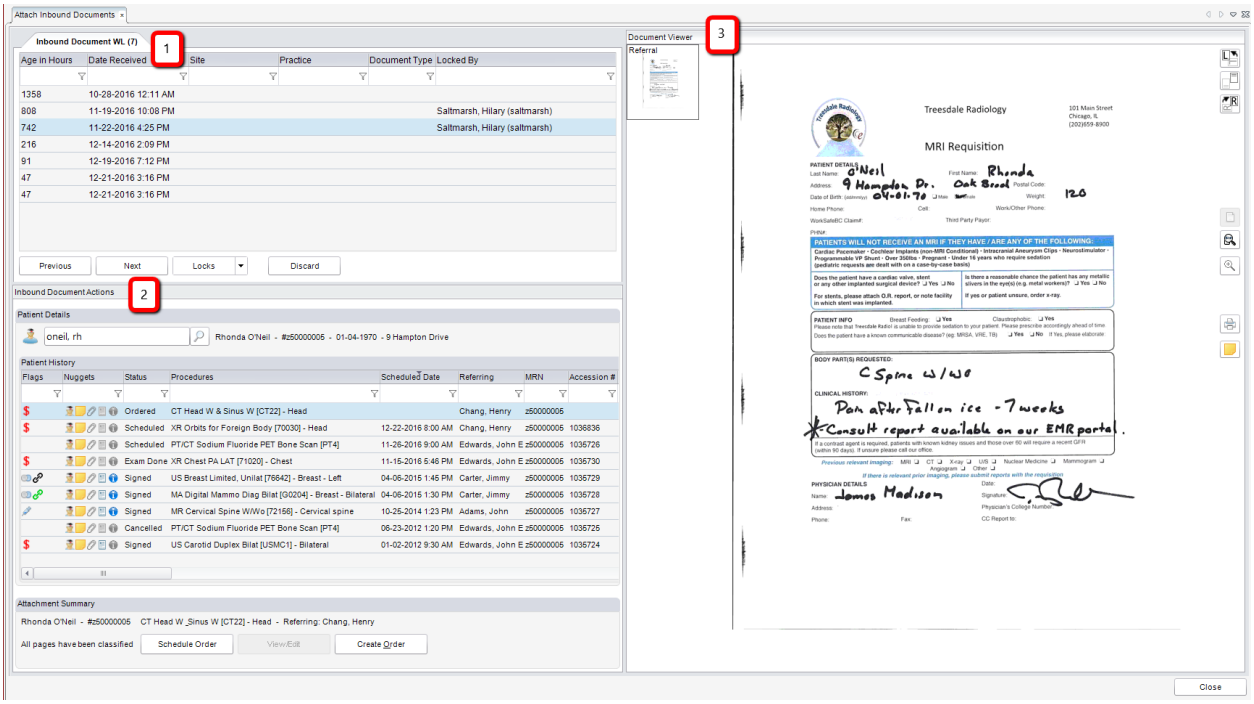
There is a desire to streamline the process of receiving sensitive documents, such as referrals or clinical documentation, and matching them with the appropriate patient and order. eRAD RIS's new Inbound Document module will allow for the elimination of paper faxes and the frustrations caused when an important document is not easily available from anywhere in your organization. Patient satisfaction, scheduling hold times, and appointment turnaround time will benefit from minimizing the time spent physically scanning in faxed documentation or searching for a referral that could have been faxed to a number of physical fax machines.

Even if your organization already uses an external electronic fax system, the efficiencies gained by a streamlined process of associating the faxes to the correct patient/order in RIS and the option of immediately launching the corresponding task that is prompted by the incoming document (such as scheduling an appointment) make this new RIS feature a step towards further gains in productivity.

In order to display electronic faxes and other incoming documents in eRAD RIS, a new screen called ***Attach Inbound Document*** was created. The new screen is accessible from the Administration menu and consists of the inbound document worklist, a document viewer, and some controls to search for patients and associate inbound documents to a patient, order or exam.

These 3 main areas of the Attach Inbound Document screen are displayed in the image below: (1) the Inbound Document WL, (2) the Inbound Document Actions panel, and (3) the Document Viewer. The three panels can be positioned separately, allowing the user to select their preferred layout for the information presented.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

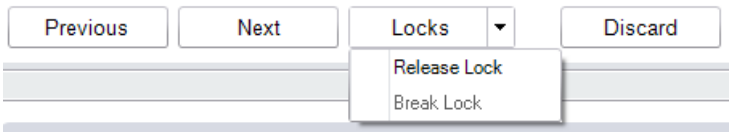



## SECTION #1 - INBOUND DOCUMENT WL PANEL

The Inbound Document WL (area #1) is a panel that can be positioned inside the main RIS window. Each fax that is routed to a specific inbound fax folder will generate a row on this worklist. There is a column to show the age in hours of the selected document (i.e. how many hours it has been since the fax was received), the site and practice (if any) to which the document is associated, an indication of the document type, if known, and a column that identifies the user who has the current document locked.

The Inbound Document service uses the settings on the fax server to determine the practice, site, and document type settings for a fax (e.g. a fax routed to the TREE folder will be associated with the Treesdale Radiology practice, and a fax saved in the TREE/MP folder will be associated with the Treesdale Radiology practice and Mapleton site). If a specific fax device is configured on the fax server for faxes designated to a particular department or function, these incoming documents can be saved to a separate folder which can set the value of the Document Type column accordingly. For example, a dedicated fax for a consolidated PET/CT scheduling department that covers three sites in a geographical area could be configured, which would have a Document Type of PET/CT. These settings allow users to filter the Inbound Document WL to see particular types of faxes.

There are several buttons in the worklist panel to assist in processing the documents on the worklist:




No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

- **Previous** – Moves upwards on the worklist towards the older documents. If the previous document is locked by another user, it will be skipped and other documents will be attempted until one is found that is not locked. When the screen initially loads, RIS will attempt to open the oldest document. Clicking the previous button when the oldest document is already loaded will make the screen cycle to the other end of the worklist and attempt to load the newest document.
- **Next** – Moves downwards on the worklist towards the newer documents. If the next document on the worklist is locked by another user, it will be skipped and other documents will be attempted until one is found that is not locked. Clicking next when the most recent document is loaded will make the screen cycle to the other end of the worklist and attempt to load the oldest document.
- **Locks** – Dropdown button containing two options: Release lock and Break lock. When a document is opened, a lock is granted and will be displayed to other users in the "Locked By" column on the worklist. If a user has a lock, they can release it by selecting a different row on the worklist, by closing the screen, or by clicking "Locks -> Release lock."
    - The *Release lock* button will clear the lock from the database so the document can be processed by another user. Additionally, the document will disappear from the Document Viewer portion of the screen and the "Locked by" column will be cleared.
    - The *Break lock* button is used to release a lock in the event that a lock is held by another user who is no longer at their computer (e.g. they left for lunch without closing the Attach Inbound Document screen and still hold a lock on one of the documents).
- **Discard** – Some documents will not be processed and attached to a patient record, such as unsolicited advertising or faxes that are illegible. The discard button will delete the document after prompting the user to specify one of the reasons that are stored in the configurable *DocumentDeleteReason* look-up table. The discard button is disabled if the user clicks on a row that is locked by another user.

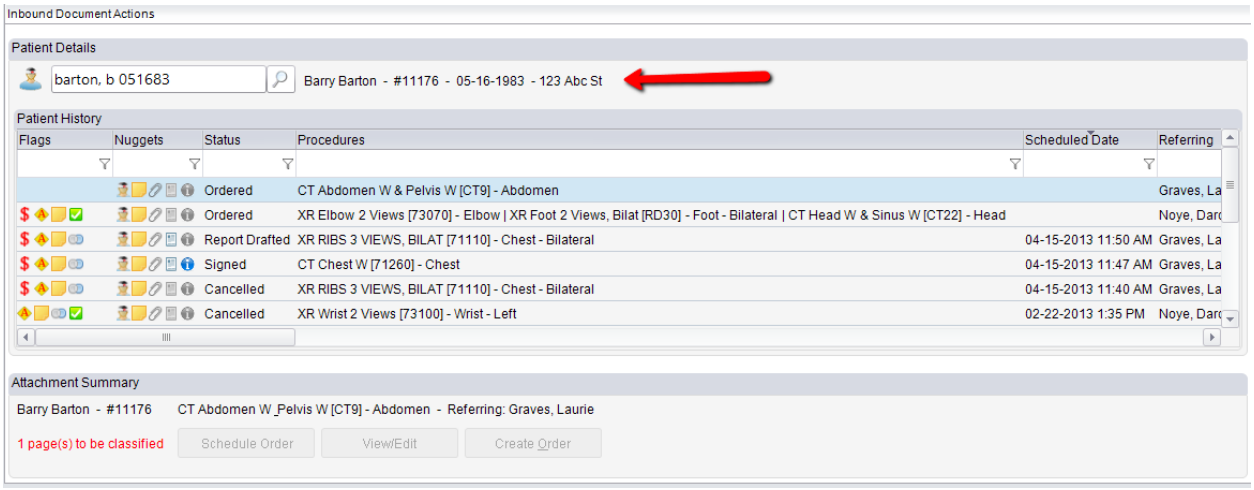
## SECTION #2 - INBOUND DOCUMENT ACTIONS PANEL

The Inbound Document Actions panel is where the processing of the selected document occurs. It has two sections: a *Patient Details* section to search for a patient and view the orders and exams in their Patient Folder *and* an *Attachment Summary* section which displays a summary of how the document will be processed given the patient and order/exam selected, as well as the Action buttons. The Action panel pictured below shows the initial state of the screen *before* a patient is selected and before the user has classified any of the document pages.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

**Patient Search:**

The patient search area contains search controls that are designed to appear similar to the Quick Search box in the upper right corner of RIS. The user can enter name details and optionally a birth date to perform a search, or they can search with #MRN or $AuthNumber. Once the search criteria have been typed in the box, the user can press enter or click the magnifying glass to launch the search and a pop-up window will display the search results. The user can then double click the most appropriate result to make their selection or choose "New Patient."



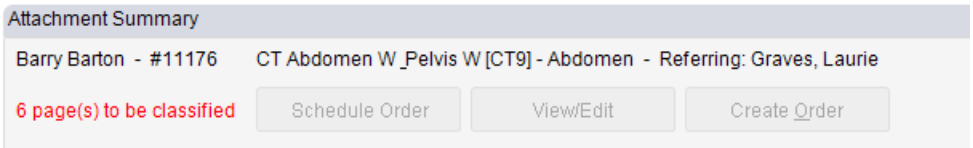

In the screen capture above, the user performed a search for "barton, b 051683" to search for patients with last name Barton, first initial B, and a date of birth of May 16, 1983. In the search results window, the user then double clicked one of the patient search results to select the patient who matches the document to be processed. To the right of the search box, a patient summary will display the patient's name, MRN, date of birth, and street address after the selection has been made.

**Patient History:**

After a patient is selected, all of the patient's exams and unscheduled orders are displayed. The user will examine the selected document and then choose the applicable order or exam in the patient history section to which the document should be attached by single clicking the row. The selected row will be highlighted in blue. To unselect a row, either single click on a different order or exam in the history section, or click into the white filter row to deselect all rows. It is not a requirement to choose an order/exam in the Patient History section, as the document may be for a new exam. Selecting an order or exam in the history section will update the Attachment Summary section described below.

**Attachment Summary:**

The attachment summary area provides information about what has been done to the current document and what actions still need to be taken.




There are two lines of information: the top line indicates the patient and the order or exam that was selected in the patient history (if applicable). The top line will initially show a message in a red font that indicates "No patient selected." After a patient is selected, the top line will use a black font that indicates the patient's name and MRN,

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

as well as the procedure and referring physician information for the currently selected item on the patient history grid. If the user performs a patient search and clicks the New Patient button, this label will indicate “New patient” in a black colored font.

The last line in the attachment summary uses a red colored font to indicate the number of pages that remain to be classified. This action takes place in the Document Viewer, described in the next section. Once complete, a black font will indicate that “all pages have been classified.” When the user sees that no red font appears in the summary, they can move forward by double clicking a row on the worklist or selecting an action button which will now be available.

**Action Buttons:**

Action buttons become enabled once all of the pages have been classified in the Document Viewer section. Only buttons that are relevant to the selected row in the Patient History will be active.

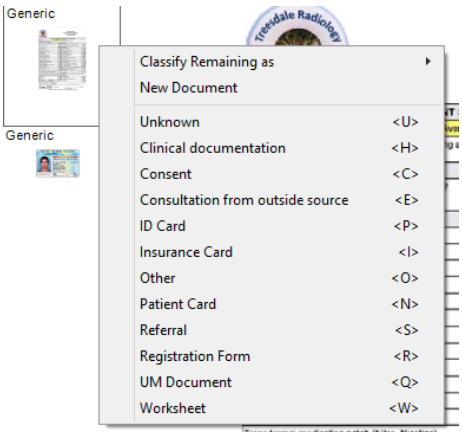
- **Schedule Order –** If an exam in Ordered status is selected in the Patient History section, this button will be available. Clicking this button will launch the selected order to be scheduled and the document will be added to the Attachments for that order. The user can either proceed with scheduling the order or can click Save as Order to simply save the inbound document as an attachment for the order.
- **View/Edit** – If an exam in any status other than Ordered (e.g. Scheduled, Cancelled, Exam Done, etc.) is selected, the View/Edit button is available. Click this button to open the View/Edit screen for the selected exam. The user may take any action in this screen that may be indicated by the received document or simply click the save button to attach the inbound document to the selected exam.
- **Create Order** – This option will ignore the row selected in the Patient History and will open a new Schedule Order screen for the selected patient, so that a new order can be created for the document that was received, such as a new referral. The inbound document will be loaded as an attachment. The user can proceed to schedule or can enter enough information to Save as Order.

For all options, once the selected screen is saved, the document will fall of the Inbound Document WL and the next document will be loaded.

## SECTION #3 - DOCUMENT VIEWER

The Document Viewer initially shows the first page of the loaded document in the main area, with a thumbnail of each page to the left. By right clicking a thumbnail, the user can choose the type of document. Each active *ScanType* is displayed in the context menu and the user can either classify one page at a time or use “Classify Remaining as” to classify the current page and those that come after it with the same ScanType.

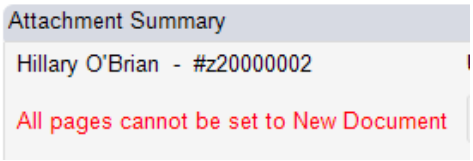
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.




**New Document:**

Some faxes may come in with information for multiple patients as part of the same transmission. When this occurs, the user can select a patient for one or more of the pages and then apply a scan document type of "New Document" to the other pages. When the user then associates the document to a patient and saves, a new entry will be created for all pages that were classified as "New Document" and this new document can then be processed and associated with a different patient.

At least one page must have a classification other than "New Document" for the user to save. If the user attempts to use "New Document" as the type for all pages, the Attachment Summary will inform the user that it is not possible to associate all pages as a New Document.




## ATTACH INBOUND DOCUMENT SCREEN LAYOUT

Each user is free to reposition the 3 portions of the screen according to their preference, optionally dragging some portions to other monitors. The screen's layout will be saved when the screen closes and re-applied the next time the user opens the screen. The layout can be reset to the default by right clicking the "Attach Inbound Document" tab title and choosing "Reset Layout."

## HOW TO ENABLE THE FEATURE

1) Configure the inbound document service.
2) Assign permission strings to appropriate User Groups:
   - *Clinical.AttachInboundDocuments*
   - *Clinical.AttachInboundDocuments.BreakLock*
   - *Config.LookupEditor.DocumentDeleteReason*

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #14145 – INTEGRATION WITH RADAR SECUREPIC

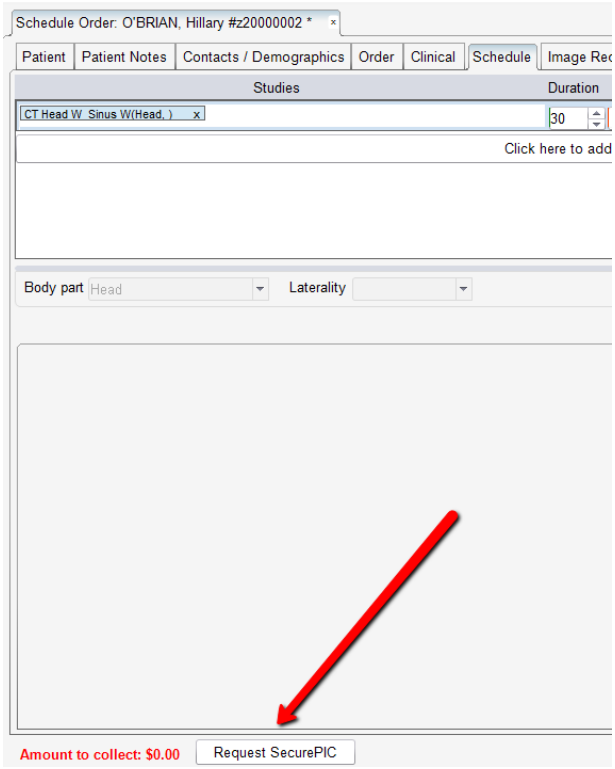
Integration with RADAR SecurePIC gives RIS users the ability to initiate a text message to a patient's mobile phone and securely receive a picture message back from the patient. Anticipate a decrease in scheduling minutes spent asking the patient what they see on their insurance card or referral ***and*** an increase in the accuracy of information entered at the time of scheduling.

Other users will benefit from SecurePIC as well when they need to see something that the patient has in their hands when they are not in the center: whether it is an insurance card, a referral, a pathology report, etc. If a patient shows up at the center and left their referral at home, a SecurePIC can be sent to their family member at the house to securely message a picture of the referral into the patient's RIS account. Some customers are even discussing the option of using mobile phones as an inexpensive scanner substitute for users who don't have a lot of documentation to scan. The possibilities are many.

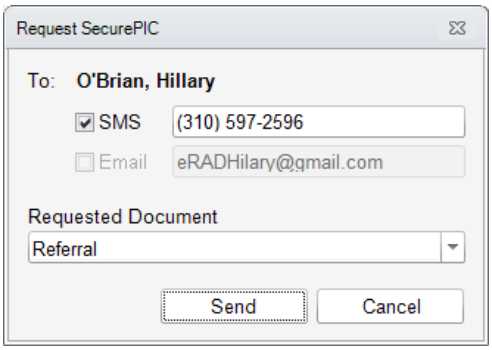
A new button labeled *Request SecurePIC* is located in the bottom left corner of the following screens:

- New appointment
- Walk-in appointment
- Reschedule / Schedule From
- Confirmation
- IVT
- Registration
- View/Edit
- Edit Billing

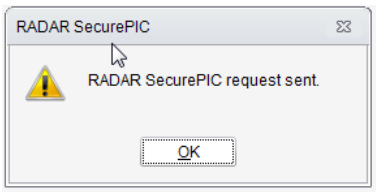
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.




When the *Request SecurePIC* button is clicked, a dialog opens displaying the mobile number on file for the patient and allowing the user to select the type of document to request. The document type will be used in the text message to the patient explaining what is being requested.




Upon clicking Send, the RIS user will receive a confirmation or failure message:



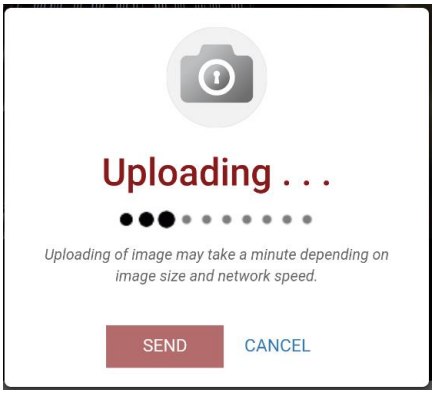
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

The patient will receive an SMS text message that will include information such as the name of the facility, the type of document requested, and instructions to click a URL link to the RADAR SecurePIC web page. Patients should be encouraged, via the message text and any conversation that takes place with the patient prior to sending the message, that they should click the URL link, ***not*** reply back via text message.

The URL link will open a secure web page on the patient's phone, as in the example below:

Clicking on the red "Take Pic" button or clicking the large gray camera logo will initiate a dialog specific to the patient's phone to either take a picture of the requested document or upload an existing image of the document.

Upon following the prompts, the image will be securely uploaded to RADAR. The upload speed can vary depending on the resolution/size of the picture and the patient's internet connection. While it uploads, the patient will briefly see the following on their screen:

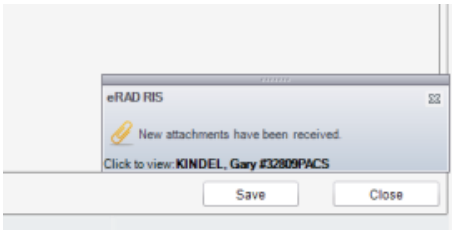



No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

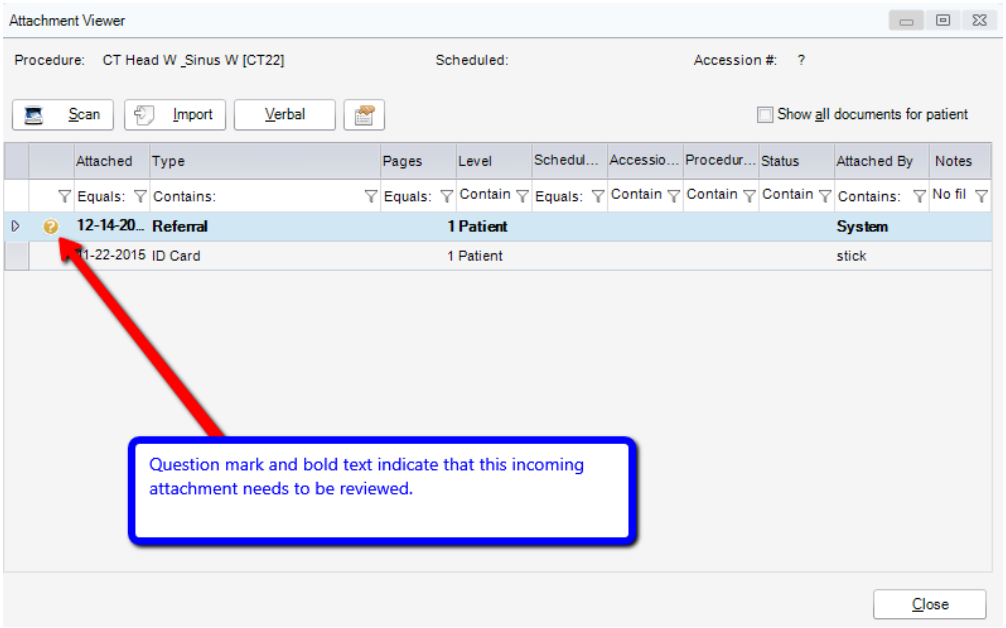
After the image has uploaded, the patient will have the option to send another picture, helpful when they are sending a multi-page document or the front and back of an insurance card.

Once the document is uploaded to RADAR, an inbound SignalR message notification will be pushed to the eRAD RIS services and the photo attachment will be automatically downloaded and added to the database as a scanned document associated with the patient who uploaded it. It will also be labeled with the ScanType the RIS user selected when sending the SecurePIC request.

After RIS receives the photo of the document and it has been converted into an associated scanned document, a desktop alert will appear in eRAD RIS for the user who initiated the SecurePIC request.

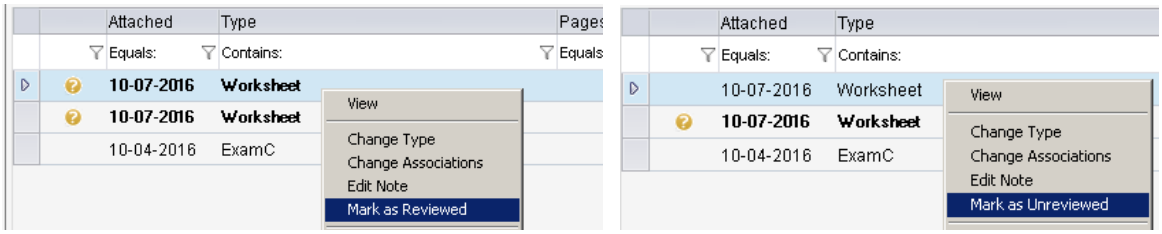



Clicking on the desktop alert message will open the Attachment screen for the patient, regardless of whether the user still has the patient's tab open in RIS. Prior to the new document being opened for review, the attachment will be listed in bold and a yellow question mark will be displayed to indicate that it has not yet been verified.




Upon opening the attachment, the user will have access to all of the usual Attachment tools and can relabel pages, rotate images, and so on. After the user opens the document, if the user has Full access to a new Access String, *Clinical.ScanDocs.AllowMarkAsReviewed*, then it is assumed that the image has been verified and the bold text and question mark are removed. The user can also right click and select *Mark as Reviewed*. It is possible to *Mark as Unreviewed* if necessary.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.




Documents that are not reviewed will not display in the Data Nuggets and will not display in the Radiologist specific screens.

If the attachment is not reviewed by the user who initiated the request (perhaps they have left for the day), then the image will fall to the Inbound Document WL for verification. It will maintain all of the associations to the proper patient and ScanType, so a quick review is all that will be needed to process the document from that worklist.

## A NOTE ABOUT FILE SIZE

The size of incoming attachments sent via SecurePIC can be quite large. An attachment from a photo library might be a 10MB panoramic or a large 3MB snapshot. A series of such large files could be problematic for RIS, therefore a check has been added to compact the size of attachments when their size exceeds the value set for the new System Configuration setting: *Config.MaxAttachmentSizeKB*. The image will be resized to the resolution configured for *Config.AttachmentResolutionWhenSizeExceedsMax*.

## HOW TO ENABLE THE FEATURE

To use the RADAR SecurePIC messaging feature:

1. This feature requires that a RADAR account be configured for each Practice.
2. The following system configuration codes must be configured in System Config:
    - *RADARInboundMessageServerUrl* – URL for the RADAR SignalR event broker.
    - *RADARInboundMessageClientId* - <clientid> provided by RADAR.
    - *RADARInboundMessagePassword* - <password> provided by RADAR.
3. The eRAD RIS user must belong to a User Group that has Full access to the new access string: *Clinical.RADARSecurePIC*.
4. In order to mark a SecurePIC attachment as reviewed, the user must also belong to a User Group with Full access to the new access string: *Clinical.ScanDocs.AllowMarkAsReviewed.*
5. Inbound RADAR message processing must be enabled via the System Configuration setting: *EnableRADARInboundMessageProcessing*.
6. An instance of Wedge Service must be running using WedgePlugin for RADAR.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #13720 – SECTRA PACS INTEGRATION

eRAD RIS now supports integration with Sectra PACS, validated against IDS7 Version 18.1. eRAD RIS is able to drive Sectra PACS using URL calls in a manner similar to the other PACS integrations in RIS.

Due to the URL-based integration used with Sectra, RIS receives no response indicating that the URL call was successful or even an indication that it has completed. This results in the need for RIS to assume any URL call to Sectra completes successfully. Because it is not possible to confirm that images from a previous patient are not left on the screen when the radiologist moves to the next report, it is possible for RIS and PACS to become out of sync and display different patients; this is a possibility to be aware of while dictating.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #13256 – INFINITT PACS VIEWER INTEGRATION

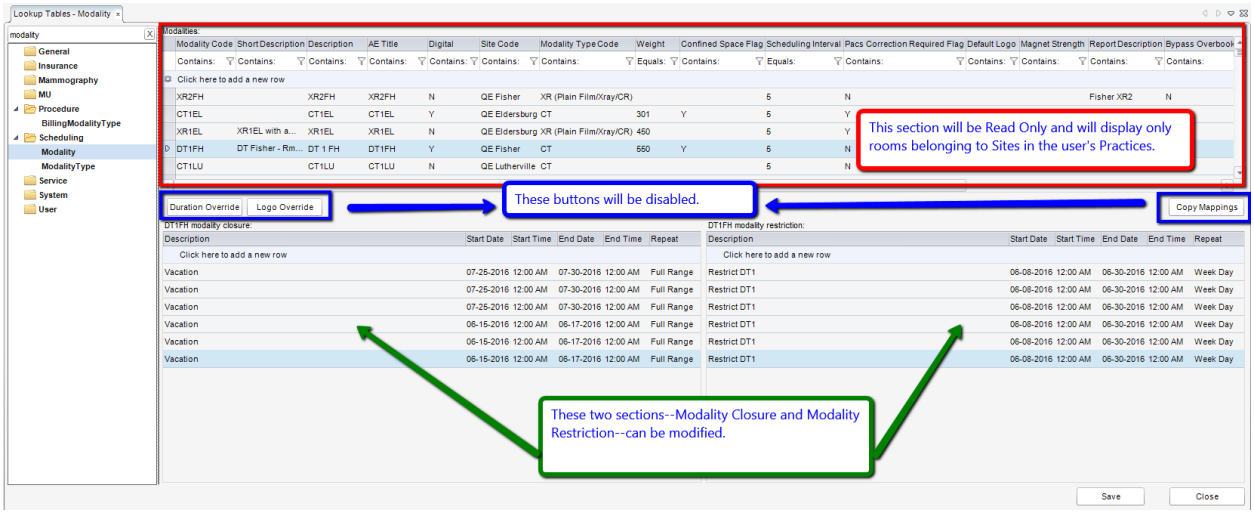
eRAD RIS now supports integration with the INFINITT PACS viewer. eRAD RIS is able to drive the INFINITT Viewer using URL calls, including launching and closing images via actions in the RIS.

Due to the URL based integration used with INFINITT, RIS receives no response indicating that the URL call was successful or even an indication that it has completed. This results in the need for RIS to assume any URL call to INFINITT completes successfully. Because it is not possible to confirm that images from a previous patient are not left on the screen when the radiologist moves to the next report, it is possible for RIS and PACS to become out of sync and display different patients; this is a possibility to be aware of while dictating.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #6391 – GRANT ACCESS TO CREATE ROOM CLOSURES OR RESTRICTIONS ON A PER PRACTICE BASIS

Many times a RIS Administrator would like to give a group of users access to create Modality Closures and Restrictions, but without granting access to the entire Modality table. RIS now has the ability to allow users with limited privilege levels to access only those two functions without the ability to edit other aspects of the Modality table. Furthermore, the access is limited to Practices that are assigned to that user in the Personnel table. These limitations will help to ensure that accidental modality modifications are less likely to occur.




The access string *Config.LookupEditor.Modality.ViewAllPractices* (previously labeled Config.LookupEditor.Modality.ViewAll) can now be set to NONE to disable all controls in the Modality look-up editor other than creating Modality Restriction and Modality Closure *and* will restrict the modalities returned to those that are part of the Practice(s) to which the current user is assigned in the Personnel table. The user will have the ability to create room restrictions and room closures, without modifying any other Modality data.

Limited permission users should have the following Access Strings:

| | |
|---|---|
| Config.LookupEditor.Modality | Full |
| Config.LookupEditor.Modality.ViewAllPractices | None |

RIS Administrators requiring access to edit any aspect of the Modality table for all Practices should have the following Access Strings:

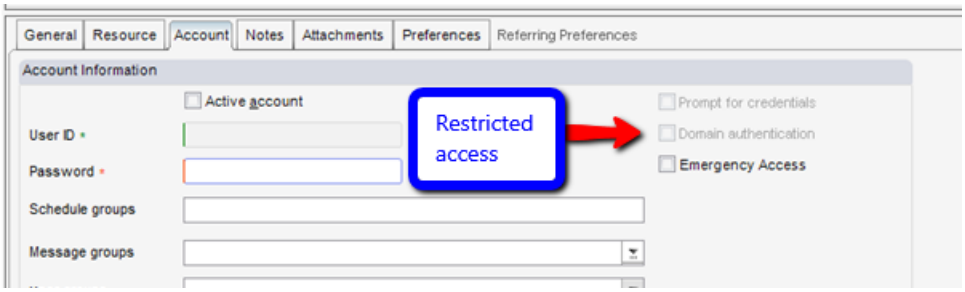
| | |
|---|---|
| Config.LookupEditor.Modality | Full |
| Config.LookupEditor.Modality.ViewAllPractices | Full |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #14458 – RESTRICT ACCESS TO ENABLE/DISABLE DOMAIN AUTHENTICATION

RIS Administrators need to be able to grant access to editing personnel without always granting the ability to change the authentication type for users.

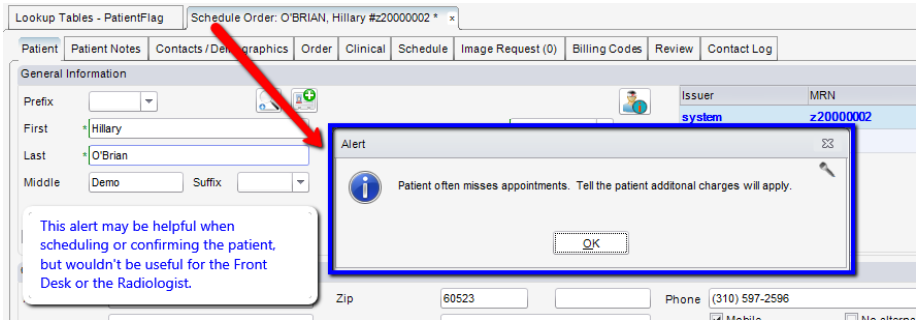
A new access string, *Config.LookupEditor.Personnel.DomainAuthentication*, can be set to None to restrict this access for a given User Group. The system default is Full.



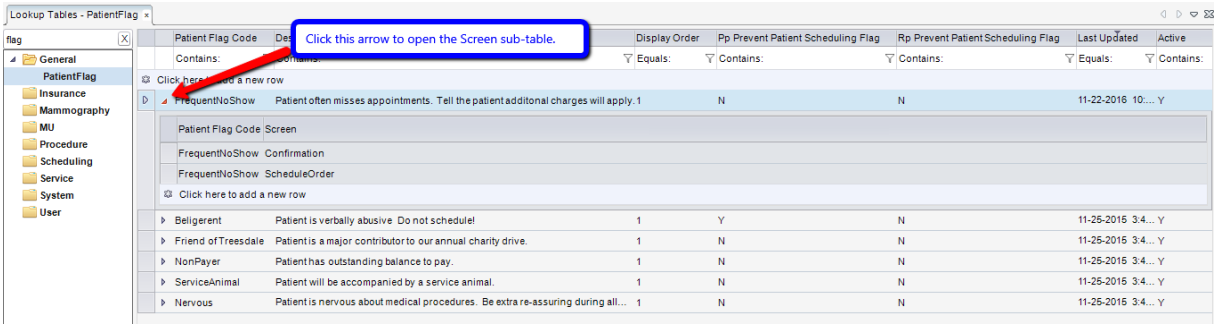

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #14818 – CONTROL WHICH SCREENS DISPLAY PATIENT FLAG ALERTS

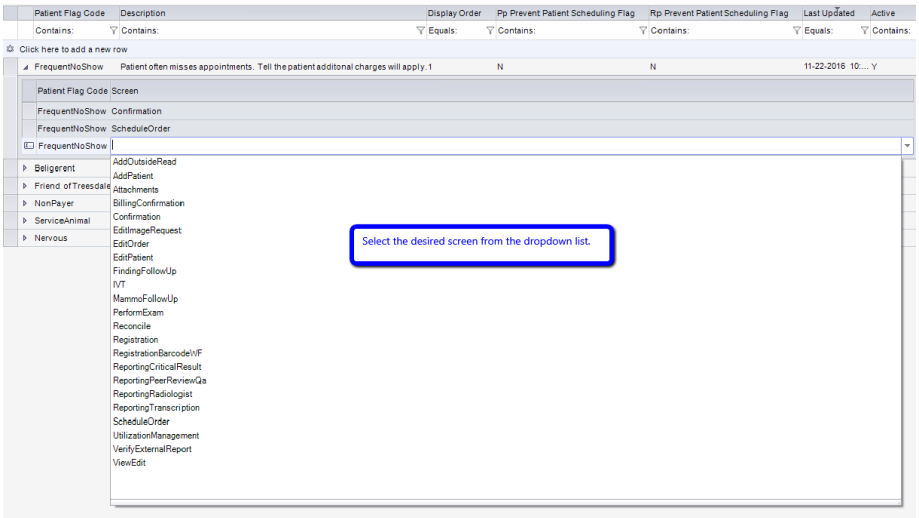
Some messages that are set up as Patient Flag alerts are only applicable at certain points in the workflow. For example, a message that the patient has an overdue balance would be helpful during registration, but not during radiologist workflow.




To increase the flexibility of Patient Flag alerts, it is now possible to configure the messages to display for individual screens. From the Patient Flag look-up table, click the arrow head next to the Patient Flag to be edited. This will open the sub-table where the desired screens can be selected.




Under the Screen column, choose the desired screen from the list provided in the dropdown.




No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

Any Patient Flags that were created prior to this new functionality will automatically be applied to all available screens, in order to maintain the existing behavior.  To make adjustments, simply delete the row in the Screen sub-table for any screens which should not show the alert.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #13812 – SUPPORT FOR PIX / PDQ

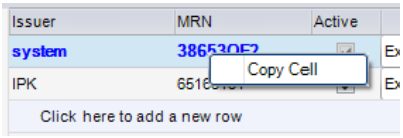
This feature is still under development, but the initial phase of PIX / PDQ (Patient Identity Cross-referencing and Patient Demographics Query) is available for anyone interested in an early implementation of the feature. Please inquire for details if interested.

**Special Note**: As has been recommended previously, RIS administrators are advised to create a User Group with a copy of the RIS Administrator settings, instead of using the User Group labeled RIS Administrator in order to avoid seeing fields that have been hidden and features that have not been activated for your RIS instance.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

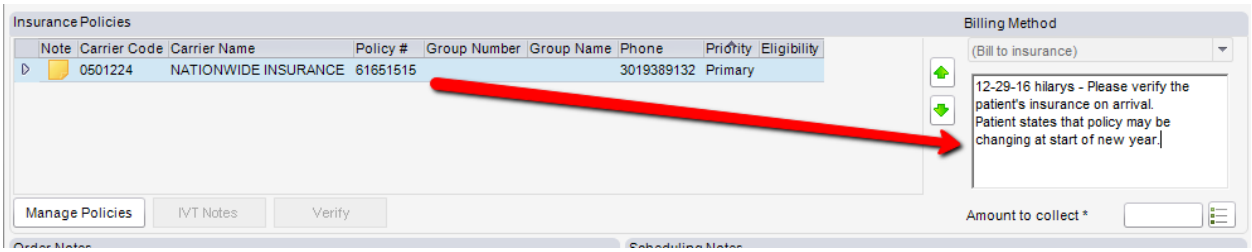
## FEATURE #14341 – ABILITY TO COPY FROM MRN GRID

After recent changes to the MRN grid on the Patient tab, some customers remarked that they no longer had the ability to copy/paste from the MRN grid due to the Read Only nature of the fields in the grid. It is now possible to right-click and choose Copy Cell for any of the MRNs listed in the grid.




## FEATURE #13909 – ENABLE BILLING NOTES FIELD WHEN AN INSURANCE CARRIER IS SELECTED

Previously, the Billing Notes field was disabled after an insurance carrier was selected. It is now available for data entry at any time.




No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## RESOLVED DEFECTS - 2.2016.6

Bugs, support issues, and design optimizations resolved in build 2.2016.6.

| Bug # | Category | Subject |
|---|---|---|
| 14472 | Alerts | Referring physician alerts are once again displayed in Registration workflow. |
| 14204 | Billing | Imagine Payment Portal - Addition of a field to collect internal notes on a payment to be visible in RIS. |
| 14659 | Billing | The repost to billing feature now properly sends a message to Mirth. |
| 14256 | Cancel | Cancelling a study via the context menu no longer causes a retrieve of all studies that are part of the order, causing a message backlog. |
| 13314 | CD Import | Resolved CD Import error: Input string was not in a correct format. |
| 14027 | Document Distribution | Updates to document distribution jobs, such as a change in fax number, are now audited. |
| 14615 | Drawing Tool | Breast Diagram Drawing Tool - Drawings started prior to starting the exam are now updated with changes made after the exam is started. |
| 14604 | Insurance Eligibility | Insurance's Eligibility is no longer marked as not requiring IVT based on previously selected carrier. |
| 14051 | Insurance Management | Resolved an issue with self pay insurance and study level locking. |
| 14753 | Insurance Management | Resolved an NPD performance issue. |
| 14510 | IVT / PreCert | Amount to collect field no longer clearing out when opening IVT or View/Edit on a patient with only one non-Eligibility insurance. |
| 14621 | IVT / PreCert | Resolved an issue with exams not falling to the IVT WL on PreCert status update under certain conditions. |
| 14675 | IVT / PreCert | Resolved an issue with Precert not updating to Required after insurance carrier change (billing code level PreCert rules). |
| 14722 | IVT / PreCert | Replacing multiple procedure codes using the red X, no longer causes a residual PreCert setting to prevent PreCert required on billing codes from being marked as required (multi study container issue). |
| 14725 | IVT / PreCert | Setting the Portal Verified flag now removes the study from the IVT worklist appropriately when no other requirements remain. |
| 13968 | Localization | Empty curly brackets no longer cause errors during registration in Hebrew. |
| 14058 | PACS (eRAD) Integration | PACS images are not getting released when using Skip and |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

| | | |
|---|---|---|
| | | Continue in All Peer Review Pending Action WL. |
| 14350 | PACS (eRAD) Integration | Resolved an issue where RIS told PACS to cache a less relevant exam. |
| 14325 | Patient Folder | MRN now appropriately displays on Patient Folder tab when searching by accession. |
| 14630 | Patient Folder | In the Patient Folder, Ordered exams no longer throw an error when using the context menu to Print Forms. |
| 14305 | Patient Search | Searching by DOB only no longer results in the search populating the date to the Last Name field. |
| 14685 | Patient Search | Optimized the query when search for patients by phone number only. |
| 14163 | Problem Workflow | Resolve Problem window - fixed an issue with the display of radiologist names. |
| 14345 | Radar - Nudge | Outside reads where 'Performed start and end date' and 'Performed by user id' are blank will no longer produce an error when opened in Signing screen. |
| 13049 | Radiology Reporting | Inserting a macro containing a picklist with default macro option multiple times can now be done successfully. |
| 14371 | Radiology Reporting | External_report_flag no longer displaying incorrect value in audit history when a study is in Exam Done status and the procedure is changed. |
| 14495 | Radiology Reporting | PerformExam and View/Edit will display information about images loading in PACS but will ***not*** lock the RIS screen while images load. |
| 14327 | Reception | Added null check for subscriber DOB to eliminate errors during registration for Self Pay patients. |
| 14407 | Reception | Arriving second study from same order will no longer change Exam Done study to Arrived. |
| 14326 | Scheduling | If an exam is changed from Order B to Order A during rescheduling, the new appointment is created successfully *and* the previous appointment is appropriately Canceled. |
| 14376 | Scheduling | When re-saving as Order, no longer prompted to fill in Body Part unnecessarily. |
| 14489 | Scheduling | Resolved an issue where breast imaging Reminders could not be canceled under certain conditions. |
| 14605 | Scheduling | Solved an issue with foreign-key constraints on schedule of Follow-up order when the original exam had a CPT level payment. |
| 14625 | Scheduling | On Reschedule, changes made in Patient tab are now saving appropriately. |
| 14682 | Scheduling | When using a combination of Red X and Black X in the |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

| | | |
|---|---|---|
| | | Registration screen, the cancelled Procedure Code is no longer visible in the Patient Folder column and attempts to View/Edit will not cause an error. |
| 14527 | Technologist | In Perform Exam window, the correct images are displayed when there are 2 orders. |
| 14601 | Thick Client GUI | Switching a WL tab while the context menu is open no longer has a risk of impacting the wrong study. |
| 14677 | Thick Client GUI | MU tab label is now replaced with the new Clinical tab label in Reschedule mode. |
| 14704 | Thick Client GUI | Resolved an issue with protected text in LogTextBox. |
| 14773 | Thick Client GUI | LogTextBox protected text can no longer be altered under certain conditions. |
| 14374 | Unknown Reconcile | Reconcile from Reconciliation WL is now working properly for unknown carriers. |
| 14733 | Web Services | Resolved an exception that had been occurring when saving after adding Billing Codes on View/Edit screen, when EnableLimitedDBUpdates was set to True. |
| 9317 | Worklists | Conditional formatting on worklists can now set the back color for the entire row. |
| 14584 | Worklists | Orders do not appear in the Patient Folder if all of the associated studies have been signed or cancelled. |
| 14831 | Worklists | Exams requiring Portal Verification without also requiring PreCert or Insurance Verification will now fall to the IVT WL as designed. |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## RESOLVED DEFECTS - 2.2016.7

Bugs, support issues, and design optimizations resolved in build 2.2016.7.

| Bug # | Category | Subject |
|---|---|---|
| 14786 | Access strings | Look-up editors FollowUpResolvedReason and ImplantDevice access string changes. |
| 14835 | Admin-Clinical Data | Adjustment made to fix an issue with an invalid date/time entry when stopping the Oral Contrast Timer |
| 14762 | Admin-Other | Procedure Plan Description can no longer be left blank and a previous exception has been resolved. |
| 14485 | Billing | Issue with CPT codes not updating/retaining when changing procedure codes has been resolved. |
| 15054 | Digital Forms | Digital forms button on Walk-in and Registration screens is no longer showing forms that are inactive. |
| 15516 | Digital Forms | Trace data for digital forms now saves to database. |
| 5666 | Embedded Reporting | Resolved an issue with double clicking normal browser which led to "0 is not a valid index exception." |
| 14830 | eRAD Editor | Right to left with punctuation characters is now formatting correctly. |
| 14603 | Exam Search Worklist | An issue with certain filters in Exam Search has been resolved. |
| 14763 | Insurance Eligibility | Function for medical group string is now customer specific. |
| 15490 | IVT / Precert | Studies with manual insurance verification do not lose IVT flag after reschedule. |
| 14827 | Log Control | Reason for Exam field is now available on the Log Control look-up table. |
| 15502 | Log Control | Spell check suggestions on context menu have been optimized. |
| 14606 | Mammography | Assigned Pending Biopsy Notifications are functioning properly. |
| 14295 | Meaningful Use | Exporting a CCDA file and running it through the XDS toolkit no longer produces errors related to Implant. |
| 14296 | Meaningful Use | Exporting a CCDA file and running it through the XDS toolkit no longer produces errors when Ethnicity is Unknown. |
| 6467 | PACS (eRAD) Int - RIS only | Disabling PACS via the menu item stays disabled after user preference or organization change. |
| 14644 | PACS (eRAD) Integration | PACS caching - When relevant studies set to 0, no longer caching 2 studies. |
| 15115 | Patient Management | On the MRN grid on Patient tab, after selecting a value for the Issuer the value no longer defaults back when clicking back into the field. |
| 15120 | Patient Management | Adding a new Issuer in lookup editor no longer adds the suffix '- |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

| | | |
|---|---|---|
| | | EMR' in the Issuer in MRN grid. |
| 14243 | Patient Merge | Restored ability to suggest a duplicate Patient Merge. |
| 14794 | Patient Merge | Patient Merge will be marked as duplicate if a reverse merge is suggested for the same two patient accounts. |
| 14909 | Payment control | Imagine payment receipts are now storing the amount to collect in the payment row. |
| 14910 | Payment control | Resolved an issue with Imagine integration null exceptions. |
| 14987 | Peer Review | Peer Review verbiage update. |
| 15061 | Radar - Nudge | Nudge: the value entered in SystemConfig *RADARSecureMessageTitle* is now displaying correctly in the subject line for new conversations. |
| 15067 | Radar - Nudge | Nudge: creating a Nudge conversion for 2 studies for the same patient, keeps the conversations separate. |
| 13305 | Radiology Reporting | Resolved a concurrency error when saving config file. |
| 14599 | Radiology Reporting | When user preference is PS360, the fields explorer is blank in the template editor. |
| 14754 | Radiology Reporting | Report history audio control is no longer shared between tabs. |
| 14676 | Scanning | Issue with classification levels when using "Classify Remaining As..." option was resolved. |
| 14706 | Scheduling | Resolved issue with scheduling restriction not always being enforced for rescheduling multiple studies in the same order. |
| 14707 | Scheduling | Modality Open error was resolved - Object reference not set to an instance of an object. |
| 14887 | Scheduling | Issue resolved when adding another study, then removing it with no study selected (i.e. blank). |
| 15474 | Technologist | Accidental status change can now be reverted. |
| 15072 | Thick Client GUI | Autosaved report recovery issues have been resolved. |
| 7029 | UI Look and feel | AccessionXMLDrop button now displays only when appropriate for reporting mode. |
| 14788 | UI Look and feel | Report Assistant panel colors can now be adjusted as with other tool panes in the Reporting screen. |
| 15302 | UI Look and feel | Databound dropdown controls no longer allow free text to be typed. |
| 15346 | Web Services | External patient can now match to an internal patient when SystemConfig for EnableLimitedDBUpdates is set to true. |
| 14848 | Worklists | Resolved an issue with new Orders not setting IVT Required WL flag appropriately. |
| 14850 | Worklists | PreAuth WL flag now updating under previously problematic circumstances. |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## KNOWN LIMITATIONS - 2.2016.6

The following are new bugs found in build 2.2016.6. Bugs reported in previous versions are not captured as Known Limitations in this document.

| # | Subject |
|---|---|
| 15104 | If scheduled as an Order B (or C, D, etc.), the information on the Clinical (MU) tab will not be copied over from Order A. This is not visible in the Scheduling workflow, but if a user opens the Order B exam by itself after scheduling, the Clinical tab fields will be blank and will need to be filled in again if they are set as required fields. |
| 14971 | Under some circumstances, the RIS application is still visible behind the locked screen. |
| 15099 | RADAR Nudge – When using PS360, the last saved impression and/or report is inserted into the conversation when the Report and Impression Nudge buttons are used. If changes have been made to the report without saving, these changes will not be reflected in the text added to Nudge. |
| 14804 | Claustrophobic checkbox value is not copying over to Order B. |
| 14845 | Foreign key exception when adding "Additional Data" to a procedure during scheduling. |
| 14846 | Error saving when a procedure code does not have a description in the Procedure Code table. |
| 14889 | CSH PACS - Study loaded by External Study Identifier doesn't close correctly. |
| 14941 | Birth date column is not populating for some worklists under Editor menu. |
| 14948 | It is possible for a user who does not have permission to reschedule a study to do so by using the context menu. |
| 14993 | When typing addresses in English(LTR) in the Hebrew RIS (RTL), numbers are placed incorrectly. |
| 15063 | Error occurs when the 'New Patient' button is used after already selecting an existing patient. |
| 15069 | Eligibility shield will disappear from the insurance grid if the carrier's priority is changed during scheduling. The shield will reappear next time the study is opened and is still visible on work lists. |
| 15077 | When removing an exam from a multi-study appointment, the associated Digital Form may remain. |
| 14857 | Occasional error when saving change to a macro. |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## KNOWN LIMITATIONS - 2.2016.7

The following are new bugs found in build 2.2016.7. Bugs reported in previous versions are not captured as Known Limitations in this document.

| # | Subject |
|---|---|
| 15777 | Reason for exam text box will allow more than 1,000 characters (more than is permitted by the database) causing an error on save. |
| 15724 | Addendum Request control in reporting screen does not use LogControl. |
| 15569 | Increasing Exam Duration from Schedule tab is not adjusting returned time slot options for multi-study appointments. |
| 15591 | Some driver's licenses from Arizona and Maryland have different formatting on the first and last name fields, which is not handled by Identify Patient workflow. |
| 15454 | In Digital Form Editor, New Image button is not working properly. |
| 15269 | DOB is sometimes formatted differently for driver's licenses from Prince Edward Island, which causes an issue with Identify Patient workflow. |
| 15236 | View Study opens the same study twice when using Skip and Continue while reviewing studies within a Folder. |
| 15055 | Under certain circumstances, an error occurs when working with scanned documents from the Attachments context menu on a worklist. |
| 15632 | When Scheduling from ACR Category 0 Follow-Up WL, Height and Smoking Status should be cloned from the original order, but the user is forced to re-enter the information. |
| 15575 | Inbound document service should ignore files with an extension that is not an image file. |
| 15526 | When Rescheduling a study in Checking In or Arrived status, the site search should default to the original site. |
| 15337 | RADAR Quick Message - Email option should not be available when the patient does not have an email address listed. |
| 15198 | When dictating with "and Continue" and the reporting mode switches from PS360 to something else and then back to PS360, the AutoFeed option does not reappear in the status bar. |
| 15101 | Setting the background color for Reporting screen data panes to transparent causes an error. |
| 15098 | DBNull error when opening Registration when an implant device with a Null (blank) description is entered for the patient. |
| 15676 | Merging external MRN patients with internal patients fails during rescheduling workflow, impacting patients who have scheduled via the Patient Portal using Guest mode. |
| 15559 | Error when requesting a SecurePIC from IVT screen for an Order. |
| 15393 | CSH PACS - from Patient Folder, when viewing a 2nd study, the Accession # is not displayed in the simulator. |
| 15268 | SecurePIC – Need optional ris.exe.config setting for *DBActionSignalRServiceEndpoint* for cases when the IP address used for hosting on the server is different than the IP address used on the client. |
| 15232 | Audit records for RADAR messaging do not include patient /order /study context due to a change with Inbound Document workflow. |
| 15776 | UM Alert should contain both the original and alternative procedure. |
| 15552 | CTRM dialog remains open when closing via PowerScribe 360. |
| 15546 | LOG FILE reader- when using Citrix bridge the log file reader continually adds the same information including the same time when refreshed. |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

| | |
|---|---|
| 15544 | External Report Workflow checkbox triggers dialogue window in View/Edit, does not save state. |
| 15538 | Digital form data is not saving if preceded by validation failure. |
| 15525 | Configurable Reporting options should be logged in the verbose log file. |
| 15497 | Action buttons can be hidden in Inbound document workflow under certain conditions (switch tabs to restore). |
| 15479 | Infinitt PACS is not closing after RIS logout. |
| 15468 | Eligibility flag tooltip can become stuck in "In Progress" after being updated under certain conditions. |
| 15452 | A user may be prompted for PACS login credentials even after disabling PACS. |
| 15409 | Updated critical results entry screen requires localization. |
| 15383 | In Dictation window, Nudge and Folders feature items require localization. |
| 15325 | Hebrew Localization updates. |
| 15191 | Order level attachments not displaying as expected when viewed from the Attachments context menu for a single order. |
| 15592 | Signed pending QA - Verify report - reject Edit and send for dictation goes to Transcribed status and falls to Pending Signature WL. |
| 15551 | Personnel editor error when an inactive Message Group associated to the user has an apostrophe. |
| 15550 | Cannot save Procedure Plan with an apostrophe. |

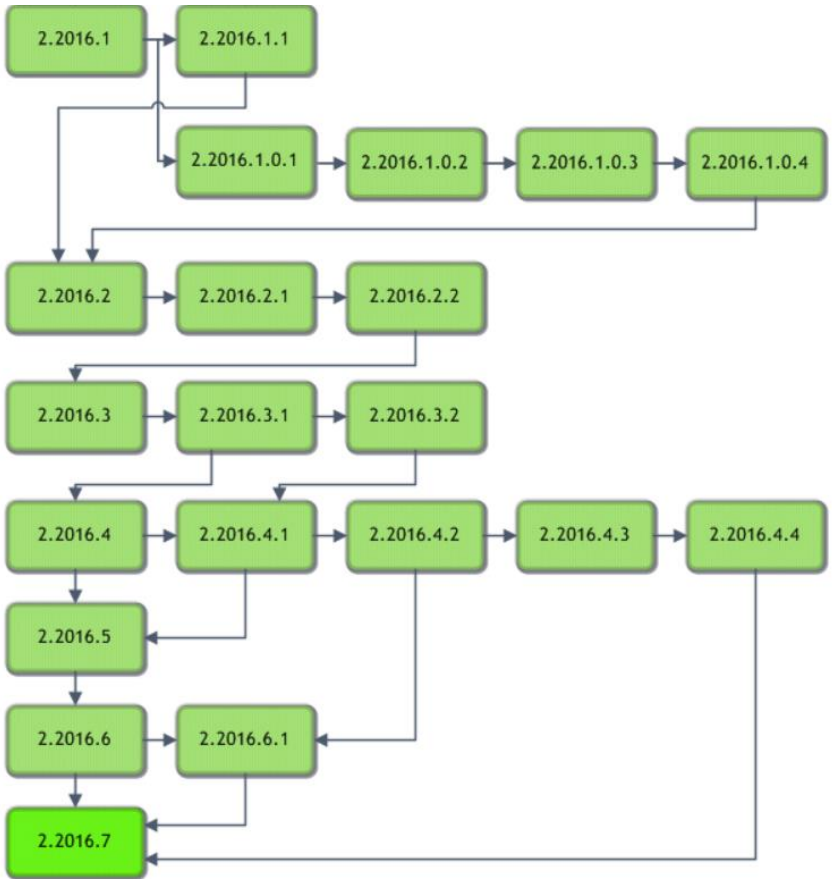
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## RIS RELEASE VERSION NUMBERS

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Digital Forms | Patient Portal | UM Portal | Notes |
|---|---|---|---|---|---|---|---|---|---|
| 2016.1 | - | 2.16.1.0.33419 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | | | | GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge |
| 2016.1 | 1 | 2.16.1.1.33672 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | | | | GUI.zip |
| 2016.1 | .0.1 | 2.16.1.0.1 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | | | | GUI.zip (This is not included in 2016.1.1, version directly above) |
| 2016.1 | .0.2 | 2.16.1.0.1 (3GB) | 2.16.1.0.33079 | 2.16.1.0.2 | 2.16.1.0.33416 | | | | Wedge Web Services only |
| 2016.1 | .0.3 | 2.16.1.0.3 (3GB) | 2.16.1.0.33079 | 2.16.1.0.3 | 2.16.1.0.3.00128918 | | | | GUI.zip, Web Services and DB |
| 2016.1 | .0.4 | 2.16.1.0.4 (3GB) | 2.16.1.0.33079 | 2.16.1.0.4 | 2.16.1.0.3.00128918 | | | | GUI.zip, Web Services |
| 2016.2 | - | 2.16.2.0 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.0.00172540 | | | | Full Version Release - GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge |
| 2016.2 | 1 | 2.16.2.1 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.0.00172540 | | | | GUI.zip and Citrix Bridge |
| 2016.2 | 2 | 2.16.2.2 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.2.00243102 | | | | GUI.zip, DB and Citrix Bridge |
| 2016.3 | - | 2.16.3.0 | 2.16.3.0 | 2.16.3.0 | 2.16.3.0.00257101 | 2.16.3.0 | | | Full Version Release |
| 2016.3 | 1 | 2.16.3.1 | 2.16.3.0 | 2.16.3.1 | 2.16.3.1.00298834 | 2.16.3.0 | | | GUI.zip, Web Service and DB |
| 2016.3 | 2 | 2.16.3.2 | 2.16.3.0 | 2.16.3.2 | 2.16.3.1.00298834 | 2.16.3.0 | | | GUI.zip and Web Service |
| 2016.4 | - | 2.16.4.0 | 2.16.4.0 | 2.16.4.0 | 2.16.4.0.00301943 | 2.16.4.0 | 1.16.4.0.310284 | | Full Version Release |
| 2016.4 | 1 | 2.16.4.1 | 2.16.4.0 | 2.16.4.1 | 2.16.4.0.00301943 | 2.16.4.0 | 1.16.4.0.310284 | | GUI and Web Service updates |
| 2016.4 | 2 | 2.16.4.2 (3GB) | 2.16.4.0 | 2.16.4.1 | 2.16.4.0.00301943 | 2.16.4.0 | 1.16.4.2.460241 | | GUI and Patient Portal updates |
| 2016.4 | 3 | 2.16.4.3 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | 1.16.4.3.489120 | | GUI and Patient Portal updates |
| 2016.4 | 4 | 2.16.4.4 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | 1.16.4.3.489120 | | GUI and Patient Portal updates |
| 2016.5 | - | 2.16.5.0 | 2.16.5.0 | 2.16.5.0 | 2.16.5.0.00349303 | 2.16.5.0 | 1.16.5.0.362009 | | Full Version Release |
| 2016.6 | - | 2.16.6.0 | 2.16.6.0 | 2.16.6.0 | 2.16.6.0.00411295 | 2.16.6.0 | 1.16.6.0.432471 | | Full Version Release |
| 2016.6 | 1 | 2.16.6.1 | 2.16.6.0 | 2.16.6.0 | 2.16.6.0.00411295 | 2.16.6.0 | 1.16.6.1.468583 | | GUI and Patient Portal updated |
| 2016.7 | - | 2.16.70 | 2.16.70 | 2.16.70 | 2.16.7.0.00490835 | 2.16.70 | 1.16.7.0.493031 | 2.16.7.0.493008 | Full version release |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## CODE STREAM DIAGRAM




No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

# Server Update

For eRAD RIS
Version 2.0
Build 2.2016.7
Update 2.2016.7.1

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# Table of Contents

Resolved Items ..... 3
Code Stream ..... 4
Package Contents ..... 5
Intended Audience ..... 5
Who is affected ..... 5
eRAD RIS Release Version Numbers ..... 6
Installing ..... 7
    Client/GUI ..... 7
    Web Service ..... 7

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

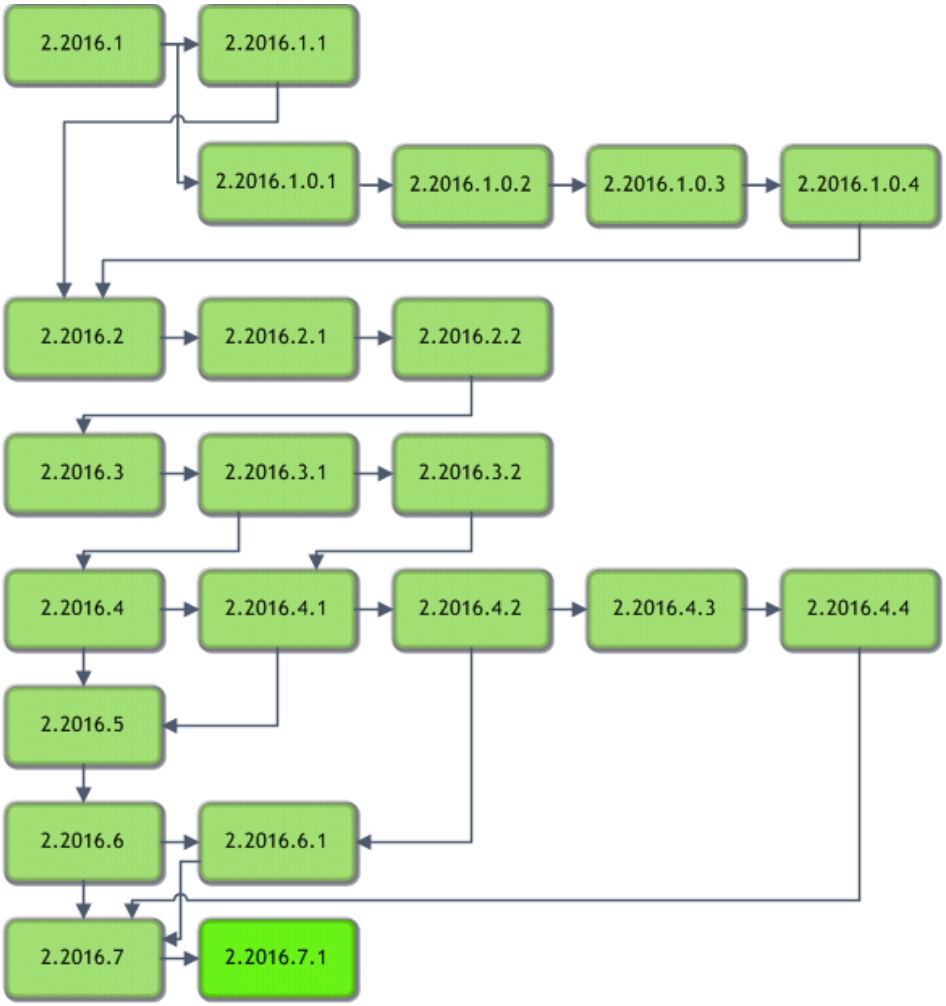
## Resolved Items

eRAD RIS

| Redmine # | Subject |
|---|---|
| 15810 | Voiding payments made in the Imagine Payment Portal no longer generates an error when multiple Dataset IDs (tax IDs) are configured. |
| 15713 | Caching – after signing or submitting a study, a new study immediately begins caching, instead of waiting for a work list refresh. |
| 15653 | "Resolve Problem" is now translated appropriately in Hebrew. |
| 15690 | Occasional UM Opinion Letter distribution issue has been resolved. |
| 15658 | An issue that occurred in 2016.7 with PreCert status being reset to required when changing the appointment time has been resolved. |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## Code Stream




**Legend:**

**Light Green = Previously Released software**

**Bright Green = Current Release**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## Package Contents

## Intended Audience

The intended audience for this document is the RadNet Clinical Systems team and the eRAD Support/Service team.

## Who is affected

Build 2016.7 installs. This server update must be applied to 2016.7.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Digital Forms | Patient Portal | UM Portal | Notes |
|---|---|---|---|---|---|---|---|---|---|
| 2016.1 | - | 2.16.1.0.33419 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | | | | GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge |
| 2016.1 | 1 | 2.16.1.1.33672 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | | | | GUI.zip |
| 2016.1 | .0.1 | 2.16.1.0.1 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | | | | GUI.zip (This is not included in 2016.1.1, version directly above) |
| 2016.1 | .0.2 | 2.16.1.0.1 (3GB) | 2.16.1.0.33079 | 2.16.1.0.2 | 2.16.1.0.33416 | | | | Wedge Web Services only |
| 2016.1 | .0.3 | 2.16.1.0.3 (3GB) | 2.16.1.0.33079 | 2.16.1.0.3 | 2.16.1.0.3.00128918 | | | | GUI.zip, Web Services and DB |
| 2016.1 | .0.4 | 2.16.1.0.4 (3GB) | 2.16.1.0.33079 | 2.16.1.0.4 | 2.16.1.0.3.00128918 | | | | GUI.zip, Web Services |
| 2016.2 | - | 2.16.2.0 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.0.00172540 | | | | Full Version Release - GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge |
| 2016.2 | 1 | 2.16.2.1 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.0.00172540 | | | | GUI.zip and Citrix Bridge |
| 2016.2 | 2 | 2.16.2.2 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.2.00243102 | | | | GUI.zip, DB and Citrix Bridge |
| 2016.3 | - | 2.16.3.0 | 2.16.3.0 | 2.16.3.0 | 2.16.3.0.00257101 | 2.16.3.0 | | | Full Version Release |
| 2016.3 | 1 | 2.16.3.1 | 2.16.3.0 | 2.16.3.1 | 2.16.3.1.00298834 | 2.16.3.0 | | | GUI.zip, Web Service and DB |
| 2016.3 | 2 | 2.16.3.2 | 2.16.3.0 | 2.16.3.2 | 2.16.3.1.00298834 | 2.16.3.0 | | | GUI.zip and Web Service |
| 2016.4 | - | 2.16.4.0 | 2.16.4.0 | 2.16.4.0 | 2.16.4.0.00301943 | 2.16.4.0 | 1.16.4.0.310284 | | Full Version Release |
| 2016.4 | 1 | 2.16.4.1 | 2.16.4.0 | 2.16.4.1 | 2.16.4.0.00301943 | 2.16.4.0 | 1.16.4.0.310284 | | GUI and Web Service updates |
| 2016.4 | 2 | 2.16.4.2 (3GB) | 2.16.4.0 | 2.16.4.1 | 2.16.4.0.00301943 | 2.16.4.0 | 1.16.4.2.460241 | | GUI and Patient Portal updates |
| 2016.4 | 3 | 2.16.4.3 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | 1.16.4.3.489120 | | GUI and Patient Portal updates |
| 2016.4 | 4 | 2.16.4.4 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | 1.16.4.3.489120 | | GUI and Patient Portal updates |
| 2016.5 | - | 2.16.5.0 | 2.16.5.0 | 2.16.5.0 | 2.16.5.0.00349303 | 2.16.5.0 | 1.16.5.0.362009 | | Full Version Release |
| 2016.6 | - | 2.16.6.0 | 2.16.6.0 | 2.16.6.0 | 2.16.6.0.00411295 | 2.16.6.0 | 1.16.6.0.432471 | | Full Version Release |
| 2016.6 | 1 | 2.16.6.1 | 2.16.6.0 | 2.16.6.0 | 2.16.6.0.00411295 | 2.16.6.0 | 1.16.6.1.468583 | | GUI and Patient Portal updated |
| 2016.7 | - | 2.16.7.0 | 2.16.70 | 2.16.70 | 2.16.7.0.00490835 | 2.16.70 | 1.16.7.0.493031 | 2.16.7.0.493008 | Full version release |
| 2016.7 | 1 | 2.16.7.1 | 2.16.7.0 | 2.16.7.1 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | GUI and Web Service updates |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# Installing

## Client/GUI

Copy and replace the current rRIS…zip file with the eRAD_rRIS_2016.7.1.zip file provided with this release.

Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

## Web Service

This updated is only required for the Wedge Web Services. The Core RIS Service and Document Distribution Service are not required to be updated.

1. The web service upgrade consists of replacing the files in the RIS Web Service directory with the files supplied in the rRISService folder with this build. Always create a backup of the files being replaced. This upgrade includes 134 files in the rRISService folder and 7 sub folders. Of those folders, 1 is a folder titled **"XSL"** that contains a sub folder and files within the subfolder. Another folder is titled **"deploy"** that contains the new .config files that will be deployed with the user of the file called "ServicesConfigWizard.exe" (see instructions below). Folders ar (Arabic), he (Hebrew), pt_BR (Brazilian Portuguese) and es-AR (Argentina Spanish) are localization folders. The WedgePlugins folder contains various plugin files for RADAR, MIRTH, Ensemble, etc…

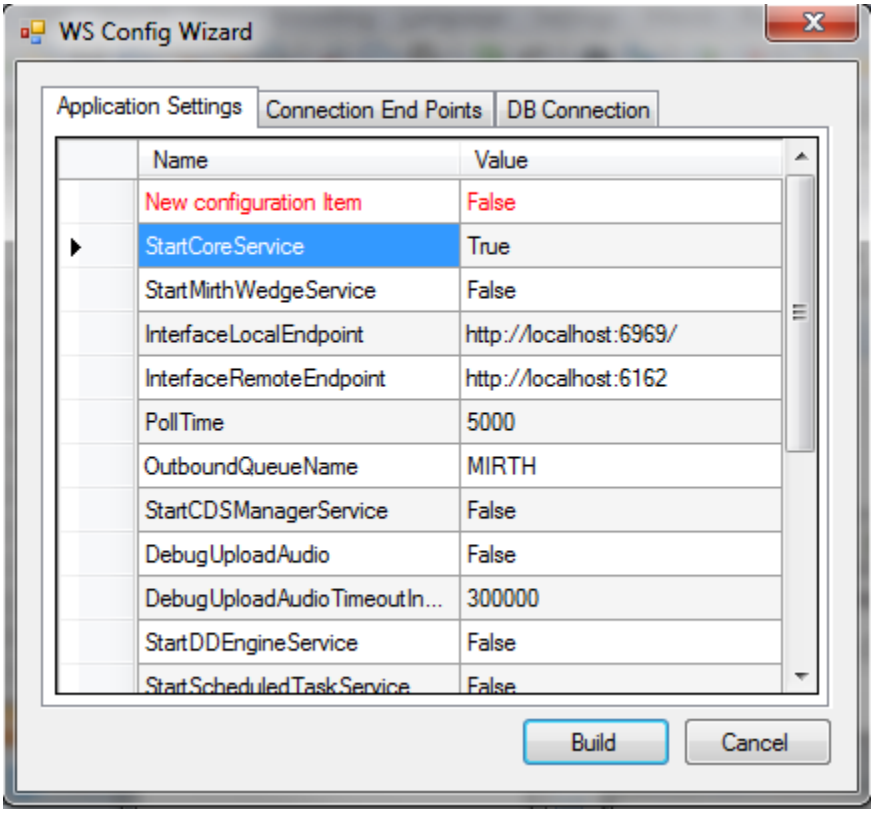
### Services Configuration Wizard

With the release of 42 to decrease the chance of losing configuration settings and missing new configuration options, we will no longer include the configuration files in the release in the main set of files, but they will now exist in a "deploy" folder, which will contain the three site configurable config files; applicationsettings, connectionstrings, and services as well as a copy of the rRISServices.exe configuration file. The contents of this folder should not be required to be touched.

On the install of a new service, all files will be copied to the appropriate locations on the server (no configurations will be over written). If instructed or to confirm no new configurations have been added, the user can run the new application "ServicesConfigWizard.exe"

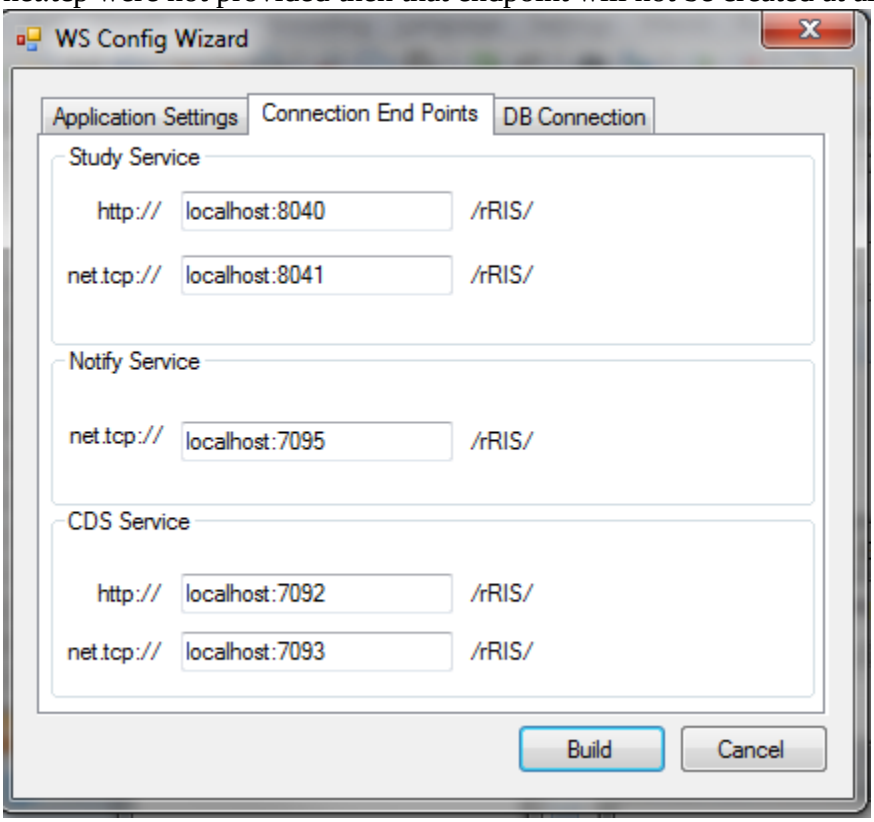
This application will read the existing configuration file(s) (if files exist), and compare to the provided new configuration files then will display three tabs, for each configuration file:
**Application Settings:** all existing configuration value will be displayed, if there are any new configuration entries they will be displayed in red.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

**Connection End Points:** will display the existing configuration, if the value is left blank then that entry will not be created, in the case of "Study Service" or "CDS Service" if both http and net.tcp were not provided then that endpoint will not be created at all.




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# Server Update

For eRAD RIS
Version 2.0
Build 2.2016.7
Update 2.2016.7.2

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# Table of Contents

Resolved Items ..... 3
Code Stream ..... 4
Package Contents ..... 5
Intended Audience ..... 5
Who is affected ..... 5
eRAD RIS Release Version Numbers ..... 6
Installing ..... 7
    Client/GUI ..... 7
    Web Service ..... 7

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

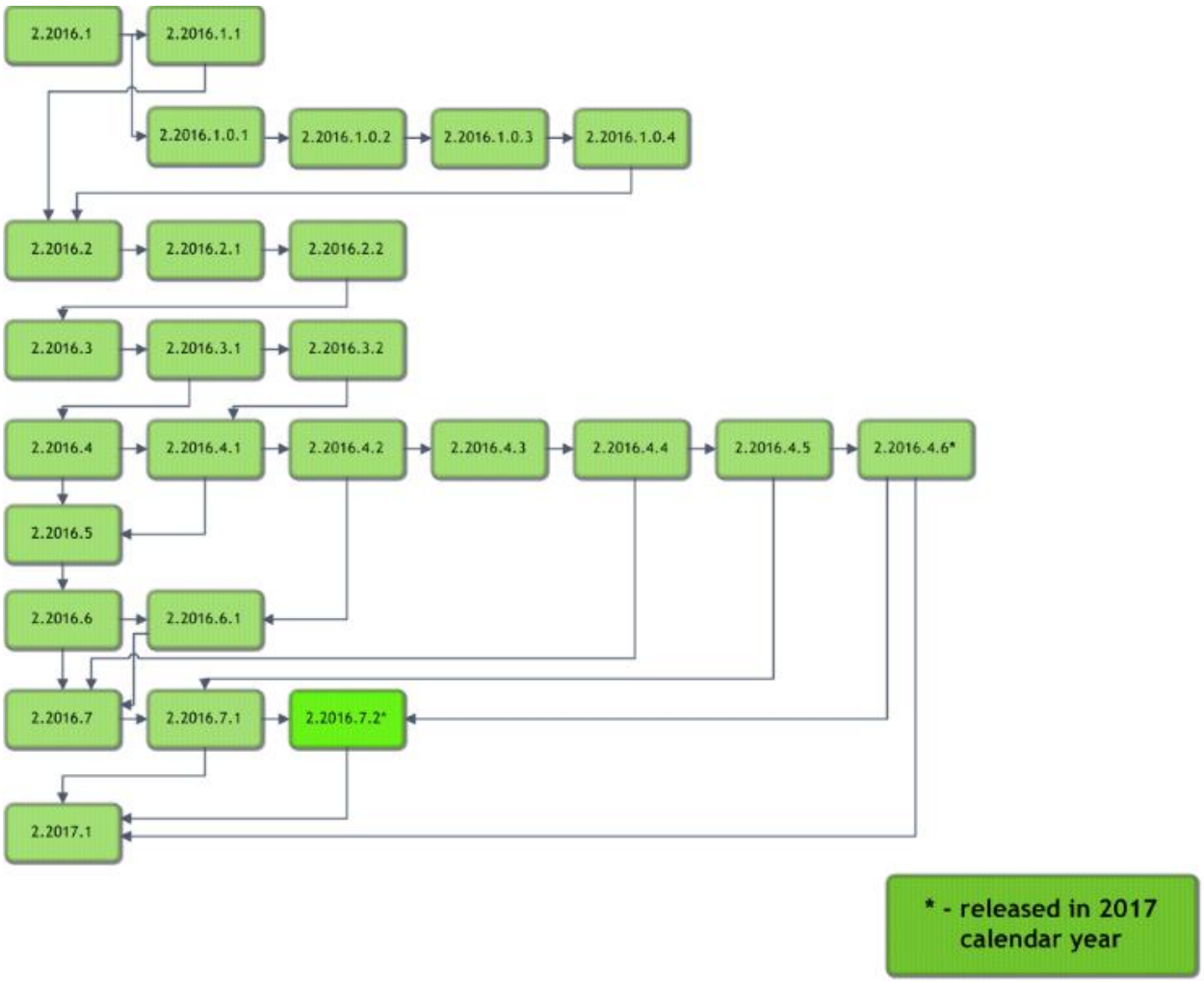
## Resolved Items

eRAD RIS

| Redmine # | Subject |
|---|---|
| 16018 | Wedge Deadlock in Resolution Caching issue has been resolved. |
| 15926 | Spell checker dictionaries now load for all eRAD RIS users even if they do not open a reporting screen. |
| 15924 | LogControl context menu is now available when in textbox only mode. |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## Code Stream



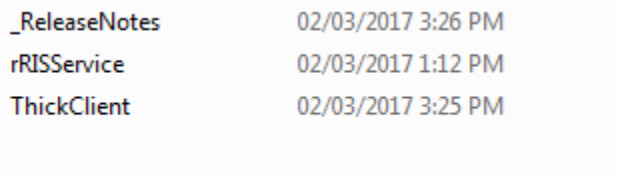

**Legend:**

Light Green = Previously Released software

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## Package Contents




## Intended Audience

The intended audience for this document is the RadNet Clinical Systems team and the eRAD Support/Service team.

## Who is affected

Build 2016.7 installs. This server update must be applied to 2016.7.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Digital Forms | Patient Portal | UM Portal | Notes |
|---|---|---|---|---|---|---|---|---|---|
| 2016.1 | - | 2.16.1.0.33419 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | | | | GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge |
| 2016.1 | 1 | 2.16.1.1.33672 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | | | | GUI.zip |
| 2016.1 | .0.1 | 2.16.1.0.1 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | | | | GUI.zip (This is not included in 2016.1.1, version directly above) |
| 2016.1 | .0.2 | 2.16.1.0.1 (3GB) | 2.16.1.0.33079 | 2.16.1.0.2 | 2.16.1.0.33416 | | | | Wedge Web Services only |
| 2016.1 | .0.3 | 2.16.1.0.3 (3GB) | 2.16.1.0.33079 | 2.16.1.0.3 | 2.16.1.0.3.00128918 | | | | GUI.zip, Web Services and DB |
| 2016.1 | .0.4 | 2.16.1.0.4 (3GB) | 2.16.1.0.33079 | 2.16.1.0.4 | 2.16.1.0.3.00128918 | | | | GUI.zip, Web Services |
| 2016.2 | - | 2.16.2.0 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.0.00172540 | | | | Full Version Release - GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge |
| 2016.2 | 1 | 2.16.2.1 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.0.00172540 | | | | GUI.zip and Citrix Bridge |
| 2016.2 | 2 | 2.16.2.2 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.2.00243102 | | | | GUI.zip, DB and Citrix Bridge |
| 2016.3 | - | 2.16.3.0 (3GB) | 2.16.3.0 | 2.16.3.0 | 2.16.3.0.00257101 | 2.16.3.0 | | | Full Version Release |
| 2016.3 | 1 | 2.16.3.1 | 2.16.3.0 | 2.16.3.1 | 2.16.3.1.00298834 | 2.16.3.0 | | | GUI.zip, Web Service and DB |
| 2016.3 | 2 | 2.16.3.2 | 2.16.3.0 | 2.16.3.2 | 2.16.3.1.00298834 | 2.16.3.0 | | | GUI.zip and Web Service |
| 2016.4 | - | 2.16.4.0 | 2.16.4.0 | 2.16.4.0 | 2.16.4.0.00301943 | 2.16.4.0 | 1.16.4.0.310284 | | Full Version Release |
| 2016.4 | 1 | 2.16.4.1 | 2.16.4.0 | 2.16.4.1 | 2.16.4.0.00301943 | 2.16.4.0 | 1.16.4.0.310284 | | GUI and Web Service updates |
| 2016.4 | 2 | 2.16.4.2 (3GB) | 2.16.4.0 | 2.16.4.1 | 2.16.4.0.00301943 | 2.16.4.0 | 1.16.4.2.460241 | | GUI and Patient Portal updates |
| 2016.4 | 3 | 2.16.4.3 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | 1.16.4.3.489120 | | GUI and Patient Portal updates |
| 2016.4 | 4 | 2.16.4.4 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | 1.16.4.3.489120 | | GUI |
| 2016.4 | 5 | 2.16.4.5 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | | | GUI |
| 2016.4 | 6 | 2.16.4.6 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | | | GUI |
| 2016.5 | - | 2.16.5.0 (3GB) | 2.16.5.0 | 2.16.5.0 | 2.16.5.0.00349303 | 2.16.5.0 | 1.16.5.0.362009 | | Full Version Release |
| 2016.6 | - | 2.16.6.0 (3GB) | 2.16.6.0 | 2.16.6.0 | 2.16.6.0.00411295 | 2.16.6.0 | 1.16.6.0.432471 | | Full Version Release |
| 2016.6 | 1 | 2.16.6.1 (3GB) | 2.16.6.0 | 2.16.6.0 | 2.16.6.0.00411295 | 2.16.6.0 | 1.16.6.1.468583 | | GUI and Patient Portal updated |
| 2016.7 | - | 2.16.7.0 (3GB) | 2.16.70 | 2.16.70 | 2.16.7.0.00490835 | 2.16.70 | 1.16.7.0.493031 | 2.16.7.0.493008 | Full version release |
| 2016.7 | 1 | 2.16.7.1 (3GB) | 2.16.7.0 | 2.16.7.1 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | GUI and Web Service updates |
| 2016.7 | 2 | 2.16.7.2 (3GB) | 2.16.7.0 | 2.16.7.2 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | GUI and Web Service updates |
| 2017.1 | - | 2.17.1.0 (3GB) | 2.17.1.0 | 2.17.1.0 | 2.17.1.0.00559886 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | Full Version Release |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# Installing

## Client/GUI

Copy and replace the current rRIS…zip file with the eRAD_rRIS_2016.7.2.zip file provided with this release.

Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

## Web Service

This updated is only required for the Wedge Web Services. The Core RIS Service and Document Distribution Service are not required to be updated.

1. The web service upgrade consists of replacing the files in the RIS Web Service directory with the files supplied in the rRISService folder with this build. Always create a backup of the files being replaced. This upgrade includes 134 files in the rRISService folder and 7 sub folders. Of those folders, 1 is a folder titled **"XSL"** that contains a sub folder and files within the subfolder. Another folder is titled **"deploy"** that contains the new .config files that will be deployed with the user of the file called "ServicesConfigWizard.exe" (see instructions below). Folders ar (Arabic), he (Hebrew), pt_BR (Brazilian Portuguese) and es-AR (Argentina Spanish) are localization folders. The WedgePlugins folder contains various plugin files for RADAR, MIRTH, Ensemble, etc…

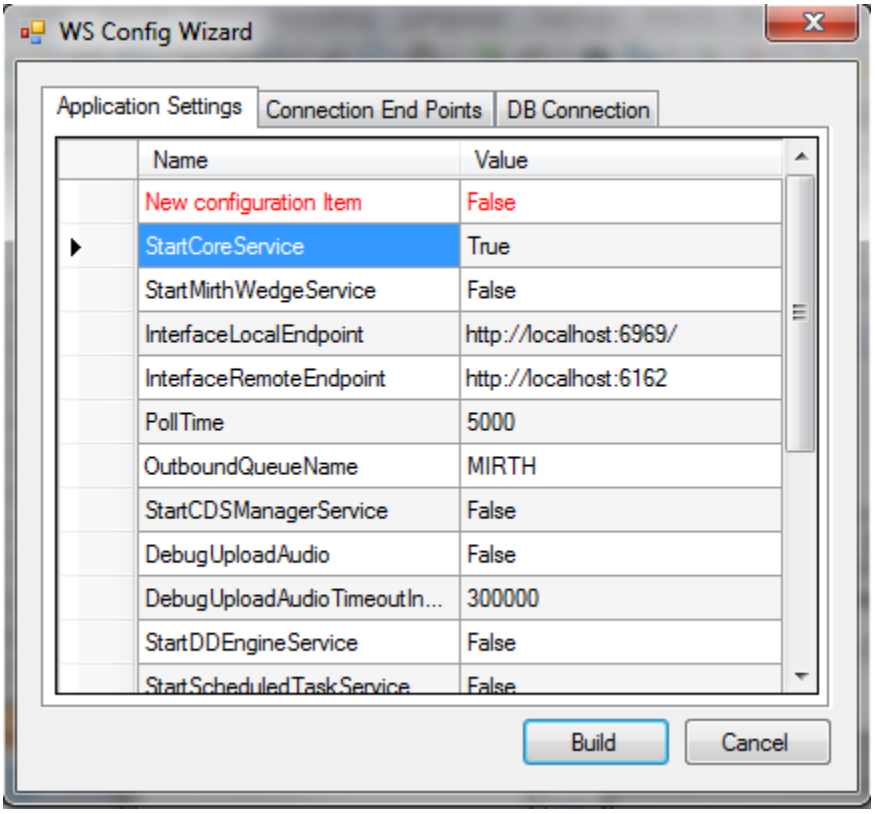
### Services Configuration Wizard

With the release of 42 to decrease the chance of losing configuration setting and missing new configuration options, we will no longer include the configuration files in the release in the main set of files, but they will now exist in a "deploy" folder, which will contain the three site configurable config files; applicationsettings, connectionstrings, and services as well as a copy of the rRISServices.exe configuration file. The contents of this folder should not be required to be touched.

On the install of a new service, all files will be copied to the appropriate locations on the server (no configurations will be over written). If instructed or to confirm no new configurations have been added the user can run the new application "ServicesConfigWizard.exe"

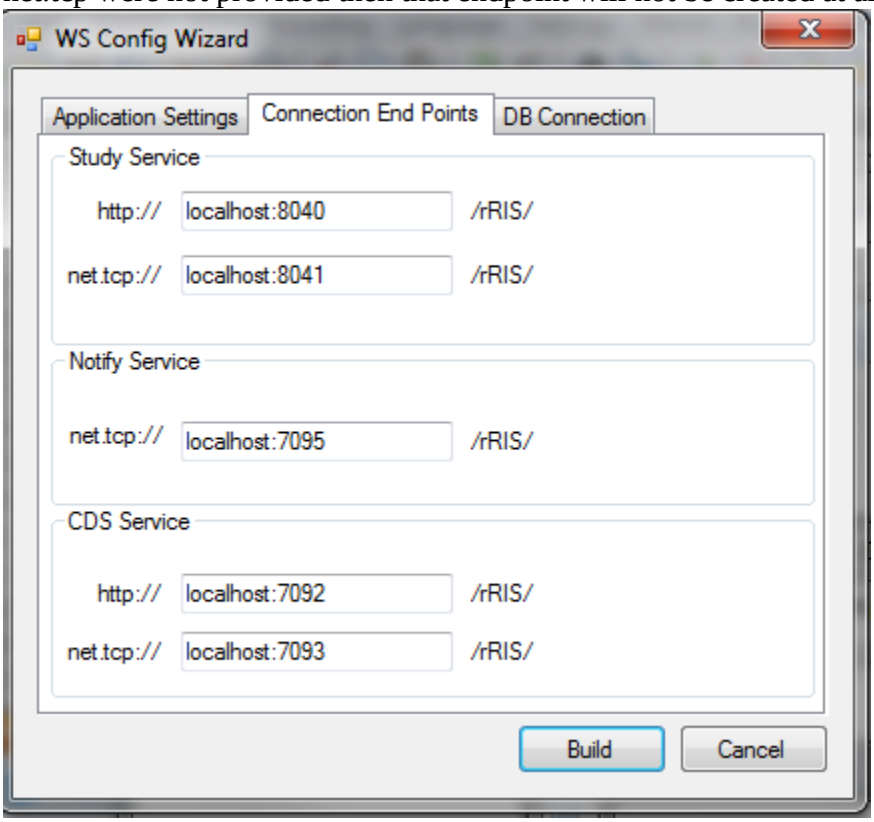
This application will read the existing configuration file(s) (if files exist), and compare to the provided new configuration files then will display three tabs, for each configuration file:
**Application Settings:** all existing configuration value will be displayed, if there are any new configuration entries they will be displayed in red.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

**Connection End Points:** will display the existing configuration, if the value is left blank then that entry will not be created, in the case of "Study Service" or "CDS Service" if both http and net.tcp were not provided then that endpoint will not be created at all.




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# Server Update

For eRAD RIS
Version 2.0
Build 2.2016.7
Update 2.2016.7.3

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# Table of Contents

Resolved Items ..... 3
RIS.EXE.CONFIG ..... **Error! Bookmark not defined.**
Code Stream ..... 4
Package Contents ..... 5
Intended Audience ..... 5
Who is affected ..... 5
eRAD RIS Release Version Numbers ..... 6
Installing ..... 7
    Client/GUI ..... 7
    Web Service ..... 7

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## Resolved Items

### eRAD RIS

| Redmine # | Subject |
|---|---|
| 16238 | The Print Forms option in the context menu is once more available for exams in an Ordered status. |
| 16237 | Resolved issue with fields in older M*Modal templates being regenerated causing navigation and playback issues. |
| 16223 | Resolved issue with optional fields from older M*Modal templates being replaced with required fields. |
| 16276 | Additional logging has been added for worklist refresh. |

## Configuration Updates

The following setting is an edit to pre-existing setting in the RIS.EXE.CONFIG file for Bug #16276 for eRAD RIS Support team to gather additional logging information. These changes will not affect functionality of eRAD RIS or alter the workflow user experience.

### RIS.EXE.CONFIG

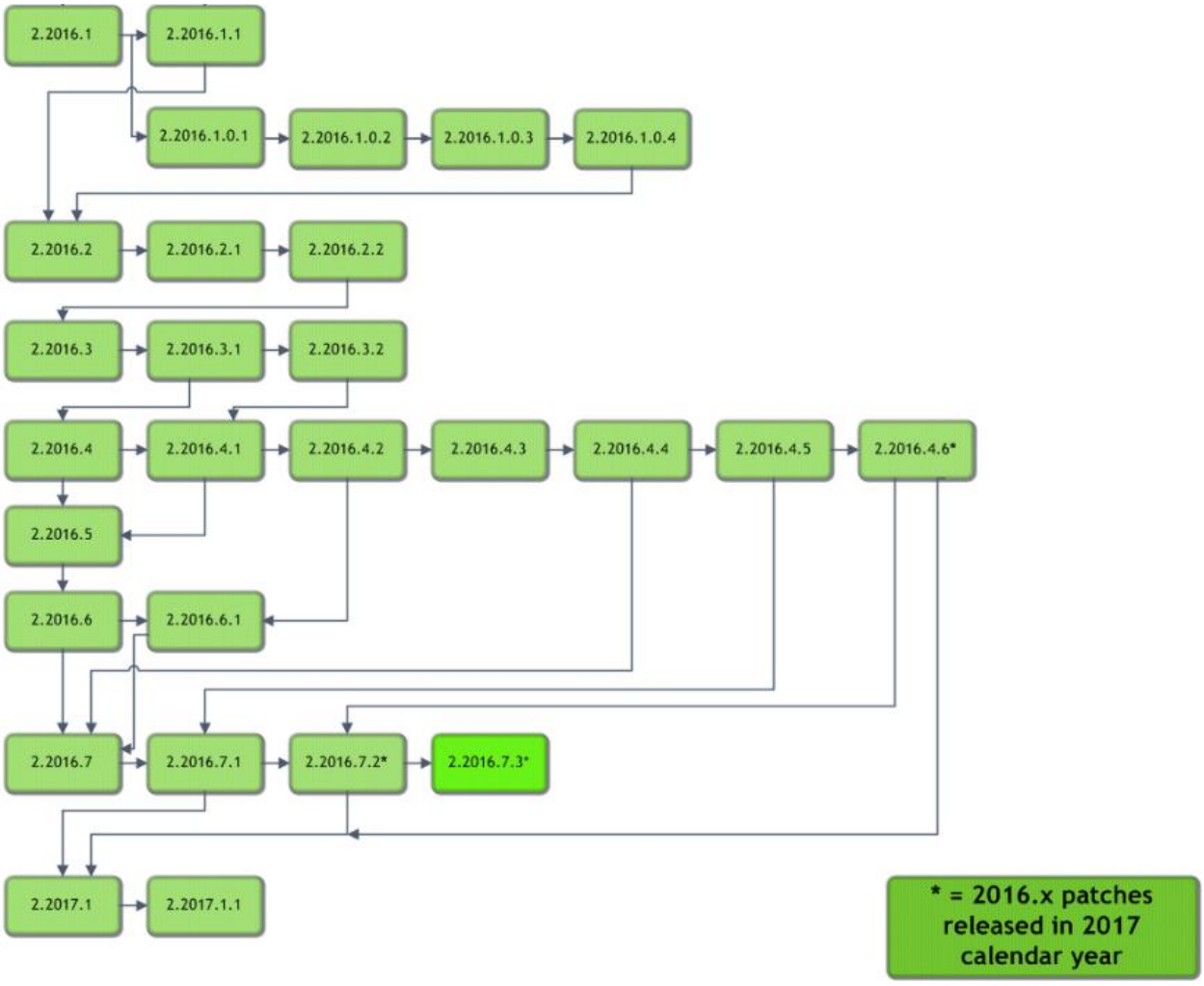
| Setting |
|---|
| <add name="Rolling Flat File Trace Listener" type="Microsoft.Practices.EnterpriseLibrary.Logging.TraceListeners.RollingFlatFileTraceListener, Microsoft.Practices.EnterpriseLibrary.Logging, Version=5.0.414.0, Culture=neutral" listenerDataType="Microsoft.Practices.EnterpriseLibrary.Logging.Configuration.RollingFlatFileTraceListenerData, Microsoft.Practices.EnterpriseLibrary.Logging, Version=5.0.414.0, Culture=neutral" rollFileExistsBehavior="Increment" rollInterval="Hour" header="" footer="" fileName="/verbose_log/**trace.log**" formatter="SimpleTextFormatter" /> |

**Changes to:**

| Setting |
|---|
| <add name="Rolling Flat File Trace Listener" type="Microsoft.Practices.EnterpriseLibrary.Logging.TraceListeners.RollingFlatFileTraceListener, Microsoft.Practices.EnterpriseLibrary.Logging, Version=5.0.414.0, Culture=neutral" listenerDataType="Microsoft.Practices.EnterpriseLibrary.Logging.Configuration.RollingFlatFileTraceListenerData, Microsoft.Practices.EnterpriseLibrary.Logging, Version=5.0.414.0, Culture=neutral" rollFileExistsBehavior="Increment" rollInterval="Hour" header="" footer="" fileName="/verbose_log/**debug.log**" formatter="SimpleTextFormatter" /> |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## Code Stream




**Legend:**

Light Green = Previously Released software

**Bright Green = Current Release**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## Package Contents

## Intended Audience

The intended audience for this document is the RadNet Clinical Systems team and the eRAD Support/Service team.

## Who is affected

Build 2016.7 installs. This server update must be applied to 2016.7.2

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Digital Forms | Patient Portal | UM Portal | Notes |
|---|---|---|---|---|---|---|---|---|---|
| 2016.1 | - | 2.16.1.0.33419 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | | | | GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge |
| 2016.1 | 1 | 2.16.1.1.33672 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | | | | GUI.zip |
| 2016.1 | .0.1 | 2.16.1.0.1 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | | | | GUI.zip (This is not included in 2016.1.1, version directly above) |
| 2016.1 | .0.2 | 2.16.1.0.1 (3GB) | 2.16.1.0.33079 | 2.16.1.0.2 | 2.16.1.0.33416 | | | | Wedge Web Services only |
| 2016.1 | .0.3 | 2.16.1.0.3 (3GB) | 2.16.1.0.33079 | 2.16.1.0.3 | 2.16.1.0.3.00128918 | | | | GUI.zip, Web Services and DB |
| 2016.1 | .0.4 | 2.16.1.0.4 (3GB) | 2.16.1.0.33079 | 2.16.1.0.4 | 2.16.1.0.3.00128918 | | | | GUI.zip, Web Services |
| 2016.2 | - | 2.16.2.0 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.0.00172540 | | | | Full Version Release - GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge |
| 2016.2 | 1 | 2.16.2.1 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.0.00172540 | | | | GUI.zip and Citrix Bridge |
| 2016.2 | 2 | 2.16.2.2 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.2.00243102 | | | | GUI.zip, DB and Citrix Bridge |
| 2016.3 | - | 2.16.3.0 (3GB) | 2.16.3.0 | 2.16.3.0 | 2.16.3.0.00257101 | 2.16.3.0 | | | Full Version Release |
| 2016.3 | 1 | 2.16.3.1 | 2.16.3.0 | 2.16.3.1 | 2.16.3.1.00298834 | 2.16.3.0 | | | GUI.zip, Web Service and DB |
| 2016.3 | 2 | 2.16.3.2 | 2.16.3.0 | 2.16.3.2 | 2.16.3.1.00298834 | 2.16.3.0 | | | GUI.zip and Web Service |
| 2016.4 | - | 2.16.4.0 | 2.16.4.0 | 2.16.4.0 | 2.16.4.0.00301943 | 2.16.4.0 | 1.16.4.0.310284 | | Full Version Release |
| 2016.4 | 1 | 2.16.4.1 | 2.16.4.0 | 2.16.4.1 | 2.16.4.0.00301943 | 2.16.4.0 | 1.16.4.0.310284 | | GUI and Web Service updates |
| 2016.4 | 2 | 2.16.4.2 (3GB) | 2.16.4.0 | 2.16.4.1 | 2.16.4.0.00301943 | 2.16.4.0 | 1.16.4.2.460241 | | GUI and Patient Portal updates |
| 2016.4 | 3 | 2.16.4.3 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | 1.16.4.3.489120 | | GUI and Patient Portal updates |
| 2016.4 | 4 | 2.16.4.4 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | 1.16.4.3.489120 | | GUI |
| 2016.4 | 5 | 2.16.4.5 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | | | GUI |
| 2016.4 | 6 | 2.16.4.6 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | | | GUI |
| 2016.5 | - | 2.16.5.0 (3GB) | 2.16.5.0 | 2.16.5.0 | 2.16.5.0.00349303 | 2.16.5.0 | 1.16.5.0.362009 | | Full Version Release |
| 2016.6 | - | 2.16.6.0 (3GB) | 2.16.6.0 | 2.16.6.0 | 2.16.6.0.00411295 | 2.16.6.0 | 1.16.6.0.432471 | | Full Version Release |
| 2016.6 | 1 | 2.16.6.1 (3GB) | 2.16.6.0 | 2.16.6.0 | 2.16.6.0.00411295 | 2.16.6.0 | 1.16.6.1.468583 | | GUI and Patient Portal updated |
| 2016.7 | - | 2.16.7.0 (3GB) | 2.16.70 | 2.16.70 | 2.16.7.0.00490835 | 2.16.70 | 1.16.7.0.493031 | 2.16.7.0.493008 | Full version release |
| 2016.7 | 1 | 2.16.7.1 (3GB) | 2.16.7.0 | 2.16.7.1 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | GUI and Web Service updates |
| 2016.7 | 2 | 2.16.7.2 (3GB) | 2.16.7.0 | 2.16.7.2 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | GUI and Web Service updates |
| **2016.7** | **3** | **2.16.7.3 (3GB)** | **2.16.7.0** | **2.16.7.3** | **2.16.7.0.00490835** | **2.16.7.0** | **1.16.7.0.493031** | **2.16.7.0.493008** | **GUI and Web Service updates** |
| 2017.1 | - | 2.17.1.0 (3GB) | 2.17.1.0 | 2.17.1.0 | 2.17.1.0.00559886 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | Full Version Release |
| 2017.1 | 1 | 2.17.1.1 (3GB) | 2.17.1.0 | 2.17.1.1 | 2.17.1.1.00589952 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | GUI, Web Service and DB updates |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# Installing

## Client/GUI

Copy and replace the current rRIS…zip file with the eRAD_rRIS_2016.7.3.zip file provided with this release.

Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

## Web Service

This updated is only required for the Wedge Web Services. The Core RIS Service and Document Distribution Service are not required to be updated.

1. The web service upgrade consists of replacing the files in the RIS Web Service directory with the files supplied in the rRISService folder with this build. Always create a backup of the files being replaced. This upgrade includes 128 files in the rRISService folder and 7 sub folders. Of those folders, 1 is a folder titled **"XSL"** that contains a sub folder and files within the subfolder. Another folder is titled **"deploy"** that contains the new .config files that will be deployed with the user of the file called "ServicesConfigWizard.exe" (see instructions below). Folders ar (Arabic), he (Hebrew), pt_BR (Brazilian Portuguese) and es-AR (Argentina Spanish) are localization folders. The WedgePlugins folder contains various plugin files for RADAR, MIRTH, Ensemble, etc…

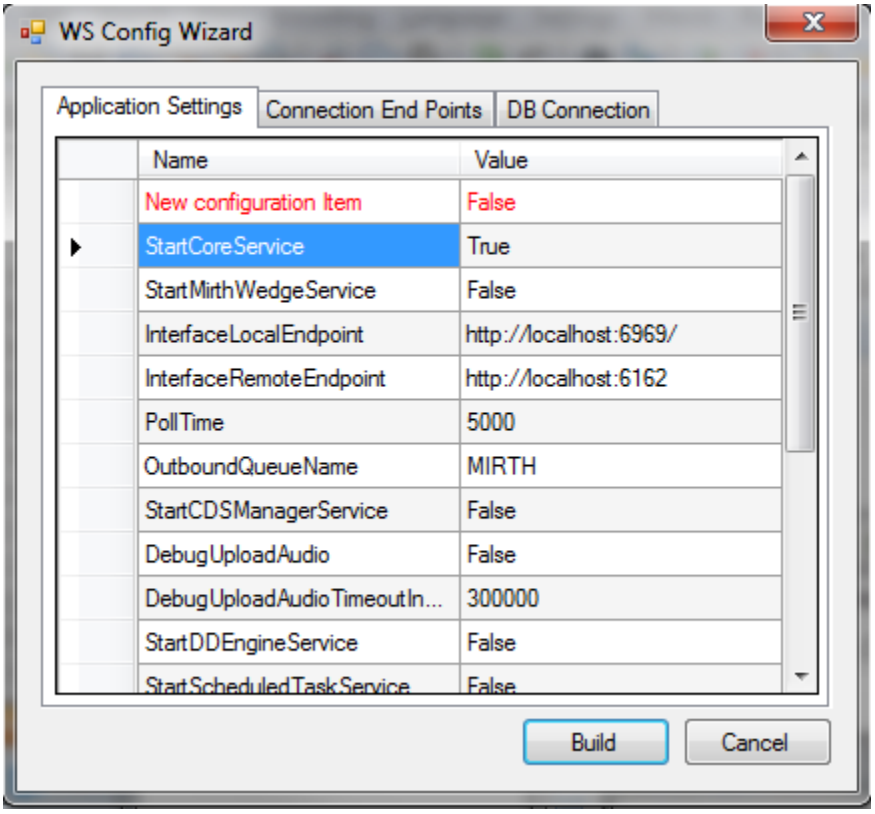
### Services Configuration Wizard

With the release of 42 to decrease the chance of losing configuration setting and missing new configuration options, we will no longer include the configuration files in the release in the main set of files, but they will now exist in a "deploy" folder, which will contain the three site configurable config files; applicationsettings, connectionstrings, and services as well as a copy of the rRISServices.exe configuration file. The contents of this folder should not be required to be touched.

On the install of a new service, all files will be copied to the appropriate locations on the server (no configurations will be over written). If instructed or to confirm no new configurations have been added the user can run the new application "ServicesConfigWizard.exe"

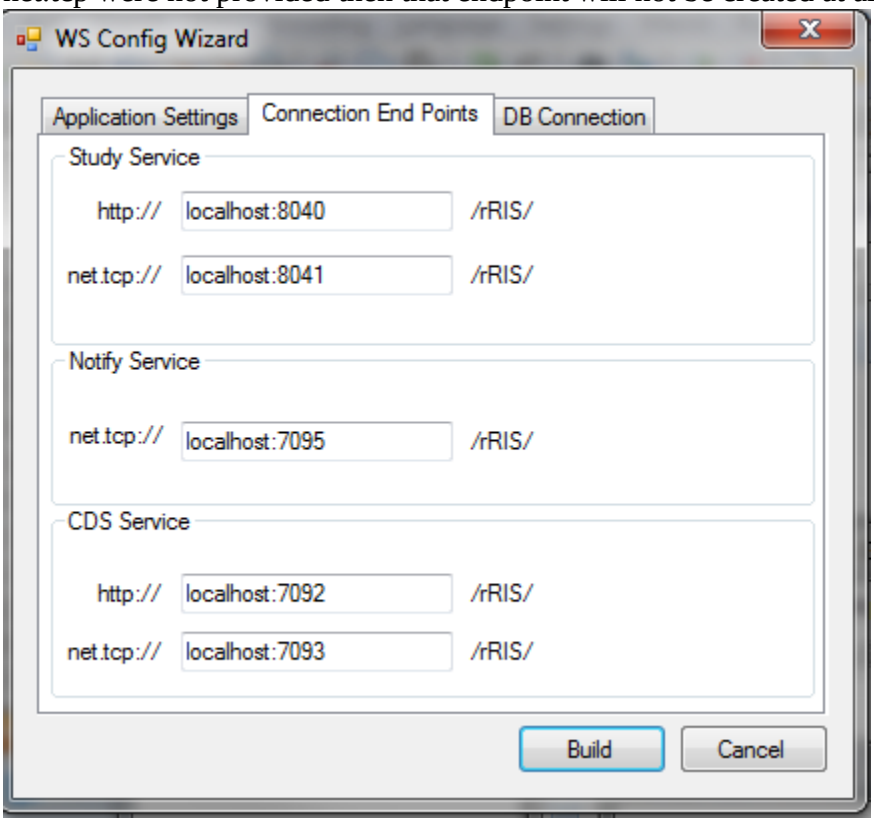
This application will read the existing configuration file(s) (if files exist), and compare to the provided new configuration files then will display three tabs, for each configuration file:
**Application Settings:** all existing configuration value will be displayed, if there are any new configuration entries they will be displayed in red.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

**Connection End Points:** will display the existing configuration, if the value is left blank then that entry will not be created, in the case of "Study Service" or "CDS Service" if both http and net.tcp were not provided then that endpoint will not be created at all.




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# Server Update

For eRAD RIS
Version 2.0
Build 2.2016.7
Update 2.2016.7.4

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# Table of Contents

Resolved Items ..... 3
Code Stream ..... 4
Package Contents ..... 5
Intended Audience ..... 5
Who is affected ..... 5
eRAD RIS Release Version Numbers ..... 6
Installing ..... 7
    Client/GUI ..... 7

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

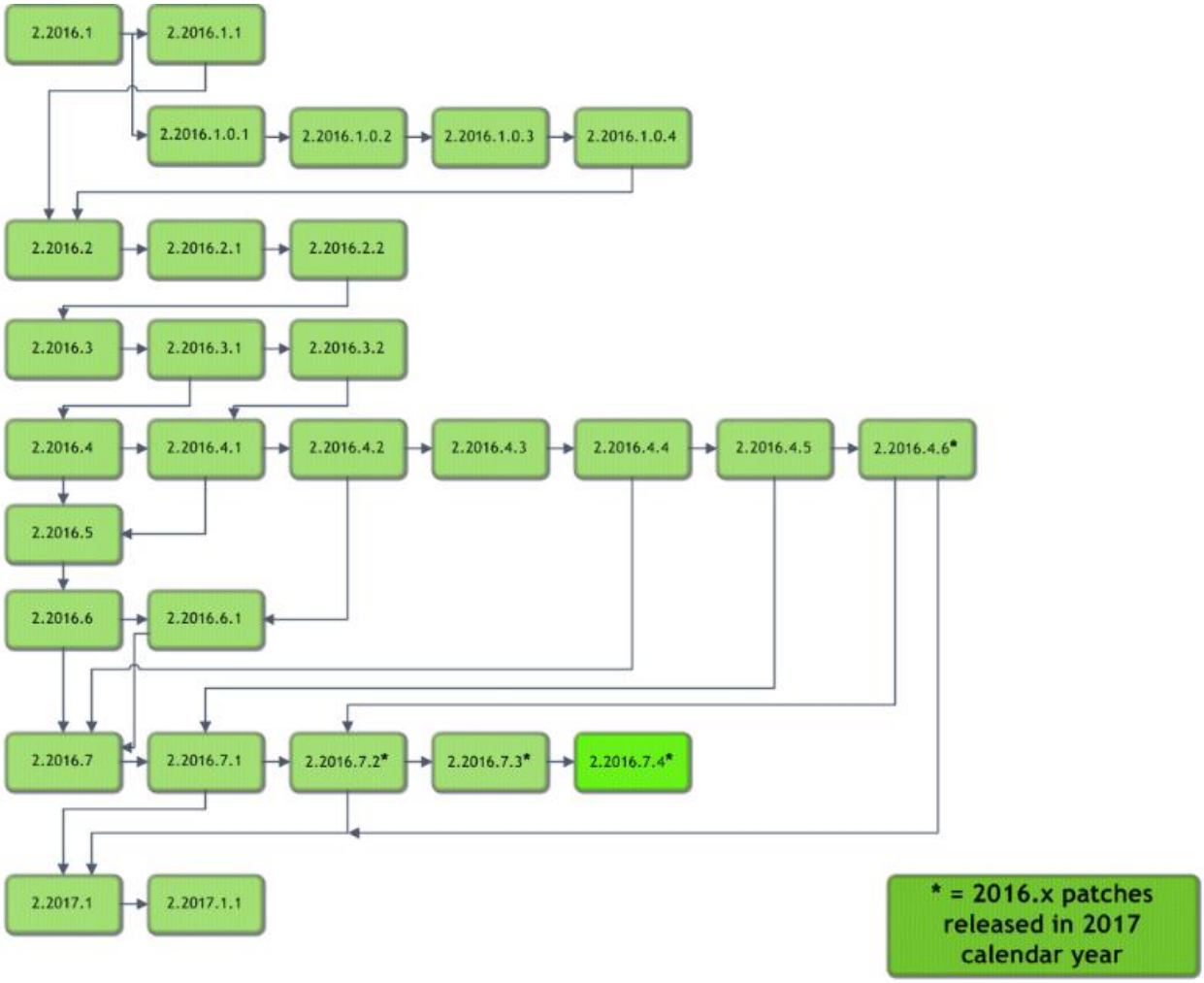
## Resolved Items

eRAD RIS

| Redmine # | Subject |
|---|---|
| 16284 | Resolved an error that could occur after dictating a study from Pending Dictation WL. "Row has been removed from table." |
| 16266 | Switching between external reporting integration modes (PS360 or External) to internal reporting modes (eRAD or M*Modal) now occurs seamlessly without errors. |
| 16265 | RIS will not crash when opening multiple files (including an external file) while communicating with PACS. |
| 16264 | Next workflow will behave as expected when "Reuse Reporting Screen" is turned off. |
| 16263 | Resolved an issue with the error "Cannot access a disposed object. Object name: RadLabel" which could cause RIS to crash. |
| 16262 | When using emergency access and RIS crashes, using auto-save, clicking the emergency access button again will no longer remove the auto-saved report. |
| 16261 | Resolved an issue in which RIS would crash if unable to find the PACS window. |
| 16260 | Resolved a scenario where RIS could crash while communicating with PACS. |
| 16259 | PACS manager will no longer wait forever in certain conditions. |
| 16257 | Resolved a scenario where RIS could crash while communicating with PACS. |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## Code Stream




**Legend:**

Light Green = Previously Released software

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## Package Contents

## Intended Audience

The intended audience for this document is the RadNet Clinical Systems team and the eRAD Support/Service team.

## Who is affected

Build 2016.7 installs. This server update must be applied to 2016.7.3

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Digital Forms | Patient Portal | UM Portal | Notes |
|---|---|---|---|---|---|---|---|---|---|
| 2016.1 | - | 2.16.1.0.33419 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | | | | GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge |
| 2016.1 | 1 | 2.16.1.1.33672 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | | | | GUI.zip |
| 2016.1 | .0.1 | 2.16.1.0.1 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | | | | GUI.zip (This is not included in 2016.1.1, version directly above) |
| 2016.1 | .0.2 | 2.16.1.0.1 (3GB) | 2.16.1.0.33079 | 2.16.1.0.2 | 2.16.1.0.33416 | | | | Wedge Web Services only |
| 2016.1 | .0.3 | 2.16.1.0.3 (3GB) | 2.16.1.0.33079 | 2.16.1.0.3 | 2.16.1.0.3.00128918 | | | | GUI.zip, Web Services and DB |
| 2016.1 | .0.4 | 2.16.1.0.4 (3GB) | 2.16.1.0.33079 | 2.16.1.0.4 | 2.16.1.0.3.00128918 | | | | GUI.zip, Web Services |
| 2016.2 | - | 2.16.2.0 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.0.00172540 | | | | Full Version Release - GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge |
| 2016.2 | 1 | 2.16.2.1 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.0.00172540 | | | | GUI.zip and Citrix Bridge |
| 2016.2 | 2 | 2.16.2.2 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.2.00243102 | | | | GUI.zip, DB and Citrix Bridge |
| 2016.3 | - | 2.16.3.0 (3GB) | 2.16.3.0 | 2.16.3.0 | 2.16.3.0.00257101 | 2.16.3.0 | | | Full Version Release |
| 2016.3 | 1 | 2.16.3.1 | 2.16.3.0 | 2.16.3.1 | 2.16.3.1.00298834 | 2.16.3.0 | | | GUI.zip, Web Service and DB |
| 2016.3 | 2 | 2.16.3.2 | 2.16.3.0 | 2.16.3.2 | 2.16.3.1.00298834 | 2.16.3.0 | | | GUI.zip and Web Service |
| 2016.4 | - | 2.16.4.0 | 2.16.4.0 | 2.16.4.0 | 2.16.4.0.00301943 | 2.16.4.0 | 1.16.4.0.310284 | | Full Version Release |
| 2016.4 | 1 | 2.16.4.1 | 2.16.4.0 | 2.16.4.1 | 2.16.4.0.00301943 | 2.16.4.0 | 1.16.4.0.310284 | | GUI and Web Service updates |
| 2016.4 | 2 | 2.16.4.2 (3GB) | 2.16.4.0 | 2.16.4.1 | 2.16.4.0.00301943 | 2.16.4.0 | 1.16.4.2.460241 | | GUI and Patient Portal updates |
| 2016.4 | 3 | 2.16.4.3 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | 1.16.4.3.489120 | | GUI and Patient Portal updates |
| 2016.4 | 4 | 2.16.4.4 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | 1.16.4.3.489120 | | GUI |
| 2016.4 | 5 | 2.16.4.5 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | | | GUI |
| 2016.4 | 6 | 2.16.4.6 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | | | GUI |
| 2016.5 | - | 2.16.5.0 (3GB) | 2.16.5.0 | 2.16.5.0 | 2.16.5.0.00349303 | 2.16.5.0 | 1.16.5.0.362009 | | Full Version Release |
| 2016.6 | - | 2.16.6.0 (3GB) | 2.16.6.0 | 2.16.6.0 | 2.16.6.0.00411295 | 2.16.6.0 | 1.16.6.0.432471 | | Full Version Release |
| 2016.6 | 1 | 2.16.6.1 (3GB) | 2.16.6.0 | 2.16.6.0 | 2.16.6.0.00411295 | 2.16.6.0 | 1.16.6.1.468583 | | GUI and Patient Portal updated |
| 2016.7 | - | 2.16.7.0 (3GB) | 2.16.70 | 2.16.70 | 2.16.7.0.00490835 | 2.16.70 | 1.16.7.0.493031 | 2.16.7.0.493008 | Full version release |
| 2016.7 | 1 | 2.16.7.1 (3GB) | 2.16.7.0 | 2.16.7.1 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | GUI and Web Service updates |
| 2016.7 | 2 | 2.16.7.2 (3GB) | 2.16.7.0 | 2.16.7.2 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | GUI and Web Service updates |
| 2016.7 | 3 | 2.16.7.3 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | GUI and Web Service updates |
| **2016.7** | **4** | **2.16.7.4 (3GB)** | **2.16.7.0** | **2.16.7.3** | **2.16.7.0.00490835** | **2.16.7.0** | **1.16.7.0.493031** | **2.16.7.0.493008** | **GUI** |
| 2017.1 | - | 2.17.1.0 (3GB) | 2.17.1.0 | 2.17.1.0 | 2.17.1.0.00559886 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | Full Version Release |
| 2017.1 | 1 | 2.17.1.1 (3GB) | 2.17.1.0 | 2.17.1.1 | 2.17.1.1.00589952 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | GUI, Web Service and DB updates |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## Installing

### Client/GUI

Copy and replace the current rRIS…zip file with the eRAD_rRIS_2016.7.4.zip file provided with this release.

Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# Server Update

For eRAD RIS
Version 2.0
Build 2.2016.7
Update 2.2016.7.5

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# Table of Contents

Resolved Items ..... 3
Code Stream ..... 4
Package Contents ..... 5
Intended Audience ..... 5
Who is affected ..... 5
eRAD RIS Release Version Numbers ..... 6
Installing ..... 7
    Client/GUI ..... 7

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

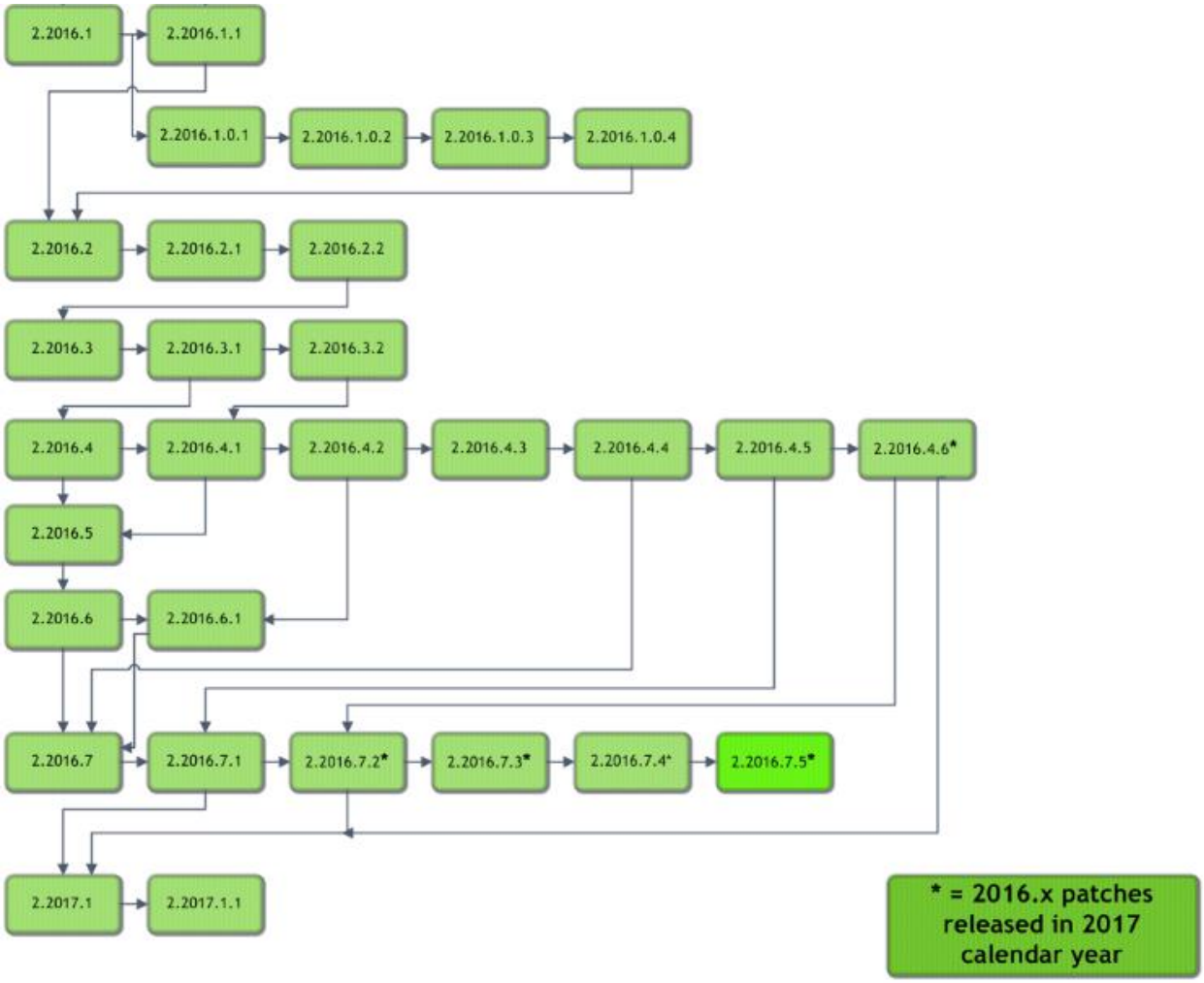
## Resolved Items

eRAD RIS

| Redmine # | Subject |
|---|---|
| 16390 | M*Modal macros created in earlier RIS versions now display properly in the template/macro editor when there is a field at the beginning of the macro. |
| 16364 | Resolved an issue in which template text or sections between two fields could be lost. |
| 16346 | Resolved two issues related to conflicts between Auto WL Refresh and asynchronous saving (when the WL updates the row for the patient who was modified by the current RIS user). |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## Code Stream




**Legend:**

Light Green = Previously Released software

**Bright Green = Current Release**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## Package Contents

## Intended Audience

The intended audience for this document is the RadNet Clinical Systems team and the eRAD Support/Service team.

## Who is affected

Build 2016.7 installs. This server update must be applied to 2016.7.3

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Digital Forms | Patient Portal | UM Portal | Notes |
|---|---|---|---|---|---|---|---|---|---|
| 2016.1 | - | 2.16.1.0.33419 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | | | | GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge |
| 2016.1 | 1 | 2.16.1.1.33672 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | | | | GUI.zip |
| 2016.1 | .0.1 | 2.16.1.0.1 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | | | | GUI.zip (This is not included in 2016.1.1, version directly above) |
| 2016.1 | .0.2 | 2.16.1.0.1 (3GB) | 2.16.1.0.33079 | 2.16.1.0.2 | 2.16.1.0.33416 | | | | Wedge Web Services only |
| 2016.1 | .0.3 | 2.16.1.0.3 (3GB) | 2.16.1.0.33079 | 2.16.1.0.3 | 2.16.1.0.3.00128918 | | | | GUI.zip, Web Services and DB |
| 2016.1 | .0.4 | 2.16.1.0.4 (3GB) | 2.16.1.0.33079 | 2.16.1.0.4 | 2.16.1.0.3.00128918 | | | | GUI.zip, Web Services |
| 2016.2 | - | 2.16.2.0 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.0.00172540 | | | | Full Version Release - GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge |
| 2016.2 | 1 | 2.16.2.1 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.0.00172540 | | | | GUI.zip and Citrix Bridge |
| 2016.2 | 2 | 2.16.2.2 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.2.00243102 | | | | GUI.zip, DB and Citrix Bridge |
| 2016.3 | - | 2.16.3.0 (3GB) | 2.16.3.0 | 2.16.3.0 | 2.16.3.0.00257101 | 2.16.3.0 | | | Full Version Release |
| 2016.3 | 1 | 2.16.3.1 | 2.16.3.0 | 2.16.3.1 | 2.16.3.1.00298834 | 2.16.3.0 | | | GUI.zip, Web Service and DB |
| 2016.3 | 2 | 2.16.3.2 | 2.16.3.0 | 2.16.3.2 | 2.16.3.1.00298834 | 2.16.3.0 | | | GUI.zip and Web Service |
| 2016.4 | - | 2.16.4.0 | 2.16.4.0 | 2.16.4.0 | 2.16.4.0.00301943 | 2.16.4.0 | 1.16.4.0.310284 | | Full Version Release |
| 2016.4 | 1 | 2.16.4.1 | 2.16.4.0 | 2.16.4.1 | 2.16.4.0.00301943 | 2.16.4.0 | 1.16.4.0.310284 | | GUI and Web Service updates |
| 2016.4 | 2 | 2.16.4.2 (3GB) | 2.16.4.0 | 2.16.4.1 | 2.16.4.0.00301943 | 2.16.4.0 | 1.16.4.2.460241 | | GUI and Patient Portal updates |
| 2016.4 | 3 | 2.16.4.3 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | 1.16.4.3.489120 | | GUI and Patient Portal updates |
| 2016.4 | 4 | 2.16.4.4 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | 1.16.4.3.489120 | | GUI |
| 2016.4 | 5 | 2.16.4.5 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | | | GUI |
| 2016.4 | 6 | 2.16.4.6 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | | | GUI |
| 2016.5 | - | 2.16.5.0 (3GB) | 2.16.5.0 | 2.16.5.0 | 2.16.5.0.00349303 | 2.16.5.0 | 1.16.5.0.362009 | | Full Version Release |
| 2016.6 | - | 2.16.6.0 (3GB) | 2.16.6.0 | 2.16.6.0 | 2.16.6.0.00411295 | 2.16.6.0 | 1.16.6.0.432471 | | Full Version Release |
| 2016.6 | 1 | 2.16.6.1 (3GB) | 2.16.6.0 | 2.16.6.0 | 2.16.6.0.00411295 | 2.16.6.0 | 1.16.6.1.468583 | | GUI and Patient Portal updated |
| 2016.7 | - | 2.16.7.0 (3GB) | 2.16.70 | 2.16.70 | 2.16.7.0.00490835 | 2.16.70 | 1.16.7.0.493031 | 2.16.7.0.493008 | Full version release |
| 2016.7 | 1 | 2.16.7.1 (3GB) | 2.16.7.0 | 2.16.7.1 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | GUI and Web Service updates |
| 2016.7 | 2 | 2.16.7.2 (3GB) | 2.16.7.0 | 2.16.7.2 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | GUI and Web Service updates |
| 2016.7 | 3 | 2.16.7.3 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | GUI and Web Service updates |
| 2016.7 | 4 | 2.16.7.4 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | GUI |
| **2016.7** | **5** | **2.16.7.5 (3GB)** | **2.16.7.0** | **2.16.7.3** | **2.16.7.0.00490835** | **2.16.7.0** | **1.16.7.0.493031** | **2.16.7.0.493008** | **GUI** |
| 2017.1 | - | 2.17.1.0 (3GB) | 2.17.1.0 | 2.17.1.0 | 2.17.1.0.00559886 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | Full Version Release |
| 2017.1 | 1 | 2.17.1.1 (3GB) | 2.17.1.0 | 2.17.1.1 | 2.17.1.1.00589952 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | GUI, Web Service and DB updates |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# Installing

## Client/GUI

Copy and replace the current rRIS…zip file with the eRAD_rRIS_2016.7.5.zip file provided with this release.

Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# Server Update

For eRAD RIS
Version 2.0
Build 2.2016.7
Update 2.2016.7.6

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# Table of Contents

Resolved Items ..... 3
Code Stream ..... 4
Package Contents ..... 5
Intended Audience ..... 5
Affected Installs ..... 5
eRAD RIS Release Version Numbers ..... 6
Installing ..... 7
    Client/GUI ..... 7
    Web Service ..... 7

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

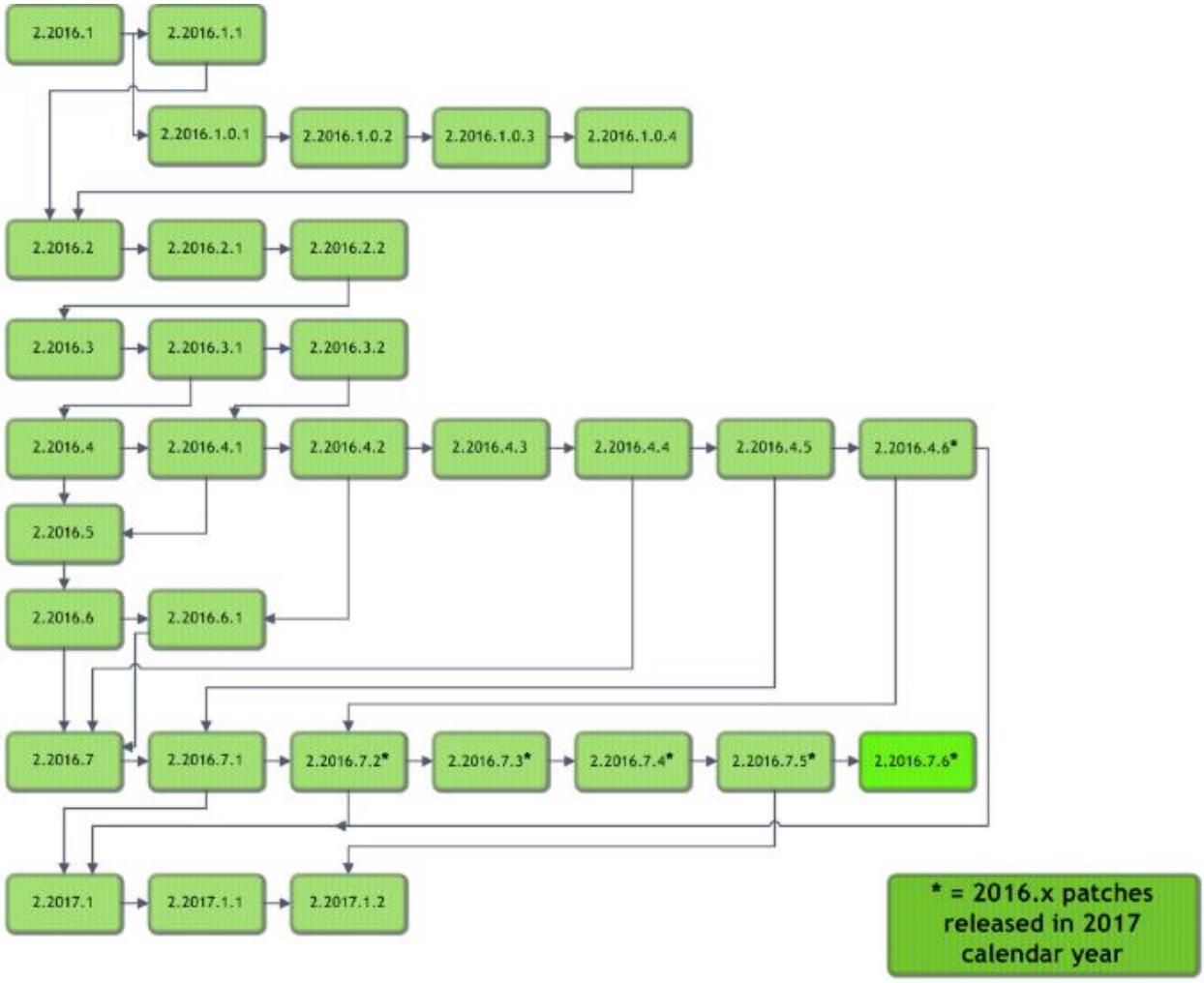
## Resolved Items

eRAD RIS

| Redmine # | Subject |
|---|---|
| 16457 | Utilization Management: Exception no longer occurs when distributing UM Opinion Letter via RADAR password-protected PDF. (Previously the letter would distribute properly, but an exception would occur when it was recorded to the distribution history.) |
| 16446 | M*Modal Reporting: Resolved an issue where fields could be split in a way that caused issues with text highlighting during play back and extra field delimiters (square brackets). Duplicate fields are now left intact and are only fixed within the clipboard before pasting or within the macro XML before inserting. |
| 16445 | M*Modal Reporting: Resolved an issue in which submit and continue from the Dictation window could produce an error. |
| 16437 | Editing multiple reminder letter distribution jobs on the Distribution WL no longer causes exception. |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## Code Stream




**Legend:**

Light Green = Previously Released software

**Bright Green = Current Release**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## Package Contents

## Intended Audience

The intended audience for this document is the RadNet Clinical Systems team and the eRAD Support/Service team.

## Affected Installs

Build 2016.7 installs. This server update has GUI and Web Service updates. Since the previous 2016.7.X updates were also GUI or GUI and Web Service updates the minimum previous version must be 2016.7. Please note that 2016.7.1 also has an update to the Utilization Management Portal.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Digital Forms | Patient Portal | UM Portal | Notes |
|---|---|---|---|---|---|---|---|---|---|
| 2016.1 | - | 2.16.1.0.33419 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | | | | GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge |
| 2016.1 | 1 | 2.16.1.1.33672 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | | | | GUI.zip |
| 2016.1 | .0.1 | 2.16.1.0.1 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | | | | GUI.zip (This is not included in 2016.1.1, version directly above) |
| 2016.1 | .0.2 | 2.16.1.0.1 (3GB) | 2.16.1.0.33079 | 2.16.1.0.2 | 2.16.1.0.33416 | | | | Wedge Web Services only |
| 2016.1 | .0.3 | 2.16.1.0.3 (3GB) | 2.16.1.0.33079 | 2.16.1.0.3 | 2.16.1.0.3.00128918 | | | | GUI.zip, Web Services and DB |
| 2016.1 | .0.4 | 2.16.1.0.4 (3GB) | 2.16.1.0.33079 | 2.16.1.0.4 | 2.16.1.0.3.00128918 | | | | GUI.zip, Web Services |
| 2016.2 | - | 2.16.2.0 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.0.00172540 | | | | Full Version Release - GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge |
| 2016.2 | 1 | 2.16.2.1 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.0.00172540 | | | | GUI.zip and Citrix Bridge |
| 2016.2 | 2 | 2.16.2.2 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.2.00243102 | | | | GUI.zip, DB and Citrix Bridge |
| 2016.3 | - | 2.16.3.0 (3GB) | 2.16.3.0 | 2.16.3.0 | 2.16.3.0.00257101 | 2.16.3.0 | | | Full Version Release |
| 2016.3 | 1 | 2.16.3.1 | 2.16.3.0 | 2.16.3.1 | 2.16.3.1.00298834 | 2.16.3.0 | | | GUI.zip, Web Service and DB |
| 2016.3 | 2 | 2.16.3.2 | 2.16.3.0 | 2.16.3.2 | 2.16.3.1.00298834 | 2.16.3.0 | | | GUI.zip and Web Service |
| 2016.4 | - | 2.16.4.0 | 2.16.4.0 | 2.16.4.0 | 2.16.4.0.00301943 | 2.16.4.0 | 1.16.4.0.310284 | | Full Version Release |
| 2016.4 | 1 | 2.16.4.1 | 2.16.4.0 | 2.16.4.1 | 2.16.4.0.00301943 | 2.16.4.0 | 1.16.4.0.310284 | | GUI and Web Service updates |
| 2016.4 | 2 | 2.16.4.2 (3GB) | 2.16.4.0 | 2.16.4.1 | 2.16.4.0.00301943 | 2.16.4.0 | 1.16.4.2.460241 | | GUI and Patient Portal updates |
| 2016.4 | 3 | 2.16.4.3 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | 1.16.4.3.489120 | | GUI and Patient Portal updates |
| 2016.4 | 4 | 2.16.4.4 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | 1.16.4.3.489120 | | GUI |
| 2016.4 | 5 | 2.16.4.5 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | | | GUI |
| 2016.4 | 6 | 2.16.4.6 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | | | GUI |
| 2016.5 | - | 2.16.5.0 (3GB) | 2.16.5.0 | 2.16.5.0 | 2.16.5.0.00349303 | 2.16.5.0 | 1.16.5.0.362009 | | Full Version Release |
| 2016.6 | - | 2.16.6.0 (3GB) | 2.16.6.0 | 2.16.6.0 | 2.16.6.0.00411295 | 2.16.6.0 | 1.16.6.0.432471 | | Full Version Release |
| 2016.6 | 1 | 2.16.6.1 (3GB) | 2.16.6.0 | 2.16.6.0 | 2.16.6.0.00411295 | 2.16.6.0 | 1.16.6.1.468583 | | GUI and Patient Portal updated |
| 2016.7 | - | 2.16.7.0 (3GB) | 2.16.70 | 2.16.70 | 2.16.7.0.00490835 | 2.16.70 | 1.16.7.0.493031 | 2.16.7.0.493008 | Full version release |
| 2016.7 | 1 | 2.16.7.1 (3GB) | 2.16.7.0 | 2.16.7.1 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | GUI and Web Service updates |
| 2016.7 | 2 | 2.16.7.2 (3GB) | 2.16.7.0 | 2.16.7.2 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | GUI and Web Service updates |
| 2016.7 | 3 | 2.16.7.3 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | GUI and Web Service updates |
| 2016.7 | 4 | 2.16.7.4 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | GUI |
| 2016.7 | 5 | 2.16.7.5 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | GUI |
| **2016.7** | **6** | **2.16.7.6 (3GB)** | **2.16.7.0** | **2.16.7.6** | **2.16.7.0.00490835** | **2.16.7.0** | **1.16.7.0.493031** | **2.16.7.0.493008** | **GUI and Web Service updates** |
| 2017.1 | - | 2.17.1.0 (3GB) | 2.17.1.0 | 2.17.1.0 | 2.17.1.0.00559886 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | Full Version Release |
| 2017.1 | 1 | 2.17.1.1 (3GB) | 2.17.1.0 | 2.17.1.1 | 2.17.1.1.00589952 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | GUI, Web Service and DB updates |
| 2017.1 | 2 | 2.17.1.2 (3GB) | 2.17.1.0 | 2.17.1.2 | 2.17.1.2.00621962 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | GUI, Web Service and DB updates |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# Installing

## Client/GUI

Copy and replace the current rRIS…zip file with the eRAD_rRIS_2016.7.6.zip file provided with this release.

Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

## Web Service

This updated is only required for the Wedge Web Services. The Core RIS Service and Document Distribution Service are not required to be updated.

1. The web service upgrade consists of replacing the files in the RIS Web Service directory with the files supplied in the rRISService folder with this build. Always create a backup of the files being replaced. This upgrade includes 134 files in the rRISService folder and 7 sub folders. Of those folders, 1 is a folder titled **"XSL"** that contains a sub folder and files within the subfolder. Another folder is titled **"deploy"** that contains the new .config files that will be deployed with the user of the file called "ServicesConfigWizard.exe" (see instructions below). Folders ar (Arabic), he (Hebrew), pt_BR (Brazilian Portuguese) and es-AR (Argentina Spanish) are localization folders. The WedgePlugins folder contains various plugin files for RADAR, MIRTH, Ensemble, etc…

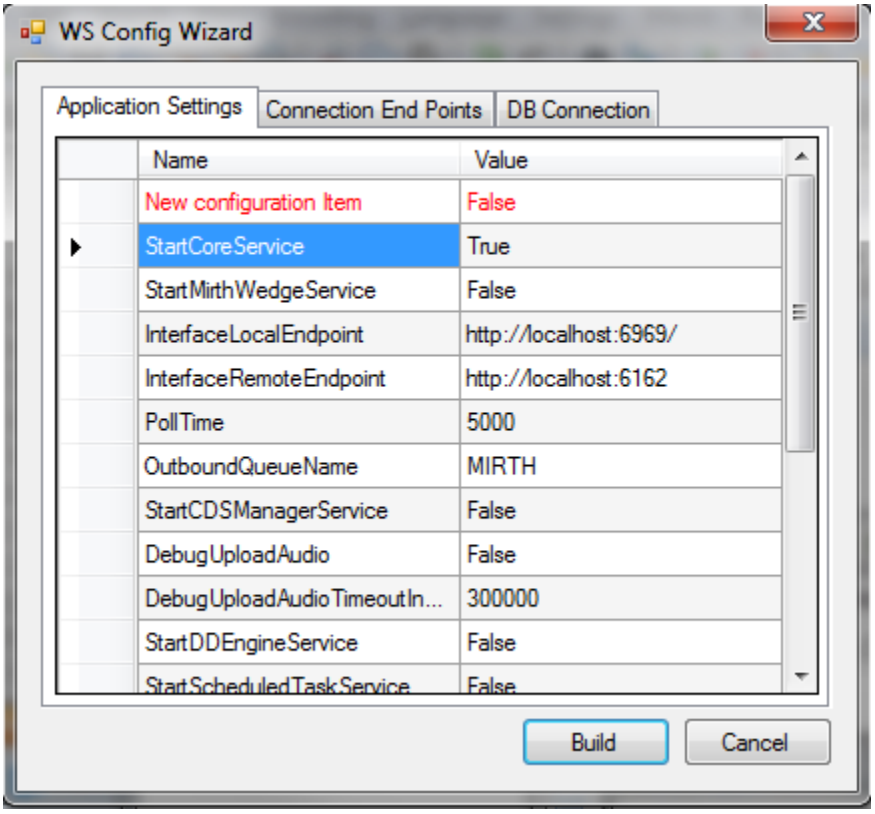
### Services Configuration Wizard

With the release of 42 to decrease the chance of losing configuration setting and missing new configuration options, we will no longer include the configuration files in the release in the main set of files, but they will now exist in a "deploy" folder, which will contain the three site configurable config files; applicationsettings, connectionstrings, and services as well as a copy of the rRISServices.exe configuration file. The contents of this folder should not be required to be touched.

On the install of a new service, all files will be copied to the appropriate locations on the server (no configurations will be over written). If instructed or to confirm no new configurations have been added the user can run the new application "ServicesConfigWizard.exe"

This application will read the existing configuration file(s) (if files exist), and compare to the provided new configuration files then will display three tabs, for each configuration file:
**Application Settings:** all existing configuration value will be displayed, if there are any new configuration entries they will be displayed in red.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# Server Update

For eRAD RIS
Version 2.0
Build 2.2016.7
Update 2.2016.7.7

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# Table of Contents

Resolved Items ..... 3
Code Stream ..... 4
Package Contents ..... 5
Intended Audience ..... 5
Affected Installs ..... 5
eRAD RIS Release Version Numbers ..... 6
Installing ..... 7
    Client/GUI ..... 7
    Web Service ..... 7

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

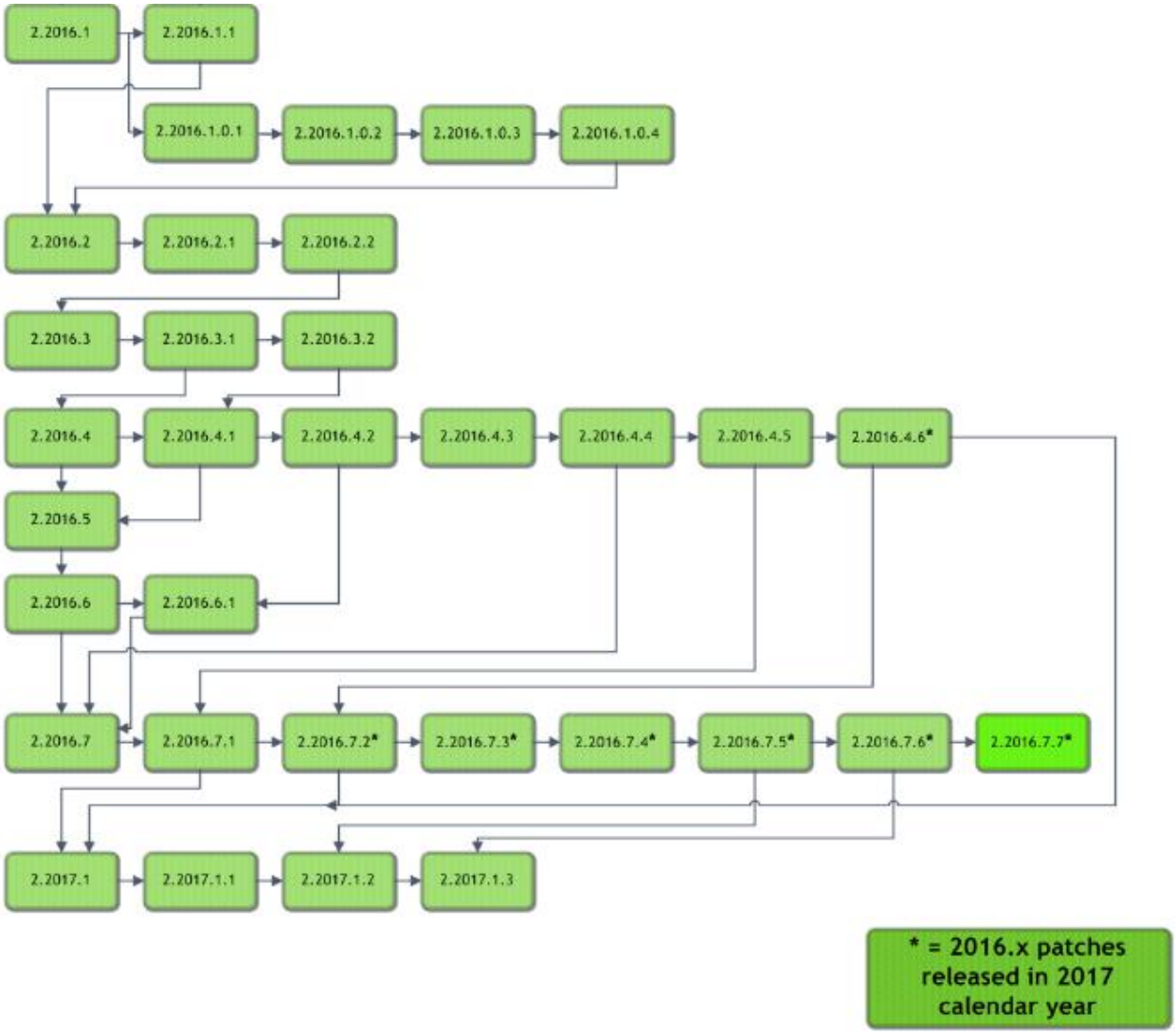
## Resolved Items

eRAD RIS

| Redmine # | Subject |
|---|---|
| 16626 | Resolved an issue in which certain availability templates were not applied, resulting in Appointment Slot searches with a reduced number of options. |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## Code Stream



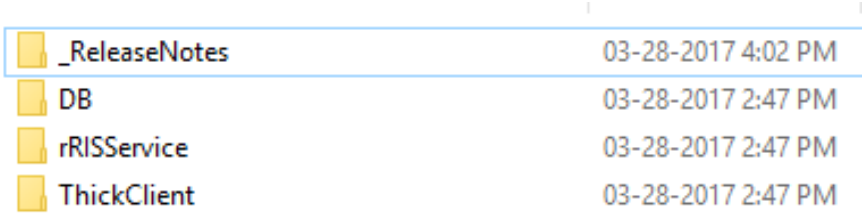

**Legend:**

Light Green = Previously Released software

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## Package Contents




## Intended Audience

The intended audience for this document is the RadNet Clinical Systems team and the eRAD Support/Service team.

## Affected Installs

Build 2016.7 installs. This server update has GUI and Web Service updates. Since the previous 2016.7.X updates were also GUI or GUI and Web Service updates the minimum previous version must be 2016.7. Please note that 2016.7.1 also has an update to the Utilization Management Portal.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# eRAD RIS Release Version Numbers

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Digital Forms | Patient Portal | UM Portal | Notes |
|---|---|---|---|---|---|---|---|---|---|
| 45.1 | 3 | 2.45.1.3.31452(3GB) | 2.45.0.0.26107 | 2.45.1.3.31452 | 2.45.1.3.31369 | | | | GUI.zip, Web Service, DB, Questionnaire and Citrix Bridge |
| 45.1 | 4 | 2.45.1.4.31621(3GB) | 2.45.0.0.26107 | 2.45.1.4.31621 | 2.45.1.4.31599 | | | | GUI.zip, Web Service, DB, Questionnaire and Citrix Bridge |
| 45.1 | 5 | 2.45.1.5.31773(3GB) | 2.45.0.0.26107 | 2.45.1.5.31773 | 2.45.1.5.31771 | | | | GUI.zip, Web Service, DB, Questionnaire |
| 45.1 | 6 | 2.45.1.6.32070(3GB) | 2.45.0.0.26107 | 2.45.1.6.32070 | 2.45.1.6.31936 | | | | GUI.zip, Web Service, DB, Questionnaire, Citrix Bridge |
| 45.1 | 7 | 2.45.1.6.32070(3GB) | 2.45.0.0.26107 | 2.45.1.6.32614 | 2.45.1.6.31936 | | | | Web Service for Wedge only. Version number of Wedge is 45.1.6.32614 |
| 45.1 | 8 | 2.45.1.8.33254(3GB) | 2.45.0.0.26107 | 2.45.1.6.32070 | 2.45.1.6.31936 | | | | GUI.zip |
| 45.1 | 9 | 2.45.1.9.(3GB) | 2.45.0.0.26107 | 2.45.1.6.32070 | 2.45.1.6.31936 | | | | GUI.zip |
| 2016.1 | - | 2.16.1.0.33419 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | | | | GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge |
| 2016.1 | 1 | 2.16.1.1.33672 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | | | | GUI.zip |
| 2016.1 | .0.1 | 2.16.1.0.1 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | | | | GUI.zip (This is not included in 2016.1.1, version directly above) |
| 2016.1 | .0.2 | 2.16.1.0.1 (3GB) | 2.16.1.0.33079 | 2.16.1.0.2 | 2.16.1.0.33416 | | | | Wedge Web Services only |
| 2016.1 | .0.3 | 2.16.1.0.3 (3GB) | 2.16.1.0.33079 | 2.16.1.0.3 | 2.16.1.0.3.00128918 | | | | GUI.zip, Web Services and DB |
| 2016.1 | .0.4 | 2.16.1.0.4 (3GB) | 2.16.1.0.33079 | 2.16.1.0.4 | 2.16.1.0.3.00128918 | | | | GUI.zip, Web Services |
| 2016.2 | - | 2.16.2.0 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.0.00172540 | | | | Full Version Release - GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge |
| 2016.2 | 1 | 2.16.2.1 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.0.00172540 | | | | GUI.zip and Citrix Bridge |
| 2016.2 | 2 | 2.16.2.2 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.2.00243102 | | | | GUI.zip, DB and Citrix Bridge |
| 2016.3 | - | 2.16.3.0 (3GB) | 2.16.3.0 | 2.16.3.0 | 2.16.3.0.00257101 | 2.16.3.0 | | | Full Version Release |
| 2016.3 | 1 | 2.16.3.1 | 2.16.3.0 | 2.16.3.1 | 2.16.3.1.00298834 | 2.16.3.0 | | | GUI.zip, Web Service and DB |
| 2016.3 | 2 | 2.16.3.2 | 2.16.3.0 | 2.16.3.2 | 2.16.3.1.00298834 | 2.16.3.0 | | | GUI.zip and Web Service |
| 2016.4 | - | 2.16.4.0 | 2.16.4.0 | 2.16.4.0 | 2.16.4.0.00301943 | 2.16.4.0 | 1.16.4.0.310284 | | Full Version Release |
| 2016.4 | 1 | 2.16.4.1 | 2.16.4.0 | 2.16.4.1 | 2.16.4.0.00301943 | 2.16.4.0 | 1.16.4.0.310284 | | GUI and Web Service updates |
| 2016.4 | 2 | 2.16.4.2 (3GB) | 2.16.4.0 | 2.16.4.1 | 2.16.4.0.00301943 | 2.16.4.0 | 1.16.4.2.460241 | | GUI and Patient Portal updates |
| 2016.4 | 3 | 2.16.4.3 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | 1.16.4.3.489120 | | GUI and Patient Portal updates |
| 2016.4 | 4 | 2.16.4.4 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | 1.16.4.3.489120 | | GUI |
| 2016.4 | 5 | 2.16.4.5 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | | | GUI |
| 2016.4 | 6 | 2.16.4.6 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | | | GUI |
| 2016.5 | - | 2.16.5.0 (3GB) | 2.16.5.0 | 2.16.5.0 | 2.16.5.0.00349303 | 2.16.5.0 | 1.16.5.0.362009 | | Full Version Release |
| 2016.6 | - | 2.16.6.0 (3GB) | 2.16.6.0 | 2.16.6.0 | 2.16.6.0.00411295 | 2.16.6.0 | 1.16.6.0.432471 | | Full Version Release |
| 2016.6 | 1 | 2.16.6.1 (3GB) | 2.16.6.0 | 2.16.6.0 | 2.16.6.0.00411295 | 2.16.6.0 | 1.16.6.1.468583 | | GUI and Patient Portal updated |
| 2016.7 | - | 2.16.7.0 (3GB) | 2.16.70 | 2.16.70 | 2.16.7.0.00490835 | 2.16.70 | 1.16.7.0.493031 | 2.16.7.0.493008 | Full version release |
| 2016.7 | 1 | 2.16.7.1 (3GB) | 2.16.7.0 | 2.16.7.1 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | GUI and Web Service updates |
| 2016.7 | 2 | 2.16.7.2 (3GB) | 2.16.7.0 | 2.16.7.2 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | GUI and Web Service updates |
| 2016.7 | 3 | 2.16.7.3 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | GUI and Web Service updates |
| 2016.7 | 4 | 2.16.7.4 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | GUI |
| 2016.7 | 5 | 2.16.7.5 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | GUI |
| 2016.7 | 6 | 2.16.7.6 (3GB) | 2.16.7.0 | 2.16.7.6 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | GUI and Web Service updates |
| **2016.7** | **7** | **2.16.7.7 (3GB)** | **2.16.7.0** | **2.16.7.7** | **2.16.7.0.00490835** | **2.16.7.0** | **1.16.7.0.493031** | **2.16.7.0.493008** | **GUI and Web Service updates** |
| 2017.1 | - | 2.17.1.0 (3GB) | 2.17.1.0 | 2.17.1.0 | 2.17.1.0.00559886 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | Full Version Release |
| 2017.1 | 1 | 2.17.1.1 (3GB) | 2.17.1.0 | 2.17.1.1 | 2.17.1.1.00589952 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | GUI, Web Service and DB updates |
| 2017.1 | 2 | 2.17.1.2 (3GB) | 2.17.1.0 | 2.17.1.2 | 2.17.1.2.00621962 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | GUI, Web Service and DB updates |
| 2017.1 | 3 | 2.17.1.3 (3GB) | 2.17.1.0 | 2.17.1.3 | 2.17.1.3.00640480 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | GUI, Web Service and DB updates |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# Installing

## Client/GUI

Copy and replace the current rRIS…zip file with the eRAD_rRIS_2016.7.7.zip file provided with this release.

Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

## Web Service

This updated is only required for the Wedge Web Services. The Core RIS Service and Document Distribution Service are not required to be updated.

1. The web service upgrade consists of replacing the files in the RIS Web Service directory with the files supplied in the rRISService folder with this build. Always create a backup of the files being replaced. This upgrade includes 134 files in the rRISService folder and 7 sub folders. Of those folders, 1 is a folder titled **"XSL"** that contains a sub folder and files within the subfolder. Another folder is titled **"deploy"** that contains the new .config files that will be deployed with the user of the file called "ServicesConfigWizard.exe" (see instructions below). Folders ar (Arabic), he (Hebrew), pt_BR (Brazilian Portuguese) and es-AR (Argentina Spanish) are localization folders. The WedgePlugins folder contains various plugin files for RADAR, MIRTH, Ensemble, etc…

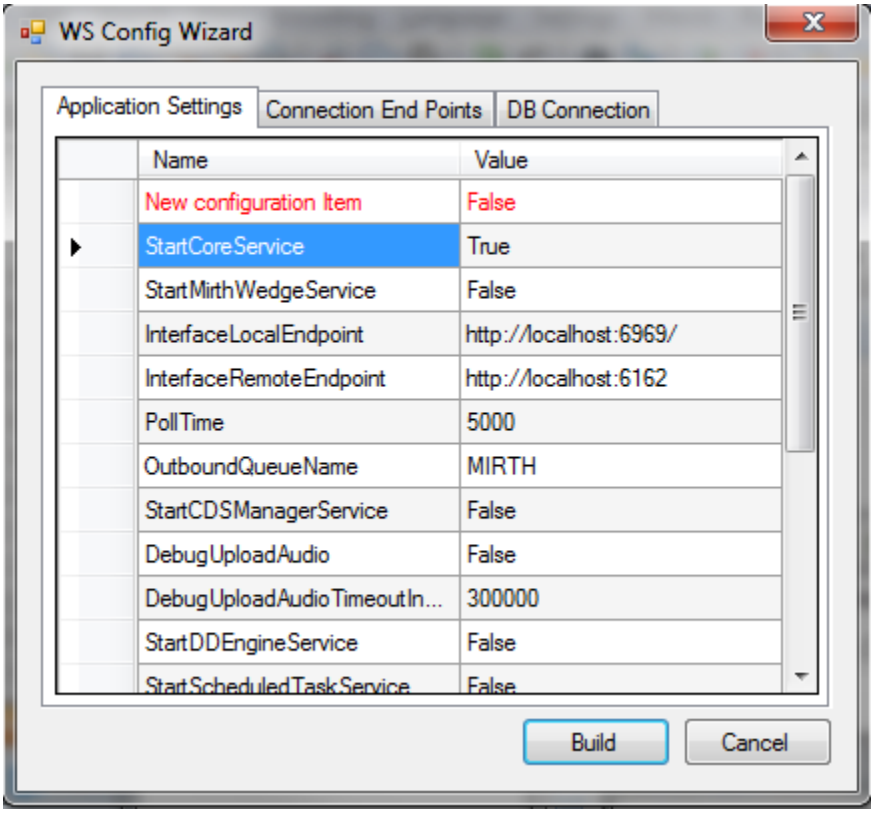
### Services Configuration Wizard

With the release of 42 to decrease the chance of losing configuration setting and missing new configuration options, we will no longer include the configuration files in the release in the main set of files, but they will now exist in a "deploy" folder, which will contain the three site configurable config files; applicationsettings, connectionstrings, and services as well as a copy of the rRISServices.exe configuration file. The contents of this folder should not be required to be touched.

On the install of a new service, all files will be copied to the appropriate locations on the server (no configurations will be over written). If instructed or to confirm no new configurations have been added the user can run the new application "ServicesConfigWizard.exe"

This application will read the existing configuration file(s) (if files exist), and compare to the provided new configuration files then will display three tabs, for each configuration file:
**Application Settings:** all existing configuration value will be displayed, if there are any new configuration entries they will be displayed in red.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# Server Update

For eRAD RIS
Version 2.0
Build 2.2016.7
Update 2.2016.7.8

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# Table of Contents

Resolved Items ..... 3
Code Stream ..... 4
Package Contents ..... 5
Intended Audience ..... 5
Affected Installs ..... 5
eRAD RIS Release Version Numbers ..... 6
Installing ..... 7
    Client/GUI ..... 7
    Database Updates ..... 7

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

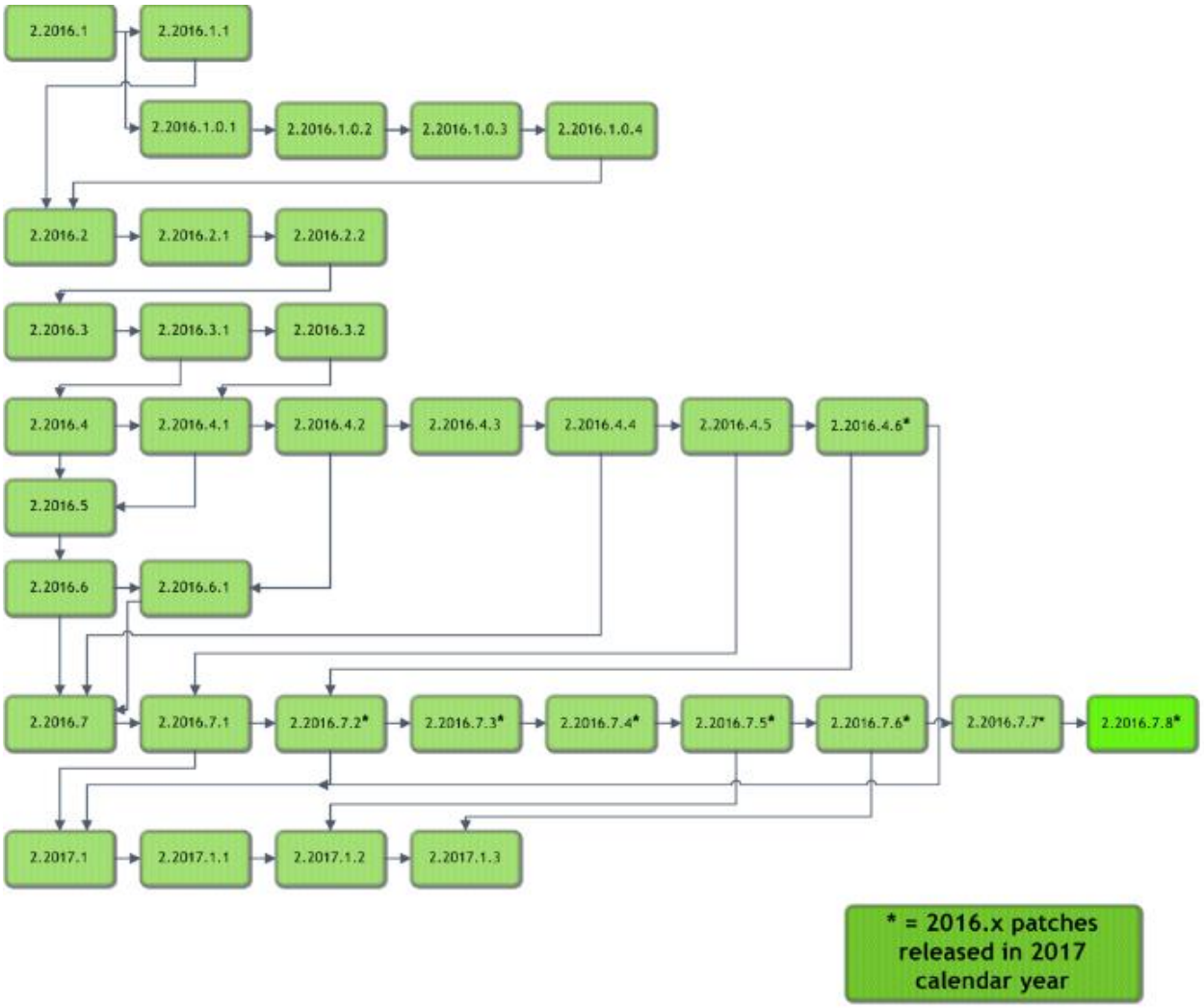
## RESOLVED ITEMS

eRAD RIS

| Redmine # | Subject |
|---|---|
| 16937 | Missing indexes with 2016.7 rollout |
| 16914 | Peer review button disappearing on selected attachment datapane |
| 16868 | Region and Practice are not prepopulating when rescheduling a study |
| 15526 | When Rescheduling a study in Scheduled, Check-in or Arrived status the site search doesn't default to the original site. |
| 16936 | 'Selected Report' panel not saving in personal or system layouts |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## CODE STREAM




**Legend:**

Light Green = Previously Released software

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## PACKAGE CONTENTS

## INTENDED AUDIENCE

The intended audience for this document is the RadNet Clinical Systems team and the eRAD Support/Service team.

## AFFECTED INSTALLS

Build 2016.7 installs. This server update has GUI and Database updates. This update must be applied to 2016.7.7

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## ERAD RIS RELEASE VERSION NUMBERS

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Digital Forms | Patient Portal | UM Portal | Notes |
|---|---|---|---|---|---|---|---|---|---|
| 2016.1 | 1 | 2.16.1.1.33672 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | | | | GUI.zip |
| 2016.1 | .0.1 | 2.16.1.0.1 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | | | | GUI.zip (This is not included in 2016.1.1, version directly above) |
| 2016.1 | .0.2 | 2.16.1.0.1 (3GB) | 2.16.1.0.33079 | 2.16.1.0.2 | 2.16.1.0.33416 | | | | Wedge Web Services only |
| 2016.1 | .0.3 | 2.16.1.0.3 (3GB) | 2.16.1.0.33079 | 2.16.1.0.3 | 2.16.1.0.3.00128918 | | | | GUI.zip, Web Services and DB |
| 2016.1 | .0.4 | 2.16.1.0.4 (3GB) | 2.16.1.0.33079 | 2.16.1.0.4 | 2.16.1.0.3.00128918 | | | | GUI.zip, Web Services |
| 2016.2 | - | 2.16.2.0 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.0.00172540 | | | | Full Version Release - GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge |
| 2016.2 | 1 | 2.16.2.1 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.0.00172540 | | | | GUI.zip and Citrix Bridge |
| 2016.2 | 2 | 2.16.2.2 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.2.00243102 | | | | GUI.zip, DB and Citrix Bridge |
| 2016.3 | - | 2.16.3.0 (3GB) | 2.16.3.0 | 2.16.3.0 | 2.16.3.0.00257101 | 2.16.3.0 | | | Full Version Release |
| 2016.3 | 1 | 2.16.3.1 | 2.16.3.0 | 2.16.3.1 | 2.16.3.1.00298834 | 2.16.3.0 | | | GUI.zip, Web Service and DB |
| 2016.3 | 2 | 2.16.3.2 | 2.16.3.0 | 2.16.3.2 | 2.16.3.1.00298834 | 2.16.3.0 | | | GUI.zip and Web Service |
| 2016.4 | - | 2.16.4.0 | 2.16.4.0 | 2.16.4.0 | 2.16.4.0.00301943 | 2.16.4.0 | 1.16.4.0.310284 | | Full Version Release |
| 2016.4 | 1 | 2.16.4.1 | 2.16.4.0 | 2.16.4.1 | 2.16.4.0.00301943 | 2.16.4.0 | 1.16.4.0.310284 | | GUI and Web Service updates |
| 2016.4 | 2 | 2.16.4.2 (3GB) | 2.16.4.0 | 2.16.4.1 | 2.16.4.0.00301943 | 2.16.4.0 | 1.16.4.2.460241 | | GUI and Patient Portal updates |
| 2016.4 | 3 | 2.16.4.3 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | 1.16.4.3.489120 | | GUI and Patient Portal updates |
| 2016.4 | 4 | 2.16.4.4 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | 1.16.4.3.489120 | | GUI |
| 2016.4 | 5 | 2.16.4.5 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | | | GUI |
| 2016.4 | 6 | 2.16.4.6 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | | | GUI |
| 2016.5 | - | 2.16.5.0 (3GB) | 2.16.5.0 | 2.16.5.0 | 2.16.5.0.00349303 | 2.16.5.0 | 1.16.5.0.362009 | | Full Version Release |
| 2016.6 | - | 2.16.6.0 (3GB) | 2.16.6.0 | 2.16.6.0 | 2.16.6.0.00411295 | 2.16.6.0 | 1.16.6.0.432471 | | Full Version Release |
| 2016.6 | 1 | 2.16.6.1 (3GB) | 2.16.6.0 | 2.16.6.0 | 2.16.6.0.00411295 | 2.16.6.0 | 1.16.6.1.468583 | | GUI and Patient Portal updated |
| 2016.7 | - | 2.16.7.0 (3GB) | 2.16.70 | 2.16.70 | 2.16.7.0.00490835 | 2.16.70 | 1.16.7.0.493031 | 2.16.7.0.493008 | Full version release |
| 2016.7 | 1 | 2.16.7.1 (3GB) | 2.16.7.0 | 2.16.7.1 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | GUI and Web Service updates |
| 2016.7 | 2 | 2.16.7.2 (3GB) | 2.16.7.0 | 2.16.7.2 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | GUI and Web Service updates |
| 2016.7 | 3 | 2.16.7.3 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | GUI and Web Service updates |
| 2016.7 | 4 | 2.16.7.4 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | GUI |
| 2016.7 | 5 | 2.16.7.5 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | GUI |
| 2016.7 | 6 | 2.16.7.6 (3GB) | 2.16.7.0 | 2.16.7.6 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | GUI and Web Service updates |
| 2016.7 | 7 | 2.16.7.7 (3GB) | 2.16.7.0 | 2.16.7.7 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | GUI and Web Service updates |
| **2016.7** | **8** | **2.16.7.8 (3GB)** | **2.16.7.0** | **2.16.7.7** | **2.16.7.8.00683507** | **2.16.7.0** | **1.16.7.0.493031** | **2.16.7.0.493008** | **GUI and DB updates** |
| 2017.1 | - | 2.17.1.0 (3GB) | 2.17.1.0 | 2.17.1.0 | 2.17.1.0.00559886 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | Full Version Release |
| 2017.1 | 1 | 2.17.1.1 (3GB) | 2.17.1.0 | 2.17.1.1 | 2.17.1.1.00589952 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | GUI, Web Service and DB updates |
| 2017.1 | 2 | 2.17.1.2 (3GB) | 2.17.1.0 | 2.17.1.2 | 2.17.1.2.00621962 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | GUI, Web Service and DB updates |
| 2017.1 | 3 | 2.17.1.3 (3GB) | 2.17.1.0 | 2.17.1.3 | 2.17.1.3.00640480 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | GUI, Web Service and DB updates |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# INSTALLING

## CLIENT/GUI

Copy and replace the current rRIS…zip file with the eRAD_rRIS_2016.7.8.zip file provided with this release.

Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

## DATABASE UPDATES

Always run the upgrade scripts in a test environment of the actual database to make sure they run cleanly. If any errors occur please contact development.

Note: There is a new upgrade process introduced with B43.1 called "RunUpgrade.bat". The batch file will open a command window. This process will prompt you for the database server name, database name and authentication credentials. There is no need to run the database upgrade scripts manually as was done in previous releases.

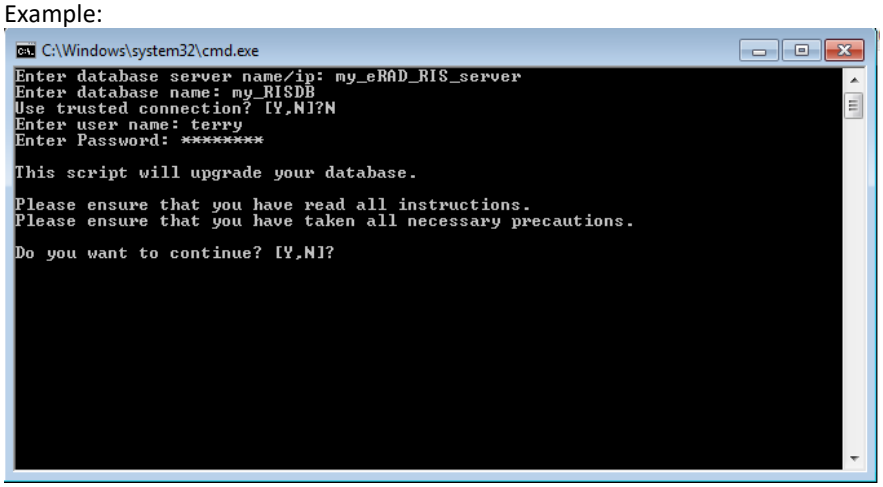
1) From the upgrade folder, double click the “RunUpgrade.bat” command file.

2) Enter the server name, database name and authentication credentials to the database. You have 2 choices for authentication credentials.

3) You can choose to use “Trusted connection”. Using this option will pass the identity of the currently logged on user. If this user has “db_owner” access to the eRAD RIS database then feel free to use this options.

4) If you decide not to use “Trusted connection” then you will be prompted for user id and password.

   Example:




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

After the upgrade program has finished you can find the upgrade logs in the “log” folder. The file name will be eRAD_RIS_db_upgrade_timestamp.log, where timestamp is a value representing the date and time the upgrade started. If you see any errors please contact the development team

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# Server Update

For eRAD RIS
Version 2.0
Build 2.2016.7
Update 2.2016.7.9

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# Table of Contents

Resolved Items ..... 3
Code Stream ..... 4
Package Contents ..... 5
Intended Audience ..... 5
Affected Installs ..... 5
eRAD RIS Release Version Numbers ..... 6
Installing ..... 7
Client/GUI ..... 7
Web Service ..... 7
Database Updates ..... 8

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## RESOLVED ITEMS

### eRAD RIS

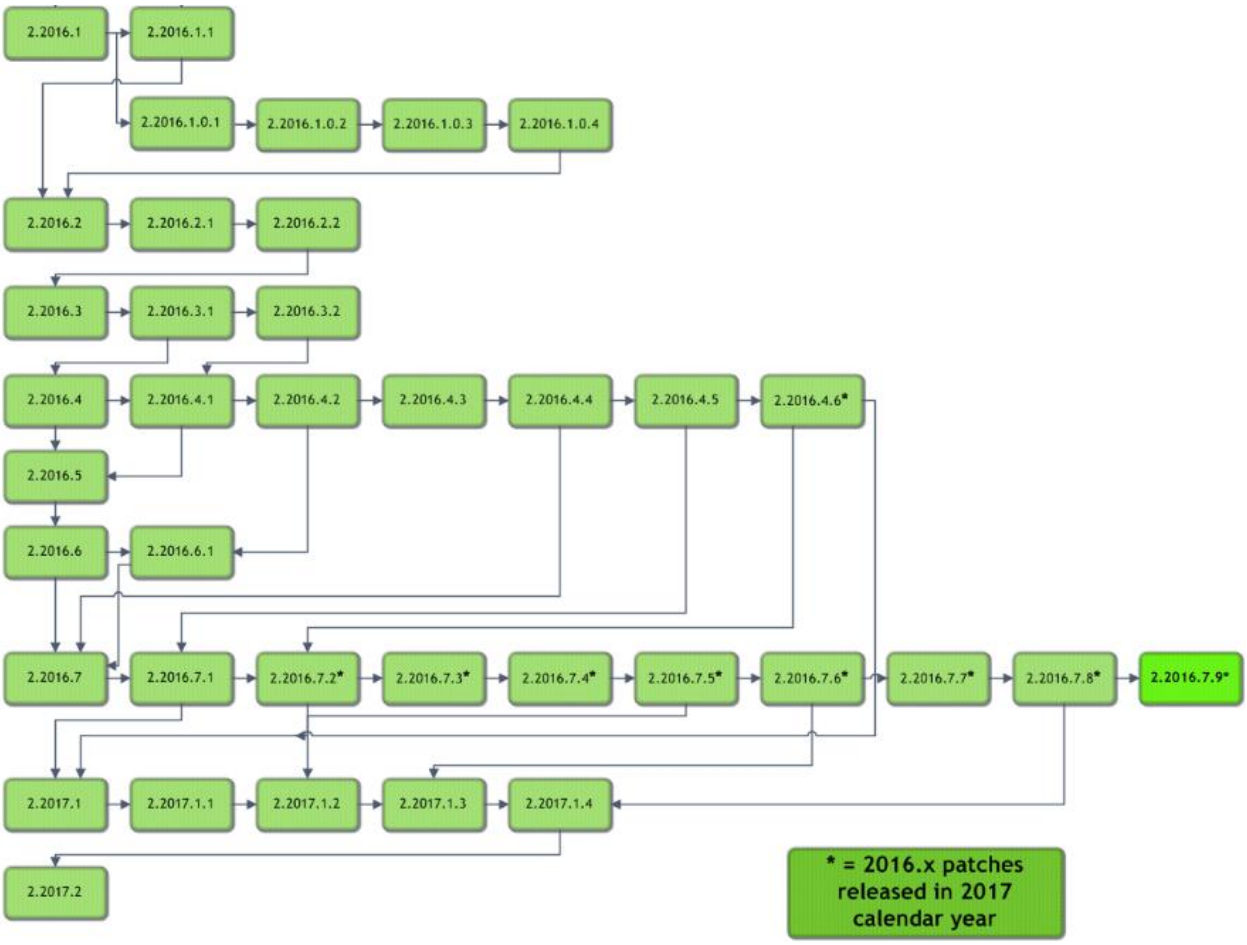
| Redmine # | Subject |
|---|---|
| 17209 | An index change was made to resolve deadlock issues on c_locked_item. |
| 17208 | A change was made to the handling of sequence ID in the External Interface helper to allow for changes to c_order_item or c_study_item via Inbound Wedge. |
| 17193 | Resolved an issue that could cause the M*Modal text expander file to be overwritten. |
| 17176 | Region and Practice are once more prepopulating when creating a new Appointment without patient context. |
| 17123 | 'Alternative' procedures added during Utilization Review now properly replace the billing codes for the original procedure. |
| 17243 | UM Portal version number is now displaying correctly. |
| 17206 | Adjusted a database upgrade script to more efficiently backfill formatted phone number. |

### Utilization Management Connect

| Redmine # | Subject |
|---|---|
| 17071 | 'By Status' filter is now sorting and filtering appropriately. |
| 17207 | Resolved a performance issue which could cause the application to time out. |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## CODE STREAM



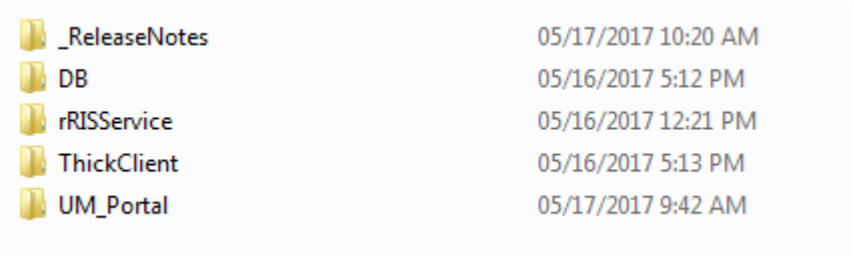

## Legend:

Light Green = Previously Released software

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## PACKAGE CONTENTS




## INTENDED AUDIENCE

The intended audience for this document is the RadNet Clinical Systems team and the eRAD Support/Service team.

## AFFECTED INSTALLS

Build 2016.7 installs. This server update has GUI and Database updates. This update must be applied to 2016.7.8

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## ERAD RIS RELEASE VERSION NUMBERS

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Digital Forms | Patient Portal | UM Portal | Provider Portal | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| 2016.1 | - | 2.16.1.0.33419 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | | | | | GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge |
| 2016.1 | 1 | 2.16.1.1.33672 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | | | | | GUI.zip |
| 2016.1 | .0.1 | 2.16.1.0.1 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | | | | | GUI.zip (This is not included in 2016.1.1, version directly above) |
| 2016.1 | .0.2 | 2.16.1.0.1 (3GB) | 2.16.1.0.33079 | 2.16.1.0.2 | 2.16.1.0.33416 | | | | | Wedge Web Services only |
| 2016.1 | .0.3 | 2.16.1.0.3 (3GB) | 2.16.1.0.33079 | 2.16.1.0.3 | 2.16.1.0.3.00128918 | | | | | GUI.zip, Web Services and DB |
| 2016.1 | .0.4 | 2.16.1.0.4 (3GB) | 2.16.1.0.33079 | 2.16.1.0.4 | 2.16.1.0.3.00128918 | | | | | GUI.zip, Web Services |
| 2016.2 | - | 2.16.2.0 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.0.00172540 | | | | | Full Version Release - GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge |
| 2016.2 | 1 | 2.16.2.1 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.0.00172540 | | | | | GUI.zip and Citrix Bridge |
| 2016.2 | 2 | 2.16.2.2 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.2.00243102 | | | | | GUI.zip, DB and Citrix Bridge |
| 2016.3 | - | 2.16.3.0 (3GB) | 2.16.3.0 | 2.16.3.0 | 2.16.3.0.00257101 | 2.16.3.0 | | | | Full Version Release |
| 2016.3 | 1 | 2.16.3.1 | 2.16.3.0 | 2.16.3.1 | 2.16.3.1.00298834 | 2.16.3.0 | | | | GUI.zip, Web Service and DB |
| 2016.3 | 2 | 2.16.3.2 | 2.16.3.0 | 2.16.3.2 | 2.16.3.1.00298834 | 2.16.3.0 | | | | GUI.zip and Web Service |
| 2016.4 | - | 2.16.4.0 | 2.16.4.0 | 2.16.4.0 | 2.16.4.0.00301943 | 2.16.4.0 | 1.16.4.0.310284 | | | Full Version Release |
| 2016.4 | 1 | 2.16.4.1 | 2.16.4.0 | 2.16.4.1 | 2.16.4.0.00301943 | 2.16.4.0 | 1.16.4.0.310284 | | | GUI and Web Service updates |
| 2016.4 | 2 | 2.16.4.2 (3GB) | 2.16.4.0 | 2.16.4.1 | 2.16.4.0.00301943 | 2.16.4.0 | 1.16.4.2.460241 | | | GUI and Patient Portal updates |
| 2016.4 | 3 | 2.16.4.3 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | 1.16.4.3.489120 | | | GUI and Patient Portal updates |
| 2016.4 | 4 | 2.16.4.4 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | 1.16.4.3.489120 | | | GUI |
| 2016.4 | 5 | 2.16.4.5 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | | | | GUI |
| 2016.4 | 6 | 2.16.4.6 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | | | | GUI |
| 2016.5 | - | 2.16.5.0 (3GB) | 2.16.5.0 | 2.16.5.0 | 2.16.5.0.00349303 | 2.16.5.0 | 1.16.5.0.362009 | | | Full Version Release |
| 2016.6 | - | 2.16.6.0 (3GB) | 2.16.6.0 | 2.16.6.0 | 2.16.6.0.00411295 | 2.16.6.0 | 1.16.6.0.432471 | | | Full Version Release |
| 2016.6 | 1 | 2.16.6.1 (3GB) | 2.16.6.0 | 2.16.6.0 | 2.16.6.0.00411295 | 2.16.6.0 | 1.16.6.1.468583 | | | GUI and Patient Portal updated |
| 2016.7 | - | 2.16.7.0 (3GB) | 2.16.70 | 2.16.70 | 2.16.7.0.00490835 | 2.16.70 | 1.16.7.0.493031 | 2.16.7.0.493008 | | Full version release |
| 2016.7 | 1 | 2.16.7.1 (3GB) | 2.16.7.0 | 2.16.7.1 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 2 | 2.16.7.2 (3GB) | 2.16.7.0 | 2.16.7.2 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 3 | 2.16.7.3 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 4 | 2.16.7.4 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI |
| 2016.7 | 5 | 2.16.7.5 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI |
| 2016.7 | 6 | 2.16.7.6 (3GB) | 2.16.7.0 | 2.16.7.6 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 7 | 2.16.7.7 (3GB) | 2.16.7.0 | 2.16.7.7 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 8 | 2.16.7.8 (3GB) | 2.16.7.0 | 2.16.7.7 | 2.16.7.8.00683507 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and DB updates |
| **2016.7** | **9** | **2.16.7.9 (3GB)** | **2.16.7.0** | **2.16.7.9** | **2.16.7.9.00715012** | **2.16.7.0** | **1.16.7.0.493031** | **2.16.7.9.723457** | | **GUI, Web Services, DB updates and UM Portal** |
| 2017.1 | - | 2.17.1.0 (3GB) | 2.17.1.0 | 2.17.1.0 | 2.17.1.0.00559886 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | Full Version Release |
| 2017.1 | 1 | 2.17.1.1 (3GB) | 2.17.1.0 | 2.17.1.1 | 2.17.1.1.00589952 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 2 | 2.17.1.2 (3GB) | 2.17.1.0 | 2.17.1.2 | 2.17.1.2.00621962 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 3 | 2.17.1.3 (3GB) | 2.17.1.0 | 2.17.1.3 | 2.17.1.3.00640480 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 4 | 2.17.1.4 (3GB) | 2.17.1.0 | 2.17.1.4 | 2.17.1.4.00692239 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI, Web Service, DB and Patient Portal updates |
| 2017.2 | - | 2.17.2.0(3GB) | 2.17.2.0 | 2.17.2.0 | 2.17.2.0.00695782 | 2.17.2.0 | 2.17.2.0.702238 | 2.17.2.0.702213 | 2.17.2.0.702226 | Full Version Release. First release of Provider Portal |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# INSTALLING

## CLIENT/GUI

Copy and replace the current rRIS…zip file with the eRAD_rRIS_2016.7.9.zip file provided with this release.

Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

## WEB SERVICE

This updated is only required for the Wedge Web Services. The Core RIS Service and Document Distribution Service are not required to be updated.

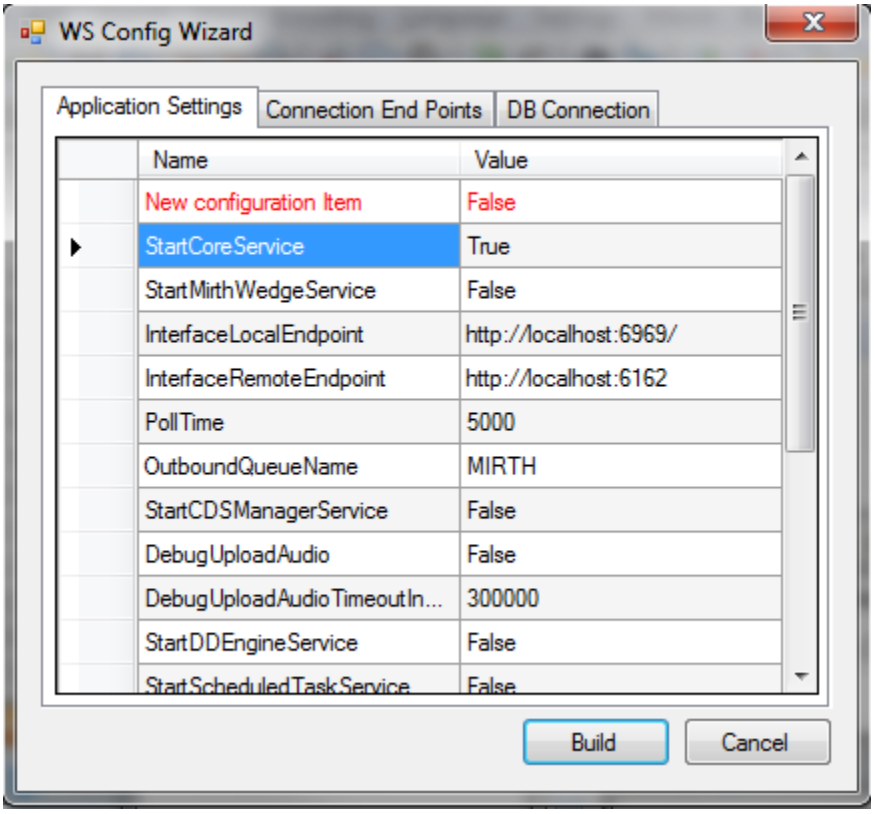
1. The web service upgrade consists of replacing the files in the RIS Web Service directory with the files supplied in the rRISService folder with this build. Always create a backup of the files being replaced. This upgrade includes 134 files in the rRISService folder and 7 sub folders. Of those folders, 1 is a folder titled "XSL" that contains a sub folder and files within the subfolder. Another folder is titled "deploy" that contains the new .config files that will be deployed with the user of the file called "ServicesConfigWizard.exe" (see instructions below). Folders ar (Arabic), he (Hebrew), pt_BR (Brazilian Portuguese) and es-AR (Argentina Spanish) are localization folders. The WedgePlugins folder contains various plugin files for RADAR, MIRTH, Ensemble, etc…

Services Configuration Wizard
With the release of 42 to decrease the chance of losing configuration setting and missing new configuration options, we will no longer include the configuration files in the release in the main set of files, but they will now exist in a "deploy" folder, which will contain the three site configurable config files; applicationsettings, connectionstrings, and services as well as a copy of the rRISServices.exe configuration file. The contents of this folder should not be required to be touched.

On the install of a new service, all files will be copied to the appropriate locations on the server (no configurations will be over written). If instructed or to confirm no new configurations have been added the user can run the new application "ServicesConfigWizard.exe"

This application will read the existing configuration file(s) (if files exist), and compare to the provided new configuration files then will display three tabs, for each configuration file:
Application Settings: all existing configuration value will be displayed, if there are any new configuration entries they will be displayed in red.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.




## DATABASE UPDATES

Always run the upgrade scripts in a test environment of the actual database to make sure they run cleanly. If any errors occur please contact development.

Note: There is a new upgrade process introduced with B43.1 called "RunUpgrade.bat". The batch file will open a command window. This process will prompt you for the database server name, database name and authentication credentials. There is no need to run the database upgrade scripts manually as was done in previous releases.

1) From the upgrade folder, double click the “RunUpgrade.bat” command file.

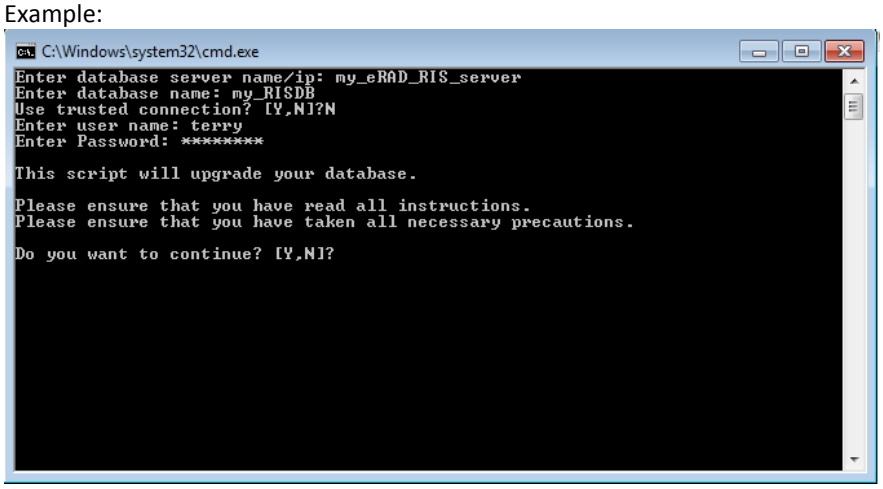
2) Enter the server name, database name and authentication credentials to the database. You have 2 choices for authentication credentials.

3) You can choose to use “Trusted connection”. Using this option will pass the identity of the currently logged on user. If this user has “db_owner” access to the eRAD RIS database then feel free to use this options.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

4) If you decide not to use “Trusted connection” then you will be prompted for user id and password.

Example:




After the upgrade program has finished you can find the upgrade logs in the “log” folder. The file name will be eRAD_RIS_db_upgrade_timestamp.log, where timestamp is a value representing the date and time the upgrade started. If you see any errors please contact the development team

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# Server Update

For eRAD RIS
Version 2.0
Build 2.2016.7
Update 2.2016.7.10

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# Table of Contents

Resolved Items ..... 3
Code Stream ..... 4
Package Contents ..... 5
Intended Audience ..... 5
Affected Installs ..... 5
eRAD RIS Release Version Numbers ..... 6
Installing ..... 7
    Client/GUI ..... 7
    Web Service ..... 7

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## RESOLVED ITEMS

eRAD RIS

| Redmine # | Subject |
|---|---|
| 17324 | Improved core service stability by handling the ServiceHost "Faulted" event and re-creating the service object. |
| 17327 | Eliminated the queued messages that would inundate the web services when a failed web service would come back on line. |
| 17328 | Eliminated the intermittent “Service Call Aborted” exception when logging out of RIS. |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## CODE STREAM

**Legend:**

**Light Green = Previously Released software**

**Bright Green = Current Release**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## PACKAGE CONTENTS

## INTENDED AUDIENCE

The intended audience for this document is the RadNet Clinical Systems team and the eRAD Support/Service team.

## AFFECTED INSTALLS

Build 2016.7 installs. This server update has GUI and Database updates. This update must be applied to 2016.7.9

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## ERAD RIS RELEASE VERSION NUMBERS

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Digital Forms | Patient Portal | UM Portal | Provider Portal | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| 2016.1 | - | 2.16.1.0.33419 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | | | | | GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge |
| 2016.1 | 1 | 2.16.1.1.33672 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | | | | | GUI.zip |
| 2016.1 | .0.1 | 2.16.1.0.1 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | | | | | GUI.zip (This is not included in 2016.1.1, version directly above) |
| 2016.1 | .0.2 | 2.16.1.0.1 (3GB) | 2.16.1.0.33079 | 2.16.1.0.2 | 2.16.1.0.33416 | | | | | Wedge Web Services only |
| 2016.1 | .0.3 | 2.16.1.0.3 (3GB) | 2.16.1.0.33079 | 2.16.1.0.3 | 2.16.1.0.3.00128918 | | | | | GUI.zip, Web Services and DB |
| 2016.1 | .0.4 | 2.16.1.0.4 (3GB) | 2.16.1.0.33079 | 2.16.1.0.4 | 2.16.1.0.3.00128918 | | | | | GUI.zip, Web Services |
| 2016.2 | - | 2.16.2.0 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.0.00172540 | | | | | Full Version Release - GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge |
| 2016.2 | 1 | 2.16.2.1 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.0.00172540 | | | | | GUI.zip and Citrix Bridge |
| 2016.2 | 2 | 2.16.2.2 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.2.00243102 | | | | | GUI.zip, DB and Citrix Bridge |
| 2016.3 | - | 2.16.3.0 (3GB) | 2.16.3.0 | 2.16.3.0 | 2.16.3.0.00257101 | 2.16.3.0 | | | | Full Version Release |
| 2016.3 | 1 | 2.16.3.1 | 2.16.3.0 | 2.16.3.1 | 2.16.3.1.00298834 | 2.16.3.0 | | | | GUI.zip, Web Service and DB |
| 2016.3 | 2 | 2.16.3.2 | 2.16.3.0 | 2.16.3.2 | 2.16.3.1.00298834 | 2.16.3.0 | | | | GUI.zip and Web Service |
| 2016.4 | - | 2.16.4.0 | 2.16.4.0 | 2.16.4.0 | 2.16.4.0.00301943 | 2.16.4.0 | 1.16.4.0.310284 | | | Full Version Release |
| 2016.4 | 1 | 2.16.4.1 | 2.16.4.0 | 2.16.4.1 | 2.16.4.0.00301943 | 2.16.4.0 | 1.16.4.0.310284 | | | GUI and Web Service updates |
| 2016.4 | 2 | 2.16.4.2 (3GB) | 2.16.4.0 | 2.16.4.1 | 2.16.4.0.00301943 | 2.16.4.0 | 1.16.4.2.460241 | | | GUI and Patient Portal updates |
| 2016.4 | 3 | 2.16.4.3 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | 1.16.4.3.489120 | | | GUI and Patient Portal updates |
| 2016.4 | 4 | 2.16.4.4 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | 1.16.4.3.489120 | | | GUI |
| 2016.4 | 5 | 2.16.4.5 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | | | | GUI |
| 2016.4 | 6 | 2.16.4.6 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | | | | GUI |
| 2016.5 | - | 2.16.5.0 (3GB) | 2.16.5.0 | 2.16.5.0 | 2.16.5.0.00349303 | 2.16.5.0 | 1.16.5.0.362009 | | | Full Version Release |
| 2016.6 | - | 2.16.6.0 (3GB) | 2.16.6.0 | 2.16.6.0 | 2.16.6.0.00411295 | 2.16.6.0 | 1.16.6.0.432471 | | | Full Version Release |
| 2016.6 | 1 | 2.16.6.1 (3GB) | 2.16.6.0 | 2.16.6.0 | 2.16.6.0.00411295 | 2.16.6.0 | 1.16.6.1.468583 | | | GUI and Patient Portal updated |
| 2016.7 | - | 2.16.7.0 (3GB) | 2.16.70 | 2.16.70 | 2.16.7.0.00490835 | 2.16.70 | 1.16.7.0.493031 | 2.16.7.0.493008 | | Full version release |
| 2016.7 | 1 | 2.16.7.1 (3GB) | 2.16.7.0 | 2.16.7.1 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 2 | 2.16.7.2 (3GB) | 2.16.7.0 | 2.16.7.2 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 3 | 2.16.7.3 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 4 | 2.16.7.4 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI |
| 2016.7 | 5 | 2.16.7.5 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI |
| 2016.7 | 6 | 2.16.7.6 (3GB) | 2.16.7.0 | 2.16.7.6 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 7 | 2.16.7.7 (3GB) | 2.16.7.0 | 2.16.7.7 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 8 | 2.16.7.8 (3GB) | 2.16.7.0 | 2.16.7.7 | 2.16.7.8.00683507 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and DB updates |
| 2016.7 | 9 | 2.16.7.9 (3GB) | 2.16.7.0 | 2.16.7.9 | 2.16.7.9.00715012 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI, Web Services, DB updates and UM Portal |
| **2016.1** | **10** | **2.16.7.10 (3GB)** | **2.16.7.0** | **2.16.7.10** | **2.16.7.9.00715012** | **2.16.7.0** | **1.16.7.0.493031** | **2.16.7.9.723457** | | **GUI and Web Service updates** |
| 2017.1 | - | 2.17.1.0 (3GB) | 2.17.1.0 | 2.17.1.0 | 2.17.1.0.00559886 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | Full Version Release |
| 2017.1 | 1 | 2.17.1.1 (3GB) | 2.17.1.0 | 2.17.1.1 | 2.17.1.1.00589952 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 2 | 2.17.1.2 (3GB) | 2.17.1.0 | 2.17.1.2 | 2.17.1.2.00621962 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 3 | 2.17.1.3 (3GB) | 2.17.1.0 | 2.17.1.3 | 2.17.1.3.00640480 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 4 | 2.17.1.4 (3GB) | 2.17.1.0 | 2.17.1.4 | 2.17.1.4.00692239 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI, Web Service, DB and Patient Portal updates |
| 2017.1 | 5 | 2.17.1.4 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.4.00692239 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | Web Service |
| 2017.2 | - | 2.17.2.0(3GB) | 2.17.2.0 | 2.17.2.0 | 2.17.2.0.00695782 | 2.17.2.0 | 2.17.2.0.702238 | 2.17.2.0.702213 | 2.17.2.0.702226 | Full Version Release. First release of Provider Portal |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# INSTALLING

## CLIENT/GUI

Copy and replace the current rRIS…zip file with the eRAD_rRIS_2016.7.10.zip file provided with this release.

Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

## WEB SERVICE

This updated is only required for the Wedge Web Services. The Core RIS Service and Document Distribution Service are not required to be updated.

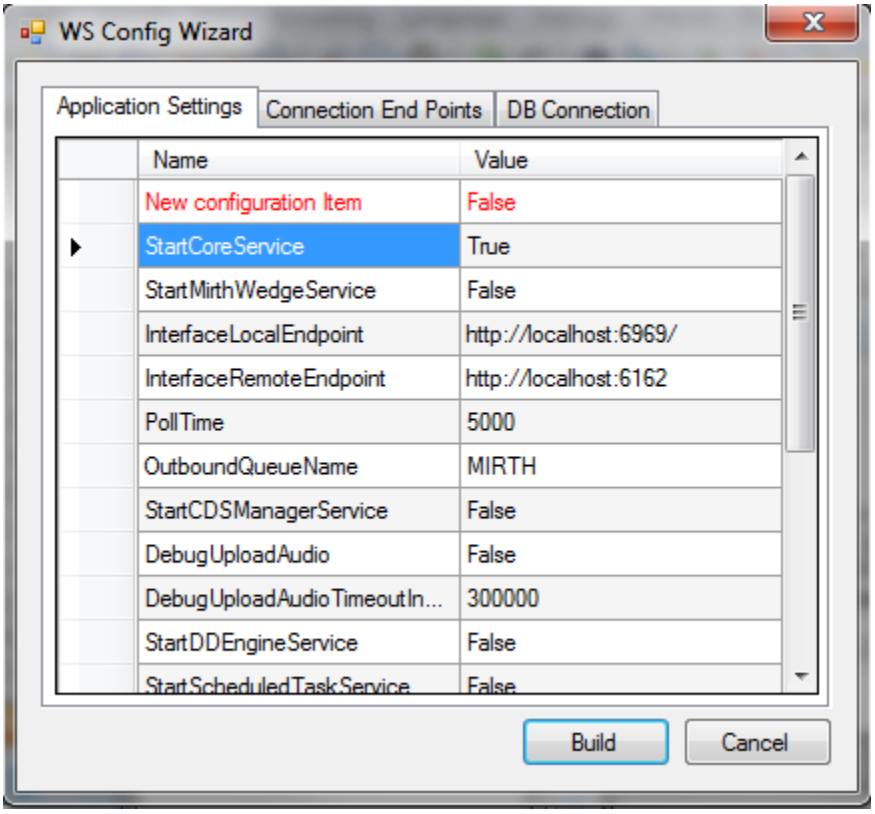
1. The web service upgrade consists of replacing the files in the RIS Web Service directory with the files supplied in the rRISService folder with this build. Always create a backup of the files being replaced. This upgrade includes 134 files in the rRISService folder and 7 sub folders. Of those folders, 1 is a folder titled "XSL" that contains a sub folder and files within the subfolder. Another folder is titled "deploy" that contains the new .config files that will be deployed with the user of the file called "ServicesConfigWizard.exe" (see instructions below). Folders ar (Arabic), he (Hebrew), pt_BR (Brazilian Portuguese) and es-AR (Argentina Spanish) are localization folders. The WedgePlugins folder contains various plugin files for RADAR, MIRTH, Ensemble, etc…

Services Configuration Wizard
With the release of 42 to decrease the chance of losing configuration setting and missing new configuration options, we will no longer include the configuration files in the release in the main set of files, but they will now exist in a "deploy" folder, which will contain the three site configurable config files; applicationsettings, connectionstrings, and services as well as a copy of the rRISServices.exe configuration file. The contents of this folder should not be required to be touched.

On the install of a new service, all files will be copied to the appropriate locations on the server (no configurations will be over written). If instructed or to confirm no new configurations have been added the user can run the new application "ServicesConfigWizard.exe"

This application will read the existing configuration file(s) (if files exist), and compare to the provided new configuration files then will display three tabs, for each configuration file:
Application Settings: all existing configuration value will be displayed, if there are any new configuration entries they will be displayed in red.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# Server Update

for eRAD RIS

Version 2.0

Build 2.2016.7

Update 2.2016.7.11

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

# Table of Contents

Package Contents ..... 3

Intended Audience ..... 3

Who is affected ..... 3

New Features ..... 4

Feature #17394 – Utilization Management Orders for gold carded physicians will automatically route to scheduling ..... 4

Feature #17460 - UM Clock now starts counting when the order first qualifies as Utilization Review Required ..... 6

New Configuration settings ..... 7

System configuration settings ..... 7

Resolved Items ..... 8

Code Stream ..... 9

eRAD RIS Release Version Numbers ..... 10

Installing ..... 11

Client/GUI ..... 11

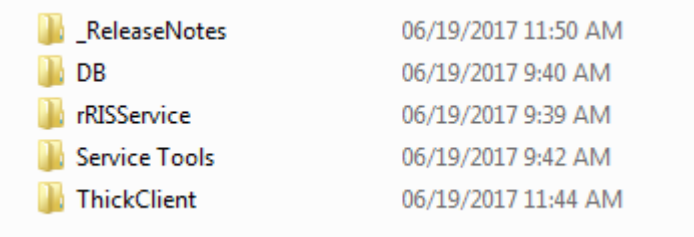
Web Service ..... 11

Database Updates ..... 13

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## PACKAGE CONTENTS




## INTENDED AUDIENCE

The intended audience for this document is the RadNet Clinical Systems team and the eRAD Support/Service team.

## WHO IS AFFECTED

Build 2016.7 installs. This server update must be applied to 2016.7.10.

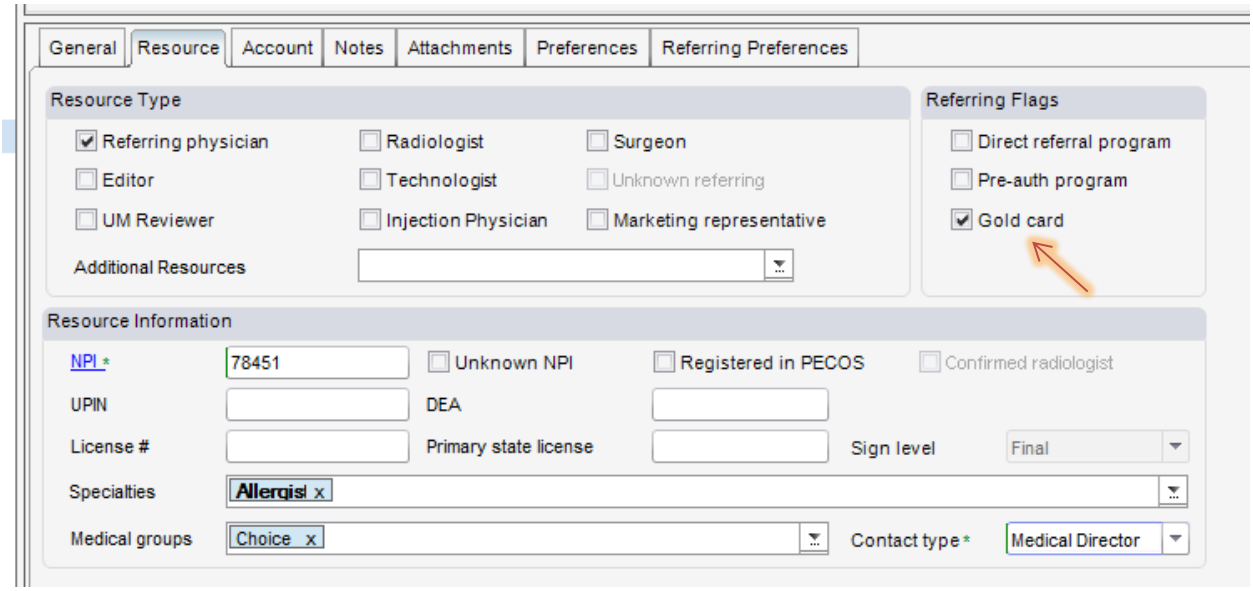
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

## NEW FEATURES

### FEATURE #17394 – UTILIZATION MANAGEMENT ORDERS FOR GOLD CARDED PHYSICIANS WILL AUTOMATICALLY ROUTE TO SCHEDULING

Previously, when a referring physician was flagged as "Gold Card" eRAD RIS would display this flag and the corresponding notes, but it was up to the UM reviewer to evaluate the notes and determine whether the order should bypass the utilization review process.




It is now possible to configure eRAD RIS to automatically bypass the Utilization Review workflow when the referring physician is flagged as Gold Card. With this configuration, schedulers can proceed immediately to schedule the procedure without waiting for the utilization review process. The order is automatically flagged as UM Complete and a UM Tracking Number is assigned.

To enable this workflow, a new system configuration value called *UMGoldCardAutoApprove* with a default value of "True" has been added to the system.

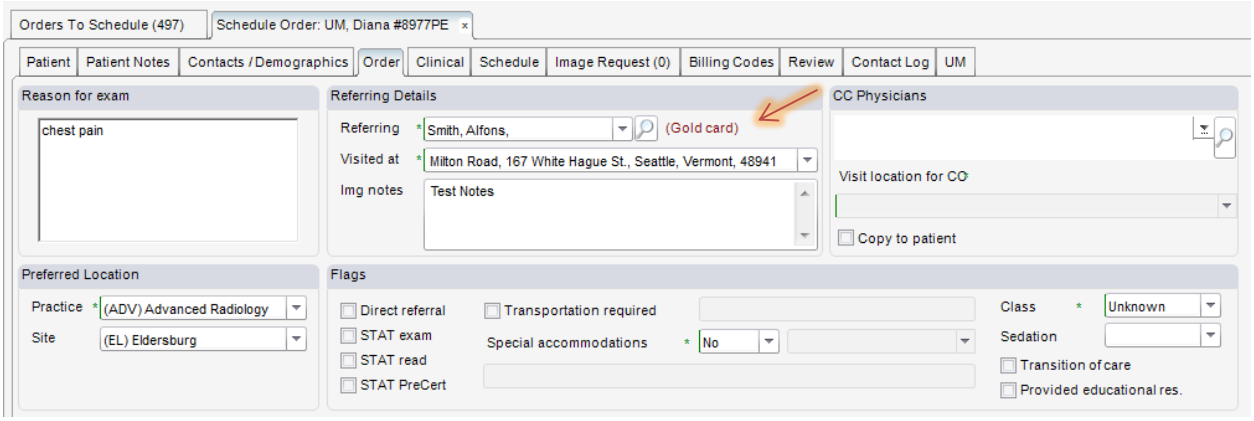
When UMGoldCardAutoApprove is enabled, any orders for Gold Card physicians that require utilization review will be given a new UM Tracking Number and marked as UM Complete, so they can advance to scheduling immediately.

When UMGoldCardAutoApprove is *disabled*, any orders for Gold Card physicians that require utilization review will be given a new UM Tracking Number and marked as UM Required, so they can advance to the Utilization Management Worklist to be reviewed.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

Schedulers will be able to identify that a referring physician is part of Gold Card by looking at the label next to the referring physician's name on the Order tab. It will appear in the same location as the existing label for "Pre-auth program." A referring physician can be labeled as Gold Card, Pre-auth program, or both.




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## FEATURE #17460 - UM CLOCK NOW STARTS COUNTING WHEN THE ORDER FIRST QUALIFIES AS UTILIZATION REVIEW REQUIRED

The UM Clock previously used an order's requested date as the start value (time stamp). Typically, this is the date the order was created in RIS. There are some scenarios where the UM Clock should not use the requested date of the order as a starting point, but rather the date the procedure became qualified for utilization review. For example, an order exists for an X-Ray (UM not required). The X-Ray is changed to a CT procedure 2 days later, which requires utilization review. Since the procedure did not require utilization review until it was changed to a CT, the UM Clock will not use the date that the original order (X-Ray) was created. The UM Clock will instead start as soon as the order first required utilization management (i.e. the date it was changed to a CT).

A new column called *um_received_date* has been added to the c_order_item table. This date/time column will get set anytime a procedure is flagged for utilization review. The UM Clock will use the Received Date as the start parameter.

If an order has multiple procedures that require utilization review, the system will use the oldest Received Date.

If for some reason there is not a Received Date available, the system will revert back to using the Requested Date at the order level which is always available.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

# NEW CONFIGURATION SETTINGS

## SYSTEM CONFIGURATION SETTINGS

| Setting | Default | Purpose |
|---|---|---|
| UMGoldCardAutoApprove | True | (value = True/False) Determines if gold carded providers are automatically approved by UM. |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

## RESOLVED ITEMS

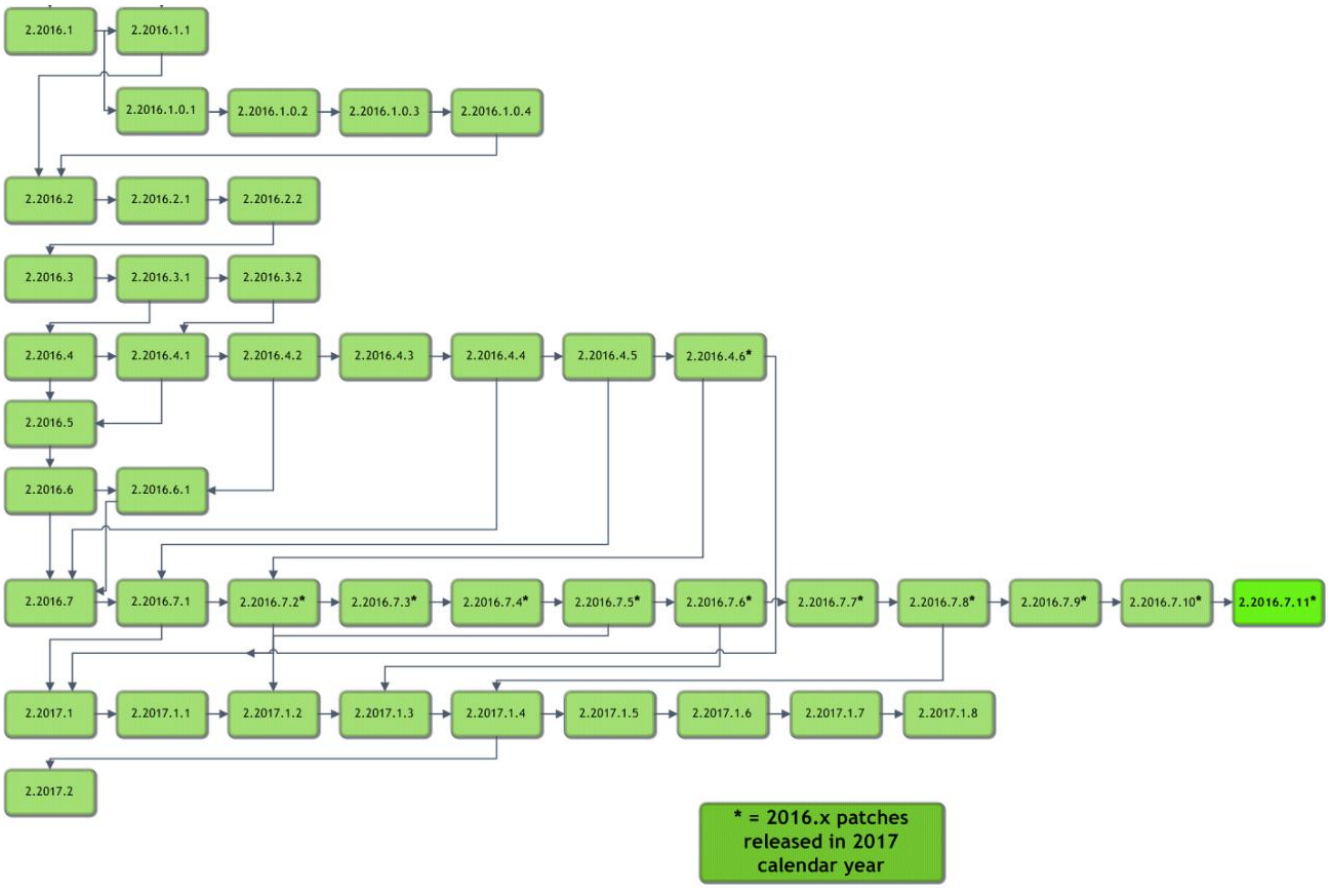
# eRAD RIS

| Redmine # | Subject |
|---|---|
| 17525 | UM External Notes are now visible to schedulers. |
| 17524 | UM - When recommending an additional procedure, the reviewer can now adjust the authorization status for the additional procedure (previously this was read-only). |
| 17508 | Opening the Scheduling screen while an IVT or Utilization Review screen is open for the patient will no longer cause an exception. |
| 17394 | Utilization Management Orders for gold carded physicians now automatically route to scheduling. (See Features section) |
| 17460 | UM Clock now starts counting when the order first qualifies as Utilization Review Required. (See Features section) |
| 17463 | Insurance Eligibility will now run as soon as the Utilization Review screen is opened. (Previously for UM workflow, Manage Policies had to be opened first.) |
| 17461 | UM Connect no longer displays cancelled orders on the Orders tab. |
| 17429 | Resolved an issue that was caused by a Follow Up Type Code with a single quote character. The "Missing operand after" exception will no longer display. |
| 17391 | Resolved an issue that could cause “DataTable internal index is corrupted” exceptions. |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

## CODE STREAM




## Legend:

**Light Green = Previously Released software**

**Bright Green = Current Release**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## ERAD RIS RELEASE VERSION NUMBERS

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Digital Forms | Patient Portal | UM Portal | Provider Portal | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| 2016.2 | - | 2.16.2.0 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.0.00172540 | | | | | Full Version Release - GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge |
| 2016.2 | 1 | 2.16.2.1 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.0.00172540 | | | | | GUI.zip and Citrix Bridge |
| 2016.2 | 2 | 2.16.2.2 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.2.00243102 | | | | | GUI.zip, DB and Citrix Bridge |
| 2016.3 | - | 2.16.3.0 (3GB) | 2.16.3.0 | 2.16.3.0 | 2.16.3.0.00257101 | 2.16.3.0 | | | | Full Version Release |
| 2016.3 | 1 | 2.16.3.1 | 2.16.3.0 | 2.16.3.1 | 2.16.3.1.00298834 | 2.16.3.0 | | | | GUI.zip, Web Service and DB |
| 2016.3 | 2 | 2.16.3.2 | 2.16.3.0 | 2.16.3.2 | 2.16.3.1.00298834 | 2.16.3.0 | | | | GUI.zip and Web Service |
| 2016.4 | - | 2.16.4.0 | 2.16.4.0 | 2.16.4.0 | 2.16.4.0.00301943 | 2.16.4.0 | 1.16.4.0.310284 | | | Full Version Release |
| 2016.4 | 1 | 2.16.4.1 | 2.16.4.0 | 2.16.4.1 | 2.16.4.0.00301943 | 2.16.4.0 | 1.16.4.0.310284 | | | GUI and Web Service updates |
| 2016.4 | 2 | 2.16.4.2 (3GB) | 2.16.4.0 | 2.16.4.1 | 2.16.4.0.00301943 | 2.16.4.0 | 1.16.4.2.460241 | | | GUI and Patient Portal updates |
| 2016.4 | 3 | 2.16.4.3 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | 1.16.4.3.489120 | | | GUI and Patient Portal updates |
| 2016.4 | 4 | 2.16.4.4 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | 1.16.4.3.489120 | | | GUI |
| 2016.4 | 5 | 2.16.4.5 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | | | | GUI |
| 2016.4 | 6 | 2.16.4.6 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | | | | GUI |
| 2016.5 | - | 2.16.5.0 (3GB) | 2.16.5.0 | 2.16.5.0 | 2.16.5.0.00349303 | 2.16.5.0 | 1.16.5.0.362009 | | | Full Version Release |
| 2016.6 | - | 2.16.6.0 (3GB) | 2.16.6.0 | 2.16.6.0 | 2.16.6.0.00411295 | 2.16.6.0 | 1.16.6.0.432471 | | | Full Version Release |
| 2016.6 | 1 | 2.16.6.1 (3GB) | 2.16.6.0 | 2.16.6.0 | 2.16.6.0.00411295 | 2.16.6.0 | 1.16.6.1.468583 | | | GUI and Patient Portal updated |
| 2016.7 | - | 2.16.7.0 (3GB) | 2.16.70 | 2.16.70 | 2.16.7.0.00490835 | 2.16.70 | 1.16.7.0.493031 | 2.16.7.0.493008 | | Full version release |
| 2016.7 | 1 | 2.16.7.1 (3GB) | 2.16.7.0 | 2.16.7.1 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 2 | 2.16.7.2 (3GB) | 2.16.7.0 | 2.16.7.2 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 3 | 2.16.7.3 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 4 | 2.16.7.4 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI |
| 2016.7 | 5 | 2.16.7.5 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI |
| 2016.7 | 6 | 2.16.7.6 (3GB) | 2.16.7.0 | 2.16.7.6 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 7 | 2.16.7.7 (3GB) | 2.16.7.0 | 2.16.7.7 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 8 | 2.16.7.8 (3GB) | 2.16.7.0 | 2.16.7.7 | 2.16.7.8.00683507 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and DB updates |
| 2016.7 | 9 | 2.16.7.9 (3GB) | 2.16.7.0 | 2.16.7.9 | 2.16.7.9.00715012 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI, Web Services, DB updates and UM Portal |
| 2016.7 | 10 | 2.16.7.10 (3GB) | 2.16.7.0 | 2.16.7.10 | 2.16.7.9.00715012 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI and Web Service updates |
| **2016.7** | **11** | **2.16.7.11 (3GB)** | **2.16.7.0** | **2.16.7.11** | **2.16.7.11.00761267** | **2.16.7.0** | **1.16.7.0.493031** | **2.16.7.9.723457** | | **GUI, Web Service and DB updates** |
| 2017.1 | - | 2.17.1.0 (3GB) | 2.17.1.0 | 2.17.1.0 | 2.17.1.0.00559886 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | Full Version Release |
| 2017.1 | 1 | 2.17.1.1 (3GB) | 2.17.1.0 | 2.17.1.1 | 2.17.1.1.00589952 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 2 | 2.17.1.2 (3GB) | 2.17.1.0 | 2.17.1.2 | 2.17.1.2.00621962 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 3 | 2.17.1.3 (3GB) | 2.17.1.0 | 2.17.1.3 | 2.17.1.3.00640480 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 4 | 2.17.1.4 (3GB) | 2.17.1.0 | 2.17.1.4 | 2.17.1.4.00692239 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI, Web Service, DB and Patient Portal updates |
| 2017.1 | 5 | 2.17.1.4 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.4.00692239 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | Web Service |
| 2017.1 | 6 | 2.17.1.6 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI and DB Updates |
| 2017.1 | 7 | 2.17.1.7 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI update |
| 2017.1 | 8 | 2.17.1.8 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI update |
| 2017.2 | - | 2.17.2.0(3GB) | 2.17.2.0 | 2.17.2.0 | 2.17.2.0.00695782 | 2.17.2.0 | 2.17.2.0.702238 | 2.17.2.0.702213 | 2.17.2.0.702226 | Full Version Release. First release of Provider Portal |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

# INSTALLING

## CLIENT/GUI

Copy and replace the current rRIS…zip file with the eRAD_rRIS_2016.7.11.zip file provided with this release.

Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

## WEB SERVICE

This updated is only required for the Wedge Web Services. The Core RIS Service and Document Distribution Service are not required to be updated.

1. The web service upgrade consists of replacing the files in the RIS Web Service directory with the files supplied in the rRISService folder with this build. Always create a backup of the files being replaced. This upgrade includes 134 files in the rRISService folder and 7 sub folders. Of those folders, 1 is a folder titled **"XSL"** that contains a sub folder and files within the subfolder. Another folder is titled **"deploy"** that contains the new .config files that will be deployed with the user of the file called "ServicesConfigWizard.exe" (see instructions below). Folders ar (Arabic), he (Hebrew), pt_BR (Brazilian Portuguese) and es-AR (Argentina Spanish) are localization folders. The WedgePlugins folder contains various plugin files for RADAR, MIRTH, Ensemble, etc…

**Services Configuration Wizard**

With the release of 42 to decrease the chance of losing configuration setting and missing new configuration options, we will no longer include the configuration files in the release in the main set of files, but they will now exist in a "deploy" folder, which will contain the three site configurable config files; applicationsettings, connectionstrings, and services as well as a copy of the rRISServices.exe configuration file. The contents of this folder should not be required to be touched.

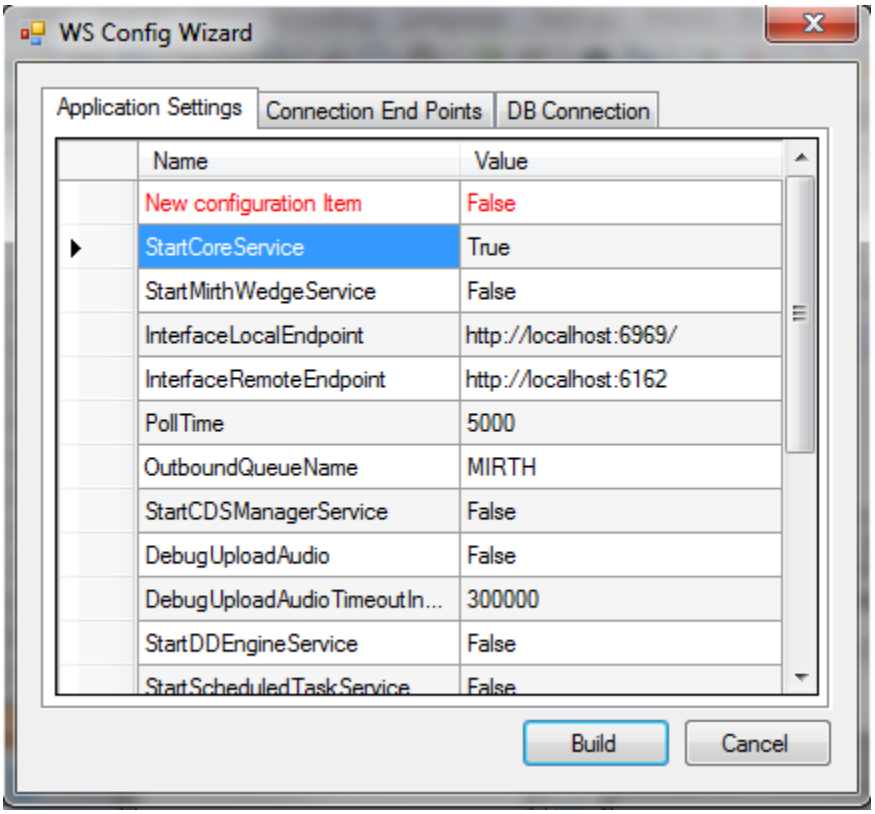
On the install of a new service, all files will be copied to the appropriate locations on the server (no configurations will be over written). If instructed or to confirm no new configurations have been added the user can run the new application "ServicesConfigWizard.exe"

This application will read the existing configuration file(s) (if files exist), and compare to the provided new configuration files then will display three tabs, for each configuration file:

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

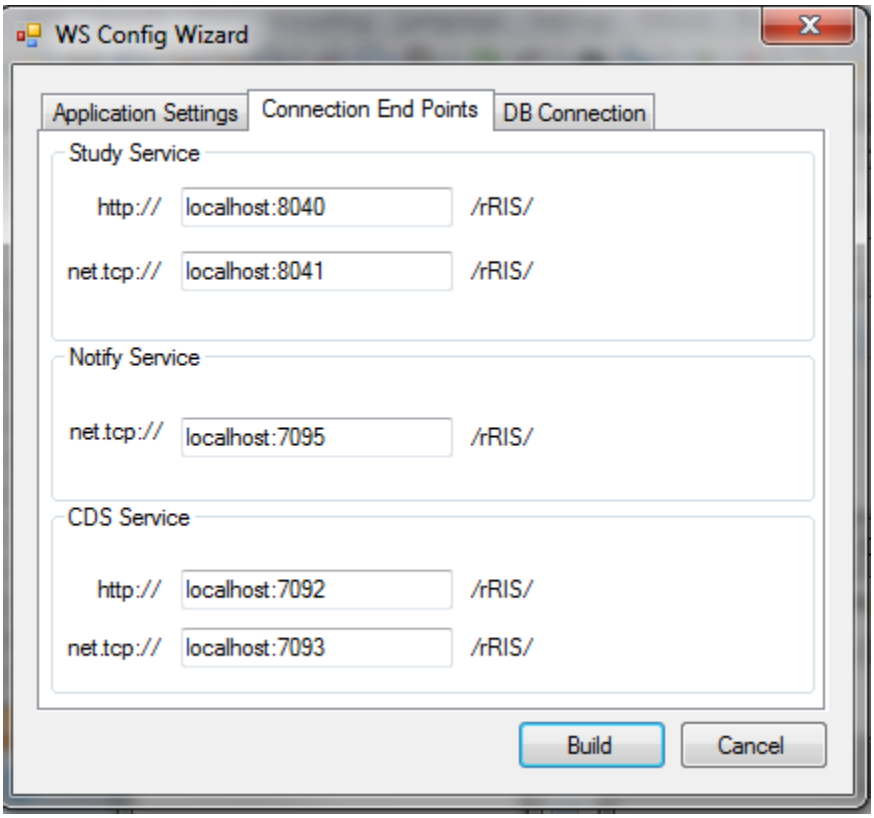
**Application Settings:** all existing configuration value will be displayed, if there are any new configuration entries they will be displayed in red.




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

**Connection End Points:** will display the existing configuration, if the value is left blank then that entry will not be created, in the case of "Study Service" or "CDS Service" if both http and net.tcp were not provided then that endpoint will not be created at all.




## DATABASE UPDATES

Always run the upgrade scripts in a test environment of the actual database to make sure they run cleanly. If any errors occur please contact development.

*Note: There is a new upgrade process introduced with B43.1 called "RunUpgrade.bat". The batch file will open a command window. This process will prompt you for the database server name, database name and authentication credentials. There is no need to run the database upgrade scripts manually as was done in previous releases.*

1) From the upgrade folder, double click the "RunUpgrade.bat" command file.

2) Enter the server name, database name and authentication credentials to the database. You have 2 choices for authentication credentials.

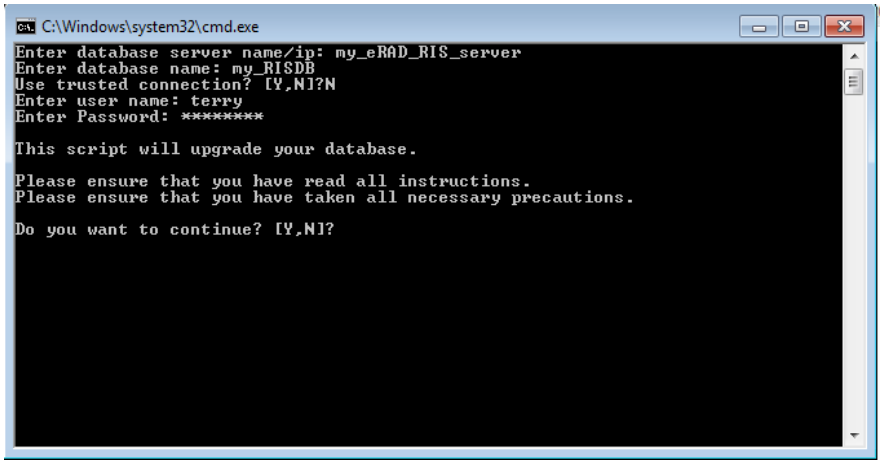
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

3) You can choose to use “Trusted connection”. Using this option will pass the identity of the currently logged on user. If this user has “db_owner” access to the eRAD RIS database then feel free to use this options.

4) If you decide not to use “Trusted connection” then you will be prompted for user id and password.

   Example:




5) After the upgrade program has finished you can find the upgrade logs in the “log” folder. The file name will be eRAD_RIS_db_upgrade_timestamp.log, where timestamp is a value representing the date and time the upgrade started. If you see any errors please contact the development team

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

# Server Update

for eRAD RIS

Version 2.0

Build 2.2016.7

Update 2.2016.7.12

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

# Table of Contents

Package Contents ..... 3

Intended Audience ..... 3

Who is affected ..... 3

Resolved Items ..... 4

Code Stream ..... 5

eRAD RIS Release Version Numbers ..... 6

Installing ..... 7

Client/GUI ..... 7

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## PACKAGE CONTENTS

## INTENDED AUDIENCE

The intended audience for this document is the RadNet Clinical Systems team and the eRAD Support/Service team.

## WHO IS AFFECTED

Build 2016.7 installs. This server update must be applied to 2016.7.11.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

## RESOLVED ITEMS

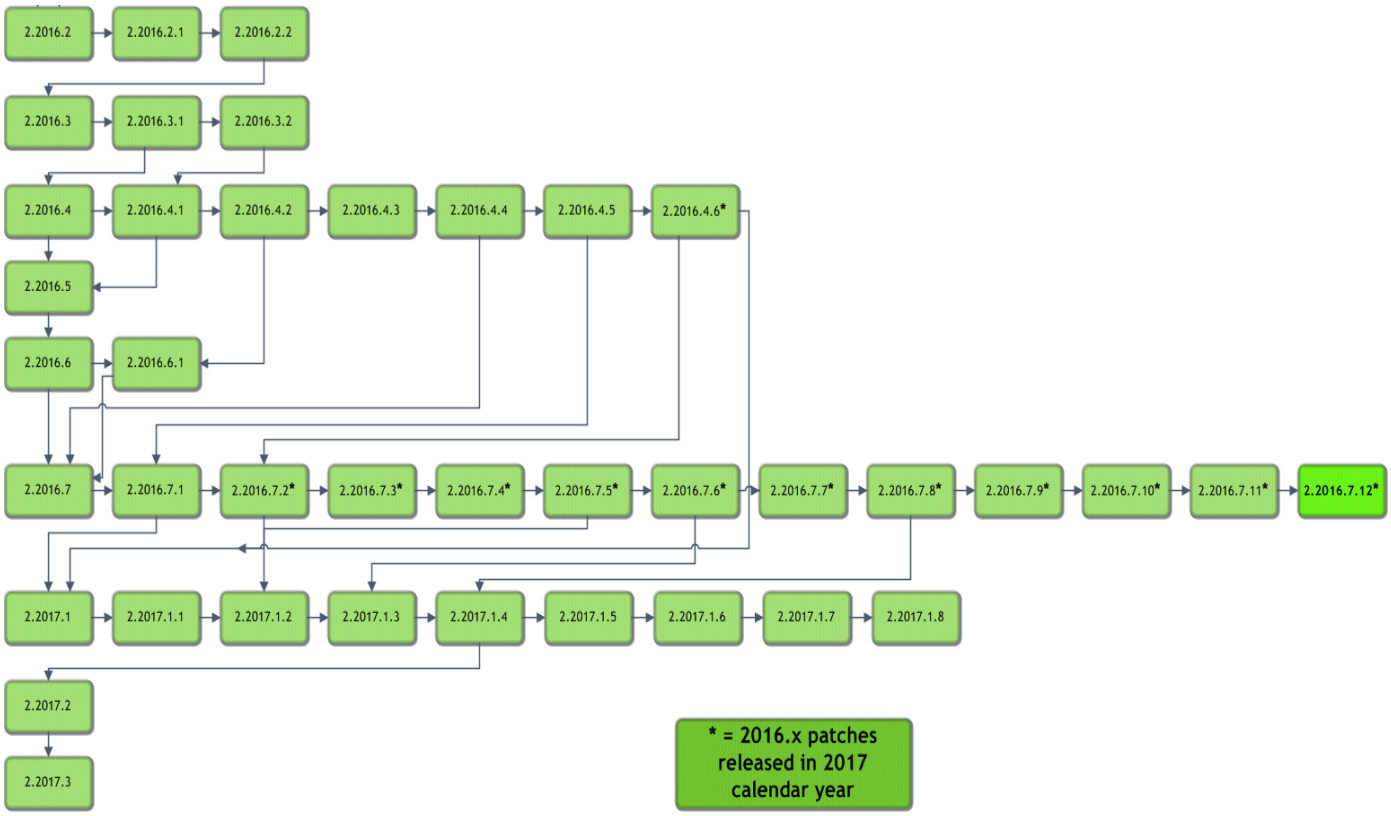
# eRAD RIS

| Redmine # | Subject |
|---|---|
| 17598 | Resolved an issue that prevented document classification from Inbound Document and Scheduling screens. |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

## CODE STREAM




**Legend:**

Light Green = Previously Released software

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## ERAD RIS RELEASE VERSION NUMBERS

| A | B | C | D | E | F | G | H | I | J | K |
|---|---|---|---|---|---|---|---|---|---|---|
| Build | Patch | UI Version | Core Version | WS Version | DB Version | Digital Forms | Patient Portal | UM Portal | Provider Portal | Notes |
| 2016.2 | - | 2.16.2.0 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.0.00172540 | | | | | Full Version Release - GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge |
| 2016.2 | 1 | 2.16.2.1 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.0.00172540 | | | | | GUI.zip and Citrix Bridge |
| 2016.2 | 2 | 2.16.2.2 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.2.00243102 | | | | | GUI.zip, DB and Citrix Bridge |
| 2016.3 | - | 2.16.3.0 (3GB) | 2.16.3.0 | 2.16.3.0 | 2.16.3.0.00257101 | 2.16.3.0 | | | | Full Version Release |
| 2016.3 | 1 | 2.16.3.1 | 2.16.3.0 | 2.16.3.1 | 2.16.3.1.00298834 | 2.16.3.0 | | | | GUI.zip, Web Service and DB |
| 2016.3 | 2 | 2.16.3.2 | 2.16.3.0 | 2.16.3.2 | 2.16.3.1.00298834 | 2.16.3.0 | | | | GUI.zip and Web Service |
| 2016.4 | - | 2.16.4.0 | 2.16.4.0 | 2.16.4.0 | 2.16.4.0.00301943 | 2.16.4.0 | 1.16.4.0.310284 | | | Full Version Release |
| 2016.4 | 1 | 2.16.4.1 | 2.16.4.0 | 2.16.4.1 | 2.16.4.0.00301943 | 2.16.4.0 | 1.16.4.0.310284 | | | GUI and Web Service updates |
| 2016.4 | 2 | 2.16.4.2 (3GB) | 2.16.4.0 | 2.16.4.1 | 2.16.4.0.00301943 | 2.16.4.0 | 1.16.4.2.460241 | | | GUI and Patient Portal updates |
| 2016.4 | 3 | 2.16.4.3 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | 1.16.4.3.489120 | | | GUI and Patient Portal updates |
| 2016.4 | 4 | 2.16.4.4 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | 1.16.4.3.489120 | | | GUI |
| 2016.4 | 5 | 2.16.4.5 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | | | | GUI |
| 2016.4 | 6 | 2.16.4.6 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | | | | GUI |
| 2016.5 | - | 2.16.5.0 (3GB) | 2.16.5.0 | 2.16.5.0 | 2.16.5.0.00349303 | 2.16.5.0 | 1.16.5.0.362009 | | | Full Version Release |
| 2016.6 | - | 2.16.6.0 (3GB) | 2.16.6.0 | 2.16.6.0 | 2.16.6.0.00411295 | 2.16.6.0 | 1.16.6.0.432471 | | | Full Version Release |
| 2016.6 | 1 | 2.16.6.1 (3GB) | 2.16.6.0 | 2.16.6.0 | 2.16.6.0.00411295 | 2.16.6.0 | 1.16.6.1.468583 | | | GUI and Patient Portal updated |
| 2016.7 | - | 2.16.7.0 (3GB) | 2.16.70 | 2.16.70 | 2.16.7.0.00490835 | 2.16.70 | 1.16.7.0.493031 | 2.16.7.0.493008 | | Full version release |
| 2016.7 | 1 | 2.16.7.1 (3GB) | 2.16.7.0 | 2.16.7.1 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 2 | 2.16.7.2 (3GB) | 2.16.7.0 | 2.16.7.2 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 3 | 2.16.7.3 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 4 | 2.16.7.4 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI |
| 2016.7 | 5 | 2.16.7.5 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI |
| 2016.7 | 6 | 2.16.7.6 (3GB) | 2.16.7.0 | 2.16.7.6 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 7 | 2.16.7.7 (3GB) | 2.16.7.0 | 2.16.7.7 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 8 | 2.16.7.8 (3GB) | 2.16.7.0 | 2.16.7.7 | 2.16.7.8.00683507 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and DB updates |
| 2016.7 | 9 | 2.16.7.9 (3GB) | 2.16.7.0 | 2.16.7.9 | 2.16.7.9.00715012 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI, Web Services, DB updates and UM Portal |
| 2016.7 | 10 | 2.16.7.10 (3GB) | 2.16.7.0 | 2.16.7.10 | 2.16.7.9.00715012 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI and Web Service updates |
| 2016.7 | 11 | 2.16.7.11 (3GB) | 2.16.7.0 | 2.16.7.11 | 2.16.7.11.00761267 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI, Web Service and DB updates |
| **2016.7** | **13** | **2.16.7.12 (3GB)** | **2.16.7.0** | **2.16.7.11** | **2.16.7.11.00761267** | **2.16.7.0** | **1.16.7.0.493031** | **2.16.7.9.723457** | | **GUI** |
| 2017.1 | - | 2.17.1.0 (3GB) | 2.17.1.0 | 2.17.1.0 | 2.17.1.0.00559886 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | Full Version Release |
| 2017.1 | 1 | 2.17.1.1 (3GB) | 2.17.1.0 | 2.17.1.1 | 2.17.1.1.00589952 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 2 | 2.17.1.2 (3GB) | 2.17.1.0 | 2.17.1.2 | 2.17.1.2.00621962 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 3 | 2.17.1.3 (3GB) | 2.17.1.0 | 2.17.1.3 | 2.17.1.3.00640480 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 4 | 2.17.1.4 (3GB) | 2.17.1.0 | 2.17.1.4 | 2.17.1.4.00692239 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI, Web Service, DB and Patient Portal updates |
| 2017.1 | 5 | 2.17.1.4 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.4.00692239 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | Web Service |
| 2017.1 | 6 | 2.17.1.6 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI and DB Updates |
| 2017.1 | 7 | 2.17.1.7 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI update |
| 2017.1 | 8 | 2.17.1.8 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI update |
| 2017.2 | - | 2.17.2.0(3GB) | 2.17.2.0 | 2.17.2.0 | 2.17.2.0.00695782 | 2.17.2.0 | 2.17.2.0.702238 | 2.17.2.0.702213 | 2.17.2.0.702226 | Full Version Release. First release of Provider Portal |
| 2017.3 | - | 2.17.3.0(3GB) | 2.17.3.0 | 2.17.3.0 | 2.17.3.0.00764112 | 2.17.3.0 | 2.17.3.0.321 | 2.17.3.0.321 | 2.17.3.0.321 | Full Version Release. Including Patient, Provider and UM Portals |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

# INSTALLING

## CLIENT/GUI

Copy and replace the current rRIS…zip file with the eRAD_rRIS_2016.7.12.zip file provided with this release.

Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

# Server Update

for eRAD RIS

Version 2.0

Build 2.2016.7

Update 2.2016.7.13

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

# Table of Contents

Package Contents ..... 3

Intended Audience ..... 3

Who is affected ..... 3

New Features ..... 4

Feature #17597/17544 - Scheduled Start Date added to Chair API, which will sort chronologically ..... 4

Feature #17829 - Configurable option to suppress unprinted BI-RADS 0 Lay Letters when newer BI-RADS is available for the patient ..... 7

Feature #17748 – Allow eRAD RIS Service and Support to add columns to retrieve for patient folder ..... 8

Feature #17351, 17352 – New RIS settings to reduce bandwidth for updates ..... 9

Feature #15265 – Option to deploy multiple report server data sources ..... 10

New Configuration settings ..... 12

System configuration settings ..... 12

Resolved Items ..... 13

Code Stream ..... 18

eRAD RIS Release Version Numbers ..... 19

Installing ..... 20

Client/GUI ..... 20

Web Service ..... 20

Database Updates ..... 22

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## PACKAGE CONTENTS

| | |
|---|---|
| _Documentation | 7/25/2017 3:50 PM |
| _ReleaseNotes | 7/27/2017 3:20 PM |
| DB | 7/25/2017 3:50 PM |
| PatientConnect | 7/27/2017 3:15 PM |
| rRISService | 7/25/2017 3:49 PM |
| Service Tools | 7/25/2017 3:51 PM |
| ThickClient | 7/25/2017 3:48 PM |
| UM_Portal | 7/27/2017 3:14 PM |

## INTENDED AUDIENCE

The intended audience for this document is the RadNet Clinical Systems team and the eRAD Support/Service team.

It is appropriate to share the document with any customers applying the patch, in order to review new feature descriptions and resolved defects.

## WHO IS AFFECTED

Build 2016.7 installs. This server update must be applied to 2016.7.12.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

## NEW FEATURES

### FEATURE #17597/17544 - SCHEDULED START DATE ADDED TO CHAIR API, WHICH WILL SORT CHRONOLOGICALLY

This feature is for customers using the Chair API. The Chair API now includes the Scheduled Start Date and returns the oldest studies first. This enables the Chair workflow engine to assign aging studies first.

Scheduled Start Date was added as a field in the output of two Chair API requests. Additionally, the results of any requests to obtain an exam list by chair and by status are now sorted by Scheduled Start Date, with the oldest dates listed first.

A change has also been made to make the previously hard coded "7 day filter" configurable. Previously, the Chair API limited query results by chair and status to include exams that had been scheduled within the past 7 days. An optional parameter, *IncludeAllDates*, has been added to bypass the 7 day filter on Scheduled Start Date. This parameter will default to false if not specified and the original behavior will be maintained.

Figures 1 through 3, below, illustrate the XML:

*Figure 1 – Get Exam list by chair and status*

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

*Figure 2a – Get Exam list by chair and status with ReturnAllDates = true to include older studies*

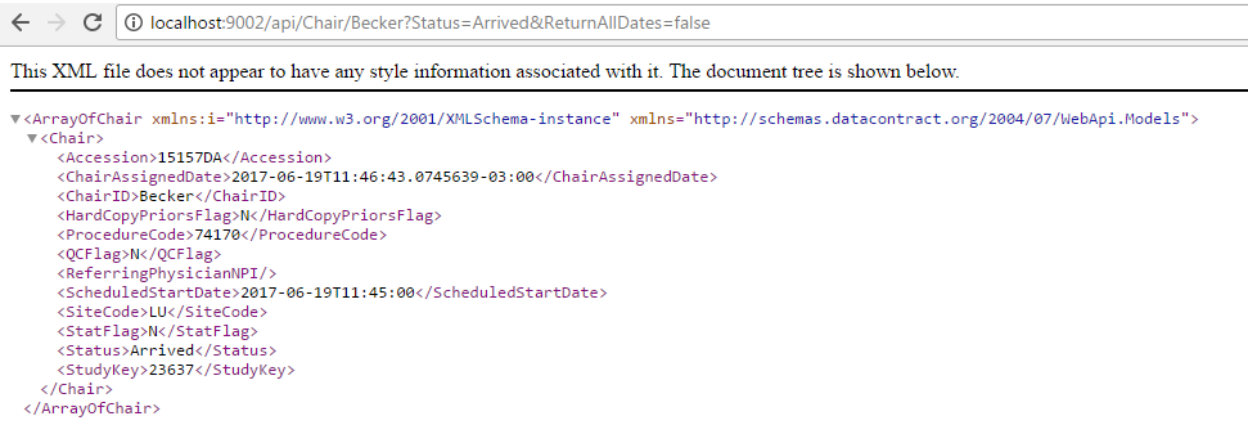



*Figure 2b – Get Exam list by chair and status with ReturnAllDates = false to exclude older studies (compare to Figure 2a)*

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

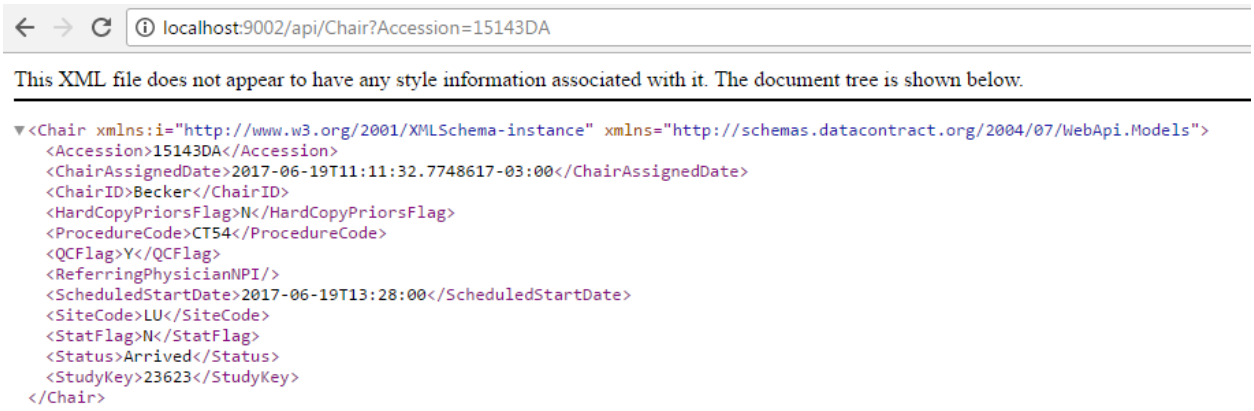



*Figure 3 - Get Chair Data by Accession*

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## FEATURE #17829 - CONFIGURABLE OPTION TO SUPPRESS UNPRINTED BI-RADS 0 LAY LETTERS WHEN NEWER BI-RADS IS AVAILABLE FOR THE PATIENT

There is now a System Configuration setting that will suppress unprinted BI-RADS 0 Lay Letters when a more current BI-RADS exists for the same patient. For example, if a patient's BI-RADS 0 Lay Letter has not been printed by the time they return for their additional imaging, the new exam's Lay Letter would effectively replace the original BI-RADS 0 Lay Letter when the BI-RADS for the new report is anything other than 0.

The default for this new setting will be False. The recommendation for U.S. customers is to leave this setting as false to ensure that patients receive Lay Letters for every BI-RADS exam.

The new System Configuration setting is named *SuppressAllUnprintedBIRADS0LayLetters.*

Please note that this setting does not impact the workflow for unprinted Lay Letters when an addendum is done for the *same* study. If a Lay Letter has not been printed and an addendum is done on that study, the Lay Letter will continue to be replaced with an updated Lay Letter if the BI-RADS information has been updated. This System Configuration setting has no impact on this workflow, which remains unchanged.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## FEATURE #17748 – ALLOW ERAD RIS SERVICE AND SUPPORT TO ADD COLUMNS TO RETRIEVE FOR PATIENT FOLDER

ALERT: This feature is meant to be used by eRAD Support only. Adjustments should only be made under the direction of an eRAD Support team member.

Recently, a change was made to the way eRAD RIS retrieves data for the Patient Folder, which had been retrieving more data from the database than was necessary to display the information needed in the visible columns.

In reducing the data retrieved for the patient folder, it became evident that some information that is not displayed in the worklist columns is nevertheless used for certain functions, such as determining which context menu options should be available. If the data was not available, the user could receive an error or lose access to certain functionality that is dependent upon the data.

eRAD RIS is once again retrieving the data that was identified as supporting such functions; however, it is beneficial to have a method for eRAD Support to add additional database columns to the set for retrieval, in case it is discovered in the field that additional data is required for an unforeseen function.

To support this, a new System Configuration setting has been added: *PatientFolderExtraColumnsToGet*. This setting will allow a comma separated list of columns to retrieve from the database in addition to the hard coded set. Any column names that are not part of the c_vw_PatientFolder view are deemed invalid and are not retrieved. This will prevent an exception from occurring in the Patient Folder if an invalid column name is entered in System Configuration.

RIS Development should be notified anytime eRAD Support resorts to adding a column to this System Configuration setting so that adjustments can be made in the next release.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## FEATURE #17351, 17352 – NEW RIS SETTINGS TO REDUCE BANDWIDTH FOR UPDATES

Two new System Configuration settings have been created in an effort to reduce the amount of bandwidth consumed by saving/uploading updates to the server. Both features will be automatically enabled at the time of the upgrade, but will present no detectable changes to the RIS user. **Update: Enable Extra Compression will be disabled until further changes are made.**

Both of these configuration options will decrease the network bandwidth utilization, which will deliver some performance benefits for networks which have slow upload speeds.

**Uploading patient/order updates:**

When saving edits to screens such as ViewEdit or Registration, the data is sent to the server in an XML format, which is fairly bulky and uses more bandwidth than necessary. For example, saving a change to a patient's middle name costs approximately 60KB when sent via XML. A new system configuration setting will enable a *binary serializer* to send the update data in binary format, which reduces the size of the data to be uploaded. When sending in binary format, the same update that cost 60KB when sent via XML is reduced to approximately 8KB.

To enable this feature, the new System Configuration setting, *EnableExtraCompressionOnStudyUpdates*, must be set to True. The default for this setting is True, so it will be enabled at the time of the upgrade, unless the setting is changed to False. **Update: Enable Extra Compression will be disabled until further changes are made.**

**Uploading Attachments:**

Another new System Configuration setting is available to reduce the size of **attachments** for upload. Attachments are typically saved as a JPEG file. However, in many cases, a smaller file size could be achieved by applying LZW compression and saving the attachment as a TIFF file. The image quality on the resulting TIFF file is typically equal or superior to the JPEG image.

When *AllowLZWImageCompression* is set to True, RIS will compress attachments twice: once as a JPEG and once, using LZW Compression, as a TIFF file. The version with a smaller file size will be used for the attachment, unless the compressed TIFF image is significantly different from the original. If 80% of the pixels are different between the JPEG and the TIFF, RIS will choose the JPEG compression for that attachment.

The default for this System Configuration setting is True, which means that this compression process will be enabled at the time of upgrade, unless the setting is changed to False.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

## FEATURE #15265 – OPTION TO DEPLOY MULTIPLE REPORT SERVER DATA SOURCES

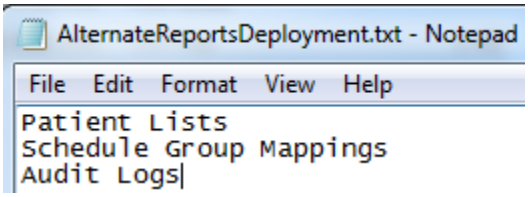
When management reports do not need to display real-time data, it is beneficial to have the option for these reports to run from other data sources, such as an offline or alternate database.

**Configuration for eRAD Support Only:**

To provide this option, a modification has been made to the management report deployment batch file, *ReportServerDeployment.bat,* which will allow the user to create a second data source. One data source will be used for real time reporting (*RISDataSource*) and the second data source (*ReportDataSource*) will be created for reports that should be run from the alternate source. By default, reports will be deployed to the RISDataSource. (Technical Note: Both data sources can be pointing to the exact same database. If the user does not create the data sources, they will be created on the report server pointing to no particular database.)

```
**********

Do you still wish to Continue, Rename or Exit? [C,R,E]?C
Do you need to create DataSources? [Y,N]?Y

**********************************************************************************
Enter RISDataSource information.(Real-Time Reporting)
**********************************************************************************

Enter destination DATABASE server name: [default:IANLAPTOP-PEI]: peidev1
Enter database name: rRIS_QE01
Enter report schema user name: qe
Enter report schema password: ris
Setup new datasource

**********************************************************************************
Enter ReportDataSource information. (Alternate Reporting)
**********************************************************************************

Enter database name:
```

The deployment script will determine which data source to use for the deployment of each report. To deploy reports to the alternate data source (ReportDataSource), there is a new file called *AlternateReportsDeployment.txt* in the core folder. This new file will contain a list of Report names that will point to the offline or alternate data source, formatted as displayed below.




The script will look at the list of Report Names from this file and select the appropriate data source.

At this time, there is not a GUI to allow users to easily manage moving reports between data sources. Therefore, this information is being provided to the eRAD Support/Service and Implementation teams so that assistance can be provided to any customer who wishes to take advantage of this functionality.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

# NEW CONFIGURATION SETTINGS

## SYSTEM CONFIGURATION SETTINGS

| Setting | Default | Purpose |
|---|---|---|
| PatientFolderExtraColumnsToGet | n/a | (value = string) Comma separated list of additional columns to retrieve for the patient folder. Columns must exist in the patient folder view. SERVICE ONLY. Please report to RIS Development when used. |
| SuppressAllUnprintedBIRADS0Lay Letters | False | Suppresses all unprinted BI-RADS 0 Lay Letters if a new report is signed for the patient with any BI-RADS other than 0. Recommendation for this setting is False. |
| EnableExtraCompressionOnStudy Updates | True | (value = bool) Setting this to true will enable gzip and other compression techniques and is ideal for sites with limited upload bandwidth. Set it to false to default to the legacy Microsoft data serialization. **Update: Enable Extra Compression will be disabled until further changes are made.** |
| AllowLZWImageCompression | True | (value = bool) Setting this to true will enable LZW Image Compression when saving attachments. |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## RESOLVED ITEMS

# eRAD RIS

| Redmine # | Subject |
|---|---|
| 17615 | Resolved an issue with exams scheduled from Cancelled appointments inappropriately retaining their PreCert status. Also revised check on expiry date to ensure that PreCert status will be set to Required if the Expiry Date is prior to the new scheduled date ***or*** the Expiry Date was blank when rescheduling from an Approved exam. |
| 17109 | The increased time for RIS GUI GetData calls to RIS Services has been reduced. |
| 17714 | Database option pack created to backfill _primary_study_key prior to upgrade to prevent the upgrade from taking an excessively long time for large data centers. |
| 17703 | An alias was added for the Reading Group column in the view c_vw_WL_Dictated, as it was noticed that the alias had changed. |
| 17689 | Upgrade script has been added to resolve an issue with preferred radiologist not populating correctly under certain circumstances. |
| 17632 | Addressed an issue with performance problems in the PreCert Group Editor. |
| 17613 | Temporarily disabled *EnableExtraCompressionOnStudyUpdates* until further changes are made. |
| 17519 | An index was added to improve performance during a patient search (previously caused excessive IO). |
| 17514 | Changed an index to improve efficiency of a Chair workflow query. |
| 17443 | Index used by UM Management Reports is now only referencing UM Finalized dates that are not null. |
| 17407 | Added a missing index on c_study_item_sedation for study_item_key. |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

| | |
|---|---|
| 17401 | The study dataset has been updated to take advantage of a new computed column to increase efficiency when determining the primary study. |
| 17390 | Eliminated unnecessary database calls for linked interpretation rows to improve performance. |
| 17389 | No longer retrieving unnecessary database columns for Patient Folder. |
| 17382 | Resolved a performance issue with excessive service calls when searching for carriers. |
| 17772 | Resolved an issue with contrast requirements when patient has multiple studies. |

The following list contains bugs or features that have been resolved in "future" RIS versions and have been pulled back to this earlier version of eRAD RIS. Features are also described in the New Features section.

| Redmine # | Subject | Original Resolved Version |
|---|---|---|
| 17839 | Resolved an intermittent issue with RIS Crashing between scheduling under particular circumstances (Object reference not set to an instance of an object). | 2017.1 |
| 17354 | **New Feature**: Option to deploy multiple report server data sources. | 2017.1 |
| 17353 | Changed the clustered index on c_study table to improve performance. | 2017.1 |
| 17568 | Closed Room Reschedule WL now supports repeat rules, resolving an issue where studies could be filtered from the Confirmation worklist. | 2017.1 |
| 17565 | Resolved a foreign key error when adding and saving contrast. | 2017.2 |
| 17356 | Changes made to increase database execution plan reuse for | 2017.2 |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

| | | |
|---|---|---|
| | improved performance. | |
| 17352 | **New Feature**: Support TIFF format with LZW compression and 8bit color depth for RIS scanned documents. (See New Features section titled "New RIS settings to reduce bandwidth for updates.") | 2017.2 |
| 17351 | **New Feature**: Client side setting to optimize calls to UpdateStudy. (See New Features section titled "New RIS settings to reduce bandwidth for updates.") **Update: Enable Extra Compression will be disabled until further changes are made.** | 2017.2 |
| 17374 | Tables without cluster indexes now have one for performance improvement. | 2017.2 |
| 17612 | Resolved an error occurring on the Connect Administrator - System Messages screen when saving without changes. | 2017.2 |
| 17610 | Patient Portal's identity verification no longer allows invalid data after receiving an invitation from the Provider Portal. | 2017.2 |
| 17609 | Removed unnecessary message regarding external report workflow from the View/Edit window. | 2017.2 |
| 17732 | Added two missing indexes for performance improvement. | 2017.3 |
| 17694 | When forwarding messages in the CONNECT Patient Portal Administration portal, patient information is now added above the message body. | 2017.3 |
| 17691 | Resolved an issue with Push Signature service. | 2017.3 |
| 17596 | Resolved a CONNECT Patient Portal issue with iCODE errors when multiple studies are mapped to the iCODE. | 2017.3 |
| 17574 | Made a change to Management Report views to improve | 2017.3 |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

| | | |
|---|---|---|
| | performance. | |
| 17558 | eRAD RIS reporting tab will stay in sync even if PowerScribe 360 report is closed immediately upon opening. | 2017.3 |
| 17557 | Resolved an issue with creating multiple addendums from the View Study screen using different reporting modes. | 2017.3 |
| 17403 | Implemented a new string splitting function for performance improvement. | 2017.3 |
| 17373 | Changed the method of calculating the Eligibility flag for performance improvement. | 2017.3 |
| 17372 | RIS now trims Eligibility request and response tables on a regular interval to reduce the size of the indexes and table foot prints. | 2017.3 |
| 17370 | Worklist views and stored procedures now use ITVF for performance improvement. | 2017.3 |
| 17369 | Resolved an issue with database performance related to Exam Search. | 2017.3 |
| 17368 | Exam Searches are now using index when doing date comparisons | 2017.3 |
| 17367 | RIS database compatibility mode no longer equal to SQL 2008. | 2017.3 |
| 17366 | Changed Linked study pattern to improve performance when solving primary study key. | 2017.3 |
| 17365 | Modified a stored procedure for the Pending QA WL to ensure that the correct sites are included. | 2017.3 |
| 17363 | New database object will concatenate the values of string expressions for improved performance. | 2017.3 |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

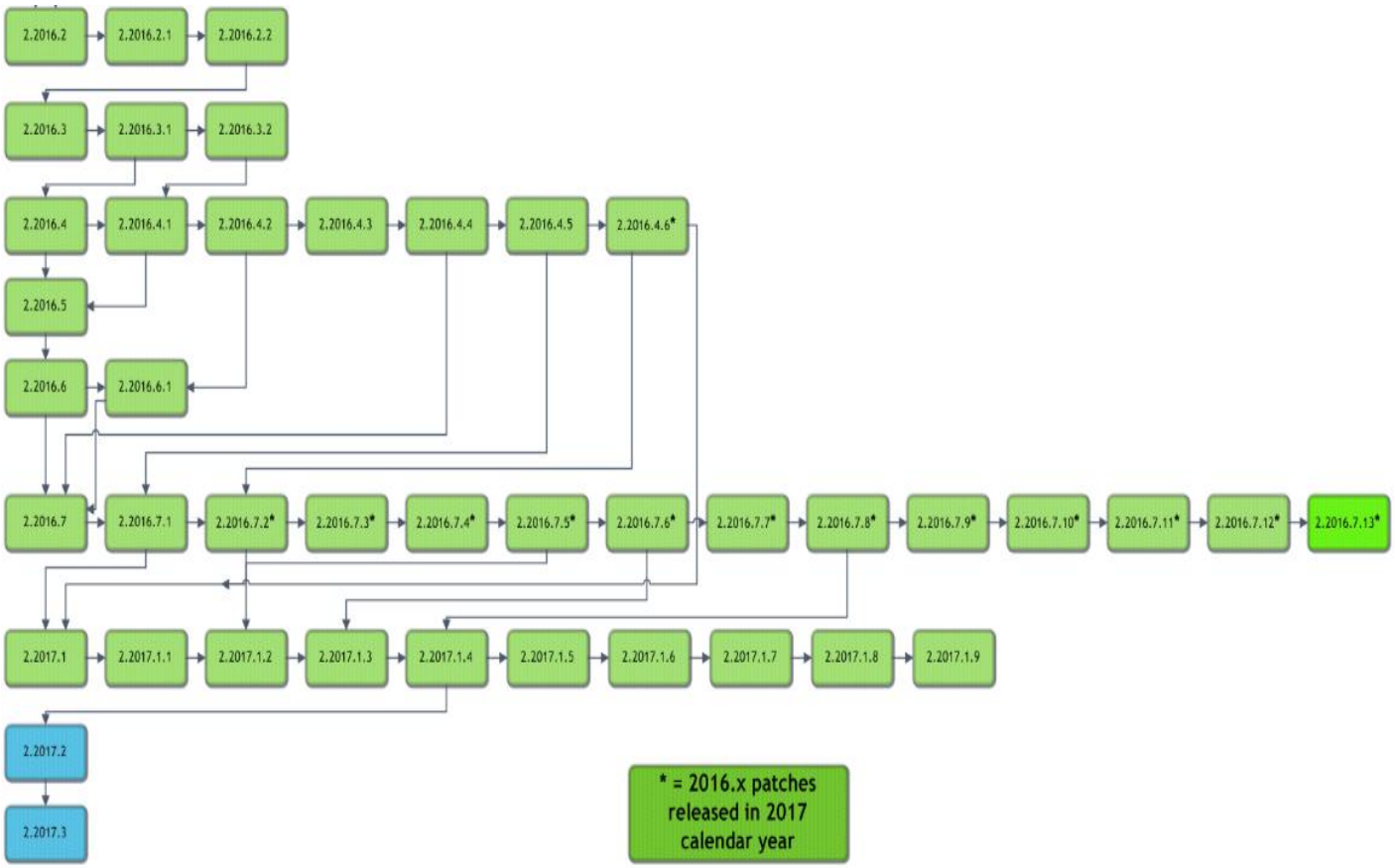
in any form or by any means without the prior written permission from eRAD. 

| | | |
|---|---|---|
| 17361 | For performance gains, scaler database functions have been replaced with ITVF replacements. | 2017.3 |
| 17360 | Index has been added to c_eligible_request.visit_key. | 2017.3 |
| 17358 | C_action_data rows can now be added without having to followup with a refresh of the dataset. | 2017.3 |
| 17357 | Changed the way the Legacy Report Flag is determined to improve performance. | 2017.3 |
| 17355 | Log file from deployment script will now differentiate which management reports use the "Real-Time" and which use the "Alternate" reporting server. | 2017.4 |
| 17688 | When referring physician has a Preferred Rad defined, the Assigned Rad is now consistently populating in the perform exam window (Upgrade script needed to backfill new column.) | 2017.4 |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## CODE STREAM




**Legend:**

Light Green = Previously Released software

Bright Green = Current Release

Blue - Not commercially released

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## ERAD RIS RELEASE VERSION NUMBERS

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Digital Forms | Patient Portal | UM Portal | Provider Portal | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| 2016.2 | - | 2.16.2.0 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.0.00172540 | | | | | Full Version Release - GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge |
| 2016.2 | 1 | 2.16.2.1 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.0.00172540 | | | | | GUI.zip and Citrix Bridge |
| 2016.2 | 2 | 2.16.2.2 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.2.00243102 | | | | | GUI.zip, DB and Citrix Bridge |
| 2016.3 | - | 2.16.3.0 (3GB) | 2.16.3.0 | 2.16.3.0 | 2.16.3.0.00257101 | 2.16.3.0 | | | | Full Version Release |
| 2016.3 | 1 | 2.16.3.1 | 2.16.3.0 | 2.16.3.1 | 2.16.3.1.00298834 | 2.16.3.0 | | | | GUI.zip, Web Service and DB |
| 2016.3 | 2 | 2.16.3.2 | 2.16.3.0 | 2.16.3.2 | 2.16.3.1.00298834 | 2.16.3.0 | | | | GUI.zip and Web Service |
| 2016.4 | - | 2.16.4.0 | 2.16.4.0 | 2.16.4.0 | 2.16.4.0.00301943 | 2.16.4.0 | 1.16.4.0.310284 | | | Full Version Release |
| 2016.4 | 1 | 2.16.4.1 | 2.16.4.0 | 2.16.4.1 | 2.16.4.0.00301943 | 2.16.4.0 | 1.16.4.0.310284 | | | GUI and Web Service updates |
| 2016.4 | 2 | 2.16.4.2 (3GB) | 2.16.4.0 | 2.16.4.1 | 2.16.4.0.00301943 | 2.16.4.0 | 1.16.4.2.460241 | | | GUI and Patient Portal updates |
| 2016.4 | 3 | 2.16.4.3 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | 1.16.4.3.489120 | | | GUI and Patient Portal updates |
| 2016.4 | 4 | 2.16.4.4 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | 1.16.4.3.489120 | | | GUI |
| 2016.4 | 5 | 2.16.4.5 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | | | | GUI |
| 2016.4 | 6 | 2.16.4.6 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | | | | GUI |
| 2016.5 | - | 2.16.5.0 (3GB) | 2.16.5.0 | 2.16.5.0 | 2.16.5.0.00349303 | 2.16.5.0 | 1.16.5.0.362009 | | | Full Version Release |
| 2016.6 | - | 2.16.6.0 (3GB) | 2.16.6.0 | 2.16.6.0 | 2.16.6.0.00411295 | 2.16.6.0 | 1.16.6.0.432471 | | | Full Version Release |
| 2016.6 | 1 | 2.16.6.1 (3GB) | 2.16.6.0 | 2.16.6.0 | 2.16.6.0.00411295 | 2.16.6.0 | 1.16.6.1.468583 | | | GUI and Patient Portal updated |
| 2016.7 | - | 2.16.7.0 (3GB) | 2.16.70 | 2.16.70 | 2.16.7.0.00490835 | 2.16.70 | 1.16.7.0.493031 | 2.16.7.0.493008 | | Full version release |
| 2016.7 | 1 | 2.16.7.1 (3GB) | 2.16.7.0 | 2.16.7.1 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 2 | 2.16.7.2 (3GB) | 2.16.7.0 | 2.16.7.2 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 3 | 2.16.7.3 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 4 | 2.16.7.4 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI |
| 2016.7 | 5 | 2.16.7.5 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI |
| 2016.7 | 6 | 2.16.7.6 (3GB) | 2.16.7.0 | 2.16.7.6 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 7 | 2.16.7.7 (3GB) | 2.16.7.0 | 2.16.7.7 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 8 | 2.16.7.8 (3GB) | 2.16.7.0 | 2.16.7.7 | 2.16.7.8.00683507 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and DB updates |
| 2016.7 | 9 | 2.16.7.9 (3GB) | 2.16.7.0 | 2.16.7.9 | 2.16.7.9.00715012 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI, Web Services, DB updates and UM Portal |
| 2016.7 | 10 | 2.16.7.10 (3GB) | 2.16.7.0 | 2.16.7.10 | 2.16.7.9.00715012 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI and Web Service updates |
| 2016.7 | 11 | 2.16.7.11 (3GB) | 2.16.7.0 | 2.16.7.11 | 2.16.7.11.00761267 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI, Web Service and DB updates |
| 2016.7 | 12 | 2.16.7.12 (3GB) | 2.16.7.0 | 2.16.7.11 | 2.16.7.11.00761267 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI |
| **2016.7** | **13** | **2.16.7.13 (3GB)** | **2.16.7.0** | **2.16.7.13** | **2.16.7.13.00823274** | **2.16.7.0** | **2.16.7.13.805715** | **2.16.7.13.805717** | | **GUI, Web Service, DB, Patient and UM Portal updates** |
| 2017.1 | - | 2.17.1.0 (3GB) | 2.17.1.0 | 2.17.1.0 | 2.17.1.0.00559886 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | Full Version Release |
| 2017.1 | 1 | 2.17.1.1 (3GB) | 2.17.1.0 | 2.17.1.1 | 2.17.1.1.00589952 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 2 | 2.17.1.2 (3GB) | 2.17.1.0 | 2.17.1.2 | 2.17.1.2.00621962 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 3 | 2.17.1.3 (3GB) | 2.17.1.0 | 2.17.1.3 | 2.17.1.3.00640480 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 4 | 2.17.1.4 (3GB) | 2.17.1.0 | 2.17.1.4 | 2.17.1.4.00692239 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI, Web Service, DB and Patient Portal updates |
| 2017.1 | 5 | 2.17.1.4 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.4.00692239 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | Web Service |
| 2017.1 | 6 | 2.17.1.6 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI and DB Updates |
| 2017.1 | 7 | 2.17.1.7 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI update |
| 2017.1 | 8 | 2.17.1.8 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI update |
| 2017.1 | 9 | 2.17.1.9 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI update |
| 2017.2 | - | 2.17.2.0(3GB) | 2.17.2.0 | 2.17.2.0 | 2.17.2.0.00695782 | 2.17.2.0 | 2.17.2.0.702238 | 2.17.2.0.702213 | 2.17.2.0.702226 | Full Version Release. First release of Provider Portal |
| 2017.3 | - | 2.17.3.0(3GB) | 2.17.3.0 | 2.17.3.0 | 2.17.3.0.00764112 | 2.17.3.0 | 2.17.3.0.321 | 2.17.3.0.321 | 2.17.3.0.321 | Full Version Release. Including Patient, Provider and UM Portals |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

# INSTALLING

## CLIENT/GUI

Copy and replace the current rRIS…zip file with the eRAD_rRIS_2016.7.13.zip file provided with this release.

Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

## WEB SERVICE

This updated is only required for the Wedge Web Services. The Core RIS Service and Document Distribution Service are not required to be updated.

1. The web service upgrade consists of replacing the files in the RIS Web Service directory with the files supplied in the rRISService folder with this build. Always create a backup of the files being replaced. This upgrade includes 136 files in the rRISService folder and 9 sub folders. Of those folders, 1 is a folder titled **"XSL"** that contains a sub folder and files within the subfolder. Another folder is titled **"deploy"** that contains the new .config files that will be deployed with the user of the file called "ServicesConfigWizard.exe" (see instructions below). Folders ar (Arabic), he (Hebrew), pt_BR (Brazilian Portuguese) and es-AR (Argentina Spanish) are localization folders. The WedgePlugins folder contains various plugin files for RADAR, MIRTH, Ensemble, etc…

**Services Configuration Wizard**

With the release of 42 to decrease the chance of losing configuration setting and missing new configuration options, we will no longer include the configuration files in the release in the main set of files, but they will now exist in a "deploy" folder, which will contain the three site configurable config files; applicationsettings, connectionstrings, and services as well as a copy of the rRISServices.exe configuration file. The contents of this folder should not be required to be touched.

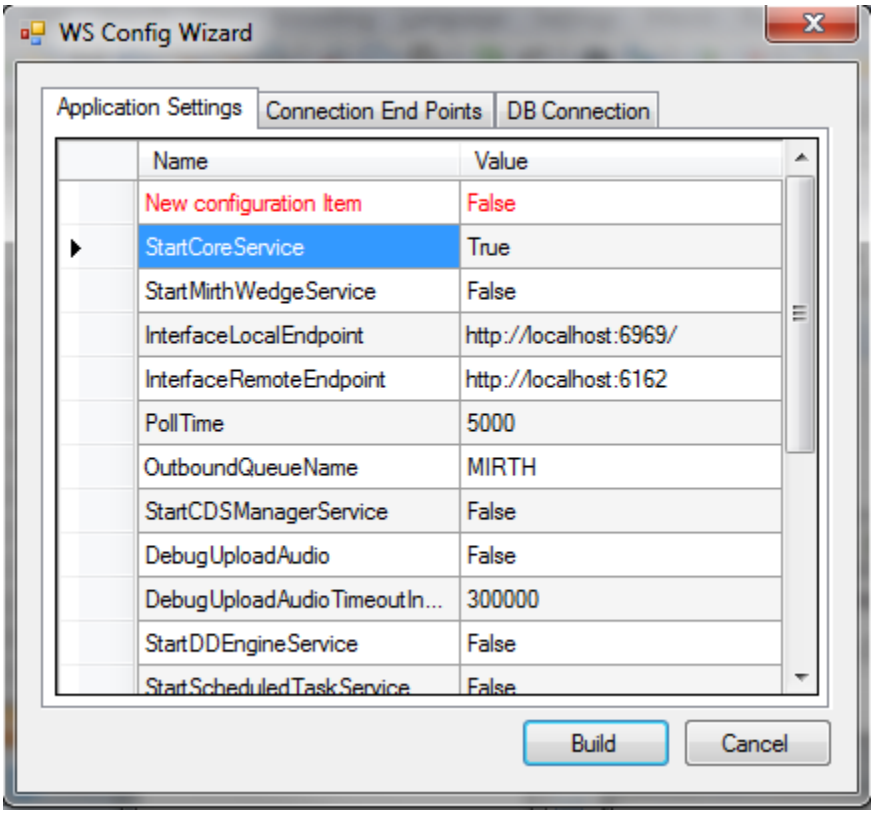
On the install of a new service, all files will be copied to the appropriate locations on the server (no configurations will be over written). If instructed or to confirm no new configurations have been added the user can run the new application "ServicesConfigWizard.exe"

This application will read the existing configuration file(s) (if files exist), and compare to the provided new configuration files then will display three tabs, for each configuration file:

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

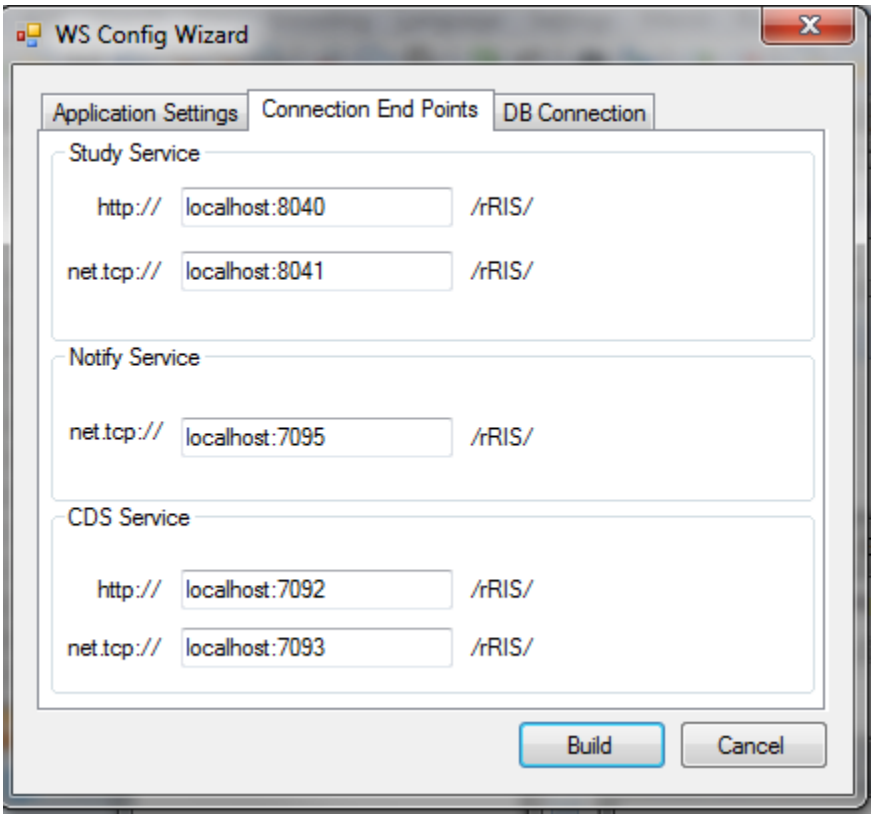
**Application Settings:** all existing configuration value will be displayed, if there are any new configuration entries they will be displayed in red.




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

**Connection End Points:** will display the existing configuration, if the value is left blank then that entry will not be created, in the case of "Study Service" or "CDS Service" if both http and net.tcp were not provided then that endpoint will not be created at all.




## DATABASE UPDATES

Always run the upgrade scripts in a test environment of the actual database to make sure they run cleanly. If any errors occur please contact development.

*Note: There is a new upgrade process introduced with B43.1 called "RunUpgrade.bat". The batch file will open a command window. This process will prompt you for the database server name, database name and authentication credentials. There is no need to run the database upgrade scripts manually as was done in previous releases.*

1) From the upgrade folder, double click the "RunUpgrade.bat" command file.

2) Enter the server name, database name and authentication credentials to the database. You have 2 choices for authentication credentials.

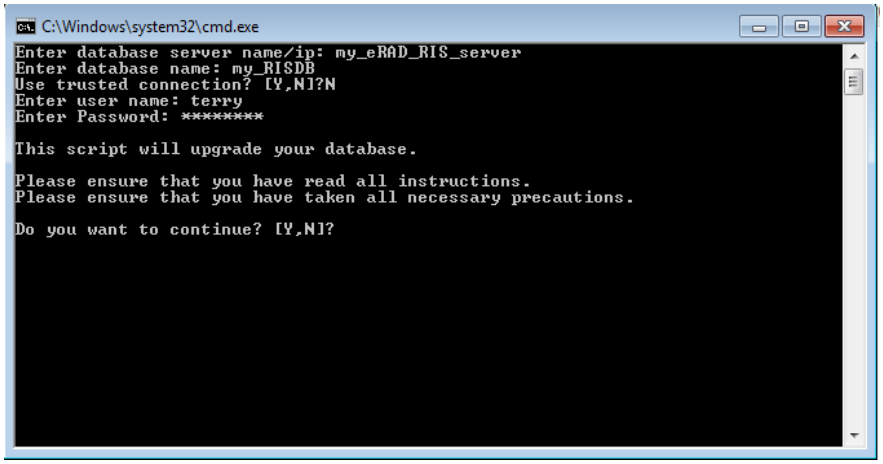
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

3) You can choose to use “Trusted connection”. Using this option will pass the identity of the currently logged on user. If this user has “db_owner” access to the eRAD RIS database then feel free to use this options.

4) If you decide not to use “Trusted connection” then you will be prompted for user id and password.

Example:




5) After the upgrade program has finished you can find the upgrade logs in the “log” folder. The file name will be eRAD_RIS_db_upgrade_timestamp.log, where timestamp is a value representing the date and time the upgrade started. If you see any errors please contact the development team

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

# Server Update

for eRAD RIS

Version 2.0

Build 2.2016.7

Update 2.2016.7.14

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

# Table of Contents

Package Contents ..... 3

Intended Audience ..... 3

Who is affected ..... 3

New Features ..... 4

Feature #18166/17708 - UM - When specifying Gold Card or STAT orders, the system should auto-approve the order and set the UM Status and UM Resolution ..... 4

Feature #18168/17580 - Automatically update Exam Status based on attributes of selected UM Status ..... 5

Feature #18170/17530 – UM - RIS users require the ability to preview and distribute the UM Opinion Letter ..... 7

Feature #18172/17529 – UM - Reviewers require the ability to change the requested procedure ..... 8

New Configuration settings ..... 11

System configuration settings ..... 11

Access strings ..... 11

Resolved Items ..... 12

Code Stream ..... 14

eRAD RIS Release Version Numbers ..... 15

Installing ..... 16

Client/GUI ..... 16

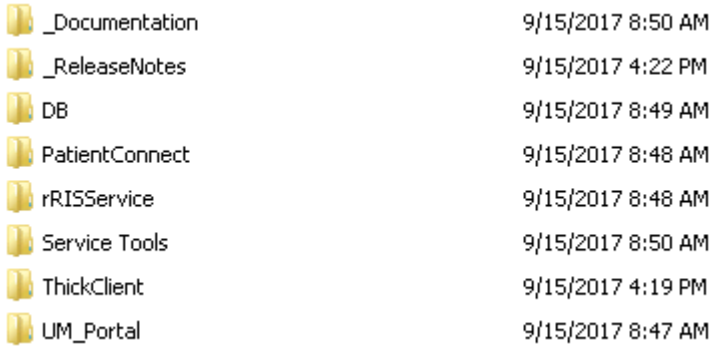
Web Service ..... 16

Database Updates ..... 18

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## PACKAGE CONTENTS




## INTENDED AUDIENCE

The intended audience for this document is the RadNet Clinical Systems team and the eRAD Support/Service team.

It is appropriate to share the document with any customers applying the patch, in order to review new feature descriptions and resolved defects.

## WHO IS AFFECTED

Build 2016.7 installs. This server update must be applied to 2016.7.13.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

# NEW FEATURES

## UTILIZATION MANAGEMENT

### FEATURE #18166/17708 – SET DEFAULT UM STATUS AND RESOLUTION CODES FOR GOLD CARD AND STAT ORDERS

When configured, special handling for Gold Card or STAT orders requires that the orders be advanced to scheduling, bypassing the UM process. Previously, the UM flag was set to "Y" to allow scheduling, but the order would remain in Received status.

It is now possible to configure which Status and Resolution codes will be used in these scenarios. The defaults are defined by the following System Configuration settings:

- UMDefaultSTATStatusCode
- UMDefaultSTATResolutionCode
- UMDefaultGoldCardStatusCode
- UMDefaultGoldCardResolutionCode

If either UMByPassSTAT or UMGoldCardAutoApprove is set to Y, the order's status code and resolution code will be immediately changed to match the System Configuration values. In addition, the following values are automatically set:

- UM Finalized Date = Current Date/Time
- UM Finalized by User ID = "system"
- UM Final Status Hours = 0

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## FEATURE #18168/17580 - AUTOMATICALLY UPDATE EXAM STATUS BASED ON ATTRIBUTES OF SELECTED UM STATUS

Previously, when a UM Reviewer marked all procedures in an order as Not Recommended, the Patient Folder continued to display the order in an Ordered status, with the Procedure column displaying as blank due to the fact that no active procedures were associated. This could be confusing in cases where the UM Reviewer needed to go back to the case (e.g. they receive a call from the referring provider) or to other RIS users.

For this reason, a new System Configuration value has been added called *UMDefaultCancelledReasonCode*. This configuration value is dependent on a corresponding entry in the *CancelStudyReason* look-up table.

The workflow will proceed as follows: First, the system will look at the order once it is marked as UM Complete. UM Complete is determined by looking at each ordered procedure that requires utilization review to see if it is in a final UM Status. Next, the system will determine if the final UM Status can advance to scheduling or not. For example, Recommended can be scheduled while Not Recommended typically cannot. This is determined by verifying that the Final Flag on the UM Status is set to "Y" and the Schedule Flag is set to "N."

If is determined that all the procedures for the order require utilization review and none can advance to be scheduled, the system will perform the following tasks:

1. Set the Status Code for the order to Order Cancelled.
2. Set the Cancelled by User ID field for the Order to "system."
3. Set the Cancelled Date for the order to the current date and time.
4. Set the Cancelled Reason Code for the order to the *UMDefaultCancelledReasonCode*.

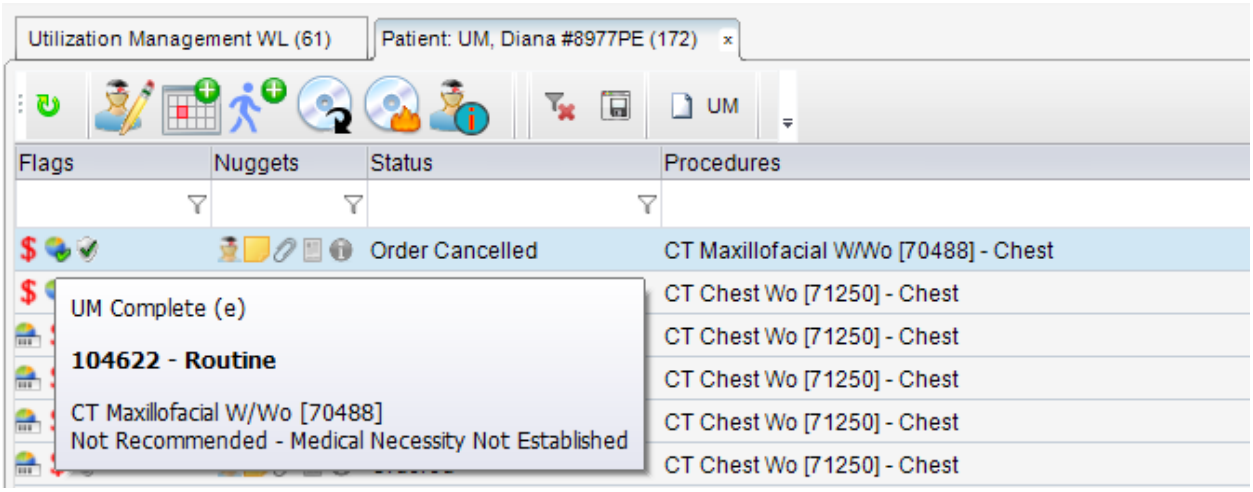
The following is an example of the audit log for the above scenario.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

```
Event Time: 08-21-2017 03:38:15.836 PM    Client IP Address: ::1


Changed c_order
        status_code:                    'OrderCancelled' (was 'OrderSigned')
        cancelled_by_user_id:           'system' (was 'nothing')
        cancelled_reason_code:          'UMDenied' (was 'nothing')
        um_complete_flag:               'Y' (was 'N')
        um_owner_user_id:                       'chasinl' (was 'nothing')
        cancelled_date:                 '08-21-17 3:38:14 PM -03:00' (was 'nothing')
Changed c_order_item
        procedure_code:                 '70488'
        um_status_code:                 'NotRecommended' (was 'Received')
        um_resolution_code:                     'MedNec' (was 'nothing')
        um_finalized_date:              '08-21-17 3:38:14 PM -03:00' (was 'nothing')
        um_final_status_hours:          '40' (was 'nothing')
        um_finalized_by_user_id:        'spencer' (was 'nothing')
        um_reviewed_date:               '08-21-17 3:38:14 PM -03:00' (was 'nothing')
        um_reviewed_by_user_id:         'spencer' (was 'nothing')
        um_procedure:                   'CT Maxillofacial W/Wo [70488] - Chest' (was 'nothing')
        um_status:                      'Not Recommended - Medical Necessity Not Established' (was 'nothing')
        um_clock:                       '40 of 30' (was 'nothing')
```

Below is an example of a UM order for which all exams on the order are moved to a Final UM status that indicates no scheduling is possible.




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

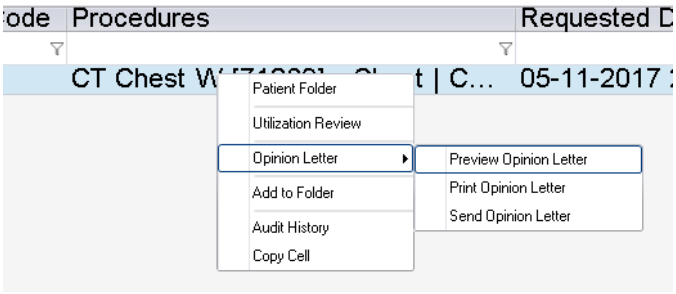
in any form or by any means without the prior written permission from eRAD. 

## FEATURE #18170/17530 – RIS USERS CAN NOW PREVIEW AND DISTRIBUTE THE UM OPINION LETTER

Previously, the UM Opinion Letter was only available to be previewed from the Utilization Review screen via the UM Opinion Letter tab. Sometimes it is necessary for other RIS users to preview or distribute the UM Opinion Letter. To accomplish this, a new context menu item has been added to the Patient Folder and UM WL called "Opinion Letter." This option will be available when the UM Required Flag = Y and the user has FULL access to a new access string: *Clinical.OpinionLetter*.

The Opinion Letter context menu item will have three options:

1. Preview Opinion Letter
2. Print Opinion Letter
3. Send Opinion Letter




Access to these three sub-menu options can be controlled via the access strings:

- *Clinical.OpinionLetter.Preview*
- *Clinical.OpinionLetter.Print*
- *Clinical.OpinionLetter.Send*

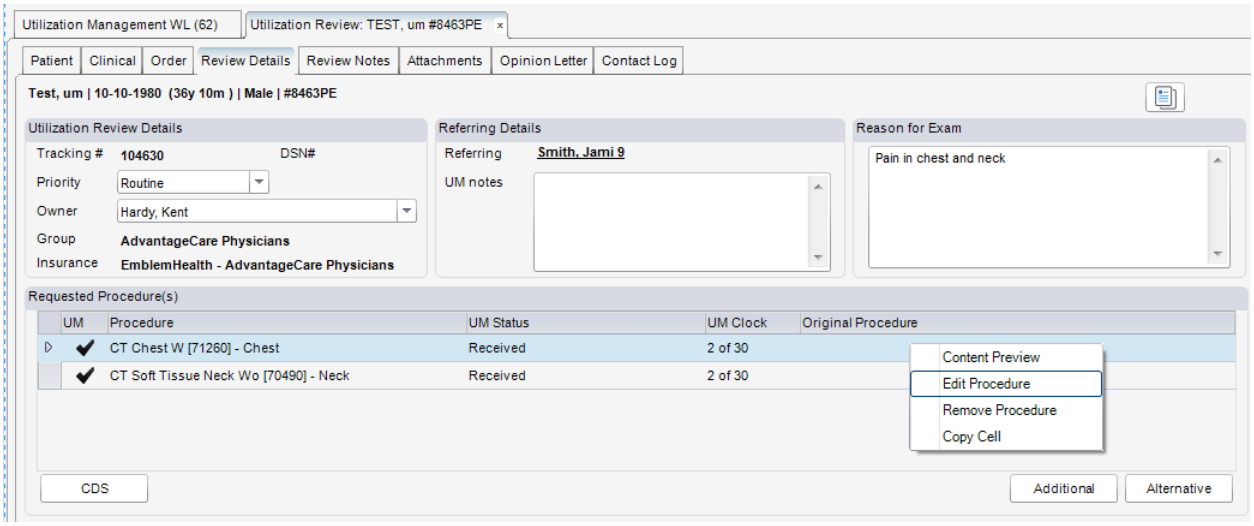
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## FEATURE #18172/17529 – UM REVIEWERS CAN NOW CHANGE THE REQUESTED PROCEDURE

When adding UM orders to RIS, the data entry team sometimes mistakenly adds the wrong procedure to the order. The UM reviewer would previously have to modify the existing order via the Schedule Order screen because adding the correct procedure as an Alternative exam for a simple data entry error would skew the statistics. It is now possible for the reviewer to modify the ordered procedure from the Utilization Review screen.

The context menu on the Requested Procedure(s) grid on the Review Details tab has been enhanced to include both **Edit Procedure** and **Remove Procedure** menu items.




For the Remove Procedure option, the following logic is used to determine if the user can delete the procedure from the order.

1. If the procedure is the only one for the order, the user is prevented from removing it and prompted with "At least one procedure is required."
2. If the procedure being removed already has a study associated with it (has been scheduled or is further in the workflow), the user is prevented from removing it and is prompted with "The procedure you are deleting is currently in Scheduled status. Please notify the appropriate person to make adjustments to the appointment."

For the Edit Procedure option, similar logic applies. If the procedure being removed already has a study associated with it (has been scheduled or is further in the workflow), the user is prevented from removing it and is prompted with "The procedure you are deleting is currently in Scheduled status. Please notify the appropriate person to make adjustments to the appointment". Note that the word "Scheduled" will be replaced with the actual status of the study.

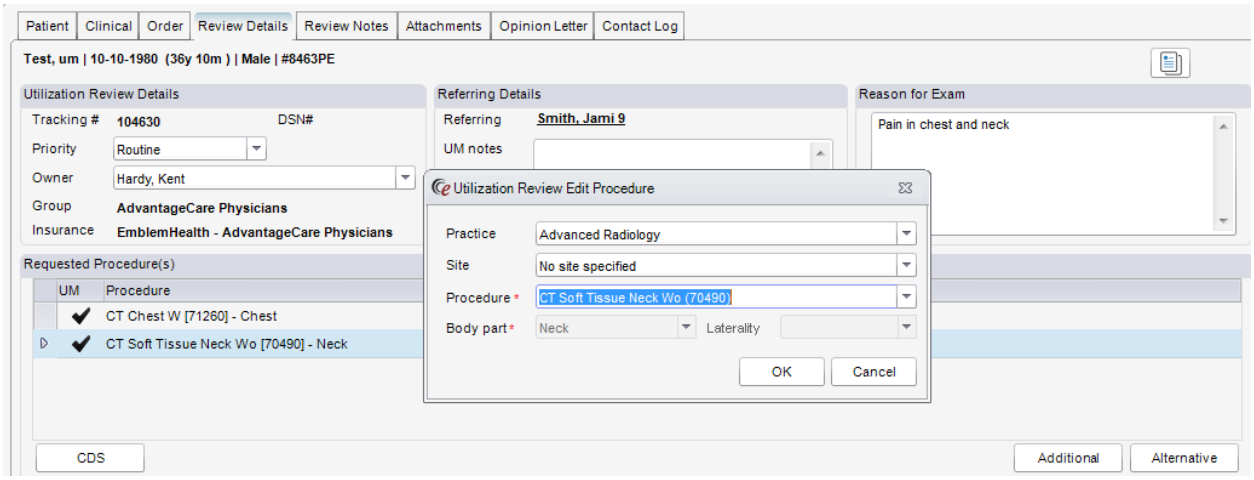
While adding the above logic to not adjust ordered procedures that have studies associated, it was decided to also prevent and display a message to the user for the following scenarios:

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

1. When specifying an alternative procedure for an order item that already has a study associated, the user is prompted with: “The procedure you are recommending an alternative to is currently in scheduled status. Please notify the appropriate person to make adjustments to the appointment.”
2. When removing an alternative procedure for an order item that already has a study associated, the user is prompted with: “The procedure you are deleting is currently in Scheduled status. Please notify the appropriate person to make adjustments to the appointment.”
3. When adding an additional procedure for an order that already has at least one study associated, the user is prompted with: “The order you are adding an additional procedure to has a procedure in scheduled status. Please notify the appropriate person to make adjustments to the appointment.”
4. When removing an additional procedure for an order item that already has a study associated, the user is prompted with: “The procedure you are deleting is currently in Scheduled status. Please notify the appropriate person to make adjustments to the appointment.”

If the above validation passes when editing a procedure, the user is presented with a procedure picker so he or she can modify the procedure and replace it at the order item level.




When selecting Remove Procedure, the user is prompted with “Are you sure you want to remove the procedure?” Selecting yes will delete the order item.

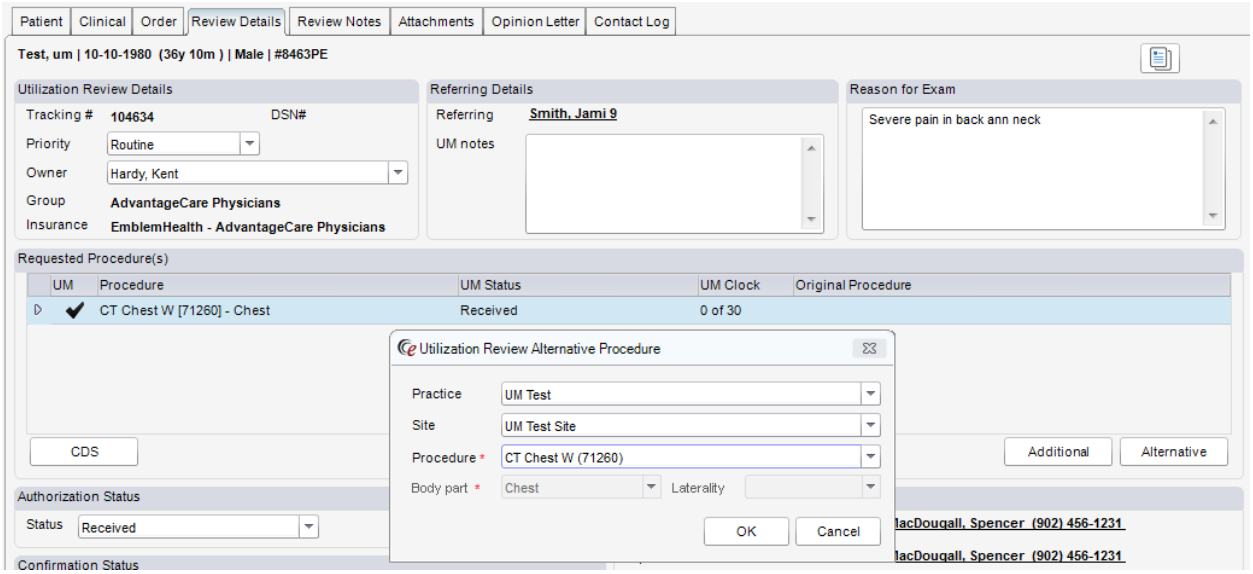
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## 18169 - UM REVIEWERS CAN NOW CHOOSE ANY ACTIVE PROCEDURE, UNLIMITED BY THE CURRENT SITE'S SCHEDULE GROUP

When a UM Reviewer wishes to recommend an alternative procedure, or add an additional procedure, or edit the procedure, sometimes it is not a procedure that can be performed at the practice or site for which the order was created. Currently, there are some restrictions on what procedures are available in the dropdown when selecting Alternative or Additional procedures. The UM Reviewer should have access to any active procedure when choosing the procedure via UM workflow.

The utilization review procedure picker has been enhanced to include dropdowns for both Practice and Site. When editing the existing procedure or specifying an alternative procedure, the Procedure dropdown will default to the original ordered procedure.




If the user changes the Procedure dropdown to a procedure that cannot be performed at the site or practice specified with the order, he or she is prompted with "The selected procedure cannot be performed at this Site or Practice. Please select a new Practice and Site from the list."

If the user changes the Procedure dropdown to a procedure that cannot be performed at the site but is available at the practice specified with the order, he or she is prompted with "The selected procedure cannot be performed at this Site. Please select a new Site from the list."

The Practice and Site dropdowns are then filtered to present the user with only practices and sites that can perform the newly selected procedure. This is accomplished by comparing active procedure codes against the configured schedule groups.

When adding additional procedures, the reviewer is not limited by the practice and site selection and will not be prompted if the procedure cannot be performed.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

# NEW CONFIGURATION SETTINGS

## SYSTEM CONFIGURATION SETTINGS

| Setting | Default | Purpose |
|---|---|---|
| UMDefaultCancelledReasonCode | N/A | (value = string) The default cancelled reason code for orders denied during the utilization review process. |
| UMDefaultGoldCardResolutionCode | N/A | (value = string) The default gold card utilization review resolution code. |
| UMDefaultGoldCardStatusCode | N/A | (value = string) The default gold card utilization review status code. |
| UMDefaultSTATResolutionCode | N/A | (value = string) The default STAT utilization review resolution code. |
| UMDefaultSTATStatusCode | N/A | (value = string) The default STAT utilization review status. |

## ACCESS STRINGS

| Setting | Default | Purpose |
|---|---|---|
| Clinical.OpinionLetter | Full | Controls access to the WL context menu Opinion Letter. |
| Clinical.OpinionLetter.Preview | Full | Controls access to the WL context menu Opinion Letter/Preview Opinion Letter. |
| Clinical.OpinionLetter.Print | Full | Controls access to the WL context menu Opinion Letter/Print Opinion Letter. |
| Clinical.OpinionLetter.Send | Full | Controls access to the WL context menu Opinion Letter/Send Opinion Letter. |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

## RESOLVED ITEMS

# eRAD RIS

| Redmine # | Subject |
|---|---|
| 18267 | Rejecting an addendum causes an 'object reference not set' exception. |
| 18132 | Some tables that have many updates will run out of identity values for large, high volume customers. |
| 18104 | UM Portal 'Get list of orders' stored procedure is not performance tuned. |
| 18078 | Poor system performance after updating to 2016.7.13. |
| 18042 | The EMR order is erroneously left active after using the 'existing orders prompt' and merging it into a new appointment. |

The following list contains bugs or features that have been resolved in “future” RIS versions and have been pulled back to this earlier version of eRAD RIS. Features are also described in the New Features section.

| Redmine # | Subject | Original Resolved Version |
|---|---|---|
| 18172 | UM Reviewers can now change the requested procedure. | 3.2017.6 |
| 18170 | RIS users can now preview and distribute the UM Opinion letter outside of the UM screen. | 3.2017.6 |
| 18169 | UM Reviewers can now choose any active procedure, unlimited by the current site's Schedule Group. | 3.2017.6 |
| 18168 | Automatically update Exam Status based on attributes of selected UM Status | 3.2017.6 |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

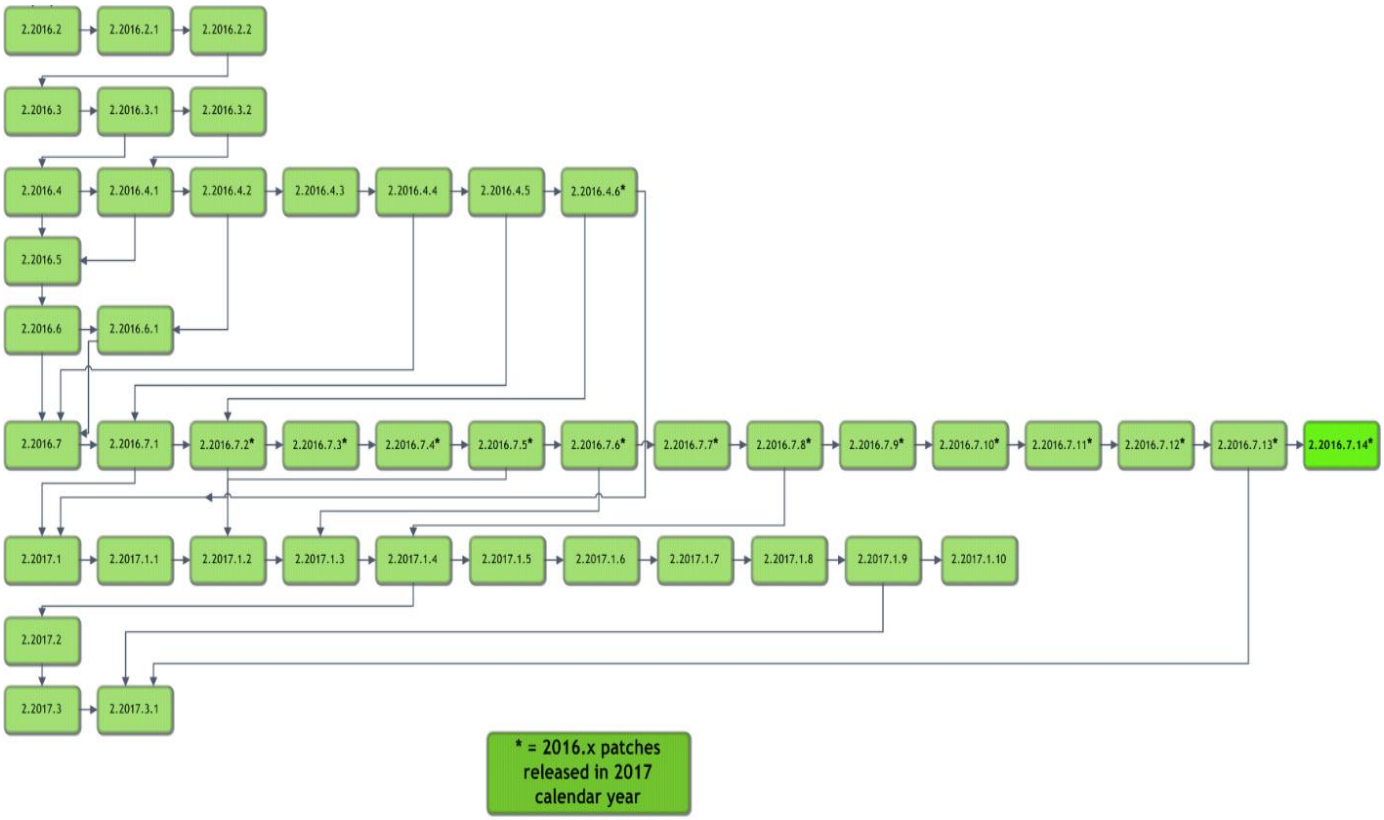
in any form or by any means without the prior written permission from eRAD.

| | | |
|---|---|---|
| 18167 | UM - If during scheduling a procedure is removed via the red or black X, the UM Required Flag is changed from Y to N. | 2.2017.5 |
| 18166 | Set default UM status and Resolution codes for Gold Card and STAT orders. | 2.2017.5 |
| 18107 | External interface getting backed up causing HL7 messages to be delayed. | 2.2017.5 |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## CODE STREAM




**Legend:**

**Light Green = Previously Released software**

**Bright Green = Current Release**

**Blue - Not commercially released**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## ERAD RIS RELEASE VERSION NUMBERS

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Digital Forms | Patient Portal | UM Portal | Provider Portal | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| 2016.7 | - | 2.16.7.0 (3GB) | 2.16.70 | 2.16.70 | 2.16.7.0.00490835 | 2.16.70 | 1.16.7.0.493031 | 2.16.7.0.493008 | | Full version release |
| 2016.7 | 1 | 2.16.7.1 (3GB) | 2.16.7.0 | 2.16.7.1 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 2 | 2.16.7.2 (3GB) | 2.16.7.0 | 2.16.7.2 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 3 | 2.16.7.3 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 4 | 2.16.7.4 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI |
| 2016.7 | 5 | 2.16.7.5 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI |
| 2016.7 | 6 | 2.16.7.6 (3GB) | 2.16.7.0 | 2.16.7.6 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 7 | 2.16.7.7 (3GB) | 2.16.7.0 | 2.16.7.7 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 8 | 2.16.7.8 (3GB) | 2.16.7.0 | 2.16.7.7 | 2.16.7.8.00683507 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and DB updates |
| 2016.7 | 9 | 2.16.7.9 (3GB) | 2.16.7.0 | 2.16.7.9 | 2.16.7.9.00715012 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI, Web Services, DB updates and UM Portal |
| 2016.7 | 10 | 2.16.7.10 (3GB) | 2.16.7.0 | 2.16.7.10 | 2.16.7.9.00715012 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI and Web Service updates |
| 2016.7 | 11 | 2.16.7.11 (3GB) | 2.16.7.0 | 2.16.7.11 | 2.16.7.11.00761267 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI, Web Service and DB updates |
| 2016.7 | 12 | 2.16.7.12 (3GB) | 2.16.7.0 | 2.16.7.11 | 2.16.7.11.00761267 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI |
| 2016.7 | 13 | 2.16.7.13 (3GB) | 2.16.7.0 | 2.16.7.13 | 2.16.7.13.00823274 | 2.16.7.0 | 2.16.7.13.805715 | 2.16.7.13.805717 | | GUI, Web Service, DB, Patient and UM Portal updates |
| **2016.7** | **14** | **2.16.7.14 (3GB)** | **2.16.7.0** | **2.16.7.14** | **2.16.7.14.00888220** | **2.16.7.0** | **2.16.7.14.897644** | **2.16.7.14.897646** | | **GUI, Web Service, DB, Patient and UM Portal updates** |
| 2017.1 | - | 2.17.1.0 (3GB) | 2.17.1.0 | 2.17.1.0 | 2.17.1.0.00559886 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | Full Version Release |
| 2017.1 | 1 | 2.17.1.1 (3GB) | 2.17.1.0 | 2.17.1.1 | 2.17.1.1.00589952 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 2 | 2.17.1.2 (3GB) | 2.17.1.0 | 2.17.1.2 | 2.17.1.2.00621962 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 3 | 2.17.1.3 (3GB) | 2.17.1.0 | 2.17.1.3 | 2.17.1.3.00640480 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 4 | 2.17.1.4 (3GB) | 2.17.1.0 | 2.17.1.4 | 2.17.1.4.00692239 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI, Web Service, DB and Patient Portal updates |
| 2017.1 | 5 | 2.17.1.4 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.4.00692239 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | Web Service |
| 2017.1 | 6 | 2.17.1.6 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI and DB Updates |
| 2017.1 | 7 | 2.17.1.7 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI update |
| 2017.1 | 8 | 2.17.1.8 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI update |
| 2017.1 | 9 | 2.17.1.9 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI update |
| 2017.1 | 10 | 2.17.1.10 (3GB) | 2.17.1.0 | 2.17.1.10 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI and Web Service update |
| 2017.2 | - | 2.17.2.0(3GB) | 2.17.2.0 | 2.17.2.0 | 2.17.2.0.00695782 | 2.17.2.0 | 2.17.2.0.702238 | 2.17.2.0.702213 | 2.17.2.0.702226 | Full Version Release. First release of Provider Portal |
| 2017.3 | - | 2.17.3.0(3GB) | 2.17.3.0 | 2.17.3.0 | 2.17.3.0.00764112 | 2.17.3.0 | 2.17.3.0.321 | 2.17.3.0.321 | 2.17.3.0.321 | Full Version Release. Including Patient, Provider and UM Portals |
| 2017.3 | 1 | 2.17.3.1(3GB) | 2.17.3.0 | 2.17.3.1 | 2.17.3.1.00846328 | 2.17.3.1 | 2.17.3.1.853299 | 2.17.3.1.853301 | 2.17.3.1.856171 | GUI, Web Sevice, DB. Including Patient, Provider and UM Portals |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

# INSTALLING

## CLIENT/GUI

Copy and replace the current rRIS…zip file with the eRAD_rRIS_2016.7.14.zip file provided with this release.

Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

## WEB SERVICE

This updated is only required for the Wedge Web Services. The Core RIS Service and Document Distribution Service are not required to be updated.

1. The web service upgrade consists of replacing the files in the RIS Web Service directory with the files supplied in the rRISService folder with this build. Always create a backup of the files being replaced. This upgrade includes 136 files in the rRISService folder and 9 sub folders. Of those folders, 1 is a folder titled **"XSL"** that contains a sub folder and files within the subfolder. Another folder is titled **"deploy"** that contains the new .config files that will be deployed with the user of the file called "ServicesConfigWizard.exe" (see instructions below). Folders ar (Arabic), he (Hebrew), pt_BR (Brazilian Portuguese) and es-AR (Argentina Spanish) are localization folders. The WedgePlugins folder contains various plugin files for RADAR, MIRTH, Ensemble, etc…

**Services Configuration Wizard**

With the release of 42 to decrease the chance of losing configuration setting and missing new configuration options, we will no longer include the configuration files in the release in the main set of files, but they will now exist in a "deploy" folder, which will contain the three site configurable config files; applicationsettings, connectionstrings, and services as well as a copy of the rRISServices.exe configuration file. The contents of this folder should not be required to be touched.

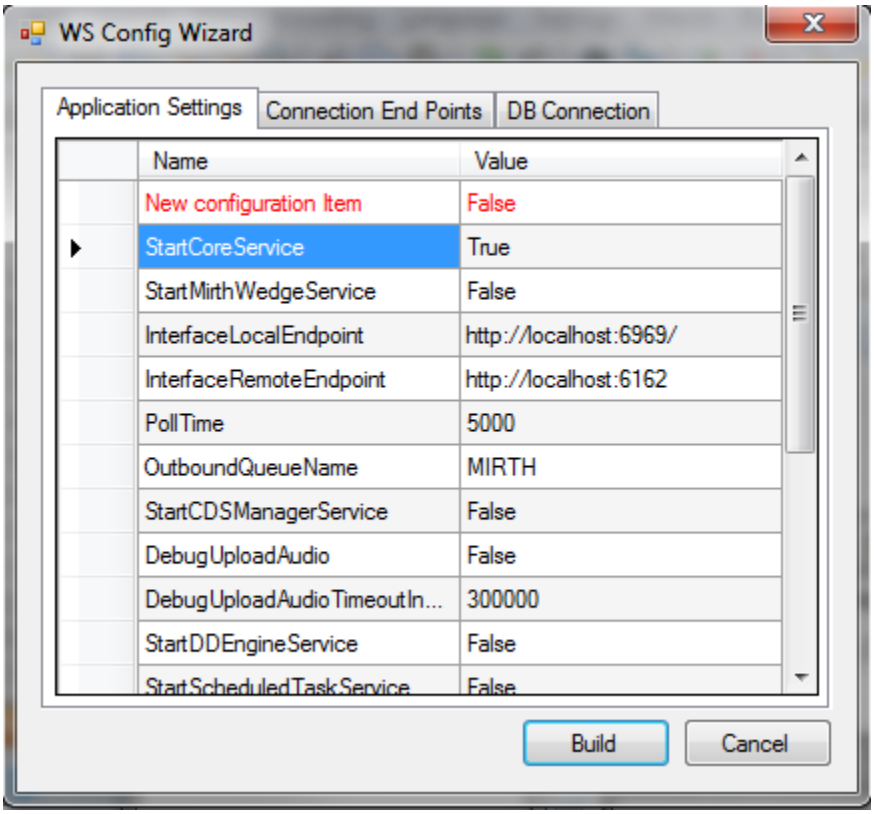
On the install of a new service, all files will be copied to the appropriate locations on the server (no configurations will be over written). If instructed or to confirm no new configurations have been added the user can run the new application "ServicesConfigWizard.exe"

This application will read the existing configuration file(s) (if files exist), and compare to the provided new configuration files then will display three tabs, for each configuration file:

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

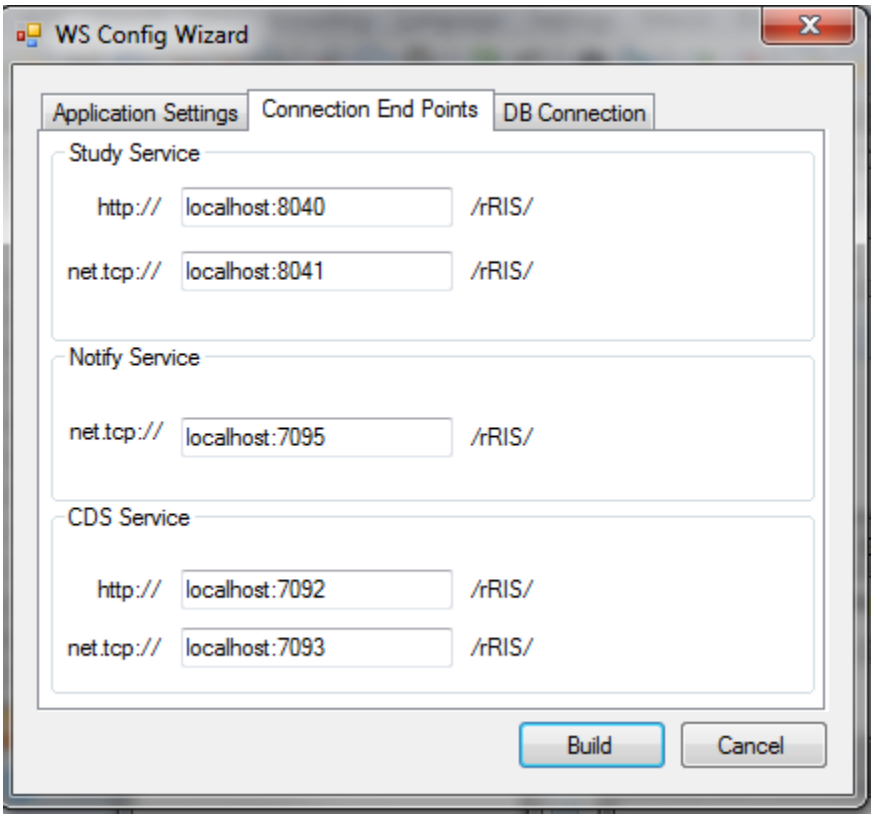
**Application Settings:** all existing configuration value will be displayed, if there are any new configuration entries they will be displayed in red.




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

**Connection End Points:** will display the existing configuration, if the value is left blank then that entry will not be created, in the case of "Study Service" or "CDS Service" if both http and net.tcp were not provided then that endpoint will not be created at all.




## DATABASE UPDATES

Always run the upgrade scripts in a test environment of the actual database to make sure they run cleanly. If any errors occur please contact development.

*Note: There is a new upgrade process introduced with B43.1 called "RunUpgrade.bat". The batch file will open a command window. This process will prompt you for the database server name, database name and authentication credentials. There is no need to run the database upgrade scripts manually as was done in previous releases.*

1) From the upgrade folder, double click the "RunUpgrade.bat" command file.

2) Enter the server name, database name and authentication credentials to the database. You have 2 choices for authentication credentials.

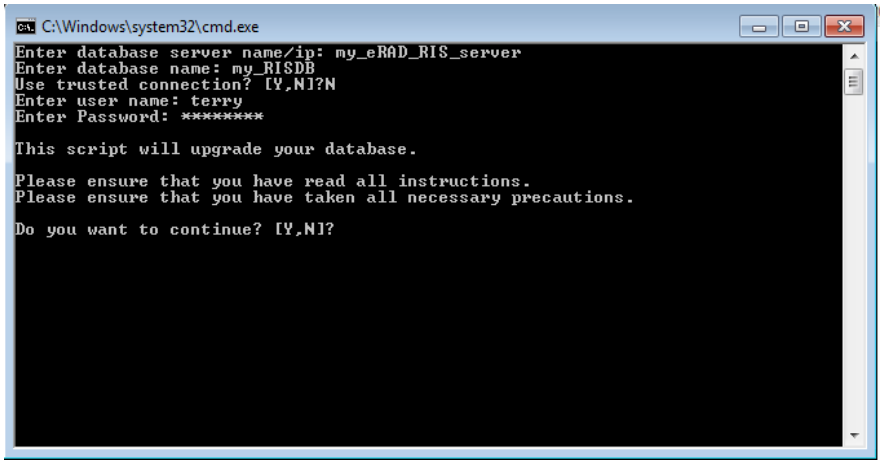
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

3) You can choose to use “Trusted connection”. Using this option will pass the identity of the currently logged on user. If this user has “db_owner” access to the eRAD RIS database then feel free to use this options.

4) If you decide not to use “Trusted connection” then you will be prompted for user id and password.

   Example:




5) After the upgrade program has finished you can find the upgrade logs in the “log” folder. The file name will be eRAD_RIS_db_upgrade_timestamp.log, where timestamp is a value representing the date and time the upgrade started. If you see any errors please contact the development team

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

RadNet Technology Solutions

19 October 2016

# Utilization Management

for eRAD RIS

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## TABLE OF CONTENTS

Table of Contents ..... 2

Summary ..... 3

Intended Audience ..... **Error! Bookmark not defined.**

Utilization Management Configuration ..... 4

System Configuration Settings ..... 4

Lookup Tables ..... 5

Access Strings ..... 7

Utilization Management RIS Workflow ..... 8

Determining if an Order requires Utilization Review ..... 8

Reviewer Workflow ..... 9

Authorization Letter Preview and Distribution ..... 12

ACR Select ..... 13

UM Alerts ..... 14

Searching by UM Tracking/Authorization Number ..... 15

Utilization Management and Scheduling ..... 16

UM Connect Portal ..... 17

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## SUMMARY

Utilization Management (UM) in radiology is the evaluation of the medical necessity and appropriateness of a requested diagnostic procedure. It is also known as Utilization Review. The goal of UM is to choose the best imaging study for the patient and contain the costs of medical care. The Utilization Management module in RIS is designed to capture the contract specific rules for Utilization Management for each participating Medical Group and to provide feedback and responses to the Medical Group administrator and the ordering provider throughout the UM process.

eRAD RIS UM will allow utilization review to be performed seamlessly in the RIS application instead of depending on an external system.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

# UTILIZATION MANAGEMENT CONFIGURATION

This section will outline how to configure and build the eRAD RIS UM workflow.

## SYSTEM CONFIGURATION SETTINGS

The following system configuration values are related to eRAD RIS Utilization Management:

- UMEnabled – Determines if the UM workflow is enabled for the RIS instance (True/False).
- UMRoutineReview – The maximum number of UM hours for a routine exam.
- UMUrgentReview – The maximum number of UM hours for an urgent exam.
- UMStartOfDayMinutes – The start of day in minutes for calculating UM elapsed review time.
- UMEndOfDayMinutes – The end of day in minutes for calculating UM elapsed review time.
- UMBypassSTAT – Determines if utilization review is performed on STAT orders (True/False).
- UMTrackingNumberPrefix – A prefix that will be added to the new UM Authorization/Tracking numbers.
- UMOpinionLetterReportPath – The path and name of the UM Authorization/Opinion Letter.
- UMDefaultRecommendedStatusCode – The default UM status when recommending a procedure.
- UMDefaultAdditionalResolutionCode – The default UM resolution when recommending an additional procedure.
- UMDefaultAlternativeResolutionCode – The default UM resolution when recommending an alternative procedure.
- UMExpirationDays – The number of days until the utilization review expires.
- UMAlertFromEmail – The sender email address used for UM Alerts.
- UMAlertFromName – The sender email name used for UM Alerts.
- UMAlertReportPath – The path and name of the UM Alert SSRS Template.
- PortalOpinionLetterUnavailableMessage – The message to display to the web portal user when the report is not available due to unexpected error (e.g. the SSRS report server is unavailable or not configured).
- UMPDefaultOrderTabCriteria – JSON value to define default filter tab view criteria for the UM portal Orders tab.
- UMPNewAccountRequestMessageGroup – The message group to which New Account requests would be sent. If no message group is defined, then an email will be sent to the configured Portal's “send to” email address.
- UMPScanDocumentType - A list of scanned document type codes (comma separated) that will be included in the available scanned documents to display in the UM Portal.
- UMPSystemCode – A value to identify the default system code for the UM Portal. The value must match a value in the l_created_by_system look-up table.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## LOOK-UP TABLES

The following look-up tables are utilized to build and customize the UM workflow in eRAD RIS:

**UM Status** – The main UM Statuses are configured here. The UM Status will determine if the procedure can proceed to be scheduled.

| Um Status Code | Description | Form Content | Final Flag | Display Order | Schedule Flag | Initial Flag | Last Updated | Active |
|---|---|---|---|---|---|---|---|---|
| Contains: | Contains: | Contains: | Contains: | Equals: | Contains: | Contains: | Equals: | Contain Y |
| Click here to add a new row | | | | | | | | |
| Hold | Hold | Review of your request is being held until information is received. | N | 1 | N | N | 06-08-2016 11... | Y |
| MDReview | MD Review | | N | 1 | N | N | 07-06-2016 4:... | Y |
| NotRecommended | Not Recommended | | Y | 1 | N | N | 06-08-2016 11... | Y |
| NurseReview | Nurse Review | | N | 1 | N | N | 09-20-2016 1:... | Y |
| Received | Received | | N | 1 | N | Y | 01-15-2015 11... | Y |
| Recommended | Recommended | | Y | 1 | Y | N | 06-08-2016 11... | Y |
| Reopen | Reopen | We have received additional information and RE-OPENED this RFS for further review.... | N | 1 | N | N | 06-22-2016 1:... | Y |
| ReturnedCompleted | Returned, Review Completed | | Y | 1 | N | N | 06-08-2016 11... | Y |
| ReturnedNotInitiated | Returned, Review Not Initiated | The request for service has been returned to your office. Please see above comments... | Y | 1 | N | N | 06-08-2016 11... | Y |
| Withdrawn | Withdrawn | | Y | 1 | N | N | 06-08-2016 11... | Y |

**UM Resolution** – This is a sub-status of UM Status. The UM Resolution will determine if the procedure requires confirmation from the requesting physician.

| Um Status Code | Um Resolution Code | Description | Form Content | Confirmation Required Flag | Last Updated | Active |
|---|---|---|---|---|---|---|
| Contains: reco | Contains: | Contains: | Contains: | Contains: | Equals: | Con Y |
| Click here to add a new row | | | | | | |
| Recommended | AsAddedExam | As Added Exam | The reviewer recommends this PROCEDURE BE ADDED to the exam(s) yo... | Y | 08-17-2016 3:... | Y |
| Recommended | AsAlternative | As Alternative | The reviewer recommends this PROCEDURE THAT DIFFERS in some sign... | Y | 08-17-2016 3:... | Y |
| Recommended | AsRequested | As Requested | You may (now) schedule this procedure at a NJIN site. | N | 06-13-2016 10... | Y |
| Recommended | PerMedicalGroup | Per Medical Group | This exam has been approved by the medical group. | N | 06-13-2016 10... | Y |
| NotRecommended (Not Recommended) | MedNec | Medical Necessity Not Established | | N | 01-10-2014 9:... | Y |
| NotRecommended (Not Recommended) | NotNecessary | Not Medically Necessary | The submitted clinical information does not support the medical necessity of... | N | 01-10-2014 3:... | Y |

**UM Coverage** – The coverage types utilized in the authorization rules. The authorization flag determines which billing codes are required to be reviewed.

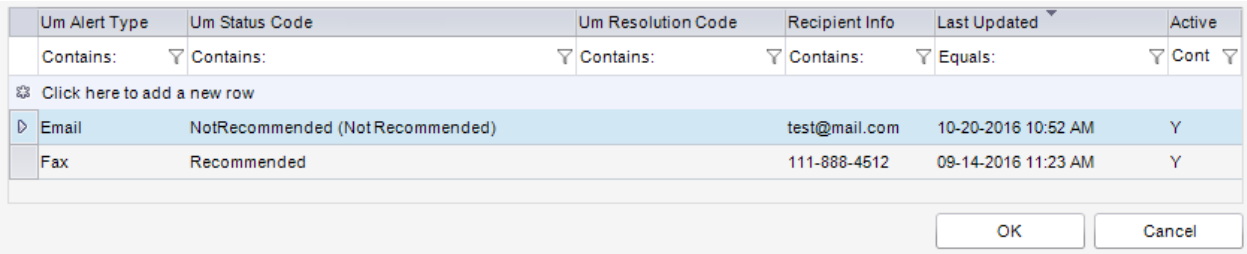
| Um Coverage Code | Short Description | Description | Authorization Flag | Display Order | Last Updated | Active |
|---|---|---|---|---|---|---|
| Contains: | Contains: | Contains: | Contains: | Equals: | Equals: | Contains: |
| Click here to add a new row | | | | | | |
| A | Auth Required | Capitated service, authorization required | Y | 1 | 02-03-2014 11... | Y |
| EX | Excluded | Excluded | N | 1 | 02-19-2014 10... | Y |
| FFS | Fee For Service | Fee for service, authorization required | Y | 1 | 04-11-2014 10... | Y |
| FFS_N | Fee For Service No Auth | Fee for service, authorization not required | N | 1 | 05-06-2014 3:... | Y |
| X | Auth Not Required | Capitated service, direct referral (no authorization required) | N | 1 | 02-03-2014 11... | Y |

**Medical Group** – A listing of the contracted medical groups. Review completion hours are defined here.

| Medical Group Code | Description | Um Review Only Flag | Um Routine Review | Um Urgent Review | Default Logo | Address1 |
|---|---|---|---|---|---|---|
| Contains: | Contains: | Contains: | Equals: | Equals: | Contains: | Contains: |
| Click here to add a new row | | | | | | |
| Vantage | Vantage Medical Group | N | 30 | 10 | Vantage | 2115 Compton |
| CMG | Choice | Y | 30 | 10 | | 18564 Highway 18 |
| MMG | McKinley | N | 30 | 10 | | 9496 Magnolia Avenue |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

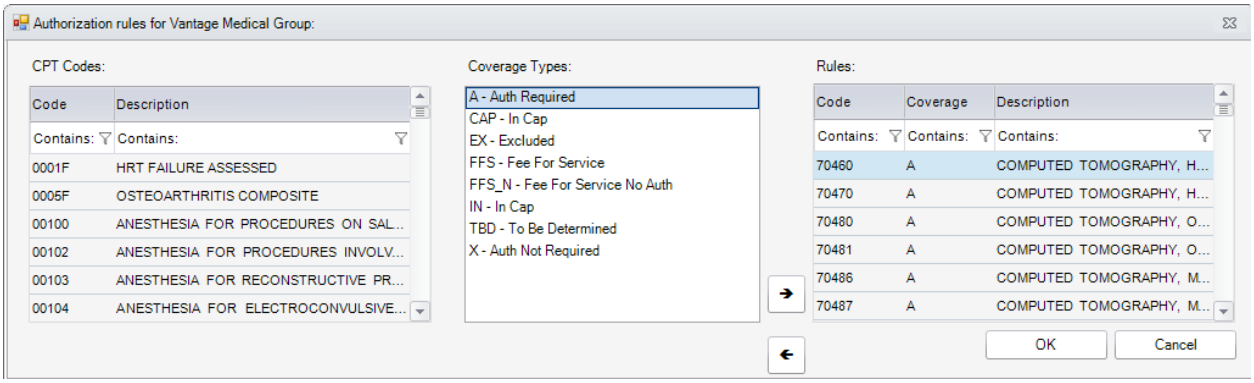
**UM Alerts** – Available on the right-click menu of the Medical Group table. Fax and Email UM Alerts can be configured to notify a medical group when an authorization request is finalized based on the UM Status and UM Resolution.



| Um Alert Type | Um Status Code | Um Resolution Code | Recipient Info | Last Updated | Active |
|---|---|---|---|---|---|
| Contains: | Contains: | Contains: | Contains: | Equals: | Cont |
| Click here to add a new row | | | | | |
| Email | NotRecommended (Not Recommended) | | test@mail.com | 10-20-2016 10:52 AM | Y |
| Fax | Recommended | | 111-888-4512 | 09-14-2016 11:23 AM | Y |

OK Cancel

**Authorization Rules** – Available on the right-click menu of the Medical Group table. This form outlines what billing codes require utilization review based on the agreement with the medical group.




**Carrier** – If a carrier requires utilization review, the UM Required Flag is enabled. The carrier is then mapped to a medical group to determine the associated authorization rules.

| Carrier Code | Description | Medical Group Code | Um Required Flag | Phone |
|---|---|---|---|---|
| Contains: | Contains: | Contains: | Contains: Y | Contains: |
| Click here to add a new row | | | | |
| VANC | VANTAGE MED GROUP CAP | Vantage (Vantage Medical Group) | Y | |
| 1129 | Medicare CA Southern | Vantage (Vantage Medical Group) | Y | |
| 1486 | VANTAGE MEDICAL GROUP CAP | Vantage (Vantage Medical Group) | Y | (951)280-7700 |
| 148601 | VANTAGE MEDICAL GROUP INLAND EMPIRE HEALTH PLAN | Vantage (Vantage Medical Group) | Y | (951)280-7700 |

**UM Holiday** – Determines what additional dates to exclude when calculating the UM Clock.

| Um Holiday Date | Name | Description | Last Updated | Active |
|---|---|---|---|---|
| Equals: | Contains: | Contains: | Contains: | Contains: |
| Click here to add a new row | | | | |
| 10-13-2014 12:00 AM | Thanksgiving | Thanksgiving Day | 08-26-2014 2:... | Y |
| 09-08-2014 12:00 AM | Labor Day | Labor Day | 08-26-2014 2:... | Y |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## ACCESS STRINGS

The following access strings are related to eRAD RIS Utilization Management:

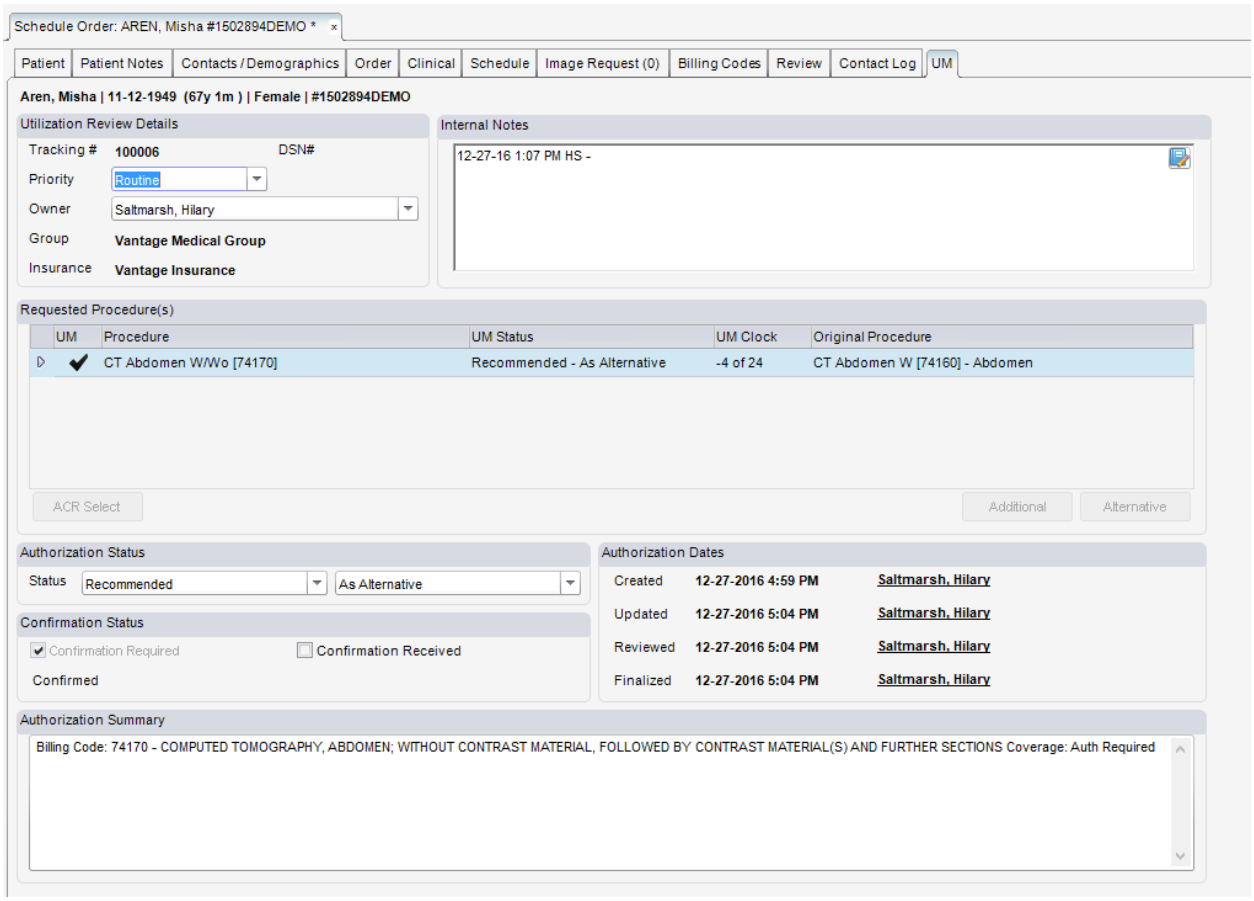
- Clinical.UtilizationManagement – Access to the Utilization Review right-click menu option on a worklist.
- WL.UtilizationManagement – Access to the Utilization Management Worklist on the Administration menu.
- Clinical.UtilizationManagement.InternalNotes – Access to utilization review Internal Notes. These notes are typically only viewed by the Utilization Management department.
- Clinical.UtilizationManagement.ScheduleOverride – Allows a user to override utilization review and proceed to schedule the order.
- Clinical.ACRSelect – Access to use the ACR Select functionality from the Utilization Review screen.
- Flag.UMComplete – Access to see the flag for UM Complete.
- Flag.UMRequired – Access to see the flag for UM Required.
- Portal.UM – Access to the UM Connect Portal.
- Portal.UM.Admin – Access to the UM Connect Portal Administration Login.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

# UTILIZATION MANAGEMENT RIS WORKFLOW

## DETERMINING IF AN ORDER REQUIRES UTILIZATION REVIEW

Once configured, eRAD RIS UM has the ability to automatically determine which orders are required to be reviewed by the utilization management department. This is realized by looking at the primary insurance of the patient along with the CPT codes associated with the requested procedure(s). Typically, authorization requests will come into the Inbound Document workflow as a fax. If an order does require utilization review, this is clearly indicated to the RIS user by the appearance of a UM tab on RIS forms.

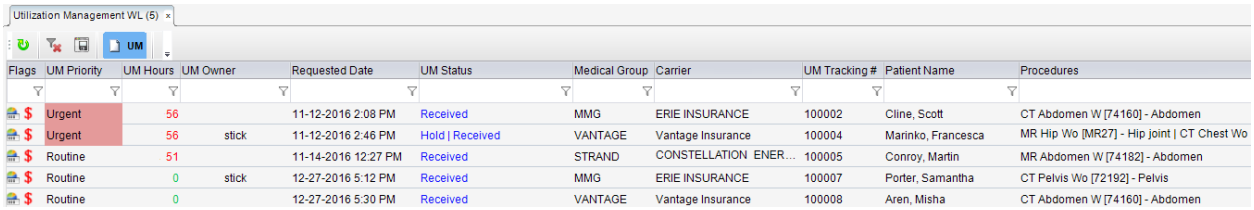



The typical RIS user would see the UM tab in a read-only format. This will allow him or her to see where the order is in the utilization review process.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

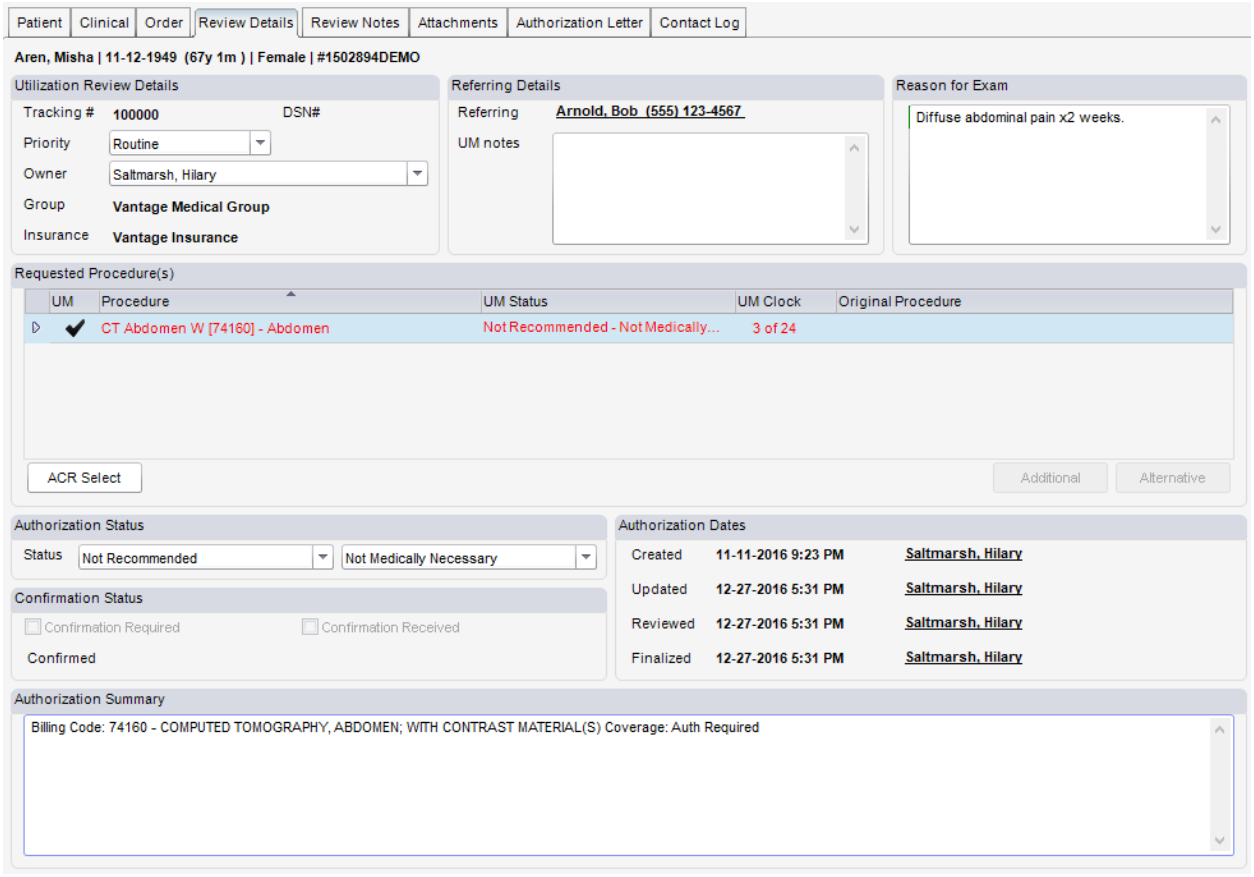
## REVIEWER WORKFLOW

If eRAD RIS determines that an order requires utilization review, the UM Required Flag is enabled, a UM Tracking Number is assigned to the order, the requested procedure(s) is set to an initial UM Status such as Received, the UM Clock is started, and the order is pushed to the Utilization Management Worklist.




| Flags | UM Priority | UM Hours | UM Owner | Requested Date | UM Status | Medical Group | Carrier | UM Tracking # | Patient Name | Procedures |
|---|---|---|---|---|---|---|---|---|---|---|
| | Urgent | 56 | | 11-12-2016 2:08 PM | Received | MMG | ERIE INSURANCE | 100002 | Cline, Scott | CT Abdomen W [74160] - Abdomen |
| | Urgent | 56 | stick | 11-12-2016 2:46 PM | Hold \| Received | VANTAGE | Vantage Insurance | 100004 | Marinko, Francesca | MR Hip Wo [MR27] - Hip joint \| CT Chest Wo |
| | Routine | 51 | | 11-14-2016 12:27 PM | Received | STRAND | CONSTELLATION ENER... | 100005 | Conroy, Martin | MR Abdomen W [74182] - Abdomen |
| | Routine | 0 | stick | 12-27-2016 5:12 PM | Received | MMG | ERIE INSURANCE | 100007 | Porter, Samantha | CT Pelvis Wo [72192] - Pelvis |
| | Routine | 0 | | 12-27-2016 5:30 PM | Received | VANTAGE | Vantage Insurance | 100008 | Aren, Misha | CT Abdomen W [74160] - Abdomen |

The eRAD RIS Utilization Review screen allows a reviewer to make his or her assessment of the ordered procedure(s) to determine if it is clinically appropriate and medically necessary. This is accomplished by setting the Authorization or UM Status. Once the procedure is set to a final UM Status, the UM Clock is stopped and the utilization review process is complete.

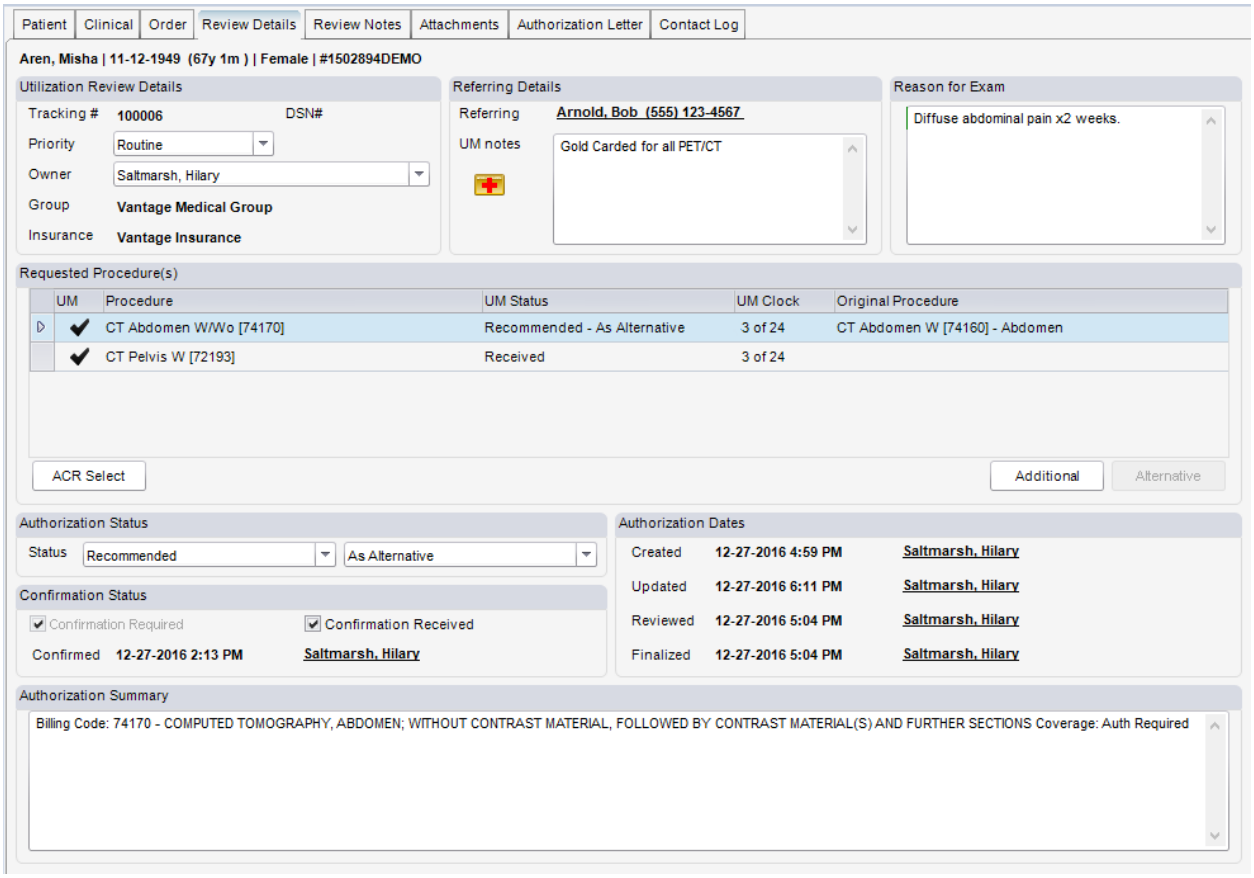



From the Utilization Review screen, reviewers are able to recommend both additional and alternative procedures. For example, the referring physician may order a CT of the Lumbar Spine but, based on appropriateness criteria,

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

the reviewer may determine that an MR of the Lumbar Spine would be the better procedure for the patient. The reviewer also has the ability to recommend an *additional* procedure. For example, based on the results of the review, the reviewer may determine that an MR Pelvis should be performed in addition to the MR Lumbar Spine.

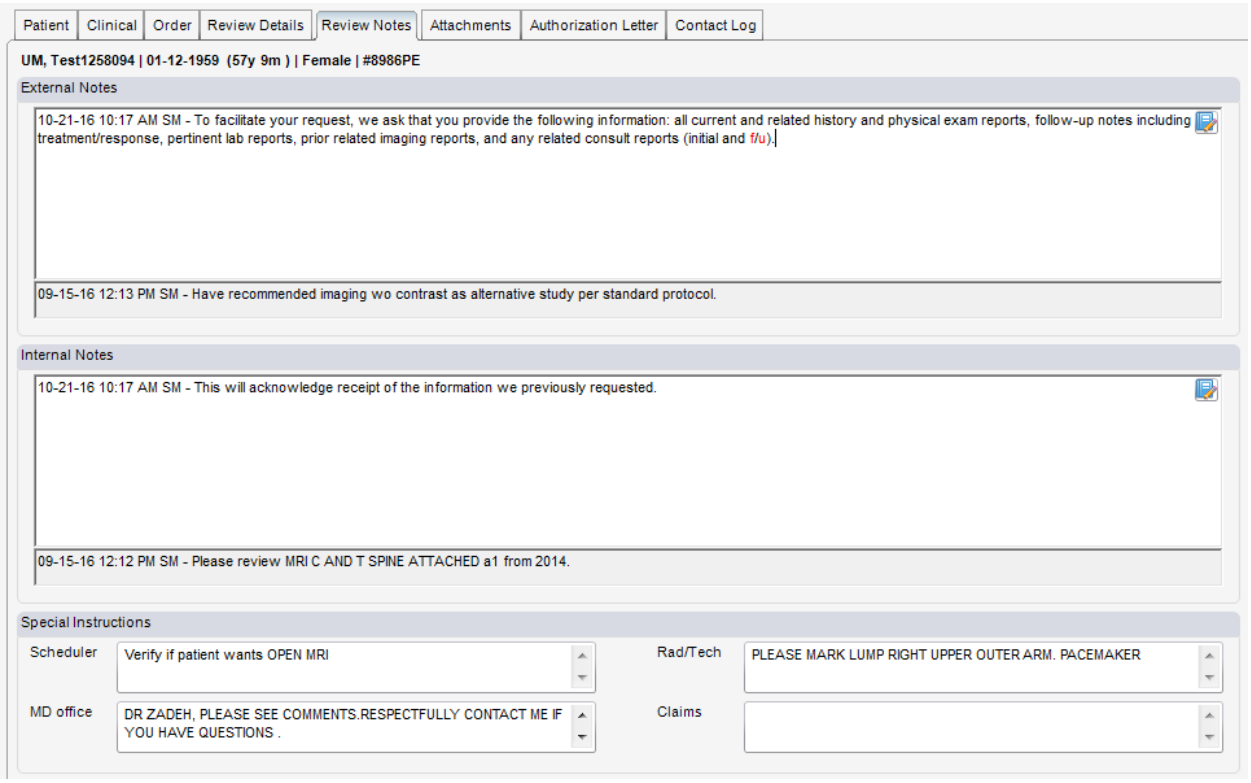
If confirmation from the referring physician is required for additional and/or alternative procedures, this can be configured in the UM Resolution look-up table. If applicable, RIS will set the confirmation required flag for the ordered procedure. Once confirmation has been received, the Confirmation Received checkbox is checked and the review is finalized.




The UM Clock is used to track the turnaround time for the utilization review. It is based on a configurable workday (e.g. 10 hours). RIS can be configured to indicate what the allowable UM review hours are for both Urgent and Routine priorities. For example, a UM Clock showing 3 of 24 means that 3 hours have elapsed on the allowable 24.

The Utilization Review screen allows the reviewer to create notes to which are visible to relevant parties throughout the review process. For example, the External Notes are typically between the reviewer and the ordering physician while Internal Notes are seen by the UM Department only. eRAD RIS also supports allowing the reviewer to create notes containing instructions to the radiologist, technologist, and scheduler to ensure all recommendations based on the review are followed.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

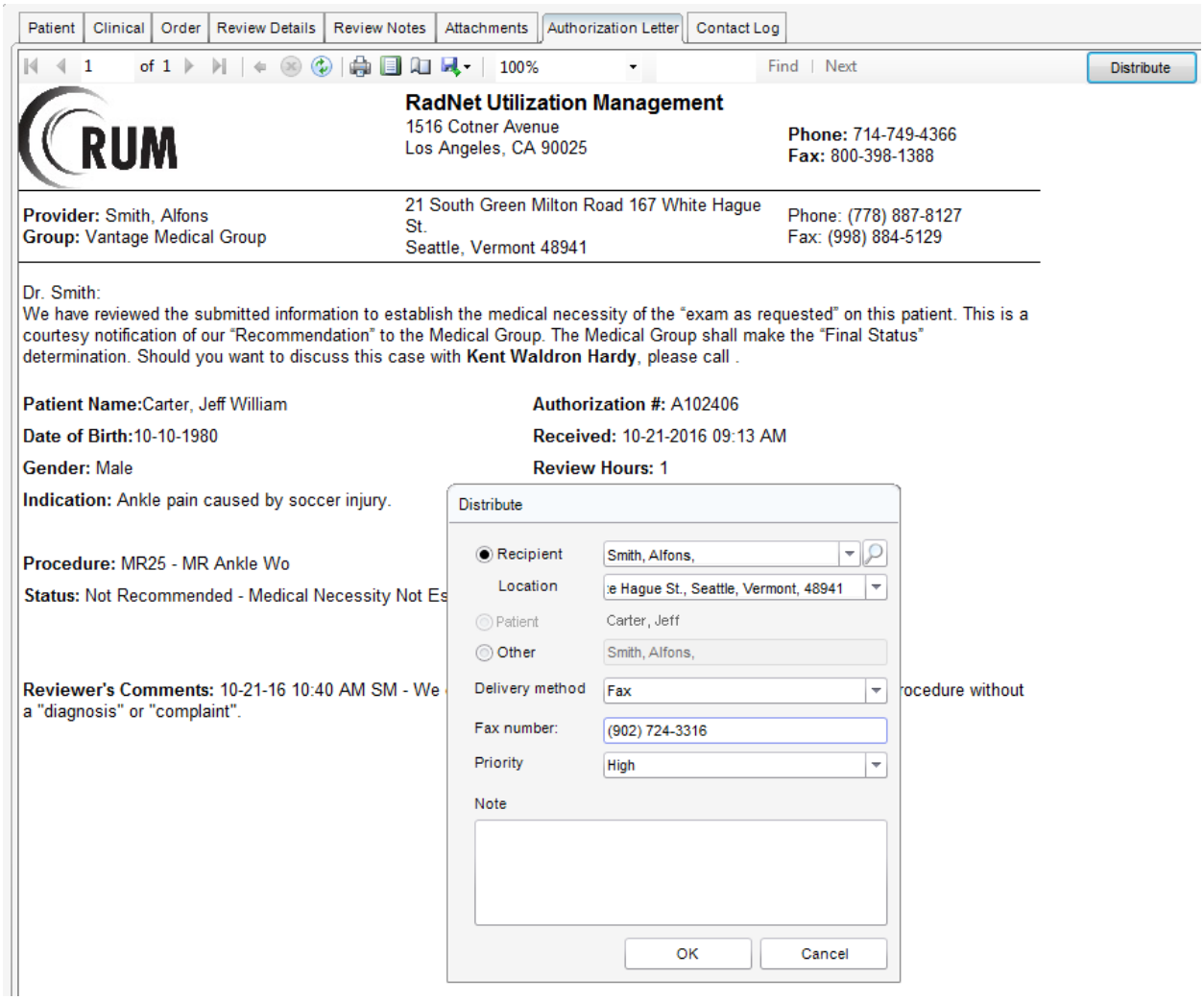



No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## AUTHORIZATION LETTER PREVIEW AND DISTRIBUTION

eRAD RIS UM has the ability to generate and distribute a customizable authorization letter. It is up to the reviewer to decide when it is appropriate to send the letter and this can be done at any time throughout the review process. Quite often a letter will be distributed requesting additional clinical information before the review is finalized.

The distribute dialog will refer to the default delivery method of the ordering provider. This action will place the document on the Distribution Worklist with a document type of Authorization Letter.

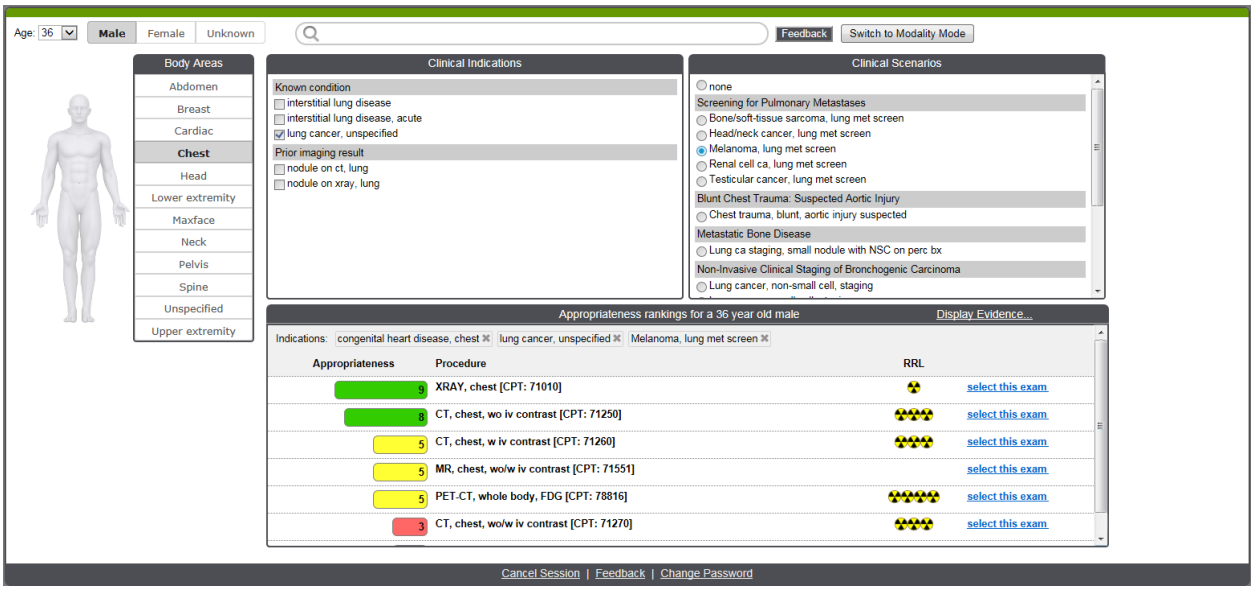


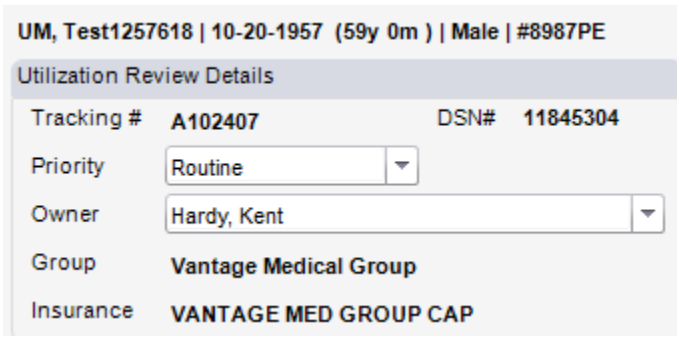

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## ACR SELECT

eRAD RIS UM supports integration with the National Decision Support Company's ACR Select. ACR Select utilizes Appropriate Use Criteria (AUC) to determine the most appropriate procedure. By selecting the ACR Select button on the Review Details tab, the reviewer is able to launch ACR Select and pass in both the age and gender of the patient. The reviewer then selects one or more clinical indications and clinical scenarios. ACR Select will return a list of procedures ranked by appropriateness. The appropriate use criteria are available to the reviewer by clicking on the Display Evidence link.

Once as exam is selected, a Decision Support Number (DSN) is generated and stored with the order in eRAD RIS. The DSN proves that a Clinical Support System was consulted for the order.



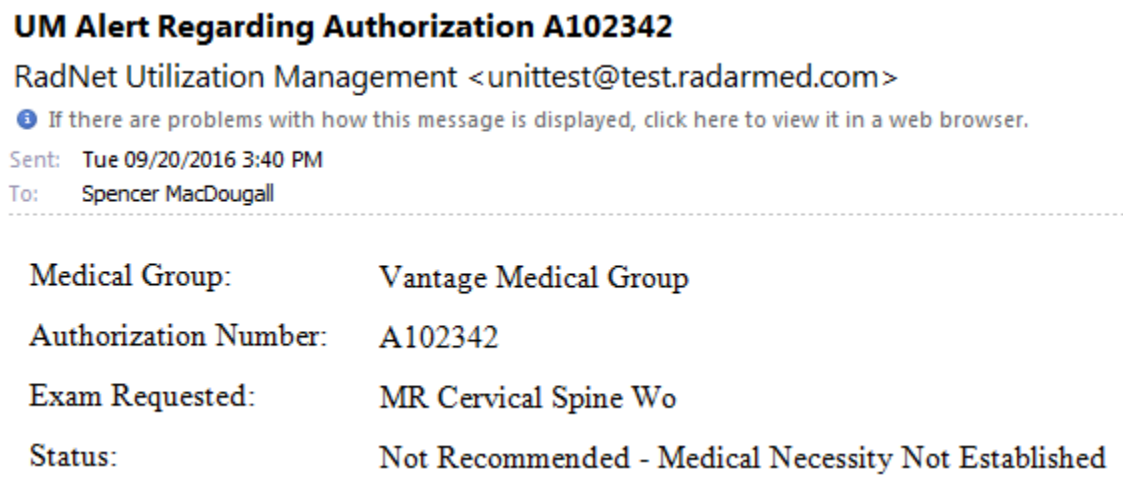




No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## UM ALERTS

UM Alerts provide the ability to notify the Medical Group via fax or email when an authorization has been distributed and is in a specified UM Status. For example, a medical group administrator may request that he or she be alerted for all procedures that are Not Recommended or Recommended as Alternative.

For fax alerts, the medical group is sent a carbon copy of the authorization letter when it is distributed to the ordering provider. Email alerts are configurable via an SSRS template.



**UM Alert Regarding Authorization A102342**

RadNet Utilization Management <unittest@test.radarmed.com>

If there are problems with how this message is displayed, click here to view it in a web browser.

Sent: Tue 09/20/2016 3:40 PM

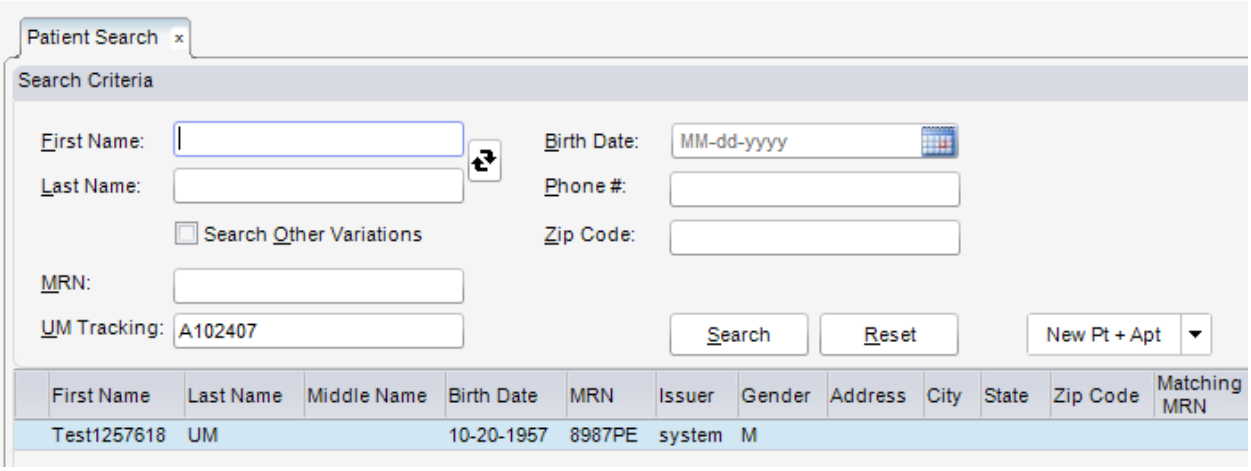
To: Spencer MacDougall

| | |
|---|---|
| Medical Group: | Vantage Medical Group |
| Authorization Number: | A102342 |
| Exam Requested: | MR Cervical Spine Wo |
| Status: | Not Recommended - Medical Necessity Not Established |

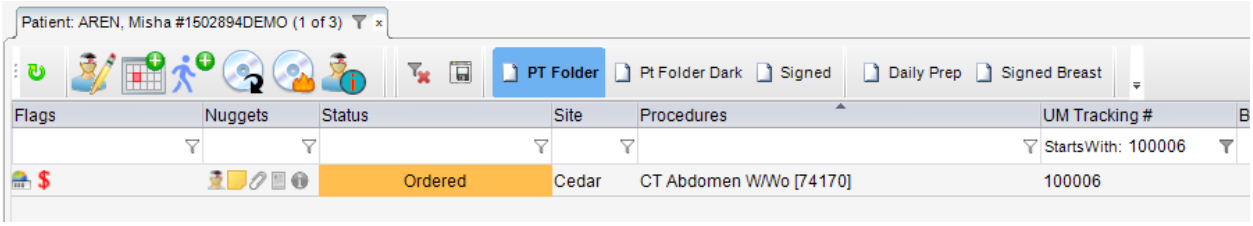
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## SEARCHING BY UM TRACKING NUMBER

The UM Tracking Number has been added to the list of search criteria in eRAD RIS.




It is also available as a column in the Patient Folder and can be filtered to find UM exams for an individual patient.

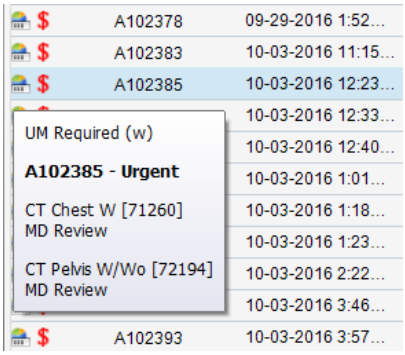


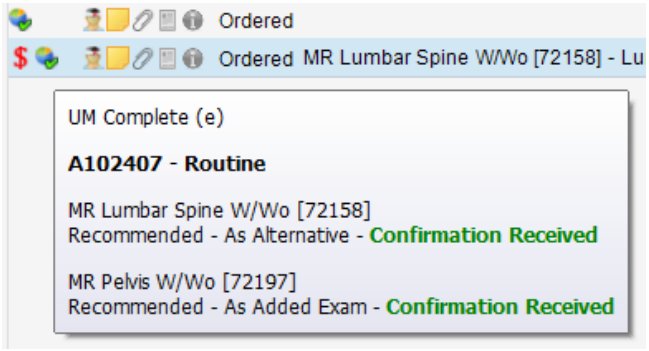

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## UTILIZATION MANAGEMENT AND SCHEDULING

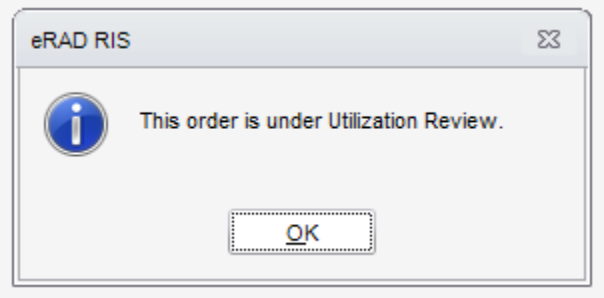
During a typical utilization management process, the diagnostic procedure will not be scheduled until the utilization review is finalized. Having both UM and scheduling integrated into the same environment allows for a much smoother transition between workflow with much less time spent monitoring an external system.

The UM Required Flag will give a clear indication to RIS users that the order is currently with the UM department and has yet to be finalized. The UM Complete Flag is enabled for the order once all the ordered procedures that require review have reached a Final UM Status. Both of these flags have additional UM details available on the hover value.




When a user attempts to schedule an order that is still under utilization review, he or she is presented with a message stating "This order is under Utilization Review." The user can still advance to the schedule screen and the UM tab is available but both the Room Search and Schedule buttons will be disabled unless the Clinical.UtilizationManagement.ScheduleOverride access string is set to Full for the user. Determining if an ordered procedure that requires utilization review can proceed to be scheduled is based on the Schedule Flag of the UM Status, as configured in the UM Status look-up table. For example, a status of Recommended can proceed to be scheduled where a status or Not Recommended cannot.



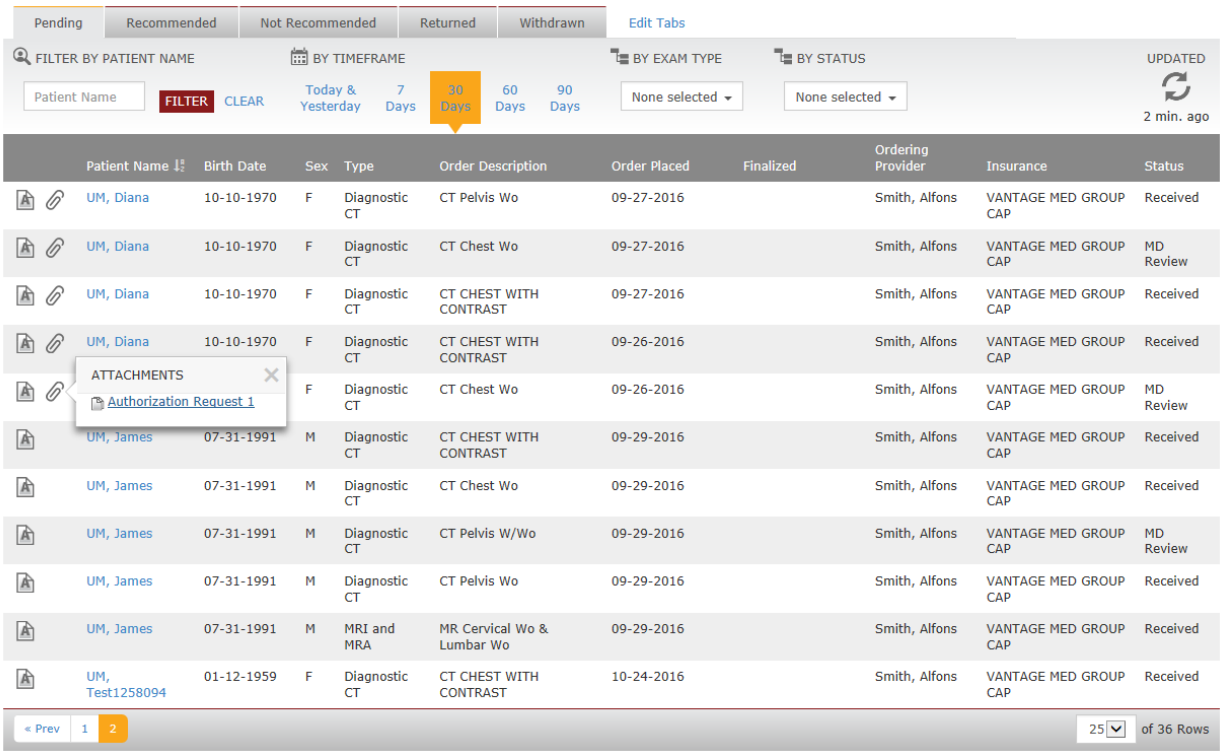

As mentioned previously, if confirmation is required from the ordering provider, the procedure cannot be scheduled until confirmation has been received. Once confirmation has been received, RIS will adjust the ordered procedure accordingly. For example, if the original request is for a CT Chest and utilization review determines that an MR Chest would be more appropriate, it is the MR Chest that the scheduler would see in the Procedure Picker. The CT Chest is stored in the database as the original procedure.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## UM CONNECT PORTAL

The UM Connect Portal provides the ability for users external to the RIS to view and interact with the utilization review process. This includes medical group administrators and ordering providers. UM Connect users are setup in the RIS application, mapped to one or more medical groups, and given a contact type code such as Provider or Group Admin. Only orders that belong to the medical group(s) based on the user's mapping will be presented and searchable.

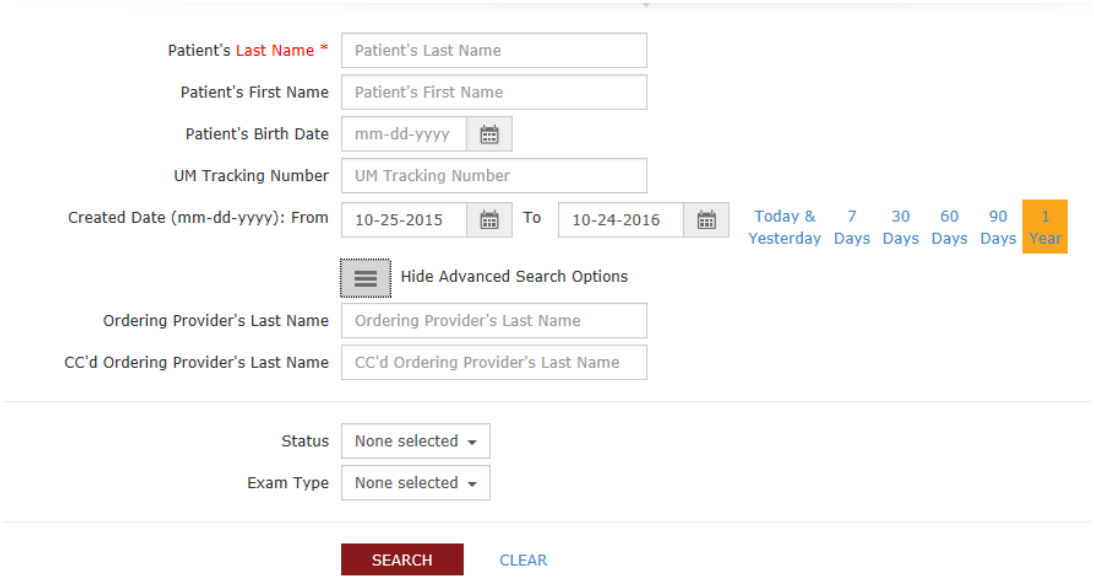
The tab based layout of the UM Connect portal is configurable. For example, tabs can be defined by UM Statuses such as Pending, Recommended, Not Recommended, etc. From the defined worklists, the user is easily able to view the UM Status of the order. The user can also view any attachments associated with the order and preview the UM Opinion/Authorization Letter.



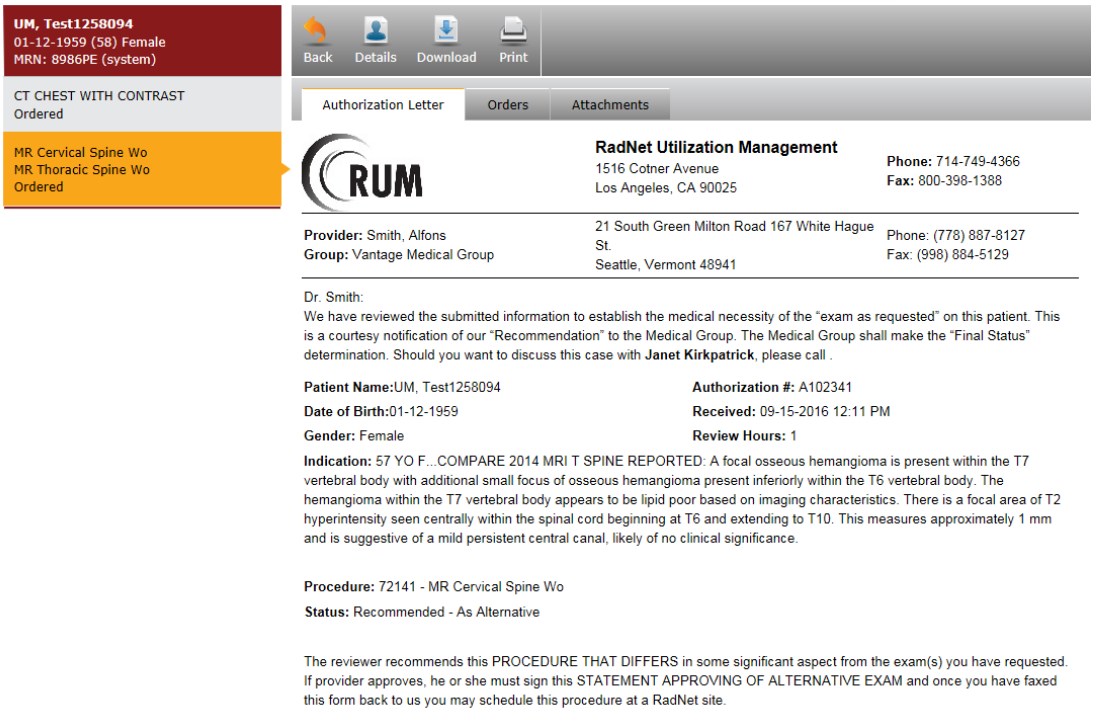

| Patient Name | Birth Date | Sex | Type | Order Description | Order Placed | Finalized | Ordering Provider | Insurance | Status |
|---|---|---|---|---|---|---|---|---|---|
| UM, Diana | 10-10-1970 | F | Diagnostic CT | CT Pelvis Wo | 09-27-2016 | | Smith, Alfons | VANTAGE MED GROUP CAP | Received |
| UM, Diana | 10-10-1970 | F | Diagnostic CT | CT Chest Wo | 09-27-2016 | | Smith, Alfons | VANTAGE MED GROUP CAP | MD Review |
| UM, Diana | 10-10-1970 | F | Diagnostic CT | CT CHEST WITH CONTRAST | 09-27-2016 | | Smith, Alfons | VANTAGE MED GROUP CAP | Received |
| UM, Diana | 10-10-1970 | F | Diagnostic CT | CT CHEST WITH CONTRAST | 09-26-2016 | | Smith, Alfons | VANTAGE MED GROUP CAP | Received |
| UM, Diana | 10-10-1970 | F | Diagnostic CT | CT Chest Wo | 09-26-2016 | | Smith, Alfons | VANTAGE MED GROUP CAP | MD Review |
| UM, James | 07-31-1991 | M | Diagnostic CT | CT CHEST WITH CONTRAST | 09-29-2016 | | Smith, Alfons | VANTAGE MED GROUP CAP | Received |
| UM, James | 07-31-1991 | M | Diagnostic CT | CT Chest Wo | 09-29-2016 | | Smith, Alfons | VANTAGE MED GROUP CAP | Received |
| UM, James | 07-31-1991 | M | Diagnostic CT | CT Pelvis W/Wo | 09-29-2016 | | Smith, Alfons | VANTAGE MED GROUP CAP | MD Review |
| UM, James | 07-31-1991 | M | Diagnostic CT | CT Pelvis Wo | 09-29-2016 | | Smith, Alfons | VANTAGE MED GROUP CAP | Received |
| UM, James | 07-31-1991 | M | MRI and MRA | MR Cervical Wo & Lumbar Wo | 09-29-2016 | | Smith, Alfons | VANTAGE MED GROUP CAP | Received |
| UM, Test1258094 | 01-12-1959 | F | Diagnostic CT | CT CHEST WITH CONTRAST | 10-24-2016 | | Smith, Alfons | VANTAGE MED GROUP CAP | Received |

The search capabilities of UM Connect will allow the user to search by a number of different criteria including patient name, birth date, provider, UM Tracking Number, and UM Status. The results are limited to only orders that belong to the medical groups to which the UM Connect user is mapped. This is based on the primary insurance of the order.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.




The Authorization Letter, Order information and Attachments are available for each of the patient's UM Orders.




No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

RadNet Technology Solutions

**February 28, 2017**

# Customer Release Notes

for eRAD RIS

Version 2

Build 2017.1

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## TABLE OF CONTENTS

Table of Contents ..... 2
Purpose ..... 4
Intended Audience ..... 4
New Settings ..... 5
New access strings ..... 5
New system configuration settings ..... 5
RIS.EXE Config settings ..... **Error! Bookmark not defined.**
Web Service Changes ..... **Error! Bookmark not defined.**
New Features ..... 7
Scheduling and Registration ..... 7
Feature #13650 – Demographic updates for Patient tab ..... 7
Digital Forms ..... 9
Feature #14828 – Digital Forms now support grids ..... 9
Scanned Documents ..... 10
Feature #14545 – View attachments alongside RIS screens while entering data ..... 10
Feature #14996 – Highlight an area on an attachment ..... 13
CEHRT ..... **Error! Bookmark not defined.**
Feature #15443 – SHA-2 Encrypted HASH now used in View CCR Dialog ..... **Error! Bookmark not defined.**
Technologist ..... 14
Feature #14568 – Adjust the duration of Contrast Timer for a patient ..... 14
Radiologist ..... 15
Feature #4123 – External reports can now be verified from Pending Dictation WL ..... 15
Feature #15097 – Disable Peer Review button for inactive radiologists ..... 17
Image Request Workflow ..... 18
Feature #15109 – Automatically cancel Image Requests that are not resolved within a defined time frame ..... 18
General WorkList Enhancements ..... 19
Features #15106, 14587, 15226, 15427 – Allow filtering of additional worklists by Site Group ..... 19
Feature #14961 - UM Priority column available on Orders to Schedule Worklist ..... 23
Feature #15361 – New column available on Technologist WL to display time of contrast injection ..... 23
Interfacing ..... 24
Feature #14747 – External interface can now return values for schedule message ..... 24
Feature #15034 – Configure exclusions for queue subscriptions ..... **Error! Bookmark not defined.**
Feature #15457 – Clean-up jobs created for newly created logs ..... **Error! Bookmark not defined.**
Feature #15459 – duplicate execution of messages can now be prevented ..... **Error! Bookmark not defined.**
Management Reports ..... 25
Feature #15265 – Option to deploy multiple report server data sources ..... **Error! Bookmark not defined.**
Feature #14511 – Management Reports and Dashboards for Utilization management ..... 25
Feature #15251 – Counters for RIS implemented to reduce cost of some queries ..... **Error! Bookmark not defined.**
Resolved Defects ..... 30
Known Limitations ..... 34

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

RIS Release Version Numbers.....36
Code Stream Diagram.....37

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## PURPOSE

This is the Customer Release Notes document for eRAD RIS Version 2.2017.1.

Not every feature will be described in this document. Typically, only features which can be visually demonstrated are outlined here.

## INTENDED AUDIENCE

This document was created by the eRAD RIS Development team and Product Management team for eRAD RIS customers.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

# NEW SETTINGS

## NEW ACCESS STRINGS

| Setting | Default | Purpose |
|---|---|---|
| Config.LookupEditor.GenderIdentity | None | Look-up table access for Gender Identity |
| Config.LookupEditor.SexualOrientation | None | Look-up table access for Sexual Orientation |
| Config.LookupEditor.StudyUpdateResponseInclusions | None | Look-up table access for Study Update Response Inclusions access |
| Flag.ContrastRequested | Full | Access to see the flag for ContrastRequested |
| Flag.SedationRequired | Full | Access to see the flag for SedationRequired |
| View.FindingFollowup<br><br>Replaces<br><br>View.FindingsFollowup | None | Access to see the Finding Followup menu item from View menu (visible when dictate window is open) |
| View.Preset.Administration.PresetCriticalResult | None | Access to preset layout administration for Critical Results |
| View.PresetCriticalResult | Full | Access to see the main menu item View/LoadLayout.../Critical Results |
| ~~WL.MyFolder~~ | | Removed duplicate access string. Remaining access string is WL.Folders. |

## NEW SYSTEM CONFIGURATION SETTINGS

| Setting | Default | Purpose |
|---|---|---|
| UMOpinionLetterReportPath<br><br>Replaces<br><br>AuthorizationLetterReportPath | | (value = path and name)The path and name of the Opinion Letter for Utilization Management. |
| UMTrackingNumberPrefix<br><br>Replaces<br><br>AuthorizationPrefix | | (value = string) A prefix that will be added to UM Tracking numbers for Utilization Management. |
| AddUseLocationFilterToWorklistSiteGroups | True | (value = True/False) Determines if the list of |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

| | | |
|---|---|---|
| | | sites/site groups on some worklists will include an option to use the location filter. |
| AllowPeerReviewOnInactiveRads | True | Determines if a case read by a now inactive radiologist can be peer reviewed. |
| DaysToKeepImageRequestActive | 0 | (value = int) The number of days to keep a request on the Image Request Worklist before automatically cancelling it. It will be based on the scheduled date or the image request date whichever is greater. A value of 0 will disable the automatic cancellation. |
| DaysToKeepWedgeInboundMessages | 7 | (value = number) This value informs the nightly cleanup job how many days old a Wedge inbound message log entry must be before removing it. |
| DaysToKeepWedgePerformanceTraceLogs | 3 | (value = number) This value informs the nightly cleanup job how many days old a Wedge inbound or outbound performance log entry must be before removing it. |
| ExternalReportsOnPendingDictationWL | False | (value = Y/N) This value determines whether external report verification studies go to the Pending Dictation worklists. If False, they will go to the Pending Signature worklists. Changes to this setting only apply to new studies. A maintenance script exists for system administrators to back-fill existing studies. |
| PortalOpinionLetterUnavailableMessage<br><br>**REPLACES**<br><br>PortalAuthLetterUnAvailableMessage | This opinion letter is currently unavailable on the portal. Please contact the medical group to request the letter. | The message to display to the UM Connect portal user when the Utilization Management Opinion Letter is not available due to unexpected error (e.g. SSRS report server is unavailable or not configured). |
| PortalNoSelectedInsuranceDayPadding | 5 | (value = int) This value is used by Portal online scheduling to add days to the start search criteria to allow time to gather insurance information from the patient prior to the appointment when it is not entered at the time of scheduling. |
| WedgeDuplicateInboundMessagePreventio n | False | (value = bool) If true, we will prevent two messages with the same unique ID from processing twice. |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

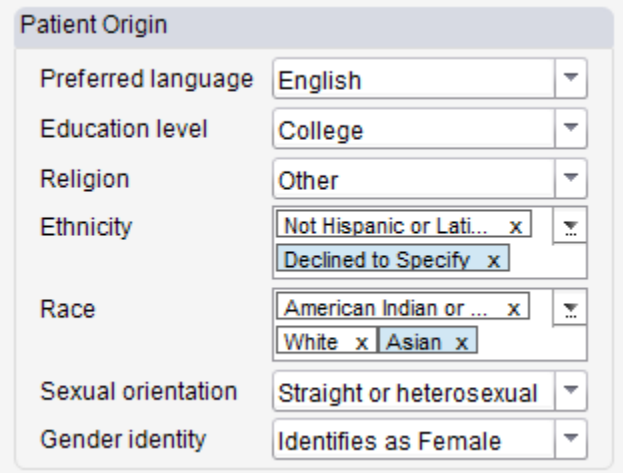
# NEW FEATURES

## SCHEDULING AND REGISTRATION

### FEATURE #13650 – DEMOGRAPHIC UPDATES FOR PATIENT TAB

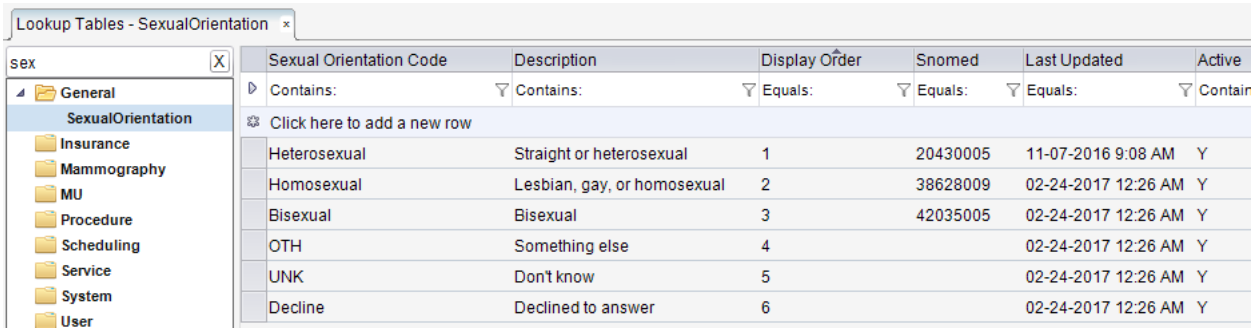
In preparation for the latest round of Certified Electronic Health Record Technology (CEHRT) certification, it was necessary to make some changes to the patient demographics on the Patient tab. The following changes have been made:

1. It is now possible to select more than one Ethnicity.
2. New fields have been added for *Sexual Orientation* and *Gender Identity*.

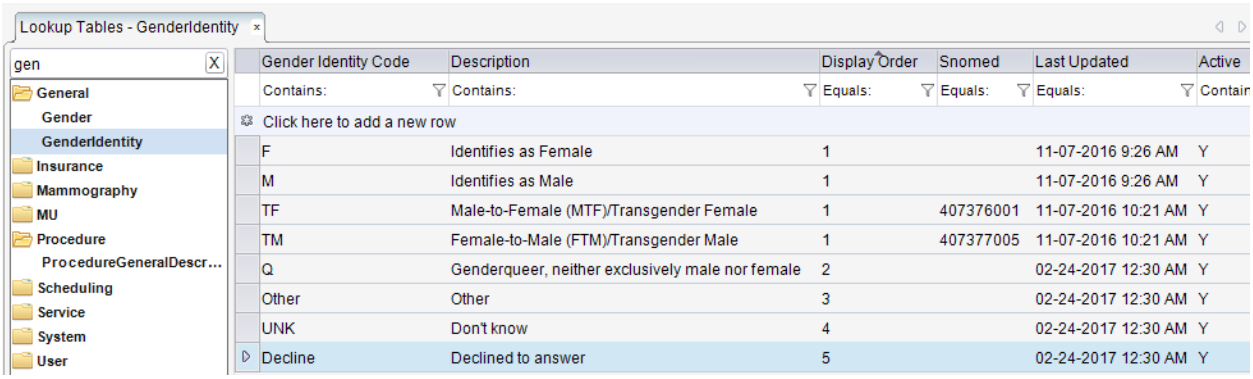



While it is required for certified electronic health technology to have the ***ability*** to collect the sexual orientation and gender identity information, it is likely that most customers will not wish to collect this data. Therefore, these new fields have been **hidden** by default. Please contact eRAD Support if you would like to make these fields visible.

When enabled, the *Sexual Orientation* and *Gender Identity* dropdown fields are populated by two new look-up tables.




No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

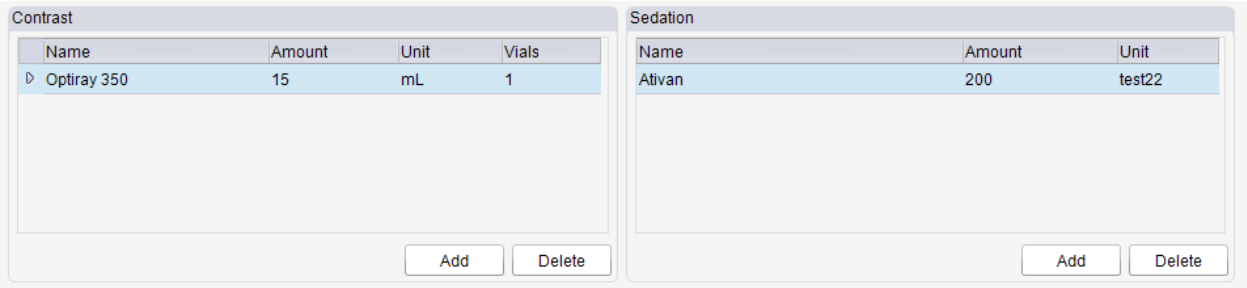



| Gender Identity Code | Description | Display Order | Snomed | Last Updated | Active |
|---|---|---|---|---|---|
| Contains: | Contains: | Equals: | Equals: | Equals: | Contain |
| Click here to add a new row | | | | | |
| F | Identifies as Female | 1 | | 11-07-2016 9:26 AM | Y |
| M | Identifies as Male | 1 | | 11-07-2016 9:26 AM | Y |
| TF | Male-to-Female (MTF)/Transgender Female | 1 | 407376001 | 11-07-2016 10:21 AM | Y |
| TM | Female-to-Male (FTM)/Transgender Male | 1 | 407377005 | 11-07-2016 10:21 AM | Y |
| Q | Genderqueer, neither exclusively male nor female | 2 | | 02-24-2017 12:30 AM | Y |
| Other | Other | 3 | | 02-24-2017 12:30 AM | Y |
| UNK | Don't know | 4 | | 02-24-2017 12:30 AM | Y |
| Decline | Declined to answer | 5 | | 02-24-2017 12:30 AM | Y |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

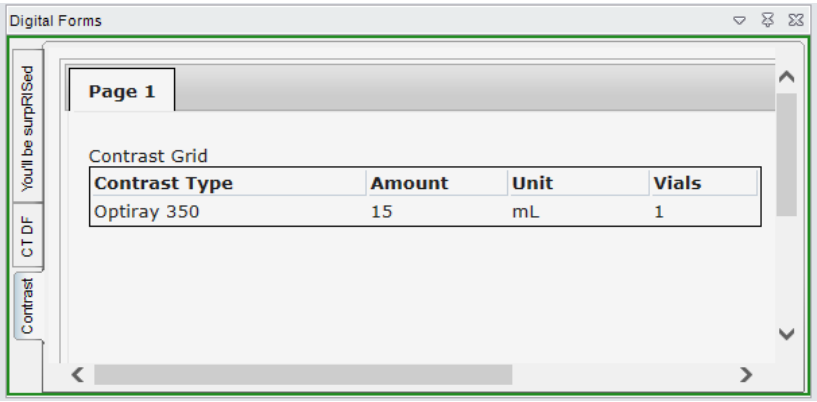
## FEATURE #14828 – DIGITAL FORMS NOW SUPPORT GRIDS

Sometimes important patient information is stored in grids in eRAD RIS, such as the Contrast and Sedation grids.




When this data is mapped into the diagnostic report, the information from this type of grid is visible to the radiologist. However, if there is information that is not mapped into the diagnostic report template or it is not part of the radiologist's workflow to view the report template when dictating, it was not previously possible for the radiologist to easily access this information.

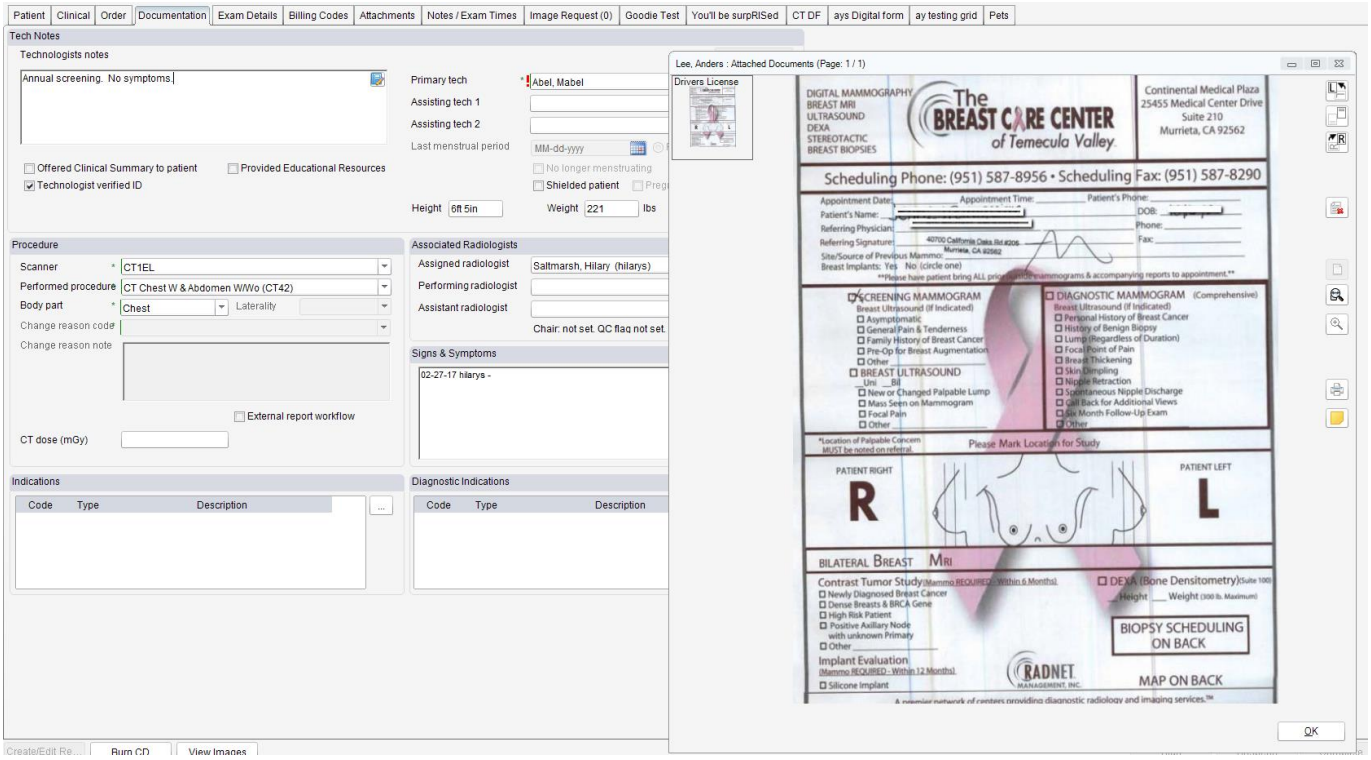
To make it easier for radiologists to see data in a grid, it is now possible to create a grid inside a Digital Form that can be displayed to the radiologist. These grids can be set up by eRAD Support in the Digital Forms Editor. Once created, they can be configured to display in the eRAD RIS Reporting screen as read-only grids that auto-fill using the displayed study's data.




No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #14545 – VIEW ATTACHMENTS ALONGSIDE RIS SCREENS WHILE ENTERING DATA

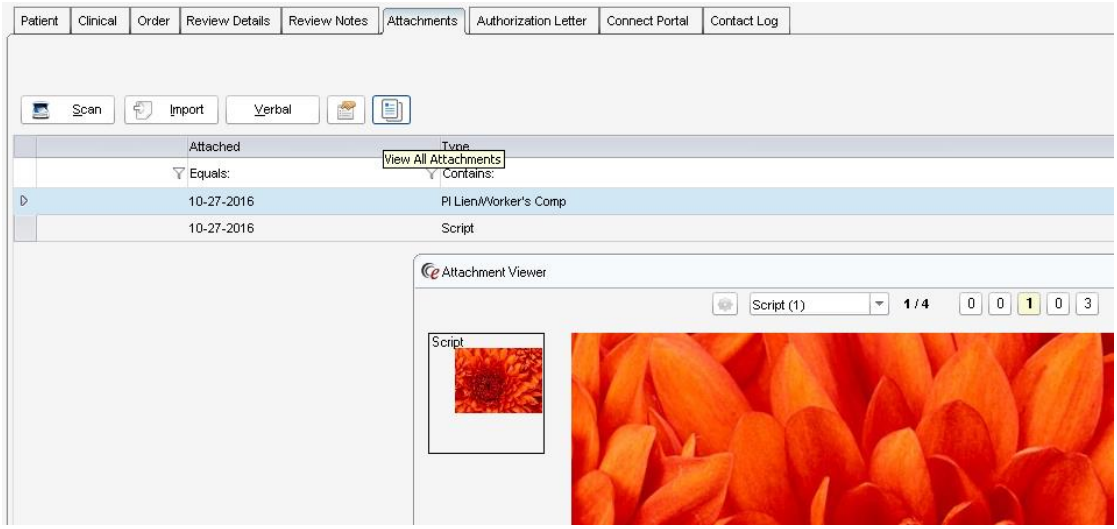
A new feature allows users to view an attachment in a floating window to facilitate data entry for the patient's exam. To open the floating attachment viewer, double click on the desired document in the Attachments tab. Once open, it is possible to re-size or re-position the viewer and then navigate between the sub-tabs for the selected patient.




In the image above, the document is visible while entering data on the Documentation tab.

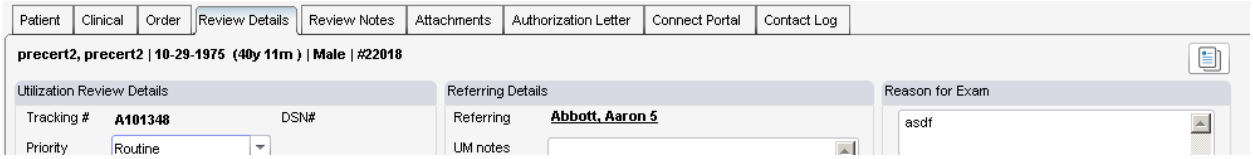
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

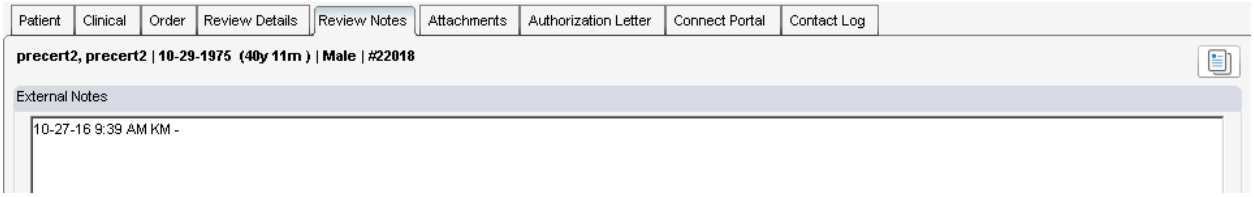
There is also a new button available on the Attachments screen which allows the user to open *all* of the patient's attachments: (📄) "View All Attachments."




This will open the same screen used by the Attachments data nugget from the Patient Folder. This viewer combines all of the patient's attachments, while also allowing the user to set preferences for which type of attachments to display and the preferred order, replicating the existing functionality used in the data nugget. When viewing attachments in this viewer, the content is read-only.

The *View All Attachments* icon is also available in the Utilization Management workflow: look for the icon on the "Review Details" and "Review Notes" tabs in the top right corner.




The floating attachment screen will remember its previous location; however, if it is partially off screen, the location will be ignored. This prevents a user from positioning the viewer almost completely off the screen, then not being able to see the screen when it is re-launched.

If new attachments are added while the *View All Attachments* viewer is open, it is necessary to close the screen and re-open it to see the new documents. If the button is clicked a second time and it is already open, the screen will close and re-open, refreshing its contents. When the button is clicked and there are no attachments, the user will receive a message that attachments are not available.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

For both the Attachment Viewer and the *View All Attachments* viewer, navigating away from the selected patient will automatically close the viewer. This is done to minimize risk so that it is not possible to view one patient's attachments while entering data for a different patient.

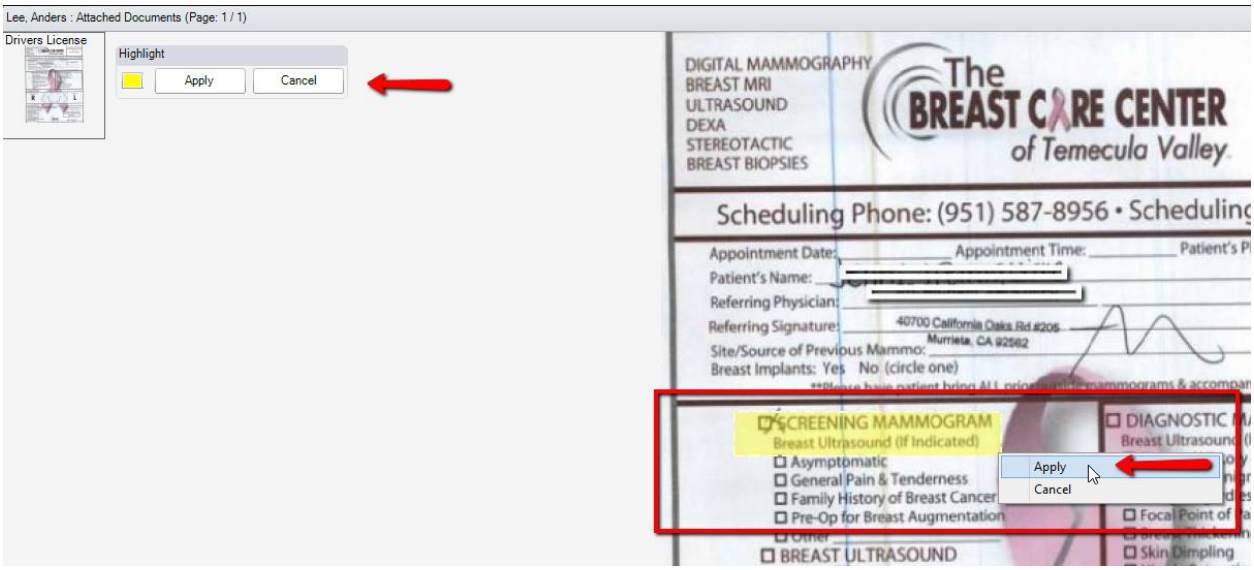
Note: when launching via the Scan / Import buttons, it is not possible to float the document until it has been saved and re-opened from the Attachment tab.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #14996 – HIGHLIGHT AN AREA ON AN ATTACHMENT

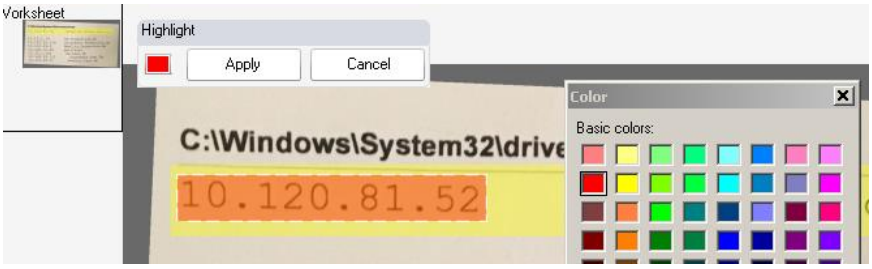
It is often helpful to be able to highlight a particular area of a scanned document, particularly for long documents such as clinical notes. Users now have the ability to highlight an area to make it easier to reference the attachment when communicating with radiologists or other RIS users (e.g. “see the pink highlighted text on page 9”).

The attachment viewer has been updated with a new right-click context menu called *Highlight*. With the document open, right-click and select Highlight. Then select an area of the attachment image by holding the left mouse button and dragging over the section to highlight. The color of the highlighted area can be modified by clicking on the color swatch displayed in the “Apply”/”Cancel” box. To complete the highlighting, the user must click on the “Apply” button or press the enter key.




When using the highlighting, cropping or straightening tools, as soon as the mouse button is released, a context menu to apply or cancel the operation is displayed nearby. Also, the user can simply click <enter> to apply.

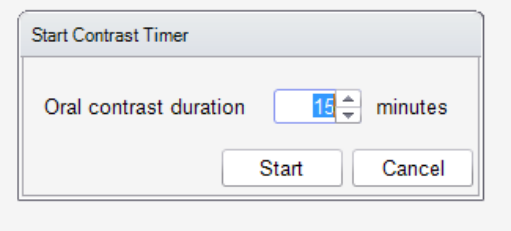
In the following example, a second highlight was created with an alternate color.




No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #14568 – ADJUST THE DURATION OF CONTRAST TIMER FOR A PATIENT

Previously, the Contrast Timer could be started, stopped and re-started, but it was not possible to use an Oral Contrast Duration different than the default timer length for the selected procedure. To provide the ability to adjust the contrast timer duration for a particular patient, the user will be presented with a new dialog box when selecting the *Start Contrast Timer* option from the right-click menu.




The default Oral Contrast Duration (in minutes) for the procedure code will be provided to the user with the option to make adjustments as needed prior to clicking Start. The maximum duration possible is 5,000 minutes.

To adjust the duration after starting, the user must stop the timer and start it again to make the change.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## RADIOLOGIST

### FEATURE #4123 – EXTERNAL REPORTS CAN NOW BE VERIFIED FROM PENDING DICTATION WL

Some customers who read studies with a different dictation system, outside of eRAD RIS, use the existing *External Report* workflow to allow a radiologist to verify the report created in the external system.

Previously, these studies would fall to the Pending Signature worklist. For External Reports, the screen that would open was a version of the View/Edit tab; from here, the radiologist would verify the report. However, radiologists have indicated that they would prefer to review these studies from the Pending Dictation WL, and would like to be able to access all of the information that they would see when dictating a report from within eRAD RIS, such as Digital Forms, attachments and prior reports.

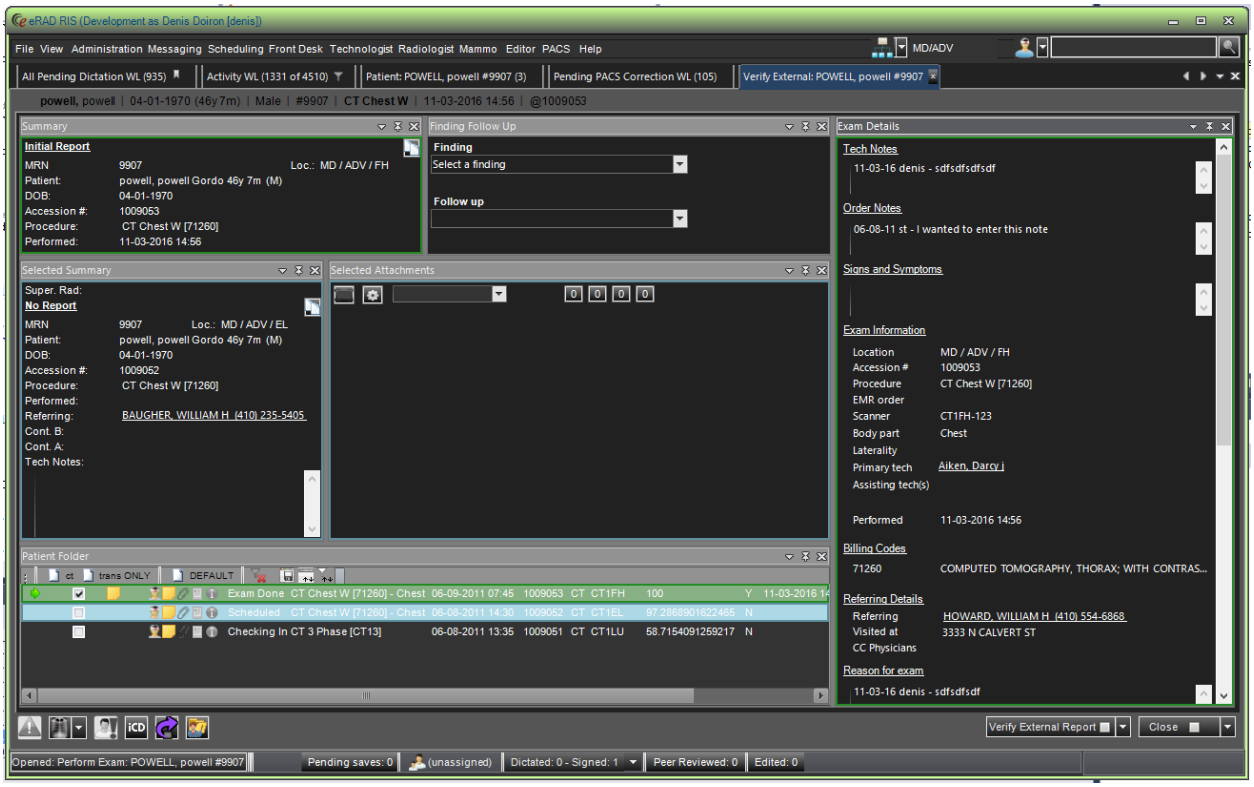
In order to improve this workflow, two main changes have been made:

- There is a new System Configuration setting that will allow the studies to fall to the Pending Dictation WLs, instead of the Pending Signature WLs.
- The studies will now open in a Verify External screen that provides access to the reporting panels used for other reporting modes (Attachments, Digital Forms, etc.).

The new System Configuration setting is labeled *ExternalReportsOnPendingDictationWL*. The default is False, which means that by default, the external reports will continue to fall to the Pending Signature WLs. Change to True to move these to the Pending Dictation WLs. If this is done, only new studies will fall to the Pending Dictation WL; any outstanding external reports that were already on the Pending Signature WL will have to be reviewed there by using the right-click option to open Verify External. A script has been created to move any old studies at the time that this change is made. If your organization would like to change to using Pending Dictation for Verify External studies, please let eRAD Support know that you would like the script to be run.

For either worklist, the resulting screen will now look similar to the normal dictating screen, but with the Verify External Report button instead of Submit/Sign.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.




Panels can be rearranged according to the user's preference, as with normal dictation/signing.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #15097 – DISABLE PEER REVIEW BUTTON FOR INACTIVE RADIOLOGISTS

When a radiologist account is deactivated in eRAD RIS, some customers prefer that active radiologists should not be able to perform Peer Reviews for the inactive radiologist's prior studies.

To accommodate for this, there is a new System Configuration setting called *AllowPeerReviewOnInactiveRads*. The default is True, which will maintain the existing functionality after upgrading. To prevent Peer Reviews for inactive radiologists, set the System Configuration to False.

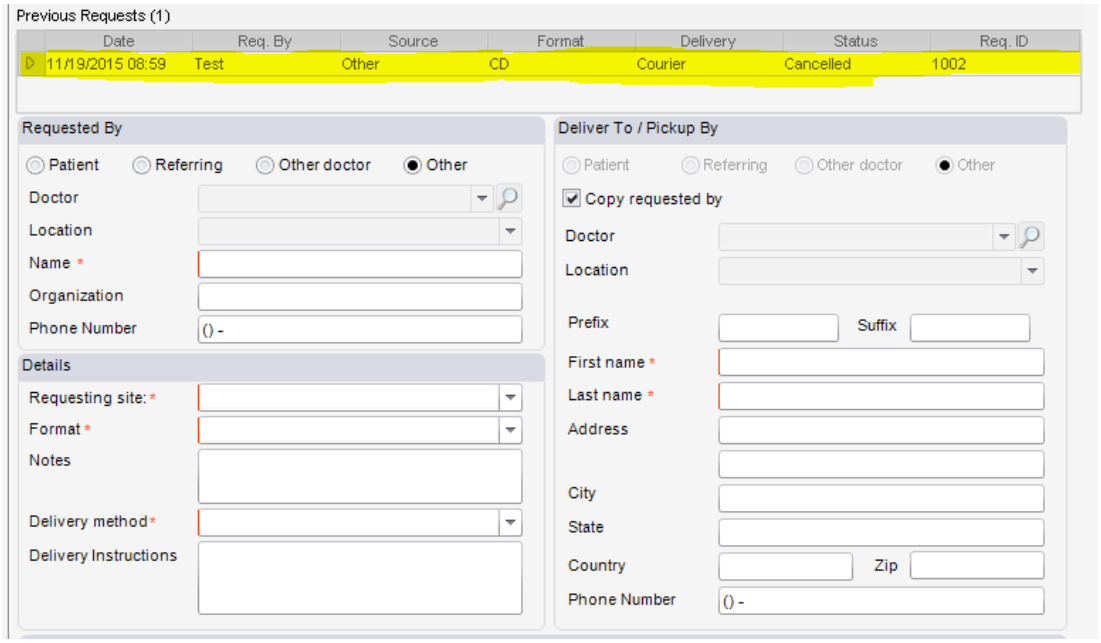
When set to False, radiologists will no longer see the Peer Review button on prior studies that were signed by a radiologist who has since been marked as inactive.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #15109 – AUTOMATICALLY CANCEL IMAGE REQUESTS THAT ARE NOT RESOLVED WITHIN A DEFINED TIME FRAME

Some customers have found that their Image Request worklists can grow to be larger than desired due to patients who neglect to pick up their images. There is now a system configuration setting of *DaysToKeepImageRequestActive*. By default, the value will be set to 0, which means that the feature is turned off and items will remain on the Image Request WL until they are manually resolved. To turn on the feature, enter the number of days that the Image Request should remain on the worklist. If 60 is entered, any Image Requests that are in a Pending or Ready status with a Requested Date that is more than 60 days old will be cancelled. If the request is made ***prior*** to the patient's appointment, the number of days will be applied to the Scheduled Date instead of the Requested Date.

Cancelled Image Requests will fall off of the Image Request WL, but will still be visible in the Previous Requests section for the patient.



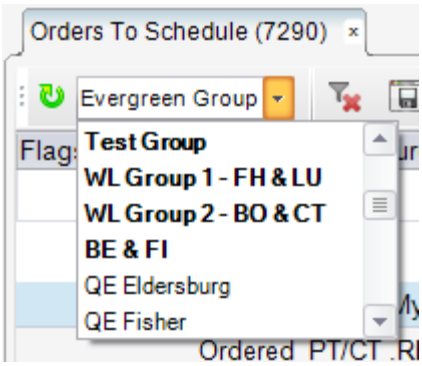

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## GENERAL WORKLIST ENHANCEMENTS

### FEATURES #15106, 14587, 15226, 15427 – ALLOW FILTERING OF ADDITIONAL WORKLISTS BY SITE GROUP

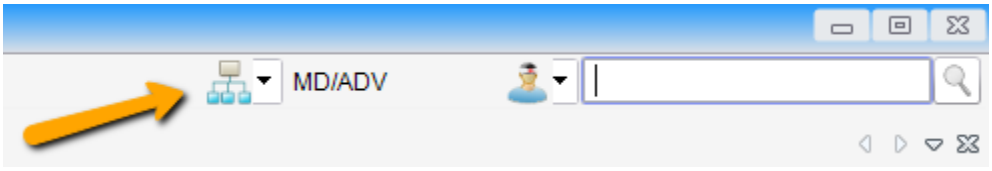
Site Groups, an existing feature, allow a RIS Administrator to create custom groupings of sites that are relevant for workflow purposes. In a previous build, 2016.2, a new strategy was implemented for filtering the IVT WL by *Site Group*, using a Site Group Type Code of ***IVT Team***. One goal of this feature was to improve worklist performance by reducing the need for users to view an entire Practice when only a small number of sites were pertinent. Another benefit of being able to filter worklist content by Site Group is the ability to see data from sites that might span across multiple practices.

Now eRAD RIS has extended this framework to other worklists. As with the IVT WL, a dropdown list will be available to select a Site Group (shown at the top of the list in Bold) or an individual Site.




The Site Group options in the list are driven by the following circumstances:

- At least one site in the Site Group must belong to the Practice selected in the RIS Location Filter (sometimes known as the Organization Picker) in the upper right-hand corner of RIS.



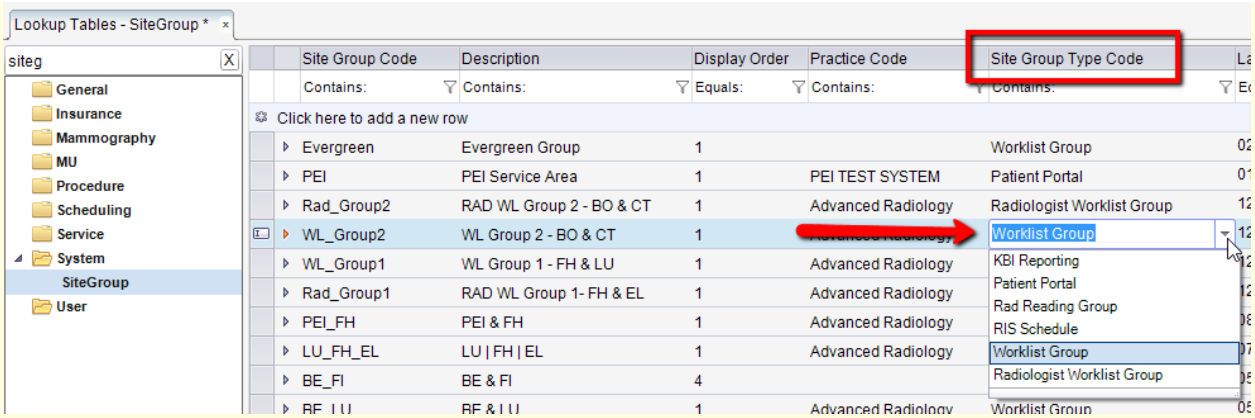

  - Only the Site Groups that contain the currently selected site or at least one site from within the currently selected practice will be included.
  - Note that the list of sites and Site Groups will change as the user changes their selection in the Location Filter. The user's selected site or Site Group for each worklist will be reloaded from one login session to the next, so that users will only have to select their option once, unless their role requires them to switch between multiple site groups routinely.
  - If a user does not see a Site Group that is expected in the list, make sure that the RIS Location Filter is set to a Practice or Site that is included in the Site Group.
- If a Site Group contains sites across multiple Practices, the current user must have access to all Practices in order for that Site Group to appear in the list.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

Only specific types of Site Groups are available in the dropdowns. There are two new Site Group Type Codes:

- **WORKLIST GROUP** – Use this to create Site Groups that will be available on all applicable worklists except those controlled by the Radiologist Worklist Group described below.
    - Orders to Schedule
    - No Show
    - Closed Rooms Reschedule
    - Confirmation
    - IVT
    - Activity
    - Labwork
    - Patient Merge Requests
    - Unknown Reconciliation
    - Pending PACS Correction
    - Pending Biopsy Result
    - Billing Exception
    - Billing Confirmation
    - Image Request
    - Distribution
    - Distribution History
    - Mammo Follow-up Orders
    - Mammo Letters
    - ACR Category 0 Follow-up
    - ACR Category 4/5 Follow-up
- **RADIOLOGIST WORKLIST GROUP** – Use this to create Site Groups that will be available on worklists used by radiologists and editors.
    - All worklists under the Radiologist menu
    - All worklists under the Editor menu

These Site Group Type Codes are assigned by the RIS Administrator in the Site Group table.



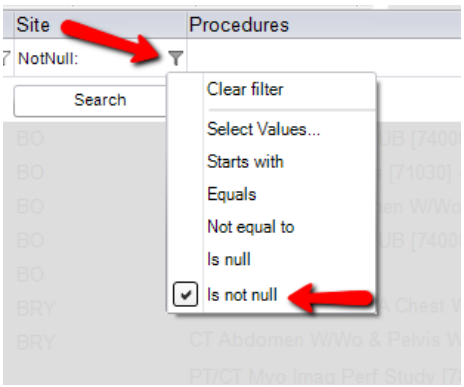

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

Site Groups must have one of these two Type Group codes in order to be available from the applicable worklist. The previously created "IVT Team" Site Group Type is now incorporated into the general Worklist Group category. Any Site Groups that have been created as "IVT Team" will be converted to the Worklist Group Site Group Type as part of the upgrade.

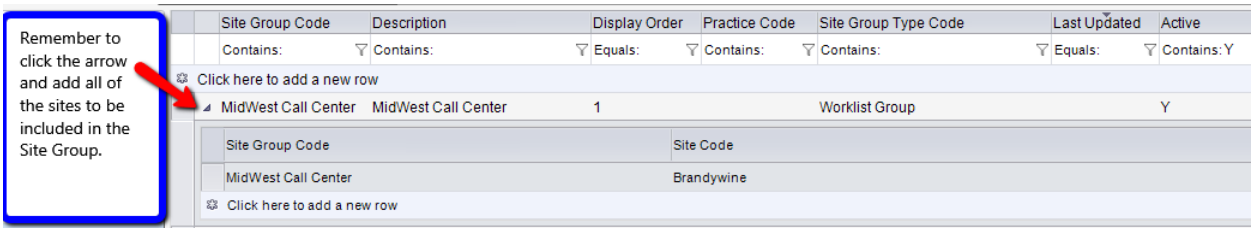
In an effort to eliminate any confusion when the upgrade is applied, the default option in the new worklist filter will be *Use Location Filter* which will maintain the same behavior from previous builds: the worklist contents will be controlled only by the main Location Filter and no Site Group filtering will be applied until the user makes a different selection from the dropdown to use a particular Site Group filter.

If it is desirable to remove this option after implementing worklist Site Groups, it is possible to remove the *Use Location Filter* option by changing the System Configuration setting *AddUseLocationFilterToWorklistSiteGroups* to False.

If there are any worklist items for the Practice in the Location Filter that do ***not*** have a Site assigned, those will also be included on the worklist. This is done to prevent studies without a location from being forgotten. It is possible to hide these by creating a Custom View on the worklist, with a filter of "Is not null" on the Site column. This will hide any worklist items without an assigned Site.

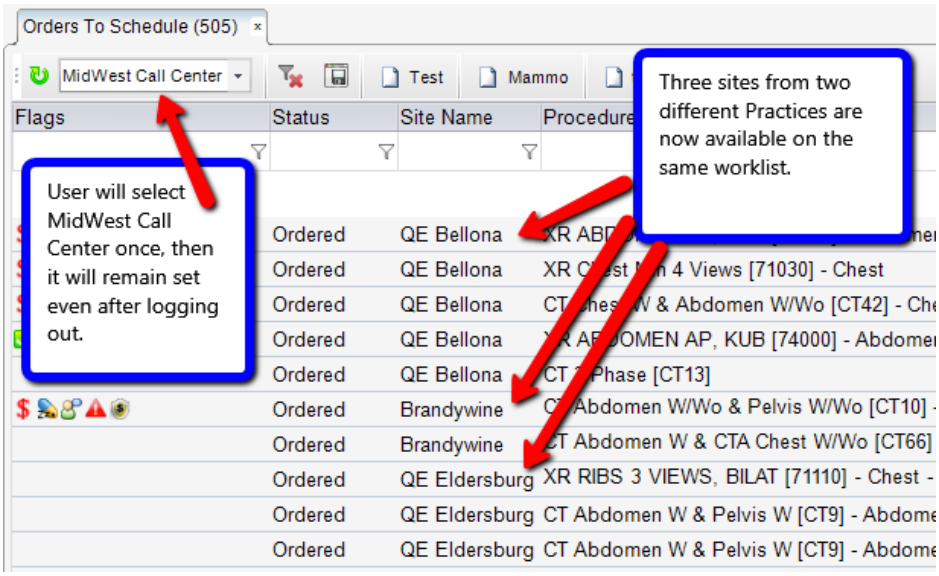



An example may help in understanding how to take advantage of this feature. Imagine there is an organization with two practices: Red Radiology and Blue Radiology. Each practice consists of 15 sites. MidWest Call Center is responsible for scheduling at three of those sites: two from Red Radiology and one from Blue Radiology. The staff would like to view all five sites on the Orders to Schedule WL at the same time. To allow this, the RIS Administrator will create a Site Group called MidWest Call Center. The Site Group Type Code will be Worklist Group. Each of the 3 desired sites will be associated to the new Site Group. In the image below, the first site, Brandywine, has been attached.




No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

Now that the MidWest Call Center Site Group has been created, the Call Center scheduler can open the Orders to Schedule WL, select the MidWest Call Center option, and see all three sites on the worklist.




No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #14961 - UM PRIORITY COLUMN AVAILABLE ON ORDERS TO SCHEDULE WORKLIST

For customers using Utilization Management functionality, the UM Priority is now available as a column on the Orders to Schedule WL. This will allow users to sort and filter based on the UM Priority.

## FEATURE #15361 – NEW COLUMN AVAILABLE ON TECHNOLOGIST WL TO DISPLAY TIME OF CONTRAST INJECTION

In some organizations, contrast injections are performed by a doctor instead of the technologist performing the scan. There is an existing workflow in eRAD RIS to accommodate the doctor "signing" the injection. For those using this workflow, an *Injected* column is now available on the Technologist worklist to display the time the injection was signed.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## INTERFACING

### FEATURE #14747 – EXTERNAL INTERFACE CAN NOW RETURN VALUES FOR SCHEDULE MESSAGE

To enhance workflow when an external scheduling system utilizes the RIS Scheduling engine, the External Interface Service (Wedge) now provides a new web method (similar to the StudyUpdate method) that returns information regarding the study or studies that were created or updated. Please contact eRAD Support to learn more about this functionality if applicable.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #14511 – MANAGEMENT REPORTS AND DASHBOARDS FOR UTILIZATION MANAGEMENT

A collection of management reports for tracking statistics relevant to the new Utilization Management functionality in eRAD RIS is now available.

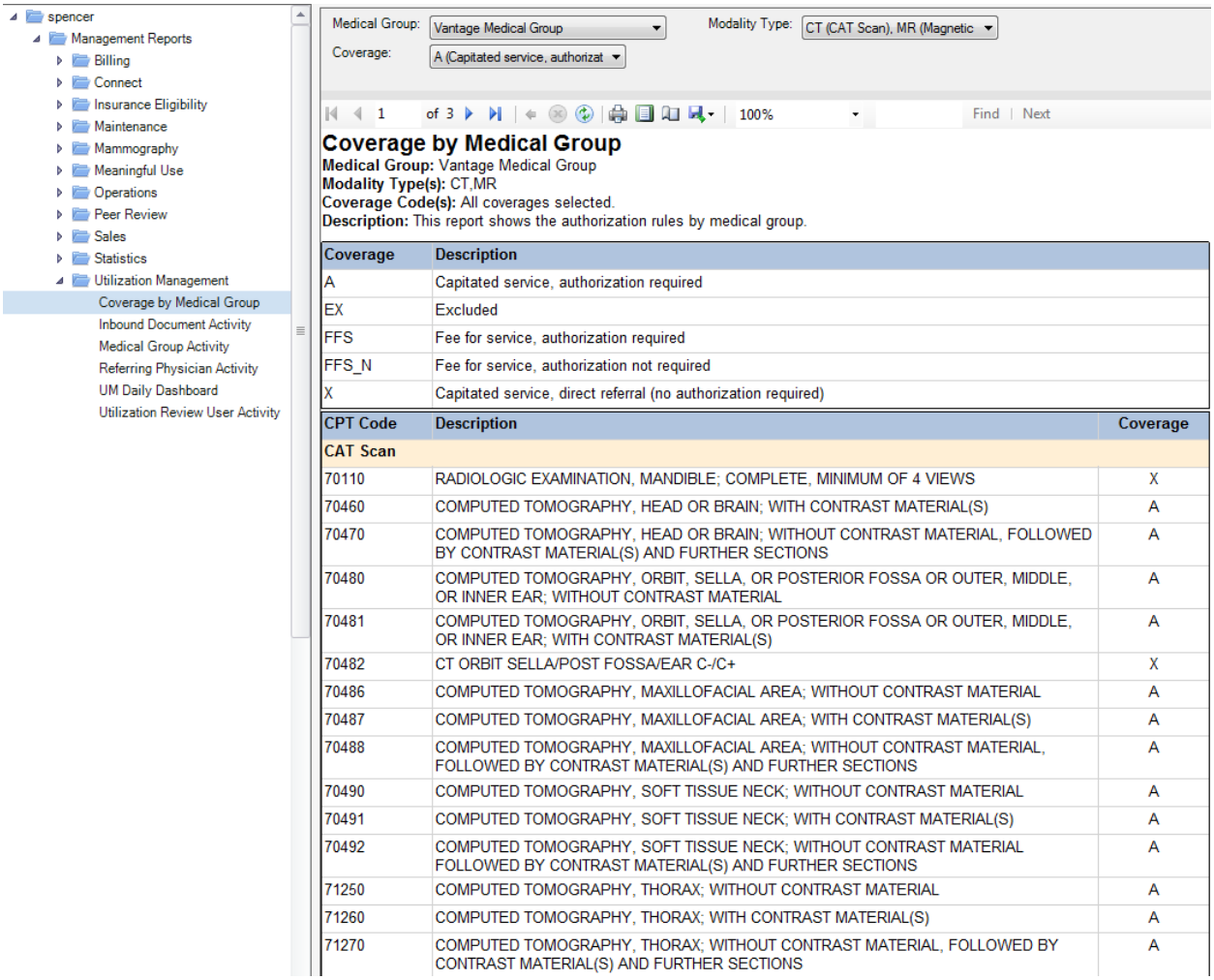
A new core folder called Utilization Management has been added to the Management Report structure in eRAD RIS. The following reports were added to the Utilization Management folder:

- **Coverage by Medical Group** – This will allow the user to select a Medical Group, Modality Type, and Coverage Type. In other words, it is a means to run a report against the UM authorization rules (matrices).
- **Inbound Document Activity** – This report will allow the user to select a date range and receive the following information:
  - The number of documents not processed and the average age in hours.
  - The number of documents discarded, sorted by reason (e.g. Junk Mail, Duplicate, etc.).
  - The number of documents processed by data entry user.
  - A breakdown of incoming vs processed documents by hour of day.
- **Medical Group Activity** – This report will allow the user to select a date range and get a listing of all medical group activity that required utilization review and are in a final UM status for the period:
  - A breakdown of STAT, Urgent, and Routine.
  - Total procedure count, average turnaround hours, and percent compliant.
  - Drill down capabilities from UM Status such as Recommended all the way down to Modality Type (CT, MR, etc.).
- **Referring Physician Activity** – This report will allow the user to select a date range and get a listing of all referring physician activity that required utilization review and are in a final UM status for the period:
  - A breakdown of STAT, Urgent, and Routine.
  - Total procedure count, average turnaround hours, and percent compliant.
  - Drill down capabilities from UM Status such as Recommended all the way down to Modality Type (CT, MR, etc.).
- **Utilization Review User Activity** – This report will allow the user to select a date range and get the following information:
  - A listing of all the reviewers who finalized an authorization request during the period.
  - Average hours to final status and percent of total.
  - Ability to drill-down to see the UM Statuses such as Recommended As Requested.
- **UM Daily Dashboard** – This report is limited to one day's activity and would typically be scheduled and distributed to the UM management team. It contains the following information:
  - Number of unprocessed inbound documents in the data entry queue.
  - Breakdown of the reviewer queue by priority and status.
  - Finalized procedure count by priority and status.
  - Finalized procedure count broken down by average turnaround time.
  - Finalized procedure seven day trend bar chart.
  - Breakdown of procedure count by Modality Type.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

- Breakdown of procedure count by medical group.
- Top ten referring physician procedure count.

See below for examples of the management reports.




| Coverage | Description |
|---|---|
| A | Capitated service, authorization required |
| EX | Excluded |
| FFS | Fee for service, authorization required |
| FFS_N | Fee for service, authorization not required |
| X | Capitated service, direct referral (no authorization required) |

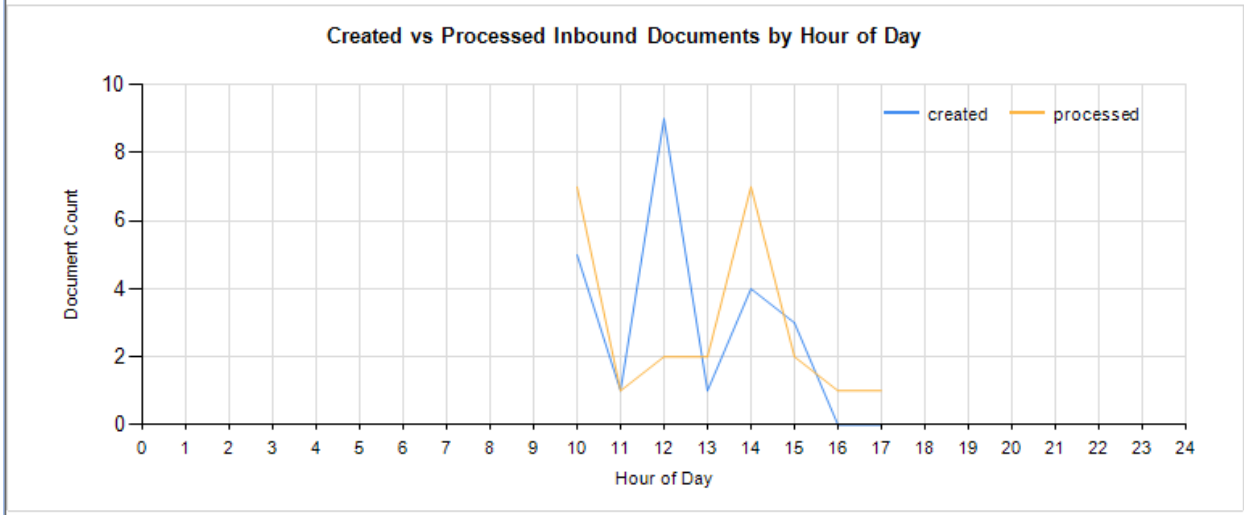
| CPT Code | Description | Coverage |
|---|---|---|
| **CAT Scan** | | |
| 70110 | RADIOLOGIC EXAMINATION, MANDIBLE; COMPLETE, MINIMUM OF 4 VIEWS | X |
| 70460 | COMPUTED TOMOGRAPHY, HEAD OR BRAIN; WITH CONTRAST MATERIAL(S) | A |
| 70470 | COMPUTED TOMOGRAPHY, HEAD OR BRAIN; WITHOUT CONTRAST MATERIAL, FOLLOWED BY CONTRAST MATERIAL(S) AND FURTHER SECTIONS | A |
| 70480 | COMPUTED TOMOGRAPHY, ORBIT, SELLA, OR POSTERIOR FOSSA OR OUTER, MIDDLE, OR INNER EAR; WITHOUT CONTRAST MATERIAL | A |
| 70481 | COMPUTED TOMOGRAPHY, ORBIT, SELLA, OR POSTERIOR FOSSA OR OUTER, MIDDLE, OR INNER EAR; WITH CONTRAST MATERIAL(S) | A |
| 70482 | CT ORBIT SELLA/POST FOSSA/EAR C-/C+ | X |
| 70486 | COMPUTED TOMOGRAPHY, MAXILLOFACIAL AREA; WITHOUT CONTRAST MATERIAL | A |
| 70487 | COMPUTED TOMOGRAPHY, MAXILLOFACIAL AREA; WITH CONTRAST MATERIAL(S) | A |
| 70488 | COMPUTED TOMOGRAPHY, MAXILLOFACIAL AREA; WITHOUT CONTRAST MATERIAL, FOLLOWED BY CONTRAST MATERIAL(S) AND FURTHER SECTIONS | A |
| 70490 | COMPUTED TOMOGRAPHY, SOFT TISSUE NECK; WITHOUT CONTRAST MATERIAL | A |
| 70491 | COMPUTED TOMOGRAPHY, SOFT TISSUE NECK; WITH CONTRAST MATERIAL(S) | A |
| 70492 | COMPUTED TOMOGRAPHY, SOFT TISSUE NECK; WITHOUT CONTRAST MATERIAL FOLLOWED BY CONTRAST MATERIAL(S) AND FURTHER SECTIONS | A |
| 71250 | COMPUTED TOMOGRAPHY, THORAX; WITHOUT CONTRAST MATERIAL | A |
| 71260 | COMPUTED TOMOGRAPHY, THORAX; WITH CONTRAST MATERIAL(S) | A |
| 71270 | COMPUTED TOMOGRAPHY, THORAX; WITHOUT CONTRAST MATERIAL, FOLLOWED BY CONTRAST MATERIAL(S) AND FURTHER SECTIONS | A |

Figure 1 – Coverage by Medical Group Management Report

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## Inbound Document Activity

**Date Range:** 08-27-2016 - 11-25-2016
**Description:** This report shows a breakdown of inbound document activity based on processed date.




| Document Status | Count | Percent | Age(Minutes) |
|---|---|---|---|
| ⊟ Discarded | 7 | 30.43 % | 29,977 |
| Duplicate | 3 | 42.86 % | 29,756 |
| Incomplete | 1 | 14.29 % | 40,177 |
| Junk Mail | 2 | 28.57 % | 20,105 |
| Multiple Patient | 1 | 14.29 % | 40,181 |
| ⊟ Processed | 16 | 69.57 % | 13,655 |
| spencer | 16 | 100.00 % | 13,655 |
| **Total** | **23** | | **18,622** |

Inbound Document Activity | Confidential and Proprietary | Page 1 of 1 | Date Run: 11-25-2016 12:34 PM RMIS\spencer

Figure 2 – Inbound Document Activity Management Report

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## Medical Group Activity

**Date Range:** 01-01-2016 - 11-24-2016
**Description:** This report shows procedure count by medical group categorized by review priority, average turnaround time, and the percentage of reviews completed with the time allotted.

| | STAT | | | Urgent | | | Routine | | | Total | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Medical Group** | **Count** | **Hours** | **Comp** | **Count** | **Hours** | **Comp** | **Count** | **Hours** | **Comp** | **Count** | **Hours** | **Comp** |
| ⊞ Choice | | | | | | | 1 | 1 | 100 % | 1 | 1 | 100 % |
| ⊞ Prospect Medical Group | | | | | | | 1 | 135 | 0 % | 1 | 135 | 0 % |
| ⊟ Regal Medical Group | | | | | | | 5 | 1 | 100 % | 5 | 1 | 100 % |
| ⊞ Received | | | | | | | 2 | 0 | 100 % | 2 | 0 | 100 % |
| ⊟ Recommended | | | | | | | 3 | 1 | 100 % | 3 | 1 | 100 % |
| ⊞ As Added Exam | | | | | | | 1 | 1 | 100 % | 1 | 1 | 100 % |
| ⊟ As Alternative | | | | | | | 1 | 1 | 100 % | 1 | 1 | 100 % |
| MRI and MRA | | | | | | | 1 | 1 | 100 % | 1 | 1 | 100 % |
| ⊞ As Requested | | | | | | | 1 | 1 | 100 % | 1 | 1 | 100 % |
| ⊞ Riverside Physician Network | | | | 3 | 1 | 100 % | | | | 3 | 1 | 100 % |
| ⊞ Seaview IPA | 2 | 25 | 100 % | 7 | 79 | 71 % | 23 | 4 | 91 % | 32 | 21 | 88 % |
| ⊞ Vantage Medical Group | 21 | 0 | 100 % | 52 | 35 | 75 % | 217 | 20 | 88 % | 290 | 21 | 87 % |
| **Total** | **23** | **2** | **100 %** | **62** | **38** | **76 %** | **247** | **19** | **88 %** | **332** | **21** | **87 %** |

Medical Group Activity — Confidential and Proprietary — Page 1 of 1 — Date Run: 11-24-2016 2:53 PM SpencerLaptp-HP\FormsGuestUser

Figure 3 – Medical Group Activity Management Report

## Referring Physician Activity

**Date Range:** 01-01-2016 - 11-24-2016
**Description:** This report shows utilization management procedure counts by referring physician categorized by review priority, average turnaround time, and the percentage of reviews completed with the time allotted.

| | STAT | | | Urgent | | | Routine | | | Total | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Referring Physician** | **Count** | **Hours** | **Comp** | **Count** | **Hours** | **Comp** | **Count** | **Hours** | **Comp** | **Count** | **Hours** | **Comp** |
| ⊟ Abbott, Alberto3 24490 | | | | | | | 8 | 10 | 88 % | 8 | 10 | 88 % |
| ⊞ Not Recommended | | | | | | | 2 | 0 | 100 % | 2 | 0 | 100 % |
| ⊟ Recommended | | | | | | | 5 | 16 | 80 % | 5 | 16 | 80 % |
| ⊟ As Requested | | | | | | | 5 | 16 | 80 % | 5 | 16 | 80 % |
| Diagnostic CT | | | | | | | 4 | 20 | 75 % | 4 | 20 | 75 % |
| MRI and MRA | | | | | | | 1 | 0 | 100 % | 1 | 0 | 100 % |
| ⊞ Withdrawn | | | | | | | 1 | 0 | 100 % | 1 | 0 | 100 % |
| ⊞ James, Alfred0 88052 | | | | | | | 1 | 1 | 100 % | 1 | 1 | 100 % |
| ⊞ Jefferson, Abraham6 45231 | | | | | | | 3 | 55 | 67 % | 3 | 55 | 67 % |
| ⊞ Jones, Aimee 04700 | | | | | | | 2 | 68 | 50 % | 2 | 68 | 50 % |
| ⊞ Jones, Allan 64317 | | | | | | | 2 | 0 | 100 % | 2 | 0 | 100 % |
| ⊞ Jones, Artur 12418 | | | | | | | 1 | 0 | 100 % | 1 | 0 | 100 % |
| ⊞ ref, test | | | | | | | 1 | 0 | 100 % | 1 | 0 | 100 % |
| ⊞ Refer, Self | | | | | | | 3 | 0 | 100 % | 3 | 0 | 100 % |
| ⊞ Smith, Alfons | 14 | 4 | 100 % | 47 | 48 | 70 % | 186 | 21 | 89 % | 247 | 25 | 86 % |
| ⊞ Smith, Alliso 97245 | | | | 3 | 1 | 100 % | 4 | 1 | 100 % | 7 | 1 | 100 % |
| ⊞ Smith, Amelia0 89165 | | | | | | | 4 | 1 | 100 % | 4 | 1 | 100 % |
| ⊞ Smith, Bobbie 46382 | 9 | 0 | 100 % | 12 | 7 | 92 % | 27 | 8 | 85 % | 48 | 6 | 90 % |
| ⊞ Williams, Alexis 24384 | | | | | | | 5 | 25 | 60 % | 5 | 25 | 60 % |
| **Total** | **23** | **2** | **100 %** | **62** | **38** | **76 %** | **247** | **19** | **88 %** | **332** | **21** | **87 %** |

Referring Physician Activity — Confidential and Proprietary — Page 1 of 1 — Date Run: 11-24-2016 2:55 PM SpencerLaptp-HP\FormsGuestUser

Figure 4 – Referring Physician Activity Management Report

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## Utilization Review User Activity

**Date Range:** 01-01-2016 - 11-24-2016
**Description:** This report shows utilization review procedure count by reviewer.

| Review Finalized By | Proc Count | Avg Hours | % of Total |
|---|---|---|---|
| ⊟ MacDougall, Spencer | 243 | 30 | 99.18 % |
| ⊞ MD Review | 1 | 1 | 0.41 % |
| ⊟ Not Recommended | 50 | 18 | 20.58 % |
| Medical Necessity Not Established | 43 | 17 | 86.00 % |
| Not Medically Necessary | 7 | 24 | 14.00 % |
| ⊞ Received | 3 | 20 | 1.23 % |
| ⊞ Recommended | 173 | 27 | 71.19 % |
| ⊞ Reopen | 2 | 110 | 0.82 % |
| ⊞ Returned, Review Completed | 3 | 41 | 1.23 % |
| ⊞ Returned, Review Not Initiated | 1 | 299 | 0.41 % |
| ⊞ Withdrawn | 10 | 108 | 4.12 % |
| ⊞ Mills, Terry | 2 | 69 | 0.82 % |
| **Total** | **245** | **30** | |

Utilization Review User Activity | Confidential and Proprietary Page 1 of 1 | Date Run: 11-24-2016 3:10 PM SpencerLaptp-HP\FormsGuestUser

Figure 5 – Utilization Review User Activity Management Report

| Data Entry Queue | 25 |
|---|---|

| Reviewer Queue | STAT | Urgent | Routine | Total | % |
|---|---|---|---|---|---|
| Hold | 1 | 0 | 1 | 2 | 1.60% |
| MDReview | 3 | 5 | 9 | 17 | 13.60% |
| NurseReview | 0 | 0 | 2 | 2 | 1.60% |
| Received | 12 | 8 | 80 | 100 | 80.00% |
| Reopen | 0 | 0 | 4 | 4 | 3.20% |
| **Total** | **16** | **13** | **96** | **125** | |

| Final Status | Urgent | Routine | Total | % |
|---|---|---|---|---|
| NotRecommended | 0 | 2 | 2 | 1.60% |
| Recommended | 1 | 10 | 11 | 8.00% |
| ReturnedNotInitiated | 1 | 0 | 1 | 0.80% |
| **Total** | **2** | **12** | **14** | |

| Turnaround Times | Urgent | Routine | Total | % |
|---|---|---|---|---|
| <= 10 Hours | 0 | 2 | 2 | 14.29% |
| >= 31 Hours | 2 | 10 | 12 | 85.71% |
| **Total** | **2** | **12** | **14** | |
| **Average** | **300.50** | **190.67** | **206.36** | |

| Modality Type | Total | % |
|---|---|---|
| Diagnostic CT | 12 | 85.71% |
| MRI and MRA | 2 | 14.29% |
| **Total** | **14** | |

| Medical Group | Total | % |
|---|---|---|
| Prospect Medical Group | 1 | 7.14% |
| Vantage Medical Group | 13 | 92.86% |
| **Total** | **14** | |

| Top 10 Requesting Physicians | Total |
|---|---|
| Smith, Alfons | 9 |
| Jones, Artur 12418 | 1 |
| Jones, Aimee 04700 | 2 |
| Jefferson, Abraham6 45231 | 1 |
| Abbott, Alberto3 24490 | 1 |

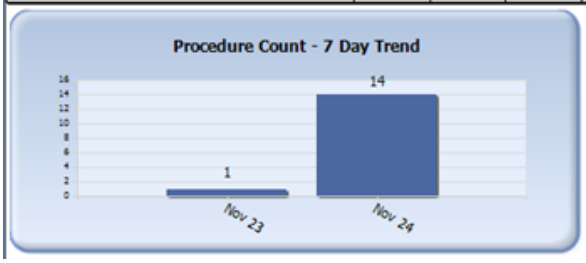



Figure 6 – UM Daily Dashboard

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## RESOLVED DEFECTS

Bugs, support issues, and design optimizations resolved in build 2.2017.1.

| Bug # | Category | Subject |
|---|---|---|
| 15268 | RADAR SecurePIC | An optional ris.exe.config setting for DBActionSignalRServiceEndpoint was added to be used when the IP address used for hosting on the server is different than the IP address used on the client. |
| 15300 | Insurance Eligibility | An issue with the Eligibility status icon becoming hidden on the Manage Policies grid when there is a long insurance carrier description has been resolved. |
| 15301 | | Resolved issue with Amount to Collect field not refreshing if scheduling is completed before Eligibility finished running. |
| 15307 | Technologist | An exception no longer occurs when adding to the Contrast grid from View/Edit screen. |
| 15023 | Billing | Resolved an issue with Linked Reports where the non-primary studies would not receive an updated billing status and would not drop from the Activity WL. |
| 15940 | Cancel | It is now possible to cancel an order made as a guest in Patient Portal from the Reschedule workflow (previously caused RIS to crash). |
| 15373 | CD Burning | Resolved an issue where RIS could crash during CD Export under certain circumstances. |
| 15311 | CEHRT | ImportDataFileUpgradeDB has been modified for loading SNOMED codes to disable constraints related to new Gender Identity and Sexual Orientation tables. |
| 15915 | Citrix Bridge | Citrix version 7.9 needs the latest version of vccom API which requires a modification the the citrixbridge.exe. Also resolved a problem with the path for the verbose log in the citrixbridge.exe.config. |
| 7613 | Confirmation | Closed Room Reschedule WL now supports repeat rules, resolving an issue where studies could be filtered from the Confirmation worklist. |
| 15359 | DB | Resolved an issue where users could be allowed to re-use passwords even when the System Configuration setting does not allow it. |
| 14450 | Document Distribution | Improvements made to the logging of Document Distribution notes. |
| 14782 | Finding Followup | It is now possible to save Finding Follow-up selections when using PowerScribe reporting mode. |
| 15037 | Insurance Eligibility | If Eligible API provides a Spend Down amount, this is now |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

| | | |
|---|---|---|
| | | displayed in the detailed eligibility return. |
| 15286 | Insurance Eligibility | Resolved an issue with the tooltip for the Eligibility worklist icon. |
| 13521 | Interfaces | Wedge will no longer crash when replying to an inbound message when connecting system (e.g. Mirth, Ensemble) has closed the connection. |
| 14715 | Interfaces | Wedge will now provide an alert if a plugin is misconfigured. |
| 15092 | Interfaces | Added support for openxml versions of MS Word and Excel to external interface. This will provide better support for RTL and formatting. |
| 15449 | Interfaces | An error in RadarConnect process message for practices with null values has been resolved. |
| 15522 | Log Control | The notes field context menu, including spellcheck options, is now available in textbox only mode. |
| 15938 | MRN | Assigning MRN during reschedule using guest Patient Portal study no longer throws an exception. |
| 15068 | Outside Read | A core validation rule has been added with a condition that allows Reason for Exam to be required on all studies *except* Outside Reads. |
| 13888 | PACS (eRAD) Int - RIS only | In the Patient Folder, it is now possible to launch images for a study, even if a different study was previously launched from the same Patient Folder and the PACS Viewer was closed. Previously, the Patient Folder would have to be closed and re-opened under those circumstances. |
| 14066 | PACS (Non - eRAD) Integration | Carestream PACS integration now supports appending studies in the viewer when double clicking a prior study from the mini-Patient Folder in the dictation screen. |
| 14889 | PACS (Non - eRAD) Integration | Resolved an issue with Carestream PACS integration in which studies loaded by External Study Identifier did not close properly. |
| 15393 | PACS (Non - eRAD) Integration | Resolved an issue with Carestream PACS integration in which viewing a second study from the Patient Folder does not display the Accession number. |
| 14636 | PACS (Non - eRAD) Integration | Resolved an issue with IW PACS integration in which images were not redisplayed when switching between tabs. |
| 15676 | Patient Merge | Merging external MRNs with internal RIS patients is once more possible during rescheduling workflow. |
| 15149 | Patient Portal | No longer issues with arriving or cancelling appointments made as a guest in the Patient Portal. |
| 15102 | Peer Review | Radiologists are now prevented from peer reviewing studies from outside of their current Practice. |
| 12563 | Person Management | RecentPasswordRestrictionCount set to -1 now fully disables the recent password feature, as designed. |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

| | | |
|---|---|---|
| 13788 | Powerscribe Integration | Resolved an issue with PowerScribe integration in which it was possible to unintentionally close a second study when dictating multiple cases and an addendum. |
| 14867 | RADAR | Resolved an issue for RADAR exam cancellations. |
| 15232 | RADAR | Audit records for RADAR messaging now include patient /order /study context. |
| 15566 | Radar - Nudge | Resolved a value cannot be null error for App.config RADARSecureMessagePort. |
| 11929 | Radiology Reporting | Switching between external reporting integration modes (PS360 or External) to internal reporting modes (eRAD or M*Modal) now occurs seamlessly without errors. |
| 14757 | Radiology Reporting | Resolved an index out of range error that occurred under certain conditions when using Next workflow during dictation. |
| 15392 | Radiology Reporting | All applicable tool window controls in reporting screens will now prompt if there are unsaved changes. |
| 15553 | Radiology Reporting | When using emergency access and RIS crashes, using autosave, clicking the emergency access again will no longer remove the auto saved report. |
| 15975 | Radiology Reporting | Selected Report panel is now properly saving in personal or system layouts. |
| 14045 | Scanning | "A lock is required to update this order" error is no longer occurring when saving scanned documents for an external prior report. |
| 15240 | Scanning | Resolved an issue with auto-cropping when using the Straighten tool on scanned documents. |
| 15671 | Scanning | Scanning no longer unexpectedly converts images to black and white. |
| 14845 | Scheduling | Foreign key exception when adding "Additional Data" to a procedure no longer occurs. |
| 14948 | Scheduling | A user without permission to reschedule a study can no longer do so from the context menu. |
| 15104 | Scheduling | When scheduling using Order A/Order B with different referring physicians, Order B now successfully receives the data from the Clinical tab. |
| 15559 | SecurePIC | SecurePIC requests are now successful from IVT screen for studies in an Ordered status. |
| 15076 | Technologist | Modifying a study that was performed before the Tech verified ID field was set as Required using validation rules has been resolved. |
| 15155 | Technologist | ExamDoneTechOnly - PACS correction flag can no longer be inadvertently set to Y after exam completion. |
| 14971 | Thick Client GUI | Resolved an issue where the RIS application could stay in view |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

| | | |
|---|---|---|
| | | after RIS locks. |
| 15363 | Thick Client GUI | Resolved an issue that previously resulted in a 'Cannot access a disposed object. Object name: RadLabel' error/crash. |
| 15371 | Thick Client GUI | Resolved an issue that could cause a RIS crash while disposing PerformExam or ViewEdit. |
| 14771 | Utilization Management | When using the Quick Search box to search by UM authorization number, the applicable row will not be highlighted if the search is performed multiple times or with the Patient Folder already open. |
| 15209 | Worklists | Resolved an intermittent issue with RIS Crashing between scheduling under particular circumstances (Object reference not set to an instance of an object). |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## KNOWN LIMITATIONS

The following are new bugs found in build 2.2017.1. Bugs reported in previous versions are not captured as Known Limitations in this document.

| # | Subject |
|---|---|
| 16068 | Dictated by in Summary panel is not populated for reports created by technologist. |
| 15974 | Document Distribution jobs failing to send email via RADAR due to large file size. |
| 15577 | System configuration setting “Enforce zip code selection” set to True and “Enforce county selection” set to False, will require a zip code but the field will not appear. |
| 16040 | Attach Inbound Documents WL action buttons throw exception if pressed when highlighting a locked document row. |
| 16072 | The "Last Login By User ID" management report should display the date. |
| 16060 | TemplateMacro Editor- When using the assignment tab, after filtering available options, items that are not in the results are added to assigned column when using the right arrow to select. |
| 16047 | With preferences for reuse reporting screen (unchecked) and autofeed from worklist (checked), the Next workflow in the dictate screen is sometimes failing to open the next study. |
| 16046 | With the reuse reporting screen preference unchecked, Next workflow in the signing screen behaves as if in the Dictate screen. |
| 16042 | Unable to delete table rows from DocumentType look-up (? FK exception thrown). |
| 16026 | Removed/inactive order_items showing as disabled on Exam Details list when valid, active order_items present. |
| 16024 | Infinitt PACS - Images from Patient Folder are not always closing. |
| 16023 | Imported order-level documents are disabling the incorrect context menu option to switch document level. |
| 16013 | Clinical.ViewStudy access string does not control access to View Study button/context option on appropriate exams. |
| 16005 | When user has both Technologist and Editor resource types, it is possible for them to be assigned as radiologist if creating a report from perform exam screen. |
| 16000 | Inactive UM Resolution Codes are visible in the UM Alerts resolution code drop-down. |
| 15991 | Scheduling a study in OrderSigned status from within a Folder removes the study from Folder's WL. |
| 15989 | Multiple Studies flag gets carried through “Schedule From” action on single-procedure study. |
| 15920 | Contrast amounts are not defaulting when including multiple exams. |
| 15900 | When deleting the dictation /report and resetting status on a study that is suspended, _status_flags is not getting reset. |
| 15884 | Scan Document Notes option still available on non-modal attachment viewer without the option to save them. |
| 15871 | TemplateMacro Results grid is freezing when a change is initiated but not saved before attempting to open the editor window. |
| 15820 | Attach Inbound Documents - Opening context menu on rows other than the one selected throws an error. |
| 15804 | Changing the image request status for studies in Exam Done produces an error that “Signs and Symptoms” is required. |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

| | |
|---|---|
| 15800 | Closing a study by clicking X on the tab will lock the images. |
| 15796 | An error is thrown in the “Adding a mammo biopsy” screen when cancelling the person search window. |
| 16070 | eRAD reporting mode - Create template from report creates double brackets for 2nd auto macro field. |
| 15963 | Scheduling an order under Utilization Review from a Folder does not display a message informing the user that it is under UM Review. |
| 15962 | Unable to modify Additional/Alternative procedure status when default statuses are null. |

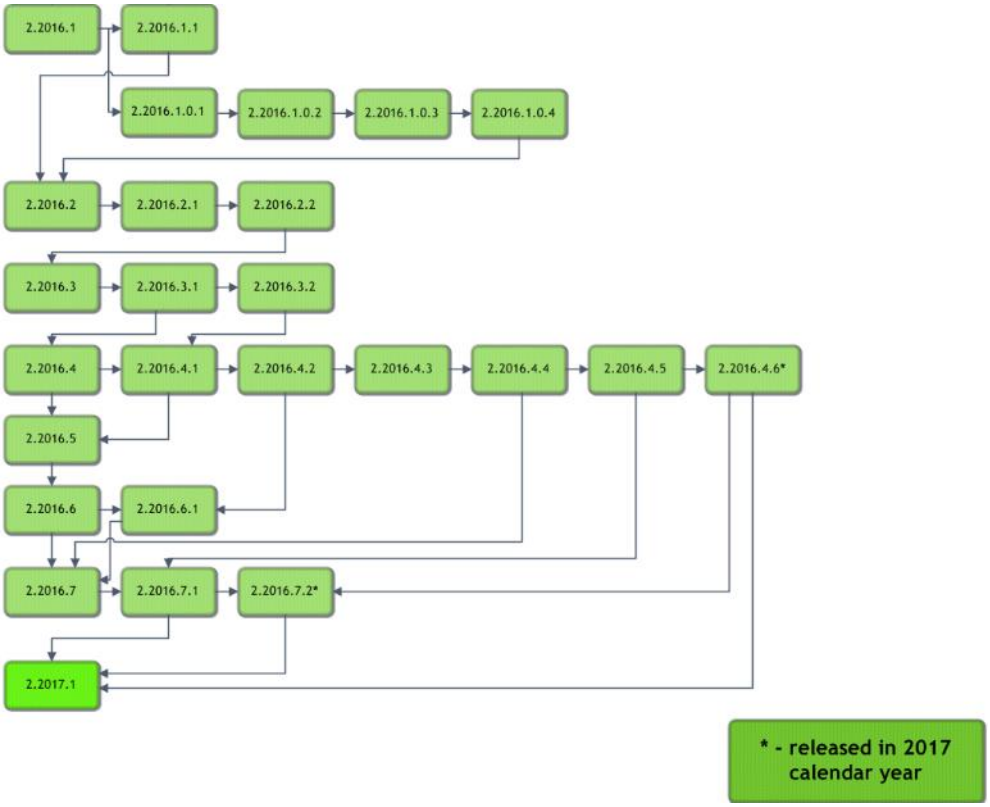
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## RIS RELEASE VERSION NUMBERS

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Digital Forms | Notes |
|---|---|---|---|---|---|---|---|
| 2016.1 | - | 2.16.1.0.33419 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | | GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge |
| 2016.1 | 1 | 2.16.1.1.33672 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | | GUI.zip |
| 2016.1 | .0.1 | 2.16.1.0.1 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | | GUI.zip (This is not included in 2016.1.1, version directly above) |
| 2016.1 | .0.2 | 2.16.1.0.1 (3GB) | 2.16.1.0.33079 | 2.16.1.0.2 | 2.16.1.0.33416 | | Wedge Web Services only |
| 2016.1 | .0.3 | 2.16.1.0.3 (3GB) | 2.16.1.0.33079 | 2.16.1.0.3 | 2.16.1.0.3.00128918 | | GUI.zip, Web Services and DB |
| 2016.1 | .0.4 | 2.16.1.0.4 (3GB) | 2.16.1.0.33079 | 2.16.1.0.4 | 2.16.1.0.3.00128918 | | GUI.zip, Web Services |
| 2016.2 | - | 2.16.2.0 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.0.00172540 | | Full Version Release - GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge |
| 2016.2 | 1 | 2.16.2.1 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.0.00172540 | | GUI.zip and Citrix Bridge |
| 2016.2 | 2 | 2.16.2.2 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.2.00243102 | | GUI.zip, DB and Citrix Bridge |
| 2016.3 | - | 2.16.3.0 (3GB) | 2.16.3.0 | 2.16.3.0 | 2.16.3.0.00257101 | 2.16.3.0 | Full Version Release |
| 2016.3 | 1 | 2.16.3.1 (3GB) | 2.16.3.0 | 2.16.3.1 | 2.16.3.1.00298834 | 2.16.3.0 | GUI.zip, Web Service and DB |
| 2016.4 | - | 2.16.4.0 | 2.16.4.0 | 2.16.4.0 | 2.16.4.0.00301943 | 2.16.4.0 | Full Version Release |
| 2016.4 | 1 | 2.16.4.1 | 2.16.4.0 | 2.16.4.1 | 2.16.4.0.00301943 | 2.16.4.0 | GUI and Web Service updates |
| 2016.4 | 2 | 2.16.4.2 (3GB) | 2.16.4.0 | 2.16.4.1 | 2.16.4.0.00301943 | 2.16.4.0 | GUI and Patient Portal updates |
| 2016.4 | 3 | 2.16.4.3 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | GUI and Patient Portal updates |
| 2016.4 | 4 | 2.16.4.4 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | GUI |
| 2016.4 | 5 | 2.16.4.5 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | GUI |
| 2016.4 | 6 | 2.16.4.6 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | GUI |
| 2016.5 | - | 2.16.5.0 (3GB) | 2.16.5.0 | 2.16.5.0 | 2.16.5.0.00349303 | 2.16.5.0 | Full Version Release |
| 2016.6 | - | 2.16.6.0 (3GB) | 2016.6.0 | 2.16.6.0 | 2.16.6.0.00411295 | 2.16.6.0 | Full Version Release |
| 2016.6 | 1 | 2.16.6.1 (3GB) | 2016.6.0 | 2016.6.0 | 2.16.6.0.00411295 | 2.16.6.0 | GUI and Patient Portal updated |
| 2016.7 | - | 2.16.7.0 (3GB) | 2.16.7.0 | 2.16.7.0 | 2.16.7.0.00490835 | 2.16.7.0 | Full Version Release |
| 2016.7 | 1 | 2.16.7.1 (3GB) | 2.16.7.0 | 2.16.7.1 | 2.16.7.0.00490835 | 2.16.7.0 | GUI and Web Service updates |
| 2016.7 | 2 | 2.16.7.2 (3GB) | 2.16.7.0 | 2.16.7.2 | 2.16.7.0.00490835 | 2.16.7.0 | GUI and Web Service updates |
| 2017.1 | - | 2.17.1.0 (3GB) | 2.17.1.0 | 2.17.1.0 | 2.17.1.0.00559886 | 2.17.1.0 | Full Version Release |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## CODE STREAM DIAGRAM




No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

# Server Update

For eRAD RIS

Version 2.0

Build 2.2017.1

Update 2.2017.1.1

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

# Table of Contents

New Features....3

Resolved Items....5

New Access Strings....5

Code Stream....6

Package Contents....7

Intended Audience....7

Who is affected....8

eRAD RIS Release Version Numbers....9

Installing....10

- Client/GUI....10
- Web Service....10
- Database Updates....13

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## NEW FEATURES

### FEATURE #16082 – EXTEND THE STUDY EXTRA INFO FEATURE TO INCLUDE ORDER EXTRA INFO

eRAD RIS has had the ability to store extra information received from an external ordering system at the study level, using a feature called *StudyExtraInfo*. This feature extends this functionality to allow us to store information at the ***order*** level.

Sometimes there is a need to store additional information that may be customer specific, particularly information received from one system that also needs to be passed to corresponding systems at certain points in the workflow.

A new lookup table of *OrderExtraInfo* was created for specifying the Code with which the RIS will be receiving information to be stored. The table is listed under Configure>System folder. Access to the table is controlled by a new access string titled *Config.LookupEditor.OrderExtraInfo* with a default of None. The table consists of the Order Extra Info Code, Display Name, Description, Display Order, Last Updated and Active columns.

| Order Extra Info Code | Display Name | Description | Display Order | Last Updated | Active |
|---|---|---|---|---|---|
| Contains: | Contains: | Contains: | Equals: | Contains: | Contains: |
| Click here to add a new row | | | | | |
| Test external system | Test external system | Test external system | 1 | 02-22-2017 11:22 AM | Y |
| [redacted]-BACKUP | [redacted]BACKUP | Backup Order Extra Info Code | 1 | 02-15-2017 1:38 PM | Y |
| [redacted]-OEIC1 | [redacted]-OEIC1 | [redacted]Order Extra Info Code 1 | 1 | 02-15-2017 1:38 PM | Y |

Messages sent will specify the Order Extra Info Code and have a value field. These messages will be stored in another new DataBase table *c_order_extra_info* that is not accessible from the GUI.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

An example c_order_extra_info node to be sent to eRAD RIS:

```
<ext1:c_order_extra_info>
        <order_extra_info_code>Test external system</order_extra_info_code>
        <value>test value to be stored in c_order_extra_info table</value>
 </ext1:c_order_extra_info>
```

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## RESOLVED ITEMS

eRAD RIS

| Redmine # | Subject |
|---|---|
| 16113 | Waiting for PACS dialog is now showing when expected. |
| 16166 | Audio files are now being deleted as appropriate for editors. |
| 16187 | Demographics match on phone number is now compatible with c_patient_phone pattern. |

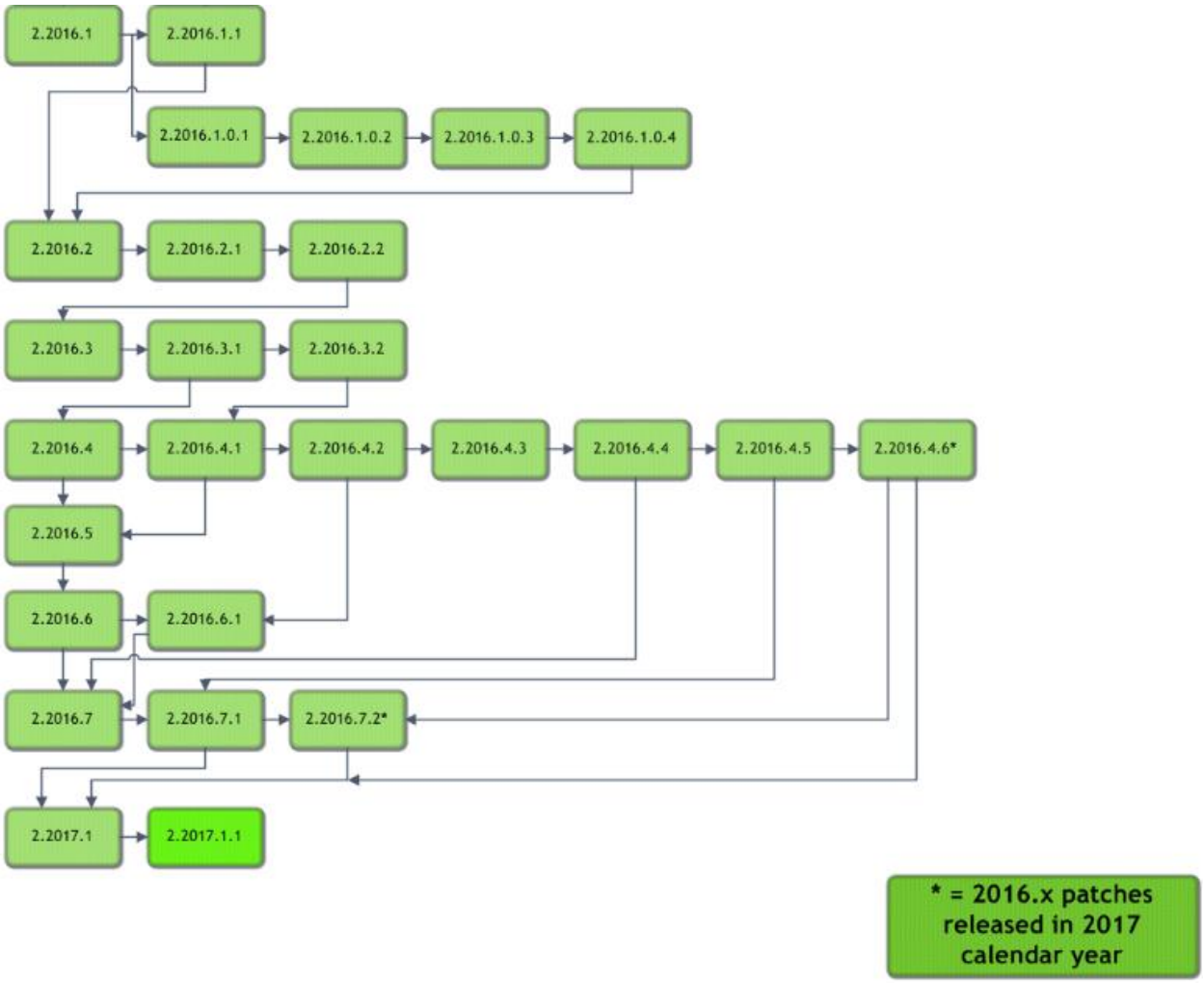
## NEW ACCESS STRINGS

| Setting | Default | Purpose |
|---|---|---|
| Config.LookupEditor.OrderExtraInfo | None | Controls access to the look-up table editor for OrderExtraInfo. |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

## CODE STREAM




**Legend:**

Light Green = Previously Released software

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## PACKAGE CONTENTS

## INTENDED AUDIENCE

THE INTENDED AUDIENCE FOR THIS DOCUMENT IS THE RADNET CLINICAL SYSTEMS TEAM AND THE ERAD SUPPORT/SERVICE TEAM.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## WHO IS AFFECTED

Build 2017.1 installs. This server update must be applied to 2017.1.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## ERAD RIS RELEASE VERSION NUMBERS

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Digital Forms | Patient Portal | UM Portal | Notes |
|---|---|---|---|---|---|---|---|---|---|
| 2016.1 | - | 2.16.1.0.33419 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | | | | GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge |
| 2016.1 | 1 | 2.16.1.1.33672 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | | | | GUI.zip |
| 2016.1 | .0.1 | 2.16.1.0.1 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | | | | GUI.zip (This is not included in 2016.1.1, version directly above) |
| 2016.1 | .0.2 | 2.16.1.0.1 (3GB) | 2.16.1.0.33079 | 2.16.1.0.2 | 2.16.1.0.33416 | | | | Wedge Web Services only |
| 2016.1 | .0.3 | 2.16.1.0.3 (3GB) | 2.16.1.0.33079 | 2.16.1.0.3 | 2.16.1.0.3.00128918 | | | | GUI.zip, Web Services and DB |
| 2016.1 | .0.4 | 2.16.1.0.4 (3GB) | 2.16.1.0.33079 | 2.16.1.0.4 | 2.16.1.0.3.00128918 | | | | GUI.zip, Web Services |
| 2016.2 | - | 2.16.2.0 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.0.00172540 | | | | Full Version Release - GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge |
| 2016.2 | 1 | 2.16.2.1 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.0.00172540 | | | | GUI.zip and Citrix Bridge |
| 2016.2 | 2 | 2.16.2.2 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.2.00243102 | | | | GUI.zip, DB and Citrix Bridge |
| 2016.3 | - | 2.16.3.0 (3GB) | 2.16.3.0 | 2.16.3.0 | 2.16.3.0.00257101 | 2.16.3.0 | | | Full Version Release |
| 2016.3 | 1 | 2.16.3.1 | 2.16.3.0 | 2.16.3.1 | 2.16.3.1.00298834 | 2.16.3.0 | | | GUI.zip, Web Service and DB |
| 2016.3 | 2 | 2.16.3.2 | 2.16.3.0 | 2.16.3.2 | 2.16.3.1.00298834 | 2.16.3.0 | | | GUI.zip and Web Service |
| 2016.4 | - | 2.16.4.0 | 2.16.4.0 | 2.16.4.0 | 2.16.4.0.00301943 | 2.16.4.0 | 1.16.4.0.310284 | | Full Version Release |
| 2016.4 | 1 | 2.16.4.1 | 2.16.4.0 | 2.16.4.1 | 2.16.4.0.00301943 | 2.16.4.0 | 1.16.4.0.310284 | | GUI and Web Service updates |
| 2016.4 | 2 | 2.16.4.2 (3GB) | 2.16.4.0 | 2.16.4.1 | 2.16.4.0.00301943 | 2.16.4.0 | 1.16.4.2.460241 | | GUI and Patient Portal updates |
| 2016.4 | 3 | 2.16.4.3 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | 1.16.4.3.489120 | | GUI and Patient Portal updates |
| 2016.4 | 4 | 2.16.4.4 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | 1.16.4.3.489120 | | GUI |
| 2016.4 | 5 | 2.16.4.5 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | | | GUI |
| 2016.4 | 6 | 2.16.4.6 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | | | GUI |
| 2016.5 | - | 2.16.5.0 (3GB) | 2.16.5.0 | 2.16.5.0 | 2.16.5.0.00349303 | 2.16.5.0 | 1.16.5.0.362009 | | Full Version Release |
| 2016.6 | - | 2.16.6.0 (3GB) | 2.16.6.0 | 2.16.6.0 | 2.16.6.0.00411295 | 2.16.6.0 | 1.16.6.0.432471 | | Full Version Release |
| 2016.6 | 1 | 2.16.6.1 (3GB) | 2.16.6.0 | 2.16.6.0 | 2.16.6.0.00411295 | 2.16.6.0 | 1.16.6.1.468583 | | GUI and Patient Portal updated |
| 2016.7 | - | 2.16.7.0 (3GB) | 2.16.70 | 2.16.70 | 2.16.7.0.00490835 | 2.16.70 | 1.16.7.0.493031 | 2.16.7.0.493008 | Full version release |
| 2016.7 | 1 | 2.16.7.1 (3GB) | 2.16.7.0 | 2.16.7.1 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | GUI and Web Service updates |
| 2016.7 | 2 | 2.16.7.2 (3GB) | 2.16.7.0 | 2.16.7.2 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | GUI and Web Service updates |
| 2017.1 | - | 2.17.1.0 (3GB) | 2.17.1.0 | 2.17.1.0 | 2.17.1.0.00559886 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | Full Version Release |
| 2017.1 | 1 | 2.17.1.1 (3GB) | 2.17.1.0 | 2.17.1.1 | 2.17.1.1.00589952 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | GUI, Web Service and DB updates |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

# INSTALLING

## CLIENT/GUI

Copy and replace the current rRIS…zip file with the eRAD_rRIS_2017.1.1.zip file provided with this release.

Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

## WEB SERVICE

This updated is only required for the Wedge Web Services. The Core RIS Service and Document Distribution Service are not required to be updated.

1. The web service upgrade consists of replacing the files in the RIS Web Service directory with the files supplied in the rRISService folder with this build. Always create a backup of the files being replaced. This upgrade includes 128 files in the rRISService folder and 7 sub folders. Of those folders, 1 is a folder titled **"XSL"** that contains a sub folder and files within the subfolder. Another folder is titled **"deploy"** that contains the new .config files that will be deployed with the user of the file called "ServicesConfigWizard.exe" (see instructions below). Folders ar (Arabic), he (Hebrew), pt_BR (Brazilian Portuguese) and es-AR (Argentina Spanish) are localization folders. The WedgePlugins folder contains various plugin files for RADAR, MIRTH, Ensemble, etc…

**Services Configuration Wizard**

With the release of 42 to decrease the chance of losing configuration setting and missing new configuration options, we will no longer include the configuration files in the release in the main set of files, but they will now

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

exist in a “deploy” folder, which will contain the three site configurable config files; applicationsettings, connectionstrings, and services as well as a copy of the rRISServices.exe configuration file. The contents of this folder should not be required to be touched.

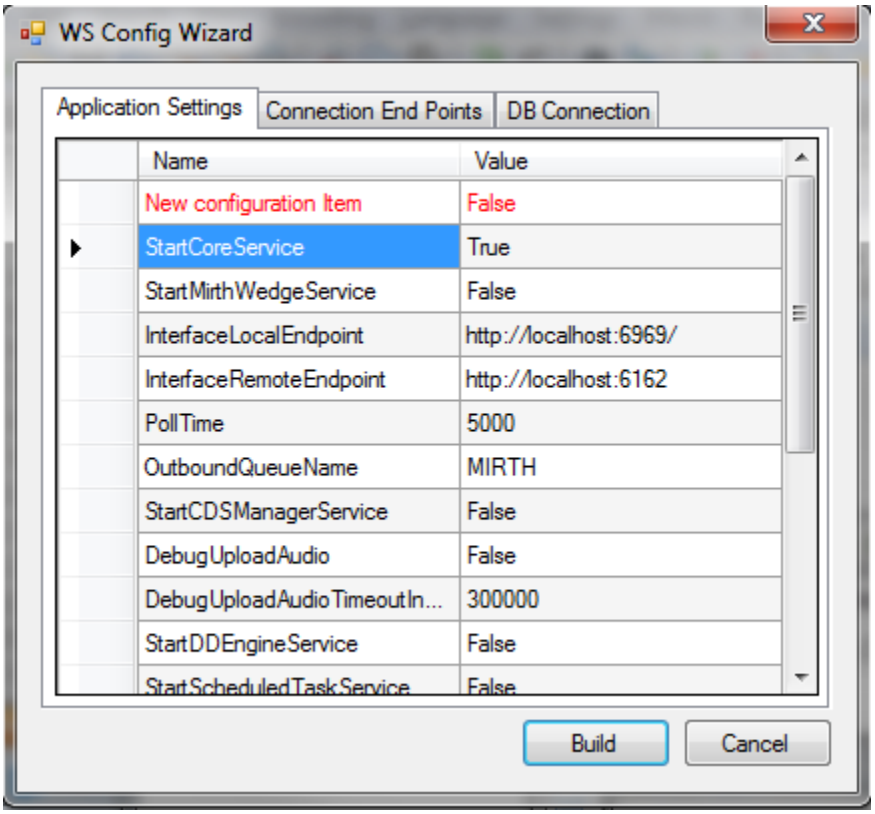
On the install of a new service, all files will be copied to the appropriate locations on the server (no configurations will be over written). If instructed or to confirm no new configurations have been added the user can run the new application “ServicesConfigWizard.exe”

This application will read the existing configuration file(s) (if files exist), and compare to the provided new configuration files then will display three tabs, for each configuration file:

**Application Settings:** all existing configuration value will be displayed, if there are any new configuration entries they will be displayed in red.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

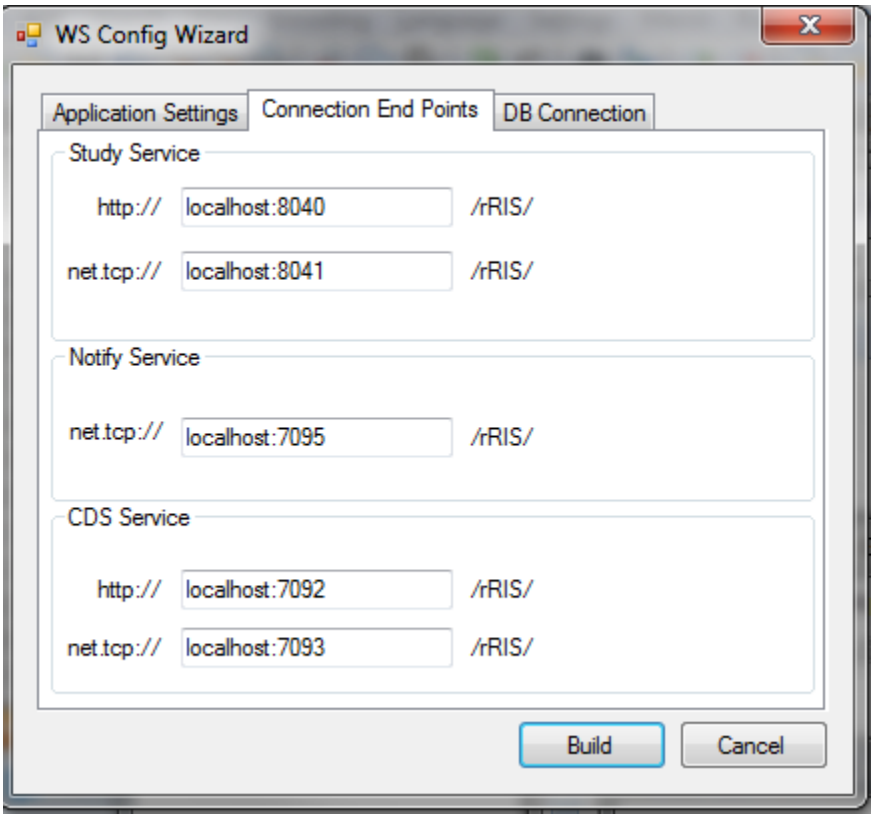
in any form or by any means without the prior written permission from eRAD. 




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

**Connection End Points:** will display the existing configuration, if the value is left blank then that entry will not be created, in the case of “Study Service” or “CDS Service” if both http and net.tcp were not provided then that endpoint will not be created at all.




## DATABASE UPDATES

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

Always run the upgrade scripts in a test environment of the actual database to make sure they run cleanly. If any errors occur please contact development.

*Note: There is a new upgrade process introduced with B43.1 called "RunUpgrade.bat". The batch file will open a command window. This process will prompt you for the database server name, database name and authentication credentials. There is no need to run the database upgrade scripts manually as was done in previous releases.*

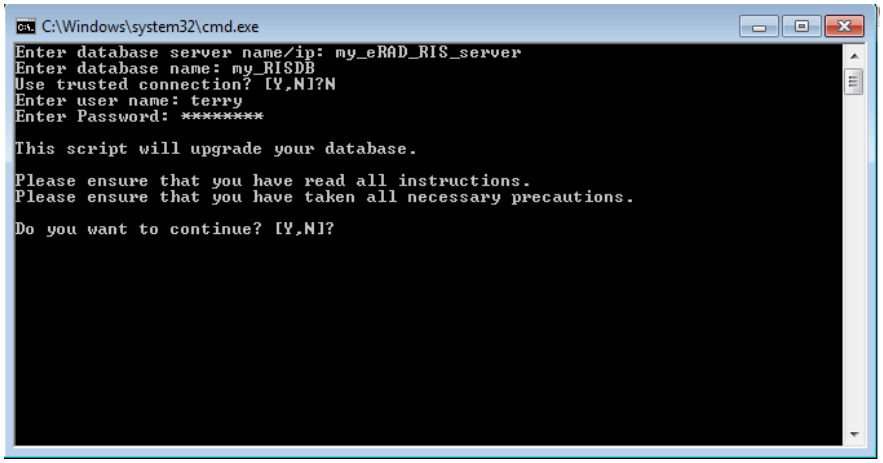
1) From the upgrade folder, double click the “RunUpgrade.bat” command file.

2) Enter the server name, database name and authentication credentials to the database. You have 2 choices for authentication credentials.

3) You can choose to use “Trusted connection”. Using this option will pass the identity of the currently logged on user. If this user has “db_owner” access to the eRAD RIS database then feel free to use this options.

4) If you decide not to use “Trusted connection” then you will be prompted for user id and password.

   Example:




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

5) After the upgrade program has finished you can find the upgrade logs in the “log” folder. The file name will be eRAD_RIS_db_upgrade_timestamp.log, where timestamp is a value representing the date and time the upgrade started. If you see any errors please contact the development team

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

# Server Update

For eRAD RIS

Version 2.0

Build 2.2017.1

Update 2.2017.1.2

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

# Table of Contents

Resolved Items ..... 10

Code Stream ..... 11

Package Contents ..... 12

Intended Audience ..... 12

Who is affected ..... 12

eRAD RIS Release Version Numbers ..... 13

Installing ..... 14

- Client/GUI ..... 14
- Web Service ..... 14
- Database Updates ..... 16

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## NEW SYSTEM CONFIGURATION SETTINGS

| Setting | Default | Purpose |
|---|---|---|
| AppointmentSearchMaxResults | -1 | (value = int) Specify the number of appointment slot results to be returned by the scheduling engine. -1 turns off the feature. Changing the default is only recommended for customers scheduling via an External Interface Service. These customers should use a number higher than the recommended minimum of 500. |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

## NEW FEATURES

### FEATURE #16137 – CARESTREAM PACS INTEGRATION – ABILITY TO OPEN PRIOR STUDIES WHEN PRIMARY STUDY IS NOT AVAILABLE

Before an exam is performed, it is sometimes necessary for the radiologist to view the prior images for the patient. Previously, when a radiologist opened the reporting screen, the *view session* would not be initiated if the current study was unavailable. Without this, the prior studies could not be launched from the reporting screen. To allow for this functionality, a new setting is now available in the CSHConfig.xml file: empty_view_session_on_fail.

Changing this setting to True will adjust the CSH integration behavior to make the ShowStudy call to PACS act as if the primary study opened correctly, even if it has failed because current images do not yet exist. Please note that with this setting turned on, the radiologist will not be prompted that the primary study failed to open, and the mini-Patient Folder will indicate that the PACS status for the primary study is Open. At this point, the radiologist can double click on the desired prior study. RIS will ask the PACS what studies have loaded and upon finding that nothing is loaded, the normal Append call will be replaced with a ShowStudy call. At this point, images for the prior will open, and both current and prior studies will be listed as Open.

To support this behavior, the supports_append setting in the CSHConfig.xml file needs to be set to True.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## FEATURE #16240 – APPOINTMENT SEARCH IMPROVEMENTS FOR EXTERNAL INTERFACE SERVICE

Some customers use an interface to search the RIS for available appointment slots, which required some performance improvements. Alterations to some of the behind-the-scenes logic were made, which has led to significant performance gains.

In addition, there is now a System Configuration setting which will allow an appointment slot search to be made via the interface to return a given number of results, regardless of the appointment date. Because this method of searching via the interface will bypass the time frame requirement and instead limit search results by the number of results returned, this allows users scheduling in an external system to perform one search when there may not be any appointments available in the next few weeks. The user can simply search and X number of the next available appointments will be returned, even if the first is not available for several weeks.

The System Configuration setting is *AppointmentSearchMaxResults*. By default, this setting is "-1" which means that the functionality is turned off. In that case, all possible results in the given time period will be displayed as usual. If set to 2,000, then the first 2,000 time slots will be available, regardless of the timeframe when searching via the interface service.

Setting this value too low will yield searches with few or even no appointment slots returned. The recommended minimum setting is 500, but care should be taken when setting this configuration to anything under 1,000.

Important Note: This setting controls both the results from the External Interface Service and the results for users searching directly in the RIS. However, users working directly in the RIS cannot bypass the date range requirement. Therefore, it is recommended to only adjust this setting if scheduling is done via the External Interface Service. If scheduling directly in the RIS, the setting default of -1 should be used to disable the feature.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## FEATURE #16201 – ERAD RIS NOW SUPPORTS UPDATING SEQUENCE ID VIA THE INBOUND EXTERNAL INTERFACE SERVICE

When the schema for inbound study container messages was initially built, sequence ID was not included in the schema. In order to perform updates or additions to any table in the study container which has a sequence ID, the sequence ID has been added to the schema.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

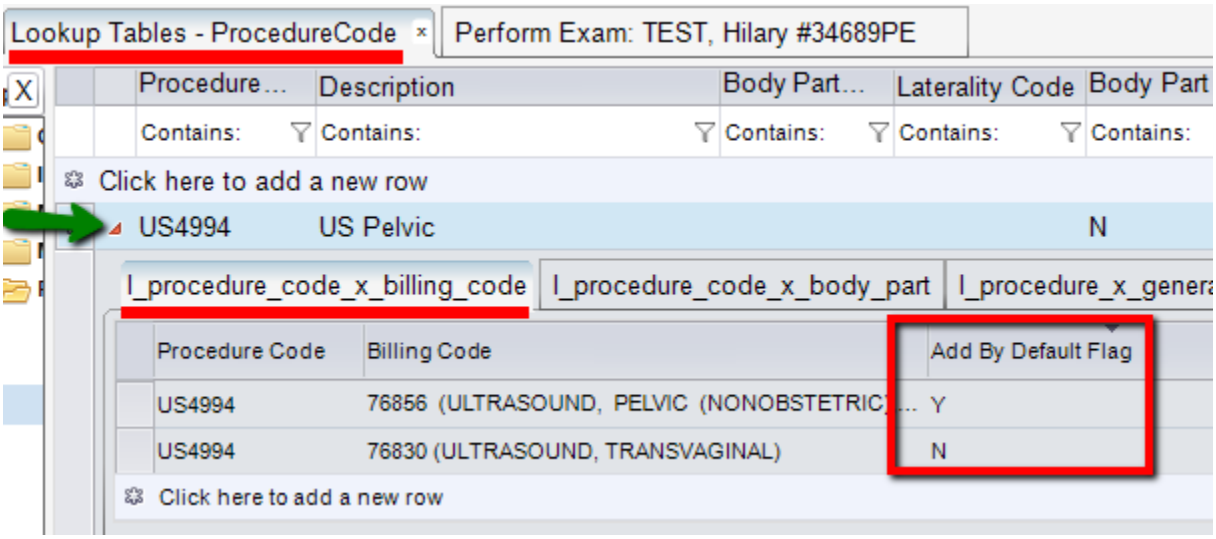
## FEATURE #16299 - ERAD RIS NOW SUPPORTS BOTH DEFAULT AND "RECOMMENDED" BILLING CODES

Previously, all billing codes associated to a procedure were active by default. In some cases, it may be useful to also associate billing codes that are *sometimes* used for a particular procedure. For example, some customers use a workflow in which procedure codes are broad, such as CT Sinus. In this case, the billing code might be the CPT for CT Sinus "with contrast," "without contrast," *or* "with and without contrast." Also, the contrast CPT may or may not be relevant depending on what is performed.

In these cases, being able to associate the billing codes that are most likely to be used for a particular procedure is more beneficial than creating default billing codes that are always active for the exam and have to be deactivated by the technologist.

To allow for this workflow, a new column has been added to the *l_procedure_code_x_billing_code* sub-table, which is found in the Procedure Code look-up table. The column, ***Add By Default***, will default to Y, meaning that the billing code will be associated and active for that procedure. This is the same as the previous behavior.

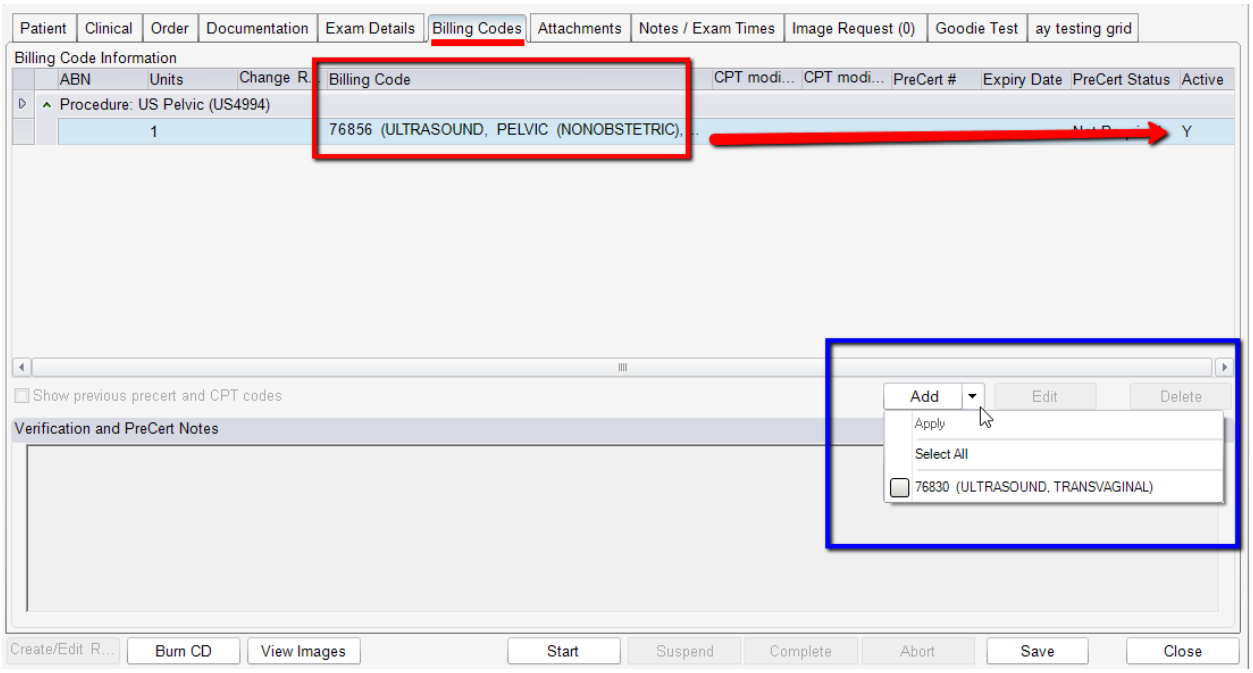
To associate billing codes without actively adding them to the procedure, set the Add By Default column to N. As you can see in the table below, it is possible to have a combination of Default billing codes and recommended/possible billing codes.



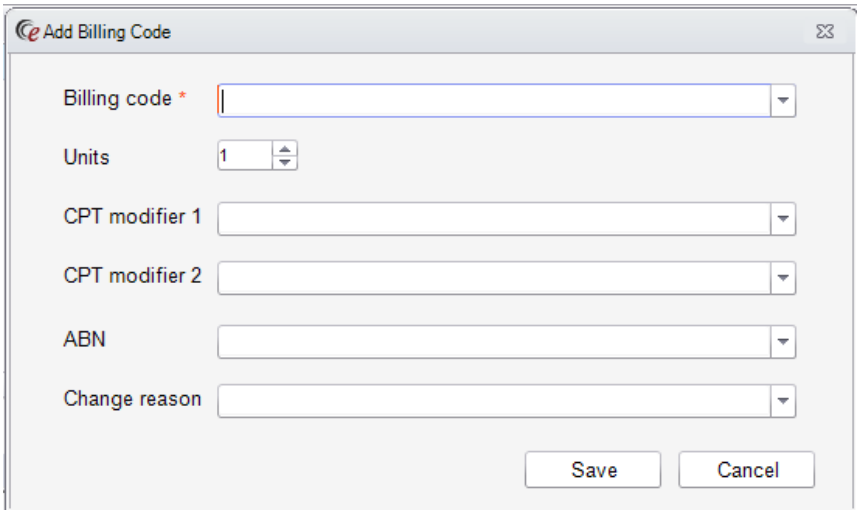

In the example above, the only billing code that will be automatically added for the US Pelvic procedure is 76856. The billing code 76830 will now be available from a quick pick list, as shown below.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 




When suggested codes are available for a procedure, the Add button will have a dropdown arrow allowing the user to quickly select and apply the suggested billing codes. Clicking the main Add button, instead of the dropdown arrow, will open the normal Add Billing Code screen where the entire list of Billing Codes can be accessed.

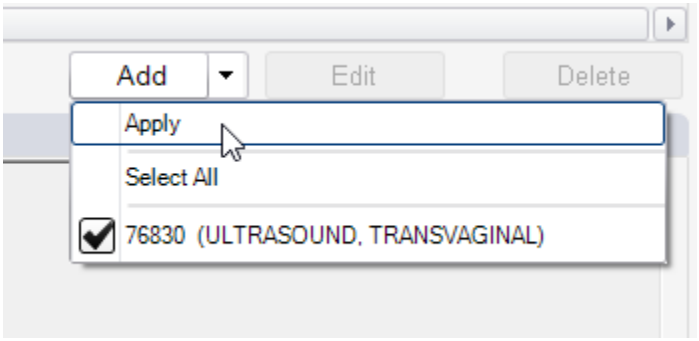



No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

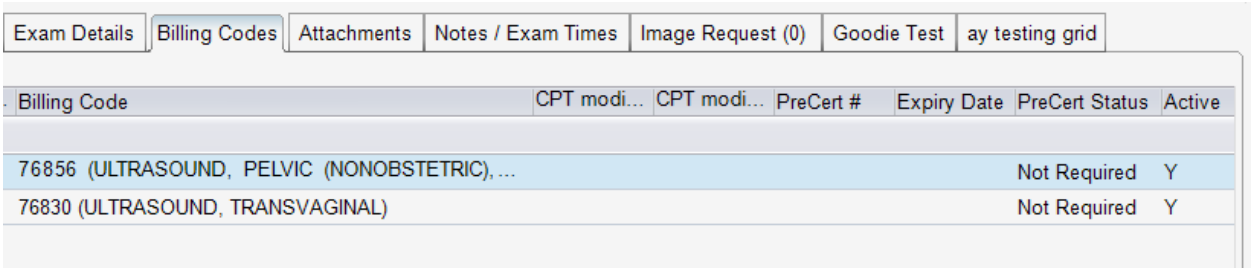
in any form or by any means without the prior written permission from eRAD. 

If no recommendations exist, the Add button will not have the dropdown arrow and the Add Billing Code screen is the only option for adding additional billing codes.

To use suggested billing codes, check the box(es) and click the Apply button.




This will add the billing code to the procedure in an Active status.




Keep in mind that suggested billing codes will not trigger IVT workflow. Once the suggested billing code has been added to the exam, it will be treated like normal active billing codes.

It is also now possible to select multiple lines in the active Billing Codes grid in order to delete them all at once, if needed. Selecting rows and clicking the Delete key on the keyboard is also allowed. The user will be prompted to confirm that they want to delete the selected billing code(s). Deleting a saved billing code row is the same as marking the row as "Active = N". If suggested billing codes are added, but deleted *before* the exam is saved, the row will simply be deleted.

The billing codes associated to any procedure code currently will all be set as Add By Default = Y at the time of the upgrade, which means that they will continue to behave as they did prior to upgrading.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## RESOLVED ITEMS

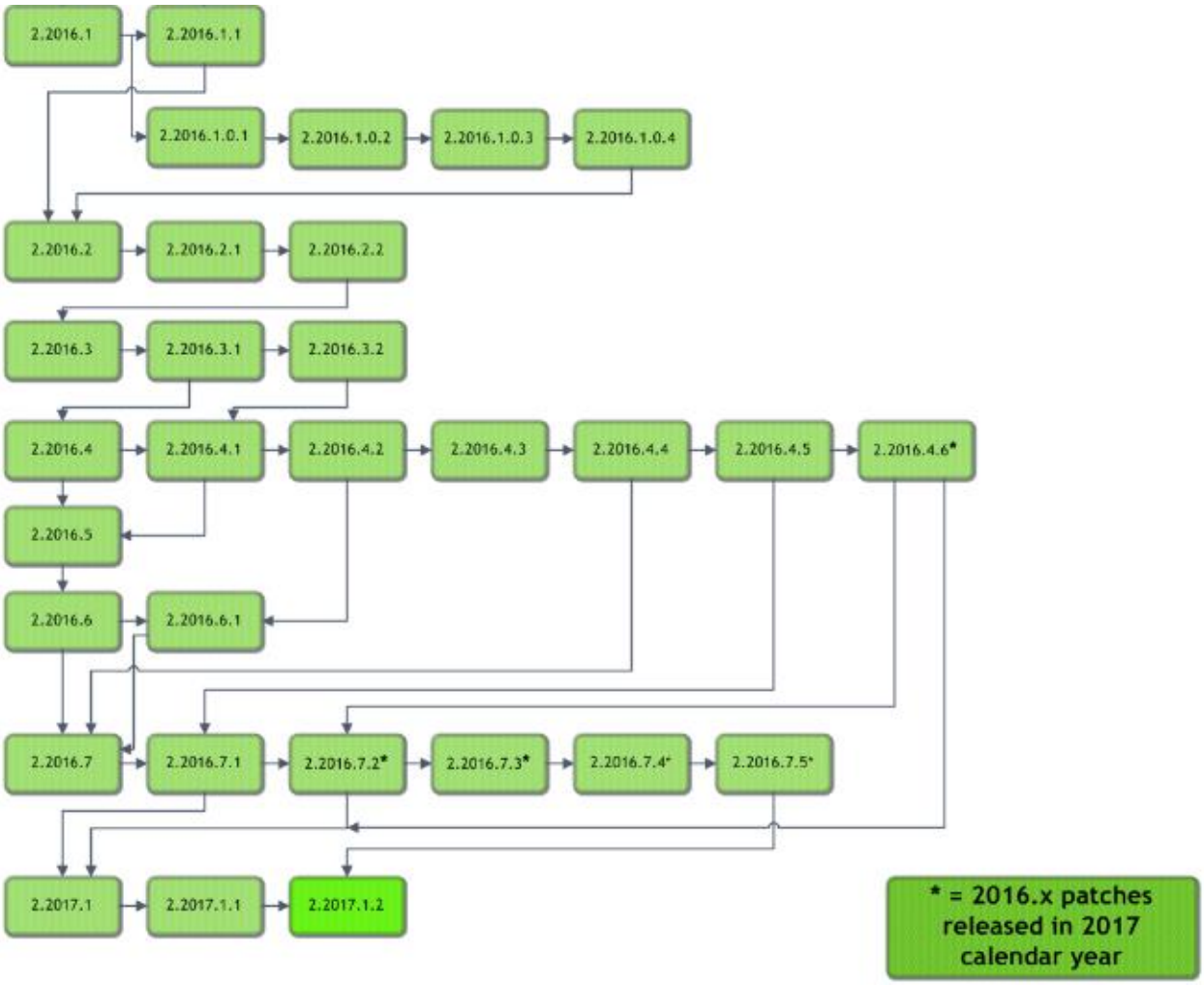
eRAD RIS

| Redmine # | Subject |
|---|---|
| 16249 | External Interface Service - Appointment Search not respecting time portion of StartDate and EndDate |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

## CODE STREAM




## Legend:

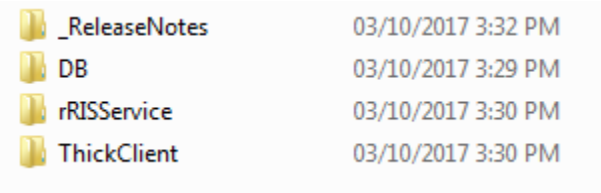
Light Green = Previously Released software

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## PACKAGE CONTENTS




## INTENDED AUDIENCE

THE INTENDED AUDIENCE FOR THIS DOCUMENT IS THE RADNET CLINICAL SYSTEMS TEAM AND THE ERAD SUPPORT/SERVICE TEAM.

## WHO IS AFFECTED

Build 20117.1 installs. This server update must be applied to 2017.1.1

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

## ERAD RIS RELEASE VERSION NUMBERS

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Digital Forms | Patient Portal | UM Portal | Notes |
|---|---|---|---|---|---|---|---|---|---|
| 2016.1 | - | 2.16.1.0.33419 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | | | | GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge |
| 2016.1 | 1 | 2.16.1.1.33672 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | | | | GUI.zip |
| 2016.1 | .0.1 | 2.16.1.0.1 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | | | | GUI.zip (This is not included in 2016.1.1, version directly above) |
| 2016.1 | .0.2 | 2.16.1.0.1 (3GB) | 2.16.1.0.33079 | 2.16.1.0.2 | 2.16.1.0.33416 | | | | Wedge Web Services only |
| 2016.1 | .0.3 | 2.16.1.0.3 (3GB) | 2.16.1.0.33079 | 2.16.1.0.3 | 2.16.1.0.3.00128918 | | | | GUI.zip, Web Services and DB |
| 2016.1 | .0.4 | 2.16.1.0.4 (3GB) | 2.16.1.0.33079 | 2.16.1.0.4 | 2.16.1.0.3.00128918 | | | | GUI.zip, Web Services |
| 2016.2 | - | 2.16.2.0 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.0.00172540 | | | | Full Version Release - GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge |
| 2016.2 | 1 | 2.16.2.1 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.0.00172540 | | | | GUI.zip and Citrix Bridge |
| 2016.2 | 2 | 2.16.2.2 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.2.00243102 | | | | GUI.zip, DB and Citrix Bridge |
| 2016.3 | - | 2.16.3.0 (3GB) | 2.16.3.0 | 2.16.3.0 | 2.16.3.0.00257101 | 2.16.3.0 | | | Full Version Release |
| 2016.3 | 1 | 2.16.3.1 | 2.16.3.0 | 2.16.3.1 | 2.16.3.1.00298834 | 2.16.3.0 | | | GUI.zip, Web Service and DB |
| 2016.3 | 2 | 2.16.3.2 | 2.16.3.0 | 2.16.3.2 | 2.16.3.1.00298834 | 2.16.3.0 | | | GUI.zip and Web Service |
| 2016.4 | - | 2.16.4.0 | 2.16.4.0 | 2.16.4.0 | 2.16.4.0.00301943 | 2.16.4.0 | 1.16.4.0.310284 | | Full Version Release |
| 2016.4 | 1 | 2.16.4.1 | 2.16.4.0 | 2.16.4.1 | 2.16.4.0.00301943 | 2.16.4.0 | 1.16.4.0.310284 | | GUI and Web Service updates |
| 2016.4 | 2 | 2.16.4.2 (3GB) | 2.16.4.0 | 2.16.4.1 | 2.16.4.0.00301943 | 2.16.4.0 | 1.16.4.2.460241 | | GUI and Patient Portal updates |
| 2016.4 | 3 | 2.16.4.3 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | 1.16.4.3.489120 | | GUI and Patient Portal updates |
| 2016.4 | 4 | 2.16.4.4 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | 1.16.4.3.489120 | | GUI |
| 2016.4 | 5 | 2.16.4.5 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | | | GUI |
| 2016.4 | 6 | 2.16.4.6 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | | | GUI |
| 2016.5 | - | 2.16.5.0 (3GB) | 2.16.5.0 | 2.16.5.0 | 2.16.5.0.00349303 | 2.16.5.0 | 1.16.5.0.362009 | | Full Version Release |
| 2016.6 | - | 2.16.6.0 (3GB) | 2.16.6.0 | 2.16.6.0 | 2.16.6.0.00411295 | 2.16.6.0 | 1.16.6.0.432471 | | Full Version Release |
| 2016.6 | 1 | 2.16.6.1 (3GB) | 2.16.6.0 | 2.16.6.0 | 2.16.6.0.00411295 | 2.16.6.0 | 1.16.6.1.468583 | | GUI and Patient Portal updated |
| 2016.7 | - | 2.16.7.0 (3GB) | 2.16.70 | 2.16.70 | 2.16.7.0.00490835 | 2.16.70 | 1.16.7.0.493031 | 2.16.7.0.493008 | Full version release |
| 2016.7 | 1 | 2.16.7.1 (3GB) | 2.16.7.0 | 2.16.7.1 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | GUI and Web Service updates |
| 2016.7 | 2 | 2.16.7.2 (3GB) | 2.16.7.0 | 2.16.7.2 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | GUI and Web Service updates |
| 2016.7 | 3 | 2.16.7.3 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | GUI and Web Service updates |
| 2016.7 | 4 | 2.16.7.4 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | GUI |
| 2016.7 | 5 | 2.16.7.5 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | GUI |
| 2017.1 | - | 2.17.1.0 (3GB) | 2.17.1.0 | 2.17.1.0 | 2.17.1.0.00559886 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | Full Version Release |
| 2017.1 | 1 | 2.17.1.1 (3GB) | 2.17.1.0 | 2.17.1.1 | 2.17.1.1.00589952 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | GUI, Web Service and DB updates |
| **2017.1** | **2** | **2.17.1.2 (3GB)** | **2.17.1.0** | **2.17.1.2** | **2.17.1.2.00621962** | **2.17.1.0** | **2.17.1.0.572290** | **2.17.1.0.00000** | **GUI, Web Service and DB updates** |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

# INSTALLING

## CLIENT/GUI

Copy and replace the current rRIS…zip file with the eRAD_rRIS_2017.1.2.zip file provided with this release.

Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

## WEB SERVICE

This updated is only required for the Wedge Web Services. The Core RIS Service and Document Distribution Service are not required to be updated.

1. The web service upgrade consists of replacing the files in the RIS Web Service directory with the files supplied in the rRISService folder with this build. Always create a backup of the files being replaced. This upgrade includes 128 files in the rRISService folder and 7 sub folders. Of those folders, 1 is a folder titled **"XSL"** that contains a sub folder and files within the subfolder. Another folder is titled **"deploy"** that contains the new .config files that will be deployed with the user of the file called "ServicesConfigWizard.exe" (see instructions below). Folders ar (Arabic), he (Hebrew), pt_BR (Brazilian Portuguese) and es-AR (Argentina Spanish) are localization folders. The WedgePlugins folder contains various plugin files for RADAR, MIRTH, Ensemble, etc…

**Services Configuration Wizard**

With the release of 42 to decrease the chance of losing configuration setting and missing new configuration options, we will no longer include the configuration files in the release in the main set of files, but they will now exist in a "deploy" folder, which will contain the three site configurable config files; applicationsettings, connectionstrings, and services as well as a copy of the rRISServices.exe configuration file. The contents of this folder should not be required to be touched.

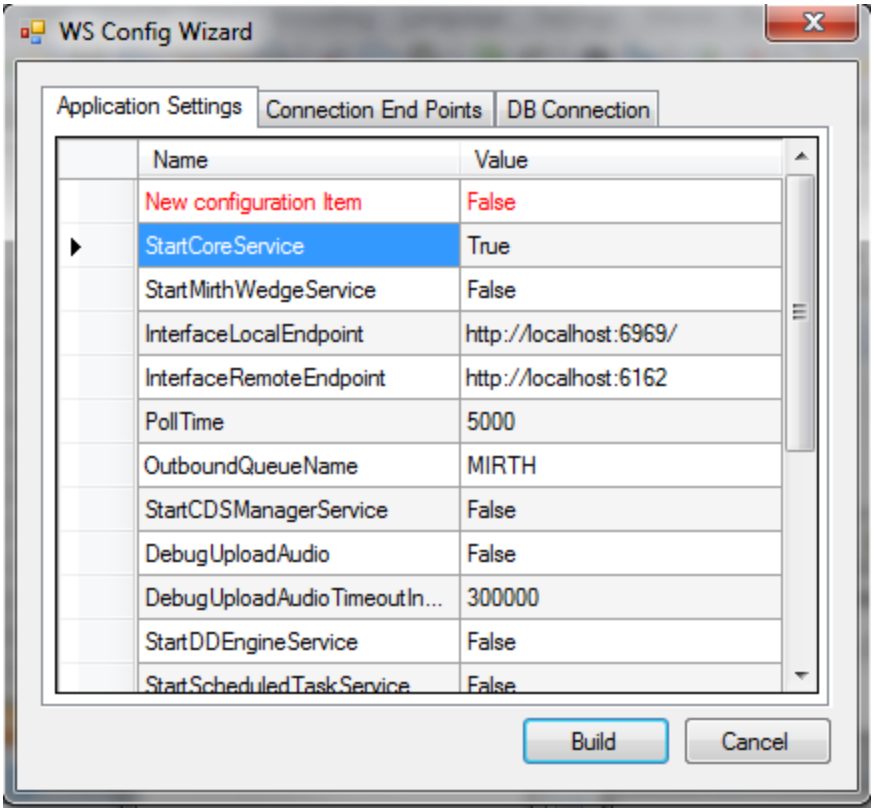
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

On the install of a new service, all files will be copied to the appropriate locations on the server (no configurations will be over written). If instructed or to confirm no new configurations have been added the user can run the new application "ServicesConfigWizard.exe"

This application will read the existing configuration file(s) (if files exist), and compare to the provided new configuration files then will display three tabs, for each configuration file:

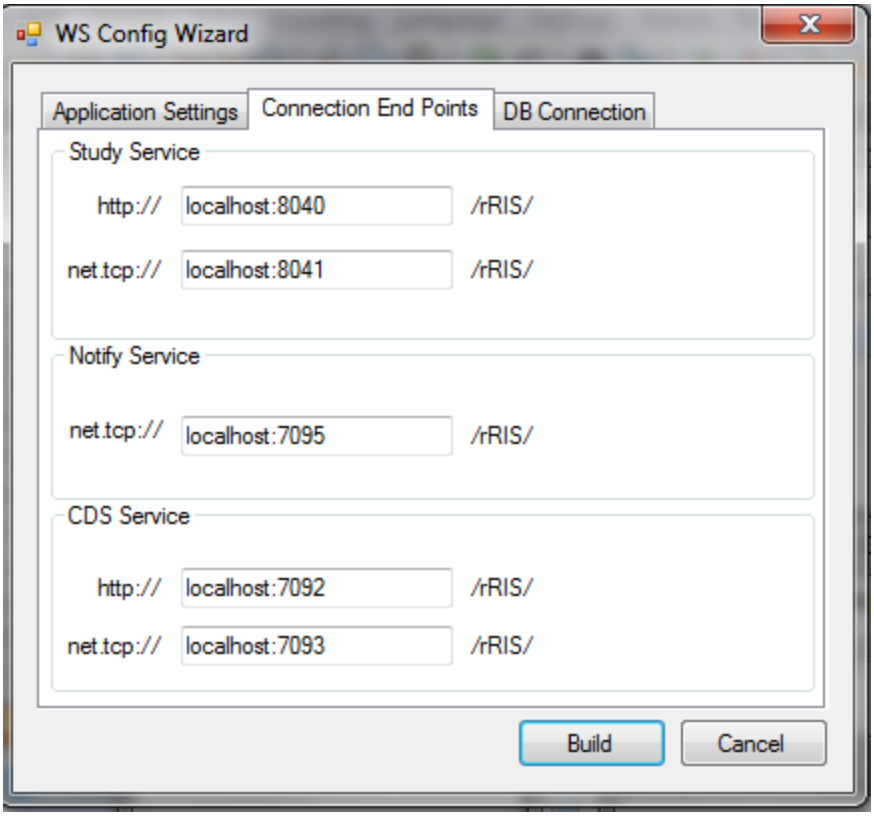
**Application Settings:** all existing configuration value will be displayed, if there are any new configuration entries they will be displayed in red.




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

**Connection End Points:** will display the existing configuration, if the value is left blank then that entry will not be created, in the case of “Study Service” or “CDS Service” if both http and net.tcp were not provided then that endpoint will not be created at all.




## DATABASE UPDATES

Always run the upgrade scripts in a test environment of the actual database to make sure they run cleanly. If any errors occur please contact development.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

*Note: There is a new upgrade process introduced with B43.1 called "RunUpgrade.bat". The batch file will open a command window. This process will prompt you for the database server name, database name and authentication credentials. There is no need to run the database upgrade scripts manually as was done in previous releases.*

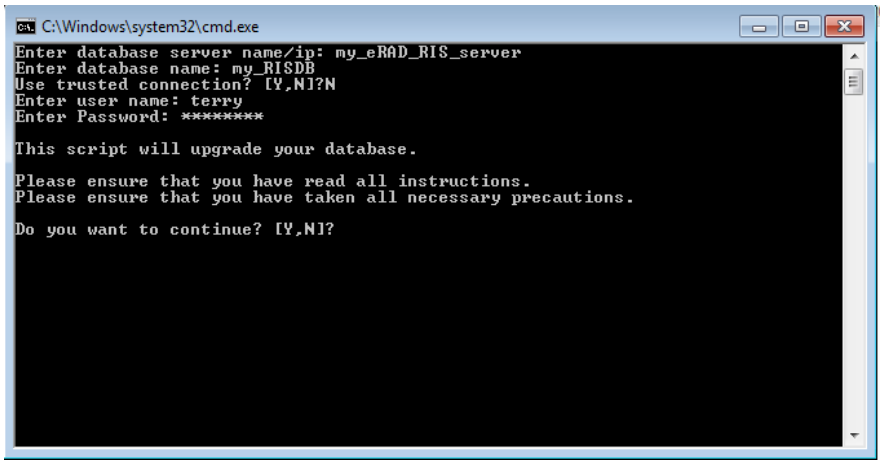
1) From the upgrade folder, double click the “RunUpgrade.bat” command file.

2) Enter the server name, database name and authentication credentials to the database. You have 2 choices for authentication credentials.

3) You can choose to use “Trusted connection”. Using this option will pass the identity of the currently logged on user. If this user has “db_owner” access to the eRAD RIS database then feel free to use this options.

4) If you decide not to use “Trusted connection” then you will be prompted for user id and password.

   Example:




5) After the upgrade program has finished you can find the upgrade logs in the “log” folder. The file name will be eRAD_RIS_db_upgrade_timestamp.log, where timestamp is a value representing the date and time the upgrade started. If you see any errors please contact the development team

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

# Server Update

For eRAD RIS

Version 2.0

Build 2.2017.1

Update 2.2017.1.3

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

# Table of Contents

New Configuration Settings ..... 3

System Configuration Settings ..... 3

Access Strings ..... 3

New Features ..... 4

Feature #16292 – Technologist can now add additional exams to the order from Perform Exam tab ..... 4

Feature #16294 – Copy/Paste feature now includes “Technologist Verified ID” ..... 6

Feature #16293 – Technologist information can automatically copy to all Linked studies ..... 7

Feature #16138 - Validation rules framework has been extended to consider tables ..... 9

Feature #16299 - eRAD RIS now supports both default and “recommended” billing codes ..... 17

Feature #16310 – Validation Rule to alert user when no billing codes are present ..... 21

Resolved Items ..... 23

Code Stream ..... 24

Package Contents ..... 25

Intended Audience ..... 25

Who is affected ..... 25

eRAD RIS Release Version Numbers ..... 26

Installing ..... 27

Client/GUI ..... 27

Web Service ..... 27

Database Updates ..... 30

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

# NEW CONFIGURATION SETTINGS

## SYSTEM CONFIGURATION SETTINGS

| Setting | Default | Purpose |
|---|---|---|
| AutoIncludeLinkedStudiesForTech | False | (value = True/False) Determines if linked studies are automatically included (checked) on Perform Exam screen when a linked study is opened. |
| AutoCopyPasteLinkedStudies | False | (value = True/False) Determines if data is copied to all linked studies when one study in a collection is saved on the Perform Exam screen. |

## ACCESS STRINGS

| Setting | Default | Purpose |
|---|---|---|
| Clinical.Tech.AllowAddExam | None | Allows access to the “Add exam to current order” button on Perform Exam screen. |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

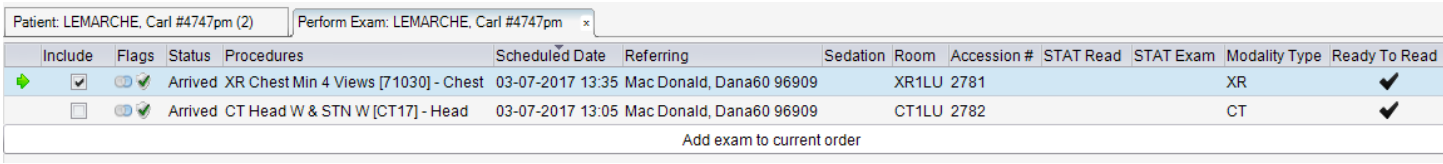
in any form or by any means without the prior written permission from eRAD.

## NEW FEATURES

### FEATURE #16292 – TECHNOLOGIST CAN NOW ADD ADDITIONAL EXAMS TO THE ORDER FROM PERFORM EXAM TAB

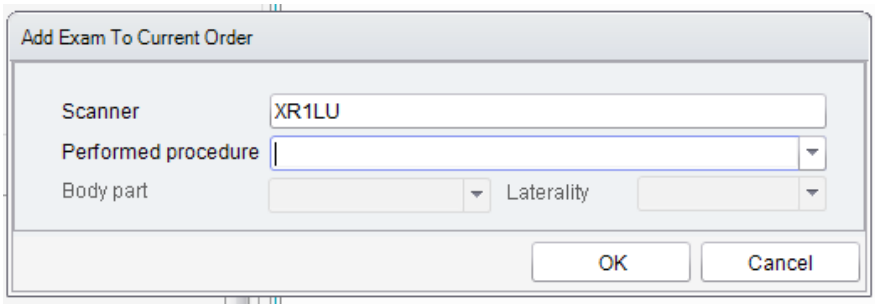
Technologists often need to add additional studies to the order when the patient is already on the table, after receiving feedback from the radiologist or upon realizing that the referral contains a separate exam that was not registered. Technologists need a method to add additional studies with fewer steps, as long as the study belongs to the same order (which would also necessitate the same referring physician and payment method).

To increase efficiency for this workflow, users can be granted a new access string named *Clinical.Tech.AllowAddExam*. The default for this access string is None. If set to Full, a technologist will have access to a new button on the Perform Exam tab labeled "*Add exam to current order*." The button is located beneath the list of today's exams at the top of the Perform Exam tab.




Clicking the "Add exam to current order" button will allow the technologist to add a new exam to the currently selected Order without going through the registration process.

A new window will open for the technologist to select the procedure, along with Body Part and Laterality if applicable.




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

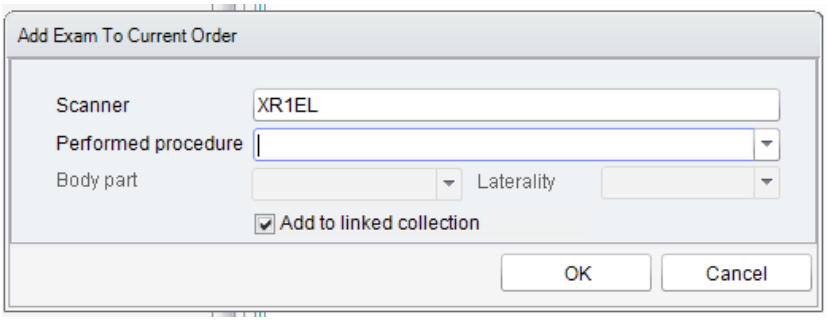
in any form or by any means without the prior written permission from eRAD. 

Currently, the scanner (room) is hard coded to match the same scanner as the existing procedure. In the next phase, this will be expanded to allow the technologist to select a different scanner.

The procedures available in the dropdown will include any procedure code that is part of the Schedule Group for the scanner.

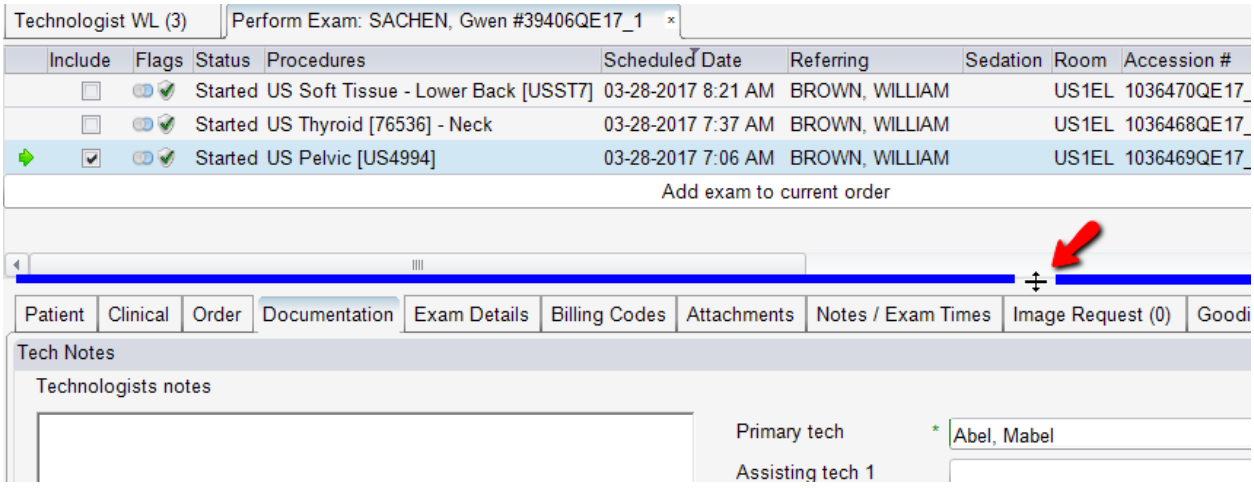
Upon clicking OK, a new exam will be added to the existing order. The Date and Time will default to the current date and time, similar to a Walk In.

For customers using Linked Reports, another option will be available if the current study is part of a set of linked studies.




Checking the "Add to linked collection" checkbox will automatically add the new procedure to the linked set. RIS will set the linked id and display the linked flag for the new study. This box will be checked by default.

It has always been possible to adjust the height of the list of today's procedures at the top of the Perform Exam tab by hovering on the dividing line and click/dragging when the double arrow appears. RIS will now remember this position and re-open with the same height for the next patient.

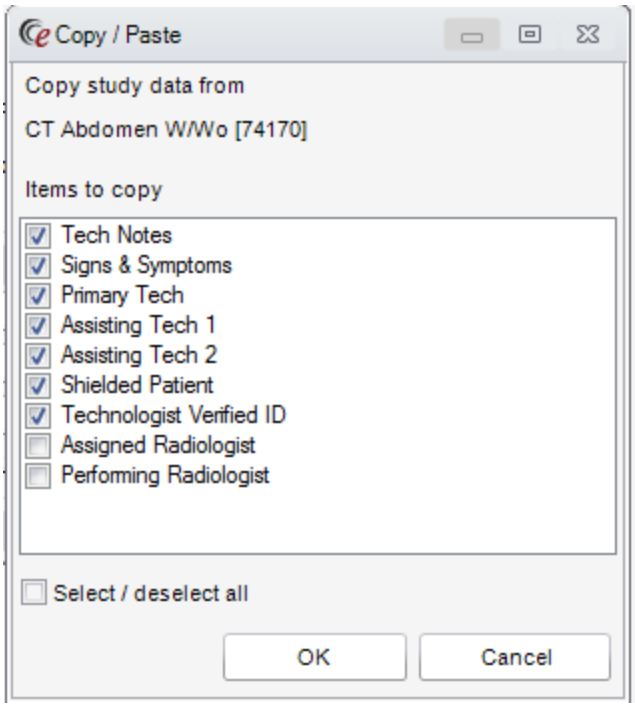



No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## FEATURE #16294 – COPY/PASTE FEATURE NOW INCLUDES "TECHNOLOGIST VERIFIED ID"

On the Perform Exam screen (Documentation tab), there is an option to Copy/Paste certain data elements to other included studies (via the Include checkbox). An option to include the "Technologist Verified ID" field in the Copy/Paste options has been added. This option will be checked by default.




There are a few related database fields that track the user id of the technologist and the date/time that this field was updated. The core RIS services ensure that these fields are also kept in sync when the copy/paste function is used.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## FEATURE #16293 – TECHNOLOGIST INFORMATION CAN AUTOMATICALLY COPY TO ALL LINKED STUDIES

When using the Linked Reporting feature, linked studies are not sent to the radiologist for dictation until all studies are completed by the technologist. For customers using linked reporting for exams that are performed on different days or in different modalities, it is preferable to prevent the radiologist from dictating before all of the images are available. However, for customers who routinely use Linked Reporting for multiple x-ray exams performed at the same time by the same technologist, this can cause workflow problems for linked reporting if the technologist forgets to complete one of the studies. In these environments, it is also desirable for certain information, such as primary technologist, technologist notes, and pregnancy status, to automatically copy to all of the studies that are part of the linked set.

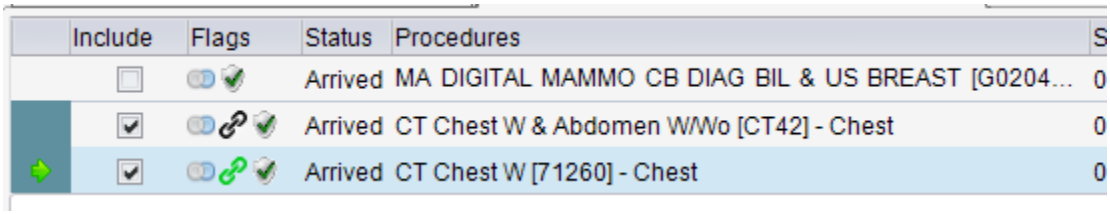
For these purposes, the following System Configuration options are now available:

- *AutoIncludeLinkedStudiesForTech* – When set to True, RIS will automatically "include" all studies in a linked collection when the perform exam window is opened. This allows the technologist to Start and Complete all of the exams together. The default for this setting is False. In a future build, RIS will exclude studies in the linked collection if they have a different Modality Type. For this first phase, this behavior will apply to all studies in the linked collection ***regardless*** of Modality Type.

- *AutoCopyPasteLinkedStudies* – When set to True, RIS will automatically copy/paste all available fields from the most recently saved exam to all other checked exams in the linked collection. The Copy/Paste will occur any time a user saves any of the studies in the linked set from the Perform Exam screen. The default for this setting is False. To use this setting, the first setting, *AutoIncludeLinkedStudiesForTech*, must also be set to True.

Setting both of the above System Configuration settings to True will make the following workflow possible:

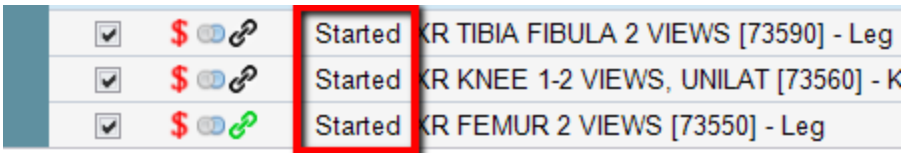
The technologist can open a study from the Technologist worklist and other studies that are part of the linked set will automatically be Included.




The technologist can fill in any fields that are required upon Start (e.g. entering the Primary Technologist). Clicking Start will copy the information to all of the checked studies and all of the studies will move to Started status.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 




Additional information can be added on the Documentation tab and upon the next action which includes a save, such as Complete, Suspend or Save, the fields will copy to all of the included exams that are part of the linked set. Fields that will be copied include: Tech Notes, Signs & Symptoms, Primary Tech, Assisting Tech 1, Assisting Tech 2, Shielded Patient, Pregnancy Status information, Technologist Verified ID, Assigned Radiologist, and Performing Radiologist. These are the same fields that are available for manual (optional) copy/paste workflow, which is still available for customers who would not benefit from this new feature.

Please note that when the new feature is used, it is not possible to handle any of the linked studies separately. In other words, they cannot be de-selected from the Include workflow if they are part of the linked set.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## FEATURE #16138 - VALIDATION RULES FRAMEWORK HAS BEEN EXTENDED TO CONSIDER TABLES

Validation rules can now be created based off of patient/exam information that exists in tables, such as associated insurance carriers, MRNs and attachments.

Using the enhanced capability, the following validation rules are now possible:

1. Ability to require that at least one insurance is added if Self Pay is not selected.
2. Ability to warn the user, or prevent them from continuing, if a particular issuer of MRN has not been added for the patient.
3. Ability to warn the user, or prevent them from continuing, if a particular scanned document type (such as Referral) is not associated to an order.

As with all validation rules, the timing of the warning or hard stop can be customized.

These are only a few examples of rules that can be created. Please contact eRAD Support to inquire about creating validation rules for your organization.

Service Notes:

The concept of table expressions was added to validation rules in order to allow for rules that consider 1-n type tables. When creating a validation rule, it is now possible to choose a data set and data table, then choose "(ComputedExpression)" and enter an expression and filter that will be evaluated against the specified table.

The property grid in the validation editor was updated to include a section called *Table Expressions* with two properties: Expression and ExpressionFilter. The expression is an aggregate function like Sum, Avg, Min, Max, Count, StDev, or Var. A description of aggregate expressions can be found here:

https://msdn.microsoft.com/en-us/library/system.data.datacolumn.expression(v=vs.110).aspx

The ExpressionFilter can be used to determine which rows should be included in the expression. Expressions take the form of "<column_name> <operator> <filterValue>" (e.g. "active_flag = 'Y'"), but they may also include Boolean (AND/OR) logic (e.g. "active_flag = 'Y' AND sequence_id = 1").

See below for examples of validation rules that utilize the new framework.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## VERIFIED ID VALIDATION RULE

| | |
|---|---|
| **Data Mapping** | |
| DataSetName | **Study** |
| DataTableName | **c_study** |
| FieldName | **(ComputedExpression)** |
| **General** | |
| ActiveFlag | **True** |
| AlertType | **Warning** |
| IgnoreNulls | **True** |
| MessageTemplate | **Patient ID has not been verified** |
| Name | **VerifiedID** |
| Negated | **True** |
| PracticeCode | |
| ValidatorType | **RangeValidator** |
| **Misc Parameters** | |
| DefaultValue | |
| DomainMembers | String[] Array |
| RegexPattern | |
| **Range Parameters** | |
| LowerBound | **0** |
| LowerBoundUnit | None |
| UpperBound | **0** |
| UpperBoundUnit | None |
| **Status Filters** | |
| IntendedUIAction | **UI_PatientArrived** |
| OnOrAfterStatus | |
| **Table Expressions** | |
| Expression | **count(study_key)** |
| ExpressionFilter | **verified_id_flag = 'Y'** |

The Verified ID Validation rule uses a Field of "(ComputedExpression)" and an *ExpressionFilter* of "verified_id_flag = 'Y'" so that RIS will count only the studies that have *verified_id_flag* set to a "Y". The expression *count(study_key)* means that the rule will validate the number of matching studies. The *ValidatorType* is set to a *RangeValidator* so that RIS can evaluate whether the count of matching studies falls within a certain range. The lower bound and

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

upper bound of the range were both set to zero and the rule is Negated, which means RIS will pass validation only if there is at least one study that is verified_id_flag = 'Y'.

## SCANNED DOCUMENT VALIDATION RULES

| | |
|---|---|
| **Data Mapping** | |
| DataSetName | **ScanDocumentList** |
| DataTableName | **c_vw_scan_document_list** |
| FieldName | **(ComputedExpression)** |
| **General** | |
| ActiveFlag | **False** |
| AlertType | **PreventSave** |
| IgnoreNulls | **True** |
| MessageTemplate | **You must have a worksheet** |
| Name | **WorksheetExists** |
| Negated | **False** |
| PracticeCode | |
| ValidatorType | **RangeValidator** |
| **Misc Parameters** | |
| DefaultValue | |
| DomainMembers | |
| RegexPattern | |
| **Range Parameters** | |
| LowerBound | **1** |
| LowerBoundUnit | None |
| UpperBound | **1000** |
| UpperBoundUnit | None |
| **Status Filters** | |
| IntendedUIAction | **UI_PatientArrived** |
| OnOrAfterStatus | |
| **Table Expressions** | |
| Expression | **count(scan_document_key)** |
| ExpressionFilter | **scan_type_code = 'Worksheet' and CurrentOrdersFlag = 'Y'** |

The above "Worksheet Exists" validation rule is built as a blueprint for other scanned document based rules. It is included in the upgrade script, so it can be easily enabled or configured by the service team. *ScanDocumentList* was added as an option for DataSets to validate. The only data table in this data set is *c_vw_scan_document_list*. The *field name* has been set to "(ComputedExpression)". The expression filter is configured to look for scan_type_code = 'Worksheet' and there is an additional check for CurrentOrdersFlag = 'Y', which here means that

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

the scanned document is associated with one of the orders that is currently opened. *CurrentOrdersFlag* is a calculated column that takes into account all open orders and studies, including studies that are associated with a different order (e.g. OrderA/OrderB, a.k.a. bookX). In cases where the business rule called for a scanned document to simply be on file in the patient record, the CurrentOrdersFlag = 'Y' could be omitted. Another calculated column, *CurrentStudiesFlag*, performs the same function, but considers the study level instead. Conditions can be added, so that the Worksheet required in this example would only fire if the study has a Modality Type of Ultrasound.

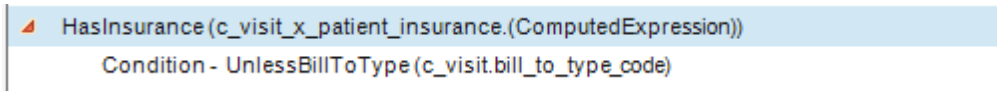
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## PATIENT INSURANCE VALIDATION RULES

The validation rule for patient insurance considers both insurances and self-pay. A rule is used to check *c_visit_x_patient_insurance* and if no rows are found, the rule will check the *bill_to_type_code* on *c_visit* to make sure RIS does not warn the user about missing insurance if "self pay" has been specified.

The rule with corresponding condition looks like this:




Main rule:

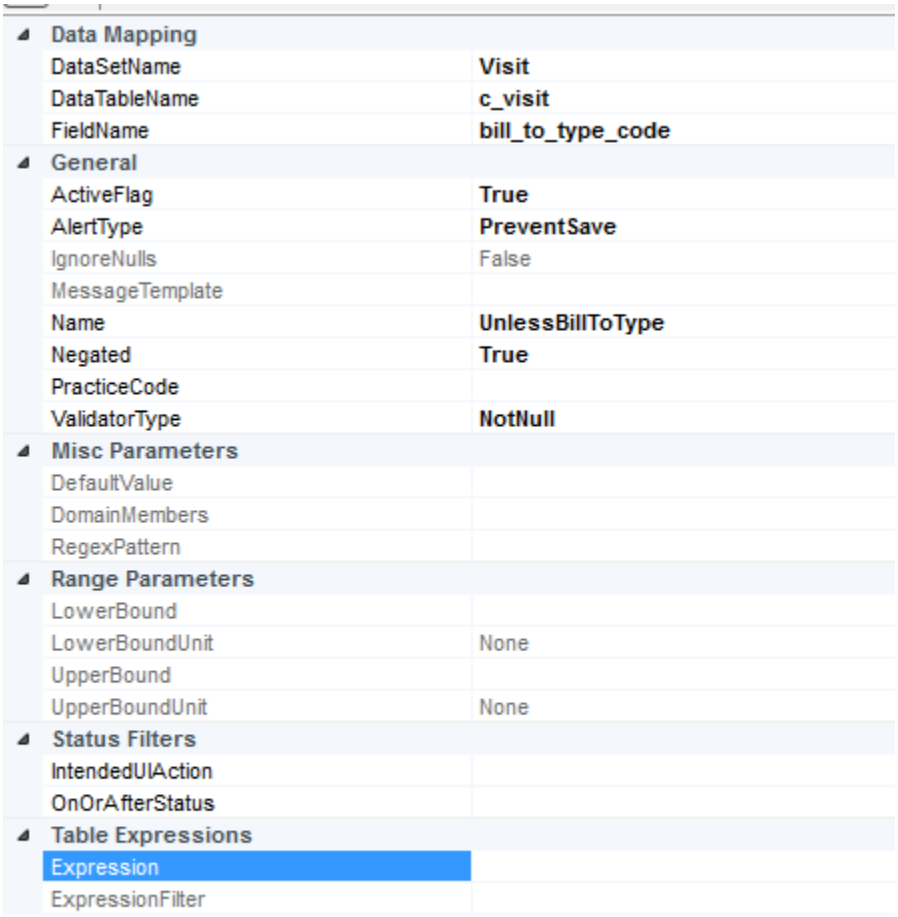
| | |
|---|---|
| **Data Mapping** | |
| DataSetName | **Visit** |
| DataTableName | **c_visit_x_patient_insurance** |
| FieldName | **(ComputedExpression)** |
| **General** | |
| ActiveFlag | **True** |
| AlertType | **Warning** |
| IgnoreNulls | **True** |
| MessageTemplate | **Insurance information was not provided** |
| Name | **HasInsurance** |
| Negated | **False** |
| PracticeCode | |
| ValidatorType | **RangeValidator** |
| **Misc Parameters** | |
| DefaultValue | |
| DomainMembers | |
| RegexPattern | |
| **Range Parameters** | |
| LowerBound | **1** |
| LowerBoundUnit | None |
| UpperBound | **1000** |
| UpperBoundUnit | None |
| **Status Filters** | |
| IntendedUIAction | **UI_PatientArrived** |
| OnOrAfterStatus | |
| **Table Expressions** | |
| Expression | **count(visit_key)** |
| ExpressionFilter | |

The above validation rule checks to see if there is any insurance associated with the current visit.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

Condition:



| | |
|---|---|
| **Data Mapping** | |
| DataSetName | **Visit** |
| DataTableName | **c_visit** |
| FieldName | **bill_to_type_code** |
| **General** | |
| ActiveFlag | **True** |
| AlertType | **PreventSave** |
| IgnoreNulls | False |
| MessageTemplate | |
| Name | **UnlessBillToType** |
| Negated | **True** |
| PracticeCode | |
| ValidatorType | **NotNull** |
| **Misc Parameters** | |
| DefaultValue | |
| DomainMembers | |
| RegexPattern | |
| **Range Parameters** | |
| LowerBound | |
| LowerBoundUnit | None |
| UpperBound | |
| UpperBoundUnit | None |
| **Status Filters** | |
| IntendedUIAction | |
| OnOrAfterStatus | |
| **Table Expressions** | |
| Expression | |
| ExpressionFilter | |

The above condition checks to see if *bill_to_type_code* is null and, if so, a validation failure occurs for exams that also failed the insurance check (main rule).

To replicate previous (hard coded) functionality, this rule is enabled by default, as a soft warning upon arrival. The service team can change the parent rule to "PreventSave" if they want to prevent the user from being able to Arrive without insurance/self-pay. It is also possible to change the timing of the warning/requirement. For

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

example, a customer could choose to warn the user if an insurance has not been entered at the time of scheduling. A second rule could be used to enforce that an insurance is entered at the time of registration.

## MRN VALIDATION RULES

| | |
|---|---|
| **Data Mapping** | |
| DataSetName | **Patient** |
| DataTableName | **c_patient_key_data** |
| FieldName | **(ComputedExpression)** |
| **General** | |
| ActiveFlag | **False** |
| AlertType | **Warning** |
| IgnoreNulls | **True** |
| MessageTemplate | **Must have a QE Test ID** |
| Name | **QETestIssuer** |
| Negated | **False** |
| PracticeCode | |
| ValidatorType | **RangeValidator** |
| **Misc Parameters** | |
| DefaultValue | |
| DomainMembers | |
| RegexPattern | |
| **Range Parameters** | |
| LowerBound | **1** |
| LowerBoundUnit | None |
| UpperBound | **12** |
| UpperBoundUnit | None |
| **Status Filters** | |
| IntendedUIAction | **UI_PatientArrived** |
| OnOrAfterStatus | |
| **Table Expressions** | |
| Expression | **count(patient_key)** |
| ExpressionFilter | **issuer_of_patient_id = 'QE Test'** |

The above rule is a blueprint of a rule that can validate that the patient has at least one patient ID with a particular *Issuer*. The rule is disabled by default, but can be configured/enabled by the service team in the field. In the above sample, the rule is counting rows in the *c_patient_key_data* table that have an issuer of "QE Test" at the point that

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

the patient is arrived. The rule will display the message “Must have a QE Test ID” in the event that the patient is missing an ID issued by the “QE Test” issuer. In the field, this would be adjusted to look for (and warn about) an issuer that is required for the customer. Conditions can be added to this rule. For example, a condition could be added to require an issuer of Arizona State Prison if the Patient Class is set to Prisoner.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## FEATURE #16299 - ERAD RIS NOW SUPPORTS BOTH DEFAULT AND "RECOMMENDED" BILLING CODES

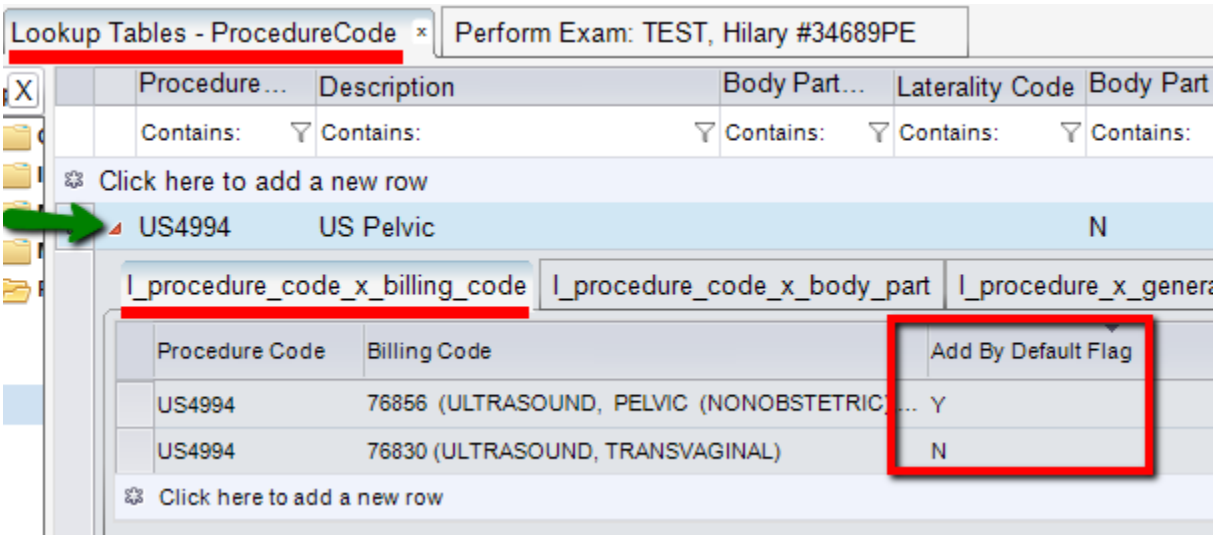
Note: this functionality was originally introduced in the previous patch, 2017.1.2. The description is included here because there have been further changes to the feature.

Previously, all billing codes associated to a procedure were active by default. In some cases, it may be useful to also associate billing codes that are *sometimes* used for a particular procedure. For example, some customers use a workflow in which procedure codes are broad, such as CT Sinus. In this case, the billing code might be the CPT for CT Sinus "with contrast," "without contrast," *or* "with and without contrast." Also, the CPT for contrast material may or may not be relevant depending on what is performed.

In these cases, being able to associate the billing codes that are most likely to be used for a particular procedure is more beneficial than creating default billing codes that are always active for the exam and have to be deactivated by the technologist.

To allow for this workflow, a new column has been added to the *l_procedure_code_x_billing_code* sub-table, which is found in the Procedure Code look-up table. The column, ***Add By Default***, will default to Y, meaning that the billing code will be associated and active for that procedure. This is the same as the previous behavior.

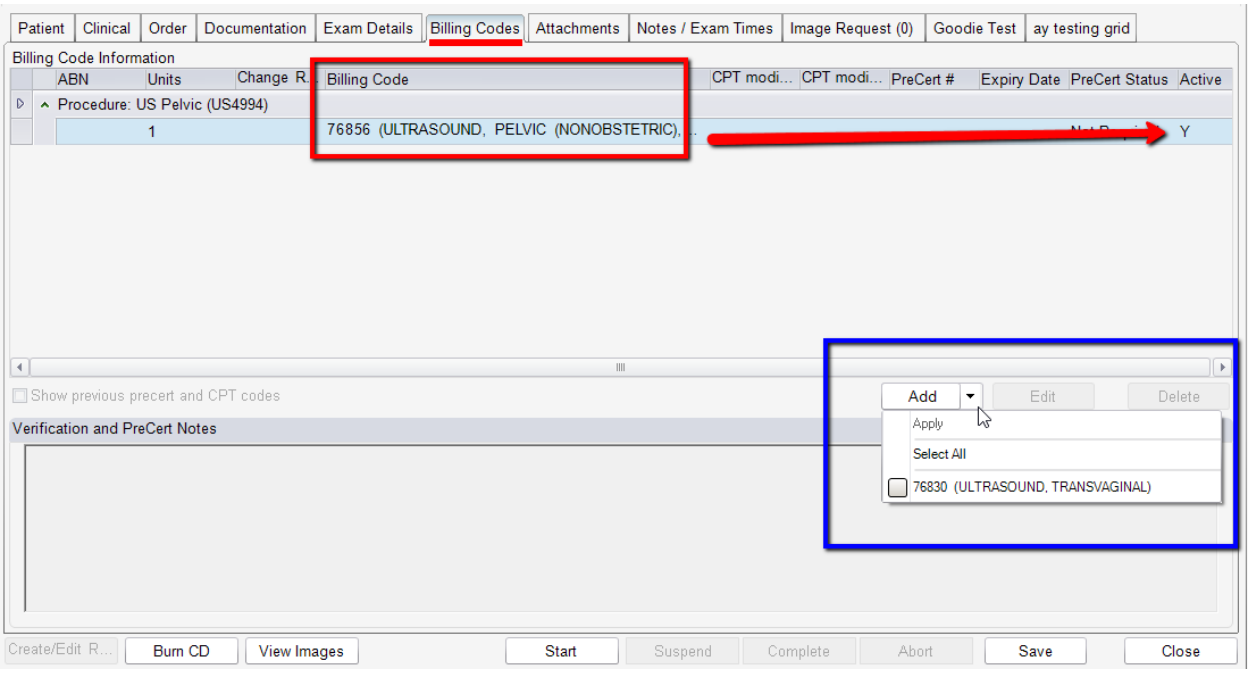
To associate billing codes without actively adding them to the procedure, set the Add By Default column to N. As you can see in the table below, it is possible to have a combination of Default billing codes and recommended/possible billing codes.



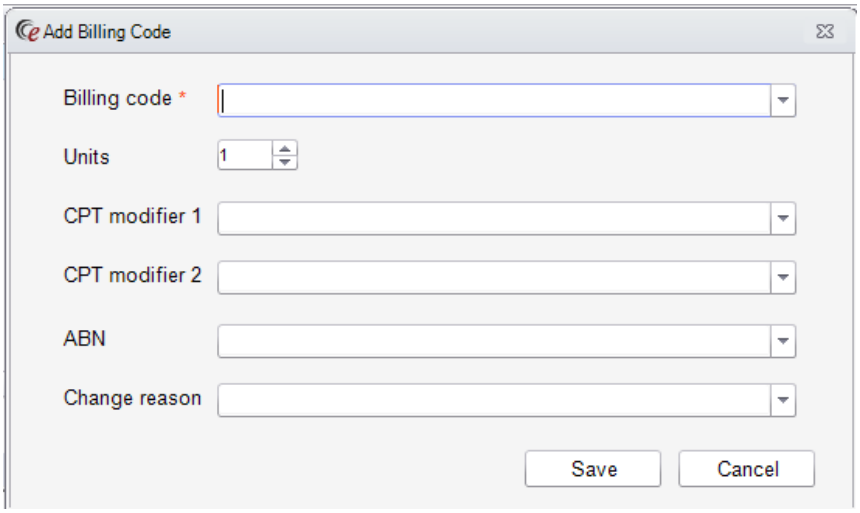

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

In the example above, the only billing code that will be automatically added for the US Pelvic procedure is 76856. The billing code 76830 will now be available from a quick pick list, as shown below.




When suggested codes are available for a procedure, the Add button will have a dropdown arrow allowing the user to quickly select and apply the suggested billing codes. Clicking the main Add button, instead of the dropdown arrow, will open the normal Add Billing Code screen where the entire list of Billing Codes can be accessed.

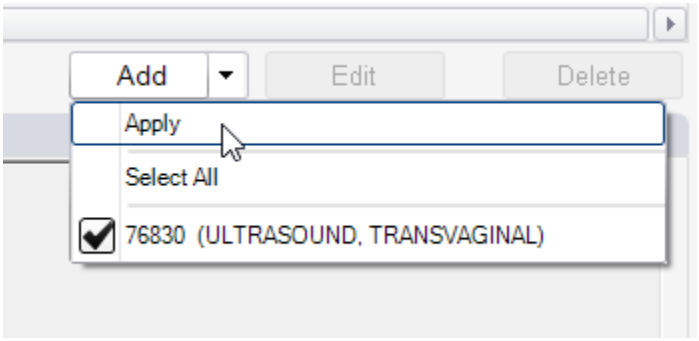



No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

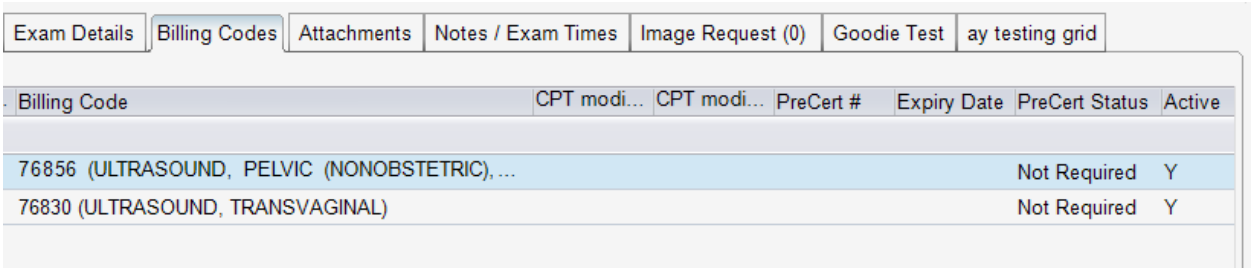
in any form or by any means without the prior written permission from eRAD. 

If no recommendations exist, the Add button will not have the dropdown arrow and the Add Billing Code screen is the only option for adding additional billing codes.

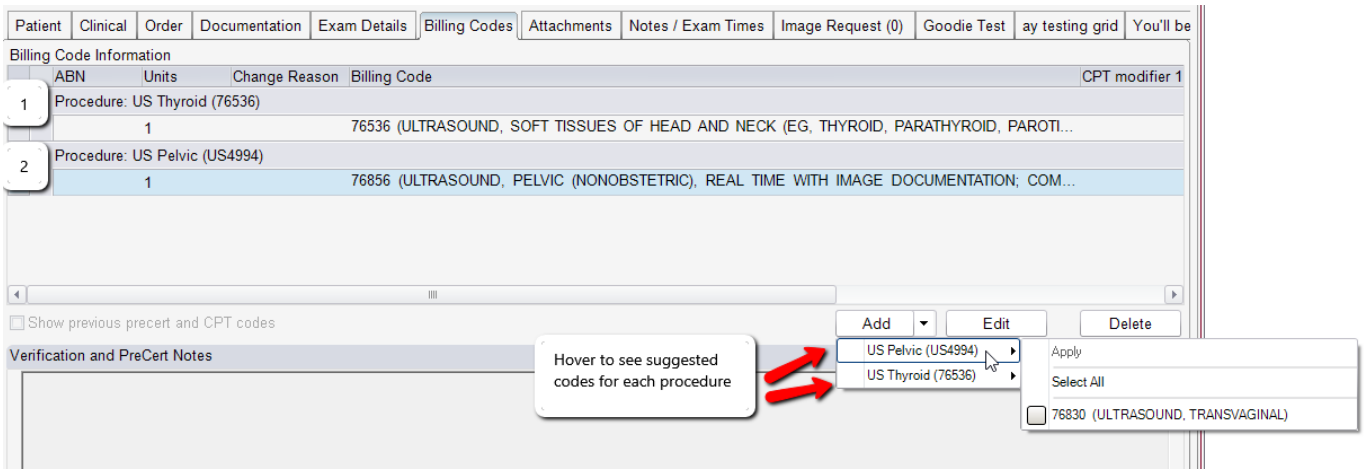
To use suggested billing codes, click the dropdown arrow and check the box(es) to be added. Then click Apply.




This will add the billing code to the procedure in an Active status.




If a technologist is performing multiple exams at once using the "Include" workflow, suggested billing codes will be available for each included procedure (if any).




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

Suggested billing codes will not trigger IVT workflow. Once the suggested billing code has been added to the exam, it will be treated like normal active billing codes and IVT workflow will apply.

It is also now possible to select multiple lines in the active Billing Codes grid in order to delete them all at once, if needed. Selecting rows and clicking the Delete key on the keyboard is also allowed. The user will be prompted to confirm that they want to delete the selected billing code(s). Deleting a saved billing code row is the same as marking the row as "Active = N". If suggested billing codes are added, but deleted *before* the exam is saved, the row will simply be deleted.

The billing codes associated to any procedure code prior to this upgrade will all be set as Add By Default = Y, which means that they will continue to behave as they did prior to upgrading.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## FEATURE #16310 – VALIDATION RULE TO ALERT USER WHEN NO BILLING CODES ARE PRESENT

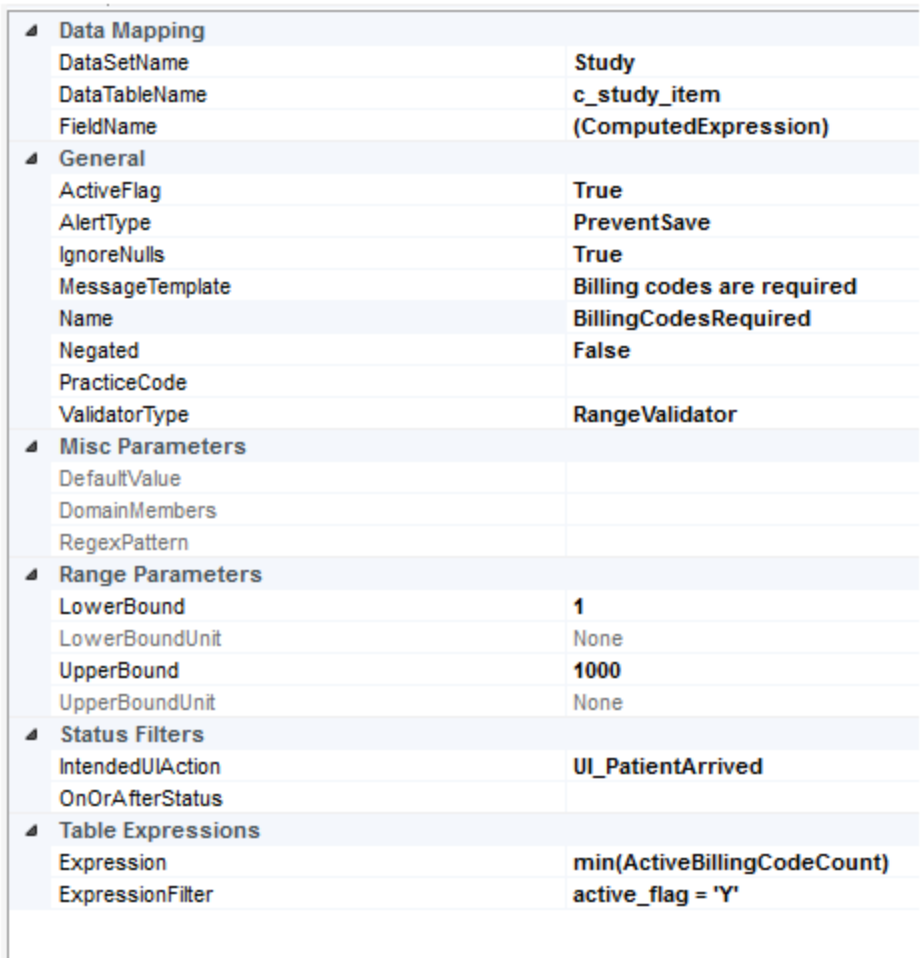
Previously, the RIS had a hard coded warning when there were no active billing codes for a procedure. Because the workflow for the above feature includes the possibility that some procedures will legitimately have no active billing codes at the time of scheduling or registration, the hard coded warning has been replaced with a validation rule that allows the customer to customize the timing for the warning (or change it to a hard stop if desired).

The original hard coded rule looked at procedure codes to see if any billing codes were mapped by the RIS administrators. The previous warning that stated: "There Are No Billing (CPT) Codes Mapped To This Procedure" has been removed and a new configurable rule has been added. The new rule does not look at Procedure/Billing Code mappings, but actually checks whether there are any studies that do not currently have billing codes attached.

The new rule will be enabled by default to replicate existing functionality.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 



| | |
|---|---|
| **Data Mapping** | |
| DataSetName | **Study** |
| DataTableName | **c_study_item** |
| FieldName | **(ComputedExpression)** |
| **General** | |
| ActiveFlag | **True** |
| AlertType | **PreventSave** |
| IgnoreNulls | **True** |
| MessageTemplate | **Billing codes are required** |
| Name | **BillingCodesRequired** |
| Negated | **False** |
| PracticeCode | |
| ValidatorType | **RangeValidator** |
| **Misc Parameters** | |
| DefaultValue | |
| DomainMembers | |
| RegexPattern | |
| **Range Parameters** | |
| LowerBound | **1** |
| LowerBoundUnit | None |
| UpperBound | **1000** |
| UpperBoundUnit | None |
| **Status Filters** | |
| IntendedUIAction | **UI_PatientArrived** |
| OnOrAfterStatus | |
| **Table Expressions** | |
| Expression | **min(ActiveBillingCodeCount)** |
| ExpressionFilter | **active_flag = 'Y'** |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## RESOLVED ITEMS

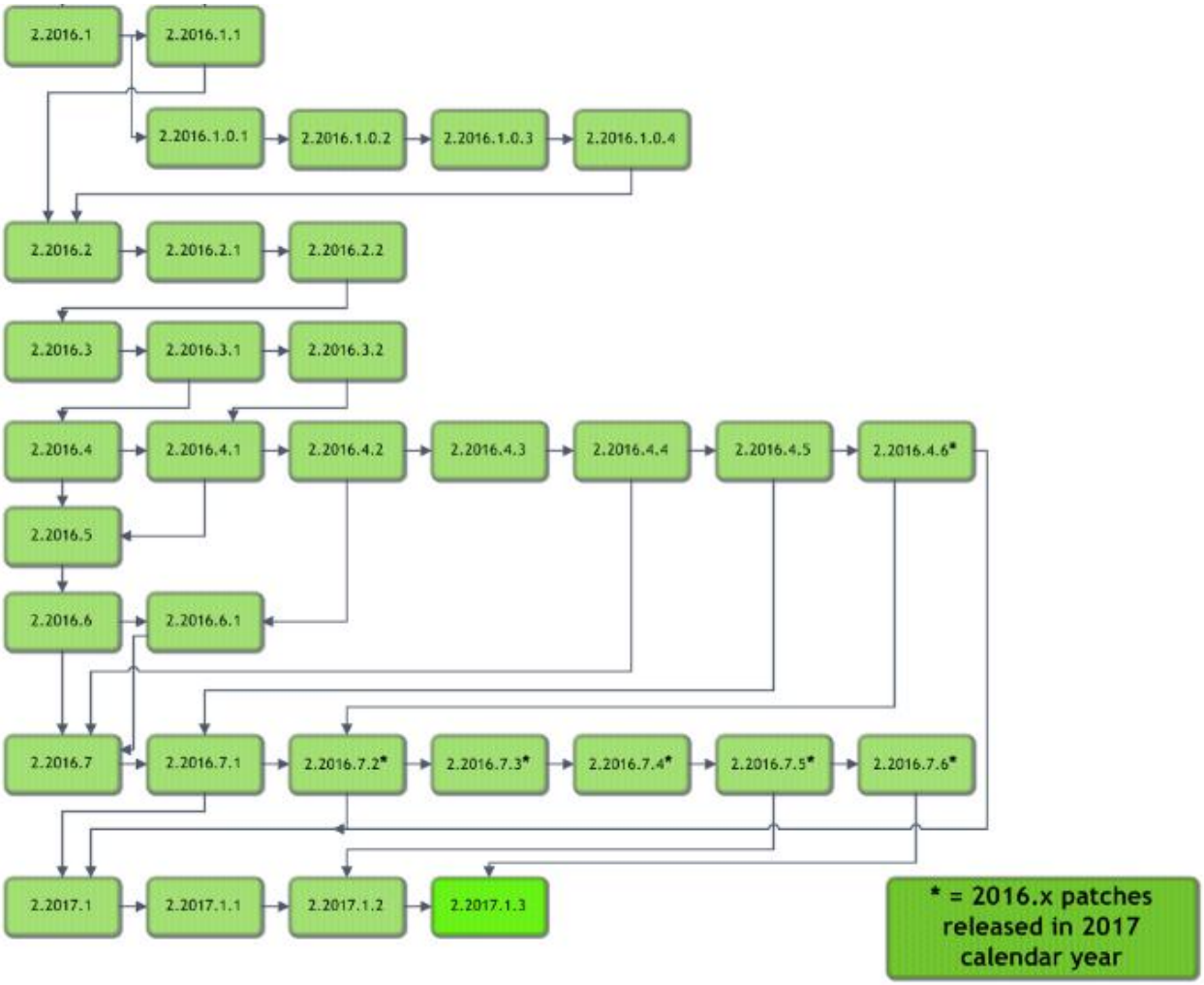
**eRAD RIS**

| Redmine # | Subject |
|---|---|
| 16506 | Carestream PACS integration is now functional even if configuration file cannot be found. |
| 16484 | Resolved an issue causing an API object reference error for Carestream PACS integration. |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## CODE STREAM




## Legend:

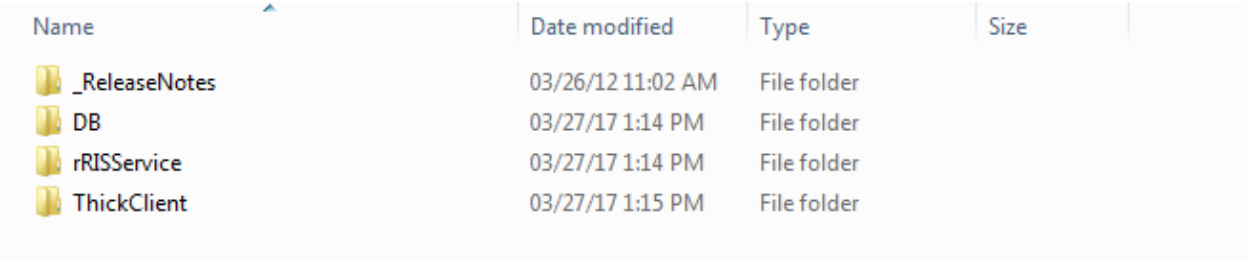
**Light Green = Previously Released software**

**Bright Green = Current Release**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## PACKAGE CONTENTS



| Name | Date modified | Type | Size |
|---|---|---|---|
| _ReleaseNotes | 03/26/12 11:02 AM | File folder | |
| DB | 03/27/17 1:14 PM | File folder | |
| rRISService | 03/27/17 1:14 PM | File folder | |
| ThickClient | 03/27/17 1:15 PM | File folder | |

## INTENDED AUDIENCE

THE INTENDED AUDIENCE FOR THIS DOCUMENT IS THE RADNET CLINICAL SYSTEMS TEAM AND THE ERAD SUPPORT/SERVICE TEAM.

## WHO IS AFFECTED

Build 20117.1 installs. This server update must be applied to 2017.1.2

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

## ERAD RIS RELEASE VERSION NUMBERS

| | A | B | C | D | E | F | G | H | I | K |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | **Build** | **Patch** | **UI Version** | **Core Version** | **WS Version** | **DB Version** | **Digital Forms** | **Patient Portal** | **UM Portal** | **Notes** |
| 144 | 2016.1 | 1 | 2.16.1.1.33672 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | | | | GUI.zip |
| 145 | 2016.1 | .0.1 | 2.16.1.0.1 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | | | | GUI.zip (This is not included in 2016.1.1, version directly above) |
| 146 | 2016.1 | .0.2 | 2.16.1.0.1 (3GB) | 2.16.1.0.33079 | 2.16.1.0.2 | 2.16.1.0.33416 | | | | Wedge Web Services only |
| 147 | 2016.1 | .0.3 | 2.16.1.0.3 (3GB) | 2.16.1.0.33079 | 2.16.1.0.3 | 2.16.1.0.3.00128918 | | | | GUI.zip, Web Services and DB |
| 148 | 2016.1 | .0.4 | 2.16.1.0.4 (3GB) | 2.16.1.0.33079 | 2.16.1.0.4 | 2.16.1.0.3.00128918 | | | | GUI.zip, Web Services |
| 149 | 2016.2 | - | 2.16.2.0 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.0.00172540 | | | | Full Version Release - GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge |
| 150 | 2016.2 | 1 | 2.16.2.1 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.0.00172540 | | | | GUI.zip and Citrix Bridge |
| 151 | 2016.2 | 2 | 2.16.2.2 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.2.00243102 | | | | GUI.zip, DB and Citrix Bridge |
| 153 | 2016.3 | - | 2.16.3.0 (3GB) | 2.16.3.0 | 2.16.3.0 | 2.16.3.0.00257101 | 2.16.3.0 | | | Full Version Release |
| 154 | 2016.3 | 1 | 2.16.3.1 | 2.16.3.0 | 2.16.3.1 | 2.16.3.1.00298834 | 2.16.3.0 | | | GUI.zip, Web Service and DB |
| 155 | 2016.3 | 2 | 2.16.3.2 | 2.16.3.0 | 2.16.3.2 | 2.16.3.1.00298834 | 2.16.3.0 | | | GUI.zip and Web Service |
| 156 | 2016.4 | - | 2.16.4.0 | 2.16.4.0 | 2.16.4.0 | 2.16.4.0.00301943 | 2.16.4.0 | 1.16.4.0.310284 | | Full Version Release |
| 157 | 2016.4 | 1 | 2.16.4.1 | 2.16.4.0 | 2.16.4.1 | 2.16.4.0.00301943 | 2.16.4.0 | 1.16.4.0.310284 | | GUI and Web Service updates |
| 158 | 2016.4 | 2 | 2.16.4.2 (3GB) | 2.16.4.0 | 2.16.4.1 | 2.16.4.0.00301943 | 2.16.4.0 | 1.16.4.2.460241 | | GUI and Patient Portal updates |
| 159 | 2016.4 | 3 | 2.16.4.3 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | 1.16.4.3.489120 | | GUI and Patient Portal updates |
| 160 | 2016.4 | 4 | 2.16.4.4 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | 1.16.4.3.489120 | | GUI |
| 161 | 2016.4 | 5 | 2.16.4.5 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | | | GUI |
| 162 | 2016.4 | 6 | 2.16.4.6 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | | | GUI |
| 163 | 2016.5 | - | 2.16.5.0 (3GB) | 2.16.5.0 | 2.16.5.0 | 2.16.5.0.00349303 | 2.16.5.0 | 1.16.5.0.362009 | | Full Version Release |
| 164 | 2016.6 | - | 2.16.6.0 (3GB) | 2.16.6.0 | 2.16.6.0 | 2.16.6.0.00411295 | 2.16.6.0 | 1.16.6.0.432471 | | Full Version Release |
| 165 | 2016.6 | 1 | 2.16.6.1 (3GB) | 2.16.6.0 | 2.16.6.0 | 2.16.6.0.00411295 | 2.16.6.0 | 1.16.6.1.468583 | | GUI and Patient Portal updated |
| 166 | 2016.7 | - | 2.16.7.0 (3GB) | 2.16.70 | 2.16.70 | 2.16.7.0.00490835 | 2.16.70 | 1.16.7.0.493031 | 2.16.7.0.493008 | Full version release |
| 167 | 2016.7 | 1 | 2.16.7.1 (3GB) | 2.16.7.0 | 2.16.7.1 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | GUI and Web Service updates |
| 168 | 2016.7 | 2 | 2.16.7.2 (3GB) | 2.16.7.0 | 2.16.7.2 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | GUI and Web Service updates |
| 169 | 2016.7 | 3 | 2.16.7.3 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | GUI and Web Service updates |
| 170 | 2016.7 | 4 | 2.16.7.4 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | GUI |
| 171 | 2016.7 | 5 | 2.16.7.5 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | GUI |
| 172 | 2016.7 | 6 | 2.16.7.6 (3GB) | 2.16.7.0 | 2.16.7.6 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | GUI and Web Service updates |
| 173 | 2017.1 | - | 2.17.1.0 (3GB) | 2.17.1.0 | 2.17.1.0 | 2.17.1.0.00559886 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | Full Version Release |
| 174 | 2017.1 | 1 | 2.17.1.1 (3GB) | 2.17.1.0 | 2.17.1.1 | 2.17.1.1.00589952 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | GUI, Web Service and DB updates |
| 175 | 2017.1 | 2 | 2.17.1.2 (3GB) | 2.17.1.0 | 2.17.1.2 | 2.17.1.2.00621962 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | GUI, Web Service and DB updates |
| 176 | **2017.1** | **3** | **2.17.1.3 (3GB)** | **2.17.1.0** | **2.17.1.3** | **2.17.1.3.00640480** | **2.17.1.0** | **2.17.1.0.572290** | **2.17.1.0.00000** | **GUI, Web Service and DB updates** |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

# INSTALLING

## CLIENT/GUI

Copy and replace the current rRIS…zip file with the eRAD_rRIS_2017.1.3.zip file provided with this release.

Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

## WEB SERVICE

This updated is only required for the Wedge Web Services. The Core RIS Service and Document Distribution Service are not required to be updated.

1. The web service upgrade consists of replacing the files in the RIS Web Service directory with the files supplied in the rRISService folder with this build. Always create a backup of the files being replaced. This upgrade includes 128 files in the rRISService folder and 7 sub folders. Of those folders, 1 is a folder titled **"XSL"** that contains a sub folder and files within the subfolder. Another folder is titled **"deploy"** that contains the new .config files that will be deployed with the user of the file called "ServicesConfigWizard.exe" (see instructions below). Folders ar (Arabic), he (Hebrew), pt_BR (Brazilian Portuguese) and es-AR (Argentina Spanish) are localization folders. The WedgePlugins folder contains various plugin files for RADAR, MIRTH, Ensemble, etc…

**Services Configuration Wizard**

With the release of 42 to decrease the chance of losing configuration setting and missing new configuration options, we will no longer include the configuration files in the release in the main set of files, but they will now exist in a "deploy" folder, which will contain the three site configurable config files; applicationsettings, connectionstrings, and services as well as a copy of the rRISServices.exe configuration file. The contents of this folder should not be required to be touched.

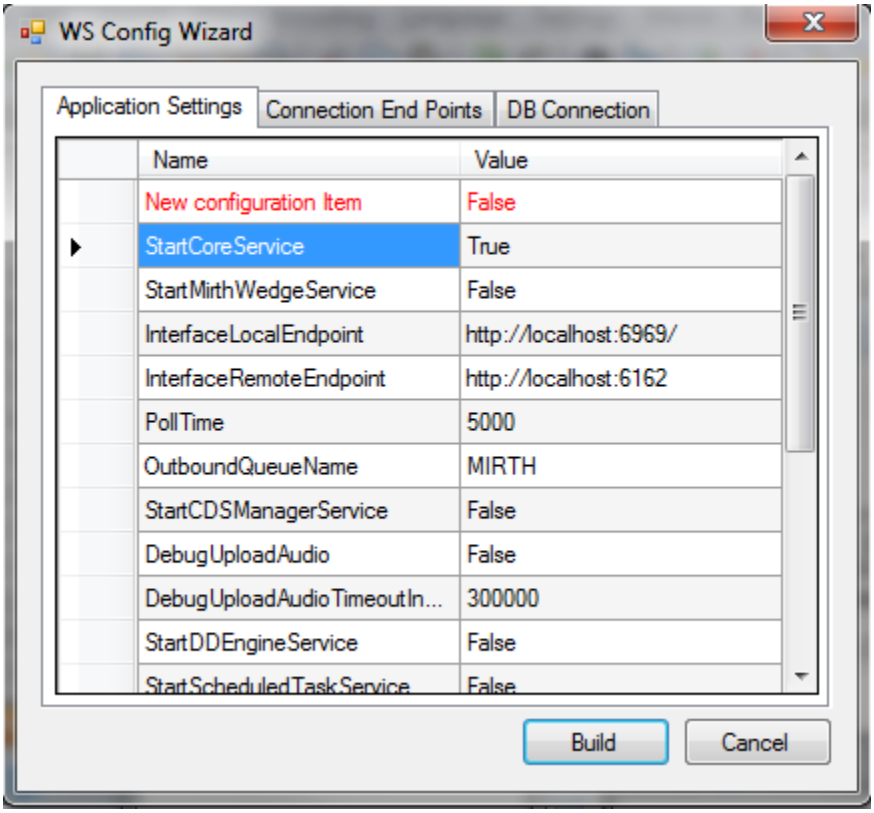
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

On the install of a new service, all files will be copied to the appropriate locations on the server (no configurations will be over written). If instructed or to confirm no new configurations have been added the user can run the new application "ServicesConfigWizard.exe"

This application will read the existing configuration file(s) (if files exist), and compare to the provided new configuration files then will display three tabs, for each configuration file:

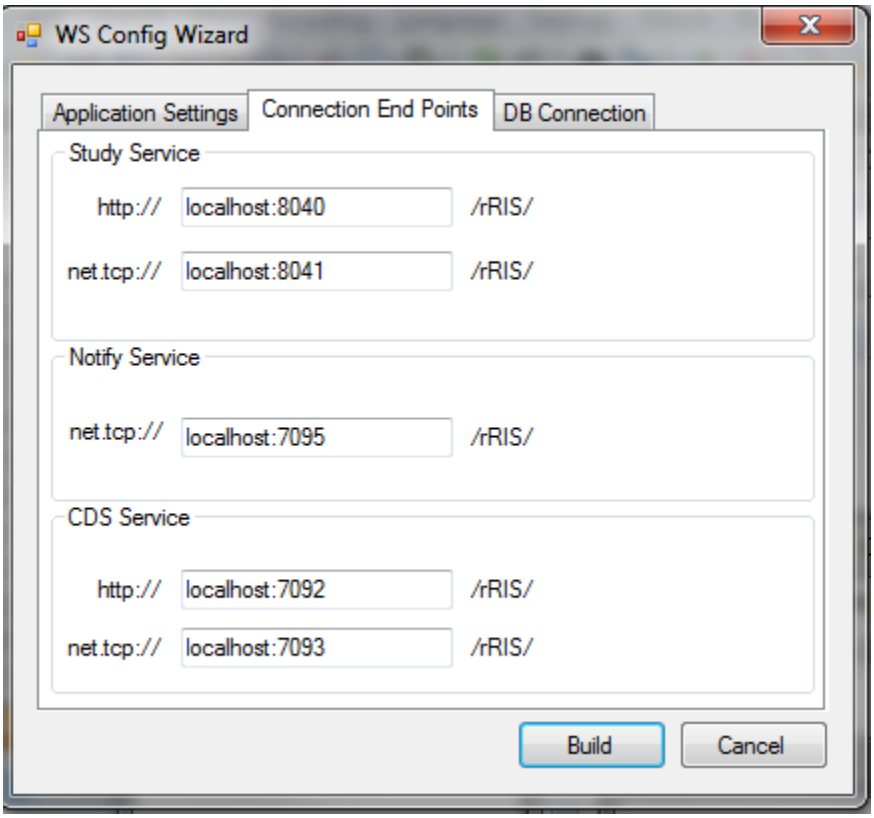
**Application Settings:** all existing configuration value will be displayed, if there are any new configuration entries they will be displayed in red.




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

**Connection End Points:** will display the existing configuration, if the value is left blank then that entry will not be created, in the case of “Study Service” or “CDS Service” if both http and net.tcp were not provided then that endpoint will not be created at all.




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## DATABASE UPDATES

Always run the upgrade scripts in a test environment of the actual database to make sure they run cleanly. If any errors occur please contact development.

*Note: There is a new upgrade process introduced with B43.1 called "RunUpgrade.bat". The batch file will open a command window. This process will prompt you for the database server name, database name and authentication credentials. There is no need to run the database upgrade scripts manually as was done in previous releases.*

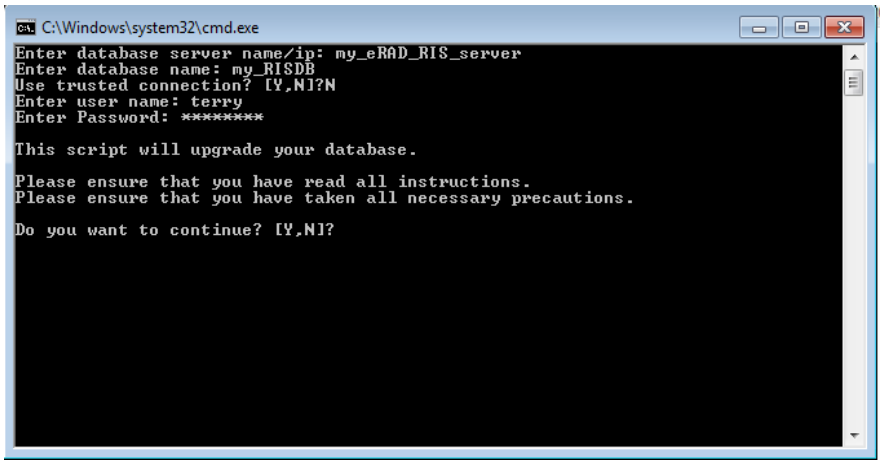
1) From the upgrade folder, double click the "RunUpgrade.bat" command file.

2) Enter the server name, database name and authentication credentials to the database. You have 2 choices for authentication credentials.

3) You can choose to use "Trusted connection". Using this option will pass the identity of the currently logged on user. If this user has "db_owner" access to the eRAD RIS database then feel free to use this options.

4) If you decide not to use "Trusted connection" then you will be prompted for user id and password.

   Example:




5) After the upgrade program has finished you can find the upgrade logs in the "log" folder. The file name will be eRAD_RIS_db_upgrade_timestamp.log, where timestamp is a value representing the date and time the upgrade started. If you see any errors please contact the development team

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

# Server Update

For eRAD RIS

Version 2.0

Build 2.2017.1

Update 2.2017.1.4

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

# Table of Contents

Package Contents ..... 3

Intended Audience ..... 3

Who is affected ..... 3

New Features ..... 4

Feature #16591 – Strip last character from variables passed to external portals ..... 4

Resolved Items ..... 5

Code Stream ..... 6

eRAD RIS Release Version Numbers ..... 7

Installing ..... 8

Client/GUI ..... 8

Web Service ..... 8

Database Updates ..... 10

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## PACKAGE CONTENTS

## INTENDED AUDIENCE

The intended audience for this document is the RadNet Clinical Systems team and the eRAD Support/Service team.

## WHO IS AFFECTED

Build 2017.1 installs. This server update must be applied to 2017.1.3.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

## NEW FEATURES

### FEATURE #16591 – STRIP LAST CHARACTER FROM VARIABLES PASSED TO EXTERNAL PORTALS

The existing portal feature in eRAD RIS allows the customer to pass patient data to external portals, such as a Health Information Exchange (HIE), in order to pull up records in the external portal. There was an international requirement to strip the last character from the MRN before passing it to the portal.

A new plugin has been added which allows the user to strip the last character from any variable.

When creating/updating an entry in BrowserConfig, the URL can support using "filters" in the URL string. For example, to get the patient id into the URL of the portal page to be opened, the variable would be specified as {patient.c_patient.patient_id}. To strip the last character from the patient id, this would need to be changed to: {patient.c_patient.patient_id**|StripLastChar**}. The additional text in blue tells the RIS to send the patient_id value through the StripLastChar filter before adding the value to the URL that passes the data to the external portal.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

## RESOLVED ITEMS

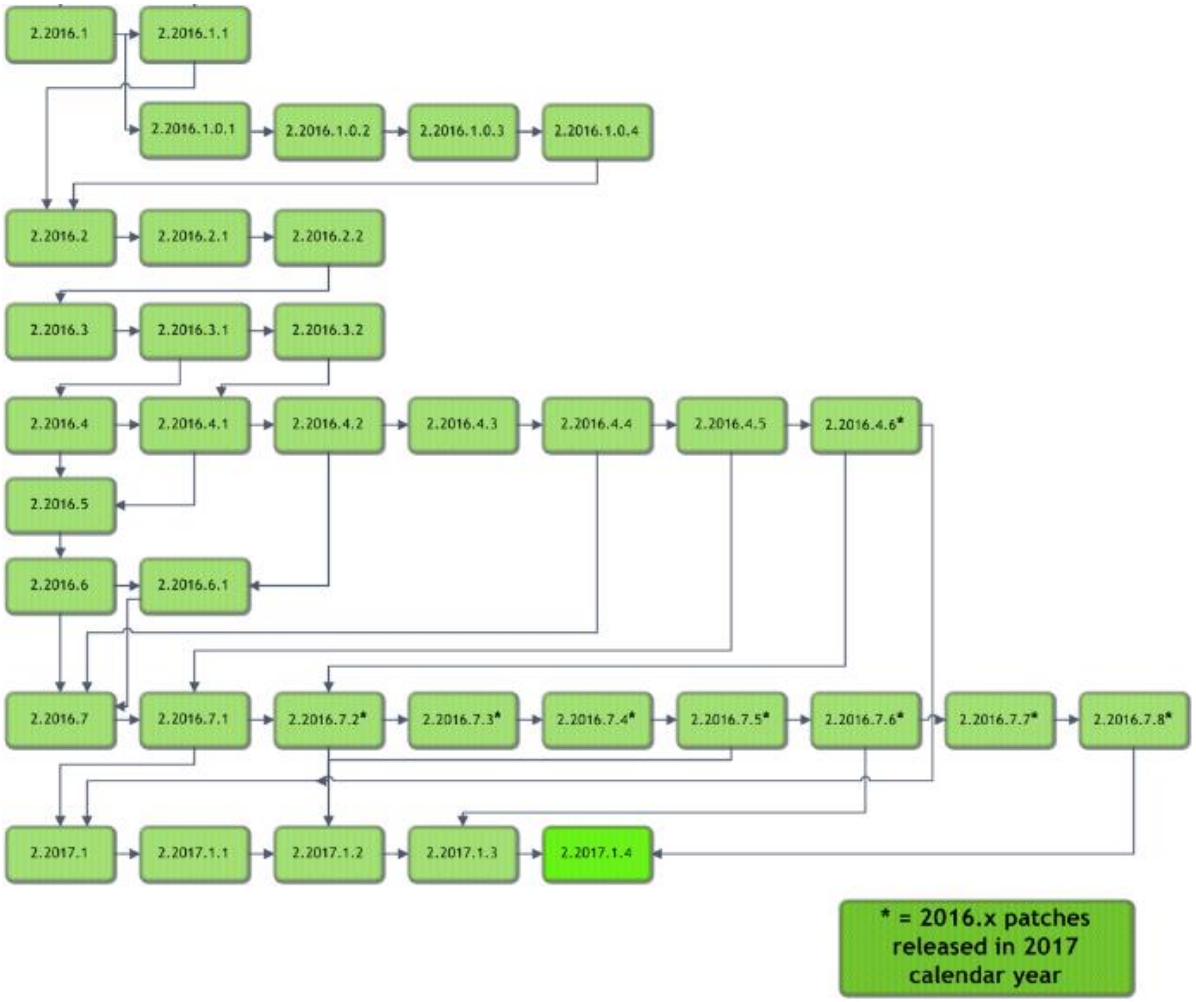
# eRAD RIS

| Redmine # | Subject |
|---|---|
| 17061 | Resolved an error that prevented the addition of a billing code which had been previously deleted. |
| 17059 | An intermittent error for referring physicians with imaging preferences no longer occurs. |
| 16924 | Resolved intermittent patient history errors that occurred when starting or completing an exam in technologist workflow. |
| 16901 | Selected attachment viewer in reporting screens can once again display the report. |
| 16883 | CSH images now close properly after closing Dictation. |
| 16882 | Restored the ability to open the IVT screen for a cancelled order. |
| 16869 | Resolved an issue that could cause billing code units to be null when scheduling an exam that was previously Saved as Order. |
| 16997 | Restored the ability to save attachments from the “Attachments” context menu item. |
| 16983 | Rescheduled studies with unknown referring are once again appearing on the Unknown Reconciliation WL as intended. |
| 16965 | Peer review button is available when the selected report is displayed on Selected Attachment data pane in the reporting screen, even after scrolling through other documents and returning to the report. |
| 16984 | Diagnostic report is no longer missing the report body when first retrieved by External Interface Service. |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

## CODE STREAM




## Legend:

Light Green = Previously Released software

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## ERAD RIS RELEASE VERSION NUMBERS

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Digital Forms | Patient Portal | UM Portal | Notes |
|---|---|---|---|---|---|---|---|---|---|
| 2016.1 | 1 | 2.16.1.1.33672 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | | | | GUI.zip |
| 2016.1 | .0.1 | 2.16.1.0.1 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | | | | GUI.zip (This is not included in 2016.1.1, version directly above) |
| 2016.1 | .0.2 | 2.16.1.0.1 (3GB) | 2.16.1.0.33079 | 2.16.1.0.2 | 2.16.1.0.33416 | | | | Wedge Web Services only |
| 2016.1 | .0.3 | 2.16.1.0.3 (3GB) | 2.16.1.0.33079 | 2.16.1.0.3 | 2.16.1.0.3.00128918 | | | | GUI.zip, Web Services and DB |
| 2016.1 | .0.4 | 2.16.1.0.4 (3GB) | 2.16.1.0.33079 | 2.16.1.0.4 | 2.16.1.0.3.00128918 | | | | GUI.zip, Web Services |
| 2016.2 | - | 2.16.2.0 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.0.00172540 | | | | Full Version Release - GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge |
| 2016.2 | 1 | 2.16.2.1 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.0.00172540 | | | | GUI.zip and Citrix Bridge |
| 2016.2 | 2 | 2.16.2.2 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.2.00243102 | | | | GUI.zip, DB and Citrix Bridge |
| 2016.3 | - | 2.16.3.0 (3GB) | 2.16.3.0 | 2.16.3.0 | 2.16.3.0.00257101 | 2.16.3.0 | | | Full Version Release |
| 2016.3 | 1 | 2.16.3.1 | 2.16.3.0 | 2.16.3.1 | 2.16.3.1.00298834 | 2.16.3.0 | | | GUI.zip, Web Service and DB |
| 2016.3 | 2 | 2.16.3.2 | 2.16.3.0 | 2.16.3.2 | 2.16.3.1.00298834 | 2.16.3.0 | | | GUI.zip and Web Service |
| 2016.4 | - | 2.16.4.0 | 2.16.4.0 | 2.16.4.0 | 2.16.4.0.00301943 | 2.16.4.0 | 1.16.4.0.310284 | | Full Version Release |
| 2016.4 | 1 | 2.16.4.1 | 2.16.4.0 | 2.16.4.1 | 2.16.4.0.00301943 | 2.16.4.0 | 1.16.4.0.310284 | | GUI and Web Service updates |
| 2016.4 | 2 | 2.16.4.2 (3GB) | 2.16.4.0 | 2.16.4.1 | 2.16.4.0.00301943 | 2.16.4.0 | 1.16.4.2.460241 | | GUI and Patient Portal updates |
| 2016.4 | 3 | 2.16.4.3 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | 1.16.4.3.489120 | | GUI and Patient Portal updates |
| 2016.4 | 4 | 2.16.4.4 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | 1.16.4.3.489120 | | GUI |
| 2016.4 | 5 | 2.16.4.5 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | | | GUI |
| 2016.4 | 6 | 2.16.4.6 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | | | GUI |
| 2016.5 | - | 2.16.5.0 (3GB) | 2.16.5.0 | 2.16.5.0 | 2.16.5.0.00349303 | 2.16.5.0 | 1.16.5.0.362009 | | Full Version Release |
| 2016.6 | - | 2.16.6.0 (3GB) | 2.16.6.0 | 2.16.6.0 | 2.16.6.0.00411295 | 2.16.6.0 | 1.16.6.0.432471 | | Full Version Release |
| 2016.6 | 1 | 2.16.6.1 (3GB) | 2.16.6.0 | 2.16.6.0 | 2.16.6.0.00411295 | 2.16.6.0 | 1.16.6.1.468583 | | GUI and Patient Portal updated |
| 2016.7 | - | 2.16.7.0 (3GB) | 2.16.70 | 2.16.70 | 2.16.7.0.00490835 | 2.16.70 | 1.16.7.0.493031 | 2.16.7.0.493008 | Full version release |
| 2016.7 | 1 | 2.16.7.1 (3GB) | 2.16.7.0 | 2.16.7.1 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | GUI and Web Service updates |
| 2016.7 | 2 | 2.16.7.2 (3GB) | 2.16.7.0 | 2.16.7.2 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | GUI and Web Service updates |
| 2016.7 | 3 | 2.16.7.3 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | GUI and Web Service updates |
| 2016.7 | 4 | 2.16.7.4 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | GUI |
| 2016.7 | 5 | 2.16.7.5 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | GUI |
| 2016.7 | 6 | 2.16.7.6 (3GB) | 2.16.7.0 | 2.16.7.6 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | GUI and Web Service updates |
| 2016.7 | 7 | 2.16.7.7 (3GB) | 2.16.7.0 | 2.16.7.7 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | GUI and Web Service updates |
| 2016.7 | 8 | 2.16.7.8 (3GB) | 2.16.7.0 | 2.16.7.7 | 2.16.7.8.00683507 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | GUI and DB updates |
| 2017.1 | - | 2.17.1.0 (3GB) | 2.17.1.0 | 2.17.1.0 | 2.17.1.0.00559886 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | Full Version Release |
| 2017.1 | 1 | 2.17.1.1 (3GB) | 2.17.1.0 | 2.17.1.1 | 2.17.1.1.00589952 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | GUI, Web Service and DB updates |
| 2017.1 | 2 | 2.17.1.2 (3GB) | 2.17.1.0 | 2.17.1.2 | 2.17.1.2.00621962 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | GUI, Web Service and DB updates |
| 2017.1 | 3 | 2.17.1.3 (3GB) | 2.17.1.0 | 2.17.1.3 | 2.17.1.3.00640480 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | GUI, Web Service and DB updates |
| **2017.1** | **4** | **2.17.1.4 (3GB)** | **2.17.1.0** | **2.17.1.4** | **2.17.1.4.00692239** | **2.17.1.0** | **2.17.1.4.701924** | **2.17.1.0.00000** | **GUI, Web Service, DB and Patient Portal updates** |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

# INSTALLING

## CLIENT/GUI

Copy and replace the current rRIS…zip file with the eRAD_rRIS_2017.1.4.zip file provided with this release.

Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

## WEB SERVICE

This updated is only required for the Wedge Web Services. The Core RIS Service and Document Distribution Service are not required to be updated.

1. The web service upgrade consists of replacing the files in the RIS Web Service directory with the files supplied in the rRISService folder with this build. Always create a backup of the files being replaced. This upgrade includes 128 files in the rRISService folder and 7 sub folders. Of those folders, 1 is a folder titled **"XSL"** that contains a sub folder and files within the subfolder. Another folder is titled **"deploy"** that contains the new .config files that will be deployed with the user of the file called "ServicesConfigWizard.exe" (see instructions below). Folders ar (Arabic), he (Hebrew), pt_BR (Brazilian Portuguese) and es-AR (Argentina Spanish) are localization folders. The WedgePlugins folder contains various plugin files for RADAR, MIRTH, Ensemble, etc…

**Services Configuration Wizard**

With the release of 42 to decrease the chance of losing configuration setting and missing new configuration options, we will no longer include the configuration files in the release in the main set of files, but they will now exist in a "deploy" folder, which will contain the three site configurable config files; applicationsettings, connectionstrings, and services as well as a copy of the rRISServices.exe configuration file. The contents of this folder should not be required to be touched.

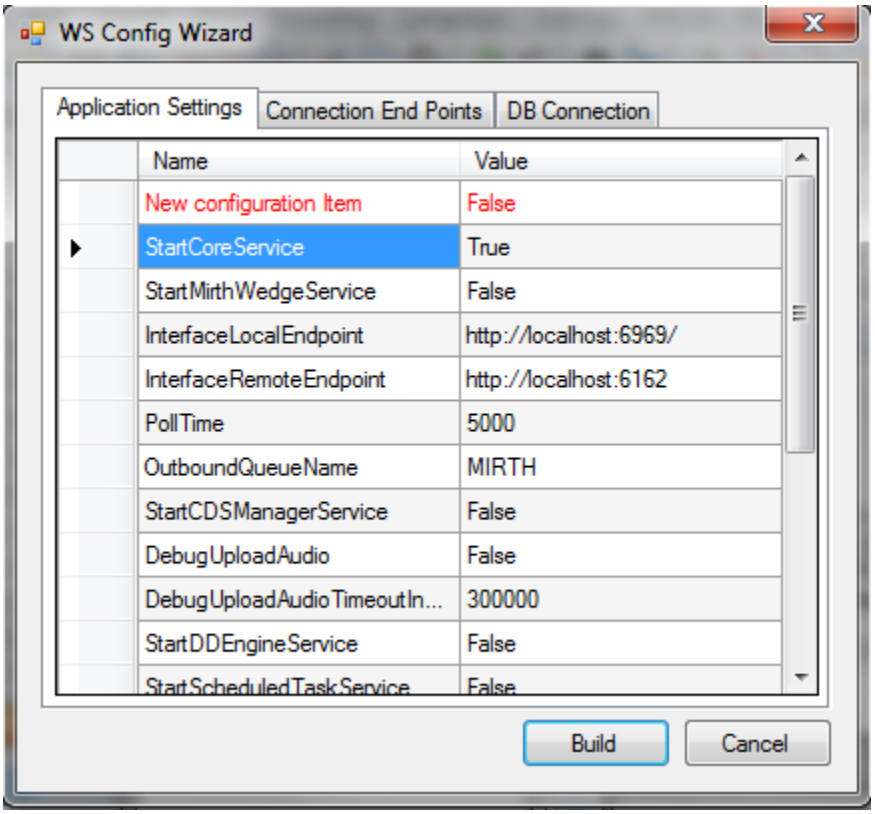
On the install of a new service, all files will be copied to the appropriate locations on the server (no configurations will be over written). If instructed or to confirm no new configurations have been added the user can run the new application "ServicesConfigWizard.exe"

This application will read the existing configuration file(s) (if files exist), and compare to the provided new configuration files then will display three tabs, for each configuration file:

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

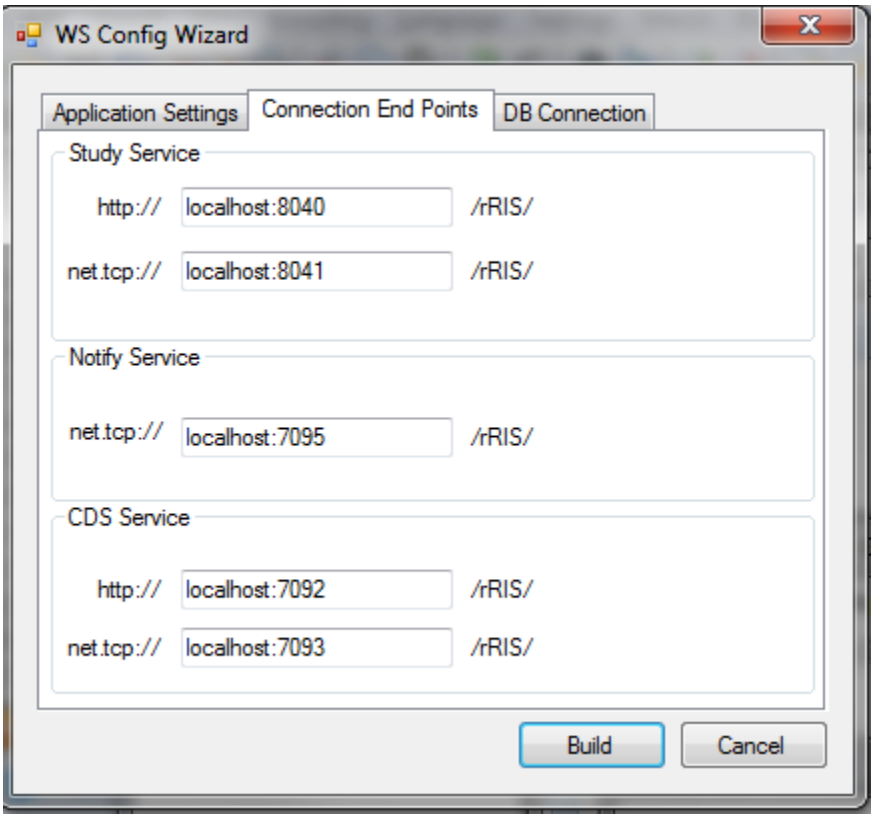
**Application Settings:** all existing configuration value will be displayed, if there are any new configuration entries they will be displayed in red.




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

**Connection End Points:** will display the existing configuration, if the value is left blank then that entry will not be created, in the case of "Study Service" or "CDS Service" if both http and net.tcp were not provided then that endpoint will not be created at all.




## DATABASE UPDATES

Always run the upgrade scripts in a test environment of the actual database to make sure they run cleanly. If any errors occur please contact development.

*Note: There is a new upgrade process introduced with B43.1 called "RunUpgrade.bat". The batch file will open a command window. This process will prompt you for the database server name, database name and authentication credentials. There is no need to run the database upgrade scripts manually as was done in previous releases.*

1) From the upgrade folder, double click the "RunUpgrade.bat" command file.

2) Enter the server name, database name and authentication credentials to the database. You have 2 choices for authentication credentials.

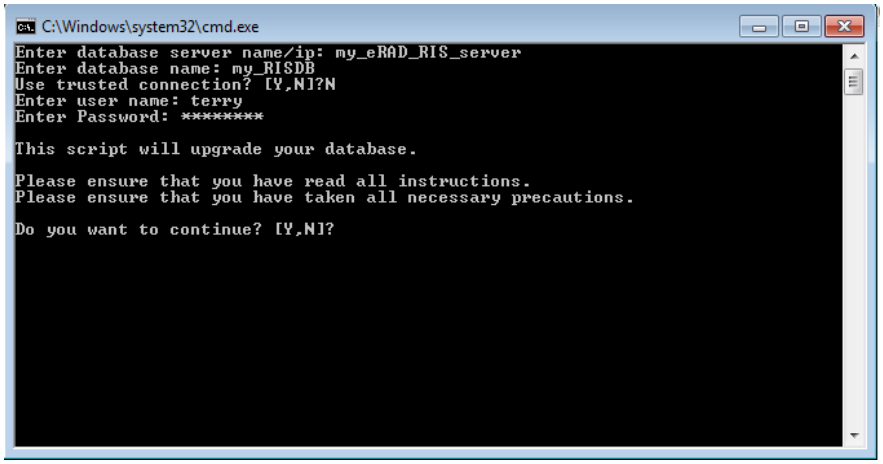
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

3) You can choose to use “Trusted connection”. Using this option will pass the identity of the currently logged on user. If this user has “db_owner” access to the eRAD RIS database then feel free to use this options.

4) If you decide not to use “Trusted connection” then you will be prompted for user id and password.

Example:




5) After the upgrade program has finished you can find the upgrade logs in the “log” folder. The file name will be eRAD_RIS_db_upgrade_timestamp.log, where timestamp is a value representing the date and time the upgrade started. If you see any errors please contact the development team

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

# Server Update

For eRAD RIS

Version 2.0

Build 2.2017.1

Update 2.2017.1.6

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

# Table of Contents

Package Contents ..... 3

Intended Audience ..... 3

Who is affected ..... 3

Resolved Items ..... 4

Code Stream ..... 5

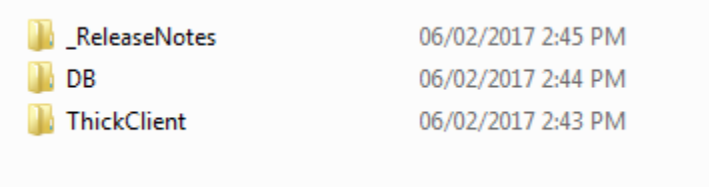
eRAD RIS Release Version Numbers ..... 6

Installing ..... 7

- Client/GUI ..... 7
- Database Updates ..... 7

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## PACKAGE CONTENTS




## INTENDED AUDIENCE

The intended audience for this document is the RadNet Clinical Systems team and the eRAD Support/Service team.

## WHO IS AFFECTED

Build 2017.1 installs. This server update must be applied to 2017.1.5.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

## RESOLVED ITEMS

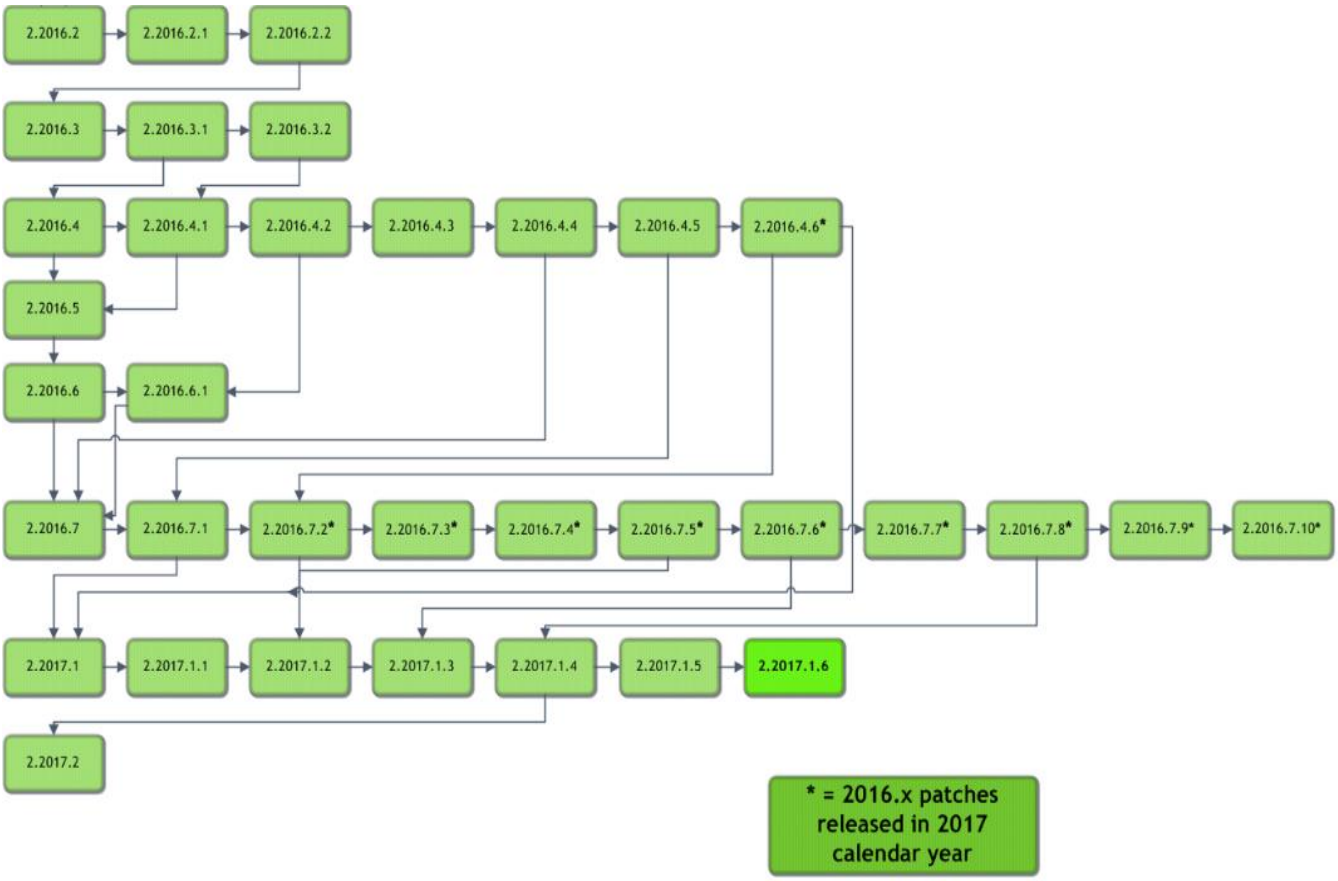
# eRAD RIS

| Redmine # | Subject |
|---|---|
| 17387 | Restored the ability to select a value for a picklist field in the Create/Edit screen (from which it is possible for a technologist or transcriptionist to begin the report for the radiologist). |
| 17409 | Added two missing indexes that were originally part of the 2017.1.4 database upgrade. |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

## CODE STREAM




**Legend:**

Light Green = Previously Released software

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## ERAD RIS RELEASE VERSION NUMBERS

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Digital Forms | Patient Portal | UM Portal | Provider Portal | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| 2016.1 | - | 2.16.1.0.33419 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | | | | | GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge |
| 2016.1 | 1 | 2.16.1.1.33672 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | | | | | GUI.zip |
| 2016.1 | .0.1 | 2.16.1.0.1 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | | | | | GUI.zip (This is not included in 2016.1.1, version directly above) |
| 2016.1 | .0.2 | 2.16.1.0.1 (3GB) | 2.16.1.0.33079 | 2.16.1.0.2 | 2.16.1.0.33416 | | | | | Wedge Web Services only |
| 2016.1 | .0.3 | 2.16.1.0.3 (3GB) | 2.16.1.0.33079 | 2.16.1.0.3 | 2.16.1.0.3.00128918 | | | | | GUI.zip, Web Services and DB |
| 2016.1 | .0.4 | 2.16.1.0.4 (3GB) | 2.16.1.0.33079 | 2.16.1.0.4 | 2.16.1.0.3.00128918 | | | | | GUI.zip, Web Services |
| 2016.2 | - | 2.16.2.0 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.0.00172540 | | | | | Full Version Release - GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge |
| 2016.2 | 1 | 2.16.2.1 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.0.00172540 | | | | | GUI.zip and Citrix Bridge |
| 2016.2 | 2 | 2.16.2.2 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.2.00243102 | | | | | GUI.zip, DB and Citrix Bridge |
| 2016.3 | - | 2.16.3.0 (3GB) | 2.16.3.0 | 2.16.3.0 | 2.16.3.0.00257101 | 2.16.3.0 | | | | Full Version Release |
| 2016.3 | 1 | 2.16.3.1 | 2.16.3.0 | 2.16.3.1 | 2.16.3.1.00298834 | 2.16.3.0 | | | | GUI.zip, Web Service and DB |
| 2016.3 | 2 | 2.16.3.2 | 2.16.3.0 | 2.16.3.2 | 2.16.3.1.00298834 | 2.16.3.0 | | | | GUI.zip and Web Service |
| 2016.4 | - | 2.16.4.0 | 2.16.4.0 | 2.16.4.0 | 2.16.4.0.00301943 | 2.16.4.0 | 1.16.4.0.310284 | | | Full Version Release |
| 2016.4 | 1 | 2.16.4.1 | 2.16.4.0 | 2.16.4.1 | 2.16.4.0.00301943 | 2.16.4.0 | 1.16.4.0.310284 | | | GUI and Web Service updates |
| 2016.4 | 2 | 2.16.4.2 (3GB) | 2.16.4.0 | 2.16.4.1 | 2.16.4.0.00301943 | 2.16.4.0 | 1.16.4.2.460241 | | | GUI and Patient Portal updates |
| 2016.4 | 3 | 2.16.4.3 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | 1.16.4.3.489120 | | | GUI and Patient Portal updates |
| 2016.4 | 4 | 2.16.4.4 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | 1.16.4.3.489120 | | | GUI |
| 2016.4 | 5 | 2.16.4.5 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | | | | GUI |
| 2016.4 | 6 | 2.16.4.6 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | | | | GUI |
| 2016.5 | - | 2.16.5.0 (3GB) | 2.16.5.0 | 2.16.5.0 | 2.16.5.0.00349303 | 2.16.5.0 | 1.16.5.0.362009 | | | Full Version Release |
| 2016.6 | - | 2.16.6.0 (3GB) | 2.16.6.0 | 2.16.6.0 | 2.16.6.0.00411295 | 2.16.6.0 | 1.16.6.0.432471 | | | Full Version Release |
| 2016.6 | 1 | 2.16.6.1 (3GB) | 2.16.6.0 | 2.16.6.0 | 2.16.6.0.00411295 | 2.16.6.0 | 1.16.6.1.468583 | | | GUI and Patient Portal updated |
| 2016.7 | - | 2.16.7.0 (3GB) | 2.16.70 | 2.16.70 | 2.16.7.0.00490835 | 2.16.70 | 1.16.7.0.493031 | 2.16.7.0.493008 | | Full version release |
| 2016.7 | 1 | 2.16.7.1 (3GB) | 2.16.7.0 | 2.16.7.1 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 2 | 2.16.7.2 (3GB) | 2.16.7.0 | 2.16.7.2 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 3 | 2.16.7.3 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 4 | 2.16.7.4 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI |
| 2016.7 | 5 | 2.16.7.5 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI |
| 2016.7 | 6 | 2.16.7.6 (3GB) | 2.16.7.0 | 2.16.7.6 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 7 | 2.16.7.7 (3GB) | 2.16.7.0 | 2.16.7.7 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 8 | 2.16.7.8 (3GB) | 2.16.7.0 | 2.16.7.7 | 2.16.7.8.00683507 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and DB updates |
| 2016.7 | 9 | 2.16.7.9 (3GB) | 2.16.7.0 | 2.16.7.9 | 2.16.7.9.00715012 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI, Web Services, DB updates and UM Portal |
| 2016.1 | 10 | 2.16.7.10 (3GB) | 2.16.7.0 | 2.16.7.10 | 2.16.7.9.00715012 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI and Web Service updates |
| 2017.1 | - | 2.17.1.0 (3GB) | 2.17.1.0 | 2.17.1.0 | 2.17.1.0.00559886 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | Full Version Release |
| 2017.1 | 1 | 2.17.1.1 (3GB) | 2.17.1.0 | 2.17.1.1 | 2.17.1.1.00589952 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 2 | 2.17.1.2 (3GB) | 2.17.1.0 | 2.17.1.2 | 2.17.1.2.00621962 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 3 | 2.17.1.3 (3GB) | 2.17.1.0 | 2.17.1.3 | 2.17.1.3.00640480 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 4 | 2.17.1.4 (3GB) | 2.17.1.0 | 2.17.1.4 | 2.17.1.4.00692239 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI, Web Service, DB and Patient Portal updates |
| 2017.1 | 5 | 2.17.1.4 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.4.00692239 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | Web Service |
| **2017.1** | **6** | **2.17.1.6 (3GB)** | **2.17.1.0** | **2.17.1.5** | **2.17.1.6.00745281** | **2.17.1.0** | **2.17.1.4.701924** | **2.17.1.0.00000** | | **GUI and DB Updates** |
| 2017.2 | - | 2.17.2.0(3GB) | 2.17.2.0 | 2.17.2.0 | 2.17.2.0.00695782 | 2.17.2.0 | 2.17.2.0.702238 | 2.17.2.0.702213 | 2.17.2.0.702226 | Full Version Release. First release of Provider Portal |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

# INSTALLING

## CLIENT/GUI

Copy and replace the current rRIS…zip file with the eRAD_rRIS_2017.1.6.zip file provided with this release.

Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

## DATABASE UPDATES

Always run the upgrade scripts in a test environment of the actual database to make sure they run cleanly. If any errors occur please contact development.

*Note: There is a new upgrade process introduced with B43.1 called "RunUpgrade.bat". The batch file will open a command window. This process will prompt you for the database server name, database name and authentication credentials. There is no need to run the database upgrade scripts manually as was done in previous releases.*

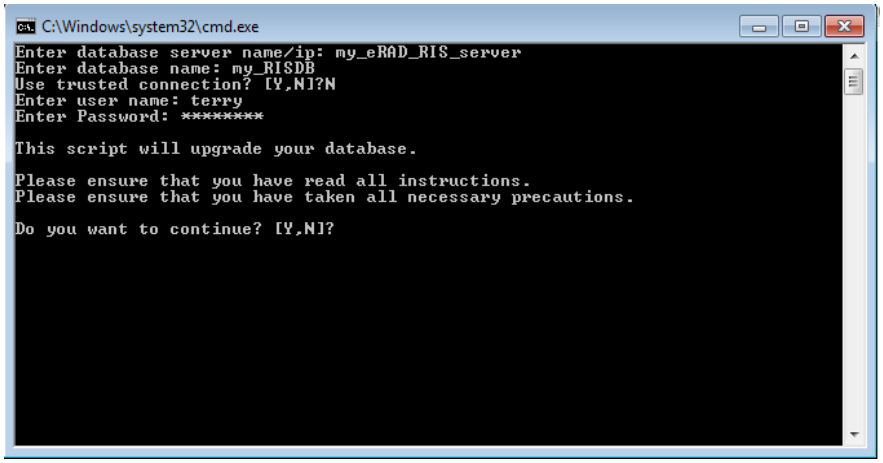
1) From the upgrade folder, double click the “RunUpgrade.bat” command file.

2) Enter the server name, database name and authentication credentials to the database. You have 2 choices for authentication credentials.

3) You can choose to use “Trusted connection”. Using this option will pass the identity of the currently logged on user. If this user has “db_owner” access to the eRAD RIS database then feel free to use this options.

4) If you decide not to use “Trusted connection” then you will be prompted for user id and password.

Example:




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

5) After the upgrade program has finished you can find the upgrade logs in the “log” folder. The file name will be eRAD_RIS_db_upgrade_timestamp.log, where timestamp is a value representing the date and time the upgrade started. If you see any errors please contact the development team

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

# Server Update

For eRAD RIS

Version 2.0

Build 2.2017.1

Update 2.2017.1.7

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

# Table of Contents

Package Contents ..... 3

Intended Audience ..... 3

Who is affected ..... 3

Resolved Items ..... 4

Code Stream ..... 5

eRAD RIS Release Version Numbers ..... 6

Installing ..... 7

Client/GUI ..... 7

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## PACKAGE CONTENTS

## INTENDED AUDIENCE

The intended audience for this document is the RadNet Clinical Systems team and the eRAD Support/Service team.

## WHO IS AFFECTED

Build 2017.1 installs. This server update must be applied to 2017.1.6 (note there are web service changes in 2017.1.5 as well that will need to be applied).

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

## RESOLVED ITEMS

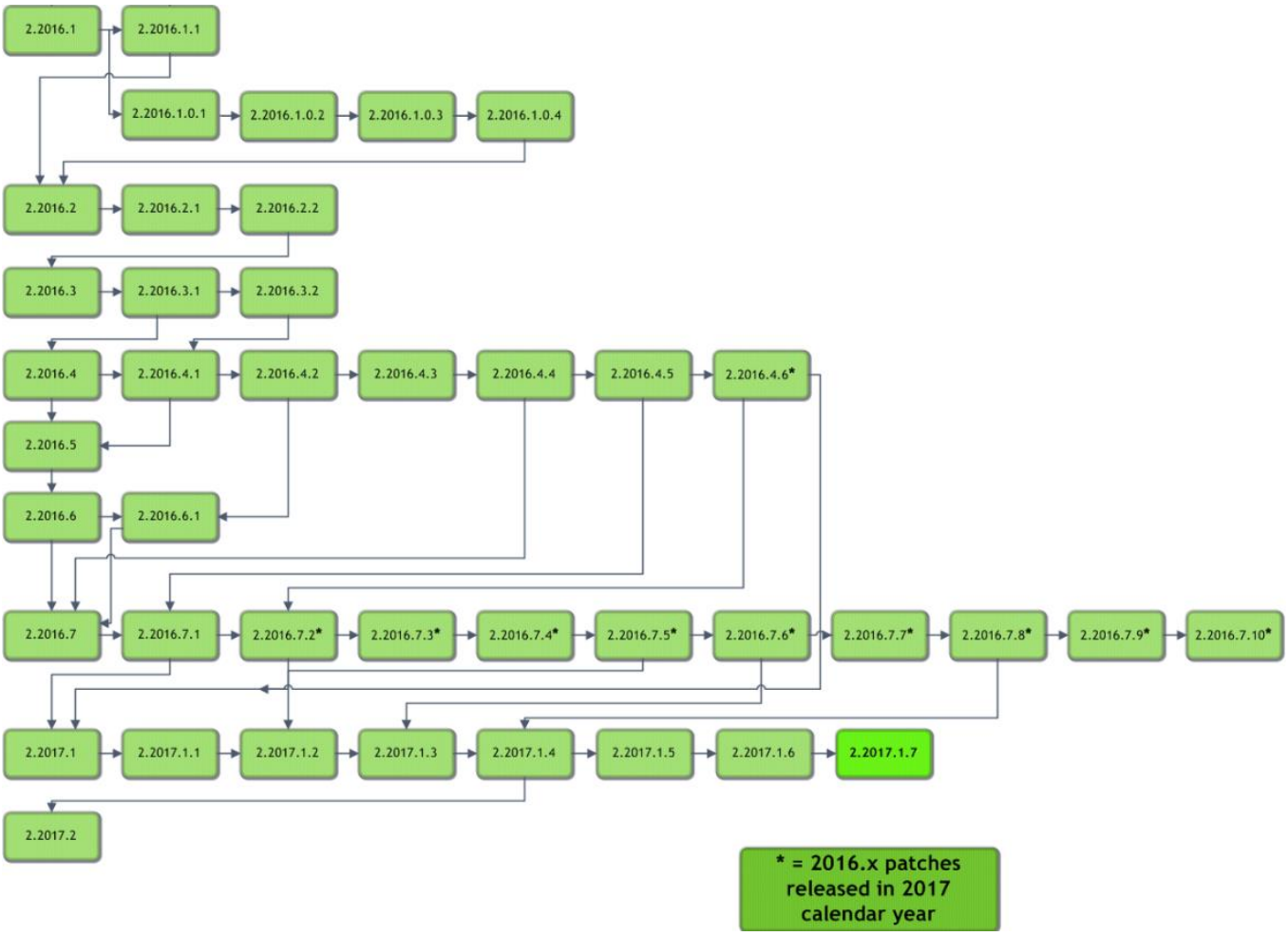
# eRAD RIS

| Redmine # | Subject |
|---|---|
| 17466 | Instituted a new safeguard to ensure RIS doesn't add the same alternate ID to the patient ID grid more than once. This resolves an issue that occurred under a particular set of circumstances with electronic orders. |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

## CODE STREAM




## Legend:

Light Green = Previously Released software

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## ERAD RIS RELEASE VERSION NUMBERS

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Digital Forms | Patient Portal | UM Portal | Provider Portal | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| 2016.1 | - | 2.16.1.0.33419 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | | | | | GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge |
| 2016.1 | 1 | 2.16.1.1.33672 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | | | | | GUI.zip |
| 2016.1 | .0.1 | 2.16.1.0.1 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | | | | | GUI.zip (This is not included in 2016.1.1, version directly above) |
| 2016.1 | .0.2 | 2.16.1.0.1 (3GB) | 2.16.1.0.33079 | 2.16.1.0.2 | 2.16.1.0.33416 | | | | | Wedge Web Services only |
| 2016.1 | .0.3 | 2.16.1.0.3 (3GB) | 2.16.1.0.33079 | 2.16.1.0.3 | 2.16.1.0.3.00128918 | | | | | GUI.zip, Web Services and DB |
| 2016.1 | .0.4 | 2.16.1.0.4 (3GB) | 2.16.1.0.33079 | 2.16.1.0.4 | 2.16.1.0.3.00128918 | | | | | GUI.zip, Web Services |
| 2016.2 | - | 2.16.2.0 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.0.00172540 | | | | | Full Version Release - GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge |
| 2016.2 | 1 | 2.16.2.1 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.0.00172540 | | | | | GUI.zip and Citrix Bridge |
| 2016.2 | 2 | 2.16.2.2 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.2.00243102 | | | | | GUI.zip, DB and Citrix Bridge |
| 2016.3 | - | 2.16.3.0 (3GB) | 2.16.3.0 | 2.16.3.0 | 2.16.3.0.00257101 | 2.16.3.0 | | | | Full Version Release |
| 2016.3 | 1 | 2.16.3.1 | 2.16.3.0 | 2.16.3.1 | 2.16.3.1.00298834 | 2.16.3.0 | | | | GUI.zip, Web Service and DB |
| 2016.3 | 2 | 2.16.3.2 | 2.16.3.0 | 2.16.3.2 | 2.16.3.1.00298834 | 2.16.3.0 | | | | GUI.zip and Web Service |
| 2016.4 | - | 2.16.4.0 | 2.16.4.0 | 2.16.4.0 | 2.16.4.0.00301943 | 2.16.4.0 | 1.16.4.0.310284 | | | Full Version Release |
| 2016.4 | 1 | 2.16.4.1 | 2.16.4.0 | 2.16.4.1 | 2.16.4.0.00301943 | 2.16.4.0 | 1.16.4.0.310284 | | | GUI and Web Service updates |
| 2016.4 | 2 | 2.16.4.2 (3GB) | 2.16.4.0 | 2.16.4.1 | 2.16.4.0.00301943 | 2.16.4.0 | 1.16.4.2.460241 | | | GUI and Patient Portal updates |
| 2016.4 | 3 | 2.16.4.3 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | 1.16.4.3.489120 | | | GUI and Patient Portal updates |
| 2016.4 | 4 | 2.16.4.4 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | 1.16.4.3.489120 | | | GUI |
| 2016.4 | 5 | 2.16.4.5 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | | | | GUI |
| 2016.4 | 6 | 2.16.4.6 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | | | | GUI |
| 2016.5 | - | 2.16.5.0 (3GB) | 2.16.5.0 | 2.16.5.0 | 2.16.5.0.00349303 | 2.16.5.0 | 1.16.5.0.362009 | | | Full Version Release |
| 2016.6 | - | 2.16.6.0 (3GB) | 2.16.6.0 | 2.16.6.0 | 2.16.6.0.00411295 | 2.16.6.0 | 1.16.6.0.432471 | | | Full Version Release |
| 2016.6 | 1 | 2.16.6.1 (3GB) | 2.16.6.0 | 2.16.6.0 | 2.16.6.0.00411295 | 2.16.6.0 | 1.16.6.1.468583 | | | GUI and Patient Portal updated |
| 2016.7 | - | 2.16.7.0 (3GB) | 2.16.70 | 2.16.70 | 2.16.7.0.00490835 | 2.16.70 | 1.16.7.0.493031 | 2.16.7.0.493008 | | Full version release |
| 2016.7 | 1 | 2.16.7.1 (3GB) | 2.16.7.0 | 2.16.7.1 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 2 | 2.16.7.2 (3GB) | 2.16.7.0 | 2.16.7.2 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 3 | 2.16.7.3 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 4 | 2.16.7.4 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI |
| 2016.7 | 5 | 2.16.7.5 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI |
| 2016.7 | 6 | 2.16.7.6 (3GB) | 2.16.7.0 | 2.16.7.6 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 7 | 2.16.7.7 (3GB) | 2.16.7.0 | 2.16.7.7 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 8 | 2.16.7.8 (3GB) | 2.16.7.0 | 2.16.7.7 | 2.16.7.8.00683507 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and DB updates |
| 2016.7 | 9 | 2.16.7.9 (3GB) | 2.16.7.0 | 2.16.7.9 | 2.16.7.9.00715012 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI, Web Services, DB updates and UM Portal |
| 2016.1 | 10 | 2.16.7.10 (3GB) | 2.16.7.0 | 2.16.7.10 | 2.16.7.9.00715012 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI and Web Service updates |
| 2016.1 | 11 | 2.16.7.11 (3GB) | 2.16.7.0 | 2.16.7.11 | 2.16.7.11.00746920 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI, Web Service and updates |
| 2017.1 | - | 2.17.1.0 (3GB) | 2.17.1.0 | 2.17.1.0 | 2.17.1.0.00559886 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | Full Version Release |
| 2017.1 | 1 | 2.17.1.1 (3GB) | 2.17.1.0 | 2.17.1.1 | 2.17.1.1.00589952 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 2 | 2.17.1.2 (3GB) | 2.17.1.0 | 2.17.1.2 | 2.17.1.2.00621962 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 3 | 2.17.1.3 (3GB) | 2.17.1.0 | 2.17.1.3 | 2.17.1.3.00640480 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 4 | 2.17.1.4 (3GB) | 2.17.1.0 | 2.17.1.4 | 2.17.1.4.00692239 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI, Web Service, DB and Patient Portal updates |
| 2017.1 | 5 | 2.17.1.4 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.4.00692239 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | Web Service |
| 2017.1 | 6 | 2.17.1.6 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI and DB Updates |
| **2017.1** | **7** | **2.17.1.7 (3GB)** | **2.17.1.0** | **2.17.1.5** | **2.17.1.6.00745281** | **2.17.1.0** | **2.17.1.4.701924** | **2.17.1.0.00000** | | **GUI update** |
| 2017.2 | - | 2.17.2.0(3GB) | 2.17.2.0 | 2.17.2.0 | 2.17.2.0.00695782 | 2.17.2.0 | 2.17.2.0.702238 | 2.17.2.0.702213 | 2.17.2.0.702226 | Full Version Release. First release of Provider Portal |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

# INSTALLING

## CLIENT/GUI

Copy and replace the current rRIS…zip file with the eRAD_rRIS_2017.1.7.zip file provided with this release.

Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

# Server Update

For eRAD RIS

Version 2.0

Build 2.2017.1

Update 2.2017.1.8

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

# Table of Contents

Package Contents ..... 3

Intended Audience ..... 3

Who is affected ..... 3

New Features ..... 4

Feature #17458 – User preferences to disable input devies ..... 4

Resolved Items ..... 5

Code Stream ..... 6

eRAD RIS Release Version Numbers ..... 7

Installing ..... 8

Client/GUI ..... 8

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## PACKAGE CONTENTS

## INTENDED AUDIENCE

The intended audience for this document is the RadNet Clinical Systems team and the eRAD Support/Service team.

## WHO IS AFFECTED

Build 2017.1 installs. This server update must be applied to 2017.1.6 (note there are web service changes in 2017.1.5 as well that will need to be applied).

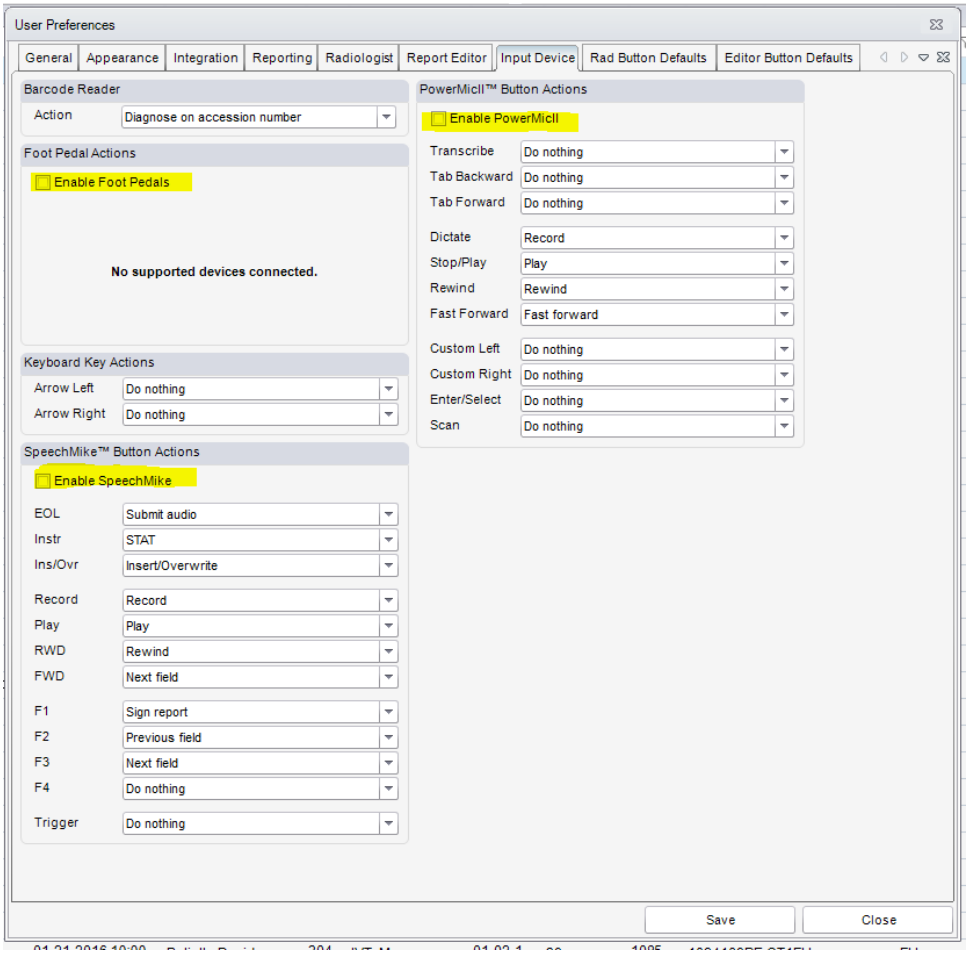
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

## NEW FEATURES

### FEATURE #17458 – USER PREFERENCES TO DISABLE INPUT DEVICES

User preferences were added to allow disabling the Input Devices.




Note: “Enable Foot Pedals” and “Enable SpeechMike” are essentially the same. They will stay in sync and control what is essentially one user preference. However these were created as separate preferences because if the user is not a radiologist, they will not have access to the SpeechMike group box. Separating the preferences in this way will ensure that users are able to see and set the preference regardless of their exact role.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

## RESOLVED ITEMS

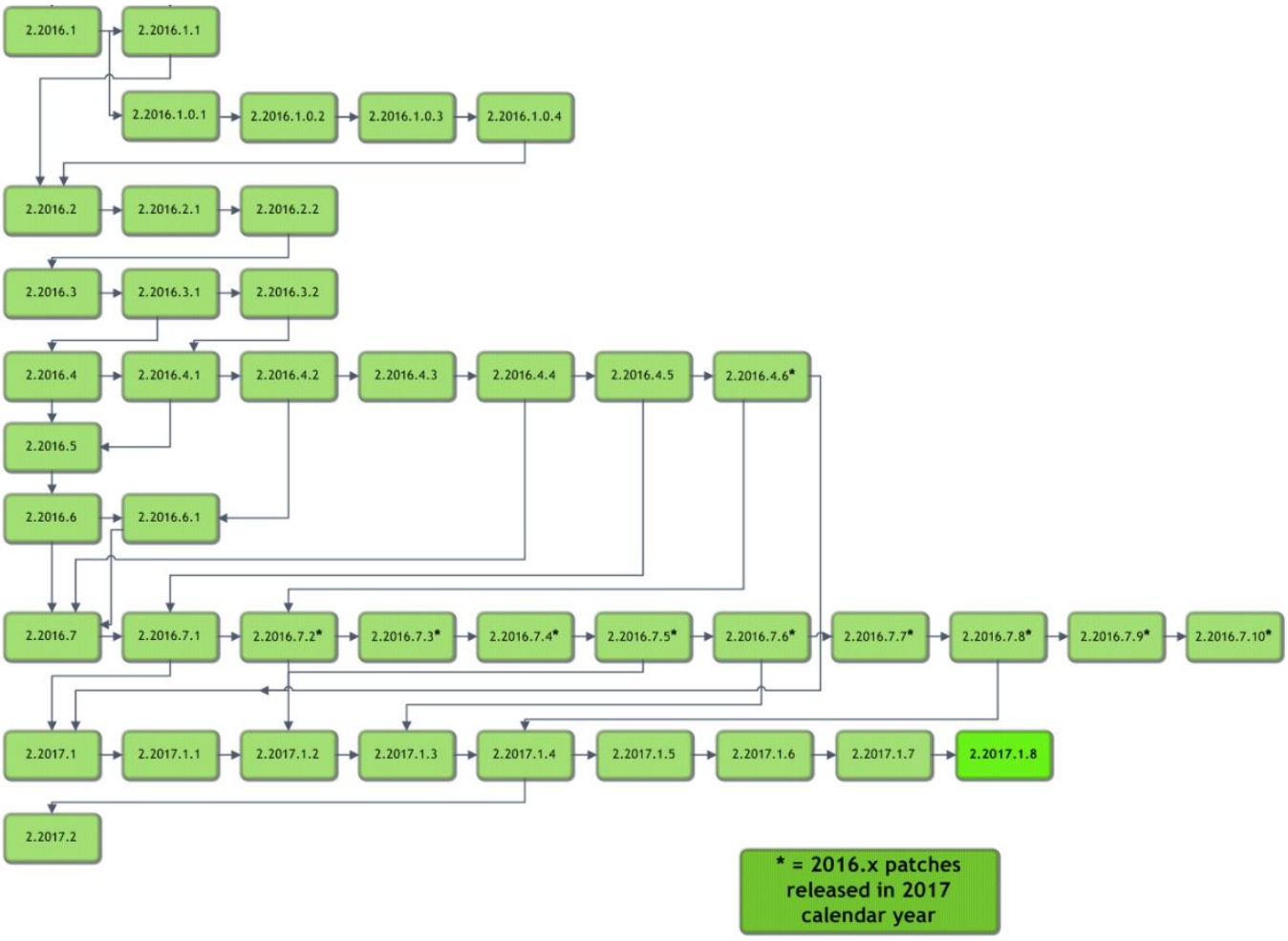
# eRAD RIS

| Redmine # | Subject |
|---|---|
| 17458 | Add User Preferences to Disable Input Devices |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

## CODE STREAM




## Legend:

Light Green = Previously Released software

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## ERAD RIS RELEASE VERSION NUMBERS

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Digital Forms | Patient Portal | UM Portal | Provider Portal | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| 2016.2 | - | 2.16.2.0 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.0.00172540 | | | | | Full Version Release - GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge |
| 2016.2 | 1 | 2.16.2.1 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.0.00172540 | | | | | GUI.zip and Citrix Bridge |
| 2016.2 | 2 | 2.16.2.2 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.2.00243102 | | | | | GUI.zip, DB and Citrix Bridge |
| 2016.3 | - | 2.16.3.0 (3GB) | 2.16.3.0 | 2.16.3.0 | 2.16.3.0.00257101 | 2.16.3.0 | | | | Full Version Release |
| 2016.3 | 1 | 2.16.3.1 | 2.16.3.0 | 2.16.3.1 | 2.16.3.1.00298834 | 2.16.3.0 | | | | GUI.zip, Web Service and DB |
| 2016.3 | 2 | 2.16.3.2 | 2.16.3.0 | 2.16.3.2 | 2.16.3.1.00298834 | 2.16.3.0 | | | | GUI.zip and Web Service |
| 2016.4 | - | 2.16.4.0 | 2.16.4.0 | 2.16.4.0 | 2.16.4.0.00301943 | 2.16.4.0 | 1.16.4.0.310284 | | | Full Version Release |
| 2016.4 | 1 | 2.16.4.1 | 2.16.4.0 | 2.16.4.1 | 2.16.4.0.00301943 | 2.16.4.0 | 1.16.4.0.310284 | | | GUI and Web Service updates |
| 2016.4 | 2 | 2.16.4.2 (3GB) | 2.16.4.0 | 2.16.4.1 | 2.16.4.0.00301943 | 2.16.4.0 | 1.16.4.2.460241 | | | GUI and Patient Portal updates |
| 2016.4 | 3 | 2.16.4.3 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | 1.16.4.3.489120 | | | GUI and Patient Portal updates |
| 2016.4 | 4 | 2.16.4.4 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | 1.16.4.3.489120 | | | GUI |
| 2016.4 | 5 | 2.16.4.5 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | | | | GUI |
| 2016.4 | 6 | 2.16.4.6 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | | | | GUI |
| 2016.5 | - | 2.16.5.0 (3GB) | 2.16.5.0 | 2.16.5.0 | 2.16.5.0.00349303 | 2.16.5.0 | 1.16.5.0.362009 | | | Full Version Release |
| 2016.6 | - | 2.16.6.0 (3GB) | 2.16.6.0 | 2.16.6.0 | 2.16.6.0.00411295 | 2.16.6.0 | 1.16.6.0.432471 | | | Full Version Release |
| 2016.6 | 1 | 2.16.6.1 (3GB) | 2.16.6.0 | 2.16.6.0 | 2.16.6.0.00411295 | 2.16.6.0 | 1.16.6.1.468583 | | | GUI and Patient Portal updated |
| 2016.7 | - | 2.16.7.0 (3GB) | 2.16.70 | 2.16.70 | 2.16.7.0.00490835 | 2.16.70 | 1.16.7.0.493031 | 2.16.7.0.493008 | | Full version release |
| 2016.7 | 1 | 2.16.7.1 (3GB) | 2.16.7.0 | 2.16.7.1 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 2 | 2.16.7.2 (3GB) | 2.16.7.0 | 2.16.7.2 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 3 | 2.16.7.3 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 4 | 2.16.7.4 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI |
| 2016.7 | 5 | 2.16.7.5 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI |
| 2016.7 | 6 | 2.16.7.6 (3GB) | 2.16.7.0 | 2.16.7.6 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 7 | 2.16.7.7 (3GB) | 2.16.7.0 | 2.16.7.7 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 8 | 2.16.7.8 (3GB) | 2.16.7.0 | 2.16.7.7 | 2.16.7.8.00683507 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and DB updates |
| 2016.7 | 9 | 2.16.7.9 (3GB) | 2.16.7.0 | 2.16.7.9 | 2.16.7.9.00715012 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI, Web Services, DB updates and UM Portal |
| 2016.7 | 10 | 2.16.7.10 (3GB) | 2.16.7.0 | 2.16.7.10 | 2.16.7.9.00715012 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI and Web Service updates |
| 2016.7 | 11 | 2.16.7.11 (3GB) | 2.16.7.0 | 2.16.7.11 | 2.16.7.11.00746920 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI, Web Service and updates |
| 2017.1 | - | 2.17.1.0 (3GB) | 2.17.1.0 | 2.17.1.0 | 2.17.1.0.00559886 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | Full Version Release |
| 2017.1 | 1 | 2.17.1.1 (3GB) | 2.17.1.0 | 2.17.1.1 | 2.17.1.1.00589952 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 2 | 2.17.1.2 (3GB) | 2.17.1.0 | 2.17.1.2 | 2.17.1.2.00621962 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 3 | 2.17.1.3 (3GB) | 2.17.1.0 | 2.17.1.3 | 2.17.1.3.00640480 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 4 | 2.17.1.4 (3GB) | 2.17.1.0 | 2.17.1.4 | 2.17.1.4.00692239 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI, Web Service, DB and Patient Portal updates |
| 2017.1 | 5 | 2.17.1.4 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.4.00692239 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | Web Service |
| 2017.1 | 6 | 2.17.1.6 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI and DB Updates |
| 2017.1 | 7 | 2.17.1.7 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI update |
| **2017.1** | **8** | **2.17.1.8 (3GB)** | **2.17.1.0** | **2.17.1.5** | **2.17.1.6.00745281** | **2.17.1.0** | **2.17.1.4.701924** | **2.17.1.0.00000** | | **GUI update** |
| 2017.2 | - | 2.17.2.0(3GB) | 2.17.2.0 | 2.17.2.0 | 2.17.2.0.00695782 | 2.17.2.0 | 2.17.2.0.702238 | 2.17.2.0.702213 | 2.17.2.0.702226 | Full Version Release. First release of Provider Portal |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

# INSTALLING

## CLIENT/GUI

Copy and replace the current rRIS…zip file with the eRAD_rRIS_2017.1.8.zip file provided with this release.

Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

# Server Update

For eRAD RIS

Version 2.0

Build 2.2017.1

Update 2.2017.1.9

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

# Table of Contents

Package Contents ..... 3

Intended Audience ..... 3

Who is affected ..... 3

Resolved Items ..... 4

Code Stream ..... 5

eRAD RIS Release Version Numbers ..... 6

Installing ..... 7

Client/GUI ..... 7

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## PACKAGE CONTENTS

## INTENDED AUDIENCE

The intended audience for this document is the RadNet Clinical Systems team and the eRAD Support/Service team.

## WHO IS AFFECTED

Build 2017.1 installs. This server update must be applied to 2017.1.6 (note there are web service changes in 2017.1.5 as well that will need to be applied).

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

## RESOLVED ITEMS

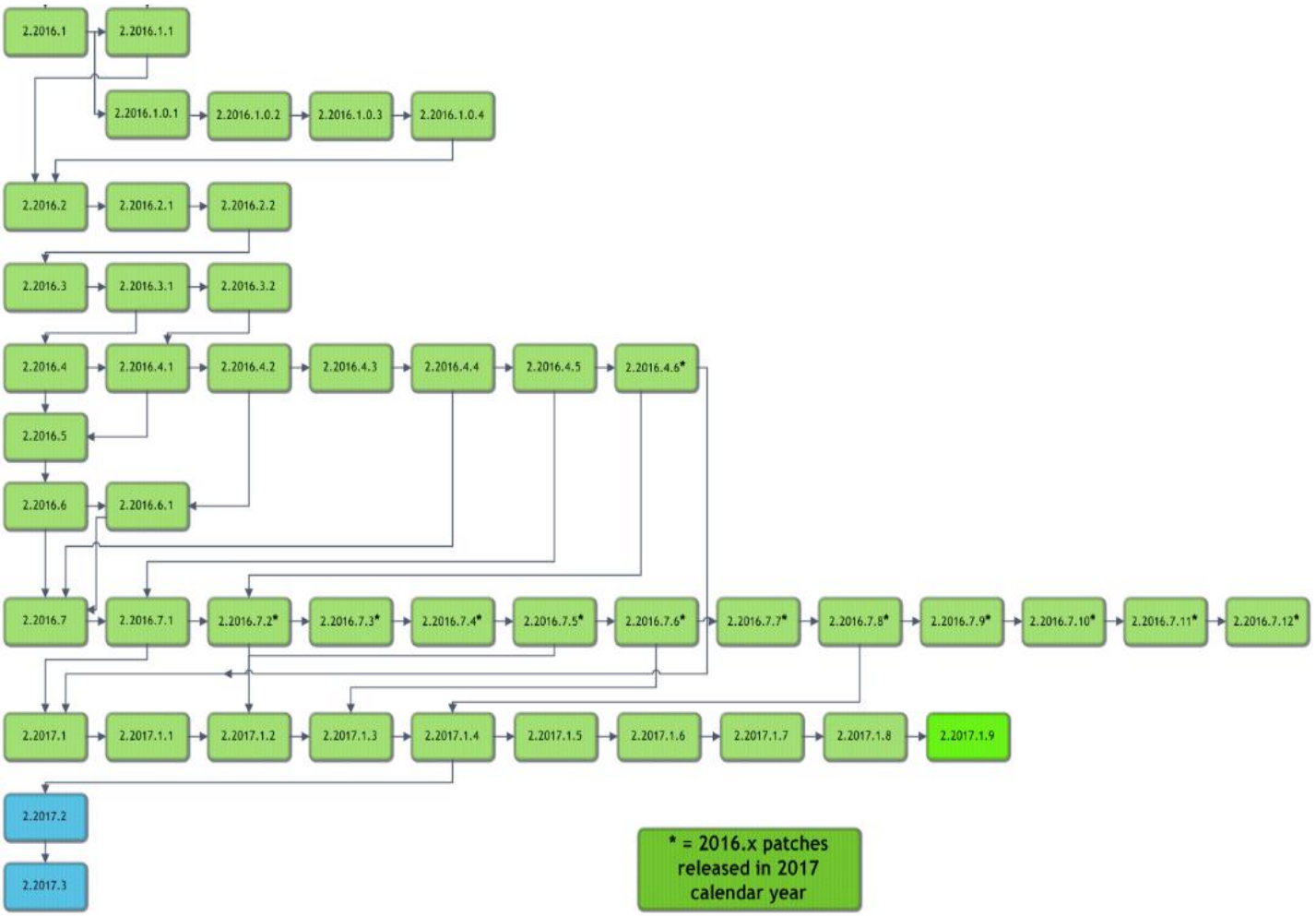
# eRAD RIS

| Redmine # | Subject |
|---|---|
| 14408 | 24 hour clock settings are now handled properly in availability templates. |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

## CODE STREAM




**Legend:**

Light Green = Previously Released software

Bright Green = Current Release

Blue - Not commercially released

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

## ERAD RIS RELEASE VERSION NUMBERS

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Digital Forms | Patient Portal | UM Portal | Provider Portal | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| 2016.2 | - | 2.16.2.0 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.0.00172540 | | | | | Full Version Release - GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge |
| 2016.2 | 1 | 2.16.2.1 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.0.00172540 | | | | | GUI.zip and Citrix Bridge |
| 2016.2 | 2 | 2.16.2.2 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.2.00243102 | | | | | GUI.zip, DB and Citrix Bridge |
| 2016.3 | - | 2.16.3.0 (3GB) | 2.16.3.0 | 2.16.3.0 | 2.16.3.0.00257101 | 2.16.3.0 | | | | Full Version Release |
| 2016.3 | 1 | 2.16.3.1 | 2.16.3.0 | 2.16.3.1 | 2.16.3.1.00298834 | 2.16.3.0 | | | | GUI.zip, Web Service and DB |
| 2016.3 | 2 | 2.16.3.2 | 2.16.3.0 | 2.16.3.2 | 2.16.3.1.00298834 | 2.16.3.0 | | | | GUI.zip and Web Service |
| 2016.4 | - | 2.16.4.0 | 2.16.4.0 | 2.16.4.0 | 2.16.4.0.00301943 | 2.16.4.0 | 1.16.4.0.310284 | | | Full Version Release |
| 2016.4 | 1 | 2.16.4.1 | 2.16.4.0 | 2.16.4.1 | 2.16.4.0.00301943 | 2.16.4.0 | 1.16.4.0.310284 | | | GUI and Web Service updates |
| 2016.4 | 2 | 2.16.4.2 (3GB) | 2.16.4.0 | 2.16.4.1 | 2.16.4.0.00301943 | 2.16.4.0 | 1.16.4.2.460241 | | | GUI and Patient Portal updates |
| 2016.4 | 3 | 2.16.4.3 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | 1.16.4.3.489120 | | | GUI and Patient Portal updates |
| 2016.4 | 4 | 2.16.4.4 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | 1.16.4.3.489120 | | | GUI |
| 2016.4 | 5 | 2.16.4.5 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | | | | GUI |
| 2016.4 | 6 | 2.16.4.6 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | | | | GUI |
| 2016.5 | - | 2.16.5.0 (3GB) | 2.16.5.0 | 2.16.5.0 | 2.16.5.0.00349303 | 2.16.5.0 | 1.16.5.0.362009 | | | Full Version Release |
| 2016.6 | - | 2.16.6.0 (3GB) | 2.16.6.0 | 2.16.6.0 | 2.16.6.0.00411295 | 2.16.6.0 | 1.16.6.0.432471 | | | Full Version Release |
| 2016.6 | 1 | 2.16.6.1 (3GB) | 2.16.6.0 | 2.16.6.0 | 2.16.6.0.00411295 | 2.16.6.0 | 1.16.6.1.468583 | | | GUI and Patient Portal updated |
| 2016.7 | - | 2.16.7.0 (3GB) | 2.16.70 | 2.16.70 | 2.16.7.0.00490835 | 2.16.70 | 1.16.7.0.493031 | 2.16.7.0.493008 | | Full version release |
| 2016.7 | 1 | 2.16.7.1 (3GB) | 2.16.7.0 | 2.16.7.1 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 2 | 2.16.7.2 (3GB) | 2.16.7.0 | 2.16.7.2 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 3 | 2.16.7.3 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 4 | 2.16.7.4 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI |
| 2016.7 | 5 | 2.16.7.5 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI |
| 2016.7 | 6 | 2.16.7.6 (3GB) | 2.16.7.0 | 2.16.7.6 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 7 | 2.16.7.7 (3GB) | 2.16.7.0 | 2.16.7.7 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 8 | 2.16.7.8 (3GB) | 2.16.7.0 | 2.16.7.7 | 2.16.7.8.00683507 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and DB updates |
| 2016.7 | 9 | 2.16.7.9 (3GB) | 2.16.7.0 | 2.16.7.9 | 2.16.7.9.00715012 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI, Web Services, DB updates and UM Portal |
| 2016.7 | 10 | 2.16.7.10 (3GB) | 2.16.7.0 | 2.16.7.10 | 2.16.7.9.00715012 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI and Web Service updates |
| 2016.7 | 11 | 2.16.7.11 (3GB) | 2.16.7.0 | 2.16.7.11 | 2.16.7.11.00761267 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI, Web Service and DB updates |
| 2016.7 | 12 | 2.16.7.12 (3GB) | 2.16.7.0 | 2.16.7.11 | 2.16.7.11.00761267 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI |
| 2017.1 | - | 2.17.1.0 (3GB) | 2.17.1.0 | 2.17.1.0 | 2.17.1.0.00559886 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | Full Version Release |
| 2017.1 | 1 | 2.17.1.1 (3GB) | 2.17.1.0 | 2.17.1.1 | 2.17.1.1.00589952 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 2 | 2.17.1.2 (3GB) | 2.17.1.0 | 2.17.1.2 | 2.17.1.2.00621962 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 3 | 2.17.1.3 (3GB) | 2.17.1.0 | 2.17.1.3 | 2.17.1.3.00640480 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 4 | 2.17.1.4 (3GB) | 2.17.1.0 | 2.17.1.4 | 2.17.1.4.00692239 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI, Web Service, DB and Patient Portal updates |
| 2017.1 | 5 | 2.17.1.4 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.4.00692239 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | Web Service |
| 2017.1 | 6 | 2.17.1.6 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI and DB Updates |
| 2017.1 | 7 | 2.17.1.7 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI update |
| 2017.1 | 8 | 2.17.1.8 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI update |
| **2017.1** | **9** | **2.17.1.9 (3GB)** | **2.17.1.0** | **2.17.1.5** | **2.17.1.6.00745281** | **2.17.1.0** | **2.17.1.4.701924** | **2.17.1.0.00000** | | **GUI update** |
| 2017.2 | - | 2.17.2.0(3GB) | 2.17.2.0 | 2.17.2.0 | 2.17.2.0.00695782 | 2.17.2.0 | 2.17.2.0.702238 | 2.17.2.0.702213 | 2.17.2.0.702226 | Full Version Release. First release of Provider Portal |
| 2017.3 | - | 2.17.3.0(3GB) | 2.17.3.0 | 2.17.3.0 | 2.17.3.0.00764112 | 2.17.3.0 | 2.17.3.0.321 | 2.17.3.0.321 | 2.17.3.0.321 | Full Version Release. Including Patient, Provider and UM Portals |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

# INSTALLING

## CLIENT/GUI

Copy and replace the current rRIS…zip file with the eRAD_rRIS_2017.1.9.zip file provided with this release.

Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

# Server Update

For eRAD RIS

Version 2.0

Build 2.2017.1

Update 2.2017.1.10

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

# Table of Contents

Package Contents ..... 3

Intended Audience ..... 3

Who is affected ..... 3

Resolved Items ..... 4

Code Stream ..... 5

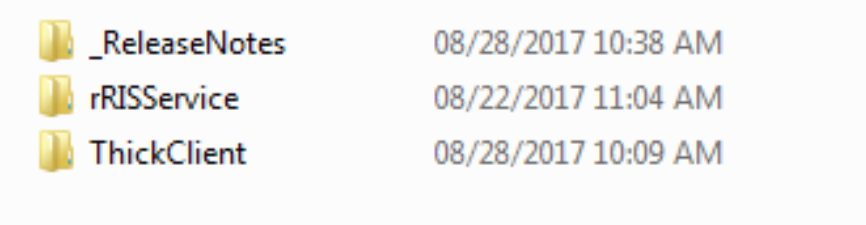
eRAD RIS Release Version Numbers ..... 6

Installing ..... 7

- Client/GUI ..... 7
- Web Service ..... 7

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## PACKAGE CONTENTS




## INTENDED AUDIENCE

The intended audience for this document is the RadNet Clinical Systems team and the eRAD Support/Service team.

## WHO IS AFFECTED

Build 2017.1 installs. This server update must be applied to 2017.1.6 as it had a database update.

The server releases of 2017.1.7→2017.1.9 were GUI only. Server Update 2017.1.10 also has GUI included in release, but does not have DB updates.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

## RESOLVED ITEMS

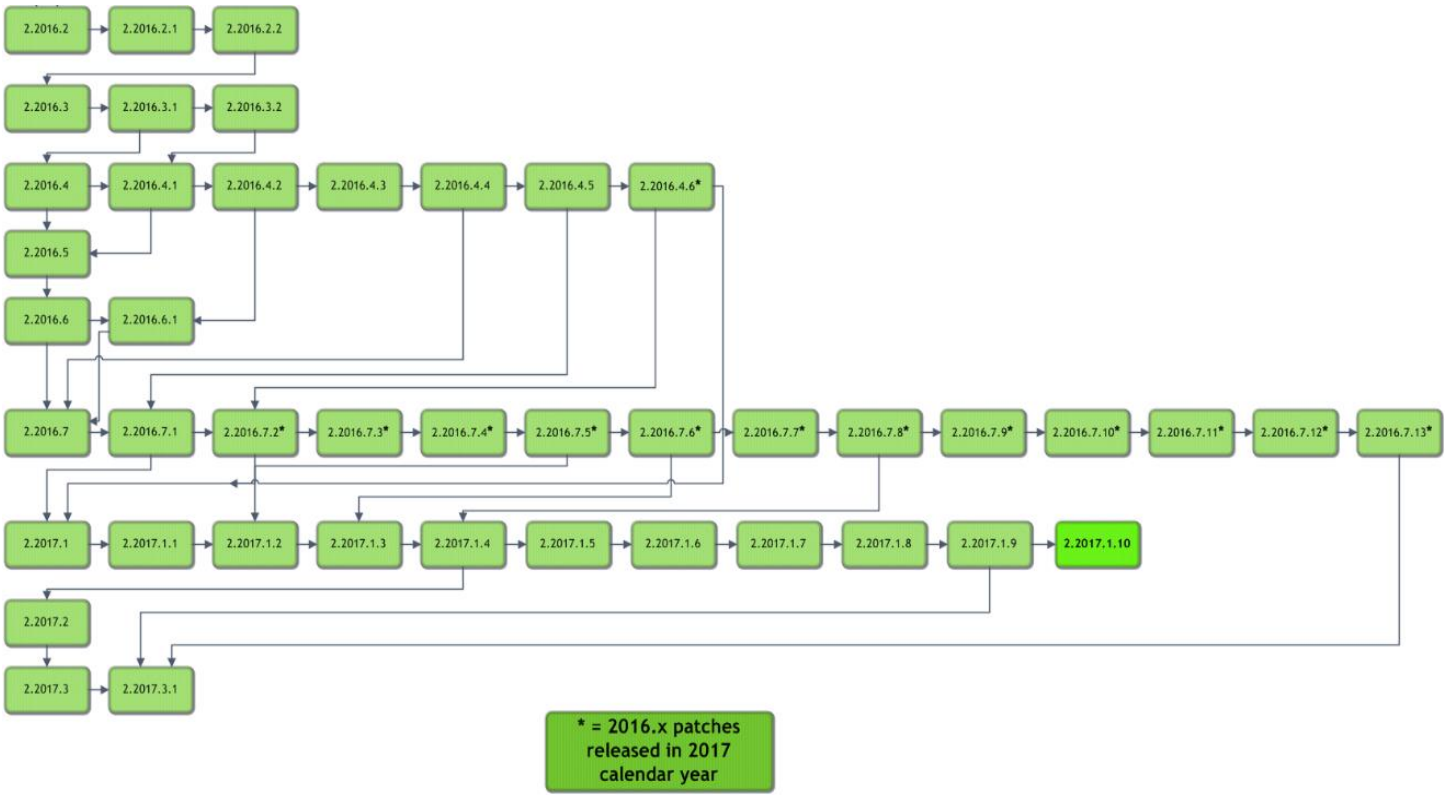
# eRAD RIS

| Redmine # | Subject |
|---|---|
| 18077 | When PACS images are opened from View/Edit or Perform Exam, the images will now properly close when the RIS tab for the patient is closed. |
| 18076 | Resolved an issue related to duplicate c_study_item entries for same study key. |
| 18075 | Resolved an issue in which a user could receive an error when adding an Unknown Referring under certain conditions. |
| 18074 | Print to RIS actions with multiple pages now have additional handling to account for timing issues that previously caused Print to RIS to stop working intermittently under certain conditions. |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

## CODE STREAM




**Legend:**

Light Green = Previously Released software

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## ERAD RIS RELEASE VERSION NUMBERS

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Digital Forms | Patient Portal | UM Portal | Provider Portal | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| 2016.2 | - | 2.16.2.0 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.0.00172540 | | | | | Full Version Release - GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge |
| 2016.2 | 1 | 2.16.2.1 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.0.00172540 | | | | | GUI.zip and Citrix Bridge |
| 2016.2 | 2 | 2.16.2.2 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.2.00243102 | | | | | GUI.zip, DB and Citrix Bridge |
| 2016.3 | - | 2.16.3.0 (3GB) | 2.16.3.0 | 2.16.3.0 | 2.16.3.0.00257101 | 2.16.3.0 | | | | Full Version Release |
| 2016.3 | 1 | 2.16.3.1 | 2.16.3.0 | 2.16.3.1 | 2.16.3.1.00298834 | 2.16.3.0 | | | | GUI.zip, Web Service and DB |
| 2016.3 | 2 | 2.16.3.2 | 2.16.3.0 | 2.16.3.2 | 2.16.3.1.00298834 | 2.16.3.0 | | | | GUI.zip and Web Service |
| 2016.4 | - | 2.16.4.0 | 2.16.4.0 | 2.16.4.0 | 2.16.4.0.00301943 | 2.16.4.0 | 1.16.4.0.310284 | | | Full Version Release |
| 2016.4 | 1 | 2.16.4.1 | 2.16.4.0 | 2.16.4.1 | 2.16.4.0.00301943 | 2.16.4.0 | 1.16.4.0.310284 | | | GUI and Web Service updates |
| 2016.4 | 2 | 2.16.4.2 (3GB) | 2.16.4.0 | 2.16.4.1 | 2.16.4.0.00301943 | 2.16.4.0 | 1.16.4.2.460241 | | | GUI and Patient Portal updates |
| 2016.4 | 3 | 2.16.4.3 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | 1.16.4.3.489120 | | | GUI and Patient Portal updates |
| 2016.4 | 4 | 2.16.4.4 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | 1.16.4.3.489120 | | | GUI |
| 2016.4 | 5 | 2.16.4.5 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | | | | GUI |
| 2016.4 | 6 | 2.16.4.6 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | | | | GUI |
| 2016.5 | - | 2.16.5.0 (3GB) | 2.16.5.0 | 2.16.5.0 | 2.16.5.0.00349303 | 2.16.5.0 | 1.16.5.0.362009 | | | Full Version Release |
| 2016.6 | - | 2.16.6.0 (3GB) | 2.16.6.0 | 2.16.6.0 | 2.16.6.0.00411295 | 2.16.6.0 | 1.16.6.0.432471 | | | Full Version Release |
| 2016.6 | 1 | 2.16.6.1 (3GB) | 2.16.6.0 | 2.16.6.0 | 2.16.6.0.00411295 | 2.16.6.0 | 1.16.6.1.468583 | | | GUI and Patient Portal updated |
| 2016.7 | - | 2.16.7.0 (3GB) | 2.16.70 | 2.16.70 | 2.16.7.0.00490835 | 2.16.70 | 1.16.7.0.493031 | 2.16.7.0.493008 | | Full version release |
| 2016.7 | 1 | 2.16.7.1 (3GB) | 2.16.7.0 | 2.16.7.1 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 2 | 2.16.7.2 (3GB) | 2.16.7.0 | 2.16.7.2 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 3 | 2.16.7.3 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 4 | 2.16.7.4 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI |
| 2016.7 | 5 | 2.16.7.5 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI |
| 2016.7 | 6 | 2.16.7.6 (3GB) | 2.16.7.0 | 2.16.7.6 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 7 | 2.16.7.7 (3GB) | 2.16.7.0 | 2.16.7.7 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 8 | 2.16.7.8 (3GB) | 2.16.7.0 | 2.16.7.7 | 2.16.7.8.00683507 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and DB updates |
| 2016.7 | 9 | 2.16.7.9 (3GB) | 2.16.7.0 | 2.16.7.9 | 2.16.7.9.00715012 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI, Web Services, DB updates and UM Portal |
| 2016.7 | 10 | 2.16.7.10 (3GB) | 2.16.7.0 | 2.16.7.10 | 2.16.7.9.00715012 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI and Web Service updates |
| 2016.7 | 11 | 2.16.7.11 (3GB) | 2.16.7.0 | 2.16.7.11 | 2.16.7.11.00761267 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI, Web Service and DB updates |
| 2016.7 | 12 | 2.16.7.12 (3GB) | 2.16.7.0 | 2.16.7.11 | 2.16.7.11.00761267 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI |
| 2016.7 | 13 | 2.16.7.13 (3GB) | 2.16.7.0 | 2.16.7.13 | 2.16.7.13.00823274 | 2.16.7.0 | 2.16.7.13.805715 | 2.16.7.13.805717 | | GUI, Web Service, DB, Patient and UM Portal updates |
| 2017.1 | - | 2.17.1.0 (3GB) | 2.17.1.0 | 2.17.1.0 | 2.17.1.0.00559886 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | Full Version Release |
| 2017.1 | 1 | 2.17.1.1 (3GB) | 2.17.1.0 | 2.17.1.1 | 2.17.1.1.00589952 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 2 | 2.17.1.2 (3GB) | 2.17.1.0 | 2.17.1.2 | 2.17.1.2.00621962 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 3 | 2.17.1.3 (3GB) | 2.17.1.0 | 2.17.1.3 | 2.17.1.3.00640480 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 4 | 2.17.1.4 (3GB) | 2.17.1.0 | 2.17.1.4 | 2.17.1.4.00692239 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI, Web Service, DB and Patient Portal updates |
| 2017.1 | 5 | 2.17.1.4 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.4.00692239 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | Web Service |
| 2017.1 | 6 | 2.17.1.6 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI and DB Updates |
| 2017.1 | 7 | 2.17.1.7 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI update |
| 2017.1 | 8 | 2.17.1.8 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI update |
| 2017.1 | 9 | 2.17.1.9 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI update |
| **2017.1** | **10** | **2.17.1.10 (3GB)** | **2.17.1.0** | **2.17.1.10** | **2.17.1.6.00745281** | **2.17.1.0** | **2.17.1.4.701924** | **2.17.1.0.00000** | | **GUI and Web Service update** |
| 2017.2 | - | 2.17.2.0(3GB) | 2.17.2.0 | 2.17.2.0 | 2.17.2.0.00695782 | 2.17.2.0 | 2.17.2.0.702238 | 2.17.2.0.702213 | 2.17.2.0.702226 | Full Version Release. First release of Provider Portal |
| 2017.3 | - | 2.17.3.0(3GB) | 2.17.3.0 | 2.17.3.0 | 2.17.3.0.00764112 | 2.17.3.0 | 2.17.3.0.321 | 2.17.3.0.321 | 2.17.3.0.321 | Full Version Release. Including Patient, Provider and UM Portals |
| 2017.3 | 1 | 2.17.3.1(3GB) | 2.17.3.0 | 2.17.3.1 | 2.17.3.1.00846328 | 2.17.3.1 | 2.17.3.1.853299 | 2.17.3.1.853301 | 2.17.3.1.856171 | GUI, Web Sevice, DB. Including Patient, Provider and UM Portals |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

# INSTALLING

## CLIENT/GUI

Copy and replace the current rRIS…zip file with the eRAD_rRIS_2017.1.10.zip file provided with this release.

Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

## WEB SERVICE

This updated is only required for the Wedge Web Services. The Core RIS Service and Document Distribution Service are not required to be updated.

1. The web service upgrade consists of replacing the files in the RIS Web Service directory with the files supplied in the rRISService folder with this build. Always create a backup of the files being replaced. This upgrade includes 128 files in the rRISService folder and 7 sub folders. Of those folders, 1 is a folder titled **"XSL"** that contains a sub folder and files within the subfolder. Another folder is titled **"deploy"** that contains the new .config files that will be deployed with the user of the file called "ServicesConfigWizard.exe" (see instructions below). Folders ar (Arabic), he (Hebrew), pt_BR (Brazilian Portuguese) and es-AR (Argentina Spanish) are localization folders. The WedgePlugins folder contains various plugin files for RADAR, MIRTH, Ensemble, etc…

**Services Configuration Wizard**

With the release of 42 to decrease the chance of losing configuration setting and missing new configuration options, we will no longer include the configuration files in the release in the main set of files, but they will now exist in a "deploy" folder, which will contain the three site configurable config files; applicationsettings, connectionstrings, and services as well as a copy of the rRISServices.exe configuration file. The contents of this folder should not be required to be touched.

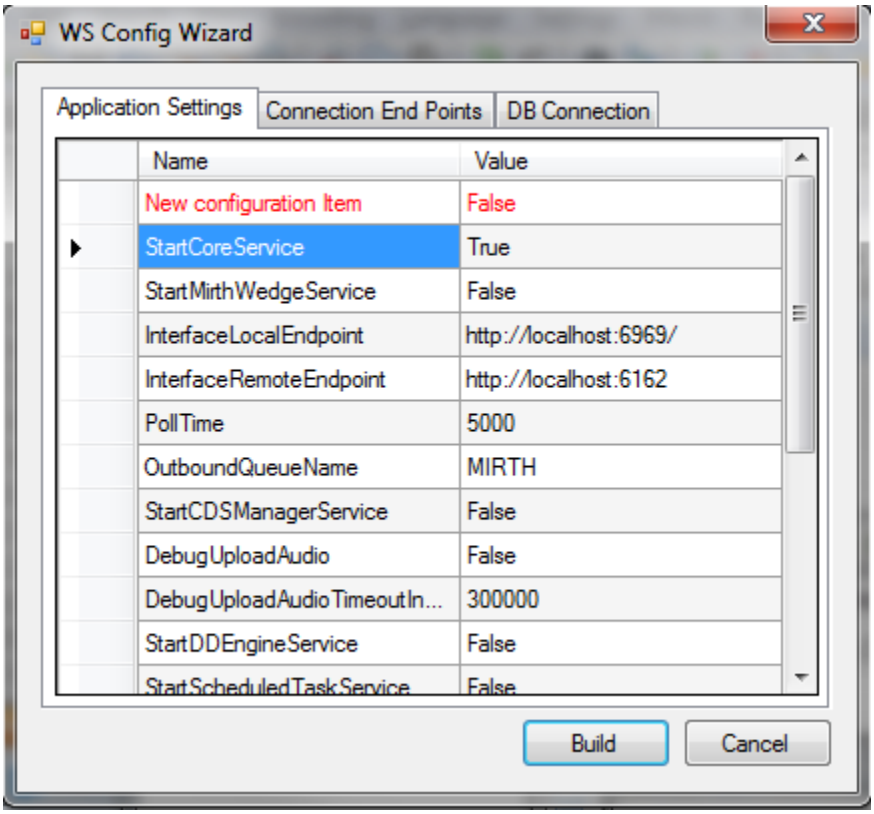
On the install of a new service, all files will be copied to the appropriate locations on the server (no configurations will be over written). If instructed or to confirm no new configurations have been added the user can run the new application "ServicesConfigWizard.exe"

This application will read the existing configuration file(s) (if files exist), and compare to the provided new configuration files then will display three tabs, for each configuration file:

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

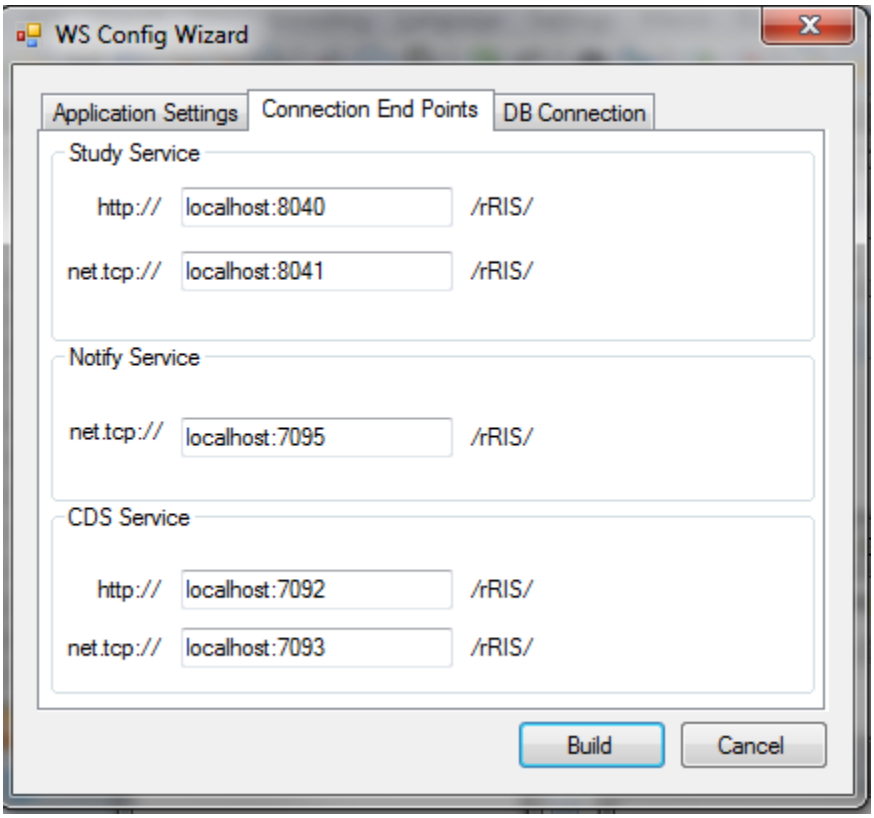
**Application Settings:** all existing configuration value will be displayed, if there are any new configuration entries they will be displayed in red.




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

**Connection End Points:** will display the existing configuration, if the value is left blank then that entry will not be created, in the case of “Study Service” or “CDS Service” if both http and net.tcp were not provided then that endpoint will not be created at all.




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

RadNet Technology Solutions

**February 28, 2017**

# Customer Release Notes

for eRAD RIS

Version 2

Build 2017.1

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## TABLE OF CONTENTS

Table of Contents ..... 2
Purpose ..... 4
Intended Audience ..... 4
New Settings ..... 5
New access strings ..... 5
New system configuration settings ..... 5
RIS.EXE Config settings ..... **Error! Bookmark not defined.**
Web Service Changes ..... **Error! Bookmark not defined.**
New Features ..... 7
Scheduling and Registration ..... 7
Feature #13650 – Demographic updates for Patient tab ..... 7
Digital Forms ..... 9
Feature #14828 – Digital Forms now support grids ..... 9
Scanned Documents ..... 10
Feature #14545 – View attachments alongside RIS screens while entering data ..... 10
Feature #14996 – Highlight an area on an attachment ..... 13
CEHRT ..... **Error! Bookmark not defined.**
Feature #15443 – SHA-2 Encrypted HASH now used in View CCR Dialog ..... **Error! Bookmark not defined.**
Technologist ..... 14
Feature #14568 – Adjust the duration of Contrast Timer for a patient ..... 14
Radiologist ..... 15
Feature #4123 – External reports can now be verified from Pending Dictation WL ..... 15
Feature #15097 – Disable Peer Review button for inactive radiologists ..... 17
Image Request Workflow ..... 18
Feature #15109 – Automatically cancel Image Requests that are not resolved within a defined time frame ..... 18
General WorkList Enhancements ..... 19
Features #15106, 14587, 15226, 15427 – Allow filtering of additional worklists by Site Group ..... 19
Feature #14961 - UM Priority column available on Orders to Schedule Worklist ..... 23
Feature #15361 – New column available on Technologist WL to display time of contrast injection ..... 23
Interfacing ..... 24
Feature #14747 – External interface can now return values for schedule message ..... 24
Feature #15034 – Configure exclusions for queue subscriptions ..... **Error! Bookmark not defined.**
Feature #15457 – Clean-up jobs created for newly created logs ..... **Error! Bookmark not defined.**
Feature #15459 – duplicate execution of messages can now be prevented ..... **Error! Bookmark not defined.**
Management Reports ..... 25
Feature #15265 – Option to deploy multiple report server data sources ..... **Error! Bookmark not defined.**
Feature #14511 – Management Reports and Dashboards for Utilization management ..... 25
Feature #15251 – Counters for RIS implemented to reduce cost of some queries ..... **Error! Bookmark not defined.**
Resolved Defects ..... 30
Known Limitations ..... 34

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

RIS Release Version Numbers.....36
Code Stream Diagram.....37

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## PURPOSE

This is the Customer Release Notes document for eRAD RIS Version 2.2017.1.

Not every feature will be described in this document. Typically, only features which can be visually demonstrated are outlined here.

## INTENDED AUDIENCE

This document was created by the eRAD RIS Development team and Product Management team for eRAD RIS customers.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

# NEW SETTINGS

## NEW ACCESS STRINGS

| Setting | Default | Purpose |
|---|---|---|
| Config.LookupEditor.GenderIdentity | None | Look-up table access for Gender Identity |
| Config.LookupEditor.SexualOrientation | None | Look-up table access for Sexual Orientation |
| Config.LookupEditor.StudyUpdateResponseInclusions | None | Look-up table access for Study Update Response Inclusions access |
| Flag.ContrastRequested | Full | Access to see the flag for ContrastRequested |
| Flag.SedationRequired | Full | Access to see the flag for SedationRequired |
| View.FindingFollowup<br><br>Replaces<br><br>View.FindingsFollowup | None | Access to see the Finding Followup menu item from View menu (visible when dictate window is open) |
| View.Preset.Administration.PresetCriticalResult | None | Access to preset layout administration for Critical Results |
| View.PresetCriticalResult | Full | Access to see the main menu item View/LoadLayout.../Critical Results |
| ~~WL.MyFolder~~ | | Removed duplicate access string. Remaining access string is WL.Folders. |

## NEW SYSTEM CONFIGURATION SETTINGS

| Setting | Default | Purpose |
|---|---|---|
| UMOpinionLetterReportPath<br><br>Replaces<br><br>AuthorizationLetterReportPath | | (value = path and name)The path and name of the Opinion Letter for Utilization Management. |
| UMTrackingNumberPrefix<br><br>Replaces<br><br>AuthorizationPrefix | | (value = string) A prefix that will be added to UM Tracking numbers for Utilization Management. |
| AddUseLocationFilterToWorklistSiteGroups | True | (value = True/False) Determines if the list of |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

| | | |
|---|---|---|
| | | sites/site groups on some worklists will include an option to use the location filter. |
| AllowPeerReviewOnInactiveRads | True | Determines if a case read by a now inactive radiologist can be peer reviewed. |
| DaysToKeepImageRequestActive | 0 | (value = int) The number of days to keep a request on the Image Request Worklist before automatically cancelling it. It will be based on the scheduled date or the image request date whichever is greater. A value of 0 will disable the automatic cancellation. |
| DaysToKeepWedgeInboundMessages | 7 | (value = number) This value informs the nightly cleanup job how many days old a Wedge inbound message log entry must be before removing it. |
| DaysToKeepWedgePerformanceTraceLogs | 3 | (value = number) This value informs the nightly cleanup job how many days old a Wedge inbound or outbound performance log entry must be before removing it. |
| ExternalReportsOnPendingDictationWL | False | (value = Y/N) This value determines whether external report verification studies go to the Pending Dictation worklists. If False, they will go to the Pending Signature worklists. Changes to this setting only apply to new studies. A maintenance script exists for system administrators to back-fill existing studies. |
| PortalOpinionLetterUnavailableMessage<br><br>**REPLACES**<br><br>PortalAuthLetterUnAvailableMessage | This opinion letter is currently unavailable on the portal. Please contact the medical group to request the letter. | The message to display to the UM Connect portal user when the Utilization Management Opinion Letter is not available due to unexpected error (e.g. SSRS report server is unavailable or not configured). |
| PortalNoSelectedInsuranceDayPadding | 5 | (value = int) This value is used by Portal online scheduling to add days to the start search criteria to allow time to gather insurance information from the patient prior to the appointment when it is not entered at the time of scheduling. |
| WedgeDuplicateInboundMessagePreventio n | False | (value = bool) If true, we will prevent two messages with the same unique ID from processing twice. |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

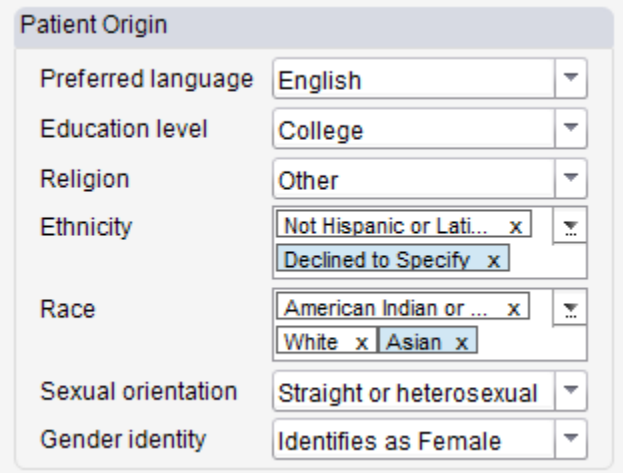
# NEW FEATURES

## SCHEDULING AND REGISTRATION

### FEATURE #13650 – DEMOGRAPHIC UPDATES FOR PATIENT TAB

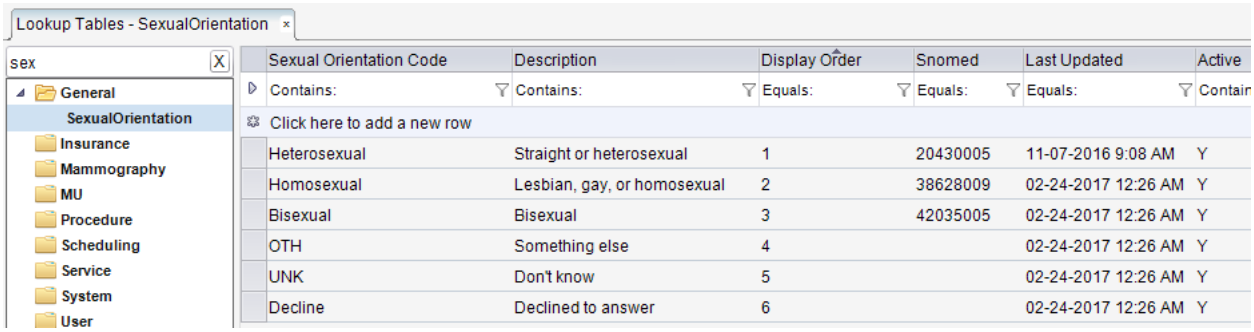
In preparation for the latest round of Certified Electronic Health Record Technology (CEHRT) certification, it was necessary to make some changes to the patient demographics on the Patient tab. The following changes have been made:

1. It is now possible to select more than one Ethnicity.
2. New fields have been added for *Sexual Orientation* and *Gender Identity*.

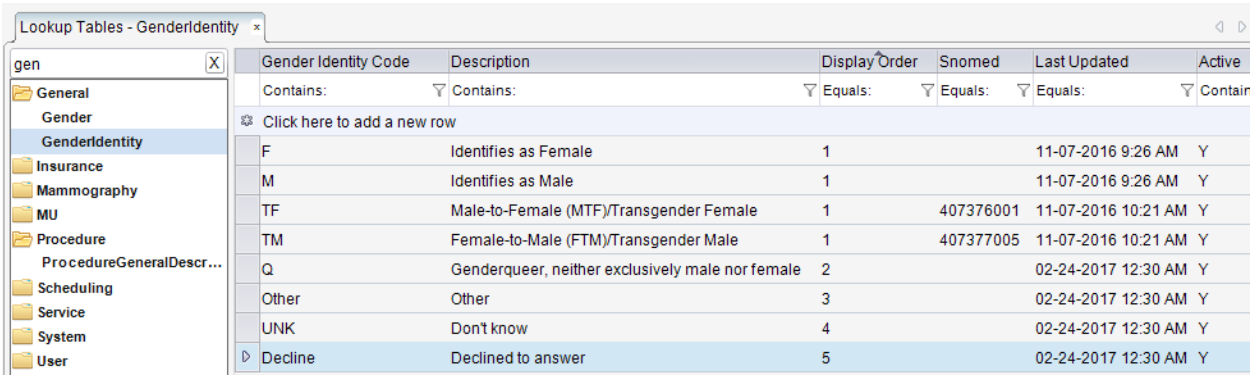



While it is required for certified electronic health technology to have the ***ability*** to collect the sexual orientation and gender identity information, it is likely that most customers will not wish to collect this data. Therefore, these new fields have been **hidden** by default. Please contact eRAD Support if you would like to make these fields visible.

When enabled, the *Sexual Orientation* and *Gender Identity* dropdown fields are populated by two new look-up tables.




No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

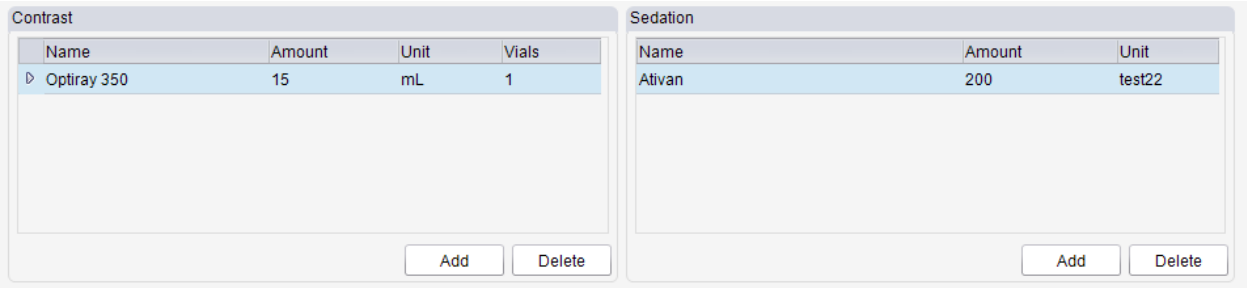



| Gender Identity Code | Description | Display Order | Snomed | Last Updated | Active |
|---|---|---|---|---|---|
| Contains: | Contains: | Equals: | Equals: | Equals: | Contain |
| Click here to add a new row | | | | | |
| F | Identifies as Female | 1 | | 11-07-2016 9:26 AM | Y |
| M | Identifies as Male | 1 | | 11-07-2016 9:26 AM | Y |
| TF | Male-to-Female (MTF)/Transgender Female | 1 | 407376001 | 11-07-2016 10:21 AM | Y |
| TM | Female-to-Male (FTM)/Transgender Male | 1 | 407377005 | 11-07-2016 10:21 AM | Y |
| Q | Genderqueer, neither exclusively male nor female | 2 | | 02-24-2017 12:30 AM | Y |
| Other | Other | 3 | | 02-24-2017 12:30 AM | Y |
| UNK | Don't know | 4 | | 02-24-2017 12:30 AM | Y |
| Decline | Declined to answer | 5 | | 02-24-2017 12:30 AM | Y |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

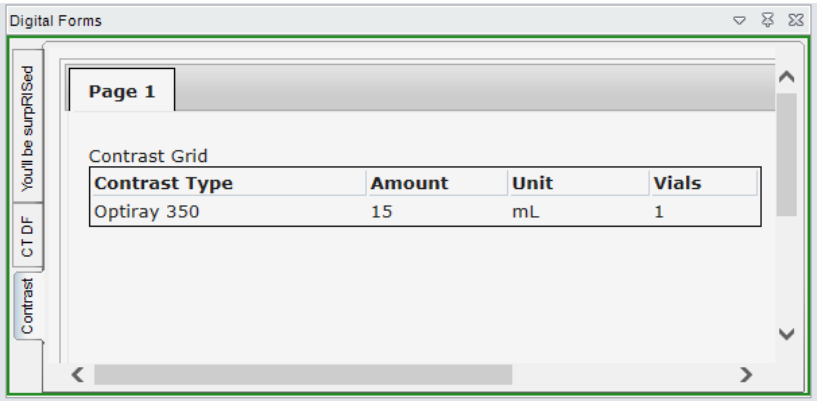
## FEATURE #14828 – DIGITAL FORMS NOW SUPPORT GRIDS

Sometimes important patient information is stored in grids in eRAD RIS, such as the Contrast and Sedation grids.




When this data is mapped into the diagnostic report, the information from this type of grid is visible to the radiologist. However, if there is information that is not mapped into the diagnostic report template or it is not part of the radiologist's workflow to view the report template when dictating, it was not previously possible for the radiologist to easily access this information.

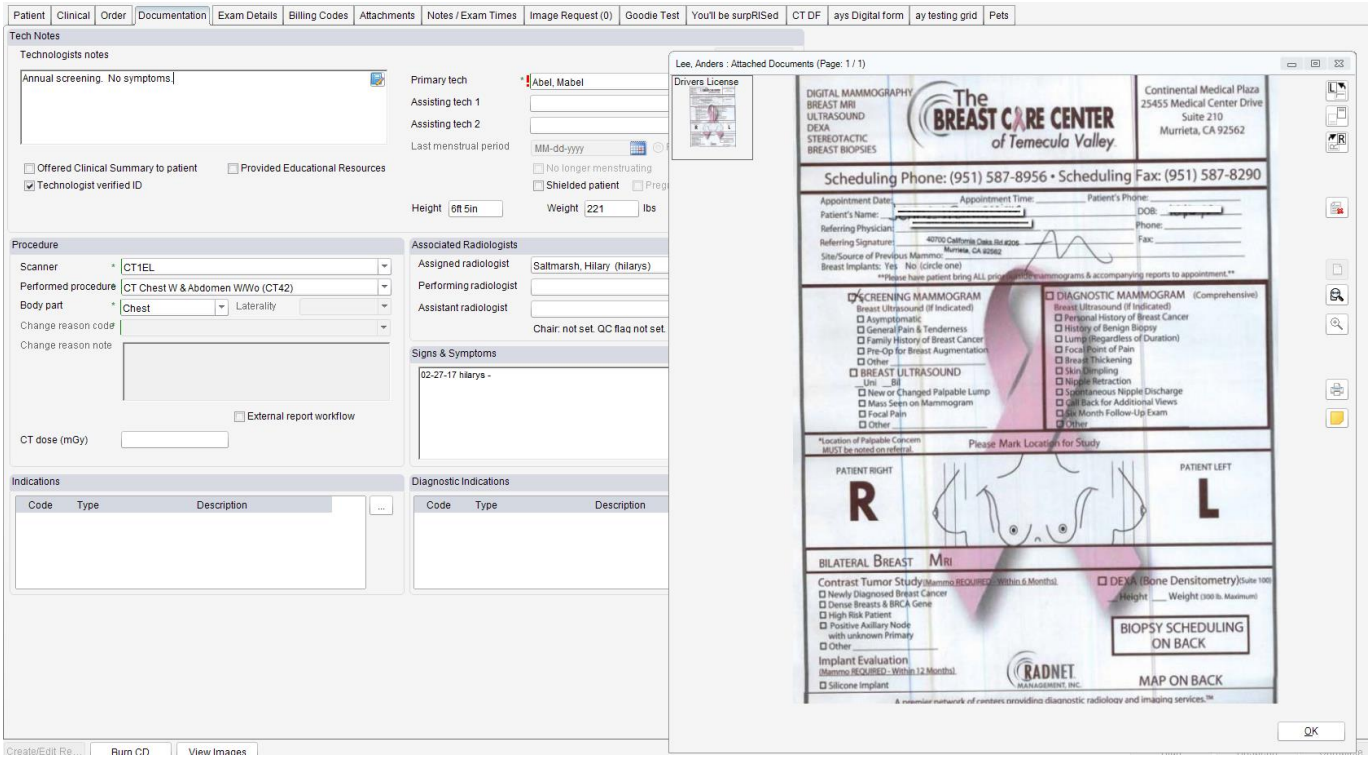
To make it easier for radiologists to see data in a grid, it is now possible to create a grid inside a Digital Form that can be displayed to the radiologist. These grids can be set up by eRAD Support in the Digital Forms Editor. Once created, they can be configured to display in the eRAD RIS Reporting screen as read-only grids that auto-fill using the displayed study's data.




No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #14545 – VIEW ATTACHMENTS ALONGSIDE RIS SCREENS WHILE ENTERING DATA

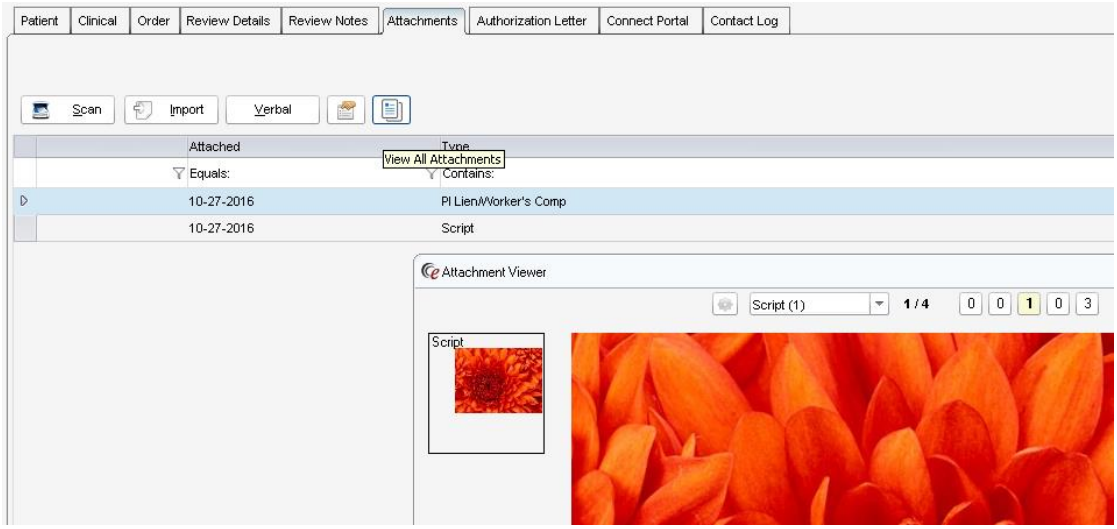
A new feature allows users to view an attachment in a floating window to facilitate data entry for the patient's exam. To open the floating attachment viewer, double click on the desired document in the Attachments tab. Once open, it is possible to re-size or re-position the viewer and then navigate between the sub-tabs for the selected patient.




In the image above, the document is visible while entering data on the Documentation tab.

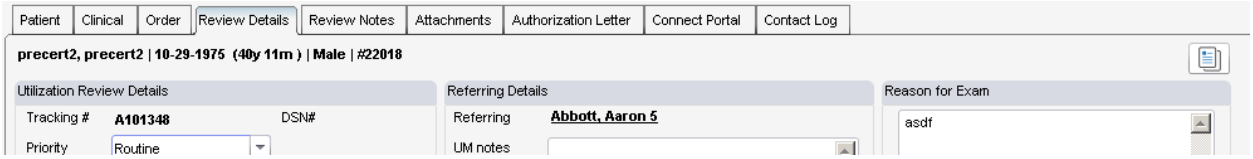
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

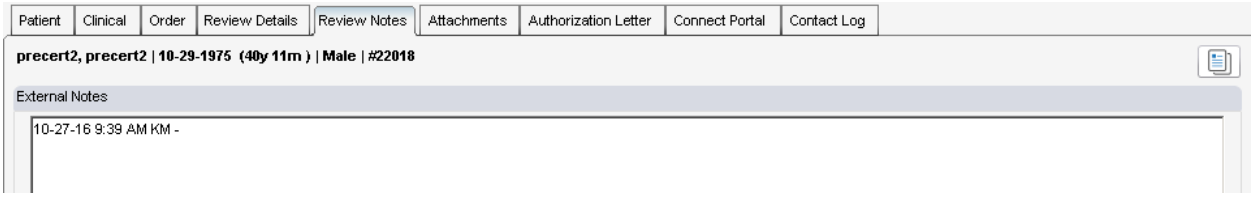
There is also a new button available on the Attachments screen which allows the user to open *all* of the patient's attachments: (📄) "View All Attachments."




This will open the same screen used by the Attachments data nugget from the Patient Folder. This viewer combines all of the patient's attachments, while also allowing the user to set preferences for which type of attachments to display and the preferred order, replicating the existing functionality used in the data nugget. When viewing attachments in this viewer, the content is read-only.

The *View All Attachments* icon is also available in the Utilization Management workflow: look for the icon on the "Review Details" and "Review Notes" tabs in the top right corner.




The floating attachment screen will remember its previous location; however, if it is partially off screen, the location will be ignored. This prevents a user from positioning the viewer almost completely off the screen, then not being able to see the screen when it is re-launched.

If new attachments are added while the *View All Attachments* viewer is open, it is necessary to close the screen and re-open it to see the new documents. If the button is clicked a second time and it is already open, the screen will close and re-open, refreshing its contents. When the button is clicked and there are no attachments, the user will receive a message that attachments are not available.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

For both the Attachment Viewer and the *View All Attachments* viewer, navigating away from the selected patient will automatically close the viewer. This is done to minimize risk so that it is not possible to view one patient's attachments while entering data for a different patient.

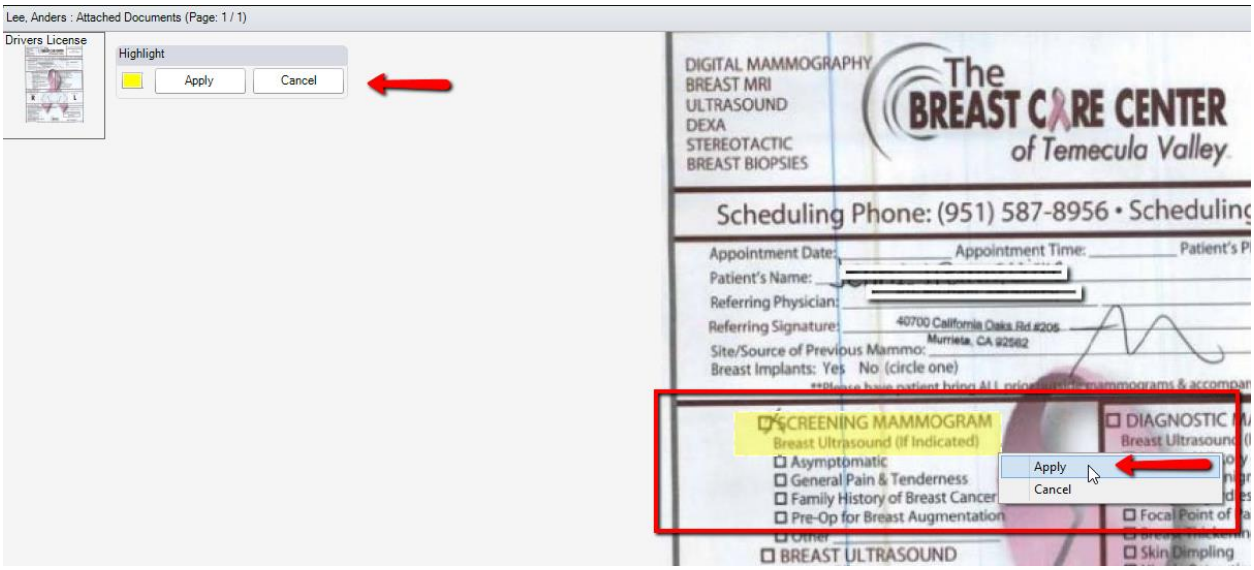
Note: when launching via the Scan / Import buttons, it is not possible to float the document until it has been saved and re-opened from the Attachment tab.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #14996 – HIGHLIGHT AN AREA ON AN ATTACHMENT

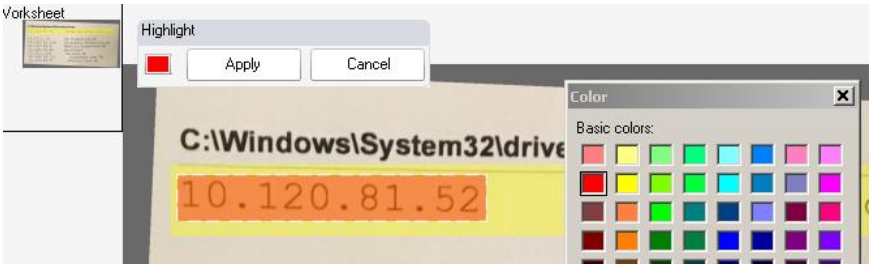
It is often helpful to be able to highlight a particular area of a scanned document, particularly for long documents such as clinical notes. Users now have the ability to highlight an area to make it easier to reference the attachment when communicating with radiologists or other RIS users (e.g. “see the pink highlighted text on page 9”).

The attachment viewer has been updated with a new right-click context menu called *Highlight*. With the document open, right-click and select Highlight. Then select an area of the attachment image by holding the left mouse button and dragging over the section to highlight. The color of the highlighted area can be modified by clicking on the color swatch displayed in the “Apply”/”Cancel” box. To complete the highlighting, the user must click on the “Apply” button or press the enter key.




When using the highlighting, cropping or straightening tools, as soon as the mouse button is released, a context menu to apply or cancel the operation is displayed nearby. Also, the user can simply click <enter> to apply.

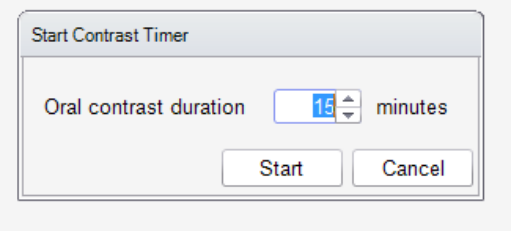
In the following example, a second highlight was created with an alternate color.




No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #14568 – ADJUST THE DURATION OF CONTRAST TIMER FOR A PATIENT

Previously, the Contrast Timer could be started, stopped and re-started, but it was not possible to use an Oral Contrast Duration different than the default timer length for the selected procedure. To provide the ability to adjust the contrast timer duration for a particular patient, the user will be presented with a new dialog box when selecting the *Start Contrast Timer* option from the right-click menu.




The default Oral Contrast Duration (in minutes) for the procedure code will be provided to the user with the option to make adjustments as needed prior to clicking Start. The maximum duration possible is 5,000 minutes.

To adjust the duration after starting, the user must stop the timer and start it again to make the change.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## RADIOLOGIST

### FEATURE #4123 – EXTERNAL REPORTS CAN NOW BE VERIFIED FROM PENDING DICTATION WL

Some customers who read studies with a different dictation system, outside of eRAD RIS, use the existing *External Report* workflow to allow a radiologist to verify the report created in the external system.

Previously, these studies would fall to the Pending Signature worklist. For External Reports, the screen that would open was a version of the View/Edit tab; from here, the radiologist would verify the report. However, radiologists have indicated that they would prefer to review these studies from the Pending Dictation WL, and would like to be able to access all of the information that they would see when dictating a report from within eRAD RIS, such as Digital Forms, attachments and prior reports.

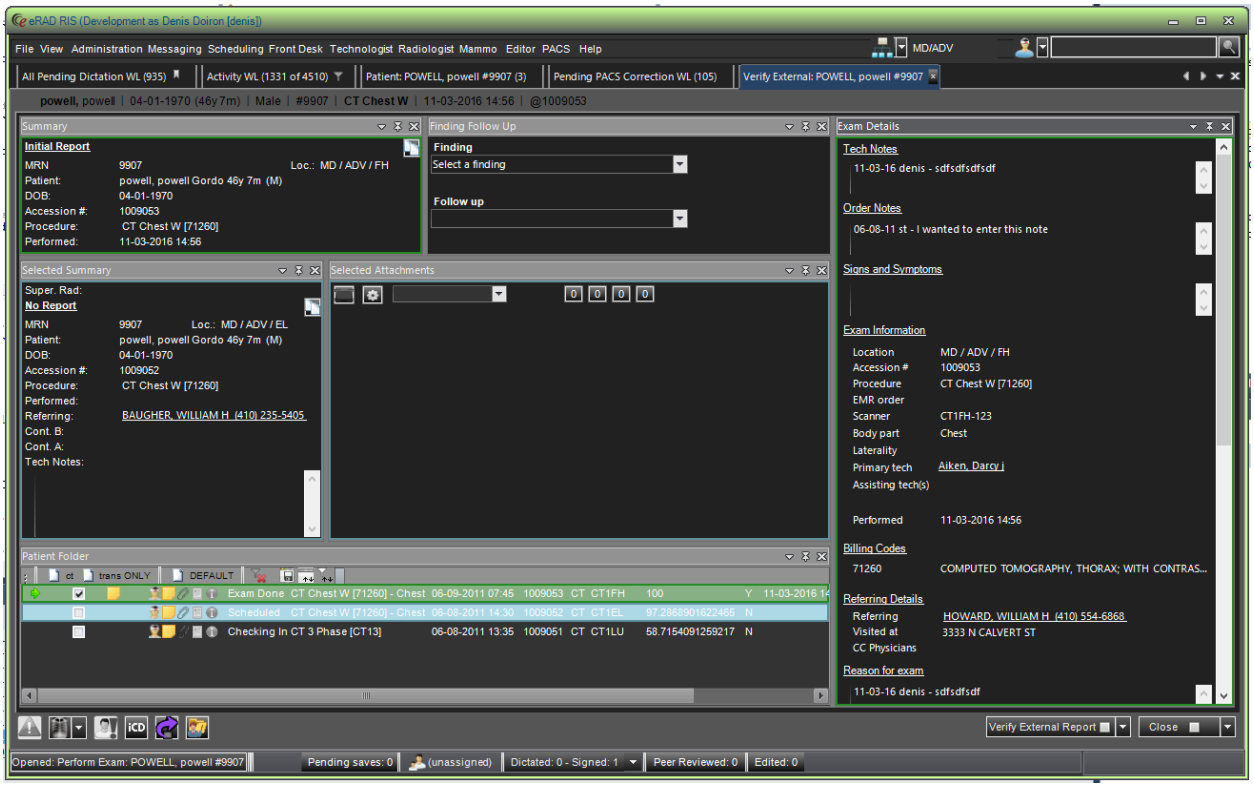
In order to improve this workflow, two main changes have been made:

- There is a new System Configuration setting that will allow the studies to fall to the Pending Dictation WLs, instead of the Pending Signature WLs.
- The studies will now open in a Verify External screen that provides access to the reporting panels used for other reporting modes (Attachments, Digital Forms, etc.).

The new System Configuration setting is labeled *ExternalReportsOnPendingDictationWL*. The default is False, which means that by default, the external reports will continue to fall to the Pending Signature WLs. Change to True to move these to the Pending Dictation WLs. If this is done, only new studies will fall to the Pending Dictation WL; any outstanding external reports that were already on the Pending Signature WL will have to be reviewed there by using the right-click option to open Verify External. A script has been created to move any old studies at the time that this change is made. If your organization would like to change to using Pending Dictation for Verify External studies, please let eRAD Support know that you would like the script to be run.

For either worklist, the resulting screen will now look similar to the normal dictating screen, but with the Verify External Report button instead of Submit/Sign.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.




Panels can be rearranged according to the user's preference, as with normal dictation/signing.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #15097 – DISABLE PEER REVIEW BUTTON FOR INACTIVE RADIOLOGISTS

When a radiologist account is deactivated in eRAD RIS, some customers prefer that active radiologists should not be able to perform Peer Reviews for the inactive radiologist's prior studies.

To accommodate for this, there is a new System Configuration setting called *AllowPeerReviewOnInactiveRads*. The default is True, which will maintain the existing functionality after upgrading. To prevent Peer Reviews for inactive radiologists, set the System Configuration to False.

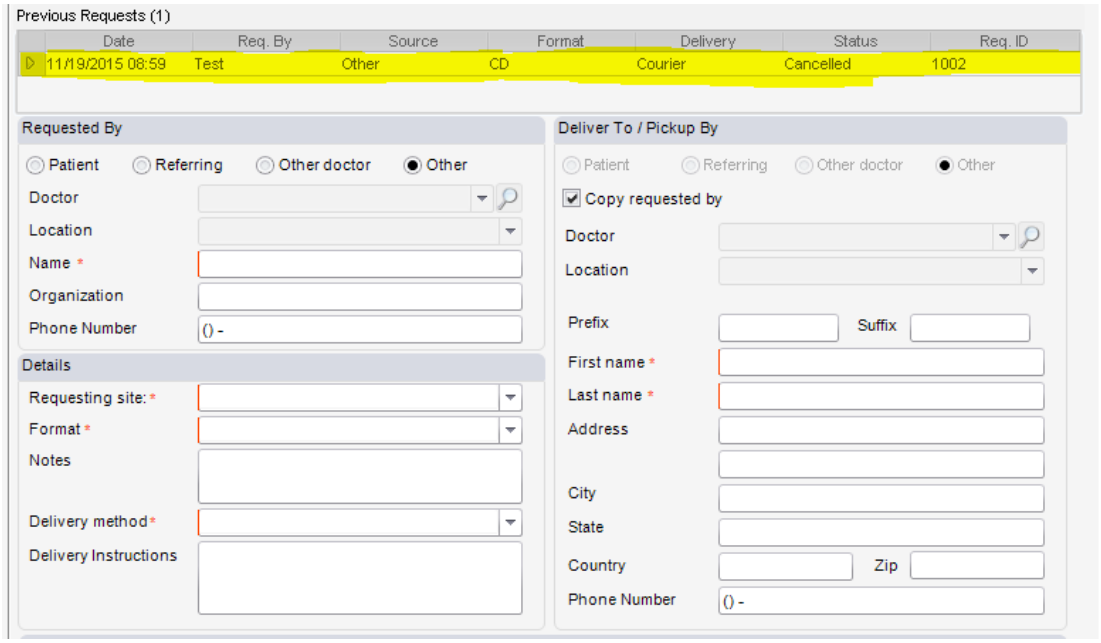
When set to False, radiologists will no longer see the Peer Review button on prior studies that were signed by a radiologist who has since been marked as inactive.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #15109 – AUTOMATICALLY CANCEL IMAGE REQUESTS THAT ARE NOT RESOLVED WITHIN A DEFINED TIME FRAME

Some customers have found that their Image Request worklists can grow to be larger than desired due to patients who neglect to pick up their images. There is now a system configuration setting of *DaysToKeepImageRequestActive*. By default, the value will be set to 0, which means that the feature is turned off and items will remain on the Image Request WL until they are manually resolved. To turn on the feature, enter the number of days that the Image Request should remain on the worklist. If 60 is entered, any Image Requests that are in a Pending or Ready status with a Requested Date that is more than 60 days old will be cancelled. If the request is made ***prior*** to the patient's appointment, the number of days will be applied to the Scheduled Date instead of the Requested Date.

Cancelled Image Requests will fall off of the Image Request WL, but will still be visible in the Previous Requests section for the patient.



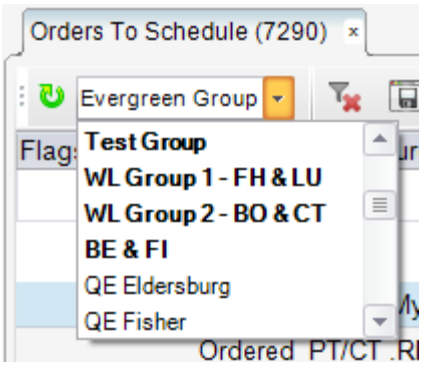

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## GENERAL WORKLIST ENHANCEMENTS

### FEATURES #15106, 14587, 15226, 15427 – ALLOW FILTERING OF ADDITIONAL WORKLISTS BY SITE GROUP

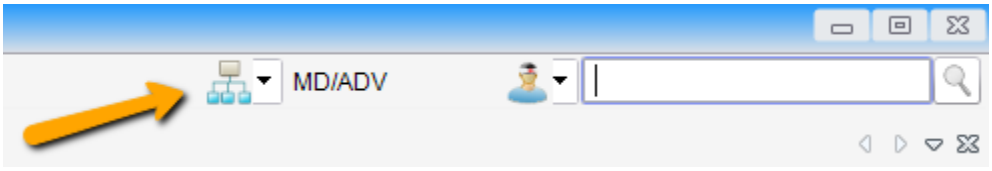
Site Groups, an existing feature, allow a RIS Administrator to create custom groupings of sites that are relevant for workflow purposes. In a previous build, 2016.2, a new strategy was implemented for filtering the IVT WL by *Site Group*, using a Site Group Type Code of ***IVT Team***. One goal of this feature was to improve worklist performance by reducing the need for users to view an entire Practice when only a small number of sites were pertinent. Another benefit of being able to filter worklist content by Site Group is the ability to see data from sites that might span across multiple practices.

Now eRAD RIS has extended this framework to other worklists. As with the IVT WL, a dropdown list will be available to select a Site Group (shown at the top of the list in Bold) or an individual Site.




The Site Group options in the list are driven by the following circumstances:

- At least one site in the Site Group must belong to the Practice selected in the RIS Location Filter (sometimes known as the Organization Picker) in the upper right-hand corner of RIS.



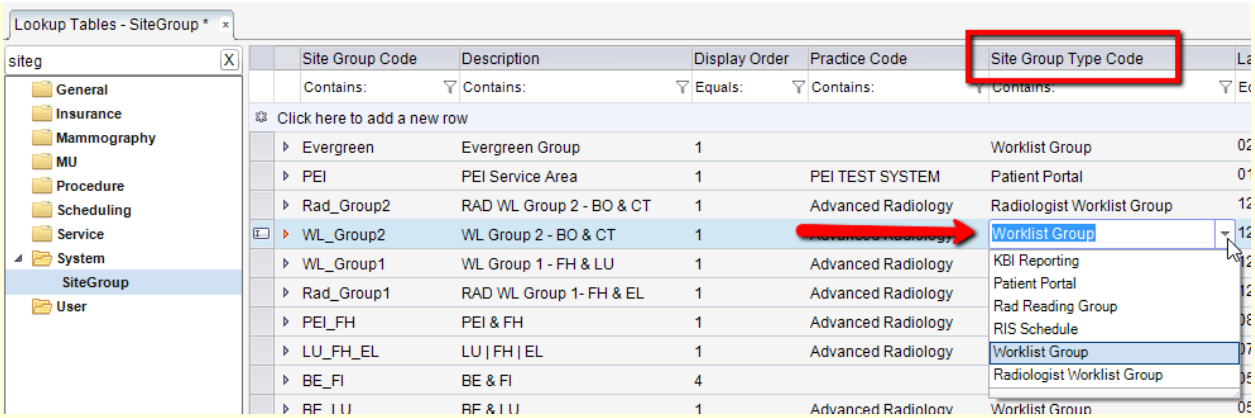

  - Only the Site Groups that contain the currently selected site or at least one site from within the currently selected practice will be included.
  - Note that the list of sites and Site Groups will change as the user changes their selection in the Location Filter. The user's selected site or Site Group for each worklist will be reloaded from one login session to the next, so that users will only have to select their option once, unless their role requires them to switch between multiple site groups routinely.
  - If a user does not see a Site Group that is expected in the list, make sure that the RIS Location Filter is set to a Practice or Site that is included in the Site Group.
- If a Site Group contains sites across multiple Practices, the current user must have access to all Practices in order for that Site Group to appear in the list.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

Only specific types of Site Groups are available in the dropdowns. There are two new Site Group Type Codes:

- **WORKLIST GROUP** – Use this to create Site Groups that will be available on all applicable worklists except those controlled by the Radiologist Worklist Group described below.
    - Orders to Schedule
    - No Show
    - Closed Rooms Reschedule
    - Confirmation
    - IVT
    - Activity
    - Labwork
    - Patient Merge Requests
    - Unknown Reconciliation
    - Pending PACS Correction
    - Pending Biopsy Result
    - Billing Exception
    - Billing Confirmation
    - Image Request
    - Distribution
    - Distribution History
    - Mammo Follow-up Orders
    - Mammo Letters
    - ACR Category 0 Follow-up
    - ACR Category 4/5 Follow-up
- **RADIOLOGIST WORKLIST GROUP** – Use this to create Site Groups that will be available on worklists used by radiologists and editors.
    - All worklists under the Radiologist menu
    - All worklists under the Editor menu

These Site Group Type Codes are assigned by the RIS Administrator in the Site Group table.



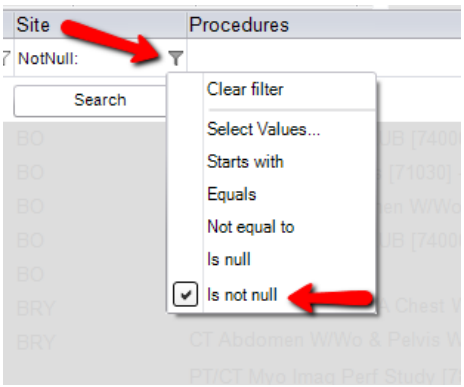

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

Site Groups must have one of these two Type Group codes in order to be available from the applicable worklist. The previously created "IVT Team" Site Group Type is now incorporated into the general Worklist Group category. Any Site Groups that have been created as "IVT Team" will be converted to the Worklist Group Site Group Type as part of the upgrade.

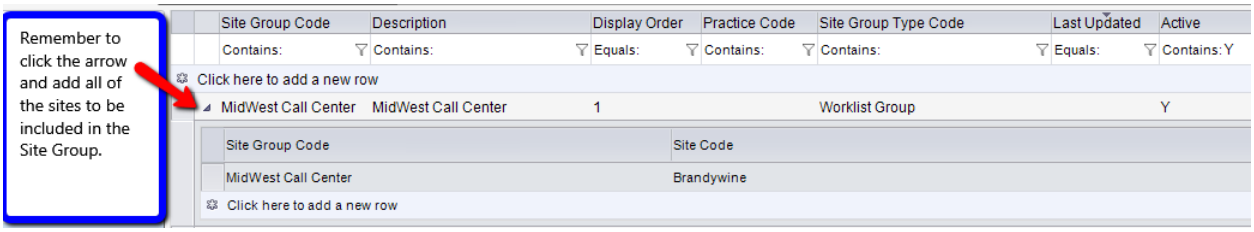
In an effort to eliminate any confusion when the upgrade is applied, the default option in the new worklist filter will be *Use Location Filter* which will maintain the same behavior from previous builds: the worklist contents will be controlled only by the main Location Filter and no Site Group filtering will be applied until the user makes a different selection from the dropdown to use a particular Site Group filter.

If it is desirable to remove this option after implementing worklist Site Groups, it is possible to remove the *Use Location Filter* option by changing the System Configuration setting *AddUseLocationFilterToWorklistSiteGroups* to False.

If there are any worklist items for the Practice in the Location Filter that do ***not*** have a Site assigned, those will also be included on the worklist. This is done to prevent studies without a location from being forgotten. It is possible to hide these by creating a Custom View on the worklist, with a filter of "Is not null" on the Site column. This will hide any worklist items without an assigned Site.

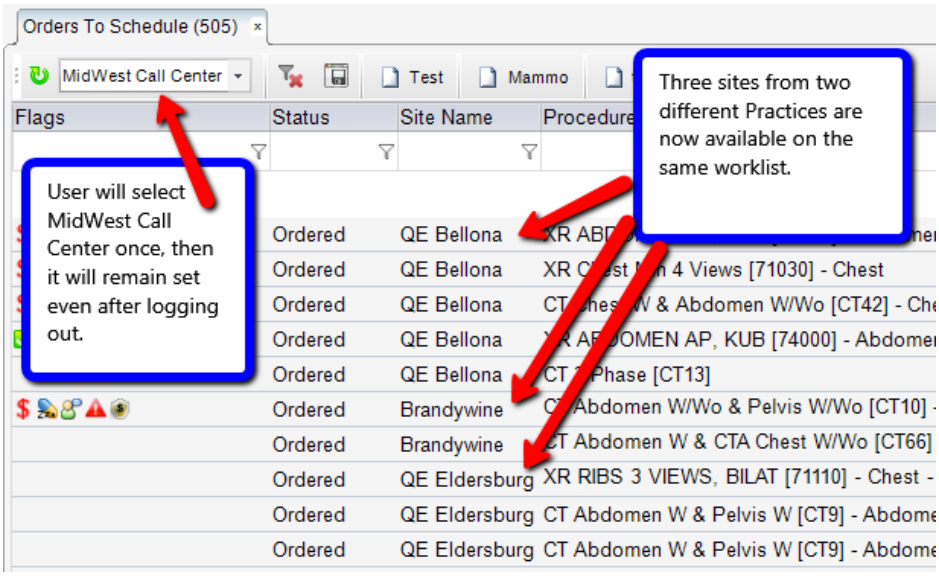



An example may help in understanding how to take advantage of this feature. Imagine there is an organization with two practices: Red Radiology and Blue Radiology. Each practice consists of 15 sites. MidWest Call Center is responsible for scheduling at three of those sites: two from Red Radiology and one from Blue Radiology. The staff would like to view all five sites on the Orders to Schedule WL at the same time. To allow this, the RIS Administrator will create a Site Group called MidWest Call Center. The Site Group Type Code will be Worklist Group. Each of the 3 desired sites will be associated to the new Site Group. In the image below, the first site, Brandywine, has been attached.




No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

Now that the MidWest Call Center Site Group has been created, the Call Center scheduler can open the Orders to Schedule WL, select the MidWest Call Center option, and see all three sites on the worklist.




No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #14961 - UM PRIORITY COLUMN AVAILABLE ON ORDERS TO SCHEDULE WORKLIST

For customers using Utilization Management functionality, the UM Priority is now available as a column on the Orders to Schedule WL. This will allow users to sort and filter based on the UM Priority.

## FEATURE #15361 – NEW COLUMN AVAILABLE ON TECHNOLOGIST WL TO DISPLAY TIME OF CONTRAST INJECTION

In some organizations, contrast injections are performed by a doctor instead of the technologist performing the scan. There is an existing workflow in eRAD RIS to accommodate the doctor "signing" the injection. For those using this workflow, an *Injected* column is now available on the Technologist worklist to display the time the injection was signed.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## INTERFACING

### FEATURE #14747 – EXTERNAL INTERFACE CAN NOW RETURN VALUES FOR SCHEDULE MESSAGE

To enhance workflow when an external scheduling system utilizes the RIS Scheduling engine, the External Interface Service (Wedge) now provides a new web method (similar to the StudyUpdate method) that returns information regarding the study or studies that were created or updated. Please contact eRAD Support to learn more about this functionality if applicable.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #14511 – MANAGEMENT REPORTS AND DASHBOARDS FOR UTILIZATION MANAGEMENT

A collection of management reports for tracking statistics relevant to the new Utilization Management functionality in eRAD RIS is now available.

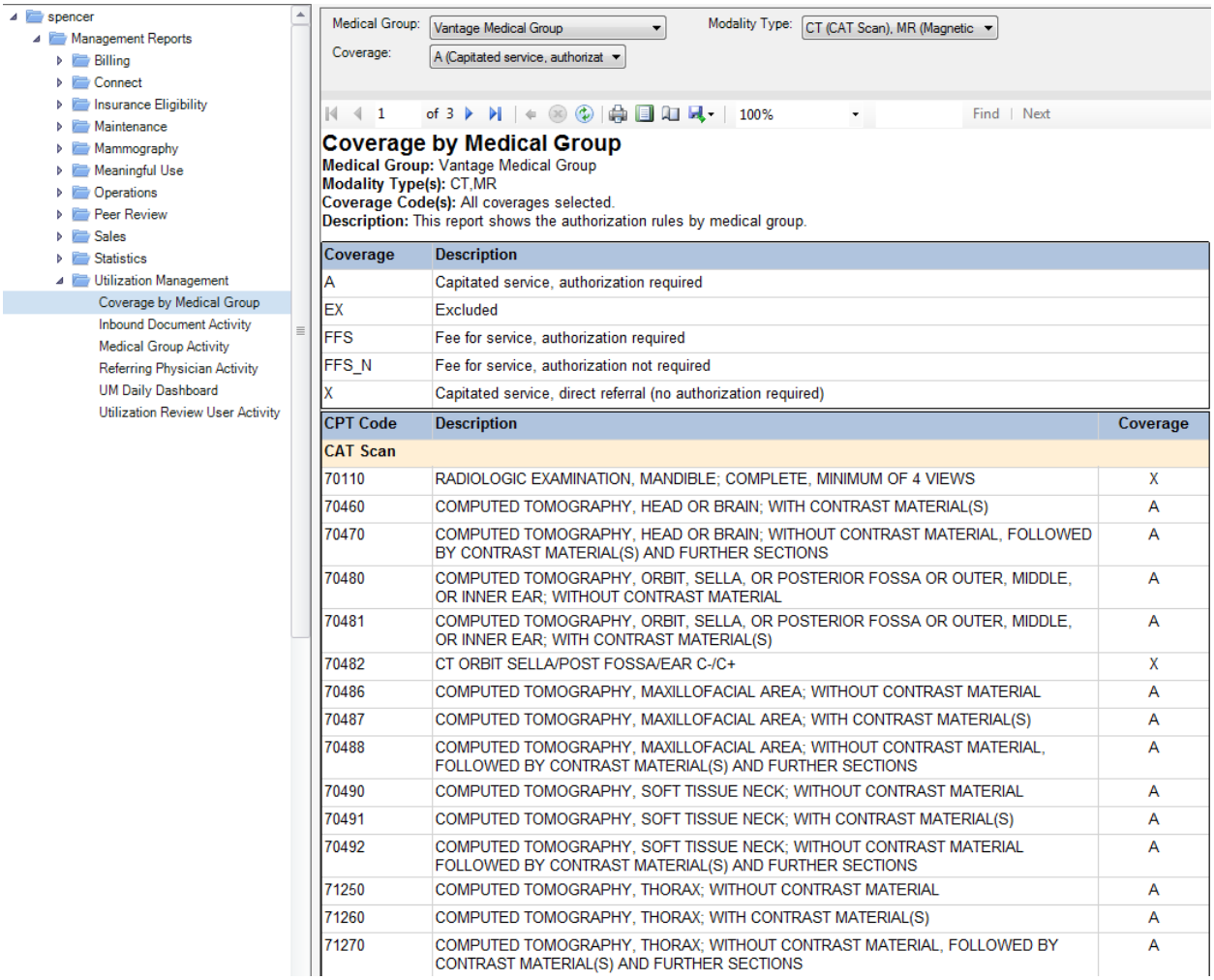
A new core folder called Utilization Management has been added to the Management Report structure in eRAD RIS. The following reports were added to the Utilization Management folder:

- **Coverage by Medical Group** – This will allow the user to select a Medical Group, Modality Type, and Coverage Type. In other words, it is a means to run a report against the UM authorization rules (matrices).
- **Inbound Document Activity** – This report will allow the user to select a date range and receive the following information:
  - The number of documents not processed and the average age in hours.
  - The number of documents discarded, sorted by reason (e.g. Junk Mail, Duplicate, etc.).
  - The number of documents processed by data entry user.
  - A breakdown of incoming vs processed documents by hour of day.
- **Medical Group Activity** – This report will allow the user to select a date range and get a listing of all medical group activity that required utilization review and are in a final UM status for the period:
  - A breakdown of STAT, Urgent, and Routine.
  - Total procedure count, average turnaround hours, and percent compliant.
  - Drill down capabilities from UM Status such as Recommended all the way down to Modality Type (CT, MR, etc.).
- **Referring Physician Activity** – This report will allow the user to select a date range and get a listing of all referring physician activity that required utilization review and are in a final UM status for the period:
  - A breakdown of STAT, Urgent, and Routine.
  - Total procedure count, average turnaround hours, and percent compliant.
  - Drill down capabilities from UM Status such as Recommended all the way down to Modality Type (CT, MR, etc.).
- **Utilization Review User Activity** – This report will allow the user to select a date range and get the following information:
  - A listing of all the reviewers who finalized an authorization request during the period.
  - Average hours to final status and percent of total.
  - Ability to drill-down to see the UM Statuses such as Recommended As Requested.
- **UM Daily Dashboard** – This report is limited to one day's activity and would typically be scheduled and distributed to the UM management team. It contains the following information:
  - Number of unprocessed inbound documents in the data entry queue.
  - Breakdown of the reviewer queue by priority and status.
  - Finalized procedure count by priority and status.
  - Finalized procedure count broken down by average turnaround time.
  - Finalized procedure seven day trend bar chart.
  - Breakdown of procedure count by Modality Type.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

- Breakdown of procedure count by medical group.
- Top ten referring physician procedure count.

See below for examples of the management reports.




| Coverage | Description |
|---|---|
| A | Capitated service, authorization required |
| EX | Excluded |
| FFS | Fee for service, authorization required |
| FFS_N | Fee for service, authorization not required |
| X | Capitated service, direct referral (no authorization required) |

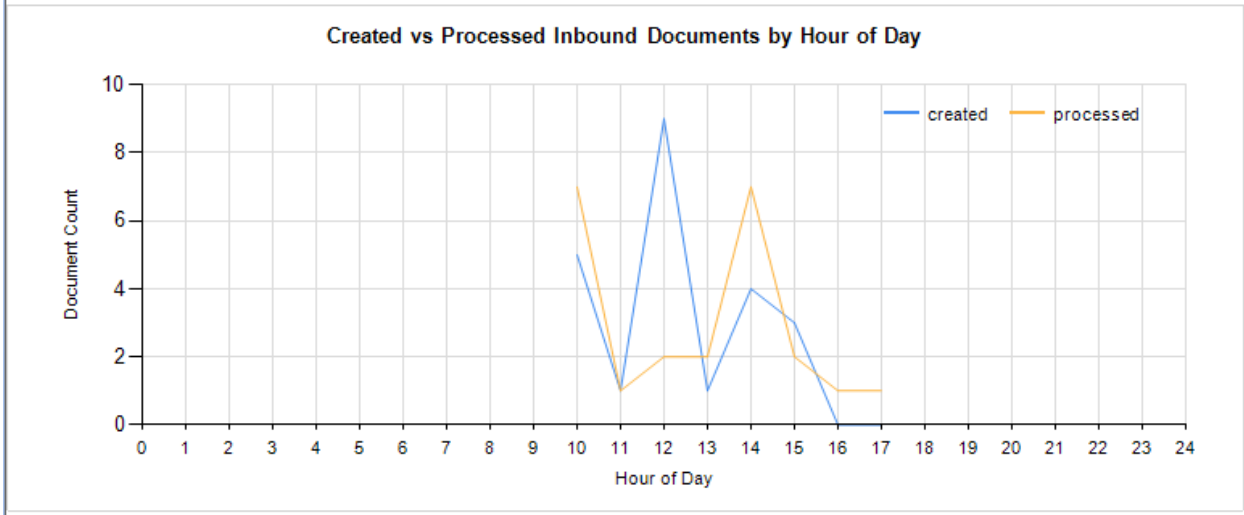
| CPT Code | Description | Coverage |
|---|---|---|
| **CAT Scan** | | |
| 70110 | RADIOLOGIC EXAMINATION, MANDIBLE; COMPLETE, MINIMUM OF 4 VIEWS | X |
| 70460 | COMPUTED TOMOGRAPHY, HEAD OR BRAIN; WITH CONTRAST MATERIAL(S) | A |
| 70470 | COMPUTED TOMOGRAPHY, HEAD OR BRAIN; WITHOUT CONTRAST MATERIAL, FOLLOWED BY CONTRAST MATERIAL(S) AND FURTHER SECTIONS | A |
| 70480 | COMPUTED TOMOGRAPHY, ORBIT, SELLA, OR POSTERIOR FOSSA OR OUTER, MIDDLE, OR INNER EAR; WITHOUT CONTRAST MATERIAL | A |
| 70481 | COMPUTED TOMOGRAPHY, ORBIT, SELLA, OR POSTERIOR FOSSA OR OUTER, MIDDLE, OR INNER EAR; WITH CONTRAST MATERIAL(S) | A |
| 70482 | CT ORBIT SELLA/POST FOSSA/EAR C-/C+ | X |
| 70486 | COMPUTED TOMOGRAPHY, MAXILLOFACIAL AREA; WITHOUT CONTRAST MATERIAL | A |
| 70487 | COMPUTED TOMOGRAPHY, MAXILLOFACIAL AREA; WITH CONTRAST MATERIAL(S) | A |
| 70488 | COMPUTED TOMOGRAPHY, MAXILLOFACIAL AREA; WITHOUT CONTRAST MATERIAL, FOLLOWED BY CONTRAST MATERIAL(S) AND FURTHER SECTIONS | A |
| 70490 | COMPUTED TOMOGRAPHY, SOFT TISSUE NECK; WITHOUT CONTRAST MATERIAL | A |
| 70491 | COMPUTED TOMOGRAPHY, SOFT TISSUE NECK; WITH CONTRAST MATERIAL(S) | A |
| 70492 | COMPUTED TOMOGRAPHY, SOFT TISSUE NECK; WITHOUT CONTRAST MATERIAL FOLLOWED BY CONTRAST MATERIAL(S) AND FURTHER SECTIONS | A |
| 71250 | COMPUTED TOMOGRAPHY, THORAX; WITHOUT CONTRAST MATERIAL | A |
| 71260 | COMPUTED TOMOGRAPHY, THORAX; WITH CONTRAST MATERIAL(S) | A |
| 71270 | COMPUTED TOMOGRAPHY, THORAX; WITHOUT CONTRAST MATERIAL, FOLLOWED BY CONTRAST MATERIAL(S) AND FURTHER SECTIONS | A |

Figure 1 – Coverage by Medical Group Management Report

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## Inbound Document Activity

**Date Range:** 08-27-2016 - 11-25-2016
**Description:** This report shows a breakdown of inbound document activity based on processed date.




| Document Status | Count | Percent | Age(Minutes) |
|---|---|---|---|
| ⊟ Discarded | 7 | 30.43 % | 29,977 |
| Duplicate | 3 | 42.86 % | 29,756 |
| Incomplete | 1 | 14.29 % | 40,177 |
| Junk Mail | 2 | 28.57 % | 20,105 |
| Multiple Patient | 1 | 14.29 % | 40,181 |
| ⊟ Processed | 16 | 69.57 % | 13,655 |
| spencer | 16 | 100.00 % | 13,655 |
| **Total** | **23** | | **18,622** |

Inbound Document Activity | Confidential and Proprietary | Page 1 of 1 | Date Run: 11-25-2016 12:34 PM RMIS\spencer

Figure 2 – Inbound Document Activity Management Report

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## Medical Group Activity

**Date Range:** 01-01-2016 - 11-24-2016
**Description:** This report shows procedure count by medical group categorized by review priority, average turnaround time, and the percentage of reviews completed with the time allotted.

| | STAT | | | Urgent | | | Routine | | | Total | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Medical Group** | **Count** | **Hours** | **Comp** | **Count** | **Hours** | **Comp** | **Count** | **Hours** | **Comp** | **Count** | **Hours** | **Comp** |
| ⊞ Choice | | | | | | | 1 | 1 | 100 % | 1 | 1 | 100 % |
| ⊞ Prospect Medical Group | | | | | | | 1 | 135 | 0 % | 1 | 135 | 0 % |
| ⊟ Regal Medical Group | | | | | | | 5 | 1 | 100 % | 5 | 1 | 100 % |
| ⊞ Received | | | | | | | 2 | 0 | 100 % | 2 | 0 | 100 % |
| ⊟ Recommended | | | | | | | 3 | 1 | 100 % | 3 | 1 | 100 % |
| ⊞ As Added Exam | | | | | | | 1 | 1 | 100 % | 1 | 1 | 100 % |
| ⊟ As Alternative | | | | | | | 1 | 1 | 100 % | 1 | 1 | 100 % |
| MRI and MRA | | | | | | | 1 | 1 | 100 % | 1 | 1 | 100 % |
| ⊞ As Requested | | | | | | | 1 | 1 | 100 % | 1 | 1 | 100 % |
| ⊞ Riverside Physician Network | | | | 3 | 1 | 100 % | | | | 3 | 1 | 100 % |
| ⊞ Seaview IPA | 2 | 25 | 100 % | 7 | 79 | 71 % | 23 | 4 | 91 % | 32 | 21 | 88 % |
| ⊞ Vantage Medical Group | 21 | 0 | 100 % | 52 | 35 | 75 % | 217 | 20 | 88 % | 290 | 21 | 87 % |
| **Total** | **23** | **2** | **100 %** | **62** | **38** | **76 %** | **247** | **19** | **88 %** | **332** | **21** | **87 %** |

Medical Group Activity — Confidential and Proprietary — Page 1 of 1 — Date Run: 11-24-2016 2:53 PM SpencerLaptp-HP\FormsGuestUser

Figure 3 – Medical Group Activity Management Report

## Referring Physician Activity

**Date Range:** 01-01-2016 - 11-24-2016
**Description:** This report shows utilization management procedure counts by referring physician categorized by review priority, average turnaround time, and the percentage of reviews completed with the time allotted.

| | STAT | | | Urgent | | | Routine | | | Total | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Referring Physician** | **Count** | **Hours** | **Comp** | **Count** | **Hours** | **Comp** | **Count** | **Hours** | **Comp** | **Count** | **Hours** | **Comp** |
| ⊟ Abbott, Alberto3 24490 | | | | | | | 8 | 10 | 88 % | 8 | 10 | 88 % |
| ⊞ Not Recommended | | | | | | | 2 | 0 | 100 % | 2 | 0 | 100 % |
| ⊟ Recommended | | | | | | | 5 | 16 | 80 % | 5 | 16 | 80 % |
| ⊟ As Requested | | | | | | | 5 | 16 | 80 % | 5 | 16 | 80 % |
| Diagnostic CT | | | | | | | 4 | 20 | 75 % | 4 | 20 | 75 % |
| MRI and MRA | | | | | | | 1 | 0 | 100 % | 1 | 0 | 100 % |
| ⊞ Withdrawn | | | | | | | 1 | 0 | 100 % | 1 | 0 | 100 % |
| ⊞ James, Alfred0 88052 | | | | | | | 1 | 1 | 100 % | 1 | 1 | 100 % |
| ⊞ Jefferson, Abraham6 45231 | | | | | | | 3 | 55 | 67 % | 3 | 55 | 67 % |
| ⊞ Jones, Aimee 04700 | | | | | | | 2 | 68 | 50 % | 2 | 68 | 50 % |
| ⊞ Jones, Allan 64317 | | | | | | | 2 | 0 | 100 % | 2 | 0 | 100 % |
| ⊞ Jones, Artur 12418 | | | | | | | 1 | 0 | 100 % | 1 | 0 | 100 % |
| ⊞ ref, test | | | | | | | 1 | 0 | 100 % | 1 | 0 | 100 % |
| ⊞ Refer, Self | | | | | | | 3 | 0 | 100 % | 3 | 0 | 100 % |
| ⊞ Smith, Alfons | 14 | 4 | 100 % | 47 | 48 | 70 % | 186 | 21 | 89 % | 247 | 25 | 86 % |
| ⊞ Smith, Alliso 97245 | | | | 3 | 1 | 100 % | 4 | 1 | 100 % | 7 | 1 | 100 % |
| ⊞ Smith, Amelia0 89165 | | | | | | | 4 | 1 | 100 % | 4 | 1 | 100 % |
| ⊞ Smith, Bobbie 46382 | 9 | 0 | 100 % | 12 | 7 | 92 % | 27 | 8 | 85 % | 48 | 6 | 90 % |
| ⊞ Williams, Alexis 24384 | | | | | | | 5 | 25 | 60 % | 5 | 25 | 60 % |
| **Total** | **23** | **2** | **100 %** | **62** | **38** | **76 %** | **247** | **19** | **88 %** | **332** | **21** | **87 %** |

Referring Physician Activity — Confidential and Proprietary — Page 1 of 1 — Date Run: 11-24-2016 2:55 PM SpencerLaptp-HP\FormsGuestUser

Figure 4 – Referring Physician Activity Management Report

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## Utilization Review User Activity

**Date Range:** 01-01-2016 - 11-24-2016
**Description:** This report shows utilization review procedure count by reviewer.

| Review Finalized By | Proc Count | Avg Hours | % of Total |
|---|---|---|---|
| ⊟ MacDougall, Spencer | 243 | 30 | 99.18 % |
| ⊞ MD Review | 1 | 1 | 0.41 % |
| ⊟ Not Recommended | 50 | 18 | 20.58 % |
| Medical Necessity Not Established | 43 | 17 | 86.00 % |
| Not Medically Necessary | 7 | 24 | 14.00 % |
| ⊞ Received | 3 | 20 | 1.23 % |
| ⊞ Recommended | 173 | 27 | 71.19 % |
| ⊞ Reopen | 2 | 110 | 0.82 % |
| ⊞ Returned, Review Completed | 3 | 41 | 1.23 % |
| ⊞ Returned, Review Not Initiated | 1 | 299 | 0.41 % |
| ⊞ Withdrawn | 10 | 108 | 4.12 % |
| ⊞ Mills, Terry | 2 | 69 | 0.82 % |
| **Total** | **245** | **30** | |

Utilization Review User Activity | Confidential and Proprietary Page 1 of 1 | Date Run: 11-24-2016 3:10 PM SpencerLaptp-HP\FormsGuestUser

Figure 5 – Utilization Review User Activity Management Report

| Data Entry Queue | 25 |
|---|---|

| Reviewer Queue | STAT | Urgent | Routine | Total | % |
|---|---|---|---|---|---|
| Hold | 1 | 0 | 1 | 2 | 1.60% |
| MDReview | 3 | 5 | 9 | 17 | 13.60% |
| NurseReview | 0 | 0 | 2 | 2 | 1.60% |
| Received | 12 | 8 | 80 | 100 | 80.00% |
| Reopen | 0 | 0 | 4 | 4 | 3.20% |
| **Total** | **16** | **13** | **96** | **125** | |

| Final Status | Urgent | Routine | Total | % |
|---|---|---|---|---|
| NotRecommended | 0 | 2 | 2 | 1.60% |
| Recommended | 1 | 10 | 11 | 8.00% |
| ReturnedNotInitiated | 1 | 0 | 1 | 0.80% |
| **Total** | **2** | **12** | **14** | |

| Turnaround Times | Urgent | Routine | Total | % |
|---|---|---|---|---|
| <= 10 Hours | 0 | 2 | 2 | 14.29% |
| >= 31 Hours | 2 | 10 | 12 | 85.71% |
| **Total** | **2** | **12** | **14** | |
| **Average** | **300.50** | **190.67** | **206.36** | |

| Modality Type | Total | % |
|---|---|---|
| Diagnostic CT | 12 | 85.71% |
| MRI and MRA | 2 | 14.29% |
| **Total** | **14** | |

| Medical Group | Total | % |
|---|---|---|
| Prospect Medical Group | 1 | 7.14% |
| Vantage Medical Group | 13 | 92.86% |
| **Total** | **14** | |

| Top 10 Requesting Physicians | Total |
|---|---|
| Smith, Alfons | 9 |
| Jones, Artur 12418 | 1 |
| Jones, Aimee 04700 | 2 |
| Jefferson, Abraham6 45231 | 1 |
| Abbott, Alberto3 24490 | 1 |

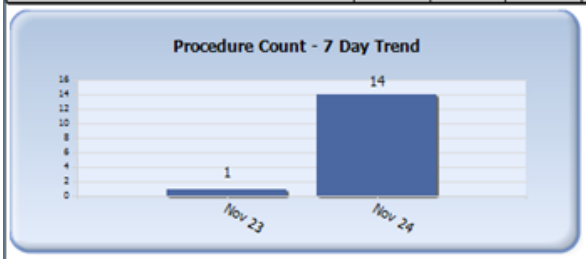



Figure 6 – UM Daily Dashboard

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## RESOLVED DEFECTS

Bugs, support issues, and design optimizations resolved in build 2.2017.1.

| Bug # | Category | Subject |
|---|---|---|
| 15268 | RADAR SecurePIC | An optional ris.exe.config setting for DBActionSignalRServiceEndpoint was added to be used when the IP address used for hosting on the server is different than the IP address used on the client. |
| 15300 | Insurance Eligibility | An issue with the Eligibility status icon becoming hidden on the Manage Policies grid when there is a long insurance carrier description has been resolved. |
| 15301 | | Resolved issue with Amount to Collect field not refreshing if scheduling is completed before Eligibility finished running. |
| 15307 | Technologist | An exception no longer occurs when adding to the Contrast grid from View/Edit screen. |
| 15023 | Billing | Resolved an issue with Linked Reports where the non-primary studies would not receive an updated billing status and would not drop from the Activity WL. |
| 15940 | Cancel | It is now possible to cancel an order made as a guest in Patient Portal from the Reschedule workflow (previously caused RIS to crash). |
| 15373 | CD Burning | Resolved an issue where RIS could crash during CD Export under certain circumstances. |
| 15311 | CEHRT | ImportDataFileUpgradeDB has been modified for loading SNOMED codes to disable constraints related to new Gender Identity and Sexual Orientation tables. |
| 15915 | Citrix Bridge | Citrix version 7.9 needs the latest version of vccom API which requires a modification the the citrixbridge.exe. Also resolved a problem with the path for the verbose log in the citrixbridge.exe.config. |
| 7613 | Confirmation | Closed Room Reschedule WL now supports repeat rules, resolving an issue where studies could be filtered from the Confirmation worklist. |
| 15359 | DB | Resolved an issue where users could be allowed to re-use passwords even when the System Configuration setting does not allow it. |
| 14450 | Document Distribution | Improvements made to the logging of Document Distribution notes. |
| 14782 | Finding Followup | It is now possible to save Finding Follow-up selections when using PowerScribe reporting mode. |
| 15037 | Insurance Eligibility | If Eligible API provides a Spend Down amount, this is now |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

| | | |
|---|---|---|
| | | displayed in the detailed eligibility return. |
| 15286 | Insurance Eligibility | Resolved an issue with the tooltip for the Eligibility worklist icon. |
| 13521 | Interfaces | Wedge will no longer crash when replying to an inbound message when connecting system (e.g. Mirth, Ensemble) has closed the connection. |
| 14715 | Interfaces | Wedge will now provide an alert if a plugin is misconfigured. |
| 15092 | Interfaces | Added support for openxml versions of MS Word and Excel to external interface. This will provide better support for RTL and formatting. |
| 15449 | Interfaces | An error in RadarConnect process message for practices with null values has been resolved. |
| 15522 | Log Control | The notes field context menu, including spellcheck options, is now available in textbox only mode. |
| 15938 | MRN | Assigning MRN during reschedule using guest Patient Portal study no longer throws an exception. |
| 15068 | Outside Read | A core validation rule has been added with a condition that allows Reason for Exam to be required on all studies *except* Outside Reads. |
| 13888 | PACS (eRAD) Int - RIS only | In the Patient Folder, it is now possible to launch images for a study, even if a different study was previously launched from the same Patient Folder and the PACS Viewer was closed. Previously, the Patient Folder would have to be closed and re-opened under those circumstances. |
| 14066 | PACS (Non - eRAD) Integration | Carestream PACS integration now supports appending studies in the viewer when double clicking a prior study from the mini-Patient Folder in the dictation screen. |
| 14889 | PACS (Non - eRAD) Integration | Resolved an issue with Carestream PACS integration in which studies loaded by External Study Identifier did not close properly. |
| 15393 | PACS (Non - eRAD) Integration | Resolved an issue with Carestream PACS integration in which viewing a second study from the Patient Folder does not display the Accession number. |
| 14636 | PACS (Non - eRAD) Integration | Resolved an issue with IW PACS integration in which images were not redisplayed when switching between tabs. |
| 15676 | Patient Merge | Merging external MRNs with internal RIS patients is once more possible during rescheduling workflow. |
| 15149 | Patient Portal | No longer issues with arriving or cancelling appointments made as a guest in the Patient Portal. |
| 15102 | Peer Review | Radiologists are now prevented from peer reviewing studies from outside of their current Practice. |
| 12563 | Person Management | RecentPasswordRestrictionCount set to -1 now fully disables the recent password feature, as designed. |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

| | | |
|---|---|---|
| 13788 | Powerscribe Integration | Resolved an issue with PowerScribe integration in which it was possible to unintentionally close a second study when dictating multiple cases and an addendum. |
| 14867 | RADAR | Resolved an issue for RADAR exam cancellations. |
| 15232 | RADAR | Audit records for RADAR messaging now include patient /order /study context. |
| 15566 | Radar - Nudge | Resolved a value cannot be null error for App.config RADARSecureMessagePort. |
| 11929 | Radiology Reporting | Switching between external reporting integration modes (PS360 or External) to internal reporting modes (eRAD or M*Modal) now occurs seamlessly without errors. |
| 14757 | Radiology Reporting | Resolved an index out of range error that occurred under certain conditions when using Next workflow during dictation. |
| 15392 | Radiology Reporting | All applicable tool window controls in reporting screens will now prompt if there are unsaved changes. |
| 15553 | Radiology Reporting | When using emergency access and RIS crashes, using autosave, clicking the emergency access again will no longer remove the auto saved report. |
| 15975 | Radiology Reporting | Selected Report panel is now properly saving in personal or system layouts. |
| 14045 | Scanning | "A lock is required to update this order" error is no longer occurring when saving scanned documents for an external prior report. |
| 15240 | Scanning | Resolved an issue with auto-cropping when using the Straighten tool on scanned documents. |
| 15671 | Scanning | Scanning no longer unexpectedly converts images to black and white. |
| 14845 | Scheduling | Foreign key exception when adding "Additional Data" to a procedure no longer occurs. |
| 14948 | Scheduling | A user without permission to reschedule a study can no longer do so from the context menu. |
| 15104 | Scheduling | When scheduling using Order A/Order B with different referring physicians, Order B now successfully receives the data from the Clinical tab. |
| 15559 | SecurePIC | SecurePIC requests are now successful from IVT screen for studies in an Ordered status. |
| 15076 | Technologist | Modifying a study that was performed before the Tech verified ID field was set as Required using validation rules has been resolved. |
| 15155 | Technologist | ExamDoneTechOnly - PACS correction flag can no longer be inadvertently set to Y after exam completion. |
| 14971 | Thick Client GUI | Resolved an issue where the RIS application could stay in view |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

| | | |
|---|---|---|
| | | after RIS locks. |
| 15363 | Thick Client GUI | Resolved an issue that previously resulted in a 'Cannot access a disposed object. Object name: RadLabel' error/crash. |
| 15371 | Thick Client GUI | Resolved an issue that could cause a RIS crash while disposing PerformExam or ViewEdit. |
| 14771 | Utilization Management | When using the Quick Search box to search by UM authorization number, the applicable row will not be highlighted if the search is performed multiple times or with the Patient Folder already open. |
| 15209 | Worklists | Resolved an intermittent issue with RIS Crashing between scheduling under particular circumstances (Object reference not set to an instance of an object). |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## KNOWN LIMITATIONS

The following are new bugs found in build 2.2017.1. Bugs reported in previous versions are not captured as Known Limitations in this document.

| # | Subject |
|---|---|
| 16068 | Dictated by in Summary panel is not populated for reports created by technologist. |
| 15974 | Document Distribution jobs failing to send email via RADAR due to large file size. |
| 15577 | System configuration setting “Enforce zip code selection” set to True and “Enforce county selection” set to False, will require a zip code but the field will not appear. |
| 16040 | Attach Inbound Documents WL action buttons throw exception if pressed when highlighting a locked document row. |
| 16072 | The "Last Login By User ID" management report should display the date. |
| 16060 | TemplateMacro Editor- When using the assignment tab, after filtering available options, items that are not in the results are added to assigned column when using the right arrow to select. |
| 16047 | With preferences for reuse reporting screen (unchecked) and autofeed from worklist (checked), the Next workflow in the dictate screen is sometimes failing to open the next study. |
| 16046 | With the reuse reporting screen preference unchecked, Next workflow in the signing screen behaves as if in the Dictate screen. |
| 16042 | Unable to delete table rows from DocumentType look-up (? FK exception thrown). |
| 16026 | Removed/inactive order_items showing as disabled on Exam Details list when valid, active order_items present. |
| 16024 | Infinitt PACS - Images from Patient Folder are not always closing. |
| 16023 | Imported order-level documents are disabling the incorrect context menu option to switch document level. |
| 16013 | Clinical.ViewStudy access string does not control access to View Study button/context option on appropriate exams. |
| 16005 | When user has both Technologist and Editor resource types, it is possible for them to be assigned as radiologist if creating a report from perform exam screen. |
| 16000 | Inactive UM Resolution Codes are visible in the UM Alerts resolution code drop-down. |
| 15991 | Scheduling a study in OrderSigned status from within a Folder removes the study from Folder's WL. |
| 15989 | Multiple Studies flag gets carried through “Schedule From” action on single-procedure study. |
| 15920 | Contrast amounts are not defaulting when including multiple exams. |
| 15900 | When deleting the dictation /report and resetting status on a study that is suspended, _status_flags is not getting reset. |
| 15884 | Scan Document Notes option still available on non-modal attachment viewer without the option to save them. |
| 15871 | TemplateMacro Results grid is freezing when a change is initiated but not saved before attempting to open the editor window. |
| 15820 | Attach Inbound Documents - Opening context menu on rows other than the one selected throws an error. |
| 15804 | Changing the image request status for studies in Exam Done produces an error that “Signs and Symptoms” is required. |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

| | |
|---|---|
| 15800 | Closing a study by clicking X on the tab will lock the images. |
| 15796 | An error is thrown in the “Adding a mammo biopsy” screen when cancelling the person search window. |
| 16070 | eRAD reporting mode - Create template from report creates double brackets for 2nd auto macro field. |
| 15963 | Scheduling an order under Utilization Review from a Folder does not display a message informing the user that it is under UM Review. |
| 15962 | Unable to modify Additional/Alternative procedure status when default statuses are null. |

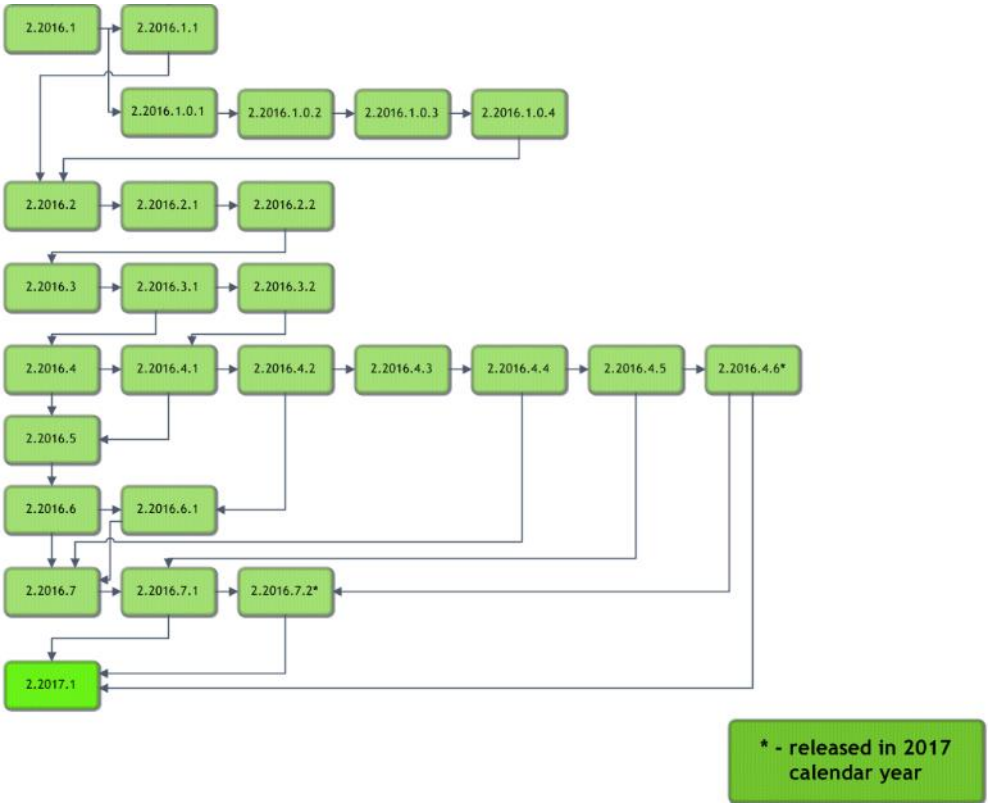
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## RIS RELEASE VERSION NUMBERS

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Digital Forms | Notes |
|---|---|---|---|---|---|---|---|
| 2016.1 | - | 2.16.1.0.33419 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | | GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge |
| 2016.1 | 1 | 2.16.1.1.33672 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | | GUI.zip |
| 2016.1 | .0.1 | 2.16.1.0.1 (3GB) | 2.16.1.0.33079 | 2.16.1.0.33419 | 2.16.1.0.33416 | | GUI.zip (This is not included in 2016.1.1, version directly above) |
| 2016.1 | .0.2 | 2.16.1.0.1 (3GB) | 2.16.1.0.33079 | 2.16.1.0.2 | 2.16.1.0.33416 | | Wedge Web Services only |
| 2016.1 | .0.3 | 2.16.1.0.3 (3GB) | 2.16.1.0.33079 | 2.16.1.0.3 | 2.16.1.0.3.00128918 | | GUI.zip, Web Services and DB |
| 2016.1 | .0.4 | 2.16.1.0.4 (3GB) | 2.16.1.0.33079 | 2.16.1.0.4 | 2.16.1.0.3.00128918 | | GUI.zip, Web Services |
| 2016.2 | - | 2.16.2.0 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.0.00172540 | | Full Version Release - GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge |
| 2016.2 | 1 | 2.16.2.1 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.0.00172540 | | GUI.zip and Citrix Bridge |
| 2016.2 | 2 | 2.16.2.2 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.2.00243102 | | GUI.zip, DB and Citrix Bridge |
| 2016.3 | - | 2.16.3.0 (3GB) | 2.16.3.0 | 2.16.3.0 | 2.16.3.0.00257101 | 2.16.3.0 | Full Version Release |
| 2016.3 | 1 | 2.16.3.1 (3GB) | 2.16.3.0 | 2.16.3.1 | 2.16.3.1.00298834 | 2.16.3.0 | GUI.zip, Web Service and DB |
| 2016.4 | - | 2.16.4.0 | 2.16.4.0 | 2.16.4.0 | 2.16.4.0.00301943 | 2.16.4.0 | Full Version Release |
| 2016.4 | 1 | 2.16.4.1 | 2.16.4.0 | 2.16.4.1 | 2.16.4.0.00301943 | 2.16.4.0 | GUI and Web Service updates |
| 2016.4 | 2 | 2.16.4.2 (3GB) | 2.16.4.0 | 2.16.4.1 | 2.16.4.0.00301943 | 2.16.4.0 | GUI and Patient Portal updates |
| 2016.4 | 3 | 2.16.4.3 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | GUI and Patient Portal updates |
| 2016.4 | 4 | 2.16.4.4 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | GUI |
| 2016.4 | 5 | 2.16.4.5 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | GUI |
| 2016.4 | 6 | 2.16.4.6 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | GUI |
| 2016.5 | - | 2.16.5.0 (3GB) | 2.16.5.0 | 2.16.5.0 | 2.16.5.0.00349303 | 2.16.5.0 | Full Version Release |
| 2016.6 | - | 2.16.6.0 (3GB) | 2016.6.0 | 2.16.6.0 | 2.16.6.0.00411295 | 2.16.6.0 | Full Version Release |
| 2016.6 | 1 | 2.16.6.1 (3GB) | 2016.6.0 | 2016.6.0 | 2.16.6.0.00411295 | 2.16.6.0 | GUI and Patient Portal updated |
| 2016.7 | - | 2.16.7.0 (3GB) | 2.16.7.0 | 2.16.7.0 | 2.16.7.0.00490835 | 2.16.7.0 | Full Version Release |
| 2016.7 | 1 | 2.16.7.1 (3GB) | 2.16.7.0 | 2.16.7.1 | 2.16.7.0.00490835 | 2.16.7.0 | GUI and Web Service updates |
| 2016.7 | 2 | 2.16.7.2 (3GB) | 2.16.7.0 | 2.16.7.2 | 2.16.7.0.00490835 | 2.16.7.0 | GUI and Web Service updates |
| 2017.1 | - | 2.17.1.0 (3GB) | 2.17.1.0 | 2.17.1.0 | 2.17.1.0.00559886 | 2.17.1.0 | Full Version Release |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## CODE STREAM DIAGRAM




No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

# Customer Release Notes

for eRAD RIS

Version 2

Build 2017.3

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

# TABLE OF CONTENTS

Table of Contents ..... 2
Purpose ..... 4
Intended Audience ..... 4
New Settings ..... 5
New access strings ..... 5
New system configuration settings ..... 6
New Features ..... 8
Scheduling and Registration ..... 8
Feature #15086 – Log control supports autotext entry in “display as textbox” mode ..... 8
Feature #15026 – Magnetic Stripe card interpretation added to Identify Patient workflow ..... 10
Feature #15475 – Provide an alert in RIS when a prior balance exists in an external billing system ..... 15
Feature #14796 – Ability to search by BISN in Quick Search ..... 16
Feature #16603 – Collect the date a referral was received ..... 17
Feature #15806 - Support a configurable Urgency Level ..... 18
Feature #11864 – “Patient Flag” funtionality is now called “Patient Alerts” ..... 20
Feature #9202 – New access strings for appointment booking ..... 21
Insurance ..... 23
Feature #16074 - Insurance Policy Expiry Date now available on the Manage Policies screen ..... 23
Feature #16523 – Store insurance carrier’s patient data when patient is not subscriber ..... 25
Utilization Management ..... 26
Feature #15435 – Confirmation warning message for schedulers ..... 26
Feature #15892 – Trigger Utilization Review from the IVT screen ..... 27
Feature #15219 – Excluded exams workflow ..... 28
CEHRT ..... 31
Feature #16009 – Modifications to Audit Log Management Report ..... 31
Feature #16371- Automated Measures management reports will calculate statistics for Education Resources using 2017 ACI Transition Measure criteria ..... 33
Feature #16541 – Automated Measures reports now include sub-reports with patient details ..... 34
Medical Records ..... 37
Feature #7258 – Select individual images/series when burning CDs ..... 37
Feature #9368, 12240 – Options for uncompressed CD burning ..... 41
General Worklist Enhancements ..... 44
Feature #15710 – Special Accommodations column available on worklists ..... 44
Feature #16111– Relative date and time filtering for worklist columns ..... 45
Feature #16059 – Patient Class is available as a search filter for Exam Search ..... 48
Interfacing ..... 49
Feature #16082 – Study Extra Info feature extended to include Order Extra Info ..... 49
Feature #16591 – Strip last character from variables passed to external portals ..... 50
Feature #16527 - Enhance drop XML file functionality ..... 51
Feature #16137 – Carestream PACS Integration – Open prior studies when primary study is not available ..... 55
Infrastructure ..... 56

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

Feature #14351, 15615 – New RIS settings to reduce bandwith for updates ..... 56
Connect Patient Portal ..... 57
Feature #14260 – Push out the first available appointment based on conditions ..... 57
Feature #16480 – Street number watermark removed from Street Number field in Account Creation workflow ..... 62
Feature #13708 – Preparation Instructions display in a pop-up window after scheduling in the Patient Portal ..... 63
Feature #14535 – Print a summary of appointment including Preparation Instructions ..... 64
Feature #8310 - Patient Portal login page picture is now configurable ..... 65
Feature #15025 – Reports printed from the Portal will contain a footer indicating the print details ..... 66
Feature #12827 – Provide System Messages to individual Imaging Groups ..... 67
Feature #13253 – Search workflow failures by date range in Admin Portal ..... 68
Feature #13960 - Audit opening patient exam list in the Admin Portal ..... 69
Feature #16590 - DOB is a valid search in the Admin Portal ..... 70
Feature #15702 - Password failure information now listed in Admin Portal Activity tab ..... 71
Feature #16066 - Security Tab and Account Tab now combined in Admin Portal ..... 72
Feature #16358 – Reference key is now added to portal notification emails ..... 73
Feature #16449 – Force patient to use Get Help to create/reactivate their portal account if the account has been disabled in the Admin Portal or in RIS ..... 74
RIS Administration ..... 75
Feature #16299 - eRAD RIS now supports both default and “recommended” billing codes ..... 75
Feature #16310 – Validation Rule to alert user when no billing codes are present ..... 78
Feature #16138 - Validation Rules framework has been extended to consider tables ..... 79
Feature #14171 – Validation Rules can display based on patient alerts ..... 80
Feature #15150 – Hard-coded Contrast and CT Dosage requirements are now Validation Rules ..... 81
Feature #12141 – Ability to view the Citrix Bridge version number ..... 82
Feature #14681 – Upload a workstation’s verbose files to the server from Help/About screen ..... 83
Feature #16109 - RIS will prevent uploading excessively large files for logos ..... 85
Technologist ..... 86
Feature #16292 – Technologist can now add additional exams to the order from Perform Exam tab ..... 86
Feature #16294 – Copy/Paste feature now includes “Technologist Verified ID” ..... 88
Feature #16293 – Technologist information can automatically copy to all Linked studies ..... 89
Radiologist ..... 91
Feature #15107 – Decreased likelihood that a radiologist could self-review a legacy study ..... 91
Feature #15330 – Improvements to manual caching and caching worklist views ..... 92
Feature #15696 – Create an addendum from the View Study screen ..... 96
Feature #10975 – Accurate audio length in worklist columns ..... 97
Feature #17458 – User preferences to disable input devices ..... 98
Feature #15643 – Referring column added to mini-Patient Folder on Reporting screen ..... 99
Feature #15812 - Allow radiologist Portal feature to launch URLs in external browsers (Support GE ZFP using the Portal screen) ..... 100
Resolved Defects ..... 102
Known Limitations ..... 116
RIS Release Version Numbers ..... 120
Code Stream Diagram ..... 121

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## PURPOSE

This is the Customer Release Notes document for eRAD RIS Version 2.2017.3.

Not every feature will be described in this document. Typically, only features which can be visually demonstrated are outlined here.

## INTENDED AUDIENCE

The intended audience for this document is the RIS Administration team for eRAD RIS customers.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

# NEW SETTINGS

## NEW ACCESS STRINGS

| Setting | Default | Purpose |
|---|---|---|
| Clinical.Schedule.AllowManualSchedulingInClosed | None | Allows appointments to be manually scheduled in closed (gray) appointment book time slots. |
| Clinical.Schedule.AllowManualSchedulingInHoliday | None | Allows appointments to be manually scheduled in holiday (pink) appointment book time slots. |
| Clinical.Schedule.AllowManualSchedulingInRestricted | None | Allows appointments to be manually scheduled in restricted (yellow) appointment book time slots. |
| Clinical.Schedule.AllowManualSchedulingInUnavailable | None | Allows appointments to be manually scheduled in unavailable (blue) appointment book time slots. |
| Clinical.Tech.AllowAddExam | None | Allows access to the “Add exam to current order” button on Perform Exam screen. |
| Config.LookupEditor.OrderExtraInfo | None | Controls access to the lookup table editor for Order Extra Info. |
| Config.LookupEditor.PortalProcedureGroup | None | Controls access to the lookup table editor for Portal Procedure Group. |
| Clinical.CTRM | None | Controls access to Edit button and context menu on the Critical Results worklists. |
| Clinical.ReceptionBarcodeWorkflow.DesktopScanner | Full | Controls access to the Scan ID button in Identify Patient workflow. |
| Clinical.ReceptionBarcodeWorkflow.MagneticStripe | None | Controls access to the Swipe Card button in Identify Patient workflow. |
| Config.LookupEditor.BrowserType | None | Controls access to the lookup table editor for Browser Type. |
| Config.LookupEditor.UrgencyLevel | None | Controls access to the lookup table editor for Urgency Level. |
| Custom.Visibility.Data.Organization.l_site.location_character | None | Controls the visibility of the location character introduced for the Australian market. Full access shows the fields in the Organization table, while any other level will hide them. |
| Custom.Visibility.Data.Personnel.l_person_address.location_character | None | Controls the visibility of the location character introduced for the Australian market. Full access shows the fields in the Personnel table, while any other level will hide them. |
| These access strings have been removed. | | |
| Clinical.UserPreferences.CacheReportingScreen | | |
| Clinical.UserPreferences.ReuseReportingScreen | | |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## NEW SYSTEM CONFIGURATION SETTINGS

| Setting | Default | Purpose |
|---|---|---|
| AllowLZWImageCompression | True | (value = bool) Setting this to true will enable LZW Image Compression when saving attachments. |
| AppointmentSearchMaxResults | -1 | (value = int) Specify the number of appointment slot results to be returned by the scheduling engine. -1 turns off the feature. Changing the default is only recommended for customers scheduling via an External Interface Service. These customers should use a number higher than the recommended minimum of 500. |
| AutoCopyPasteLinkedStudies | False | (value = True/False) Determines if data is copied to all linked studies when one study in a collection is saved on the Perform Exam screen. |
| AutoIncludeLinkedStudiesForTech | False | (value = True/False) Determines if linked studies are automatically included (checked) on Perform Exam screen when a linked study is opened. |
| EnableExtraCompressionOnStudyUpdates | True | (value = bool) Setting this to true will enable gzip and other compression techniques and is ideal for sites with limited upload bandwidth. Set it to false to default to the legacy Microsoft data serialization. |
| PortalEradPacsNewAccountTemplateUserID | | (value = string) The PACS user ID to be used as a template when creating eRAD PACS accounts for users on the Portal. |
| PortalEradPacsNewAccountUserGroup | Radiologist | (value = string) Default user group to use when creating eRAD PACS accounts for users on the Portal. |
| PortalFaxCoverSheetUnavailableMessage | This Fax cover sheet is currently unavailable on the portal. Please contact the imaging center to request the cover letter. | The message to display to the Connect portal user when the Fax Cover sheet is not available due to unexpected error (e.g. SSRS report server is unavailable or not configured). *This setting is for a CONNECT Provider Portal feature and will be explained in the Provider Portal user guide. |
| PortalFaxCovertLetterReportPath | | (value = path and name) The path and name of the Fax Cover Sheet for the Provider Portal. *This setting is for a CONNECT Provider Portal feature and will be explained in the Provider Portal user guide. |
| CountyToZipCodeAutoFill | False | (value = bool) True to have zip and state fields auto-filled when entering a county. |
| MaxLogoFileSize | 250000 | (value = int) Maximum number of bytes for image files uploaded for Practice/Site logos and images uploaded via the ImageUploader configuration screen. |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

| | | |
|---|---|---|
| MaxLogoWidthOrHeight | 1000 | (value = int) Maximum number of pixels for Practice/Site logos and images uploaded via the ImageUploader configuration screen. |
| *Removed* TechContrastRequired | | This was removed because the contrast required and CT dosage for techs is now controlled with Validation Rules. See feature #15150. |
| NPILength | 0 | (value = string) Required length of the NPI field. If blank or zero, any length is allowed up to 20, which is the maximum length of the column. |
| NPILengthErrorText | N/A | (value = string) Text to display when the NPI length is invalid. If blank or null, the default error text will be displayed. |
| PortalAllowEveningWeekendScheduling | True | (value = bool) If true, the portal will allow scheduling on evenings and weekends when appointments are available based on Availability Templates. |
| PortalAuthorizationNotRequiredHourPadding | 0 | (value = int) The number of hours before a patient can schedule through the portal if they do not have an Authorization. |
| PortalAuthorizationRequiredHourPadding | 0 | (value = int) The number of hours before a patient can schedule through the portal if they have an Authorization. |
| PortalMaxSearchDays | 30 | (value = int) When searching for an appointment time in the Portal, if no appointment times are available within this number of days, RIS will inform the user and display information to call the scheduling department. |
| PortalNoSelectedInsuranceHourPadding **REPLACES** PortalNoSelectedInsuranceDayPadding | 5 | (value = int) Used by online scheduling to add hours to the start search criteria to allow time to gather insurance from the patient for this appointment. |
| PPSchedulingNoPrescriptionHourPadding **REPLACES** PPSchedulingNoPrescription | 0 | (value = int) The number of hours before a patient can schedule through the portal if they do not have a prescription. |
| XmlIntegrationMainMenuText | Integrate | (value = string) The text that will appear on the XML Integration main menu item in RIS. |

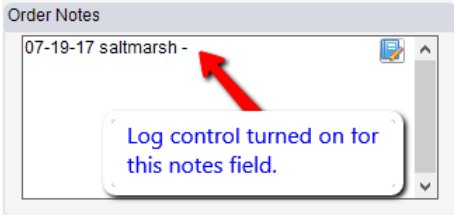
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

# NEW FEATURES

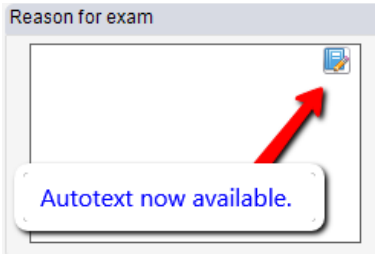
## SCHEDULING AND REGISTRATION

### FEATURE #15086 – LOG CONTROL SUPPORTS AUTOTEXT ENTRY IN "DISPLAY AS TEXTBOX" MODE

Previously, it was only possible to utilize Autotext in notes fields that were configured to use Log Control.




It was not supported for Textbox style notes fields, which were not able to take advantage of the Autotext feature. It is now possible to turn on Autotext for a notes field that is set up as "Display as Textbox."




To configure, open the Log Control configuration table. Locate any notes fields that are set to "Display as Textbox," indicated with a Y. Enable Autotext by changing the Type to FreeAndAutoText. To restrict the user from entering anything ***except*** Autotext, choose a type of AutoText.

| Log Control Code | Description | Type | Display As Textbox Flag | Spellcheck Enabled |
|---|---|---|---|---|
| Contains: | Contains: | Contains: | Contains: | Contains: |
| Click here to add a new row | | | | |
| DDNotes | Document Distribution Notes | FreeText | N | N |
| SignsAndSymptoms | Signs And Symptoms | FreeAndAutoText | Y | Y |
| ReasonForExam | Reason For Exam | FreeAndAutoText | Y | Y |
| SchedulingNotes | Scheduling Notes | FreeAndAutoText | N | Y |
| TechNotes | Technologist Notes | FreeAndAutoText | N | Y |

If needed, configure Autotext options for the notes field in the Autotext table.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

| Description | Language Content | Log Control Code | Display Order |
|---|---|---|---|
| Contains: | Contains: | Contains: | Equals: |
| Click here to add a new row | | | |
| Screening | Annual screening. Asymptomatic. | ReasonForExam (Reason For Exam) | 1 |
| FUfromPrior | Follow-up from prior study dated | ReasonForExam (Reason For Exam) | 1 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #15026 – MAGNETIC STRIPE CARD INTERPRETATION ADDED TO IDENTIFY PATIENT WORKFLOW

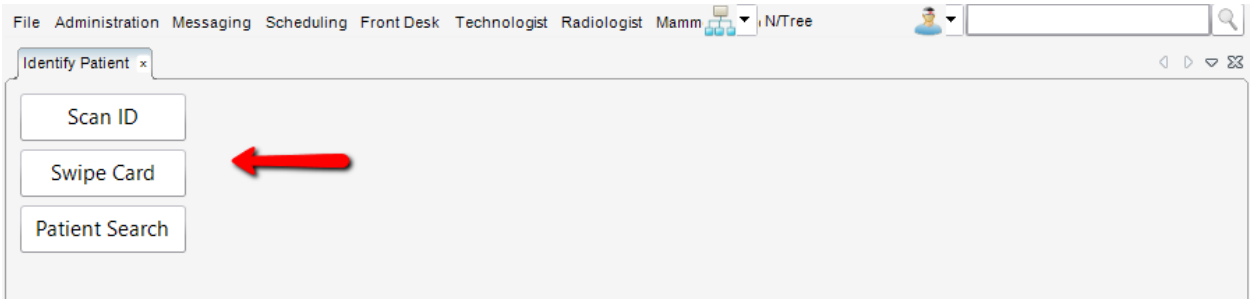
Some eRAD RIS customers are located in countries where government issued insurance cards with a magnetic stripe are common. This magnetic stripe contains information in a designated format, which can be interpreted to help identify the patient's account in RIS. To take advantage of this information, eRAD's Identify Patient feature has been expanded to support swiping cards with magnetic stripes.

Because different issuers will have different configurations for the data included on the magnetic stripe, RIS allows for different configurations to be defined in an XML file, which is included in the RIS zip file. At this time, the XML file contains configuration for Australian Medicare cards, as well as Prince Edward Island health cards. Contact eRAD Support to inquire about additional configurations.

There are three Access Strings associated with the Identify Patient workflow:

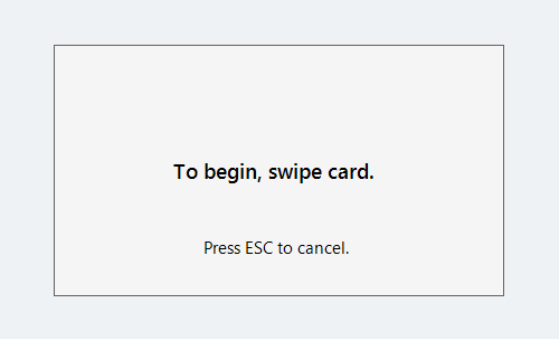
- Clinical.ReceptionBarcodeWorkflow
  - This access string previously controlled access to the Identify Patient workflow. There are now two additional access strings that control the different types of searches.
- Clinical.ReceptionBarcodeWorkflow.DesktopScanner
  - This access string controls access to the existing feature in which Patient IDs with 2D barcodes are scanned using a desktop scanner.
  - The default setting is FULL to maintain existing behavior.
- Clinical.ReceptionBarcodeWorkflow.MagneticStripe
  - This access string controls access to the new magnetic stripe search.
  - The default setting is NONE.

If a user has FULL access to all three of the above access strings, when opening the Identify Patient screen, they will have three options for initiating a search: Scan ID (which will scan an ID Card on the desktop scanner, as before), Swipe Card (will accept input from a magnetic card reader), and Patient Search (a new manual search option in the case that either of the previous options is unable to read the card).

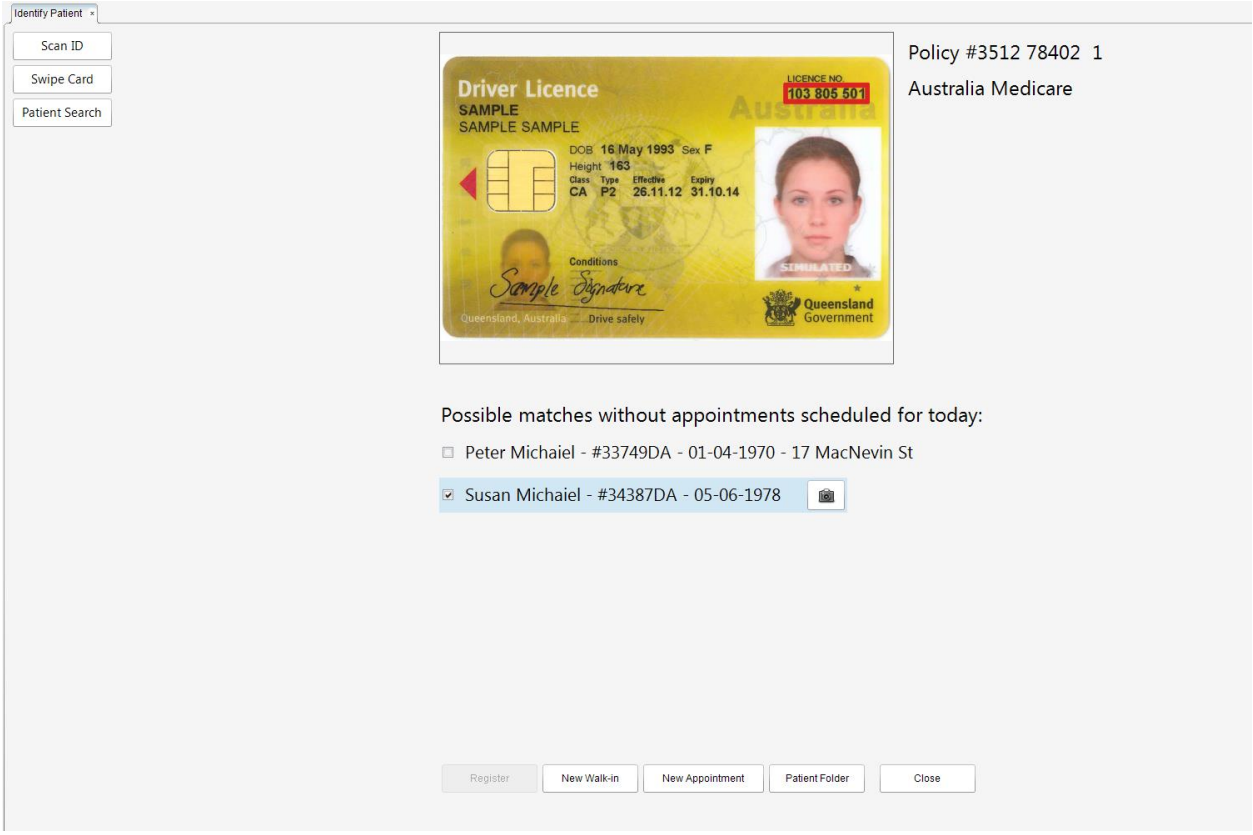



No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

When using the Swipe Card option, the user will be prompted with the following message:



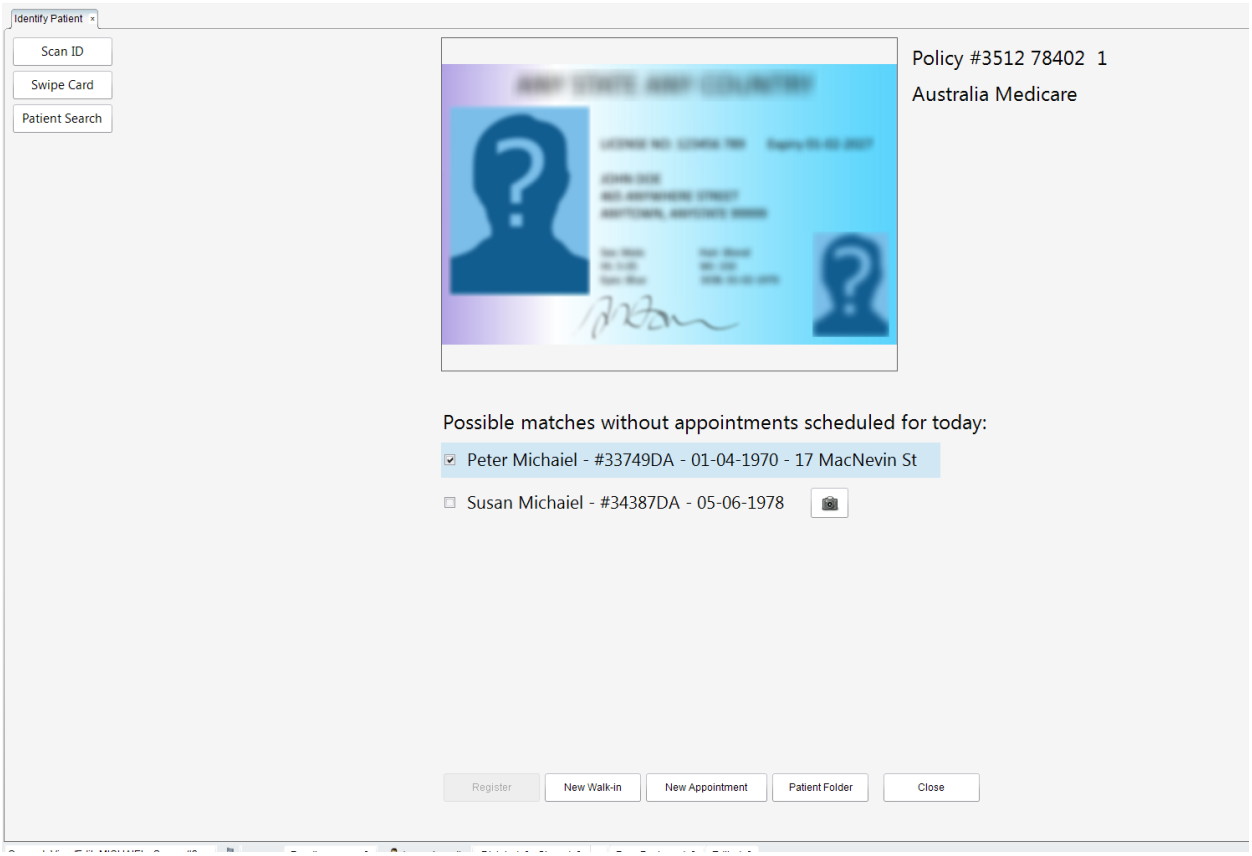

After RIS detects a successful read from the magnetic stripe reader, the results will display on the tab. The following example will refer to the configuration for an Australian Medicare card.




The upper right hand portion of the screen displays a summary of the information read from the Medicare card. At this time, the only information that can be interpreted from the card is the policy number and issue number. Though one or more patient names may be printed on the card, the magnetic stripe itself does not contain patient names.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

The upper portion of the screen will show the most appropriate ID for the patient. In “Desktop Scanner” mode, this area shows the ID that was scanned. In Patient Search or Swipe Card mode, this area will show the most recent ID on file for the currently selected patient. In the event that a matching patient record does not have a patient ID on file, a generic image will be displayed to indicate No ID found.



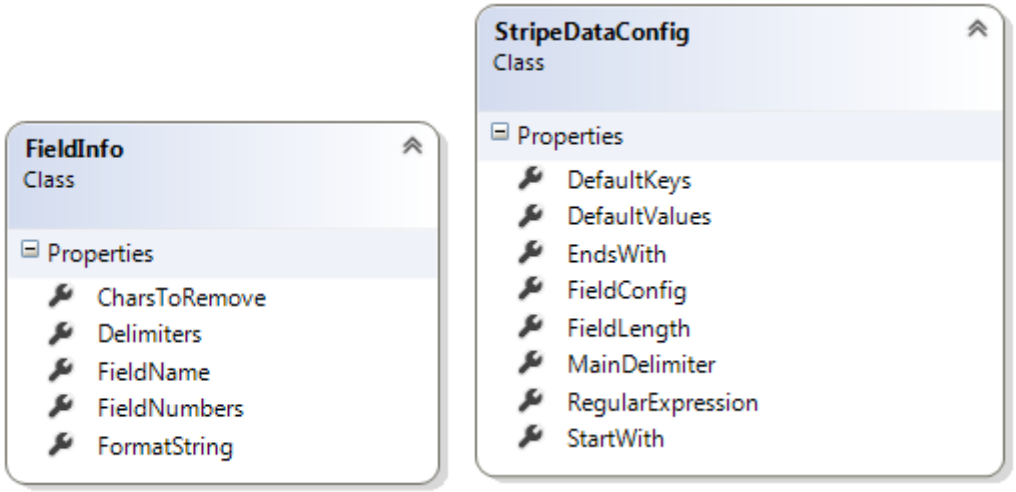

Because multiple patients can share the same Medicare card, RIS performs a search for all patients with a carrier code that represents Australia Medicare and the policy number read from the card. The issue number of the card (the last number on the right) is not included in this search as this number may have changed since the patient’s last visit.

As with the Patient ID search, possible matches to the search will be displayed in the bottom half of the screen, with results that have an appointment scheduled that day at the top of the list. A patient from the search results can be selected with a checkmark. The buttons at the bottom of the screen can initiate the desired action.

## Magnetic Stripe Configuration

Different types of swipe cards may have the data stored in different formats. RIS allows for different configurations to be defined in an XML file which is included in the RIS zip file.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.




Each card type can be described in an XML file that contains a list of *StripeDataConfig* objects with the properties shown above. The *FieldConfig* property is a list of *FieldInfo* objects that provide a name for the field and some instructions to extract and format the data.

The released zip file presently contains an Australia Medicare card configuration and a PEI Health card configuration. These can be used for reference when building additional configurations.

### Field Names

The following case sensitive field names are given special meaning:

- LastName – The patient's last name.
- FirstName – The patient's first name.
- MRN – If present, will be displayed as the patient ID and used to trigger an MRN search.
- BirthDate – The patient's date of birth.
- PolicyNumber – If present (and in the absence of MRN), will be displayed as the insurance policy number and used to trigger a "StartsWith" type policy number search for a specific carrier code.
- IssueNumber – If present, will be displayed along with the Policy Number. It is not included in the policy number search. If an insurance policy is recorded in RIS that includes the Issue Number as a suffix, searching by Insurance Policy StartsWith should still include a match.
- CarrierCode – Will be used together with the insurance policy for an insurance policy search. The carrier code will be displayed in the upper right search criteria area. Note that the packaged zip file presently includes the carrier code of "Australia Medicare," but this can be configured by service with a text editor (see MagneticStripeConfig.xml).

### Clipboard Conveniences

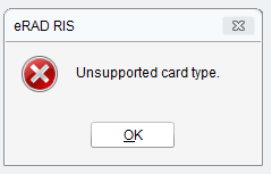
When a code is successfully detected by RIS, if the parsed fields contain an MRN, it will be copied to the clipboard. If there is no field called MRN but both PolicyNumber and IssueNumber exist, those numbers are copied to the

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

clipboard. If there is only a PolicyNumber, then PolicyNumber is copied to the clipboard. This data can then be pasted into a field if desired.

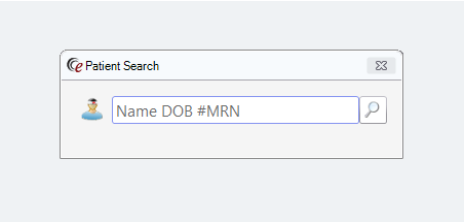
## Unrecognized Swipe Cards

If the user swipes a card that has a magnetic stripe that is not in one of the expected formats, a message will be displayed to the user:




## Patient Search

If the Card Swipe or Patient ID search is unsuccessful, users now have the ability to click the Patient Search button in the top right portion of the screen.




Rather than requiring the user to enter name and date of birth in different fields, Identify Patient's Patient Search uses an approach similar to the Quick Search box in the upper right hand corner of RIS. The user can enter partial name and DOB or MRN and see a list of matching patients; and the search results are categorized to show patients with exams today at the top.

Because this query with information on today's exams is heavier weight than the simple patient search, there are minimum requirements on the search criteria in order to ensure more specific results. The user is required to enter either the MRN with a # prefix, or enter at least part of the last name, part of the first name and the patient's date of birth. The full name portion of the search criteria needs to include at least 5 characters total with at least two characters in the first name and at least two characters in the last name.

Examples of valid search criteria are:

Jo Doe 040477

Doe, John 04-04-1977

#00836725

The Patient Search dialog can be dismissed by pressing the Escape key or clicking the X in the upper right of the dialog.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #15475 – PROVIDE AN ALERT IN RIS WHEN A PRIOR BALANCE EXISTS IN AN EXTERNAL BILLING SYSTEM

Customers have requested that eRAD RIS support the ability to receive messages from an external billing system in order to notify RIS users that an outstanding balance exists for the patient. This can now be supported using the Validation Rules capability.

An external billing system can now update a new Outstanding Balance field in the eRAD RIS database with a Y or N value via HL7. A validation rule has been added that will display an alert when the patient is marked as "Checking In" if a prior balance exists in the billing system.

The following alert will display to the RIS user: "Patient has an outstanding balance. Please review before proceeding with registration." The timing and content of the alert can be adjusted to match customer preferences.

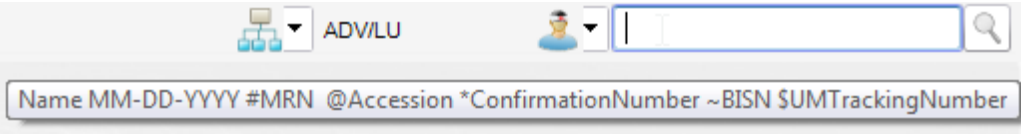
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #14796 – ABILITY TO SEARCH BY BISN IN QUICK SEARCH

This feature is for customers using Imagine Billing. The BISN (Billing Interface Serial Number) used in the Billing Confirmation workflow should be searchable using the Quick Search. This will enable a user to quickly find a record when they only have a BISN.

To trigger this type of patient search, simply type a tilde (~) character before the number.

Hovering over the Quick Search box will provide a list of the search type indicators.



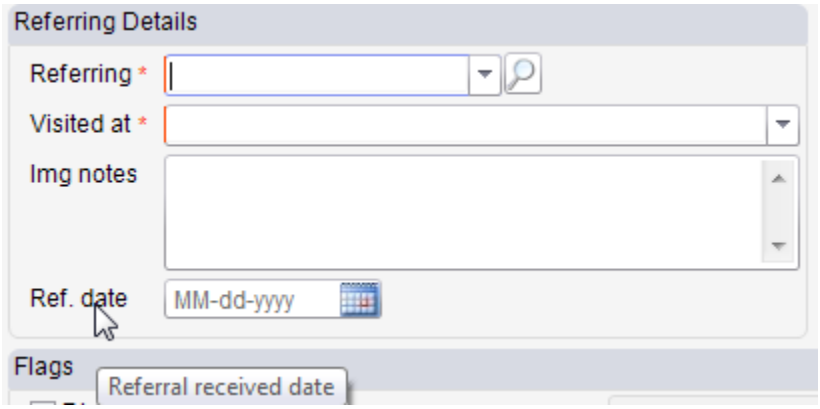

The search will bring up the Patient Folder for the matching patient and the exam row corresponding to the BISN will be highlighted.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #16603 – COLLECT THE DATE A REFERRAL WAS RECEIVED

In some markets, it is important to record the date that a referral was received from the patient's provider. In fact, in some areas it is even required that this date be provided in the billing file. A new field has been added to the Referring Details panel to capture the date when the patient received the referral from the doctor.

The field has an abbreviated label of "Ref. date" and the tool tip displays the full label for the field: *Referral Received Date*.



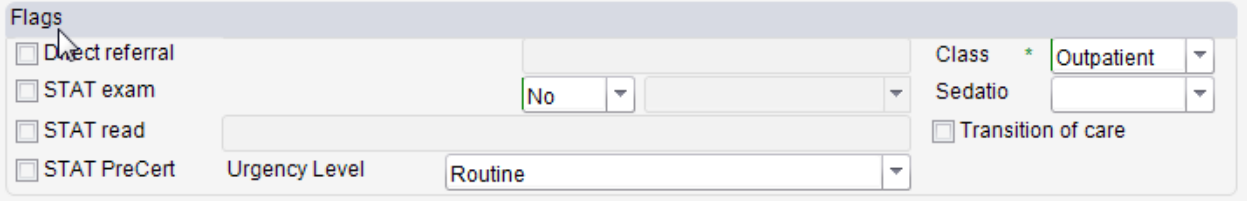

The date is manually entered into this field. It is possible to create a validation rule to require the field, if desired.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

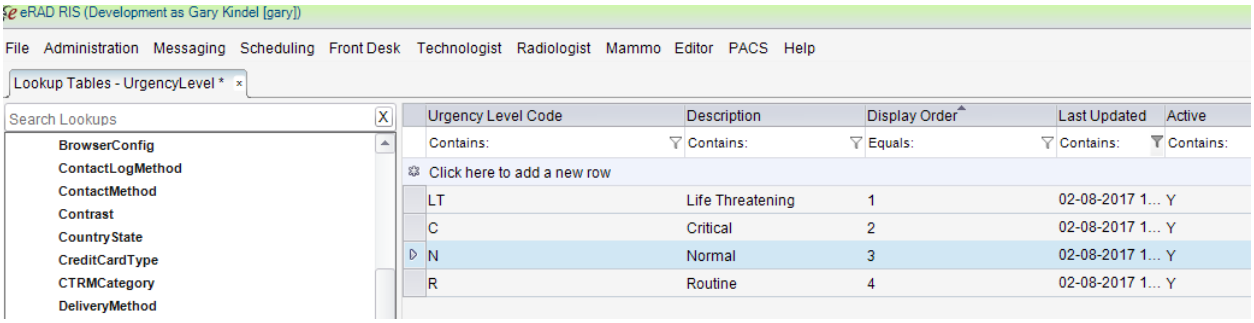
## FEATURE #15806 - SUPPORT A CONFIGURABLE URGENCY LEVEL

For hospital workflow, the existing fields for "STAT Read" and "STAT Exam" are not flexible or specific enough. There is a need to capture and display an "Urgency Level" at an Order level. This will allow customers to define their own specific levels of urgency that can then be displayed on worklists and sorted according to severity.

To this end, a new data field called *Urgency Level* has been added to Order tab within eRAD RIS. The data field has a dropdown control allowing a user to select from a configured list of urgency level values.




The options available in the dropdown are defined in a new lookup table, also labeled Urgency Level. When adding items to this configuration table, it is important to define the Display Order. This not only controls the display order in the field's dropdown, but also the sort order on the worklists. Display Order should be defined so that the most urgent option has a display order of 1.

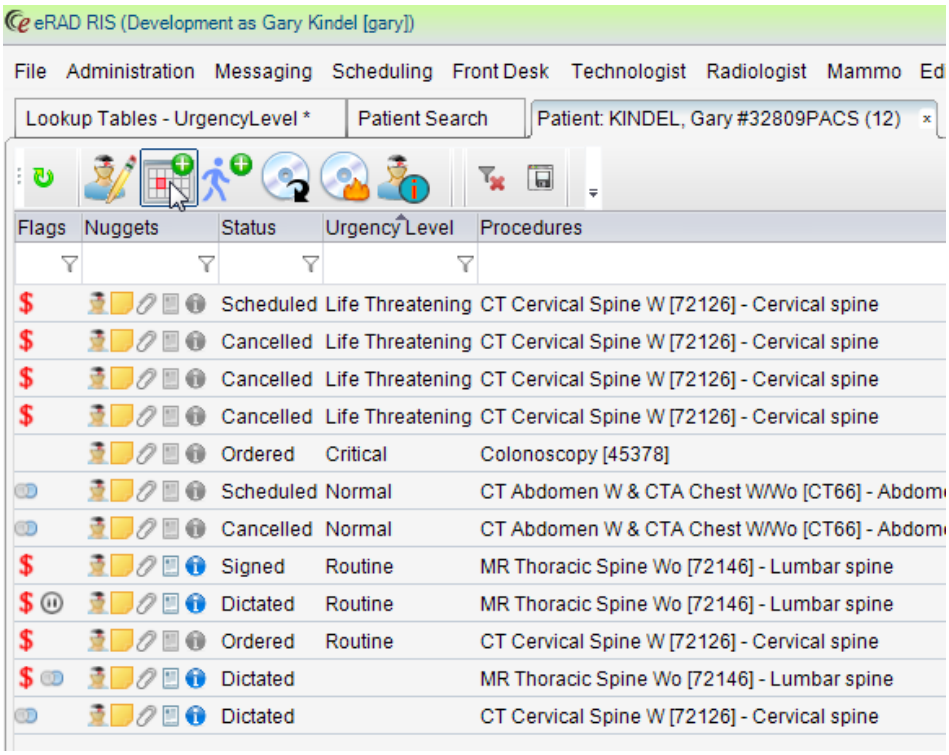



If an Urgency Level is selected for a patient's order, it will be displayed in a new column labeled Urgency Level available on the following worklists:

- Orders to Schedule WL
- Technologist WL
- Reception WL
- Pending Dictation WL
- All Pending Dictation WL
- Reports Drafted WL
- All Reports Drafted WL
- Activity WL
- Patient Folder

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

As mentioned above, when sorting this column, RIS will refer to the Display Order and sort according to this setting, instead of sorting alphabetically.



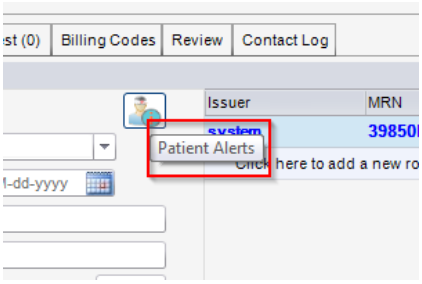

A new access string has been created to grant the appropriate users permission to edit the Urgency Level configuration table: *Config.LookupEditor.UrgencyLevel* (default = None).

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

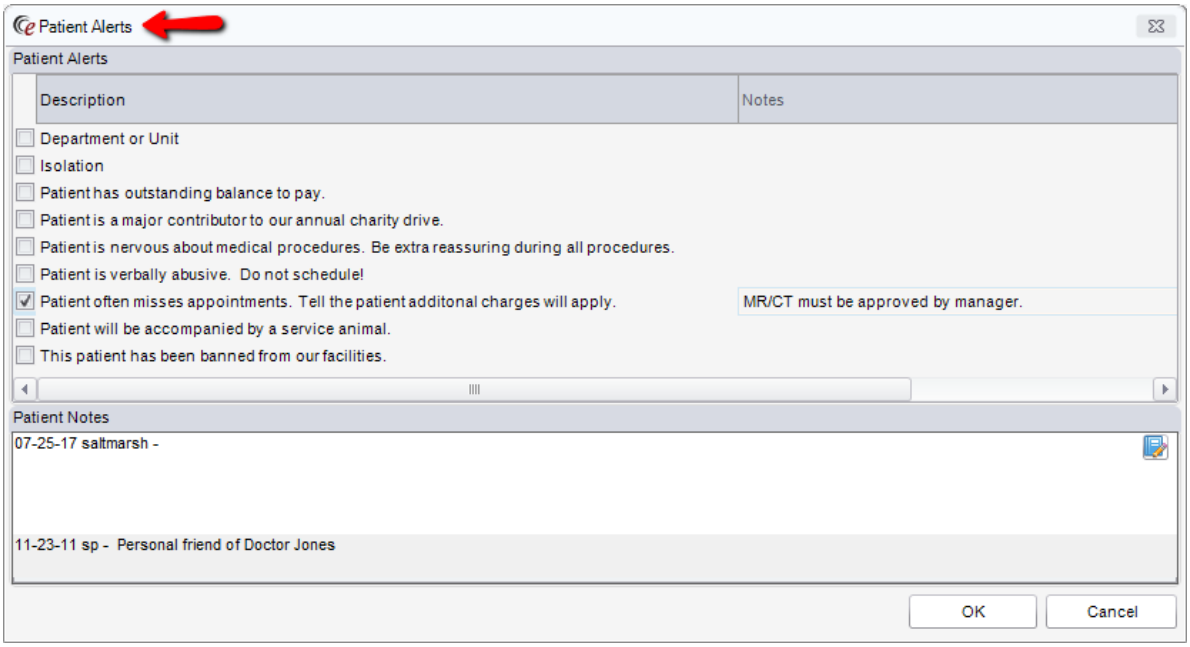
## FEATURE #11864 – "PATIENT FLAG" FUNTIONALITY IS NOW CALLED "PATIENT ALERTS"

eRAD RIS has the ability for users to add information about a patient that can be displayed to the user as a pop-up notification when the patient's order or exam is opened. This was previously known as "Patient Flags." The name did not accurately represent the intention of this feature, which is to ***alert*** the user about key information related to the patient. For this reason, the existing feature set has been renamed to "Patient Alerts."

The tool tip on the button has been updated:




The title on the selection screen has also been updated:




The configuration table is temporarily still labeled with the underlying database label of Patient Flag, but this will be updated in a future build.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #9202 – NEW ACCESS STRINGS FOR APPOINTMENT BOOKING

In eRAD RIS, there are four different types of appointment slots that are outside of the routine:

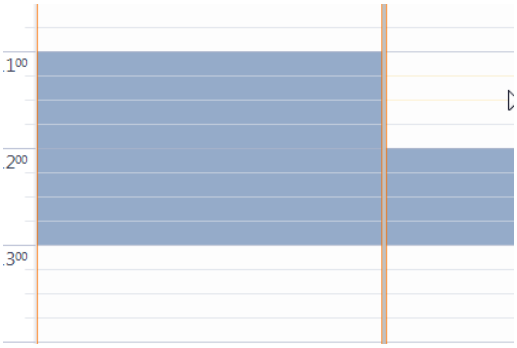
1. Room Closure
2. Holiday
3. Unavailable (outside of the configured hours for the room)
4. Restricted (configured to indicate to the scheduler that only certain appointments can be scheduled in a particular slot)

It may be undesirable to allow certain schedulers to access one or more of these special types of appointment slots. For instance, perhaps a new scheduler would be allowed to schedule in Restricted time slots, but not holidays, or times when the room is closed due to business hours or holidays. A scheduling manager may need to book in any of these slots on a case by case basis. To allow for this type of flexibility, new access strings have been added to allow or disallow users to schedule in unavailable, modality restricted, modality closed or holiday time slots.

The access strings will determine whether a given user can schedule using the Appointment Book, by manually entering the room/date/time in the scheduling screen, or by using the calendar view in the scheduling screen. All access strings are configured with defaults that replicate previous functionality, which can be adjusted to provide the desired permissions.

**Room/Modality Closure:**

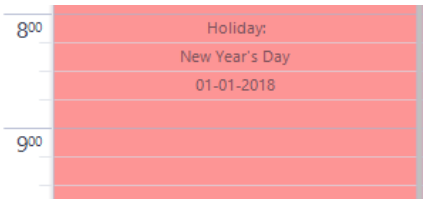
Access string *Clinical.Schedule.AllowManualSchedulingInUnavailable* must be set to FULL to schedule in unavailable time slots, which are time slots that are outside of the room's normal business hours. These time slots appear in blue in the appointment book. The default setting is FULL (scheduling ***is*** allowed).




**Holiday:**

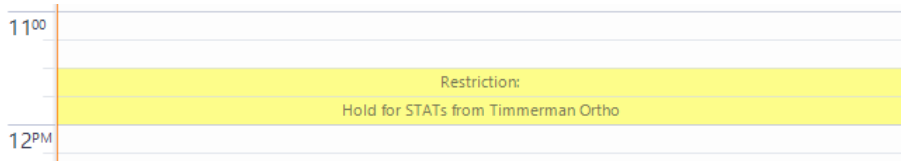
Access string *Clinical.Schedule.AllowManualSchedulingInHoliday* must be set to FULL to schedule in the Holiday time slots. These time slots appear pink in the appointment book. The default setting is NONE (scheduling ***not*** allowed).

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.



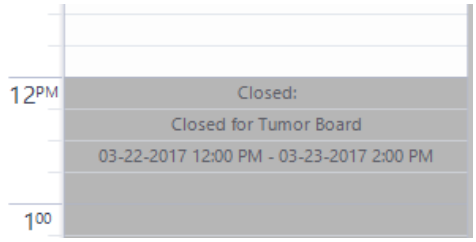

**Restriction:**

Access string *Clinical.Schedule.AllowManualSchedulingInRestricted* must be set to FULL to schedule in modality restricted time slots. These time slots appear yellow in the appointment book. The default setting is FULL (scheduling ***is*** allowed).



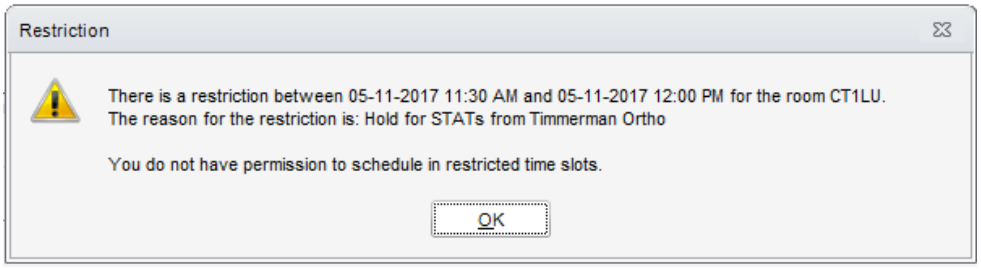

**Closures:**

Access string *Clinical.Schedule.AllowManualSchedulingInClosed* must be set to FULL to schedule in closed time slots. These time slots appear gray in the appointment book. The default setting is NONE (scheduling ***not*** allowed).




If a user without full permission to the applicable access string chooses an unavailable time slot, the user will receive an error that the room is unavailable and will not be able to schedule.

Modality Restrictions will continue to display the reason for the restriction, but without the appropriate permission, the user will be informed that they cannot schedule in restricted time slots.



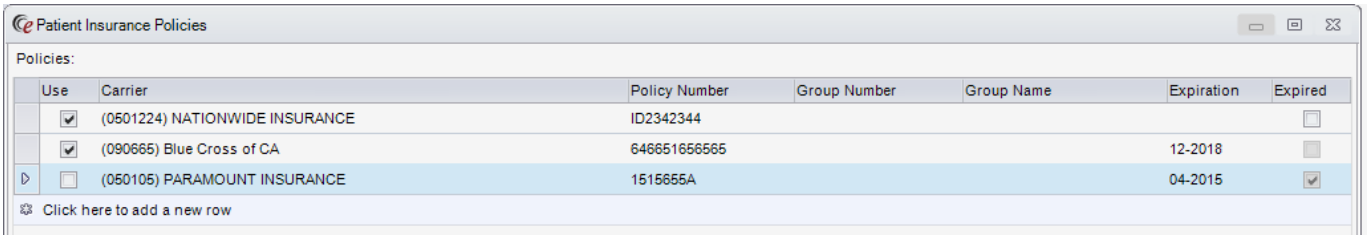

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## INSURANCE

### FEATURE #16074 - INSURANCE POLICY EXPIRY DATE NOW AVAILABLE ON THE MANAGE POLICIES SCREEN

Some insurance policies have a listed Expiry Date which would be beneficial to collect on the Manage Policies screen. In fact, in some markets, the Expiry Date is required for billing.

To accommodate this, a new column, *Expiration*, has been added in the Policies grid on the Manage Policies screen. This is an optional field with a date format of MMYYYY. It can be displayed to the user as MM-YYYY or MM/YYYY depending upon whether "-" or "/" is used in the *DateFormat* System Configuration setting.




If an Expiry Date has been entered, RIS will now control whether the policy has expired and will prevent the user from using an expired policy. Each time the Manage Policies screen is opened, a new evaluation of the Expiration date will be performed and the Expired checkbox will be checked accordingly. Cards expire at midnight on the last day of the month entered as the expiry date.

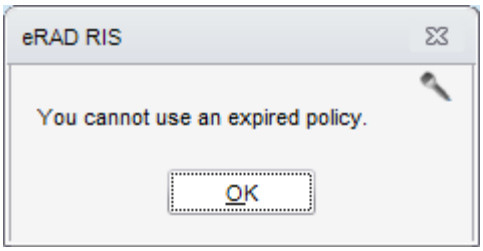
Because the RIS is responsible for evaluating whether the policy is expired when a date has been entered, the Expired checkbox will be Read Only when a date has been entered in the Expiration column. If the patient's policy has a new expiry date, the user can update the expiration to a future date and the check will be removed from the Expired column.

Policies without an Expiration listed can still be manually expired (or un-expired) by checking the box.

When entering Expiration dates the user can enter MMYY, MMYYYY, MM-YYYY, MM-YY, MM/YY, MM/YYYY and many other variations where the month and year are separated by any non-numeric character. The RIS will attempt to parse the date and display it in a MMYYYY format.

If the user attempts to use a policy that has been expired, a warning will be issued and the policy cannot be selected.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

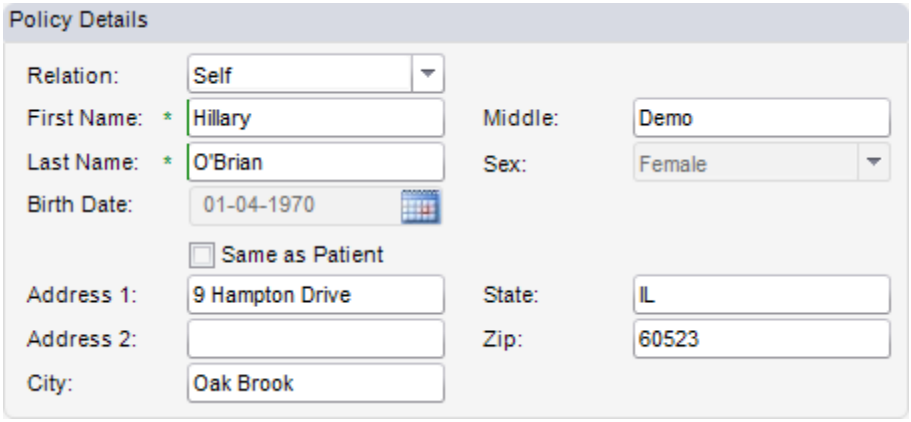



Updating the Expiration to a future date will make the policy available for use.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #16523 – STORE INSURANCE CARRIER'S PATIENT DATA WHEN PATIENT IS NOT SUBSCRIBER

This feature is for customers using the integration with Eligible API. When the patient is the subscriber to the insurance, we update the demographic information in the Policy Details section as it is known by the insurance carrier. For example, if we send the patient's name as "Hillary O'Bryan" and the message from Eligible API indicates that the insurance carrier has the last name as "O'Brian," the Policy Details screen will automatically update to store the version that matches the insurance policy.




When the patient is ***not*** the subscriber, the information in the Policy Details section is for the policy holder, so there was not a place to store the insurance version of the *patient's* information. eRAD RIS can now store this information in the background, so that the insurance carrier will receive the matching information when the study is billed. In the database, eRAD stores the last known patient information for the policy, including the patient's first name, last name, middle name, birth date and gender. If the carrier changes, these fields will be cleared until they are updated with the information from the new carrier, if applicable.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## UTILIZATION MANAGEMENT

### FEATURE #15435 – CONFIRMATION WARNING MESSAGE FOR SCHEDULERS

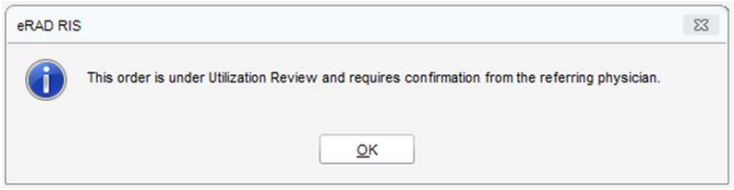
During the utilization review process, there can be certain scenarios that require confirmation from the referring physician before the order can proceed to be scheduled. For example, if the UM nurse or doctor recommends an alternative or additional procedure, confirmation by signature is required.

The confirmation workflow is determined by the Confirmation Required Flag in the UM Resolution look-up table. For example, "Recommended as Alternative" would typically have this flag enabled.

As soon as the ordered procedure is marked as "Recommended as Alternative," eRAD RIS determines that this is a **final** status and advances the UM Flag from UM Required to UM Complete—even though confirmation has yet to be received. The reason behind this logic is that the reviewers are done with the review at this point. The clock stops and the order drops from the Utilization Management worklist.

The Schedule functionality is disabled until confirmation is received. However, it is beneficial to notify schedulers that the order is waiting for confirmation when they open the schedule screen. This will help the user understand why scheduling is disabled.

RIS will now prompt the user:



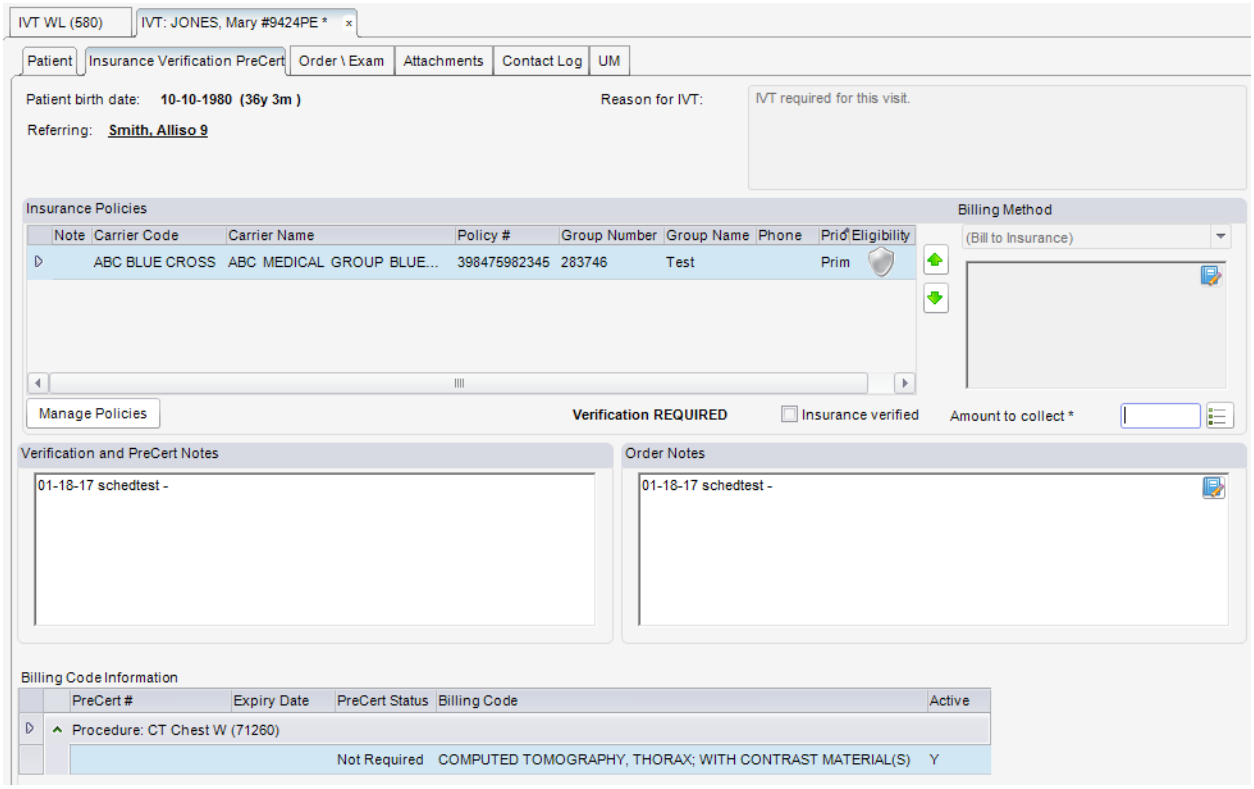

Once confirmation is received either from the inbound document workflow, verbally, or via the provider portal, the order can be scheduled.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #15892 – TRIGGER UTILIZATION REVIEW FROM THE IVT SCREEN

The eRAD RIS Utilization Management (UM) workflow is driven by the primary insurance that belongs to the order. Often orders will come into RIS either manually, from EMR integration, or eventually through the provider portal, *without an insurance carrier* assigned. RIS can be configured to push orders missing a primary insurance to the IVT Worklist. The IVT user will enter the insurance information at this point. It is important that a UM check takes place at this time and a visual indicator is supplied to the IVT user if review is required.

The eRAD RIS IVT screen now has the ability to trigger the UM workflow (UM Required Flag) based on an insurance addition or modification. To make the UM tab appear without a valid study assigned, the IVT screen will now show the UM tab based on the state of the UM Required Flag for the order. Once the insurance is added or modified, the system will review the value of the UM Required Flag and show the UM tab dynamically. This will allow the IVT user to see that UM is required for the insurance they have added or modified.




The IVT user can view the UM tab as Read Only, unless they have UM permissions. The UM Required flag will also appear on the IVT WL.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #15219 – EXCLUDED EXAMS WORKFLOW

Capitation contracts with medical groups often contain procedures which are listed as "excluded." This means that the procedure is excluded from capitation and the service is not available unless authorized by the medical group. eRAD RIS can now prevent scheduling or registration for any excluded procedures, unless a manager override is obtained. There is also an option to configure warning messages for other UM coverage types.

The eRAD RIS Utilization Management solution contains the authorization rules by medical group that determine which billing codes require utilization review. Although an excluded billing code typically does not require utilization review and the order will not be pushed to the Utilization Management Worklist, the UM solution will be utilized to identify excluded procedures.

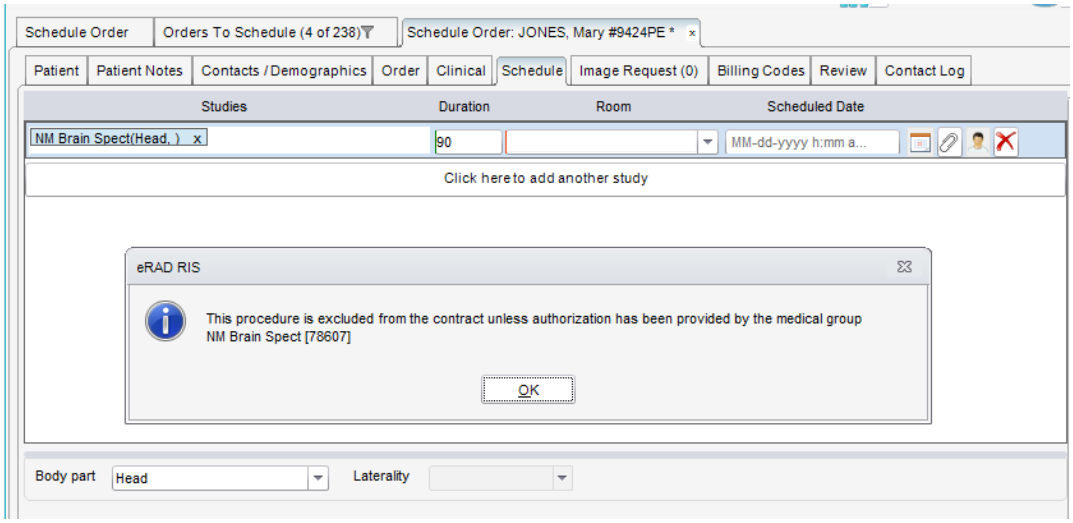
The UM Coverage look-up table in eRAD RIS has been enhanced with the following two additional columns to drive the new workflow:

1. **Schedule Warning Type** – The following two options are available:
    a. **Prevent** – A warning message is displayed and the user is *prevented* from scheduling the procedure.
    b. **Prompt** – A warning message is displayed and the user is *allowed* to schedule the procedure.
2. **Schedule Warning Content** – The language content of the warning that is displayed to the scheduling user.

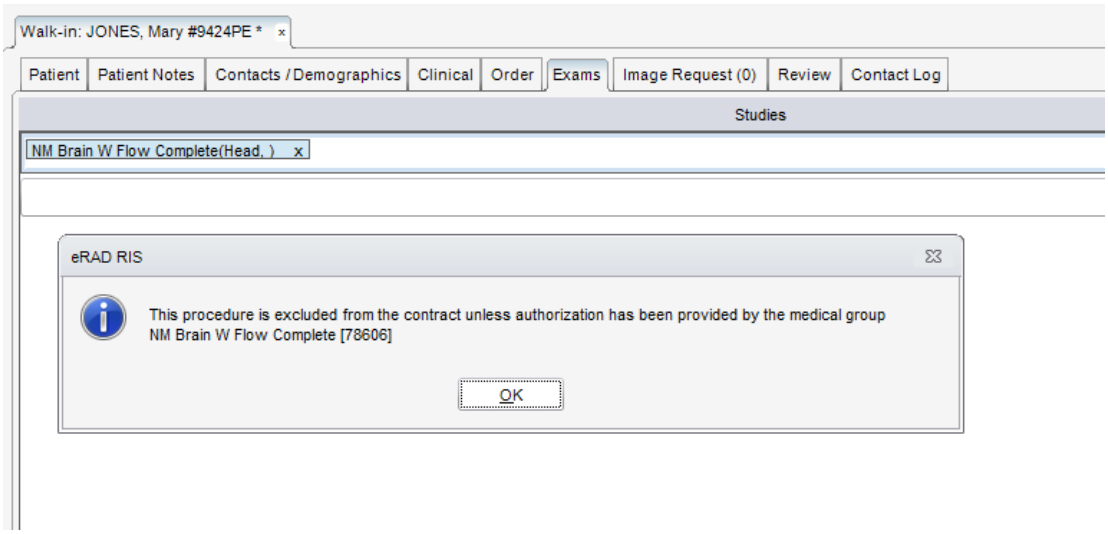
| Um Coverage Code | Description | Schedule Warning Type | Schedule Warning Content |
|---|---|---|---|
| Contains: | Contains: | Contains: | Contains: |
| Click here to add a new row | | | |
| A | Capitated service, authorization required | Prompt | This procedure requires utilization review per the medical group. |
| FFS | Fee for service, authorization required | Prompt | This procedure is fee for service for the medical group. Ensure proper authorization has been received |
| EX | Excluded | Prevent | This procedure is excluded from the contract unless authorization has been provided by the medical group |
| CAP | In Cap | | |
| FFS_N | Fee for service, authorization not required | | |
| IN | In Cap | | |
| TBD | To be determined | | |
| X | Capitated service, direct referral (no authorization required) | | |

If the user is a RIS Administrator or has the *Clinical.UtilizationManagement.ScheduleOverride* permission, scheduling will not be prevented; however, the warning message will still be presented.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

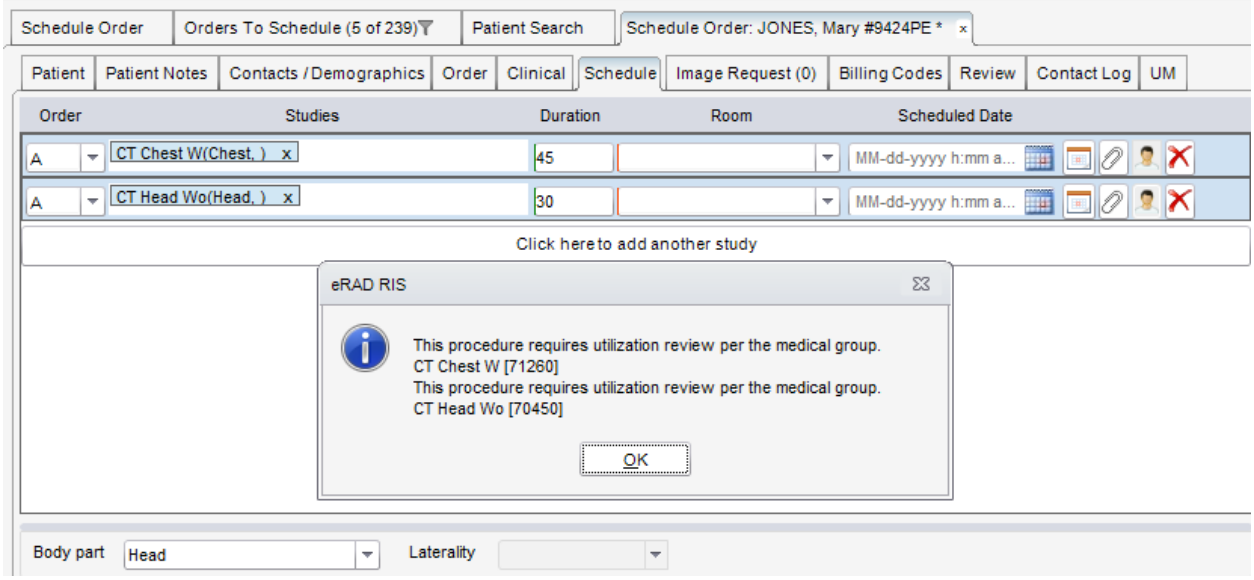



This framework is also utilized by the Registration screen to account for Walk-ins or added procedures. The front desk user will not be permitted to Arrive or Check-In the patient if a configured Excluded procedure is added. However, saving is still permitted.




The following is an example of utilizing the feature to provide a warning for a different UM Coverage Type, in order to inform the scheduler that authorization is required:

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.




When configuring Schedule Warnings in the UM Coverage look-up table, if a Schedule Warning Type is configured, the Schedule Warning Content becomes a required field.

The Utilization Management module must be enabled to utilize this functionality.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## CEHRT

Certification of Electronic Health Records Technology (CEHRT) is a program that defines standards of performance that must be met in order to be considered a Certified EHR. eRAD RIS is certified under version 2014, which (despite the misleading year) is the version under which EHRs must *currently* be certified in order to maintain their Certified EHR status. The standards for the latest version (2015) are available and eRAD RIS is preparing to obtain this latest certification by undergoing a testing process with an authorized certification body. Some new features related to the standards for version 2015 will be merged into the commercial RIS after certification has been completed. However, some components can be added now, in preparation for the certification testing. The following features have been added to the current eRAD RIS build as part of this effort.

### FEATURE #16009 – MODIFICATIONS TO AUDIT LOG MANAGEMENT REPORT

The CEHRT requirement for 170.315(d)(3) states that the system must generate an audit report for a specific time period.

The system must also provide the ability to sort the following data elements in ascending or descending order:

- Date and time of event
- Patient identification
- User identification
- Type of action
- Identification of the patient data that is being accessed

The existing Audit Log management report in eRAD RIS has been modified to support the above requirement. Interactive sorting capabilities have been added to the table header. The User ID column has been removed, as only one user can be selected in the User parameter. Patient ID (MRN) and Patient Name columns have been added. This will allow the user to sort by either MRN or Name.

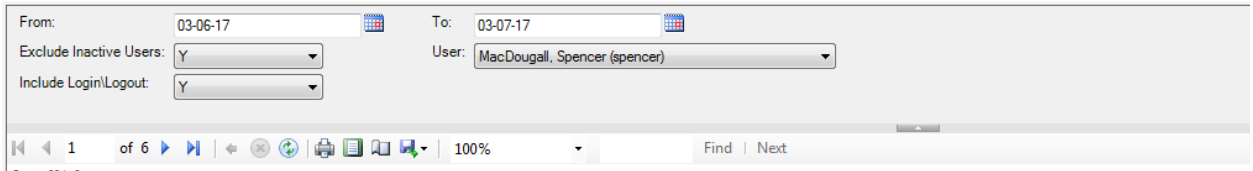
The revised Audit Log management report supports the following parameters:

- Date Range – This is based on the last updated date for the audit log entry.
- Exclude Inactive Users – This will filter the User(s) parameter by eliminating any users that are flagged as inactive in the RIS.
- User – The selected RIS users for which the Audit Log report is being generated.
- Include Login\Logout – Determines if Login and Logout audit events will be included in the report.

The columns represented in the Audit Log management report are as follows:

- Date\Time – This is the date and time the audit event was last updated.
- Patient ID – The ID or MRN of the audited patient.
- Patient Name – The last name and first name of the audited patient.
- Description – A description of the audit event.
- Audit Action – How the data was accessed or modified.
- Changes – A detailed description of what data was modified, if applicable.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.




## Audit Log

**Date Range:** 03-06-2017 - 03-07-2017
**User:** MacDougall, Spencer (spencer)
**Description:** This report displays the audit information for the period and user specified.

| Date\Time | Patient ID | Patient Name | Description | Audit Actions | Changes |
|---|---|---|---|---|---|
| 03-06-2017 9:18 AM | | | Login | Login | |
| 03-06-2017 9:19 AM | 9424PE | Jones, Mary | UI_OrderRetrieved_UtilizationManagement | Query | |
| 03-06-2017 9:22 AM | | | Logout | Logout | |
| 03-06-2017 10:31 AM | | | Login | Login | |
| 03-06-2017 11:10 AM | | | Login | Login | |
| 03-06-2017 11:45 AM | | | Login | Login | |
| 03-06-2017 1:36 PM | | | Login | Login | |
| 03-06-2017 1:36 PM | 9424PE | Jones, Mary | Patient retrieved | Query | |
| 03-06-2017 1:38 PM | | | Login | Login | |
| 03-06-2017 1:48 PM | 9424PE | Jones, Mary | Patient retrieved | Query | |
| 03-06-2017 1:48 PM | 9424PE | Jones, Mary | Patient retrieved | Query | |
| 03-06-2017 1:48 PM | 9424PE | Jones, Mary | Patient retrieved | Query | |
| 03-06-2017 1:48 PM | 9424PE | Jones, Mary | Patient retrieved | Query | |
| 03-06-2017 1:49 PM | 9424PE | Jones, Mary | Patient retrieved | Query | |
| 03-06-2017 1:49 PM | 9424PE | Jones, Mary | Patient retrieved | Query | |
| 03-06-2017 1:49 PM | 9424PE | Jones, Mary | Patient retrieved | Query | |
| 03-06-2017 1:51 PM | 9424PE | Jones, Mary | Order submitted | Order submitted | <Changes><AddedRows><c_visit /><c_visit_x_patient_insurance /></AddedRows></Changes> |
| 03-06-2017 1:51 PM | 9424PE | Jones, Mary | Order submitted | Order submitted | <Changes><AddedRows><c_order /><c_order_item procedure_code="71260" /><c_order_item procedure_code="70210" /><c_order_item_certification /><c_order_item_certification /></AddedRows></Changes> |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #16371- AUTOMATED MEASURES MANAGEMENT REPORTS WILL CALCULATE STATISTICS FOR EDUCATION RESOURCES USING 2017 ACI TRANSITION MEASURE CRITERIA

eRAD RIS has three management reports that are related to CEHRT: "Automated Measures," "Automated Measures by Radiologist" and "Automated Measures Raw Data." A new stored procedure has been created to calculate statistics for these reports differently for *2017 ACI Transition Measures*. There is a filter on the Management reports that can be selected to run the report using this methodology. Currently this filter is labeled *Stage 3*.

The changes in this feature are related to the requirement for eRAD RIS to identify patient-specific education resources based on the patient's appointment. When Stage 3 is selected, the management reports will provide statistics displaying whether these education resources were provided to the patient for all exams/patients seen by the reporting radiologist during the reporting period. Under the current certification, these reports only count the number of patients given patient-specific education for procedures that were identified as "office visits" by the associated billing codes. After selecting the new Stage 3 option, these management reports will calculate statistics according to the following numerator (number of patients meeting the criteria) and denominator (all possible patients):

**Numerator**: Any unique patient seen by the reporting radiologist where either the Prep Instructions Reviewed checkbox has been checked ***or*** the Provided Educational Resources checkbox on the Documentation tab has been checked.

**Denominator**: Any unique patient seen by the reporting radiologist during the reporting period.

When the Prep Instructions Reviewed checkbox or the Provided Educational Resources checkbox has been checked, the system will automatically capture patient-specific education resources as a numerator/denominator for the measure.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

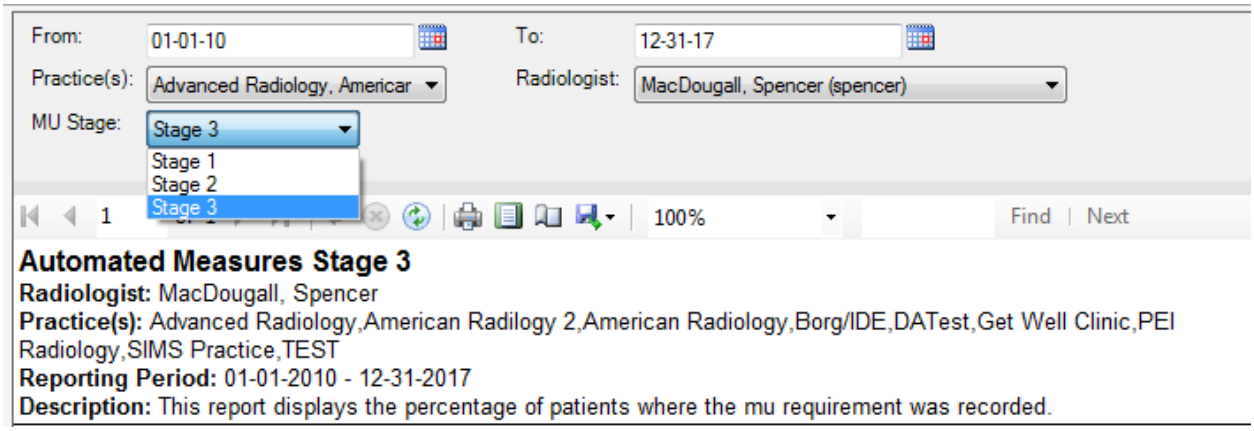
## FEATURE #16541 – AUTOMATED MEASURES REPORTS NOW INCLUDE SUB-REPORTS WITH PATIENT DETAILS

The CEHRT Automated Measures Report allows a provider to track which measures have been met. The report displays the numerator, denominator, percentage of the criteria the provider has met, and the threshold required to meet the measure.

The CEHRT requirement for 170.315(g)(2) states that the system must also provide details for the numerator and denominator values in the Automated Measures report.

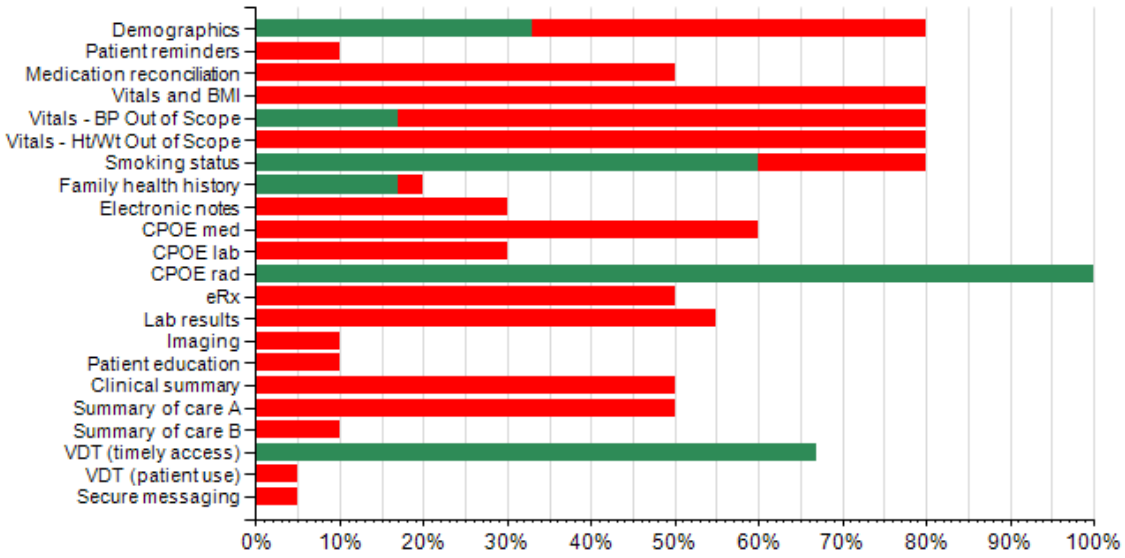
The following core Management Reports in eRAD RIS have been updated to include a "Stage 3" option in the MU Stage parameter:

- Automated Measures
- Automated Measures by Radiologist
- Automated Measures Raw Data




Both the *Automated Measures* and *Automated Measures by Radiologist* reports have been updated to include drill down capabilities to provide the necessary study details for the numerator and denominator, as well as the list of patients that make up the numbers. Clicking the blue hyperlinks, seen in the image below, will load the sub-report.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.




| Meaningful Use Measure | Numerator | Denominator | % | Goal | Pass/Fail |
|---|---|---|---|---|---|
| Demographics | 2 | 6 | 33.00% | 80% | |
| Patient reminders | 0 | 0 | 0.00% | 10% | |
| Medication reconciliation | 0 | 0 | 0.00% | 50% | |
| Vitals and BMI | 0 | 6 | 0.00% | 80% | |
| Vitals - BP Out of Scope | 1 | 6 | 17.00% | 80% | |
| Vitals - Ht/Wt Out of Scope | 0 | 6 | 0.00% | 80% | |
| Smoking status | 3 | 5 | 60.00% | 80% | |
| Family health history | 1 | 6 | 17.00% | 20% | |
| Electronic notes | 0 | 6 | 0.00% | 30% | |
| CPOE med | 0 | 0 | 0.00% | 60% | |
| CPOE lab | 0 | 0 | 0.00% | 30% | |
| CPOE rad | 2 | 2 | 100.00% | 30% | |
| eRx | 0 | 0 | 0.00% | 50% | |
| Lab results | 0 | 0 | 0.00% | 55% | |
| Imaging | 0 | 0 | 0.00% | 10% | |
| Patient education | 0 | 0 | 0.00% | 10% | |
| Clinical summary | 0 | 0 | 0.00% | 50% | |
| Summary of care A | 0 | 0 | 0.00% | 50% | |
| Summary of care B | 0 | 0 | 0.00% | 10% | |
| VDT (timely access) | 4 | 6 | 67.00% | 50% | |
| VDT (patient use) | 0 | 6 | 0.00% | 5% | |
| Secure messaging | 0 | 6 | 0.00% | 5% | |



The additional sub-report is referred to as *Automated Measures Details*. The user can return to the parent report simply by selecting the "Back" button in the reports title bar.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## Stage 3 Automated Measures Details for Patient education

**Radiologist: MacDougall, Spencer (spencer)**
**Date Range:** 01-01-2010 - 12-31-2017
**Practice(s):** Advanced Radiology,American Radilogy 2,American Radiology,Borg/IDE,DATest,Get Well Clinic,PEI Radiology,SIMS Practice,TEST
**Description:** This report displays the patient specific details used to generate the MU automated measures report.

| Patient Name | Patient ID | Accession # | Practice Code | Scheduled Date | Signed Date | Office Visit | Status Code | Patient Education |
|---|---|---|---|---|---|---|---|---|
| Carter, Jeff William | 4 | | | | | | | |
| | | 1 | ADV | 12-04-2014 | 12-05-2014 | N | Signed1 | N |
| | | 3398 | ADV | 07-20-2015 | 07-20-2015 | N | Signed1 | N |
| | | 4878 | ADV | 10-06-2015 | 11-02-2015 | N | Signed1 | N |
| | | 5105 | ADV | 10-22-2015 | 11-02-2015 | N | Signed1 | N |
| | | 5571 | ADV | 11-02-2015 | 11-02-2015 | N | Signed1 | N |
| Hextall, Ron | 12 | | | | | | | |
| | | 107 | ADV | 03-27-2015 | 06-29-2015 | N | Signed1 | N |
| | | 120 | ADV | 04-17-2015 | 06-29-2015 | N | Signed1 | N |
| Judson, Jenny | 3392 | | | | | | | |
| | | 1896 | ADV | 05-14-2015 | 10-28-2015 | N | Signed1 | Y |
| Obermann, Mary | 654 | | | | | | | |
| | | 4413 | ADV | 08-13-2015 | 09-02-2015 | N | Signed1 | N |
| | | 4510 | ADV | 08-27-2015 | 08-27-2015 | N | Signed1 | N |
| test, a12501 Ben | 893247 | | | | | | | |
| | | 5816 | ADV | 12-04-2015 | 12-04-2015 | N | Signed1 | N |
| Test, IVT | 50 | | | | | | | |
| | | 5108 | ADV | 10-22-2015 | 10-22-2015 | N | Signed1 | N |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

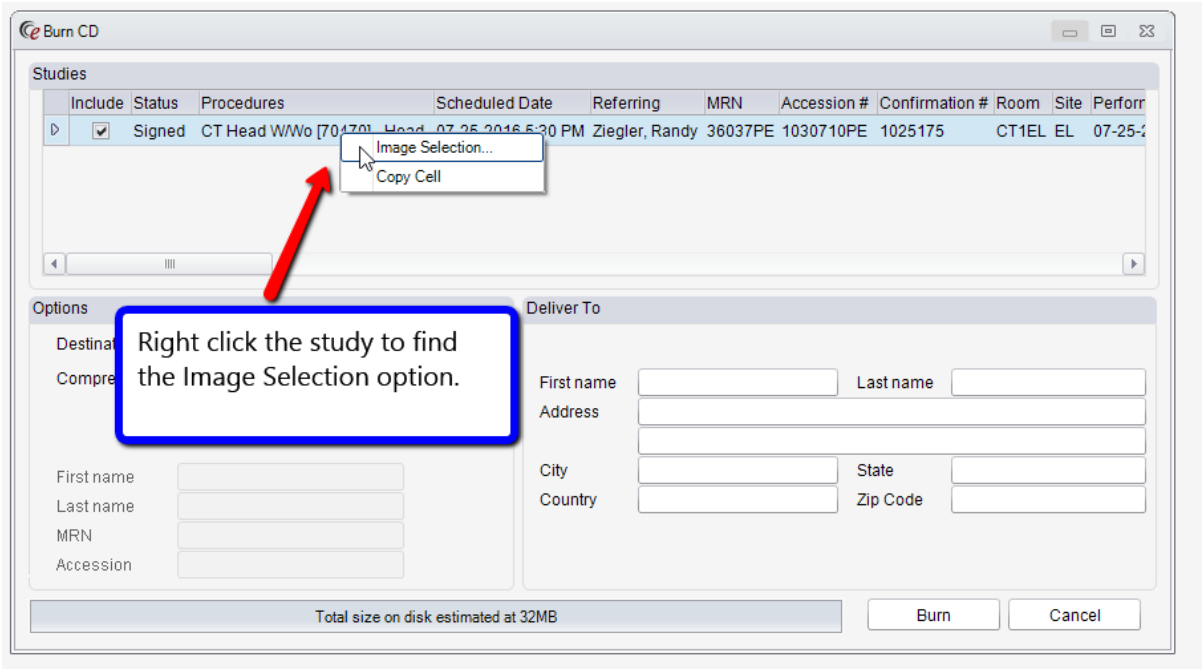
## MEDICAL RECORDS

### FEATURE #7258 – SELECT INDIVIDUAL IMAGES/SERIES WHEN BURNING CDS

The following feature is applicable for customers using eRAD RIS with eRAD PACS.

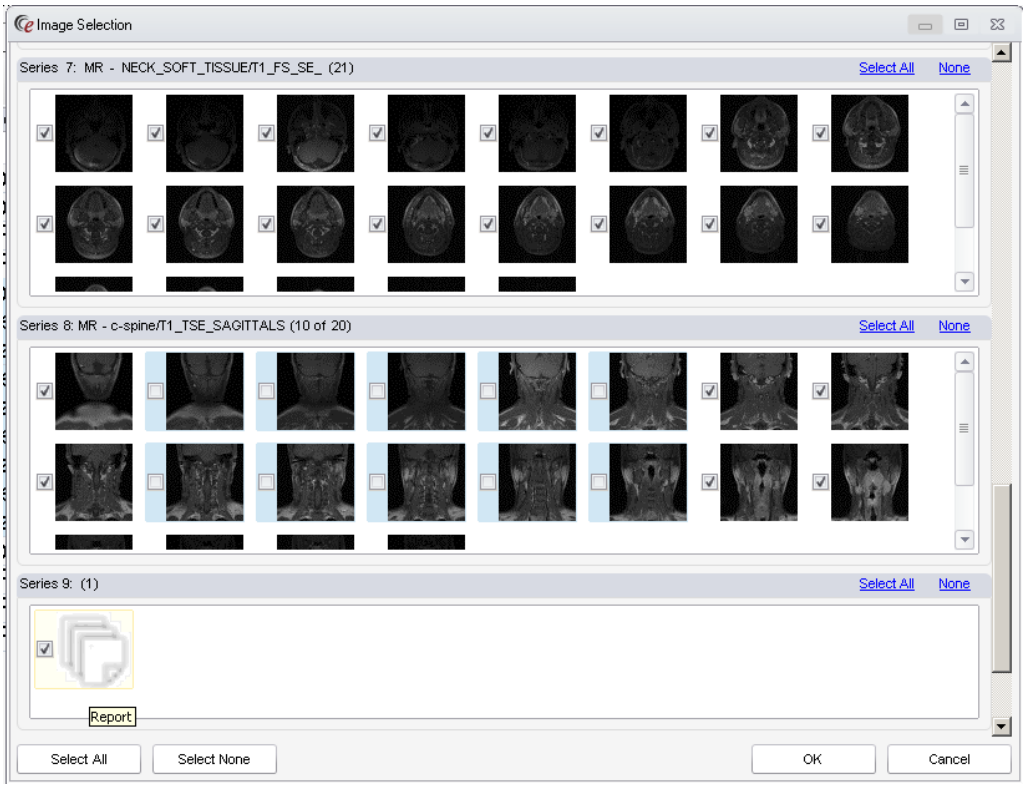
When burning CDs, it is sometimes preferable to select only certain series or images to include. This allows the user to customize the contents of the CD to meet the referring provider's preferences, or to follow an established organizational protocol. It is now possible to specify individual images/series when burning CDs from eRAD RIS.

After opening the Burn CD window, the user will right-click the exam(s) to be included and choose "Image Selection."




The Image Selection screen will open, displaying PACS images in thumbnails that are grouped by series.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.



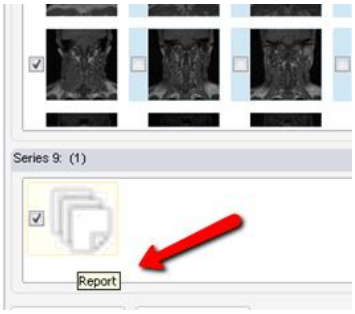

Each series group has a title, which is taken from the PACS study description field. In parentheses after the series name, there is an indication of how many images in that series are selected for burning. In the example above, Series 8 has 10 of 20 images selected. By default, all images in every series will be selected. Selected images have a check in the box to the left of each image thumbnail.

The blue link labeled “None” at the top of each series allows the user to easily uncheck all of the images in that series, in order to re-select the individual images or to remove the series from the CD altogether. Click the blue Select All link to re-select all of the images in the series. The user can also use the mouse to click and drag to select multiple images. Once multiple image thumbnails are selected, highlighted in light blue, click the checkbox to select or deselect the highlighted images.

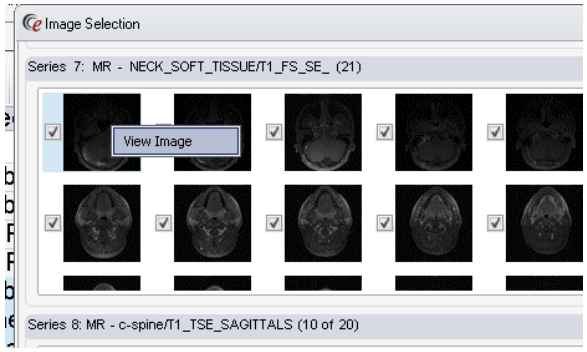
To quickly uncheck, or re-check, all of the images for the entire exam (all series), the user can click the Select All or Select None buttons at the bottom of the Image Selection window.

While most thumbnails in the Image Selection window are for PACS images, some thumbnails may represent other PACS items, such as diagnostic reports. Hovering over a thumbnail will display a tooltip that indicates the thumbnail’s type (e.g. Image, Report or RAWDATA).

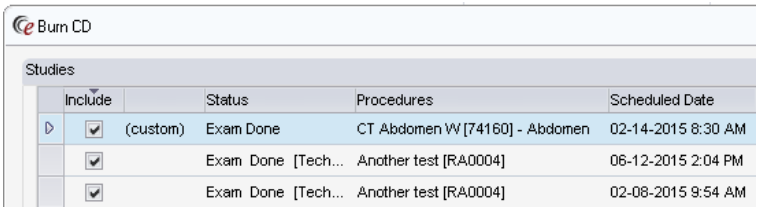
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.




Sometimes, it may be necessary to look more closely at an image to determine whether it should be included on the CD. To see a larger view of the image thumbnail, right-click on the thumbnail and choose "View Image." This will download and display a larger version of the thumbnail.

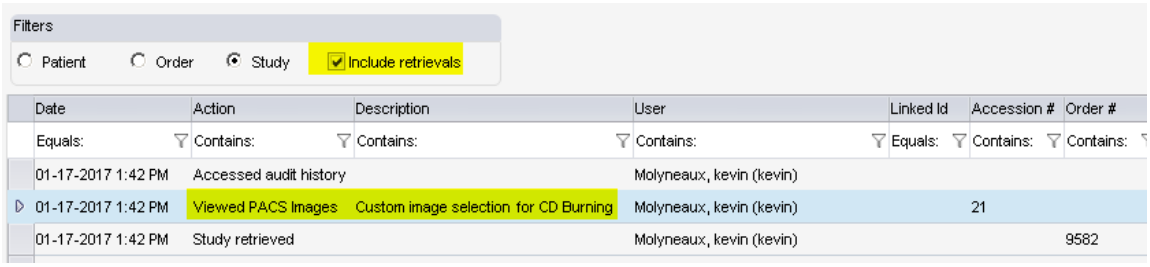



If the user clicks "Cancel" on the Image Selection screen, the image selection will be re-set to what it was before the screen was opened. If the user chooses "OK" after modifying which images to include on the CD, then the Burn CD screen will show a new column with the text "(custom)" to indicate that a custom selection of images will be burned to the CD.




The Image Selection process is recorded in the Audit History.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.




No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

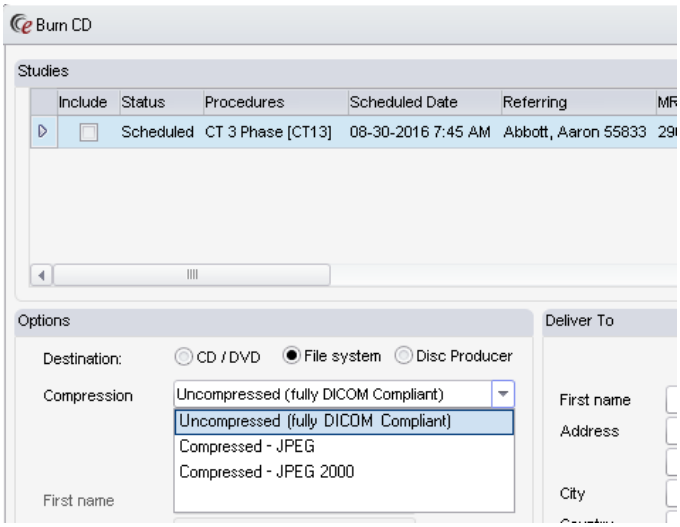
## FEATURE #9368, 12240 – OPTIONS FOR UNCOMPRESSED CD BURNING

This feature is applicable for customers using eRAD RIS with eRAD PACS.

Some physicians or other healthcare institutions require or prefer uncompressed images when reviewing a patient's imaging studies or importing them into an external system. In order to provide this option, eRAD RIS now supports three different compression options, including Uncompressed.

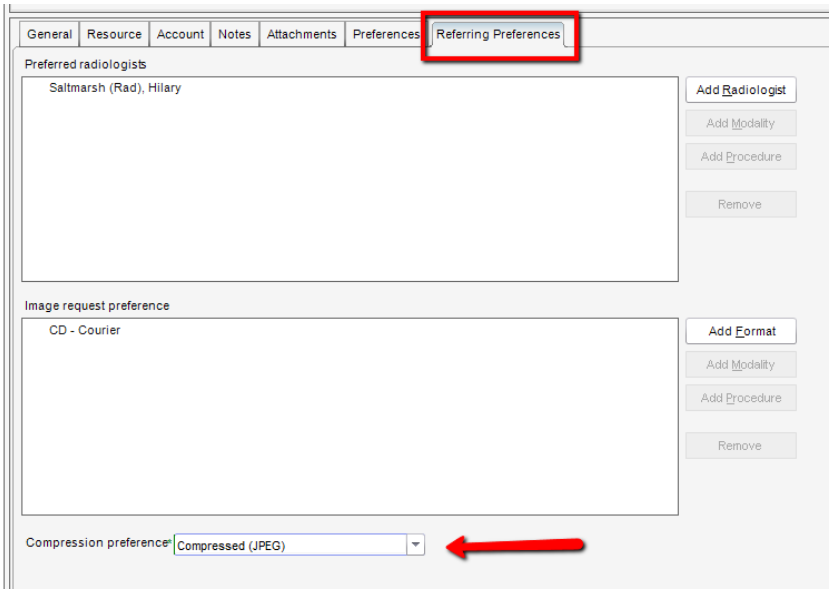
The compression field was added to the Burn CD dialog, as shown in the following image. Users have the option to select between Uncompressed, JPEG and JPEG 2000. In the Personnel editor, a referring physician's preferred Compression format can now be configured. By default, the Compression preference will be set to Compressed – JPEG, which is the compression format that was previously the only option when burning CDs from eRAD. If a referring physician indicates an alternative compression preference, this can be updated accordingly.

When burning a study from a worklist such as Patient Folder or from the Perform Exam screen, the default format for the CD will be based on the referring's preference. The user has the option to change the compression format manually on the Burn CD screen.

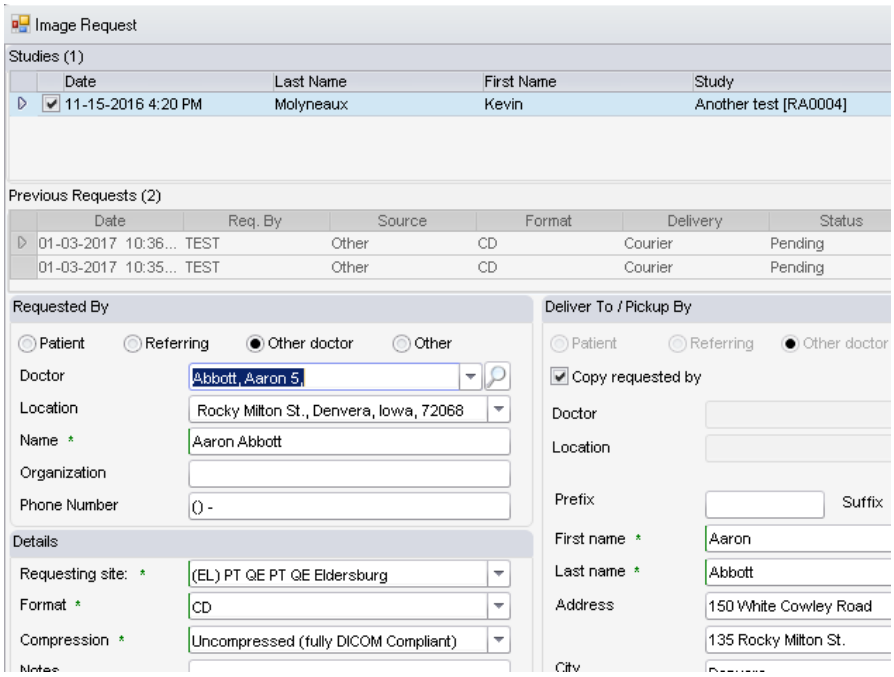



As stated above, at the time of the upgrade, all referring physicians will have "Compressed – JPEG" as their default compression preference. This can be updated in the Personnel table on the Referring Preferences tab.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.




The compression format was also added to the Image Request screen. Again, the compression will default based on the selected study's referring physician's preference. The compression will update if a different referring physician is selected as the recipient and that doctor's compression preference is different.



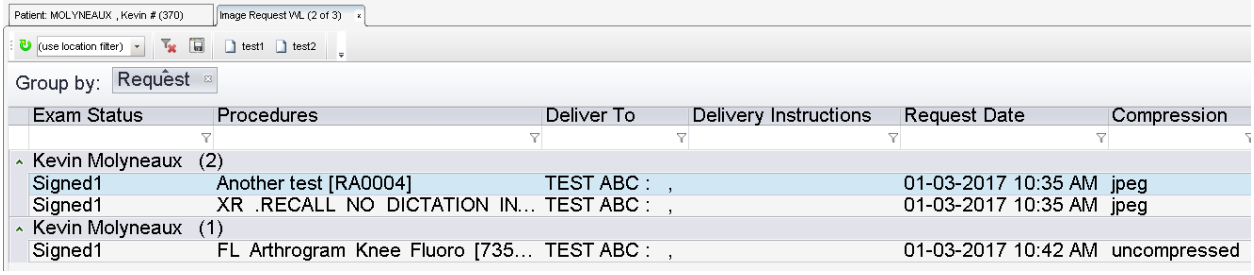

When right-clicking on the Image Request WL and choosing "Burn CD," the default compression will be based on what had been specified in the image request.

If a user selects multiple Image Requests or Studies, the active row at the time of the right click will be used to determine the default compression.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

A CD can only have one compression setting; therefore, the Image request worklist was modified to include compression level in its grouping logic.

For example, in the following image, there are multiple image requests, all going to the doctor “Test ABC.” Two have been requested as Compressed JPEG and the other is Uncompressed.



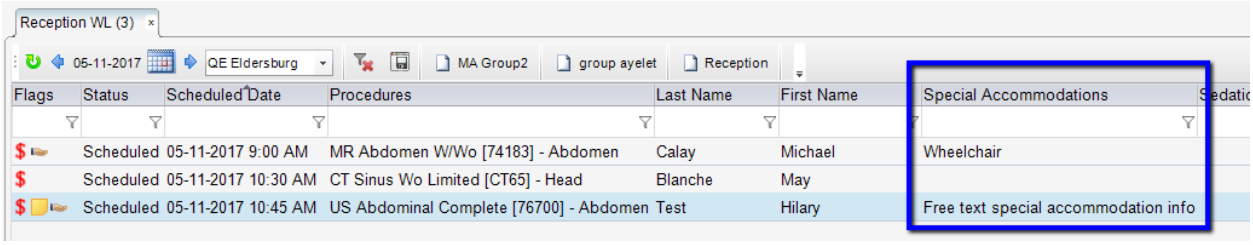

The grouping is there to prevent users from inadvertently trying to burn all three studies on the same CD. Instead, they need to burn two CDs: one for the JPEG compression and another for the uncompressed.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

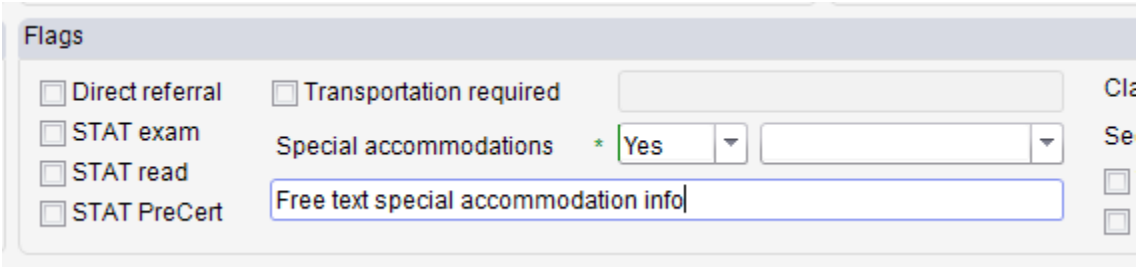
## GENERAL WORKLIST ENHANCEMENTS

### FEATURE #15710 – SPECIAL ACCOMMODATIONS COLUMN AVAILABLE ON WORKLISTS

Some users may find it beneficial to see any Special Accommodations when reviewing patients on a worklist. A new column labeled *Special Accommodations* is now available for the Receptionist, Technologist and Orders to Schedule worklists. This will allow a user to create a custom view to display particular accommodations. For example, a user responsible for making arrangements for translation services may want to have a custom view on the Reception WL to find all of the appointments requiring translation for a given day.




In the blue highlighted row in the above image, there is an example illustrating that it is also possible to display free text special accommodation information from the Special Accommodation Notes field, if the dropdown for the type of Special Accommodation is not selected.




For this to be possible, it would be necessary to disable any validation rules that require the dropdown to be filled in when Special Accommodations is set to Yes. If the type of special accommodation is selected in the dropdown, only this information will be displayed in the column.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

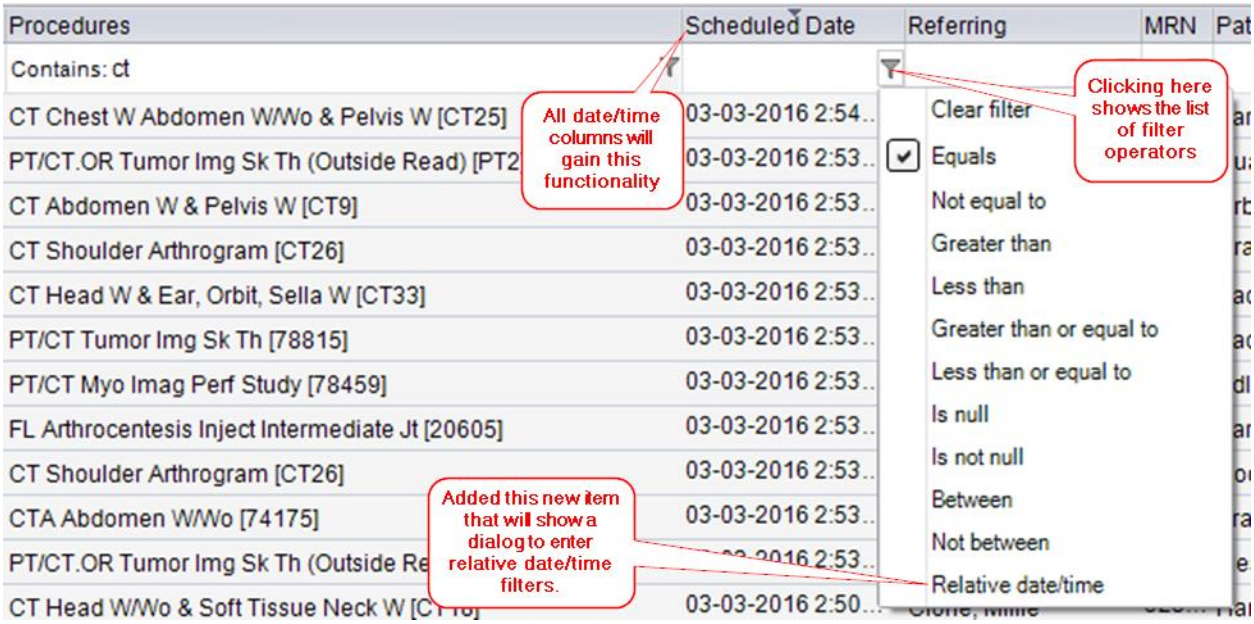
## FEATURE #16111– RELATIVE DATE AND TIME FILTERING FOR WORKLIST COLUMNS

Often eRAD RIS users wish to create a worklist filter that will display items on the worklist for a certain date/time range. For example, a radiologist may want to have an "Overdue" Custom View saved for the Pending Dictation worklist that shows exams that have been waiting for a report for more than 5 days. A lead technologist may want to have a Custom View saved on the Reception worklist that shows only exams scheduled between tomorrow and 2 days in the future, so that upcoming appointments can be reviewed for accuracy. A manager may want to see a list of STAT exams on the IVT worklist that have been pending for more than 3 hours.

In any of these scenarios, eRAD RIS previously had limited options. A user could re-set a new date/time range whenever they wanted to view the information ***or*** they could rely on columns such as "Elapsed Time Suspended" that would display the number of minutes suspended. The user would then need to figure out the number of minutes in their desired time range (e.g. 2.5 days equals 3,600 minutes) and create a filter.

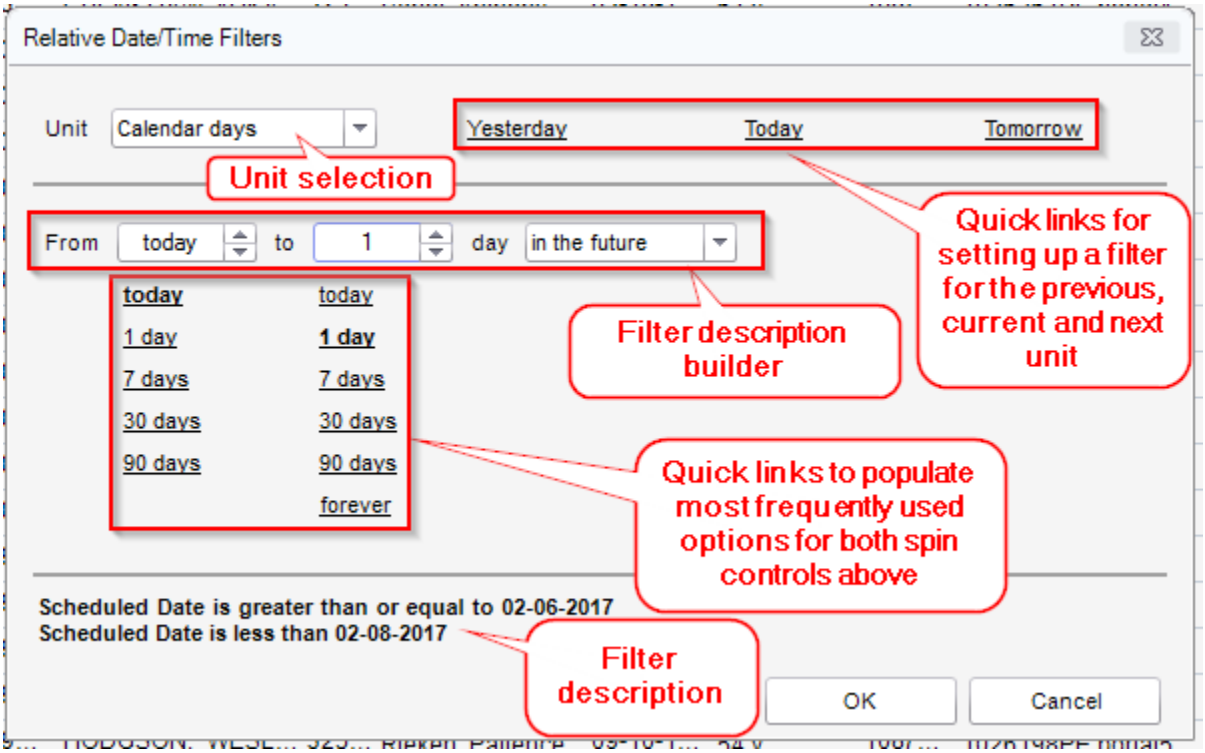
Now eRAD RIS has a **new option** that will allow a user to filter worklists based on a ***relative*** date/time. This will allow the user to easily create Custom Views with filters like "last 3 hours" that will continually update to show the last 3 hours from the current time.

To accomplish this, worklists have been enhanced with a new filter type that will allow the creation of these relative date/time filters for relevant worklist columns. This can be accessed via the filter type dropdown, using the "Relative date/time" option.




Clicking the new option opens the following screen where the user can create the new filters:

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.




The user starts by choosing what unit to utilize for their filter. There are two types of choices:

- Options that relate to ***right now***, as in this very minute:
  - Minutes
  - Hours
  - Days
  - Weeks
  - Months

  Example: "From now to 1 week in the past" will return all the values between right now, and 7 days ago up to the minute. If it is currently 12:51 pm, the worklist would ***not*** display an item from 7 days ago at 12:50 pm.
- Options that return only **whole units**:
  - Calendar days
  - Calendar weeks
  - Calendar months

  Example: "From this week to 1 week in the past" will return all of this week and all of the previous week.

After selecting the preferred option, the user then populates the different controls to reflect the date/time ranges they want to have returned. A plain language description of what the filter will display will be shown at the bottom of the window to help the user understand what the result will be. Once satisfied with the filter, the user can click "OK" to set the filter or at any point click "Cancel" to leave the screen without changing the column's current filter.

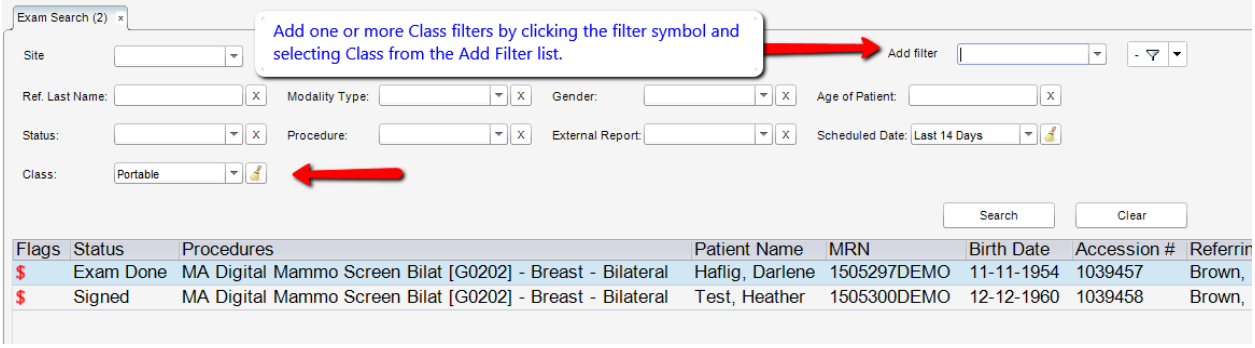
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

As with other Worklist filters, a Custom View must be saved in order to access the saved filter in the future. When this has been done, the filters are recalculated when the Custom View is loaded and whenever the worklist refreshes, so that they always reflect a **relative** date/time period.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #16059 – PATIENT CLASS IS AVAILABLE AS A SEARCH FILTER FOR EXAM SEARCH

Patient Class has been added to the list of possible filters for the Exam Search screen. To add one or more Class filters to an Exam Search, click the filter symbol in the top right corner and find Class in the "Add filter" dropdown. Once added, the Class dropdown will contain the options from the Patient Class look-up table.




Results matching the search criteria will be displayed in the list below after searching.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #16082 – STUDY EXTRA INFO FEATURE EXTENDED TO INCLUDE ORDER EXTRA INFO

eRAD RIS has had the ability to store extra information received from an external ordering system at the study level, using a feature called *StudyExtraInfo*. In this build, this functionality has been extended to store information at the ***order*** level.

Sometimes there is a need to store additional information that may be customer specific, particularly information received from one system that also needs to be passed to corresponding systems at certain points in the workflow.

A new lookup table labeled *OrderExtraInfo* was created to specify the Code with which the RIS will be receiving information to be stored. Access to the table is controlled by a new access string titled *Config.LookupEditor.OrderExtraInfo* with a default of None. The table consists of the Order Extra Info Code, Display Name, Description, Display Order, Last Updated and Active columns.

| Order Extra Info Code | Display Name | Description | Display Order | Last Updated | Active |
|---|---|---|---|---|---|
| Contains: | Contains: | Contains: | Equals: | Contains: | Contains: |
| Click here to add a new row | | | | | |
| Test external system | Test external system | Test external system | 1 | 02-22-2017 11:22 AM | Y |
| [redacted]-BACKUP | [redacted]BACKUP | Backup Order Extra Info Code | 1 | 02-15-2017 1:38 PM | Y |
| [redacted]-OEIC1 | [redacted]-OEIC1 | [redacted]Order Extra Info Code 1 | 1 | 02-15-2017 1:38 PM | Y |

Messages sent will specify the Order Extra Info Code and have a value field. These messages will be stored in another new Database table *c_order_extra_info* that is not accessible from the GUI.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #16591 – STRIP LAST CHARACTER FROM VARIABLES PASSED TO EXTERNAL PORTALS

The existing portal feature in eRAD RIS allows the customer to pass patient data to external portals, such as a Health Information Exchange (HIE), in order to pull up records in the external portal. There was an international requirement to strip the last character from the MRN before passing it to the portal.

A new plugin has been added which allows the user to strip the last character from any variable.

When creating/updating an entry in BrowserConfig, the URL can support using "filters" in the URL string. For example, to get the patient id into the URL of the portal page to be opened, the variable would be specified as {patient.c_patient.patient_id}. To strip the last character from the patient id, this would need to be changed to: {patient.c_patient.patient_id**|StripLastChar**}. The additional text in blue tells the RIS to send the patient_id value through the StripLastChar filter before adding the value to the URL that passes the data to the external portal.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #16527 - ENHANCE DROP XML FILE FUNCTIONALITY

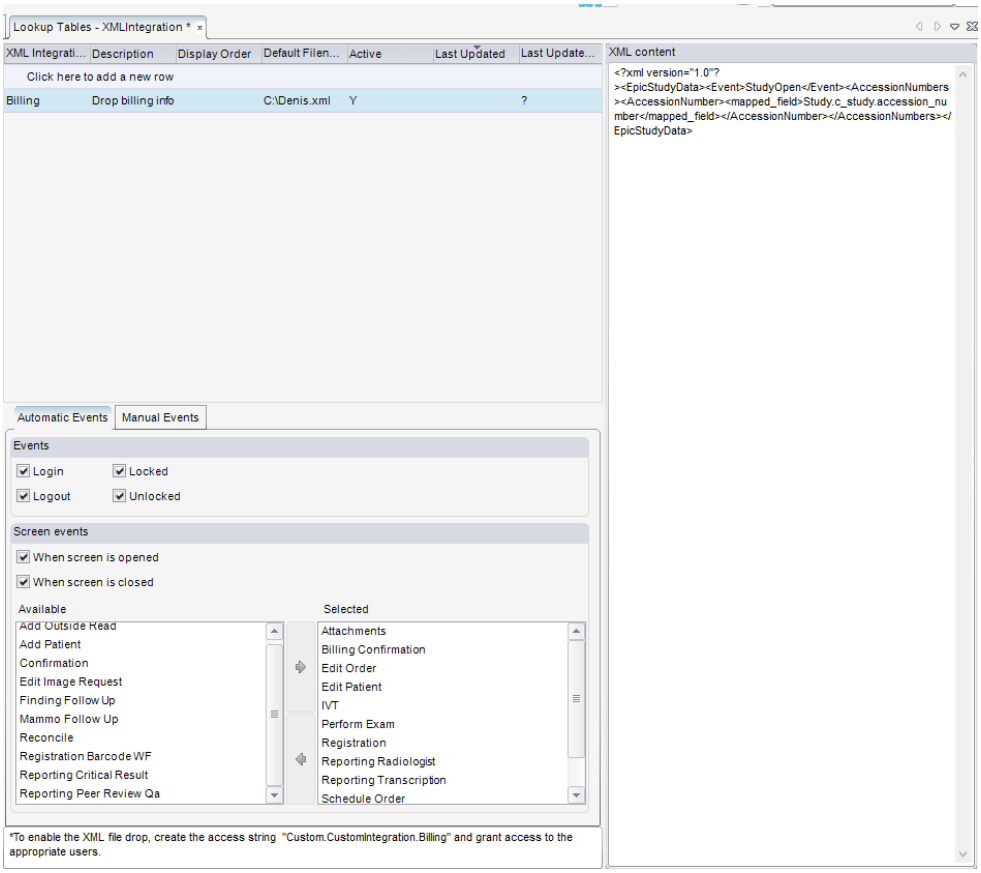
eRAD RIS has markedly enhanced its XML file drop functionality. Custom configuration in the XML Integration editor now allows administrators to:

- Create custom menu items, Patient Folder view buttons, context menu items and worklist action buttons that will allow a permissioned user to manually drop an XML file.
- Configure automatic XML file drops for events, including login, logout, RIS locked, RIS unlocked, screen activated and screen deactivated.

A new panel has been added to the XML integration lookup table editor. It displays two tabbed pages: one for automatic, or event driven, XML drops, the other for manual drop via customizable controls available to the user, such as context menus or buttons. Each page allows the selection of different drop options via checkboxes.

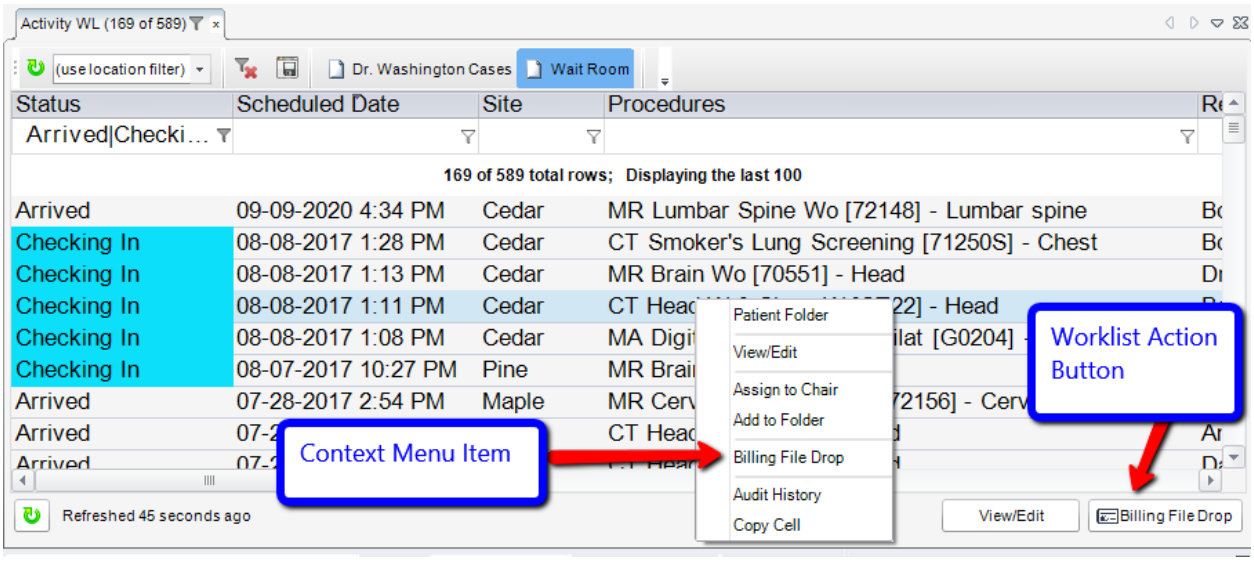
For the options that are screen or worklist dependent, it is possible to choose the specific screens or worklists for the action to occur by moving available options to the Selected section.

For instance, in the screenshot below, RIS will drop an XML file when any of the selected screens are opened and closed. This is in addition to the automatic file drops that will occur upon login and logout, as well as locking or unlocking RIS, as the checkboxes for these events are also checked.

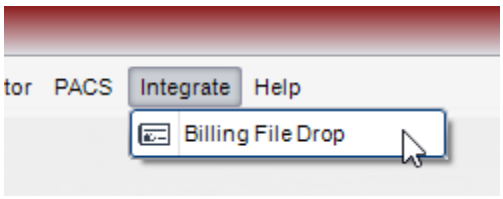


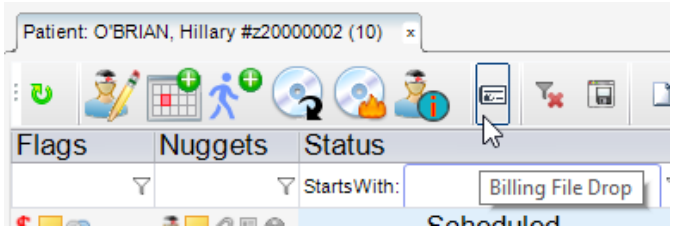

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

On the Manual Events tab, the same Available/Selected section will control whether a particular worklist has a context menu item and/or an action button for the file drop.




In the Item Location section, it is also possible to add:

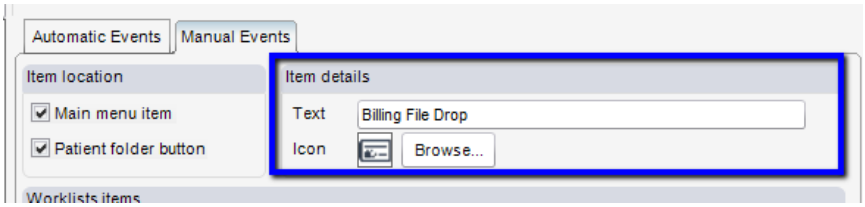
- Main Menu Item – This will add a file drop option to a new menu at the top of the RIS screen to the left of the Help menu.
    - By default, the name of the menu will be *Integrate* and the menu items for all configured XML file drops with the "Main menu item" option checked will be found here. It is possible to re-name this menu via a new System Configuration setting labeled *XmlIntegrationMainMenuText*.
    - 

    - This type of file drop action will not contain patient or study context.
- Patient Folder Button – This will add a file drop option as an action button at the top of the Patient Folder screen to the right of the Patient Alerts button.
    - 

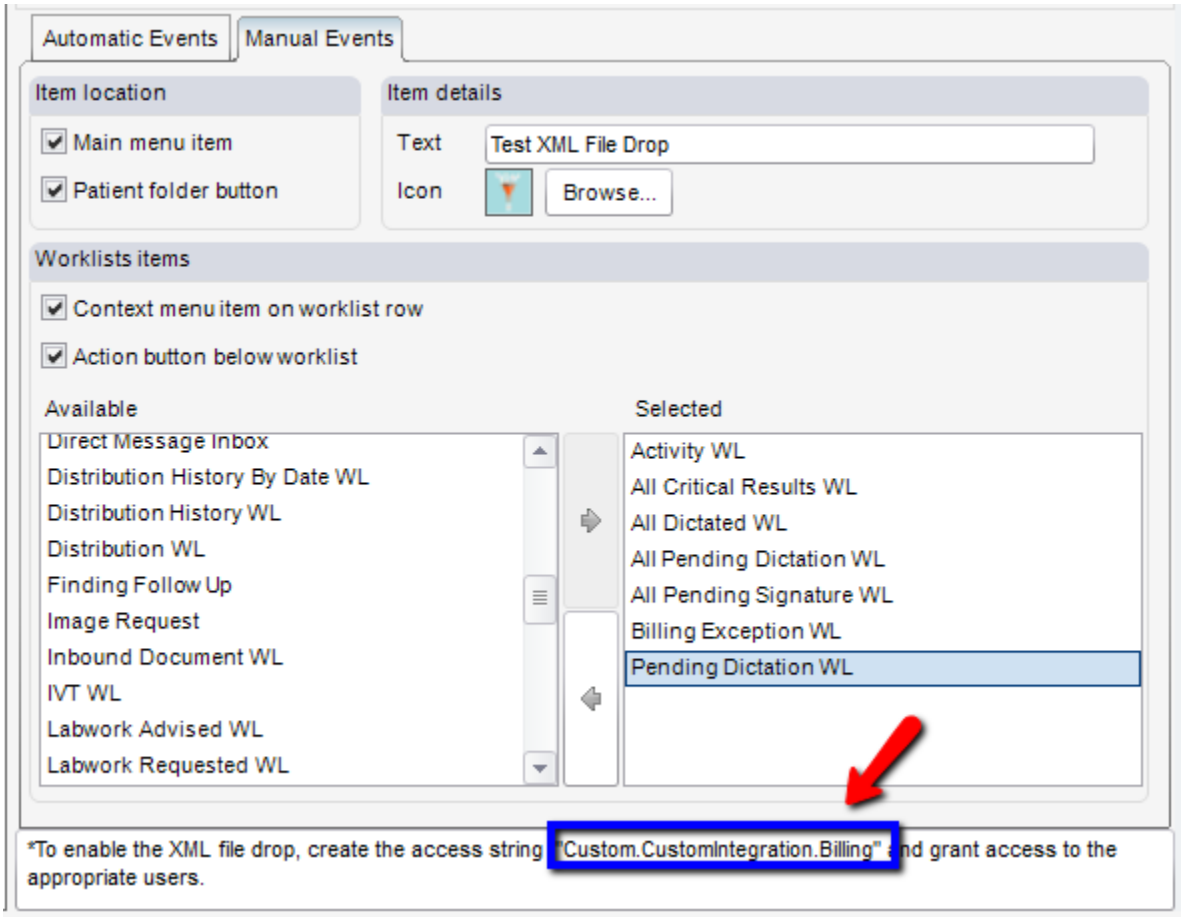
    - This type of file drop will contain patient context only.

In the Item Details section, the associated icon can be uploaded and the name of the XML file drop can be defined. Free icons are available for download on the internet or users can create their own icons. Clicking the Browse button will allow the administrator to select the image from their computer's file system.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.




Access strings must be used to enable access to each XML integration file drop. The access string uses the Custom Access String framework. To assist the user in creating the correct access string, the XML Integration lookup editor will provide the name for the access string, as illustrated in the image below. If an access string is not created and assigned to the appropriate User Groups, then the XML file will not be available to any users.




While the rest of the XML Integration editor remains mostly unchanged, there is one other piece of new functionality: the ability to add non-study container driven fields to the XML content. The two possibilities are:

- %Event% - displays the **name** of the XML integration option that dropped the flag.
  - None
  - MenuItem
  - PatientFolderButton
  - WlContentMenu
  - WlActionButton

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

  - OnLogin
  - OnLogout
  - OnLockScreen
  - OnUnlockScreen
  - OnScreenActivated
  - OnScreenDeactivated
- %CURRENT_USER_ID% - displays the user id of the currently logged in user.

Customers who are interested in taking advantage of this new functionality are welcome to contact eRAD Support for assistance.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #16137 – CARESTREAM PACS INTEGRATION – OPEN PRIOR STUDIES WHEN PRIMARY STUDY IS NOT AVAILABLE

This feature is applicable for customers using our integration with Carestream PACS.

Before an exam is performed, it is sometimes necessary for the radiologist to view the prior images for the patient. Previously, when a radiologist opened the reporting screen, the ***view session*** would not be initiated if the current study was unavailable. Without this, the prior studies could not be launched from the reporting screen.

To allow for this functionality, a new setting is now available in the CSHConfig.xml file: *empty_view_session_on_fail*.

Changing this setting to True will adjust the CSH integration behavior to make the *ShowStudy* call to PACS act as if the primary study opened correctly, even if it has failed because current images do not yet exist. Please note that with this setting turned on, the radiologist will not be prompted that the primary study failed to open and the mini-Patient Folder will indicate that the PACS status for the primary study is Open. At this point, the radiologist can double click on the desired prior study. RIS will ask the PACS what studies have loaded and upon finding that nothing is loaded, the normal Append call will be replaced with a ShowStudy call. At this point, images for the prior will open, and both current and prior studies will be listed as Open.

To support this behavior, the *supports_append* setting in the CSHConfig.xml file needs to be set to True.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #14351, 15615 – NEW RIS SETTINGS TO REDUCE BANDWITH FOR UPDATES

Two new System Configuration settings have been created in an effort to reduce the amount of bandwidth consumed by saving/uploading updates to the server. Both features will be automatically enabled at the time of the upgrade to version 2.2017.3, but will present no detectable changes to the RIS user.

Both of these configuration options will decrease the network bandwidth utilization, which will deliver some performance benefits for networks which have slow upload speeds.

**Uploading patient/order updates:**

When saving edits to screens such as ViewEdit or Registration, the data is sent to the server in an XML format, which is fairly bulky and uses more bandwidth than necessary. For example, saving a change to a patient's middle name costs approximately 60KB when sent via XML. A new system configuration setting will enable a *binary serializer* to send the update data in binary format, which reduces the size of the data to be uploaded. When sending in binary format, the same update that cost 60KB when sent via XML is reduced to approximately 8KB.

To enable this feature, the new System Configuration setting, *EnableExtraCompressionOnStudyUpdates*, must be set to True. The default for this setting is True, so it will be enabled at the time of the upgrade, unless the setting is changed to False.

**Uploading Attachments:**

Another new System Configuration setting is available to reduce the size of **attachments** for upload. Attachments are typically saved as a JPEG file. However, in many cases, a smaller file size could be achieved by applying LZW compression and saving the attachment as a TIFF file. The image quality on the resulting TIFF file is typically equal or superior to the JPEG image.

When *AllowLZWImageCompression* is set to True, RIS will compress attachments twice: once as a JPEG and once, using LZW Compression, as a TIFF file. The version with a smaller file size will be used for the attachment, unless the compressed TIFF image is significantly different from the original. If 80% of the pixels are different between the JPEG and the TIFF, RIS will choose the JPEG compression for that attachment.

The default for this System Configuration setting is True, which means that this compression process will be enabled at the time of upgrade, unless the setting is changed to False.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

Note: There are some Patient Portal features that are related to the new CONNECT Provider Portal which will be announced in the near future. These features are not described here and will be described in detail at the time that the CONNECT Provider Portal is released.

## FEATURE #14260 – PUSH OUT THE FIRST AVAILABLE APPOINTMENT BASED ON CONDITIONS

When patients schedule appointments online in the Patient Portal, it is sometimes helpful to add padding to ensure that the first appointment offered to the patient will be a certain number of hours into the future. This allows the imaging center staff time to review appointments that are scheduled online, in case any changes need to be made or additional actions taken. Without padding, the patient could theoretically schedule the appointment within minutes or hours of the scheduling event, which would not allow staff adequate time to prepare.

Additional padding to the first available appointment may be indicated due to:

- Selection of a certain type of Procedure.
- Indicating a Special Accommodation.
- Giving a certain answer to an exam question.
- Selection of a particular Insurance Carrier.
- Choosing an Unknown Insurance.
- Not having a referral/prescription.
- Not having an Insurance Authorization number.
- Scheduling on weekends or evening hours.

Time slot padding is responsive to weekends and holidays defined by the portal Imaging Group. For example, if padding of 48 hours is indicated for a patient scheduling on Friday, Monday will not be available because 48 business hours would not have elapsed.

Three new System Configuration settings have been created for this feature. Two are replacements for older settings that previously handled Padding using days. These are now replaced with settings that will handle Padding using hours instead.

1. *PortalNoSelectedInsuranceHourPadding*
    a. Replaces *PortalNoSelectedInsuranceDayPadding*
    b. Will use hours instead of days.
    c. Adds hours to the start search criteria to allow time to gather insurance from the patient when no insurance information is available.
2. *PPSchedulingNoPrescriptionHourPadding*
    a. Replaces *PPSchedulingNoPrescription*.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

b. Will use hours instead of days.
c. Adds hours to the start search criteria if the patient indicates that they do not have a prescription (referral).

3. *PortalAllowEveningWeekendScheduling*
   a. Brand new setting.
   b. If set to N, the Portal will always prevent scheduling on the weekend or outside business hours.
   c. This can be overridden at the Imaging Group level.
   d. RIS will determine weekends and evenings according to the existing system configuration settings *WeekEndDays*, *ScheduleMorningTimeOfDay*, and *ScheduleEveningTimeOfDay*.

The above settings cover scenarios when the patient's insurance information or prescription is not available, as well as evening/weekend scheduling. Padding adjustment for the remaining scenarios is as follows:

**-By Carrier:**
To allow padding to occur based on a particular insurance which may require additional time, the Carrier table has a new column: *Portal_schedule_hour_padding*. Previously, a setting existed for padding by number of days; this will be deprecated in a future build. This can be overridden at an Imaging Group configuration level.

**-By Procedure:**
A new column called *portal_schedule_hour_padding* has been added to the Procedure Code table. This will define the number of hours to pad the available search results for the procedure. If there are certain procedures that require extra preparation or verification, this will ensure that enough time is available for these activities. An additional column, *portal_schedule_allow_evening_weekend_flag*, will prevent the procedure from being scheduled on the weekend or evening via the Portal when set to N. If the availability template does not contain weekend or evening hours, this is not necessary. However, if there are procedures that schedulers are allowed to schedule in the evening or weekend hours, but online users should not have access to these time slots, this setting will be beneficial. This can be overridden at an Imaging Group configuration level.

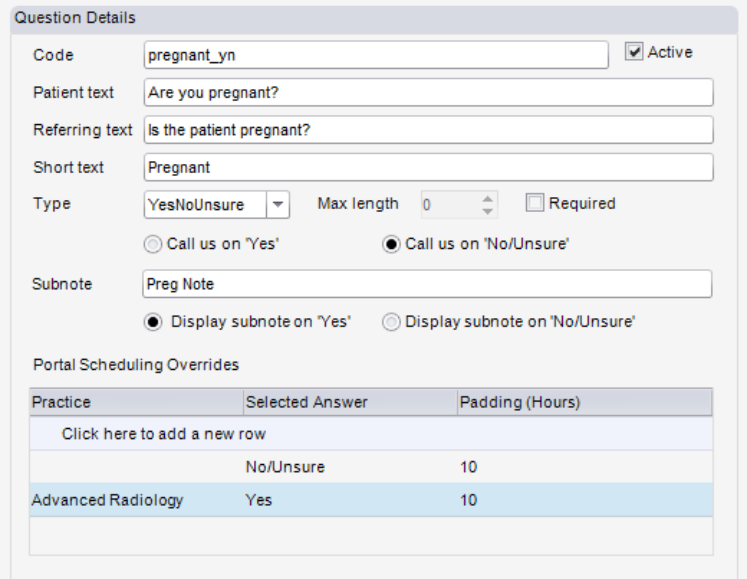
**-By Special Accommodation:**
The new column called *portal_schedule_hour_padding* has been added to the Special Accommodations table. This will define the number of hours to pad the available search results for a particular accommodation. The rule will check all Special Accommodations selected by the patient and the highest value will be used for the applied padding. An additional column, *portal_schedule_allow_evening_weekend_flag*, will prevent appointments with the selected Special Accommodation from being scheduled during evening and weekends when the necessary staff might not be available to accommodate the patient's need. The setting can be configured separately for each Special Accommodation. This can be overridden at an Imaging Group configuration level.

**-By Authorization:**
Two new system configurations have been created for different padding depending on the patient's answer to the question of whether they have an authorization number.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

**-By Exam Question:**

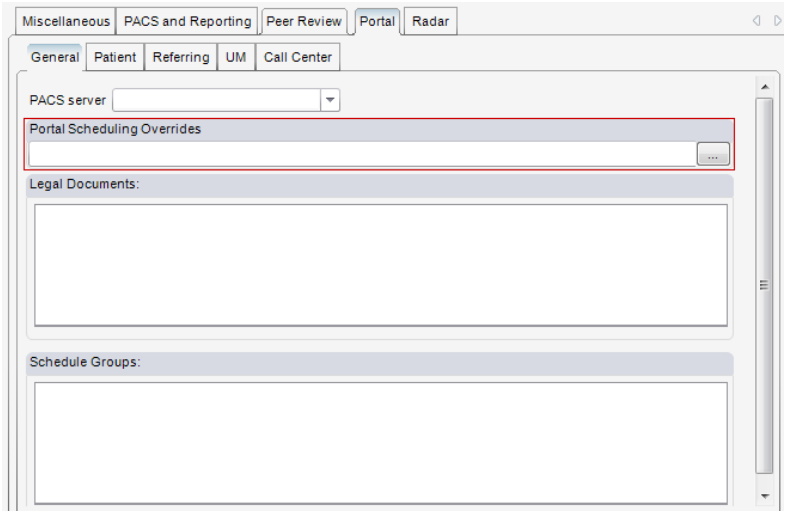
For exam questions that are defined in the Procedure Picker, a new section is now available on the Question Details screen.




The section allows padding to be defined to the yes/no and yes/no/unsure type questions, with a different value depending on the patient's answer.

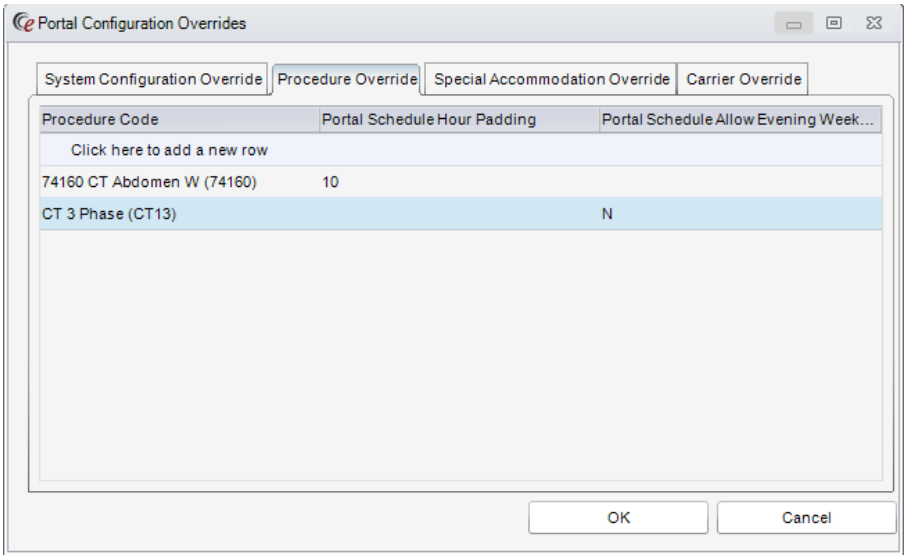
Due to the structure of these questions, the Imaging Group (practice) padding can be defined inside the Procedure Picker exams question screen, as additional entries can be added for any Imaging Groups that require different settings.

For other settings, Imaging Group differences in the amount of hours to pad are handled via override settings in the Organization table. Under the Practice section, on the Portal tab, there is a section called *Portal Scheduling Overrides*.




No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

Clicking the button […] will open a new window with tabs for the various types of overrides. The settings for the Imaging Group that are different from the main settings described above can be overridden here.

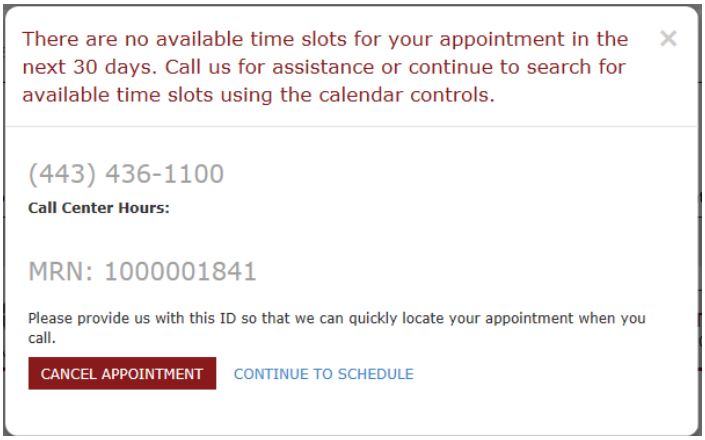



With such a variety of ways to pad the first appointment offered to the patient, RIS needs to determine which padding rule to follow when an appointment contains more than one characteristic that requires padding. To do this, the system will evaluate all applicable rules and apply the padding with the greatest number of hours.

After calculating the first appointment based on the padding hours, RIS will then evaluate whether there is a setting that prevents weekend/evening appointments as well as whether the appointment slot is in one of those time slots. If so, the first available time slot will be pushed to the next business day for the configured morning hours. Holidays are also evaluated and will push out the first available appointment to the next applicable day.

After determining the first time slot that would be appropriate to allow the patient to schedule, RIS will begin to look for an available time slot. If no results are found, RIS will continue searching for a predefined number of days, based on the System Configuration setting *PortalMaxSearchDays*. If no results are available within the allotted number of days, the patient will be presented with a message.

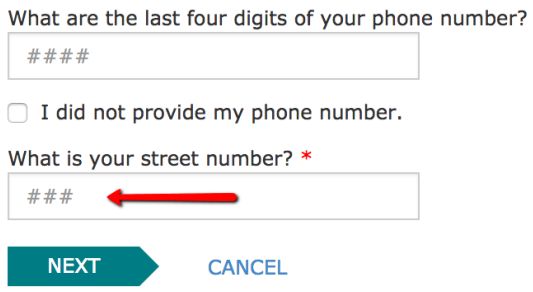
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.




No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #16480 – STREET NUMBER WATERMARK REMOVED FROM STREET NUMBER FIELD IN ACCOUNT CREATION WORKFLOW

When patients see the three watermarks ( ### ) in the street number input field during Account Creation workflow, they often assume the field will only accept three digits even though the field is very wide. This can cause the patient to abandon the workflow and contact the Portal Administration team to ask what they should do if their address is more than three digits.

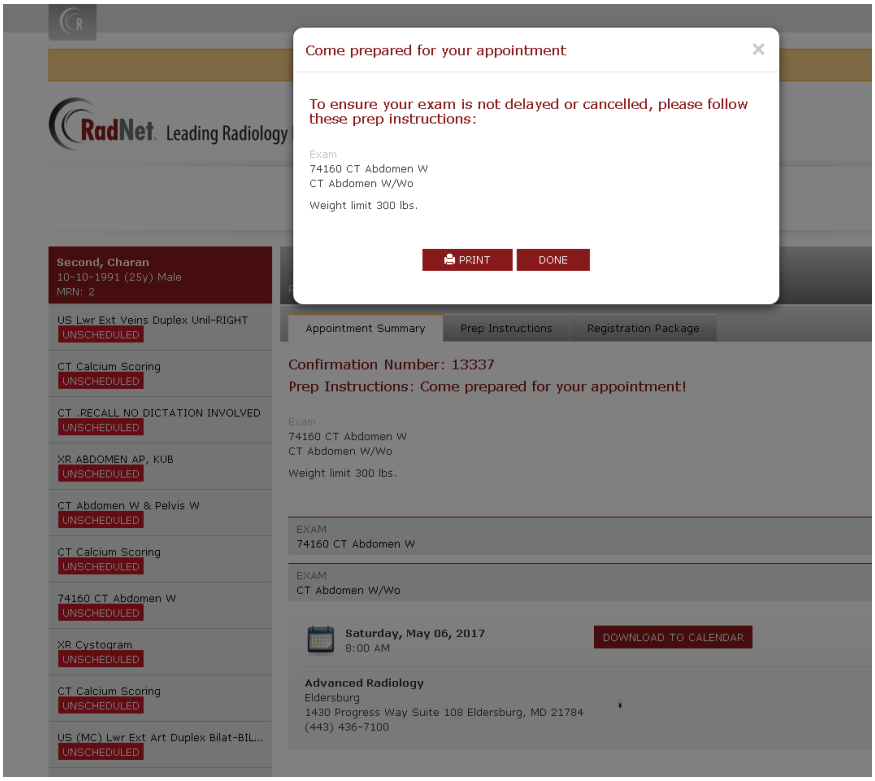



To eliminate confusion, the watermarks in the image above have been removed from the street number input field.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #13708 – PREPARATION INSTRUCTIONS DISPLAY IN A POP-UP WINDOW AFTER SCHEDULING IN THE PATIENT PORTAL

A common problem in radiology is that patients can arrive for their appointment without having followed the preparation instructions. In order to further emphasize the importance of following prep instructions, the portal will now present the preparation instructions in a pop-up window that must be acknowledged by the patient before they can continue.

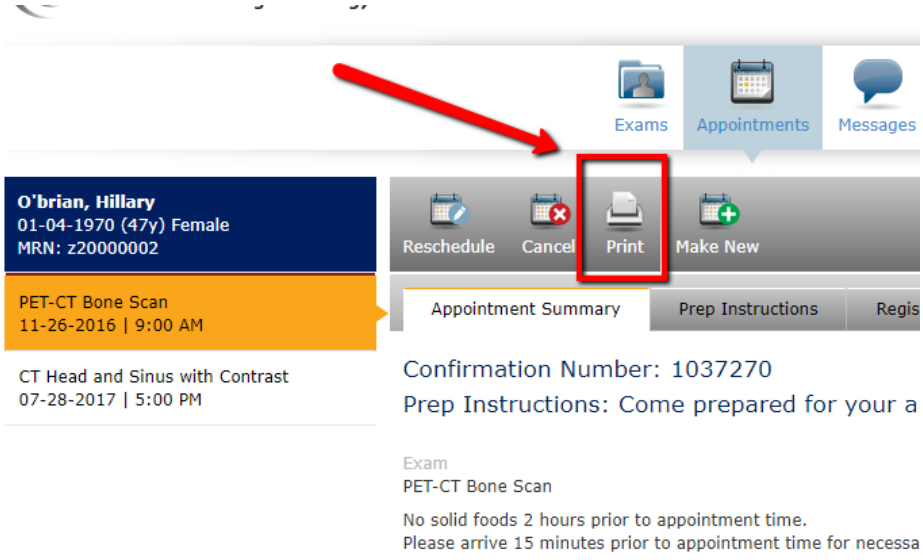



After the patient clicks the Confirm Appointment button, the dialog box will appear with the instructions in order for the patient to be fully aware of those instructions before their appointment. There is also a **PRINT** button on the window, so that the patient could choose to print the instructions for an additional reminder. Clicking the print button will dismiss the dialog box and initiate the browser's print function.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #14535 – PRINT A SUMMARY OF APPOINTMENT INCLUDING PREPARATION INSTRUCTIONS

A printer icon has been added to the Appointment Confirmation page. The patient can print a copy of their Appointment Summary, including Preparation Instructions. Previously, only the webpage could be printed.

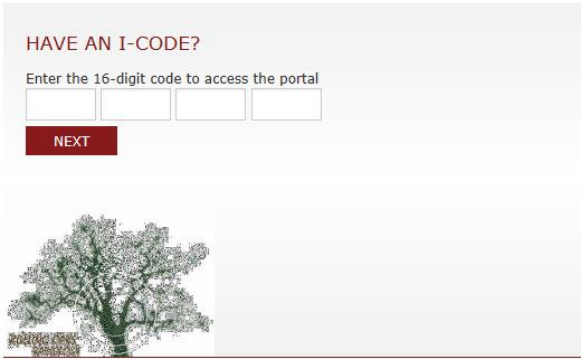



No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #8310 - PATIENT PORTAL LOGIN PAGE PICTURE IS NOW CONFIGURABLE

Customers would like to have the option to insert their own image on the Patient Portal login page, instead of using the default image of a group of patients.

It is now possible to substitute a custom image in this area of the screen. Different images can be used for specific Imaging Group portals, so that the Treesdale Radiology portal can have a different image that the Spectrum Radiology portal.




Please contact the eRAD Support Team to set this up for your Connect Patient Portal.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #15025 – REPORTS PRINTED FROM THE PORTAL WILL CONTAIN A FOOTER INDICATING THE PRINT DETAILS

A footer is now added to all reports when they are printed from the portal. The footer will read:

"This report was printed from the {Practice Name of selected image group} - {Patient/UM/Referring} portal on {Date}{Time}."

For example, "This report was printed from Advanced Radiology – Patient portal on 08-14-2017 5:23 PM."

The Date and Time reflect when the report was generated in the portal. If the patient opened the report at 5:23 PM but did not print it for another 10 minutes, the time would still read 5:23 PM. This will ensure that if an addendum was signed within those 10 minutes, the hard copy printed version will not be stamped with a date/time that occurs after the addendum.

This section will only appear on the printed document at the bottom of each page.

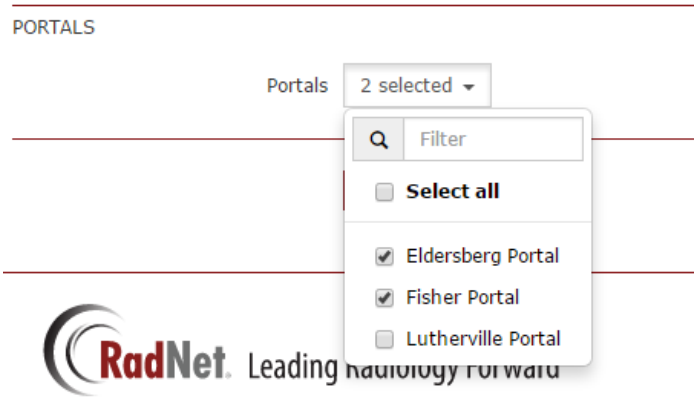
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #12827 – PROVIDE SYSTEM MESSAGES TO INDIVIDUAL IMAGING GROUPS

Previously, Portal System Messages could only be applied for all Imaging Groups at once. This did not allow for the flexibility to provide custom messages that were specific to a particular Imaging Group, which equates to a specific target **portal** with its own branding and target audience.

It is now possible to select the specific Portals/Imaging Groups that should receive the message.

When creating a new System Message in the Admin Portal, it will be applied to all Portals by default. The administrator can click the dropdown to select a subset of Portals.



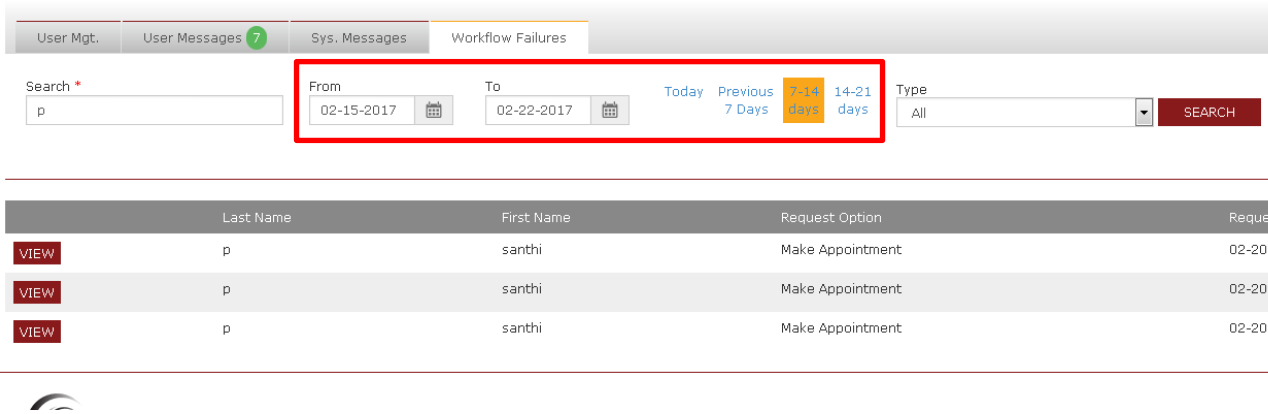

This can be helpful when there are alerts or marketing campaigns that are specific to one instance of the portal.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #13253 – SEARCH WORKFLOW FAILURES BY DATE RANGE IN ADMIN PORTAL

It is now possible to specify a date range on the Workflow Failures tab in the Patient Portal Admin Portal.

Specific dates can be entered or the user can use quick links to select common choices like “Today” or “Previous 7 Days.”




No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #13960 - AUDIT OPENING PATIENT EXAM LIST IN THE ADMIN PORTAL

The Patient Portal Admin Portal will now record an audit event for the opening and viewing of a patient record (Exam list), even if no other actions are taken.

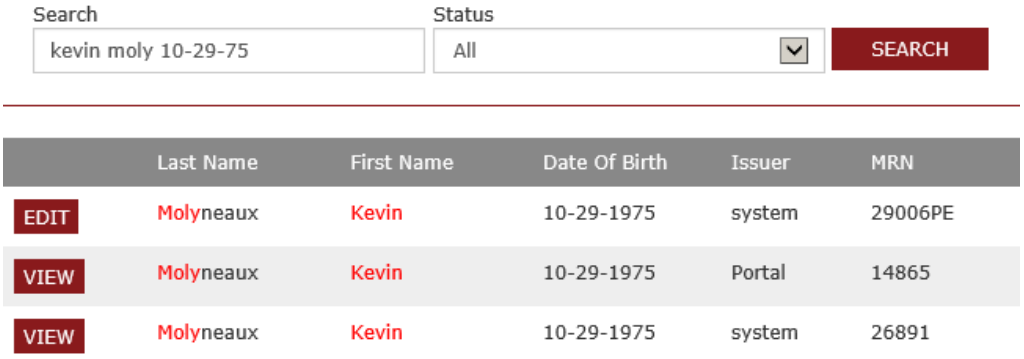
When the user visits the Exam list in the CONNECT Patient Portal, an audit entry will be made in the database (c_audit). This audit action can be pulled into management reports and database queries.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #16590 - DOB IS A VALID SEARCH IN THE ADMIN PORTAL

On the User Management tab in the Patient Portal Admin Portal, it is now possible to use Date of Birth as part of the search criteria. It is possible to search by DOB, first name, last name, telephone, or MRN. Using Date of Birth is an easy way to narrow down a Name search.

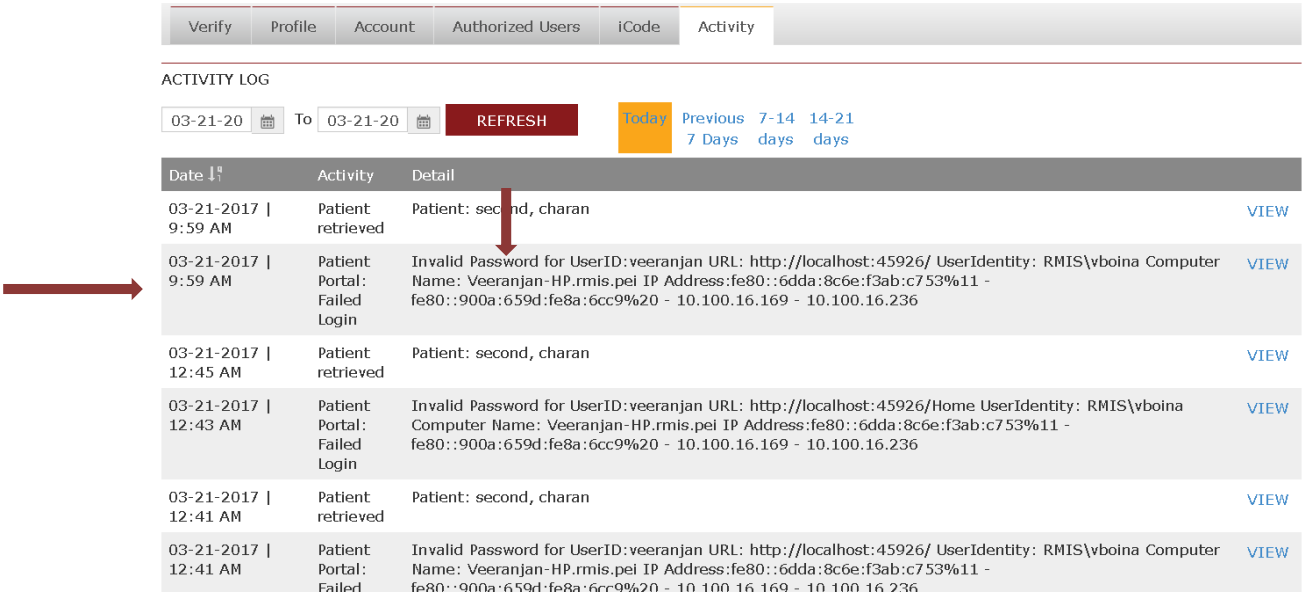
The DOB search will accept a variety of date formats, similar to searching by date of birth in the RIS.




No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #15702 - PASSWORD FAILURE INFORMATION NOW LISTED IN ADMIN PORTAL ACTIVITY TAB

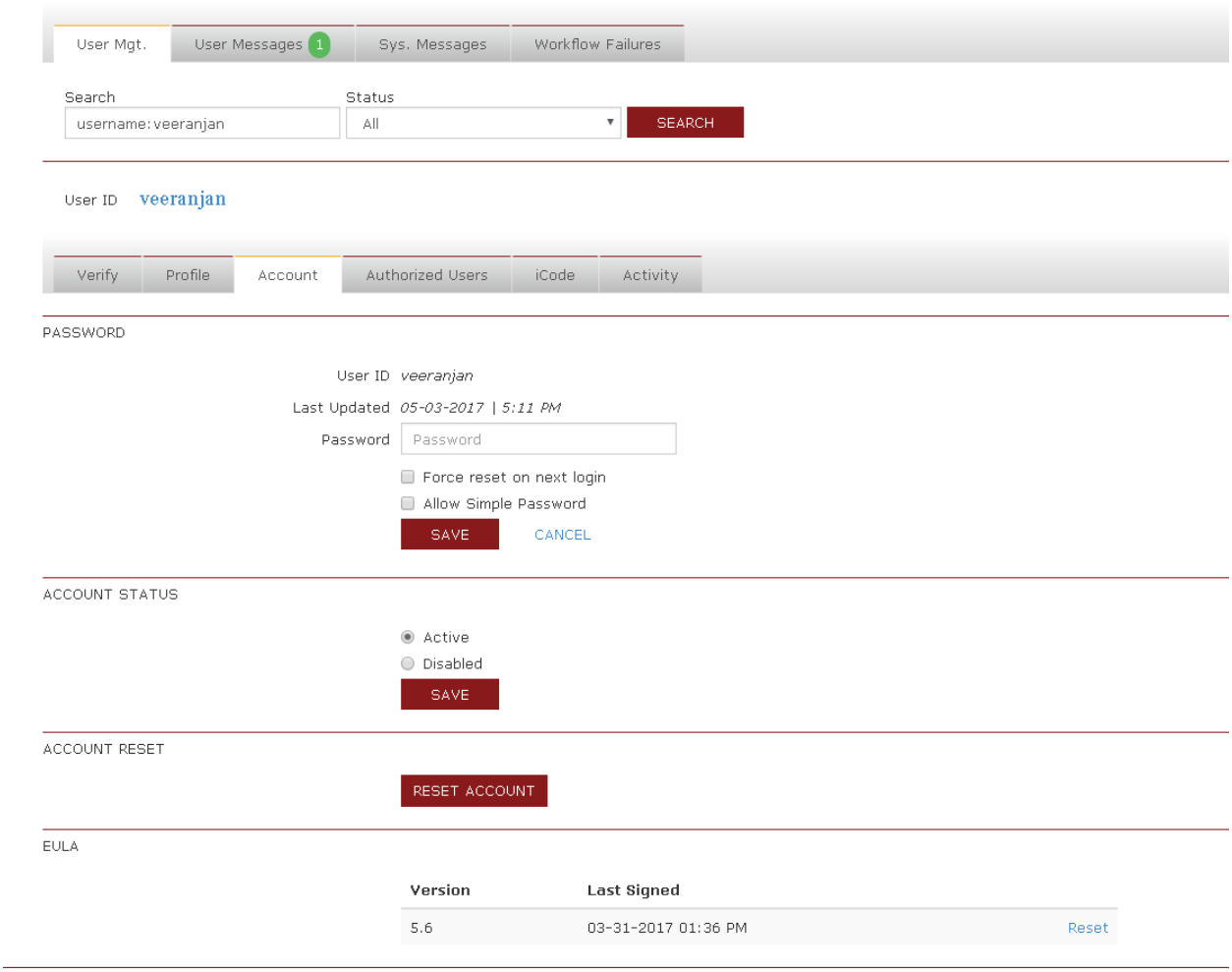
When supporting patients who are experiencing difficulty logging into the Patient Portal, it is helpful to know that they have entered an invalid password. The Admin Portal will now display this information in the patient's Activity Log.




No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #16066 - SECURITY TAB AND ACCOUNT TAB NOW COMBINED IN ADMIN PORTAL

To reduce the need to flip between multiple tabs when supporting the Patient Portal, the Admin Portal has eliminated the Security tab and added the information from this tab to the existing Account tab.

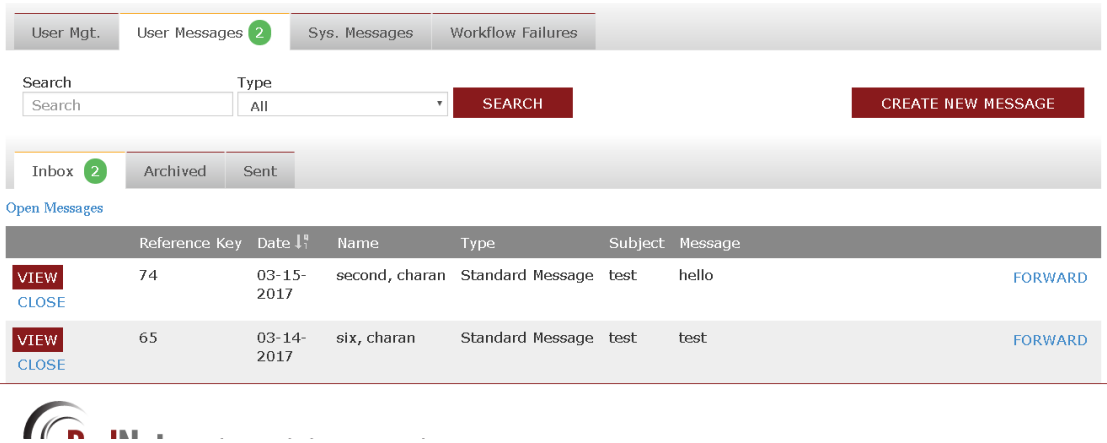



No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #16358 – REFERENCE KEY IS NOW ADDED TO PORTAL NOTIFICATION EMAILS

When a Portal administrator views secure messages that have been sent from the Patient Portal via notification emails, it is difficult to match up the email with the patient information, as identifying information is not included in the email for privacy reasons. For this reason, a Reference Key has been added in the subject line and body of the secure emails.

The portal administrator can log into the Admin Portal and sort by the Reference Key in question to find the message with the patient information associated, after securely logging into the portal where the patient information can be safely displayed.

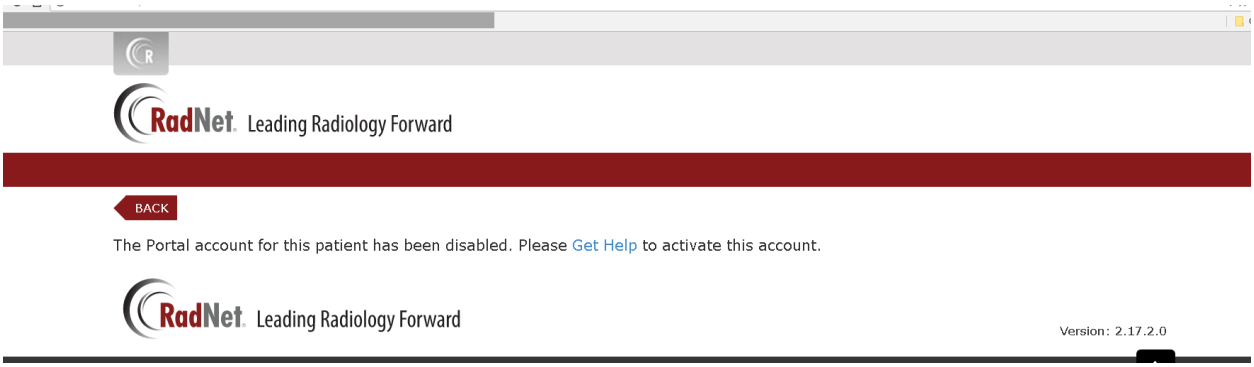



No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

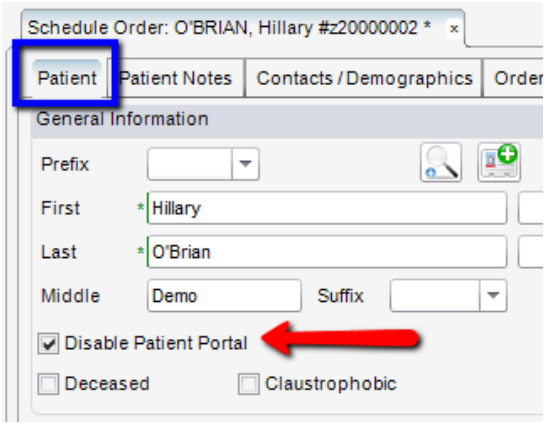
## FEATURE #16449 – FORCE PATIENT TO USE GET HELP TO CREATE/REACTIVATE THEIR PORTAL ACCOUNT IF THE ACCOUNT HAS BEEN DISABLED IN THE ADMIN PORTAL OR IN RIS

Previously, an administrator could disable a patient's portal account via the Admin Portal; however, it was still possible for the patient to go through the "create an account" workflow and reactivate their account.

The portal will now prevent the patient from continuing with a message indicating that their account is disabled and to "Get Help" to activate the account.




It is also now possible to disable a Patient Portal account from the RIS. A new checkbox has been added to the Patient tab to *Disable Patient Portal*.




When checked, the patient will not be able to create a new account or access an existing account. They will receive the same message that is displayed when the account is disabled via the Admin Portal.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #16299 - ERAD RIS NOW SUPPORTS BOTH DEFAULT AND "RECOMMENDED" BILLING CODES

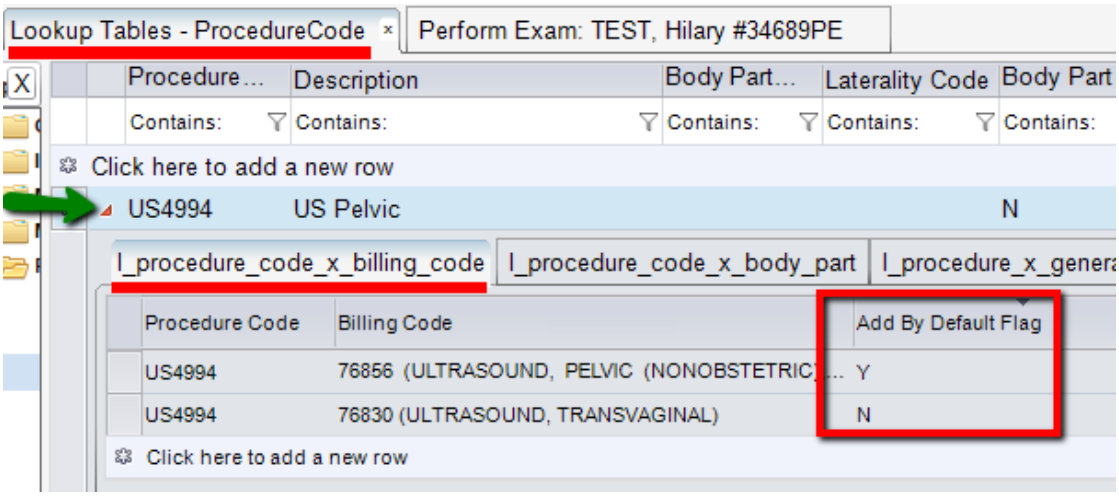
Note: this functionality was originally introduced in the previous patch, 2017.1.2. The description is included here because there have been further changes to the feature.

Previously, all billing codes associated to a procedure were active by default. In some cases, it may be useful to also associate billing codes that are *sometimes* used for a particular procedure. For example, some customers use a workflow in which procedure codes are broad, such as CT Sinus. In this case, the billing code might be the CPT for CT Sinus "with contrast," "without contrast," *or* "with and without contrast." Also, the CPT for contrast material may or may not be relevant depending on what is performed.

In these cases, being able to associate the billing codes that are most likely to be used for a particular procedure is more beneficial than creating default billing codes that are always active for the exam and have to be deactivated by the technologist.

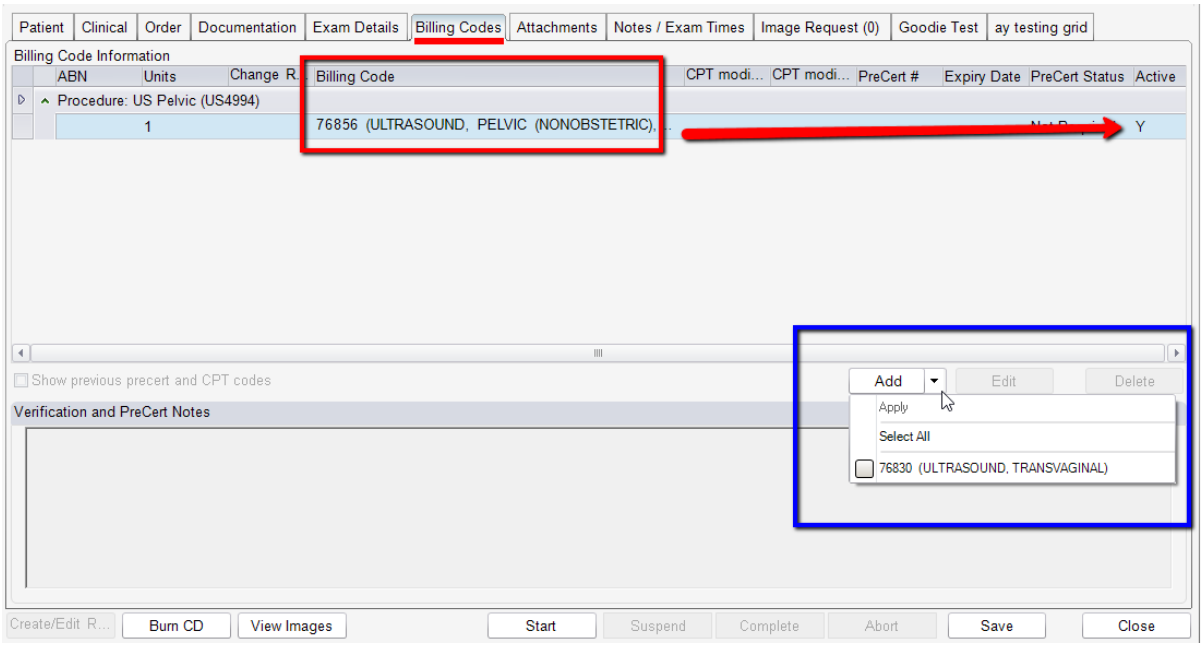
To allow for this workflow, a new column has been added to the *l_procedure_code_x_billing_code* sub-table, which is found in the Procedure Code lookup table. The column, ***Add By Default***, will default to Y, meaning that the billing code will be associated and active for that procedure. This is the same as the previous behavior.

To associate billing codes without actively adding them to the procedure, set the Add By Default column to N. As you can see in the table below, it is possible to have a combination of Default billing codes and recommended/possible billing codes.

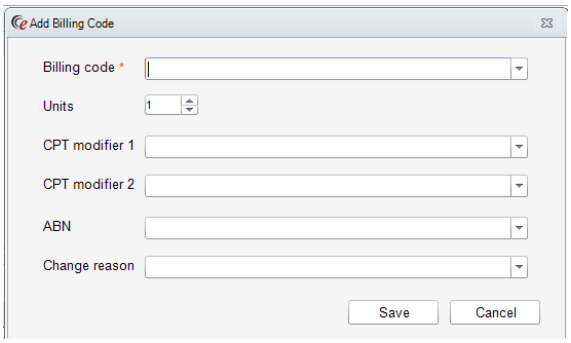



No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

In the example above, the only billing code that will be automatically added for the US Pelvic procedure is 76856. The billing code 76830 will now be available from a quick pick list, as shown below.

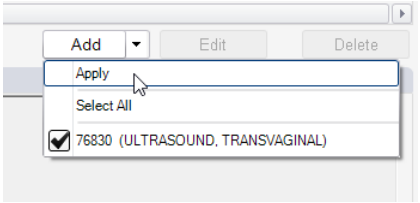



When suggested codes are available for a procedure, the Add button will have a dropdown arrow allowing the user to quickly select and apply the suggested billing codes. Clicking the main Add button, instead of the dropdown arrow, will open the normal Add Billing Code screen where the entire list of Billing Codes can be accessed.



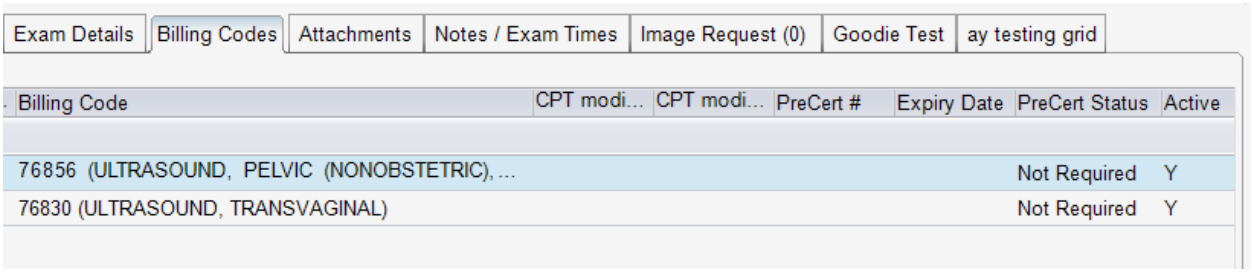

If no recommendations exist, the Add button will not have the dropdown arrow and the Add Billing Code screen is the only option for adding additional billing codes.

To use suggested billing codes, click the dropdown arrow and check the box(es) to be added. Then click Apply.

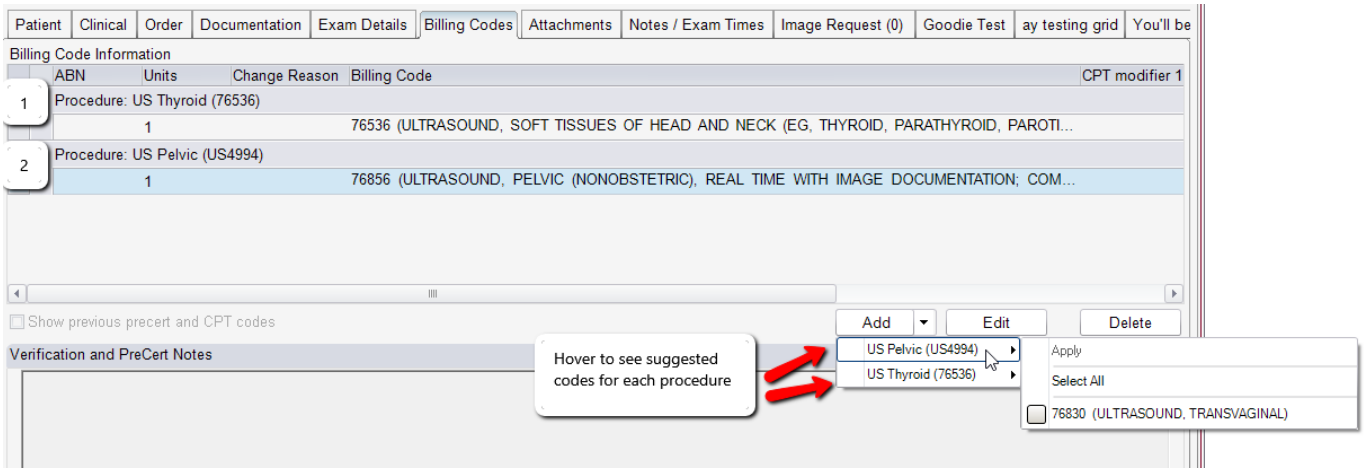



No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

This will add the billing code to the procedure in an Active status.




If a technologist is performing multiple exams at once using the "Include" workflow, suggested billing codes will be available for each included procedure (if any).




Suggested billing codes will not trigger IVT workflow. Once the suggested billing code has been added to the exam, it will be treated like normal active billing codes and IVT workflow will apply.

It is also now possible to select multiple lines in the active Billing Codes grid in order to delete them all at once, if needed. Selecting rows and clicking the Delete key on the keyboard is also allowed. The user will be prompted to confirm that they want to delete the selected billing code(s). Deleting a saved billing code row is the same as marking the row as "Active = N". If suggested billing codes are added, but deleted *before* the exam is saved, the row will simply be deleted.

The billing codes associated to any procedure code prior to this upgrade will all be set as Add By Default = Y, which means that they will continue to behave as they did prior to upgrading.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #16310 – VALIDATION RULE TO ALERT USER WHEN NO BILLING CODES ARE PRESENT

Previously, the RIS had a hard coded warning when there were no active billing codes for a procedure. Because the workflow for the above feature includes the possibility that some procedures will legitimately have no active billing codes at the time of scheduling or registration, the hard coded warning has been replaced with a validation rule that allows the customer to customize the timing for the warning (or change it to a hard stop if desired).

The original hard coded rule looked at procedure codes to see if any billing codes were mapped by the RIS administrators. The previous warning that stated: "There Are No Billing (CPT) Codes Mapped To This Procedure" has been removed and a new configurable rule has been added. The new rule does not look at Procedure/Billing Code mappings, but actually checks whether there are any studies that do not currently have billing codes attached.

The new rule will be enabled by default to replicate existing functionality.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #16138 - VALIDATION RULES FRAMEWORK HAS BEEN EXTENDED TO CONSIDER TABLES

Validation rules can now be created based off of patient/exam information that exists in tables, such as associated insurance carriers, MRNs and attachments.

Using the enhanced capability, the following validation rules are now possible:

1. Ability to require that at least one insurance is added if Self Pay is not selected.
2. Ability to warn the user, or prevent them from continuing, if a particular issuer of MRN has not been added for the patient.
3. Ability to warn the user, or prevent them from continuing, if a particular scanned document type (such as Referral) is not associated to an order.

As with all validation rules, the timing of the warning or hard stop can be customized.

These are only a few examples of rules that can be created. Please contact eRAD Support to inquire about creating validation rules for your organization.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #14171 – VALIDATION RULES CAN DISPLAY BASED ON PATIENT ALERTS

It is now possible to utilize Validation Rules to support custom logic based on Patient Alerts. Rules can be built to either allow or prevent an action in RIS based on whether a patient has a given Alert.

There are two types of rules that are now possible:

1. Prevent actions in RIS when a Patient Alert is present.
    a. Example: Prevent scheduling if the patient has an Alert of "Lifetime Ban."
2. Conditionally allow actions in RIS based on a Patient Alert.
    a. Example: Prevent arriving a minor when the Responsible Party is "Self" unless the patient has an Alert of "Emancipated Minor."

For example #1, it was previously only possible to alert a user that a patient had been banned from the facility. The Validation Rule will allow an administrator to actually ***prevent*** scheduling. When the rule is configured, the user will receive the usual Alert informing them of the ban. However, if they attempt to schedule anyway, the Validation Rule warning will display and will prevent them from scheduling the appointment.

For example #2, it is now possible to create a Validation Rule that does not apply to all types of patients. Previously, a rule requiring a Responsible Party other than Self for minors was not possible because there was no way to get around the rule for emancipated minors. Now a condition can be created that excludes patients with an Emancipated alert.

These are just examples of what is possible using the new Validation Rule functionality. If you are interested in setting up Validation Rules, please contact eRAD Support.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #15150 – HARD-CODED CONTRAST AND CT DOSAGE REQUIREMENTS ARE NOW VALIDATION RULES

Previously, it was possible to require the technologist to enter Contrast and CT dose information, but the timing of the requirements could not be altered. Because the requirement was enforced at the time the technologist *started* the exam, many customers chose not to use the requirements (or to use Digital Forms instead) because the technologist could not know the information before starting the exam.

To allow more flexibility and a more practical approach, Contrast and CT Dosage requirements can now be controlled using Validation Rules, which will allow the timing of the requirement to be changed to when the technologist *completes* the exam (or any other desired point in the workflow). Custom validation rules have been created to reproduce the logic of the previously hard coded rules with the added flexibility to alter them according to preference.

At the time of the upgrade, your current configuration will be evaluated and the new Validation Rules will be applied accordingly with one exception: All rules will be enforced at the time the technologist ***completes*** the exam. This is done with the understanding that this will be the most common point at which customers will want to require this information, though this can be changed if desired. If you are not using this functionality today, the Validation Rules will be added with the upgrade but will be set to Inactive.

Please let eRAD Support know if you would like to start requiring either Contrast or CT Dose now that the more flexible framework is available. They can assist in getting this set up according to your needs.

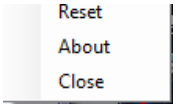
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #12141 – ABILITY TO VIEW THE CITRIX BRIDGE VERSION NUMBER

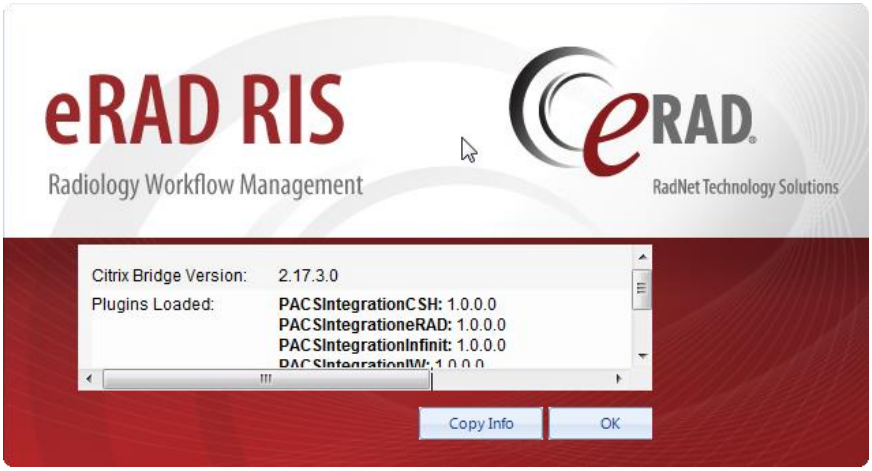
Previously, Citrix Bridge users did not have an option to view the current version number.

Changes have been made to the Citrix Bridge context menu to allow the user to access an "About" screen very similar to the RIS Help/About screen. This screen lists the version number and additional details.

Clicking the Citrix Bridge icon in the system tray will now open the following context menu:




Selecting the About option will bring up the following screen:




Note the Citrix Bridge Version on the first line. It is also possible to view the version number from within the *RIS* Help/About screen, provided that the Citrix Bridge is up and running.

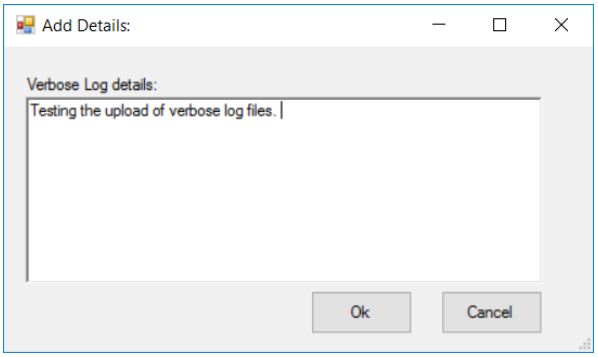
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #14681 – UPLOAD A WORKSTATION'S VERBOSE FILES TO THE SERVER FROM HELP/ABOUT SCREEN

When troubleshooting an issue, eRAD Support often needs to view a workstation's log files, referred to as "verbose files." Previously, users had to follow instructions to navigate to the files in an Appdata\eRAD folder in order to find the files, then go to the trouble of sending them to Support. To make this process easier and allow eRAD Support to quickly access the information needed to troubleshoot an issue, it is now possible for a user to upload their verbose logs to the database by clicking a button on the Help/About screen.

The Help/About screen has a new button labeled "Upload Verbose." If instructed by the eRAD Support team, all the user has to do is go to the Help screen and click the button.

The user will have the option to enter details regarding the reason the Verbose logs are being uploaded.




No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

Upon clicking OK, the verbose files and a relative message log will be uploaded to the database, where the eRAD Support team can retrieve them. The verbose files are compressed when added to the database.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #16109 - RIS WILL PREVENT UPLOADING EXCESSIVELY LARGE FILES FOR LOGOS

Excessive file sizes can cause document distribution to fail, particularly for encrypted email reports. This can happen if the logo used on a report is too large. To prevent this from occurring, two new System Configuration settings have been created to indicate the maximum file size and the maximum file dimension. If an image or logo is uploaded that exceeds either of these settings, the user will be warned.

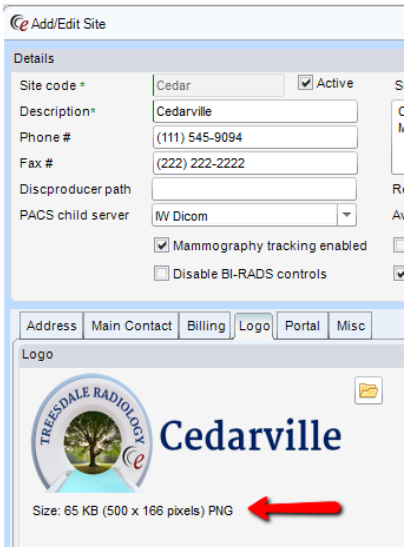
The new settings are as follows:

- **MaxLogoFileSize** – maximum number of bytes for image files uploaded for Practice or Site logos, as well as images uploaded via the ImageUploader configuration screen.
- **MaxLogoWidthOrHeight** – maximum number of pixels for Practice or Site logos, as well as images uploaded via the ImageUploader configuration screen.

If either setting is exceeded when uploading an image, the upload will be prevented and the user will be presented with a warning displaying the maximum for the value that was exceeded:

- The selected image file must be less than 250,000 bytes.
- The selected image's width must be less than 1,000 pixels.
- The selected image's height must be less than 1,000 pixels.

A label has been added to the image preview window, so that file sizes and dimensions are visible for uploaded images. The file type is also listed.

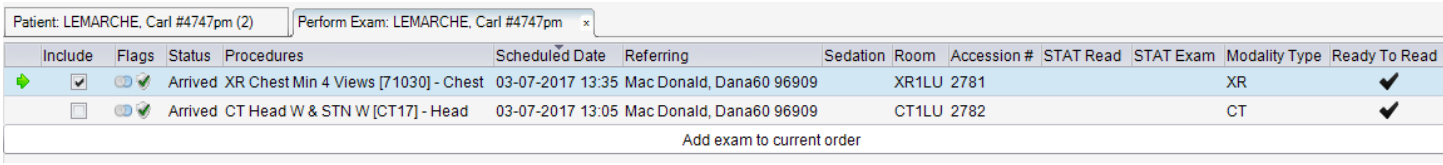



No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #16292 – TECHNOLOGIST CAN NOW ADD ADDITIONAL EXAMS TO THE ORDER FROM PERFORM EXAM TAB

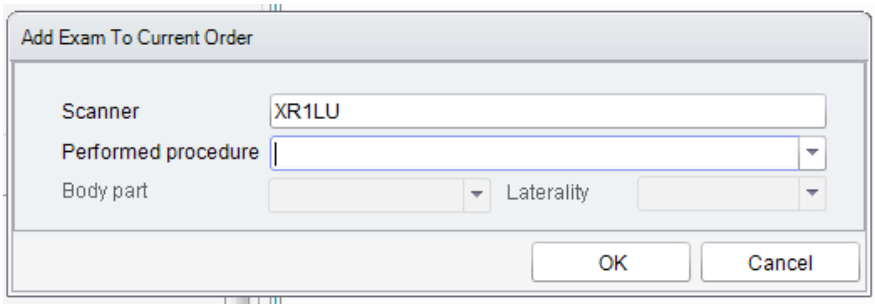
Technologists often need to add additional studies to the order when the patient is already on the table, after receiving feedback from the radiologist or upon realizing that the referral contains a separate exam that was not registered. Technologists need a method to add additional studies with fewer steps, as long as the study belongs to the same order (which would also necessitate the same referring physician and payment method).

To increase efficiency for this workflow, users can be granted a new access string named *Clinical.Tech.AllowAddExam*. The default for this access string is None. If set to Full, a technologist will have access to a new button on the Perform Exam tab labeled "*Add exam to current order*." The button is located beneath the list of today's exams at the top of the Perform Exam tab.




Clicking the "Add exam to current order" button will allow the technologist to add a new exam to the currently selected Order without going through the registration process.

A new window will open for the technologist to select the procedure, along with Body Part and Laterality if applicable.



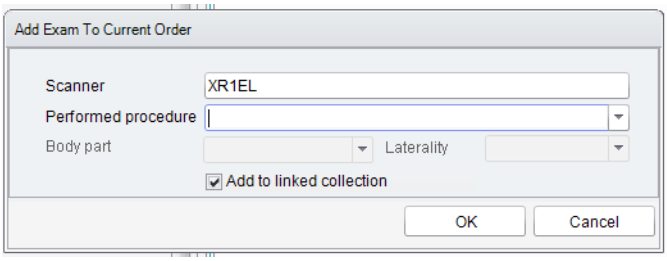

Currently, the scanner (room) is hard coded to match the same scanner as the existing procedure. In the next phase, this will be expanded to allow the technologist to select a different scanner.

The procedures available in the dropdown will include any procedure code that is part of the Schedule Group for the scanner.

Upon clicking OK, a new exam will be added to the existing order. The Date and Time will default to the current date and time, similar to a Walk In.

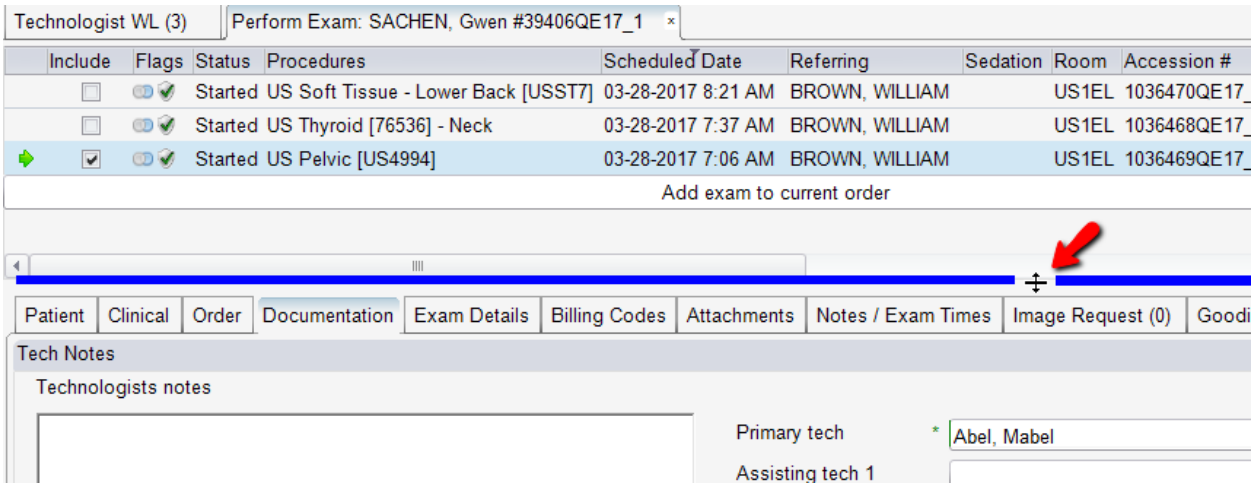
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

For customers using Linked Reports, another option will be available if the current study is part of a set of linked studies.




Checking the "Add to linked collection" checkbox will automatically add the new procedure to the linked set. RIS will set the linked id and display the linked flag for the new study. This box will be checked by default.

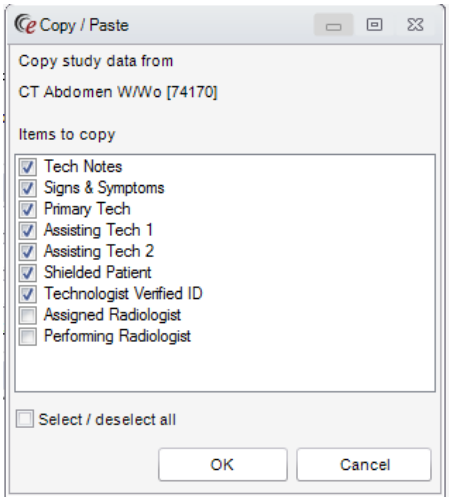
It has always been possible to adjust the height of the list of today's procedures at the top of the Perform Exam tab by hovering on the dividing line and click/dragging when the double arrow appears. RIS will now remember this position and re-open with the same height for the next patient.




No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #16294 – COPY/PASTE FEATURE NOW INCLUDES "TECHNOLOGIST VERIFIED ID"

On the Perform Exam screen (Documentation tab), there is an option to Copy/Paste certain data elements to other included studies (via the Include checkbox). An option to include the "Technologist Verified ID" field in the Copy/Paste options has been added. This option will be checked by default.




No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #16293 – TECHNOLOGIST INFORMATION CAN AUTOMATICALLY COPY TO ALL LINKED STUDIES

When using the Linked Reporting feature, linked studies are not sent to the radiologist for dictation until all studies are completed by the technologist. For customers using linked reporting for exams that are performed on different days or in different modalities, it is preferable to prevent the radiologist from dictating before all of the images are available. However, for customers who routinely use Linked Reporting for multiple x-ray exams performed at the same time by the same technologist, this can cause workflow problems for linked reporting if the technologist forgets to complete one of the studies. In these environments, it is also desirable for certain information, such as primary technologist, technologist notes, and pregnancy status, to automatically copy to all of the studies that are part of the linked set.

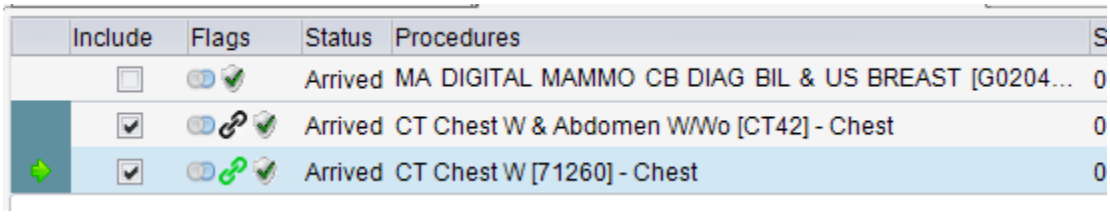
For these purposes, the following System Configuration options are now available:

- *AutoIncludeLinkedStudiesForTech* – When set to True, RIS will automatically "include" all studies in a linked collection when the perform exam window is opened. This allows the technologist to Start and Complete all of the exams together. The default for this setting is False. In a future build, RIS will exclude studies in the linked collection if they have a different Modality Type. For this first phase, this behavior will apply to all studies in the linked collection ***regardless*** of Modality Type.

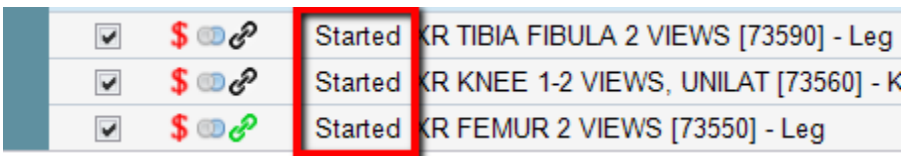
- *AutoCopyPasteLinkedStudies* – When set to True, RIS will automatically copy/paste all available fields from the most recently saved exam to all other checked exams in the linked collection. The Copy/Paste will occur any time a user saves any of the studies in the linked set from the Perform Exam screen. The default for this setting is False. To use this setting, the first setting, *AutoIncludeLinkedStudiesForTech*, must also be set to True.

Setting both of the above System Configuration settings to True will make the following workflow possible:

The technologist can open a study from the Technologist worklist and other studies that are part of the linked set will automatically be Included.




The technologist can fill in any fields that are required upon Start (e.g. entering the Primary Technologist). Clicking Start will copy the information to all of the checked studies and all of the studies will move to Started status.




No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

Additional information can be added on the Documentation tab and upon the next action which includes a save, such as Complete, Suspend or Save, the fields will copy to all of the included exams that are part of the linked set.

Fields that will be copied include: Tech Notes, Signs & Symptoms, Primary Tech, Assisting Tech 1, Assisting Tech 2, Shielded Patient, Pregnancy Status information, Technologist Verified ID, Assigned Radiologist, and Performing Radiologist. These are the same fields that are available for manual (optional) copy/paste workflow, which is still available for customers who would not benefit from this new feature.

Please note that when the new feature is used, it is not possible to handle any of the linked studies separately. In other words, they cannot be de-selected from the Include workflow if they are part of the linked set.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## RADIOLOGIST

### FEATURE #15107 – DECREASED LIKELIHOOD THAT A RADIOLOGIST COULD SELF-REVIEW A LEGACY STUDY

Typically, imported legacy studies do not contain a User ID for dictating, signing, or contributing radiologists. This can cause an issue for Peer Review because RIS does not identify that Sue Smith without a User ID is actually the same person as Sue Smith with User ID smiths. This lack of recognition means that eRAD RIS would allow the radiologist to review their own legacy study, which is not appropriate.

To decrease the likelihood of this issue for legacy reports, new logic has been added that will evaluate the first and last names of the involved radiologists when there is no User ID available for comparison.

If the name of any radiologist for the legacy study contains both the first and last name of the current user, eRAD RIS will disable Peer Review. While this can lead to some amount of false positives or negatives, it will greatly reduce the risk of a radiologist doing peer review inappropriately.

Data migrations typically insert the full name of the radiologist into the applicable fields without any manipulation of that name (e.g. attempts to parse out what is first or last name or suffix, etc.). Therefore, the names can be found in any order when evaluating for a match. If a radiologist name was imported as Dr. Kate Ellington or Ellington, Kate, M.D. or Kate Ann Ellington, the match will still be made because each contains the current user's first name (Kate) and last name (Ellington) somewhere in the field.

As mentioned above, it is possible to have false negatives and false positives with this strategy. For example, if Kate Ellington and Katerina Ellington are two different doctors, Kate will be prevented from peer reviewing Katerina's legacy studies because the name Katerina contains the name Kate. This would be a false positive. If Sheila Warring was listed in the legacy system with her maiden name Sheila Thomas, eRAD RIS would not catch the match, which would lead to a false negative and Dr. Sheila would be permitted to review her own legacy report.

Despite the potential for some amount of discrepancy, this change will drastically reduce the potential for an inappropriate Peer Review. If it is identified that a mismatch is occurring (either a false negative or false positive) for a particular radiologist, this can be addressed by running a script to add the current user's User ID to the legacy studies.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

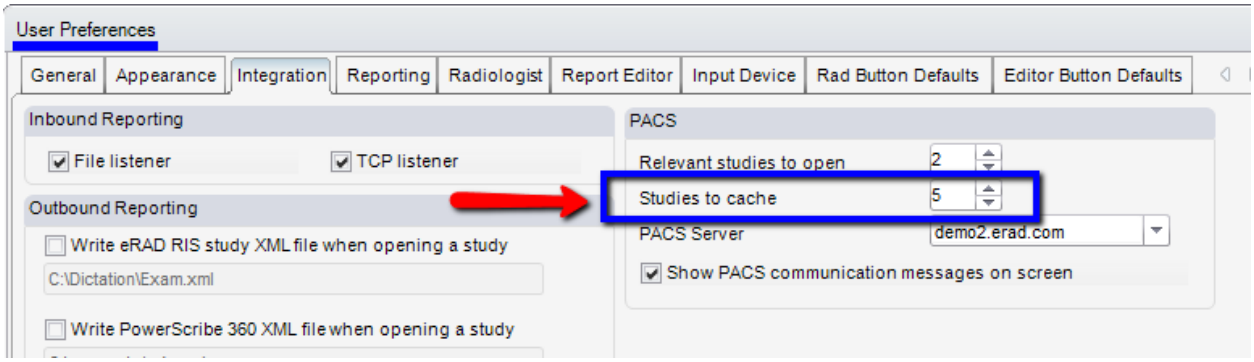
## FEATURE #15330 – IMPROVEMENTS TO MANUAL CACHING AND CACHING WORKLIST VIEWS

Three important changes related to the caching of PACS images on the Pending Dictation worklist have been added with this feature.

1. Improvements have been made to selecting studies for manual caching.
2. It is now possible to toggle automatic caching on and off.
3. Custom views on Worklists can be created with a setting to either include or exclude caching.

Previously, when studies were selected for manual caching, the manual request would override the studies that were supposed to automatically cache. Now, the manual cache requests will be added *in addition* to the automatic PACS requests.

Some new settings are also in place for the number of studies that can be manually cached. The user will be allowed to manually cache the same number of studies as their user preference for automatic study caching.




In other words, if the user preference is configured to allow 5 studies to be automatically cached, as illustrated in the above screenshot, the user will be able to add an additional 5 studies manually to the cache list for a maximum total of 10 cached studies.

If the user selects more than their allowed number of studies for manual caching, the newest requests will be cached and will bump the oldest manual requests off the list of studies to cache, so that the number of manual studies to be cached is not higher than their limit. Depending on the timing, the oldest manual requests may have already finished caching.

For example, consider the following scenario:

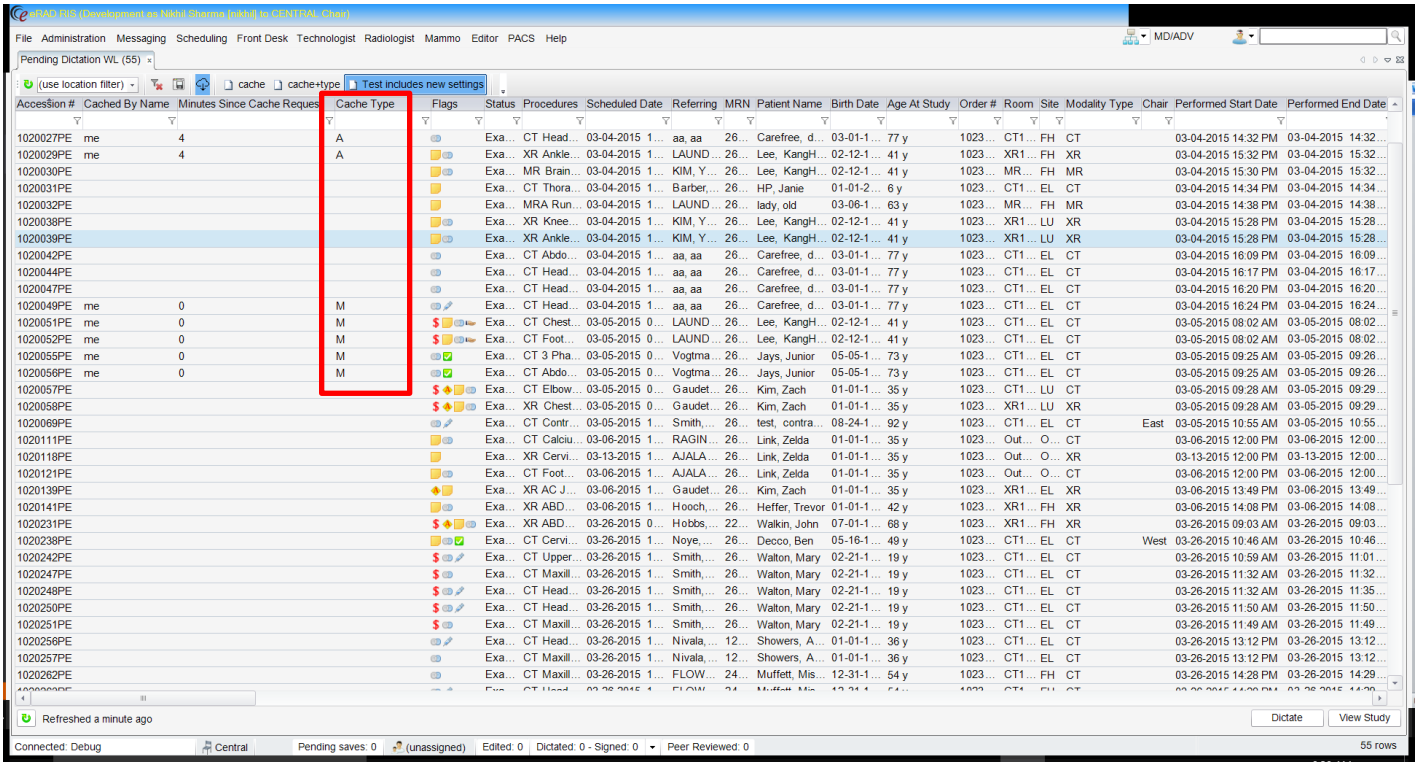
- Dr. Ko has a user preference for Studies to Cache = 5.
- She opens the Pending Dictation WL and the first 5 studies begin to cache automatically.
- She selects 5 additional studies to manually cache, using the existing context menu item “Add to PACS Cache.”

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

- After some time elapses, Dr. Ko selects 2 additional studies for manual caching. She has now exceeded her allowed number of studies to manually cache. The two oldest manual cache requests will be cleared, though in this example, they have already finished caching.
    - ~~**Manual Cache #1**~~ - Complete
    - ~~**Manual Cache #2**~~ - Complete
    - Manual Cache #3 - Complete
    - Manual Cache #4
    - Manual Cache #5
    - Manual Cache #6
    - Manual Cache #7

When the user selects more than their allowed number of studies, a notification will inform the radiologist that the list has been modified and the studies that were added. The notification style message does not need to be acknowledged by the user.

A new column has been added to display which studies have been selected for caching, with an A to indicate Automatic Caching and an M to indicate Manual Cache requests.



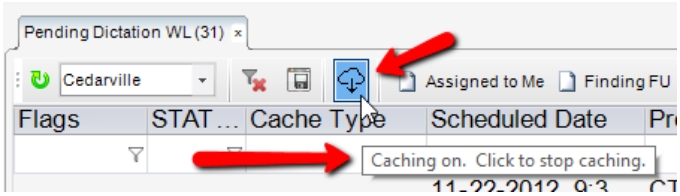

The user can remove a cache request by right-clicking the study and choosing the context menu option "Remove from Cache."

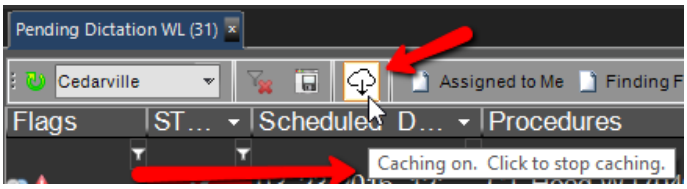
The next important part of this feature is the ability to turn caching on or off using a new Caching button. This button can be toggled on or off at the user's discretion. The background color of the button will change when

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

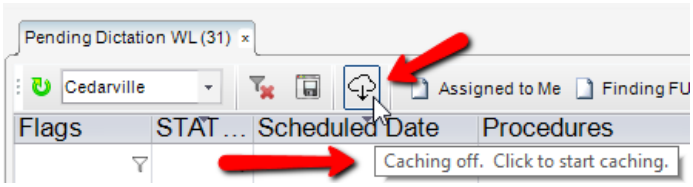
caching is turned on. Additionally, there is a tooltip that will describe the current setting. The images below illustrate the button in Caching On and Caching Off states, for light and dark modes.

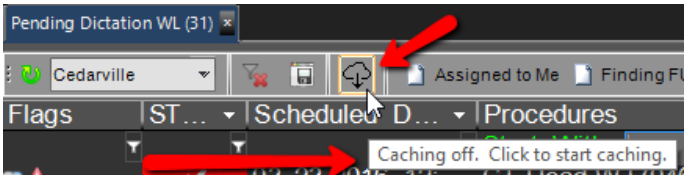
**Caching <u>On</u>:**




**Caching <u>Off</u>:**




This toggle button will turn off ***automatic*** caching; however, the user is still able to add Manual Cache requests by right-clicking a study and selecting the "Add to PACS cache" context menu item.

Note that this Caching toggle button will not be available if the User Preference for Studies to Cache is set to 0. Users with this setting will also not have the option to manually add to cache. Therefore, if the user prefers not to use Automatic Caching but would like to manually cache, they should set the Studies to Cache preference to be greater than 0, then toggle off the Cache button. This will allow the user to select studies to manually cache without any automatic caching.

Another advantage to the new caching feature is that the Custom Views on worklists will now save the status of the Caching toggle button. This allows users to determine whether caching is used or not for a particular list. As a simple example, a user can have a main Custom View with automatic caching turned on and a secondary Custom View with caching turned off. In this case, the user can periodically switch from their main Custom View to check

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

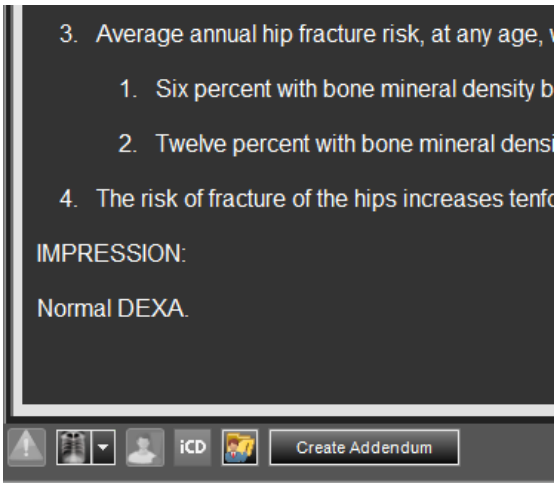
the secondary Custom View without any changes to their list of studies to cache. The studies from the main Custom View will continue caching while the user is on the secondary view.

Any Custom Views that were saved prior to the upgrade will automatically include a Caching On status, assuming the user has more than 0 studies configured to cache. To adjust, the user can turn the toggle to the OFF status, right-click the Custom View button, then select Overwrite. This will update the Custom View so that caching will be turned off.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #15696 – CREATE AN ADDENDUM FROM THE VIEW STUDY SCREEN

The recently added **View Study** screen replicates the radiologist dictation screen in a "view only" mode. One of the advantages of this screen is that it allows radiologists to view Signed studies without initiating an addendum. However, there are times when a radiologist may find it necessary to complete an addendum when viewing studies in this mode. Closing the View Study screen and re-opening in Dictate mode is not efficient, so a **Create Addendum** button has been added to the View Study screen.




The Create Addendum button is in the bottom left corner of the screen, next to the Folders button. Clicking this button will automatically reload the screen in addendum mode and will ***not*** show the prompt asking if the radiologist wishes to make an addendum.

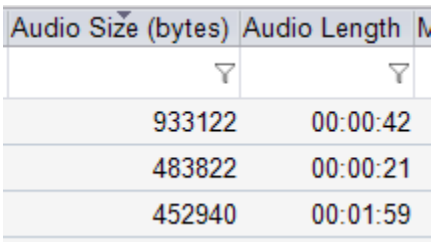
If an addendum has been requested for the study, the Addendum Request notes will be displayed in a pop-up message.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #10975 – ACCURATE AUDIO LENGTH IN WORKLIST COLUMNS

In some cases, previous audio length columns on various worklists did not precisely reflect the length of the dictation recording.

In order to correct this issue, a property was created for all recording systems: M*Modal Interactive, M*Modal Batch and eRAD Batch. This property will return the actual length of the audio file as recognized by the recording system. The value will update each time a radiologist inserts or otherwise updates the audio recording. The value is then converted from milliseconds to a display format of hh:mm:ss.



| Audio Size (bytes) | Audio Length | M |
|---|---|---|
| 933122 | 00:00:42 | |
| 483822 | 00:00:21 | |
| 452940 | 00:01:59 | |

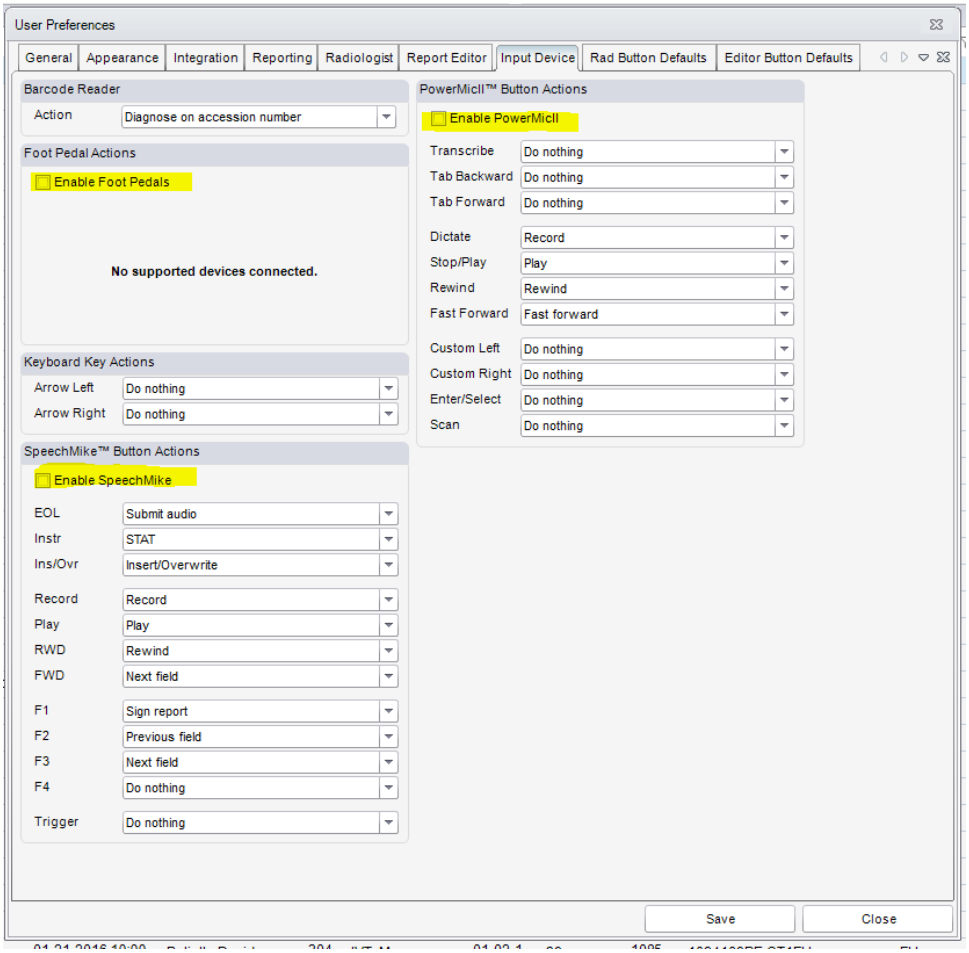
All worklists that previously displayed audio length in *bytes* have been updated to show both the Audio Size in bytes as well as the Audio Length in a format of hh:mm:ss.

Only audio files that are dictated after the upgrade to version 2.2017.3 will be shown in the new format. Dictations recorded prior to the upgrade will be displayed in their original format.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #17458 – USER PREFERENCES TO DISABLE INPUT DEVICES

User preferences were added to allow disabling the Input Devices. The checkboxes illustrated below on the Input Device tab of the User Preferences screen control whether the device is enabled or disabled.

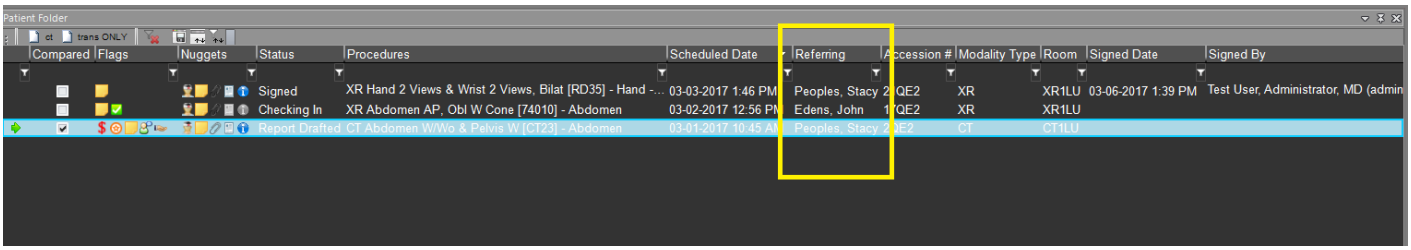



Note: “Enable Foot Pedals” and “Enable SpeechMike” are essentially the same. They will stay in sync and control what is essentially one user preference. However these were created as separate preferences because if the user is not a radiologist, they will not have access to the SpeechMike group box. Separating the preferences in this way will ensure that users are able to see and set the preference regardless of their exact role.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #15643 – REFERRING COLUMN ADDED TO MINI-PATIENT FOLDER ON REPORTING SCREEN

The referring physician is now visible in the mini-Patient Folder panel on the Reporting screen with the addition of a Referring column. This will benefit radiologists who wish to see which doctor referred prior studies without having to look at the Selected Summary panel for each study.

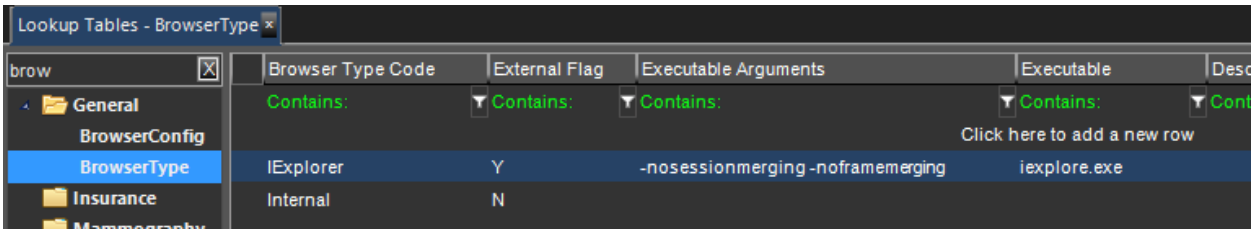



No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #15812 - ALLOW RADIOLOGIST PORTAL FEATURE TO LAUNCH URLS IN EXTERNAL BROWSERS (SUPPORT GE ZFP USING THE PORTAL SCREEN)

Previously, the Portal panel that appears on the radiologist Dictation screen only used the internal .net WebBrowser object for opening pages. This does not support all of the websites customers wish to open using the Portals feature. For example, certain websites, such as the GE Zero Footprint Viewer, require a full Internet Explorer 11 or a modern browser like Firefox or Chrome. eRAD RIS can now support launching and closing pages in external web browsers for the Portal feature.

First, an administrator can add browser types to a new look-up editor labeled *Browser Type*. There are two default entries in the browser type table. One is for the Internal browser, which is the same method previously used to display Portals in the panel within the Dictation screen. The second is Internet Explorer, launched in unshared frame and session modes. Additional browsers can be added. The *External* flag should be Y if the browser is not the default internal browser.




In order for an administrator to access the Browser Type lookup editor, the new access string *Config.LookupEditor.BrowserType* must be set to Full.

The existing *Browser Config* editor has been updated to allow any of the Browser Types to be selected from a dropdown menu.

For each URL defined in the Browser Config editor, the corresponding Browser Type will be used when the portal is opened.

Whenever the Browser Type for a Portal's URL is an External browser, the Portal tab in the Dictation screen will begin with an [EXT] label. Clicking on the panel will simply provide the user with a message that the page for the portal has been opened in an external browser. Additionally, when the tab is clicked, RIS will attempt to move the related browser to the front of all windows.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

It should be noted that an administrator will need to configure the browser of choice to run in single window/session per URL mode in order for the “bring to front” functionality to apply. It will not work with shared sessions or windows.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## RESOLVED DEFECTS

Bugs and support issues resolved in build 2.2017.3.

**eRAD RIS:**

| Bug # | Category | Subject |
|---|---|---|
| 14218 | | Resolved issue where configuration Editor did not properly handle null values. |
| 15460 | | Resolved issue where a RIS failure on exit would prevent the uploading of trace data. |
| 7459 | | Updated log control's border to more closely match other RIS controls. |
| 15855 | Access strings | Added access string for CTRN (Clinical.Ctrn). |
| 15481 | Admin-Clinical Data | Procedure Picker Import tool now correctly selects only active items. |
| 15309 | Admin-Other | Resolved small memory leak in reporting options editor. |
| 2151 | Admin-Other | Updated many audit log "action" values to be more descriptive. |
| 6840 | Admin-Other | Improved error handling when a holiday was entered without specifying a practice. |
| 7594 | Admin-Other | Internal person search now correctly bolds the first resource type for the person. |
| 7965 | Admin-Other | Add/Edit practice - Delete Logo button is now only enabled when there is a logo to delete. |
| 8181 | Admin-Other | Resolved issue for which doing a person search, receiving no results, then pressing enter would display an error. |
| 12944 | Admin-Other | In organization editor, the map will now display the location of the site without needing to first click on the map. |
| 15550 | Admin-Other | Updated procedure plan lookup to allow apostrophes in any of the fields. |
| 13554 | Billing | Resolved billing exception issue where patient phone # was required, and the user had to post twice to get it to resolve. |
| 16497 | CCDA | All administered medications are now added to CCDA. |
| 11157 | CD Import | Import CD - If the study fails to import because the study was already in PACS, RIS no longer creates a blank row in the patient folder. |
| 14321 | CD Import | Loading from CD progress bar is no longer cut off in Windows 10. |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

| | | |
|---|---|---|
| 16348 | CD Import | Upgraded to the latest fo-dicom toolkit (used for CD Import). |
| 15742 | CEHRT | Get automated measures report now returning patient portal(vdt) numerator. |
| 16285 | CEHRT | Fixed incorrect tool tip for sexual orientation field. |
| 16751 | CEHRT | Added appropriate SNOMED codes to the l_gender_identity and l_sexual_orientation lookups using the 2015 US SNOMED codes. |
| 15546 | Citrix Bridge | LOG FILE reader- Resolved issue when using Citrix bridge where log file reader would continually add the same information including the same time when refreshed. |
| 15731 | Citrix Bridge | Citrix Bridge - Uninstaller now removes reference to VcCom API. |
| 16770 | Citrix Bridge | Resolved error when launching Citrix Bridge.exe. |
| 15727 | Citrix Bridge | Citrix Bridge - Updated the manufacturer code to 'eRAD.' |
| 15730 | Citrix Bridge | Citrix Bridge - Changed the default icon so that it can be placed on the desktop and not confused with eRAD RIS. |
| 15841 | Citrix Bridge | Citrix only - Issue corrected where PACS Login window could appear behind RIS. |
| 16160 | Client Install | Help - About screen is now showing the correct CORE UI version. |
| 16314 | Client Login | User_ID can now exceed 20 characters. |
| 14815 | Connect Portal - Referring Ordering/Scheduling | Added ability to view the order details from an Order that is Pending Approval or Order Drafted in the patient folder. |
| 15552 | CTRM | Resolved issue where CTRM dialog would remain open when PowerScribe 360 issued a close command to RIS. |
| 13490 | CTRM | Corrected issue where close button on Critical Result window would not work. |
| 15077 | Digital Forms | Resolved issue where cancelling an exam with the Red X would not remove the associated digital form. |
| 15538 | Digital Forms | Resolved issue where digital form data was not saving if preceded by validation failure. |
| 15983 | Digital Forms | Corrected condition where digital forms could silently fail to save data. |
| 16336 | Digital Forms | Digital Forms Import/Export tool now copies new grid tables. |
| 16725 | Document Distribution | Resolved intermittent error when trying to Start / Retry job in Distribution History by Date WL. |
| 16120 | Exam Search | Resolved intermittent "DoSearch" error in the Exam search screen. |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

| | | |
|---|---|---|
| 14338 | Exam Search | Exam search screen has dropdowns for multiple 'id' fields - these fields would sometimes have what appeared to be identical values. |
| 15468 | Flags | Resolved intermittent issue where eligibility flag tooltip was stuck in "In Progress." |
| 15879 | ICD | Resolved issue where ICD codes could vanish from Medical History Grid when pressing Start on Perform Exam screen. |
| 15804 | Image Request | Resolved issue where changing the image request status for studies in Exam Done status produced an error that 'Signs and Symptoms' is required. |
| 15208 | Inbound Document Processing | Attach Inbound Document "Your lock was broken by another user" message will now only appear when the user is focused on the Attach Inbound Document window. |
| 16040 | Inbound Document Processing | Resolved issue where selecting an action button when a locked row was highlighted would throw a 'no row at position 0' error. |
| 16406 | Inbound Document Processing | Inbound Document workflow now supports both .TIF and .TIFF files. |
| 15488 | Installer | Prevented situation where the installer can be invoked more than once, which will intermittently produce a corrupt zip file error message. |
| 13940 | Insurance Eligibility | Improved error handling on misconfigured EligibilitySpecialCondition values. |
| 7468 | Insurance Eligibility | Eligible API checked studies are now not appearing on the IVT work list. |
| 8616 | Insurance Eligibility | Plan end date: date of service now includes that day. |
| 16602 | IVT / Precert | IVT - Corrected error when opening an item 'Ordered' status. |
| 15409 | Localization | Localized the Critical Results screen. |
| 15325 | Localization | Updated customer requested changes to Hebrew localization. |
| 15383 | Localization | Localized several missed fields in the dictation window. |
| 10321 | Localization | In Hebrew, add/edit region dialog box says Add/Edit Site in the title bar. |
| 12520 | Localization | Corrected issue in Right to Left mode, in the drawing tool - the yellow X icon did not have padding between it and the radio button. |
| 14538 | Localization | In the Hebrew RIS, DOB is now localized. |
| 16778 | Localization | In Hebrew, the localization of Height and Weight have been corrected. |
| 16167 | Locking | Creating a Critical Result will no longer lock the entire order. |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

| | | |
|---|---|---|
| 16106 | Log Control | Log Control with spellcheck enabled will no longer identify the user_id as a typo. |
| 16481 | Log Control | Resolved issue where typing beyond visible boundaries in a text box would cause the cursor to disappear. |
| 15853 | Logging | Corrected issue where trace files appeared on c:\ instead of their proper location. |
| 15959 | Lookup Tables | Corrected issue where System Config value 'UMPDefaultOrderTabCriteria' would not save. |
| 8569 | Mammography | Mammo drawing tool - Breast diagram does not change between male and female templates if the sex is altered after the drawing tool is initially opened. |
| 14518 | Management Reports | Payments Received report now works with site codes containing a dash '-'. |
| 15294 | Management Reports | Updated Mammo Annual Radiologist Summary to support future years. |
| 15808 | Management Reports | Removed an old MU Archive Reports from core folder. |
| 15811 | Management Reports | Management Report "Front Desk Activity" is corrected to only show data on selected dates. |
| 16270 | Management Reports | Management Report "Front Desk Detailed Activity by Hour" now includes all appropriate users in the user dropdown list. |
| 16487 | Management Reports | Management Report "Scheduler Activity" - Now correctly grouping on the user, not the scheduler. |
| 15252 | Mgt Reports | Improved performance of c_GetRadStatsForTodayByUserID used by management reports. |
| 16169 | Mgt Reports | Service: SSRS deployment is now uploading Verbal Order forms to the reporting server. |
| 16409 | M*Modal | Corrected "object reference error" after importing and saving an M*Modal template. |
| 16652 | MRN | Issue resolved where system could generate a 'Duplicate key row exception' when adding secondary issuer required by new validation rule. |
| 16428 | Ordering | EMR orders that are not matched to a RIS procedure code will now not allow the print dialog to appear (which was producing an error). |
| 16968 | Ordering | Corrected inadvertent change of 'Reason for exam' control to be a log control when upgrading to 2016.7 or newer. |
| 15254 | PACS (eRAD) Int - RIS only | Resolved intermittent issue where manager class could wait indefinitely. |
| 7032 | PACS (eRAD) Int - RIS only | Corrected issue where prefetch would not work if the user did not have a user preference set for |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

| | | |
|---|---|---|
| | | 'MaxRelevantPriors.' |
| 7947 | PACS (eRAD) Integration | Resolved issue where closing a caching worklist could throw a null reference exception. |
| 15365/15367/ 15368 | PACS (eRAD) Integration | Resolved an event viewer log error when RIS was unable to find PACS window. |
| 15452 | PACS (eRAD) Integration | Resolved intermittent issue where a user may be prompted for PACS login credentials even after disabling PACS integration. |
| 15821 | PACS (eRAD) Integration | Resolved a rare 'row has been removed' error. |
| 17337 | PACS (eRAD) Integration | Resolved issue where a user could not cache studies if another user cached the studies at the top of the worklist. |
| 15558 | PACS (Non - eRAD) Integration | Enabled the InfinitConfig.xml to be read when test mode is set to true. |
| 16757 | PACS (Non - eRAD) Integration | CSH PACS - Resolved issue where a 'close session' was not being sent. |
| 16758 | PACS (Non - eRAD) Integration | CSH PACS - Resolved issue where incorrect message was sent to PACS to open a 2nd study for same patient. |
| 13880 | PACS Citrix Bridge | Citrix - Resolved issue when using RIS over Citrix and working with multiple studies in the dictation window. Images can no longer get out of sync. |
| 15960 | Patient Folder | Resolved issue where County name would not persist under specific circumstances. |
| 13928 | Patient Folder | Resolved issue where 'Patient Race Required' would still be displayed, even when a race was entered. |
| 15976 | Patient Merge | Corrected issue where after an external patient was matched to an internal patient, the merge dataset was not properly populated in the external message container. |
| 6984 | Patient Search | Removed the "New Patient/New Appointment" from the patient search split button as it's already on the main button. |
| 16642 | Peer Review | Added PeerReview layout to default install. |
| 16520 | Peer Review | Changed the All Peer Review Pending Action WL to display 'Interpretation Type.' |
| 16525 | Peer Review | When using skip (next ) workflow, the RIS now skips over studies that are currently open in review window. |
| 16526 | Peer Review | Peer Review - Corrected issue where the user was able to view the preliminary report even when they did not have permission to do so. |
| 14355 | Performance | Improved performance of exam search screen when searching by ID fields. |
| 13835 | PowerScribe Integration | Resolved issue where RIS reporting screen would remain open if PowerScribe is opened then quickly |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

| | | |
|---|---|---|
| | | closed. |
| 16197 | PowerScribe Integration | Resolved issue where the View Study window was opened on a study that was signed in PS360 after initial RIS login, PS360 was not automatically launched. |
| 13975 | RADAR | WedgePlugin for RADAR now passes the display name for the "from" email address. |
| 16110 | RADAR | Resolved RADAR API exception which prevented a reschedule/cancel appointment. |
| 16345 | RADAR | RIS now prevents email message requests without a practice code from being added to the RADAR queue. |
| 15210 | RADAR - Nudge | Resolved an issue where the user could still preview the report via Nudge even if PreviewPreliminaryReport permission was set to None. |
| 16189 | RADAR - Secure PIC | RADAR Plugin - Added a configurable delay before attempting to reconnect if the connection was interrupted. |
| 15217 | Radiology Reporting | VR2 - Resolved issue where a new procedure code added by the inbound interface would cause the client to hang when opening via the XML file drop. |
| 15525 | Radiology Reporting | Configurable reporting options are now written into the verbose log file to assist with troubleshooting. |
| 16080 | Radiology Reporting | Resolved 3.5 minute timeout when a table is added to a report and print preview is used to view it. |
| 16129 | Radiology Reporting | Resolved an issue where audio files were not being deleted for editors. |
| 6277 | Radiology Reporting | RIS now prevents the creation of section titles with >1000 characters, which was causing document distribution to fail. |
| 15981 | Radiology Reporting | Removed user preference to reuse reporting screen since it is no longer required (re-use is always on). |
| 16068 | Radiology Reporting | Resolved issue where 'Dictated by' in the summary panel was not populated for reports initially created by a technologist. |
| 16087 | Radiology Reporting | RIS now hides the floating report history window if another patient record is opened. |
| 16179 | Radiology Reporting | Resolved error when technologist attempts to open a suspended study in View Study window. |
| 16483 | Radiology Reporting | Re-enabled the set/remove 'stat read' flag in the editor screen. |
| 16513 | Radiology Reporting | Resolved issue where original study was created in one reporting mode, then user switches to a different reporting mode and creates an addendum. The addendum can now be re-opened. |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

| | | |
|---|---|---|
| 15840 | Reception | Improved signature capture feature on MS-Surface device. |
| 16761 | Reception | Resolved issue where the 'Visited at:' required field could be bypassed. |
| 16797 | Reception | Resolved issue where after adding a scanned document to a Walk-in, user was sometimes required to re-enter the 'Special Accommodations' field. |
| 15670 | Scanning | Resolved intermittent issue where scanning in duplex mode sometimes flipped the second page of a license. |
| 16768 | Scanning | Resolved the error "A Lock Is required to update this order" when saving attachments in the Add Attachment screen. |
| 16023 | Scanning | Resolved issue where an order level scanned document would show only the 'move to order' context menu instead of 'move to patient level.' |
| 16277 | Scanning | Increased the size of attached date column in attachment list so date can always be seen. |
| 14206 | Scheduling | Resolved error when scheduling if the ProcedureGeneralDescription - Description column is empty. |
| 15462 | Scheduling | Resolved an error that could occur on the reschedule screen if a different order was selected. |
| 15779 | Scheduling | Resolved issue where Cancelled procedure (black X) was still evaluated for contrast required validation. |
| 16458 | Scheduling | Added appropriate error when attempting to overbook by a user who does not have the overbooking permission. |
| 7175 | Scheduling | Added 'reschedule' option on the context menu of a cancelled study. |
| 7830 | Scheduling | Modality Closure - Prevented the end time from being earlier that the start time. |
| 11273 | Scheduling | Resolved issue where height/weight were not required on reschedule. |
| 16275 | Scheduling | Scheduling calendar view now allows drag and drop of appointments, as was already possible in the main Appointment Book. |
| 15327 | Technologist | Resolved issue where the technologist could not delete an existing sedation. |
| 15544 | Technologist | Removed unnecessary message regarding external report workflow from the View/Edit window. |
| 16608 | Technologist | Resolved issue where a procedure that requires contrast is included in a procedure plan and the contrast amount was not populating on the Perform Exam screen. |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

| | | |
|---|---|---|
| 12842 | Technologist | Resolved issue where Verify Credentials feature could leave the wait cursor on the screen even though it was not waiting (spinning blue wheel). |
| 16005 | Technologist | Resolved issue where users with both Technologist and Editor resources could be assigned as the radiologist when creating a report from the Perform Exam window. |
| 16159 | Technologist | RIS now supports decimals in the contrast and sedation grids. |
| 16614 | Technologist | Resolved an error that could occur when discontinuing the primary study in a linked set when in Exam Done status. |
| 15364 | Thick Client GUI | Resolved an event viewer log error when an error occurred during a save. |
| 15372 | Thick Client GUI | Resolved an event viewer log error "Invalid cast of Appointment to AppointmentExtended." |
| 15723 | Thick Client GUI | Resolved issue where Addendum Request control in reporting screen was not reloading data after button was clicked. |
| 16022 | Thick Client GUI | Resolved a hidden memory leak in Reschedule Order screen. |
| 16055 | Thick Client GUI | If network or services are down, the client will no longer retry all collected service calls at once, which could flood the server. |
| 16251 | Thick Client GUI | Resolved issue where RIS lock screen could be invoked twice, requiring user to enter password two times. |
| 1125 | Thick Client GUI | Corrected tab order issue in schedule tab. |
| 1352 | Thick Client GUI | RIS now prevents duplicate holidays from being added to the same practice for the same day. |
| 2529 | Thick Client GUI | Made the description a required field when entering indication codes into the RIS admin screen. |
| 3158 | Thick Client GUI | Corrected issue where the laterality field was available for studies where it was not required when entering Outside Reads. |
| 5444 | Thick Client GUI | Resolved intermittent issue where null prep instructions could cause an error. |
| 5482 | Thick Client GUI | Differentiated between 'identically named' worklists in the 'Open on Login' dropdown. |
| 5770 | Thick Client GUI | Added a Cancel button to the 'Report on Accession Number' screen. |
| 5946 | Thick Client GUI | Added patient notes to Outside Read screen. |
| 5947 | Thick Client GUI | Corrected tab order issue on Outside Read screen. |
| 6117 | Thick Client GUI | Resolved intermittent issue where attachments would not save from the 'Edit Billing' window. |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

| | | |
|---|---|---|
| 7153 | Thick Client GUI | When removing ICD codes from an order, there is no longer a scenario in which the codes could appear to be removed but were in fact still attached to the order. |
| 16399 | Thick Client GUI | Resolved issue where if the user held the TAB key on certain RIS screens, the RIS would appear to hang. |
| 15701 | UI Look and feel | Resolved issue with Font Size not changing in Hebrew Environment. |
| 9266 | UI Look and feel | Corrected an issue where double clicking a person on the Resolve Problem screen could cause an error. |
| 9647 | UI Look and feel | Corrected ZIP code auto-populate city-state-country on the IVT screen. |
| 15842 | UI Look and feel | Amount to Collect screen - all money fields are now right justified. |
| 16339 | UI Look and feel | When correcting a spellcheck error in dark mode (which had red text), the text now returns to white instead of black. |
| 16479 | UI Look and feel | Log control spellchecking now leaves punctuation in place if it was adjacent to a corrected word. |
| 16618 | UI Look and feel | When replacing a phone number by selecting the text, the newly keyed number is now correctly entered. |
| 15837 | Unknown Reconcile | Rescheduled studies with unknown referrings are now (correctly) appearing on the Unknown Reconciliation WL. |
| 15776 | Utilization Management | UM Alert now contains both the original and alternative procedure. |
| 16000 | Utilization Management | Removed inactive UM Resolution Codes in the UM Alerts resolution code dropdown. |
| 16002 | Utilization Management | Changed 'Authorization Letter' to 'Opinion letter' in Distribution History WL. |
| 16007 | Utilization Management | Changed 'Authorization Letter' to 'Opinion letter' in Organization editor. |
| 16026 | Utilization Management | Removed the inactive orders that could show as disabled orders in the UM portal. |
| 16177 | Utilization Management | Race field no longer becomes required during UM workflow without the ability to save. |
| 16759 | Utilization Management | Resolved issue where the config value to "Bypass UM for Stat exams" would not bypass if the order was already saved with Stat flag turned off. |
| 17060 | Utilization Management | Resolved issue where the Authorization Required prompt would remain even after UM Status has been changed. |
| 15963 | Utilization Management | Scheduling an order under Utilization Review from a folder now displays the correct "this study is under utilization review" message. |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

| | | |
|---|---|---|
| 16170 | Utilization Management | Resolved an error in utilization review when a UM status was set to inactive. |
| 16349 | Utilization Management | Removed the 'Utilization Review' context menu option in patient folder when the study is in 'Order Pending Approval' status. |
| 17150 | Utilization Management | Updated Utilization Review to now be able to save work in progress with the status still blank. |
| 15413 | View Edit | Resolved issue when launching View Edit screen from a Management Report. RIS was once again shows the Report Tab. |
| 16328 | Web Services | Added config setting to specify whether a wedge should abort the changes associated with an http inbound request. |
| 15945 | Web Services | Resolved issue where InitPersonnelLookupByUserID didn't include the expected user. |
| 16165 | Web Services | Improved the error message to the user if a SQL error occurs while setting flags. |
| 14620 | Worklists | Resolved issue where filtering on Calculated Columns in a work list would show an error message and fail to properly filter worklist. |
| 15895 | Worklists | Resolved intermittent Issue when setting "Locked By Name" filter to "Is me." |
| 15900 | Worklists | When deleting the dictation /report and resetting status on a study that is suspended, the _status_flags are now properly reset. |
| 15904 | Worklists | Resolved error when using date filtering on worklists including keywords "or", "not" or "and." |
| 16528 | Worklists | Resolved issue in which Problem flag was not getting removed from studies in WLs when the problem was resolved. |
| 16744 | Worklists | The new audio length column now shows the correct audio length for older studies as well as new studies. |
| 15961 | Worklists | Added 'Accession number' to the Image Request WL. |
| 16152 | Worklists | Image Request WL can now be set as an Auto Open worklist. |
| 16173 | Worklists | Corrected worklist filter errors when using the 'Between' filter. |
| 16775 | Worklists | Resolved issue where worklist customization (columns, colors, etc.) might not re-apply when worklist is reopened. |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

**CONNECT Patient Portal:**

| Bug # | Category | Subject |
|---|---|---|
| 15950 | Pat Admin - Activity Log | Patient Connect Admin - Activity log filter 'previous 7 days' now also includes today. |
| 15798 | Pat Admin - User Mgmt:Detail | Patient Connect Admin - Resolved error that occurred when attempting to view 'Patient Detail.' |
| 13976 | Patient Email | Patient Portal emails can now have a configured "from" email display name. |
| 15199 | Patient Exam Detail Page | Images Tab now disappears when PACS is not configured. |
| 15703 | Patient Exam Detail Page | Legacy Exams - Images will now appear in portal for legacy exams. |
| 15179 | Patient Exam Detail View | Resolved issue where a wait cursor could display indefinitely when no images were available. |
| 15180 | Patient Exam Detail View | Created a consistent mechanism to show when the report would be available on the portal. |
| 15287 | Patient Form | On the exam question review screen the question can no longer overlap the answer field. |
| 14523 | Patient Messages | Removed the 'Please verify you are a human' message on the bottom of the screen after test is successfully passed. |
| 15440 | Patient Security | Added a permission so that only authorized users can expire the lookups in the portal projects. |
| 14705 | Patient WF: Account Access | Removed case sensitivity check on answers to security questions. |
| 15749 | Patient WF: Create Account | Updated and clarified the 'required age' message displayed to minors when they are try to create an account. |
| 15024 | Patient WF: Make Appointment | When adding insurance, Policy number is now a required field. |
| 15284 | Patient WF: Make Appointment | Portal no longer allows 'Menstruation date' to be set in the future. |
| 15415 | Patient WF: Make Appointment | Fixed issue where the patient could not advance from Select Provider page when using "My provider is not listed" and searching for provider with special characters. |
| 17012 | Patient WF: Portal Pass iCode | Fixed intermittent issue with iCode (duplicate iCodes could be generated for different patients over time). |
| 15512 | Patient WF: Provider Invite to Make Appointment | Map tool now works when scheduling from an iCode. |
| 15514 | Patient WF: Provider Invite to | Clicking 'Make Appointment' during invitation |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

| | | |
|---|---|---|
| | Make Appointment | workflow will no longer return user to the login page. |
| 15528 | Patient WF: View Provider-Ordered Appointment | Scheduling in the Patient Portal via an invitation no longer defaults 12:00 AM at the top of the Review screen. |
| 14589 | | Resolved error attempting to load PACS images that did not have a study instance UID. |
| 15530 | | Corrected an issue with the portal's .ics file which was generating a 404 error. |
| 15536 | | Corrected issue where scheduling from an invitation would not connect the new study to the existing order. |
| 16136 | | Resolved issue with Get Help link. |
| 15004 | Admin-Other | Added ability to de-activate attributes in the procedure picker builder. |
| 15978 | Pat Admin - User Mgmt | DOB column can now be sorted. |
| 16069 | Pat Admin - User Mgmt | Resetting an account now clears the email field. |
| 17087 | Pat Admin - User Mgmt | After saving changes to the user profile, the profile is shown instead of hidden. |
| 15064 | Pat Admin - User Mssgs | Resolved issue where a forwarded message could get truncated. |
| 16025 | Patient Exam Detail Page | Resolved issue where thumbnail Images occasionally didn’t load. |
| 16196 | Patient Exam Detail Page | Corrected issue where prep instructions would not show when the appointment was not made in the portal. |
| 14089 | Patient Exam Detail View | Resolved issue displaying an accession number contains only alpha characters. |
| 14074 | Patient General Display | Patient Portal Logo is now configurable for each portal instance per practice. |
| 15080 | Patient General Display | On mobile device, the email field and retype email field now are recognized as email fields so the keyboard will default the @ and .com. |
| 15081 | Patient General Display | Increased width of iCode verification code on mobile screen. |
| 16039 | Patient Logon | After using the incorrect password X times, tell the user at X+1 times that they have locked out their account. |
| 16064 | Patient WF: Account Access | Generalized the center names that appear in the "select the center where you had your recent appointment" to reduce unnecessary failures. |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

| | | |
|---|---|---|
| 16449 | Patient WF: Account Access | A user who has had their access to the portal revoked can no longer try to re-create that account. |
| 16037 | Patient WF: Authorized Access | Corrected issue where the user could press NEXT before entering the verification code, therefore disabling the Next button. |
| 13068 | Patient WF: Make Appointment | Entering insurance has 2 steps - if the user enters insurance, then authorization, then presses BACK, they are now brought to insurance step 2/2 instead of starting over on insurance. |
| 16061 | Patient WF: Make Appointment | Worker's compensation 'date of injury' field no longer allows dates in the future. |
| 17299 | Patient WF: Make Appointment | Resolved issue where the 'PortalAllowEveningWeekendScheduling' feature allowed the user to schedule timeslots earlier than 'now.' |
| 16062 | Patient WF: Portal Pass iCode | Resolved issue where 2 or more studies related to the same iCode would cause an error. |
| 16439 | System | eRAD portals now support time zones that are + UTC. |

**Utilization Management Portal:**

| Bug # | Category | Subject |
|---|---|---|
| 16053 | Exam Detail Page | The 'Opinion letter unavailable' message now supports the Get Help link. |
| 15965 | Get Help Page (Outside & Inside) | The 'Get Help' email confirmation to the user who requested no longer has the 'Sincerely' section repeated. |
| 16012 | Orders Page | Worklist will now show the paperclip icon when the record has attachments. |
| 16051 | Orders Page | Finalized date on the Orders - Pending tab now only shows valid dates. |
| 17011 | Orders Page | Improved performance of the worklist. |
| 15510 | Search Page | Resolved issues with DOB search in certain browsers. |
| 15511 | Search Page | If the user selects a date range filter, studies are filtered appropriately. |
| 15515 | Search Page | 'Exam Type' search filter is no longer ignored. |
| 15595 | Themes | Ensured all deployed themes are compatible with the portal. |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

| | | |
|---|---|---|
| 16736 | Exam Detail Page | Resolved issue where report tab and quick-launch icon failed to load the diagnostic report. |
| 16188 | Orders Page | Now preventing more than one 'attachment' pop-up to appear at a time. |
| 17230 | Provider Utilization Management Page | Resolved issue with exam type filter not filtering properly. |
| 16705 | Web Portal Agreement Page | Updated text on Web Agreement (EULA) Page. |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## KNOWN LIMITATIONS

The following are new bugs found in build 2.2017.3. Bugs reported in previous versions are not captured as Known Limitations in this document.

| # | Category | Subject |
|---|---|---|
| 17119 | RIS | Returned tab Status filter needs a "SELECT ALL" option. |
| 17088 | RIS | User Mgt. > Edit > Preferences - Save button does not save changes for default landing page. |
| 17547 | RIS | Numbered or bulleted list in a report are not getting transferred to PACS. |
| 17541 | RIS | The displayed Cache time can sometimes be inaccurate but corrects itself after a minute or two. |
| 17536 | RIS | The Citrix Bridge icon has been changed to the 2 circles but in the Windows tray it is still the eRAD icon. |
| 17532 | RIS | Cancelling when RIS attempts to install updates throws an error. |
| 17518 | RIS | Exception thrown when clicking "Skip Labwork Advised WL" in Utilization Review. |
| 17494 | RIS | Windows docking inside of the patient folder. |
| 17492 | RIS | PACS Integration - View Images from Patient Folder does not order studies correctly. |
| 17487 | RIS | Duplicate Issuer/MRN in grid does not trigger validation error when scheduling/creating order. |
| 17486 | RIS | Diagnostic Report lists "Copy to" providers in diagnostic report even if the CC provider is configured for no report delivery for Courtesy Copies. |
| 17484 | RIS | Provided Educational Resources checkboxes should stay in sync, with both being either checked or not checked. |
| 17448 | RIS | Loading patient with existing US address information may result in incorrect Zip Code. |
| 17437 | RIS | When user preferences fail to save, no error is shown to the user. |
| 17427 | RIS | Client performance issue when populating calculated columns. |
| 17341 | RIS | Browser Config lookup editor will not allow removing an existing value from URL without replacing it. |
| 17010 | RIS | Problem reloading dictation after an error occurs upon saving. |
| 16250 | RIS | Any dictation that fails to save, throws out the dictation on reloading. |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

| | | |
|---|---|---|
| 17044 | RIS | Burn CD - when studies with status 'Order pending approval' are selected, an error occurs. |
| 17028 | RIS | A number of columns are not populating in Radiologist - Signed By Date WL. |
| 17020 | RIS | UM tab remains visible after procedure change. |
| 16995 | RIS | After displaying the message that RIS is already running, an object reference error message is displayed. |
| 16990 | RIS | l_message_group > external_notification_email_address does not appear to be forwarding messages. |
| 16970 | RIS | Cannot Retry Job in Distribution History WL. |
| 16960 | RIS | When turning off the STAT flag after order is saved, UM status behaves differently depending on the screen. |
| 16850 | RIS | Body Parts not populating when adding a new procedure from the Perform Exam window. |
| 16843 | RIS | Windows 10 - Unlocking / waking PC hides locked RIS splash login in the background. |
| 16836 | RIS | For external reports, when previewing the report in the Report nugget, if the report is not available  a message should be displayed to the user. |
| 16796 | RIS | Infinitt PACS - login screen flashes for each study when using next workflow. |
| 16782 | RIS | Sectra PACS - when two patient folders are open with view images, a close call is not issued when one folder is closed and focus goes to the other folder. |
| 16742 | RIS | Autotext field values get saved when switching orders, even though the order is not saved yet. |
| 16735 | RIS | If a user's system does not have a Recording device, a null value can be saved for l_user_config settings MciInputDevice which makes the account unusable. |
| 16726 | RIS | Selecting a 'named' color in Portal Worklist configuration editor throws exception when selecting worklist tab row. |
| 16717 | RIS | When a patient has multiple studies in Pending Dictation WL, after the 1st study is signed, subsequent studies may have the wrong status for the prior study in the mini Patient Folder. |
| 16488 | RIS | Context Menu in Patient Search only lists New Appointment, New Walk-in for external results. |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

| | | |
|---|---|---|
| 16418 | RIS | View Study Workflow opening wrong window when using Skip and Continue after creating an Addendum in View Study. |
| 16407 | RIS | When editing medical record access, cancelling out still saves information. |
| 16401 | RIS | M*Modal Text Expander not validating entries, allows duplicates. |
| 16300 | RIS | Error deleting rows from Medical History grid when rescheduling order. |
| 16235 | RIS | The function c_getBiopsyTechnique is getting only the last row for the mammo_biopsy_technique_code when multiple rows are possible from the query results. |
| 16221 | RIS | UM - UMBypassSTAT workflow requires extra step to search for scheduling times if "STAT exam" flag selected after the procedure. |
| 16192 | RIS | When trying to schedule on a holiday, the visual is wrong in the Procedure Picker. |
| 16149 | RIS | An error can be displayed when IVT window is opened alongside Utilization Review window. |
| 17062 | RIS | Age label is not present next to DOB when rescheduling. |
| 17474 | Patient Portal | Unable to delete Padding Override codes and Report and Image Hold Values. |
| 17200 | Patient Portal | When creating new appointment in Patient Portal, entering data and hitting back button doesn't retain data. |
| 16301 | Patient Portal | Need to add countermeasures for CSRF. |
| 17144 | Patient Portal | When most recent exam is "CDImport," patient account creation can't be completed. |
| 16343 | Patient Portal | Ordering Provider tool-tips do not match up with their respective ordering providers. |
| 17496 | UM Portal | Need to resolve a memory leak with portal attachments. |
| 17119 | UM Portal | Returned tab Status filter needs a "SELECT ALL" option. |
| 17088 | UM Portal | User Mgt. > Edit > Preferences - Save button does not save changes for default landing page. |
| 17071 | UM Portal | By Status' filter does not appear to be working. |
| 17022 | UM Portal | Search - 'CC'd Ordering Provider's Last Name' field is not working. |
| 17014 | UM Portal | By Timeframe' filter's state [visually] set to last selected tab's configuration. |
| 16712 | UM Portal | Page titles shown in browser tabs are incorrect or provider specific. |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

| | | |
|---|---|---|
| 16298 | UM Portal | UM Connect's page titles inappropriately mimic Provider Connect's. |
| 17023 | UM Portal | Admin - When a user with a locked account logs into Portal Administration, an error is displayed. |
| 16035 | UM Portal | Modifying tab filtering options in Account > Settings can remove inappropriate exams from the orders list. |

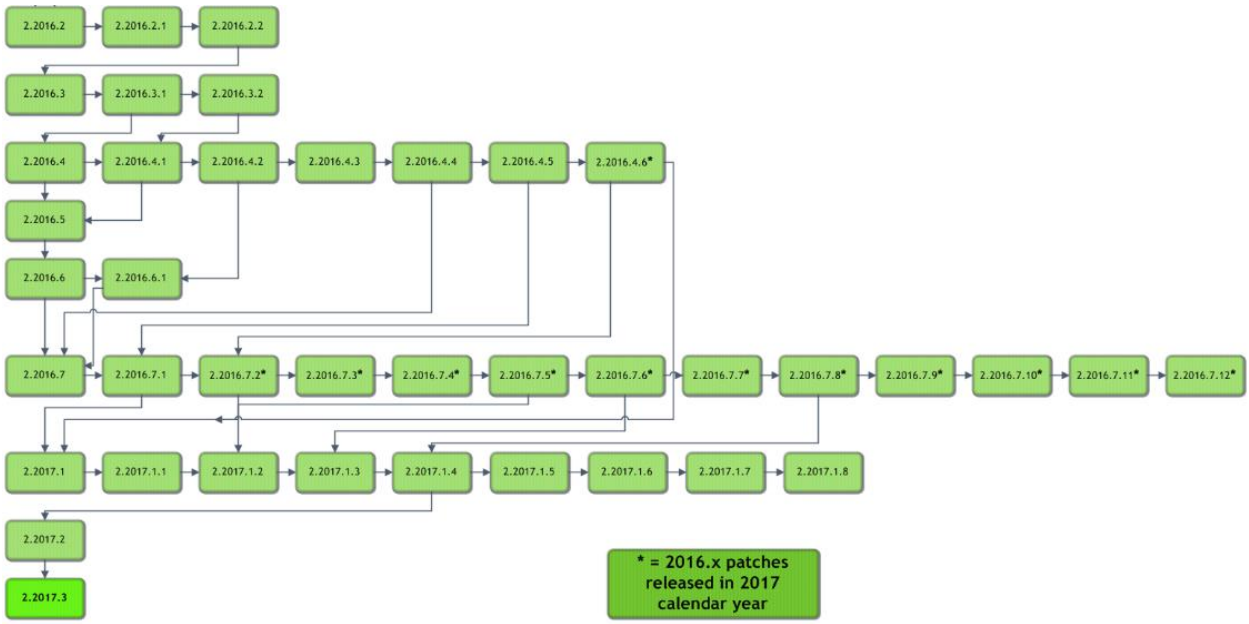
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## RIS RELEASE VERSION NUMBERS

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Digital Forms | Patient Portal | UM Portal | Provider Portal | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| 2016.2 | - | 2.16.2.0 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.0.00172540 | | | | | Full Version Release - GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge |
| 2016.2 | 1 | 2.16.2.1 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.0.00172540 | | | | | GUI.zip and Citrix Bridge |
| 2016.2 | 2 | 2.16.2.2 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.2.00243102 | | | | | GUI.zip, DB and Citrix Bridge |
| 2016.3 | - | 2.16.3.0 (3GB) | 2.16.3.0 | 2.16.3.0 | 2.16.3.0.00257101 | 2.16.3.0 | | | | Full Version Release |
| 2016.3 | 1 | 2.16.3.1 | 2.16.3.0 | 2.16.3.1 | 2.16.3.1.00298834 | 2.16.3.0 | | | | GUI.zip, Web Service and DB |
| 2016.3 | 2 | 2.16.3.2 | 2.16.3.0 | 2.16.3.2 | 2.16.3.1.00298834 | 2.16.3.0 | | | | GUI.zip and Web Service |
| 2016.4 | - | 2.16.4.0 | 2.16.4.0 | 2.16.4.0 | 2.16.4.0.00301943 | 2.16.4.0 | 1.16.4.0.310284 | | | Full Version Release |
| 2016.4 | 1 | 2.16.4.1 | 2.16.4.0 | 2.16.4.1 | 2.16.4.0.00301943 | 2.16.4.0 | 1.16.4.0.310284 | | | GUI and Web Service updates |
| 2016.4 | 2 | 2.16.4.2 (3GB) | 2.16.4.0 | 2.16.4.1 | 2.16.4.0.00301943 | 2.16.4.0 | 1.16.4.2.460241 | | | GUI and Patient Portal updates |
| 2016.4 | 3 | 2.16.4.3 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | 1.16.4.3.489120 | | | GUI and Patient Portal updates |
| 2016.4 | 4 | 2.16.4.4 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | 1.16.4.3.489120 | | | GUI |
| 2016.4 | 5 | 2.16.4.5 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | | | | GUI |
| 2016.4 | 6 | 2.16.4.6 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | | | | GUI |
| 2016.5 | - | 2.16.5.0 (3GB) | 2.16.5.0 | 2.16.5.0 | 2.16.5.0.00349303 | 2.16.5.0 | 1.16.5.0.362009 | | | Full Version Release |
| 2016.6 | - | 2.16.6.0 (3GB) | 2.16.6.0 | 2.16.6.0 | 2.16.6.0.00411295 | 2.16.6.0 | 1.16.6.0.432471 | | | Full Version Release |
| 2016.6 | 1 | 2.16.6.1 (3GB) | 2.16.6.0 | 2.16.6.0 | 2.16.6.0.00411295 | 2.16.6.0 | 1.16.6.1.468583 | | | GUI and Patient Portal updated |
| 2016.7 | - | 2.16.7.0 (3GB) | 2.16.70 | 2.16.70 | 2.16.7.0.00490835 | 2.16.70 | 1.16.7.0.493031 | 2.16.7.0.493008 | | Full version release |
| 2016.7 | 1 | 2.16.7.1 (3GB) | 2.16.7.0 | 2.16.7.1 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 2 | 2.16.7.2 (3GB) | 2.16.7.0 | 2.16.7.2 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 3 | 2.16.7.3 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 4 | 2.16.7.4 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI |
| 2016.7 | 5 | 2.16.7.5 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI |
| 2016.7 | 6 | 2.16.7.6 (3GB) | 2.16.7.0 | 2.16.7.6 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 7 | 2.16.7.7 (3GB) | 2.16.7.0 | 2.16.7.7 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 8 | 2.16.7.8 (3GB) | 2.16.7.0 | 2.16.7.7 | 2.16.7.8.00683507 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and DB updates |
| 2016.7 | 9 | 2.16.7.9 (3GB) | 2.16.7.0 | 2.16.7.9 | 2.16.7.9.00715012 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI, Web Services, DB updates and UM Portal |
| 2016.7 | 10 | 2.16.7.10 (3GB) | 2.16.7.0 | 2.16.7.10 | 2.16.7.9.00715012 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI and Web Service updates |
| 2016.7 | 11 | 2.16.7.11 (3GB) | 2.16.7.0 | 2.16.7.11 | 2.16.7.11.00761267 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI, Web Service and DB updates |
| 2016.7 | 13 | 2.16.7.12 (3GB) | 2.16.7.0 | 2.16.7.11 | 2.16.7.11.00761267 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI |
| 2017.1 | - | 2.17.1.0 (3GB) | 2.17.1.0 | 2.17.1.0 | 2.17.1.0.00559886 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | Full Version Release |
| 2017.1 | 1 | 2.17.1.1 (3GB) | 2.17.1.0 | 2.17.1.1 | 2.17.1.1.00589952 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 2 | 2.17.1.2 (3GB) | 2.17.1.0 | 2.17.1.2 | 2.17.1.2.00621962 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 3 | 2.17.1.3 (3GB) | 2.17.1.0 | 2.17.1.3 | 2.17.1.3.00640480 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 4 | 2.17.1.4 (3GB) | 2.17.1.0 | 2.17.1.4 | 2.17.1.4.00692239 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI, Web Service, DB and Patient Portal updates |
| 2017.1 | 5 | 2.17.1.4 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.4.00692239 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | Web Service |
| 2017.1 | 6 | 2.17.1.6 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI and DB Updates |
| 2017.1 | 7 | 2.17.1.7 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI update |
| 2017.1 | 8 | 2.17.1.8 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI update |
| 2017.2 | - | 2.17.2.0(3GB) | 2.17.2.0 | 2.17.2.0 | 2.17.2.0.00695782 | 2.17.2.0 | 2.17.2.0.702238 | 2.17.2.0.702213 | 2.17.2.0.702226 | Full Version Release. First release of Provider Portal |
| **2017.3** | **-** | **2.17.3.0(3GB)** | **2.17.3.0** | **2.17.3.0** | **2.17.3.0.00764112** | **2.17.3.0** | **2.17.3.0.321** | **2.17.3.0.321** | **2.17.3.0.321** | **Full Version Release. Including Patient, Provider and UM Portals** |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## CODE STREAM DIAGRAM




No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

# Server Update

For eRAD RIS

Version 2.0

Build 2.2017.3

Update 2.2017.3.1

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

# Table of Contents

Package Contents ..... 3

Intended Audience ..... 3

Who is affected ..... 3

New Features ..... 4

Feature #17896 / 17597/17544 - Scheduled Start Date added to Chair API, which will sort chronologically ..... 4

Feature #17865 / 17829 - Configurable option to suppress unprinted BI-RADS 0 Lay Letters when newer BI-RADS is available for the patient ..... 7

Feature #17879 / 17748 – Allow eRAD RIS Service and Support to add columns to retrieve for patient folder ..... 8

New configuration settings ..... 12

System configuration settings ..... 12

Resolved Items ..... 13

Code Stream ..... 16

eRAD RIS Release Version Numbers ..... 17

Installing ..... 18

Client/GUI ..... 18

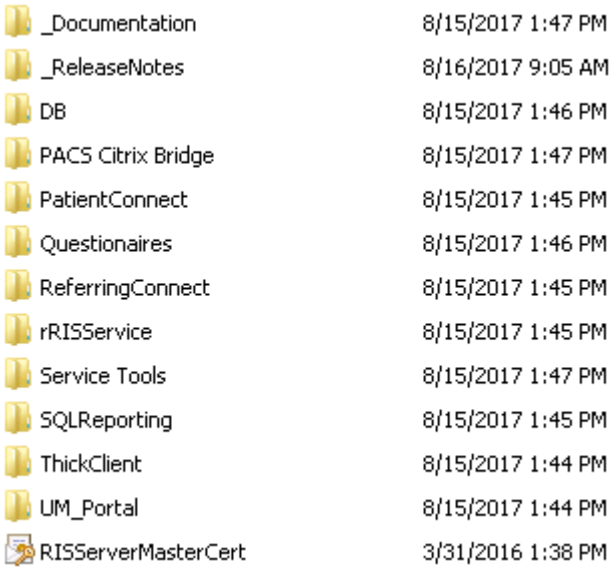
Web Service ..... 18

Database Updates ..... 20

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## PACKAGE CONTENTS



| | |
|---|---|
| _Documentation | 8/15/2017 1:47 PM |
| _ReleaseNotes | 8/16/2017 9:05 AM |
| DB | 8/15/2017 1:46 PM |
| PACS Citrix Bridge | 8/15/2017 1:47 PM |
| PatientConnect | 8/15/2017 1:45 PM |
| Questionaires | 8/15/2017 1:46 PM |
| ReferringConnect | 8/15/2017 1:45 PM |
| rRISService | 8/15/2017 1:45 PM |
| Service Tools | 8/15/2017 1:47 PM |
| SQLReporting | 8/15/2017 1:45 PM |
| ThickClient | 8/15/2017 1:44 PM |
| UM_Portal | 8/15/2017 1:44 PM |
| RISServerMasterCert | 3/31/2016 1:38 PM |

## INTENDED AUDIENCE

The intended audience for this document is the RadNet Clinical Systems team and the eRAD Support/Service team.

It is appropriate to share the document with any customers applying the patch, in order to review new feature descriptions and resolved defects.

## WHO IS AFFECTED

Build 2017.3 installs. This server update must be applied to 2017.3.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

## NEW FEATURES

The features included with this eRAD RIS Server Update were originally released in 2016.7.13 and are now being merged into the 2017.3 build. The feature number listed first is the 2017.3.1 Redmine tracking number, followed by the associated 2016.7.13 Redmine number.

### FEATURE #17896 / 17597/17544 - SCHEDULED START DATE ADDED TO CHAIR API, WHICH WILL SORT CHRONOLOGICALLY

This feature is for customers using the Chair API. The Chair API now includes the Scheduled Start Date and returns the oldest studies first. This enables the Chair workflow engine to assign aging studies first.

Scheduled Start Date was added as a field in the output of two Chair API requests. Additionally, the results of any requests to obtain an exam list by chair and by status are now sorted by Scheduled Start Date, with the oldest dates listed first.

A change has also been made to make the previously hard coded "7 day filter" configurable. Previously, the Chair API limited query results by chair and status to include exams that had been scheduled within the past 7 days. An optional parameter, *IncludeAllDates*, has been added to bypass the 7 day filter on Scheduled Start Date. This parameter will default to false if not specified and the original behavior will be maintained.

Figures 1 through 3, below, illustrate the XML:

*Figure 1 – Get Exam list by chair and status*

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

*Figure 2a – Get Exam list by chair and status with ReturnAllDates = true to include older studies*

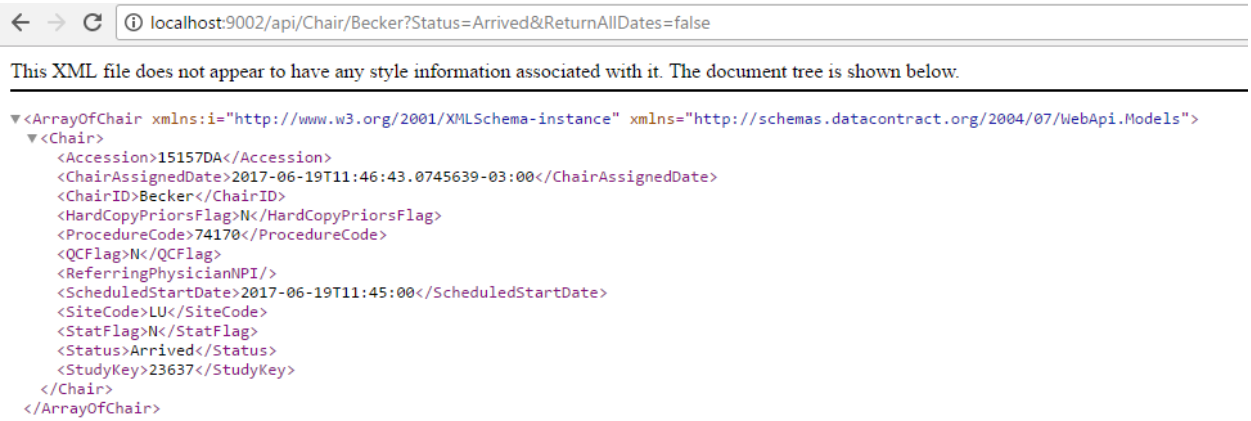



*Figure 2b – Get Exam list by chair and status with ReturnAllDates = false to exclude older studies (compare to Figure 2a)*

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

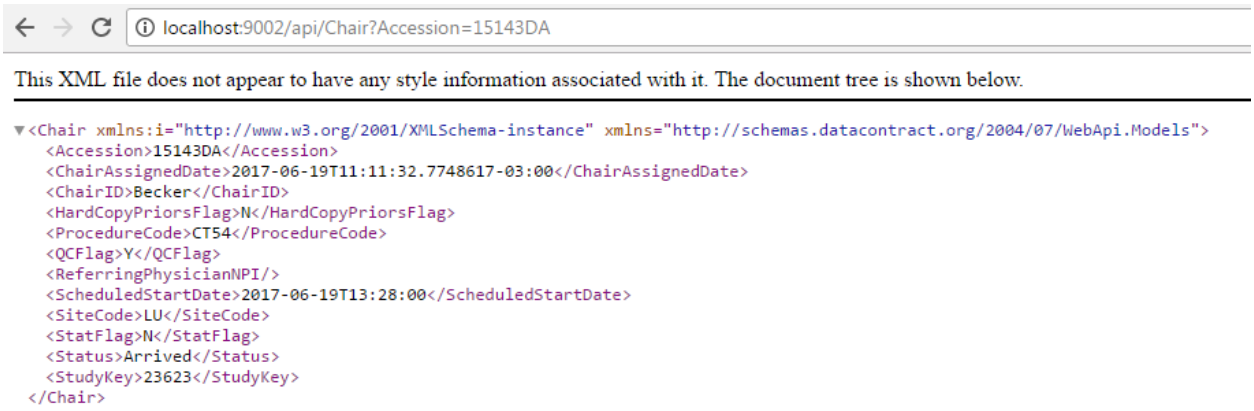



*Figure 3 - Get Chair Data by Accession*

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## FEATURE #17865 / 17829 - CONFIGURABLE OPTION TO SUPPRESS UNPRINTED BI-RADS 0 LAY LETTERS WHEN NEWER BI-RADS IS AVAILABLE FOR THE PATIENT

There is now a System Configuration setting that will suppress unprinted BI-RADS 0 Lay Letters when a more current BI-RADS exists for the same patient. For example, if a patient's BI-RADS 0 Lay Letter has not been printed by the time they return for their additional imaging, the new exam's Lay Letter would effectively replace the original BI-RADS 0 Lay Letter when the BI-RADS for the new report is anything other than 0.

The default for this new setting will be False. The recommendation for U.S. customers is to leave this setting as false to ensure that patients receive Lay Letters for every BI-RADS exam.

The new System Configuration setting is named *SuppressAllUnprintedBIRADS0LayLetters.*

Please note that this setting does not impact the workflow for unprinted Lay Letters when an addendum is done for the *same* study. If a Lay Letter has not been printed and an addendum is done on that study, the Lay Letter will continue to be replaced with an updated Lay Letter if the BI-RADS information has been updated. This System Configuration setting has no impact on this workflow, which remains unchanged.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## FEATURE #17879 / 17748 – ALLOW ERAD RIS SERVICE AND SUPPORT TO ADD COLUMNS TO RETRIEVE FOR PATIENT FOLDER

ALERT: This feature is meant to be used by eRAD Support only. Adjustments should only be made under the direction of an eRAD Support team member.

Recently, a change was made to the way eRAD RIS retrieves data for the Patient Folder, which had been retrieving more data from the database than was necessary to display the information needed in the visible columns.

In reducing the data retrieved for the Patient Folder, it became evident that some information that is not displayed in the worklist columns is nevertheless used for certain functions, such as determining which context menu options should be available. If the data was not available, the user could receive an error or lose access to certain functionality that is dependent upon the data.

eRAD RIS is once again retrieving the data that was identified as supporting such functions; however, it is beneficial to have a method for eRAD Support to add additional database columns to the set for retrieval, in case it is discovered in the field that additional data is required for an unforeseen function.

To support this, a new System Configuration setting has been added: *PatientFolderExtraColumnsToGet*. This setting will allow a comma separated list of columns to retrieve from the database in addition to the hard coded set. Any column names that are not part of the c_vw_PatientFolder view are deemed invalid and are not retrieved. This will prevent an exception from occurring in the Patient Folder if an invalid column name is entered in System Configuration.

RIS Development should be notified anytime eRAD Support resorts to adding a column to this System Configuration setting, so that adjustments can be made in the next release.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## FEATURE #17997 / 17460 - UM CLOCK SHOULD START COUNTING WHEN THE ORDER FIRST QUALIFIES AS UTILIZATION REVIEW REQUIRED

The UM Clock previously used an order's requested date as the start value (time stamp). Typically, this is the date the order was created in RIS. There are some scenarios where the UM Clock should not use the requested date of the order as a starting point, but rather the date the procedure became qualified for utilization review.

For example, an order exists for an X-Ray (UM not required). The X-Ray is changed to a CT procedure 2 days later, which requires utilization review. Since the procedure did not require utilization review until it was changed to a CT, the UM Clock will not use the date that the original order (X-Ray) was created. The UM Clock will instead start as soon as the order first required utilization management (i.e. the date it was changed to a CT).

### Service Notes:

A new column called *um_received_date* has been added to the c_order_item table. This date/time column will be set anytime a procedure is flagged for utilization review. The UM Clock will use the Received Date as the start parameter.

If an order has multiple procedures that require utilization review, the system will use the oldest Received Date.

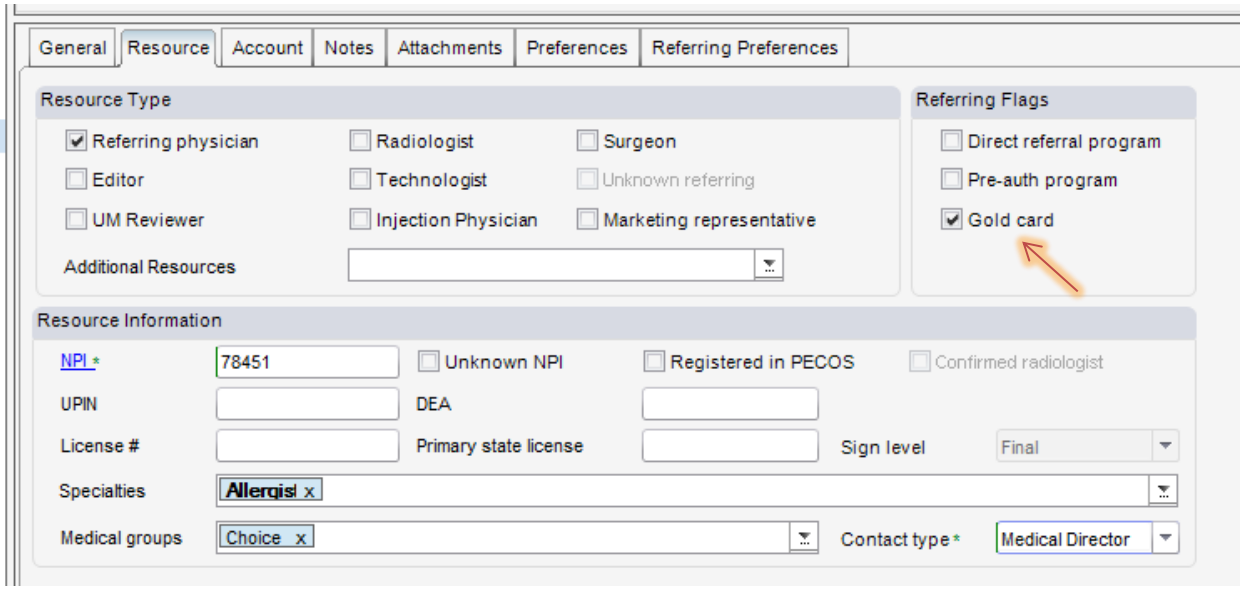
If for some reason there is not a Received Date available, the system will revert back to using the Requested Date at the order level which is always available.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## FEATURE #17999 / 17394 - ORDERS FROM GOLD CARD PHYSICIANS THAT REQUIRE UTILIZATION REVIEW SHOULD AUTOMATICALLY ROUTE TO SCHEDULING

Previously, when a referring physician was flagged as "Gold Card," eRAD RIS would display this flag and the corresponding notes, but it was up to the UM reviewer to evaluate the notes and determine whether the order should bypass the utilization review process.




It is now possible to configure eRAD RIS to automatically bypass the Utilization Review workflow when the referring physician is flagged as Gold Card. With this configuration, schedulers can proceed immediately to scheduling the procedure without waiting for the utilization review process. The order is automatically flagged as UM Complete and a UM Tracking Number is assigned.

To enable this workflow, a new system configuration value called *UMGoldCardAutoApprove* with a default value of "True" has been added to the system.

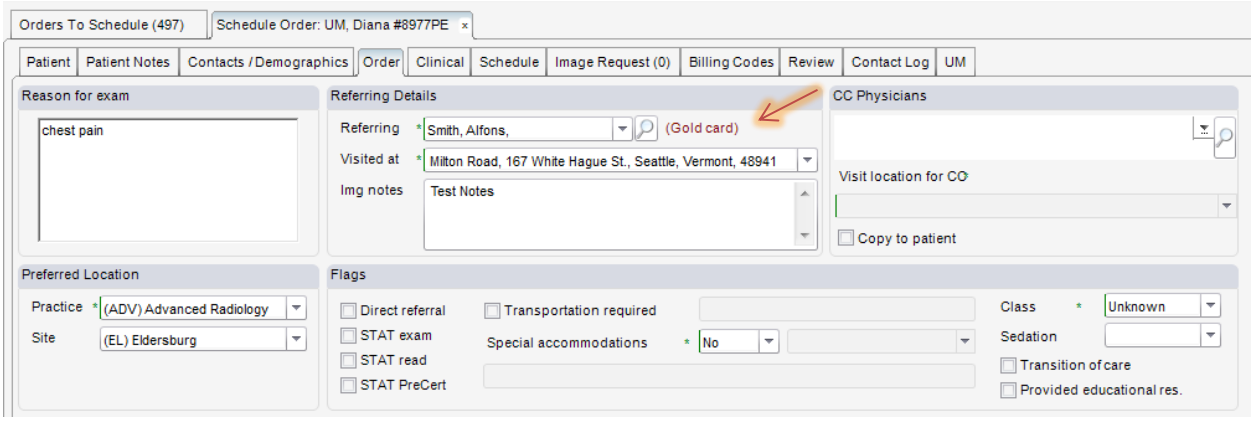
When UMGoldCardAutoApprove is enabled, any orders for Gold Card physicians that require utilization review will be given a new UM Tracking Number and marked as UM Complete, so they can advance to scheduling immediately.

When UMGoldCardAutoApprove is *disabled*, any orders for Gold Card physicians that require utilization review will be given a new UM Tracking Number and marked as UM Required, so they can advance to the Utilization Management Worklist to be reviewed.

Schedulers will be able to identify that a referring physician is part of Gold Card by looking at the label next to the referring physician's name on the Order tab. It will appear in the same location as the existing label for "Pre-auth program." A referring physician can be labeled as Gold Card, Pre-auth program, or both.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

# NEW CONFIGURATION SETTINGS

## SYSTEM CONFIGURATION SETTINGS

| Setting | Default | Purpose |
|---|---|---|
| PatientFolderExtraColumnsToGet | n/a | (value = string) Comma separated list of additional columns to retrieve for the patient folder. Columns must exist in the patient folder view. SERVICE ONLY. Please report to RIS Development when used. |
| SuppressAllUnprintedBIRADS0Lay Letters | False | Suppresses all unprinted BI-RADS 0 Lay Letters if a new report is signed for the patient with any BI-RADS other than 0. Recommendation for this setting is False. |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

## RESOLVED ITEMS

# eRAD RIS

| Redmine # | Subject |
|---|---|
| 18012 | Corrected issue with slow performance after updating to 2016.7.13. |
| 17940 | Resolved an issue in which billing codes were not added after changing the procedure under certain conditions. |
| 17932 | It is again possible to remove the QA Flag on the All Pending Signature WL. |
| 17762 | No longer receive an error when taking the default action from Exam Search. |
| 17771 | Resolved an error related to an empty updateservers.txt which could prevent RIS from loading. |
| 17680 | Reverted the c_audit cluster index change that was made in 2017.3 from the upgrade scripts. Some changes are required before this can be implemented. |

The following list contains bugs or features that have been resolved in previous RIS versions and have been added to this version of eRAD RIS to provide an upgrade path. Features are also described in the New Features section.

| Redmine # | Subject | Original Resolved Version |
|---|---|---|
| 17906 | Log file from deployment script differentiates which management reports use the "Real-Time" and which use the "Alternate" reporting server. | 2017.4 (future version) |
| 17872 | Resolved an issue with contrast requirements when patient has multiple studies. | 2016.7.13 |
| 17887 | Database option pack created to backfill _primary_study_key prior to upgrade to prevent the upgrade from taking an | 2016.7.13 |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

| | | |
|---|---|---|
| | excessively long time for large data centers. | |
| 17888 | An alias was added for the Reading Group column in the view c_vw_WL_Dictated, as it was noticed that the alias had changed. | 2016.7.13 |
| 17889 | An upgrade script was added for resolved defect #16617. | 2017.4 (future version) |
| 17893 | Addressed an issue with performance problems in the PreCert Group Editor. | 2016.7.13 |
| 17894 | Resolved an issue with exams scheduled from Cancelled appointments inappropriately retaining their PreCert status. Also revised check on expiry date to ensure that PreCert status will be set to Required if the Expiry Date is prior to the new scheduled date ***or*** the Expiry Date was blank when rescheduling from an Approved exam. | 2016.7.13 |
| 17895 | Temporarily disabled *EnableExtraCompressionOnStudyUpdates* until further changes are made. | 2016.7.13 |
| 17897 | An index was added to improve performance during a patient search (previously caused excessive IO). | 2016.7.13 |
| 17898 | Changed an index to improve efficiency of a Chair workflow query. | 2016.7.13 |
| 17899 | Index used by UM Management Reports is now only referencing UM Finalized dates that are not null. | 2016.7.13 |
| 17900 | Added a missing index on c_study_item_sedation for study_item_key. | 2016.7.13 |
| 17901 | The study dataset has been updated to take advantage of a new computed column to increase efficiency when determining the primary study. | 2016.7.13 |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

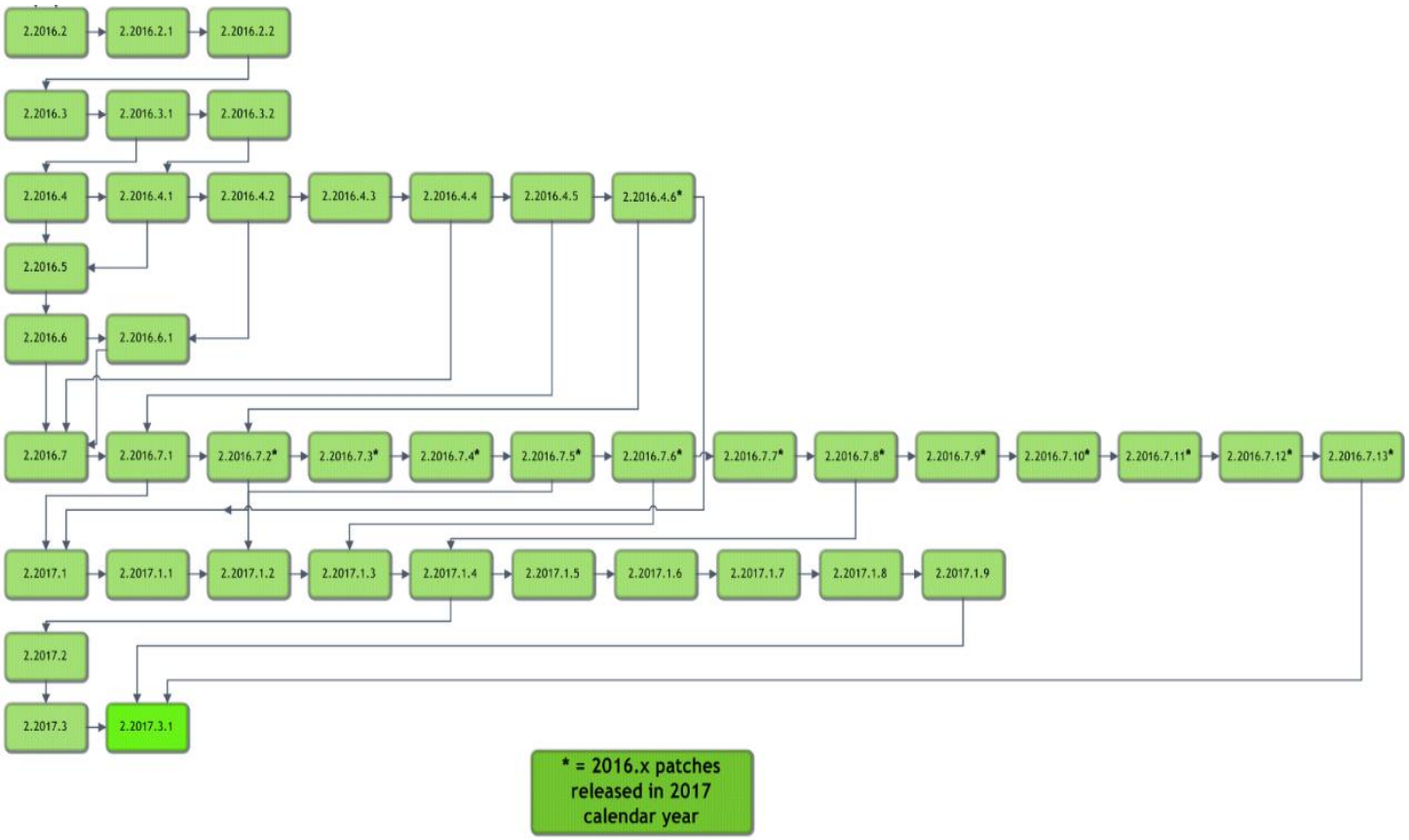
in any form or by any means without the prior written permission from eRAD. 

| | | |
|---|---|---|
| 17902 | Eliminated unnecessary database calls for linked interpretation rows to improve performance. | 2016.7.13 |
| 17903 | No longer retrieving unnecessary database columns for Patient Folder. | 2016.7.13 |
| 17904 | Resolved a performance issue with excessive service calls when searching for carriers. | 2016.7.13 |
| 17908 | The increased time for RIS GUI GetData calls to RIS Services has been reduced. | 2016.7.13 |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## CODE STREAM




**Legend:**

Light Green = Previously Released software

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## ERAD RIS RELEASE VERSION NUMBERS

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Digital Forms | Patient Portal | UM Portal | Provider Portal | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| 2016.2 | - | 2.16.2.0 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.0.00172540 | | | | | Full Version Release - GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge |
| 2016.2 | 1 | 2.16.2.1 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.0.00172540 | | | | | GUI.zip and Citrix Bridge |
| 2016.2 | 2 | 2.16.2.2 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.2.00243102 | | | | | GUI.zip, DB and Citrix Bridge |
| 2016.3 | - | 2.16.3.0 (3GB) | 2.16.3.0 | 2.16.3.0 | 2.16.3.0.00257101 | 2.16.3.0 | | | | Full Version Release |
| 2016.3 | 1 | 2.16.3.1 | 2.16.3.0 | 2.16.3.1 | 2.16.3.1.00298834 | 2.16.3.0 | | | | GUI.zip, Web Service and DB |
| 2016.3 | 2 | 2.16.3.2 | 2.16.3.0 | 2.16.3.2 | 2.16.3.1.00298834 | 2.16.3.0 | | | | GUI.zip and Web Service |
| 2016.4 | - | 2.16.4.0 | 2.16.4.0 | 2.16.4.0 | 2.16.4.0.00301943 | 2.16.4.0 | 1.16.4.0.310284 | | | Full Version Release |
| 2016.4 | 1 | 2.16.4.1 | 2.16.4.0 | 2.16.4.1 | 2.16.4.0.00301943 | 2.16.4.0 | 1.16.4.0.310284 | | | GUI and Web Service updates |
| 2016.4 | 2 | 2.16.4.2 (3GB) | 2.16.4.0 | 2.16.4.1 | 2.16.4.0.00301943 | 2.16.4.0 | 1.16.4.2.460241 | | | GUI and Patient Portal updates |
| 2016.4 | 3 | 2.16.4.3 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | 1.16.4.3.489120 | | | GUI and Patient Portal updates |
| 2016.4 | 4 | 2.16.4.4 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | 1.16.4.3.489120 | | | GUI |
| 2016.4 | 5 | 2.16.4.5 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | | | | GUI |
| 2016.4 | 6 | 2.16.4.6 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | | | | GUI |
| 2016.5 | - | 2.16.5.0 (3GB) | 2.16.5.0 | 2.16.5.0 | 2.16.5.0.00349303 | 2.16.5.0 | 1.16.5.0.362009 | | | Full Version Release |
| 2016.6 | - | 2.16.6.0 (3GB) | 2.16.6.0 | 2.16.6.0 | 2.16.6.0.00411295 | 2.16.6.0 | 1.16.6.0.432471 | | | Full Version Release |
| 2016.6 | 1 | 2.16.6.1 (3GB) | 2.16.6.0 | 2.16.6.0 | 2.16.6.0.00411295 | 2.16.6.0 | 1.16.6.1.468583 | | | GUI and Patient Portal updated |
| 2016.7 | - | 2.16.7.0 (3GB) | 2.16.70 | 2.16.70 | 2.16.7.0.00490835 | 2.16.70 | 1.16.7.0.493031 | 2.16.7.0.493008 | | Full version release |
| 2016.7 | 1 | 2.16.7.1 (3GB) | 2.16.7.0 | 2.16.7.1 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 2 | 2.16.7.2 (3GB) | 2.16.7.0 | 2.16.7.2 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 3 | 2.16.7.3 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 4 | 2.16.7.4 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI |
| 2016.7 | 5 | 2.16.7.5 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI |
| 2016.7 | 6 | 2.16.7.6 (3GB) | 2.16.7.0 | 2.16.7.6 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 7 | 2.16.7.7 (3GB) | 2.16.7.0 | 2.16.7.7 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 8 | 2.16.7.8 (3GB) | 2.16.7.0 | 2.16.7.7 | 2.16.7.8.00683507 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and DB updates |
| 2016.7 | 9 | 2.16.7.9 (3GB) | 2.16.7.0 | 2.16.7.9 | 2.16.7.9.00715012 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI, Web Services, DB updates and UM Portal |
| 2016.7 | 10 | 2.16.7.10 (3GB) | 2.16.7.0 | 2.16.7.10 | 2.16.7.9.00715012 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI and Web Service updates |
| 2016.7 | 11 | 2.16.7.11 (3GB) | 2.16.7.0 | 2.16.7.11 | 2.16.7.11.00761267 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI, Web Service and DB updates |
| 2016.7 | 12 | 2.16.7.12 (3GB) | 2.16.7.0 | 2.16.7.11 | 2.16.7.11.00761267 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI |
| 2016.7 | 13 | 2.16.7.13 (3GB) | 2.16.7.0 | 2.16.7.13 | 2.16.7.13.00823274 | 2.16.7.0 | 2.16.7.13.805715 | 2.16.7.13.805717 | | GUI, Web Service, DB, Patient and UM Portal updates |
| 2017.1 | - | 2.17.1.0 (3GB) | 2.17.1.0 | 2.17.1.0 | 2.17.1.0.00559886 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | Full Version Release |
| 2017.1 | 1 | 2.17.1.1 (3GB) | 2.17.1.0 | 2.17.1.1 | 2.17.1.1.00589952 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 2 | 2.17.1.2 (3GB) | 2.17.1.0 | 2.17.1.2 | 2.17.1.2.00621962 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 3 | 2.17.1.3 (3GB) | 2.17.1.0 | 2.17.1.3 | 2.17.1.3.00640480 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 4 | 2.17.1.4 (3GB) | 2.17.1.0 | 2.17.1.4 | 2.17.1.4.00692239 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI, Web Service, DB and Patient Portal updates |
| 2017.1 | 5 | 2.17.1.4 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.4.00692239 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | Web Service |
| 2017.1 | 6 | 2.17.1.6 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI and DB Updates |
| 2017.1 | 7 | 2.17.1.7 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI update |
| 2017.1 | 8 | 2.17.1.8 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI update |
| 2017.1 | 9 | 2.17.1.9 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI update |
| 2017.2 | - | 2.17.2.0(3GB) | 2.17.2.0 | 2.17.2.0 | 2.17.2.0.00695782 | 2.17.2.0 | 2.17.2.0.702238 | 2.17.2.0.702213 | 2.17.2.0.702226 | Full Version Release. First release of Provider Portal |
| 2017.3 | - | 2.17.3.0(3GB) | 2.17.3.0 | 2.17.3.0 | 2.17.3.0.00764112 | 2.17.3.0 | 2.17.3.0.321 | 2.17.3.0.321 | 2.17.3.0.321 | Full Version Release. Including Patient, Provider and UM Portals |
| **2017.3** | **1** | **2.17.3.1(3GB)** | **2.17.3.0** | **2.17.3.1** | **2.17.3.1.00846328** | **2.17.3.1** | **2.17.3.1.853299** | **2.17.3.1.853301** | **2.17.3.1.856171** | **GUI, Web Sevice, DB. Including Patient, Provider and UM Portals** |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

# INSTALLING

## CLIENT/GUI

Copy and replace the current rRIS…zip file with the eRAD_rRIS_2017.3.1.zip file provided with this release.

Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

## WEB SERVICE

This updated is only required for the Wedge Web Services. The Core RIS Service and Document Distribution Service are not required to be updated.

1. The web service upgrade consists of replacing the files in the RIS Web Service directory with the files supplied in the rRISService folder with this build. Always create a backup of the files being replaced. This upgrade includes 129 files in the rRISService folder and 7 sub folders. Of those folders, 1 is a folder titled **"XSL"** that contains a sub folder and files within the subfolder. Another folder is titled **"deploy"** that contains the new .config files that will be deployed with the user of the file called "ServicesConfigWizard.exe" (see instructions below). Folders ar (Arabic), he (Hebrew), pt_BR (Brazilian Portuguese), es-AR (Argentina Spanish) and en_AU (Australian English) are localization folders. The WedgePlugins folder contains various plugin files for RADAR, MIRTH, Ensemble, etc…

**Services Configuration Wizard**

With the release of 42 to decrease the chance of losing configuration setting and missing new configuration options, we will no longer include the configuration files in the release in the main set of files, but they will now exist in a "deploy" folder, which will contain the three site configurable config files; applicationsettings, connectionstrings, and services as well as a copy of the rRISServices.exe configuration file. The contents of this folder should not be required to be touched.

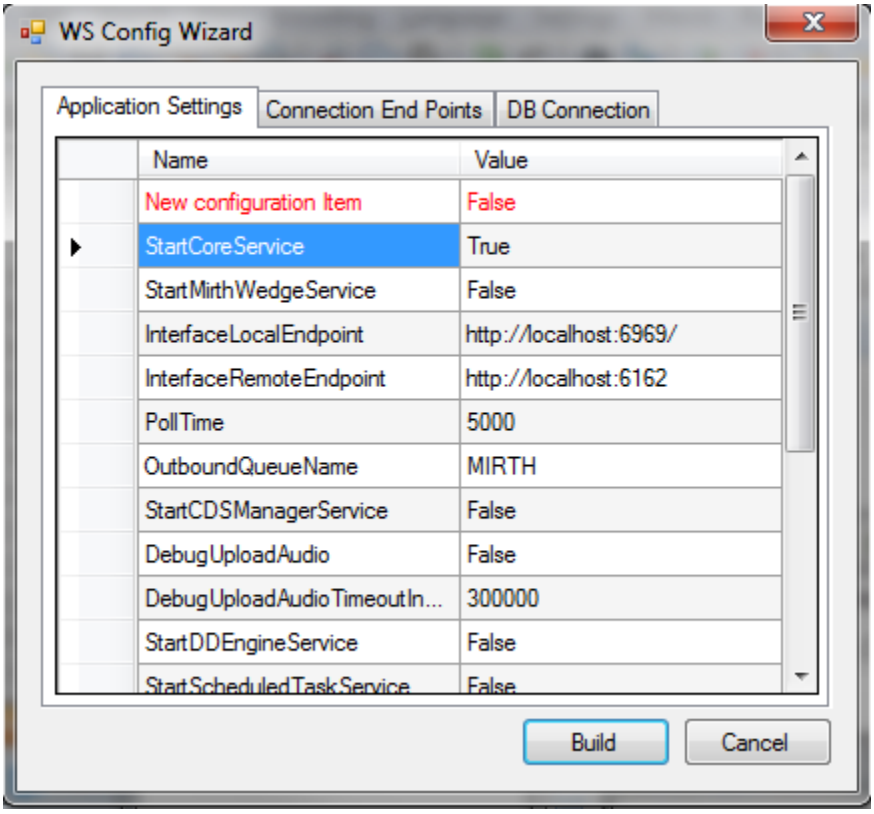
On the install of a new service, all files will be copied to the appropriate locations on the server (no configurations will be over written). If instructed or to confirm no new configurations have been added the user can run the new application "ServicesConfigWizard.exe"

This application will read the existing configuration file(s) (if files exist), and compare to the provided new configuration files then will display three tabs, for each configuration file:

**Application Settings:** all existing configuration value will be displayed, if there are any new configuration entries they will be displayed in red.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

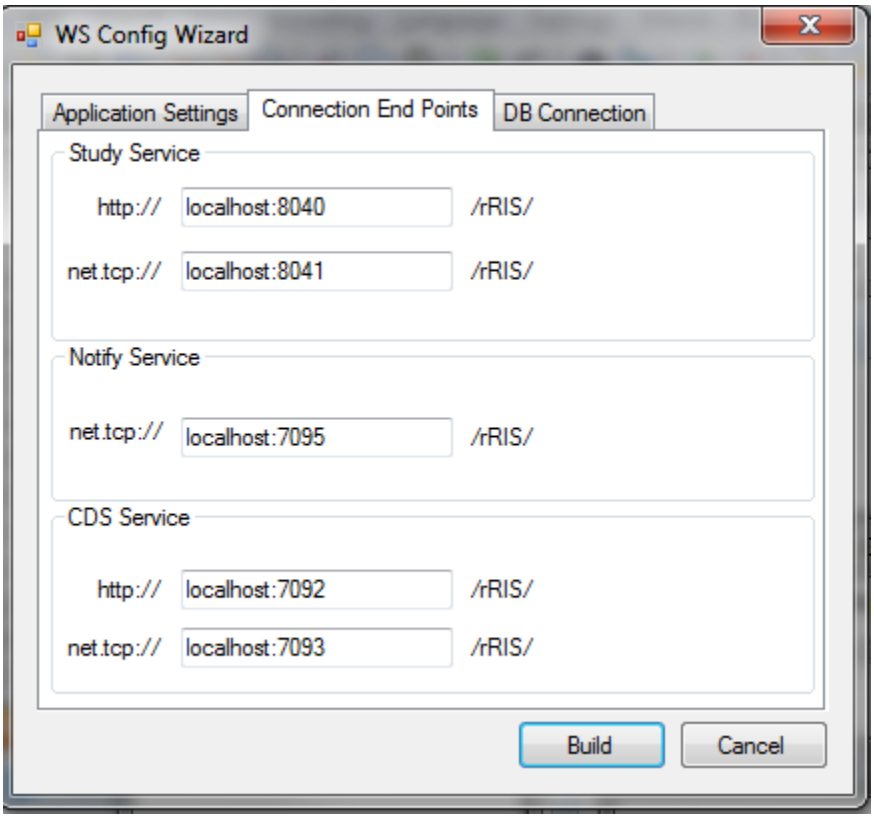
in any form or by any means without the prior written permission from eRAD. 




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

**Connection End Points:** will display the existing configuration, if the value is left blank then that entry will not be created, in the case of "Study Service" or "CDS Service" if both http and net.tcp were not provided then that endpoint will not be created at all.




## DATABASE UPDATES

Always run the upgrade scripts in a test environment of the actual database to make sure they run cleanly. If any errors occur please contact development.

*Note: There is a new upgrade process introduced with B43.1 called "RunUpgrade.bat". The batch file will open a command window. This process will prompt you for the database server name, database name and authentication credentials. There is no need to run the database upgrade scripts manually as was done in previous releases.*

1) From the upgrade folder, double click the "RunUpgrade.bat" command file.

2) Enter the server name, database name and authentication credentials to the database. You have 2 choices for authentication credentials.

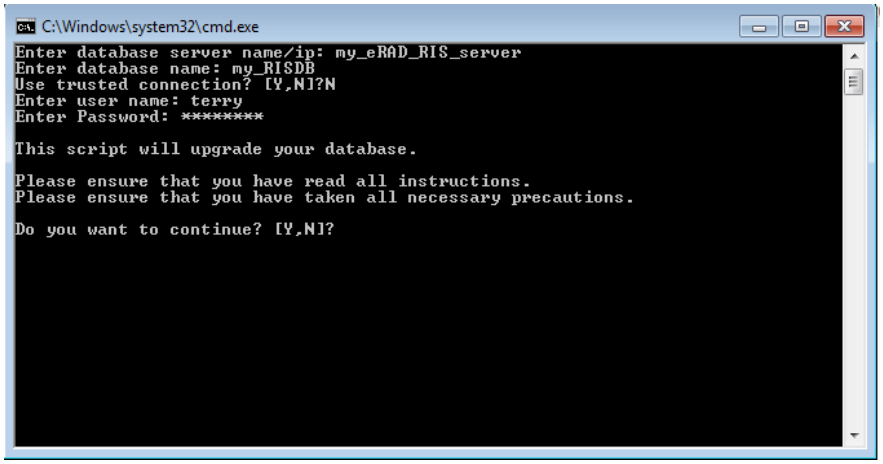
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

3) You can choose to use “Trusted connection”. Using this option will pass the identity of the currently logged on user. If this user has “db_owner” access to the eRAD RIS database then feel free to use this options.

4) If you decide not to use “Trusted connection” then you will be prompted for user id and password.

   Example:




5) After the upgrade program has finished you can find the upgrade logs in the “log” folder. The file name will be eRAD_RIS_db_upgrade_timestamp.log, where timestamp is a value representing the date and time the upgrade started. If you see any errors please contact the development team

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

# Server Update

For eRAD RIS

Version 2.0

Build 2.2017.3

Update 2.2017.3.2.2

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

# Table of Contents

Package Contents ..... 3

Intended Audience ..... 3

Who is affected ..... 3

New Settings ..... 4

Applicationsettings.config ..... 4

New Features ..... 5

Feature #20319 – Copy and paste RTL characters for a PDF diagnostic report ..... 5

Code Stream ..... 6

eRAD RIS Release Version Numbers ..... 7

Installing ..... 8

Web Service ..... 8

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## PACKAGE CONTENTS

## INTENDED AUDIENCE

The intended audience for this document is the RadNet Clinical Systems team and the eRAD Support/Service team. It is appropriate to share the document with any customers applying the patch, in order to review new feature descriptions and resolved defects.

## WHO IS AFFECTED

Build 2017.3 installs. This server update must be applied to 2017.3.2.1

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## NEW SETTINGS

### APPLICATIONSETTINGS.CONFIG

| Setting | Default | Purpose |
|---|---|---|
| GenerateRTLPDFForDiagnosticReports | False | When set to true, diagnostic reports will be generated in PDF format from the SSRS using the conversion library that supports specific character mappings that were problematic in the previous conversion method. |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

## NEW FEATURES

### FEATURE #20319 – COPY AND PASTE RTL CHARACTERS FOR A PDF DIAGNOSTIC REPORT

Previously, the **GenerateDiagnosticReport** web method on the External Interface Service (EIS) provided the option to export a PDF; however the file provided did not allow copy/pasting of Hebrew characters, which are rendered by SSRS as bitmap objects. To support this functionality for any customers using right to left languages, a new solution has been added to eRAD RIS that will provide the ability to export to a document from which text can be copy/pasted.

New functionality has been added to the core logic which generates diagnostic report PDFs from the SSRS. Instead of returning the PDF bytes received from the SSRs server, a new method of generating a PDF representation of the report has been implemented. A DOCX is requested from the reporting services, which is then passed to a DLL called DPN. The DPN DLL is a conversion library provided by Sub Systems, the company which supplies the RTL editor for reporting. This process eliminates problems with embedding certain character mappings which are required for proper copy and paste support. Because the conversion library is able to convert a DOCX to a PDF without using MS Office, it is more reliable under a heavy workload.

A new applicationsettings.config setting has been created to enable this new PDF generation functionality.

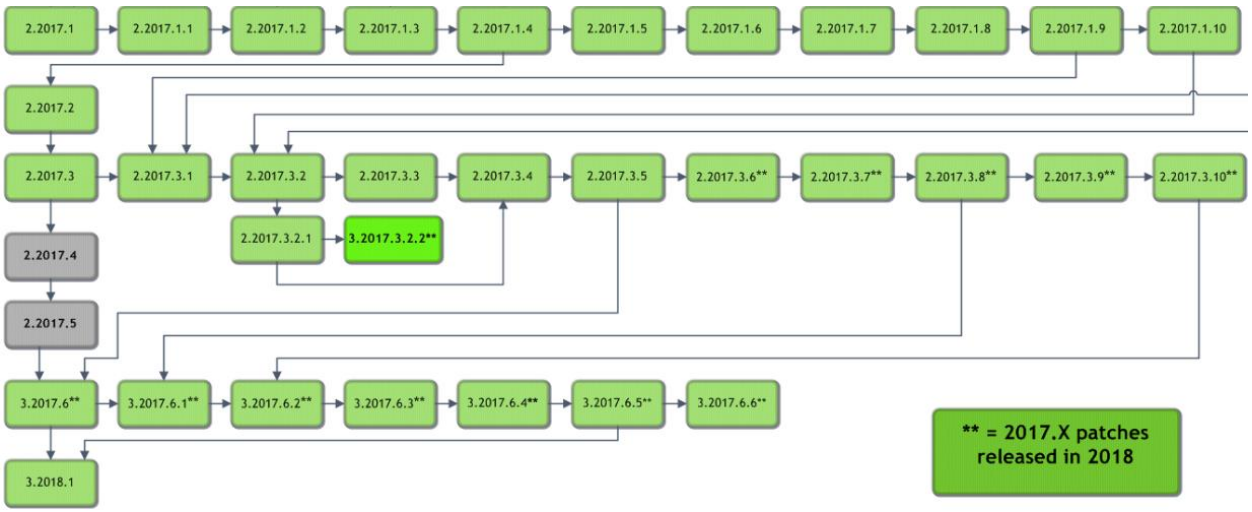
**GenerateRTLPDFForDiagnosticReports**: Default = False

To enable the new functionality, this setting must be set to True for the service which is hosting the External Interface Service.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## CODE STREAM




**Legend:**

Light Green = Previously Released software

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## ERAD RIS RELEASE VERSION NUMBERS

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Digital Forms | Patient Portal | UM Portal | Provider Portal | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| 2017.1 | - | 2.17.1.0 (3GB) | 2.17.1.0 | 2.17.1.0 | 2.17.1.0.00559886 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | Full Version Release |
| 2017.1 | 1 | 2.17.1.1 (3GB) | 2.17.1.0 | 2.17.1.1 | 2.17.1.1.00589952 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 2 | 2.17.1.2 (3GB) | 2.17.1.0 | 2.17.1.2 | 2.17.1.2.00621962 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 3 | 2.17.1.3 (3GB) | 2.17.1.0 | 2.17.1.3 | 2.17.1.3.00640480 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 4 | 2.17.1.4 (3GB) | 2.17.1.0 | 2.17.1.4 | 2.17.1.4.00692239 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI, Web Service, DB and Patient Portal updates |
| 2017.1 | 5 | 2.17.1.4 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.4.00692239 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | Web Service |
| 2017.1 | 6 | 2.17.1.6 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI and DB Updates |
| 2017.1 | 7 | 2.17.1.7 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI update |
| 2017.1 | 8 | 2.17.1.8 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI update |
| 2017.1 | 9 | 2.17.1.9 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI update |
| 2017.1 | 10 | 2.17.1.10 (3GB) | 2.17.1.0 | 2.17.1.10 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI and Web Service update |
| 2017.2 | - | 2.17.2.0(3GB) | 2.17.2.0 | 2.17.2.0 | 2.17.2.0.00695782 | 2.17.2.0 | 2.17.2.0.702238 | 2.17.2.0.702213 | 2.17.2.0.702226 | Full Version Release. First release of Provider Portal |
| 2017.3 | - | 2.17.3.0(3GB) | 2.17.3.0 | 2.17.3.0 | 2.17.3.0.00764112 | 2.17.3.0 | 2.17.3.0.321 | 2.17.3.0.321 | 2.17.3.0.321 | Full Version Release. Including Patient, Provider and UM Portals |
| 2017.3 | 1 | 2.17.3.1(3GB) | 2.17.3.0 | 2.17.3.1 | 2.17.3.1.00846328 | 2.17.3.1 | 2.17.3.1.853299 | 2.17.3.1.853301 | 2.17.3.1.856171 | GUI, Web Sevice, DB. Including Patient, Provider and UM Portals |
| 2017.3 | 2 | 2.17.3.2(3GB) | 2.17.3.0 | 2.17.3.2 | 2.17.3.2.00898348 | 2.17.3.2 | 2.17.3.2.913898 | 2.17.3.2.913899 | 2.17.3.1.856171 | GUI, Web Sevice, DB. Including Patient, Provider and UM Portals |
| 2017.3 | 2.1 | 2.17.3.2.1(3GB) | 2.17.3.0 | 2.17.3.2 | 2.17.3.2.00898348 | 2.17.3.2 | 2.17.3.2.913898 | 2.17.3.2.913899 | 2.17.3.1.856171 | GUI Only |
| **2017.3** | **2.2** | **2.17.3.2.1(3GB)** | **2.17.3.0** | **2.17.3.2.2** | **2.17.3.2.00898348** | **2.17.3.2** | **2.17.3.2.913898** | **2.17.3.2.913899** | **2.17.3.1.856171** | **Web Services only** |
| 2017.3 | 3 | 2.17.3.3(3GB) | 2.17.3.0 | 2.17.3.3 | 2.17.3.3.00954008 | 2.17.3.2 | 2.17.3.3.962869 | 2.17.3.3.962870 | 2.17.3.3.962870 | GUI, Web Sevice, DB. Including Patient, Provider and UM Portals |
| 2017.3 | 4 | 2.17.3.4(3GB) | 2.17.3.0 | 2.17.3.4 | 2.17.3.4.00987562 | 2.17.3.2 | 2.17.3.3.962869 | 2.17.3.3.962870 | 2.17.3.3.962870 | GUI, Web Sevice and DB |
| 2017.3 | 5 | 2.17.3.5(3GB) | 2.17.3.0 | 2.17.3.5 | 2.17.3.5.01023250 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | GUI, Web Sevice, DB, Patient Portal, Referring Portal, UM Portal |
| 2017.3 | 6 | 2.17.3.6(3GB) | 2.17.3.0 | 2.17.3.6 | 2.17.3.6.01065114 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | GUI, Web Sevice, DB, |
| 2017.3 | 7 | 2.17.3.7(3GB) | 2.17.3.0 | 2.17.3.6 | 2.17.3.6.01065114 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | GUI |
| 2017.3 | 8 | 2.17.3.8(3GB) | 2.17.3.0 | 2.17.3.8 | 2.17.3.6.01065114 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | GUI and Web Service |
| 2017.3 | 9 | 2.17.3.8(3GB) | 2.17.3.0 | 2.17.3.9 | 2.17.3.6.01065114 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | Web Service |
| 2017.3 | 10 | 2.17.3.10(3GB) | 2.17.3.0 | 2.17.3.10 | 2.17.3.10.01125764 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | GUI, Web Service and DB updates |
| 2017.6 | - | 3.17.6.0(3GB) | 3.17.6.0 | 3.17.6.0 | 3.17.6.0.01037550 | 3.17.6.0 | 3.17.6.0.1037868 | 3.17.6.0.1037869 | 3.17.6.0.1037869 | Full Version Release. Including Patient, Provider and UM Portals |
| 2017.6 | 1 | 3.17.6.1(3GB) | 3.17.6.0 | 3.17.6.1 | 3.17.6.1.01094077 | 3.17.6.0 | 3.17.6.0.1037868 | 3.17.6.0.1037869 | 3.17.6.0.1037869 | GUI, Web Service and DB updates |
| 2017.6 | 2 | 3.17.6.2(3GB) | 3.17.6.0 | 3.17.6.2 | 3.17.6.2.01130171 | 3.17.6.2 | 3.17.6.2.1138297 | 3.17.6.2.1138298 | 3.17.6.2.1138298 | GUI, Web Service, DB, Patient, Provider and UM Portals and Digital Forms |
| 2017.6 | 3 | 3.17.6.3(3GB) | 3.17.6.0 | 3.17.6.3 | 3.17.6.3.01166033 | 3.17.6.3 | 3.17.6.3.1168622 | 3.17.6.3.1168622 | 3.17.6.3.1168623 | GUI, Web Service, DB, Patient, Provider and UM Portals and Digital Forms |
| 2017.6 | 4 | 3.17.6.4(3GB) | 3.17.6.0 | 3.17.6.4 | 3.17.6.4.01187509 | 3.17.6.4 | 3.17.6.4.1190295 | 3.17.6.4.1190295 | 3.17.6.4.1190295 | GUI, Web Service, DB, Patient, Provider and UM Portals and Digital Forms |
| 2017.6 | 5 | 3.17.6.5(3GB) | 3.17.6.0 | 3.17.6.5 | 3.17.6.4.01187509 | 3.17.6.4 | 3.17.6.5.1199064 | 3.17.6.5.1199063 | 3.17.6.5.1199064 | GUI, Web Service, Patient, Provider and UM Portals |
| 2017.6 | 6 | 3.17.6.6(3GB) | 3.17.6.0 | 3.17.6.6 | 3.17.6.6.01236363 | 3.17.6.4 | 3.17.6.5.1199064 | 3.17.6.5.1199063 | 3.17.6.5.1199064 | GUI, Web Service and DB updates |
| 2018.1 | - | 3.18.1.0(3GB) | 3.18.1.0 | 3.18.1.0 | 3.17.6.4.01187509 | 3.18.1.0 | 3.18.1.0.1229289 | 3.18.1.0.1229290 | 3.18.1.0.1229290 | Full version release |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

# INSTALLING

## WEB SERVICE

1. The web service upgrade consists of replacing the files in the RIS Web Service directory with the files supplied in the rRISService folder with this build. Always create a backup of the files being replaced. This upgrade includes 122 files in the rRISService folder and 12 sub folders. Of those folders, 1 is a folder titled **"XSL"** that contains a sub folder and files within the subfolder. Another folder is titled **"deploy"** that contains the new .config files that will be deployed with the user of the file called "ServicesConfigWizard.exe" (see instructions below). Folders ar (Arabic), en_AU (Australian English), en-ZA (South Africa), he (Hebrew), pt_BR (Brazilian Portuguese), es (Argentina Spanish) and ru-RU (Russian) and are localization folders. The WedgePlugins folder contains various plugin files for RADAR, MIRTH, Ensemble, etc…

**Services Configuration Wizard**

With the release of 42 to decrease the chance of losing configuration setting and missing new configuration options, we will no longer include the configuration files in the release in the main set of files, but they will now exist in a "deploy" folder, which will contain the three site configurable config files; applicationsettings, connectionstrings, and services as well as a copy of the rRISServices.exe configuration file. The contents of this folder should not be required to be touched.

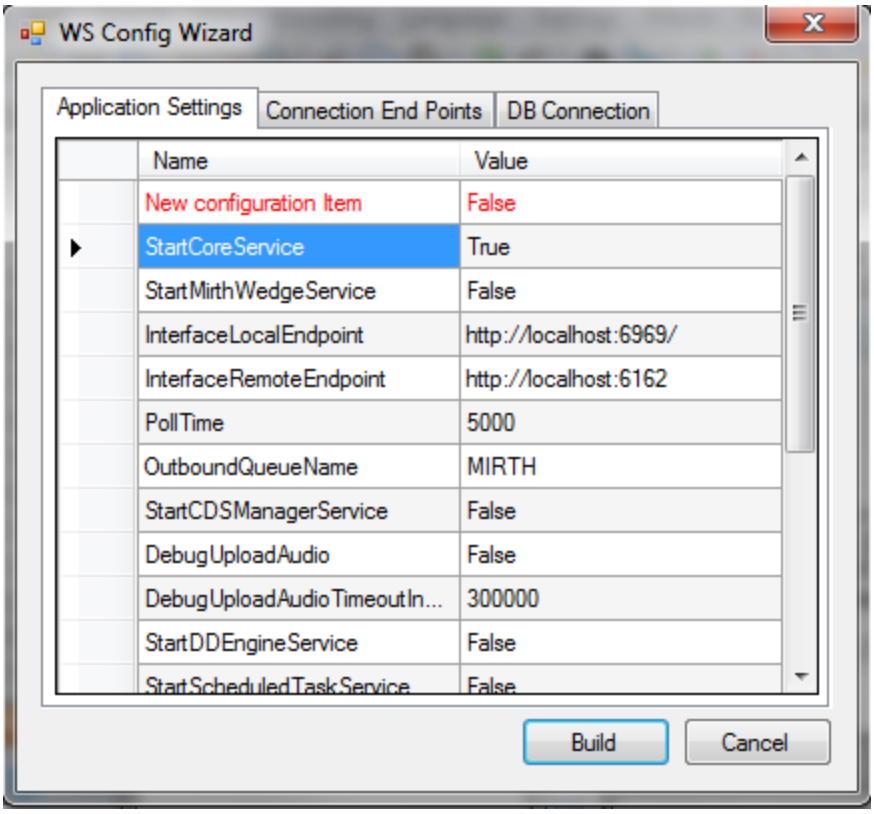
On the install of a new service, all files will be copied to the appropriate locations on the server (no configurations will be over written). If instructed or to confirm no new configurations have been added the user can run the new application "ServicesConfigWizard.exe"

This application will read the existing configuration file(s) (if files exist), and compare to the provided new configuration files then will display three tabs, for each configuration file:

**Application Settings:** all existing configuration value will be displayed, if there are any new configuration entries they will be displayed in red.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

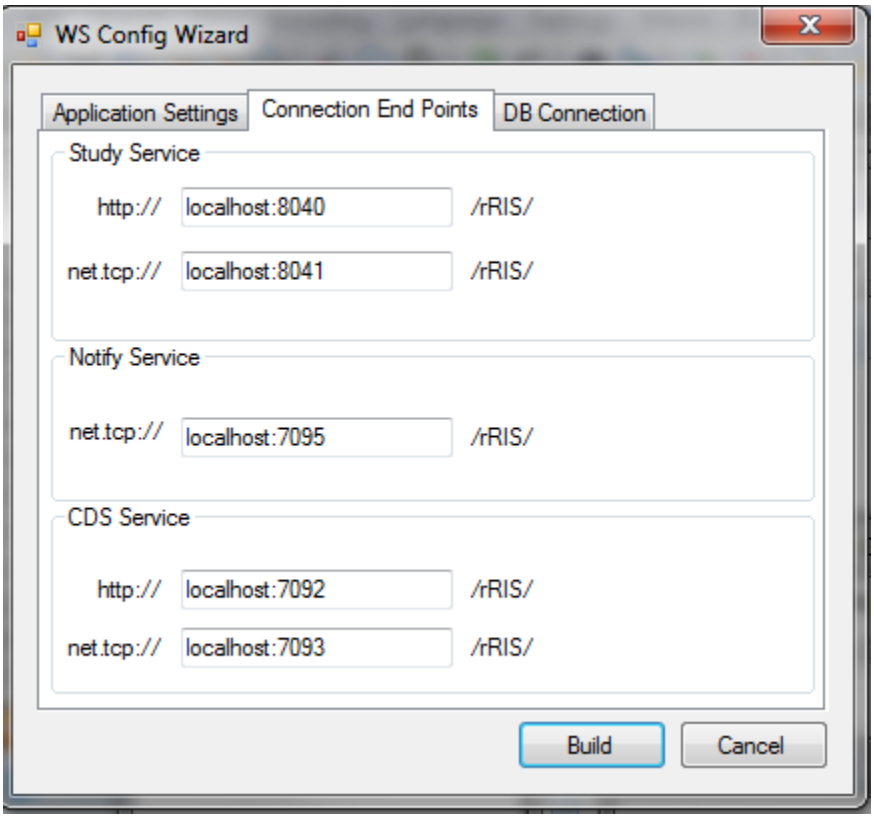
in any form or by any means without the prior written permission from eRAD. 




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

**Connection End Points:** will display the existing configuration, if the value is left blank then that entry will not be created, in the case of “Study Service” or “CDS Service” if both http and net.tcp were not provided then that endpoint will not be created at all.




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

# Server Update

For eRAD RIS

Version 2.0

Build 2.2017.3

Update 2.2017.3.2

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

# Table of Contents

Package Contents ....4

Intended Audience ....4

Who is affected....4

New Features....5

Feature #18220 / #17708 – Set default UM status and Resolution codes for Gold Card and STAT orders....5

Feature #18218 / 17580 - Automatically update Exam Status based on attributes of selected UM Status....6

Feature #18215 / 17529 - UM Reviewers can now change the requested procedure ....8

Feature #18217 / 17579 - UM Reviewers can now choose any active procedure, unlimited by the current site's Schedule Group....10

Feature #18216 / 17530 - RIS users can now preview and distribute the UM Opinion Letter ....12

Feature #18263 / 16398 – CEHRT 170.315(c)(4): Tax ID field at Practice & Site levels ....13

Feature #18232 / 16877 – CEHRT 170.315(b)(4): Functional/Cognitive Status field added to Clinical tab ....14

Feature #18230 / 16866 – CEHRT 170.315(b)(4): Health Concerns field added to Clinical tab ....15

Feature #18229 / 16222 - CEHRT 170.315(b)(4): Additional fields added to Clinical tab for C-CDA ....17

Feature #18234 / 18039 – CEHRT: Transition of Care Confirmation Received ....19

Feature #18233 / 18008 – CEHRT: Summary of Care Record Received....20

Feature #18237 / 16978 - 170.315(g)(2) Automated Measures Reporting - Update to Transitional Measures for 2017....21

Feature #18280 - Access string will allow edits to digital forms after the report is signed ....24

New configuration settings ....25

System configuration settings....25

Access strings ....25

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

Resolved Items ..... 26

Code Stream ..... 30

eRAD RIS Release Version Numbers ..... 31

Installing ..... 32

Client/GUI ..... 32

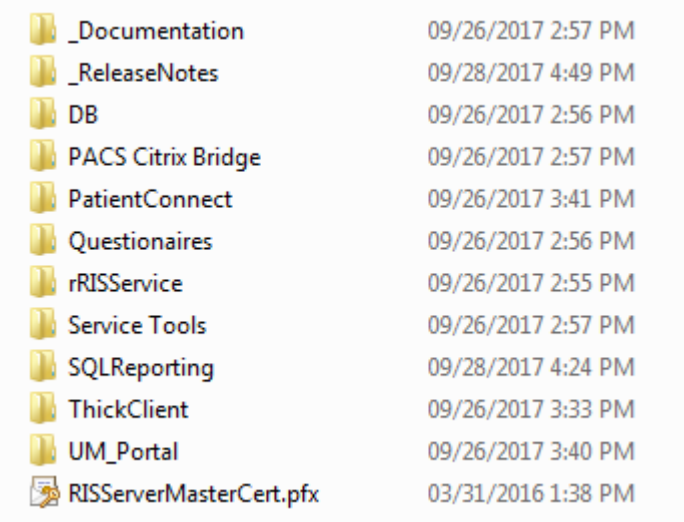
Web Service ..... 32

Database Updates ..... 34

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## PACKAGE CONTENTS




## INTENDED AUDIENCE

The intended audience for this document is the RadNet Clinical Systems team and the eRAD Support/Service team.

It is appropriate to share the document with any customers applying the patch, in order to review new feature descriptions and resolved defects.

## WHO IS AFFECTED

Build 2017.3 installs. This server update must be applied to 2017.3.1

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

## NEW FEATURES

Some of the features included with this eRAD RIS Server Update were originally released in 2016.7.14 or 2017.1.10 and are now being merged into the 2017.3.2 build. The feature number listed first is the 2017.3.2 Redmine tracking number, followed by the associated 2016.7.14 or 2017.1.10 Redmine number.

There are additional items that were added from the current development cycle that has not yet been released. The purpose of adding these items is to make them available sooner. See Resolved Items section of this document for original origin of these listed features.

### FEATURE #18220 / #17708 – SET DEFAULT UM STATUS AND RESOLUTION CODES FOR GOLD CARD AND STAT ORDERS

When configured, special handling for Gold Card or STAT orders requires that the orders be advanced to scheduling, bypassing the UM process. Previously, the UM flag was set to "Y" to allow scheduling, but the order would remain in Received status.

It is now possible to configure which Status and Resolution codes will be used in these scenarios. The defaults are defined by the following System Configuration settings:

- UMDefaultSTATStatusCode
- UMDefaultSTATResolutionCode
- UMDefaultGoldCardStatusCode
- UMDefaultGoldCardResolutionCode

If either UMByPassSTAT or UMGoldCardAutoApprove is set to Y, the order's status code and resolution code will be immediately changed to match the System Configuration values. In addition, the following values are automatically set:

- UM Finalized Date = Current Date/Time
- UM Finalized by User ID = "system"
- UM Final Status Hours = 0

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## FEATURE #18218 / 17580 - AUTOMATICALLY UPDATE EXAM STATUS BASED ON ATTRIBUTES OF SELECTED UM STATUS

Previously, when a UM Reviewer marked all procedures in an order as Not Recommended, the Patient Folder continued to display the order in an Ordered status, with the Procedure column displaying as blank due to the fact that no active procedures were associated. This could be confusing in cases where the UM Reviewer needed to go back to the case (e.g. they receive a call from the referring provider) or to other RIS users.

For this reason, a new System Configuration value has been added called *UMDefaultCancelledReasonCode*. This configuration value is dependent on a corresponding entry in the *CancelStudyReason* look-up table.

The workflow will proceed as follows: First, the system will look at the order once it is marked as UM Complete. UM Complete is determined by looking at each ordered procedure that requires utilization review to see if it is in a final UM Status. Next, the system will determine if the final UM Status can advance to scheduling or not. For example, Recommended can be scheduled while Not Recommended typically cannot. This is determined by verifying that the Final Flag on the UM Status is set to "Y" and the Schedule Flag is set to "N."

If is determined that all the procedures for the order require utilization review and none can advance to be scheduled, the system will perform the following tasks:

1. Set the Status Code for the order to Order Cancelled.
2. Set the Cancelled by User ID field for the Order to "system."
3. Set the Cancelled Date for the order to the current date and time.
4. Set the Cancelled Reason Code for the order to the *UMDefaultCancelledReasonCode*.

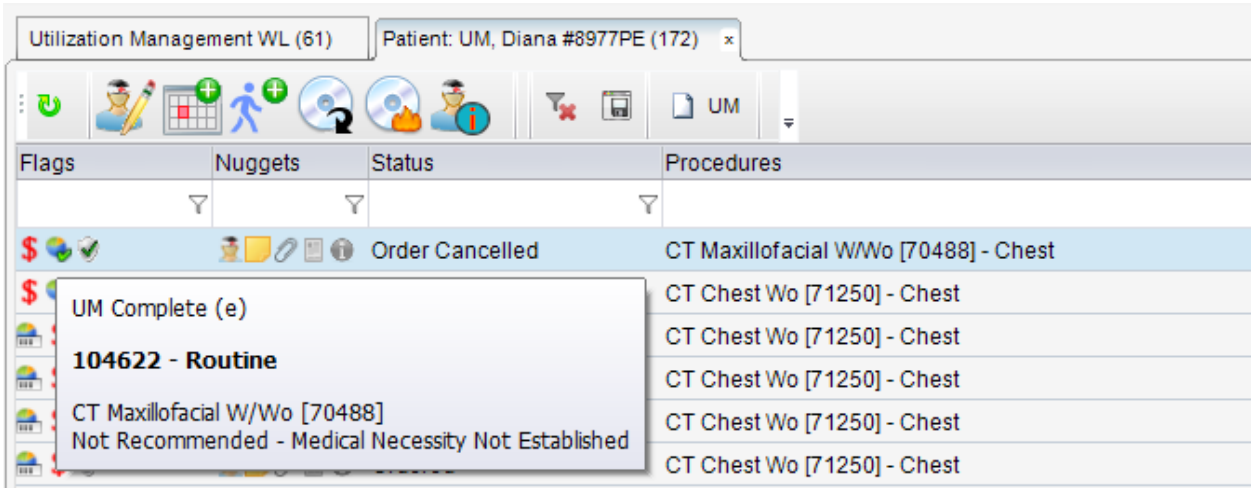
The following is an example of the audit log for the above scenario.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

```
Event Time: 08-21-2017 03:38:15.836 PM    Client IP Address: ::1


Changed c_order
        status_code:                    'OrderCancelled' (was 'OrderSigned')
        cancelled_by_user_id:           'system' (was 'nothing')
        cancelled_reason_code:          'UMDenied' (was 'nothing')
        um_complete_flag:               'Y' (was 'N')
        um_owner_user_id:                       'chasinl' (was 'nothing')
        cancelled_date:                 '08-21-17 3:38:14 PM -03:00' (was 'nothing')
Changed c_order_item
        procedure_code:                 '70488'
        um_status_code:                 'NotRecommended' (was 'Received')
        um_resolution_code:                     'MedNec' (was 'nothing')
        um_finalized_date:              '08-21-17 3:38:14 PM -03:00' (was 'nothing')
        um_final_status_hours:          '40' (was 'nothing')
        um_finalized_by_user_id:        'spencer' (was 'nothing')
        um_reviewed_date:               '08-21-17 3:38:14 PM -03:00' (was 'nothing')
        um_reviewed_by_user_id:         'spencer' (was 'nothing')
        um_procedure:                   'CT Maxillofacial W/Wo [70488] - Chest' (was 'nothing')
        um_status:                      'Not Recommended - Medical Necessity Not Established' (was 'nothing')
        um_clock:                       '40 of 30' (was 'nothing')
```

Below is an example of a UM order for which all exams on the order are moved to a Final UM status that indicates no scheduling is possible.



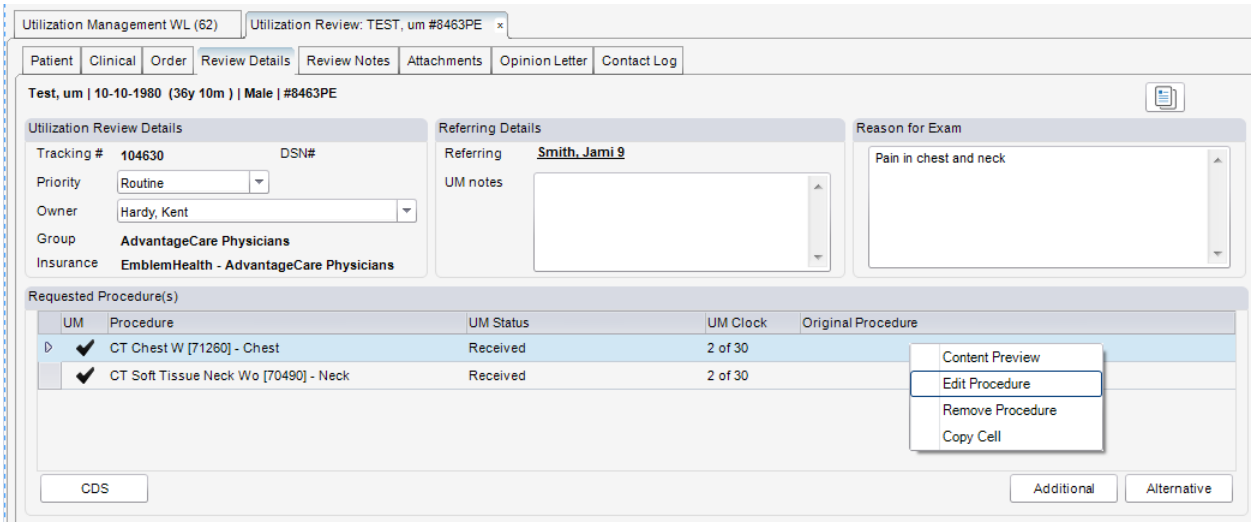

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## FEATURE #18215 / 17529 - UM REVIEWERS CAN NOW CHANGE THE REQUESTED PROCEDURE

When adding UM orders to RIS, the data entry team sometimes mistakenly adds the wrong procedure to the order. The UM reviewer would previously have to modify the existing order via the Schedule Order screen because adding the correct procedure as an Alternative exam for a simple data entry error would skew the statistics. It is now possible for the reviewer to modify the ordered procedure from the Utilization Review screen.

The context menu on the Requested Procedure(s) grid on the Review Details tab has been enhanced to include both **Edit Procedure** and **Remove Procedure** menu items.




For the Remove Procedure option, the following logic is used to determine if the user can delete the procedure from the order.

1. If the procedure is the only one for the order, the user is prevented from removing it and prompted with "At least one procedure is required."
2. If the procedure being removed already has a study associated with it (has been scheduled or is further in the workflow), the user is prevented from removing it and is prompted with "The procedure you are deleting is currently in Scheduled status. Please notify the appropriate person to make adjustments to the appointment."

For the Edit Procedure option, similar logic applies. If the procedure being removed already has a study associated with it (has been scheduled or is further in the workflow), the user is prevented from removing it and is prompted with "The procedure you are deleting is currently in Scheduled status. Please notify the appropriate person to make adjustments to the appointment". Note that the word "Scheduled" will be replaced with the actual status of the study.

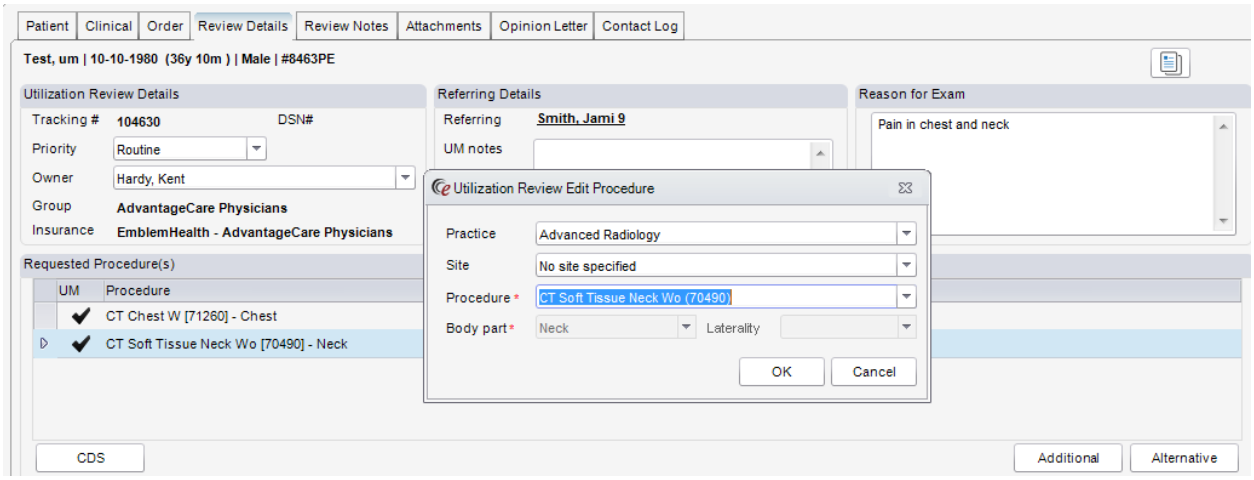
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

While adding the above logic to not adjust ordered procedures that have studies associated, it was decided to also prevent and display a message to the user for the following scenarios:

1. When specifying an alternative procedure for an order item that already has a study associated, the user is prompted with: "The procedure you are recommending an alternative to is currently in scheduled status. Please notify the appropriate person to make adjustments to the appointment."
2. When removing an alternative procedure for an order item that already has a study associated, the user is prompted with: "The procedure you are deleting is currently in Scheduled status. Please notify the appropriate person to make adjustments to the appointment."
3. When adding an additional procedure for an order that already has at least one study associated, the user is prompted with: "The order you are adding an additional procedure to has a procedure in scheduled status. Please notify the appropriate person to make adjustments to the appointment."
4. When removing an additional procedure for an order item that already has a study associated, the user is prompted with: "The procedure you are deleting is currently in Scheduled status. Please notify the appropriate person to make adjustments to the appointment."

If the above validation passes when editing a procedure, the user is presented with a procedure picker so he or she can modify the procedure and replace it at the order item level.




When selecting Remove Procedure, the user is prompted with "Are you sure you want to remove the procedure?" Selecting yes will delete the order item.

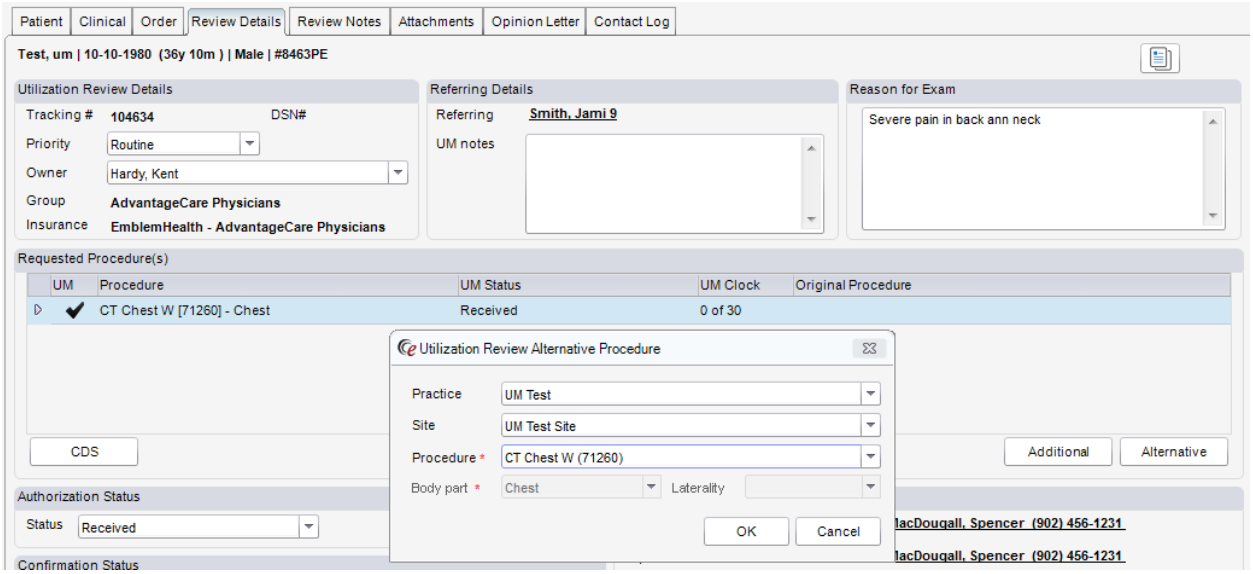
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## FEATURE #18217 / 17579 - UM REVIEWERS CAN NOW CHOOSE ANY ACTIVE PROCEDURE, UNLIMITED BY THE CURRENT SITE'S SCHEDULE GROUP

When a UM Reviewer wishes to recommend an alternative procedure, or add an additional procedure, or edit the procedure, sometimes it is not a procedure that can be performed at the practice or site for which the order was created. Currently, there are some restrictions on what procedures are available in the dropdown when selecting Alternative or Additional procedures. The UM Reviewer should have access to any active procedure when choosing the procedure via UM workflow.

The utilization review procedure picker has been enhanced to include dropdowns for both Practice and Site. When editing the existing procedure or specifying an alternative procedure, the Procedure dropdown will default to the original ordered procedure.




If the user changes the Procedure dropdown to a procedure that cannot be performed at the site or practice specified with the order, he or she is prompted with "The selected procedure cannot be performed at this Site or Practice. Please select a new Practice and Site from the list."

If the user changes the Procedure dropdown to a procedure that cannot be performed at the site but is available at the practice specified with the order, he or she is prompted with "The selected procedure cannot be performed at this Site. Please select a new Site from the list."

The Practice and Site dropdowns are then filtered to present the user with only practices and sites that can perform the newly selected procedure. This is accomplished by comparing active procedure codes against the configured schedule groups.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

When adding additional procedures, the reviewer is not limited by the practice and site selection and will not be prompted if the procedure cannot be performed.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

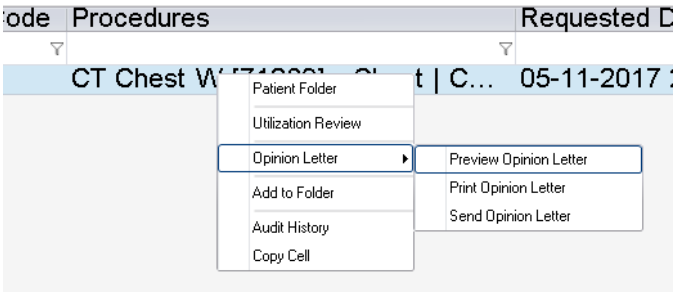
in any form or by any means without the prior written permission from eRAD. 

## FEATURE #18216 / 17530 - RIS USERS CAN NOW PREVIEW AND DISTRIBUTE THE UM OPINION LETTER

Previously, the UM Opinion Letter was only available to be previewed from the Utilization Review screen via the UM Opinion Letter tab. Sometimes it is necessary for other RIS users to preview or distribute the UM Opinion Letter. To accomplish this, a new context menu item has been added to the Patient Folder and UM WL called "Opinion Letter." This option will be available when the UM Required Flag = Y and the user has FULL access to a new access string: *Clinical.OpinionLetter*.

The Opinion Letter context menu item will have three options:

1. Preview Opinion Letter
2. Print Opinion Letter
3. Send Opinion Letter




Access to these three sub-menu options can be controlled via the access strings:

- *Clinical.OpinionLetter.Preview*
- *Clinical.OpinionLetter.Print*
- *Clinical.OpinionLetter.Send*

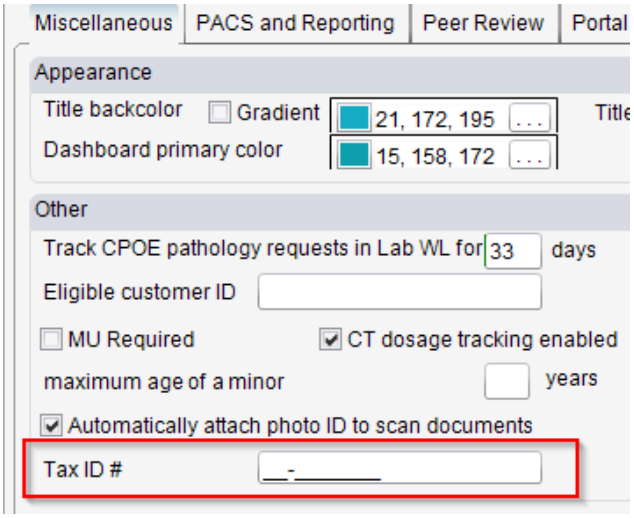
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

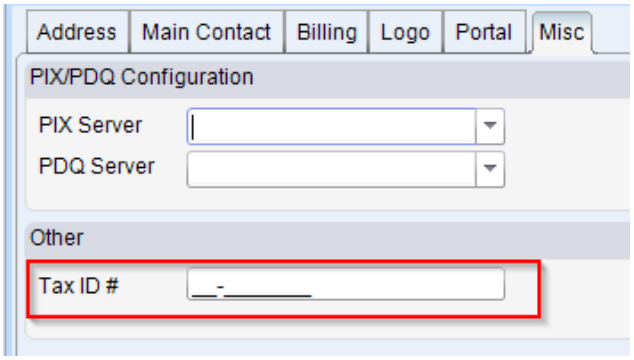
## FEATURE #18263 / 16398 – CEHRT 170.315(C)(4): TAX ID FIELD AT PRACTICE & SITE LEVELS

For CEHRT 170.315(c)(4), a Tax ID field was created at the Practice and Site levels in order to provide CQM management reports with the appropriate filters.

On the Practice Add/Edit screen, the Tax ID # field has been added to the Other section of the Miscellaneous tab.

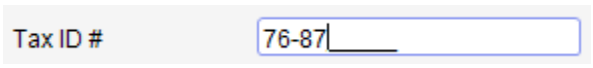



On the Site Add/Edit screen, the Tax ID # field has been added to the Other section of the Misc tab.




If the Tax ID has been added at the Practice and Site level, the Site level Tax ID will be used. If a Site level Tax ID is not present, the Site's Practice level Tax ID will be used.

For both Tax ID # fields, a mask has been applied to ensure that Tax ID #s are entered in the appropriate format of XX-XXXXXXX. A hyphen will be inserted after the second character and a blank line will be displayed until all of the digits have been entered.




Only numeric digits (0-9) can be entered into the field.

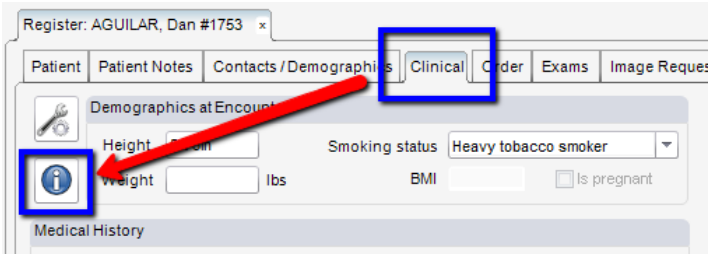
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

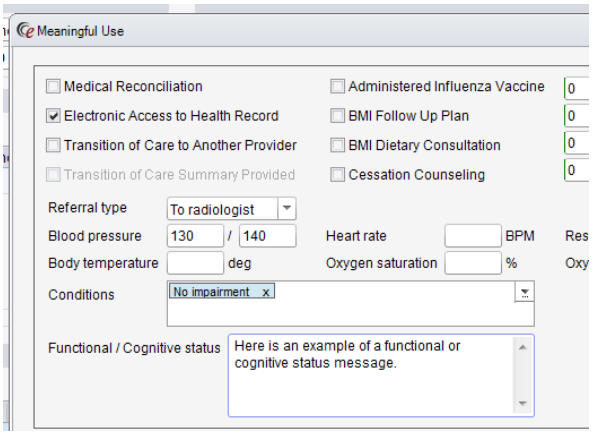
## FEATURE #18232 / 16877 – CEHRT 170.315(B)(4): FUNCTIONAL/COGNITIVE STATUS FIELD ADDED TO CLINICAL TAB

To qualify as a certified EHR System under the latest CEHRT requirements, eRAD RIS must be capable of collecting a patient's Functional and Cognitive status, as well as providing this information in the C-CDA.

Because this data is unlikely to be collected in radiology, the fields were added in an out of the way area in the RIS. It is accessed using the Info button on the Clinical Tab.




After opening, the Functional/Cognitive Status can be entered as seen below. Up to 500 characters of free text are allowed.




This field will appear on the C-CDA in the Functional and Cognitive Status section as a Functional Status Observation:

**FUNCTIONAL AND COGNITIVE STATUS**

| Condition | Date | Status |
|---|---|---|
| No impairment | 05-05-2017 | Active |
| **Other** | | |
| Here is an example of a functional or cognitive status message. | | |

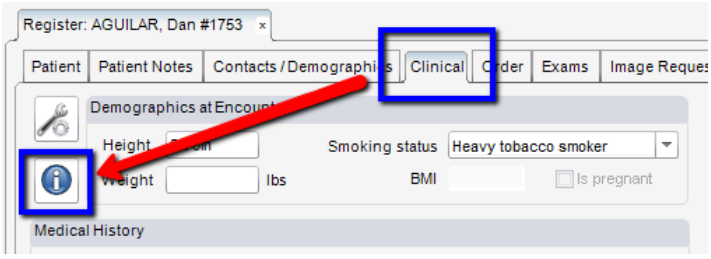
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

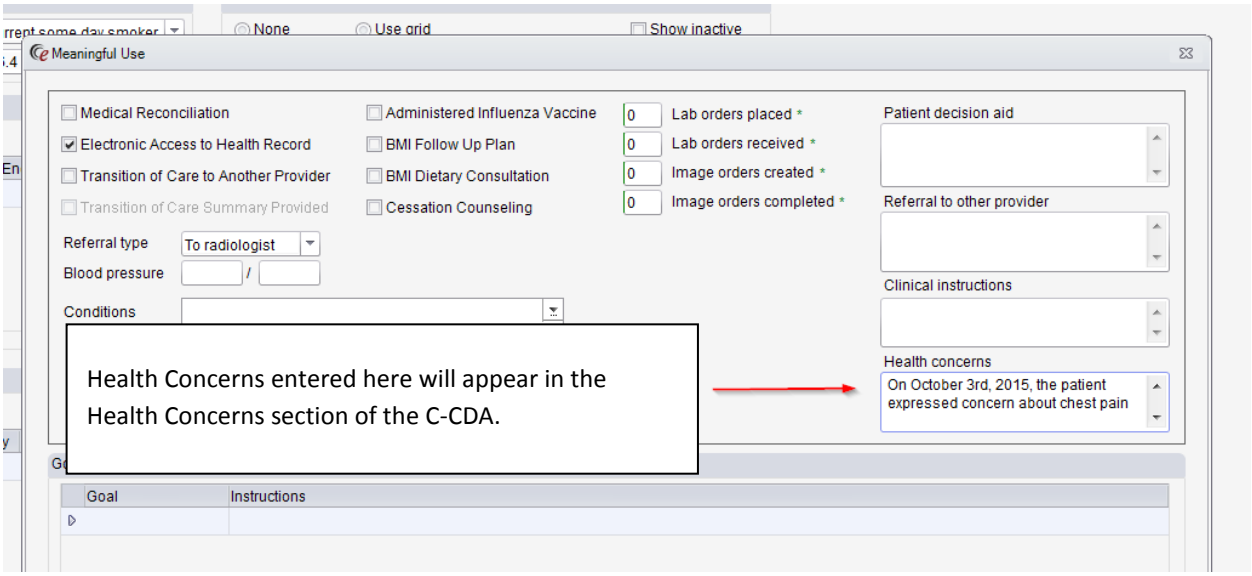
## FEATURE #18230 / 16866 – CEHRT 170.315(B)(4): HEALTH CONCERNS FIELD ADDED TO CLINICAL TAB

To qualify as a certified EHR System under the latest CEHRT requirements, eRAD RIS must be capable of collecting a patient's Health Concerns in a separate field that can be pulled into the C-CDA.

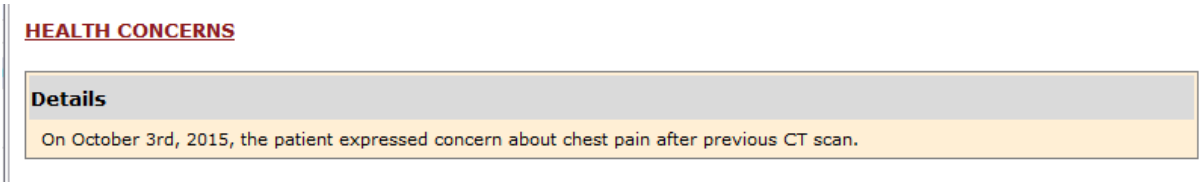
Because this data is unlikely to be separately collected in radiology, the fields were added in an out of the way area in the RIS. It is accessed using the Info button on the Clinical Tab.




After opening, the Health Concerns can be entered as seen below. Up to 500 characters of free text are allowed.




If this field is populated, the C-CDA will display the information:




If left blank, the C-CDA will indicate that health concerns were not recorded:

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

SOCIAL HISTORY

| Description | Status |
|---|---|
| Smoking Status | Never smoker (Never Smoked) |

VITAL SIGNS

| Date | Height | Weight | BMI |
|---|---|---|---|
| 04-27-2017 | 65 in | 153 lbs | 25.46 |

HEALTH CONCERNS

No health concerns recorded

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

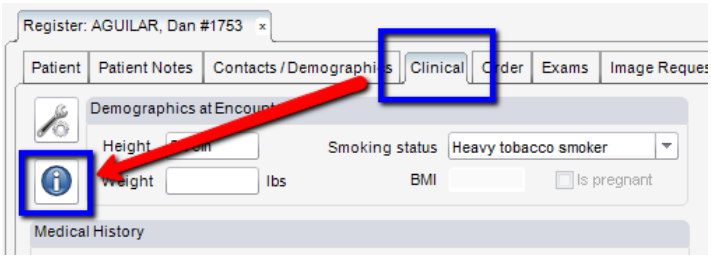
in any form or by any means without the prior written permission from eRAD. 

## FEATURE #18229 / 16222 - CEHRT 170.315(B)(4): ADDITIONAL FIELDS ADDED TO CLINICAL TAB FOR C-CDA

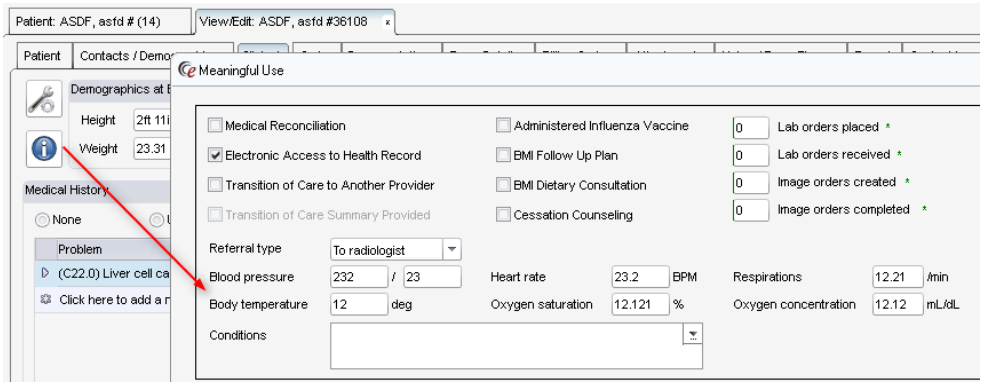
To qualify as a certified EHR System under the latest CEHRT requirements, eRAD RIS must be capable of collecting the following information that can be pulled into the C-CDA:

- Heart rate - {beats}/min (LOINC 8302-2)
- Respiratory rate - /min (LOINC 9279-1)
- Body temperature – deg (LOINC 8310-5)
- Oxygen saturation – Percent (LOINC 2710-2)
- Oxygen concentration - mL/dL (LOINC 3150-0)

Because this data is unlikely to be separately collected in radiology, the fields were added in an out of the way area in the RIS. It is accessed using the Info button on the Clinical Tab.



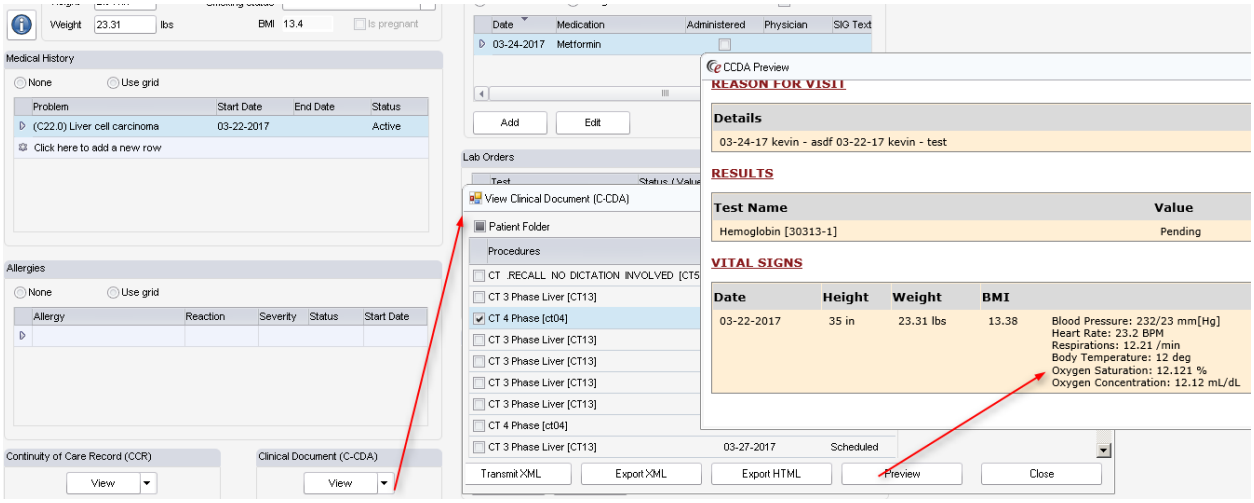

After opening, the new information can be entered as seen below.




If these new fields are populated, the data will be displayed in the C-CDA.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 



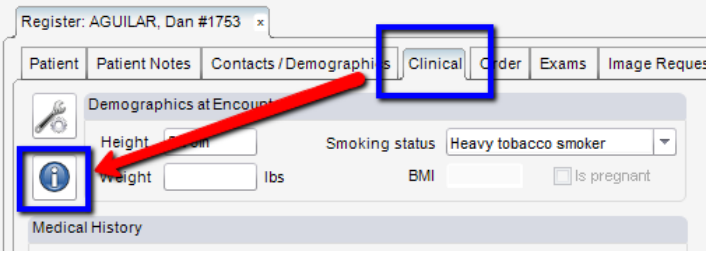

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

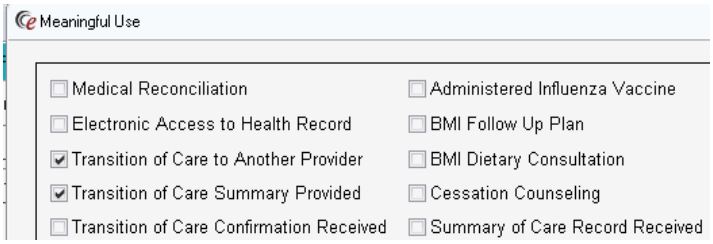
## FEATURE #18234 / 18039 – CEHRT: TRANSITION OF CARE CONFIRMATION RECEIVED

To qualify as a certified EHR System under the latest CEHRT requirements, eRAD RIS must be capable of recording that a Transition of Care Confirmation has been received.

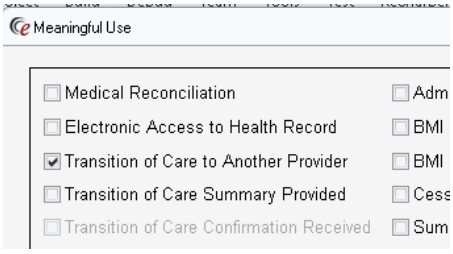
A new checkbox has been added for this purpose. It is accessed using the Info button on the Clinical Tab.




The checkbox will be available on the resulting screen, as shown:




The checkbox for Transition of Care Summary Provided must be checked to enable the Transition of Care Confirmation Received checkbox. If it is not checked, the new Confirmation Received checkbox will be disabled.



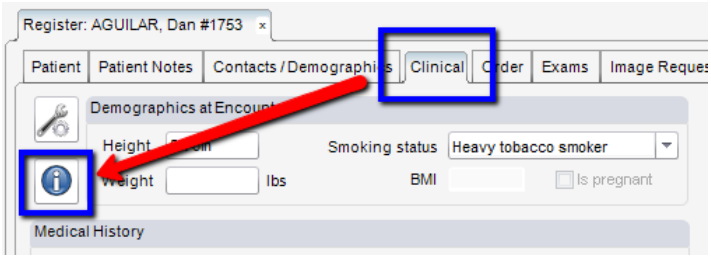

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

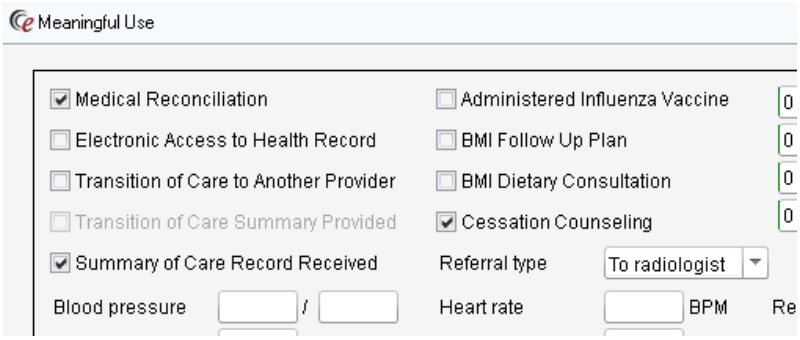
## FEATURE #18233 / 18008 – CEHRT: SUMMARY OF CARE RECORD RECEIVED

To qualify as a certified EHR System under the latest CEHRT requirements, eRAD RIS must be capable of recording that a Summary of Care Record has been received.

A new checkbox has been added for this purpose. It is accessed using the Info button on the Clinical Tab.




The checkbox will be available on the resulting screen, as shown:




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## FEATURE #18237 / 16978 - 170.315(G)(2) AUTOMATED MEASURES REPORTING - UPDATE TO TRANSITIONAL MEASURES FOR 2017

A new management report has been created to provide information for ACI Transition Measures. It is located in the Meaningful Use folder. The report will provide the numerator, denominator and percentage, alongside the Base and Performance score for each of the following measures:

- Medication Reconciliation
- eRx
- Patient Education
- Health Information Exchange
- VDT (timely access)
- VDT (patient use)
- Secure Messaging

It is also possible to enter in the report criteria that a Security Risk Analysis has been completed, which will be reflected in the report. The report can be run to display individual radiologist data or an aggregate of "provider group" data for selected radiologists.

The Performance score is the numerator divided by the denominator multiplied by 20 for VDT (timely access) and Health Information Exchange. For Medication Reconciliation, VDT (patient use), Secure Messaging and Patient Education, the Performance score is the numerator divided by the denominator multiplied by 10.

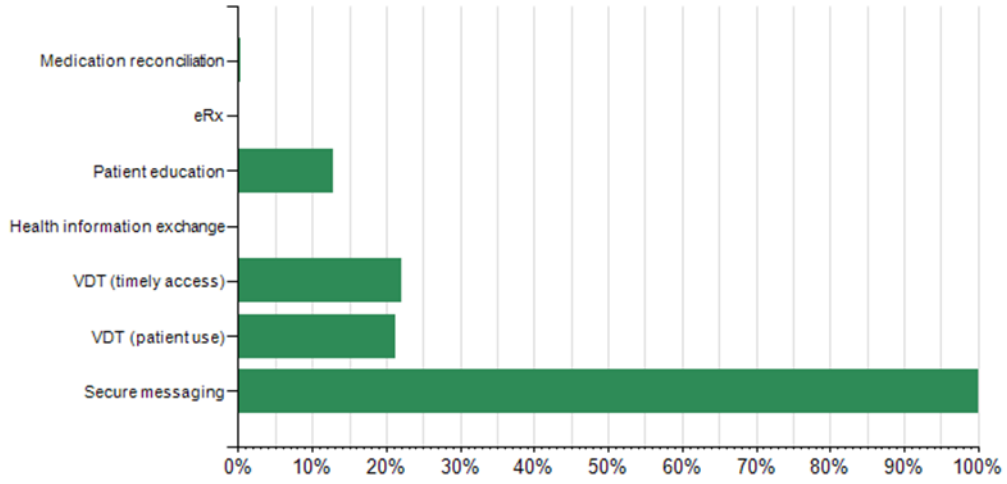
The Base score is set at 50 if the following are true:

- Security Risk Analysis has been completed (per report criteria filters).
- Numerator is at least 1 for Health Information Exchange and VDT (timely access).
- Numerator is at least 1 for eRx when the denominator is at least 100.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

**ACI Transition Measures**
**Radiologist:** Aiken, Darcy (darcy)
**Practice(s):** Advanced Radiology
**Site(s):** ADV: New Lutherville
**Reporting Period:** 1/1/2017 12:00:00 AM - 12/31/2017 12:00:00 AM
**Description:** This report displays the percentage of patients where the mu requirement was recorded.




| Meaningful Use Measure | Numerator | Denominator | % | Base** | Performance* |
|---|---|---|---|---|---|
| Security risk analysis | | | | Y | |
| Medication reconciliation | 1 | 419 | 0.24% | N | 0 / 10 |
| eRx | 0 | 0 | 0.00% | N | 0 / 0 |
| Patient education | 33 | 259 | 12.74% | N | 1 / 10 |
| Health information exchange | 0 | 1 | 0.00% | N | 0 / 20 |
| VDT (timely access) | 57 | 259 | 22.01% | Y | 4 / 20 |
| VDT (patient use) | 55 | 259 | 21.24% | N | 2 / 10 |
| Secure messaging | 259 | 259 | 100.00% | N | 10 / 10 |
| **Total Score: 0 / 130** | | | | **0** | **0** |

***Performance score** is the numerator divided by the denominator multiplied by 20 for VDT (Timely Access) and Health Information Exchange and the numerator divided by the denominator multiplied by 10 for Medication Reconciliation, VDT (Patient Use), Secure Messaging, and Patient Education.
****Base score** is set at 50 if Security Risk Analysis has been confirmed, numerator is at least 1 for Health Information Exchange and VDT (Timely Access), and numerator is at least 1 for eRx when denominator is at least 100.

Confidential and Proprietary
Page 1 of 1

Date Run: 5:59 PM
RMIS\FormsGuestUser

Each measure, with the exception of Security Risk Analysis, has a sub-report that include the patient details underlying each score. To access the patient details, click the blue hyperlink for the measure. An example of the Medication Reconciliation patient details is displayed below.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

| Patient Name | Patient ID | Accession # | Practice Code | Scheduled Date | Signed Date | Status Code | Birth Date | Referral Type Code | Medication Reconciliation |
|---|---|---|---|---|---|---|---|---|---|
| Adams, Grizzly | 42004QE2 | | | | | | | | |
| | | 1039258QE2 | ADV | 5/3/2017 12:00:00 AM | 5/3/2017 12:00:00 AM | Signed1 | 3/15/1965 12:00:00 AM | 306299005 | N |
| | | 1041237QE2 | ADV | 6/19/2017 12:00:00 AM | 6/19/2017 12:00:00 AM | Signed1 | 3/15/1965 12:00:00 AM | 306299005 | N |
| Agnew, Agnes | 40994QE2 | | | | | | | | |
| | | 1037574QE2 | ADV | 4/4/2017 12:00:00 AM | 4/20/2017 12:00:00 AM | Signed1 | 5/5/1980 12:00:00 AM | 306299005 | N |
| Alonso, Fernando | 41462QE2 | | | | | | | | |
| | | 1038400QE2 | ADV | 4/18/2017 12:00:00 AM | 8/1/2017 12:00:00 AM | Signed1 | 7/29/1981 12:00:00 AM | 306299005 | N |
| Appleton, Betsy Bayna | 43697QE2 | | | | | | | | |
| | | 1041140QE2 | ADV | 6/12/2017 12:00:00 AM | 6/12/2017 12:00:00 AM | Signed1 | 1/10/1946 12:00:00 AM | 306299005 | N |
| | | 1041272QE2 | ADV | 6/21/2017 12:00:00 AM | 6/21/2017 12:00:00 AM | Signed1 | 1/10/1946 12:00:00 AM | 306299005 | N |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

## FEATURE #18280 - ACCESS STRING WILL ALLOW EDITS TO DIGITAL FORMS AFTER THE REPORT IS SIGNED

Permissioned users sometimes need to make changes to Digital Forms after the report has been signed, when mistakes need to be corrected or additional information needs to be added. Appropriately trained staff can make a determination whether the changes necessitate an addendum and/or notification to the radiologist.

A new access string has been added to enable this functionality: *Clinical.DigitalForms.AllowEditPostSignature.*

Users with full access can now edit digital forms for studies in Signed status.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

# NEW CONFIGURATION SETTINGS

## SYSTEM CONFIGURATION SETTINGS

| Setting | Default | Purpose |
|---|---|---|
| UMDefaultCancelledReasonCode | N/A | (value = string) The default cancelled reason code for orders denied during the utilization review process. |
| UMDefaultGoldCardResolutionCode | N/A | (value = string) The default gold card utilization review resolution code. |
| UMDefaultGoldCardStatusCode | N/A | (value = string) The default gold card utilization review status code. |
| UMDefaultSTATResolutionCode | N/A | (value = string) The default STAT utilization review resolution code. |
| UMDefaultSTATStatusCode | N/A | (value = string) The default STAT utilization review status. |

## ACCESS STRINGS

| Setting | Default | Purpose |
|---|---|---|
| Clinical.DigitalForms.AllowEditPost Signature | None | Allows user to edit digital forms after the report is signed. |
| Clinical.OpinionLetter | Full | Controls access to the WL context menu Opinion Letter. |
| Clinical.OpinionLetter.Preview | Full | Controls access to the WL context menu Opinion Letter/Preview Opinion Letter. |
| Clinical.OpinionLetter.Print | Full | Controls access to the WL context menu Opinion Letter/Print Opinion Letter. |
| Clinical.OpinionLetter.Send | Full | Controls access to the WL context menu Opinion Letter/Send Opinion Letter. |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

## RESOLVED ITEMS

# eRAD RIS

| Redmine # | Subject |
|---|---|
| 18264 | An exception that prevented the dictation audio file archive process from running has been resolved. |
| 18341 | Eligibility tables added back into the Outbound message. |
| 18340 | WPR workflow – Resolved an exception that prevented submission for review if the accession number was not linked to a patient. |

The following list contains bugs or features that have been resolved in previous RIS versions and have been added to this version of eRAD RIS to provide an upgrade path. Features are also described in the New Features section.

Some of these items have been taken from current new development (intended to be released in a future version).

| Redmine # | Subject | Original Resolved Version |
|---|---|---|
| 18261 | C_type_bigint_key_list has been added. | 2.2016.7.14 |
| 18224 | Corrected an issue where EMR orders from the existing orders prompt with New Appointment or Walk-In icon in Patient Folder did not save all information appropriately. | 2.2016.7.14 |
| 18223 | Slow performance after updating to 2016.7.13 has been resolved. | 2.2016.7.14 |
| 18222 | UM Portal “get list of orders” is now a more efficient database query. | 2.2016.7.14 |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

| | | |
|---|---|---|
| 18221 | An issue with the query used by RIS Wedge has been addressed to prevent back-ups of the c_action_queue. | 2.2016.7.14 |
| 18220 | UM - When specifying Gold Card or STAT orders, the system should auto-approve the order and set the UM Status and UM Resolution. | 2.2016.7.14 |
| 18219 | UM – Resolved an issue where the UM Required flag could inappropriately change from Y to N when removing a procedure using the red or black “x.” | 2.2016.7.14 |
| 18218 | Feature: Automatically update Exam Status based on attributes of selected UM Status. | 2.2016.7.14 |
| 18217 | Feature: Allow a UM Reviewer to choose any active procedure, unlimited by the current site's Schedule Group. | 2.2016.7.14 |
| 18216 | Feature: Allow RIS users to preview and distribute the UM Opinion Letter. | 2.2016.7.14 |
| 18215 | Feature: Allow Reviewers to change the requested procedure (without recommending an alternative). | 2.2016.7.14 |
| 18228 | Corrected a timing issue that could cause Print to RIS to stop working intermittently. | 2.2017.1.10 |
| 18227 | Resolved a rare issue in which a user could receive an error when adding an Unknown Referring. | 2.2017.1.10 |
| 18226 | Resolved an issue related to duplicate c_study_item entries for same study key. | 2.2017.1.10 |
| 18225 | PACS images are now closing appropriately after viewing from the View/Edit screen. | 2.2017.1.10 |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

| | | |
|---|---|---|
| 18263 | Feature: 170.315(c)(4) Created a Tax ID field at Practice and Site levels | 2.2017.4 |
| 18235 | Feature: Capture both Timely Access and VDT(View, Download and Transmit) statistics. Transitional Measures Report. | 2.2017.4 |
| 18232 | Feature: 170.315(b)(4) Added Cognitive Status and Functional Status Fields to Clinical tab | 2.2017.4 |
| 18230 | Feature: 170.315(b)(4) Added Health Concerns Field to Clinical Tab. | 2.2017.4 |
| 18229 | Feature: 170.315(b)(4) Additional C-CDA fields added. | 2.2017.4 |
| 18245 | Feature: 170.315(g)(2) Automated Measures ACI Transitional and ACI "Standard" reports provide ability to display aggregated "provider group" data. | 3.2017.6 |
| 18244 | Feature: 170.315(g)(2) Automated Measures Medication Reconciliation Update added to ACI Transition Measures report. | 3.2017.6 |
| 18243 | Feature: 170.315(g)(2) Automated Measures Reporting - Secure Electronic Messaging added to ACI Transition Measures report. | 3.2017.6 |
| 18242 | Feature: 170.315(g)(2) Automated Measures Reporting - View Download Transmit added to ACI Transition Measures report. | 3.2017.6 |
| 18241 | Feature: 170.315(g)(2) Automated Measures Reporting - Health Information Exchange added to ACI Transition Measures report. | 3.2017.6 |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

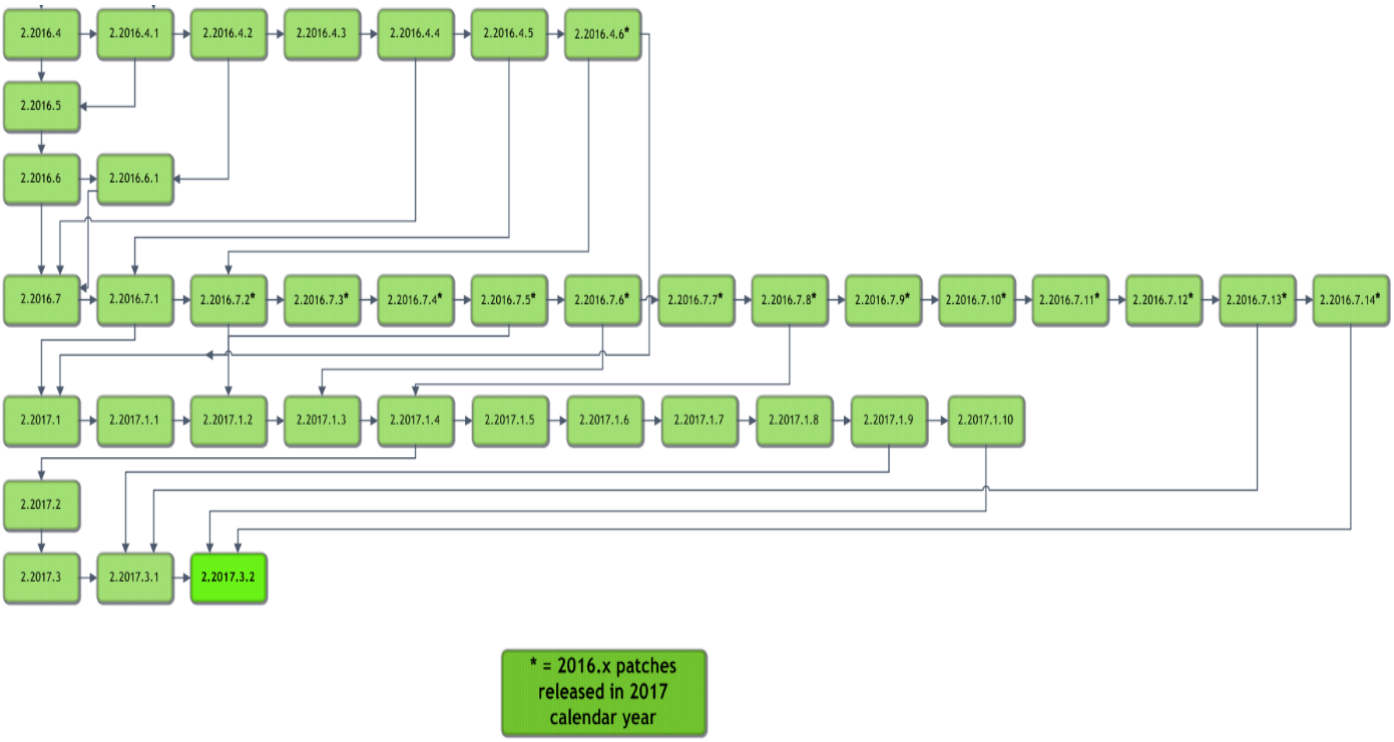
in any form or by any means without the prior written permission from eRAD. 

| | | |
|---|---|---|
| 18240 | Feature: 170.315(g)(2) Automated Measures Reporting - Patient Specific Education added to ACI Transition Measures report. | 3.2017.6 |
| 18239 | Feature: 170.315(g)(2) Automated Measures Reporting - Medication Reconciliation added to ACI Transition Measures report. | 3.2017.6 |
| 18238 | Feature: 170.315(g)(2) Automated Measures Reporting - Patient Timely Access added to ACI Transition Measures report. | 3.2017.6 |
| 18237 | Feature: 170.315(g)(2) Automated Measures Reporting - Updated to Transitional Measures for 2017 | 3.2017.6 |
| 18234 | Feature: Transition of Care Confirmation Received checkbox has been added. | 3.2017.6 |
| 18233 | Feature: Summary of Care Record Received checkbox has been added. | 3.2017.6 |
| 18280 | Feature: Access string will allow edits to digital forms after the report is signed. | 3.2018.1 |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## CODE STREAM




**Legend:**

Light Green = Previously Released software

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## ERAD RIS RELEASE VERSION NUMBERS

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Digital Forms | Patient Portal | UM Portal | Provider Portal | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| 2016.4 | - | 2.16.4.0 | 2.16.4.0 | 2.16.4.0 | 2.16.4.0.00301943 | 2.16.4.0 | 1.16.4.0.310284 | | | Full Version Release |
| 2016.4 | 1 | 2.16.4.1 | 2.16.4.0 | 2.16.4.1 | 2.16.4.0.00301943 | 2.16.4.0 | 1.16.4.0.310284 | | | GUI and Web Service updates |
| 2016.4 | 2 | 2.16.4.2 (3GB) | 2.16.4.0 | 2.16.4.1 | 2.16.4.0.00301943 | 2.16.4.0 | 1.16.4.2.460241 | | | GUI and Patient Portal updates |
| 2016.4 | 3 | 2.16.4.3 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | 1.16.4.3.489120 | | | GUI and Patient Portal updates |
| 2016.4 | 4 | 2.16.4.4 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | 1.16.4.3.489120 | | | GUI |
| 2016.4 | 5 | 2.16.4.5 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | | | | GUI |
| 2016.4 | 6 | 2.16.4.6 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | | | | GUI |
| 2016.5 | - | 2.16.5.0 (3GB) | 2.16.5.0 | 2.16.5.0 | 2.16.5.0.00349303 | 2.16.5.0 | 1.16.5.0.362009 | | | Full Version Release |
| 2016.6 | - | 2.16.6.0 (3GB) | 2.16.6.0 | 2.16.6.0 | 2.16.6.0.00411295 | 2.16.6.0 | 1.16.6.0.432471 | | | Full Version Release |
| 2016.6 | 1 | 2.16.6.1 (3GB) | 2.16.6.0 | 2.16.6.0 | 2.16.6.0.00411295 | 2.16.6.0 | 1.16.6.1.468583 | | | GUI and Patient Portal updated |
| 2016.7 | - | 2.16.7.0 (3GB) | 2.16.70 | 2.16.70 | 2.16.7.0.00490835 | 2.16.70 | 1.16.7.0.493031 | 2.16.7.0.493008 | | Full version release |
| 2016.7 | 1 | 2.16.7.1 (3GB) | 2.16.7.0 | 2.16.7.1 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 2 | 2.16.7.2 (3GB) | 2.16.7.0 | 2.16.7.2 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 3 | 2.16.7.3 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 4 | 2.16.7.4 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI |
| 2016.7 | 5 | 2.16.7.5 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI |
| 2016.7 | 6 | 2.16.7.6 (3GB) | 2.16.7.0 | 2.16.7.6 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 7 | 2.16.7.7 (3GB) | 2.16.7.0 | 2.16.7.7 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 8 | 2.16.7.8 (3GB) | 2.16.7.0 | 2.16.7.7 | 2.16.7.8.00683507 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and DB updates |
| 2016.7 | 9 | 2.16.7.9 (3GB) | 2.16.7.0 | 2.16.7.9 | 2.16.7.9.00715012 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI, Web Services, DB updates and UM Portal |
| 2016.7 | 10 | 2.16.7.10 (3GB) | 2.16.7.0 | 2.16.7.10 | 2.16.7.9.00715012 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI and Web Service updates |
| 2016.7 | 11 | 2.16.7.11 (3GB) | 2.16.7.0 | 2.16.7.11 | 2.16.7.11.00761267 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI, Web Service and DB updates |
| 2016.7 | 12 | 2.16.7.12 (3GB) | 2.16.7.0 | 2.16.7.11 | 2.16.7.11.00761267 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI |
| 2016.7 | 13 | 2.16.7.13 (3GB) | 2.16.7.0 | 2.16.7.13 | 2.16.7.13.00823274 | 2.16.7.0 | 2.16.7.13.805715 | 2.16.7.13.805717 | | GUI, Web Service, DB, Patient and UM Portal updates |
| 2016.7 | 14 | 2.16.7.14 (3GB) | 2.16.7.0 | 2.16.7.14 | 2.16.7.14.00888220 | 2.16.7.0 | 2.16.7.14.897644 | 2.16.7.14.897646 | | GUI, Web Service, DB, Patient and UM Portal updates |
| 2017.1 | - | 2.17.1.0 (3GB) | 2.17.1.0 | 2.17.1.0 | 2.17.1.0.00559886 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | Full Version Release |
| 2017.1 | 1 | 2.17.1.1 (3GB) | 2.17.1.0 | 2.17.1.1 | 2.17.1.1.00589952 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 2 | 2.17.1.2 (3GB) | 2.17.1.0 | 2.17.1.2 | 2.17.1.2.00621962 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 3 | 2.17.1.3 (3GB) | 2.17.1.0 | 2.17.1.3 | 2.17.1.3.00640480 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 4 | 2.17.1.4 (3GB) | 2.17.1.0 | 2.17.1.4 | 2.17.1.4.00692239 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI, Web Service, DB and Patient Portal updates |
| 2017.1 | 5 | 2.17.1.4 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.4.00692239 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | Web Service |
| 2017.1 | 6 | 2.17.1.6 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI and DB Updates |
| 2017.1 | 7 | 2.17.1.7 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI update |
| 2017.1 | 8 | 2.17.1.8 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI update |
| 2017.1 | 9 | 2.17.1.9 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI update |
| 2017.1 | 10 | 2.17.1.10 (3GB) | 2.17.1.0 | 2.17.1.10 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI and Web Service update |
| 2017.2 | - | 2.17.2.0(3GB) | 2.17.2.0 | 2.17.2.0 | 2.17.2.0.00695782 | 2.17.2.0 | 2.17.2.0.702238 | 2.17.2.0.702213 | 2.17.2.0.702226 | Full Version Release. First release of Provider Portal |
| 2017.3 | - | 2.17.3.0(3GB) | 2.17.3.0 | 2.17.3.0 | 2.17.3.0.00764112 | 2.17.3.0 | 2.17.3.0.321 | 2.17.3.0.321 | 2.17.3.0.321 | Full Version Release. Including Patient, Provider and UM Portals |
| 2017.3 | 1 | 2.17.3.1(3GB) | 2.17.3.0 | 2.17.3.1 | 2.17.3.1.00846328 | 2.17.3.1 | 2.17.3.1.853299 | 2.17.3.1.853301 | 2.17.3.1.856171 | GUI, Web Sevice, DB. Including Patient, Provider and UM Portals |
| **2017.3** | **2** | **2.17.3.2(3GB)** | **2.17.3.0** | **2.17.3.2** | **2.17.3.2.00898348** | **2.17.3.2** | **2.17.3.2.913898** | **2.17.3.2.913899** | **2.17.3.1.856171** | **GUI, Web Sevice, DB. Including Patient, Provider and UM Portals** |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

# INSTALLING

## CLIENT/GUI

Copy and replace the current rRIS…zip file with the eRAD_rRIS_2017.3.2.zip file provided with this release.

Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

## WEB SERVICE

This updated is only required for the Wedge Web Services. The Core RIS Service and Document Distribution Service are not required to be updated.

1. The web service upgrade consists of replacing the files in the RIS Web Service directory with the files supplied in the rRISService folder with this build. Always create a backup of the files being replaced. This upgrade includes 131 files in the rRISService folder and 7 sub folders. Of those folders, 1 is a folder titled **"XSL"** that contains a sub folder and files within the subfolder. Another folder is titled **"deploy"** that contains the new .config files that will be deployed with the user of the file called "ServicesConfigWizard.exe" (see instructions below). Folders ar (Arabic), en_AU (Australian English), en-ZA (South Africa), he (Hebrew), pt_BR (Brazilian Portuguese), es-AR (Argentina Spanish) and ru-RU (Russian) and are localization folders. The WedgePlugins folder contains various plugin files for RADAR, MIRTH, Ensemble, etc…

**Services Configuration Wizard**

With the release of 42 to decrease the chance of losing configuration setting and missing new configuration options, we will no longer include the configuration files in the release in the main set of files, but they will now exist in a "deploy" folder, which will contain the three site configurable config files; applicationsettings, connectionstrings, and services as well as a copy of the rRISServices.exe configuration file. The contents of this folder should not be required to be touched.

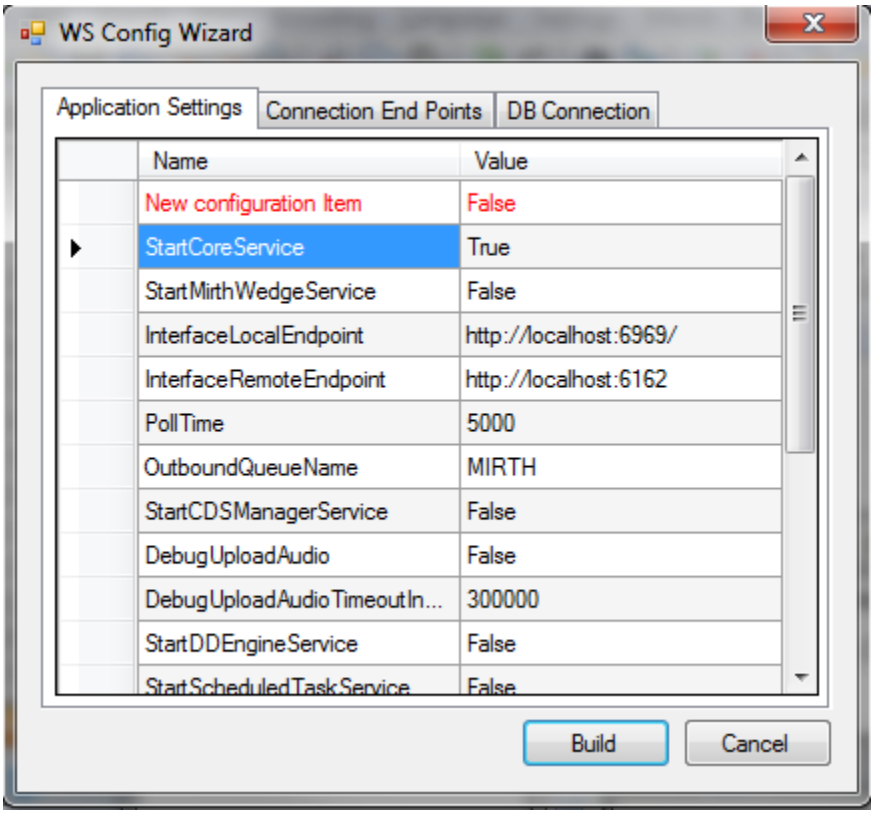
On the install of a new service, all files will be copied to the appropriate locations on the server (no configurations will be over written). If instructed or to confirm no new configurations have been added the user can run the new application "ServicesConfigWizard.exe"

This application will read the existing configuration file(s) (if files exist), and compare to the provided new configuration files then will display three tabs, for each configuration file:

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

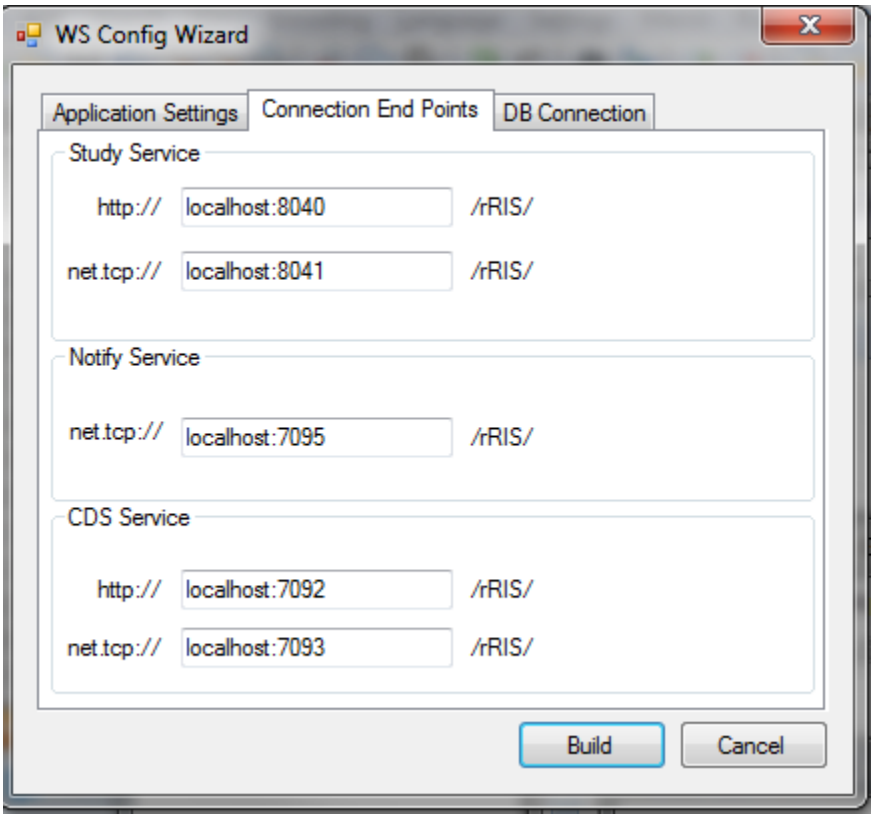
**Application Settings:** all existing configuration value will be displayed, if there are any new configuration entries they will be displayed in red.




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

**Connection End Points:** will display the existing configuration, if the value is left blank then that entry will not be created, in the case of "Study Service" or "CDS Service" if both http and net.tcp were not provided then that endpoint will not be created at all.




## DATABASE UPDATES

Always run the upgrade scripts in a test environment of the actual database to make sure they run cleanly. If any errors occur please contact development.

*Note: There is a new upgrade process introduced with B43.1 called "RunUpgrade.bat". The batch file will open a command window. This process will prompt you for the database server name, database name and authentication credentials. There is no need to run the database upgrade scripts manually as was done in previous releases.*

1) From the upgrade folder, double click the "RunUpgrade.bat" command file.

2) Enter the server name, database name and authentication credentials to the database. You have 2 choices for authentication credentials.

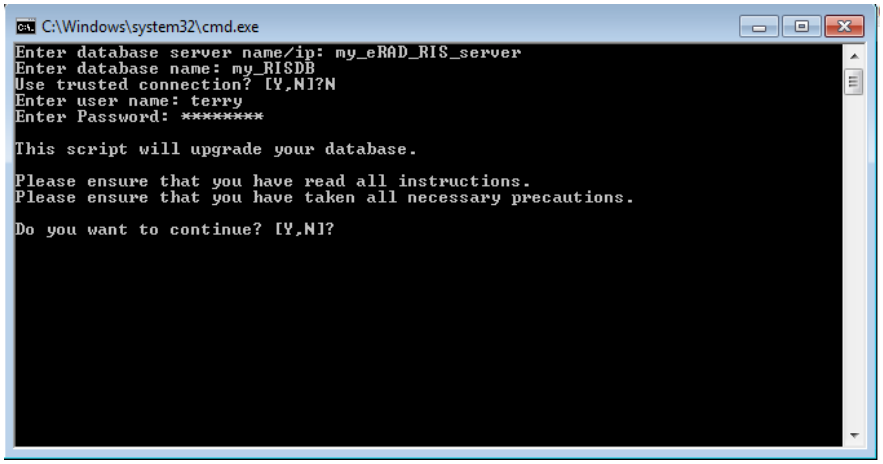
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

3) You can choose to use “Trusted connection”. Using this option will pass the identity of the currently logged on user. If this user has “db_owner” access to the eRAD RIS database then feel free to use this options.

4) If you decide not to use “Trusted connection” then you will be prompted for user id and password.

   Example:




5) After the upgrade program has finished you can find the upgrade logs in the “log” folder. The file name will be eRAD_RIS_db_upgrade_timestamp.log, where timestamp is a value representing the date and time the upgrade started. If you see any errors please contact the development team

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

# Server Update

For eRAD RIS

Version 2.0

Build 2.2017.3

Update 2.2017.3.3

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

# Table of Contents

Package Contents ....3

Intended Audience ....3

Who is affected....3

New Features....4

....4

Feature #18483 - Zip code should auto populate city/state on the insurance responsible party ....4

New configuration settings ....5

System configuration settings....5

Access strings ....5

Resolved Items ....6

Code Stream ....8

eRAD RIS Release Version Numbers....9

Installing ....10

Client/GUI....10

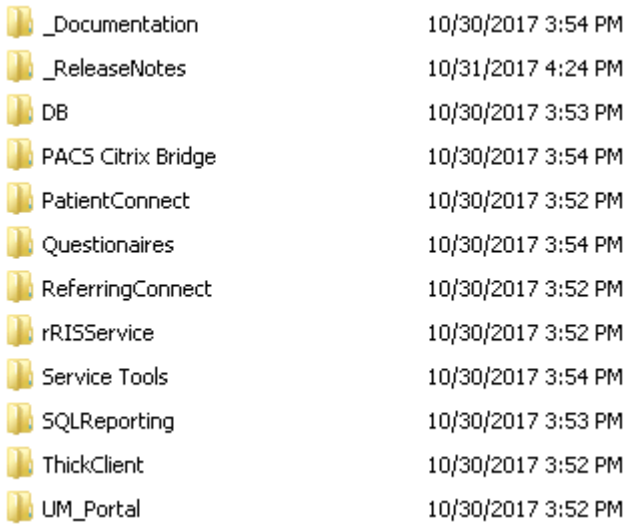
Web Service ....10

Database Updates....12

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## PACKAGE CONTENTS




## INTENDED AUDIENCE

The intended audience for this document is the RadNet Clinical Systems team and the eRAD Support/Service team.

It is appropriate to share the document with any customers applying the patch, in order to review new feature descriptions and resolved defects.

## WHO IS AFFECTED

Build 2017.3 installs. This server update must be applied to 2017.3.3

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

## NEW FEATURES

### FEATURE #18483 - ZIP CODE SHOULD AUTO POPULATE CITY/STATE ON THE INSURANCE RESPONSIBLE PARTY

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

# NEW CONFIGURATION SETTINGS

## SYSTEM CONFIGURATION SETTINGS

| Setting | Default | Purpose |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |

## ACCESS STRINGS

| Setting | Default | Purpose |
|---|---|---|
| | | |
| | | |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

## RESOLVED ITEMS

# eRAD RIS

| Redmine # | Subject |
|---|---|
| 18374 | Wrong Diagnostic Report is showing for order that required utilization review and has multiple procedures |
| 18462 | Precert not assigned while scheduling EMR order. |
| 18372 | Not Recommended OrderCancelled orders not showing in UM Connect |
| 18546 | Log control issue in dark mode. |
| 18601 | UM - Excluded Exams Workflow may not prompt user if procedure has billing codes with multiple UM Coverages |
| 18375 | Issue previewing attachments with multiple pages |
| 18318 | The counters framework is only tracking Error Pages and Failed Login Passwords for UM Connect - not tracking Logins |
| 18271 | Change verbiage for CD Burning "error" |
| 18670 | UM Portal - Imaging Launching Does not load Images |
| 18652 | verbal order generator not functioning |
| 18515 | Reno - Patient Connect HeaderLogo - incorrect applicationsconfig setting |
| 18556 | c_mgmt_mqsa view does not return data when it is expected. |
| 18639 | index plan for poping items from c_action_queue causes a key lookup |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

| | |
|---|---|
| 18496 | External Interface Schema incorrect for some tables |
| 18542 | many DB queries are timing out. |
| 18512 | Notes fields not appending properly with inbound message |
| 18580 | Reno - Laterality and Body Part Required change in behaviour |
| 18604 | Problems with Patient Insurance DOB and Name Synchronization |
| 18608 | Naming issues with systems in upgrade structure |
| 18381 | HTTP deployment method times out after 120 seconds |
| 18359 | UM Admin users cannot respond to messages in the User Messages inbox |
| 18377 | Practice Override not overriding application settings |

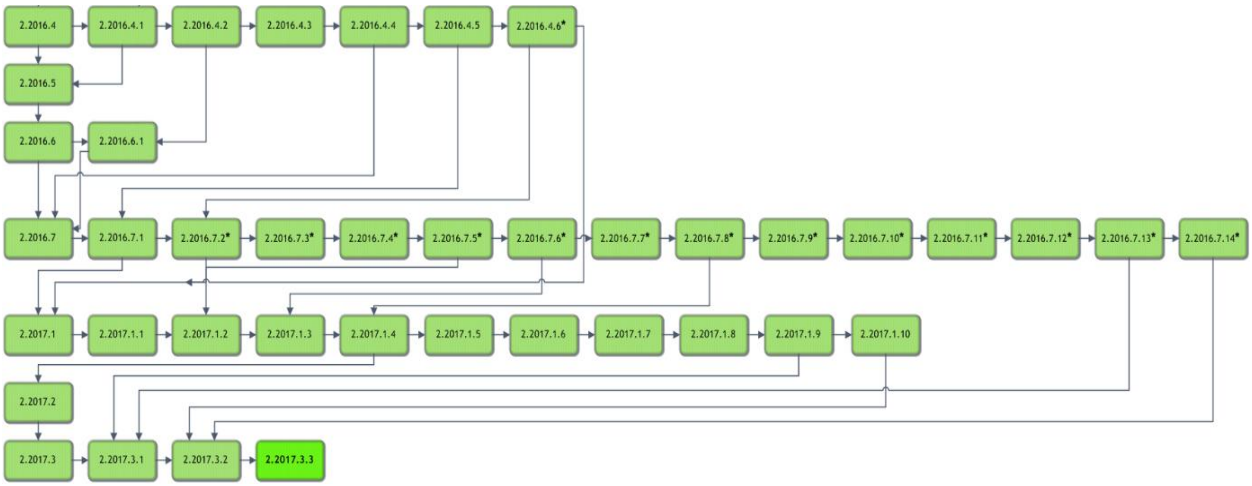
The following list are items have been taken from current new development (intended to be released in a future version).

| Redmine # | Subject | Original Resolved Version |
|---|---|---|
| 18509 | ExpirationMonthYear exception making it difficult to schedule a cancelled order | 3.2017.6 |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## CODE STREAM




**Legend:**

**Light Green = Previously Released software**

**Bright Green = Current Release**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## ERAD RIS RELEASE VERSION NUMBERS

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Digital Forms | Patient Portal | UM Portal | Provider Portal | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| 2016.4 | - | 2.16.4.0 | 2.16.4.0 | 2.16.4.0 | 2.16.4.0.00301943 | 2.16.4.0 | 1.16.4.0.310284 | | | Full Version Release |
| 2016.4 | 1 | 2.16.4.1 | 2.16.4.0 | 2.16.4.1 | 2.16.4.0.00301943 | 2.16.4.0 | 1.16.4.0.310284 | | | GUI and Web Service updates |
| 2016.4 | 2 | 2.16.4.2 (3GB) | 2.16.4.0 | 2.16.4.1 | 2.16.4.0.00301943 | 2.16.4.0 | 1.16.4.2.460241 | | | GUI and Patient Portal updates |
| 2016.4 | 3 | 2.16.4.3 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | 1.16.4.3.489120 | | | GUI and Patient Portal updates |
| 2016.4 | 4 | 2.16.4.4 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | 1.16.4.3.489120 | | | GUI |
| 2016.4 | 5 | 2.16.4.5 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | | | | GUI |
| 2016.4 | 6 | 2.16.4.6 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | | | | GUI |
| 2016.5 | - | 2.16.5.0 (3GB) | 2.16.5.0 | 2.16.5.0 | 2.16.5.0.00349303 | 2.16.5.0 | 1.16.5.0.362009 | | | Full Version Release |
| 2016.6 | - | 2.16.6.0 (3GB) | 2.16.6.0 | 2.16.6.0 | 2.16.6.0.00411295 | 2.16.6.0 | 1.16.6.0.432471 | | | Full Version Release |
| 2016.6 | 1 | 2.16.6.1 (3GB) | 2.16.6.0 | 2.16.6.0 | 2.16.6.0.00411295 | 2.16.6.0 | 1.16.6.1.468583 | | | GUI and Patient Portal updated |
| 2016.7 | - | 2.16.7.0 (3GB) | 2.16.70 | 2.16.70 | 2.16.7.0.00490835 | 2.16.70 | 1.16.7.0.493031 | 2.16.7.0.493008 | | Full version release |
| 2016.7 | 1 | 2.16.7.1 (3GB) | 2.16.7.0 | 2.16.7.1 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 2 | 2.16.7.2 (3GB) | 2.16.7.0 | 2.16.7.2 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 3 | 2.16.7.3 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 4 | 2.16.7.4 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI |
| 2016.7 | 5 | 2.16.7.5 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI |
| 2016.7 | 6 | 2.16.7.6 (3GB) | 2.16.7.0 | 2.16.7.6 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 7 | 2.16.7.7 (3GB) | 2.16.7.0 | 2.16.7.7 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 8 | 2.16.7.8 (3GB) | 2.16.7.0 | 2.16.7.7 | 2.16.7.8.00683507 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and DB updates |
| 2016.7 | 9 | 2.16.7.9 (3GB) | 2.16.7.0 | 2.16.7.9 | 2.16.7.9.00715012 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI, Web Services, DB updates and UM Portal |
| 2016.7 | 10 | 2.16.7.10 (3GB) | 2.16.7.0 | 2.16.7.10 | 2.16.7.9.00715012 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI and Web Service updates |
| 2016.7 | 11 | 2.16.7.11 (3GB) | 2.16.7.0 | 2.16.7.11 | 2.16.7.11.00761267 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI, Web Service and DB updates |
| 2016.7 | 12 | 2.16.7.12 (3GB) | 2.16.7.0 | 2.16.7.11 | 2.16.7.11.00761267 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI |
| 2016.7 | 13 | 2.16.7.13 (3GB) | 2.16.7.0 | 2.16.7.13 | 2.16.7.13.00823274 | 2.16.7.0 | 2.16.7.13.805715 | 2.16.7.13.805717 | | GUI, Web Service, DB, Patient and UM Portal updates |
| 2016.7 | 14 | 2.16.7.14 (3GB) | 2.16.7.0 | 2.16.7.14 | 2.16.7.14.00888220 | 2.16.7.0 | 2.16.7.14.897644 | 2.16.7.14.897646 | | GUI, Web Service, DB, Patient and UM Portal updates |
| 2017.1 | - | 2.17.1.0 (3GB) | 2.17.1.0 | 2.17.1.0 | 2.17.1.0.00559886 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | Full Version Release |
| 2017.1 | 1 | 2.17.1.1 (3GB) | 2.17.1.0 | 2.17.1.1 | 2.17.1.1.00589952 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 2 | 2.17.1.2 (3GB) | 2.17.1.0 | 2.17.1.2 | 2.17.1.2.00621962 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 3 | 2.17.1.3 (3GB) | 2.17.1.0 | 2.17.1.3 | 2.17.1.3.00640480 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 4 | 2.17.1.4 (3GB) | 2.17.1.0 | 2.17.1.4 | 2.17.1.4.00692239 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI, Web Service, DB and Patient Portal updates |
| 2017.1 | 5 | 2.17.1.4 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.4.00692239 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | Web Service |
| 2017.1 | 6 | 2.17.1.6 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI and DB Updates |
| 2017.1 | 7 | 2.17.1.7 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI update |
| 2017.1 | 8 | 2.17.1.8 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI update |
| 2017.1 | 9 | 2.17.1.9 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI update |
| 2017.1 | 10 | 2.17.1.10 (3GB) | 2.17.1.0 | 2.17.1.10 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI and Web Service update |
| 2017.2 | - | 2.17.2.0(3GB) | 2.17.2.0 | 2.17.2.0 | 2.17.2.0.00695782 | 2.17.2.0 | 2.17.2.0.702238 | 2.17.2.0.702213 | 2.17.2.0.702226 | Full Version Release. First release of Provider Portal |
| 2017.3 | - | 2.17.3.0(3GB) | 2.17.3.0 | 2.17.3.0 | 2.17.3.0.00764112 | 2.17.3.0 | 2.17.3.0.321 | 2.17.3.0.321 | 2.17.3.0.321 | Full Version Release. Including Patient, Provider and UM Portals |
| 2017.3 | 1 | 2.17.3.1(3GB) | 2.17.3.0 | 2.17.3.1 | 2.17.3.1.00846328 | 2.17.3.1 | 2.17.3.1.853299 | 2.17.3.1.853301 | 2.17.3.1.856171 | GUI, Web Sevice, DB. Including Patient, Provider and UM Portals |
| 2017.3 | 2 | 2.17.3.2(3GB) | 2.17.3.0 | 2.17.3.2 | 2.17.3.2.00898348 | 2.17.3.2 | 2.17.3.2.913898 | 2.17.3.2.913899 | 2.17.3.1.856171 | GUI, Web Sevice, DB. Including Patient, Provider and UM Portals |
| **2017.3** | **3** | **2.17.3.3(3GB)** | **2.17.3.0** | **2.17.3.3** | **2.17.3.3.00954008** | **2.17.3.2** | **2.17.3.3.962869** | **2.17.3.3.962870** | **2.17.3.3.962870** | **GUI, Web Sevice, DB. Including Patient, Provider and UM Portals** |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

# INSTALLING

## CLIENT/GUI

Copy and replace the current rRIS…zip file with the eRAD_rRIS_2017.3.3.zip file provided with this release.

Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

## WEB SERVICE

This updated is only required for the Wedge Web Services. The Core RIS Service and Document Distribution Service are not required to be updated.

1. The web service upgrade consists of replacing the files in the RIS Web Service directory with the files supplied in the rRISService folder with this build. Always create a backup of the files being replaced. This upgrade includes 134 files in the rRISService folder and 7 sub folders. Of those folders, 1 is a folder titled **"XSL"** that contains a sub folder and files within the subfolder. Another folder is titled **"deploy"** that contains the new .config files that will be deployed with the user of the file called "ServicesConfigWizard.exe" (see instructions below). Folders ar (Arabic), en_AU (Australian English), en-ZA (South Africa), he (Hebrew), pt_BR (Brazilian Portuguese), es-AR (Argentina Spanish) and ru-RU (Russian) and are localization folders. The WedgePlugins folder contains various plugin files for RADAR, MIRTH, Ensemble, etc…

**Services Configuration Wizard**

With the release of 42 to decrease the chance of losing configuration setting and missing new configuration options, we will no longer include the configuration files in the release in the main set of files, but they will now exist in a "deploy" folder, which will contain the three site configurable config files; applicationsettings, connectionstrings, and services as well as a copy of the rRISServices.exe configuration file. The contents of this folder should not be required to be touched.

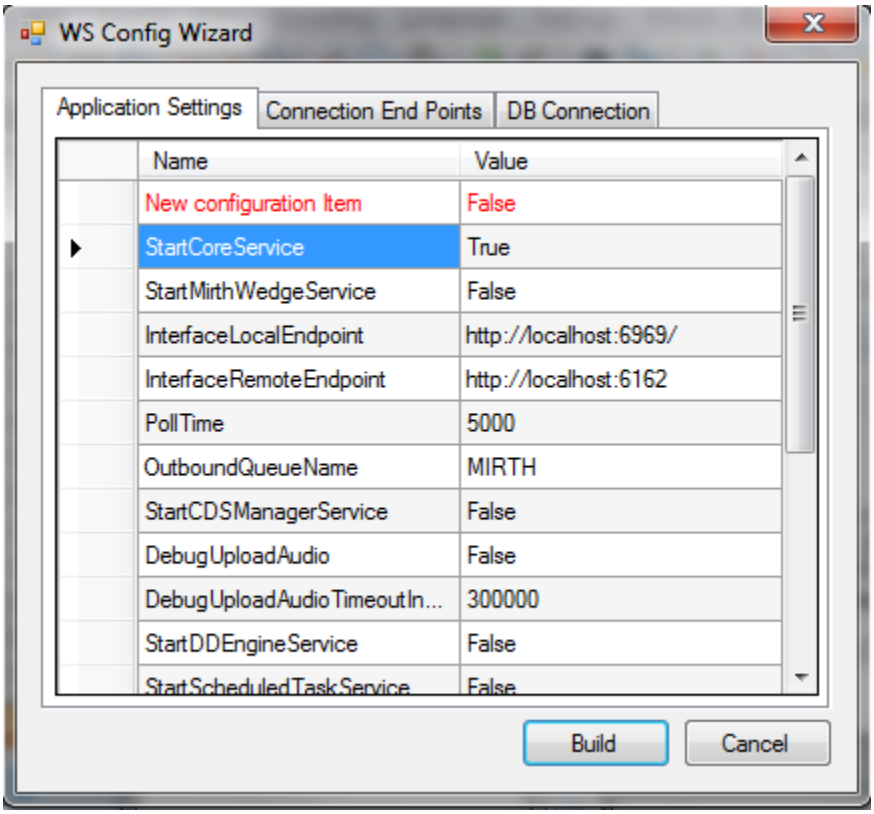
On the install of a new service, all files will be copied to the appropriate locations on the server (no configurations will be over written). If instructed or to confirm no new configurations have been added the user can run the new application "ServicesConfigWizard.exe"

This application will read the existing configuration file(s) (if files exist), and compare to the provided new configuration files then will display three tabs, for each configuration file:

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

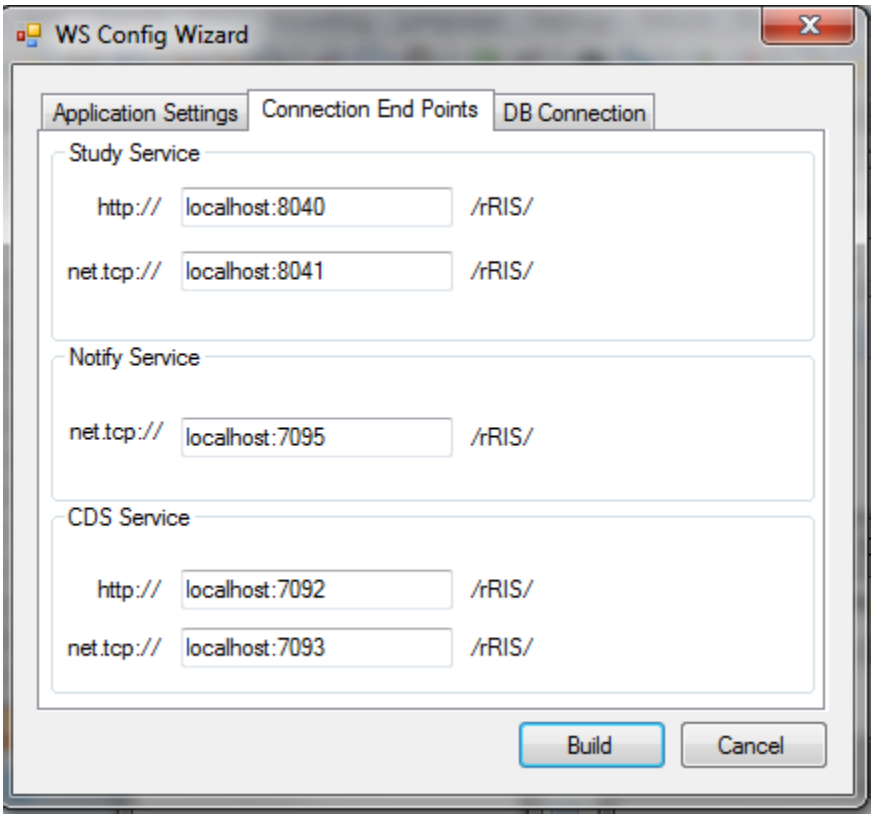
**Application Settings:** all existing configuration value will be displayed, if there are any new configuration entries they will be displayed in red.




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

**Connection End Points:** will display the existing configuration, if the value is left blank then that entry will not be created, in the case of "Study Service" or "CDS Service" if both http and net.tcp were not provided then that endpoint will not be created at all.




## DATABASE UPDATES

Always run the upgrade scripts in a test environment of the actual database to make sure they run cleanly. If any errors occur please contact development.

*Note: There is a new upgrade process introduced with B43.1 called "RunUpgrade.bat". The batch file will open a command window. This process will prompt you for the database server name, database name and authentication credentials. There is no need to run the database upgrade scripts manually as was done in previous releases.*

1) From the upgrade folder, double click the "RunUpgrade.bat" command file.

2) Enter the server name, database name and authentication credentials to the database. You have 2 choices for authentication credentials.

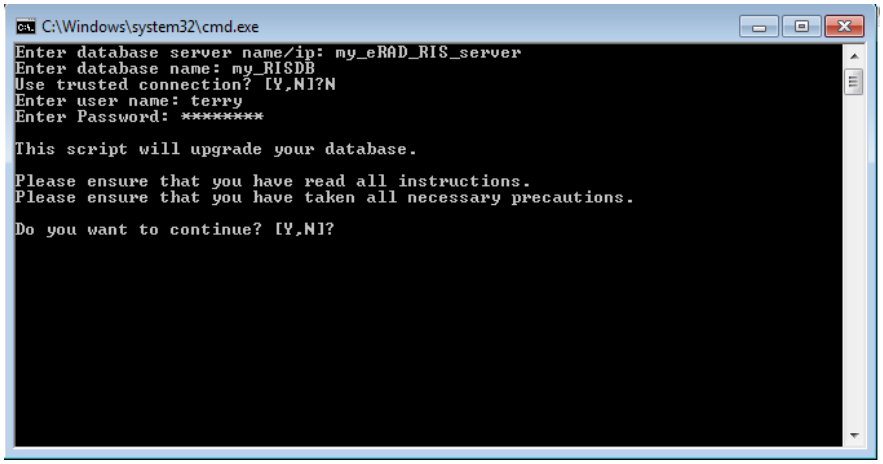
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

3) You can choose to use “Trusted connection”. Using this option will pass the identity of the currently logged on user. If this user has “db_owner” access to the eRAD RIS database then feel free to use this options.

4) If you decide not to use “Trusted connection” then you will be prompted for user id and password.

   Example:




5) After the upgrade program has finished you can find the upgrade logs in the “log” folder. The file name will be eRAD_RIS_db_upgrade_timestamp.log, where timestamp is a value representing the date and time the upgrade started. If you see any errors please contact the development team

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

# Server Update

For eRAD RIS

Version 2.0

Build 2.2017.3

Update 2.2017.3.4

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

# Table of Contents

Package Contents ..... 3

Intended Audience ..... 3

Who is affected ..... 3

Resolved Items ..... 4

Code Stream ..... 5

eRAD RIS Release Version Numbers ..... 6

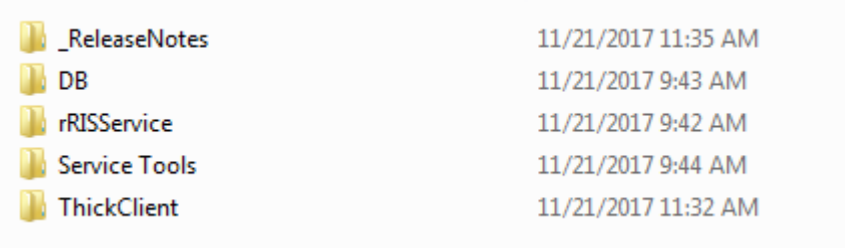
Installing ..... 7

- Client/GUI ..... 7
- Web Service ..... 7
- Database Updates ..... 9

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## PACKAGE CONTENTS




## INTENDED AUDIENCE

The intended audience for this document is the RadNet Clinical Systems team and the eRAD Support/Service team.

It is appropriate to share the document with any customers applying the patch, in order to review new feature descriptions and resolved defects.

## WHO IS AFFECTED

Build 2017.3 installs. This server update must be applied to 2017.3.3

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

## RESOLVED ITEMS

# eRAD RIS

| Redmine # | Subject |
|---|---|
| 18938 | RIS is unable to find time slots for multi-day procedures plans |
| 18964 | Some multi-day procedure plans cause an exception when opened |
| 18958 | Intermittent error message "The commit transaction has no corresponding begin transaction" |

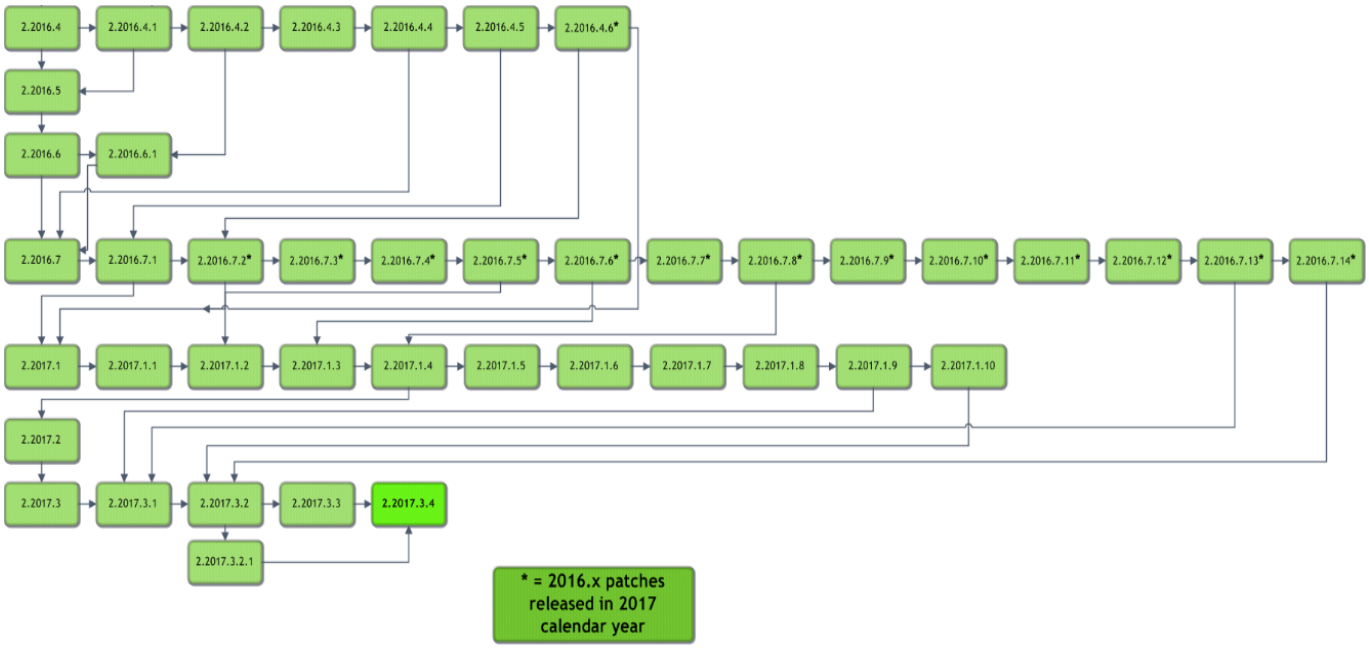
The following list of items have been taken from current new development (originally intended to be released in a future version).

| Redmine # | Subject | Original Resolved Version |
|---|---|---|
| 18987 | Import CD intermittently causes error "No codec registered for transfer syntax: JPEG Lossless…" | 3.2017.6 |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

## CODE STREAM




## Legend:

Light Green = Previously Released software

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## ERAD RIS RELEASE VERSION NUMBERS

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Digital Forms | Patient Portal | UM Portal | Provider Portal | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| 2016.4 | - | 2.16.4.0 | 2.16.4.0 | 2.16.4.0 | 2.16.4.0.00301943 | 2.16.4.0 | 1.16.4.0.310284 | | | Full Version Release |
| 2016.4 | 1 | 2.16.4.1 | 2.16.4.0 | 2.16.4.1 | 2.16.4.0.00301943 | 2.16.4.0 | 1.16.4.0.310284 | | | GUI and Web Service updates |
| 2016.4 | 2 | 2.16.4.2 (3GB) | 2.16.4.0 | 2.16.4.1 | 2.16.4.0.00301943 | 2.16.4.0 | 1.16.4.2.460241 | | | GUI and Patient Portal updates |
| 2016.4 | 3 | 2.16.4.3 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | 1.16.4.3.489120 | | | GUI and Patient Portal updates |
| 2016.4 | 4 | 2.16.4.4 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | 1.16.4.3.489120 | | | GUI |
| 2016.4 | 5 | 2.16.4.5 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | | | | GUI |
| 2016.4 | 6 | 2.16.4.6 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | | | | GUI |
| 2016.5 | - | 2.16.5.0 (3GB) | 2.16.5.0 | 2.16.5.0 | 2.16.5.0.00349303 | 2.16.5.0 | 1.16.5.0.362009 | | | Full Version Release |
| 2016.6 | - | 2.16.6.0 (3GB) | 2.16.6.0 | 2.16.6.0 | 2.16.6.0.00411295 | 2.16.6.0 | 1.16.6.0.432471 | | | Full Version Release |
| 2016.6 | 1 | 2.16.6.1 (3GB) | 2.16.6.0 | 2.16.6.0 | 2.16.6.0.00411295 | 2.16.6.0 | 1.16.6.1.468583 | | | GUI and Patient Portal updated |
| 2016.7 | - | 2.16.7.0 (3GB) | 2.16.70 | 2.16.70 | 2.16.7.0.00490835 | 2.16.70 | 1.16.7.0.493031 | 2.16.7.0.493008 | | Full version release |
| 2016.7 | 1 | 2.16.7.1 (3GB) | 2.16.7.0 | 2.16.7.1 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 2 | 2.16.7.2 (3GB) | 2.16.7.0 | 2.16.7.2 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 3 | 2.16.7.3 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 4 | 2.16.7.4 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI |
| 2016.7 | 5 | 2.16.7.5 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI |
| 2016.7 | 6 | 2.16.7.6 (3GB) | 2.16.7.0 | 2.16.7.6 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 7 | 2.16.7.7 (3GB) | 2.16.7.0 | 2.16.7.7 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 8 | 2.16.7.8 (3GB) | 2.16.7.0 | 2.16.7.7 | 2.16.7.8.00683507 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and DB updates |
| 2016.7 | 9 | 2.16.7.9 (3GB) | 2.16.7.0 | 2.16.7.9 | 2.16.7.9.00715012 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI, Web Services, DB updates and UM Portal |
| 2016.7 | 10 | 2.16.7.10 (3GB) | 2.16.7.0 | 2.16.7.10 | 2.16.7.9.00715012 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI and Web Service updates |
| 2016.7 | 11 | 2.16.7.11 (3GB) | 2.16.7.0 | 2.16.7.11 | 2.16.7.11.00761267 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI, Web Service and DB updates |
| 2016.7 | 12 | 2.16.7.12 (3GB) | 2.16.7.0 | 2.16.7.11 | 2.16.7.11.00761267 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI |
| 2016.7 | 13 | 2.16.7.13 (3GB) | 2.16.7.0 | 2.16.7.13 | 2.16.7.13.00823274 | 2.16.7.0 | 2.16.7.13.805715 | 2.16.7.13.805717 | | GUI, Web Service, DB, Patient and UM Portal updates |
| 2016.7 | 14 | 2.16.7.14 (3GB) | 2.16.7.0 | 2.16.7.14 | 2.16.7.14.00888220 | 2.16.7.0 | 2.16.7.14.897644 | 2.16.7.14.897646 | | GUI, Web Service, DB, Patient and UM Portal updates |
| 2017.1 | - | 2.17.1.0 (3GB) | 2.17.1.0 | 2.17.1.0 | 2.17.1.0.00559886 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | Full Version Release |
| 2017.1 | 1 | 2.17.1.1 (3GB) | 2.17.1.0 | 2.17.1.1 | 2.17.1.1.00589952 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 2 | 2.17.1.2 (3GB) | 2.17.1.0 | 2.17.1.2 | 2.17.1.2.00621962 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 3 | 2.17.1.3 (3GB) | 2.17.1.0 | 2.17.1.3 | 2.17.1.3.00640480 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 4 | 2.17.1.4 (3GB) | 2.17.1.0 | 2.17.1.4 | 2.17.1.4.00692239 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI, Web Service, DB and Patient Portal updates |
| 2017.1 | 5 | 2.17.1.4 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.4.00692239 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | Web Service |
| 2017.1 | 6 | 2.17.1.6 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI and DB Updates |
| 2017.1 | 7 | 2.17.1.7 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI update |
| 2017.1 | 8 | 2.17.1.8 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI update |
| 2017.1 | 9 | 2.17.1.9 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI update |
| 2017.1 | 10 | 2.17.1.10 (3GB) | 2.17.1.0 | 2.17.1.10 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI and Web Service update |
| 2017.2 | - | 2.17.2.0(3GB) | 2.17.2.0 | 2.17.2.0 | 2.17.2.0.00695782 | 2.17.2.0 | 2.17.2.0.702238 | 2.17.2.0.702213 | 2.17.2.0.702226 | Full Version Release. First release of Provider Portal |
| 2017.3 | - | 2.17.3.0(3GB) | 2.17.3.0 | 2.17.3.0 | 2.17.3.0.00764112 | 2.17.3.0 | 2.17.3.0.321 | 2.17.3.0.321 | 2.17.3.0.321 | Full Version Release. Including Patient, Provider and UM Portals |
| 2017.3 | 1 | 2.17.3.1(3GB) | 2.17.3.0 | 2.17.3.1 | 2.17.3.1.00846328 | 2.17.3.1 | 2.17.3.1.853299 | 2.17.3.1.853301 | 2.17.3.1.856171 | GUI, Web Sevice, DB. Including Patient, Provider and UM Portals |
| 2017.3 | 2 | 2.17.3.2(3GB) | 2.17.3.0 | 2.17.3.2 | 2.17.3.2.00898348 | 2.17.3.2 | 2.17.3.2.913898 | 2.17.3.2.913899 | 2.17.3.1.856171 | GUI, Web Sevice, DB. Including Patient, Provider and UM Portals |
| 2017.3 | 2.1 | 2.17.3.2.1(3GB) | 2.17.3.0 | 2.17.3.2 | 2.17.3.2.00898348 | 2.17.3.2 | 2.17.3.2.913898 | 2.17.3.2.913899 | 2.17.3.1.856171 | GUI Only |
| 2017.3 | 3 | 2.17.3.3(3GB) | 2.17.3.0 | 2.17.3.3 | 2.17.3.3.00954008 | 2.17.3.2 | 2.17.3.3.962869 | 2.17.3.3.962870 | 2.17.3.3.962870 | GUI, Web Sevice, DB. Including Patient, Provider and UM Portals |
| **2017.3** | **4** | **2.17.3.4(3GB)** | **2.17.3.0** | **2.17.3.4** | **2.17.3.4.00987562** | **2.17.3.2** | **2.17.3.3.962869** | **2.17.3.3.962870** | **2.17.3.3.962870** | **GUI, Web Sevice and DB** |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

# INSTALLING

## CLIENT/GUI

Copy and replace the current rRIS…zip file with the eRAD_rRIS_2017.3.4.zip file provided with this release.

Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

## WEB SERVICE

This updated is only required for the Wedge Web Services. The Core RIS Service and Document Distribution Service are not required to be updated.

1. The web service upgrade consists of replacing the files in the RIS Web Service directory with the files supplied in the rRISService folder with this build. Always create a backup of the files being replaced. This upgrade includes 134 files in the rRISService folder and 7 sub folders. Of those folders, 1 is a folder titled **"XSL"** that contains a sub folder and files within the subfolder. Another folder is titled **"deploy"** that contains the new .config files that will be deployed with the user of the file called "ServicesConfigWizard.exe" (see instructions below). Folders ar (Arabic), en_AU (Australian English), en-ZA (South Africa), he (Hebrew), pt_BR (Brazilian Portuguese), es-AR (Argentina Spanish) and ru-RU (Russian) and are localization folders. The WedgePlugins folder contains various plugin files for RADAR, MIRTH, Ensemble, etc…

**Services Configuration Wizard**

With the release of 42 to decrease the chance of losing configuration setting and missing new configuration options, we will no longer include the configuration files in the release in the main set of files, but they will now exist in a "deploy" folder, which will contain the three site configurable config files; applicationsettings, connectionstrings, and services as well as a copy of the rRISServices.exe configuration file. The contents of this folder should not be required to be touched.

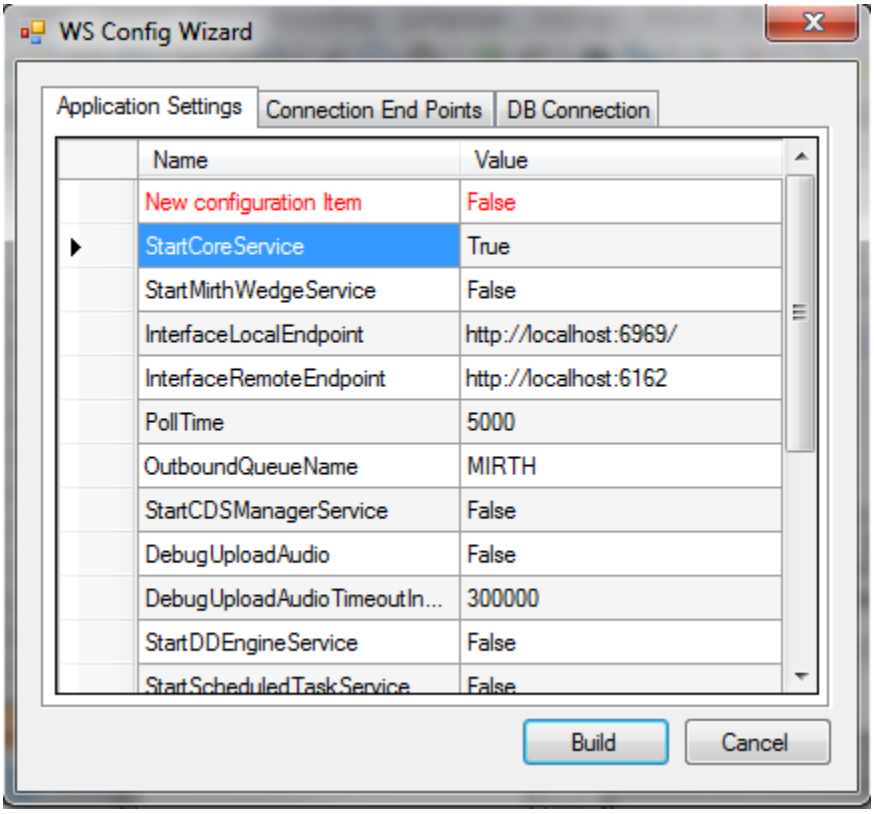
On the install of a new service, all files will be copied to the appropriate locations on the server (no configurations will be over written). If instructed or to confirm no new configurations have been added the user can run the new application "ServicesConfigWizard.exe"

This application will read the existing configuration file(s) (if files exist), and compare to the provided new configuration files then will display three tabs, for each configuration file:

**Application Settings:** all existing configuration value will be displayed, if there are any new configuration entries they will be displayed in red.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

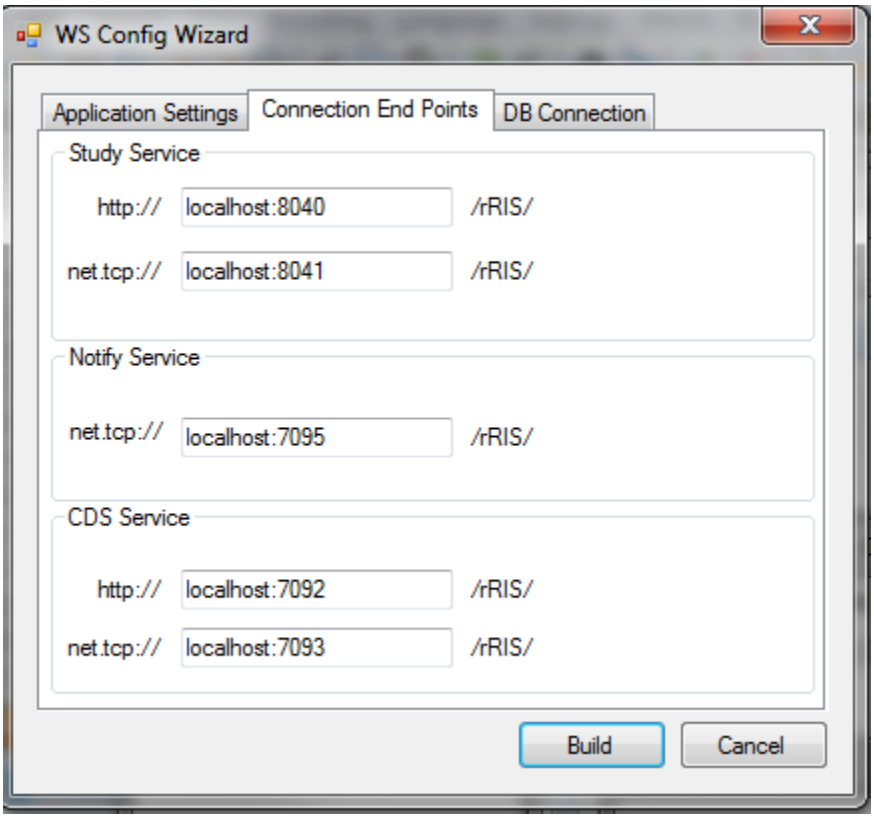
in any form or by any means without the prior written permission from eRAD. 




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

**Connection End Points:** will display the existing configuration, if the value is left blank then that entry will not be created, in the case of "Study Service" or "CDS Service" if both http and net.tcp were not provided then that endpoint will not be created at all.




## DATABASE UPDATES

Always run the upgrade scripts in a test environment of the actual database to make sure they run cleanly. If any errors occur please contact development.

*Note: There is a new upgrade process introduced with B43.1 called "RunUpgrade.bat". The batch file will open a command window. This process will prompt you for the database server name, database name and authentication credentials. There is no need to run the database upgrade scripts manually as was done in previous releases.*

1) From the upgrade folder, double click the "RunUpgrade.bat" command file.

2) Enter the server name, database name and authentication credentials to the database. You have 2 choices for authentication credentials.

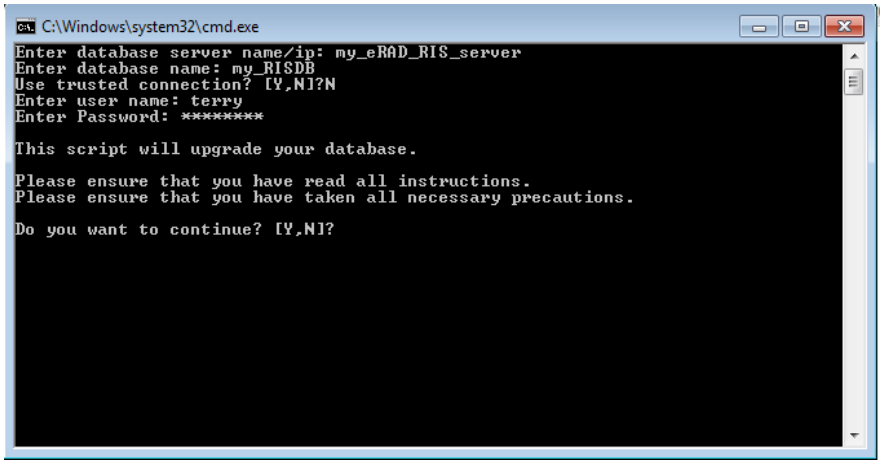
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

3) You can choose to use “Trusted connection”. Using this option will pass the identity of the currently logged on user. If this user has “db_owner” access to the eRAD RIS database then feel free to use this options.

4) If you decide not to use “Trusted connection” then you will be prompted for user id and password.

   Example:




5) After the upgrade program has finished you can find the upgrade logs in the “log” folder. The file name will be eRAD_RIS_db_upgrade_timestamp.log, where timestamp is a value representing the date and time the upgrade started. If you see any errors please contact the development team

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

# Server Update

For eRAD RIS

Version 2.0

Build 2.2017.3

Update 2.2017.3.5

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

# Table of Contents

Package Contents ..... 3

Intended Audience ..... 3

Who is affected ..... 3

New Features ..... 4

Feature #18849 – Capture the Ordering Department from interface and display on worklists ..... 4

Resolved Items ..... 5

Code Stream ..... 7

eRAD RIS Release Version Numbers ..... 8

Installing ..... 9

Client/GUI ..... 9

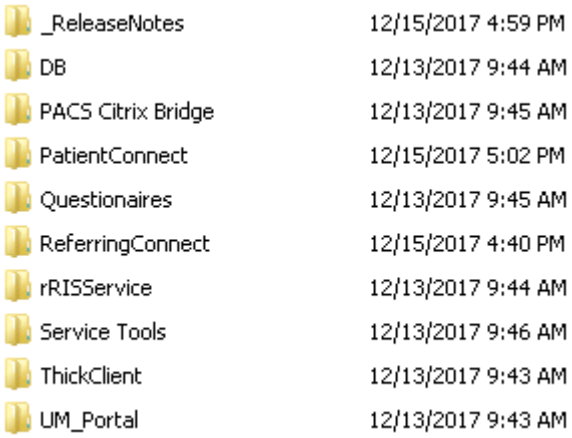
Web Service ..... 9

Database Updates ..... 11

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## PACKAGE CONTENTS




## INTENDED AUDIENCE

The intended audience for this document is the RadNet Clinical Systems team and the eRAD Support/Service team.

It is appropriate to share the document with any customers applying the patch, in order to review new feature descriptions and resolved defects.

## WHO IS AFFECTED

Build 2017.3 installs. This server update must be applied to 2017.3.4

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

## NEW FEATURES

### FEATURE #18849 – CAPTURE "ORDERING DEPARTMENT" FROM INTERFACE AND DISPLAY ON WORKLISTS

There is a customer requirement to capture and display an Ordering Department, which is populated to RIS via interface. The data will be displayed in a new column labeled ***Ordering Department*** on the following worklists:

- Orders to Schedule
- Reception
- Technologist
- Pending Dictation
- All Pending Dictation

While the Ordering Organization column may be visible on other radiologist worklists, the data is only configured to be displayed on the worklists above.

The Ordering Organization cannot be edited in eRAD RIS; updates will occur in the originating system and are populated via the interface.

Users who have saved Custom Views on their worklists will need to add the new column and re-save their Custom View in order to see this data on their worklists.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

## RESOLVED ITEMS

# eRAD RIS

| Redmine # | Subject |
|---|---|
| 19192 | MRNs with an Issuer using Mod10 or Mod10PrePad Identity Validation Type will appropriately fail to save when validation rules are not met. |
| 19222 | When checking for existing MRNs for Issuers with Mod10PrePad Identity Validation Type, the leading zeros will be added prior to the check, ensuring that a duplicate MRN cannot be created. |
| 19151 | The Administration Portal header is now correctly applying the configuration value for “Portal Name.” |
| 19153 | Resolved a Portal timing issue which could sometimes result in PACS image thumbnails failing to load. |
| 19152 | Corrected a discrepancy in web address (URL) when setting up a new UM Portal account, which previously prevented a user from entering their verification code when opening the page from the email. |
| 19091 | Resolved an excessive CPU issue related to c_ProcessPostEvents. |
| 19090 | Resolved a performance issue on the IVT worklist by preventing parallel queries. |
| 19089 | A new index was added to improve performance of the Labwork Requested worklist. |
| 19088 | A new index was added to improve performance of Document Distribution queries. |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

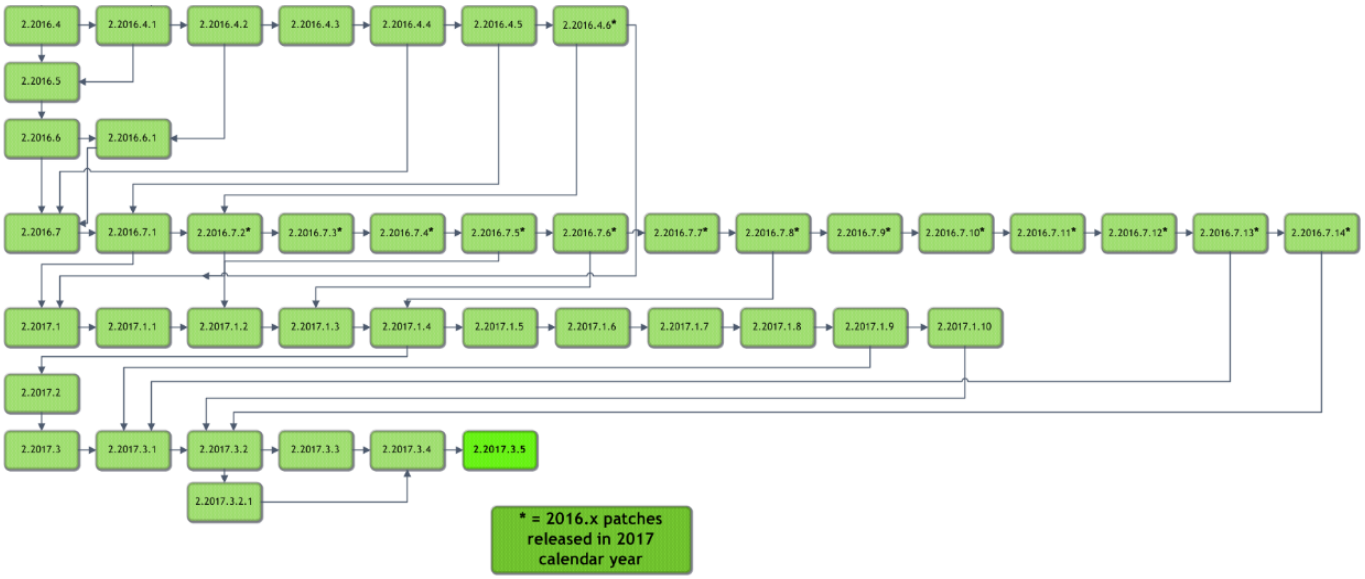
The following items, developed for future RIS versions, have been released early in this patch, so that customers can benefit from the changes more quickly.

| Redmine # | Subject | Original Resolved Version |
|---|---|---|
| 19066 | Eligibility - Removed Carefirst (BCMDC) trigger logic that set remaining deductible to null. | 3.2018.1 |
| 19077 | Lab observations are now available in the outbound action container for interface messages. | 3.2018.1 |
| 19117 | Resolved an issue that could cause the Issuer of ID to be hidden after making changes to the current selection. | 2.2017.4 |
| 19104 | Resolved an issue that could result in a time out of a Patient Search under certain conditions. | 3.2018.1 |
| 19078 | Resolved an issue that could cause users to receive an Assign Credentials error. | 3.2018.1 |
| 17815 | It is now possible to select a midnight (00:00) time slot when scheduling, if the Availability Template is configured to allow it. | 3.2018.1 |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

## CODE STREAM




**Legend:**

Light Green = Previously Released software

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## ERAD RIS RELEASE VERSION NUMBERS

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Digital Forms | Patient Portal | UM Portal | Provider Portal | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| 2016.7 | - | 2.16.7.0 (3GB) | 2.16.70 | 2.16.70 | 2.16.7.0.00490835 | 2.16.70 | 1.16.7.0.493031 | 2.16.7.0.493008 | | Full version release |
| 2016.7 | 1 | 2.16.7.1 (3GB) | 2.16.7.0 | 2.16.7.1 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 2 | 2.16.7.2 (3GB) | 2.16.7.0 | 2.16.7.2 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 3 | 2.16.7.3 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 4 | 2.16.7.4 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI |
| 2016.7 | 5 | 2.16.7.5 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI |
| 2016.7 | 6 | 2.16.7.6 (3GB) | 2.16.7.0 | 2.16.7.6 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 7 | 2.16.7.7 (3GB) | 2.16.7.0 | 2.16.7.7 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 8 | 2.16.7.8 (3GB) | 2.16.7.0 | 2.16.7.7 | 2.16.7.8.00683507 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and DB updates |
| 2016.7 | 9 | 2.16.7.9 (3GB) | 2.16.7.0 | 2.16.7.9 | 2.16.7.9.00715012 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI, Web Services, DB updates and UM Portal |
| 2016.7 | 10 | 2.16.7.10 (3GB) | 2.16.7.0 | 2.16.7.10 | 2.16.7.9.00715012 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI and Web Service updates |
| 2016.7 | 11 | 2.16.7.11 (3GB) | 2.16.7.0 | 2.16.7.11 | 2.16.7.11.00761267 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI, Web Service and DB updates |
| 2016.7 | 12 | 2.16.7.12 (3GB) | 2.16.7.0 | 2.16.7.11 | 2.16.7.11.00761267 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI |
| 2016.7 | 13 | 2.16.7.13 (3GB) | 2.16.7.0 | 2.16.7.13 | 2.16.7.13.00823274 | 2.16.7.0 | 2.16.7.13.805715 | 2.16.7.13.805717 | | GUI, Web Service, DB, Patient and UM Portal updates |
| 2016.7 | 14 | 2.16.7.14 (3GB) | 2.16.7.0 | 2.16.7.14 | 2.16.7.14.00888220 | 2.16.7.0 | 2.16.7.14.897644 | 2.16.7.14.897646 | | GUI, Web Service, DB, Patient and UM Portal updates |
| 2017.1 | - | 2.17.1.0 (3GB) | 2.17.1.0 | 2.17.1.0 | 2.17.1.0.00559886 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | Full Version Release |
| 2017.1 | 1 | 2.17.1.1 (3GB) | 2.17.1.0 | 2.17.1.1 | 2.17.1.1.00589952 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 2 | 2.17.1.2 (3GB) | 2.17.1.0 | 2.17.1.2 | 2.17.1.2.00621962 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 3 | 2.17.1.3 (3GB) | 2.17.1.0 | 2.17.1.3 | 2.17.1.3.00640480 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 4 | 2.17.1.4 (3GB) | 2.17.1.0 | 2.17.1.4 | 2.17.1.4.00692239 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI, Web Service, DB and Patient Portal updates |
| 2017.1 | 5 | 2.17.1.4 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.4.00692239 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | Web Service |
| 2017.1 | 6 | 2.17.1.6 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI and DB Updates |
| 2017.1 | 7 | 2.17.1.7 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI update |
| 2017.1 | 8 | 2.17.1.8 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI update |
| 2017.1 | 9 | 2.17.1.9 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI update |
| 2017.1 | 10 | 2.17.1.10 (3GB) | 2.17.1.0 | 2.17.1.10 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI and Web Service update |
| 2017.2 | - | 2.17.2.0(3GB) | 2.17.2.0 | 2.17.2.0 | 2.17.2.0.00695782 | 2.17.2.0 | 2.17.2.0.702238 | 2.17.2.0.702213 | 2.17.2.0.702226 | Full Version Release. First release of Provider Portal |
| 2017.3 | - | 2.17.3.0(3GB) | 2.17.3.0 | 2.17.3.0 | 2.17.3.0.00764112 | 2.17.3.0 | 2.17.3.0.321 | 2.17.3.0.321 | 2.17.3.0.321 | Full Version Release. Including Patient, Provider and UM Portals |
| 2017.3 | 1 | 2.17.3.1(3GB) | 2.17.3.0 | 2.17.3.1 | 2.17.3.1.00846328 | 2.17.3.1 | 2.17.3.1.853299 | 2.17.3.1.853301 | 2.17.3.1.856171 | GUI, Web Sevice, DB. Including Patient, Provider and UM Portals |
| 2017.3 | 2 | 2.17.3.2(3GB) | 2.17.3.0 | 2.17.3.2 | 2.17.3.2.00898348 | 2.17.3.2 | 2.17.3.2.913898 | 2.17.3.2.913899 | 2.17.3.1.856171 | GUI, Web Sevice, DB. Including Patient, Provider and UM Portals |
| 2017.3 | 2.1 | 2.17.3.2.1(3GB) | 2.17.3.0 | 2.17.3.2 | 2.17.3.2.00898348 | 2.17.3.2 | 2.17.3.2.913898 | 2.17.3.2.913899 | 2.17.3.1.856171 | GUI Only |
| 2017.3 | 3 | 2.17.3.3(3GB) | 2.17.3.0 | 2.17.3.3 | 2.17.3.3.00954008 | 2.17.3.2 | 2.17.3.3.962869 | 2.17.3.3.962870 | 2.17.3.3.962870 | GUI, Web Sevice, DB. Including Patient, Provider and UM Portals |
| **2017.3** | **4** | **2.17.3.4(3GB)** | **2.17.3.0** | **2.17.3.4** | **2.17.3.4.00987562** | **2.17.3.2** | **2.17.3.3.962869** | **2.17.3.3.962870** | **2.17.3.3.962870** | **GUI, Web Sevice and DB** |
| **2017.3** | **5** | **2.17.3.5(3GB)** | **2.17.3.0** | **2.17.3.5** | **2.17.3.5.01023250** | **2.17.3.2** | **2.17.3.5.1023087** | **2.17.3.5.1025862** | **2.17.3.5.1023087** | **GUI, Web Sevice, DB, Patient Portal, Referring Portal, UM Portal** |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

# INSTALLING

## CLIENT/GUI

Copy and replace the current rRIS…zip file with the eRAD_rRIS_2017.3.5.zip file provided with this release.

Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

## WEB SERVICE

This updated is only required for the Wedge Web Services. The Core RIS Service and Document Distribution Service are not required to be updated.

1. The web service upgrade consists of replacing the files in the RIS Web Service directory with the files supplied in the rRISService folder with this build. Always create a backup of the files being replaced. This upgrade includes 134 files in the rRISService folder and 7 sub folders. Of those folders, 1 is a folder titled **"XSL"** that contains a sub folder and files within the subfolder. Another folder is titled **"deploy"** that contains the new .config files that will be deployed with the user of the file called "ServicesConfigWizard.exe" (see instructions below). Folders ar (Arabic), en_AU (Australian English), en-ZA (South Africa), he (Hebrew), pt_BR (Brazilian Portuguese), es-AR (Argentina Spanish) and ru-RU (Russian) and are localization folders. The WedgePlugins folder contains various plugin files for RADAR, MIRTH, Ensemble, etc…

**Services Configuration Wizard**

With the release of 42 to decrease the chance of losing configuration setting and missing new configuration options, we will no longer include the configuration files in the release in the main set of files, but they will now exist in a "deploy" folder, which will contain the three site configurable config files; applicationsettings, connectionstrings, and services as well as a copy of the rRISServices.exe configuration file. The contents of this folder should not be required to be touched.

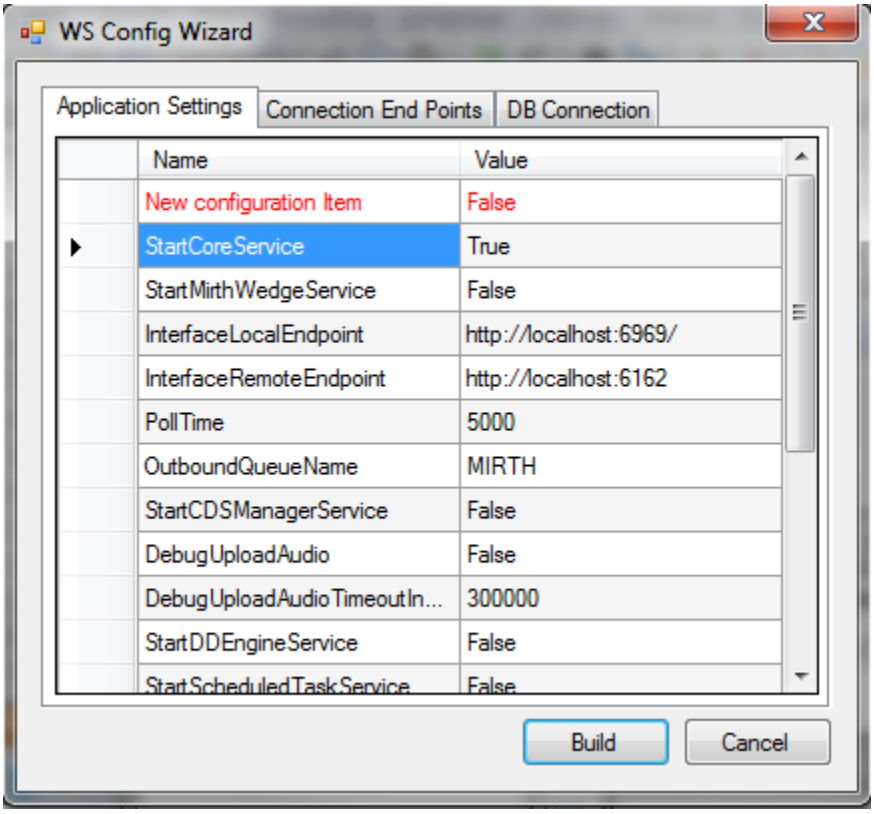
On the install of a new service, all files will be copied to the appropriate locations on the server (no configurations will be over written). If instructed or to confirm no new configurations have been added the user can run the new application "ServicesConfigWizard.exe"

This application will read the existing configuration file(s) (if files exist), and compare to the provided new configuration files then will display three tabs, for each configuration file:

**Application Settings:** all existing configuration value will be displayed, if there are any new configuration entries they will be displayed in red.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

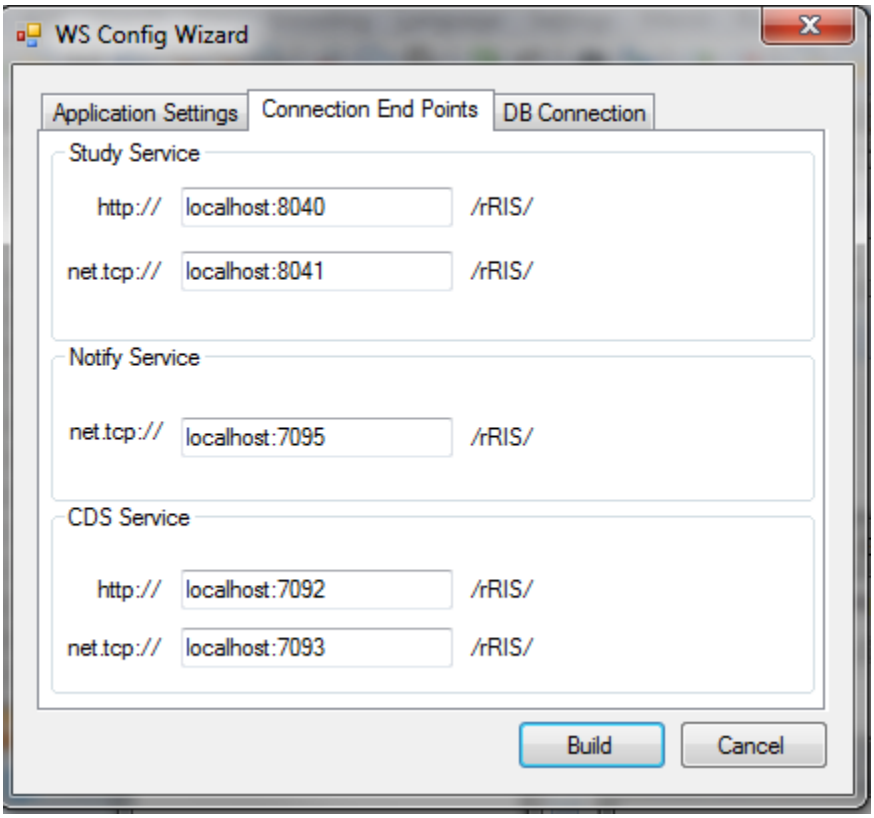
in any form or by any means without the prior written permission from eRAD. 




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

**Connection End Points:** will display the existing configuration, if the value is left blank then that entry will not be created, in the case of "Study Service" or "CDS Service" if both http and net.tcp were not provided then that endpoint will not be created at all.




## DATABASE UPDATES

Always run the upgrade scripts in a test environment of the actual database to make sure they run cleanly. If any errors occur please contact development.

*Note: There is a new upgrade process introduced with B43.1 called "RunUpgrade.bat". The batch file will open a command window. This process will prompt you for the database server name, database name and authentication credentials. There is no need to run the database upgrade scripts manually as was done in previous releases.*

1) From the upgrade folder, double click the "RunUpgrade.bat" command file.

2) Enter the server name, database name and authentication credentials to the database. You have 2 choices for authentication credentials.

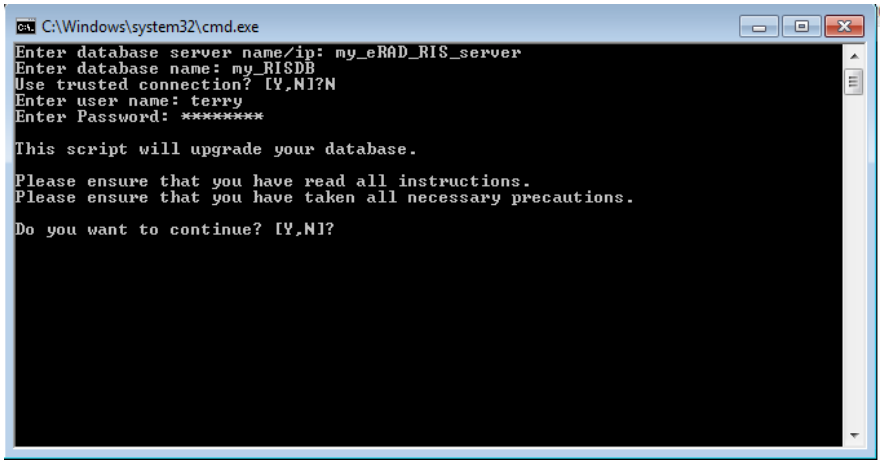
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

3) You can choose to use “Trusted connection”. Using this option will pass the identity of the currently logged on user. If this user has “db_owner” access to the eRAD RIS database then feel free to use this options.

4) If you decide not to use “Trusted connection” then you will be prompted for user id and password.

Example:




5) After the upgrade program has finished you can find the upgrade logs in the “log” folder. The file name will be eRAD_RIS_db_upgrade_timestamp.log, where timestamp is a value representing the date and time the upgrade started. If you see any errors please contact the development team

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

# Server Update

For eRAD RIS

Version 2.0

Build 2.2017.3

Update 2.2017.3.6

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

# Table of Contents

Package Contents ..... 3

Intended Audience ..... 3

Who is affected ..... 3

New Features ..... 4

Feature 19374 / 17864 – Patient's age added to the Appointment Book ..... 4

Resolved Items ..... 5

Code Stream ..... 7

eRAD RIS Release Version Numbers ..... 8

Installing ..... 9

Client/GUI ..... 9

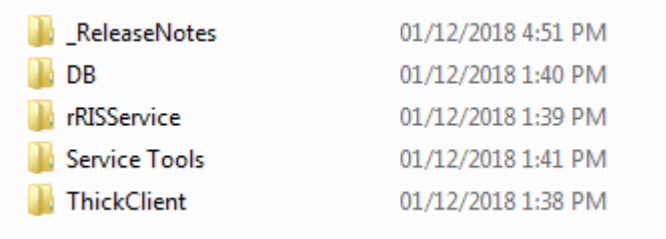
Web Service ..... 9

Database Updates ..... 11

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## PACKAGE CONTENTS




## INTENDED AUDIENCE

The intended audience for this document is the RadNet Clinical Systems team and the eRAD Support/Service team.

It is appropriate to share the document with any customers applying the patch, in order to review new feature descriptions and resolved defects.

## WHO IS AFFECTED

Build 2017.3 installs. This server update must be applied to 2017.3.5

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

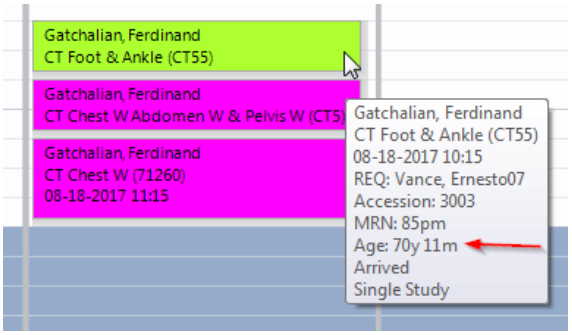
in any form or by any means without the prior written permission from eRAD.

## NEW FEATURES

### FEATURE 19374 / 17864 – PATIENT'S AGE ADDED TO THE APPOINTMENT BOOK

The appointment description now displays the patient's age, in the same format as on the Patient tab of the Schedule screen.

The full description will always display in the tooltip, and will only display in the appointment block if enough space is available.




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## RESOLVED ITEMS

# eRAD RIS

| Redmine # | Subject |
|---|---|
| 19347 | Resolved an issue which could cause incorrect studies to cache when switching worklist views. |
| 19343 | No longer submit a call to prefetch PACS studies when closing the Pending Dictation WL, which could cause a delay in closing the worklist. |
| 19105 | Made a change to the way worklist flags are updated to decrease risk of deadlock errors. |
| 19440 | Additional index created to reduce deadlock risk when updating worklist flags. |
| 19388 | Changed index and release lock logic to resolve deadlock issues on c_locked_item. |
| 19380 | Corrected an issue with External Verify workflow so that these exams fall to the correct worklist according to System Configuration setting. |
| 19349 | No longer receive errors when saving EMR patients without an MRN issuer in the look-up table. |
| 19169 | Resolved an Imagine payment voiding issue that could occur when a study has moved to a new Practice between the time of collecting the payment and voiding it. The void will now always be issued with the same Imagine Data Set ID that was used when the payment was collected. |
| 19428 | Ensemble plugin is now able to handle self-referencing tables in outbound schema. |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

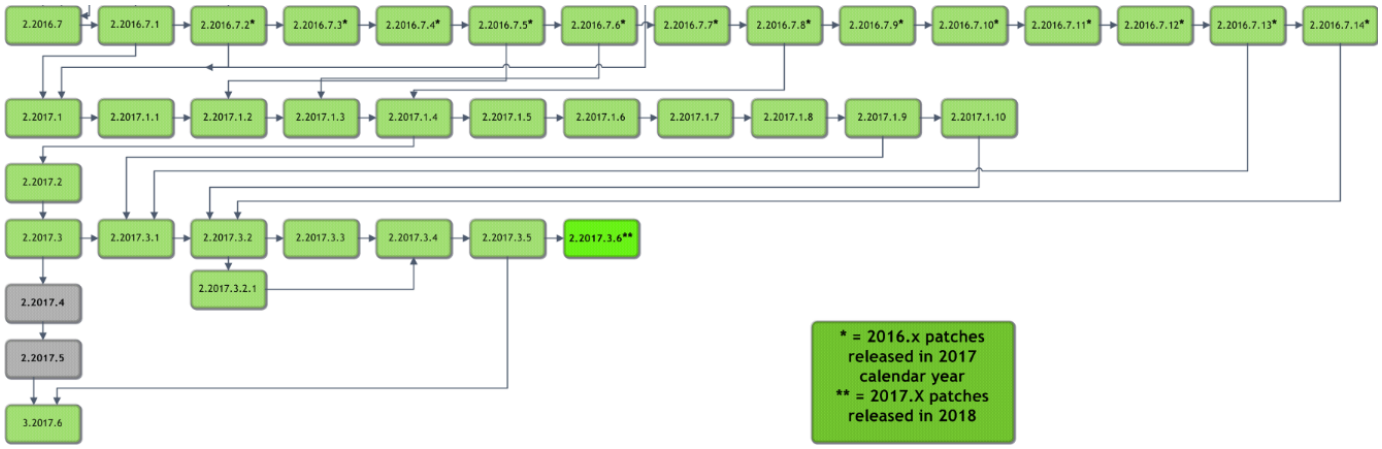
The following items, developed for future RIS versions, have been released early in this patch, so that customers can benefit from the changes more quickly.

| Redmine # | Subject | Original Resolved Version |
|---|---|---|
| 19395 | When using multiple reporting modes, the Autofeed option for PS360 will appropriately appear when the reporting mode switches back to PS360. | 3.2017.6 |
| 19374 | Patient's age has been added to the appointment description and tooltip in the Appointment Book. See Features section of this document for more information. | 3.2017.6 |
| 19373 | Added a NULL check to resolve an issue that could occur when a certain set of actions was performed during scheduling that could cause the save/close/schedule actions to become unresponsive for that tab. | 3.2018.1 |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

## CODE STREAM




## Legend:

Light Green = Previously Released software

Gray = Internal version, non-release version

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

## ERAD RIS RELEASE VERSION NUMBERS

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Digital Forms | Patient Portal | UM Portal | Provider Portal | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| 2016.7 | - | 2.16.7.0 (3GB) | 2.16.70 | 2.16.70 | 2.16.7.0.00490835 | 2.16.70 | 1.16.7.0.493031 | 2.16.7.0.493008 | | Full version release |
| 2016.7 | 1 | 2.16.7.1 (3GB) | 2.16.7.0 | 2.16.7.1 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 2 | 2.16.7.2 (3GB) | 2.16.7.0 | 2.16.7.2 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 3 | 2.16.7.3 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 4 | 2.16.7.4 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI |
| 2016.7 | 5 | 2.16.7.5 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI |
| 2016.7 | 6 | 2.16.7.6 (3GB) | 2.16.7.0 | 2.16.7.6 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 7 | 2.16.7.7 (3GB) | 2.16.7.0 | 2.16.7.7 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 8 | 2.16.7.8 (3GB) | 2.16.7.0 | 2.16.7.7 | 2.16.7.8.00683507 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and DB updates |
| 2016.7 | 9 | 2.16.7.9 (3GB) | 2.16.7.0 | 2.16.7.9 | 2.16.7.9.00715012 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI, Web Services, DB updates and UM Portal |
| 2016.7 | 10 | 2.16.7.10 (3GB) | 2.16.7.0 | 2.16.7.10 | 2.16.7.9.00715012 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI and Web Service updates |
| 2016.7 | 11 | 2.16.7.11 (3GB) | 2.16.7.0 | 2.16.7.11 | 2.16.7.11.00761267 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI, Web Service and DB updates |
| 2016.7 | 12 | 2.16.7.12 (3GB) | 2.16.7.0 | 2.16.7.11 | 2.16.7.11.00761267 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI |
| 2016.7 | 13 | 2.16.7.13 (3GB) | 2.16.7.0 | 2.16.7.13 | 2.16.7.13.00823274 | 2.16.7.0 | 2.16.7.13.805715 | 2.16.7.13.805717 | | GUI, Web Service, DB, Patient and UM Portal updates |
| 2016.7 | 14 | 2.16.7.14 (3GB) | 2.16.7.0 | 2.16.7.14 | 2.16.7.14.00888220 | 2.16.7.0 | 2.16.7.14.897644 | 2.16.7.14.897646 | | GUI, Web Service, DB, Patient and UM Portal updates |
| 2017.1 | - | 2.17.1.0 (3GB) | 2.17.1.0 | 2.17.1.0 | 2.17.1.0.00559886 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | Full Version Release |
| 2017.1 | 1 | 2.17.1.1 (3GB) | 2.17.1.0 | 2.17.1.1 | 2.17.1.1.00589952 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 2 | 2.17.1.2 (3GB) | 2.17.1.0 | 2.17.1.2 | 2.17.1.2.00621962 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 3 | 2.17.1.3 (3GB) | 2.17.1.0 | 2.17.1.3 | 2.17.1.3.00640480 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 4 | 2.17.1.4 (3GB) | 2.17.1.0 | 2.17.1.4 | 2.17.1.4.00692239 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI, Web Service, DB and Patient Portal updates |
| 2017.1 | 5 | 2.17.1.4 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.4.00692239 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | Web Service |
| 2017.1 | 6 | 2.17.1.6 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI and DB Updates |
| 2017.1 | 7 | 2.17.1.7 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI update |
| 2017.1 | 8 | 2.17.1.8 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI update |
| 2017.1 | 9 | 2.17.1.9 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI update |
| 2017.1 | 10 | 2.17.1.10 (3GB) | 2.17.1.0 | 2.17.1.10 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI and Web Service update |
| 2017.2 | - | 2.17.2.0(3GB) | 2.17.2.0 | 2.17.2.0 | 2.17.2.0.00695782 | 2.17.2.0 | 2.17.2.0.702238 | 2.17.2.0.702213 | 2.17.2.0.702226 | Full Version Release. First release of Provider Portal |
| 2017.3 | - | 2.17.3.0(3GB) | 2.17.3.0 | 2.17.3.0 | 2.17.3.0.00764112 | 2.17.3.0 | 2.17.3.0.321 | 2.17.3.0.321 | 2.17.3.0.321 | Full Version Release. Including Patient, Provider and UM Portals |
| 2017.3 | 1 | 2.17.3.1(3GB) | 2.17.3.0 | 2.17.3.1 | 2.17.3.1.00846328 | 2.17.3.1 | 2.17.3.1.853299 | 2.17.3.1.853301 | 2.17.3.1.856171 | GUI, Web Sevice, DB. Including Patient, Provider and UM Portals |
| 2017.3 | 2 | 2.17.3.2(3GB) | 2.17.3.0 | 2.17.3.2 | 2.17.3.2.00898348 | 2.17.3.2 | 2.17.3.2.913898 | 2.17.3.2.913899 | 2.17.3.1.856171 | GUI, Web Sevice, DB. Including Patient, Provider and UM Portals |
| 2017.3 | 2.1 | 2.17.3.2.1(3GB) | 2.17.3.0 | 2.17.3.2 | 2.17.3.2.00898348 | 2.17.3.2 | 2.17.3.2.913898 | 2.17.3.2.913899 | 2.17.3.1.856171 | GUI Only |
| 2017.3 | 3 | 2.17.3.3(3GB) | 2.17.3.0 | 2.17.3.3 | 2.17.3.3.00954008 | 2.17.3.2 | 2.17.3.3.962869 | 2.17.3.3.962870 | 2.17.3.3.962870 | GUI, Web Sevice, DB. Including Patient, Provider and UM Portals |
| 2017.3 | 4 | 2.17.3.4(3GB) | 2.17.3.0 | 2.17.3.4 | 2.17.3.4.00987562 | 2.17.3.2 | 2.17.3.3.962869 | 2.17.3.3.962870 | 2.17.3.3.962870 | GUI, Web Sevice and DB |
| 2017.3 | 5 | 2.17.3.5(3GB) | 2.17.3.0 | 2.17.3.5 | 2.17.3.5.01023250 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | GUI, Web Sevice, DB, Patient Portal, Referring Portal, UM Portal |
| **2017.3** | **6** | **2.17.3.6(3GB)** | **2.17.3.0** | **2.17.3.6** | **2.17.3.6.01065114** | **2.17.3.2** | **2.17.3.5.1023087** | **2.17.3.5.1025862** | **2.17.3.5.1023087** | **GUI, Web Sevice, DB,** |
| 2017.6 | - | 3.17.6.0(3GB) | 3.17.6.0 | 3.17.6.0 | 3.17.6.0.01037550 | 3.17.6.0 | 3.17.6.0.1037868 | 3.17.6.0.1037869 | 3.17.6.0.1037869 | Full Version Release. Including Patient, Provider and UM Portals |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

# INSTALLING

## CLIENT/GUI

Copy and replace the current rRIS…zip file with the eRAD_rRIS_2017.3.6.zip file provided with this release.

Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

## WEB SERVICE

This updated is only required for the Wedge Web Services. The Core RIS Service and Document Distribution Service are not required to be updated.

1. The web service upgrade consists of replacing the files in the RIS Web Service directory with the files supplied in the rRISService folder with this build. Always create a backup of the files being replaced. This upgrade includes 134 files in the rRISService folder and 7 sub folders. Of those folders, 1 is a folder titled **"XSL"** that contains a sub folder and files within the subfolder. Another folder is titled **"deploy"** that contains the new .config files that will be deployed with the user of the file called "ServicesConfigWizard.exe" (see instructions below). Folders ar (Arabic), en_AU (Australian English), en-ZA (South Africa), he (Hebrew), pt_BR (Brazilian Portuguese), es-AR (Argentina Spanish) and ru-RU (Russian) and are localization folders. The WedgePlugins folder contains various plugin files for RADAR, MIRTH, Ensemble, etc…

**Services Configuration Wizard**

With the release of 42 to decrease the chance of losing configuration setting and missing new configuration options, we will no longer include the configuration files in the release in the main set of files, but they will now exist in a "deploy" folder, which will contain the three site configurable config files; applicationsettings, connectionstrings, and services as well as a copy of the rRISServices.exe configuration file. The contents of this folder should not be required to be touched.

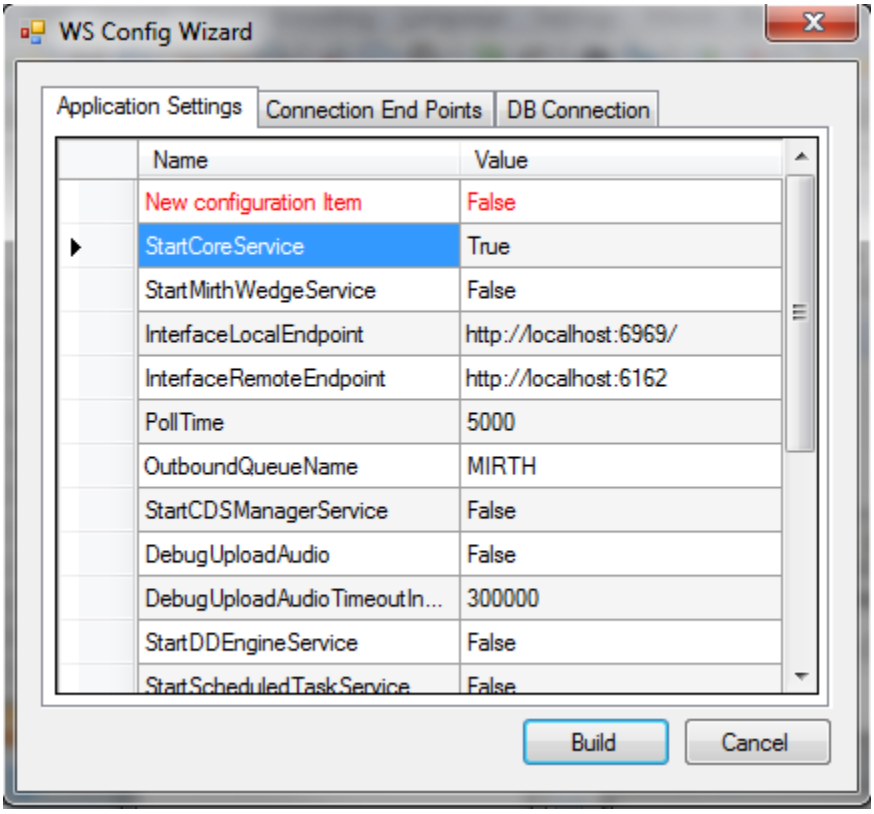
On the install of a new service, all files will be copied to the appropriate locations on the server (no configurations will be over written). If instructed or to confirm no new configurations have been added the user can run the new application "ServicesConfigWizard.exe"

This application will read the existing configuration file(s) (if files exist), and compare to the provided new configuration files then will display three tabs, for each configuration file:

**Application Settings:** all existing configuration value will be displayed, if there are any new configuration entries they will be displayed in red.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

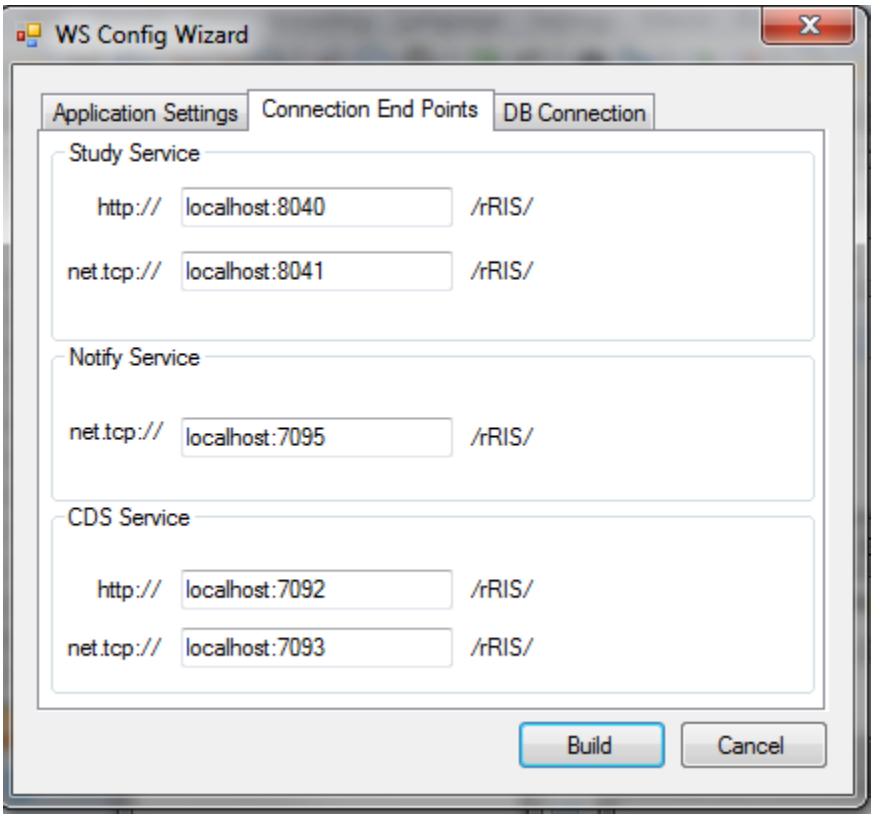
in any form or by any means without the prior written permission from eRAD. 




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

**Connection End Points:** will display the existing configuration, if the value is left blank then that entry will not be created, in the case of "Study Service" or "CDS Service" if both http and net.tcp were not provided then that endpoint will not be created at all.




## DATABASE UPDATES

Always run the upgrade scripts in a test environment of the actual database to make sure they run cleanly. If any errors occur please contact development.

*Note: There is a new upgrade process introduced with B43.1 called "RunUpgrade.bat". The batch file will open a command window. This process will prompt you for the database server name, database name and authentication credentials. There is no need to run the database upgrade scripts manually as was done in previous releases.*

1) From the upgrade folder, double click the "RunUpgrade.bat" command file.

2) Enter the server name, database name and authentication credentials to the database. You have 2 choices for authentication credentials.

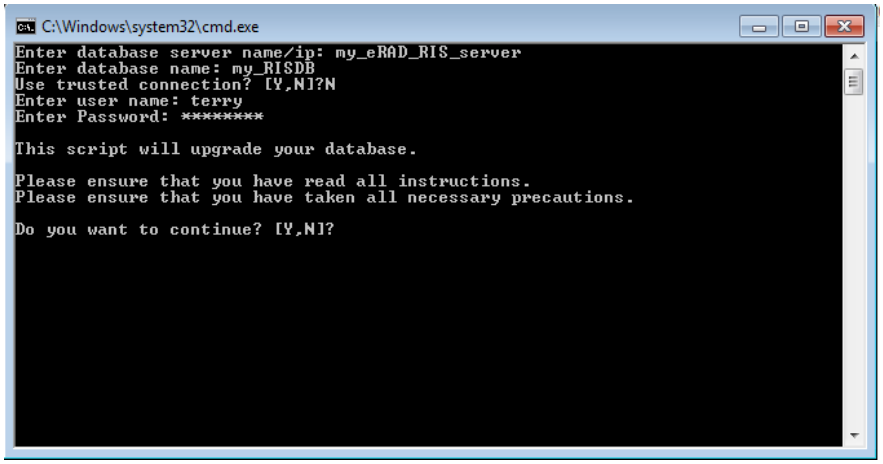
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

3) You can choose to use “Trusted connection”. Using this option will pass the identity of the currently logged on user. If this user has “db_owner” access to the eRAD RIS database then feel free to use this options.

4) If you decide not to use “Trusted connection” then you will be prompted for user id and password.

   Example:




5) After the upgrade program has finished you can find the upgrade logs in the “log” folder. The file name will be eRAD_RIS_db_upgrade_timestamp.log, where timestamp is a value representing the date and time the upgrade started. If you see any errors please contact the development team

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

# Server Update

For eRAD RIS

Version 2.0

Build 2.2017.3

Update 2.2017.3.7

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

# Table of Contents

Package Contents ..... 3

Intended Audience ..... 3

Who is affected ..... 3

Resolved Items ..... 4

Code Stream ..... 5

eRAD RIS Release Version Numbers ..... 6

Installing ..... 7

Client/GUI ..... 7

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## PACKAGE CONTENTS

## INTENDED AUDIENCE

The intended audience for this document is the RadNet Clinical Systems team and the eRAD Support/Service team.

It is appropriate to share the document with any customers applying the patch, in order to review new feature descriptions and resolved defects.

## WHO IS AFFECTED

Build 2017.3 installs. This server update must be applied to 2017.3.6

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

## RESOLVED ITEMS

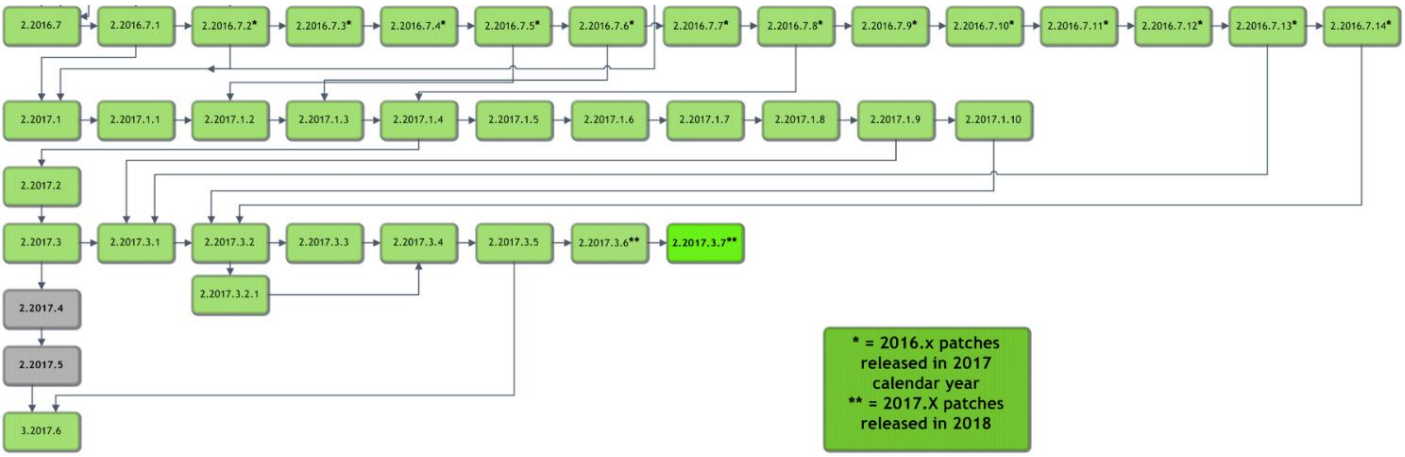
# eRAD RIS

| Redmine # | Subject |
|---|---|
| 19510 | Resolved exception related to caching thrown from various worklists |
| 19553 | Added um_status_code to filter criteria for portal tab configuration. |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

## CODE STREAM




**Legend:**

**Light Green = Previously Released software**

**Gray = Internal version, non-release version**

**Bright Green = Current Release**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

## ERAD RIS RELEASE VERSION NUMBERS

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Digital Forms | Patient Portal | UM Portal | Provider Portal | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| 2016.7 | - | 2.16.7.0 (3GB) | 2.16.70 | 2.16.70 | 2.16.7.0.00490835 | 2.16.70 | 1.16.7.0.493031 | 2.16.7.0.493008 | | Full version release |
| 2016.7 | 1 | 2.16.7.1 (3GB) | 2.16.7.0 | 2.16.7.1 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 2 | 2.16.7.2 (3GB) | 2.16.7.0 | 2.16.7.2 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 3 | 2.16.7.3 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 4 | 2.16.7.4 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI |
| 2016.7 | 5 | 2.16.7.5 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI |
| 2016.7 | 6 | 2.16.7.6 (3GB) | 2.16.7.0 | 2.16.7.6 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 7 | 2.16.7.7 (3GB) | 2.16.7.0 | 2.16.7.7 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 8 | 2.16.7.8 (3GB) | 2.16.7.0 | 2.16.7.7 | 2.16.7.8.00683507 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and DB updates |
| 2016.7 | 9 | 2.16.7.9 (3GB) | 2.16.7.0 | 2.16.7.9 | 2.16.7.9.00715012 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI, Web Services, DB updates and UM Portal |
| 2016.7 | 10 | 2.16.7.10 (3GB) | 2.16.7.0 | 2.16.7.10 | 2.16.7.9.00715012 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI and Web Service updates |
| 2016.7 | 11 | 2.16.7.11 (3GB) | 2.16.7.0 | 2.16.7.11 | 2.16.7.11.00761267 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI, Web Service and DB updates |
| 2016.7 | 12 | 2.16.7.12 (3GB) | 2.16.7.0 | 2.16.7.11 | 2.16.7.11.00761267 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI |
| 2016.7 | 13 | 2.16.7.13 (3GB) | 2.16.7.0 | 2.16.7.13 | 2.16.7.13.00823274 | 2.16.7.0 | 2.16.7.13.805715 | 2.16.7.13.805717 | | GUI, Web Service, DB, Patient and UM Portal updates |
| 2016.7 | 14 | 2.16.7.14 (3GB) | 2.16.7.0 | 2.16.7.14 | 2.16.7.14.00888220 | 2.16.7.0 | 2.16.7.14.897644 | 2.16.7.14.897646 | | GUI, Web Service, DB, Patient and UM Portal updates |
| 2017.1 | - | 2.17.1.0 (3GB) | 2.17.1.0 | 2.17.1.0 | 2.17.1.0.00559886 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | Full Version Release |
| 2017.1 | 1 | 2.17.1.1 (3GB) | 2.17.1.0 | 2.17.1.1 | 2.17.1.1.00589952 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 2 | 2.17.1.2 (3GB) | 2.17.1.0 | 2.17.1.2 | 2.17.1.2.00621962 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 3 | 2.17.1.3 (3GB) | 2.17.1.0 | 2.17.1.3 | 2.17.1.3.00640480 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 4 | 2.17.1.4 (3GB) | 2.17.1.0 | 2.17.1.4 | 2.17.1.4.00692239 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI, Web Service, DB and Patient Portal updates |
| 2017.1 | 5 | 2.17.1.4 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.4.00692239 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | Web Service |
| 2017.1 | 6 | 2.17.1.6 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI and DB Updates |
| 2017.1 | 7 | 2.17.1.7 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI update |
| 2017.1 | 8 | 2.17.1.8 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI update |
| 2017.1 | 9 | 2.17.1.9 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI update |
| 2017.1 | 10 | 2.17.1.10 (3GB) | 2.17.1.0 | 2.17.1.10 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI and Web Service update |
| 2017.2 | - | 2.17.2.0(3GB) | 2.17.2.0 | 2.17.2.0 | 2.17.2.0.00695782 | 2.17.2.0 | 2.17.2.0.702238 | 2.17.2.0.702213 | 2.17.2.0.702226 | Full Version Release. First release of Provider Portal |
| 2017.3 | - | 2.17.3.0(3GB) | 2.17.3.0 | 2.17.3.0 | 2.17.3.0.00764112 | 2.17.3.0 | 2.17.3.0.321 | 2.17.3.0.321 | 2.17.3.0.321 | Full Version Release. Including Patient, Provider and UM Portals |
| 2017.3 | 1 | 2.17.3.1(3GB) | 2.17.3.0 | 2.17.3.1 | 2.17.3.1.00846328 | 2.17.3.1 | 2.17.3.1.853299 | 2.17.3.1.853301 | 2.17.3.1.856171 | GUI, Web Sevice, DB. Including Patient, Provider and UM Portals |
| 2017.3 | 2 | 2.17.3.2(3GB) | 2.17.3.0 | 2.17.3.2 | 2.17.3.2.00898348 | 2.17.3.2 | 2.17.3.2.913898 | 2.17.3.2.913899 | 2.17.3.1.856171 | GUI, Web Sevice, DB. Including Patient, Provider and UM Portals |
| 2017.3 | 2.1 | 2.17.3.2.1(3GB) | 2.17.3.0 | 2.17.3.2 | 2.17.3.2.00898348 | 2.17.3.2 | 2.17.3.2.913898 | 2.17.3.2.913899 | 2.17.3.1.856171 | GUI Only |
| 2017.3 | 3 | 2.17.3.3(3GB) | 2.17.3.0 | 2.17.3.3 | 2.17.3.3.00954008 | 2.17.3.2 | 2.17.3.3.962869 | 2.17.3.3.962870 | 2.17.3.3.962870 | GUI, Web Sevice, DB. Including Patient, Provider and UM Portals |
| 2017.3 | 4 | 2.17.3.4(3GB) | 2.17.3.0 | 2.17.3.4 | 2.17.3.4.00987562 | 2.17.3.2 | 2.17.3.3.962869 | 2.17.3.3.962870 | 2.17.3.3.962870 | GUI, Web Sevice and DB |
| 2017.3 | 5 | 2.17.3.5(3GB) | 2.17.3.0 | 2.17.3.5 | 2.17.3.5.01023250 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | GUI, Web Sevice, DB, Patient Portal, Referring Portal, UM Portal |
| 2017.3 | 6 | 2.17.3.6(3GB) | 2.17.3.0 | 2.17.3.6 | 2.17.3.6.01065114 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | GUI, Web Sevice, DB, |
| **2017.3** | **7** | **2.17.3.7(3GB)** | **2.17.3.0** | **2.17.3.6** | **2.17.3.6.01065114** | **2.17.3.2** | **2.17.3.5.1023087** | **2.17.3.5.1025862** | **2.17.3.5.1023087** | **GUI** |
| 2017.6 | - | 3.17.6.0(3GB) | 3.17.6.0 | 3.17.6.0 | 3.17.6.0.01037550 | 3.17.6.0 | 3.17.6.0.1037868 | 3.17.6.0.1037869 | 3.17.6.0.1037869 | Full Version Release. Including Patient, Provider and UM Portals |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

# INSTALLING

## CLIENT/GUI

Copy and replace the current rRIS…zip file with the eRAD_rRIS_2017.3.7.zip file provided with this release.

Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

# Server Update

For eRAD RIS

Version 2.0

Build 2.2017.3

Update 2.2017.3.8

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

# Table of Contents

Package Contents ..... 3

Intended Audience ..... 3

Who is affected ..... 3

Resolved Items ..... 4

Code Stream ..... 6

eRAD RIS Release Version Numbers ..... 7

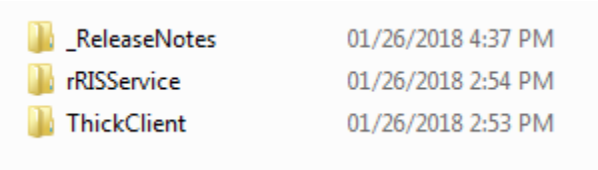
Installing ..... 8

- Client/GUI ..... 8
- Web Service ..... 8

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## PACKAGE CONTENTS




## INTENDED AUDIENCE

The intended audience for this document is the RadNet Clinical Systems team and the eRAD Support/Service team.

It is appropriate to share the document with any customers applying the patch, in order to review new feature descriptions and resolved defects.

## WHO IS AFFECTED

Build 2017.3 installs. This server update must be applied to 2017.3.6.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

## RESOLVED ITEMS

# eRAD RIS

| Redmine # | Subject |
|---|---|
| 19601 | Resolved an issue in which adding multiple CC Physicians could result in additional physicians being associated with the first CC physician's report delivery address. |
| 19575 | Procedure code General Description is now located in the correct place in messages sent from the Wedge. |
| 19570 | Changed the way in which Imagine payments are saved, reducing the risk of failing to save a record of the payment in RIS, which could result in staff inappropriately collecting a duplicate payment. If there is an issue that prevents a payment record from saving, the RIS user will receive a warning message containing the Imagine Reference # and will be instructed to contact an administrator. |
| 19494 | Resolved an issue that caused the Save and Close buttons to disappear from the Add Mammo Biopsy screen when more than 4 rows of pathology codes were entered in the Pathology Codes field. |
| 19454 | Changed the method of searching the RIS database by UM Tracking Number, in order to prevent time out errors. |
| 19417 | Resolved an issue that could cause validation rules to behave improperly when the rule and conditions for the rule referred to information stored in different datasets. |
| 19415 | Reduced frequency of an Eligible API call (getCarrierDSByCode), which was previously called excessively and could impact system performance. |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

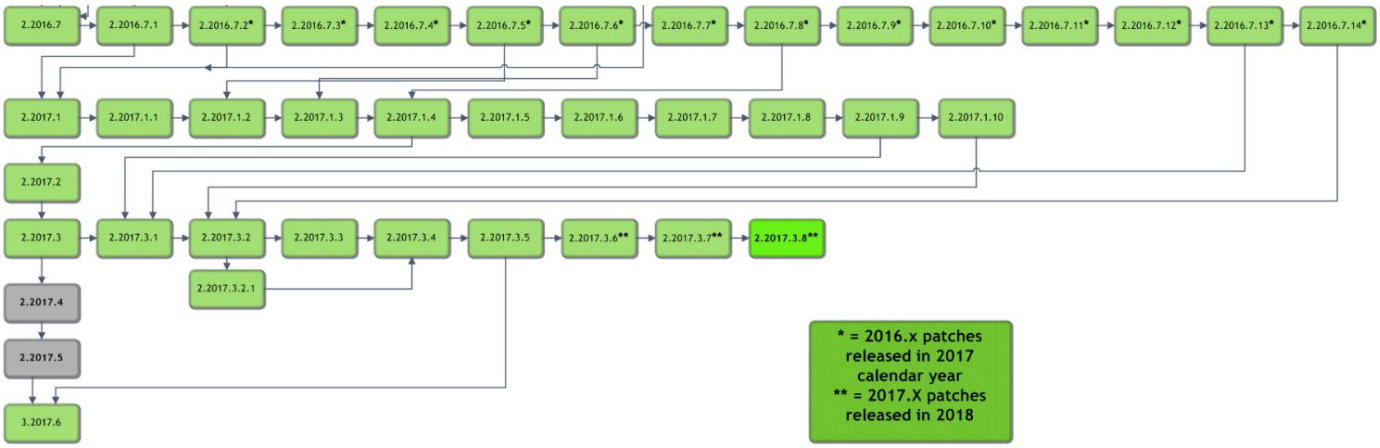
The following items, developed for future RIS versions, have been released early in this patch, so that customers can benefit from the changes more quickly.

| Redmine # | Subject | Original Resolved Version |
|---|---|---|
| 19599 | Error no longer occurs when opening the Print Forms screen for procedures without a Body Part selected. | 2018.1 |
| 19600 | Resolved an issue that could cause the same CC Physician to be added multiple times in a loop under certain conditions. | 2018.1 |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

## CODE STREAM




## Legend:

**Light Green = Previously Released software**

**Gray = Internal version, non-release version**

**Bright Green = Current Release**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## ERAD RIS RELEASE VERSION NUMBERS

| Patch | UI Version | Core Version | WS Version | DB Version | Digital Forms | Patient Portal | UM Portal | Provider Portal | Notes |
|---|---|---|---|---|---|---|---|---|---|
| - | 2.16.7.0 (3GB) | 2.16.70 | 2.16.70 | 2.16.7.0.00490835 | 2.16.70 | 1.16.7.0.493031 | 2.16.7.0.493008 | | Full version release |
| 1 | 2.16.7.1 (3GB) | 2.16.7.0 | 2.16.7.1 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2 | 2.16.7.2 (3GB) | 2.16.7.0 | 2.16.7.2 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 3 | 2.16.7.3 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 4 | 2.16.7.4 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI |
| 5 | 2.16.7.5 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI |
| 6 | 2.16.7.6 (3GB) | 2.16.7.0 | 2.16.7.6 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 7 | 2.16.7.7 (3GB) | 2.16.7.0 | 2.16.7.7 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 8 | 2.16.7.8 (3GB) | 2.16.7.0 | 2.16.7.7 | 2.16.7.8.00683507 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and DB updates |
| 9 | 2.16.7.9 (3GB) | 2.16.7.0 | 2.16.7.9 | 2.16.7.9.00715012 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI, Web Services, DB updates and UM Portal |
| 10 | 2.16.7.10 (3GB) | 2.16.7.0 | 2.16.7.10 | 2.16.7.9.00715012 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI and Web Service updates |
| 11 | 2.16.7.11 (3GB) | 2.16.7.0 | 2.16.7.11 | 2.16.7.11.00761267 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI, Web Service and DB updates |
| 12 | 2.16.7.12 (3GB) | 2.16.7.0 | 2.16.7.11 | 2.16.7.11.00761267 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI |
| 13 | 2.16.7.13 (3GB) | 2.16.7.0 | 2.16.7.13 | 2.16.7.13.00823274 | 2.16.7.0 | 2.16.7.13.805715 | 2.16.7.13.805717 | | GUI, Web Service, DB, Patient and UM Portal updates |
| 14 | 2.16.7.14 (3GB) | 2.16.7.0 | 2.16.7.14 | 2.16.7.14.00888220 | 2.16.7.0 | 2.16.7.14.897644 | 2.16.7.14.897646 | | GUI, Web Service, DB, Patient and UM Portal updates |
| - | 2.17.1.0 (3GB) | 2.17.1.0 | 2.17.1.0 | 2.17.1.0.00559886 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | Full Version Release |
| 1 | 2.17.1.1 (3GB) | 2.17.1.0 | 2.17.1.1 | 2.17.1.1.00589952 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2 | 2.17.1.2 (3GB) | 2.17.1.0 | 2.17.1.2 | 2.17.1.2.00621962 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 3 | 2.17.1.3 (3GB) | 2.17.1.0 | 2.17.1.3 | 2.17.1.3.00640480 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 4 | 2.17.1.4 (3GB) | 2.17.1.0 | 2.17.1.4 | 2.17.1.4.00692239 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI, Web Service, DB and Patient Portal updates |
| 5 | 2.17.1.4 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.4.00692239 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | Web Service |
| 6 | 2.17.1.6 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI and DB Updates |
| 7 | 2.17.1.7 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI update |
| 8 | 2.17.1.8 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI update |
| 9 | 2.17.1.9 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI update |
| 10 | 2.17.1.10 (3GB) | 2.17.1.0 | 2.17.1.10 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI and Web Service update |
| - | 2.17.2.0(3GB) | 2.17.2.0 | 2.17.2.0 | 2.17.2.0.00695782 | 2.17.2.0 | 2.17.2.0.702238 | 2.17.2.0.702213 | 2.17.2.0.702226 | Full Version Release. First release of Provider Portal |
| - | 2.17.3.0(3GB) | 2.17.3.0 | 2.17.3.0 | 2.17.3.0.00764112 | 2.17.3.0 | 2.17.3.0.321 | 2.17.3.0.321 | 2.17.3.0.321 | Full Version Release. Including Patient, Provider and UM Portals |
| 1 | 2.17.3.1(3GB) | 2.17.3.0 | 2.17.3.1 | 2.17.3.1.00846328 | 2.17.3.1 | 2.17.3.1.853299 | 2.17.3.1.853301 | 2.17.3.1.856171 | GUI, Web Sevice, DB. Including Patient, Provider and UM Portals |
| 2 | 2.17.3.2(3GB) | 2.17.3.0 | 2.17.3.2 | 2.17.3.2.00898348 | 2.17.3.2 | 2.17.3.2.913898 | 2.17.3.2.913899 | 2.17.3.1.856171 | GUI, Web Sevice, DB. Including Patient, Provider and UM Portals |
| 2.1 | 2.17.3.2.1(3GB) | 2.17.3.0 | 2.17.3.2 | 2.17.3.2.00898348 | 2.17.3.2 | 2.17.3.2.913898 | 2.17.3.2.913899 | 2.17.3.1.856171 | GUI Only |
| 3 | 2.17.3.3(3GB) | 2.17.3.0 | 2.17.3.3 | 2.17.3.3.00954008 | 2.17.3.2 | 2.17.3.3.962869 | 2.17.3.3.962870 | 2.17.3.3.962870 | GUI, Web Sevice, DB. Including Patient, Provider and UM Portals |
| 4 | 2.17.3.4(3GB) | 2.17.3.0 | 2.17.3.4 | 2.17.3.4.00987562 | 2.17.3.2 | 2.17.3.3.962869 | 2.17.3.3.962870 | 2.17.3.3.962870 | GUI, Web Sevice and DB |
| 5 | 2.17.3.5(3GB) | 2.17.3.0 | 2.17.3.5 | 2.17.3.5.01023250 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | GUI, Web Sevice, DB, Patient Portal, Referring Portal, UM Portal |
| 6 | 2.17.3.6(3GB) | 2.17.3.0 | 2.17.3.6 | 2.17.3.6.01065114 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | GUI, Web Sevice, DB, |
| 7 | 2.17.3.7(3GB) | 2.17.3.0 | 2.17.3.6 | 2.17.3.6.01065114 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | GUI |
| **7** | **2.17.3.8(3GB)** | **2.17.3.0** | **2.17.3.8** | **2.17.3.6.01065114** | **2.17.3.2** | **2.17.3.5.1023087** | **2.17.3.5.1025862** | **2.17.3.5.1023087** | **GUI and Web Service** |
| - | 3.17.6.0(3GB) | 3.17.6.0 | 3.17.6.0 | 3.17.6.0.01037550 | 3.17.6.0 | 3.17.6.0.1037868 | 3.17.6.0.1037869 | 3.17.6.0.1037869 | Full Version Release. Including Patient, Provider and UM Portals |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

# INSTALLING

## CLIENT/GUI

Copy and replace the current rRIS…zip file with the eRAD_rRIS_2017.3.7.zip file provided with this release.

Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

## WEB SERVICE

This updated is only required for the Wedge Web Services. The Core RIS Service and Document Distribution Service are not required to be updated.

1. The web service upgrade consists of replacing the files in the RIS Web Service directory with the files supplied in the rRISService folder with this build. Always create a backup of the files being replaced. This upgrade includes 134 files in the rRISService folder and 7 sub folders. Of those folders, 1 is a folder titled **"XSL"** that contains a sub folder and files within the subfolder. Another folder is titled **"deploy"** that contains the new .config files that will be deployed with the user of the file called "ServicesConfigWizard.exe" (see instructions below). Folders ar (Arabic), en_AU (Australian English), en-ZA (South Africa), he (Hebrew), pt_BR (Brazilian Portuguese), es-AR (Argentina Spanish) and ru-RU (Russian) and are localization folders. The WedgePlugins folder contains various plugin files for RADAR, MIRTH, Ensemble, etc…

**Services Configuration Wizard**

With the release of 42 to decrease the chance of losing configuration setting and missing new configuration options, we will no longer include the configuration files in the release in the main set of files, but they will now exist in a "deploy" folder, which will contain the three site configurable config files; applicationsettings, connectionstrings, and services as well as a copy of the rRISServices.exe configuration file. The contents of this folder should not be required to be touched.

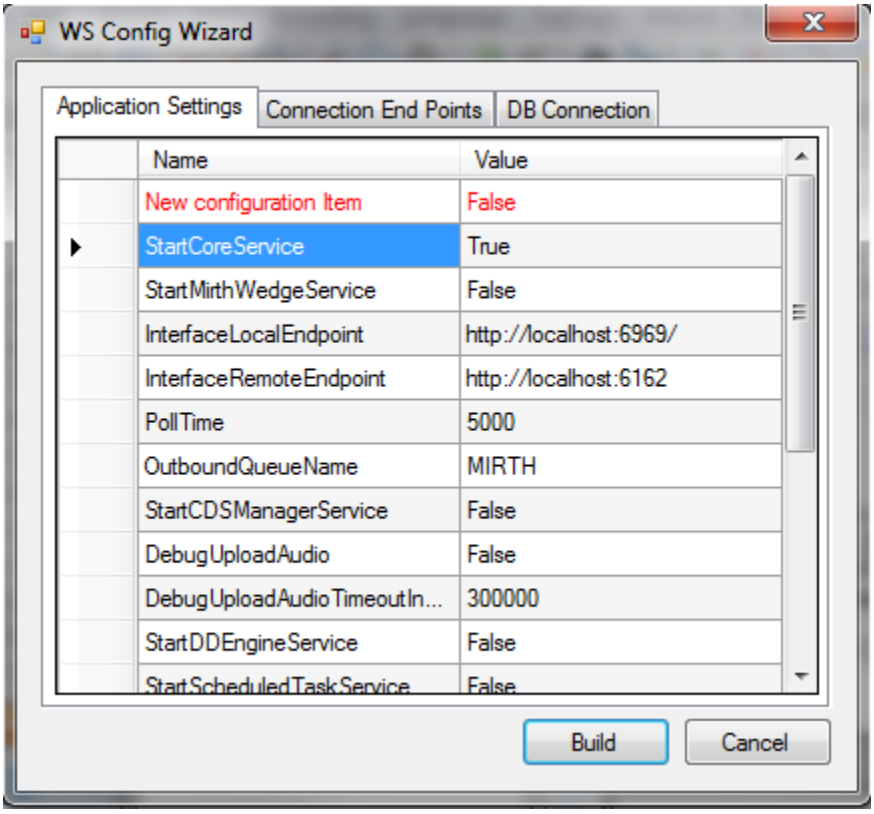
On the install of a new service, all files will be copied to the appropriate locations on the server (no configurations will be over written). If instructed or to confirm no new configurations have been added the user can run the new application "ServicesConfigWizard.exe"

This application will read the existing configuration file(s) (if files exist), and compare to the provided new configuration files then will display three tabs, for each configuration file:

**Application Settings:** all existing configuration value will be displayed, if there are any new configuration entries they will be displayed in red.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

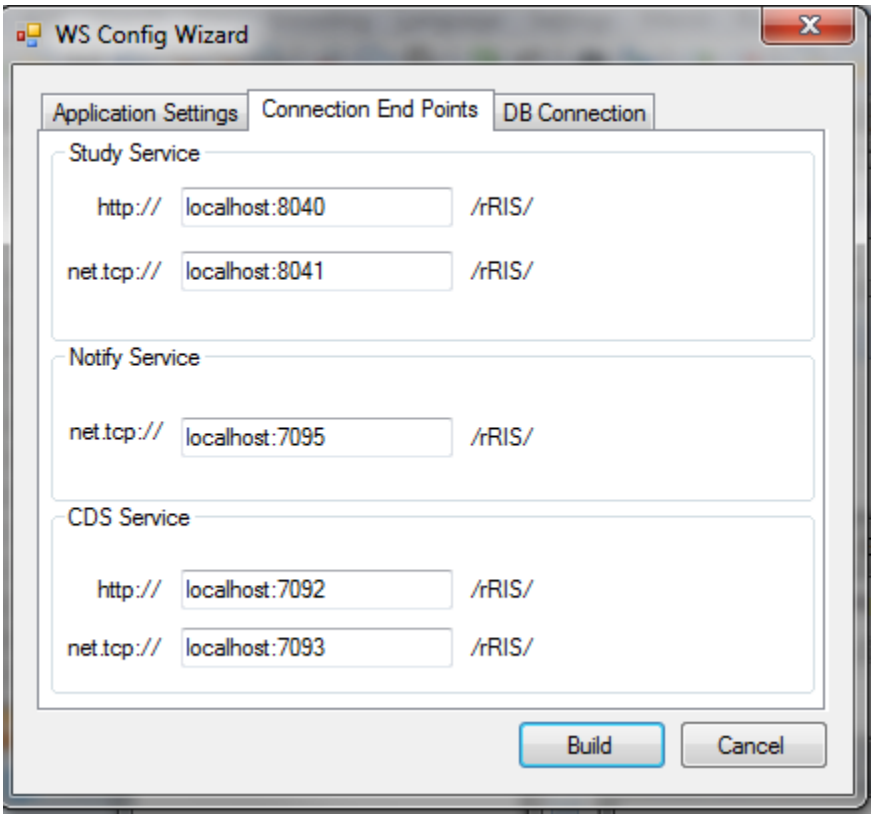
in any form or by any means without the prior written permission from eRAD. 




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

**Connection End Points:** will display the existing configuration, if the value is left blank then that entry will not be created, in the case of “Study Service” or “CDS Service” if both http and net.tcp were not provided then that endpoint will not be created at all.




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

# Server Update

For eRAD RIS

Version 2.0

Build 2.2017.3

Update 2.2017.3.9

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

# Table of Contents

Package Contents ..... 3

Intended Audience ..... 3

Who is affected ..... 3

Resolved Items ..... 4

Code Stream ..... 5

eRAD RIS Release Version Numbers ..... 6

Installing ..... 7

Web Service ..... 7

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## PACKAGE CONTENTS

## INTENDED AUDIENCE

The intended audience for this document is the RadNet Clinical Systems team and the eRAD Support/Service team.

It is appropriate to share the document with any customers applying the patch, in order to review new feature descriptions and resolved defects.

## WHO IS AFFECTED

Build 2017.3 installs. This server update must be applied to 2017.3.8.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

## RESOLVED ITEMS

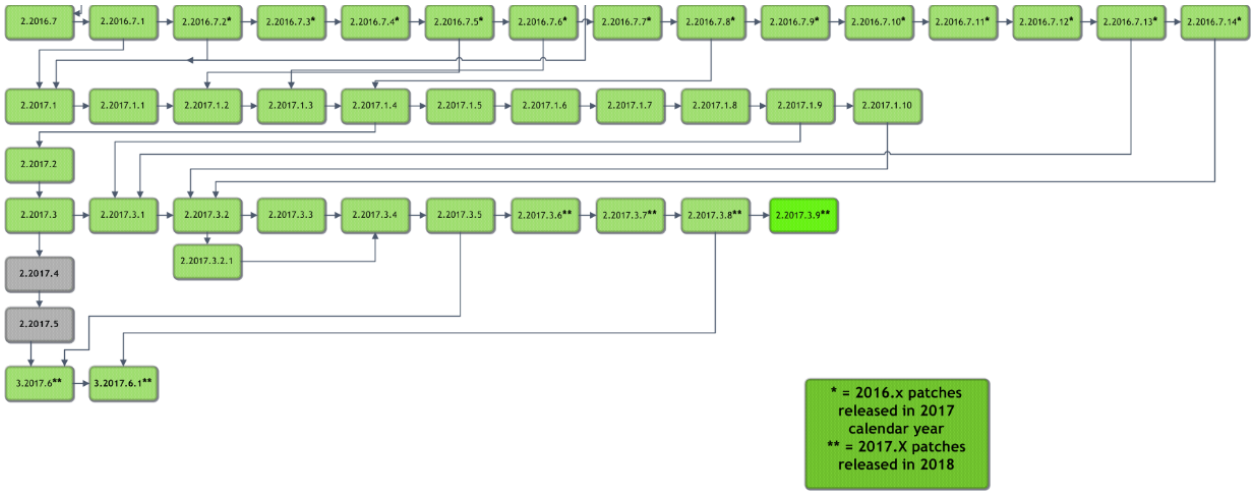
# eRAD RIS

| Redmine # | Subject |
|---|---|
| 19901 | All Carrier codes are once again expanded in outbound messages, which resolves issues experienced with PowerScribe and Billing. |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

## CODE STREAM




## Legend:

Light Green = Previously Released software

Gray = Internal version, non-release version

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

## ERAD RIS RELEASE VERSION NUMBERS

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Digital Forms | Patient Portal | UM Portal | Provider Portal | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| 2016.7 | - | 2.16.7.0 (3GB) | 2.16.70 | 2.16.70 | 2.16.7.0.00490835 | 2.16.70 | 1.16.7.0.493031 | 2.16.7.0.493008 | | Full version release |
| 2016.7 | 1 | 2.16.7.1 (3GB) | 2.16.7.0 | 2.16.7.1 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 2 | 2.16.7.2 (3GB) | 2.16.7.0 | 2.16.7.2 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 3 | 2.16.7.3 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 4 | 2.16.7.4 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI |
| 2016.7 | 5 | 2.16.7.5 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI |
| 2016.7 | 6 | 2.16.7.6 (3GB) | 2.16.7.0 | 2.16.7.6 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 7 | 2.16.7.7 (3GB) | 2.16.7.0 | 2.16.7.7 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 8 | 2.16.7.8 (3GB) | 2.16.7.0 | 2.16.7.7 | 2.16.7.8.00683507 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and DB updates |
| 2016.7 | 9 | 2.16.7.9 (3GB) | 2.16.7.0 | 2.16.7.9 | 2.16.7.9.00715012 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI, Web Services, DB updates and UM Portal |
| 2016.7 | 10 | 2.16.7.10 (3GB) | 2.16.7.0 | 2.16.7.10 | 2.16.7.9.00715012 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI and Web Service updates |
| 2016.7 | 11 | 2.16.7.11 (3GB) | 2.16.7.0 | 2.16.7.11 | 2.16.7.11.00761267 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI, Web Service and DB updates |
| 2016.7 | 12 | 2.16.7.12 (3GB) | 2.16.7.0 | 2.16.7.11 | 2.16.7.11.00761267 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI |
| 2016.7 | 13 | 2.16.7.13 (3GB) | 2.16.7.0 | 2.16.7.13 | 2.16.7.13.00823274 | 2.16.7.0 | 2.16.7.13.805715 | 2.16.7.13.805717 | | GUI, Web Service, DB, Patient and UM Portal updates |
| 2016.7 | 14 | 2.16.7.14 (3GB) | 2.16.7.0 | 2.16.7.14 | 2.16.7.14.00888220 | 2.16.7.0 | 2.16.7.14.897644 | 2.16.7.14.897646 | | GUI, Web Service, DB, Patient and UM Portal updates |
| 2017.1 | - | 2.17.1.0 (3GB) | 2.17.1.0 | 2.17.1.0 | 2.17.1.0.00559886 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | Full Version Release |
| 2017.1 | 1 | 2.17.1.1 (3GB) | 2.17.1.0 | 2.17.1.1 | 2.17.1.1.00589952 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 2 | 2.17.1.2 (3GB) | 2.17.1.0 | 2.17.1.2 | 2.17.1.2.00621962 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 3 | 2.17.1.3 (3GB) | 2.17.1.0 | 2.17.1.3 | 2.17.1.3.00640480 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 4 | 2.17.1.4 (3GB) | 2.17.1.0 | 2.17.1.4 | 2.17.1.4.00692239 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI, Web Service, DB and Patient Portal updates |
| 2017.1 | 5 | 2.17.1.4 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.4.00692239 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | Web Service |
| 2017.1 | 6 | 2.17.1.6 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI and DB Updates |
| 2017.1 | 7 | 2.17.1.7 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI update |
| 2017.1 | 8 | 2.17.1.8 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI update |
| 2017.1 | 9 | 2.17.1.9 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI update |
| 2017.1 | 10 | 2.17.1.10 (3GB) | 2.17.1.0 | 2.17.1.10 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI and Web Service update |
| 2017.2 | - | 2.17.2.0(3GB) | 2.17.2.0 | 2.17.2.0 | 2.17.2.0.00695782 | 2.17.2.0 | 2.17.2.0.702238 | 2.17.2.0.702213 | 2.17.2.0.702226 | Full Version Release. First release of Provider Portal |
| 2017.3 | - | 2.17.3.0(3GB) | 2.17.3.0 | 2.17.3.0 | 2.17.3.0.00764112 | 2.17.3.0 | 2.17.3.0.321 | 2.17.3.0.321 | 2.17.3.0.321 | Full Version Release. Including Patient, Provider and UM Portals |
| 2017.3 | 1 | 2.17.3.1(3GB) | 2.17.3.0 | 2.17.3.1 | 2.17.3.1.00846328 | 2.17.3.1 | 2.17.3.1.853299 | 2.17.3.1.853301 | 2.17.3.1.856171 | GUI, Web Sevice, DB. Including Patient, Provider and UM Portals |
| 2017.3 | 2 | 2.17.3.2(3GB) | 2.17.3.0 | 2.17.3.2 | 2.17.3.2.00898348 | 2.17.3.2 | 2.17.3.2.913898 | 2.17.3.2.913899 | 2.17.3.1.856171 | GUI, Web Sevice, DB. Including Patient, Provider and UM Portals |
| 2017.3 | 2.1 | 2.17.3.2.1(3GB) | 2.17.3.0 | 2.17.3.2 | 2.17.3.2.00898348 | 2.17.3.2 | 2.17.3.2.913898 | 2.17.3.2.913899 | 2.17.3.1.856171 | GUI Only |
| 2017.3 | 3 | 2.17.3.3(3GB) | 2.17.3.0 | 2.17.3.3 | 2.17.3.3.00954008 | 2.17.3.2 | 2.17.3.3.962869 | 2.17.3.3.962870 | 2.17.3.3.962870 | GUI, Web Sevice, DB. Including Patient, Provider and UM Portals |
| 2017.3 | 4 | 2.17.3.4(3GB) | 2.17.3.0 | 2.17.3.4 | 2.17.3.4.00987562 | 2.17.3.2 | 2.17.3.3.962869 | 2.17.3.3.962870 | 2.17.3.3.962870 | GUI, Web Sevice and DB |
| 2017.3 | 5 | 2.17.3.5(3GB) | 2.17.3.0 | 2.17.3.5 | 2.17.3.5.01023250 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | GUI, Web Sevice, DB, Patient Portal, Referring Portal, UM Portal |
| 2017.3 | 6 | 2.17.3.6(3GB) | 2.17.3.0 | 2.17.3.6 | 2.17.3.6.01065114 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | GUI, Web Sevice, DB, |
| 2017.3 | 7 | 2.17.3.7(3GB) | 2.17.3.0 | 2.17.3.6 | 2.17.3.6.01065114 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | GUI |
| 2017.3 | 8 | 2.17.3.8(3GB) | 2.17.3.0 | 2.17.3.8 | 2.17.3.6.01065114 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | GUI and Web Service |
| **2017.3** | **9** | **2.17.3.8(3GB)** | **2.17.3.0** | **2.17.3.9** | **2.17.3.6.01065114** | **2.17.3.2** | **2.17.3.5.1023087** | **2.17.3.5.1025862** | **2.17.3.5.1023087** | **Web Service** |
| 2017.6 | - | 3.17.6.0(3GB) | 3.17.6.0 | 3.17.6.0 | 3.17.6.0.01037550 | 3.17.6.0 | 3.17.6.0.1037868 | 3.17.6.0.1037869 | 3.17.6.0.1037869 | Full Version Release. Including Patient, Provider and UM Portals |
| 2017.6 | 1 | 3.17.6.1(3GB) | 3.17.6.0 | 3.17.6.1 | 3.17.6.1.01094077 | 3.17.6.0 | 3.17.6.0.1037868 | 3.17.6.0.1037869 | 3.17.6.0.1037869 | GUI, Web Service and DB updates |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

# INSTALLING

## WEB SERVICE

This updated is only required for the Wedge Web Services. The Core RIS Service and Document Distribution Service are not required to be updated.

1. The web service upgrade consists of replacing the files in the RIS Web Service directory with the files supplied in the rRISService folder with this build. Always create a backup of the files being replaced. This upgrade includes 134 files in the rRISService folder and 12 sub folders. Of those folders, 1 is a folder titled **"XSL"** that contains a sub folder and files within the subfolder. Another folder is titled **"deploy"** that contains the new .config files that will be deployed with the use of the file called "ServicesConfigWizard.exe" (see instructions below). Folders ar (Arabic), en_AU (Australian English), en-ZA (South Africa), he (Hebrew), pt_BR (Brazilian Portuguese), es-AR (Argentina Spanish) and ru-RU (Russian) and are localization folders. The WedgePlugins folder contains various plugin files for RADAR, MIRTH, Ensemble, etc…

### Services Configuration Wizard

With the release of 42 to decrease the chance of losing configuration setting and missing new configuration options, we will no longer include the configuration files in the release in the main set of files, but they will now exist in a "deploy" folder, which will contain the three site configurable config files; applicationsettings, connectionstrings, and services as well as a copy of the rRISServices.exe configuration file. The contents of this folder should not be required to be touched.

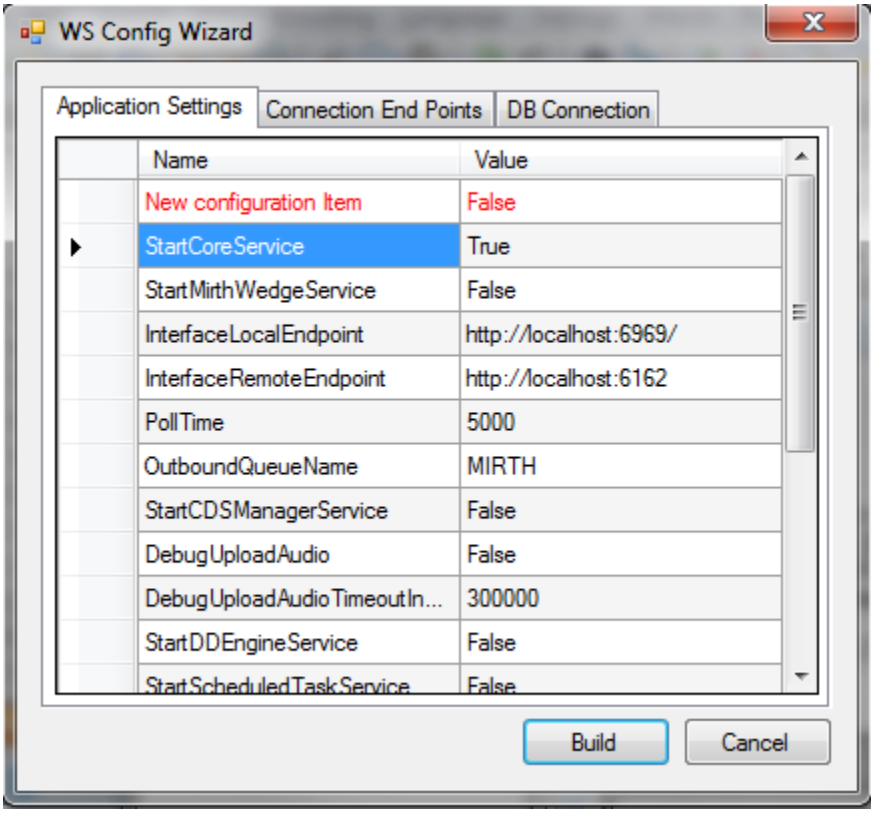
On the install of a new service, all files will be copied to the appropriate locations on the server (no configurations will be over written). If instructed or to confirm no new configurations have been added the user can run the new application "ServicesConfigWizard.exe"

This application will read the existing configuration file(s) (if files exist), and compare to the provided new configuration files then will display three tabs, for each configuration file:

**Application Settings:** all existing configuration value will be displayed, if there are any new configuration entries they will be displayed in red.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

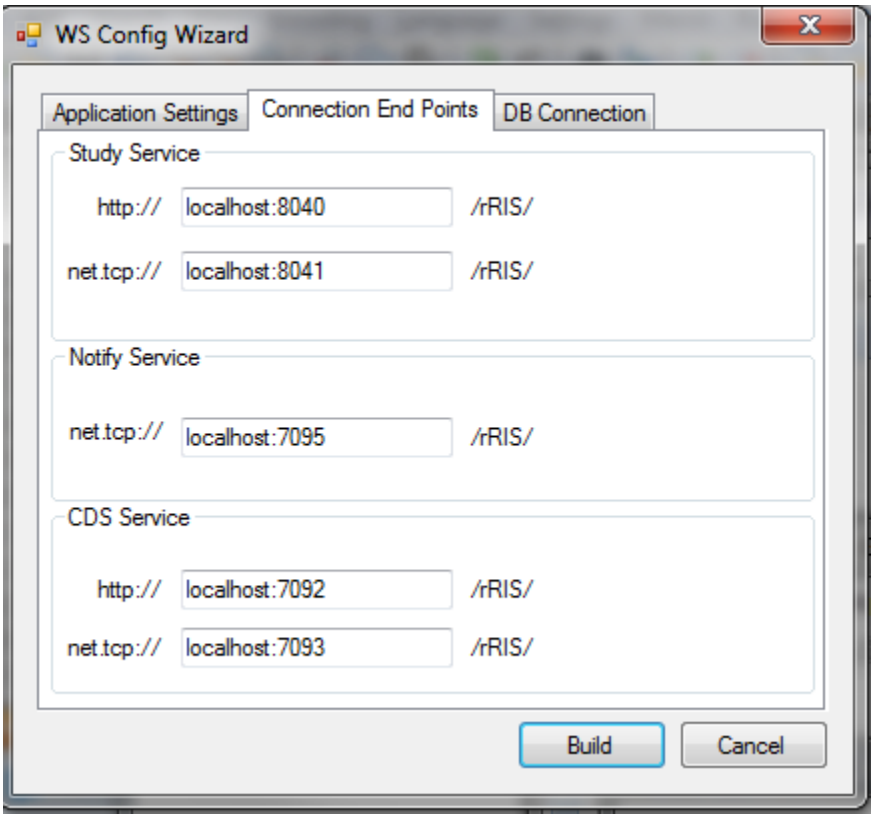
in any form or by any means without the prior written permission from eRAD. 




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

**Connection End Points:** will display the existing configuration, if the value is left blank then that entry will not be created, in the case of “Study Service” or “CDS Service” if both http and net.tcp were not provided then that endpoint will not be created at all.




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

# Server Update

For eRAD RIS

Version 2.0

Build 2.2017.3

Update 2.2017.3.10

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

# Table of Contents

Package Contents ..... 3

Intended Audience ..... 3

Who is affected ..... 3

New Features ..... 4

Feature #18698 – Ability to configure whether Plan Level deductible will be used in Amount to Collect calculation ..... 4

Resolved Items ..... 6

Code Stream ..... 7

eRAD RIS Release Version Numbers ..... 8

Installing ..... 9

Client/GUI ..... 9

Web Service ..... 9

Database Updates ..... 11

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## PACKAGE CONTENTS

## INTENDED AUDIENCE

The intended audience for this document is the RadNet Clinical Systems team and the eRAD Support/Service team.

It is appropriate to share the document with any customers applying the patch, in order to review new feature descriptions and resolved defects.

## WHO IS AFFECTED

Build 2017.3 installs. This server update must be applied to 2017.3.5.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

## NEW FEATURES

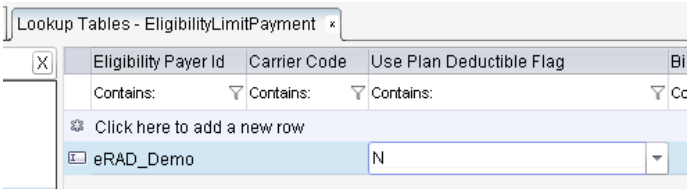
### FEATURE #18698 – ABILITY TO CONFIGURE WHETHER PLAN LEVEL DEDUCTIBLE WILL BE USED IN AMOUNT TO COLLECT CALCULATION

When using automated Eligibility workflow, problems can sometimes arise due to differences in how payers return plan information related to the patient's financial responsibility. These differences often require administrators to use the ***Eligibility Limit Payment*** table to configure exceptions to accommodate for these differences. The Eligibility Limit Payment table has been enhanced to allow for configuration related to variation in how deductible amounts are returned.

Many payers will return deductible amounts in the general plan section of the coverage, Plan Maximums and Deductibles; then if there are specific deductible conditions for X-ray/MRI, these will be specified in the service type section. If the service type section does not contain a more specific deductible, the plan deductible applies.

However, there are other payers who are an exception to this rule. For these payers, the deductible does not apply if it is not specifically listed in the service type section. For these payers, eRAD RIS should ignore the Plan-level deductible.

A new column, ***Use Plan Deductible Flag***, has been added to the Eligibility Limit Payment table.

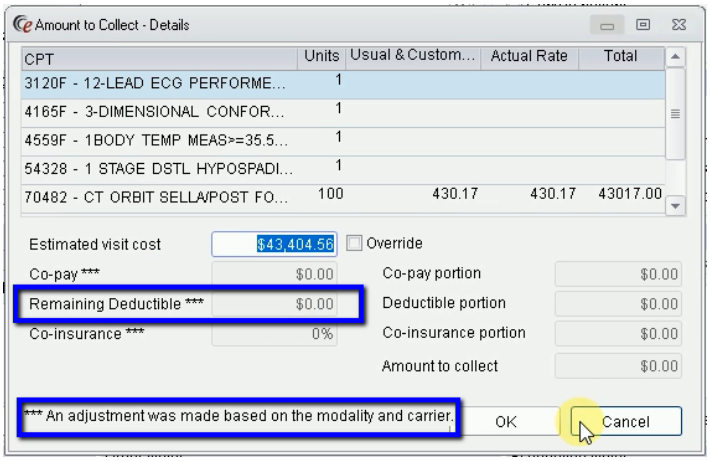



This setting is configurable by Payer ID or by Carrier Code. When Use Plan Deductible is set to Y (for Yes), the Plan-level deductible will be used for the Amount to Collect calculation, if no specific service type deductible is specified. For any payers that are exceptions to this standard approach, the column's value can be set to N (for No). With this configuration, if the payer does not list the deductible in the service type section, no deductible will be applied when calculating the payment.

The Amount to Collect – Details screen will list $0.00 for the Remaining Deductible. As with other Eligibility Limit Payment settings, a notation will indicate that the information in the return was adjusted.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## RESOLVED ITEMS

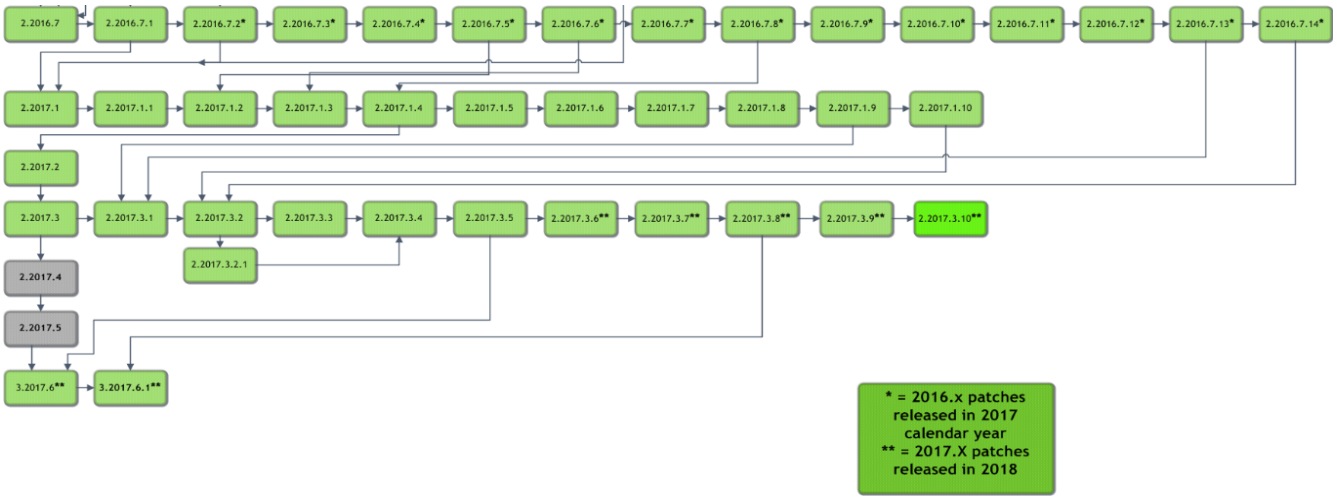
# eRAD RIS

| Redmine # | Subject |
|---|---|
| 19951 | Resolved an issue that caused a "Billing codes are required" warning when registering studies that were scheduled from an existing cancelled study, if a validation rule was configured to require Billing Codes. Billing Codes are no longer being deactivated at the time of cancellation/rescheduling. |
| 19938 | When a patient has multiple exams and a scenario where the patient financial responsibility is different for the two exams (such as CT vs XR), the Amount to Collect will now display accurately when View/Edit is opened after the exam is performed, regardless of which study is opened. Previously, the amount could change depending on which study was used for the View/Edit (the less expensive modality would display a smaller Amount to Collect, for example). |
| 19794 | It is now possible to add new alternate MRNs for a patient who has multiple MRNs from the same Issuer. Previously, this caused an error and prevented new MRNs from being added. |
| 19414 | When a partial worklist refresh occurs to update a specific patient's information after a save, RIS is no longer requesting an unnecessary count of the items on the worklist, which reduces the number of database calls. |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

## CODE STREAM




## Legend:

Light Green = Previously Released software

Gray = Internal version, non-release version

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

## ERAD RIS RELEASE VERSION NUMBERS

| Patch | UI Version | Core Version | WS Version | DB Version | Digital Forms | Patient Portal | UM Portal | Provider Portal | Notes |
|---|---|---|---|---|---|---|---|---|---|
| - | 2.16.7.0 (3GB) | 2.16.70 | 2.16.70 | 2.16.7.0.00490835 | 2.16.70 | 1.16.7.0.493031 | 2.16.7.0.493008 | | Full version release |
| 1 | 2.16.7.1 (3GB) | 2.16.7.0 | 2.16.7.1 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2 | 2.16.7.2 (3GB) | 2.16.7.0 | 2.16.7.2 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 3 | 2.16.7.3 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 4 | 2.16.7.4 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI |
| 5 | 2.16.7.5 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI |
| 6 | 2.16.7.6 (3GB) | 2.16.7.0 | 2.16.7.6 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 7 | 2.16.7.7 (3GB) | 2.16.7.0 | 2.16.7.7 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 8 | 2.16.7.8 (3GB) | 2.16.7.0 | 2.16.7.7 | 2.16.7.8.00683507 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and DB updates |
| 9 | 2.16.7.9 (3GB) | 2.16.7.0 | 2.16.7.9 | 2.16.7.9.00715012 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI, Web Services, DB updates and UM Portal |
| 10 | 2.16.7.10 (3GB) | 2.16.7.0 | 2.16.7.10 | 2.16.7.9.00715012 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI and Web Service updates |
| 11 | 2.16.7.11 (3GB) | 2.16.7.0 | 2.16.7.11 | 2.16.7.11.00761267 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI, Web Service and DB updates |
| 12 | 2.16.7.12 (3GB) | 2.16.7.0 | 2.16.7.11 | 2.16.7.11.00761267 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI |
| 13 | 2.16.7.13 (3GB) | 2.16.7.0 | 2.16.7.13 | 2.16.7.13.00823274 | 2.16.7.0 | 2.16.7.13.805715 | 2.16.7.13.805717 | | GUI, Web Service, DB, Patient and UM Portal updates |
| 14 | 2.16.7.14 (3GB) | 2.16.7.0 | 2.16.7.14 | 2.16.7.14.00888220 | 2.16.7.0 | 2.16.7.14.897644 | 2.16.7.14.897646 | | GUI, Web Service, DB, Patient and UM Portal updates |
| - | 2.17.1.0 (3GB) | 2.17.1.0 | 2.17.1.0 | 2.17.1.0.00559886 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | Full Version Release |
| 1 | 2.17.1.1 (3GB) | 2.17.1.0 | 2.17.1.1 | 2.17.1.1.00589952 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2 | 2.17.1.2 (3GB) | 2.17.1.0 | 2.17.1.2 | 2.17.1.2.00621962 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 3 | 2.17.1.3 (3GB) | 2.17.1.0 | 2.17.1.3 | 2.17.1.3.00640480 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 4 | 2.17.1.4 (3GB) | 2.17.1.0 | 2.17.1.4 | 2.17.1.4.00692239 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI, Web Service, DB and Patient Portal updates |
| 5 | 2.17.1.4 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.4.00692239 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | Web Service |
| 6 | 2.17.1.6 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI and DB Updates |
| 7 | 2.17.1.7 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI update |
| 8 | 2.17.1.8 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI update |
| 9 | 2.17.1.9 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI update |
| 10 | 2.17.1.10 (3GB) | 2.17.1.0 | 2.17.1.10 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI and Web Service update |
| - | 2.17.2.0(3GB) | 2.17.2.0 | 2.17.2.0 | 2.17.2.0.00695782 | 2.17.2.0 | 2.17.2.0.702238 | 2.17.2.0.702213 | 2.17.2.0.702226 | Full Version Release. First release of Provider Portal |
| - | 2.17.3.0(3GB) | 2.17.3.0 | 2.17.3.0 | 2.17.3.0.00764112 | 2.17.3.0 | 2.17.3.0.321 | 2.17.3.0.321 | 2.17.3.0.321 | Full Version Release. Including Patient, Provider and UM Portals |
| 1 | 2.17.3.1(3GB) | 2.17.3.0 | 2.17.3.1 | 2.17.3.1.00846328 | 2.17.3.1 | 2.17.3.1.853299 | 2.17.3.1.853301 | 2.17.3.1.856171 | GUI, Web Sevice, DB. Including Patient, Provider and UM Portals |
| 2 | 2.17.3.2(3GB) | 2.17.3.0 | 2.17.3.2 | 2.17.3.2.00898348 | 2.17.3.2 | 2.17.3.2.913898 | 2.17.3.2.913899 | 2.17.3.1.856171 | GUI, Web Sevice, DB. Including Patient, Provider and UM Portals |
| 2.1 | 2.17.3.2.1(3GB) | 2.17.3.0 | 2.17.3.2 | 2.17.3.2.00898348 | 2.17.3.2 | 2.17.3.2.913898 | 2.17.3.2.913899 | 2.17.3.1.856171 | GUI Only |
| 3 | 2.17.3.3(3GB) | 2.17.3.0 | 2.17.3.3 | 2.17.3.3.00954008 | 2.17.3.2 | 2.17.3.3.962869 | 2.17.3.3.962870 | 2.17.3.3.962870 | GUI, Web Sevice, DB. Including Patient, Provider and UM Portals |
| 4 | 2.17.3.4(3GB) | 2.17.3.0 | 2.17.3.4 | 2.17.3.4.00987562 | 2.17.3.2 | 2.17.3.3.962869 | 2.17.3.3.962870 | 2.17.3.3.962870 | GUI, Web Sevice and DB |
| 5 | 2.17.3.5(3GB) | 2.17.3.0 | 2.17.3.5 | 2.17.3.5.01023250 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | GUI, Web Sevice, DB, Patient Portal, Referring Portal, UM Portal |
| 6 | 2.17.3.6(3GB) | 2.17.3.0 | 2.17.3.6 | 2.17.3.6.01065114 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | GUI, Web Sevice, DB, |
| 7 | 2.17.3.7(3GB) | 2.17.3.0 | 2.17.3.6 | 2.17.3.6.01065114 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | GUI |
| 8 | 2.17.3.8(3GB) | 2.17.3.0 | 2.17.3.8 | 2.17.3.6.01065114 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | GUI and Web Service |
| 9 | 2.17.3.8(3GB) | 2.17.3.0 | 2.17.3.9 | 2.17.3.6.01065114 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | Web Service |
| **10** | **2.17.3.10(3GB)** | **2.17.3.0** | **2.17.3.10** | **2.17.3.10.01125764** | **2.17.3.2** | **2.17.3.5.1023087** | **2.17.3.5.1025862** | **2.17.3.5.1023087** | **GUI, Web Service and DB updates** |
| - | 3.17.6.0(3GB) | 3.17.6.0 | 3.17.6.0 | 3.17.6.0.01037550 | 3.17.6.0 | 3.17.6.0.1037868 | 3.17.6.0.1037869 | 3.17.6.0.1037869 | Full Version Release. Including Patient, Provider and UM Portals |
| 1 | 3.17.6.1(3GB) | 3.17.6.0 | 3.17.6.1 | 3.17.6.1.01094077 | 3.17.6.0 | 3.17.6.0.1037868 | 3.17.6.0.1037869 | 3.17.6.0.1037869 | GUI, Web Service and DB updates |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

# INSTALLING

## CLIENT/GUI

Copy and replace the current rRIS…zip file with the eRAD_rRIS_2017.3.10.zip file provided with this release.

Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

## WEB SERVICE

This updated is only required for the Wedge Web Services. The Core RIS Service and Document Distribution Service are not required to be updated.

1. The web service upgrade consists of replacing the files in the RIS Web Service directory with the files supplied in the rRISService folder with this build. Always create a backup of the files being replaced. This upgrade includes 134 files in the rRISService folder and 7 sub folders. Of those folders, 1 is a folder titled **"XSL"** that contains a sub folder and files within the subfolder. Another folder is titled **"deploy"** that contains the new .config files that will be deployed with the user of the file called "ServicesConfigWizard.exe" (see instructions below). Folders ar (Arabic), en_AU (Australian English), en-ZA (South Africa), he (Hebrew), pt_BR (Brazilian Portuguese), es-AR (Argentina Spanish) and ru-RU (Russian) and are localization folders. The WedgePlugins folder contains various plugin files for RADAR, MIRTH, Ensemble, etc…

**Services Configuration Wizard**

With the release of 42 to decrease the chance of losing configuration setting and missing new configuration options, we will no longer include the configuration files in the release in the main set of files, but they will now exist in a "deploy" folder, which will contain the three site configurable config files; applicationsettings, connectionstrings, and services as well as a copy of the rRISServices.exe configuration file. The contents of this folder should not be required to be touched.

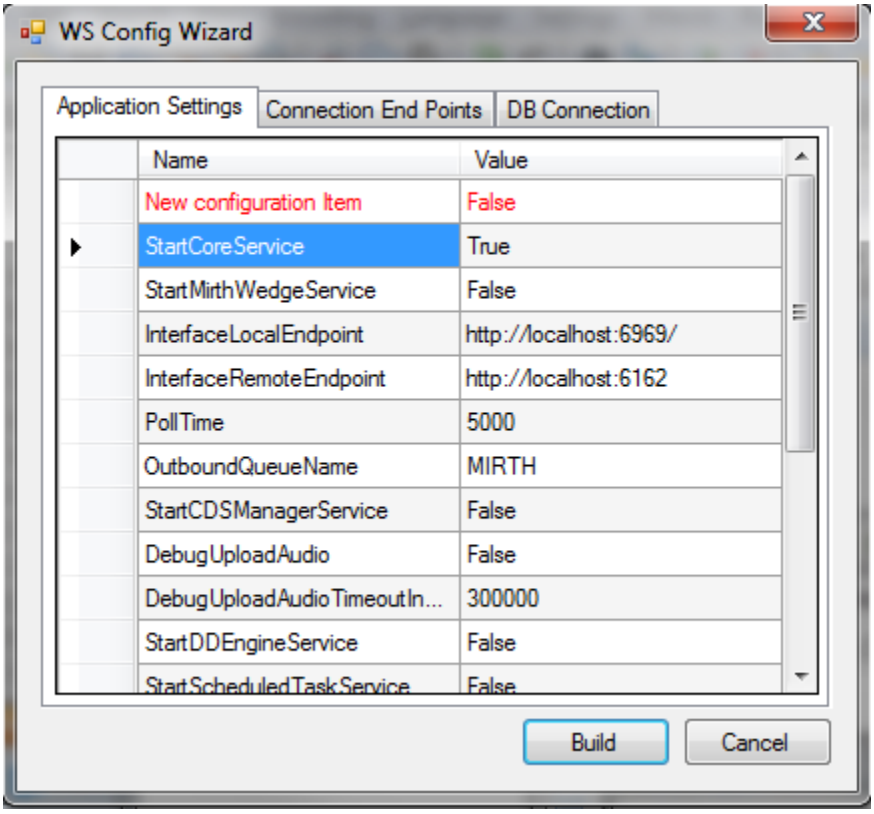
On the install of a new service, all files will be copied to the appropriate locations on the server (no configurations will be over written). If instructed or to confirm no new configurations have been added the user can run the new application "ServicesConfigWizard.exe"

This application will read the existing configuration file(s) (if files exist), and compare to the provided new configuration files then will display three tabs, for each configuration file:

**Application Settings:** all existing configuration value will be displayed, if there are any new configuration entries they will be displayed in red.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

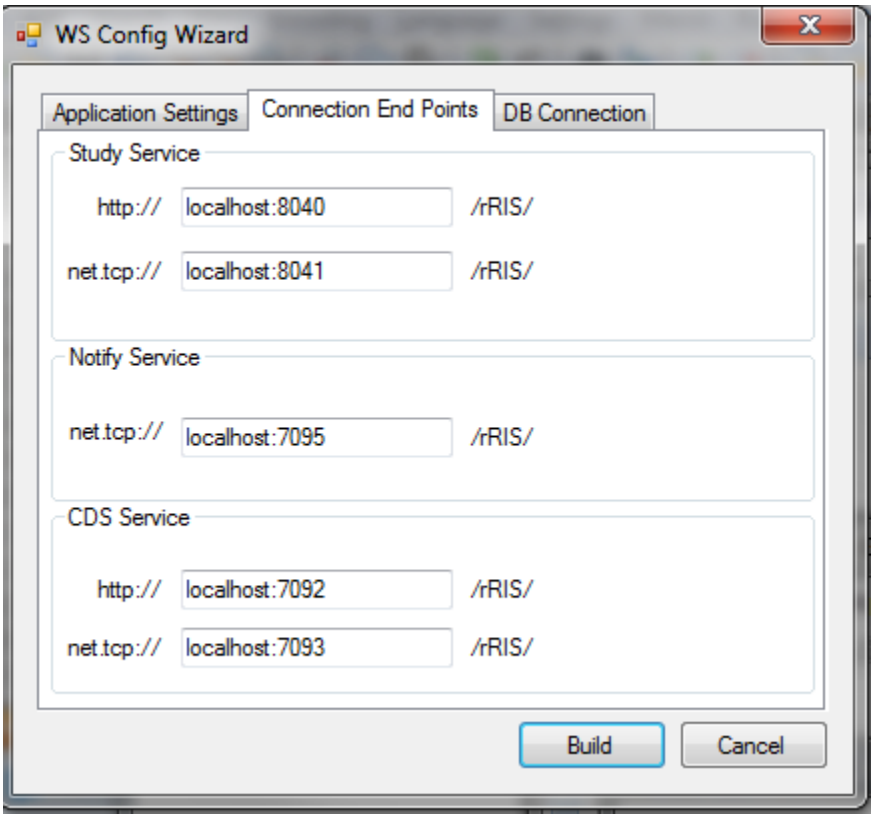
in any form or by any means without the prior written permission from eRAD. 




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

**Connection End Points:** will display the existing configuration, if the value is left blank then that entry will not be created, in the case of “Study Service” or “CDS Service” if both http and net.tcp were not provided then that endpoint will not be created at all.




## DATABASE UPDATES

Always run the upgrade scripts in a test environment of the actual database to make sure they run cleanly. If any errors occur please contact development.

*Note: There is a new upgrade process introduced with B43.1 called "RunUpgrade.bat". The batch file will open a command window. This process will prompt you for the database server name, database name and authentication credentials. There is no need to run the database upgrade scripts manually as was done in previous releases.*

1) From the upgrade folder, double click the “RunUpgrade.bat” command file.

2) Enter the server name, database name and authentication credentials to the database. You have 2 choices for authentication credentials.

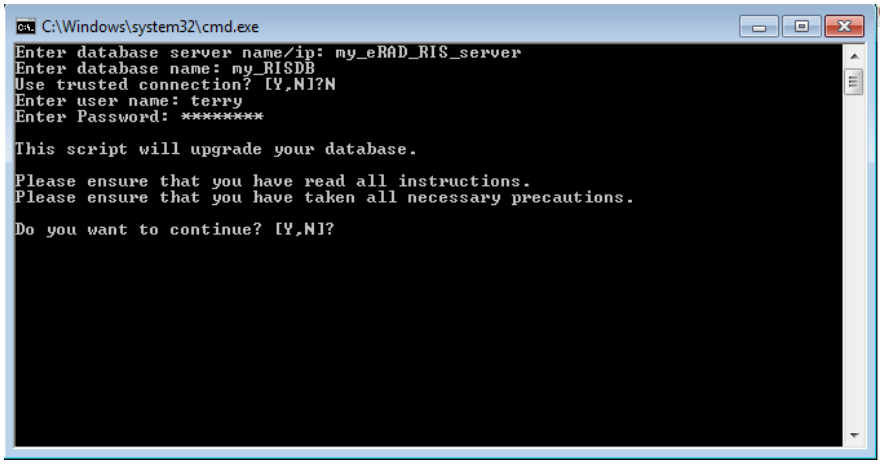
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

3) You can choose to use “Trusted connection”. Using this option will pass the identity of the currently logged on user. If this user has “db_owner” access to the eRAD RIS database then feel free to use this options.

4) If you decide not to use “Trusted connection” then you will be prompted for user id and password.

Example:




5) After the upgrade program has finished you can find the upgrade logs in the “log” folder. The file name will be eRAD_RIS_db_upgrade_timestamp.log, where timestamp is a value representing the date and time the upgrade started. If you see any errors please contact the development team

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

# Customer Release Notes

for eRAD RIS

Version 2

Build 2017.3

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

# TABLE OF CONTENTS

Table of Contents ..... 2
Purpose ..... 4
Intended Audience ..... 4
New Settings ..... 5
New access strings ..... 5
New system configuration settings ..... 6
New Features ..... 8
Scheduling and Registration ..... 8
Feature #15086 – Log control supports autotext entry in “display as textbox” mode ..... 8
Feature #15026 – Magnetic Stripe card interpretation added to Identify Patient workflow ..... 10
Feature #15475 – Provide an alert in RIS when a prior balance exists in an external billing system ..... 15
Feature #14796 – Ability to search by BISN in Quick Search ..... 16
Feature #16603 – Collect the date a referral was received ..... 17
Feature #15806 - Support a configurable Urgency Level ..... 18
Feature #11864 – “Patient Flag” funtionality is now called “Patient Alerts” ..... 20
Feature #9202 – New access strings for appointment booking ..... 21
Insurance ..... 23
Feature #16074 - Insurance Policy Expiry Date now available on the Manage Policies screen ..... 23
Feature #16523 – Store insurance carrier’s patient data when patient is not subscriber ..... 25
Utilization Management ..... 26
Feature #15435 – Confirmation warning message for schedulers ..... 26
Feature #15892 – Trigger Utilization Review from the IVT screen ..... 27
Feature #15219 – Excluded exams workflow ..... 28
CEHRT ..... 31
Feature #16009 – Modifications to Audit Log Management Report ..... 31
Feature #16371- Automated Measures management reports will calculate statistics for Education Resources using 2017 ACI Transition Measure criteria ..... 33
Feature #16541 – Automated Measures reports now include sub-reports with patient details ..... 34
Medical Records ..... 37
Feature #7258 – Select individual images/series when burning CDs ..... 37
Feature #9368, 12240 – Options for uncompressed CD burning ..... 41
General Worklist Enhancements ..... 44
Feature #15710 – Special Accommodations column available on worklists ..... 44
Feature #16111– Relative date and time filtering for worklist columns ..... 45
Feature #16059 – Patient Class is available as a search filter for Exam Search ..... 48
Interfacing ..... 49
Feature #16082 – Study Extra Info feature extended to include Order Extra Info ..... 49
Feature #16591 – Strip last character from variables passed to external portals ..... 50
Feature #16527 - Enhance drop XML file functionality ..... 51
Feature #16137 – Carestream PACS Integration – Open prior studies when primary study is not available ..... 55
Infrastructure ..... 56

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

Feature #14351, 15615 – New RIS settings to reduce bandwith for updates ..... 56
Connect Patient Portal ..... 57
Feature #14260 – Push out the first available appointment based on conditions ..... 57
Feature #16480 – Street number watermark removed from Street Number field in Account Creation workflow ..... 62
Feature #13708 – Preparation Instructions display in a pop-up window after scheduling in the Patient Portal ..... 63
Feature #14535 – Print a summary of appointment including Preparation Instructions ..... 64
Feature #8310 - Patient Portal login page picture is now configurable ..... 65
Feature #15025 – Reports printed from the Portal will contain a footer indicating the print details ..... 66
Feature #12827 – Provide System Messages to individual Imaging Groups ..... 67
Feature #13253 – Search workflow failures by date range in Admin Portal ..... 68
Feature #13960 - Audit opening patient exam list in the Admin Portal ..... 69
Feature #16590 - DOB is a valid search in the Admin Portal ..... 70
Feature #15702 - Password failure information now listed in Admin Portal Activity tab ..... 71
Feature #16066 - Security Tab and Account Tab now combined in Admin Portal ..... 72
Feature #16358 – Reference key is now added to portal notification emails ..... 73
Feature #16449 – Force patient to use Get Help to create/reactivate their portal account if the account has been disabled in the Admin Portal or in RIS ..... 74
RIS Administration ..... 75
Feature #16299 - eRAD RIS now supports both default and “recommended” billing codes ..... 75
Feature #16310 – Validation Rule to alert user when no billing codes are present ..... 78
Feature #16138 - Validation Rules framework has been extended to consider tables ..... 79
Feature #14171 – Validation Rules can display based on patient alerts ..... 80
Feature #15150 – Hard-coded Contrast and CT Dosage requirements are now Validation Rules ..... 81
Feature #12141 – Ability to view the Citrix Bridge version number ..... 82
Feature #14681 – Upload a workstation’s verbose files to the server from Help/About screen ..... 83
Feature #16109 - RIS will prevent uploading excessively large files for logos ..... 85
Technologist ..... 86
Feature #16292 – Technologist can now add additional exams to the order from Perform Exam tab ..... 86
Feature #16294 – Copy/Paste feature now includes “Technologist Verified ID” ..... 88
Feature #16293 – Technologist information can automatically copy to all Linked studies ..... 89
Radiologist ..... 91
Feature #15107 – Decreased likelihood that a radiologist could self-review a legacy study ..... 91
Feature #15330 – Improvements to manual caching and caching worklist views ..... 92
Feature #15696 – Create an addendum from the View Study screen ..... 96
Feature #10975 – Accurate audio length in worklist columns ..... 97
Feature #17458 – User preferences to disable input devices ..... 98
Feature #15643 – Referring column added to mini-Patient Folder on Reporting screen ..... 99
Feature #15812 - Allow radiologist Portal feature to launch URLs in external browsers (Support GE ZFP using the Portal screen) ..... 100
Resolved Defects ..... 102
Known Limitations ..... 116
RIS Release Version Numbers ..... 120
Code Stream Diagram ..... 121

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## PURPOSE

This is the Customer Release Notes document for eRAD RIS Version 2.2017.3.

Not every feature will be described in this document. Typically, only features which can be visually demonstrated are outlined here.

## INTENDED AUDIENCE

The intended audience for this document is the RIS Administration team for eRAD RIS customers.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

# NEW SETTINGS

## NEW ACCESS STRINGS

| Setting | Default | Purpose |
|---|---|---|
| Clinical.Schedule.AllowManualSchedulingInClosed | None | Allows appointments to be manually scheduled in closed (gray) appointment book time slots. |
| Clinical.Schedule.AllowManualSchedulingInHoliday | None | Allows appointments to be manually scheduled in holiday (pink) appointment book time slots. |
| Clinical.Schedule.AllowManualSchedulingInRestricted | None | Allows appointments to be manually scheduled in restricted (yellow) appointment book time slots. |
| Clinical.Schedule.AllowManualSchedulingInUnavailable | None | Allows appointments to be manually scheduled in unavailable (blue) appointment book time slots. |
| Clinical.Tech.AllowAddExam | None | Allows access to the “Add exam to current order” button on Perform Exam screen. |
| Config.LookupEditor.OrderExtraInfo | None | Controls access to the lookup table editor for Order Extra Info. |
| Config.LookupEditor.PortalProcedureGroup | None | Controls access to the lookup table editor for Portal Procedure Group. |
| Clinical.CTRM | None | Controls access to Edit button and context menu on the Critical Results worklists. |
| Clinical.ReceptionBarcodeWorkflow.DesktopScanner | Full | Controls access to the Scan ID button in Identify Patient workflow. |
| Clinical.ReceptionBarcodeWorkflow.MagneticStripe | None | Controls access to the Swipe Card button in Identify Patient workflow. |
| Config.LookupEditor.BrowserType | None | Controls access to the lookup table editor for Browser Type. |
| Config.LookupEditor.UrgencyLevel | None | Controls access to the lookup table editor for Urgency Level. |
| Custom.Visibility.Data.Organization.l_site.location_character | None | Controls the visibility of the location character introduced for the Australian market. Full access shows the fields in the Organization table, while any other level will hide them. |
| Custom.Visibility.Data.Personnel.l_person_address.location_character | None | Controls the visibility of the location character introduced for the Australian market. Full access shows the fields in the Personnel table, while any other level will hide them. |
| These access strings have been removed. | | |
| Clinical.UserPreferences.CacheReportingScreen | | |
| Clinical.UserPreferences.ReuseReportingScreen | | |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## NEW SYSTEM CONFIGURATION SETTINGS

| Setting | Default | Purpose |
|---|---|---|
| AllowLZWImageCompression | True | (value = bool) Setting this to true will enable LZW Image Compression when saving attachments. |
| AppointmentSearchMaxResults | -1 | (value = int) Specify the number of appointment slot results to be returned by the scheduling engine. -1 turns off the feature. Changing the default is only recommended for customers scheduling via an External Interface Service. These customers should use a number higher than the recommended minimum of 500. |
| AutoCopyPasteLinkedStudies | False | (value = True/False) Determines if data is copied to all linked studies when one study in a collection is saved on the Perform Exam screen. |
| AutoIncludeLinkedStudiesForTech | False | (value = True/False) Determines if linked studies are automatically included (checked) on Perform Exam screen when a linked study is opened. |
| EnableExtraCompressionOnStudyUpdates | True | (value = bool) Setting this to true will enable gzip and other compression techniques and is ideal for sites with limited upload bandwidth. Set it to false to default to the legacy Microsoft data serialization. |
| PortalEradPacsNewAccountTemplateUserID | | (value = string) The PACS user ID to be used as a template when creating eRAD PACS accounts for users on the Portal. |
| PortalEradPacsNewAccountUserGroup | Radiologist | (value = string) Default user group to use when creating eRAD PACS accounts for users on the Portal. |
| PortalFaxCoverSheetUnavailableMessage | This Fax cover sheet is currently unavailable on the portal. Please contact the imaging center to request the cover letter. | The message to display to the Connect portal user when the Fax Cover sheet is not available due to unexpected error (e.g. SSRS report server is unavailable or not configured). *This setting is for a CONNECT Provider Portal feature and will be explained in the Provider Portal user guide. |
| PortalFaxCovertLetterReportPath | | (value = path and name) The path and name of the Fax Cover Sheet for the Provider Portal. *This setting is for a CONNECT Provider Portal feature and will be explained in the Provider Portal user guide. |
| CountyToZipCodeAutoFill | False | (value = bool) True to have zip and state fields auto-filled when entering a county. |
| MaxLogoFileSize | 250000 | (value = int) Maximum number of bytes for image files uploaded for Practice/Site logos and images uploaded via the ImageUploader configuration screen. |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

| | | |
|---|---|---|
| MaxLogoWidthOrHeight | 1000 | (value = int) Maximum number of pixels for Practice/Site logos and images uploaded via the ImageUploader configuration screen. |
| *Removed* TechContrastRequired | | This was removed because the contrast required and CT dosage for techs is now controlled with Validation Rules. See feature #15150. |
| NPILength | 0 | (value = string) Required length of the NPI field. If blank or zero, any length is allowed up to 20, which is the maximum length of the column. |
| NPILengthErrorText | N/A | (value = string) Text to display when the NPI length is invalid. If blank or null, the default error text will be displayed. |
| PortalAllowEveningWeekendScheduling | True | (value = bool) If true, the portal will allow scheduling on evenings and weekends when appointments are available based on Availability Templates. |
| PortalAuthorizationNotRequiredHourPadding | 0 | (value = int) The number of hours before a patient can schedule through the portal if they do not have an Authorization. |
| PortalAuthorizationRequiredHourPadding | 0 | (value = int) The number of hours before a patient can schedule through the portal if they have an Authorization. |
| PortalMaxSearchDays | 30 | (value = int) When searching for an appointment time in the Portal, if no appointment times are available within this number of days, RIS will inform the user and display information to call the scheduling department. |
| PortalNoSelectedInsuranceHourPadding **REPLACES** PortalNoSelectedInsuranceDayPadding | 5 | (value = int) Used by online scheduling to add hours to the start search criteria to allow time to gather insurance from the patient for this appointment. |
| PPSchedulingNoPrescriptionHourPadding **REPLACES** PPSchedulingNoPrescription | 0 | (value = int) The number of hours before a patient can schedule through the portal if they do not have a prescription. |
| XmlIntegrationMainMenuText | Integrate | (value = string) The text that will appear on the XML Integration main menu item in RIS. |

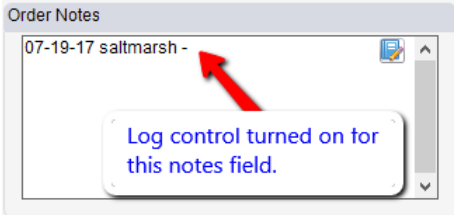
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

# NEW FEATURES

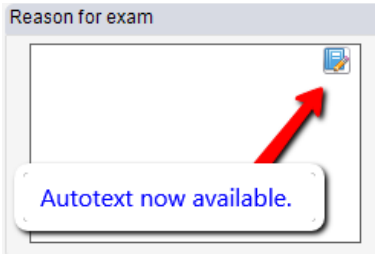
## SCHEDULING AND REGISTRATION

### FEATURE #15086 – LOG CONTROL SUPPORTS AUTOTEXT ENTRY IN "DISPLAY AS TEXTBOX" MODE

Previously, it was only possible to utilize Autotext in notes fields that were configured to use Log Control.




It was not supported for Textbox style notes fields, which were not able to take advantage of the Autotext feature. It is now possible to turn on Autotext for a notes field that is set up as "Display as Textbox."




To configure, open the Log Control configuration table. Locate any notes fields that are set to "Display as Textbox," indicated with a Y. Enable Autotext by changing the Type to FreeAndAutoText. To restrict the user from entering anything ***except*** Autotext, choose a type of AutoText.

| Log Control Code | Description | Type | Display As Textbox Flag | Spellcheck Enabled |
|---|---|---|---|---|
| Contains: | Contains: | Contains: | Contains: | Contains: |
| Click here to add a new row | | | | |
| DDNotes | Document Distribution Notes | FreeText | N | N |
| SignsAndSymptoms | Signs And Symptoms | FreeAndAutoText | Y | Y |
| ReasonForExam | Reason For Exam | FreeAndAutoText | Y | Y |
| SchedulingNotes | Scheduling Notes | FreeAndAutoText | N | Y |
| TechNotes | Technologist Notes | FreeAndAutoText | N | Y |

If needed, configure Autotext options for the notes field in the Autotext table.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

| Description | Language Content | Log Control Code | Display Order |
|---|---|---|---|
| Contains: | Contains: | Contains: | Equals: |
| Click here to add a new row | | | |
| Screening | Annual screening. Asymptomatic. | ReasonForExam (Reason For Exam) | 1 |
| FUfromPrior | Follow-up from prior study dated | ReasonForExam (Reason For Exam) | 1 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #15026 – MAGNETIC STRIPE CARD INTERPRETATION ADDED TO IDENTIFY PATIENT WORKFLOW

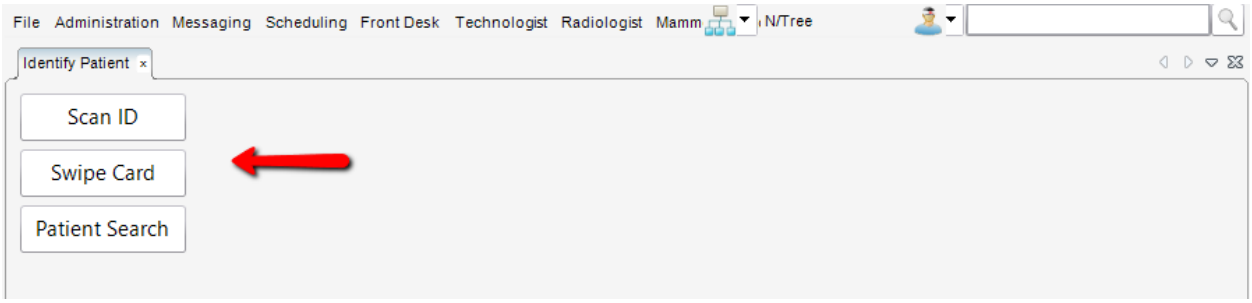
Some eRAD RIS customers are located in countries where government issued insurance cards with a magnetic stripe are common. This magnetic stripe contains information in a designated format, which can be interpreted to help identify the patient's account in RIS. To take advantage of this information, eRAD's Identify Patient feature has been expanded to support swiping cards with magnetic stripes.

Because different issuers will have different configurations for the data included on the magnetic stripe, RIS allows for different configurations to be defined in an XML file, which is included in the RIS zip file. At this time, the XML file contains configuration for Australian Medicare cards, as well as Prince Edward Island health cards. Contact eRAD Support to inquire about additional configurations.

There are three Access Strings associated with the Identify Patient workflow:

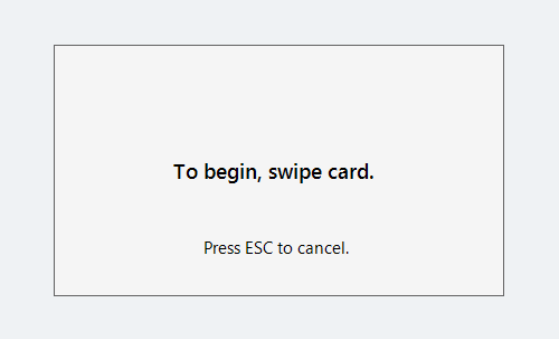
- Clinical.ReceptionBarcodeWorkflow
  - This access string previously controlled access to the Identify Patient workflow. There are now two additional access strings that control the different types of searches.
- Clinical.ReceptionBarcodeWorkflow.DesktopScanner
  - This access string controls access to the existing feature in which Patient IDs with 2D barcodes are scanned using a desktop scanner.
  - The default setting is FULL to maintain existing behavior.
- Clinical.ReceptionBarcodeWorkflow.MagneticStripe
  - This access string controls access to the new magnetic stripe search.
  - The default setting is NONE.

If a user has FULL access to all three of the above access strings, when opening the Identify Patient screen, they will have three options for initiating a search: Scan ID (which will scan an ID Card on the desktop scanner, as before), Swipe Card (will accept input from a magnetic card reader), and Patient Search (a new manual search option in the case that either of the previous options is unable to read the card).

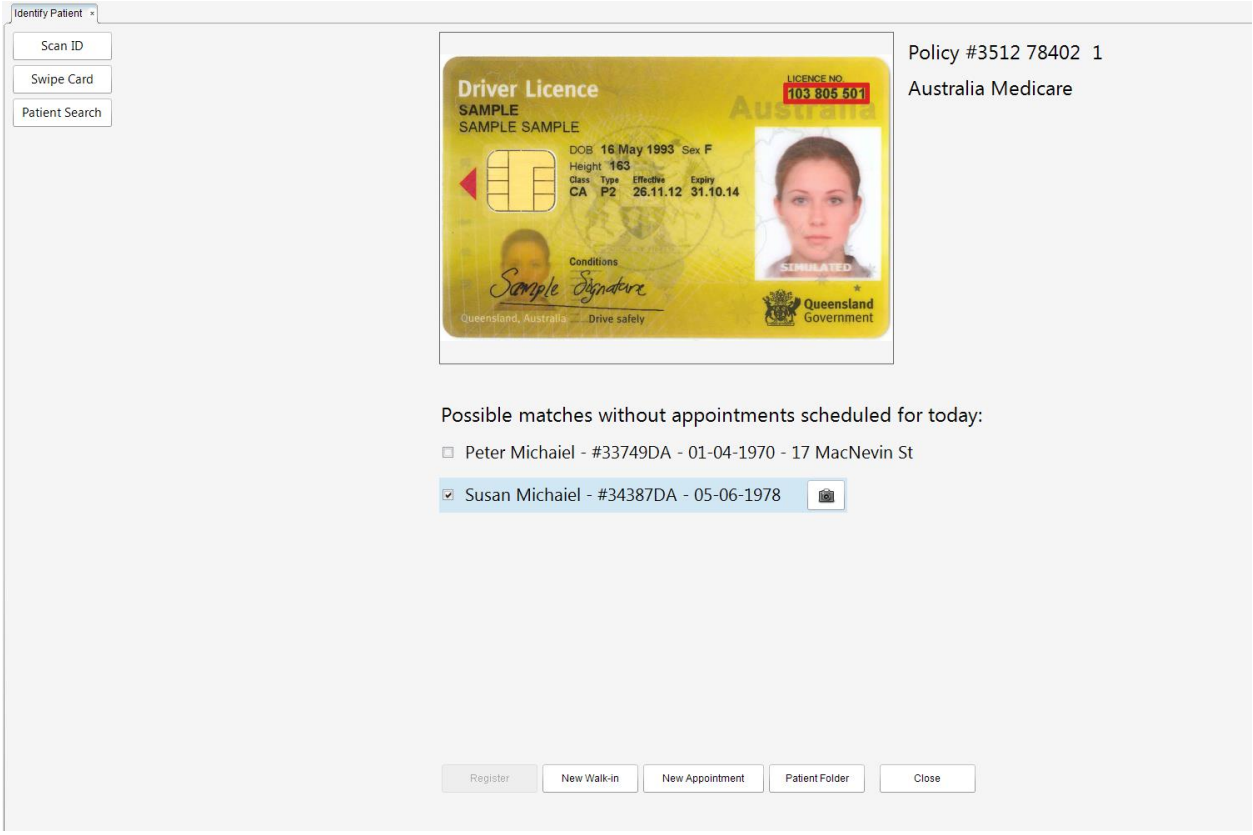



No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

When using the Swipe Card option, the user will be prompted with the following message:



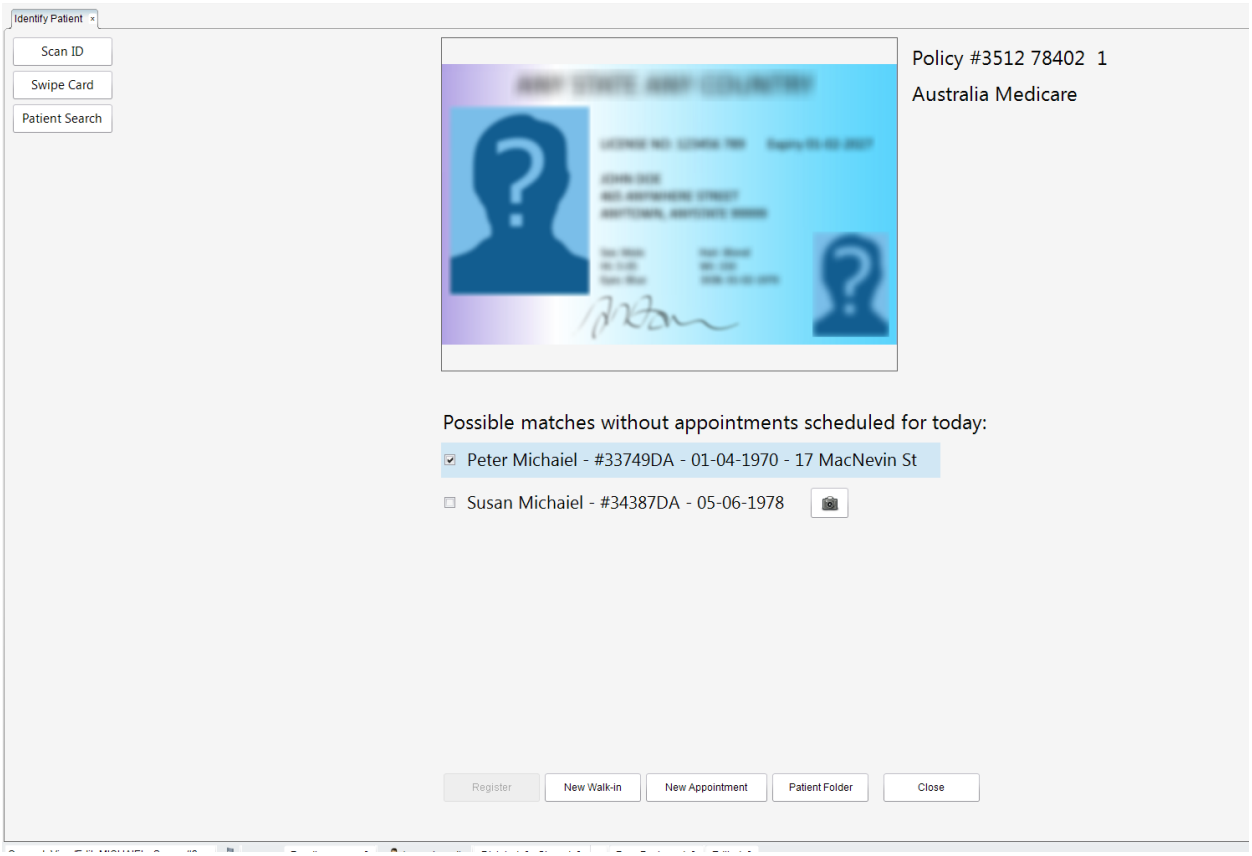

After RIS detects a successful read from the magnetic stripe reader, the results will display on the tab. The following example will refer to the configuration for an Australian Medicare card.




The upper right hand portion of the screen displays a summary of the information read from the Medicare card. At this time, the only information that can be interpreted from the card is the policy number and issue number. Though one or more patient names may be printed on the card, the magnetic stripe itself does not contain patient names.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

The upper portion of the screen will show the most appropriate ID for the patient. In “Desktop Scanner” mode, this area shows the ID that was scanned. In Patient Search or Swipe Card mode, this area will show the most recent ID on file for the currently selected patient. In the event that a matching patient record does not have a patient ID on file, a generic image will be displayed to indicate No ID found.



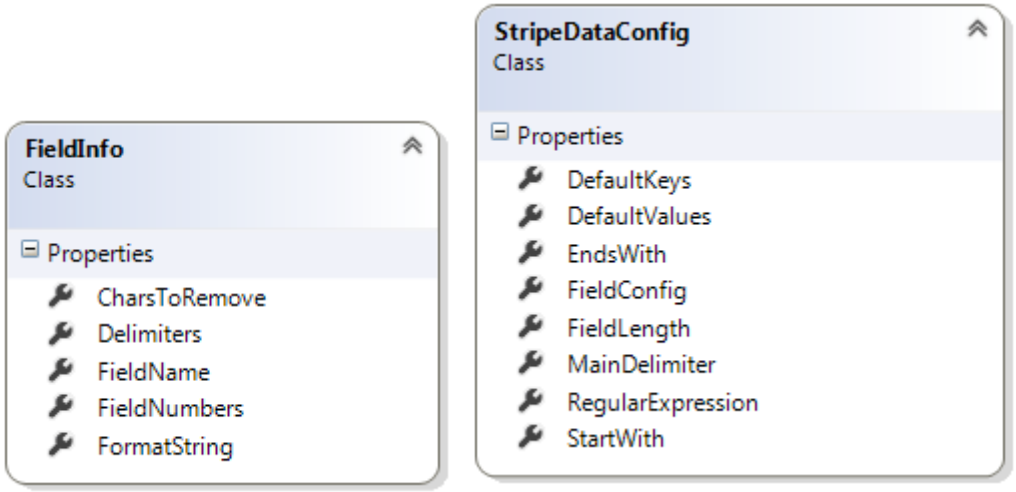

Because multiple patients can share the same Medicare card, RIS performs a search for all patients with a carrier code that represents Australia Medicare and the policy number read from the card. The issue number of the card (the last number on the right) is not included in this search as this number may have changed since the patient’s last visit.

As with the Patient ID search, possible matches to the search will be displayed in the bottom half of the screen, with results that have an appointment scheduled that day at the top of the list. A patient from the search results can be selected with a checkmark. The buttons at the bottom of the screen can initiate the desired action.

## Magnetic Stripe Configuration

Different types of swipe cards may have the data stored in different formats. RIS allows for different configurations to be defined in an XML file which is included in the RIS zip file.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.




Each card type can be described in an XML file that contains a list of *StripeDataConfig* objects with the properties shown above. The *FieldConfig* property is a list of *FieldInfo* objects that provide a name for the field and some instructions to extract and format the data.

The released zip file presently contains an Australia Medicare card configuration and a PEI Health card configuration. These can be used for reference when building additional configurations.

### Field Names

The following case sensitive field names are given special meaning:

- LastName – The patient's last name.
- FirstName – The patient's first name.
- MRN – If present, will be displayed as the patient ID and used to trigger an MRN search.
- BirthDate – The patient's date of birth.
- PolicyNumber – If present (and in the absence of MRN), will be displayed as the insurance policy number and used to trigger a "StartsWith" type policy number search for a specific carrier code.
- IssueNumber – If present, will be displayed along with the Policy Number. It is not included in the policy number search. If an insurance policy is recorded in RIS that includes the Issue Number as a suffix, searching by Insurance Policy StartsWith should still include a match.
- CarrierCode – Will be used together with the insurance policy for an insurance policy search. The carrier code will be displayed in the upper right search criteria area. Note that the packaged zip file presently includes the carrier code of "Australia Medicare," but this can be configured by service with a text editor (see MagneticStripeConfig.xml).

### Clipboard Conveniences

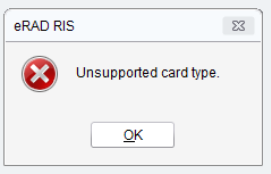
When a code is successfully detected by RIS, if the parsed fields contain an MRN, it will be copied to the clipboard. If there is no field called MRN but both PolicyNumber and IssueNumber exist, those numbers are copied to the

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

clipboard. If there is only a PolicyNumber, then PolicyNumber is copied to the clipboard. This data can then be pasted into a field if desired.

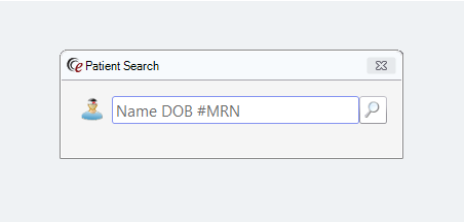
## Unrecognized Swipe Cards

If the user swipes a card that has a magnetic stripe that is not in one of the expected formats, a message will be displayed to the user:




## Patient Search

If the Card Swipe or Patient ID search is unsuccessful, users now have the ability to click the Patient Search button in the top right portion of the screen.




Rather than requiring the user to enter name and date of birth in different fields, Identify Patient's Patient Search uses an approach similar to the Quick Search box in the upper right hand corner of RIS. The user can enter partial name and DOB or MRN and see a list of matching patients; and the search results are categorized to show patients with exams today at the top.

Because this query with information on today's exams is heavier weight than the simple patient search, there are minimum requirements on the search criteria in order to ensure more specific results. The user is required to enter either the MRN with a # prefix, or enter at least part of the last name, part of the first name and the patient's date of birth. The full name portion of the search criteria needs to include at least 5 characters total with at least two characters in the first name and at least two characters in the last name.

Examples of valid search criteria are:

Jo Doe 040477

Doe, John 04-04-1977

#00836725

The Patient Search dialog can be dismissed by pressing the Escape key or clicking the X in the upper right of the dialog.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #15475 – PROVIDE AN ALERT IN RIS WHEN A PRIOR BALANCE EXISTS IN AN EXTERNAL BILLING SYSTEM

Customers have requested that eRAD RIS support the ability to receive messages from an external billing system in order to notify RIS users that an outstanding balance exists for the patient. This can now be supported using the Validation Rules capability.

An external billing system can now update a new Outstanding Balance field in the eRAD RIS database with a Y or N value via HL7. A validation rule has been added that will display an alert when the patient is marked as "Checking In" if a prior balance exists in the billing system.

The following alert will display to the RIS user: "Patient has an outstanding balance. Please review before proceeding with registration." The timing and content of the alert can be adjusted to match customer preferences.

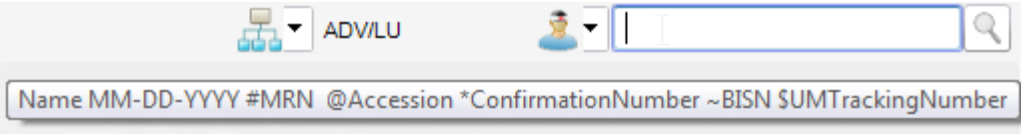
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #14796 – ABILITY TO SEARCH BY BISN IN QUICK SEARCH

This feature is for customers using Imagine Billing. The BISN (Billing Interface Serial Number) used in the Billing Confirmation workflow should be searchable using the Quick Search. This will enable a user to quickly find a record when they only have a BISN.

To trigger this type of patient search, simply type a tilde (~) character before the number.

Hovering over the Quick Search box will provide a list of the search type indicators.



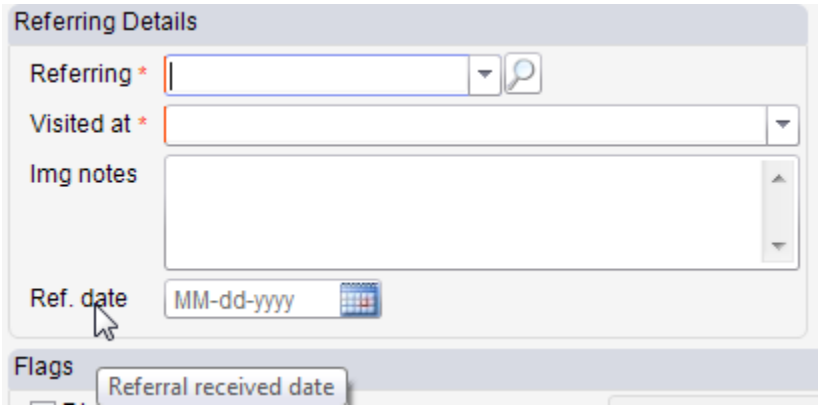

The search will bring up the Patient Folder for the matching patient and the exam row corresponding to the BISN will be highlighted.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #16603 – COLLECT THE DATE A REFERRAL WAS RECEIVED

In some markets, it is important to record the date that a referral was received from the patient's provider. In fact, in some areas it is even required that this date be provided in the billing file. A new field has been added to the Referring Details panel to capture the date when the patient received the referral from the doctor.

The field has an abbreviated label of "Ref. date" and the tool tip displays the full label for the field: *Referral Received Date*.



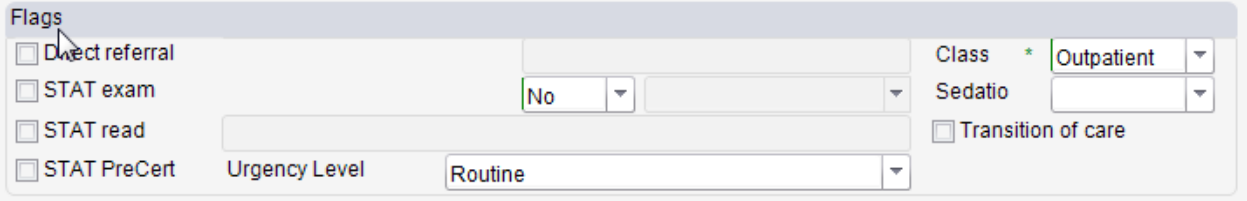

The date is manually entered into this field. It is possible to create a validation rule to require the field, if desired.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

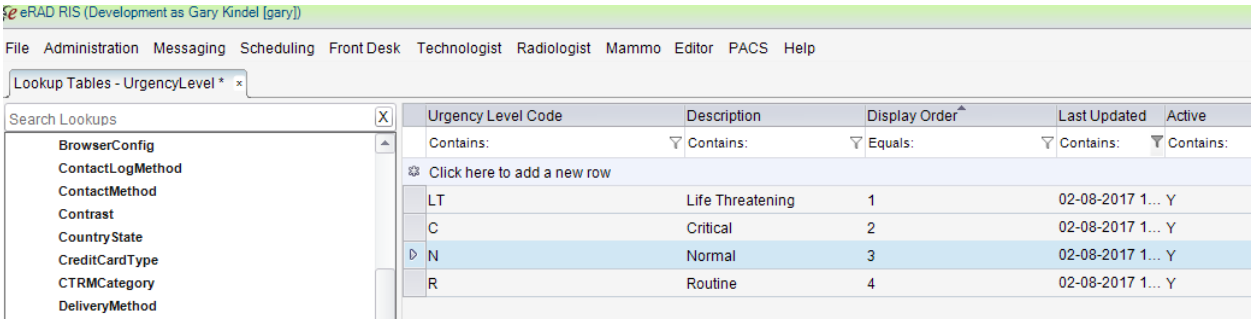
## FEATURE #15806 - SUPPORT A CONFIGURABLE URGENCY LEVEL

For hospital workflow, the existing fields for "STAT Read" and "STAT Exam" are not flexible or specific enough. There is a need to capture and display an "Urgency Level" at an Order level. This will allow customers to define their own specific levels of urgency that can then be displayed on worklists and sorted according to severity.

To this end, a new data field called *Urgency Level* has been added to Order tab within eRAD RIS. The data field has a dropdown control allowing a user to select from a configured list of urgency level values.




The options available in the dropdown are defined in a new lookup table, also labeled Urgency Level. When adding items to this configuration table, it is important to define the Display Order. This not only controls the display order in the field's dropdown, but also the sort order on the worklists. Display Order should be defined so that the most urgent option has a display order of 1.

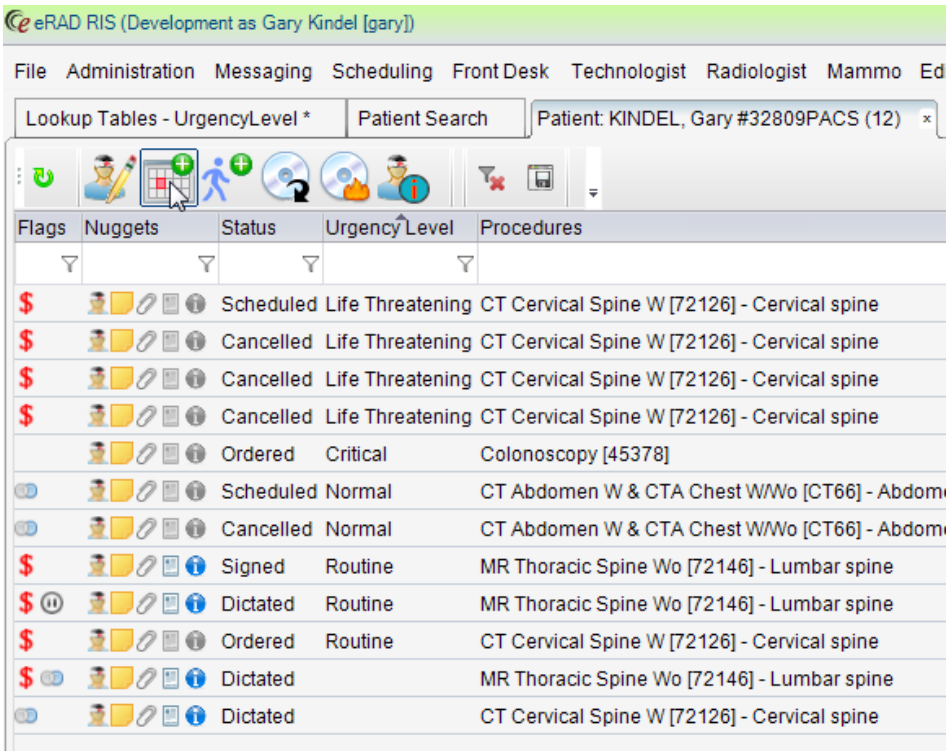



If an Urgency Level is selected for a patient's order, it will be displayed in a new column labeled Urgency Level available on the following worklists:

- Orders to Schedule WL
- Technologist WL
- Reception WL
- Pending Dictation WL
- All Pending Dictation WL
- Reports Drafted WL
- All Reports Drafted WL
- Activity WL
- Patient Folder

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

As mentioned above, when sorting this column, RIS will refer to the Display Order and sort according to this setting, instead of sorting alphabetically.



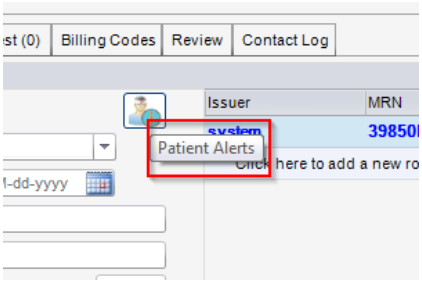

A new access string has been created to grant the appropriate users permission to edit the Urgency Level configuration table: *Config.LookupEditor.UrgencyLevel* (default = None).

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

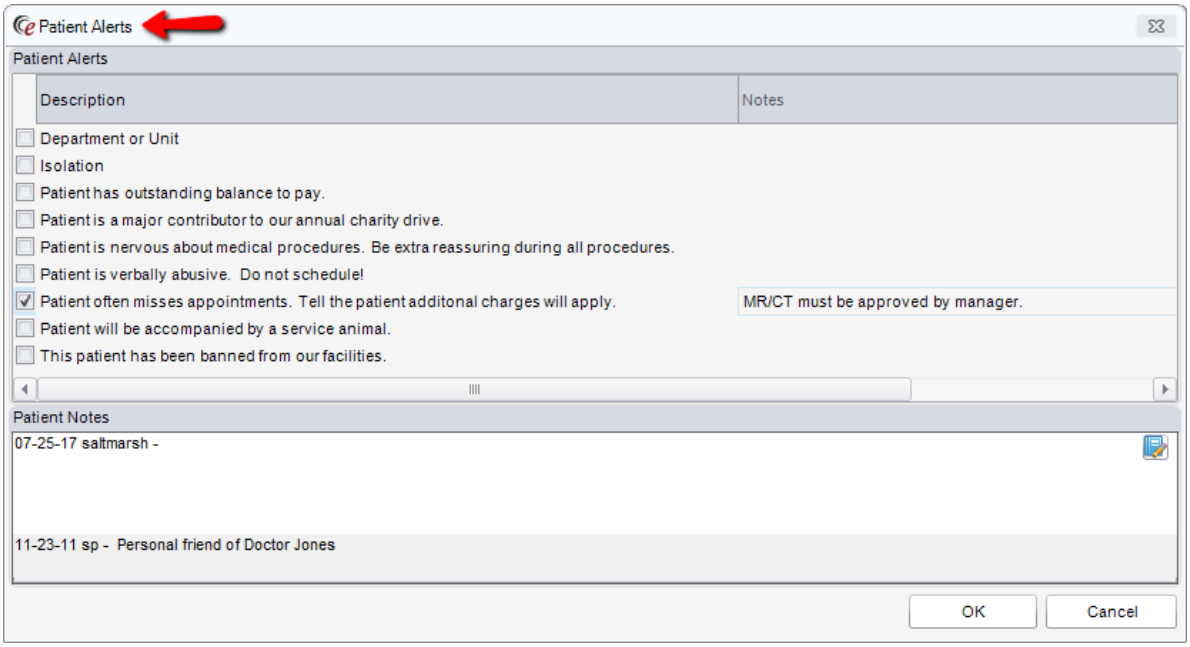
## FEATURE #11864 – "PATIENT FLAG" FUNTIONALITY IS NOW CALLED "PATIENT ALERTS"

eRAD RIS has the ability for users to add information about a patient that can be displayed to the user as a pop-up notification when the patient's order or exam is opened. This was previously known as "Patient Flags." The name did not accurately represent the intention of this feature, which is to ***alert*** the user about key information related to the patient. For this reason, the existing feature set has been renamed to "Patient Alerts."

The tool tip on the button has been updated:




The title on the selection screen has also been updated:




The configuration table is temporarily still labeled with the underlying database label of Patient Flag, but this will be updated in a future build.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #9202 – NEW ACCESS STRINGS FOR APPOINTMENT BOOKING

In eRAD RIS, there are four different types of appointment slots that are outside of the routine:

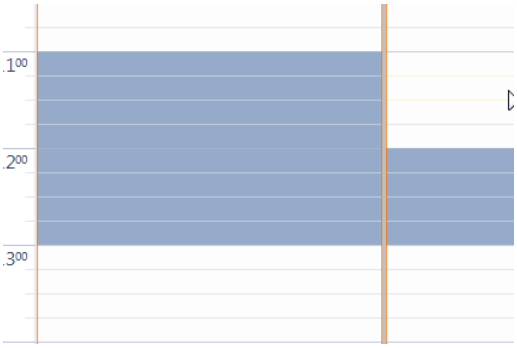
1. Room Closure
2. Holiday
3. Unavailable (outside of the configured hours for the room)
4. Restricted (configured to indicate to the scheduler that only certain appointments can be scheduled in a particular slot)

It may be undesirable to allow certain schedulers to access one or more of these special types of appointment slots. For instance, perhaps a new scheduler would be allowed to schedule in Restricted time slots, but not holidays, or times when the room is closed due to business hours or holidays. A scheduling manager may need to book in any of these slots on a case by case basis. To allow for this type of flexibility, new access strings have been added to allow or disallow users to schedule in unavailable, modality restricted, modality closed or holiday time slots.

The access strings will determine whether a given user can schedule using the Appointment Book, by manually entering the room/date/time in the scheduling screen, or by using the calendar view in the scheduling screen. All access strings are configured with defaults that replicate previous functionality, which can be adjusted to provide the desired permissions.

**Room/Modality Closure:**

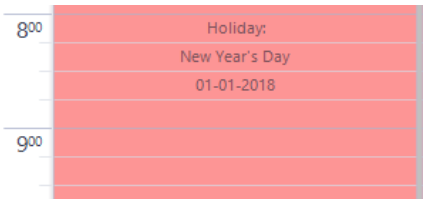
Access string *Clinical.Schedule.AllowManualSchedulingInUnavailable* must be set to FULL to schedule in unavailable time slots, which are time slots that are outside of the room's normal business hours. These time slots appear in blue in the appointment book. The default setting is FULL (scheduling ***is*** allowed).




**Holiday:**

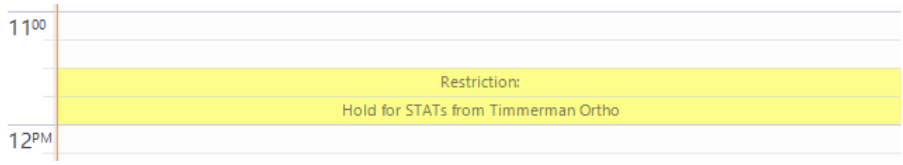
Access string *Clinical.Schedule.AllowManualSchedulingInHoliday* must be set to FULL to schedule in the Holiday time slots. These time slots appear pink in the appointment book. The default setting is NONE (scheduling ***not*** allowed).

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.



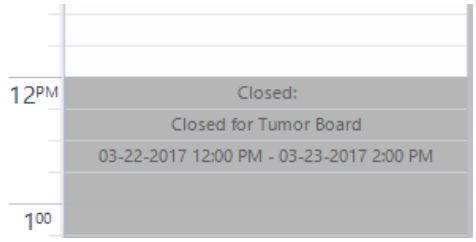

**Restriction:**

Access string *Clinical.Schedule.AllowManualSchedulingInRestricted* must be set to FULL to schedule in modality restricted time slots. These time slots appear yellow in the appointment book. The default setting is FULL (scheduling ***is*** allowed).



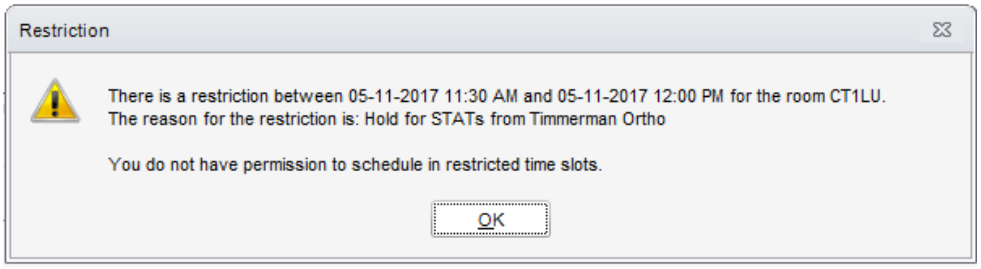

**Closures:**

Access string *Clinical.Schedule.AllowManualSchedulingInClosed* must be set to FULL to schedule in closed time slots. These time slots appear gray in the appointment book. The default setting is NONE (scheduling ***not*** allowed).




If a user without full permission to the applicable access string chooses an unavailable time slot, the user will receive an error that the room is unavailable and will not be able to schedule.

Modality Restrictions will continue to display the reason for the restriction, but without the appropriate permission, the user will be informed that they cannot schedule in restricted time slots.



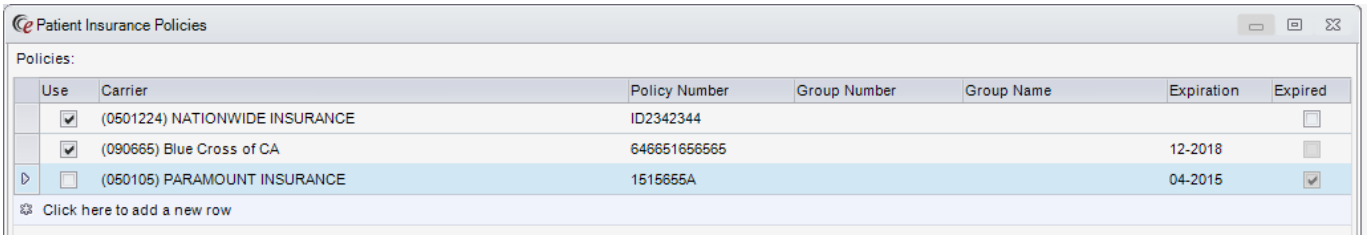

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## INSURANCE

### FEATURE #16074 - INSURANCE POLICY EXPIRY DATE NOW AVAILABLE ON THE MANAGE POLICIES SCREEN

Some insurance policies have a listed Expiry Date which would be beneficial to collect on the Manage Policies screen. In fact, in some markets, the Expiry Date is required for billing.

To accommodate this, a new column, *Expiration*, has been added in the Policies grid on the Manage Policies screen. This is an optional field with a date format of MMYYYY. It can be displayed to the user as MM-YYYY or MM/YYYY depending upon whether "-" or "/" is used in the *DateFormat* System Configuration setting.




If an Expiry Date has been entered, RIS will now control whether the policy has expired and will prevent the user from using an expired policy. Each time the Manage Policies screen is opened, a new evaluation of the Expiration date will be performed and the Expired checkbox will be checked accordingly. Cards expire at midnight on the last day of the month entered as the expiry date.

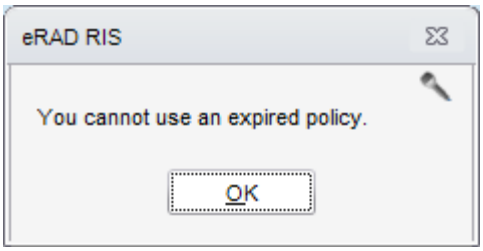
Because the RIS is responsible for evaluating whether the policy is expired when a date has been entered, the Expired checkbox will be Read Only when a date has been entered in the Expiration column. If the patient's policy has a new expiry date, the user can update the expiration to a future date and the check will be removed from the Expired column.

Policies without an Expiration listed can still be manually expired (or un-expired) by checking the box.

When entering Expiration dates the user can enter MMYY, MMYYYY, MM-YYYY, MM-YY, MM/YY, MM/YYYY and many other variations where the month and year are separated by any non-numeric character. The RIS will attempt to parse the date and display it in a MMYYYY format.

If the user attempts to use a policy that has been expired, a warning will be issued and the policy cannot be selected.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

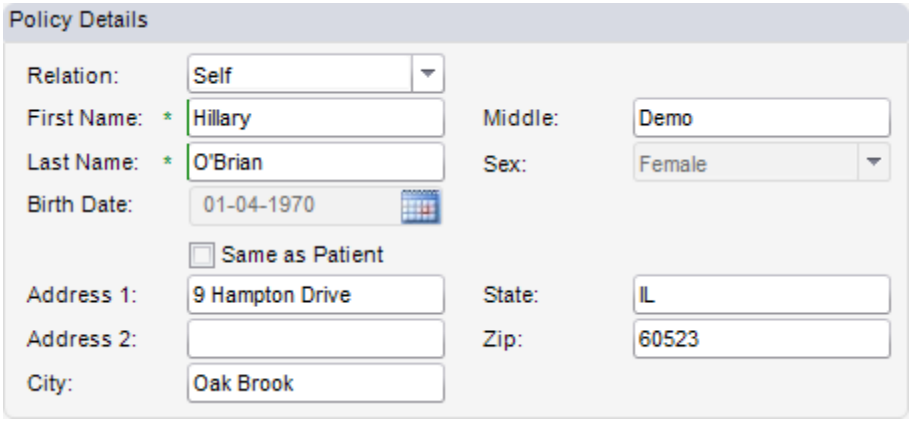



Updating the Expiration to a future date will make the policy available for use.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #16523 – STORE INSURANCE CARRIER'S PATIENT DATA WHEN PATIENT IS NOT SUBSCRIBER

This feature is for customers using the integration with Eligible API. When the patient is the subscriber to the insurance, we update the demographic information in the Policy Details section as it is known by the insurance carrier. For example, if we send the patient's name as "Hillary O'Bryan" and the message from Eligible API indicates that the insurance carrier has the last name as "O'Brian," the Policy Details screen will automatically update to store the version that matches the insurance policy.




When the patient is ***not*** the subscriber, the information in the Policy Details section is for the policy holder, so there was not a place to store the insurance version of the *patient's* information. eRAD RIS can now store this information in the background, so that the insurance carrier will receive the matching information when the study is billed. In the database, eRAD stores the last known patient information for the policy, including the patient's first name, last name, middle name, birth date and gender. If the carrier changes, these fields will be cleared until they are updated with the information from the new carrier, if applicable.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## UTILIZATION MANAGEMENT

### FEATURE #15435 – CONFIRMATION WARNING MESSAGE FOR SCHEDULERS

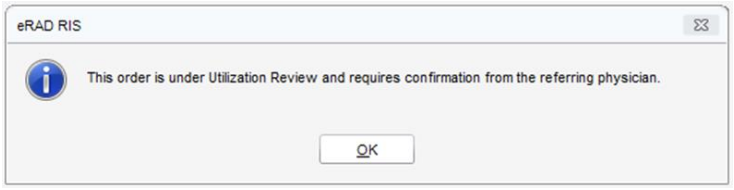
During the utilization review process, there can be certain scenarios that require confirmation from the referring physician before the order can proceed to be scheduled. For example, if the UM nurse or doctor recommends an alternative or additional procedure, confirmation by signature is required.

The confirmation workflow is determined by the Confirmation Required Flag in the UM Resolution look-up table. For example, "Recommended as Alternative" would typically have this flag enabled.

As soon as the ordered procedure is marked as "Recommended as Alternative," eRAD RIS determines that this is a **final** status and advances the UM Flag from UM Required to UM Complete—even though confirmation has yet to be received. The reason behind this logic is that the reviewers are done with the review at this point. The clock stops and the order drops from the Utilization Management worklist.

The Schedule functionality is disabled until confirmation is received. However, it is beneficial to notify schedulers that the order is waiting for confirmation when they open the schedule screen. This will help the user understand why scheduling is disabled.

RIS will now prompt the user:



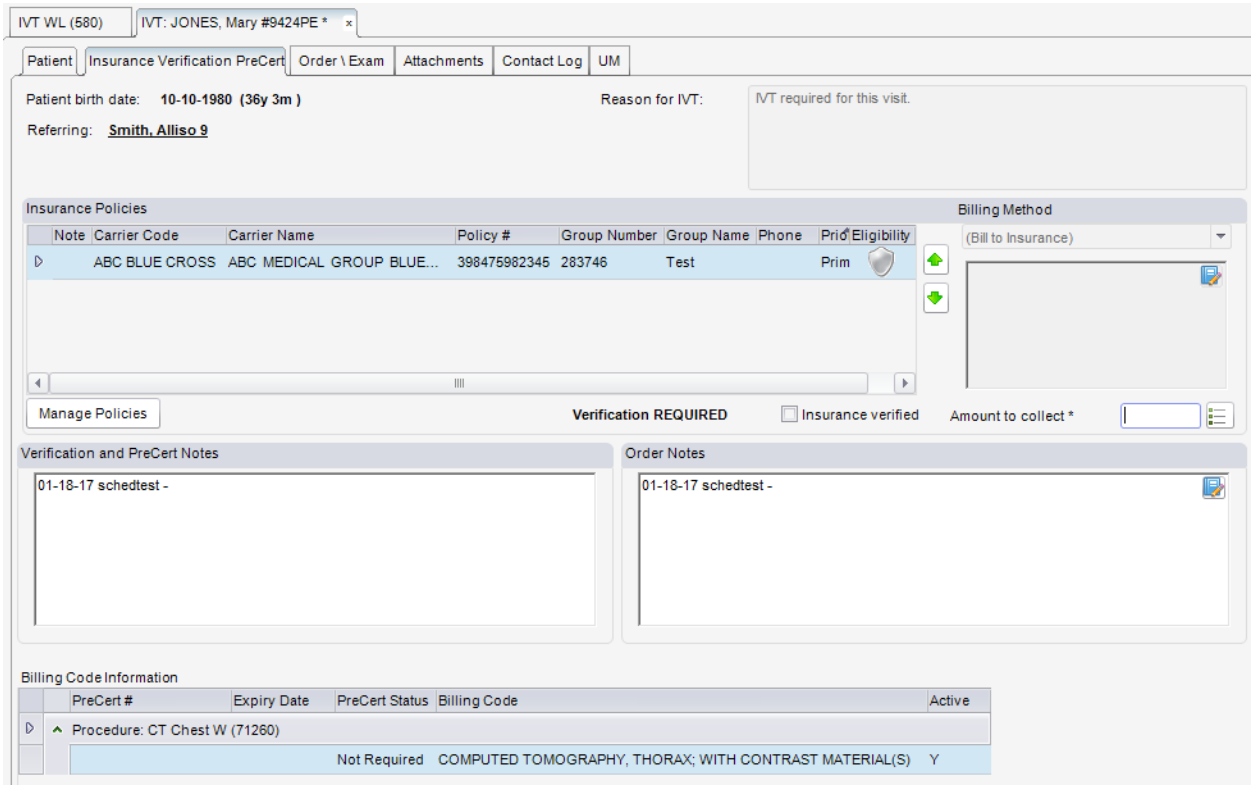

Once confirmation is received either from the inbound document workflow, verbally, or via the provider portal, the order can be scheduled.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #15892 – TRIGGER UTILIZATION REVIEW FROM THE IVT SCREEN

The eRAD RIS Utilization Management (UM) workflow is driven by the primary insurance that belongs to the order. Often orders will come into RIS either manually, from EMR integration, or eventually through the provider portal, *without an insurance carrier* assigned. RIS can be configured to push orders missing a primary insurance to the IVT Worklist. The IVT user will enter the insurance information at this point. It is important that a UM check takes place at this time and a visual indicator is supplied to the IVT user if review is required.

The eRAD RIS IVT screen now has the ability to trigger the UM workflow (UM Required Flag) based on an insurance addition or modification. To make the UM tab appear without a valid study assigned, the IVT screen will now show the UM tab based on the state of the UM Required Flag for the order. Once the insurance is added or modified, the system will review the value of the UM Required Flag and show the UM tab dynamically. This will allow the IVT user to see that UM is required for the insurance they have added or modified.




The IVT user can view the UM tab as Read Only, unless they have UM permissions. The UM Required flag will also appear on the IVT WL.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #15219 – EXCLUDED EXAMS WORKFLOW

Capitation contracts with medical groups often contain procedures which are listed as "excluded." This means that the procedure is excluded from capitation and the service is not available unless authorized by the medical group. eRAD RIS can now prevent scheduling or registration for any excluded procedures, unless a manager override is obtained. There is also an option to configure warning messages for other UM coverage types.

The eRAD RIS Utilization Management solution contains the authorization rules by medical group that determine which billing codes require utilization review. Although an excluded billing code typically does not require utilization review and the order will not be pushed to the Utilization Management Worklist, the UM solution will be utilized to identify excluded procedures.

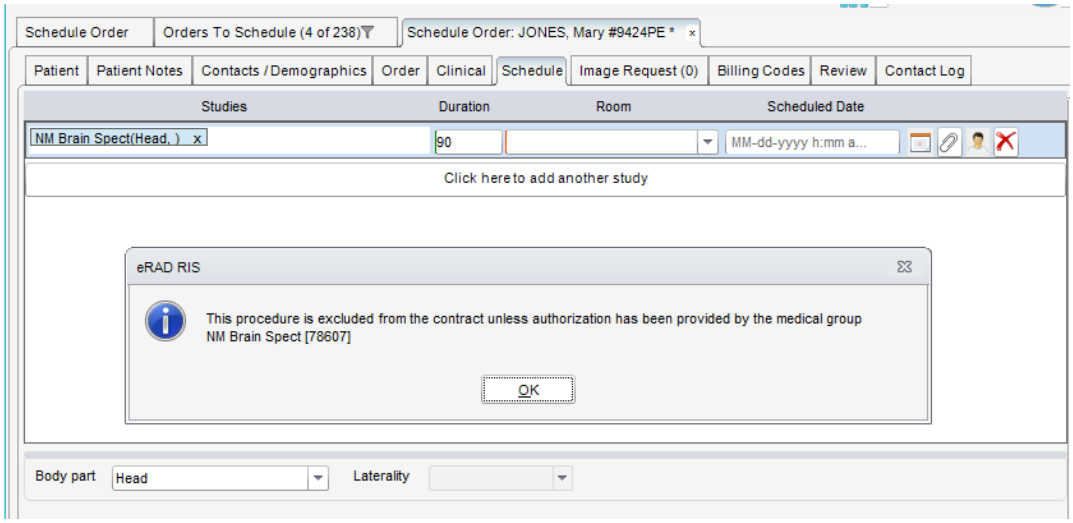
The UM Coverage look-up table in eRAD RIS has been enhanced with the following two additional columns to drive the new workflow:

1. **Schedule Warning Type** – The following two options are available:
    a. **Prevent** – A warning message is displayed and the user is *prevented* from scheduling the procedure.
    b. **Prompt** – A warning message is displayed and the user is *allowed* to schedule the procedure.
2. **Schedule Warning Content** – The language content of the warning that is displayed to the scheduling user.

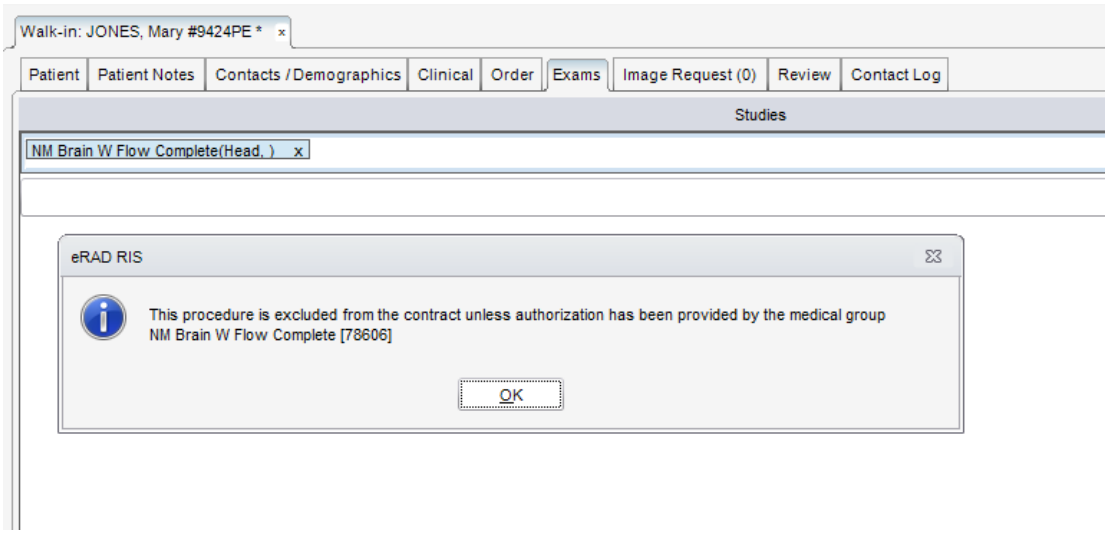
| Um Coverage Code | Description | Schedule Warning Type | Schedule Warning Content |
|---|---|---|---|
| Contains: | Contains: | Contains: | Contains: |
| Click here to add a new row | | | |
| A | Capitated service, authorization required | Prompt | This procedure requires utilization review per the medical group. |
| FFS | Fee for service, authorization required | Prompt | This procedure is fee for service for the medical group. Ensure proper authorization has been received |
| EX | Excluded | Prevent | This procedure is excluded from the contract unless authorization has been provided by the medical group |
| CAP | In Cap | | |
| FFS_N | Fee for service, authorization not required | | |
| IN | In Cap | | |
| TBD | To be determined | | |
| X | Capitated service, direct referral (no authorization required) | | |

If the user is a RIS Administrator or has the *Clinical.UtilizationManagement.ScheduleOverride* permission, scheduling will not be prevented; however, the warning message will still be presented.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

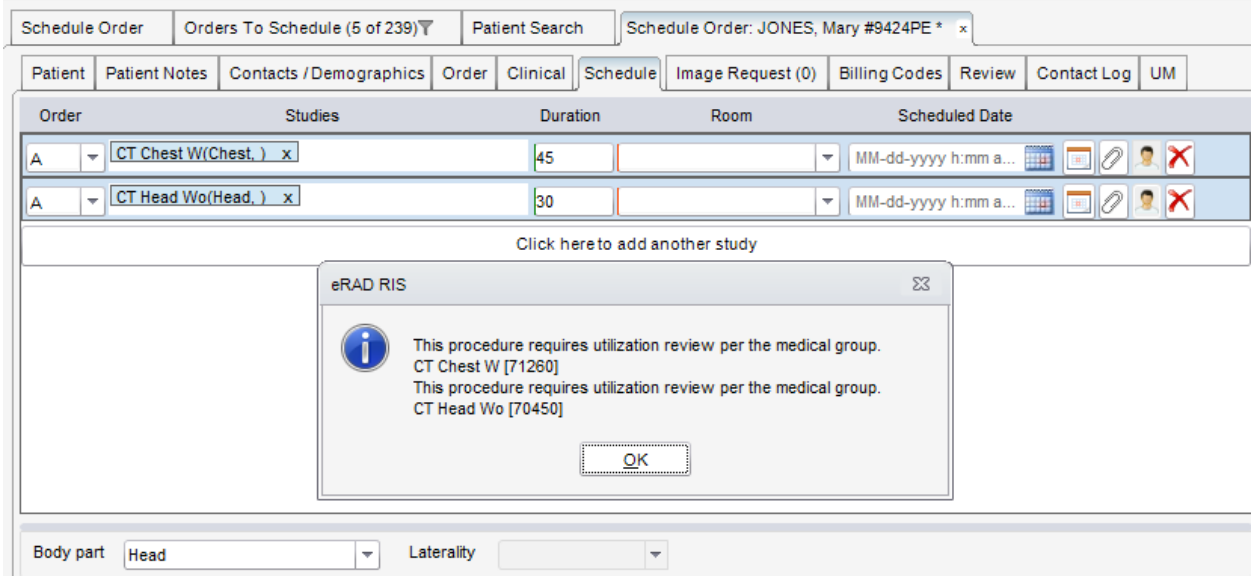



This framework is also utilized by the Registration screen to account for Walk-ins or added procedures. The front desk user will not be permitted to Arrive or Check-In the patient if a configured Excluded procedure is added. However, saving is still permitted.




The following is an example of utilizing the feature to provide a warning for a different UM Coverage Type, in order to inform the scheduler that authorization is required:

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.




When configuring Schedule Warnings in the UM Coverage look-up table, if a Schedule Warning Type is configured, the Schedule Warning Content becomes a required field.

The Utilization Management module must be enabled to utilize this functionality.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## CEHRT

Certification of Electronic Health Records Technology (CEHRT) is a program that defines standards of performance that must be met in order to be considered a Certified EHR. eRAD RIS is certified under version 2014, which (despite the misleading year) is the version under which EHRs must *currently* be certified in order to maintain their Certified EHR status. The standards for the latest version (2015) are available and eRAD RIS is preparing to obtain this latest certification by undergoing a testing process with an authorized certification body. Some new features related to the standards for version 2015 will be merged into the commercial RIS after certification has been completed. However, some components can be added now, in preparation for the certification testing. The following features have been added to the current eRAD RIS build as part of this effort.

### FEATURE #16009 – MODIFICATIONS TO AUDIT LOG MANAGEMENT REPORT

The CEHRT requirement for 170.315(d)(3) states that the system must generate an audit report for a specific time period.

The system must also provide the ability to sort the following data elements in ascending or descending order:

- Date and time of event
- Patient identification
- User identification
- Type of action
- Identification of the patient data that is being accessed

The existing Audit Log management report in eRAD RIS has been modified to support the above requirement. Interactive sorting capabilities have been added to the table header. The User ID column has been removed, as only one user can be selected in the User parameter. Patient ID (MRN) and Patient Name columns have been added. This will allow the user to sort by either MRN or Name.

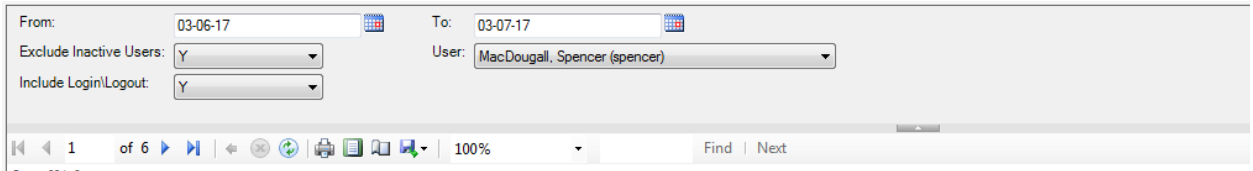
The revised Audit Log management report supports the following parameters:

- Date Range – This is based on the last updated date for the audit log entry.
- Exclude Inactive Users – This will filter the User(s) parameter by eliminating any users that are flagged as inactive in the RIS.
- User – The selected RIS users for which the Audit Log report is being generated.
- Include Login\Logout – Determines if Login and Logout audit events will be included in the report.

The columns represented in the Audit Log management report are as follows:

- Date\Time – This is the date and time the audit event was last updated.
- Patient ID – The ID or MRN of the audited patient.
- Patient Name – The last name and first name of the audited patient.
- Description – A description of the audit event.
- Audit Action – How the data was accessed or modified.
- Changes – A detailed description of what data was modified, if applicable.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.




## Audit Log

**Date Range:** 03-06-2017 - 03-07-2017
**User:** MacDougall, Spencer (spencer)
**Description:** This report displays the audit information for the period and user specified.

| Date\Time | Patient ID | Patient Name | Description | Audit Actions | Changes |
|---|---|---|---|---|---|
| 03-06-2017 9:18 AM | | | Login | Login | |
| 03-06-2017 9:19 AM | 9424PE | Jones, Mary | UI_OrderRetrieved_UtilizationManagement | Query | |
| 03-06-2017 9:22 AM | | | Logout | Logout | |
| 03-06-2017 10:31 AM | | | Login | Login | |
| 03-06-2017 11:10 AM | | | Login | Login | |
| 03-06-2017 11:45 AM | | | Login | Login | |
| 03-06-2017 1:36 PM | | | Login | Login | |
| 03-06-2017 1:36 PM | 9424PE | Jones, Mary | Patient retrieved | Query | |
| 03-06-2017 1:38 PM | | | Login | Login | |
| 03-06-2017 1:48 PM | 9424PE | Jones, Mary | Patient retrieved | Query | |
| 03-06-2017 1:48 PM | 9424PE | Jones, Mary | Patient retrieved | Query | |
| 03-06-2017 1:48 PM | 9424PE | Jones, Mary | Patient retrieved | Query | |
| 03-06-2017 1:48 PM | 9424PE | Jones, Mary | Patient retrieved | Query | |
| 03-06-2017 1:49 PM | 9424PE | Jones, Mary | Patient retrieved | Query | |
| 03-06-2017 1:49 PM | 9424PE | Jones, Mary | Patient retrieved | Query | |
| 03-06-2017 1:49 PM | 9424PE | Jones, Mary | Patient retrieved | Query | |
| 03-06-2017 1:51 PM | 9424PE | Jones, Mary | Order submitted | Order submitted | <Changes><AddedRows><c_visit /><c_visit_x_patient_insurance /></AddedRows></Changes> |
| 03-06-2017 1:51 PM | 9424PE | Jones, Mary | Order submitted | Order submitted | <Changes><AddedRows><c_order /><c_order_item procedure_code="71260" /><c_order_item procedure_code="70210" /><c_order_item_certification /><c_order_item_certification /></AddedRows></Changes> |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #16371- AUTOMATED MEASURES MANAGEMENT REPORTS WILL CALCULATE STATISTICS FOR EDUCATION RESOURCES USING 2017 ACI TRANSITION MEASURE CRITERIA

eRAD RIS has three management reports that are related to CEHRT: "Automated Measures," "Automated Measures by Radiologist" and "Automated Measures Raw Data." A new stored procedure has been created to calculate statistics for these reports differently for *2017 ACI Transition Measures*. There is a filter on the Management reports that can be selected to run the report using this methodology. Currently this filter is labeled *Stage 3*.

The changes in this feature are related to the requirement for eRAD RIS to identify patient-specific education resources based on the patient's appointment. When Stage 3 is selected, the management reports will provide statistics displaying whether these education resources were provided to the patient for all exams/patients seen by the reporting radiologist during the reporting period. Under the current certification, these reports only count the number of patients given patient-specific education for procedures that were identified as "office visits" by the associated billing codes. After selecting the new Stage 3 option, these management reports will calculate statistics according to the following numerator (number of patients meeting the criteria) and denominator (all possible patients):

**Numerator**: Any unique patient seen by the reporting radiologist where either the Prep Instructions Reviewed checkbox has been checked ***or*** the Provided Educational Resources checkbox on the Documentation tab has been checked.

**Denominator**: Any unique patient seen by the reporting radiologist during the reporting period.

When the Prep Instructions Reviewed checkbox or the Provided Educational Resources checkbox has been checked, the system will automatically capture patient-specific education resources as a numerator/denominator for the measure.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

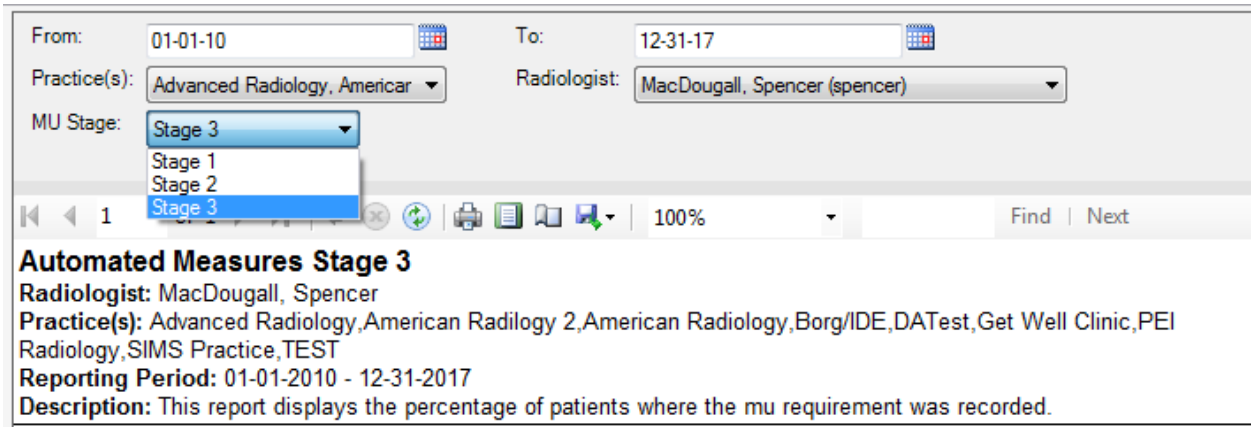
## FEATURE #16541 – AUTOMATED MEASURES REPORTS NOW INCLUDE SUB-REPORTS WITH PATIENT DETAILS

The CEHRT Automated Measures Report allows a provider to track which measures have been met. The report displays the numerator, denominator, percentage of the criteria the provider has met, and the threshold required to meet the measure.

The CEHRT requirement for 170.315(g)(2) states that the system must also provide details for the numerator and denominator values in the Automated Measures report.

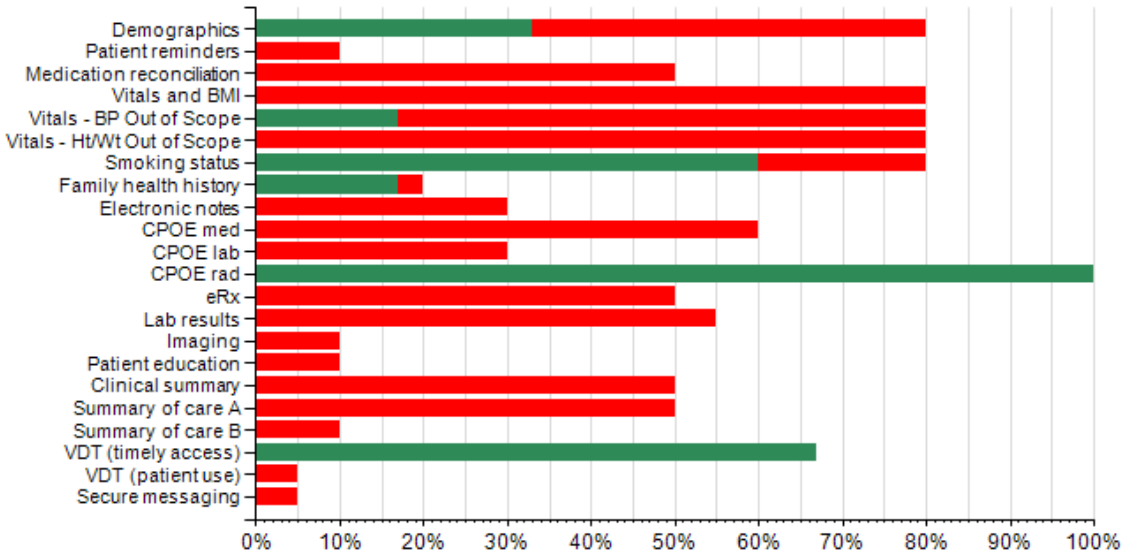
The following core Management Reports in eRAD RIS have been updated to include a "Stage 3" option in the MU Stage parameter:

- Automated Measures
- Automated Measures by Radiologist
- Automated Measures Raw Data




Both the *Automated Measures* and *Automated Measures by Radiologist* reports have been updated to include drill down capabilities to provide the necessary study details for the numerator and denominator, as well as the list of patients that make up the numbers. Clicking the blue hyperlinks, seen in the image below, will load the sub-report.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.




| Meaningful Use Measure | Numerator | Denominator | % | Goal | Pass/Fail |
|---|---|---|---|---|---|
| Demographics | 2 | 6 | 33.00% | 80% | |
| Patient reminders | 0 | 0 | 0.00% | 10% | |
| Medication reconciliation | 0 | 0 | 0.00% | 50% | |
| Vitals and BMI | 0 | 6 | 0.00% | 80% | |
| Vitals - BP Out of Scope | 1 | 6 | 17.00% | 80% | |
| Vitals - Ht/Wt Out of Scope | 0 | 6 | 0.00% | 80% | |
| Smoking status | 3 | 5 | 60.00% | 80% | |
| Family health history | 1 | 6 | 17.00% | 20% | |
| Electronic notes | 0 | 6 | 0.00% | 30% | |
| CPOE med | 0 | 0 | 0.00% | 60% | |
| CPOE lab | 0 | 0 | 0.00% | 30% | |
| CPOE rad | 2 | 2 | 100.00% | 30% | |
| eRx | 0 | 0 | 0.00% | 50% | |
| Lab results | 0 | 0 | 0.00% | 55% | |
| Imaging | 0 | 0 | 0.00% | 10% | |
| Patient education | 0 | 0 | 0.00% | 10% | |
| Clinical summary | 0 | 0 | 0.00% | 50% | |
| Summary of care A | 0 | 0 | 0.00% | 50% | |
| Summary of care B | 0 | 0 | 0.00% | 10% | |
| VDT (timely access) | 4 | 6 | 67.00% | 50% | |
| VDT (patient use) | 0 | 6 | 0.00% | 5% | |
| Secure messaging | 0 | 6 | 0.00% | 5% | |



The additional sub-report is referred to as *Automated Measures Details*. The user can return to the parent report simply by selecting the "Back" button in the reports title bar.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## Stage 3 Automated Measures Details for Patient education

**Radiologist: MacDougall, Spencer (spencer)**
**Date Range:** 01-01-2010 - 12-31-2017
**Practice(s):** Advanced Radiology,American Radilogy 2,American Radiology,Borg/IDE,DATest,Get Well Clinic,PEI Radiology,SIMS Practice,TEST
**Description:** This report displays the patient specific details used to generate the MU automated measures report.

| Patient Name | Patient ID | Accession # | Practice Code | Scheduled Date | Signed Date | Office Visit | Status Code | Patient Education |
|---|---|---|---|---|---|---|---|---|
| Carter, Jeff William | 4 | | | | | | | |
| | | 1 | ADV | 12-04-2014 | 12-05-2014 | N | Signed1 | N |
| | | 3398 | ADV | 07-20-2015 | 07-20-2015 | N | Signed1 | N |
| | | 4878 | ADV | 10-06-2015 | 11-02-2015 | N | Signed1 | N |
| | | 5105 | ADV | 10-22-2015 | 11-02-2015 | N | Signed1 | N |
| | | 5571 | ADV | 11-02-2015 | 11-02-2015 | N | Signed1 | N |
| Hextall, Ron | 12 | | | | | | | |
| | | 107 | ADV | 03-27-2015 | 06-29-2015 | N | Signed1 | N |
| | | 120 | ADV | 04-17-2015 | 06-29-2015 | N | Signed1 | N |
| Judson, Jenny | 3392 | | | | | | | |
| | | 1896 | ADV | 05-14-2015 | 10-28-2015 | N | Signed1 | Y |
| Obermann, Mary | 654 | | | | | | | |
| | | 4413 | ADV | 08-13-2015 | 09-02-2015 | N | Signed1 | N |
| | | 4510 | ADV | 08-27-2015 | 08-27-2015 | N | Signed1 | N |
| test, a12501 Ben | 893247 | | | | | | | |
| | | 5816 | ADV | 12-04-2015 | 12-04-2015 | N | Signed1 | N |
| Test, IVT | 50 | | | | | | | |
| | | 5108 | ADV | 10-22-2015 | 10-22-2015 | N | Signed1 | N |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

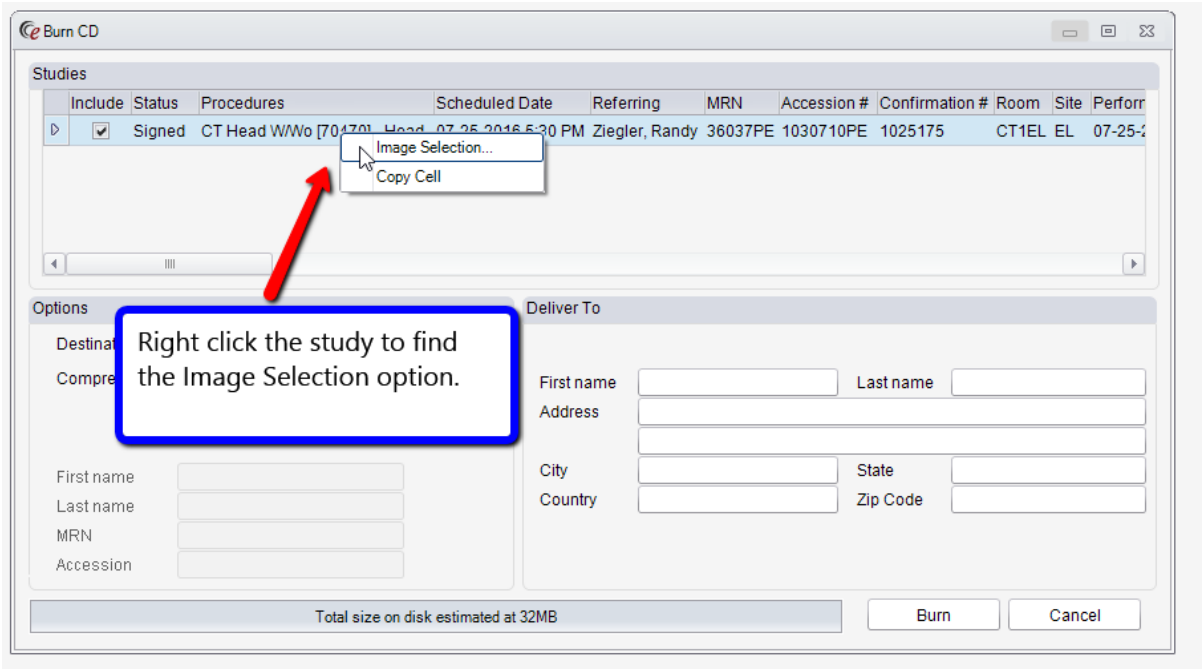
## MEDICAL RECORDS

### FEATURE #7258 – SELECT INDIVIDUAL IMAGES/SERIES WHEN BURNING CDS

The following feature is applicable for customers using eRAD RIS with eRAD PACS.

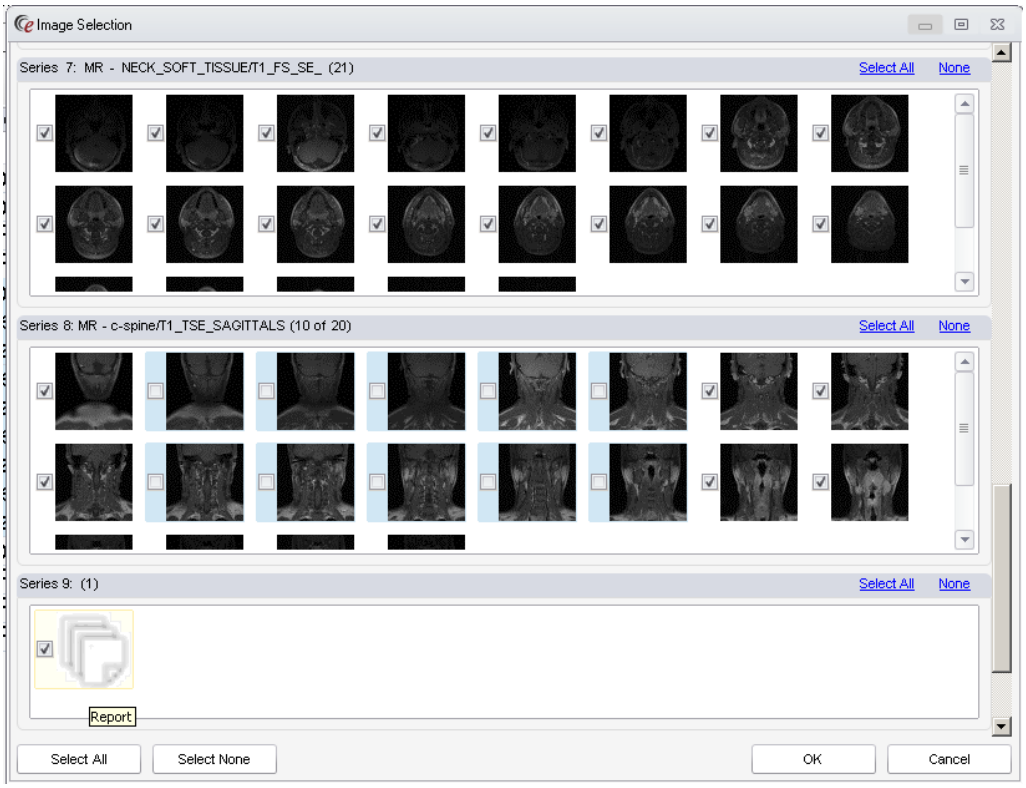
When burning CDs, it is sometimes preferable to select only certain series or images to include. This allows the user to customize the contents of the CD to meet the referring provider's preferences, or to follow an established organizational protocol. It is now possible to specify individual images/series when burning CDs from eRAD RIS.

After opening the Burn CD window, the user will right-click the exam(s) to be included and choose "Image Selection."




The Image Selection screen will open, displaying PACS images in thumbnails that are grouped by series.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.



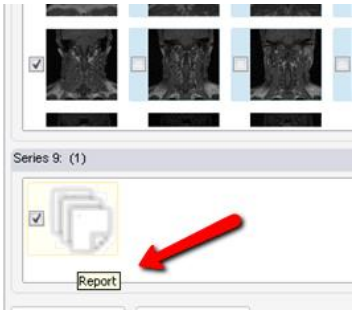

Each series group has a title, which is taken from the PACS study description field. In parentheses after the series name, there is an indication of how many images in that series are selected for burning. In the example above, Series 8 has 10 of 20 images selected. By default, all images in every series will be selected. Selected images have a check in the box to the left of each image thumbnail.

The blue link labeled “None” at the top of each series allows the user to easily uncheck all of the images in that series, in order to re-select the individual images or to remove the series from the CD altogether. Click the blue Select All link to re-select all of the images in the series. The user can also use the mouse to click and drag to select multiple images. Once multiple image thumbnails are selected, highlighted in light blue, click the checkbox to select or deselect the highlighted images.

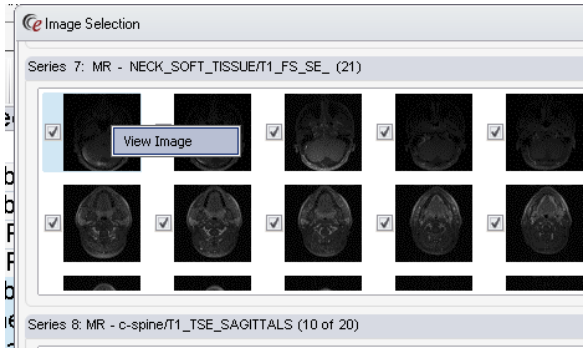
To quickly uncheck, or re-check, all of the images for the entire exam (all series), the user can click the Select All or Select None buttons at the bottom of the Image Selection window.

While most thumbnails in the Image Selection window are for PACS images, some thumbnails may represent other PACS items, such as diagnostic reports. Hovering over a thumbnail will display a tooltip that indicates the thumbnail’s type (e.g. Image, Report or RAWDATA).

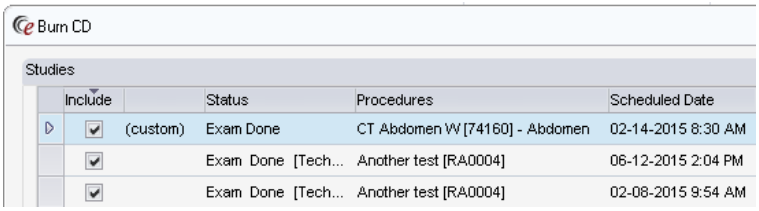
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.




Sometimes, it may be necessary to look more closely at an image to determine whether it should be included on the CD. To see a larger view of the image thumbnail, right-click on the thumbnail and choose "View Image." This will download and display a larger version of the thumbnail.

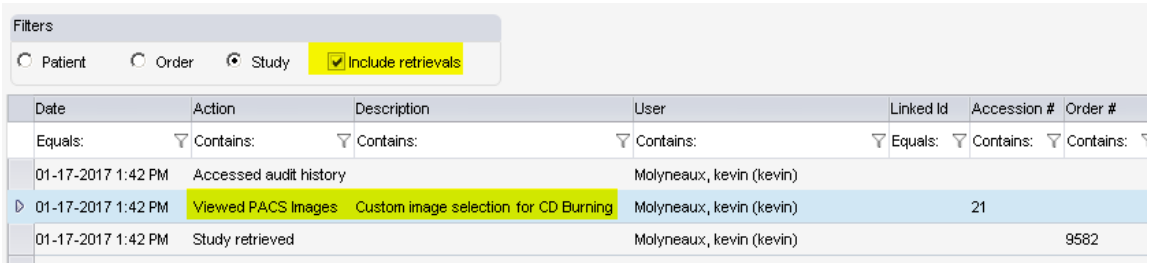



If the user clicks "Cancel" on the Image Selection screen, the image selection will be re-set to what it was before the screen was opened. If the user chooses "OK" after modifying which images to include on the CD, then the Burn CD screen will show a new column with the text "(custom)" to indicate that a custom selection of images will be burned to the CD.




The Image Selection process is recorded in the Audit History.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.




No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

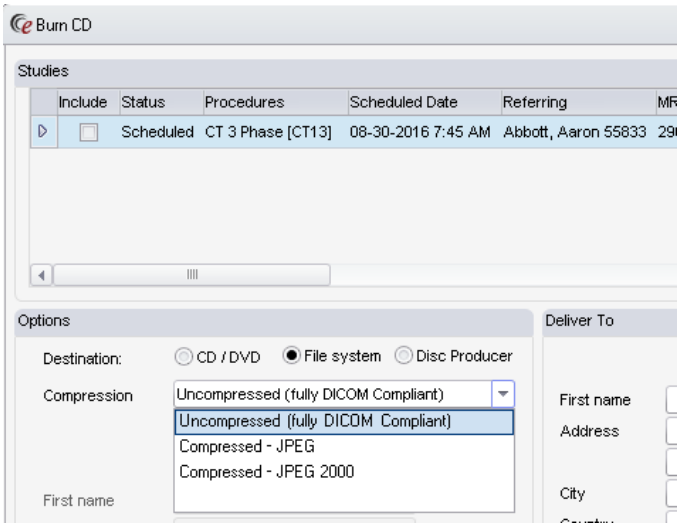
## FEATURE #9368, 12240 – OPTIONS FOR UNCOMPRESSED CD BURNING

This feature is applicable for customers using eRAD RIS with eRAD PACS.

Some physicians or other healthcare institutions require or prefer uncompressed images when reviewing a patient's imaging studies or importing them into an external system. In order to provide this option, eRAD RIS now supports three different compression options, including Uncompressed.

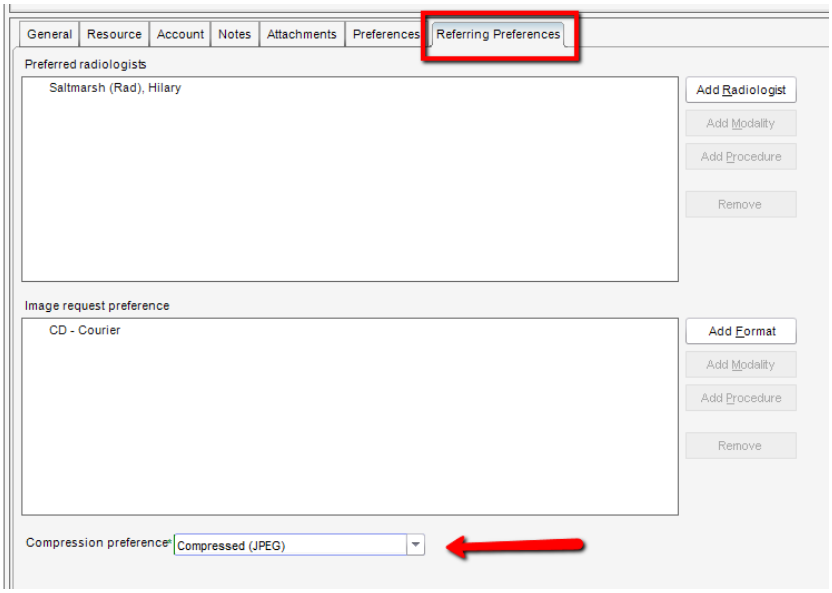
The compression field was added to the Burn CD dialog, as shown in the following image. Users have the option to select between Uncompressed, JPEG and JPEG 2000. In the Personnel editor, a referring physician's preferred Compression format can now be configured. By default, the Compression preference will be set to Compressed – JPEG, which is the compression format that was previously the only option when burning CDs from eRAD. If a referring physician indicates an alternative compression preference, this can be updated accordingly.

When burning a study from a worklist such as Patient Folder or from the Perform Exam screen, the default format for the CD will be based on the referring's preference. The user has the option to change the compression format manually on the Burn CD screen.

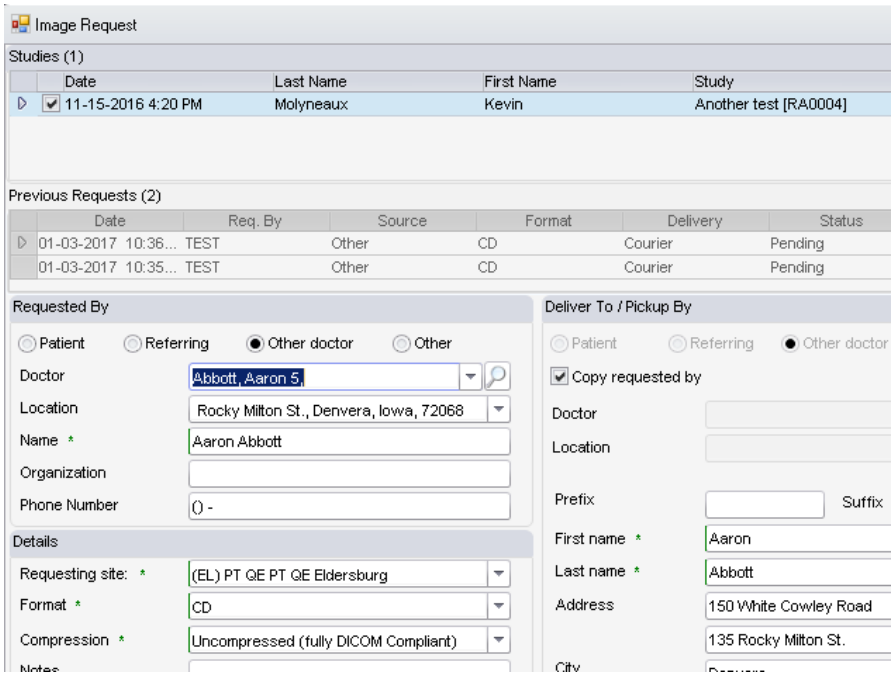



As stated above, at the time of the upgrade, all referring physicians will have "Compressed – JPEG" as their default compression preference. This can be updated in the Personnel table on the Referring Preferences tab.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.




The compression format was also added to the Image Request screen. Again, the compression will default based on the selected study's referring physician's preference. The compression will update if a different referring physician is selected as the recipient and that doctor's compression preference is different.



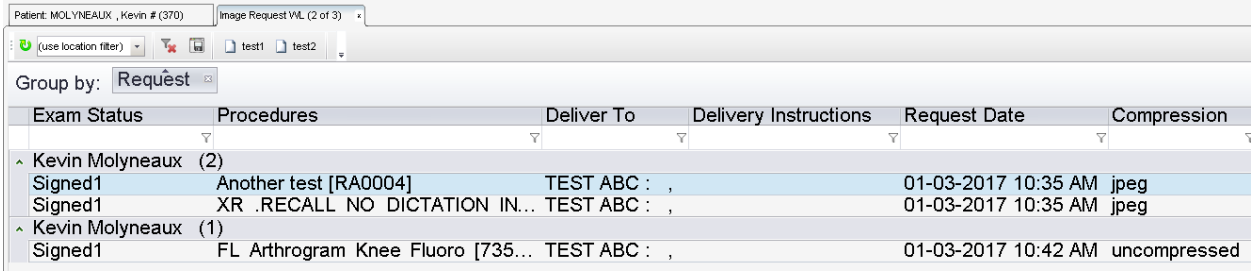

When right-clicking on the Image Request WL and choosing "Burn CD," the default compression will be based on what had been specified in the image request.

If a user selects multiple Image Requests or Studies, the active row at the time of the right click will be used to determine the default compression.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

A CD can only have one compression setting; therefore, the Image request worklist was modified to include compression level in its grouping logic.

For example, in the following image, there are multiple image requests, all going to the doctor “Test ABC.” Two have been requested as Compressed JPEG and the other is Uncompressed.



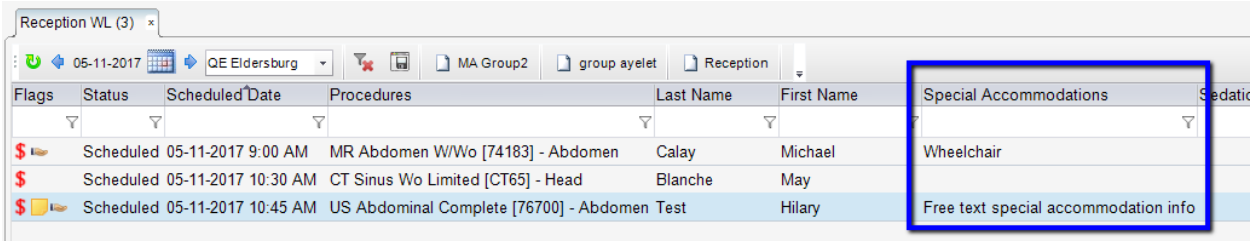

The grouping is there to prevent users from inadvertently trying to burn all three studies on the same CD. Instead, they need to burn two CDs: one for the JPEG compression and another for the uncompressed.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

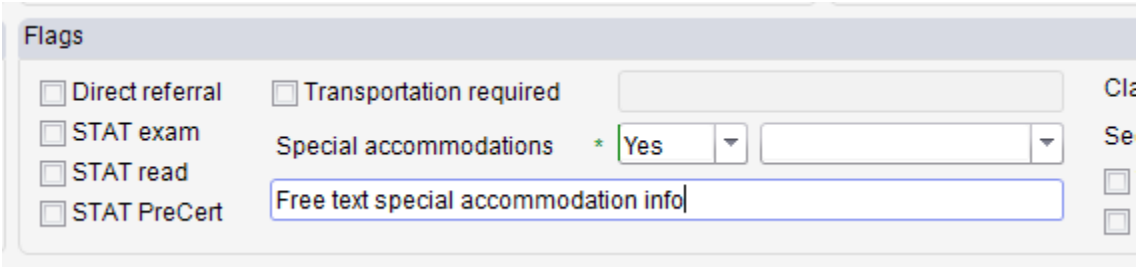
## GENERAL WORKLIST ENHANCEMENTS

### FEATURE #15710 – SPECIAL ACCOMMODATIONS COLUMN AVAILABLE ON WORKLISTS

Some users may find it beneficial to see any Special Accommodations when reviewing patients on a worklist. A new column labeled *Special Accommodations* is now available for the Receptionist, Technologist and Orders to Schedule worklists. This will allow a user to create a custom view to display particular accommodations. For example, a user responsible for making arrangements for translation services may want to have a custom view on the Reception WL to find all of the appointments requiring translation for a given day.




In the blue highlighted row in the above image, there is an example illustrating that it is also possible to display free text special accommodation information from the Special Accommodation Notes field, if the dropdown for the type of Special Accommodation is not selected.




For this to be possible, it would be necessary to disable any validation rules that require the dropdown to be filled in when Special Accommodations is set to Yes. If the type of special accommodation is selected in the dropdown, only this information will be displayed in the column.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

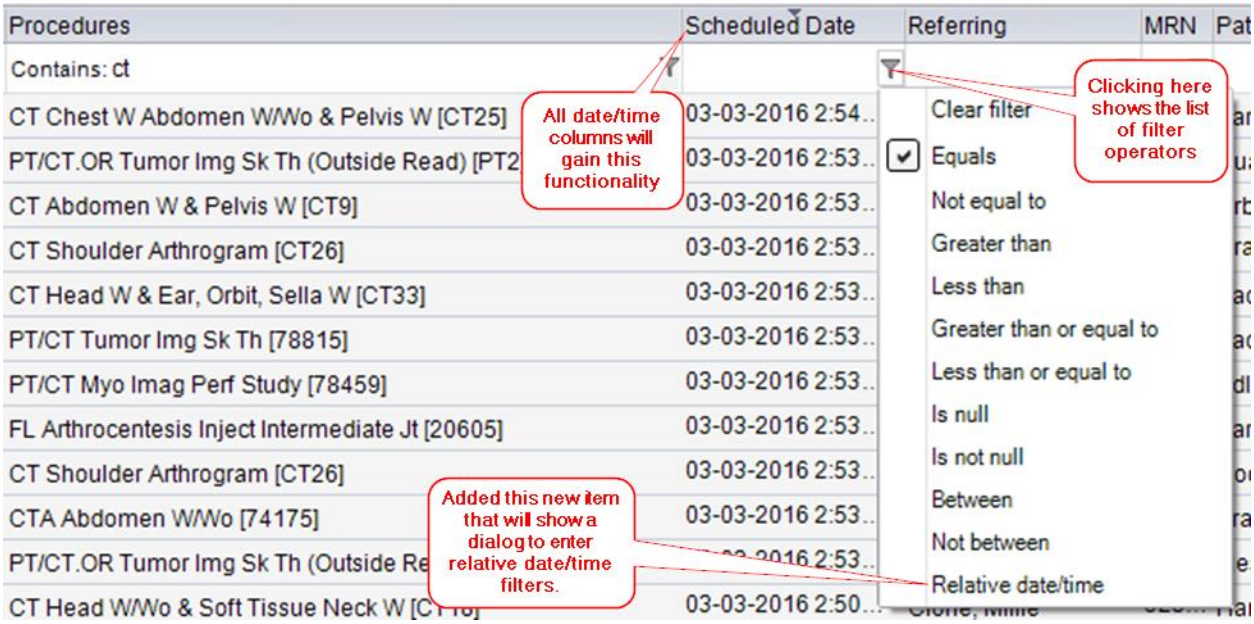
## FEATURE #16111– RELATIVE DATE AND TIME FILTERING FOR WORKLIST COLUMNS

Often eRAD RIS users wish to create a worklist filter that will display items on the worklist for a certain date/time range. For example, a radiologist may want to have an "Overdue" Custom View saved for the Pending Dictation worklist that shows exams that have been waiting for a report for more than 5 days. A lead technologist may want to have a Custom View saved on the Reception worklist that shows only exams scheduled between tomorrow and 2 days in the future, so that upcoming appointments can be reviewed for accuracy. A manager may want to see a list of STAT exams on the IVT worklist that have been pending for more than 3 hours.

In any of these scenarios, eRAD RIS previously had limited options. A user could re-set a new date/time range whenever they wanted to view the information ***or*** they could rely on columns such as "Elapsed Time Suspended" that would display the number of minutes suspended. The user would then need to figure out the number of minutes in their desired time range (e.g. 2.5 days equals 3,600 minutes) and create a filter.

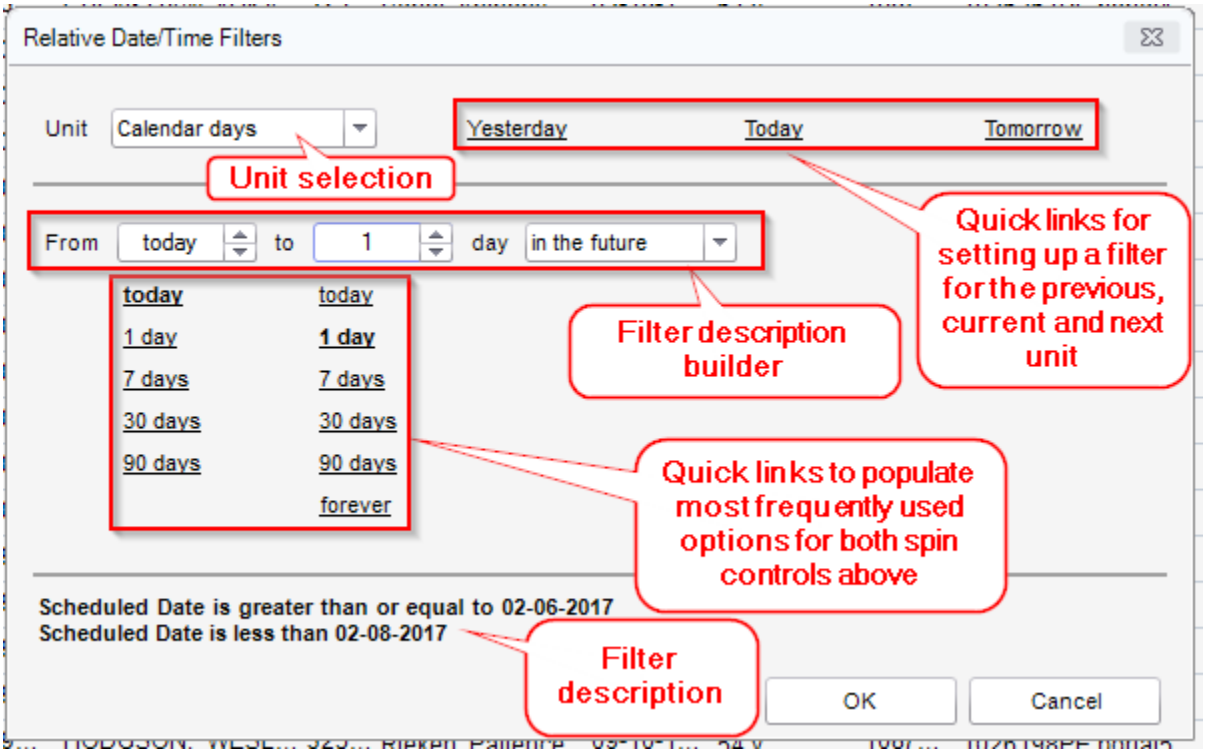
Now eRAD RIS has a **new option** that will allow a user to filter worklists based on a ***relative*** date/time. This will allow the user to easily create Custom Views with filters like "last 3 hours" that will continually update to show the last 3 hours from the current time.

To accomplish this, worklists have been enhanced with a new filter type that will allow the creation of these relative date/time filters for relevant worklist columns. This can be accessed via the filter type dropdown, using the "Relative date/time" option.




Clicking the new option opens the following screen where the user can create the new filters:

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.




The user starts by choosing what unit to utilize for their filter. There are two types of choices:

- Options that relate to ***right now***, as in this very minute:
  - Minutes
  - Hours
  - Days
  - Weeks
  - Months

  Example: "From now to 1 week in the past" will return all the values between right now, and 7 days ago up to the minute. If it is currently 12:51 pm, the worklist would ***not*** display an item from 7 days ago at 12:50 pm.
- Options that return only **whole units**:
  - Calendar days
  - Calendar weeks
  - Calendar months

  Example: "From this week to 1 week in the past" will return all of this week and all of the previous week.

After selecting the preferred option, the user then populates the different controls to reflect the date/time ranges they want to have returned. A plain language description of what the filter will display will be shown at the bottom of the window to help the user understand what the result will be. Once satisfied with the filter, the user can click "OK" to set the filter or at any point click "Cancel" to leave the screen without changing the column's current filter.

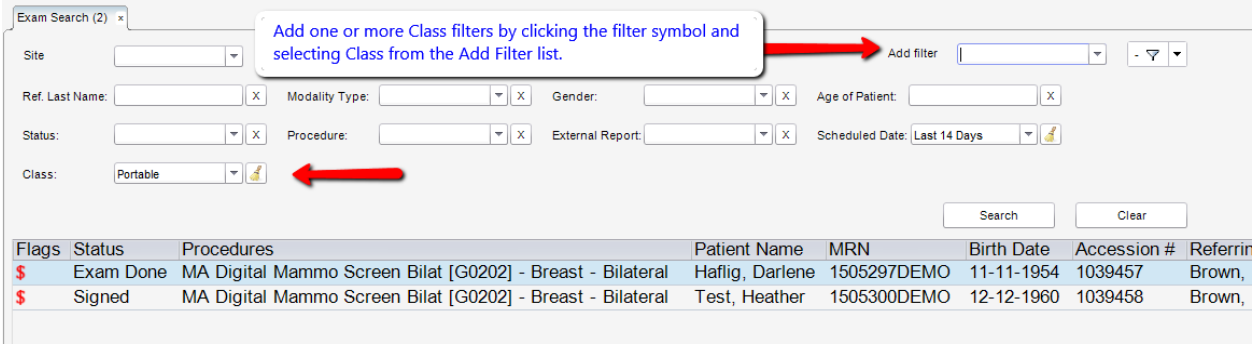
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

As with other Worklist filters, a Custom View must be saved in order to access the saved filter in the future. When this has been done, the filters are recalculated when the Custom View is loaded and whenever the worklist refreshes, so that they always reflect a **relative** date/time period.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #16059 – PATIENT CLASS IS AVAILABLE AS A SEARCH FILTER FOR EXAM SEARCH

Patient Class has been added to the list of possible filters for the Exam Search screen. To add one or more Class filters to an Exam Search, click the filter symbol in the top right corner and find Class in the "Add filter" dropdown. Once added, the Class dropdown will contain the options from the Patient Class look-up table.




Results matching the search criteria will be displayed in the list below after searching.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #16082 – STUDY EXTRA INFO FEATURE EXTENDED TO INCLUDE ORDER EXTRA INFO

eRAD RIS has had the ability to store extra information received from an external ordering system at the study level, using a feature called *StudyExtraInfo*. In this build, this functionality has been extended to store information at the ***order*** level.

Sometimes there is a need to store additional information that may be customer specific, particularly information received from one system that also needs to be passed to corresponding systems at certain points in the workflow.

A new lookup table labeled *OrderExtraInfo* was created to specify the Code with which the RIS will be receiving information to be stored. Access to the table is controlled by a new access string titled *Config.LookupEditor.OrderExtraInfo* with a default of None. The table consists of the Order Extra Info Code, Display Name, Description, Display Order, Last Updated and Active columns.

| Order Extra Info Code | Display Name | Description | Display Order | Last Updated | Active |
|---|---|---|---|---|---|
| Contains: | Contains: | Contains: | Equals: | Contains: | Contains: |
| Click here to add a new row | | | | | |
| Test external system | Test external system | Test external system | 1 | 02-22-2017 11:22 AM | Y |
| [redacted]-BACKUP | [redacted]BACKUP | Backup Order Extra Info Code | 1 | 02-15-2017 1:38 PM | Y |
| [redacted]-OEIC1 | [redacted]-OEIC1 | [redacted]Order Extra Info Code 1 | 1 | 02-15-2017 1:38 PM | Y |

Messages sent will specify the Order Extra Info Code and have a value field. These messages will be stored in another new Database table *c_order_extra_info* that is not accessible from the GUI.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #16591 – STRIP LAST CHARACTER FROM VARIABLES PASSED TO EXTERNAL PORTALS

The existing portal feature in eRAD RIS allows the customer to pass patient data to external portals, such as a Health Information Exchange (HIE), in order to pull up records in the external portal. There was an international requirement to strip the last character from the MRN before passing it to the portal.

A new plugin has been added which allows the user to strip the last character from any variable.

When creating/updating an entry in BrowserConfig, the URL can support using "filters" in the URL string. For example, to get the patient id into the URL of the portal page to be opened, the variable would be specified as {patient.c_patient.patient_id}. To strip the last character from the patient id, this would need to be changed to: {patient.c_patient.patient_id**|StripLastChar**}. The additional text in blue tells the RIS to send the patient_id value through the StripLastChar filter before adding the value to the URL that passes the data to the external portal.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #16527 - ENHANCE DROP XML FILE FUNCTIONALITY

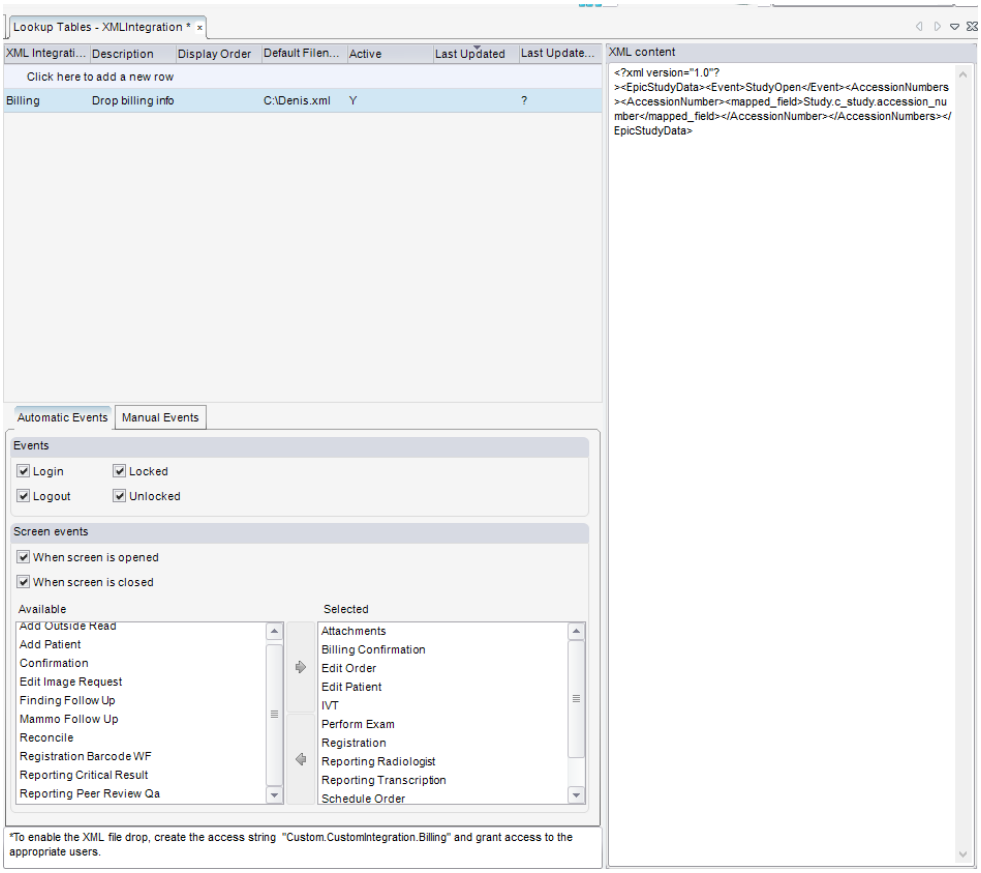
eRAD RIS has markedly enhanced its XML file drop functionality. Custom configuration in the XML Integration editor now allows administrators to:

- Create custom menu items, Patient Folder view buttons, context menu items and worklist action buttons that will allow a permissioned user to manually drop an XML file.
- Configure automatic XML file drops for events, including login, logout, RIS locked, RIS unlocked, screen activated and screen deactivated.

A new panel has been added to the XML integration lookup table editor. It displays two tabbed pages: one for automatic, or event driven, XML drops, the other for manual drop via customizable controls available to the user, such as context menus or buttons. Each page allows the selection of different drop options via checkboxes.

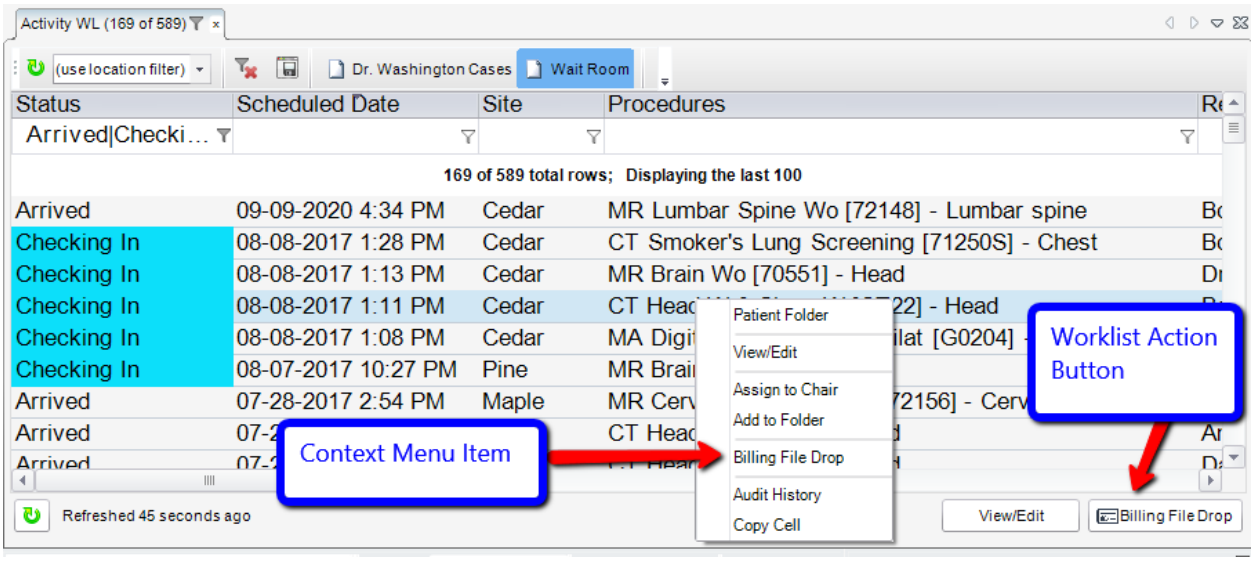
For the options that are screen or worklist dependent, it is possible to choose the specific screens or worklists for the action to occur by moving available options to the Selected section.

For instance, in the screenshot below, RIS will drop an XML file when any of the selected screens are opened and closed. This is in addition to the automatic file drops that will occur upon login and logout, as well as locking or unlocking RIS, as the checkboxes for these events are also checked.

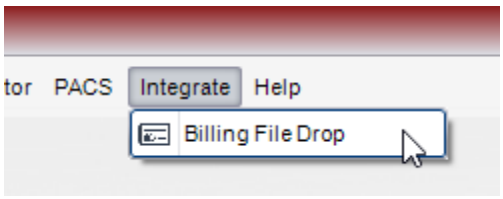


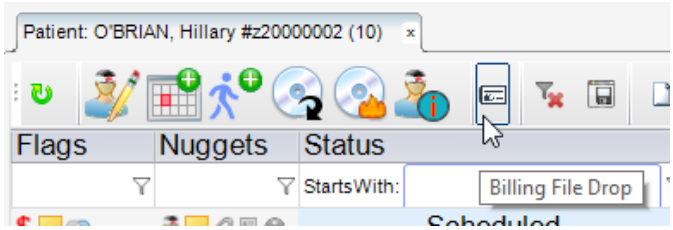

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

On the Manual Events tab, the same Available/Selected section will control whether a particular worklist has a context menu item and/or an action button for the file drop.




In the Item Location section, it is also possible to add:

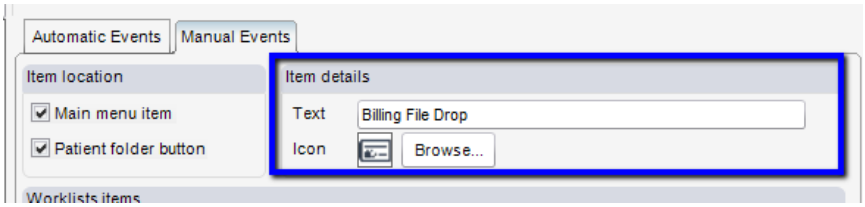
- Main Menu Item – This will add a file drop option to a new menu at the top of the RIS screen to the left of the Help menu.
    - By default, the name of the menu will be *Integrate* and the menu items for all configured XML file drops with the "Main menu item" option checked will be found here. It is possible to re-name this menu via a new System Configuration setting labeled *XmlIntegrationMainMenuText*.
    - 

    - This type of file drop action will not contain patient or study context.
- Patient Folder Button – This will add a file drop option as an action button at the top of the Patient Folder screen to the right of the Patient Alerts button.
    - 

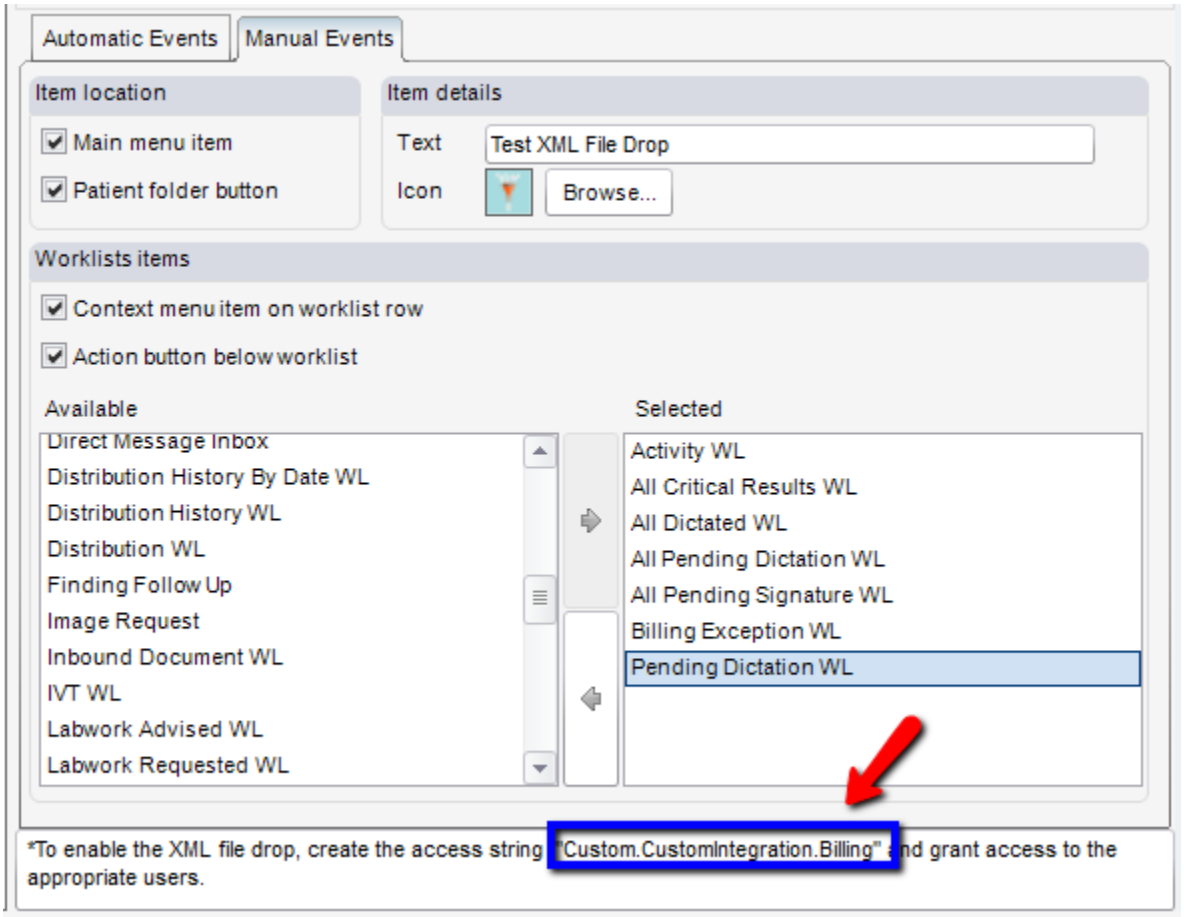
    - This type of file drop will contain patient context only.

In the Item Details section, the associated icon can be uploaded and the name of the XML file drop can be defined. Free icons are available for download on the internet or users can create their own icons. Clicking the Browse button will allow the administrator to select the image from their computer's file system.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.




Access strings must be used to enable access to each XML integration file drop. The access string uses the Custom Access String framework. To assist the user in creating the correct access string, the XML Integration lookup editor will provide the name for the access string, as illustrated in the image below. If an access string is not created and assigned to the appropriate User Groups, then the XML file will not be available to any users.




While the rest of the XML Integration editor remains mostly unchanged, there is one other piece of new functionality: the ability to add non-study container driven fields to the XML content. The two possibilities are:

- %Event% - displays the **name** of the XML integration option that dropped the flag.
  - None
  - MenuItem
  - PatientFolderButton
  - WlContentMenu
  - WlActionButton

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

  - OnLogin
  - OnLogout
  - OnLockScreen
  - OnUnlockScreen
  - OnScreenActivated
  - OnScreenDeactivated
- %CURRENT_USER_ID% - displays the user id of the currently logged in user.

Customers who are interested in taking advantage of this new functionality are welcome to contact eRAD Support for assistance.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #16137 – CARESTREAM PACS INTEGRATION – OPEN PRIOR STUDIES WHEN PRIMARY STUDY IS NOT AVAILABLE

This feature is applicable for customers using our integration with Carestream PACS.

Before an exam is performed, it is sometimes necessary for the radiologist to view the prior images for the patient. Previously, when a radiologist opened the reporting screen, the ***view session*** would not be initiated if the current study was unavailable. Without this, the prior studies could not be launched from the reporting screen.

To allow for this functionality, a new setting is now available in the CSHConfig.xml file: *empty_view_session_on_fail*.

Changing this setting to True will adjust the CSH integration behavior to make the *ShowStudy* call to PACS act as if the primary study opened correctly, even if it has failed because current images do not yet exist. Please note that with this setting turned on, the radiologist will not be prompted that the primary study failed to open and the mini-Patient Folder will indicate that the PACS status for the primary study is Open. At this point, the radiologist can double click on the desired prior study. RIS will ask the PACS what studies have loaded and upon finding that nothing is loaded, the normal Append call will be replaced with a ShowStudy call. At this point, images for the prior will open, and both current and prior studies will be listed as Open.

To support this behavior, the *supports_append* setting in the CSHConfig.xml file needs to be set to True.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #14351, 15615 – NEW RIS SETTINGS TO REDUCE BANDWITH FOR UPDATES

Two new System Configuration settings have been created in an effort to reduce the amount of bandwidth consumed by saving/uploading updates to the server. Both features will be automatically enabled at the time of the upgrade to version 2.2017.3, but will present no detectable changes to the RIS user.

Both of these configuration options will decrease the network bandwidth utilization, which will deliver some performance benefits for networks which have slow upload speeds.

**Uploading patient/order updates:**

When saving edits to screens such as ViewEdit or Registration, the data is sent to the server in an XML format, which is fairly bulky and uses more bandwidth than necessary. For example, saving a change to a patient's middle name costs approximately 60KB when sent via XML. A new system configuration setting will enable a *binary serializer* to send the update data in binary format, which reduces the size of the data to be uploaded. When sending in binary format, the same update that cost 60KB when sent via XML is reduced to approximately 8KB.

To enable this feature, the new System Configuration setting, *EnableExtraCompressionOnStudyUpdates*, must be set to True. The default for this setting is True, so it will be enabled at the time of the upgrade, unless the setting is changed to False.

**Uploading Attachments:**

Another new System Configuration setting is available to reduce the size of **attachments** for upload. Attachments are typically saved as a JPEG file. However, in many cases, a smaller file size could be achieved by applying LZW compression and saving the attachment as a TIFF file. The image quality on the resulting TIFF file is typically equal or superior to the JPEG image.

When *AllowLZWImageCompression* is set to True, RIS will compress attachments twice: once as a JPEG and once, using LZW Compression, as a TIFF file. The version with a smaller file size will be used for the attachment, unless the compressed TIFF image is significantly different from the original. If 80% of the pixels are different between the JPEG and the TIFF, RIS will choose the JPEG compression for that attachment.

The default for this System Configuration setting is True, which means that this compression process will be enabled at the time of upgrade, unless the setting is changed to False.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

Note: There are some Patient Portal features that are related to the new CONNECT Provider Portal which will be announced in the near future. These features are not described here and will be described in detail at the time that the CONNECT Provider Portal is released.

## FEATURE #14260 – PUSH OUT THE FIRST AVAILABLE APPOINTMENT BASED ON CONDITIONS

When patients schedule appointments online in the Patient Portal, it is sometimes helpful to add padding to ensure that the first appointment offered to the patient will be a certain number of hours into the future. This allows the imaging center staff time to review appointments that are scheduled online, in case any changes need to be made or additional actions taken. Without padding, the patient could theoretically schedule the appointment within minutes or hours of the scheduling event, which would not allow staff adequate time to prepare.

Additional padding to the first available appointment may be indicated due to:

- Selection of a certain type of Procedure.
- Indicating a Special Accommodation.
- Giving a certain answer to an exam question.
- Selection of a particular Insurance Carrier.
- Choosing an Unknown Insurance.
- Not having a referral/prescription.
- Not having an Insurance Authorization number.
- Scheduling on weekends or evening hours.

Time slot padding is responsive to weekends and holidays defined by the portal Imaging Group. For example, if padding of 48 hours is indicated for a patient scheduling on Friday, Monday will not be available because 48 business hours would not have elapsed.

Three new System Configuration settings have been created for this feature. Two are replacements for older settings that previously handled Padding using days. These are now replaced with settings that will handle Padding using hours instead.

1. *PortalNoSelectedInsuranceHourPadding*
    a. Replaces *PortalNoSelectedInsuranceDayPadding*
    b. Will use hours instead of days.
    c. Adds hours to the start search criteria to allow time to gather insurance from the patient when no insurance information is available.
2. *PPSchedulingNoPrescriptionHourPadding*
    a. Replaces *PPSchedulingNoPrescription*.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

b. Will use hours instead of days.
c. Adds hours to the start search criteria if the patient indicates that they do not have a prescription (referral).

3. *PortalAllowEveningWeekendScheduling*
   a. Brand new setting.
   b. If set to N, the Portal will always prevent scheduling on the weekend or outside business hours.
   c. This can be overridden at the Imaging Group level.
   d. RIS will determine weekends and evenings according to the existing system configuration settings *WeekEndDays*, *ScheduleMorningTimeOfDay*, and *ScheduleEveningTimeOfDay*.

The above settings cover scenarios when the patient's insurance information or prescription is not available, as well as evening/weekend scheduling. Padding adjustment for the remaining scenarios is as follows:

**-By Carrier:**
To allow padding to occur based on a particular insurance which may require additional time, the Carrier table has a new column: *Portal_schedule_hour_padding*. Previously, a setting existed for padding by number of days; this will be deprecated in a future build. This can be overridden at an Imaging Group configuration level.

**-By Procedure:**
A new column called *portal_schedule_hour_padding* has been added to the Procedure Code table. This will define the number of hours to pad the available search results for the procedure. If there are certain procedures that require extra preparation or verification, this will ensure that enough time is available for these activities. An additional column, *portal_schedule_allow_evening_weekend_flag*, will prevent the procedure from being scheduled on the weekend or evening via the Portal when set to N. If the availability template does not contain weekend or evening hours, this is not necessary. However, if there are procedures that schedulers are allowed to schedule in the evening or weekend hours, but online users should not have access to these time slots, this setting will be beneficial. This can be overridden at an Imaging Group configuration level.

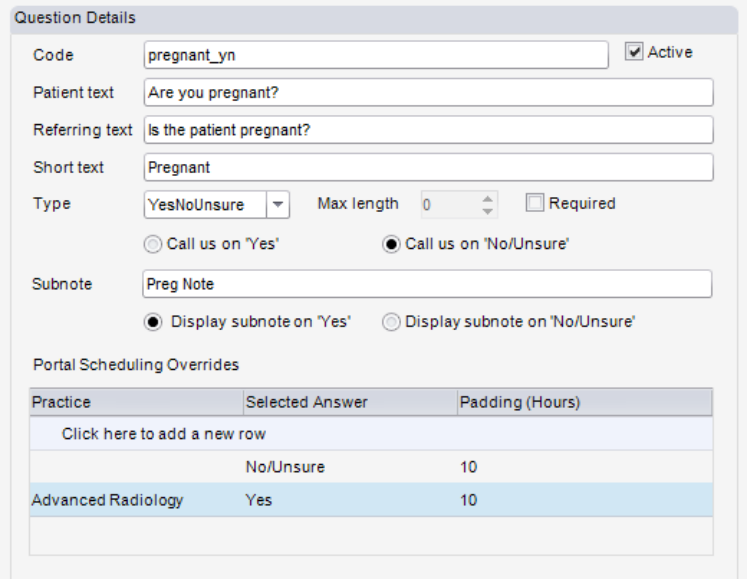
**-By Special Accommodation:**
The new column called *portal_schedule_hour_padding* has been added to the Special Accommodations table. This will define the number of hours to pad the available search results for a particular accommodation. The rule will check all Special Accommodations selected by the patient and the highest value will be used for the applied padding. An additional column, *portal_schedule_allow_evening_weekend_flag*, will prevent appointments with the selected Special Accommodation from being scheduled during evening and weekends when the necessary staff might not be available to accommodate the patient's need. The setting can be configured separately for each Special Accommodation. This can be overridden at an Imaging Group configuration level.

**-By Authorization:**
Two new system configurations have been created for different padding depending on the patient's answer to the question of whether they have an authorization number.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

**-By Exam Question:**

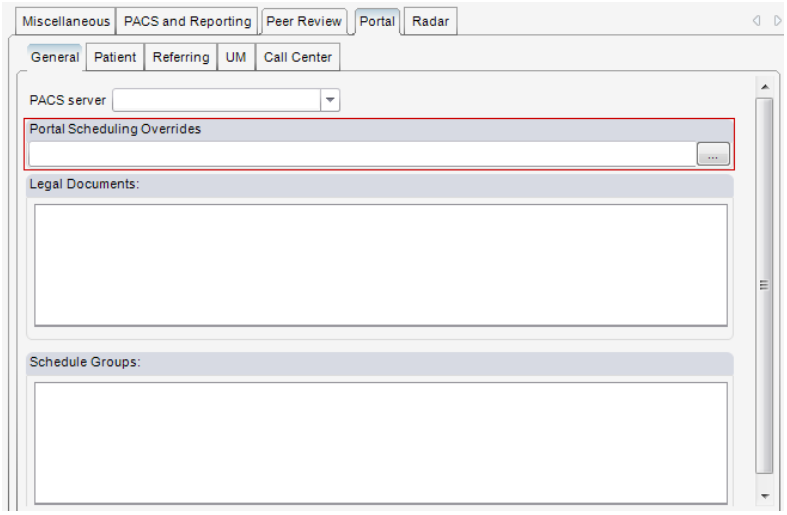
For exam questions that are defined in the Procedure Picker, a new section is now available on the Question Details screen.




The section allows padding to be defined to the yes/no and yes/no/unsure type questions, with a different value depending on the patient's answer.

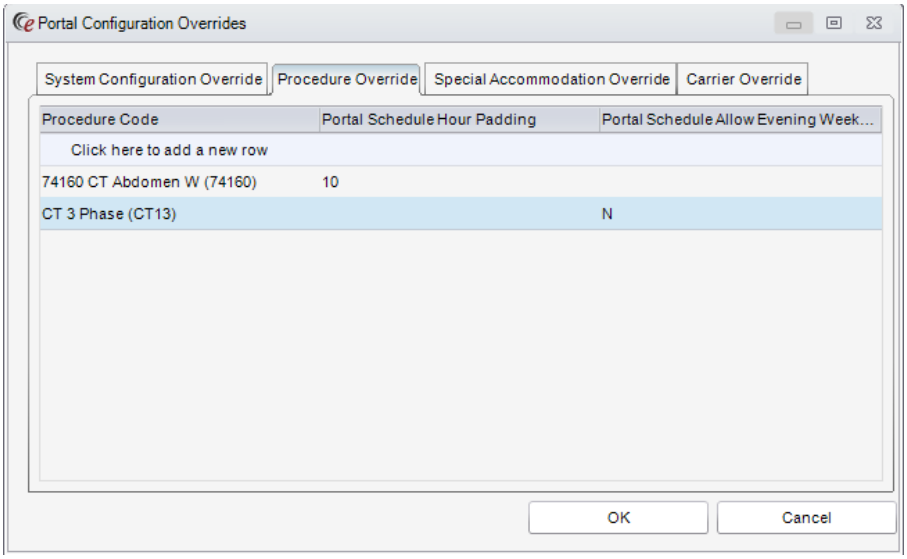
Due to the structure of these questions, the Imaging Group (practice) padding can be defined inside the Procedure Picker exams question screen, as additional entries can be added for any Imaging Groups that require different settings.

For other settings, Imaging Group differences in the amount of hours to pad are handled via override settings in the Organization table. Under the Practice section, on the Portal tab, there is a section called *Portal Scheduling Overrides*.




No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

Clicking the button […] will open a new window with tabs for the various types of overrides. The settings for the Imaging Group that are different from the main settings described above can be overridden here.

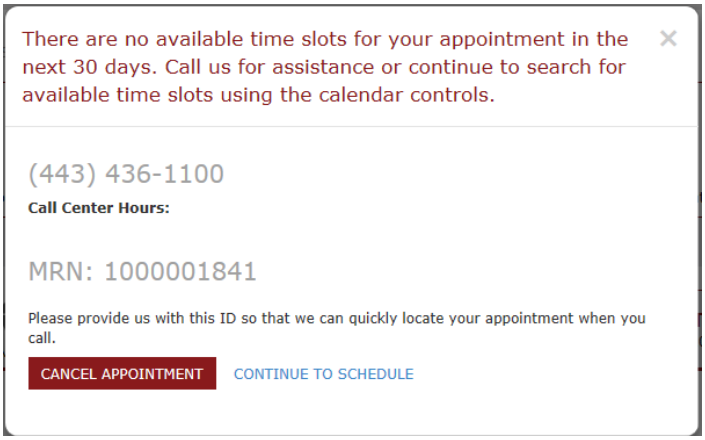



With such a variety of ways to pad the first appointment offered to the patient, RIS needs to determine which padding rule to follow when an appointment contains more than one characteristic that requires padding. To do this, the system will evaluate all applicable rules and apply the padding with the greatest number of hours.

After calculating the first appointment based on the padding hours, RIS will then evaluate whether there is a setting that prevents weekend/evening appointments as well as whether the appointment slot is in one of those time slots. If so, the first available time slot will be pushed to the next business day for the configured morning hours. Holidays are also evaluated and will push out the first available appointment to the next applicable day.

After determining the first time slot that would be appropriate to allow the patient to schedule, RIS will begin to look for an available time slot. If no results are found, RIS will continue searching for a predefined number of days, based on the System Configuration setting *PortalMaxSearchDays*. If no results are available within the allotted number of days, the patient will be presented with a message.

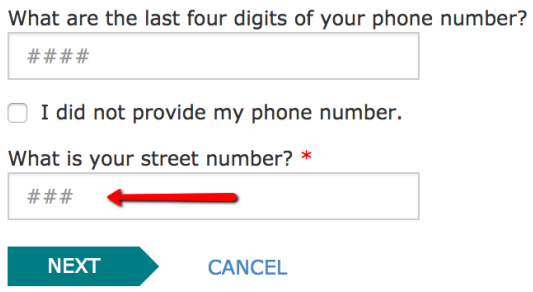
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.




No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #16480 – STREET NUMBER WATERMARK REMOVED FROM STREET NUMBER FIELD IN ACCOUNT CREATION WORKFLOW

When patients see the three watermarks ( ### ) in the street number input field during Account Creation workflow, they often assume the field will only accept three digits even though the field is very wide. This can cause the patient to abandon the workflow and contact the Portal Administration team to ask what they should do if their address is more than three digits.

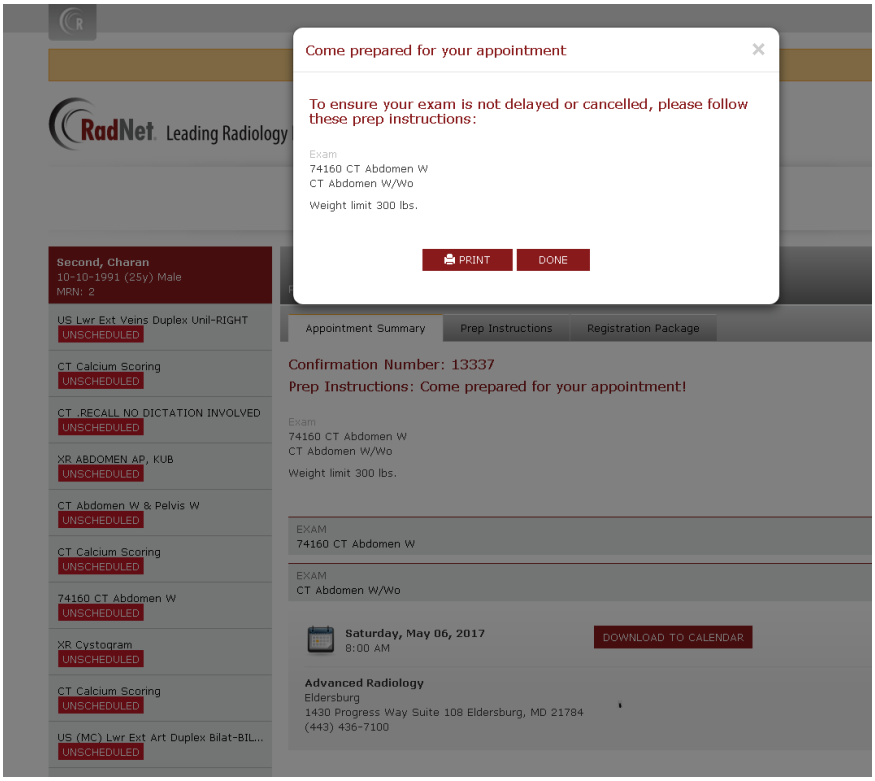



To eliminate confusion, the watermarks in the image above have been removed from the street number input field.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #13708 – PREPARATION INSTRUCTIONS DISPLAY IN A POP-UP WINDOW AFTER SCHEDULING IN THE PATIENT PORTAL

A common problem in radiology is that patients can arrive for their appointment without having followed the preparation instructions. In order to further emphasize the importance of following prep instructions, the portal will now present the preparation instructions in a pop-up window that must be acknowledged by the patient before they can continue.

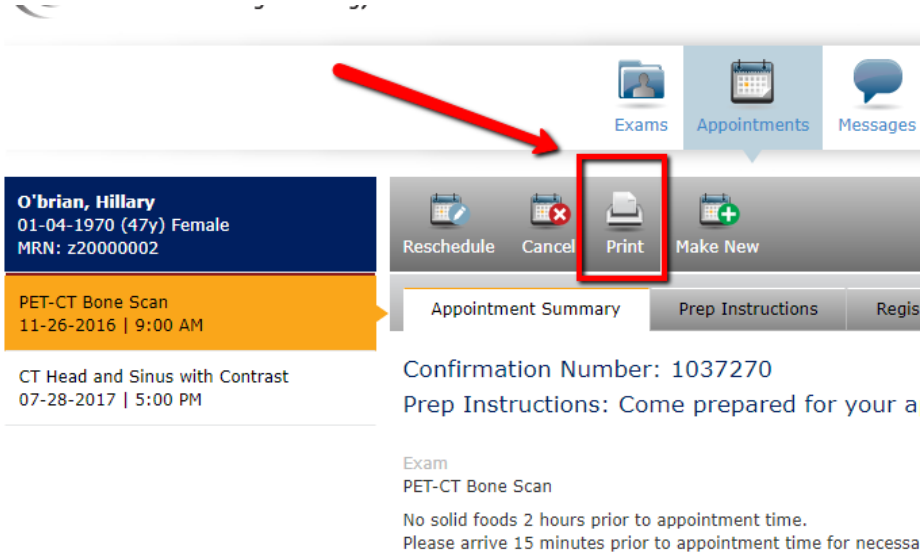



After the patient clicks the Confirm Appointment button, the dialog box will appear with the instructions in order for the patient to be fully aware of those instructions before their appointment. There is also a **PRINT** button on the window, so that the patient could choose to print the instructions for an additional reminder. Clicking the print button will dismiss the dialog box and initiate the browser's print function.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #14535 – PRINT A SUMMARY OF APPOINTMENT INCLUDING PREPARATION INSTRUCTIONS

A printer icon has been added to the Appointment Confirmation page. The patient can print a copy of their Appointment Summary, including Preparation Instructions. Previously, only the webpage could be printed.

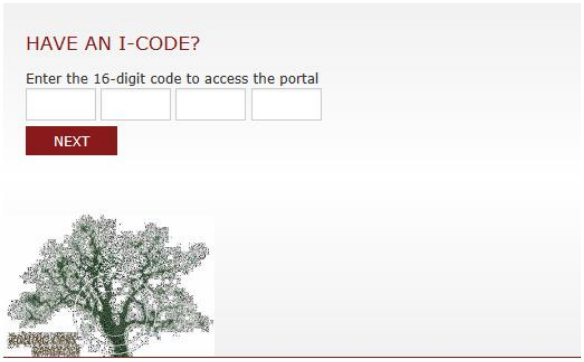



No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #8310 - PATIENT PORTAL LOGIN PAGE PICTURE IS NOW CONFIGURABLE

Customers would like to have the option to insert their own image on the Patient Portal login page, instead of using the default image of a group of patients.

It is now possible to substitute a custom image in this area of the screen. Different images can be used for specific Imaging Group portals, so that the Treesdale Radiology portal can have a different image that the Spectrum Radiology portal.




Please contact the eRAD Support Team to set this up for your Connect Patient Portal.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #15025 – REPORTS PRINTED FROM THE PORTAL WILL CONTAIN A FOOTER INDICATING THE PRINT DETAILS

A footer is now added to all reports when they are printed from the portal. The footer will read:

"This report was printed from the {Practice Name of selected image group} - {Patient/UM/Referring} portal on {Date}{Time}."

For example, "This report was printed from Advanced Radiology – Patient portal on 08-14-2017 5:23 PM."

The Date and Time reflect when the report was generated in the portal. If the patient opened the report at 5:23 PM but did not print it for another 10 minutes, the time would still read 5:23 PM. This will ensure that if an addendum was signed within those 10 minutes, the hard copy printed version will not be stamped with a date/time that occurs after the addendum.

This section will only appear on the printed document at the bottom of each page.

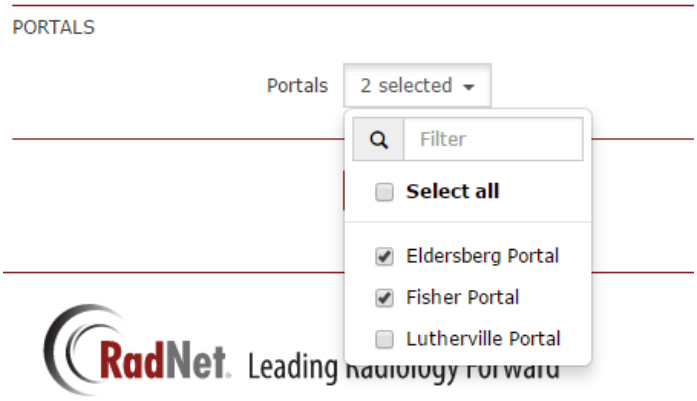
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #12827 – PROVIDE SYSTEM MESSAGES TO INDIVIDUAL IMAGING GROUPS

Previously, Portal System Messages could only be applied for all Imaging Groups at once. This did not allow for the flexibility to provide custom messages that were specific to a particular Imaging Group, which equates to a specific target **portal** with its own branding and target audience.

It is now possible to select the specific Portals/Imaging Groups that should receive the message.

When creating a new System Message in the Admin Portal, it will be applied to all Portals by default. The administrator can click the dropdown to select a subset of Portals.



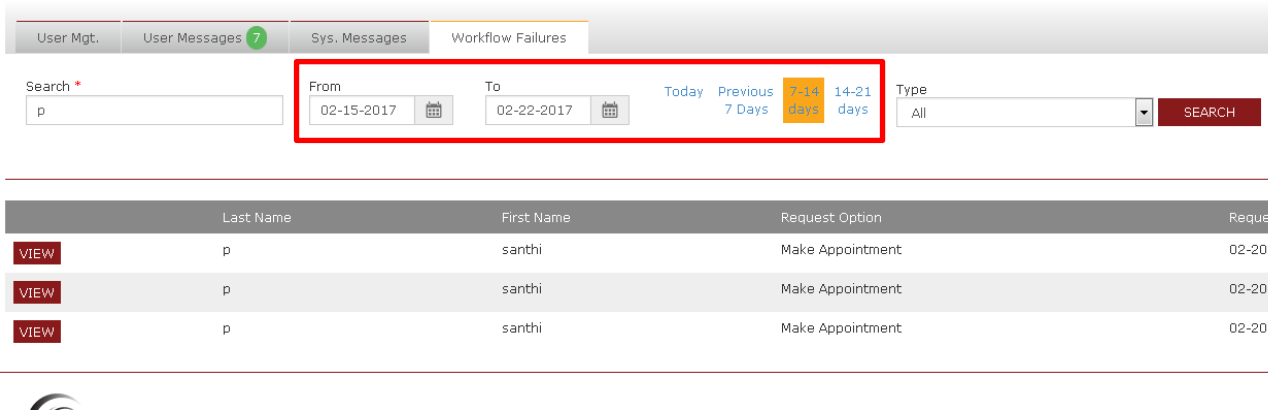

This can be helpful when there are alerts or marketing campaigns that are specific to one instance of the portal.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #13253 – SEARCH WORKFLOW FAILURES BY DATE RANGE IN ADMIN PORTAL

It is now possible to specify a date range on the Workflow Failures tab in the Patient Portal Admin Portal.

Specific dates can be entered or the user can use quick links to select common choices like “Today” or “Previous 7 Days.”




No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #13960 - AUDIT OPENING PATIENT EXAM LIST IN THE ADMIN PORTAL

The Patient Portal Admin Portal will now record an audit event for the opening and viewing of a patient record (Exam list), even if no other actions are taken.

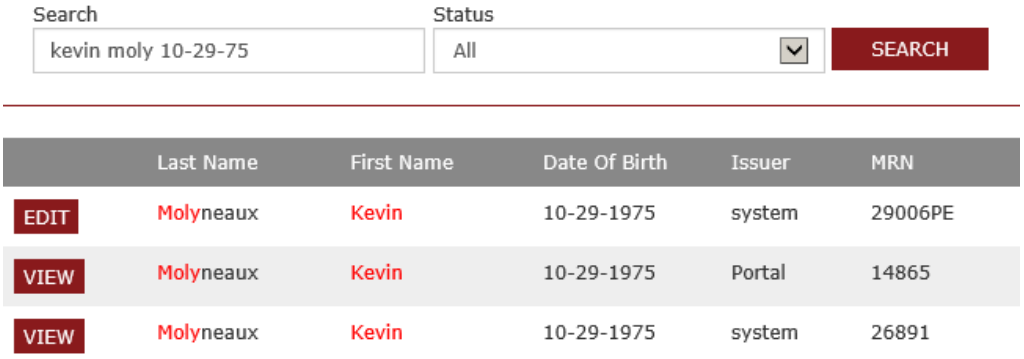
When the user visits the Exam list in the CONNECT Patient Portal, an audit entry will be made in the database (c_audit). This audit action can be pulled into management reports and database queries.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #16590 - DOB IS A VALID SEARCH IN THE ADMIN PORTAL

On the User Management tab in the Patient Portal Admin Portal, it is now possible to use Date of Birth as part of the search criteria. It is possible to search by DOB, first name, last name, telephone, or MRN. Using Date of Birth is an easy way to narrow down a Name search.

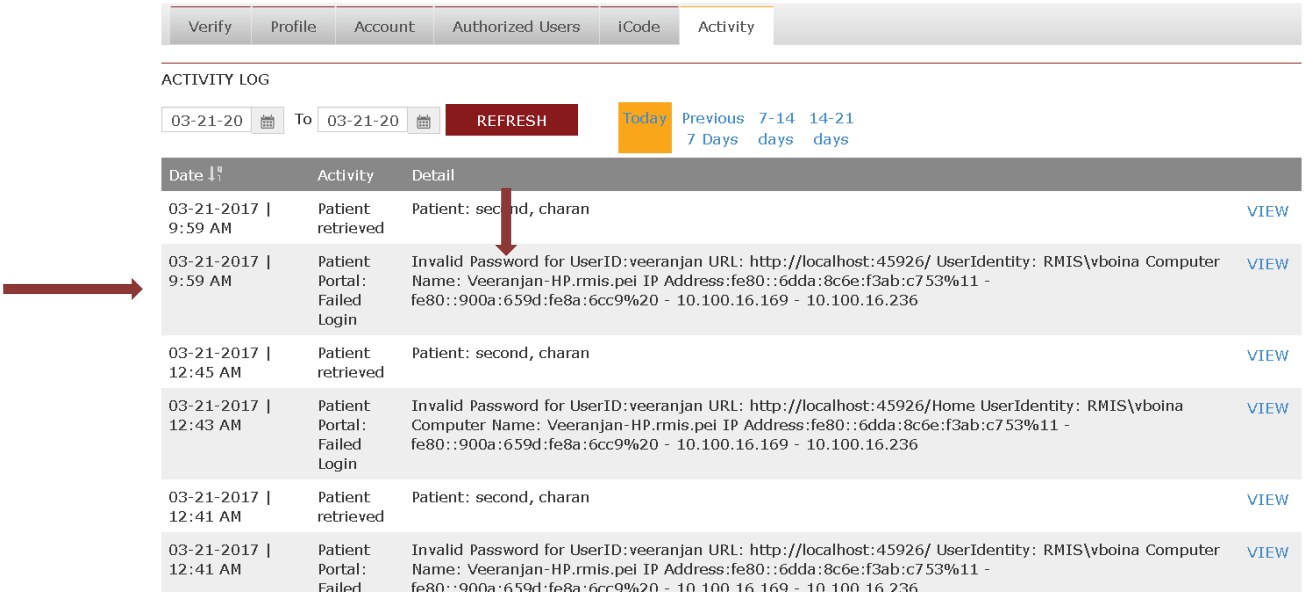
The DOB search will accept a variety of date formats, similar to searching by date of birth in the RIS.




No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #15702 - PASSWORD FAILURE INFORMATION NOW LISTED IN ADMIN PORTAL ACTIVITY TAB

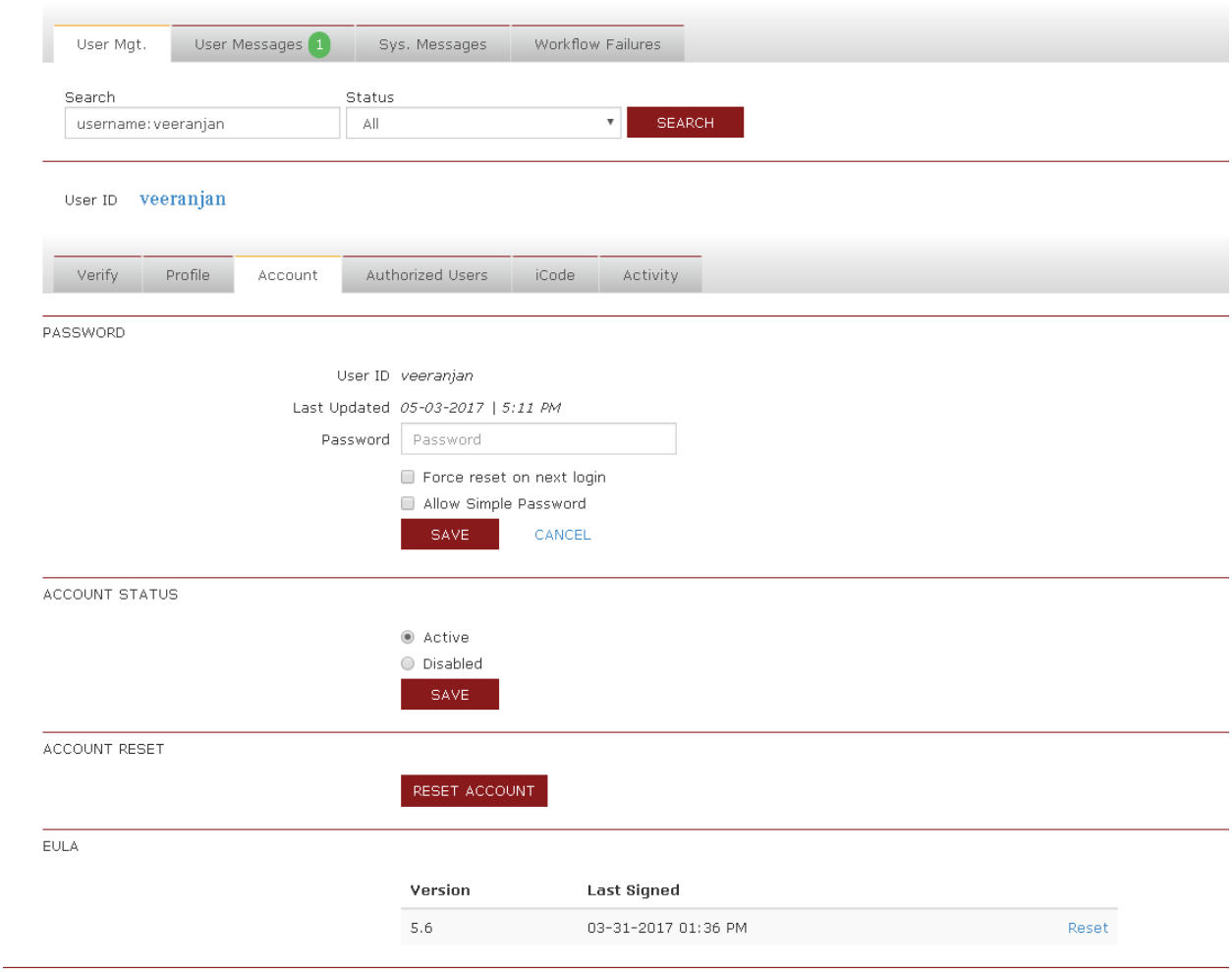
When supporting patients who are experiencing difficulty logging into the Patient Portal, it is helpful to know that they have entered an invalid password. The Admin Portal will now display this information in the patient's Activity Log.




No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #16066 - SECURITY TAB AND ACCOUNT TAB NOW COMBINED IN ADMIN PORTAL

To reduce the need to flip between multiple tabs when supporting the Patient Portal, the Admin Portal has eliminated the Security tab and added the information from this tab to the existing Account tab.

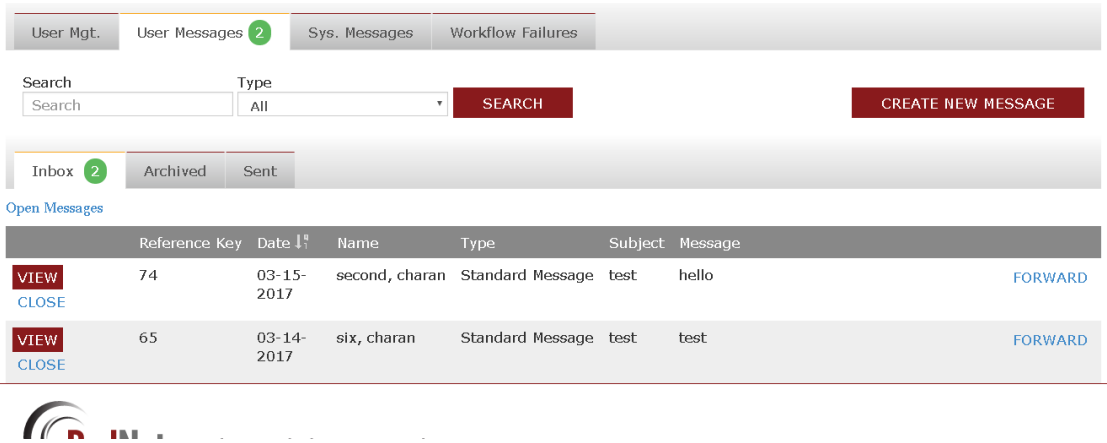



No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #16358 – REFERENCE KEY IS NOW ADDED TO PORTAL NOTIFICATION EMAILS

When a Portal administrator views secure messages that have been sent from the Patient Portal via notification emails, it is difficult to match up the email with the patient information, as identifying information is not included in the email for privacy reasons. For this reason, a Reference Key has been added in the subject line and body of the secure emails.

The portal administrator can log into the Admin Portal and sort by the Reference Key in question to find the message with the patient information associated, after securely logging into the portal where the patient information can be safely displayed.

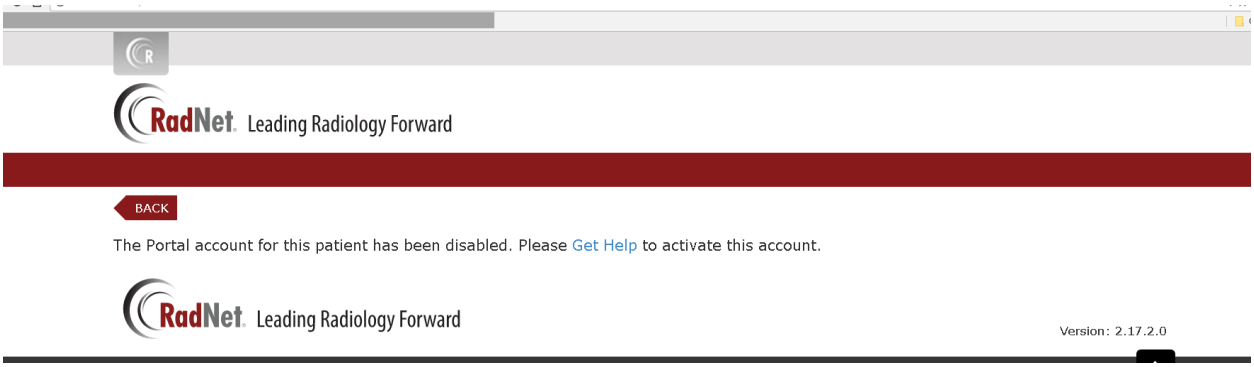



No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

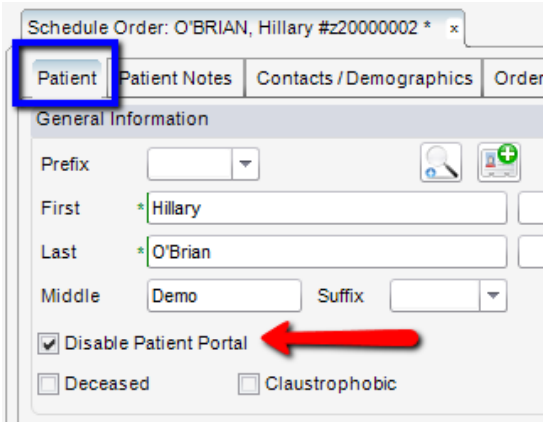
## FEATURE #16449 – FORCE PATIENT TO USE GET HELP TO CREATE/REACTIVATE THEIR PORTAL ACCOUNT IF THE ACCOUNT HAS BEEN DISABLED IN THE ADMIN PORTAL OR IN RIS

Previously, an administrator could disable a patient's portal account via the Admin Portal; however, it was still possible for the patient to go through the "create an account" workflow and reactivate their account.

The portal will now prevent the patient from continuing with a message indicating that their account is disabled and to "Get Help" to activate the account.




It is also now possible to disable a Patient Portal account from the RIS. A new checkbox has been added to the Patient tab to *Disable Patient Portal*.




When checked, the patient will not be able to create a new account or access an existing account. They will receive the same message that is displayed when the account is disabled via the Admin Portal.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #16299 - ERAD RIS NOW SUPPORTS BOTH DEFAULT AND "RECOMMENDED" BILLING CODES

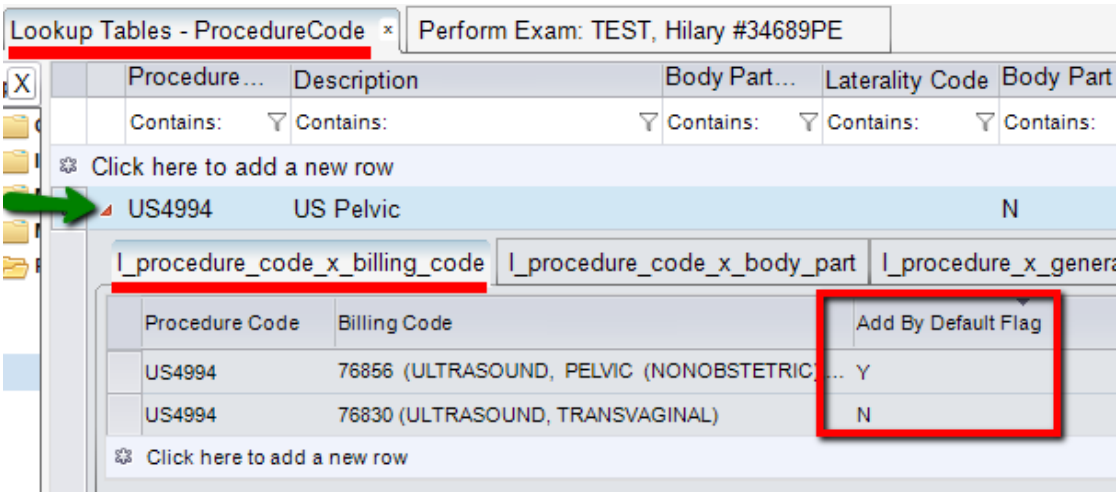
Note: this functionality was originally introduced in the previous patch, 2017.1.2. The description is included here because there have been further changes to the feature.

Previously, all billing codes associated to a procedure were active by default. In some cases, it may be useful to also associate billing codes that are *sometimes* used for a particular procedure. For example, some customers use a workflow in which procedure codes are broad, such as CT Sinus. In this case, the billing code might be the CPT for CT Sinus "with contrast," "without contrast," *or* "with and without contrast." Also, the CPT for contrast material may or may not be relevant depending on what is performed.

In these cases, being able to associate the billing codes that are most likely to be used for a particular procedure is more beneficial than creating default billing codes that are always active for the exam and have to be deactivated by the technologist.

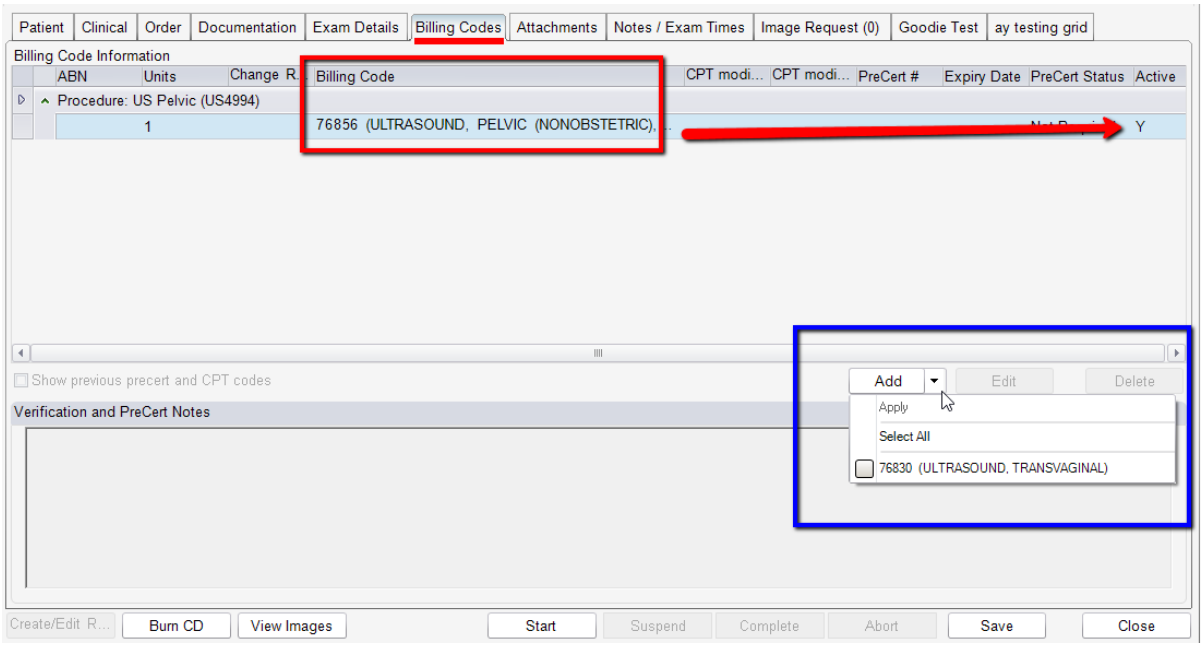
To allow for this workflow, a new column has been added to the *l_procedure_code_x_billing_code* sub-table, which is found in the Procedure Code lookup table. The column, ***Add By Default***, will default to Y, meaning that the billing code will be associated and active for that procedure. This is the same as the previous behavior.

To associate billing codes without actively adding them to the procedure, set the Add By Default column to N. As you can see in the table below, it is possible to have a combination of Default billing codes and recommended/possible billing codes.

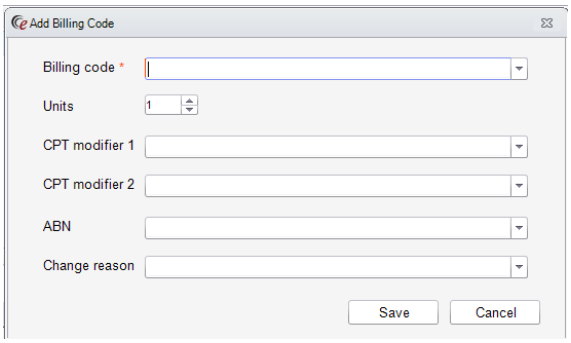



No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

In the example above, the only billing code that will be automatically added for the US Pelvic procedure is 76856. The billing code 76830 will now be available from a quick pick list, as shown below.

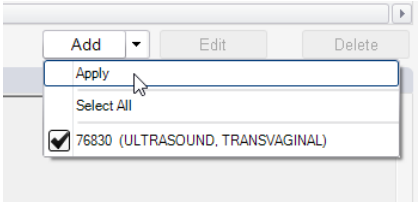



When suggested codes are available for a procedure, the Add button will have a dropdown arrow allowing the user to quickly select and apply the suggested billing codes. Clicking the main Add button, instead of the dropdown arrow, will open the normal Add Billing Code screen where the entire list of Billing Codes can be accessed.



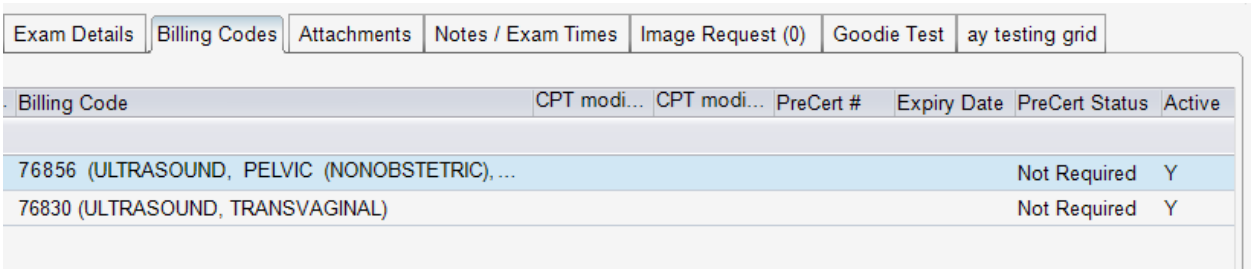

If no recommendations exist, the Add button will not have the dropdown arrow and the Add Billing Code screen is the only option for adding additional billing codes.

To use suggested billing codes, click the dropdown arrow and check the box(es) to be added. Then click Apply.

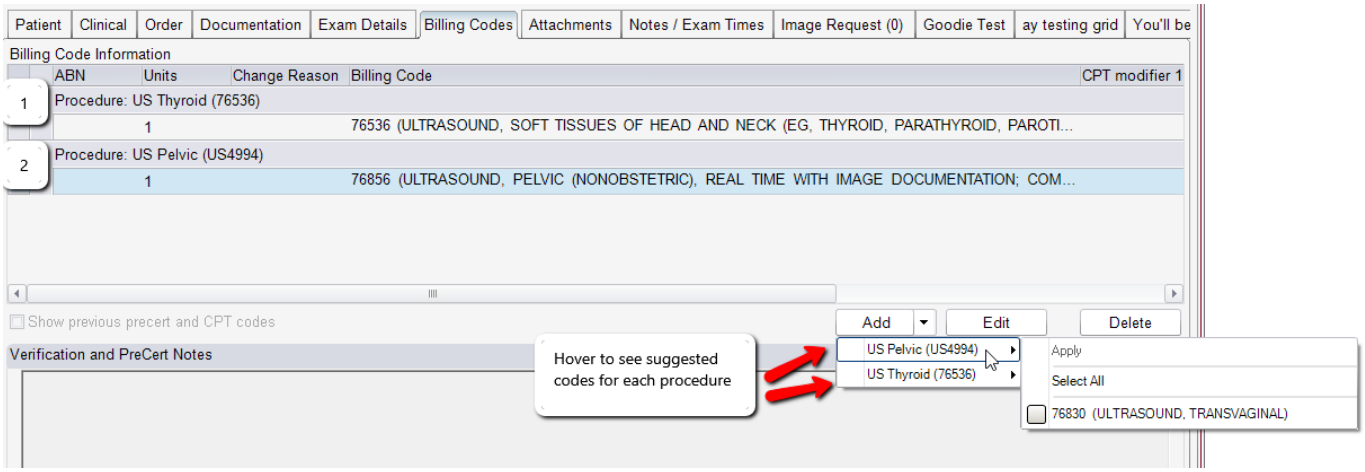



No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

This will add the billing code to the procedure in an Active status.




If a technologist is performing multiple exams at once using the "Include" workflow, suggested billing codes will be available for each included procedure (if any).




Suggested billing codes will not trigger IVT workflow. Once the suggested billing code has been added to the exam, it will be treated like normal active billing codes and IVT workflow will apply.

It is also now possible to select multiple lines in the active Billing Codes grid in order to delete them all at once, if needed. Selecting rows and clicking the Delete key on the keyboard is also allowed. The user will be prompted to confirm that they want to delete the selected billing code(s). Deleting a saved billing code row is the same as marking the row as "Active = N". If suggested billing codes are added, but deleted *before* the exam is saved, the row will simply be deleted.

The billing codes associated to any procedure code prior to this upgrade will all be set as Add By Default = Y, which means that they will continue to behave as they did prior to upgrading.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #16310 – VALIDATION RULE TO ALERT USER WHEN NO BILLING CODES ARE PRESENT

Previously, the RIS had a hard coded warning when there were no active billing codes for a procedure. Because the workflow for the above feature includes the possibility that some procedures will legitimately have no active billing codes at the time of scheduling or registration, the hard coded warning has been replaced with a validation rule that allows the customer to customize the timing for the warning (or change it to a hard stop if desired).

The original hard coded rule looked at procedure codes to see if any billing codes were mapped by the RIS administrators. The previous warning that stated: "There Are No Billing (CPT) Codes Mapped To This Procedure" has been removed and a new configurable rule has been added. The new rule does not look at Procedure/Billing Code mappings, but actually checks whether there are any studies that do not currently have billing codes attached.

The new rule will be enabled by default to replicate existing functionality.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #16138 - VALIDATION RULES FRAMEWORK HAS BEEN EXTENDED TO CONSIDER TABLES

Validation rules can now be created based off of patient/exam information that exists in tables, such as associated insurance carriers, MRNs and attachments.

Using the enhanced capability, the following validation rules are now possible:

1. Ability to require that at least one insurance is added if Self Pay is not selected.
2. Ability to warn the user, or prevent them from continuing, if a particular issuer of MRN has not been added for the patient.
3. Ability to warn the user, or prevent them from continuing, if a particular scanned document type (such as Referral) is not associated to an order.

As with all validation rules, the timing of the warning or hard stop can be customized.

These are only a few examples of rules that can be created. Please contact eRAD Support to inquire about creating validation rules for your organization.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #14171 – VALIDATION RULES CAN DISPLAY BASED ON PATIENT ALERTS

It is now possible to utilize Validation Rules to support custom logic based on Patient Alerts. Rules can be built to either allow or prevent an action in RIS based on whether a patient has a given Alert.

There are two types of rules that are now possible:

1. Prevent actions in RIS when a Patient Alert is present.
    a. Example: Prevent scheduling if the patient has an Alert of "Lifetime Ban."
2. Conditionally allow actions in RIS based on a Patient Alert.
    a. Example: Prevent arriving a minor when the Responsible Party is "Self" unless the patient has an Alert of "Emancipated Minor."

For example #1, it was previously only possible to alert a user that a patient had been banned from the facility. The Validation Rule will allow an administrator to actually ***prevent*** scheduling. When the rule is configured, the user will receive the usual Alert informing them of the ban. However, if they attempt to schedule anyway, the Validation Rule warning will display and will prevent them from scheduling the appointment.

For example #2, it is now possible to create a Validation Rule that does not apply to all types of patients. Previously, a rule requiring a Responsible Party other than Self for minors was not possible because there was no way to get around the rule for emancipated minors. Now a condition can be created that excludes patients with an Emancipated alert.

These are just examples of what is possible using the new Validation Rule functionality. If you are interested in setting up Validation Rules, please contact eRAD Support.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #15150 – HARD-CODED CONTRAST AND CT DOSAGE REQUIREMENTS ARE NOW VALIDATION RULES

Previously, it was possible to require the technologist to enter Contrast and CT dose information, but the timing of the requirements could not be altered. Because the requirement was enforced at the time the technologist *started* the exam, many customers chose not to use the requirements (or to use Digital Forms instead) because the technologist could not know the information before starting the exam.

To allow more flexibility and a more practical approach, Contrast and CT Dosage requirements can now be controlled using Validation Rules, which will allow the timing of the requirement to be changed to when the technologist *completes* the exam (or any other desired point in the workflow). Custom validation rules have been created to reproduce the logic of the previously hard coded rules with the added flexibility to alter them according to preference.

At the time of the upgrade, your current configuration will be evaluated and the new Validation Rules will be applied accordingly with one exception: All rules will be enforced at the time the technologist ***completes*** the exam. This is done with the understanding that this will be the most common point at which customers will want to require this information, though this can be changed if desired. If you are not using this functionality today, the Validation Rules will be added with the upgrade but will be set to Inactive.

Please let eRAD Support know if you would like to start requiring either Contrast or CT Dose now that the more flexible framework is available. They can assist in getting this set up according to your needs.

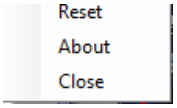
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #12141 – ABILITY TO VIEW THE CITRIX BRIDGE VERSION NUMBER

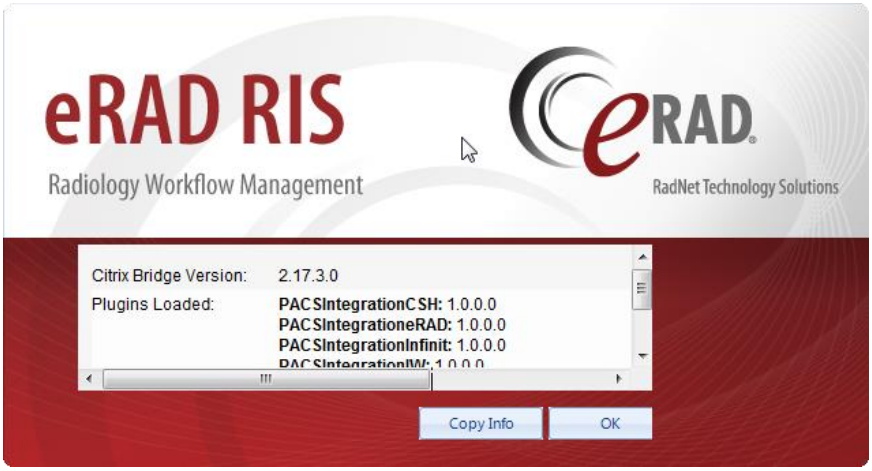
Previously, Citrix Bridge users did not have an option to view the current version number.

Changes have been made to the Citrix Bridge context menu to allow the user to access an "About" screen very similar to the RIS Help/About screen. This screen lists the version number and additional details.

Clicking the Citrix Bridge icon in the system tray will now open the following context menu:




Selecting the About option will bring up the following screen:




Note the Citrix Bridge Version on the first line. It is also possible to view the version number from within the *RIS* Help/About screen, provided that the Citrix Bridge is up and running.

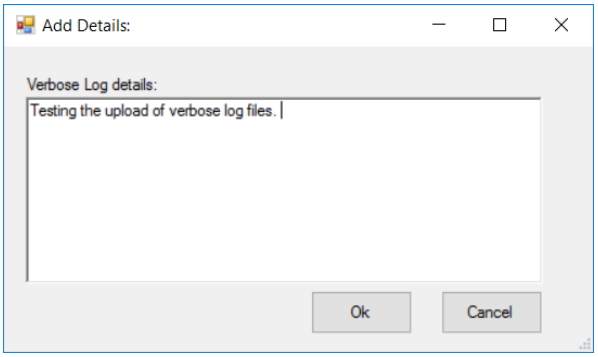
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #14681 – UPLOAD A WORKSTATION'S VERBOSE FILES TO THE SERVER FROM HELP/ABOUT SCREEN

When troubleshooting an issue, eRAD Support often needs to view a workstation's log files, referred to as "verbose files." Previously, users had to follow instructions to navigate to the files in an Appdata\eRAD folder in order to find the files, then go to the trouble of sending them to Support. To make this process easier and allow eRAD Support to quickly access the information needed to troubleshoot an issue, it is now possible for a user to upload their verbose logs to the database by clicking a button on the Help/About screen.

The Help/About screen has a new button labeled "Upload Verbose." If instructed by the eRAD Support team, all the user has to do is go to the Help screen and click the button.

The user will have the option to enter details regarding the reason the Verbose logs are being uploaded.




No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

Upon clicking OK, the verbose files and a relative message log will be uploaded to the database, where the eRAD Support team can retrieve them. The verbose files are compressed when added to the database.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #16109 - RIS WILL PREVENT UPLOADING EXCESSIVELY LARGE FILES FOR LOGOS

Excessive file sizes can cause document distribution to fail, particularly for encrypted email reports. This can happen if the logo used on a report is too large. To prevent this from occurring, two new System Configuration settings have been created to indicate the maximum file size and the maximum file dimension. If an image or logo is uploaded that exceeds either of these settings, the user will be warned.

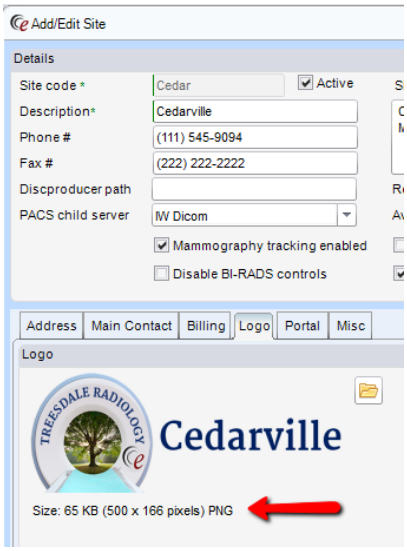
The new settings are as follows:

- **MaxLogoFileSize** – maximum number of bytes for image files uploaded for Practice or Site logos, as well as images uploaded via the ImageUploader configuration screen.
- **MaxLogoWidthOrHeight** – maximum number of pixels for Practice or Site logos, as well as images uploaded via the ImageUploader configuration screen.

If either setting is exceeded when uploading an image, the upload will be prevented and the user will be presented with a warning displaying the maximum for the value that was exceeded:

- The selected image file must be less than 250,000 bytes.
- The selected image's width must be less than 1,000 pixels.
- The selected image's height must be less than 1,000 pixels.

A label has been added to the image preview window, so that file sizes and dimensions are visible for uploaded images. The file type is also listed.

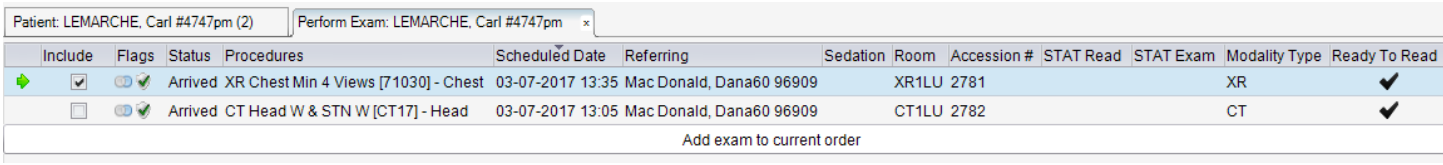



No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #16292 – TECHNOLOGIST CAN NOW ADD ADDITIONAL EXAMS TO THE ORDER FROM PERFORM EXAM TAB

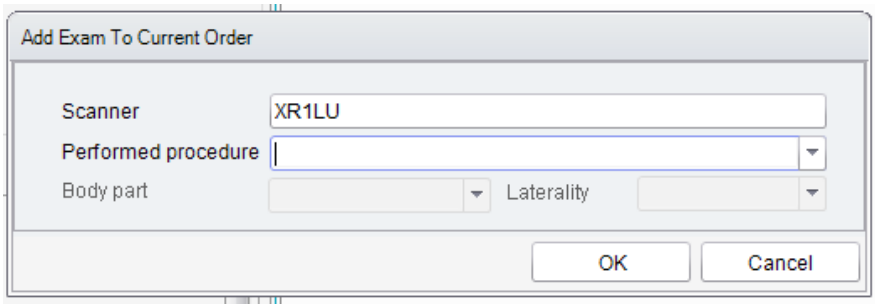
Technologists often need to add additional studies to the order when the patient is already on the table, after receiving feedback from the radiologist or upon realizing that the referral contains a separate exam that was not registered. Technologists need a method to add additional studies with fewer steps, as long as the study belongs to the same order (which would also necessitate the same referring physician and payment method).

To increase efficiency for this workflow, users can be granted a new access string named *Clinical.Tech.AllowAddExam*. The default for this access string is None. If set to Full, a technologist will have access to a new button on the Perform Exam tab labeled "*Add exam to current order*." The button is located beneath the list of today's exams at the top of the Perform Exam tab.




Clicking the "Add exam to current order" button will allow the technologist to add a new exam to the currently selected Order without going through the registration process.

A new window will open for the technologist to select the procedure, along with Body Part and Laterality if applicable.



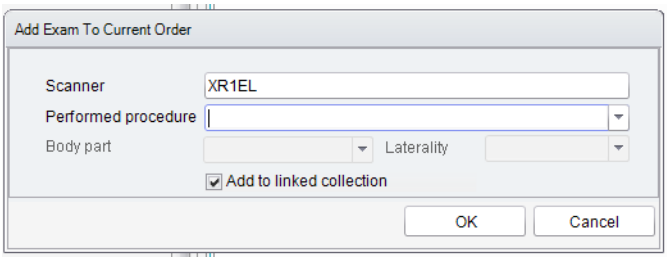

Currently, the scanner (room) is hard coded to match the same scanner as the existing procedure. In the next phase, this will be expanded to allow the technologist to select a different scanner.

The procedures available in the dropdown will include any procedure code that is part of the Schedule Group for the scanner.

Upon clicking OK, a new exam will be added to the existing order. The Date and Time will default to the current date and time, similar to a Walk In.

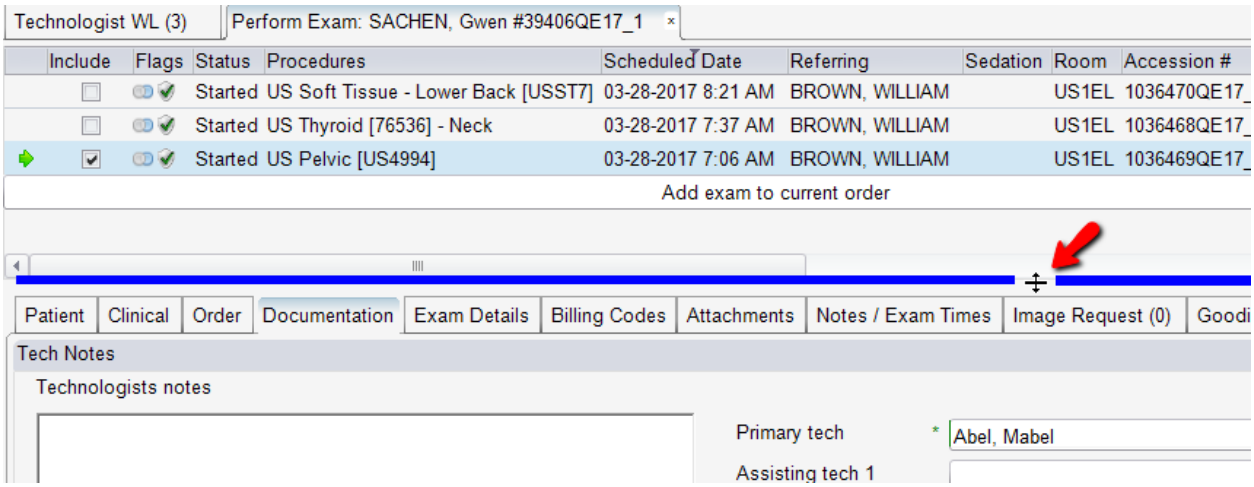
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

For customers using Linked Reports, another option will be available if the current study is part of a set of linked studies.




Checking the "Add to linked collection" checkbox will automatically add the new procedure to the linked set. RIS will set the linked id and display the linked flag for the new study. This box will be checked by default.

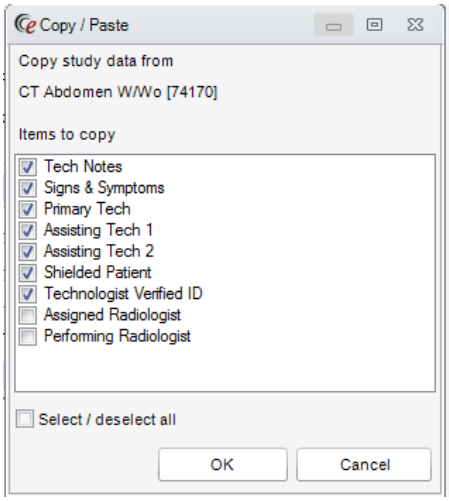
It has always been possible to adjust the height of the list of today's procedures at the top of the Perform Exam tab by hovering on the dividing line and click/dragging when the double arrow appears. RIS will now remember this position and re-open with the same height for the next patient.




No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #16294 – COPY/PASTE FEATURE NOW INCLUDES "TECHNOLOGIST VERIFIED ID"

On the Perform Exam screen (Documentation tab), there is an option to Copy/Paste certain data elements to other included studies (via the Include checkbox). An option to include the "Technologist Verified ID" field in the Copy/Paste options has been added. This option will be checked by default.




No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #16293 – TECHNOLOGIST INFORMATION CAN AUTOMATICALLY COPY TO ALL LINKED STUDIES

When using the Linked Reporting feature, linked studies are not sent to the radiologist for dictation until all studies are completed by the technologist. For customers using linked reporting for exams that are performed on different days or in different modalities, it is preferable to prevent the radiologist from dictating before all of the images are available. However, for customers who routinely use Linked Reporting for multiple x-ray exams performed at the same time by the same technologist, this can cause workflow problems for linked reporting if the technologist forgets to complete one of the studies. In these environments, it is also desirable for certain information, such as primary technologist, technologist notes, and pregnancy status, to automatically copy to all of the studies that are part of the linked set.

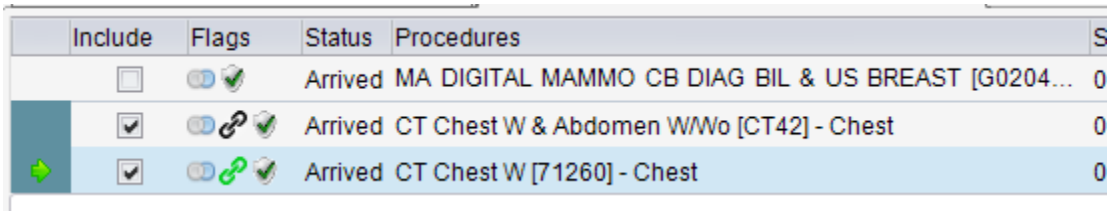
For these purposes, the following System Configuration options are now available:

- *AutoIncludeLinkedStudiesForTech* – When set to True, RIS will automatically "include" all studies in a linked collection when the perform exam window is opened. This allows the technologist to Start and Complete all of the exams together. The default for this setting is False. In a future build, RIS will exclude studies in the linked collection if they have a different Modality Type. For this first phase, this behavior will apply to all studies in the linked collection ***regardless*** of Modality Type.

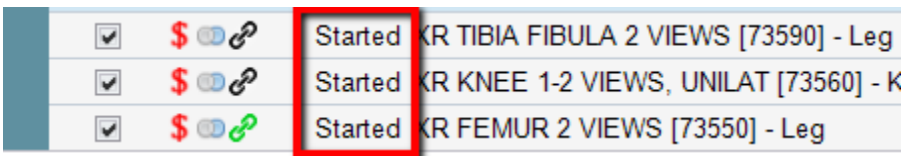
- *AutoCopyPasteLinkedStudies* – When set to True, RIS will automatically copy/paste all available fields from the most recently saved exam to all other checked exams in the linked collection. The Copy/Paste will occur any time a user saves any of the studies in the linked set from the Perform Exam screen. The default for this setting is False. To use this setting, the first setting, *AutoIncludeLinkedStudiesForTech*, must also be set to True.

Setting both of the above System Configuration settings to True will make the following workflow possible:

The technologist can open a study from the Technologist worklist and other studies that are part of the linked set will automatically be Included.




The technologist can fill in any fields that are required upon Start (e.g. entering the Primary Technologist). Clicking Start will copy the information to all of the checked studies and all of the studies will move to Started status.




No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

Additional information can be added on the Documentation tab and upon the next action which includes a save, such as Complete, Suspend or Save, the fields will copy to all of the included exams that are part of the linked set.

Fields that will be copied include: Tech Notes, Signs & Symptoms, Primary Tech, Assisting Tech 1, Assisting Tech 2, Shielded Patient, Pregnancy Status information, Technologist Verified ID, Assigned Radiologist, and Performing Radiologist. These are the same fields that are available for manual (optional) copy/paste workflow, which is still available for customers who would not benefit from this new feature.

Please note that when the new feature is used, it is not possible to handle any of the linked studies separately. In other words, they cannot be de-selected from the Include workflow if they are part of the linked set.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## RADIOLOGIST

### FEATURE #15107 – DECREASED LIKELIHOOD THAT A RADIOLOGIST COULD SELF-REVIEW A LEGACY STUDY

Typically, imported legacy studies do not contain a User ID for dictating, signing, or contributing radiologists. This can cause an issue for Peer Review because RIS does not identify that Sue Smith without a User ID is actually the same person as Sue Smith with User ID smiths. This lack of recognition means that eRAD RIS would allow the radiologist to review their own legacy study, which is not appropriate.

To decrease the likelihood of this issue for legacy reports, new logic has been added that will evaluate the first and last names of the involved radiologists when there is no User ID available for comparison.

If the name of any radiologist for the legacy study contains both the first and last name of the current user, eRAD RIS will disable Peer Review. While this can lead to some amount of false positives or negatives, it will greatly reduce the risk of a radiologist doing peer review inappropriately.

Data migrations typically insert the full name of the radiologist into the applicable fields without any manipulation of that name (e.g. attempts to parse out what is first or last name or suffix, etc.). Therefore, the names can be found in any order when evaluating for a match. If a radiologist name was imported as Dr. Kate Ellington or Ellington, Kate, M.D. or Kate Ann Ellington, the match will still be made because each contains the current user's first name (Kate) and last name (Ellington) somewhere in the field.

As mentioned above, it is possible to have false negatives and false positives with this strategy. For example, if Kate Ellington and Katerina Ellington are two different doctors, Kate will be prevented from peer reviewing Katerina's legacy studies because the name Katerina contains the name Kate. This would be a false positive. If Sheila Warring was listed in the legacy system with her maiden name Sheila Thomas, eRAD RIS would not catch the match, which would lead to a false negative and Dr. Sheila would be permitted to review her own legacy report.

Despite the potential for some amount of discrepancy, this change will drastically reduce the potential for an inappropriate Peer Review. If it is identified that a mismatch is occurring (either a false negative or false positive) for a particular radiologist, this can be addressed by running a script to add the current user's User ID to the legacy studies.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

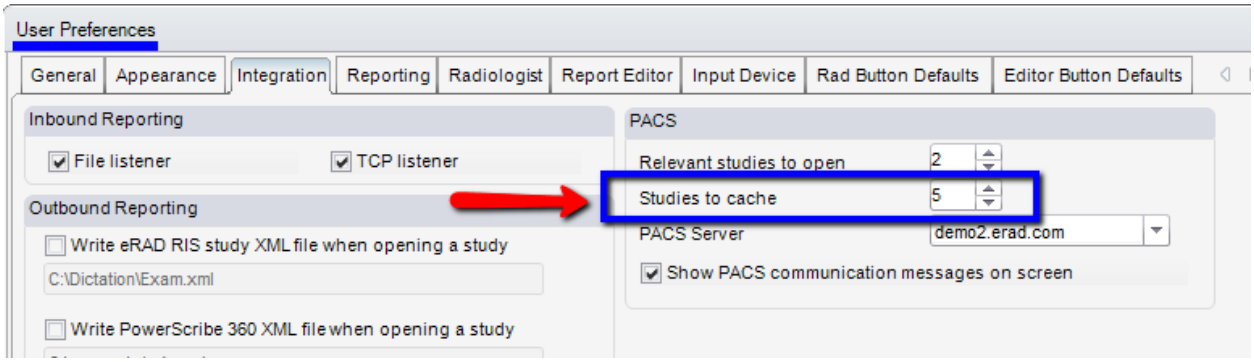
## FEATURE #15330 – IMPROVEMENTS TO MANUAL CACHING AND CACHING WORKLIST VIEWS

Three important changes related to the caching of PACS images on the Pending Dictation worklist have been added with this feature.

1. Improvements have been made to selecting studies for manual caching.
2. It is now possible to toggle automatic caching on and off.
3. Custom views on Worklists can be created with a setting to either include or exclude caching.

Previously, when studies were selected for manual caching, the manual request would override the studies that were supposed to automatically cache. Now, the manual cache requests will be added *in addition* to the automatic PACS requests.

Some new settings are also in place for the number of studies that can be manually cached. The user will be allowed to manually cache the same number of studies as their user preference for automatic study caching.




In other words, if the user preference is configured to allow 5 studies to be automatically cached, as illustrated in the above screenshot, the user will be able to add an additional 5 studies manually to the cache list for a maximum total of 10 cached studies.

If the user selects more than their allowed number of studies for manual caching, the newest requests will be cached and will bump the oldest manual requests off the list of studies to cache, so that the number of manual studies to be cached is not higher than their limit. Depending on the timing, the oldest manual requests may have already finished caching.

For example, consider the following scenario:

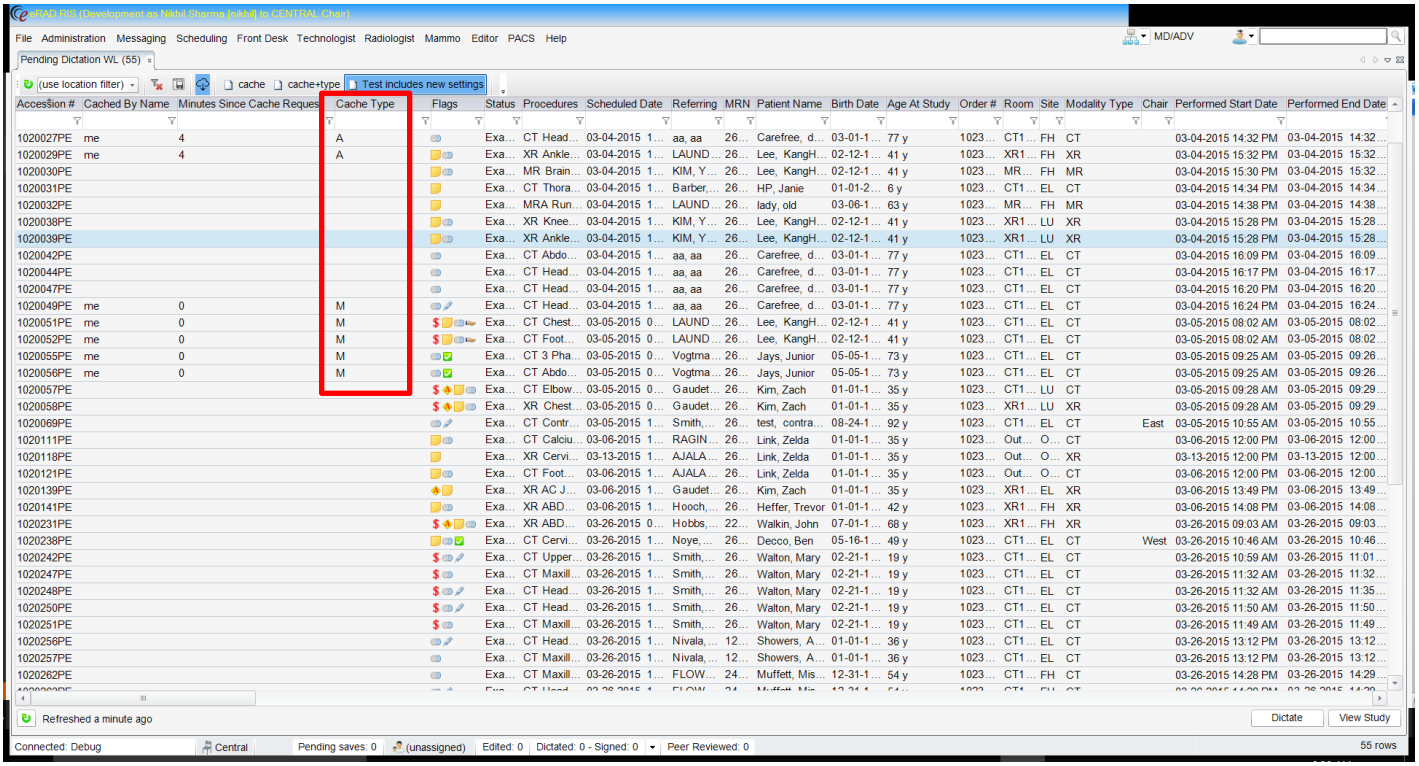
- Dr. Ko has a user preference for Studies to Cache = 5.
- She opens the Pending Dictation WL and the first 5 studies begin to cache automatically.
- She selects 5 additional studies to manually cache, using the existing context menu item “Add to PACS Cache.”

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

- After some time elapses, Dr. Ko selects 2 additional studies for manual caching. She has now exceeded her allowed number of studies to manually cache. The two oldest manual cache requests will be cleared, though in this example, they have already finished caching.
    - ~~**Manual Cache #1**~~ - Complete
    - ~~**Manual Cache #2**~~ - Complete
    - Manual Cache #3 - Complete
    - Manual Cache #4
    - Manual Cache #5
    - Manual Cache #6
    - Manual Cache #7

When the user selects more than their allowed number of studies, a notification will inform the radiologist that the list has been modified and the studies that were added. The notification style message does not need to be acknowledged by the user.

A new column has been added to display which studies have been selected for caching, with an A to indicate Automatic Caching and an M to indicate Manual Cache requests.



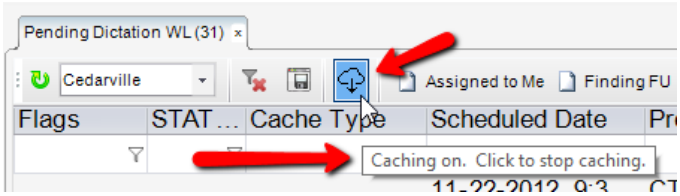

The user can remove a cache request by right-clicking the study and choosing the context menu option "Remove from Cache."

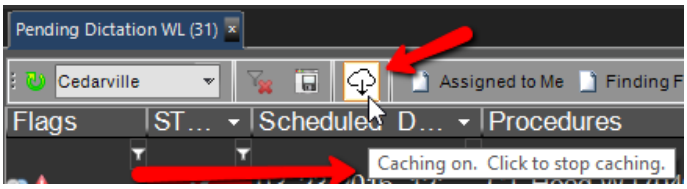
The next important part of this feature is the ability to turn caching on or off using a new Caching button. This button can be toggled on or off at the user's discretion. The background color of the button will change when

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

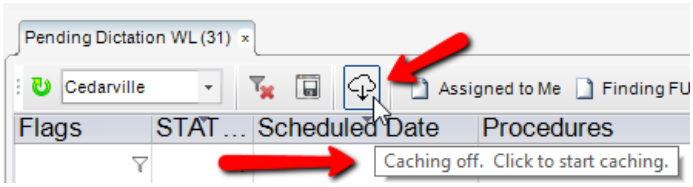
caching is turned on. Additionally, there is a tooltip that will describe the current setting. The images below illustrate the button in Caching On and Caching Off states, for light and dark modes.

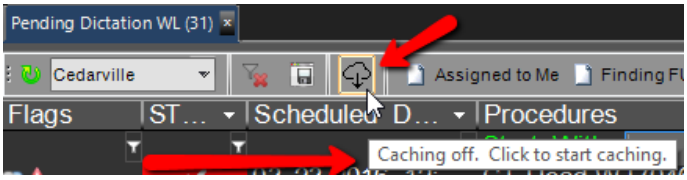
**Caching <u>On</u>:**




**Caching <u>Off</u>:**




This toggle button will turn off ***automatic*** caching; however, the user is still able to add Manual Cache requests by right-clicking a study and selecting the "Add to PACS cache" context menu item.

Note that this Caching toggle button will not be available if the User Preference for Studies to Cache is set to 0. Users with this setting will also not have the option to manually add to cache. Therefore, if the user prefers not to use Automatic Caching but would like to manually cache, they should set the Studies to Cache preference to be greater than 0, then toggle off the Cache button. This will allow the user to select studies to manually cache without any automatic caching.

Another advantage to the new caching feature is that the Custom Views on worklists will now save the status of the Caching toggle button. This allows users to determine whether caching is used or not for a particular list. As a simple example, a user can have a main Custom View with automatic caching turned on and a secondary Custom View with caching turned off. In this case, the user can periodically switch from their main Custom View to check

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

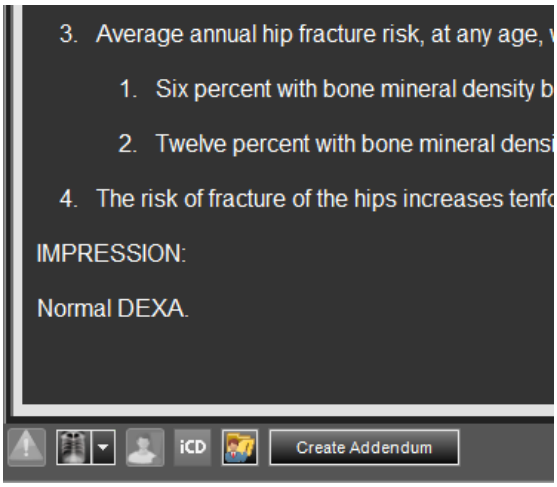
the secondary Custom View without any changes to their list of studies to cache. The studies from the main Custom View will continue caching while the user is on the secondary view.

Any Custom Views that were saved prior to the upgrade will automatically include a Caching On status, assuming the user has more than 0 studies configured to cache. To adjust, the user can turn the toggle to the OFF status, right-click the Custom View button, then select Overwrite. This will update the Custom View so that caching will be turned off.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #15696 – CREATE AN ADDENDUM FROM THE VIEW STUDY SCREEN

The recently added **View Study** screen replicates the radiologist dictation screen in a "view only" mode. One of the advantages of this screen is that it allows radiologists to view Signed studies without initiating an addendum. However, there are times when a radiologist may find it necessary to complete an addendum when viewing studies in this mode. Closing the View Study screen and re-opening in Dictate mode is not efficient, so a **Create Addendum** button has been added to the View Study screen.




The Create Addendum button is in the bottom left corner of the screen, next to the Folders button. Clicking this button will automatically reload the screen in addendum mode and will ***not*** show the prompt asking if the radiologist wishes to make an addendum.

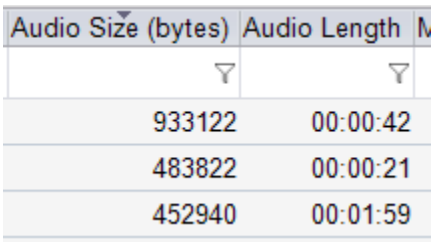
If an addendum has been requested for the study, the Addendum Request notes will be displayed in a pop-up message.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #10975 – ACCURATE AUDIO LENGTH IN WORKLIST COLUMNS

In some cases, previous audio length columns on various worklists did not precisely reflect the length of the dictation recording.

In order to correct this issue, a property was created for all recording systems: M*Modal Interactive, M*Modal Batch and eRAD Batch. This property will return the actual length of the audio file as recognized by the recording system. The value will update each time a radiologist inserts or otherwise updates the audio recording. The value is then converted from milliseconds to a display format of hh:mm:ss.



| Audio Size (bytes) | Audio Length | M |
|---|---|---|
| 933122 | 00:00:42 | |
| 483822 | 00:00:21 | |
| 452940 | 00:01:59 | |

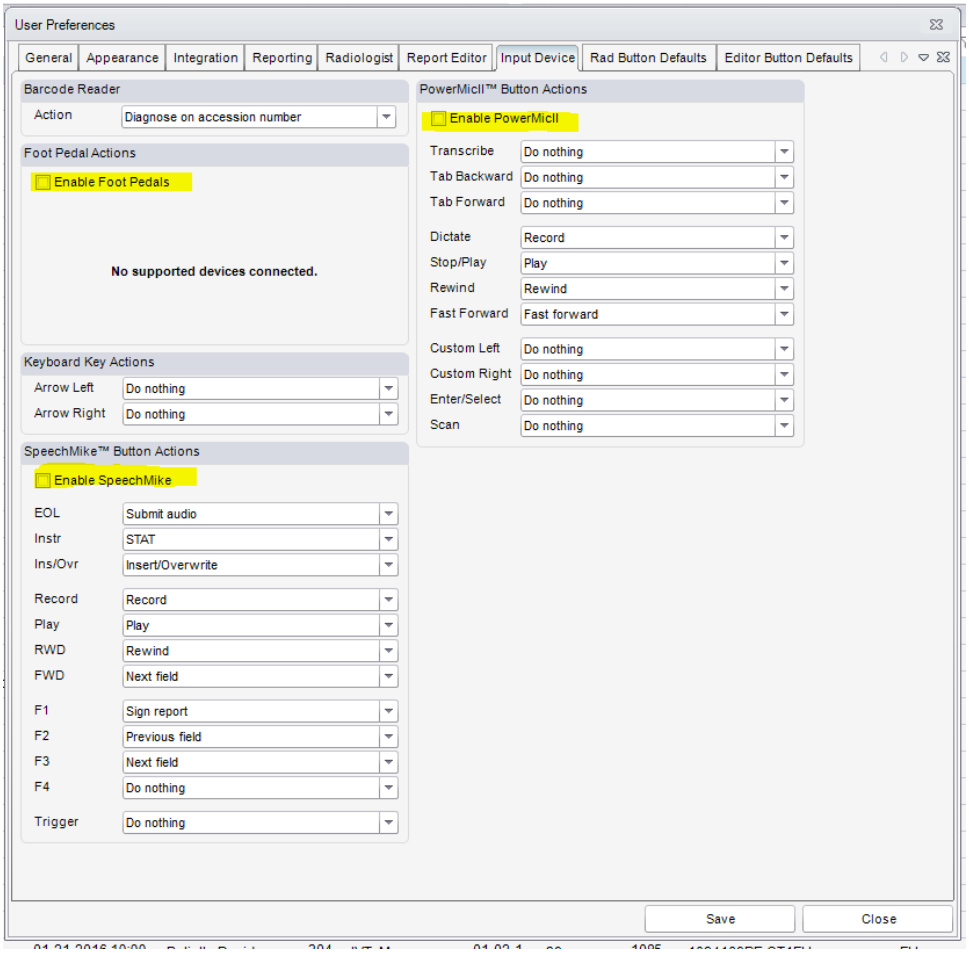
All worklists that previously displayed audio length in *bytes* have been updated to show both the Audio Size in bytes as well as the Audio Length in a format of hh:mm:ss.

Only audio files that are dictated after the upgrade to version 2.2017.3 will be shown in the new format. Dictations recorded prior to the upgrade will be displayed in their original format.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #17458 – USER PREFERENCES TO DISABLE INPUT DEVICES

User preferences were added to allow disabling the Input Devices. The checkboxes illustrated below on the Input Device tab of the User Preferences screen control whether the device is enabled or disabled.

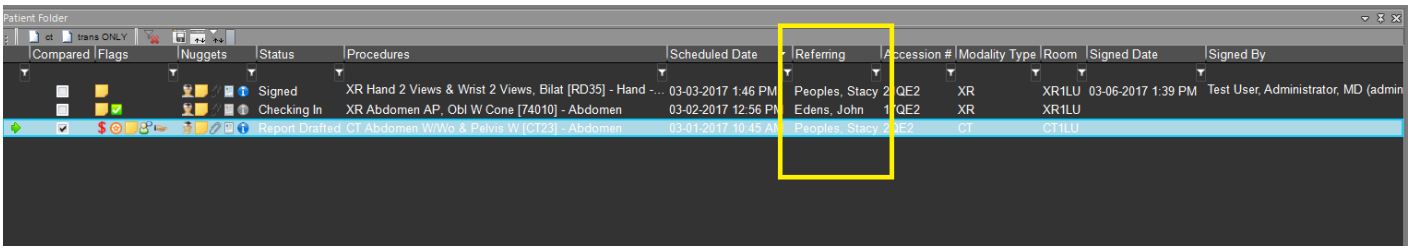



Note: “Enable Foot Pedals” and “Enable SpeechMike” are essentially the same. They will stay in sync and control what is essentially one user preference. However these were created as separate preferences because if the user is not a radiologist, they will not have access to the SpeechMike group box. Separating the preferences in this way will ensure that users are able to see and set the preference regardless of their exact role.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #15643 – REFERRING COLUMN ADDED TO MINI-PATIENT FOLDER ON REPORTING SCREEN

The referring physician is now visible in the mini-Patient Folder panel on the Reporting screen with the addition of a Referring column. This will benefit radiologists who wish to see which doctor referred prior studies without having to look at the Selected Summary panel for each study.

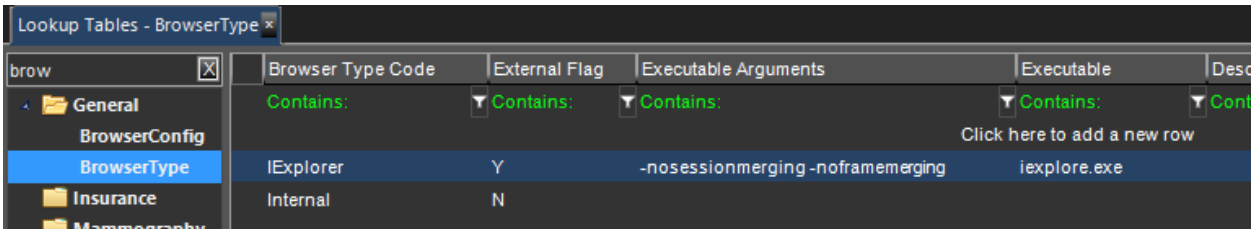



No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #15812 - ALLOW RADIOLOGIST PORTAL FEATURE TO LAUNCH URLS IN EXTERNAL BROWSERS (SUPPORT GE ZFP USING THE PORTAL SCREEN)

Previously, the Portal panel that appears on the radiologist Dictation screen only used the internal .net WebBrowser object for opening pages. This does not support all of the websites customers wish to open using the Portals feature. For example, certain websites, such as the GE Zero Footprint Viewer, require a full Internet Explorer 11 or a modern browser like Firefox or Chrome. eRAD RIS can now support launching and closing pages in external web browsers for the Portal feature.

First, an administrator can add browser types to a new look-up editor labeled *Browser Type*. There are two default entries in the browser type table. One is for the Internal browser, which is the same method previously used to display Portals in the panel within the Dictation screen. The second is Internet Explorer, launched in unshared frame and session modes. Additional browsers can be added. The *External* flag should be Y if the browser is not the default internal browser.




In order for an administrator to access the Browser Type lookup editor, the new access string *Config.LookupEditor.BrowserType* must be set to Full.

The existing *Browser Config* editor has been updated to allow any of the Browser Types to be selected from a dropdown menu.

For each URL defined in the Browser Config editor, the corresponding Browser Type will be used when the portal is opened.

Whenever the Browser Type for a Portal's URL is an External browser, the Portal tab in the Dictation screen will begin with an [EXT] label. Clicking on the panel will simply provide the user with a message that the page for the portal has been opened in an external browser. Additionally, when the tab is clicked, RIS will attempt to move the related browser to the front of all windows.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

It should be noted that an administrator will need to configure the browser of choice to run in single window/session per URL mode in order for the “bring to front” functionality to apply. It will not work with shared sessions or windows.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## RESOLVED DEFECTS

Bugs and support issues resolved in build 2.2017.3.

**eRAD RIS:**

| Bug # | Category | Subject |
|---|---|---|
| 14218 | | Resolved issue where configuration Editor did not properly handle null values. |
| 15460 | | Resolved issue where a RIS failure on exit would prevent the uploading of trace data. |
| 7459 | | Updated log control's border to more closely match other RIS controls. |
| 15855 | Access strings | Added access string for CTRN (Clinical.Ctrn). |
| 15481 | Admin-Clinical Data | Procedure Picker Import tool now correctly selects only active items. |
| 15309 | Admin-Other | Resolved small memory leak in reporting options editor. |
| 2151 | Admin-Other | Updated many audit log "action" values to be more descriptive. |
| 6840 | Admin-Other | Improved error handling when a holiday was entered without specifying a practice. |
| 7594 | Admin-Other | Internal person search now correctly bolds the first resource type for the person. |
| 7965 | Admin-Other | Add/Edit practice - Delete Logo button is now only enabled when there is a logo to delete. |
| 8181 | Admin-Other | Resolved issue for which doing a person search, receiving no results, then pressing enter would display an error. |
| 12944 | Admin-Other | In organization editor, the map will now display the location of the site without needing to first click on the map. |
| 15550 | Admin-Other | Updated procedure plan lookup to allow apostrophes in any of the fields. |
| 13554 | Billing | Resolved billing exception issue where patient phone # was required, and the user had to post twice to get it to resolve. |
| 16497 | CCDA | All administered medications are now added to CCDA. |
| 11157 | CD Import | Import CD - If the study fails to import because the study was already in PACS, RIS no longer creates a blank row in the patient folder. |
| 14321 | CD Import | Loading from CD progress bar is no longer cut off in Windows 10. |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

| | | |
|---|---|---|
| 16348 | CD Import | Upgraded to the latest fo-dicom toolkit (used for CD Import). |
| 15742 | CEHRT | Get automated measures report now returning patient portal(vdt) numerator. |
| 16285 | CEHRT | Fixed incorrect tool tip for sexual orientation field. |
| 16751 | CEHRT | Added appropriate SNOMED codes to the l_gender_identity and l_sexual_orientation lookups using the 2015 US SNOMED codes. |
| 15546 | Citrix Bridge | LOG FILE reader- Resolved issue when using Citrix bridge where log file reader would continually add the same information including the same time when refreshed. |
| 15731 | Citrix Bridge | Citrix Bridge - Uninstaller now removes reference to VcCom API. |
| 16770 | Citrix Bridge | Resolved error when launching Citrix Bridge.exe. |
| 15727 | Citrix Bridge | Citrix Bridge - Updated the manufacturer code to 'eRAD.' |
| 15730 | Citrix Bridge | Citrix Bridge - Changed the default icon so that it can be placed on the desktop and not confused with eRAD RIS. |
| 15841 | Citrix Bridge | Citrix only - Issue corrected where PACS Login window could appear behind RIS. |
| 16160 | Client Install | Help - About screen is now showing the correct CORE UI version. |
| 16314 | Client Login | User_ID can now exceed 20 characters. |
| 14815 | Connect Portal - Referring Ordering/Scheduling | Added ability to view the order details from an Order that is Pending Approval or Order Drafted in the patient folder. |
| 15552 | CTRM | Resolved issue where CTRM dialog would remain open when PowerScribe 360 issued a close command to RIS. |
| 13490 | CTRM | Corrected issue where close button on Critical Result window would not work. |
| 15077 | Digital Forms | Resolved issue where cancelling an exam with the Red X would not remove the associated digital form. |
| 15538 | Digital Forms | Resolved issue where digital form data was not saving if preceded by validation failure. |
| 15983 | Digital Forms | Corrected condition where digital forms could silently fail to save data. |
| 16336 | Digital Forms | Digital Forms Import/Export tool now copies new grid tables. |
| 16725 | Document Distribution | Resolved intermittent error when trying to Start / Retry job in Distribution History by Date WL. |
| 16120 | Exam Search | Resolved intermittent "DoSearch" error in the Exam search screen. |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

| | | |
|---|---|---|
| 14338 | Exam Search | Exam search screen has dropdowns for multiple 'id' fields - these fields would sometimes have what appeared to be identical values. |
| 15468 | Flags | Resolved intermittent issue where eligibility flag tooltip was stuck in "In Progress." |
| 15879 | ICD | Resolved issue where ICD codes could vanish from Medical History Grid when pressing Start on Perform Exam screen. |
| 15804 | Image Request | Resolved issue where changing the image request status for studies in Exam Done status produced an error that 'Signs and Symptoms' is required. |
| 15208 | Inbound Document Processing | Attach Inbound Document "Your lock was broken by another user" message will now only appear when the user is focused on the Attach Inbound Document window. |
| 16040 | Inbound Document Processing | Resolved issue where selecting an action button when a locked row was highlighted would throw a 'no row at position 0' error. |
| 16406 | Inbound Document Processing | Inbound Document workflow now supports both .TIF and .TIFF files. |
| 15488 | Installer | Prevented situation where the installer can be invoked more than once, which will intermittently produce a corrupt zip file error message. |
| 13940 | Insurance Eligibility | Improved error handling on misconfigured EligibilitySpecialCondition values. |
| 7468 | Insurance Eligibility | Eligible API checked studies are now not appearing on the IVT work list. |
| 8616 | Insurance Eligibility | Plan end date: date of service now includes that day. |
| 16602 | IVT / Precert | IVT - Corrected error when opening an item 'Ordered' status. |
| 15409 | Localization | Localized the Critical Results screen. |
| 15325 | Localization | Updated customer requested changes to Hebrew localization. |
| 15383 | Localization | Localized several missed fields in the dictation window. |
| 10321 | Localization | In Hebrew, add/edit region dialog box says Add/Edit Site in the title bar. |
| 12520 | Localization | Corrected issue in Right to Left mode, in the drawing tool - the yellow X icon did not have padding between it and the radio button. |
| 14538 | Localization | In the Hebrew RIS, DOB is now localized. |
| 16778 | Localization | In Hebrew, the localization of Height and Weight have been corrected. |
| 16167 | Locking | Creating a Critical Result will no longer lock the entire order. |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

| | | |
|---|---|---|
| 16106 | Log Control | Log Control with spellcheck enabled will no longer identify the user_id as a typo. |
| 16481 | Log Control | Resolved issue where typing beyond visible boundaries in a text box would cause the cursor to disappear. |
| 15853 | Logging | Corrected issue where trace files appeared on c:\ instead of their proper location. |
| 15959 | Lookup Tables | Corrected issue where System Config value 'UMPDefaultOrderTabCriteria' would not save. |
| 8569 | Mammography | Mammo drawing tool - Breast diagram does not change between male and female templates if the sex is altered after the drawing tool is initially opened. |
| 14518 | Management Reports | Payments Received report now works with site codes containing a dash '-'. |
| 15294 | Management Reports | Updated Mammo Annual Radiologist Summary to support future years. |
| 15808 | Management Reports | Removed an old MU Archive Reports from core folder. |
| 15811 | Management Reports | Management Report "Front Desk Activity" is corrected to only show data on selected dates. |
| 16270 | Management Reports | Management Report "Front Desk Detailed Activity by Hour" now includes all appropriate users in the user dropdown list. |
| 16487 | Management Reports | Management Report "Scheduler Activity" - Now correctly grouping on the user, not the scheduler. |
| 15252 | Mgt Reports | Improved performance of c_GetRadStatsForTodayByUserID used by management reports. |
| 16169 | Mgt Reports | Service: SSRS deployment is now uploading Verbal Order forms to the reporting server. |
| 16409 | M*Modal | Corrected "object reference error" after importing and saving an M*Modal template. |
| 16652 | MRN | Issue resolved where system could generate a 'Duplicate key row exception' when adding secondary issuer required by new validation rule. |
| 16428 | Ordering | EMR orders that are not matched to a RIS procedure code will now not allow the print dialog to appear (which was producing an error). |
| 16968 | Ordering | Corrected inadvertent change of 'Reason for exam' control to be a log control when upgrading to 2016.7 or newer. |
| 15254 | PACS (eRAD) Int - RIS only | Resolved intermittent issue where manager class could wait indefinitely. |
| 7032 | PACS (eRAD) Int - RIS only | Corrected issue where prefetch would not work if the user did not have a user preference set for |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

| | | |
|---|---|---|
| | | 'MaxRelevantPriors.' |
| 7947 | PACS (eRAD) Integration | Resolved issue where closing a caching worklist could throw a null reference exception. |
| 15365/15367/ 15368 | PACS (eRAD) Integration | Resolved an event viewer log error when RIS was unable to find PACS window. |
| 15452 | PACS (eRAD) Integration | Resolved intermittent issue where a user may be prompted for PACS login credentials even after disabling PACS integration. |
| 15821 | PACS (eRAD) Integration | Resolved a rare 'row has been removed' error. |
| 17337 | PACS (eRAD) Integration | Resolved issue where a user could not cache studies if another user cached the studies at the top of the worklist. |
| 15558 | PACS (Non - eRAD) Integration | Enabled the InfinitConfig.xml to be read when test mode is set to true. |
| 16757 | PACS (Non - eRAD) Integration | CSH PACS - Resolved issue where a 'close session' was not being sent. |
| 16758 | PACS (Non - eRAD) Integration | CSH PACS - Resolved issue where incorrect message was sent to PACS to open a 2nd study for same patient. |
| 13880 | PACS Citrix Bridge | Citrix - Resolved issue when using RIS over Citrix and working with multiple studies in the dictation window. Images can no longer get out of sync. |
| 15960 | Patient Folder | Resolved issue where County name would not persist under specific circumstances. |
| 13928 | Patient Folder | Resolved issue where 'Patient Race Required' would still be displayed, even when a race was entered. |
| 15976 | Patient Merge | Corrected issue where after an external patient was matched to an internal patient, the merge dataset was not properly populated in the external message container. |
| 6984 | Patient Search | Removed the "New Patient/New Appointment" from the patient search split button as it's already on the main button. |
| 16642 | Peer Review | Added PeerReview layout to default install. |
| 16520 | Peer Review | Changed the All Peer Review Pending Action WL to display 'Interpretation Type.' |
| 16525 | Peer Review | When using skip (next ) workflow, the RIS now skips over studies that are currently open in review window. |
| 16526 | Peer Review | Peer Review - Corrected issue where the user was able to view the preliminary report even when they did not have permission to do so. |
| 14355 | Performance | Improved performance of exam search screen when searching by ID fields. |
| 13835 | PowerScribe Integration | Resolved issue where RIS reporting screen would remain open if PowerScribe is opened then quickly |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

| | | |
|---|---|---|
| | | closed. |
| 16197 | PowerScribe Integration | Resolved issue where the View Study window was opened on a study that was signed in PS360 after initial RIS login, PS360 was not automatically launched. |
| 13975 | RADAR | WedgePlugin for RADAR now passes the display name for the "from" email address. |
| 16110 | RADAR | Resolved RADAR API exception which prevented a reschedule/cancel appointment. |
| 16345 | RADAR | RIS now prevents email message requests without a practice code from being added to the RADAR queue. |
| 15210 | RADAR - Nudge | Resolved an issue where the user could still preview the report via Nudge even if PreviewPreliminaryReport permission was set to None. |
| 16189 | RADAR - Secure PIC | RADAR Plugin - Added a configurable delay before attempting to reconnect if the connection was interrupted. |
| 15217 | Radiology Reporting | VR2 - Resolved issue where a new procedure code added by the inbound interface would cause the client to hang when opening via the XML file drop. |
| 15525 | Radiology Reporting | Configurable reporting options are now written into the verbose log file to assist with troubleshooting. |
| 16080 | Radiology Reporting | Resolved 3.5 minute timeout when a table is added to a report and print preview is used to view it. |
| 16129 | Radiology Reporting | Resolved an issue where audio files were not being deleted for editors. |
| 6277 | Radiology Reporting | RIS now prevents the creation of section titles with >1000 characters, which was causing document distribution to fail. |
| 15981 | Radiology Reporting | Removed user preference to reuse reporting screen since it is no longer required (re-use is always on). |
| 16068 | Radiology Reporting | Resolved issue where 'Dictated by' in the summary panel was not populated for reports initially created by a technologist. |
| 16087 | Radiology Reporting | RIS now hides the floating report history window if another patient record is opened. |
| 16179 | Radiology Reporting | Resolved error when technologist attempts to open a suspended study in View Study window. |
| 16483 | Radiology Reporting | Re-enabled the set/remove 'stat read' flag in the editor screen. |
| 16513 | Radiology Reporting | Resolved issue where original study was created in one reporting mode, then user switches to a different reporting mode and creates an addendum. The addendum can now be re-opened. |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

| | | |
|---|---|---|
| 15840 | Reception | Improved signature capture feature on MS-Surface device. |
| 16761 | Reception | Resolved issue where the 'Visited at:' required field could be bypassed. |
| 16797 | Reception | Resolved issue where after adding a scanned document to a Walk-in, user was sometimes required to re-enter the 'Special Accommodations' field. |
| 15670 | Scanning | Resolved intermittent issue where scanning in duplex mode sometimes flipped the second page of a license. |
| 16768 | Scanning | Resolved the error "A Lock Is required to update this order" when saving attachments in the Add Attachment screen. |
| 16023 | Scanning | Resolved issue where an order level scanned document would show only the 'move to order' context menu instead of 'move to patient level.' |
| 16277 | Scanning | Increased the size of attached date column in attachment list so date can always be seen. |
| 14206 | Scheduling | Resolved error when scheduling if the ProcedureGeneralDescription - Description column is empty. |
| 15462 | Scheduling | Resolved an error that could occur on the reschedule screen if a different order was selected. |
| 15779 | Scheduling | Resolved issue where Cancelled procedure (black X) was still evaluated for contrast required validation. |
| 16458 | Scheduling | Added appropriate error when attempting to overbook by a user who does not have the overbooking permission. |
| 7175 | Scheduling | Added 'reschedule' option on the context menu of a cancelled study. |
| 7830 | Scheduling | Modality Closure - Prevented the end time from being earlier that the start time. |
| 11273 | Scheduling | Resolved issue where height/weight were not required on reschedule. |
| 16275 | Scheduling | Scheduling calendar view now allows drag and drop of appointments, as was already possible in the main Appointment Book. |
| 15327 | Technologist | Resolved issue where the technologist could not delete an existing sedation. |
| 15544 | Technologist | Removed unnecessary message regarding external report workflow from the View/Edit window. |
| 16608 | Technologist | Resolved issue where a procedure that requires contrast is included in a procedure plan and the contrast amount was not populating on the Perform Exam screen. |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

| | | |
|---|---|---|
| 12842 | Technologist | Resolved issue where Verify Credentials feature could leave the wait cursor on the screen even though it was not waiting (spinning blue wheel). |
| 16005 | Technologist | Resolved issue where users with both Technologist and Editor resources could be assigned as the radiologist when creating a report from the Perform Exam window. |
| 16159 | Technologist | RIS now supports decimals in the contrast and sedation grids. |
| 16614 | Technologist | Resolved an error that could occur when discontinuing the primary study in a linked set when in Exam Done status. |
| 15364 | Thick Client GUI | Resolved an event viewer log error when an error occurred during a save. |
| 15372 | Thick Client GUI | Resolved an event viewer log error "Invalid cast of Appointment to AppointmentExtended." |
| 15723 | Thick Client GUI | Resolved issue where Addendum Request control in reporting screen was not reloading data after button was clicked. |
| 16022 | Thick Client GUI | Resolved a hidden memory leak in Reschedule Order screen. |
| 16055 | Thick Client GUI | If network or services are down, the client will no longer retry all collected service calls at once, which could flood the server. |
| 16251 | Thick Client GUI | Resolved issue where RIS lock screen could be invoked twice, requiring user to enter password two times. |
| 1125 | Thick Client GUI | Corrected tab order issue in schedule tab. |
| 1352 | Thick Client GUI | RIS now prevents duplicate holidays from being added to the same practice for the same day. |
| 2529 | Thick Client GUI | Made the description a required field when entering indication codes into the RIS admin screen. |
| 3158 | Thick Client GUI | Corrected issue where the laterality field was available for studies where it was not required when entering Outside Reads. |
| 5444 | Thick Client GUI | Resolved intermittent issue where null prep instructions could cause an error. |
| 5482 | Thick Client GUI | Differentiated between 'identically named' worklists in the 'Open on Login' dropdown. |
| 5770 | Thick Client GUI | Added a Cancel button to the 'Report on Accession Number' screen. |
| 5946 | Thick Client GUI | Added patient notes to Outside Read screen. |
| 5947 | Thick Client GUI | Corrected tab order issue on Outside Read screen. |
| 6117 | Thick Client GUI | Resolved intermittent issue where attachments would not save from the 'Edit Billing' window. |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

| | | |
|---|---|---|
| 7153 | Thick Client GUI | When removing ICD codes from an order, there is no longer a scenario in which the codes could appear to be removed but were in fact still attached to the order. |
| 16399 | Thick Client GUI | Resolved issue where if the user held the TAB key on certain RIS screens, the RIS would appear to hang. |
| 15701 | UI Look and feel | Resolved issue with Font Size not changing in Hebrew Environment. |
| 9266 | UI Look and feel | Corrected an issue where double clicking a person on the Resolve Problem screen could cause an error. |
| 9647 | UI Look and feel | Corrected ZIP code auto-populate city-state-country on the IVT screen. |
| 15842 | UI Look and feel | Amount to Collect screen - all money fields are now right justified. |
| 16339 | UI Look and feel | When correcting a spellcheck error in dark mode (which had red text), the text now returns to white instead of black. |
| 16479 | UI Look and feel | Log control spellchecking now leaves punctuation in place if it was adjacent to a corrected word. |
| 16618 | UI Look and feel | When replacing a phone number by selecting the text, the newly keyed number is now correctly entered. |
| 15837 | Unknown Reconcile | Rescheduled studies with unknown referrings are now (correctly) appearing on the Unknown Reconciliation WL. |
| 15776 | Utilization Management | UM Alert now contains both the original and alternative procedure. |
| 16000 | Utilization Management | Removed inactive UM Resolution Codes in the UM Alerts resolution code dropdown. |
| 16002 | Utilization Management | Changed 'Authorization Letter' to 'Opinion letter' in Distribution History WL. |
| 16007 | Utilization Management | Changed 'Authorization Letter' to 'Opinion letter' in Organization editor. |
| 16026 | Utilization Management | Removed the inactive orders that could show as disabled orders in the UM portal. |
| 16177 | Utilization Management | Race field no longer becomes required during UM workflow without the ability to save. |
| 16759 | Utilization Management | Resolved issue where the config value to "Bypass UM for Stat exams" would not bypass if the order was already saved with Stat flag turned off. |
| 17060 | Utilization Management | Resolved issue where the Authorization Required prompt would remain even after UM Status has been changed. |
| 15963 | Utilization Management | Scheduling an order under Utilization Review from a folder now displays the correct "this study is under utilization review" message. |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

| | | |
|---|---|---|
| 16170 | Utilization Management | Resolved an error in utilization review when a UM status was set to inactive. |
| 16349 | Utilization Management | Removed the 'Utilization Review' context menu option in patient folder when the study is in 'Order Pending Approval' status. |
| 17150 | Utilization Management | Updated Utilization Review to now be able to save work in progress with the status still blank. |
| 15413 | View Edit | Resolved issue when launching View Edit screen from a Management Report. RIS was once again shows the Report Tab. |
| 16328 | Web Services | Added config setting to specify whether a wedge should abort the changes associated with an http inbound request. |
| 15945 | Web Services | Resolved issue where InitPersonnelLookupByUserID didn't include the expected user. |
| 16165 | Web Services | Improved the error message to the user if a SQL error occurs while setting flags. |
| 14620 | Worklists | Resolved issue where filtering on Calculated Columns in a work list would show an error message and fail to properly filter worklist. |
| 15895 | Worklists | Resolved intermittent Issue when setting "Locked By Name" filter to "Is me." |
| 15900 | Worklists | When deleting the dictation /report and resetting status on a study that is suspended, the _status_flags are now properly reset. |
| 15904 | Worklists | Resolved error when using date filtering on worklists including keywords "or", "not" or "and." |
| 16528 | Worklists | Resolved issue in which Problem flag was not getting removed from studies in WLs when the problem was resolved. |
| 16744 | Worklists | The new audio length column now shows the correct audio length for older studies as well as new studies. |
| 15961 | Worklists | Added 'Accession number' to the Image Request WL. |
| 16152 | Worklists | Image Request WL can now be set as an Auto Open worklist. |
| 16173 | Worklists | Corrected worklist filter errors when using the 'Between' filter. |
| 16775 | Worklists | Resolved issue where worklist customization (columns, colors, etc.) might not re-apply when worklist is reopened. |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

**CONNECT Patient Portal:**

| Bug # | Category | Subject |
|---|---|---|
| 15950 | Pat Admin - Activity Log | Patient Connect Admin - Activity log filter 'previous 7 days' now also includes today. |
| 15798 | Pat Admin - User Mgmt:Detail | Patient Connect Admin - Resolved error that occurred when attempting to view 'Patient Detail.' |
| 13976 | Patient Email | Patient Portal emails can now have a configured "from" email display name. |
| 15199 | Patient Exam Detail Page | Images Tab now disappears when PACS is not configured. |
| 15703 | Patient Exam Detail Page | Legacy Exams - Images will now appear in portal for legacy exams. |
| 15179 | Patient Exam Detail View | Resolved issue where a wait cursor could display indefinitely when no images were available. |
| 15180 | Patient Exam Detail View | Created a consistent mechanism to show when the report would be available on the portal. |
| 15287 | Patient Form | On the exam question review screen the question can no longer overlap the answer field. |
| 14523 | Patient Messages | Removed the 'Please verify you are a human' message on the bottom of the screen after test is successfully passed. |
| 15440 | Patient Security | Added a permission so that only authorized users can expire the lookups in the portal projects. |
| 14705 | Patient WF: Account Access | Removed case sensitivity check on answers to security questions. |
| 15749 | Patient WF: Create Account | Updated and clarified the 'required age' message displayed to minors when they are try to create an account. |
| 15024 | Patient WF: Make Appointment | When adding insurance, Policy number is now a required field. |
| 15284 | Patient WF: Make Appointment | Portal no longer allows 'Menstruation date' to be set in the future. |
| 15415 | Patient WF: Make Appointment | Fixed issue where the patient could not advance from Select Provider page when using "My provider is not listed" and searching for provider with special characters. |
| 17012 | Patient WF: Portal Pass iCode | Fixed intermittent issue with iCode (duplicate iCodes could be generated for different patients over time). |
| 15512 | Patient WF: Provider Invite to Make Appointment | Map tool now works when scheduling from an iCode. |
| 15514 | Patient WF: Provider Invite to | Clicking 'Make Appointment' during invitation |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

| | | |
|---|---|---|
| | Make Appointment | workflow will no longer return user to the login page. |
| 15528 | Patient WF: View Provider-Ordered Appointment | Scheduling in the Patient Portal via an invitation no longer defaults 12:00 AM at the top of the Review screen. |
| 14589 | | Resolved error attempting to load PACS images that did not have a study instance UID. |
| 15530 | | Corrected an issue with the portal's .ics file which was generating a 404 error. |
| 15536 | | Corrected issue where scheduling from an invitation would not connect the new study to the existing order. |
| 16136 | | Resolved issue with Get Help link. |
| 15004 | Admin-Other | Added ability to de-activate attributes in the procedure picker builder. |
| 15978 | Pat Admin - User Mgmt | DOB column can now be sorted. |
| 16069 | Pat Admin - User Mgmt | Resetting an account now clears the email field. |
| 17087 | Pat Admin - User Mgmt | After saving changes to the user profile, the profile is shown instead of hidden. |
| 15064 | Pat Admin - User Mssgs | Resolved issue where a forwarded message could get truncated. |
| 16025 | Patient Exam Detail Page | Resolved issue where thumbnail Images occasionally didn’t load. |
| 16196 | Patient Exam Detail Page | Corrected issue where prep instructions would not show when the appointment was not made in the portal. |
| 14089 | Patient Exam Detail View | Resolved issue displaying an accession number contains only alpha characters. |
| 14074 | Patient General Display | Patient Portal Logo is now configurable for each portal instance per practice. |
| 15080 | Patient General Display | On mobile device, the email field and retype email field now are recognized as email fields so the keyboard will default the @ and .com. |
| 15081 | Patient General Display | Increased width of iCode verification code on mobile screen. |
| 16039 | Patient Logon | After using the incorrect password X times, tell the user at X+1 times that they have locked out their account. |
| 16064 | Patient WF: Account Access | Generalized the center names that appear in the "select the center where you had your recent appointment" to reduce unnecessary failures. |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

| | | |
|---|---|---|
| 16449 | Patient WF: Account Access | A user who has had their access to the portal revoked can no longer try to re-create that account. |
| 16037 | Patient WF: Authorized Access | Corrected issue where the user could press NEXT before entering the verification code, therefore disabling the Next button. |
| 13068 | Patient WF: Make Appointment | Entering insurance has 2 steps - if the user enters insurance, then authorization, then presses BACK, they are now brought to insurance step 2/2 instead of starting over on insurance. |
| 16061 | Patient WF: Make Appointment | Worker's compensation 'date of injury' field no longer allows dates in the future. |
| 17299 | Patient WF: Make Appointment | Resolved issue where the 'PortalAllowEveningWeekendScheduling' feature allowed the user to schedule timeslots earlier than 'now.' |
| 16062 | Patient WF: Portal Pass iCode | Resolved issue where 2 or more studies related to the same iCode would cause an error. |
| 16439 | System | eRAD portals now support time zones that are + UTC. |

**Utilization Management Portal:**

| Bug # | Category | Subject |
|---|---|---|
| 16053 | Exam Detail Page | The 'Opinion letter unavailable' message now supports the Get Help link. |
| 15965 | Get Help Page (Outside & Inside) | The 'Get Help' email confirmation to the user who requested no longer has the 'Sincerely' section repeated. |
| 16012 | Orders Page | Worklist will now show the paperclip icon when the record has attachments. |
| 16051 | Orders Page | Finalized date on the Orders - Pending tab now only shows valid dates. |
| 17011 | Orders Page | Improved performance of the worklist. |
| 15510 | Search Page | Resolved issues with DOB search in certain browsers. |
| 15511 | Search Page | If the user selects a date range filter, studies are filtered appropriately. |
| 15515 | Search Page | 'Exam Type' search filter is no longer ignored. |
| 15595 | Themes | Ensured all deployed themes are compatible with the portal. |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

| | | |
|---|---|---|
| 16736 | Exam Detail Page | Resolved issue where report tab and quick-launch icon failed to load the diagnostic report. |
| 16188 | Orders Page | Now preventing more than one 'attachment' pop-up to appear at a time. |
| 17230 | Provider Utilization Management Page | Resolved issue with exam type filter not filtering properly. |
| 16705 | Web Portal Agreement Page | Updated text on Web Agreement (EULA) Page. |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## KNOWN LIMITATIONS

The following are new bugs found in build 2.2017.3. Bugs reported in previous versions are not captured as Known Limitations in this document.

| # | Category | Subject |
|---|---|---|
| 17119 | RIS | Returned tab Status filter needs a "SELECT ALL" option. |
| 17088 | RIS | User Mgt. > Edit > Preferences - Save button does not save changes for default landing page. |
| 17547 | RIS | Numbered or bulleted list in a report are not getting transferred to PACS. |
| 17541 | RIS | The displayed Cache time can sometimes be inaccurate but corrects itself after a minute or two. |
| 17536 | RIS | The Citrix Bridge icon has been changed to the 2 circles but in the Windows tray it is still the eRAD icon. |
| 17532 | RIS | Cancelling when RIS attempts to install updates throws an error. |
| 17518 | RIS | Exception thrown when clicking "Skip Labwork Advised WL" in Utilization Review. |
| 17494 | RIS | Windows docking inside of the patient folder. |
| 17492 | RIS | PACS Integration - View Images from Patient Folder does not order studies correctly. |
| 17487 | RIS | Duplicate Issuer/MRN in grid does not trigger validation error when scheduling/creating order. |
| 17486 | RIS | Diagnostic Report lists "Copy to" providers in diagnostic report even if the CC provider is configured for no report delivery for Courtesy Copies. |
| 17484 | RIS | Provided Educational Resources checkboxes should stay in sync, with both being either checked or not checked. |
| 17448 | RIS | Loading patient with existing US address information may result in incorrect Zip Code. |
| 17437 | RIS | When user preferences fail to save, no error is shown to the user. |
| 17427 | RIS | Client performance issue when populating calculated columns. |
| 17341 | RIS | Browser Config lookup editor will not allow removing an existing value from URL without replacing it. |
| 17010 | RIS | Problem reloading dictation after an error occurs upon saving. |
| 16250 | RIS | Any dictation that fails to save, throws out the dictation on reloading. |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

| | | |
|---|---|---|
| 17044 | RIS | Burn CD - when studies with status 'Order pending approval' are selected, an error occurs. |
| 17028 | RIS | A number of columns are not populating in Radiologist - Signed By Date WL. |
| 17020 | RIS | UM tab remains visible after procedure change. |
| 16995 | RIS | After displaying the message that RIS is already running, an object reference error message is displayed. |
| 16990 | RIS | l_message_group > external_notification_email_address does not appear to be forwarding messages. |
| 16970 | RIS | Cannot Retry Job in Distribution History WL. |
| 16960 | RIS | When turning off the STAT flag after order is saved, UM status behaves differently depending on the screen. |
| 16850 | RIS | Body Parts not populating when adding a new procedure from the Perform Exam window. |
| 16843 | RIS | Windows 10 - Unlocking / waking PC hides locked RIS splash login in the background. |
| 16836 | RIS | For external reports, when previewing the report in the Report nugget, if the report is not available  a message should be displayed to the user. |
| 16796 | RIS | Infinitt PACS - login screen flashes for each study when using next workflow. |
| 16782 | RIS | Sectra PACS - when two patient folders are open with view images, a close call is not issued when one folder is closed and focus goes to the other folder. |
| 16742 | RIS | Autotext field values get saved when switching orders, even though the order is not saved yet. |
| 16735 | RIS | If a user's system does not have a Recording device, a null value can be saved for l_user_config settings MciInputDevice which makes the account unusable. |
| 16726 | RIS | Selecting a 'named' color in Portal Worklist configuration editor throws exception when selecting worklist tab row. |
| 16717 | RIS | When a patient has multiple studies in Pending Dictation WL, after the 1st study is signed, subsequent studies may have the wrong status for the prior study in the mini Patient Folder. |
| 16488 | RIS | Context Menu in Patient Search only lists New Appointment, New Walk-in for external results. |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

| | | |
|---|---|---|
| 16418 | RIS | View Study Workflow opening wrong window when using Skip and Continue after creating an Addendum in View Study. |
| 16407 | RIS | When editing medical record access, cancelling out still saves information. |
| 16401 | RIS | M*Modal Text Expander not validating entries, allows duplicates. |
| 16300 | RIS | Error deleting rows from Medical History grid when rescheduling order. |
| 16235 | RIS | The function c_getBiopsyTechnique is getting only the last row for the mammo_biopsy_technique_code when multiple rows are possible from the query results. |
| 16221 | RIS | UM - UMBypassSTAT workflow requires extra step to search for scheduling times if "STAT exam" flag selected after the procedure. |
| 16192 | RIS | When trying to schedule on a holiday, the visual is wrong in the Procedure Picker. |
| 16149 | RIS | An error can be displayed when IVT window is opened alongside Utilization Review window. |
| 17062 | RIS | Age label is not present next to DOB when rescheduling. |
| 17474 | Patient Portal | Unable to delete Padding Override codes and Report and Image Hold Values. |
| 17200 | Patient Portal | When creating new appointment in Patient Portal, entering data and hitting back button doesn't retain data. |
| 16301 | Patient Portal | Need to add countermeasures for CSRF. |
| 17144 | Patient Portal | When most recent exam is "CDImport," patient account creation can't be completed. |
| 16343 | Patient Portal | Ordering Provider tool-tips do not match up with their respective ordering providers. |
| 17496 | UM Portal | Need to resolve a memory leak with portal attachments. |
| 17119 | UM Portal | Returned tab Status filter needs a "SELECT ALL" option. |
| 17088 | UM Portal | User Mgt. > Edit > Preferences - Save button does not save changes for default landing page. |
| 17071 | UM Portal | By Status' filter does not appear to be working. |
| 17022 | UM Portal | Search - 'CC'd Ordering Provider's Last Name' field is not working. |
| 17014 | UM Portal | By Timeframe' filter's state [visually] set to last selected tab's configuration. |
| 16712 | UM Portal | Page titles shown in browser tabs are incorrect or provider specific. |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

| | | |
|---|---|---|
| 16298 | UM Portal | UM Connect's page titles inappropriately mimic Provider Connect's. |
| 17023 | UM Portal | Admin - When a user with a locked account logs into Portal Administration, an error is displayed. |
| 16035 | UM Portal | Modifying tab filtering options in Account > Settings can remove inappropriate exams from the orders list. |

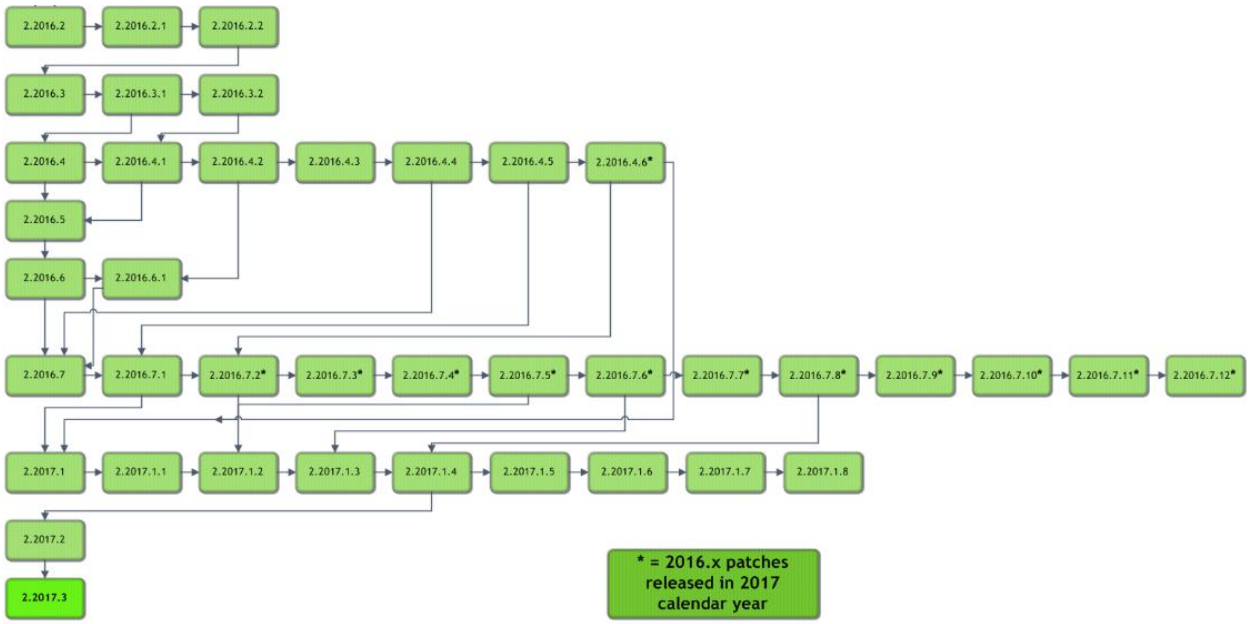
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## RIS RELEASE VERSION NUMBERS

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Digital Forms | Patient Portal | UM Portal | Provider Portal | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| 2016.2 | - | 2.16.2.0 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.0.00172540 | | | | | Full Version Release - GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge |
| 2016.2 | 1 | 2.16.2.1 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.0.00172540 | | | | | GUI.zip and Citrix Bridge |
| 2016.2 | 2 | 2.16.2.2 (3GB) | 2.16.2.0 | 2.16.2.0 | 2.16.2.2.00243102 | | | | | GUI.zip, DB and Citrix Bridge |
| 2016.3 | - | 2.16.3.0 (3GB) | 2.16.3.0 | 2.16.3.0 | 2.16.3.0.00257101 | 2.16.3.0 | | | | Full Version Release |
| 2016.3 | 1 | 2.16.3.1 | 2.16.3.0 | 2.16.3.1 | 2.16.3.1.00298834 | 2.16.3.0 | | | | GUI.zip, Web Service and DB |
| 2016.3 | 2 | 2.16.3.2 | 2.16.3.0 | 2.16.3.2 | 2.16.3.1.00298834 | 2.16.3.0 | | | | GUI.zip and Web Service |
| 2016.4 | - | 2.16.4.0 | 2.16.4.0 | 2.16.4.0 | 2.16.4.0.00301943 | 2.16.4.0 | 1.16.4.0.310284 | | | Full Version Release |
| 2016.4 | 1 | 2.16.4.1 | 2.16.4.0 | 2.16.4.1 | 2.16.4.0.00301943 | 2.16.4.0 | 1.16.4.0.310284 | | | GUI and Web Service updates |
| 2016.4 | 2 | 2.16.4.2 (3GB) | 2.16.4.0 | 2.16.4.1 | 2.16.4.0.00301943 | 2.16.4.0 | 1.16.4.2.460241 | | | GUI and Patient Portal updates |
| 2016.4 | 3 | 2.16.4.3 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | 1.16.4.3.489120 | | | GUI and Patient Portal updates |
| 2016.4 | 4 | 2.16.4.4 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | 1.16.4.3.489120 | | | GUI |
| 2016.4 | 5 | 2.16.4.5 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | | | | GUI |
| 2016.4 | 6 | 2.16.4.6 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | | | | GUI |
| 2016.5 | - | 2.16.5.0 (3GB) | 2.16.5.0 | 2.16.5.0 | 2.16.5.0.00349303 | 2.16.5.0 | 1.16.5.0.362009 | | | Full Version Release |
| 2016.6 | - | 2.16.6.0 (3GB) | 2.16.6.0 | 2.16.6.0 | 2.16.6.0.00411295 | 2.16.6.0 | 1.16.6.0.432471 | | | Full Version Release |
| 2016.6 | 1 | 2.16.6.1 (3GB) | 2.16.6.0 | 2.16.6.0 | 2.16.6.0.00411295 | 2.16.6.0 | 1.16.6.1.468583 | | | GUI and Patient Portal updated |
| 2016.7 | - | 2.16.7.0 (3GB) | 2.16.70 | 2.16.70 | 2.16.7.0.00490835 | 2.16.70 | 1.16.7.0.493031 | 2.16.7.0.493008 | | Full version release |
| 2016.7 | 1 | 2.16.7.1 (3GB) | 2.16.7.0 | 2.16.7.1 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 2 | 2.16.7.2 (3GB) | 2.16.7.0 | 2.16.7.2 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 3 | 2.16.7.3 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 4 | 2.16.7.4 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI |
| 2016.7 | 5 | 2.16.7.5 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI |
| 2016.7 | 6 | 2.16.7.6 (3GB) | 2.16.7.0 | 2.16.7.6 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 7 | 2.16.7.7 (3GB) | 2.16.7.0 | 2.16.7.7 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 8 | 2.16.7.8 (3GB) | 2.16.7.0 | 2.16.7.7 | 2.16.7.8.00683507 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and DB updates |
| 2016.7 | 9 | 2.16.7.9 (3GB) | 2.16.7.0 | 2.16.7.9 | 2.16.7.9.00715012 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI, Web Services, DB updates and UM Portal |
| 2016.7 | 10 | 2.16.7.10 (3GB) | 2.16.7.0 | 2.16.7.10 | 2.16.7.9.00715012 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI and Web Service updates |
| 2016.7 | 11 | 2.16.7.11 (3GB) | 2.16.7.0 | 2.16.7.11 | 2.16.7.11.00761267 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI, Web Service and DB updates |
| 2016.7 | 13 | 2.16.7.12 (3GB) | 2.16.7.0 | 2.16.7.11 | 2.16.7.11.00761267 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI |
| 2017.1 | - | 2.17.1.0 (3GB) | 2.17.1.0 | 2.17.1.0 | 2.17.1.0.00559886 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | Full Version Release |
| 2017.1 | 1 | 2.17.1.1 (3GB) | 2.17.1.0 | 2.17.1.1 | 2.17.1.1.00589952 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 2 | 2.17.1.2 (3GB) | 2.17.1.0 | 2.17.1.2 | 2.17.1.2.00621962 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 3 | 2.17.1.3 (3GB) | 2.17.1.0 | 2.17.1.3 | 2.17.1.3.00640480 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 4 | 2.17.1.4 (3GB) | 2.17.1.0 | 2.17.1.4 | 2.17.1.4.00692239 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI, Web Service, DB and Patient Portal updates |
| 2017.1 | 5 | 2.17.1.4 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.4.00692239 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | Web Service |
| 2017.1 | 6 | 2.17.1.6 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI and DB Updates |
| 2017.1 | 7 | 2.17.1.7 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI update |
| 2017.1 | 8 | 2.17.1.8 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI update |
| 2017.2 | - | 2.17.2.0(3GB) | 2.17.2.0 | 2.17.2.0 | 2.17.2.0.00695782 | 2.17.2.0 | 2.17.2.0.702238 | 2.17.2.0.702213 | 2.17.2.0.702226 | Full Version Release. First release of Provider Portal |
| **2017.3** | **-** | **2.17.3.0(3GB)** | **2.17.3.0** | **2.17.3.0** | **2.17.3.0.00764112** | **2.17.3.0** | **2.17.3.0.321** | **2.17.3.0.321** | **2.17.3.0.321** | **Full Version Release. Including Patient, Provider and UM Portals** |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## CODE STREAM DIAGRAM




No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

# Customer Release Notes

for eRAD RIS

Version 3

Build 2017.6

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

# TABLE OF CONTENTS

Table of Contents ..... 2
Purpose ..... 6
Intended Audience ..... 6
New Settings ..... 7
New access strings ..... 7
New system configuration settings ..... 9
New Features ..... 12
Scheduling and Registration ..... 12
Feature #17542 – New Legend colors in Appointment Book ..... 12
Feature #9149 – New options to display Cancelled or Discontinued/Aborted exams on Appointment Book ..... 14
Feature #6378 – Custom Views can be saved for the Appointment Book ..... 16
Feature #11193 – Expanded workflow options available in the Appointment Book ..... 18
Feature #2583 – Automatic Appointment Book refresh ..... 20
Feature #17864 – Patient's Age added to the Appointment Book ..... 21
Insurance, Eligibility, Payments, & Billing ..... 22
Feature #16773 – Ability to adjust a payment date with appropriate permissions ..... 22
Feature #18017 – With multiple orders on the same day, co-pay should only be collected once ..... 24
Feature #15206 – Employer address and phone number can be collected in Injury Details ..... 26
Feature #15768 – Billing Integrity interface: allow users to identify when billing code reactivated by Imagine Billing ..... 27
Feature #14799 - Billing Modaility Type column is now available in the Billing Codes grid ..... 28
Utilization Management ..... 29
Feature #15296 – Display radiologist-specific notes to the radiologist ..... 29
Feature #16996 – Configure a Primary Billing Code for a Procedure Code ..... 30
Feature #17302 – Allow for customizable screen layout on Utilization Review screen ..... 32
Feature #17504 – Indicator for Medical Groups that are Review Only ..... 35
Feature #17529 – UM – Reviewers can now change requested procedure ..... 37
Feature #18170/17530 – RIS Users can now preview and distribute UM Opinion Letter ..... 39
Feature #17579 – UM Reviewers can choose any active procedure, unlimited by current site's Schedule Group ..... 40
Feature #17580 – Automatically update Exam Status based on attributes of selected UM Status ..... 42
Feature #17708 – Set default UM Status and Resolution codes for Gold Card and STAT orders ..... 44
Digital Forms ..... 45
Feature #16474 – Import/export Digital Forms via look-up table ..... 45
Feature #17628 – Update Digital Form answers via HL7 ..... 46
Feature #17840 – Ability to use a load balancer for Digital Forms servers ..... 47
Feature #17842 – New Display Criteria options for the Conditional Tab editor ..... 48
CEHRT ..... 49
Feature #16866 – CEHRT 170.315(b)(4): Health Concerns fields added to Clinical tab ..... 49
Feature #16877 – CEHRT 170.315(b)(4): Functional/Cognitive Status field added to Clinical tab ..... 51
Feature #18061 – Checkbox to indicate that a Summary of Care Record is available ..... 52
Feature #18008 – Summary of Care Record received ..... 53

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

Feature #18039 – Transition of Care Confirmation Received ..... 54
Feature #16222,16918 – CEHRT 170.315(b)(4): Collect new vital sign data and display in the C-CDA ..... 55
Feature #16865, 17204 – CEHRT 170.315(b)(4): Goals Section added to C-CDA for Transition of Care Document ..... 56
Feature #16909 – CEHRT 170.315(b)(4): Changes to Plan of Care Section of C-CDA ..... 57
Feature #16910, 16912 – CEHRT 170.315(b)(4): Implanted Devices listed in the Procedures section of the C-CDA ..... 58
Feature #16917 – CEHRT 170.315(b)(4): Update Results Section Template of C-CDA ..... 60
Feature #16853 – CEHRT 170.315(b)(4): Updates to Social History C-CDA Template Section ..... 61
Feature #17192 – CEHRT 170.315(b)(4): Allergy section of C-CDA is now titled “Allergies and Intolerances” ..... 62
Feature #18131, 18136 – CEHRT 170.315(b)(6): Data Export – Include Office Contact information in C-CDA ..... 63
Feature #16935 – CEHRT 170.315(b)(4): Small changes to C-CDA document template ..... 64
Feature #17436 – CEHRT 170.315(b)(1): Transition of Care – New Referral Note C-CDA template ..... 65
Feature #17077 – Ability to Reorder Sections in C-CDA ..... 67
Feature #17213 – CEHRT 170.315(b)(5): Validation of C-CDA 1.1 and 2.1 upon Receipt ..... 71
Feature #17503 – CEHRT 170.315(b)(1) – View Race, Ethnicity and Preferred Language in a received C-CDA ..... 73
Feature #17089 – CEHRT 170.315(b)(2): Reconcile inbound Transition of Care data ..... 74
Feature #17936 – SHA-2 hash used for imported C-CDAs ..... 77
Feature #16551 – Hyperlink to Medline Plus available in the Problems and Medications grids ..... 78
Feature #16230 – When “Declined to Specify” is selected for Race or Ethnicity, additional selections are prevented ..... 80
Feature #16318, 16315 – CEHRT 170.315(a)(5): Updated Demographics Code Tables ..... 81
Feature #16398 – CEHRT 170.315(c)(4): Tax ID field at Practice & Site levels ..... 82
Feature #16008 – CEHRT 170.315(d)(2): User ID field added to Personnel Audit History ..... 84
Feature #16233 – CEHRT 170.315(a)(1): Collect NDC, Lot Number, and Expiration Date for Contrast and Sedation ..... 86
Feature #16861 – CEHRT 170.315(b)(4): Problem List mapped to current U.S. Edition SNOMED Codes ..... 87
Feature #17376 – CEHRT 170.315(b)(4): Standardized Allergy Reactions ..... 88
Feature #16992, 16991 – CEHRT 170.315(g)(9) and 170.315(g)(8): Provide Entire or Partial C-CDA via API ..... 89
Feature #16986 – CEHRT 170.315(g)(7): Application Access – Patient Search functionality using the API ..... 90
Feature #17517 – CEHRT 170.315(a)(9): CDS Alerts link to information specfic to medication, allergies or demographics 91
Feature #17404 – CEHRT 170.315(a)(9): Demographic Clinical Decision Support Rule ..... 92
Feature #17811 – CEHRT 170.315(a)(9): Medication Allergy Clinical Decision Rule ..... 94
Feature #17419 – CEHRT 170.315(a)(9): Update Clinical Decision Support Alert to use ICD10 or SNOMED conditions ..... 95
Feature #17431 – CEHRT: CDS alert message box shows less information to certain users ..... 96
Feature #16899 – CEHRT 170.315(b)(6): Data Export ..... 98
Feature #17820 – Direct Message Full Metadata Support ..... 105
Feature #18140 – CEHRT 170.315(c)(1): Ability to export zip file with QRDA I or III for patients meeting filter criteria ... 106
Feature #13673 – CEHRT: Expanded QRDA filter criteria ..... 108
Feature # 17949 – CEHRT 170.315(g)(2): Management Reports to provide ACI Measure Scores ..... 111
General Worklist Enhancements ..... 118
Feature #17805 – Add a custom icon for Alerts to display on worklists ..... 118
Feature #16309 – Use Site Group filter on Reception and Technologist worklists ..... 118
Feature #17246 – Patient Class column available on additional worklists ..... 119
Feature #17792 – “Category” column is now available on the All Critical Results and Critical Results WL ..... 120
Interfacing ..... 121
Feature #15508 – Configurable DPI setting for attachments imported via interface ..... 121

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

Feature #6941 – Option to disable Wedge from auto-resolving patients with matching demographics ..... 122
RIS Administration ..... 123
Feature 17804 – New option to choose between Order-level and Patient-level Alerts ..... 123
Feature #17805 – Add a custom icon for Alerts to display on worklists ..... 127
Feature #16516 – Support for sequestering results for Clinical Trials ..... 129
Feature #11006 – PECOS hyperlink in Personnel editor ..... 132
Feature #16774 – Restrict bilateral option on certain procedures ..... 134
Feature #17133 – Ability to create rules to require Clinical Decision Support ..... 136
Feature #17786 – Support three alpha-character month in Date Format (dd-MMM-yyyy) ..... 140
Feature #7006 – Filtering now available when adding multiple procedures to the Schedule Group table ..... 141
Validation Rules ..... 142
Feature #16594 – Validation Rules for Radiologist and Editor screens ..... 142
Feature #16341 – Easily differentiate between system added and customer added Validation Rules ..... 143
Technologist ..... 145
Feature #17803 – Add option to link reports when adding exams via Perform Exam screen ..... 145
Radiologist ..... 147
Feature #3805 User preference for audio signal when M*Modal recording has stopped ..... 147
Feature #17245 – Option to disable breast tissue density default ..... 148
Feature #17544 – Chair API includes scheduled start date and sorts the results by scheduled start date ..... 149
Feature #16772 – View Study option for Technologist worklist ..... 152
Feature #4766 – In QA workflow, audio and text postions will be maintained when rejecting report ..... 153
Feature #16825 – Show "Contributed By" information in the Nugget report view ..... 154
PACS Integrations ..... 155
Feature #16806 – More informative message when studies cannot be loaded in eRAD PACS ..... 155
Feature #16804 - eRAD PACS - Sorting priors in reverse chronological order ..... 156
Feature #16805 and 6102 – Remove Priors from PACS Session ..... 157
Feature #15636 - Non-eRAD PACS integrations can now support Append action via Close/Open ..... 160
Feature #16812 – 3rd party systems can query Relevant Priors ..... 161
Feature #11486 – MIM Integration ..... 162
Mammography ..... 163
Feature #16781 – Mammograpy tab now available for BI-RADS enabled procedures even if they are Inactive ..... 163
RADAR ..... 164
Feature #15357 – Use real-time inbound RADAR messaging for Appointment Reminder confirmation ..... 164
Feature #8498 – Report distribution via RADAR email will reflect appropriate email delivery status in RIS ..... 165
Feature #17778, 17779 – Send RADAR Nudge messages to any Nudge enabled user from a variety of workflows ..... 166
Feature #16567 – Send SecurePic requests via email ..... 171
Feature #11249 – Display available contact methods when sending RADAR Quick Message to multiple patients ..... 172
Feature #12482 – Contact Log entries now generated automatically for RADAR Quick Messages ..... 174
Connect Portals ..... 176
Feature #16933 – Access System/Cacheinfo from the Admin Portal ..... 176
Feature #17033-17036 – Manage Get Help Requests exclusively in the Admin Portal ..... 177
Feature #17154 – Configure which Portal error messages generate an email notification to Portal administrators ..... 182
Feature #17247 – Automatically disable Portal accounts due to inactivity ..... 183

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

Feature #16217 – Configurable Password Strength Requirements for Connect Portals ..... 184
Feature #17336 – Remove user type Referring Provider from dropdown when creating new user in the Portal ..... 186
Feature #17723-17725 - Better handling for account recovery when email address assigned for multiple accounts ..... 187
Feature #17720-17722 – Portal date formats should match RIS System Configuration setting ..... 188
Feature #17570 – CONNECT Portals: Display an informational header within the Procedure Picker ..... 190
Feature #17642-17644 – Display Guided Text during Portal Scheduling ..... 192
Feature #17015,17016 – Schedule Procedure Plans from the Portals ..... 194
Feature #17131 – Updated Portal System Configuration settings to accommodate Clinical Decision Support ..... 196
Feature # 17053 – Reorder Insurance Step in the Create Order workflow ..... 197
Feature #17126-17128, 17075-17076, 17134 - Present CDS in Decision tree when insurance/procedure require CDS ... 198
Feature# 16680, 16685-16688 – Specify a Date Range when Viewing, Downloading, or Transmitting a C-CDA ..... 204
Feature #16981 – CEHRT – Web Content accessibility guidelines ..... 205
Feature #17050 – Check for UM based on selected insurance and exam ..... 206
Feature #16929 – Enhance User Management in the UM Connect Admin Tool with ability to assign a Medical Group .. 207
Resolved Defects ..... 208
RIS ..... 208
Patient Portal ..... 217
Provider Portal ..... 218
Utilization Management Portal ..... 220
Known Limitations ..... 221
RIS Release Version Numbers ..... 224
Code Stream Diagram ..... 225

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## PURPOSE

This is the Customer Release Notes document for eRAD RIS Version 3.2017.6.

Not every feature will be described in this document. Typically, only features which can be visually demonstrated are outlined here.

## INTENDED AUDIENCE

The intended audience for this document is the RIS Administration team for eRAD RIS customers.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

# NEW SETTINGS

## NEW ACCESS STRINGS

Note: In 2017.6, a clean-up was done to add some missing Access Strings that will allow administrators to assign specific permissions for functionality that has previously existed in the application.

| Setting | Default | Purpose |
|---|---|---|
| Alert.BothTechOnlyAndExternalReport | Full | Full access enables users to see the alert of the "BothTechOnlyAndExternalReport" type when it is evaluated to be true. |
| Alert.CDS_06_BreastCancerScreening | Full | Full access enables users to see the alert of the “BreastCancerScreening” type when it is evaluated to be true. |
| Alert.InactiveCCPhysicianOrAddress | Full | Full access enables users to see the alert of the "InactiveCCPhysicianOrAddress" type when it is evaluated to be true. |
| Alert.InactiveReferringOrAddress | Full | Full access enables users to see the alert of the "InactiveReferringOrAddress" type when it is evaluated to be true. |
| Alert.PatientFlagAlert | Full | Full access enables users to see the alert of the "PatientFlagAlert" type when it is evaluated to be true. |
| Alert.ReportLockedOnTechAndViewEdit | None | Full access enables users to see the alert of the "ReportLockedOnTechAndViewEdit" type when it is evaluated to be true. |
| Clinical.AdjustPaymentDate | None | Controls access to Adjust Payment Date context menu option on the Payments grid. **NEW** |
| Clinical.AssignRescheduledFlag | Full | Controls access to the context menu "Rescheduled Flag -> Set Follow up Rescheduled" and "Rescheduled Flag -> Clear Follow up Rescheduled." |
| Clinical.ChangeStatusOrderSigned | Full | Controls access to the change status sub-context menu "Change Status To -> Order Signed." |
| Clinical.DDECancelJobAction | Full | Controls access to the Document Distribution Engine CancelJobAction context menu item. |
| Clinical.DDEEditJobAction | Full | Controls access to the Document Distribution Engine EditJobAction context menu item. |
| Clinical.DDEMammoLetterSubmit | Full | Controls access to the Document Distribution Engine MammoLetterSubmit context menu item. |
| Clinical.DDENewJobAction | Full | Controls access to the Document Distribution Engine NewJobAction context menu item. |
| Clinical.DDEPauseJobAction | Full | Controls access to the Document Distribution Engine |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

| | | |
|---|---|---|
| | | PauseJobAction context menu item. |
| Clinical.DDERetryJobAction | Full | Controls access to the Document Distribution Engine RetryJobAction context menu item. |
| Clinical.DirectMessage | Full | Controls access to the Direct Message menu item for launching the Direct Message screen. |
| Clinical.MammoFollowUp | Full | Controls access to the Mammo Follow up context menu for launching the Mammo Follow-Up screen. |
| Clinical.PerformExam.Button.ContextMenu | Full | Controls access to the Perform Exam context menu item and button. |
| Clinical.Reconcile | Full | Controls access to the Reconcile menu item for launching the Reconcile screen. |
| Clinical.Reschedule | None | Controls access to the reschedule context menu item. |
| Clinical.SecureMessage | Full | Controls access to the Secure Message menu item for launching the Secure Message screen. |
| Clinical.SetSequesterFlag | None | Allows the user to mark an exam as sequestered. **NEW** |
| Clinical.ViewStudy.Button.ContextMenu | None | Controls access to the View Study context menu item and button. |
| Config.LookupEditor.AllergyReaction | None | Controls access to the Allergy Reaction look-up table. **NEW** |
| Config.LookupEditor.CategoryGroup | None | Controls access to the Category Group look-up table. **NEW** |
| Config.LookupEditor.CDSRules | None | Controls access to the CDS Rules look-up table. **NEW** |
| Config.LookupEditor.DigitalForms | None | Controls access to the Digital Forms look-up table. **NEW** |
| Config.LookupEditor.PatientAlert<br>**REPLACES/RENAMED**<br>Config.LookupEditor.PatientFlag | Full | Controls access to the Patient Alert look-up table. |
| Flag.PACSImagesPurged | Full | This setting exists to support a feature that is still under development. *Future Use* |
| Flag.Sequester | Full | Access to see the flag for Sequester. **NEW** |
| MU.CCDAScheduledTask | None | Controls access to Schedule C-CDA Export. **NEW** |
| Portal.Patient.Admin.CacheInfo | None | Controls access to Cache Info in Patient Admin Portal. **NEW** |
| Portal.Referring.Admin.CacheInfo | None | Controls access to Cache Info in Referring Admin Portal. **NEW** |
| Portal.Um.Admin.CacheInfo | None | Controls access to Cache Info in Utilization Management Admin Portal. **NEW** |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## NEW SYSTEM CONFIGURATION SETTINGS

| Setting | Default | Purpose |
|---|---|---|
| CareSelectToken | | (value = string) The CareSelect token that indicates how the environment will be accessed. |
| CDSEnabled | False | (value = True/False) Determines if CDS is enabled. |
| **CdsGetNormalsFromObjectId REMOVED** | | |
| DaysBeforeInactiveAccount | -1 | (value = int) Number of days before accounts are deactivated for being inactive. |
| DefaultCancelReasonForRemindersOnAddendumSigned | N/A | (value = string) Identifies which cancel reason code should be used when an addendum is signed that does not require a reminder and a previous reminder exists. |
| DefaultPriorBreastDensity | True | (value = True/False) Determines whether the patient's most recent breast tissue density is prepopulated when dictating a new breast study. |
| InboundRADARMessageFilter | RIS QUICK MESSAGE,SecurePIC, RIS APPOINTMENT SUMMARY,UM Alert,Report Delivery | (value = string) Message type filter for RADAR inbound message processing. |
| MUInfoButtonSearchUrl | http://vsearch.nlm.nih.gov/vivisimo/cgi-bin/query-meta?v%3Aproject=medlineplus&query={0} | (value = string) Search URL that gets launched when clicking on the Info Button. |
| MUShowCCDAButton | True | (value = bool) Determines whether the C-CDA button is displayed on the Clinical tab. |
| MUShowCCRButton | True | (value = bool) Determines whether the CCR button is displayed on the Clinical tab. |
| **PACSCacheServer – REMOVED** | N/A | This value can now be set in the PacsServer lookup table. |
| PatientPortalURL | | (value = string) URL for the Patient Portal. |
| PECOS_URL | https://data.cms.gov/Medicare-Enrollment/Order-and-Referring/qcn7-gc3g | (value = string) URL for PECOS website including placeholder for {NPI}. |
| PortalAttachmentAccessDeniedMessage | Attachments for this exam are unavailable on the portal. Please | The message to display to a Portal user when the Attachments are not available due to the scan document path server being unavailable. |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

| | | |
|---|---|---|
| | use {GetHelp} to request attachments. | |
| PortalLongDateFormat | dddd, MMMM dd, yyyy | (value = string) The long date format to be displayed in the Portal. (E.g. dddd, MMMM dd, yyyy which displays Wednesday, March 09, 2018) |
| PPDaysBeforeInactiveAccount | -1 | (value = int) Number of days before Patient Portal accounts are deactivated for being inactive. (-1 will turn the feature off.) |
| PPPasswordRequirements | [{"minChar":"8","wordLowercase":"True","wordUppercase":"True","wordOneNumber":"True","wordOneSpecialChar":"False"},{"minChar":"5","wordLowercase":"False","wordUppercase":"False","wordOneNumber":"False","wordOneSpecialChar":"False"}] | (value = string) JSON value to define default password requirements for Patient Portal user accounts. |
| QuickMessageEmailDefaultContactTypeCode | QuickMessageEmail | (value = string) The default Contact Type code to use for automated Contact Log entry after sending RADAR QuickMessage email message. |
| QuickMessageSMSDefaultContactTypeCode | QuickMessageSMS | (value = string) The default Contact Type code to use for automated Contact Log entry after sending RADAR QuickMessage text message. |
| RadarDirectAPIURL | https://api.myradarconnect.com/v1/ | (value = string) URL for the RADAR API for direct messaging. |
| ReferringPortalURL | | (value = string) URL for Referring Portal. |
| RPPasswordRequirements | [{"minChar":"8","wordLowercase":"True","wordUppercase":"True","wordOneNumber":"True","wordOneSpecialChar":"False"},{"minChar":"5","wordLowercase":"False","wordUppercase":"False","wordOneNumber":"False","wordOneSpecialChar":"False"}] | (value = string) JSON value to define default password requirements for referring portal user accounts. |
| ScheduledTaskOutputLocations | | (value = (string) A comma separated list of network folder locations to be used for storage of scheduled tasks (e.g. C-CDA export) |
| UMPHelpRequestMessageGroup | | The message group to which Get Help requests |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

| | | |
|---|---|---|
| | | will be sent. If no message group is defined, email will not be sent to message group. |
| UMPPasswordRequirements | [{"minChar":"8","wordLowercase":"True","wordUppercase":"True","wordOneNumber":"True","wordOneSpecialChar":"False"},{"minChar":"5","wordLowercase":"False","wordUppercase":"False","wordOneNumber":"False","wordOneSpecialChar":"False"}] | (value = string) JSON value to define default password requirements for UM Portal user accounts. |
| WLExtraColumnsToGet | | This setting exists to support a feature that is still under development. *Future Use* |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

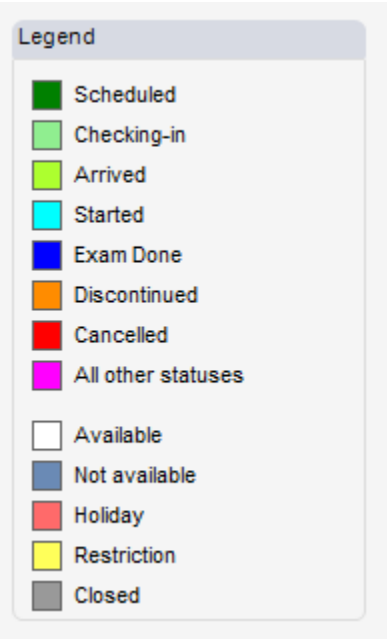
# NEW FEATURES

## SCHEDULING AND REGISTRATION

### FEATURE #17542 – NEW LEGEND COLORS IN APPOINTMENT BOOK

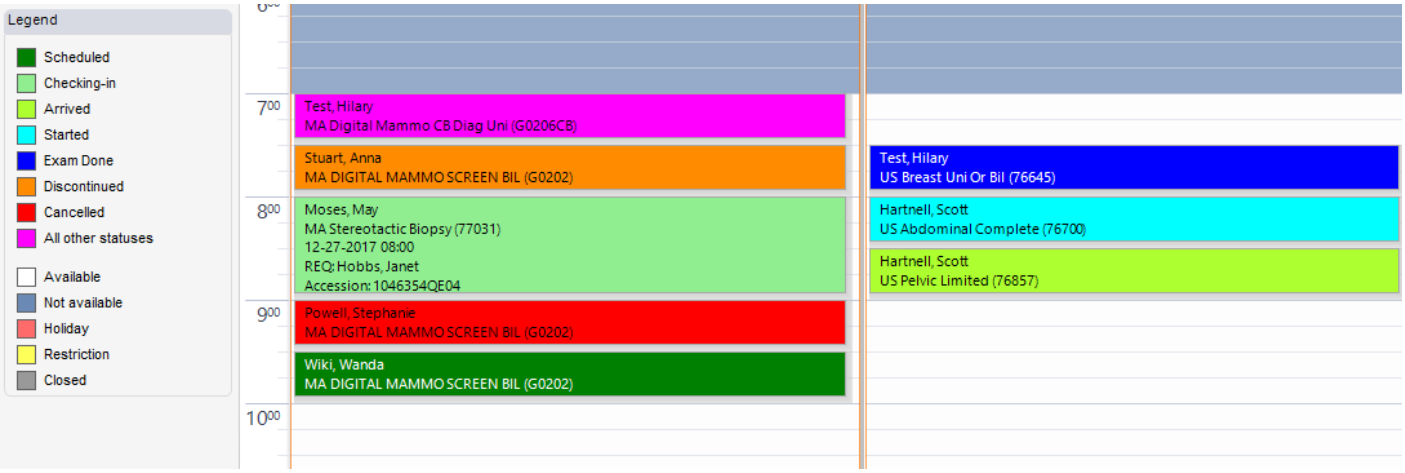
Previously, the color coding in the Appointment Book reflected all statuses after “Arrived” as gray in color. Because the Appointment Book is more than just a scheduling tool, the color coding has been expanded to indicate more statuses in specific colors for ease of visual identification.

The new legend includes statuses for Scheduled, Checking In, Arrived, Started, Exam Done, Discontinued, Cancelled, and “All other statuses.”




The following image shows the Appointment Book with exams in a variety of statuses.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

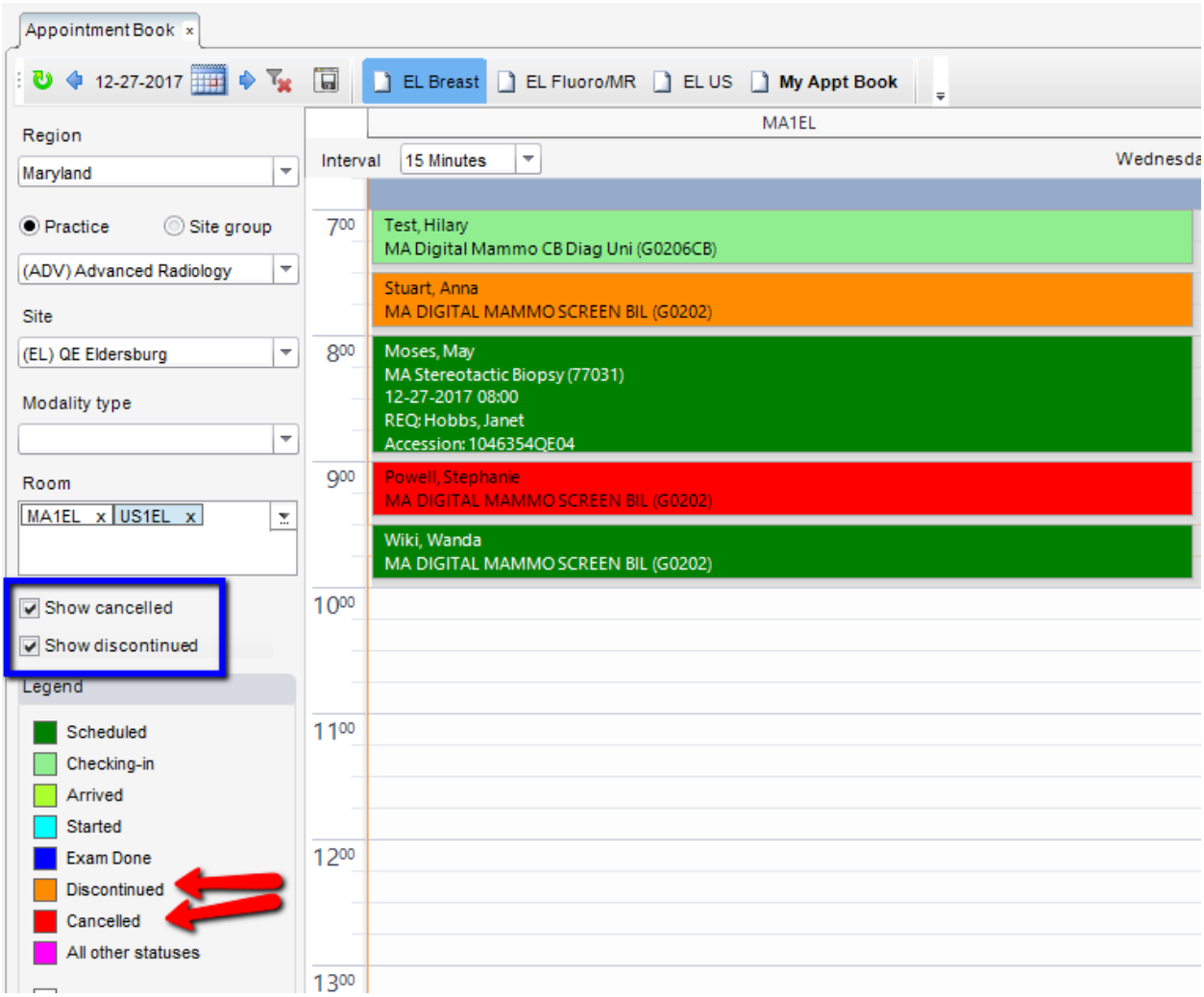



No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #9149 – NEW OPTIONS TO DISPLAY CANCELLED OR DISCONTINUED/ABORTED EXAMS ON APPOINTMENT BOOK

The Appointment Book is used by a variety of different types of users for various purposes. Sometimes it is helpful to see where cancelled or discontinued/aborted exams were previously scheduled. For example, seeing these types of exams might explain why there was a gap in the schedule for a particular room. However, other users, such as schedulers, want to clearly see where there are openings.

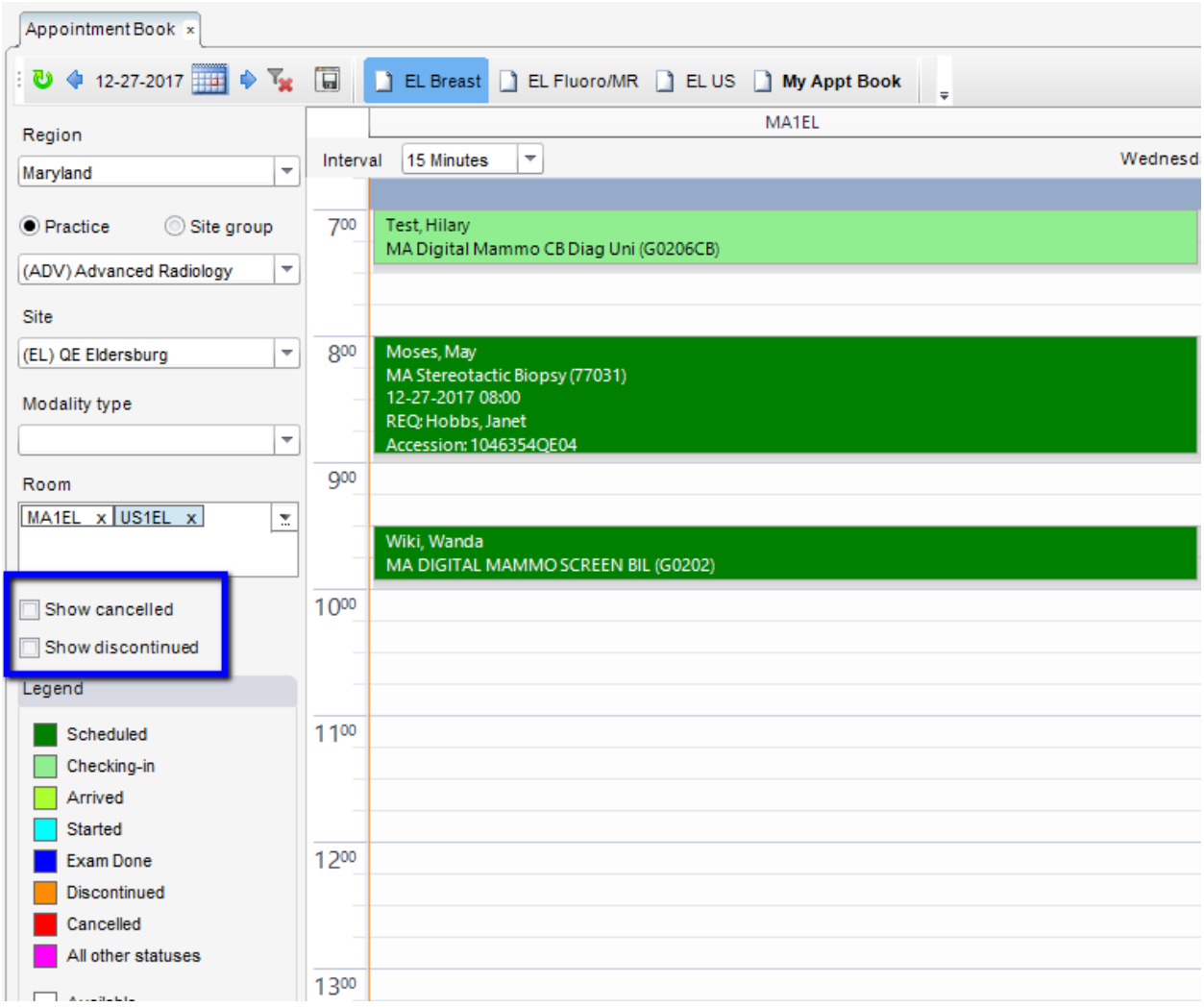
To allow users to customize their view of the Appointment Book according to their needs, new checkboxes have been added to the Appointment Book that will allow the user to choose whether to display the exams: **Show Cancelled** and **Show Discontinued**.




No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

In the above image, Show Cancelled and Show Discontinued are both checked, so the Appointment Book is displaying Cancelled exams (shown in Red) and Discontinued exams (shown in Orange).

Unchecking the boxes and refreshing the Appointment Book will instead hide the Cancelled and Discontinued exams to make it apparent that these are available appointment slots in these spaces.

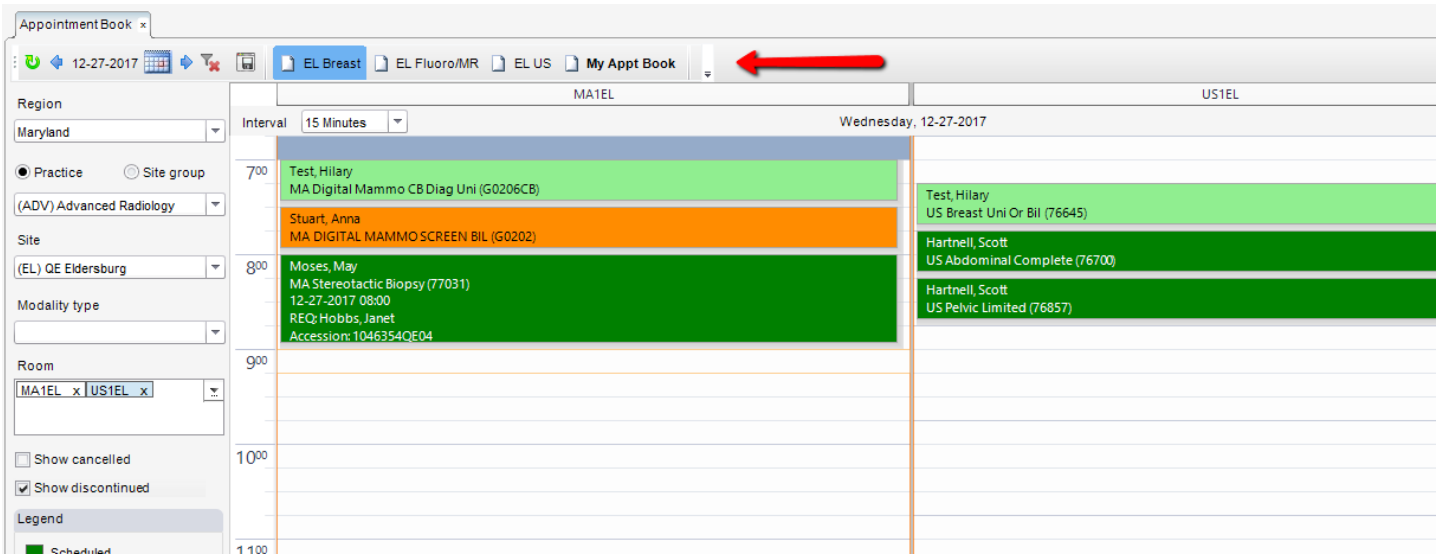



To maintain the previous Appointment Book behavior, the default for these checkboxes will display Discontinued exams and hide Cancelled exams.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #6378 – CUSTOM VIEWS CAN BE SAVED FOR THE APPOINTMENT BOOK

Custom Views have always been a convenient and efficient way to view a specific subset of information on a variety of worklists throughout the application. These same efficiencies are now available in the Appointment Book where Custom Views can be created and saved, in the same fashion as Worklist Custom Views.



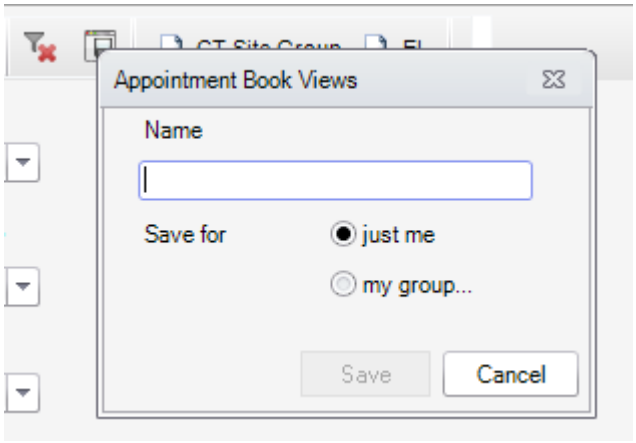

Create Custom Views by setting the filter criteria on the left side of the screen to a commonly used set-up, then save the Custom View by clicking the button in the top row. Criteria that can be saved are:

- Region
- Practice or Site Group
- Site
- Modality Type
- Room(s)
- Preference to display Cancelled exams
- Preference to display Discontinued exams
- Interval

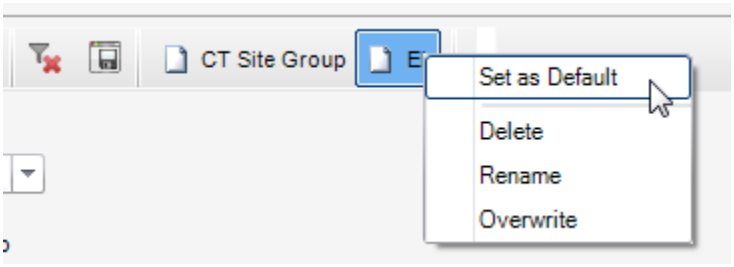
After saving and naming a Custom View, it can be set as a Default view for the Appointment Book each time it is opened. Multiple Custom Views can be created for different workflows. For example, a scheduler may set up Custom Views that show particular rooms that are involved in Pain Management scheduling or breast imaging.

As with Worklist Custom Views, it is possible for a user with appropriate permissions to create “Group Views” that can be shared by other users in a User Group.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.




Custom Views can also be deleted, renamed or overwritten (updated).




When a Custom View is applied, the filters will automatically be set as they were saved and the display will be refreshed to show the new settings. It is possible to easily switch between a variety of saved Custom Views.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

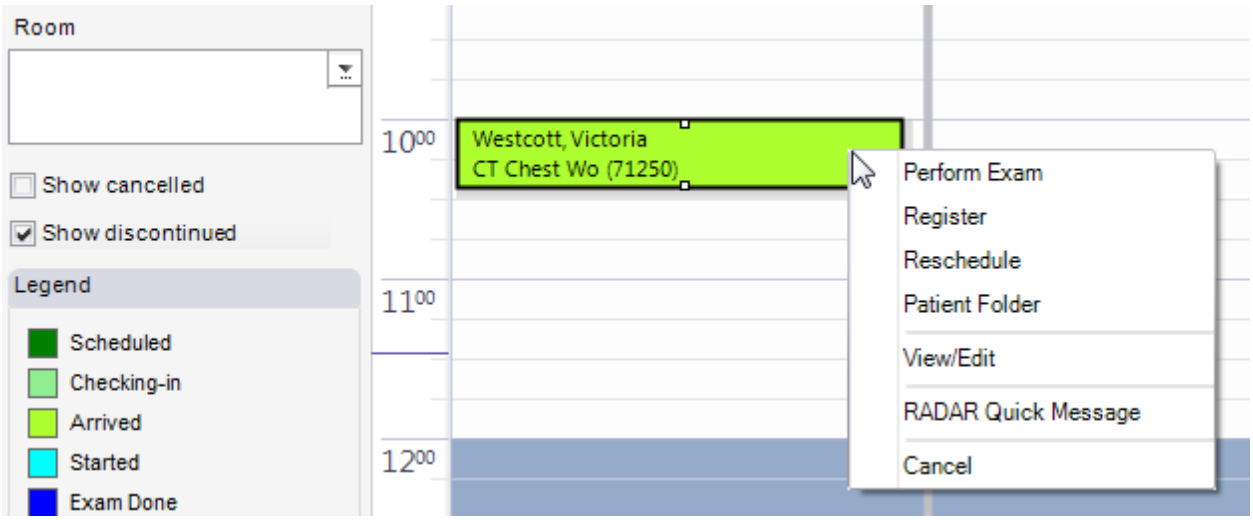
## FEATURE #11193 – EXPANDED WORKFLOW OPTIONS AVAILABLE IN THE APPOINTMENT BOOK

When viewing information in the Appointment Book, a user often needs to take some kind of action for an appointment on the screen.

- A scheduler reviewing tomorrow's schedule may want to reschedule someone who has been double-booked.
- A technologist may want to open the exam in View/Edit or may wish to open the Patient Folder in order to view more details about the patient.
- A receptionist may wish to send a RADAR QuickMessage to let the next patient know that the technologist is behind schedule.

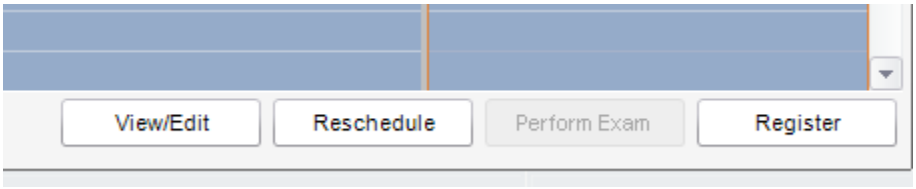
There are many possible scenarios and the Appointment Book will now empower the user to immediately launch common workflows based on the exam's status and their own user permissions.

The Appointment Book now behaves in a similar fashion as a Worklist. Like a worklist, right-clicking on an exam will present a context menu with various options. Depending on the status, a different set of possible actions will be available.




Another option for performing various workflow tasks is to use the new Action buttons. Just like a Worklist, the Appointment Book now has action buttons at the bottom of the screen. Users can select an exam by single clicking, then use the corresponding button to take the desired action. Any buttons with actions that are not relevant based on the exam's status will be inactive. As with Worklists, double-clicking the exam will initiate the action of the first active button. In most cases, the default action will be View/Edit.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.



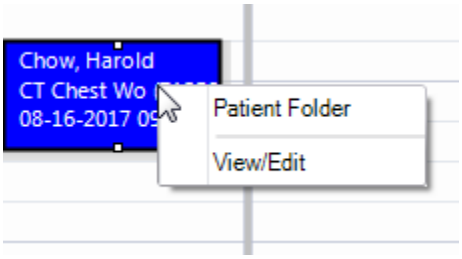

Both context menu and button actions will only be available to the user if he or she has the appropriate access string to perform the task. No new permissions need to be managed for the user groups; the existing access strings will be applied to the Appointment Book.

The following actions are possible for the statuses listed below:

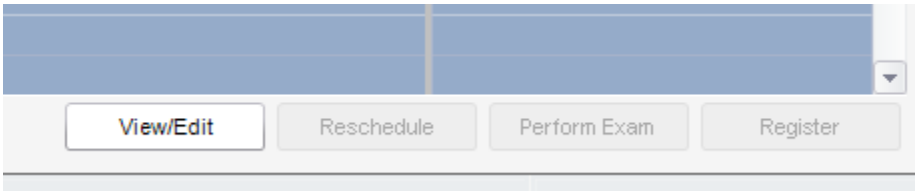
| Status | Possible Actions |
|---|---|
| Scheduled, Checked In | View/Edit, Register, Reschedule, Cancel, RADAR Quick Message, Patient Folder |
| Arrived | Perform Exam, View/Edit, Register, Reschedule, Cancel, RADAR Quick Message, Patient Folder |
| Started | Perform Exam, View/Edit, Register, Cancel, RADAR Quick Message, Patient Folder |
| Exam Done, Discontinued, Cancelled | View/Edit, Patient Folder |

One more example may be helpful. The images below depict the options available for an exam in Exam Done status.

Context menu options:




Button options:

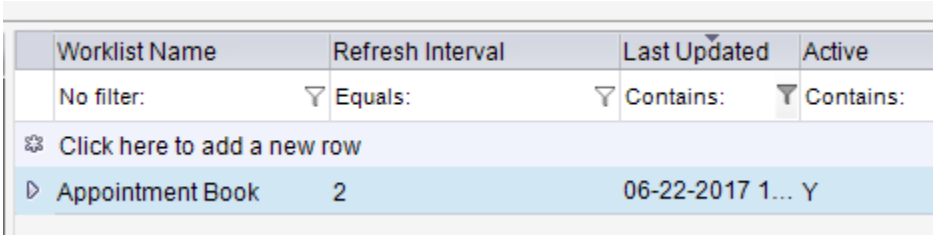



No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #2583 – AUTOMATIC APPOINTMENT BOOK REFRESH

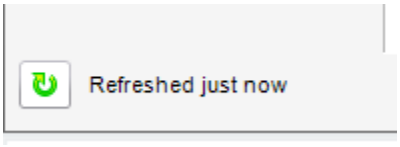
The Appointment Book now supports auto-refresh settings in the same fashion as RIS worklists. With this enhancement, new appointments, room closures, cancellations, et cetera, will be populated to the Appointment Book view so that users can see the changes without needing to frequently close and re-open the Appointment Book.

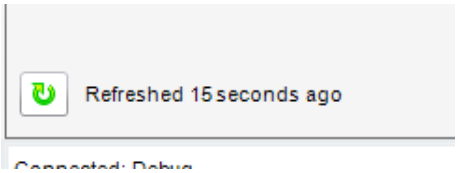
By default, the Appointment book will use the existing System Configuration setting **DefaultWorklistRefreshInterval** to determine how often auto-refresh should occur. To override the default setting, create an entry for Appointment Book in the existing configuration table **Worklist Preference**.



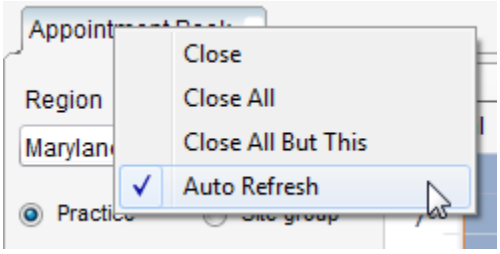

The refresh interval can be defined by entering the number of minutes or by entering 0 to disable auto-refresh.

As with worklist auto-refresh, the user will also have access to a refresh button with a label that indicates when the last refresh occurred.




Refresh will not occur if the user is actively interacting with the Appointment Book tab. It is also possible for a user to manually disable auto-refresh, if desired. To do so, right-click the Appointment Book tab and uncheck Auto Refresh. Repeat the process to turn refresh back on when ready.

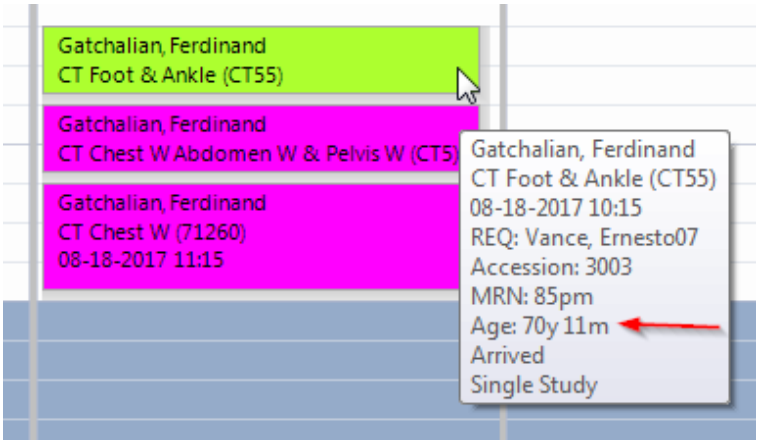



No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #17864 – PATIENT'S AGE ADDED TO THE APPOINTMENT BOOK

The appointment description now displays the patient's age, in the same format as on the Patient tab of the Schedule screen.

The full description will always display in the tooltip, and will only display in the appointment block if enough space is available.



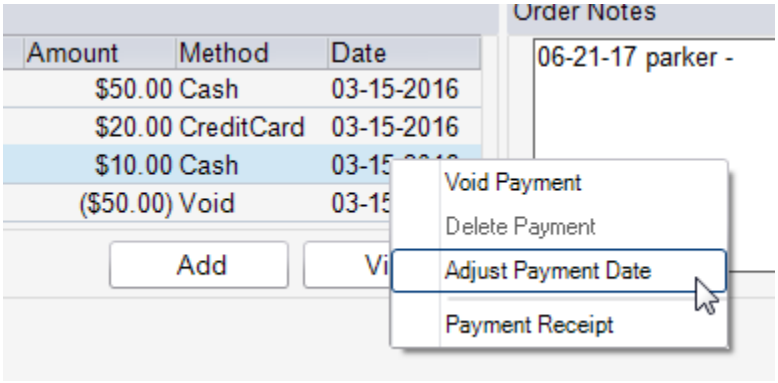

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## INSURANCE, ELIGIBILITY, PAYMENTS, & BILLING

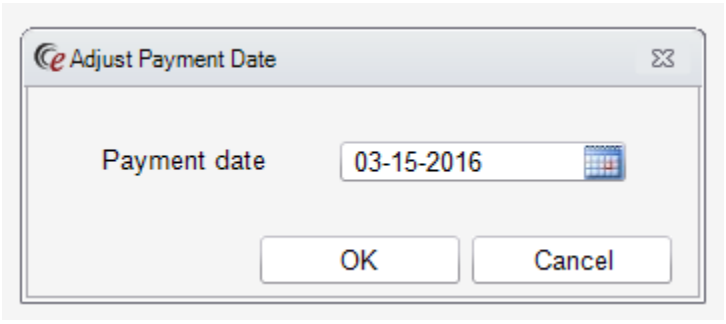
### FEATURE #16773 – ABILITY TO ADJUST A PAYMENT DATE WITH APPROPRIATE PERMISSIONS

If the wrong amount for a payment was entered on the date of service, this can be corrected by Voiding the payment and entering a new payment. However, it was not previously possible to backdate the payment if the error was discovered after the date of service. For this reason, it is now possible to grant users permission to "backdate" a payment.

A new context menu option called **Adjust Payment Date** can be accessed by right-clicking the row in the Payment grid. This option will only be available if the user belongs to a User Group with Full permission to the new access string **Clinical.AdjustPaymentDate** (default NONE).

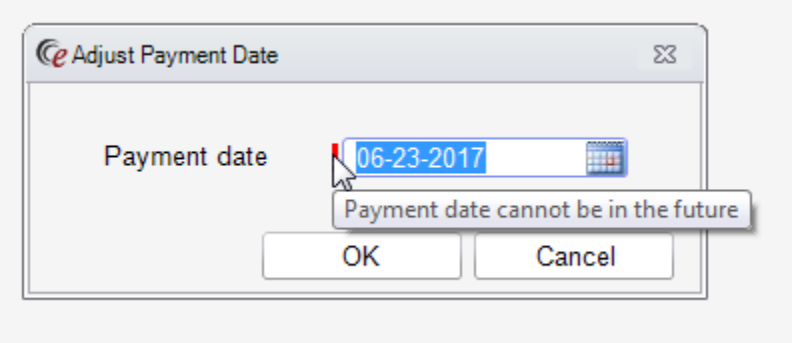



Clicking this context menu option will open a window where the user can enter the payment date.




Today's date or a prior date can be entered and saved. If the user selects a date in the future, saving will be prevented.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.




The date change will be recorded in the Audit History for future reference.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #18017 – WITH MULTIPLE ORDERS ON THE SAME DAY, CO-PAY SHOULD ONLY BE COLLECTED ONCE AND REMAINING DEDUCTIBLE SHOULD NOT BE OVER COLLECTED

When primary insurance is the same, Amount to Collect on multiple orders should adapt so that multiple co-pays are not collected and remaining deductible is not over calculated. To support this need, changes have been made to the Amount to Collect calculation using the information from Eligibility workflow.

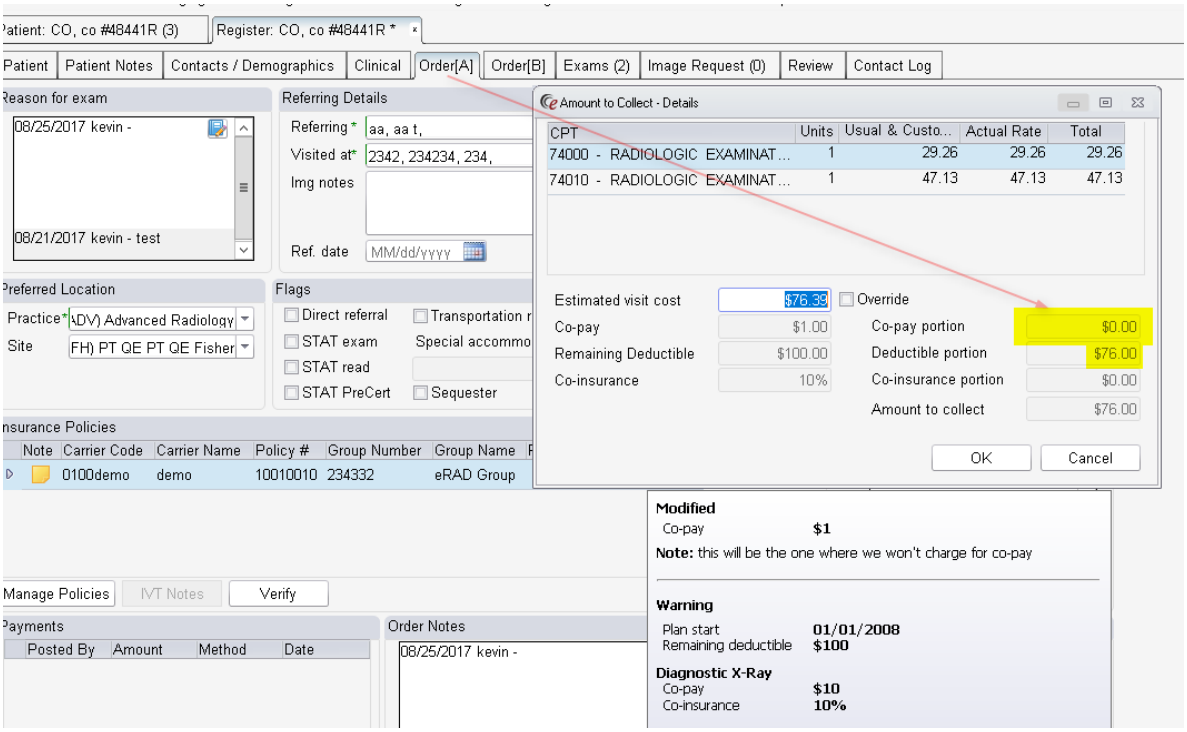
When patients have an Order A / Order B and the insurance is the same for both orders, RIS previously calculated co-pay and deductible payments for each, as if the other did not exist. As a result, two co-pays would be collected for the same day, as well as excessive deductible payments in the case where deductible may have been met by the other order.

If the insurance is the same for Order A and Order B, co-pay is now calculated for one order only. RIS will determine which co-pay is greater and will ignore the other order's co-pay amount. When determining remaining deductible for Order B, RIS will subtract the deductible payment that is to be made for Order A from the total remaining deductible, so that the staff does not over collect in situations where the deductible is met by the payment on Order A.

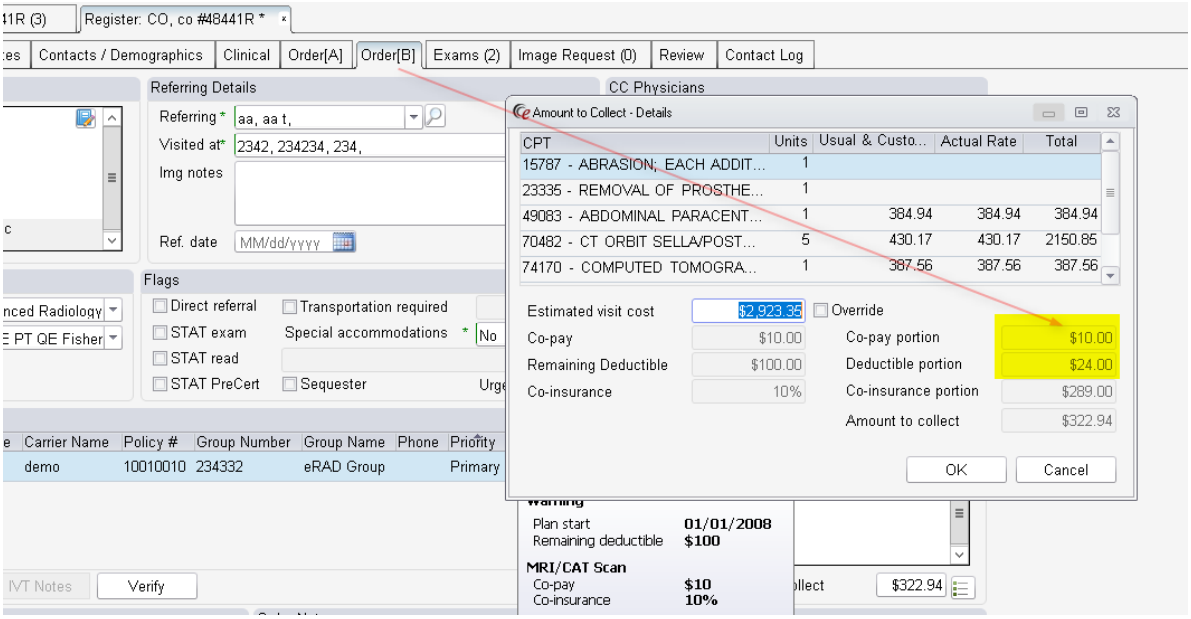
The following two screenshots demonstrate an example of an Order A / Order B scenario in which both orders are scheduled for the same date of service. Eligibility workflow has occurred and the Estimated Visit Cost has been entered for each order. In the example, the co-pay for Order A is $1.00, while Order B has a co-pay of $10.00. When looking at the right column, which shows the amount to be collected, notice that the lesser co-pay amount on Order A has been ignored, making the $10 co-pay on Order B the only co-pay to be collected from the patient.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

Order A:




Order B:




Also, the screenshot for Order B illustrates a reduced deductible portion because the amount collected from Order A reduces the remaining deductible by $76.

Amounts to collect will be recalculated and validated each time the Scheduling, Registration or View/Edit screens are opened. The logic described above will only occur when the orders are scheduled for the same date of service.

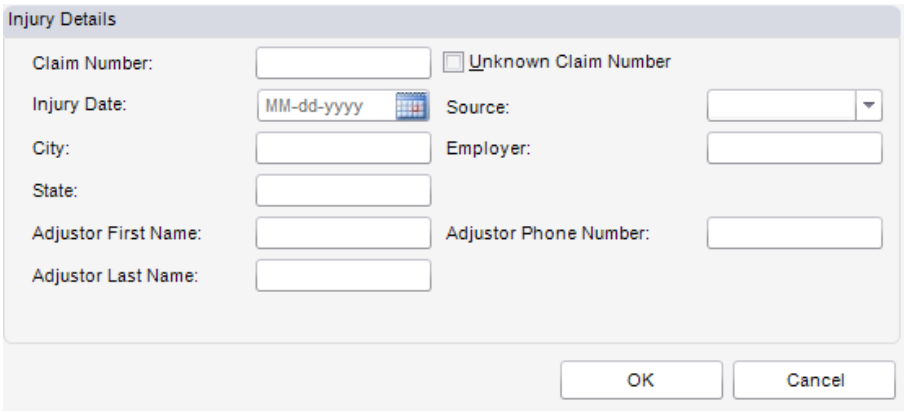
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #15206 – EMPLOYER ADDRESS AND PHONE NUMBER CAN BE COLLECTED IN INJURY DETAILS

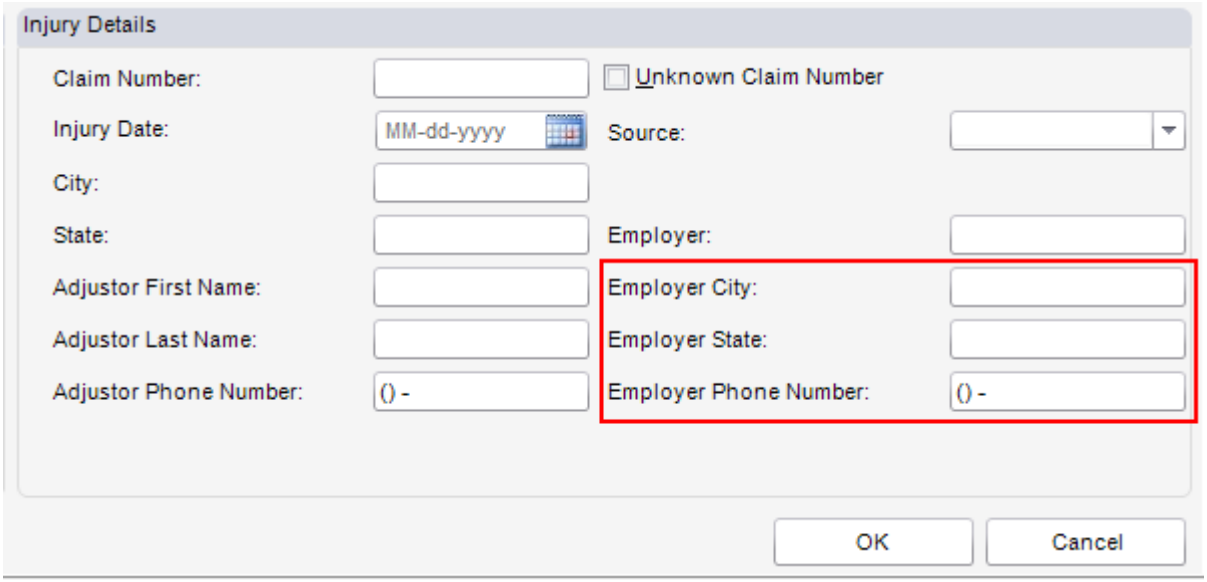
On the Manage Policies screen, there is a section for Injury Details, which is used to collect information for Workman's Compensation, Auto Accidents, and P.I. Liens. Some customers would like to store additional information about the employer including their City, State, and Phone Number.

New fields have been added to capture this information. The "Adjustor Phone Number" field has been moved below the Adjustor Last Name field to make space for the new Employer information.

Previous Injury Details section:




New Injury Details section:



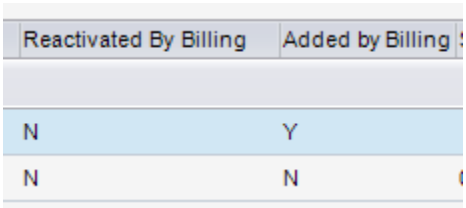

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #15768 – BILLING INTEGRITY INTERFACE WILL NOW ALLOW USERS TO IDENTIFY WHEN A BILLING CODE WAS REACTIVATED BY IMAGINE BILLING

Sometimes a technologist will change the procedure code, which marks the original billing code as inactive and adds the new procedure's billing code. When the report goes to coding via the Imagine interface, CodeRyte sometimes sends back the 'original' billing code (i.e. the billing code that is inactive because the technologist changed the procedure code). Previously, the interface would simply reactivate that existing inactive billing code and it was not possible to identify that there was a discrepancy between what the technologist said they performed and what CodeRyte said was performed based on report contents.

An enhancement has been made to identify these scenarios, so that imaging centers can properly investigate why the discrepancy has occurred. This will allow corrections to be made in the cases where additional documentation in the report might have resulted in charging for a more comprehensive exam. It also allows the opportunity for technologist and radiologist education to occur when technologists often select the incorrect procedure or radiologists are not properly documenting all aspects of the exam performed.

In order to identify when an inactive billing code is reactivated by the interface, a new column has been added to the Billing Codes tab when opening the View/Edit screen from the Billing Confirmation WL. The column is labeled **Reactivated by Billing** and will display a Y when a billing code that was *inactive* at the time of billing submission has been *reactivated* by the Billing Integrity interface.

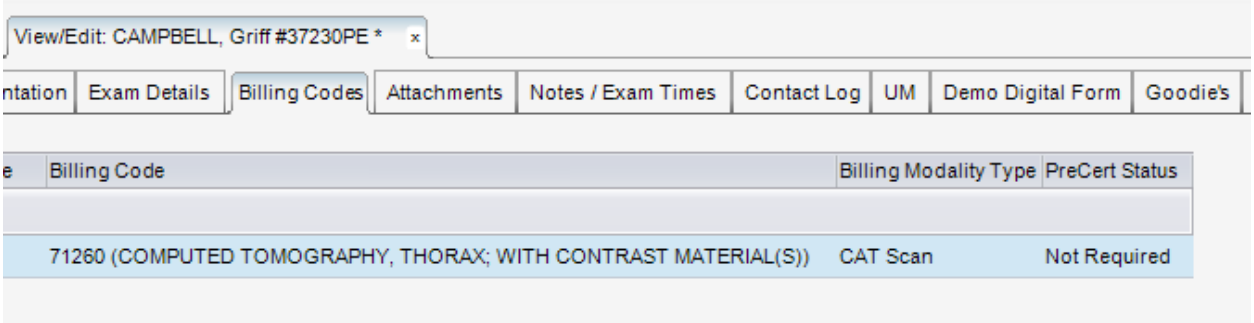


| Reactivated By Billing | Added by Billing |
|---|---|
| N | Y |
| N | N |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #14799 - BILLING MODAILITY TYPE COLUMN IS NOW AVAILABLE IN THE BILLING CODES GRID

Billing Modality Type has been added as a column in the Billing Codes grid. This information can be useful to users who need to quickly identify if a billing code is a Supply charge, a Surgical charge, or any other category.




The new column should be available on any screen where the Billing Codes grid is displayed.

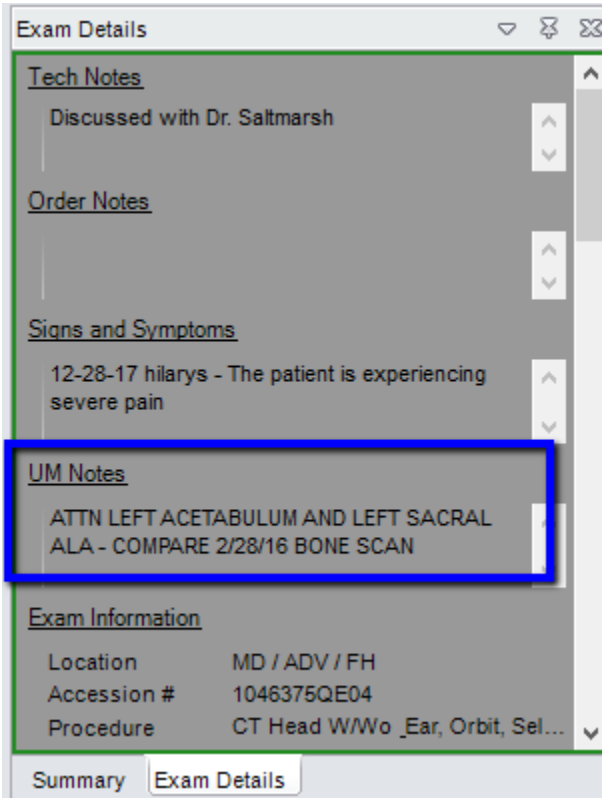
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## UTILIZATION MANAGEMENT

### FEATURE #15296 – DISPLAY RADIOLOGIST-SPECIFIC NOTES TO THE RADIOLOGIST

When reviewing a study in Utilization Management workflow, UM reviewers sometimes wish to provide special instructions to the reading radiologist. These notes can now be displayed to the radiologist when they read the study.

If the System Configuration for setting **UMEnabled** is set to true, radiologists will now see a section for UM Notes in the Exam Details panel on the reporting screen. Any special instructions or notes the UM reviewer has entered in the Rad/Tech Special Instructions field will be displayed here.




This section will not be present if the system is not configured to use Utilization Management.

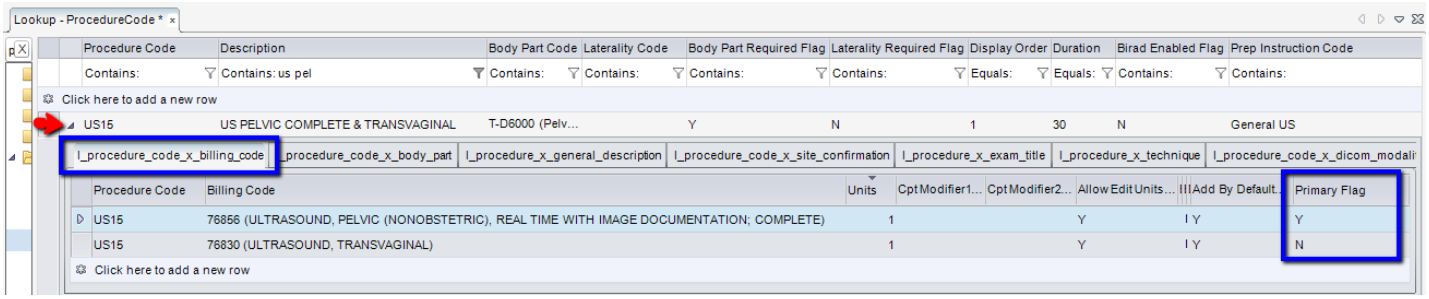
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #16996 – CONFIGURE A PRIMARY BILLING CODE FOR A PROCEDURE CODE

In Utilization Management workflow, CPT codes may exist on a matrix multiple times with different UM Coverage Types. For example, Medical Group A may list CPT code 70470 as Authorization Required coverage and Medical Group B lists the same CPT as Fee for Service (FFS).

Procedure codes may also have multiple billing codes associated with varying coverage types for each billing code. Previously, all additional billing codes were pushed to Utilization Review and the UM team would determine the coverage required.

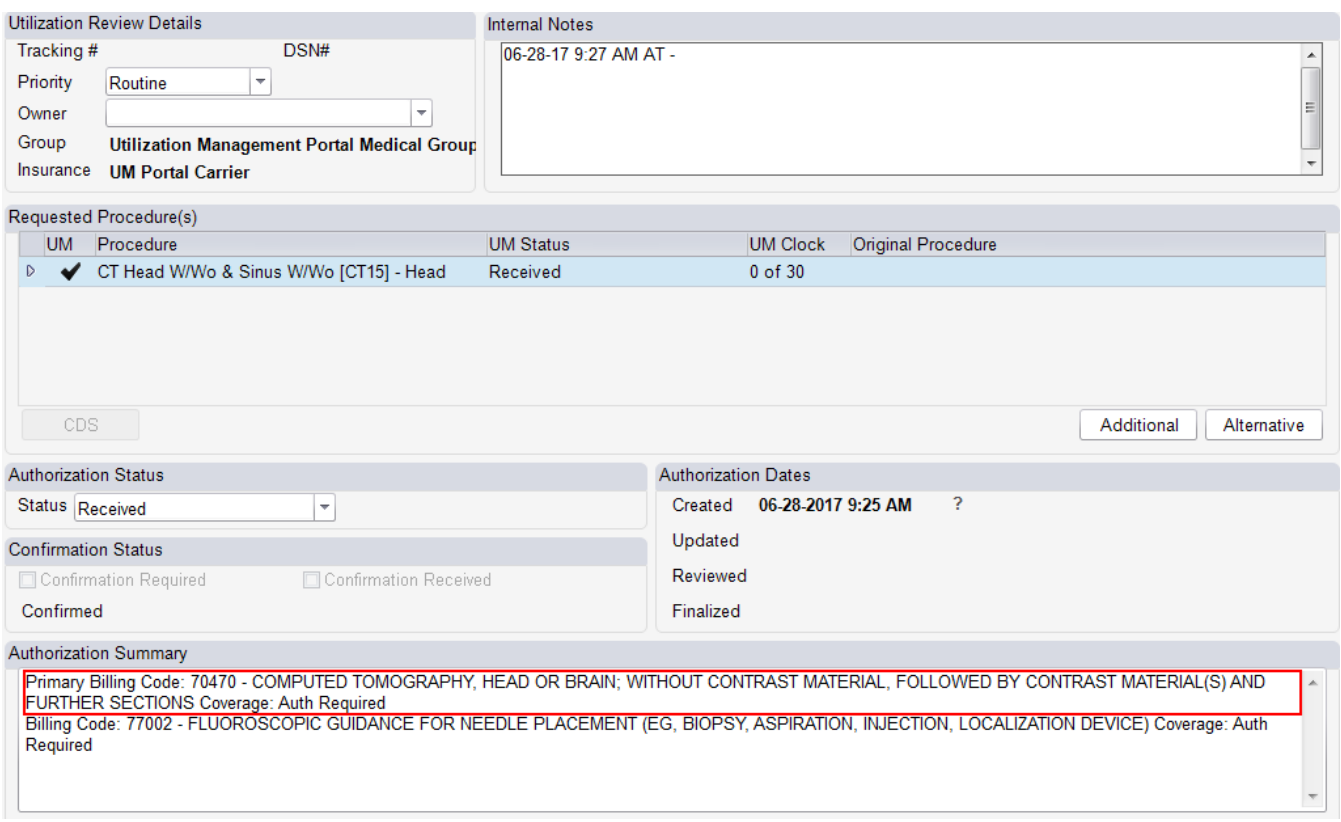
To more efficiently route appropriate procedures/billing codes to the UM worklist, it is now possible to indicate a Primary Billing Code in the Procedure Code sub-table **l_procedure_code_x_billing_code.**




If a Billing Code for a Procedure is set to Primary, the UM logic will only evaluate for coverage using this Billing Code. If a Primary is not set, each individual Billing Code will be checked for whether authorization is required, as previously.

The primary billing code is labeled in the Authorization Summary (shown below).

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.



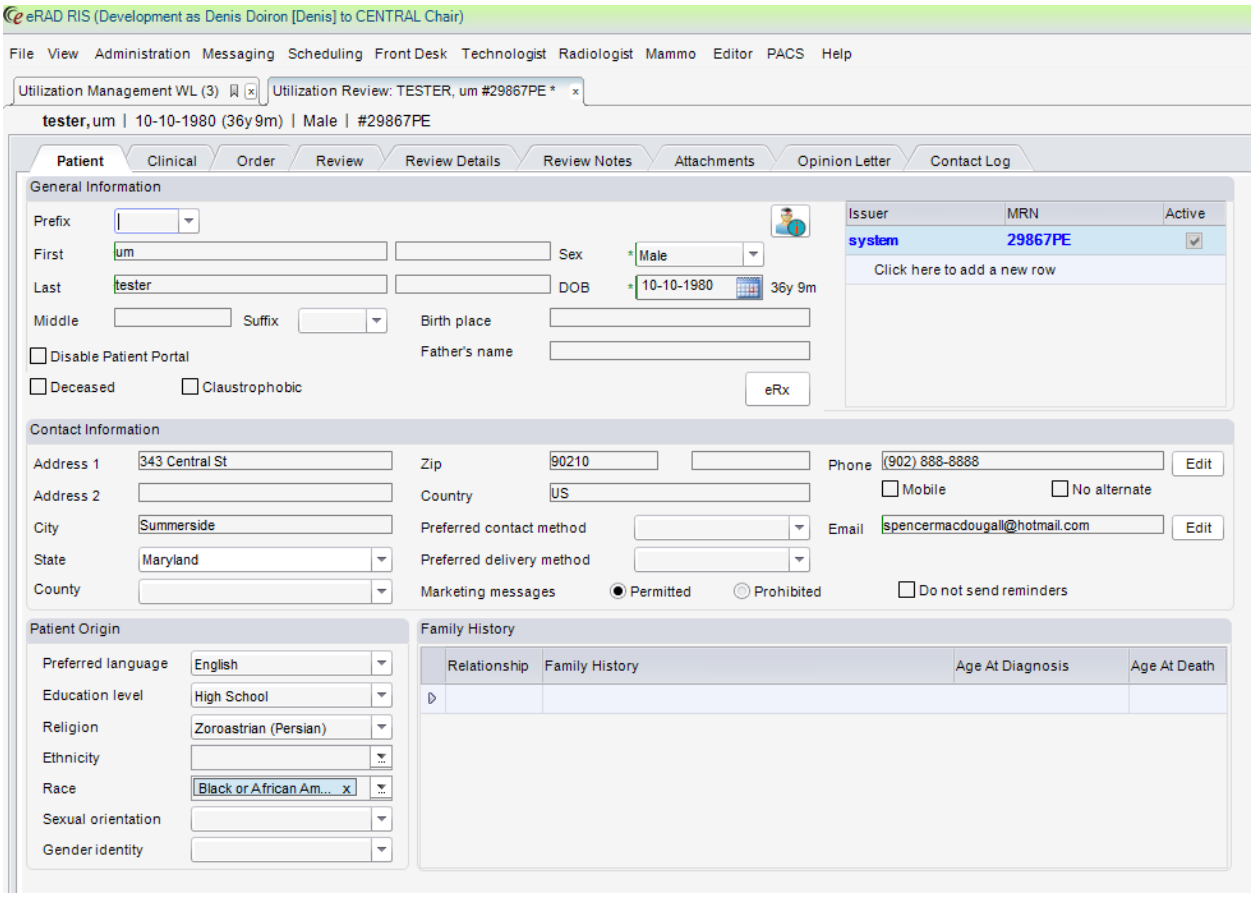

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #17302 – ALLOW FOR CUSTOMIZABLE SCREEN LAYOUT ON UTILIZATION REVIEW SCREEN

The Utilization Management workflow includes a number of different notes fields. Due to the amount of data that must be entered for UM, the notes fields exist on a separate tab called Review Notes. UM Reviewers using multiple monitors have additional screen real estate and would like to be able to see the notes fields and other information at the same time, without switching tabs.

In order to provide the most flexibility, the Utilization Management screens will now behave in a fashion similar to the Reporting screen, with multiple data panes that can be docked, floated, tabbed and pinned as desired.

The default layout will be almost identical to the previous screen layout: all controls will be tabbed across the top of the screen, as shown below.

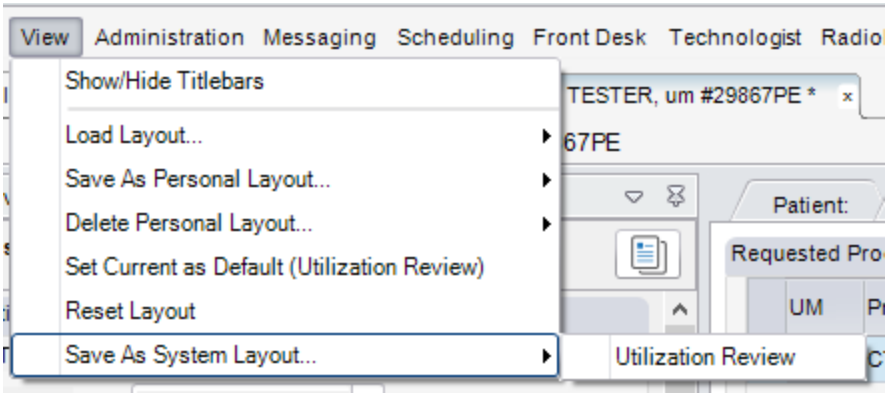



A system administrator will appropriate permissions will be able to override the deployed layout by saving a layout as a System Layout for Utilization Review via the "View" menu.

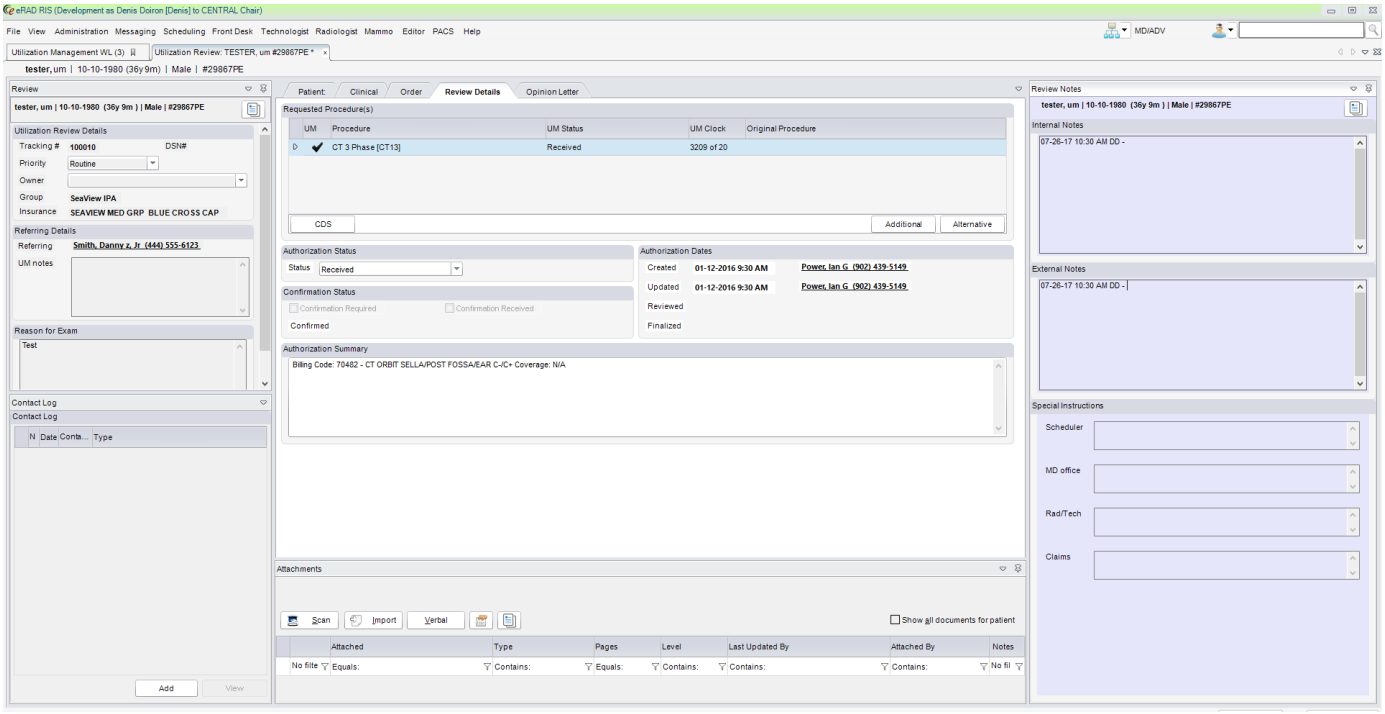
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

Individual users can also override the default layout by saving a layout with the **Save current as default (Utilization Review)** under the View menu. If desired, this permission can be revoked to give better control to layout consistency across the organization.

Users can also save personal layouts with a custom name, which can be manually loaded on demand by the user. The following image shows the "View" menu for Utilization Management with all permissions granted.




The following image depicts a custom screen layout created by floating, then docking a few controls around the centrally located tab screens.



One difference from the Reporting screen layout is that the Review Details tab is the main control, which will always be tabbed and visible on the main screen. This control cannot be floated.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

Another difference is that users do not have the ability to hide any of the data panes. They can choose to pin them, but they will all be accessible on the screen.

### RELEVANT ACCESS STRINGS

The following access strings previously existed, but are related to this feature:

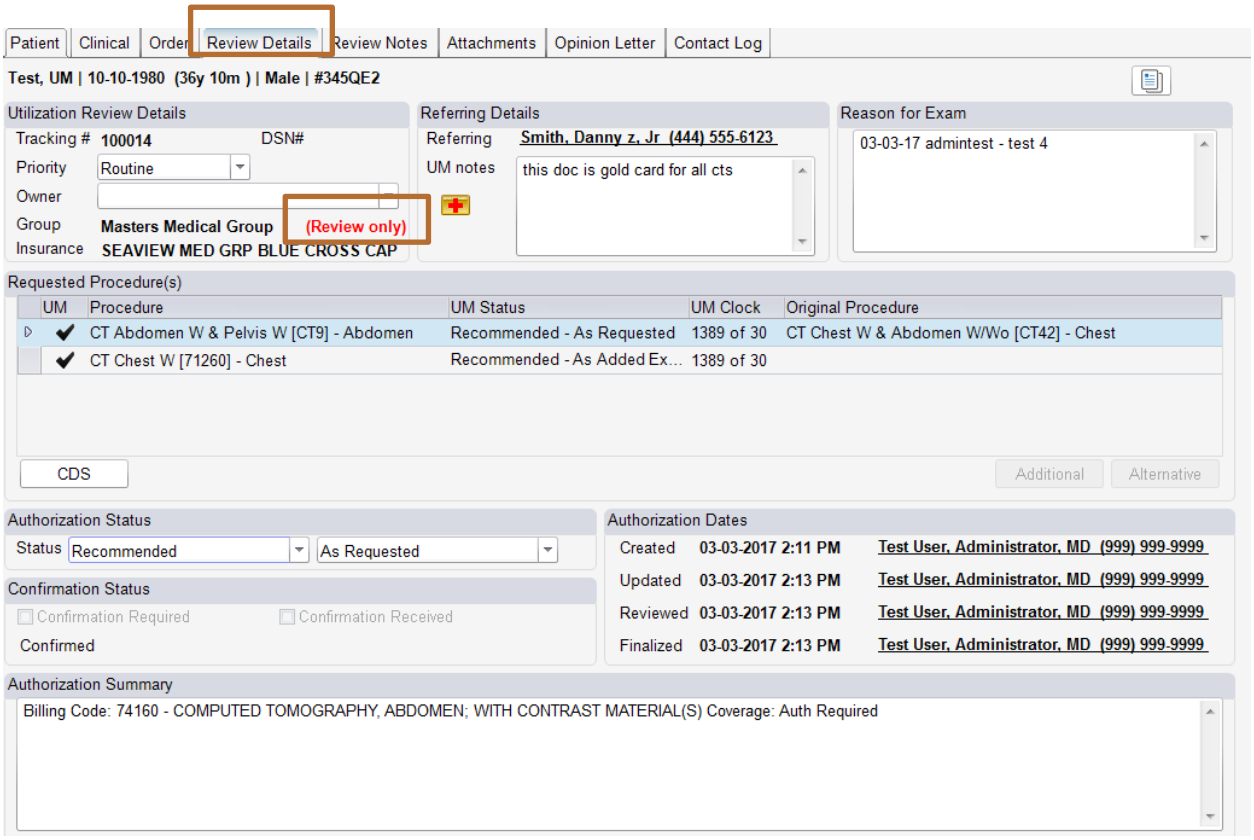
- **View.Save** - controls the user's ability to save their own default layout.
- **View.Preset.Administration** - allows an administrator to override the default layout.
- **View.Custom.Layouts** - allows users to save personal layouts.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

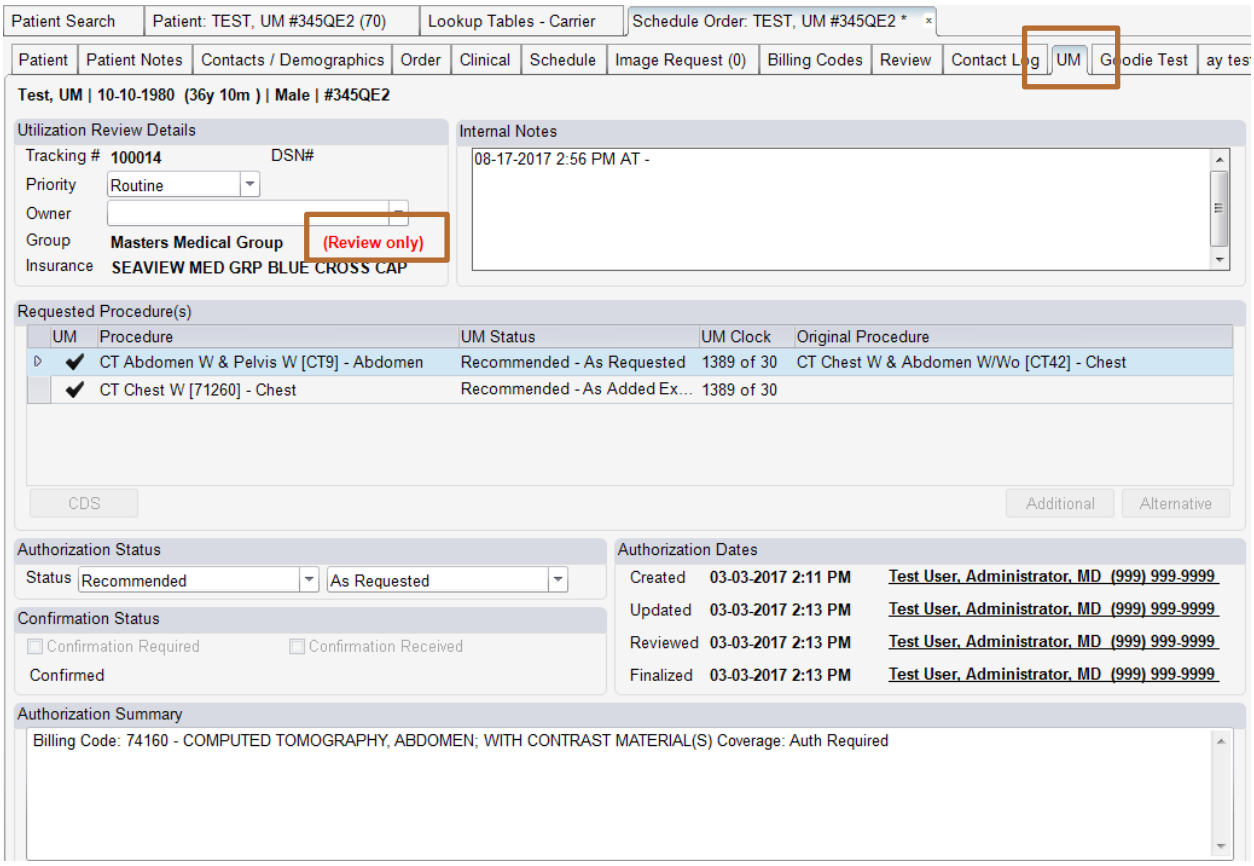
## FEATURE #17504 – INDICATOR FOR MEDICAL GROUPS THAT ARE REVIEW ONLY

Some medical groups have contracts that only entail utilization review and the imaging is to be performed elsewhere. There is a **Review Only** flag at the Medical Group level. When this flag is enabled, any orders reviewed for that medical group cannot be scheduled.

To make this clear to users, a label has been added to the right of the Medical Group if it is configured as Review Only. The label is visible on the Review Details tab under UM Review, as well as the UM tab that appears during scheduling.




No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

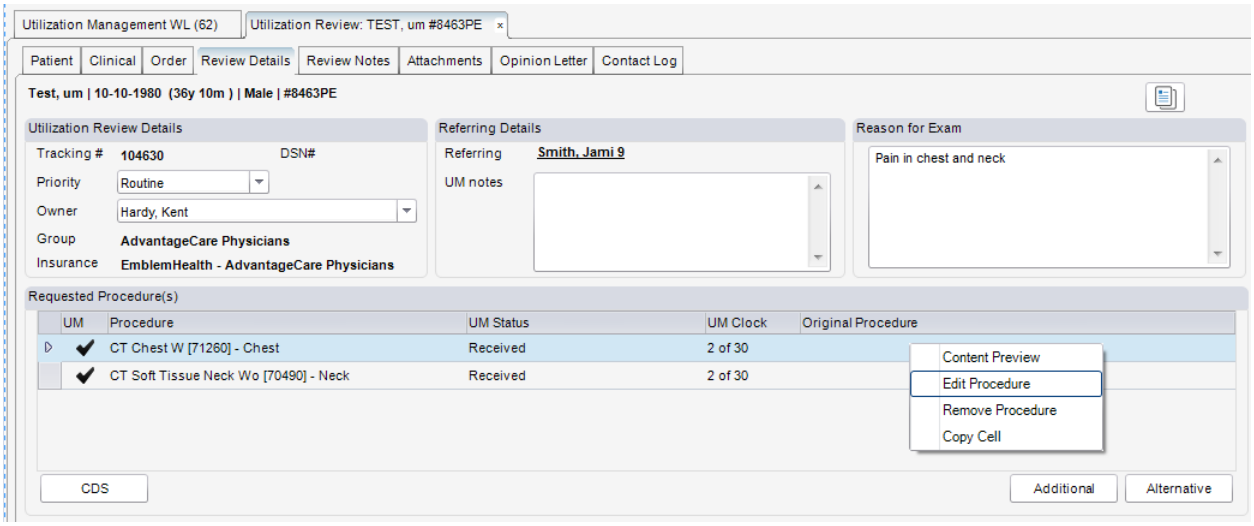



No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #17529 – UM – REVIEWERS CAN NOW CHANGE REQUESTED PROCEDURE

When adding UM orders to RIS, the data entry team sometimes mistakenly adds the wrong procedure to the order. The UM reviewer would previously have to modify the existing order via the Schedule Order screen because adding the correct procedure as an Alternative exam for a simple data entry error would skew the statistics. It is now possible for the reviewer to modify the ordered procedure from the Utilization Review screen.

The context menu on the Requested Procedure(s) grid on the Review Details tab has been enhanced to include both **Edit Procedure** and **Remove Procedure** menu items.




For the Remove Procedure option, the following logic is used to determine if the user can delete the procedure from the order.

1. If the procedure is the only one for the order, the user is prevented from removing it and prompted with "At least one procedure is required."
2. If the procedure being removed already has a study associated with it (has been scheduled or is further in the workflow), the user is prevented from removing it and is prompted with "The procedure you are deleting is currently in Scheduled status. Please notify the appropriate person to make adjustments to the appointment."

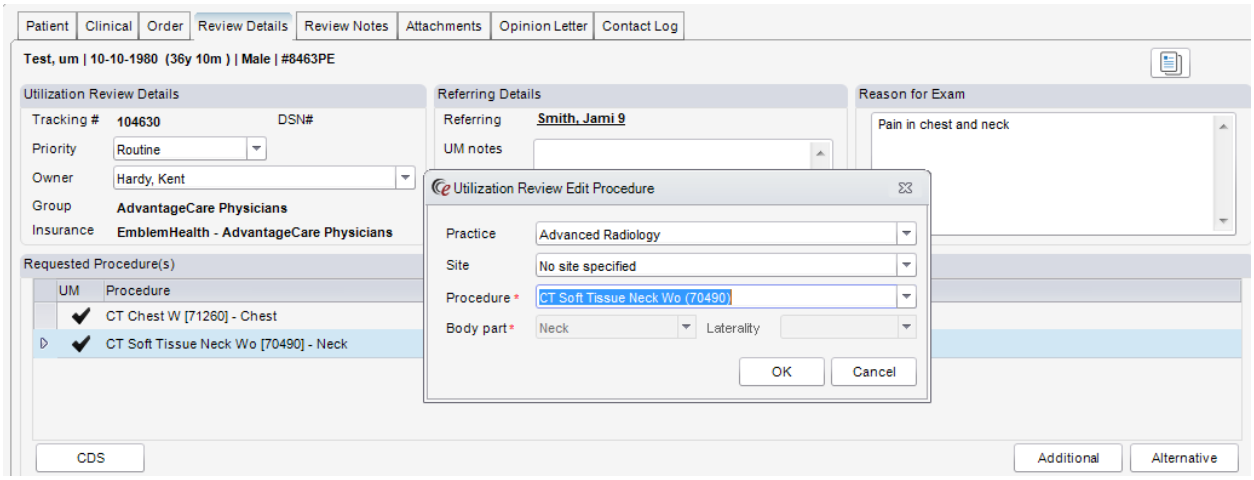
For the Edit Procedure option, similar logic applies. If the procedure being removed already has a study associated with it (has been scheduled or is further in the workflow), the user is prevented from removing it and is prompted with "The procedure you are deleting is currently in Scheduled status. Please notify the appropriate person to make adjustments to the appointment." Note that the word "Scheduled" will be replaced with the actual status of the study.

While adding the above logic to not adjust ordered procedures that have studies associated, it was decided to also prevent and display a message to the user for the following scenarios:

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

1. When **specifying** an **alternative** procedure for an order item that already has a study associated, the user is prompted with: "The procedure for which you are recommending an alternative is currently in scheduled status. Please notify the appropriate person to make adjustments to the appointment."
2. When **removing** an **alternative** procedure for an order item that already has a study associated, the user is prompted with: "The procedure you are deleting is currently in Scheduled status. Please notify the appropriate person to make adjustments to the appointment."
3. When **adding** an **additional** procedure for an order that already has at least one study associated, the user is prompted with: "The order for which you are adding an additional procedure has a procedure in scheduled status. Please notify the appropriate person to make adjustments to the appointment."
4. When **removing** an **additional** procedure for an order item that already has a study associated, the user is prompted with: "The procedure you are deleting is currently in Scheduled status. Please notify the appropriate person to make adjustments to the appointment."

If the above validation passes when editing a procedure, the user is presented with a procedure picker so he or she can modify the procedure and replace it at the order item level.




When selecting Remove Procedure, the user is prompted with "Are you sure you want to remove the procedure?" Selecting yes will delete the order item.

*Note: This feature was previously released in a patch to make it available in the field prior to this release. First released in 2.2016.7.14.*

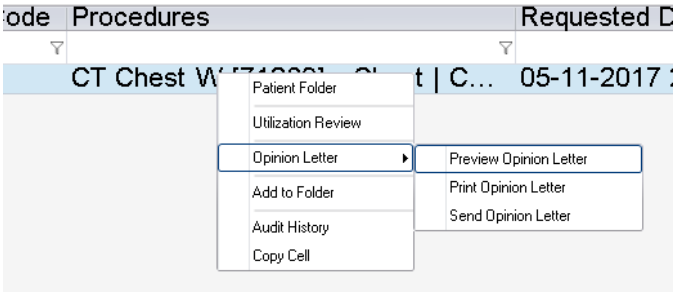
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #18170/17530 – RIS USERS CAN NOW PREVIEW AND DISTRIBUTE UM OPINION LETTER

Previously, the UM Opinion Letter was only available to be previewed from the Utilization Review screen via the UM Opinion Letter tab. Sometimes it is necessary for other RIS users to preview or distribute the UM Opinion Letter. To accomplish this, a new context menu item has been added to the Patient Folder and UM worklist called **Opinion Letter**. This option will be available when the UM Required Flag = Y and the user has FULL access to a new access string: **Clinical.OpinionLetter**.

The Opinion Letter context menu item will have three options:

1. Preview Opinion Letter
2. Print Opinion Letter
3. Send Opinion Letter




Access to these three sub-menu options can be controlled via the access strings:

- **Clinical.OpinionLetter.Preview**
- **Clinical.OpinionLetter.Print**
- **Clinical.OpinionLetter.Send**

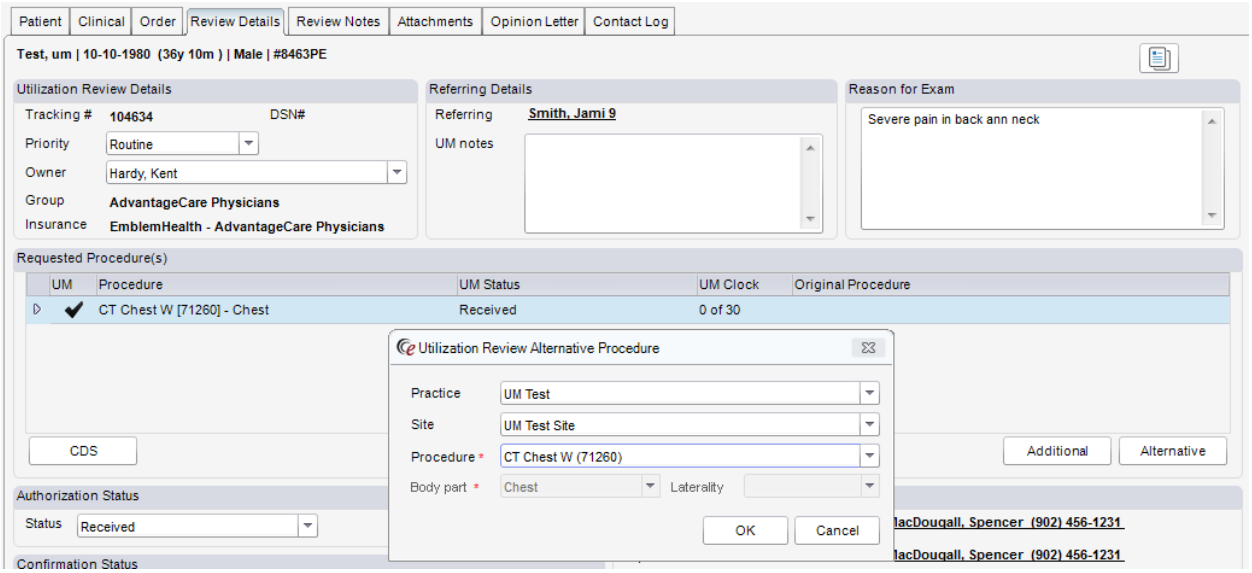
*Note: This feature was previously released in a patch to make it available in the field prior to this release. First released in 2.2016.7.14.*

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #17579 – UM REVIEWERS CAN NOW CHOOSE ANY ACTIVE PROCEDURE, UNLIMITED BY THE CURRENT SITE'S SCHEDULE GROUP

When a UM Reviewer wishes to recommend an alternative procedure, add an additional procedure, or edit the procedure, sometimes it is not a procedure that can be performed at the practice or site for which the order was created. Previously, there were some restrictions on what procedures were available in the dropdown when selecting Alternative or Additional procedures. The UM Reviewer now has access to any active procedure when choosing the procedure via UM workflow.

The utilization review procedure picker has been enhanced to include dropdowns for both Practice and Site. When editing the existing procedure or specifying an alternative procedure, the Procedure dropdown will default to the original ordered procedure.




If the user changes the Procedure dropdown to a procedure that cannot be performed at the site or practice specified with the order, he or she is prompted with "The selected procedure cannot be performed at this Site or Practice. Please select a new Practice and Site from the list."

If the user changes the Procedure dropdown to a procedure that cannot be performed at the site but is available at the practice specified with the order, he or she is prompted with "The selected procedure cannot be performed at this Site. Please select a new Site from the list."

The Practice and Site dropdowns are then filtered to present the user with only practices and sites that can perform the newly selected procedure. This is accomplished by comparing active procedure codes against the configured schedule groups.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

When adding additional procedures, the reviewer is not limited by the practice and site selection and will not be prompted if the procedure cannot be performed.

*Note: This feature was previously released in a patch to make it available in the field prior to this release. First released in 2.2016.7.14.*

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #17580 – AUTOMATICALLY UPDATE EXAM STATUS BASED ON ATTRIBUTES OF SELECTED UM STATUS

Previously, when a UM Reviewer marked all procedures in an order as Not Recommended, the Patient Folder continued to display the order in an Ordered status, with the Procedure column displaying as blank due to the fact that no active procedures were associated. This could be confusing in cases where the UM Reviewer needed to go back to the case (e.g. they receive a call from the referring provider) or to other RIS users.

For this reason, a new System Configuration value has been added called **UMDefaultCancelledReasonCode**. This configuration value is dependent on a corresponding entry in the **CancelStudyReason** look-up table.

The workflow will proceed as follows: First, the system will look at the order once it is marked as UM Complete. UM Complete is determined by looking at each ordered procedure that requires utilization review to see if it is in a final UM Status. Next, the system will determine if the final UM Status can advance to scheduling or not. For example, Recommended can be scheduled while Not Recommended typically cannot. This is determined by verifying that the Final Flag on the UM Status is set to "Y" and the Schedule Flag is set to "N."

If is determined that all the procedures for the order require utilization review and none can advance to be scheduled, the system will perform the following tasks:

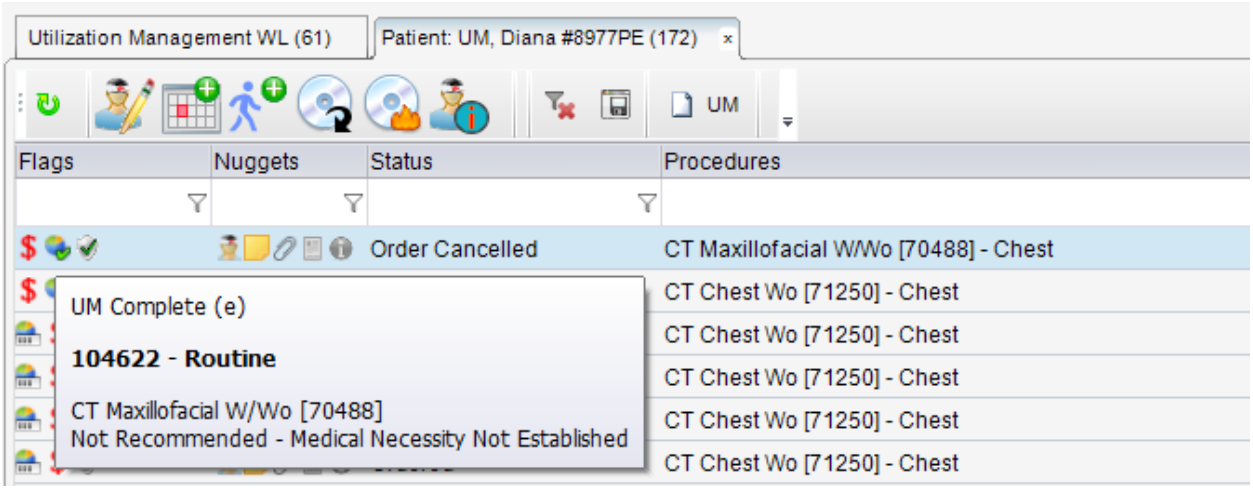
1. Set the Status Code for the order to Order Cancelled.
2. Set the Cancelled by User ID field for the Order to "system."
3. Set the Cancelled Date for the order to the current date and time.
4. Set the Cancelled Reason Code for the order to the **UMDefaultCancelledReasonCode**.

The following is an example of the audit log for the above scenario.

```
Event Time: 08-21-2017 03:38:15.836 PM    Client IP Address: ::1


Changed c_order
        status_code:                'OrderCancelled' (was 'OrderSigned')
        cancelled_by_user_id:       'system' (was 'nothing')
        cancelled_reason_code:      'UMDenied' (was 'nothing')
        um_complete_flag:           'Y' (was 'N')
        um_owner_user_id:                'chasinl' (was 'nothing')
        cancelled_date:             '08-21-17 3:38:14 PM -03:00' (was 'nothing')
Changed c_order_item
        procedure_code:             '70488'
        um_status_code:             'NotRecommended' (was 'Received')
        um_resolution_code:              'MedNec' (was 'nothing')
        um_finalized_date:          '08-21-17 3:38:14 PM -03:00' (was 'nothing')
        um_final_status_hours:      '40' (was 'nothing')
        um_finalized_by_user_id:    'spencer' (was 'nothing')
        um_reviewed_date:           '08-21-17 3:38:14 PM -03:00' (was 'nothing')
        um_reviewed_by_user_id:     'spencer' (was 'nothing')
        um_procedure:               'CT Maxillofacial W/Wo [70488] - Chest' (was 'nothing')
        um_status:                  'Not Recommended - Medical Necessity Not Established' (was 'nothing')
        um_clock:                   '40 of 30' (was 'nothing')
```

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

Below is an example of a UM order for which all exams on the order are moved to a Final UM status that indicates no scheduling is possible.




*Note: This feature was previously released in a patch to make it available in the field prior to this release. First released in 2.2016.7.14.*

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #17708 – SET DEFAULT UM STATUS AND RESOLUTION CODES FOR GOLD CARD AND STAT ORDERS

When configured, special handling for Gold Card or STAT orders requires that the orders be advanced to scheduling, bypassing the UM process. Previously, the UM flag was set to "Y" to allow scheduling, but the order would remain in Received status.

It is now possible to configure which Status and Resolution codes will be used in these scenarios. The defaults are defined by the following System Configuration settings:

- **UMDefaultSTATStatusCode**
- **UMDefaultSTATResolutionCode**
- **UMDefaultGoldCardStatusCode**
- **UMDefaultGoldCardResolutionCode**

If either System Configuration setting **UMByPassSTAT** or **UMGoldCardAutoApprove** is set to Y, the order's status code and resolution code will be immediately changed to match the appropriate System Configuration values. In addition, the following values are automatically set:

- UM Finalized Date = Current Date/Time
- UM Finalized by User ID = "system"
- UM Final Status Hours = 0

*Note: This feature was previously released in a patch to make it available in the field prior to this release. First released in 2.2016.7.14.*

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

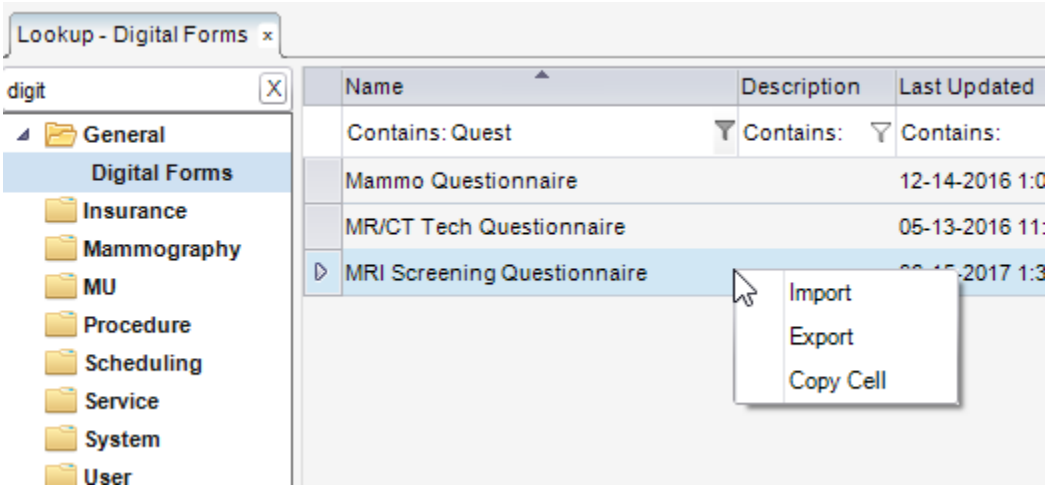
# DIGITAL FORMS

## FEATURE #16474 – IMPORT/EXPORT DIGITAL FORMS VIA LOOKUP TABLE

Previously, the import/export utility for Digital Forms was a standalone application requiring manual setup and configuration. The Digital Forms look-up will now be made available in the eRAD RIS GUI and will allow for the import/export functionality to be initiated from a context menu.

This activity is still considered a task to be performed by eRAD Support.

A Digital Forms configuration table is now visible in the General folder. Import and Export options have been added to the right-click context menu. Depending on the option selected, RIS will either export the selected Digital Forms as XML files or to import XML files as Digital Forms.




Users will be able to select an output path for exported XML files or select the location from which an XML file will be imported. Both options allow for multi-select. Exported files will be written to the folder the user has chosen while retrieving the content of associated image files from the web server. Import requires the XML to have been created using the export functionality in order to then be saved in the dataset and have an image file written to the web server.

Access to the new Digital Forms table will be controlled by the new access string **Config.LookupEditor.DigitalForms** (default = NONE).

**Important Note:** The same Digital Form should NOT be imported back to the originating system with the intention of then altering it to be used as a new Digital Form. The import process will assign the same GUIDs for the questions on the imported Digital Form and conflicts will occur if those unique question identifiers refer to questions on separate Digital Forms.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #17628 – UPDATE DIGITAL FORM ANSWERS VIA HL7

In some cases, it can be advantageous to accept updates to the answers in Digital Forms from a third-party system. For example, some customers wish to create Digital Forms to store data related to Breast Cancer Risk Assessment from a third party.

In order to accommodate this need, it is now possible for HL7 messages coming in through the Wedge HTTP interface or the external interface service to update answers to Digital Forms (**c_questionnaire_answer** table).

A "match on" feature has been added to some tables in the external interface. The first table to make use of this new functionality is the table for Digital Form answers, but it can be enabled on other tables as the need arises. It is possible to define which criteria to match on. For example, by default, messages updating the Digital Forms answers will match on Study Key and Question GUID (a unique identifier for the Digital Form question).

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #17840 – ABILITY TO USE A LOAD BALANCER FOR DIGITAL FORMS SERVERS

Some customers would like to use a load balancer for Digital Forms servers. To support this need, eRAD RIS now has the ability to use a SQL server for session storage rather than using memory.

Please consult eRAD Support if interested in taking advantage of this feature.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #17842 – NEW DISPLAY CRITERIA OPTIONS FOR THE CONDITIONAL TAB EDITOR

As eRAD RIS expands the use of Digital Forms, the following additional display criteria options have been added:

- Site Group
- Site
- Age Range
- Gender (Sex)
- Procedure Code
- Billing Code
- Carrier
- Carrier Type
- Contrast Required
- Sedation Required

In addition to loading the proper conditional tabs when a screen is opened, the conditional tab framework also listens for changes to key fields that may change the applicable tabs. For example, if a new billing code or carrier is added, the new tab will be attached immediately if the criteria match.

Most of the added criteria are self-explanatory, but a few may require further explanation.

### Site Group Criteria

A Site Group is a user defined collection of sites. Site Groups can have types (e.g. Radiologist Reading Group, General WL, RIS Schedule, etc.), but these are not used for filtering purposes in the Conditional Tabs editor. Any Site Group will be available for selection.

### Age Range Criteria

The age range was designed with a minimum age in years which is inclusive, and a maximum age in years which excludes the specified age. For example, 10-18 would match to a 10 year-old patient but not to an 18 year-old patient.

### Sedation Required

The Order tab on various screens (e.g. Registration, View/Edit, etc.) has a Sedation field. If this is populated, the exam will be classified as **Sedation Required** for conditional tab filtering purposes.

### Contrast Required

The Procedure Code table has a column named **Requires Contrast Flag**. This field is used for conditional tab filtering.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## CEHRT

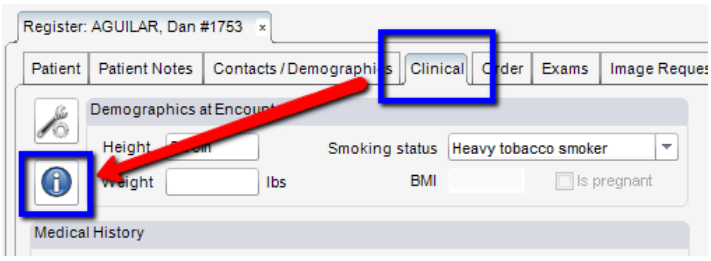
Certification of Electronic Health Records Technology (CEHRT) is a program that defines standards of performance that must be met in order to be considered a Certified EHR. eRAD RIS is currently certified under CEHRT 2014 Edition requirements. Using eRAD RIS Version 3.2017.6, eRAD RIS has applied for certification under CEHRT 2015 Edition requirements (the most recent edition for certification). eRAD RIS has already undergone and passed a testing process with an authorized certification body and is currently awaiting a new certification number, which will officially update the Certification Edition on the ONC's Certified Health IT Product List.

The following features have been added to the current eRAD RIS build to meet CEHRT 2015 Edition requirements. Some additional features are described in the Portals section of this document.

### FEATURE #16866 – CEHRT 170.315(B)(4): HEALTH CONCERNS FIELDS ADDED TO CLINICAL TAB

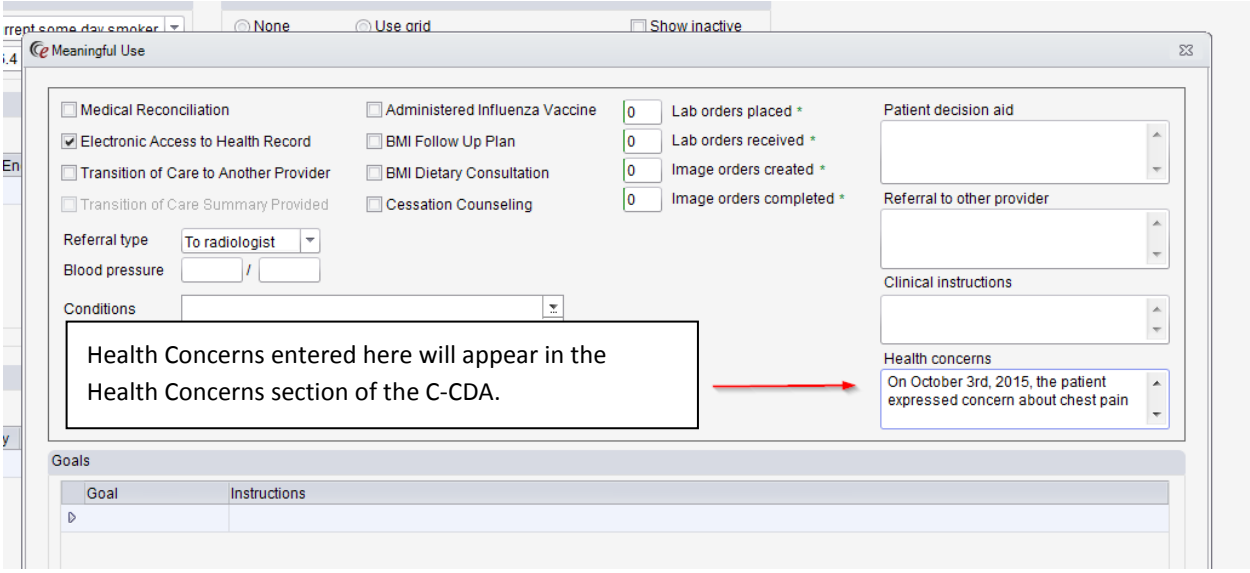
To qualify as a certified EHR System under the 2015 CEHRT requirements, eRAD RIS must be capable of collecting a patient's Health Concerns in a separate field that can be pulled into the C-CDA.

Because this data is unlikely to be separately collected in radiology, the fields were added in an out of the way area in the RIS. It is accessed using the Info button on the Clinical Tab.

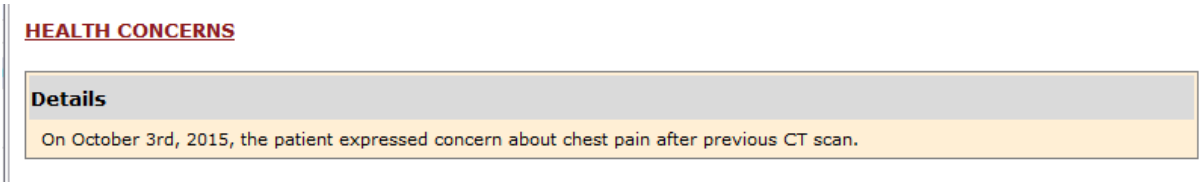



After opening, the Health Concerns can be entered as seen below. Up to 500 characters of free text are allowed.

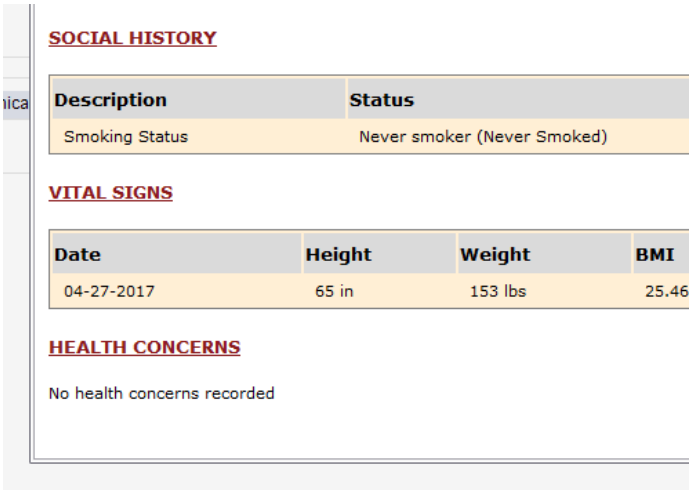
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.




If this field is populated, the C-CDA will display the information:




If left blank, the C-CDA will indicate that health concerns were not recorded:

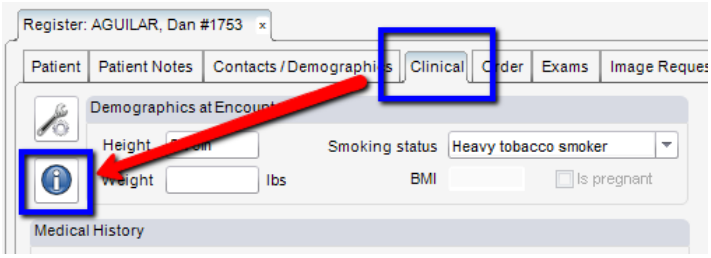



No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

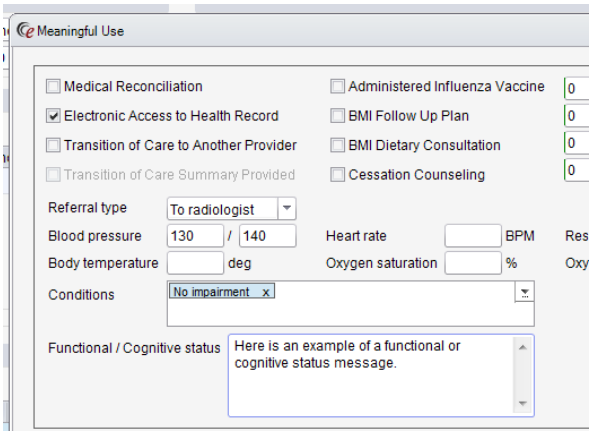
## FEATURE #16877 – CEHRT 170.315(B)(4): FUNCTIONAL/COGNITIVE STATUS FIELD ADDED TO CLINICAL TAB

To qualify as a certified EHR System under the 2015 CEHRT requirements, eRAD RIS must be capable of collecting a patient's Functional and Cognitive status, as well as providing this information in the C-CDA.

Because this data is unlikely to be collected in radiology, the fields were added in an out of the way area in the RIS. It is accessed using the Info button on the Clinical Tab.




After opening, the Functional/Cognitive Status can be entered as seen below. Up to 500 characters of free text are allowed.




This field will appear on the C-CDA in the Functional and Cognitive Status section as a Functional Status Observation:

**FUNCTIONAL AND COGNITIVE STATUS**

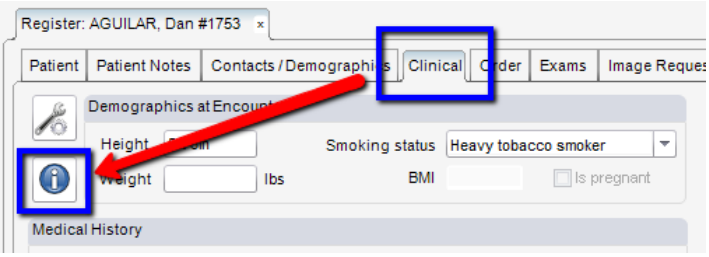
| Condition | Date | Status |
|---|---|---|
| No impairment | 05-05-2017 | Active |
| **Other** | | |
| Here is an example of a functional or cognitive status message. | | |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

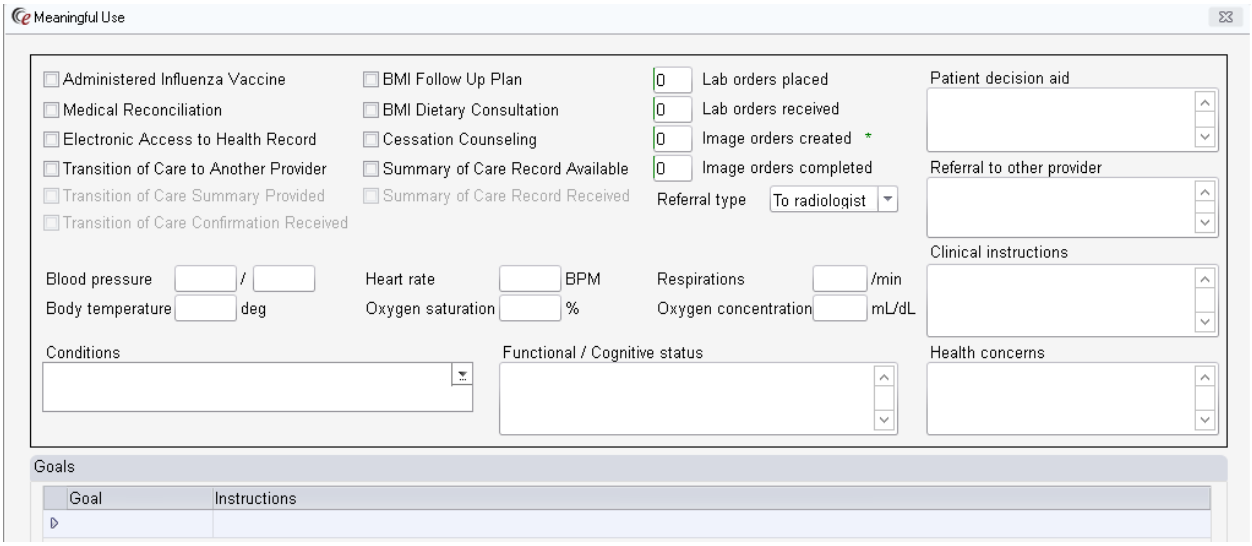
## FEATURE #18061 – CHECKBOX TO INDICATE THAT A SUMMARY OF CARE RECORD IS AVAILABLE

To qualify as a certified EHR System under the 2015 CEHRT requirements, eRAD RIS must be capable of recording that a Summary of Care Record is available.

A new checkbox has been added for this purpose. It is accessed using the Info button on the Clinical Tab.




The checkbox will be available on the resulting screen, as shown:




If this box is not checked, the existing checkbox for labeled **Summary of Care Record Received** will be disabled.

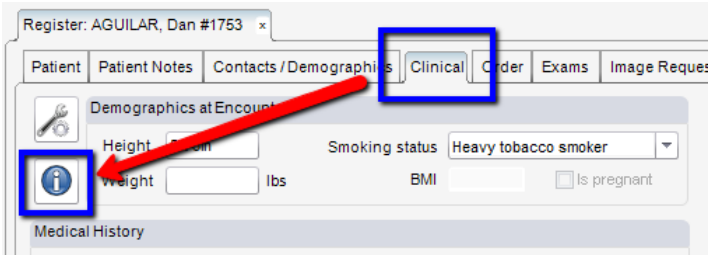
Note that some elements on this screen were reorganized to accommodate the new checkbox.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

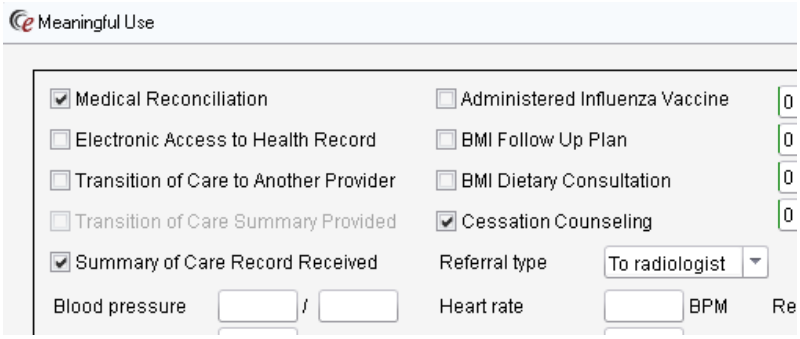
## FEATURE #18008 – SUMMARY OF CARE RECORD RECEIVED

To qualify as a certified EHR System under the 2015 CEHRT requirements, eRAD RIS must be capable of recording that a Summary of Care Record has been received.

A new checkbox has been added for this purpose. It is accessed using the Info button on the Clinical Tab.




The checkbox will be available on the resulting screen, as shown:

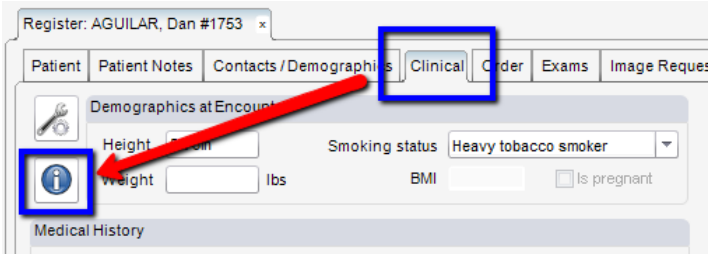



No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

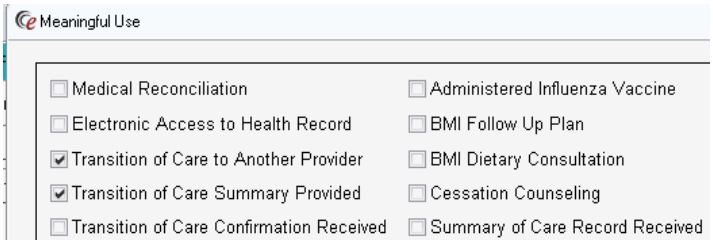
## FEATURE #18039 – TRANSITION OF CARE CONFIRMATION RECEIVED

To qualify as a certified EHR System under the 2015 CEHRT requirements, eRAD RIS must be capable of recording that a Transition of Care Confirmation has been received.

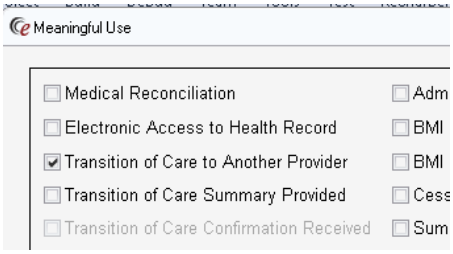
A new checkbox has been added for this purpose. It is accessed using the Info button on the Clinical Tab.




The checkbox will be available on the resulting screen, as shown:




The checkbox for Transition of Care Summary Provided must be checked to enable the Transition of Care Confirmation Received checkbox. If it is not checked, the new Confirmation Received checkbox will be disabled.



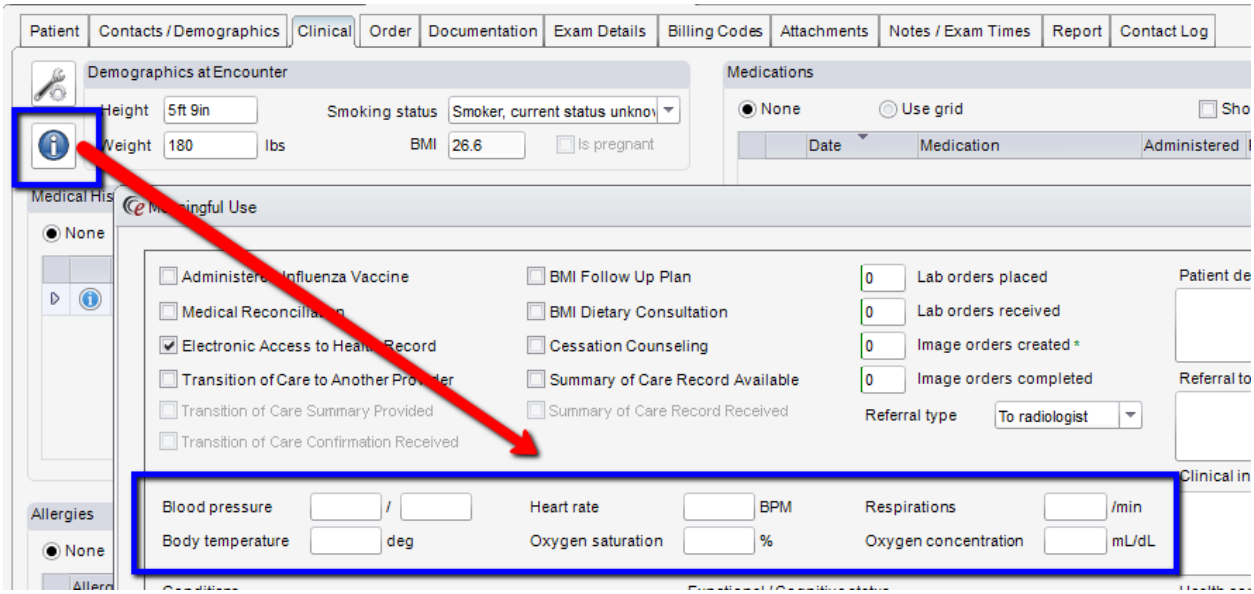

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #16222,16918 – CEHRT 170.315(B)(4): COLLECT NEW VITAL SIGN DATA AND DISPLAY IN THE C-CDA

eRAD RIS needs to provide the ability for the user to capture the following information on the Clinical tab, so that it can be electronically exchanged with Clinical Data set in the C-CDA:

- Heart rate - {beats}/min (LOINC 8302-2)
- Respiratory rate - /min (LOINC 9279-1)
- Body temperature – degree (LOINC 8310-5)
- Oxygen saturation – Percent (LOINC 2710-2)
- Oxygen concentration - mL/dL (LOINC 3150-0)

Data fields for these vital signs are now available on the Clinical tab and can be accessed by clicking the information button, as illustrated below.




If recorded, this data will be displayed in the **Vital Signs** section of the C-CDA. Height, Weight, and BMI will also be listed.

**VITAL SIGNS**

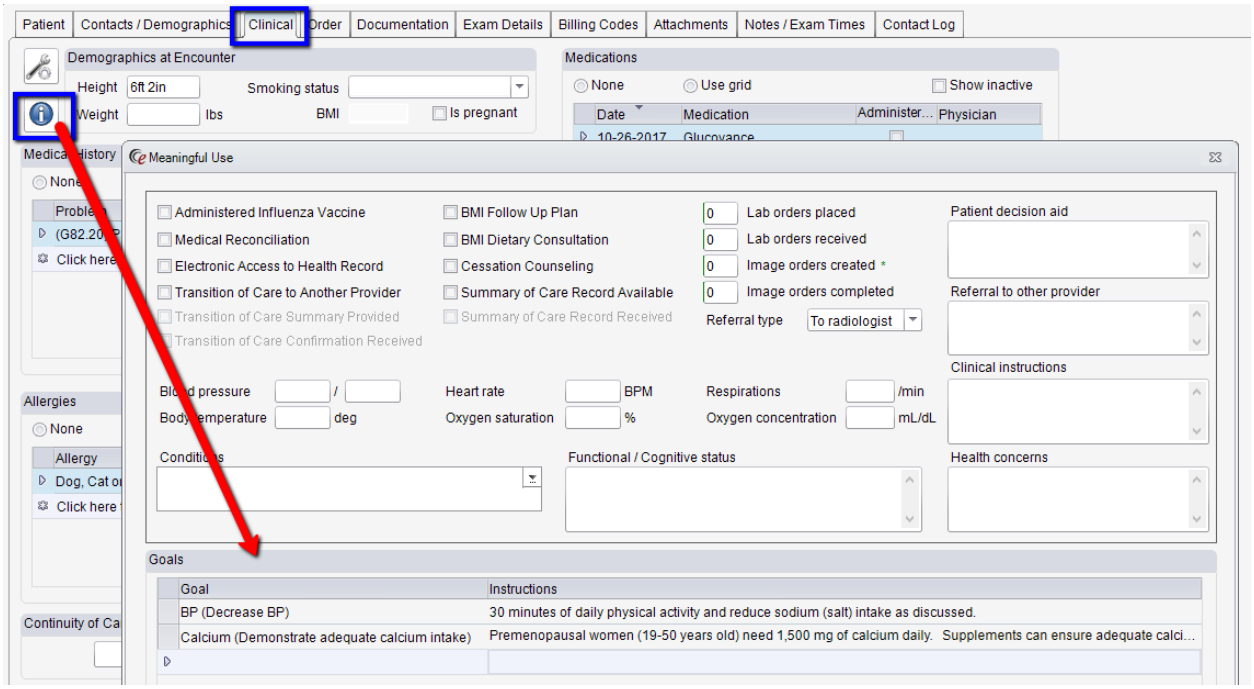
| Date | Height | Weight | BMI | |
|---|---|---|---|---|
| 04-21-2017 | 69 in | 180 lbs | 26.58 | Blood Pressure: 115/80 mm[Hg]<br>Heart Rate: 75 BPM<br>Respirations: 15 /min<br>Body Temperature: 98.7 deg<br>Oxygen Saturation: 95 %<br>Oxygen Concentration: 20 mL/dL |

A date extension was also added to the C-CDA's template ID, per requirements.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #16865, 17204 – CEHRT 170.315(B)(4): GOALS SECTION ADDED TO C-CDA FOR TRANSITION OF CARE DOCUMENT

To satisfy the 2015 Edition Certification Criteria, Continuity of Care documents now include a Goals section.
It is possible to set goals and provide instructions for patients using the Information button on the Clinical tab.




Goals can be selected via the dropdown, which is populated by any Active goals configured in the Goals look-up table. Instructions related to the goal can be added by typing them in.

When goals and instructions have been added for a patient, the information will appear in the new **Goals** section on the C-CDA.

**GOALS**

| Goal | Instructions |
|---|---|
| Decrease BP | 30 minutes of daily physical activity and reduce sodium (salt) intake as discussed. |
| Demonstrate adequate calcium intake | Premenopausal women (19-50 years old) need 1,500 mg of calcium daily. Supplements can ensure adequate calcium intake. |

If no goals have been entered for the patient, the Goals section will state “no goals recorded.”

The Goals section replaces a previous C-CDA section that was labeled “Instructions.” The Instructions section has been removed from the C-CDA.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #16909 – CEHRT 170.315(B)(4): CHANGES TO PLAN OF CARE SECTION OF C-CDA

Previously, the C-CDA had a **Plan of Care** section. Per new CEHRT requirements, the name of this section has been changed to **Plan of Treatment**.

A date extension was also added to the template ID, per requirements.

In the Treatment Plan section of the C-CDA, any exams that are in Ordered or Scheduled status for the patient will be listed as a Future Appointment.

**TREATMENT PLAN**

| Name | Type | Date |
|---|---|---|
| CT Soft Tissue Neck W & Chest W [CT35] - Pelvis - Bilateral | Future Appointment | 09-26-2016 |
| MR Brain Spectroscopy [76390] - Head | Future Appointment | 09-30-2016 |

Any visit Goals will also be listed in this section.

**TREATMENT PLAN**

| Name | Type | Date |
|---|---|---|
| Asthma management | Scheduled Goal | 03-27-2017 |
| Weight loss | Scheduled Goal | 03-27-2017 |

If no data is available, the C-CDA will note “No treatment plan recorded.”

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

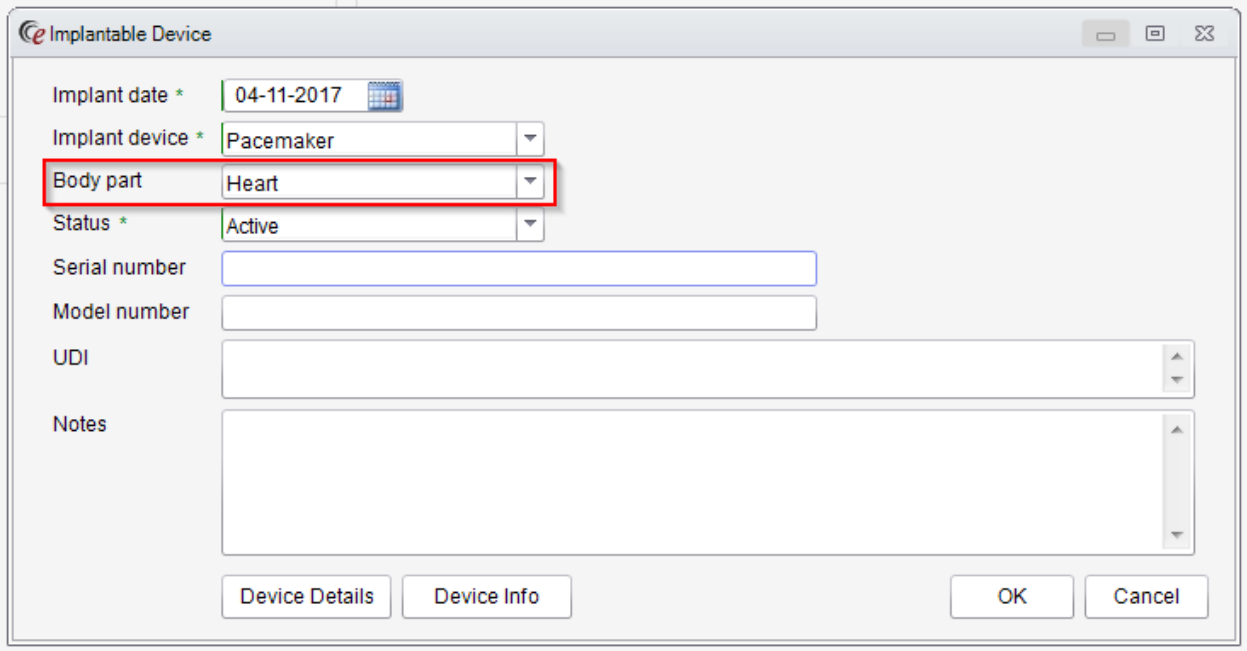
## FEATURE #16910, 16912 – CEHRT 170.315(B)(4): IMPLANTED DEVICES ARE NOW LISTED IN THE PROCEDURES SECTION OF THE C-CDA AND INCLUDE BODY PART

Previously, the C-CDA contained a section labeled “Implanted Device.” This section is no longer valid and the implanted device information is now expected to be displayed in the **Procedures** section of the C-CDA, as displayed below.

**PROCEDURES**

| Procedure | Body Part | Date |
|---|---|---|
| ANESTHESIA FOR PROCEDURES ON NOSE AND ACCESSORY SINUSES; RADICAL SURGERY | Chest | 05-05-2017 |
| Pacemaker [pacemaker] | Heart | 04-11-2017 |
| Mechanical Hip [mechanicalHip] | Hip joint | 04-25-2017 |

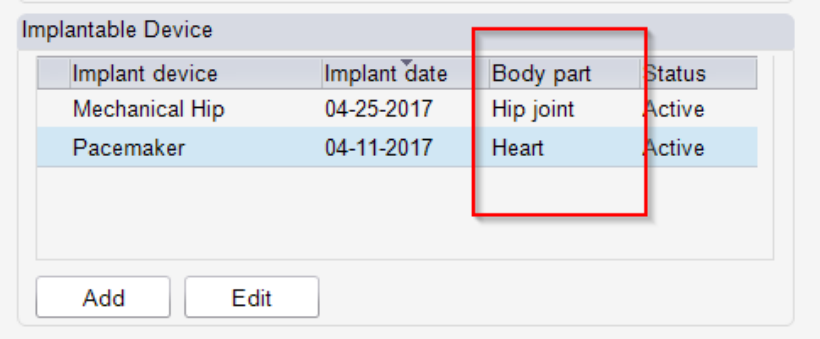
In addition, the C-CDA also now requires a Body Part to be listed for the implanted device. To collect this data, a new Body Part dropdown is available on the Implantable Device screen.




The Body Part options in the dropdown are populated from the existing Body Part look-up table.

Once implanted devices have been added for a patient, the Implantable Device grid will now show a column for the Body Part that was selected.

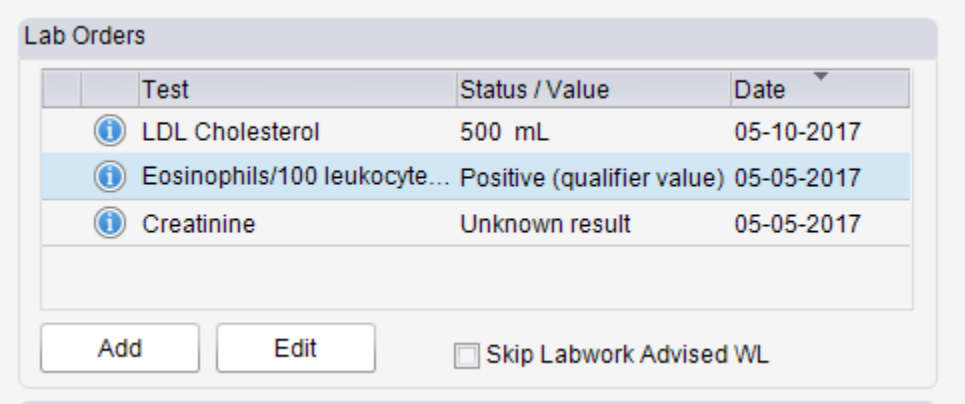
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.




No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #16917 – CEHRT 170.315(B)(4): UPDATE RESULTS SECTION TEMPLATE OF C-CDA

The Results section of the C-CDA will display any Lab Order data that is saved for the patient.




The Lab Orders entered above would result in a Results section that is displayed as follows:

**RESULTS**

| Test Name | Value |
|---|---|
| Eosinophils/100 leukocytes in Blood [26450-7] | Positive (qualifier value) |
| Creatinine [14682-9] | Unknown result |
| LDL Cholesterol [2089-1] | 500 (mL) |

A date extension was also added to the template ID, per requirements.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #16853 – CEHRT 170.315(B)(4): UPDATES TO SOCIAL HISTORY C-CDA TEMPLATE SECTION

The C-CDA template has been updated to include **Birth Sex** in the Social History section. This observation represents the sex of the patient at birth. It is the sex that is entered on the person's birth certificate at time of birth.

The C-CDA will include an entry from the ONC Administrative Sex value set: Male or Female. If the information is unavailable, "Unknown" will be listed.

Smoking Status was also updated to follow new validation standards.

Examples:

**SOCIAL HISTORY**

| Observation | Description | Date |
|---|---|---|
| Birth Sex | Female | 04-15-1986 |
| Smoking Status | Current some day smoker | 03-27-2017 |

**SOCIAL HISTORY**

| Observation | Description | Date |
|---|---|---|
| Birth Sex | Male | 01-30-1930 |
| Smoking Status | Unknown | |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #17192 – CEHRT 170.315(B)(4): ALLERGY SECTION OF C-CDA IS NOW TITLED "ALLERGIES AND INTOLERANCES"

The Allergy section of the C-CDA lists and describes any medication allergies, adverse reactions, idiosyncratic reactions, anaphylaxis/anaphylactoid reactions to food items, and metabolic variations or adverse reactions/allergies to other substances (such as latex, iodine, tape adhesives). To more accurately describe this data, and conform with 2015 CEHRT requirements, the Allergies section in the C-CDA has been renamed: **Allergies and Intolerances**.

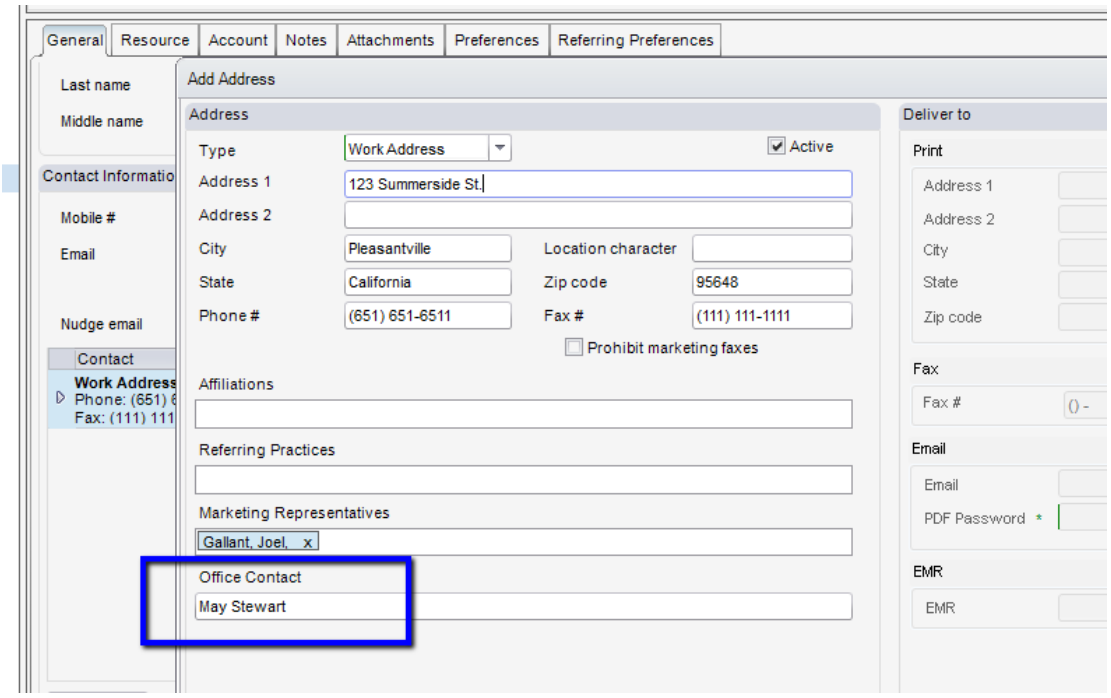
**ALLERGIES AND INTOLERANCES**

| Description | Start Date | Reaction | Severity | Status |
|---|---|---|---|---|
| Bee Sting | 04-03-2017 | Redness and swelling | Moderate | Active |
| Bee Pollens | 02-07-2017 | Itchy rash. | Mild | Active |
| Peanut | 11-01-2010 | Swelling and loss of breath. | Moderate to severe | InActive |

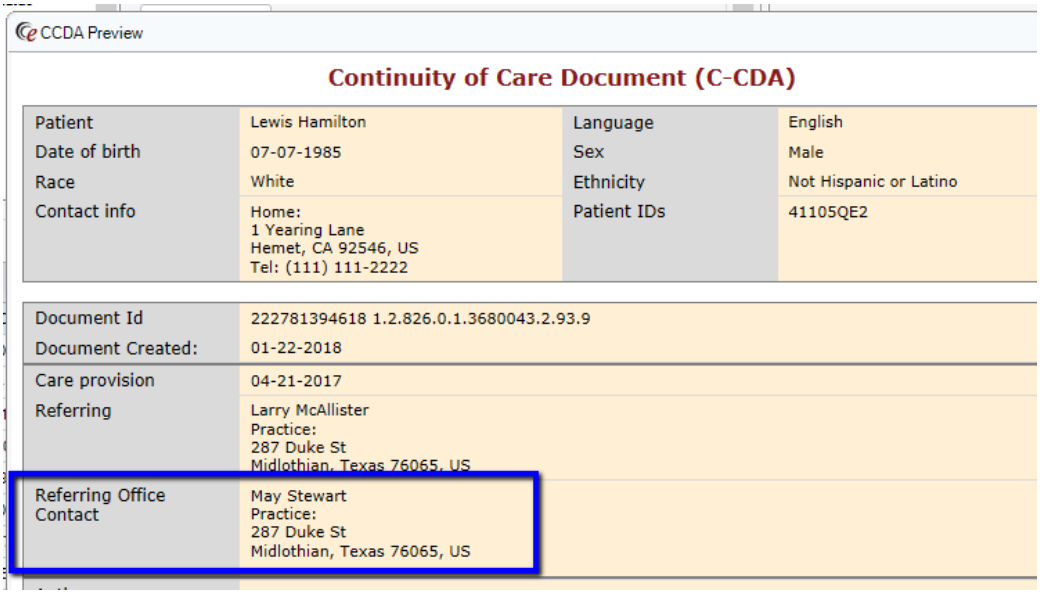
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #18131, 18136 – CEHRT 170.315(B)(6): DATA EXPORT – DESIGNATE AN OFFICE CONTACT FOR A REFERRING PHYSICIAN AND INCLUDE INFORMATION IN THE C-CDA

A new field has been added to the Personnel screen to allow an administrator to record the name of the primary contact at a referring physician's office. The field is labeled **Office Contact** and is located on the Add Address pop-up window.




The field accepts free text. This text will be displayed in the **Referring Office Contact** section in the header of the C-CDA. The address listed will be the same address to which the contact is associated for the referring physician.




No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #16935 – CEHRT 170.315(B)(4): SMALL CHANGES TO C-CDA DOCUMENT TEMPLATE

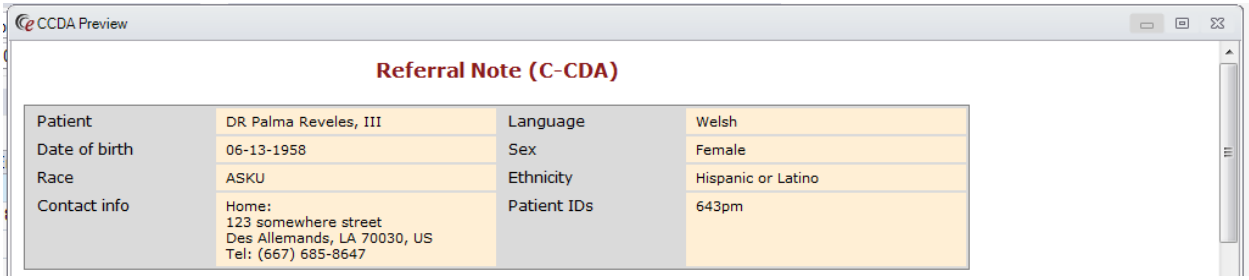
Slight alterations to the C-CDA document template have been made to meet 2015 CEHRT requirements. This involved adding extensions to the template IDs of several sections and some small alterations to the order data is displayed in some sections.

The updated Table of Contents for the C-CDA is now displayed as follows.

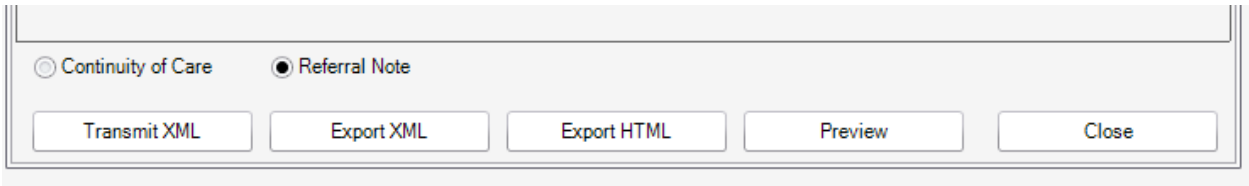
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #17436 – CEHRT 170.315(B)(1): TRANSITION OF CARE – NEW REFERRAL NOTE C-CDA TEMPLATE INCLUDES ASSESSMENT AND REASON FOR REFERRAL SECTIONS

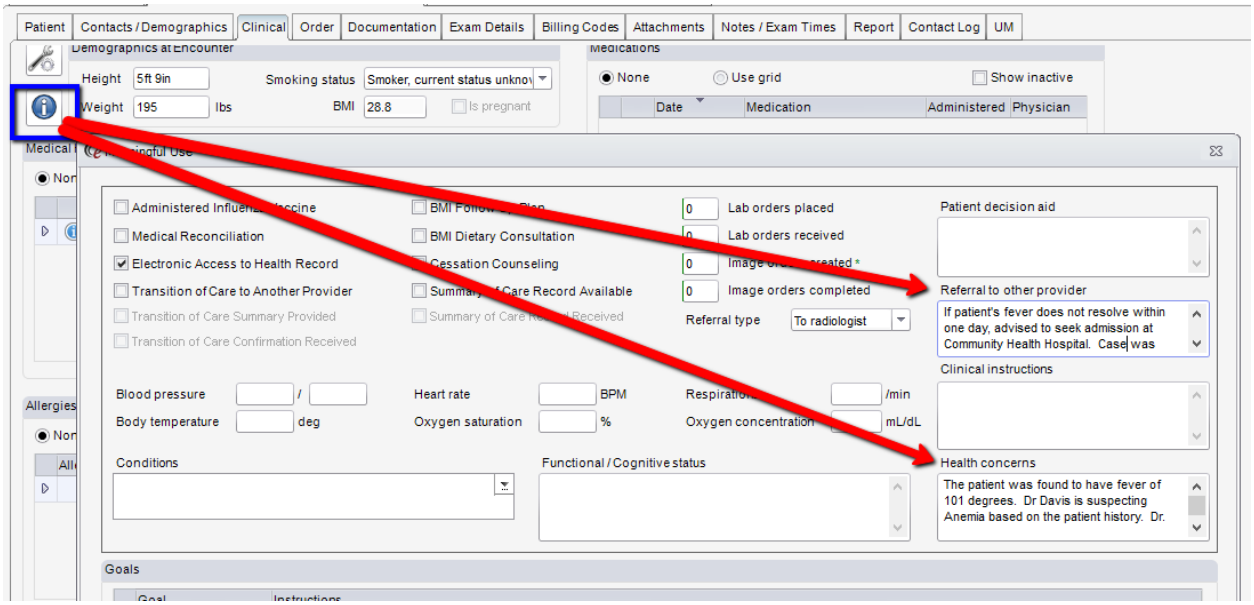
A new type of C-CDA template called **Referral Note** is now supported in eRAD RIS. This variety of the C-CDA has a distinct title and two new sections: **Assessment** and **Reason for Referral**.




To transmit, export, or preview a C-CDA of this type, simply toggle the radio button above the Transmit/Export/Preview buttons to select Referral Note.




The new Assessments and Reason for Referral sections will be populated with any text that is entered into the corresponding fields on the Clinical tab's "info button" screen, as illustrated below.




No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

The Reason for Referral section is populated with the text entered in the **Referral to Other Provider** field and the Assessments section is populated with the text entered in the **Health Concerns** field.

Examples of new Referral Note sections:

**ASSESSMENTS**

| Details |
| --- |
| On October 3rd, 2015, the patient expressed concern about chest pain after previous CT scan. |

If no text is entered in the Health Concerns field, the Assessments section will read “No assessments recorded.”

**REASON FOR REFERRAL**

| Details |
| --- |
| If patient's fever does not resolve within one day, advised to seek admission at Community Health Hospital. Case was reviewed with Dr. Samantha Winter at that facility. |

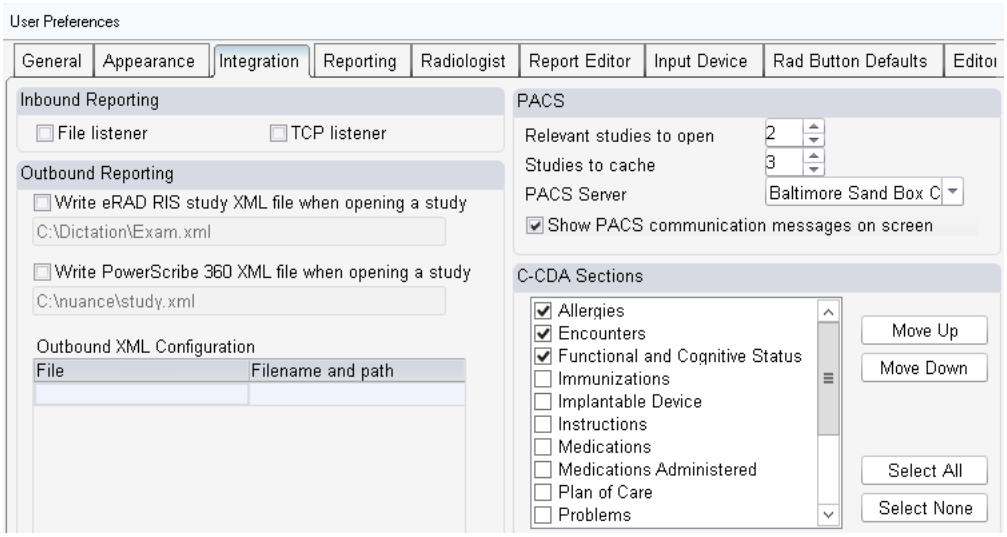
If no text is entered in the Referral to Other Provider field, the Reason for Referral section will read “No reason for referral recorded.”

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #17077 – ABILITY TO REORDER SECTIONS IN C-CDA

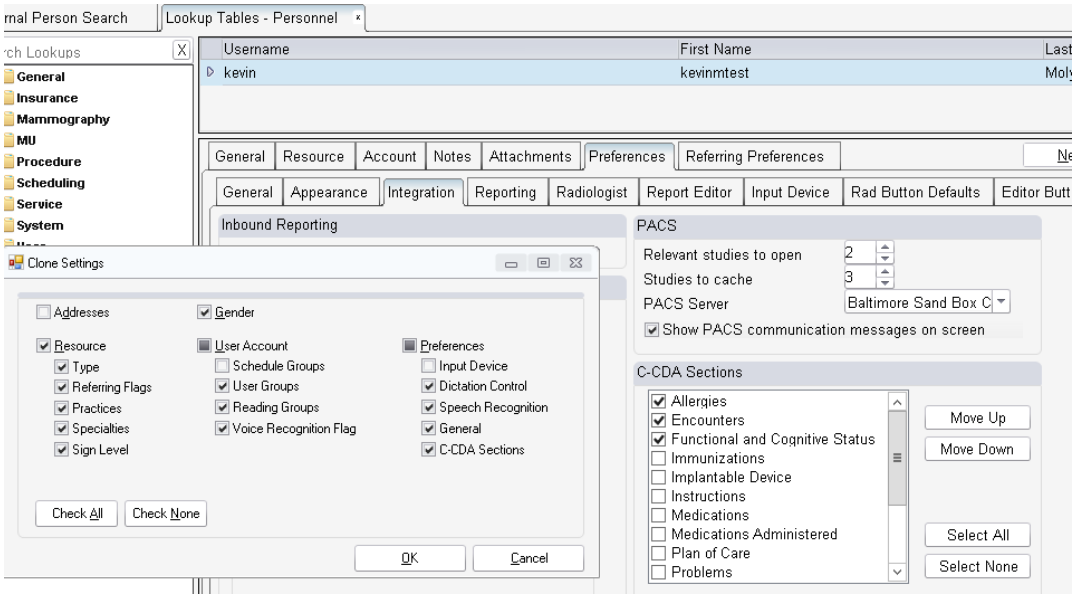
CEHRT 2015 required that eRAD RIS have the ability to reorder the sections within the C-CDA for exporting purposes.

A new **C-CDA Sections** selection has been added to the User Preferences screen to allow a RIS user or administrator to specify the sections to be included in the C-CDA and their order. Only sections that are marked as checked will be included in the C-CDA and the sections will be displayed in the specified order. The following image shows a user's configuration that will result in a C-CDA that only displays the sections for Allergies, Encounters, and Functional/Cognitive Status in that order.

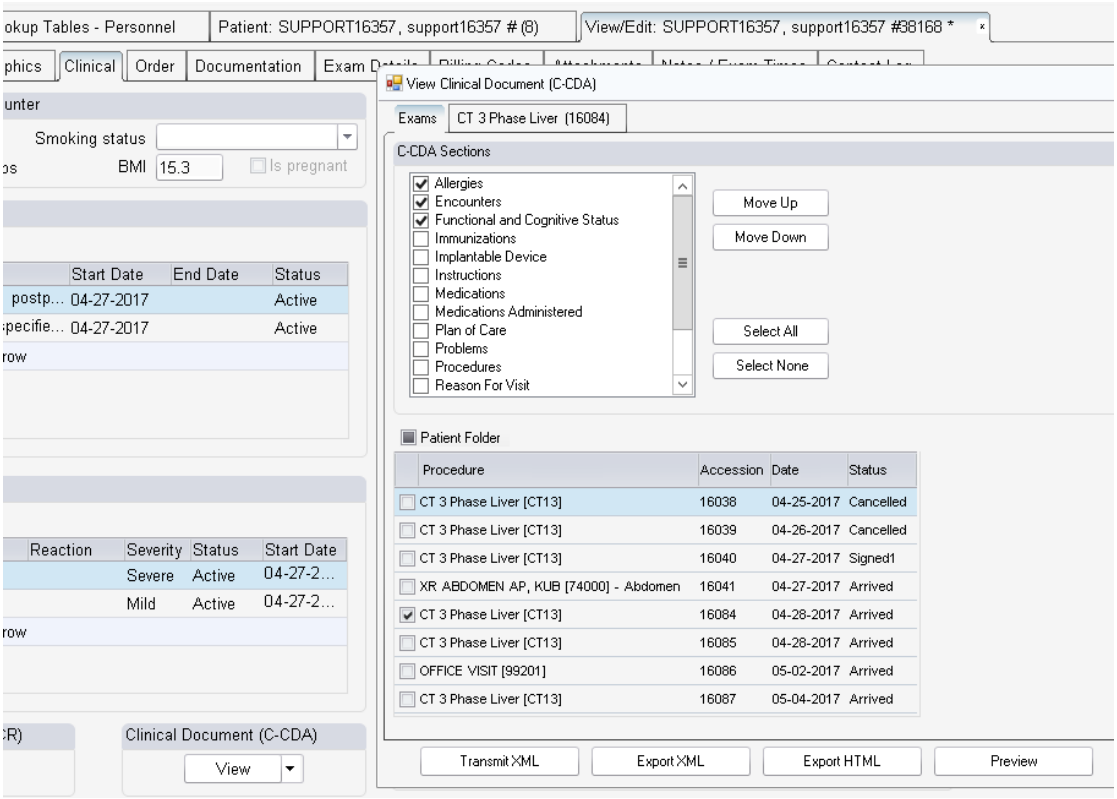



When cloning user accounts, the C-CDA Section preferences can be copied to the new account as shown in the following screenshot.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.



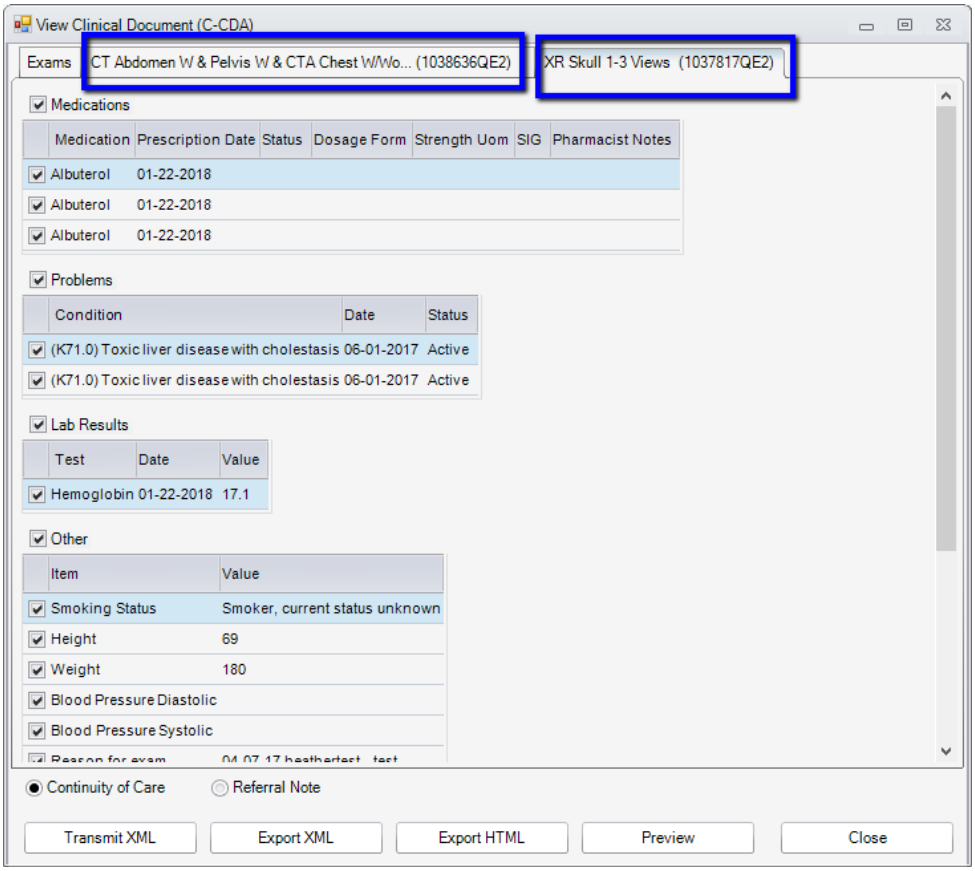

When clicking the C-CDA's "View" button on the Clinical tab, users can adjust their default C-CDA Preferences when exporting, transmitting or previewing a patient's C-CDA.




Changes to the preferences on this screen are temporary. The only way to permanently save new preferences is through the User Preferences screen.

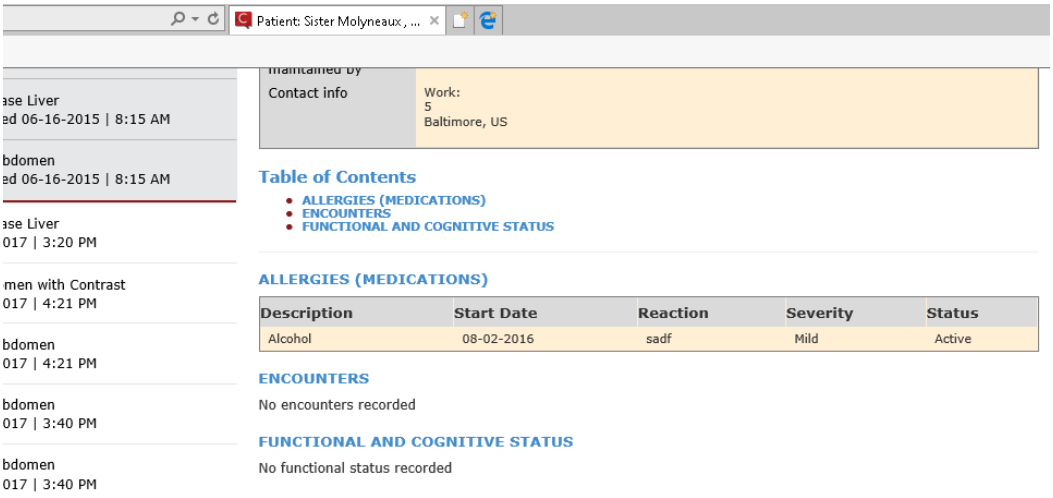
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

The Patient Folder section allows the user to optionally include multiple exams on the same C-CDA. By default, only the current exam will be selected and the RIS user can check off any additional exams that should be included. Each included exam will receive a tab on the screen, which allows the user to suppress any individual data element (such as weight) for the selected exam by unchecking it.




In addition to controlling the display of C-CDAs generated in the RIS, the user preference also controls the way C-CDAs are displayed in the Provider Portal. The referring physician's user preferences will be used to display the C-CDA in the preferred section layout.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

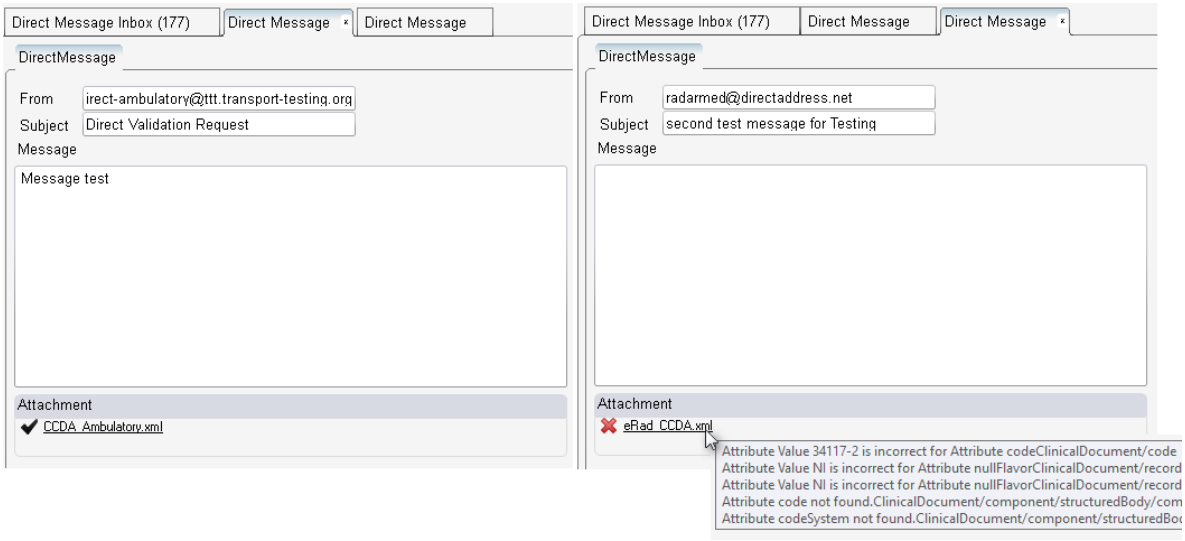



No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #17213 – CEHRT 170.315(B)(5): VALIDATION OF C-CDA 1.1 AND 2.1 UPON RECEIPT

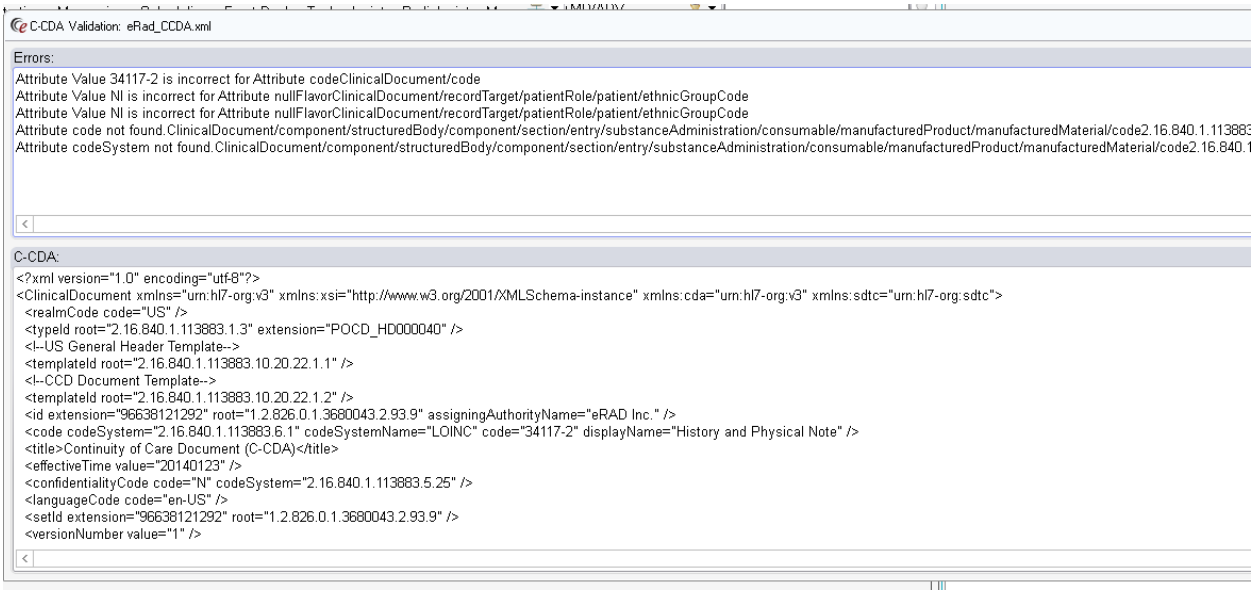
eRAD RIS is required to handle the receipt of external C-CDAs, whether they were transmitted using the older C-CDA 1.1 format or the new 2.1 format. When the C-CDAs are received in the Direct Message Inbox, the user needs to know whether the C-CDA is valid or there are errors caused by an incorrect C-CDA format.

When viewing a Direct Message, a separate thread is started to validate the XML attachments. This was done so the screen will continue to load as quickly as possible. There will typically be a 2-5 second delay for the validation to complete. When it does, the Direct Message screen will display a green checkmark next to the C-CDA attachment if the format is valid. If there are errors, a red X will be displayed.

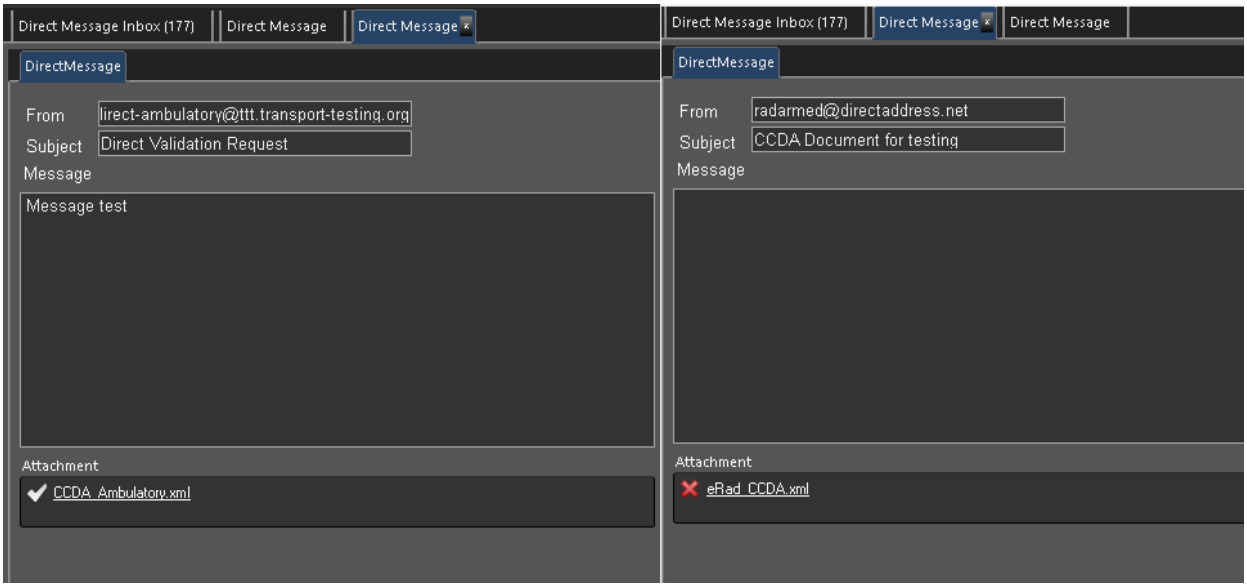



When there are errors, hovering over the attachment will present a tooltip with the error details. Clicking on the red X icon will display a popup with the errors and the XML contents.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.




When in dark mode, the icons for validation will be a *white* checkmark and a red X.

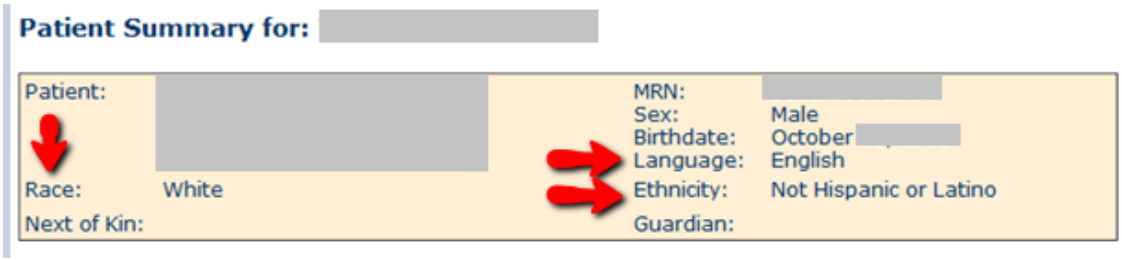



No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #17503 – CEHRT 170.315(B)(1) – RACE ETHNICITY AND PREFERRED LANGUAGE AVAILABLE TO BE VIEWED IN A RECEIVED C-CDA

When a C-CDA is received in RIS via Direct Message, Race, Ethnicity and Preferred Language must be included in the patient information when the C-CDA is displayed as a Continuity of Care or Referral note.

The C-CDA Import preview will now display the race, ethnicity and preferred language in the header, as illustrated below.

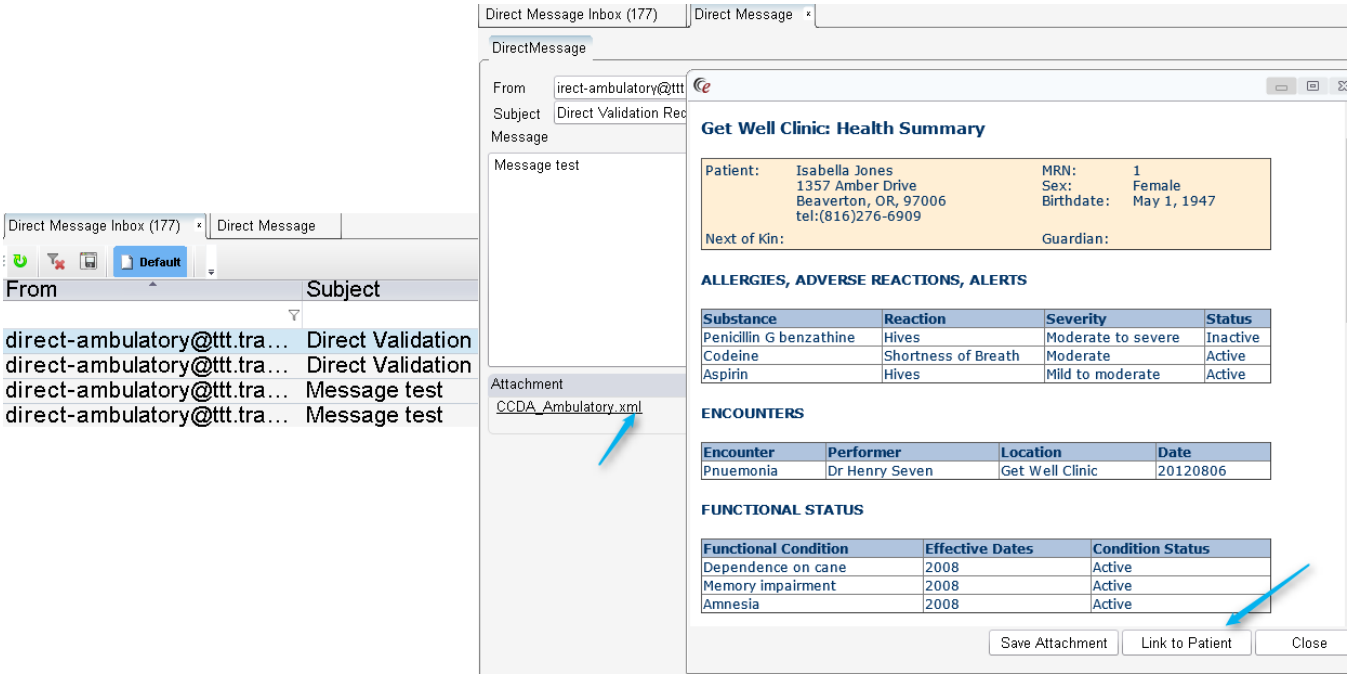



No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #17089 – CEHRT 170.315(B)(2): RECONCILE INBOUND TRANSITION OF CARE DATA

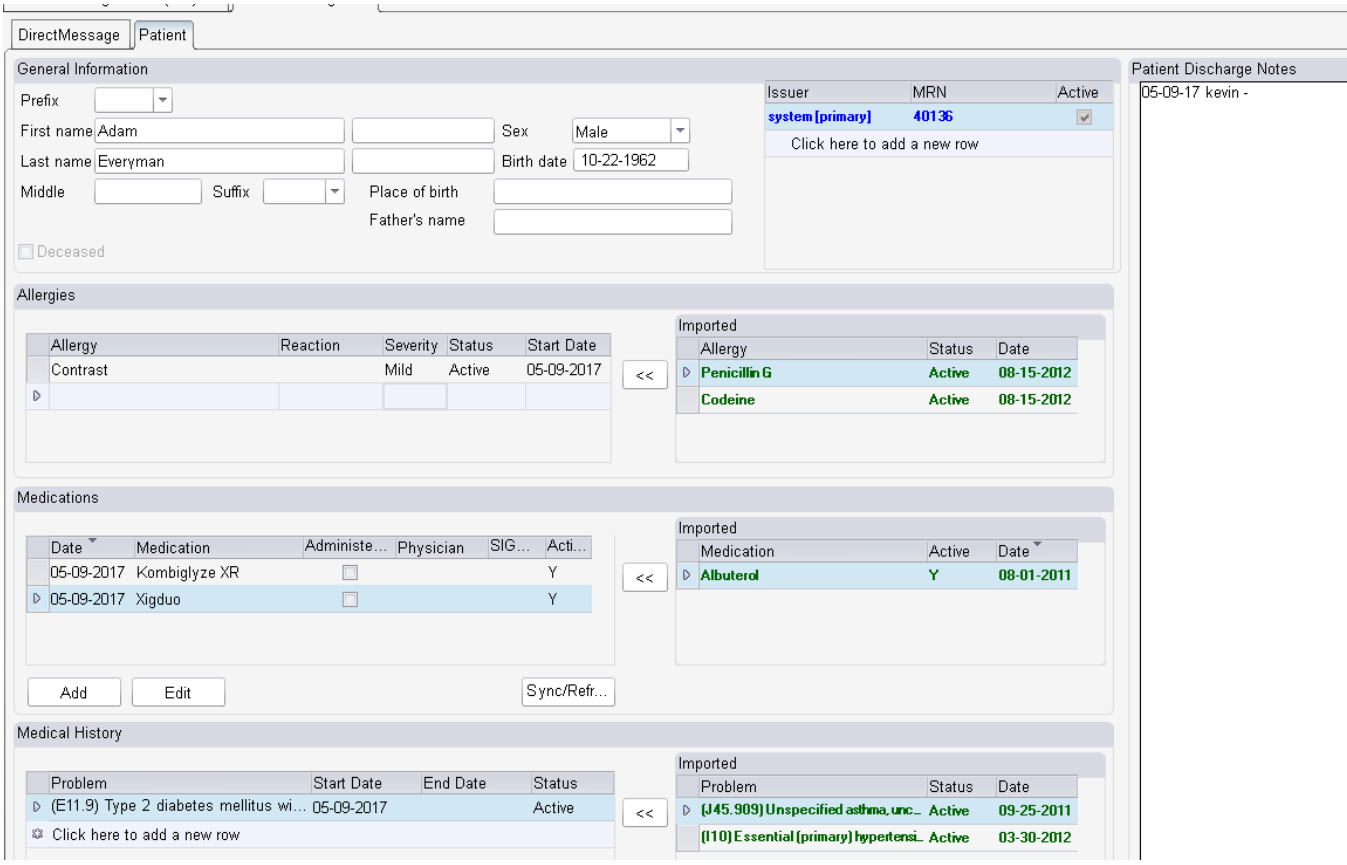
When receiving an inbound Transition of Care for an existing patient, eRAD RIS needs to be able to display the inbound medication, medication allergy and problems information side by side with the existing RIS information to allow the user to reconcile the data.

To access the Import C-CDA reconciliation screen, double click on an item in the Direct Message Inbox. Click to open a C-CDA type XML attachment and choose **Link to Patient**.

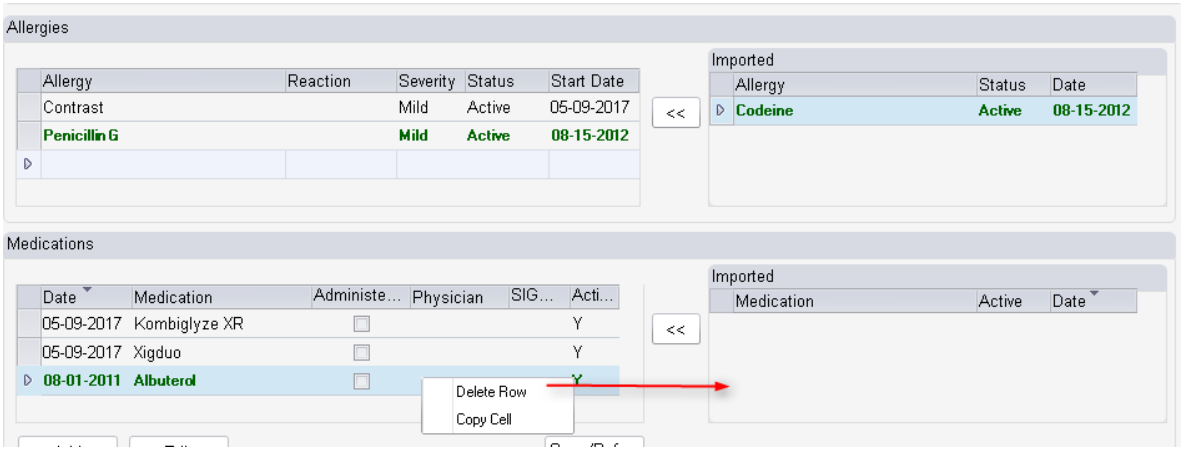



This will add a **Patient** tab to the Direct Message screen. Information from the C-CDA, such as the Patient Discharge Notes, Medications, Allergies, and Medical History, will be displayed on the right side of the screen. Any of the Medications, Allergies, and Medical History from the C-CDA is labeled "Imported" and displayed in a bold, green font. Existing RIS information will be displayed on the left side.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

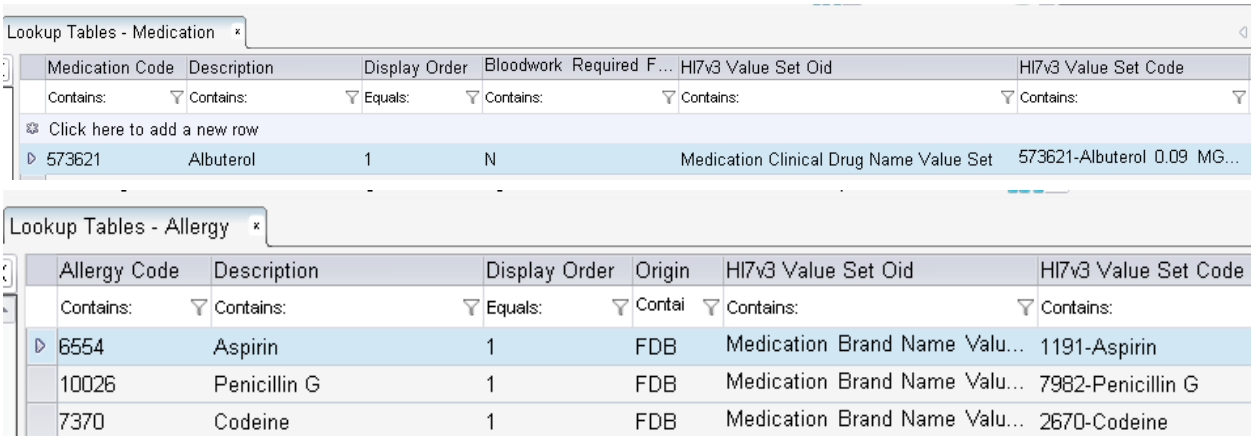



The user can use the "<<" buttons to choose the rows they would like to import into the RIS. Clicking on the "<<" will move the selected rows into the main (left-side) grids for Allergies, Medications and Medical History. The imported items will retain their dark green font while the screen is open, to make it clear to the user which items were imported. If a mistake is made, an imported row can be deleted from the RIS grid by right clicking and choosing Delete Row. This action will move the row back to the "Imported" grid.



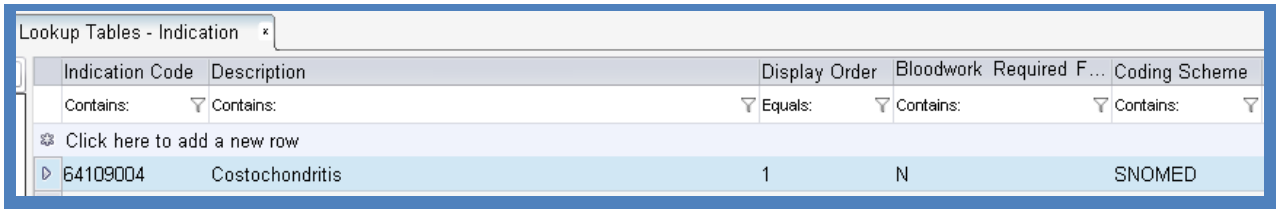

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

In order for the above process to work properly, there are some values in the Medication, Indication, and Allergy look-up tables that must be configured. If any of these mapping values are not configured, the user will be prompted with an explanation of the missing configuration. An administrator can complete the missing values in the look-up tables to make the mapping and linking exercise possible.







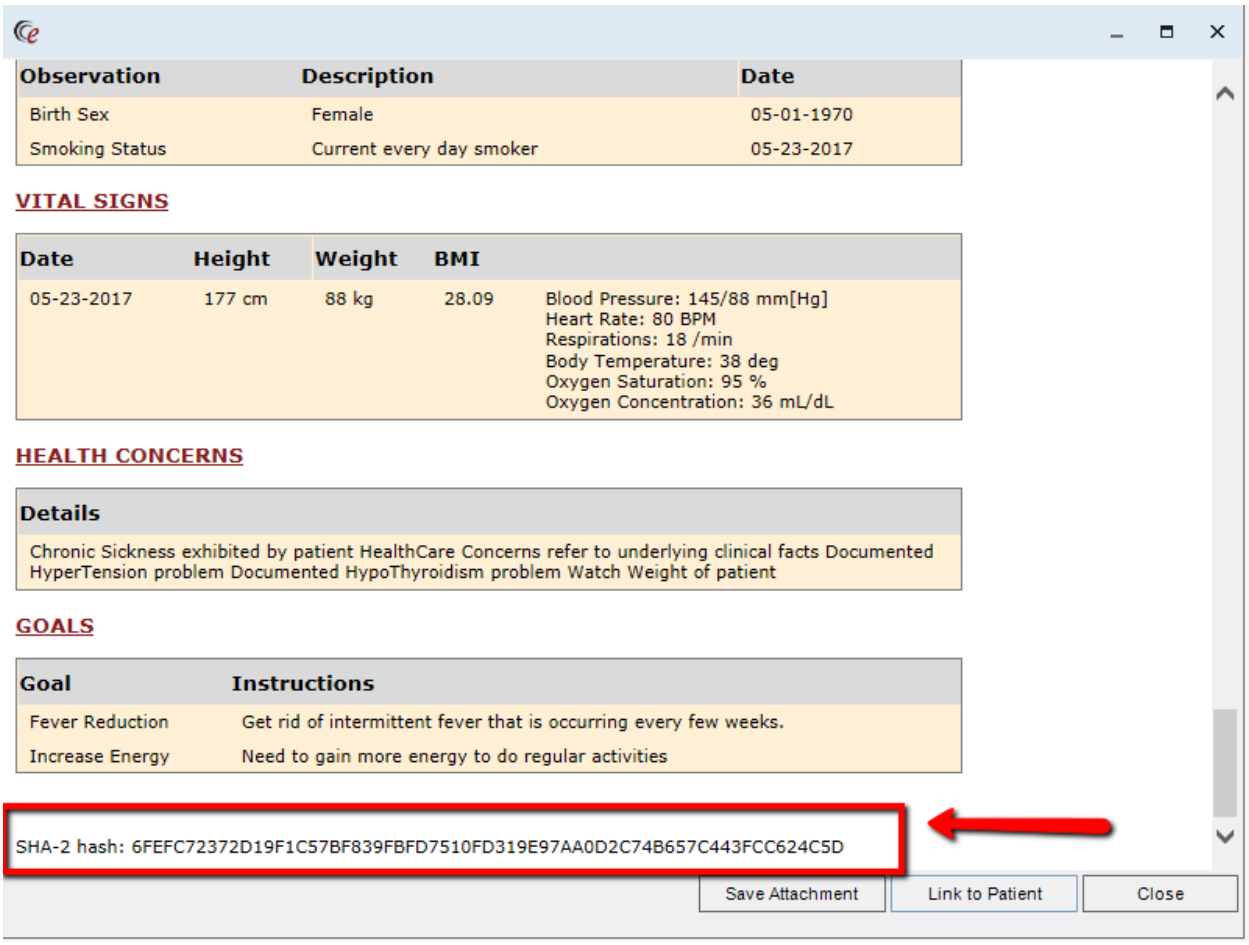



No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #17936 – SHA-2 HASH USED FOR IMPORTED C-CDAS

eRAD RIS now uses SHA-2 hash code when importing C-CDAs via Direct Messaging. SHA stands for Secure Hashing Algorithm. SHA-2, also known as SHA-256, is the new standard for this cryptographic security algorithm.

The SHA-2 hash of the C-CDA XML file is now visible at the bottom of the preview screen.

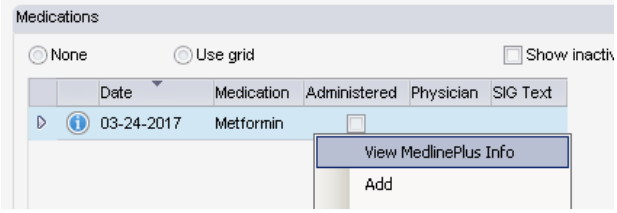



No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #16551 – HYPERLINK TO MEDLINE PLUS AVAILABLE IN THE PROBLEMS AND MEDICATIONS GRIDS

Previously, searching for a medical condition or medication using the Medline Plus Quick Search option and printing this information for a patient was sufficient to be considered as providing educational resources to the patient. Under the new CEHRT requirements, RIS must allow a user to link to the pertinent information directly from the Problem and Medication grids where it is entered.

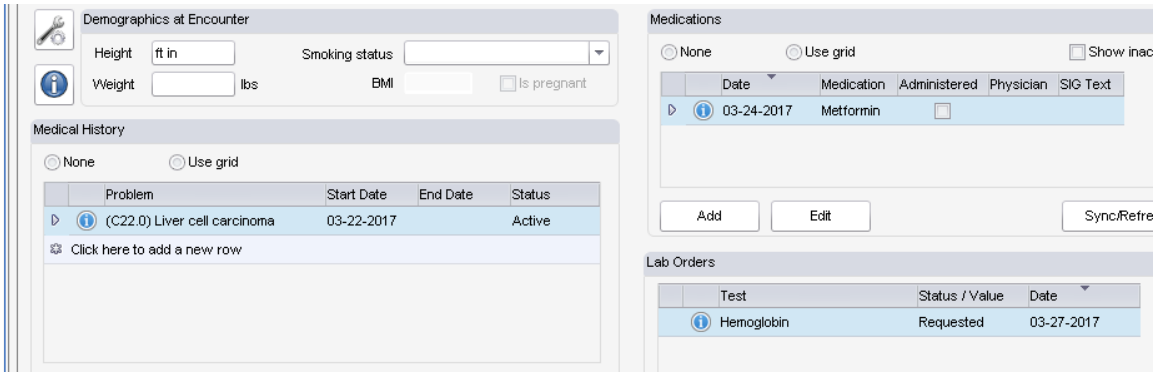
This can be done by right-clicking the row in the grid and selecting "View Medline Plus Info" or by clicking a new information button in the grid (indicated on each row with a blue circle with a white "i").




In order to increase the number of matching resources on Medline Plus, a full text search is performed when the medication or problem is entered via RIS. This will allow RIS to find the appropriate information when the name of the medication in RIS is not an exact match with the name in Medline Plus (e.g. Xanax and Alprazolam).

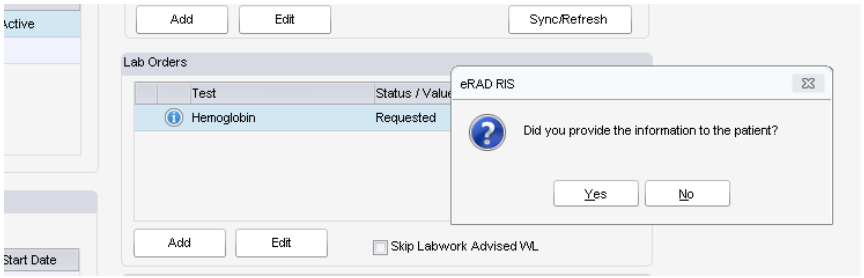
The search URL is configurable using the System Configuration setting **MUInfoButtonSearchURL**.

The new info button is also available on the Lab Orders grid.

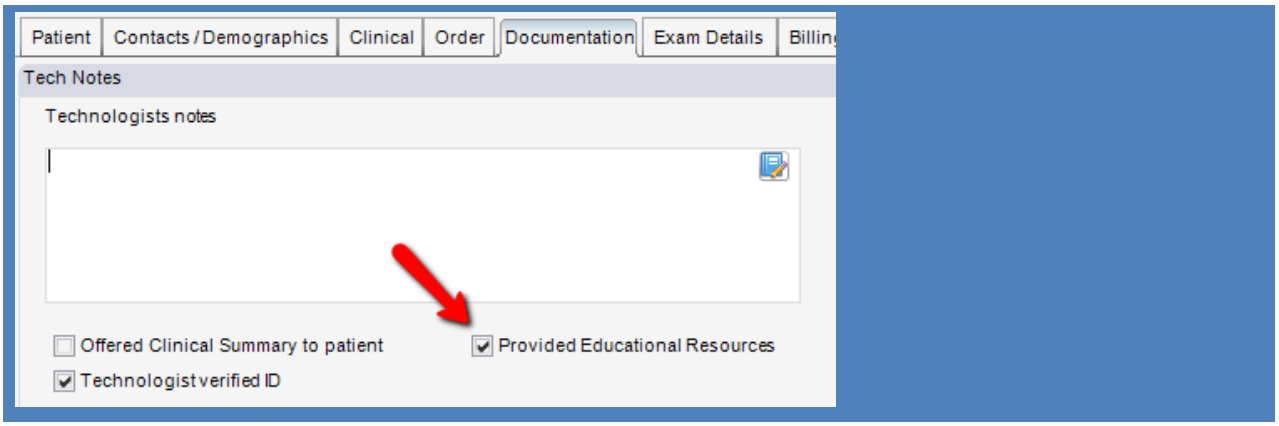



Clicking on the information icon will display the Medline web page with relevant search results displayed. When the web page is closed, the user is asked if they provided the information to the patient.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.




If the user indicates Yes, the Provided Educational Resources checkbox will automatically be checked on the Documentation tab. This action is stored in the database table **c_visit.provided_education_resources_flag**.



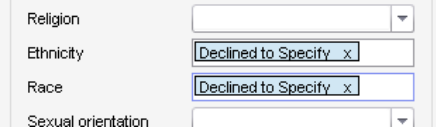

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #16230 – WHEN "DECLINED TO SPECIFY" IS SELECTED FOR RACE OR ETHNICITY, ADDITIONAL SELECTIONS ARE NOW PREVENTED

The existing Race and Ethnicity fields allow multiple entries, including an option for "Declined to Specify." Per CEHRT guidelines, when "Declined to Specify" is selected, additional entries should not be allowed. To disable multi-select when the Declined option is added, a new column has been added to the **Race Type** and **Ethnic Origin** tables. The column is labeled **Exclusive Flag** to indicate that when this option is selected, this should be the only option allowed.

To enable this feature, open the Race Type and Ethnic Origin look-up tables and locate the "Declined to Specify" option. Set the Exclusive Flag to Y.

With this configuration, when "Declined to Specify" is selected, the Race and Ethnicity fields will not allow additional selections and the dropdown arrow will be hidden.




If the user has added other entries prior to selecting the "Declined to Specify" option, the previous entries will be removed and only the "Declined to Specify" entry will remain.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #16318, 16315 – CEHRT 170.315(A)(5): UPDATED DEMOGRAPHICS CODE TABLES

Changes were made to the Common Clinical Data Set, which is the standardized language to be used when electronically exchanging information between systems, as with the C-CDA. Updates were made to tables in eRAD RIS to ensure that the most current language is used when exchanging data using the Common Clinical Data Set.

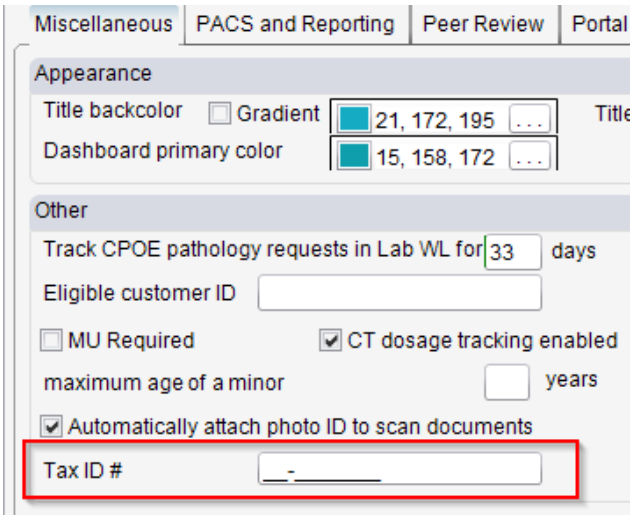
Changes were also made to the C-CDA to properly display multiple Races and multiple Ethnicities if applicable.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

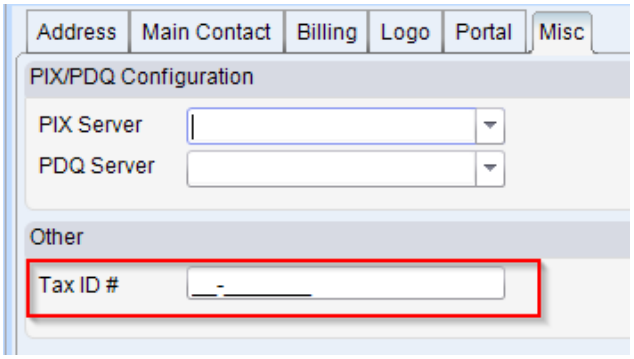
## FEATURE #16398 – CEHRT 170.315(C)(4): TAX ID FIELD AT PRACTICE & SITE LEVELS

For CEHRT 170.315(c)(4), a Tax ID field was created at the Practice and Site levels in order to provide CQM management reports with the appropriate filters.

On the Practice Add/Edit screen, the **Tax ID #** field has been added to the Other section of the Miscellaneous tab.



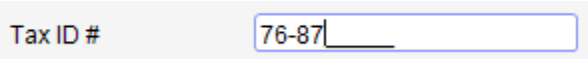

On the Site Add/Edit screen, the Tax ID # field has been added to the Other section of the Misc tab.




If the Tax ID has been added at the Practice and Site levels, the Site level Tax ID will be used. If a Site level Tax ID is not present, the Site's Practice level Tax ID will be used.

For both Tax ID # fields, a mask has been applied to ensure that Tax ID #s are entered in the appropriate format of XX-XXXXXXX. A hyphen will be inserted after the second character and a blank line will be displayed until all of the digits have been entered.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.




Only numeric digits (0-9) can be entered into the field.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

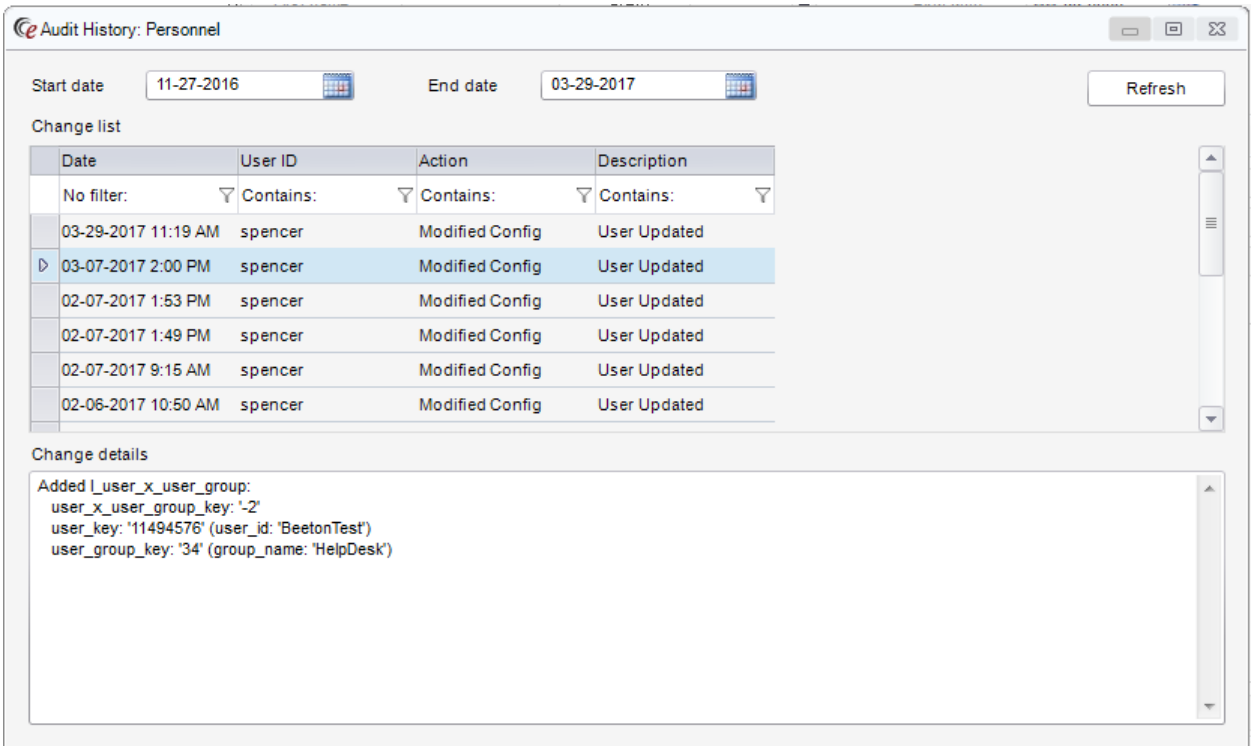
## FEATURE #16008 – CEHRT 170.315(D)(2): USER ID FIELD ADDED TO PERSONNEL AUDIT HISTORY

eRAD RIS is required to provide a means to track changes to user privileges. The existing configuration audit history functionality has been expanded to accommodate for some specific requirements such as:

- The ability to provide a date range for filtering the audit information.
- The ability to filter by the ID of the user who performed the change.
- The ability to sort the following data elements in ascending or descending order:
    - Date and time of event.
    - User identification.
    - Type of action.
    - Description of the action.
    - Details of the changes.

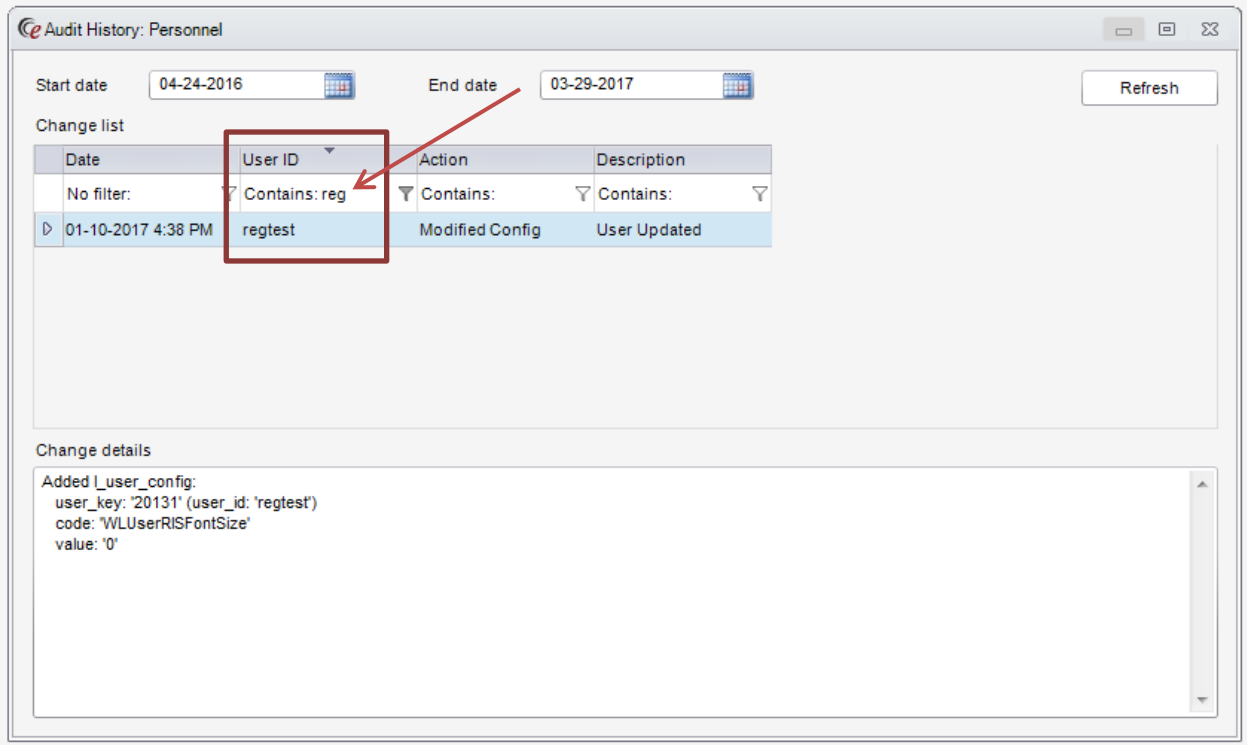
To satisfy these requirements, the following features have been added to the Personnel look-up's Audit History screen only:

- A filter row has been added to the Change List grid to allow filtering by user ID.
- An Action column has been added, which defaults to the value of "Modified Config."
- A Description column has been added.




No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

To filter by User ID, type the ID in the filter row below the User ID column, as shown below.




As before, access to view the audit history information in the Personnel table is controlled by the existing Access Strings:

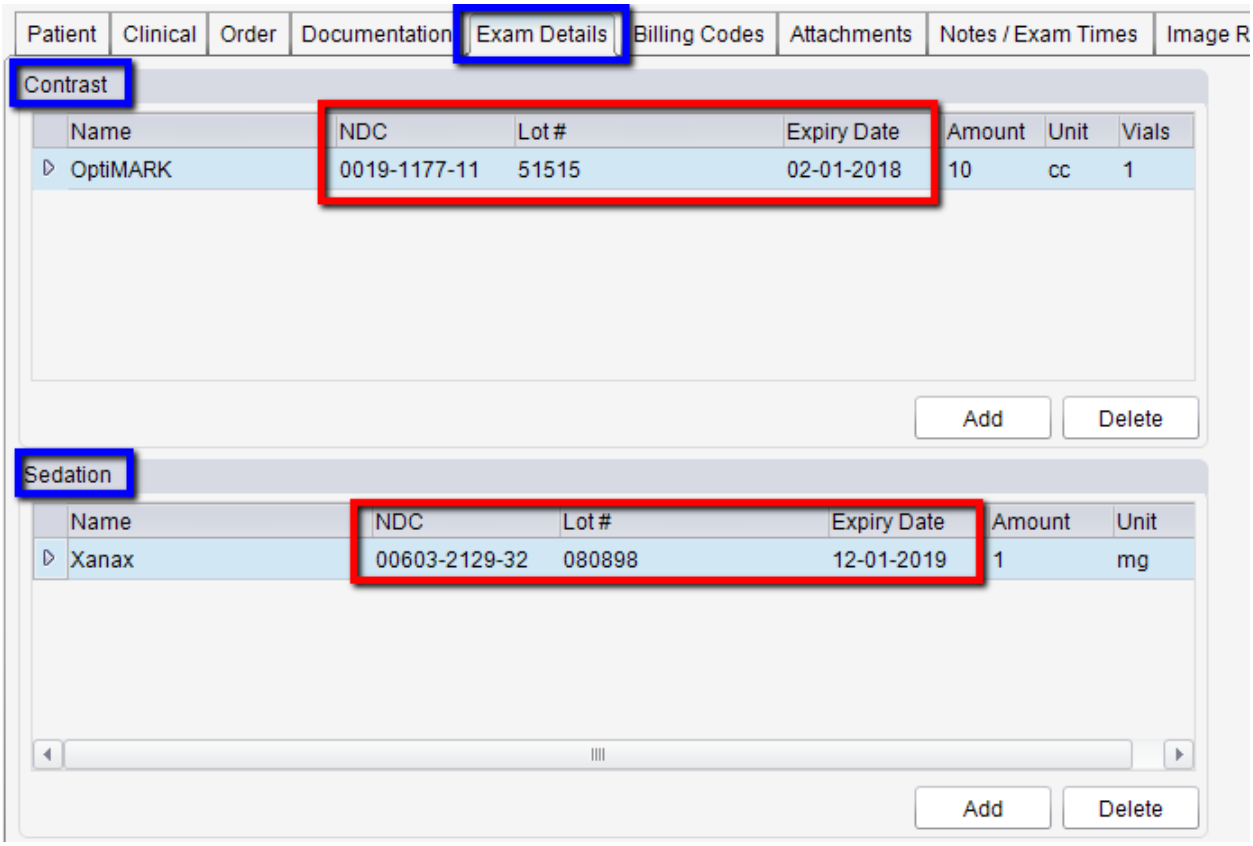
- **Config.LookupEditor.AuditHistory**
- **Config.LookupEditor.Personnel**

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #16233 – CEHRT 170.315(A)(1): COLLECT NDC, LOT NUMBER, AND EXPIRATION DATE FOR CONTRAST AND SEDATION

When entering information about contrast and sedation, there are three data elements that were not previously collected that can be important, particularly to U.S.-based customers: the National Drug Code (NDC), the Lot Number, and the Expiration Date. Previously, the Contrast and Sedation grids did not have fields to enter this information, though some customers do collect it in Digital Forms. The Contrast and Sedation grids now have the ability to store the NDC, Lot Number and Expiration Date.

When opening the Perform Exam screen or the View/Edit screen, the Contrast and Sedation grids are located on the Exam Details tab. The new columns have been added as illustrated below.

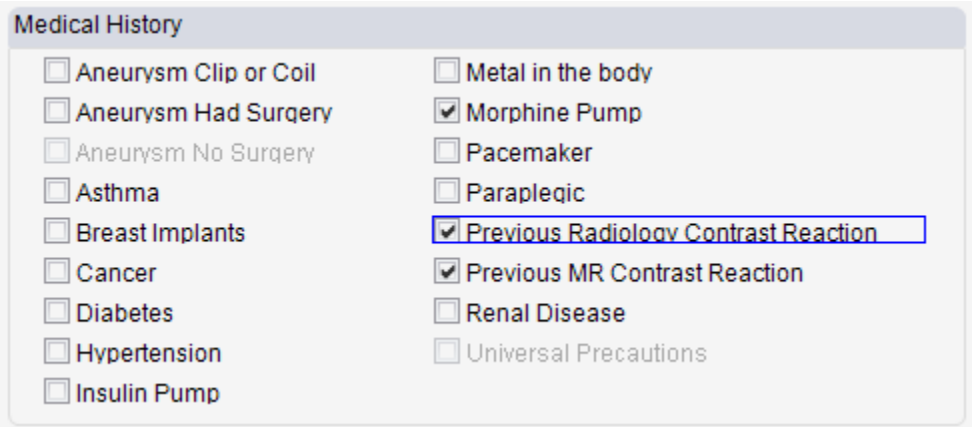


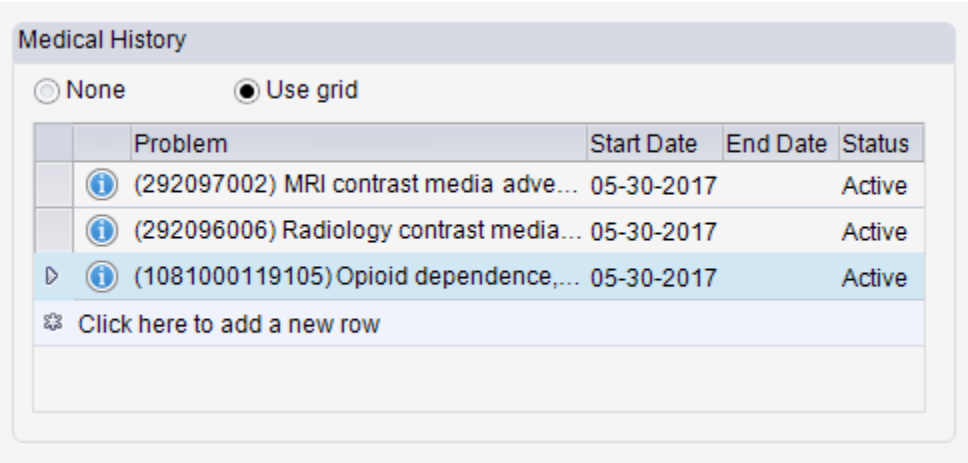

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #16861 – CEHRT 170.315(B)(4): PROBLEM LIST MAPPED TO CURRENT U.S. EDITION SNOMED CODES

eRAD RIS is required to use the SNOMED CT U.S. Edition, with a minimum of the September 2015 release. The Indication table has been edited to include the updated SNOMED codes and the Medical History section on the Quick Add/Edit screen has been updated so that the appropriate SNOMED codes are added to the Medical History grid.

The Quick Add MU Dialog has been updated to use the latest indication codes for the Medical History section checkboxes. As required, indications are now added by SNOMED code instead of ICD10 code.



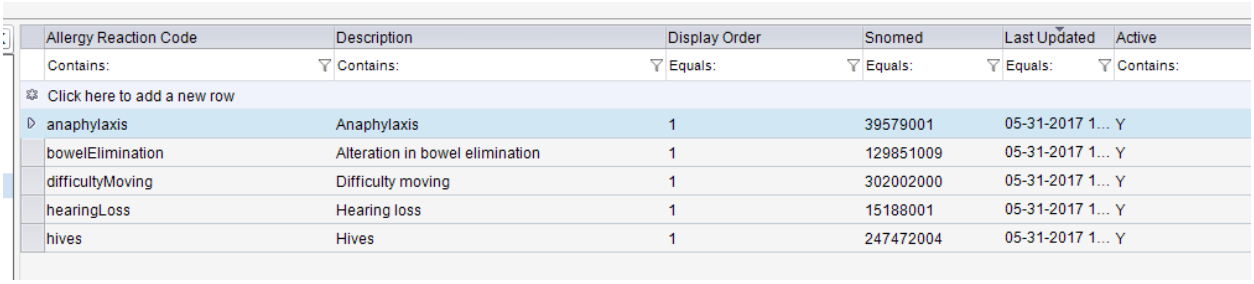




No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #17376 – CEHRT 170.315(B)(4): STANDARDIZED ALLERGY REACTIONS

In the Allergy section on the Clinical tab, users have been able to enter the type of allergic reaction in the Reaction column, but this field only accepted free text. To facilitate the electronic transfer of information, there is now an option to create and use standardized Reaction options that can be mapped to SNOMED codes.

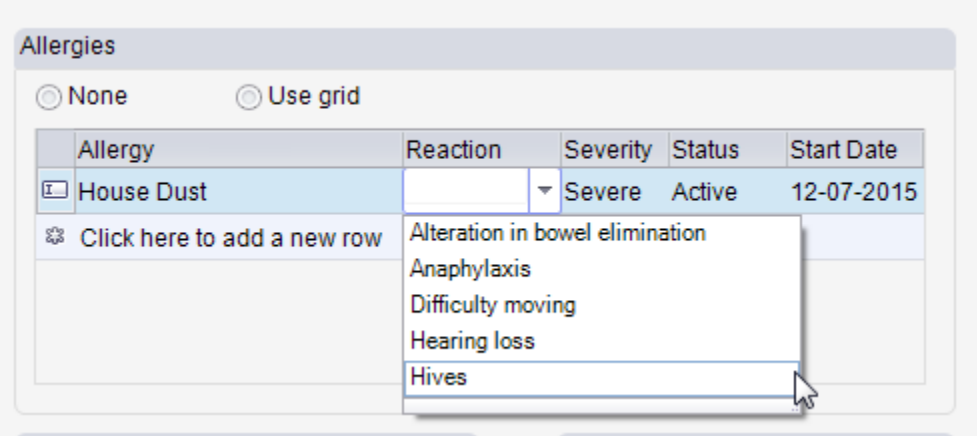
A new Configuration table named **Allergy Reaction** has been added to store the desired options.



| Allergy Reaction Code | Description | Display Order | Snomed | Last Updated | Active |
|---|---|---|---|---|---|
| Contains: | Contains: | Equals: | Equals: | Equals: | Contains: |
| Click here to add a new row | | | | | |
| anaphylaxis | Anaphylaxis | 1 | 39579001 | 05-31-2017 1... | Y |
| bowelElimination | Alteration in bowel elimination | 1 | 129851009 | 05-31-2017 1... | Y |
| difficultyMoving | Difficulty moving | 1 | 302002000 | 05-31-2017 1... | Y |
| hearingLoss | Hearing loss | 1 | 15188001 | 05-31-2017 1... | Y |
| hives | Hives | 1 | 247472004 | 05-31-2017 1... | Y |

The new look-up table allows an administrator to define the options that should be available for users to select from a dropdown menu. A SNOMED code can be associated to each option if desired.

When users add an allergy entry for a patient, they will have access to select any of the active options from the Allergy Reaction look-up table.




Users can also type free text in the Reaction field, as before. Free text entries will not have a SNOMED code.

A new Access String has been added to control access to the look-up table: **Config.LookupEditor.AllergyReaction**. Users with a permission level of FULL will be allowed to add entries to the look-up table.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #16992, 16991 – CEHRT 170.315(G)(9) AND 170.315(G)(8): APPLICATION ACCESS – PROVIDE ENTIRE OR PARTIAL C-CDA VIA API

As required, eRAD RIS is now capable of providing an entire C-CDA or desired sections of the C-CDA for a specified date or date range via **API**.

An external Web API was designed to provide the functionality for several 2015 edition certification requirements. The Web API is a standalone self-hosted program that is designed to be secure over the internet (without VPN requirements).

Please contact eRAD Support if you are interested in learning more details about this feature.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #16986 – CEHRT 170.315(G)(7): APPLICATION ACCESS – PATIENT SEARCH FUNCTIONALITY USING THE API

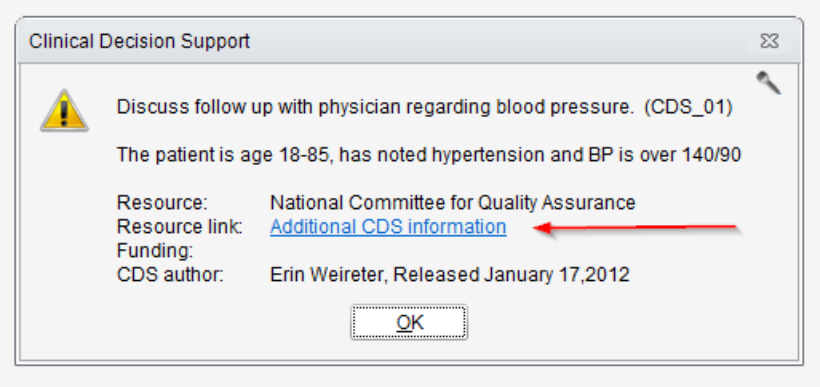
After obtaining an access token, the API described in the feature above allows a third party application to search for a patient using a number of criteria, including name, date of birth, MRN and phone number.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

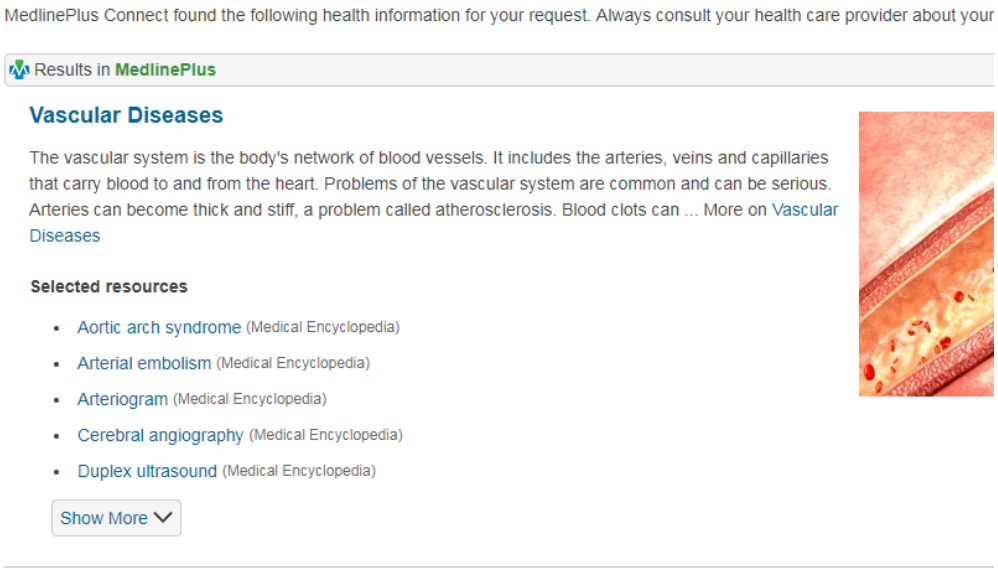
## FEATURE #17517 – CEHRT 170.315(A)(9): CDS ALERTS MUST CONTAIN A LINK TO ADDITIONAL INFORMATION THAT CAN BE SPECFIC TO PATIENT'S MEDICATION, ALLERGIES, OR DEMOGRAPHICS

CEHRT requires that eRAD RIS have an "info button" on the CDS alert for Medications, Allergies and Demographics. eRAD RIS already had the ability to include a link to additional information on the CDS alerts. Adjustments were made to fully comply with the new requirements.

The label of the existing information hyperlink has been updated to display "Additional CDS Information" instead of showing the URL.




It is now possible to pass relevant information about the patient's medications, allergies, or demographics as part of the URL, in order to launch an information page based on the indications in the alert. Medline Plus is the source for information links that reference patient information.




No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #17404 – CEHRT 170.315(A)(9): DEMOGRAPHIC CLINICAL DECISION SUPPORT RULE

CEHRT 2015 requires that the system demonstrate a Clinical Decision Support alert that will inform RIS users of contextual medical information based on the patient's demographics. As with previous CDS Alerts, it must be possible to include a link to supporting documentation.

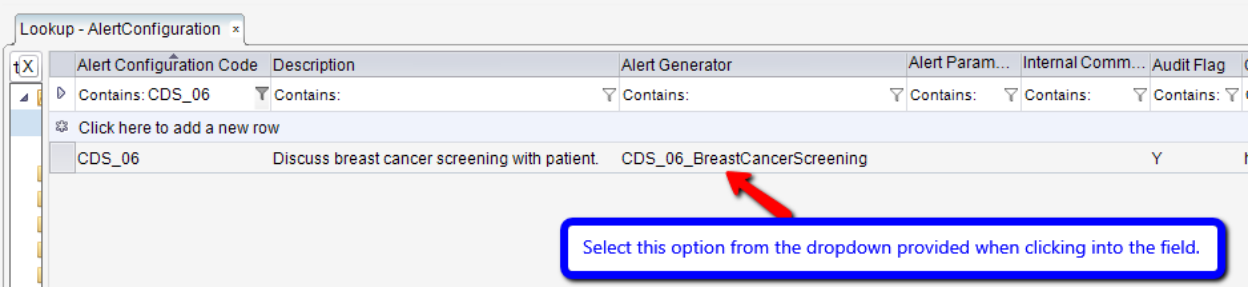
To meet this requirement, it is now possible to configure a CDS Alert which will alert users that breast cancer screening should be discussed when the patient is female and at least 40 years old.

To support this, a new **Alert Generator** was created, labeled **CDS_06_BreastCancerScreening**. To use this Alert Generator, a RIS administrator will need to configure a CDS Alert in the **Alert Configuration** table. The new Alert Generator will cause the configured message to display when the following conditions are met:

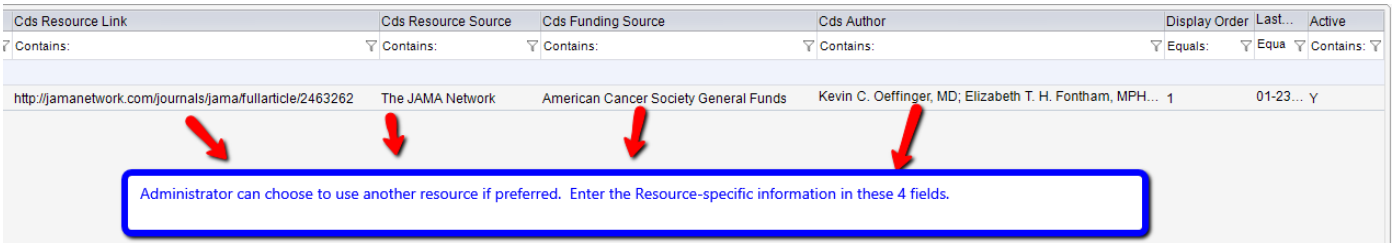
- Patient is Female.
- Patient is at least 40 years of age.

The following images illustrate an example of how this alert can be configured. The administrator can choose a different resource and adjust the information accordingly.

Part 1:

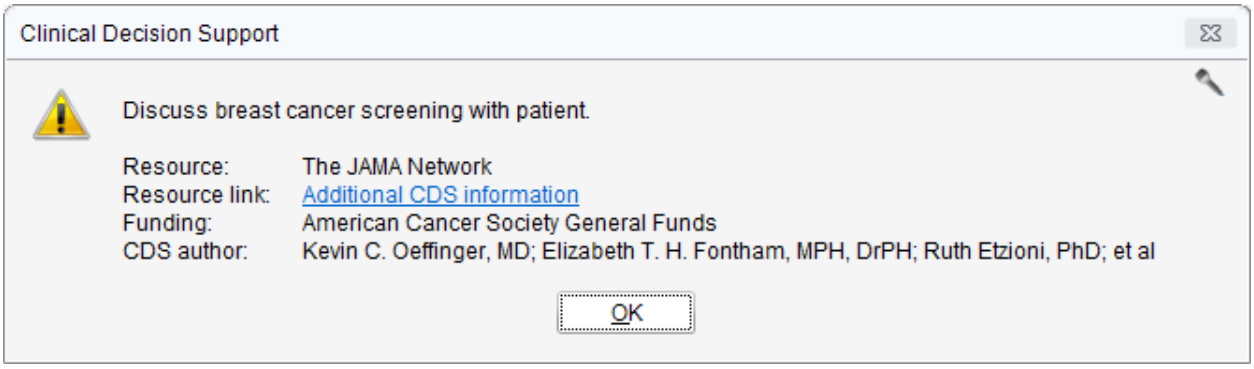



Part 2:




The example configuration above will result in the following pop-up alert that will be displayed when a user opens a screen for a female patient who is at least 40 years of age.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.




The resource link will open the URL configured for the Alert.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #17811 – CEHRT 170.315(A)(9): MEDICATION ALLERGY CLINICAL DECISION RULE

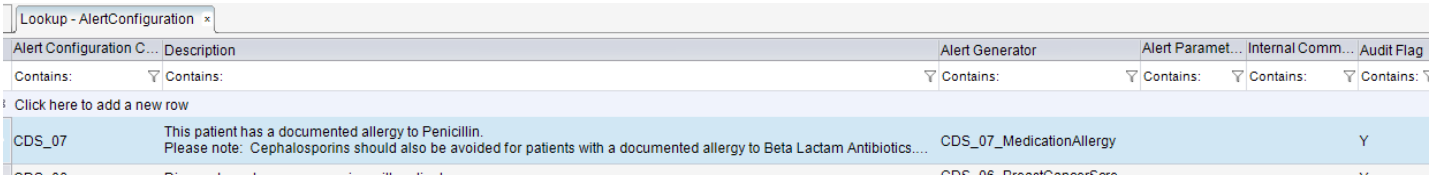
CEHRT 2015 requires that the system demonstrate a Clinical Decision Support alert that will inform RIS users of contextual medical information based on the patient's medication allergies. As with previous CDS Alerts, it must be possible to include a link to supporting documentation.

It is now possible to configure a CDS Alert which will alert users that a patient with a Penicillin allergy should also avoid cephalosporin antibiotics.

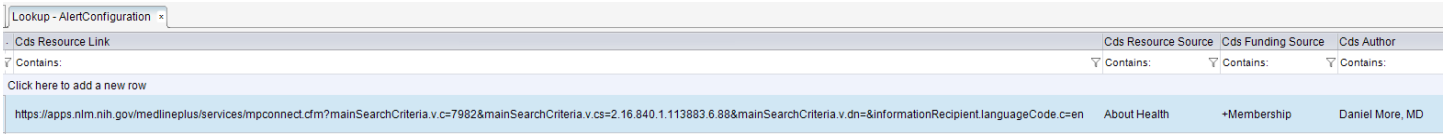
To support this, a new **Alert Generator** was created, labeled **CDS_07_MedicationAllergy**. To use this Alert Generator, a RIS administrator will need to configure a CDS Alert in the **Alert Configuration** table. The new Alert Generator will cause the configured message to display when Penicillin (code 7982) is an active allergy in the patient's Allergy grid.

The following images illustrate an example of how this alert can be configured. The administrator can choose a different resource and adjust the information accordingly.

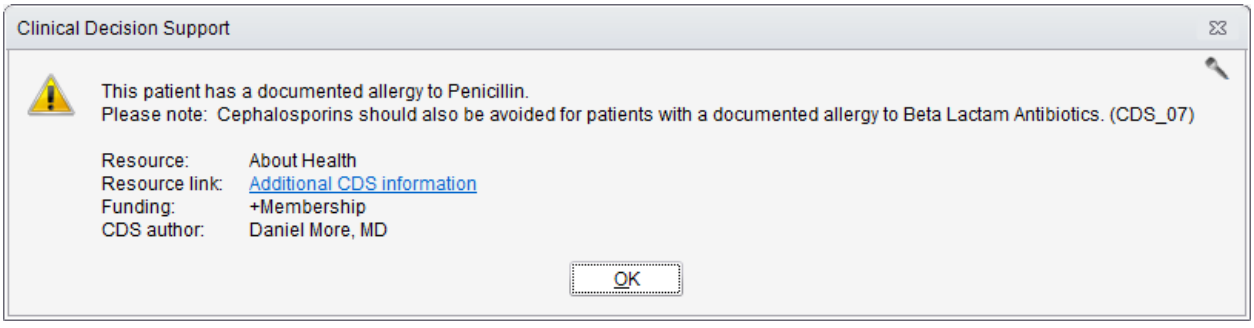
Part 1:




Part 2:




The example configuration above will result in the following pop-up alert that will be displayed when a user opens a screen for a patient with an active Allergy to Penicillin.




The resource link will open the URL configured for the Alert.

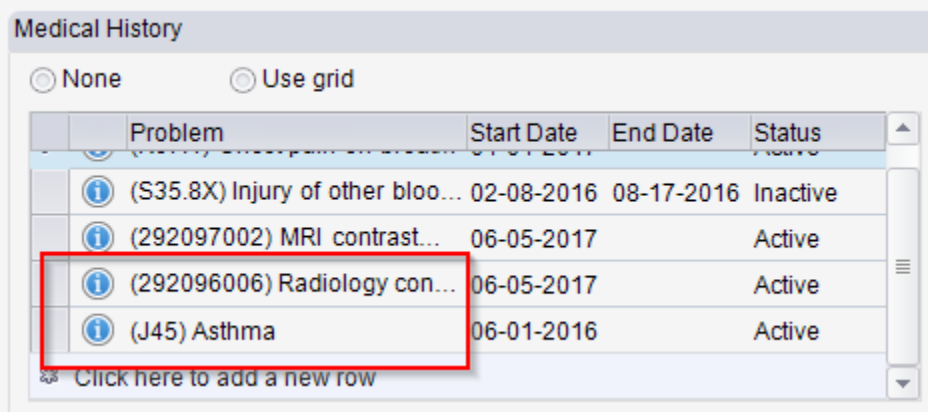
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #17419 – CEHRT 170.315(A)(9): UPDATE CLINICAL DECISION SUPPORT ALERT TO USE ICD10 OR SNOMED CONDITIONS

There is an existing Clinical Decision Support Alert that will notify the RIS user if the patient has asthma and has had a prior contrast reaction (CDS_03). The conditions for the alert have been updated because the contrast reaction condition was tied to an ICD9 code only. The condition will now use the ICD10 code or SNOMED code for contrast reaction.

SNOMED: 292096006 Radiology contrast media adverse reaction

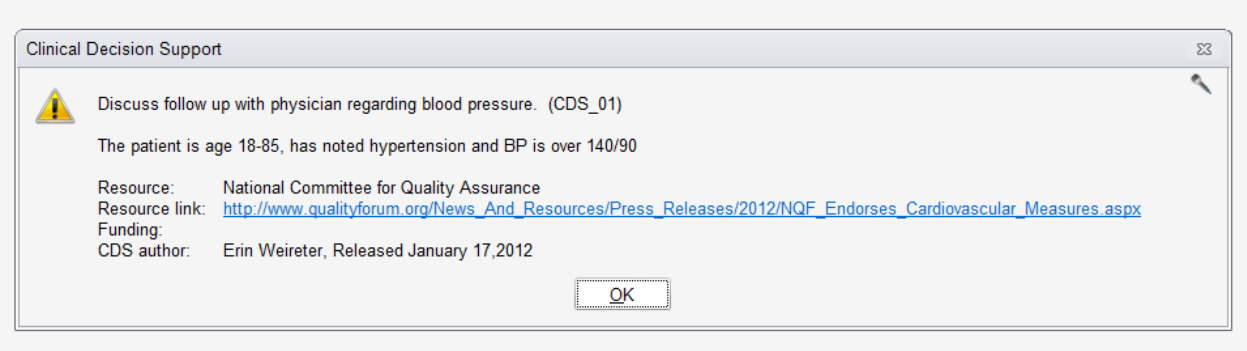
ICD10: Z91.041 Radiographic dye allergy status




No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #17431 – CEHRT: CDS ALERT MESSAGE BOX SHOWS LESS INFORMATION TO CERTAIN USERS

The CDS Alert configuration allows administrators to enter a Resource Link, as well as information about the resource such as a title, a description of the funding source for the article, and the name of the article's author. This information is displayed to the RIS user as follows:



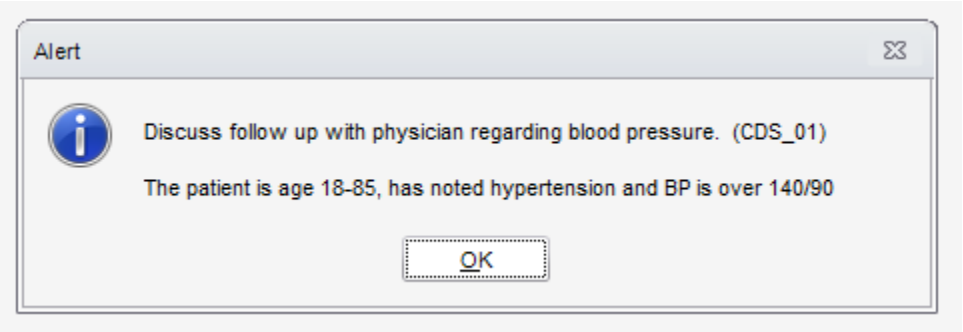

Some customers would like to suppress the resource link and additional information for certain users. It is now possible to do so using an access string level of ReadOnly.

There are existing access strings for each CDS Alert. These access strings have been adjusted so that a ReadOnly access level will trigger the CDS Alert, but will suppress the additional resource information.

| Access String | Full | ReadOnly | None |
|---|---|---|---|
| Alert.CDS_01_HighBP | Users will see the CDS Alert pop-up, including the resource information. | Users will see the CDS Alert pop-up, but resource information will be hidden. | Users will not see the CDS Alert at all. |
| Alert.CDS_02_HighCholesterol | Users will see the CDS Alert pop-up, including the resource information. | Users will see the CDS Alert pop-up, but resource information will be hidden. | Users will not see the CDS Alert at all. |
| Alert.CDS_03_PossibleReaction | Users will see the CDS Alert pop-up, including the resource information. | Users will see the CDS Alert pop-up, but resource information will be hidden. | Users will not see the CDS Alert at all. |
| Alert.CDS_04_TobaccoUser | Users will see the CDS Alert pop-up, including the resource information. | Users will see the CDS Alert pop-up, but resource information will be hidden. | Users will not see the CDS Alert at all. |
| Alert.CDS_05_PneumoniaBooster | Users will see the CDS Alert pop-up, including the resource information. | Users will see the CDS Alert pop-up, but resource information will be hidden. | Users will not see the CDS Alert at all. |

Below is an example of a CDS Alert that would appear for a user with an access level of ReadOnly.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

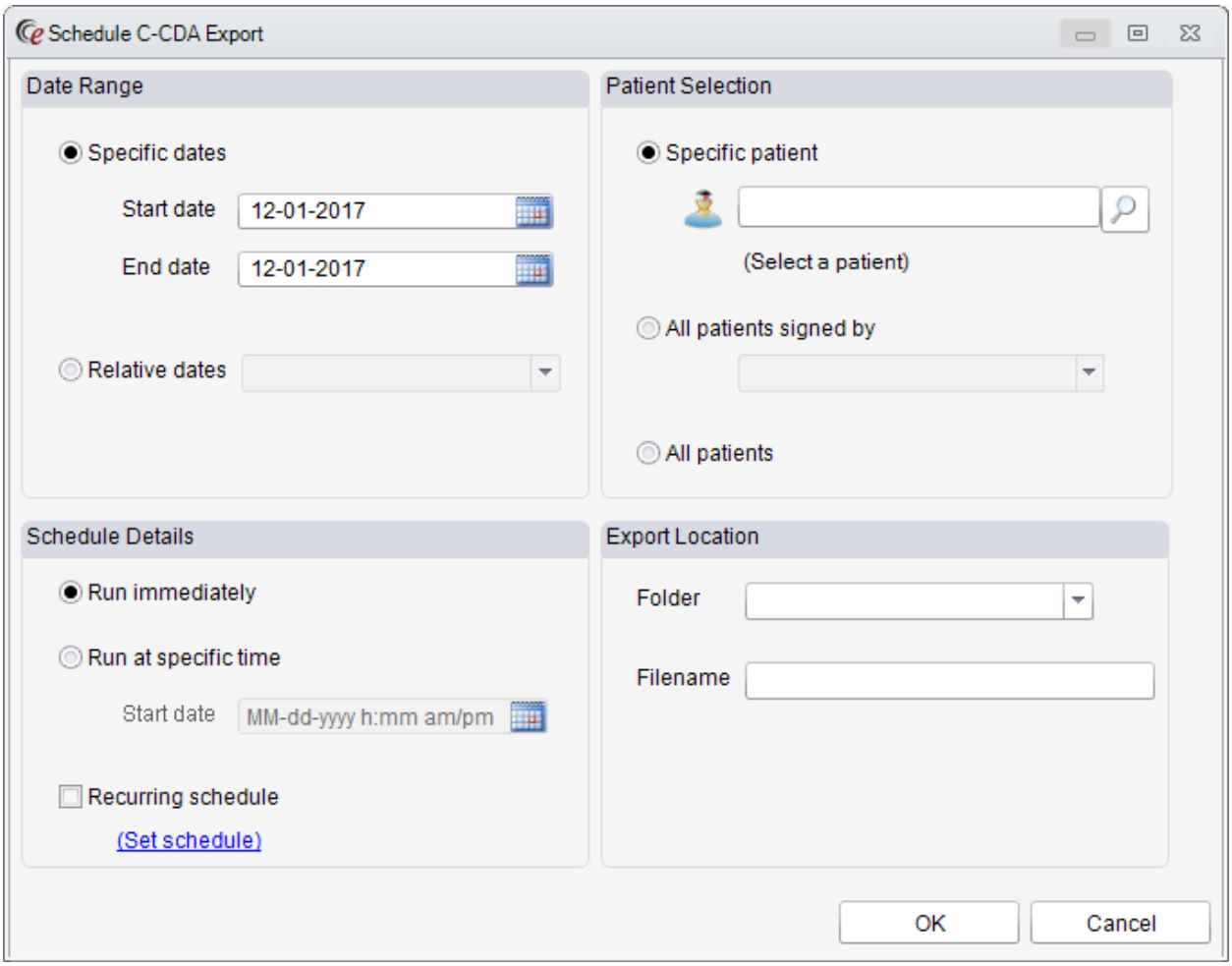



No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #16899 – CEHRT 170.315(B)(6): DATA EXPORT

eRAD RIS is required to provide a way for permissioned users to perform a Data Export to include C-CDAs for a single patient, a set of patients, or all patients meeting a variety of parameters. The user must be able to initiate the export on demand or create a scheduled event.

To initiate a C-CDA Data Export, there is a new option on the Administration menu: **Schedule C-CDA Export**. This option is restricted by a new access string labeled **MU.CCDAScheduledTask**. Users belonging to a User Group with the access string set to FULL will have the ability to select the Schedule C-CDA Export option, which opens the following screen.




No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

### Date Range

The "Date Range" controls allow the user to specify the start and end date for the C-CDA contents. The end date may be specified as a future date to include studies that are scheduled but have not yet been performed.

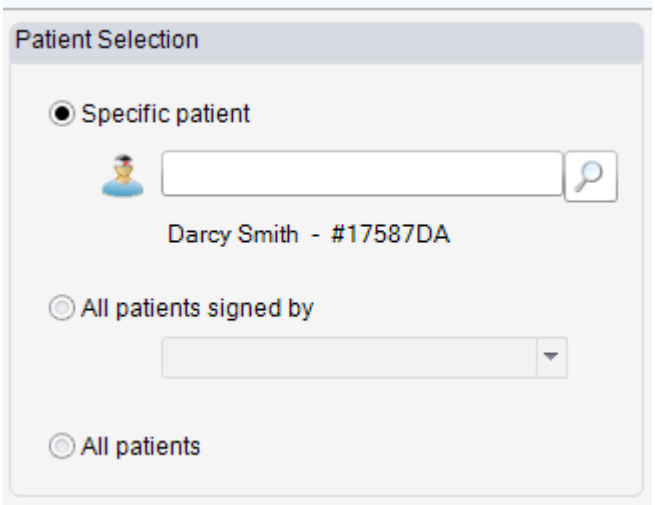
Relative Dates allow the user to indicate that the date filters should be constructed relative to the current system time when the task executes. For example, an export could be configured to run on the first day of every month to include all studies from the previous month.

The relative date options are today, yesterday, this week, this month, this year, last week, last month, and last year.

- **Today** – from midnight this morning until midnight tomorrow.
- **Yesterday** – from the start of the previous calendar day up until the start of today.
- **This week** – from Sunday at midnight this week up until midnight on Saturday.
- **This month** – from the first day of the current calendar month up until the end of the last day of the current month.
- **This year** – from January 1st of the current calendar year up until the end of December 31st.
- **Last week** – from the start of Sunday on the previous calendar week up until the end of Saturday of the same week.
- **Last month** – from the 1st day of the previous calendar month up until the first day of the current month.
- **Last year** – from January 1st of the previous year up until January 1st of the current year.

### Patient Selection

The user can choose one specific patient, all patients, or a set of patients. The patient search control allows the user to perform a familiar patient search and then double click on the desired patient. Once a patient is selected, the label under the search box will change from (Select a patient) to a description of the selected patient including their first and last name and MRN.

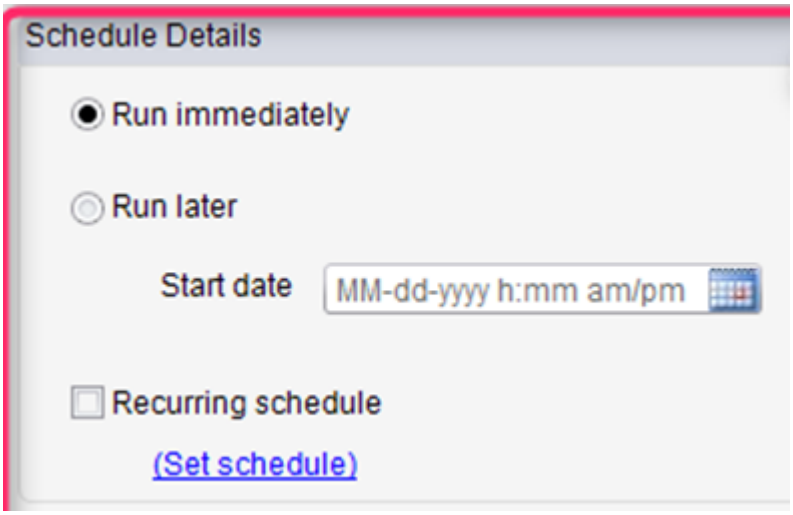



No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

The “All patients signed by” option is used to allow the user to select a set of patients. The system performs a query for all patients with an exam signed by a specific radiologist within the Date Range indicated by the user. Once these patients have been identified, the C-CDA will be generated for each patient using the Date Range indicated by the user as C-CDA parameters. In the event that no matching patients are found, the output will be a zip file that is 0 bytes; otherwise the zip file will contain a C-CDA XML file for each patient.

The “All patients” option will generate a C-CDA export for all patients in the system (use with care). The result will be a single zip file that contains an XML file for each patient. In this case the patient results are separated into folders and subfolders based on their date of birth. If the user chooses to export all patients, the C-CDA export task will simply schedule the previously designed C-CDA export for all patients. The job will be marked as completed as soon as the export begins, but the user may monitor the process from the Meaningful Use option under the Administration menu. Once this export of all patients is completed, the files and folders are zipped into a single file.

### Schedule Details

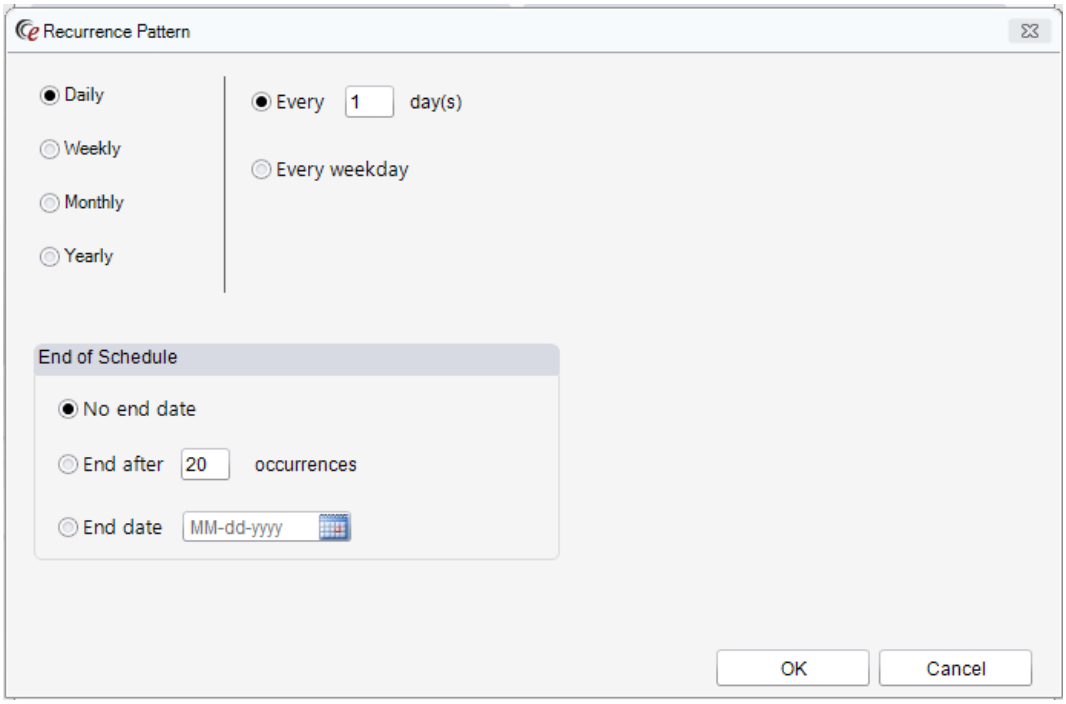



There are two options for choosing a start time: **Run immediately** will schedule the job to run immediately (typically within a minute or so). **Run later** allows the user to pick the date and time that the job will begin to execute.

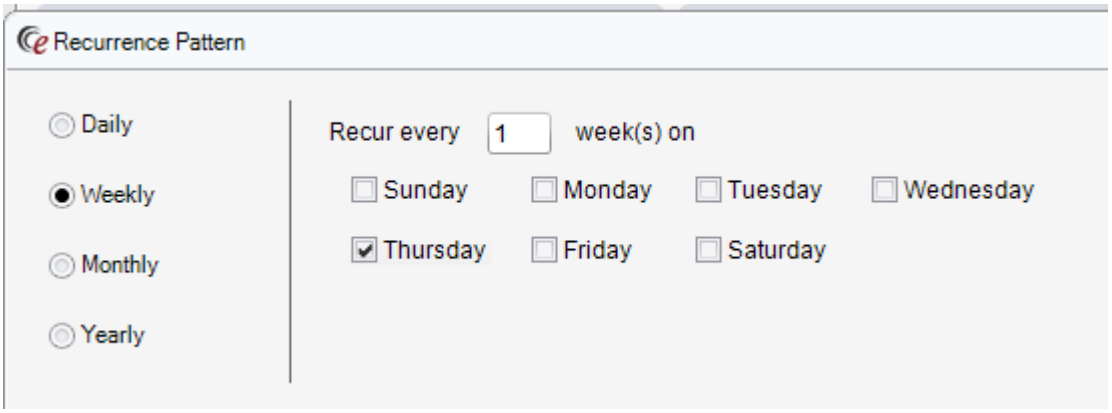
If the job is configured to run more than once (Recurring schedule, discussed below), then the same start time will be used for each date the job is executed.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## Recurring Schedule

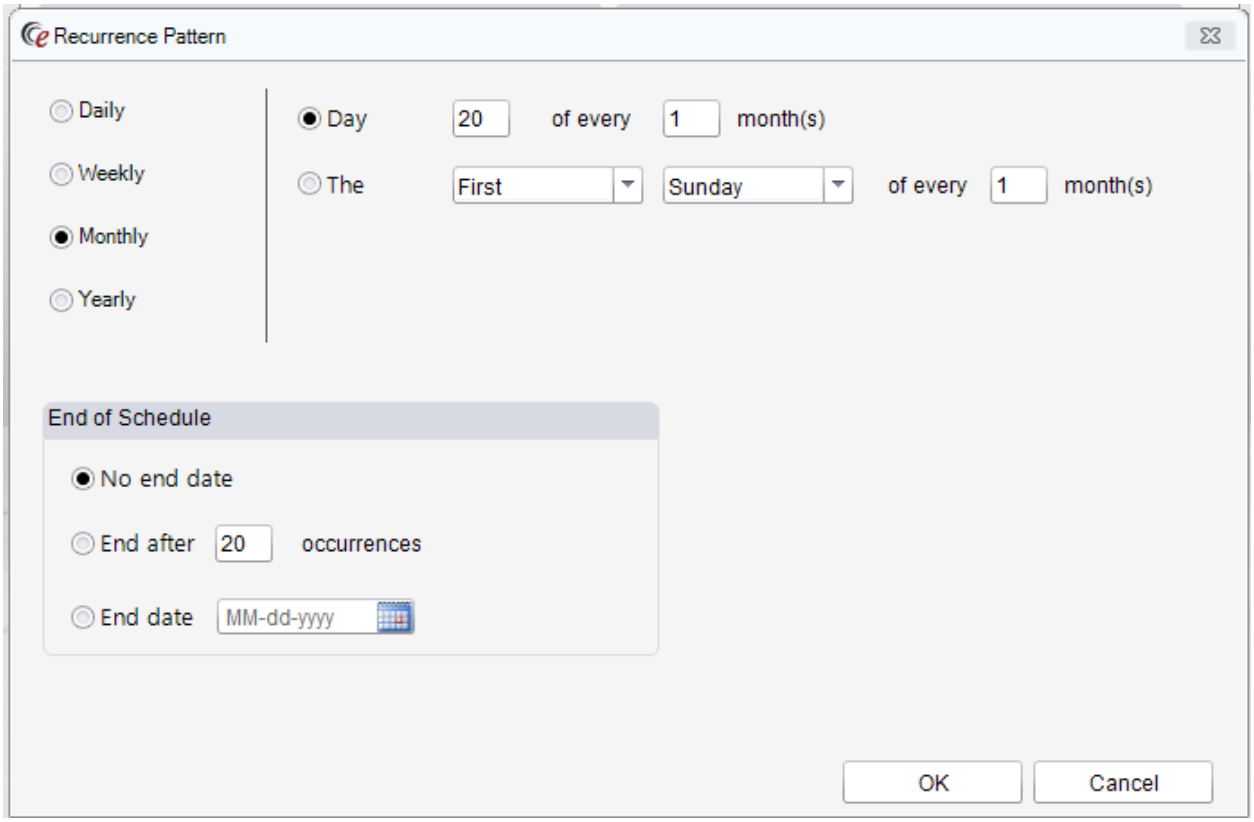



A scheduled task can be configured to run daily, weekly, monthly, or yearly. Each of these options has its own set of accompanying choices (e.g. on a "Daily" configuration, the user can indicate that the job should run every day, every X days, or every weekday).



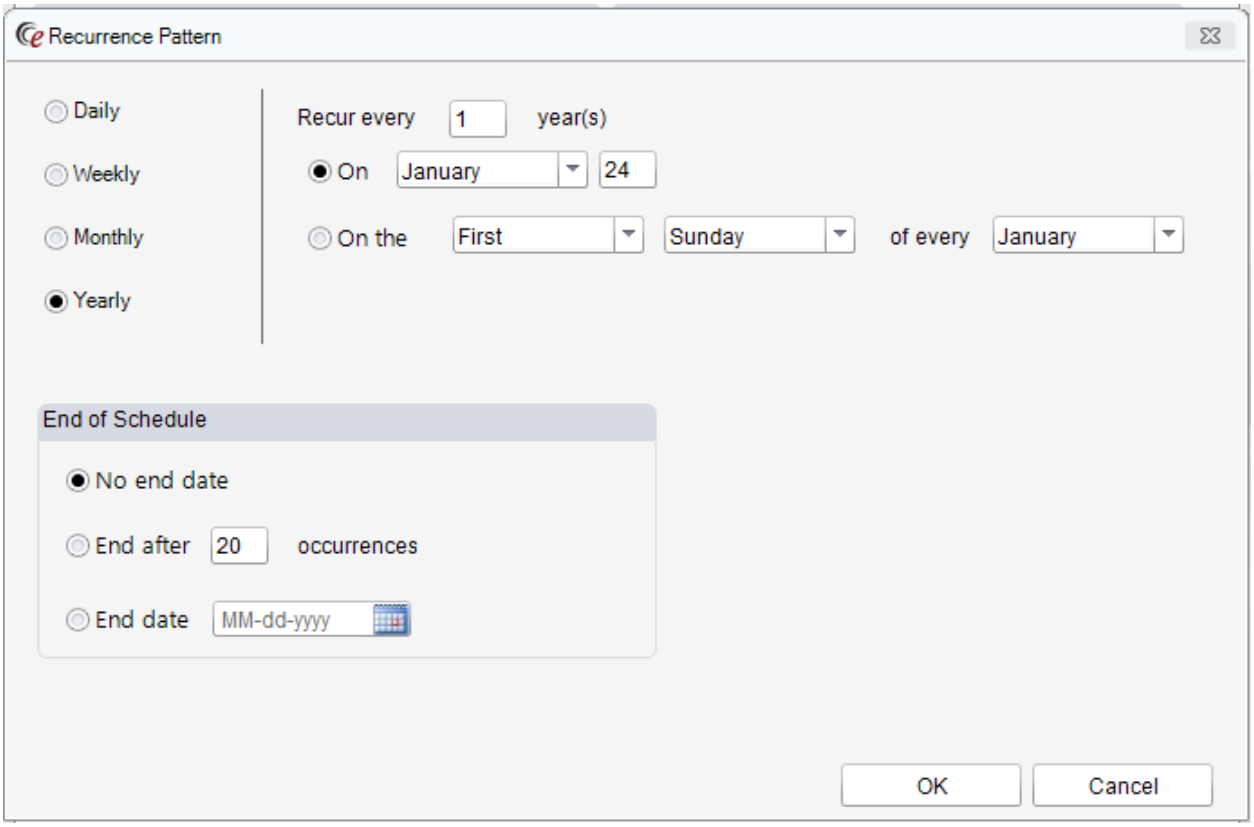

A scheduled task with a Weekly configuration can be set to run every X weeks on 1 or more days of each week until the end of the schedule.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.




A scheduled task with a Monthly configuration can be set to run on the same day of every month (or every X months), or it can be configured to run on a certain day of a given week every X months (e.g. the First Sunday of the month). If a task is scheduled for the 31st day of each month and there is no 31st day of a given month, it will run on the last day of the month instead (e.g. Feb 28th).

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

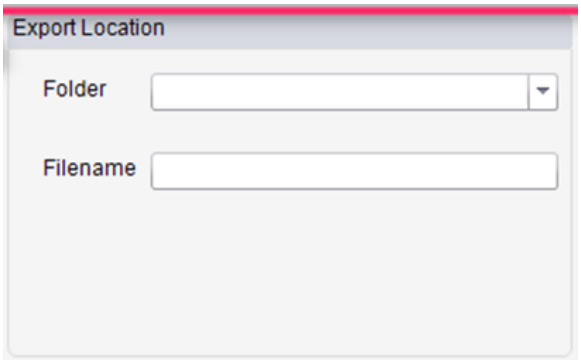



A scheduled task with a Yearly configuration can be set to run every X years on a particular date (e.g. every 2nd January 24th), or it can be set to run every X years on a given week number (first through fourth) and weekday of a specific month (e.g. the second Tuesday of every February).

### End of Schedule Options

A scheduled task can be configured to run with "No end date" (e.g. run every Monday from now on). It can be configured to stop after a specific number of occurrences (e.g. run every week for the next 52 weeks) or it can be configured to stop after a particular date.

### Export Location




No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

The user can choose from a predefined list of network folders that is stored in the System Configuration setting: **ScheduledTaskOutputLocations**.

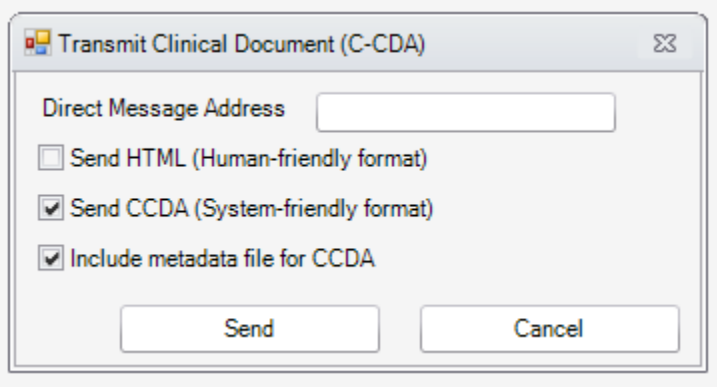
This new setting can include one or more network folders separated by a comma. The list will be presented to the user in the order that it is stored in the System Configuration value. The first item on this list will be used as a default value.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #17820 – DIRECT MESSAGE FULL METADATA SUPPORT

As required, eRAD RIS now has an option to include a metadata file when transmitting the C-CDA XML file. When including a metadata file, the two files will be combined into one zip file that will be attached to the direct message. When the metadata file is included, the subject line for the direct message will include "XDM/1.0/DDM."

When transmitting the C-CDA, an additional checkbox labeled **Include metadata file for CCDA** will be available. The **Send CCDA** checkbox must be checked first to enable the metadata option. Metadata files are not available when sending in HTML format.

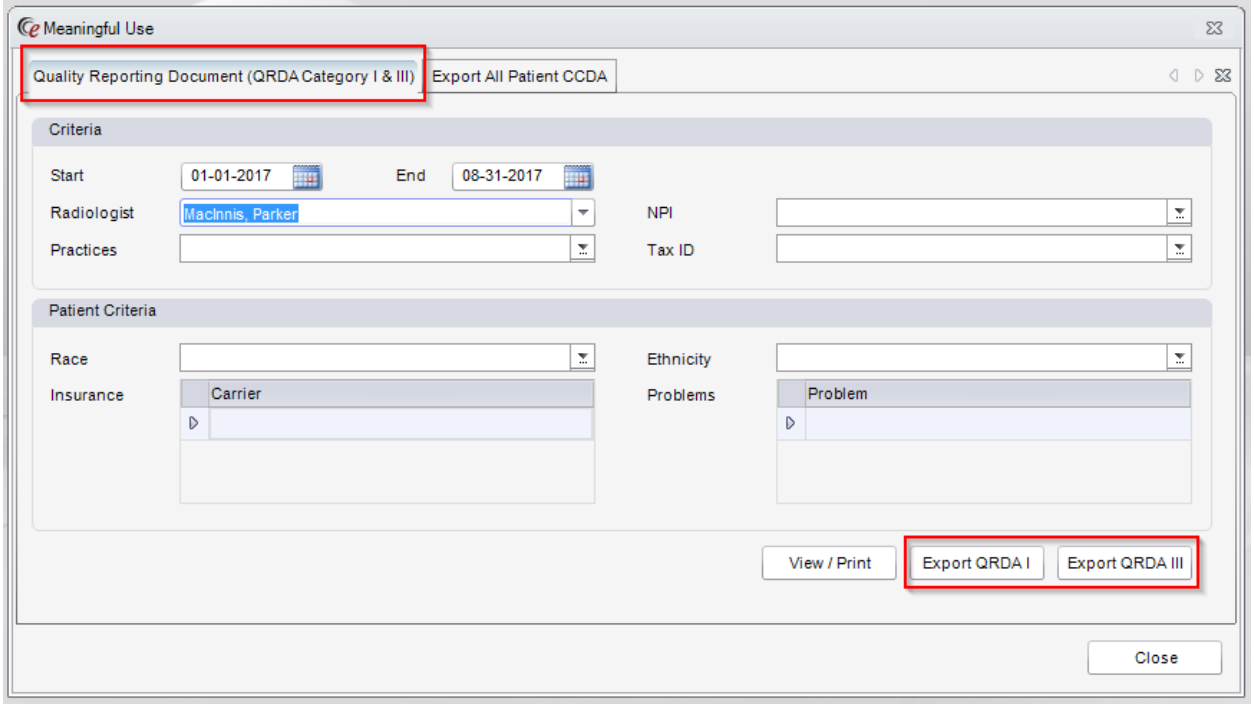



No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #18140 – CEHRT 170.315(C)(1): ABILITY TO EXPORT A ZIP FILE CONTAINING QRDA I OR QRDA III FOR ALL PATIENTS MEETING THE FILTER CRITERIA

A 2015 CEHRT requirement states that eRAD RIS must be able to provide a file of QRDA results that is automatically compiled for all patients matching the filter criteria entered by the user. It must be possible to export using either QRDA Category I format or QRDA Category III format.

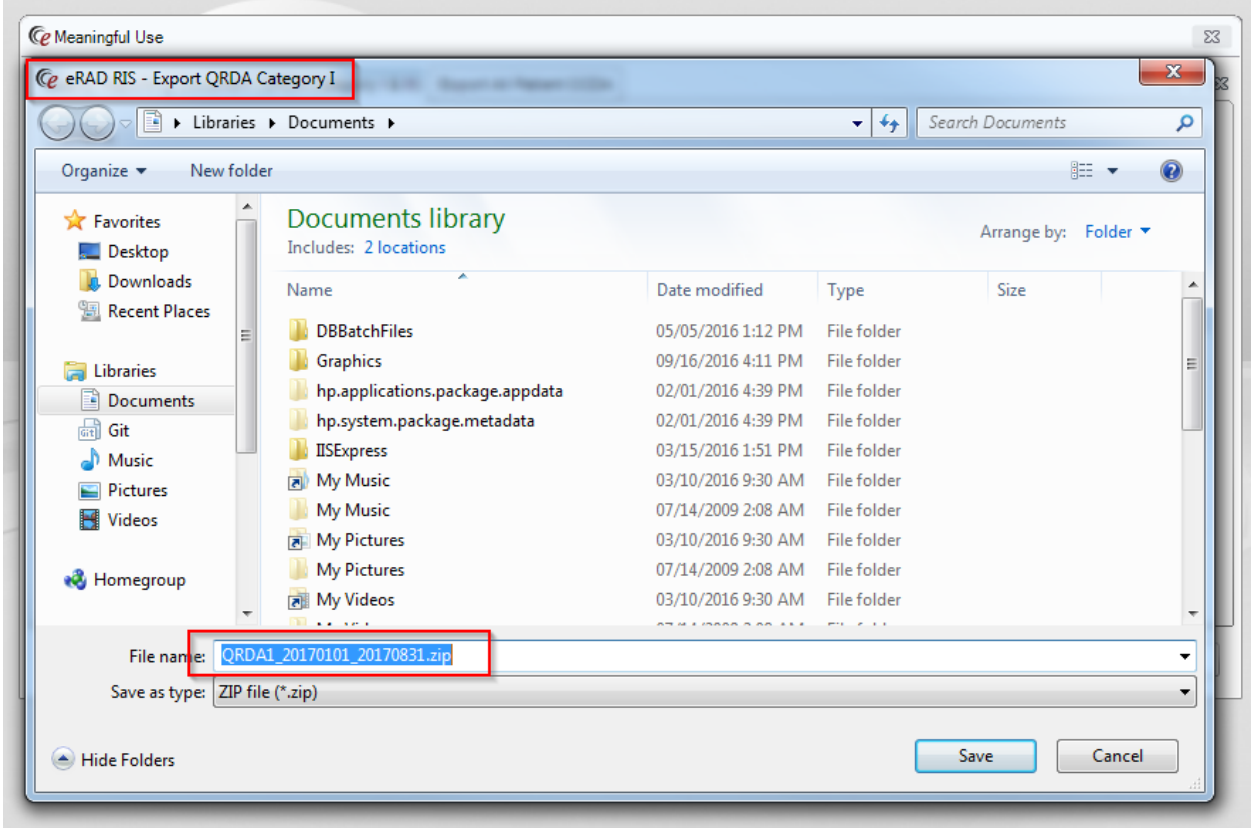
To launch the QRDA screen, click the Meaningful Use option under the Administration menu.




There are now ***two*** buttons: **Export QRDA I** and **Export QRDA III**. The QRDA files are created for each patient and combined into a zip file that the user can save to disk.

As illustrated below, the user will be able to choose a location to save the zip file. The top of this screen will indicate which QRDA format was selected.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.




Once the export is complete, eRAD RIS will present a confirmation message to the user.

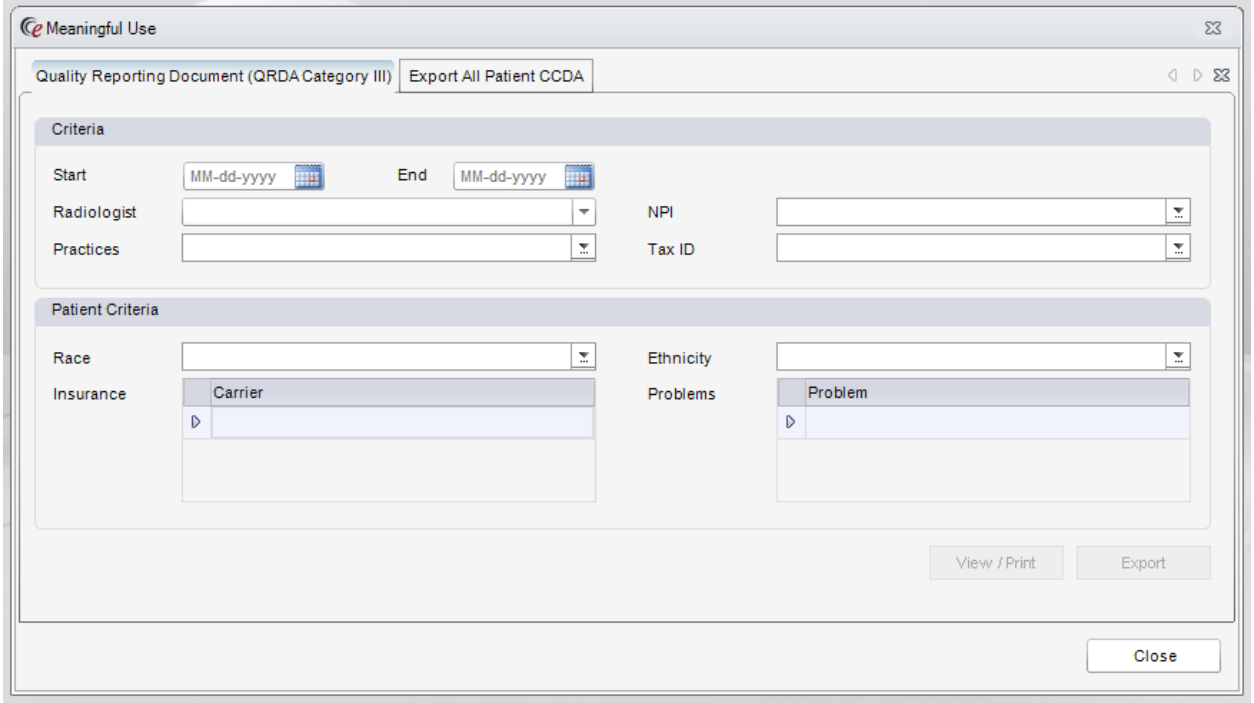
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #13673 – CEHRT: EXPANDED QRDA FILTER CRITERIA

Quality Reporting Document Architecture (QRDA) is a standard for communicating health care Quality Measurement information. When participating in a quality program for Centers for Medicare and Medicaid Services (CMS), it is required to submit Clinical Quality Measure (CQM) data that is in the appropriate QRDA format. It has previously been possible to export a QRDA from eRAD RIS, however, some adjustments have been made to allow for more specific data filtering.

The following filters have been added so that a user can create a QRDA with more specific contents:

- Tax ID
- National Provider Identifier (NPI)
- Patient insurance
- Patient race and ethnicity
- Patient problem list data




The following information will be included in the QRDA:

- Gender
- Race
- Ethnicity
- Payer (Medicare/Medicaid)
- Problem List

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

The QRDA results now also display a breakdown by problem. If filtering by either Tax ID or NPI, the results also include a breakdown by these criteria.

Example of QRDA showing Problem List:

## QRDA Level III

### *Report Parameters*

**Period Start Date:** 2015-01-01
**Period End Date:** 2017-08-31
**Radiologist:** MacInnis, Parker
**Practice:** Advanced Radiology,American Radiology,American Radilogy 2,Borg/IDE,Get Well Clinic,PEI Radiology

### *Measures*

**1 Title** CMS125v5
**GUID** 40280381-51F0-825B-0152-229C4EA3170C
**NQF No.** 2372
**Version No.** 5
**eMeasure ID** 125
**Stratification**

| | Code | Initial Pop. | Denominator | Denom Excl | Numerator | Denom Excep |
|---|---|---|---|---|---|---|
| **total** | | 5 | 5 | 0 | 0 | 0 |
| **gender** | F | 5 | 5 | 0 | 0 | 0 |
| **ethnicity** | 2135-2 | 2 | 2 | 0 | 0 | 0 |
| **ethnicity** | 2186-5 | 2 | 2 | 0 | 0 | 0 |
| **race** | 2028-9 | 1 | 1 | 0 | 0 | 0 |
| **race** | 2054-5 | 1 | 1 | 0 | 0 | 0 |
| **race** | 2106-3 | 3 | 3 | 0 | 0 | 0 |
| **payer** | 19 | 5 | 5 | 0 | 0 | 0 |
| **problem** | J45 | 1 | 1 | 0 | 0 | 0 |
| **problem** | R07.1 | 1 | 1 | 0 | 0 | 0 |
| **problem** | 292097002 | 1 | 1 | 0 | 0 | 0 |
| **problem** | 292096006 | 1 | 1 | 0 | 0 | 0 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

Example of QRDA showing breakdown by Tax ID and NPI:

## QRDA Level III

### Report Parameters

**Period Start Date:** 2015-01-01
**Period End Date:** 2017-08-31
**NPI:** 77777
**Practice:** Advanced Radiology,American Radiology,American Radilogy 2,Borg/IDE,Get Well Clinic,PEI Radiology
**Tax ID:** 96-5657633

### Measures

**1 Title** CMS125v5
**GUID** 40280381-51F0-825B-0152-229C4EA3170C
**NQF No.** 2372
**Version No.** 5
**eMeasure ID** 125
**Stratification**

| | Code | Initial Pop. | Denominator | Denom Excl | Numerator | Denom Excep |
|---|---|---|---|---|---|---|
| **total** | | 3 | 3 | 0 | 0 | 0 |
| **gender** | F | 3 | 3 | 0 | 0 | 0 |
| **ethnicity** | 2135-2 | 1 | 1 | 0 | 0 | 0 |
| **ethnicity** | 2186-5 | 1 | 1 | 0 | 0 | 0 |
| **race** | 2028-9 | 1 | 1 | 0 | 0 | 0 |
| **race** | 2054-5 | 1 | 1 | 0 | 0 | 0 |
| **race** | 2106-3 | 1 | 1 | 0 | 0 | 0 |
| **payer** | 19 | 3 | 3 | 0 | 0 | 0 |
| **problem** | J45 | 1 | 1 | 0 | 0 | 0 |
| **problem** | R07.1 | 1 | 1 | 0 | 0 | 0 |
| **problem** | 292097002 | 1 | 1 | 0 | 0 | 0 |
| **problem** | 292096006 | 1 | 1 | 0 | 0 | 0 |
| **tax_id** | 96-5657633 | 3 | 3 | 0 | 0 | 0 |
| **npi** | 77777 | 3 | 3 | 0 | 0 | 0 |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE # 17949 – CEHRT 170.315(G)(2): MANAGEMENT REPORTS TO PROVIDE ACI MEASURE SCORES

This feature is designed to provide a means to track the 2017 Advanced Care Imaging (ACI) transition measures and 2017 Advanced Care Imaging (ACI) standard measures. Under the Merit-based Incentive Payment System (MIPS) pathway of the Medicare Access and CHIP Reauthorization Act (MACRA), ACI has replaced the Medicare HER Incentive Program (Meaningful Use). In 2017, ACI is also one of the three performance categories to be considered and weighted for scoring a clinician's overall performance under MIPS.

For scoring purposes, in the ACI performance category (weighted at 25% of the total score), MIPS eligible clinicians may earn a maximum score of up to 155%, but any score above 100% will be capped at 100%.

The ACI score is the combined total of the following three scores:

1. Required Base Score (50%)
2. Performance Score (up to 90%)
3. Bonus Score (up to 15%)

MIPS eligible clinicians need to fulfill the requirements of all base score measures in order to receive the 50% base score. If these requirements are not met, they will receive a 0 in the overall ACI performance category score. In order to receive the 50% base score, MIPS eligible clinicians must submit a "yes" for the security risk analysis measure, and at least a 1 in the numerator for the remaining measures.

The **transition** base score ACI measures are:

1. **Security Risk Analysis** – Conduct or review a security risk analysis, including addressing the security (including encryption) of electronic personal health information created or maintained by CEHRT.
2. **e-Prescribing** – At least one permissible prescription written by the provider is queried for a drug formulary and transmitted electronically using CEHRT.
3. **Provide Patient Access** – At least one patient seen by the MIPS eligible clinician during the performance period is provided timely access to view online, download, and transmit to a third party their health information subject to the MIPS eligible clinician's discretion to withhold certain information.
4. **Health Information Exchange** – The MIPS eligible clinician that transitions or refers their patient to another setting of care or health care clinician (1) uses CEHRT to create a summary of care record; and (2) electronically transmits that summary to a receiving health care clinician for at least one transition of care or referral.

The **standard** base score ACI measures are:

1. **Security Risk Analysis** – Conduct or review a security risk analysis, including addressing the security (including encryption) of electronic personal health information created or maintained by CEHRT.
2. **e-Prescribing** – At least one permissible prescription written by the provider is queried for a drug formulary and transmitted electronically using CEHRT.
3. **Provide Patient Access** – At least one patient seen by the MIPS eligible clinician during the performance period is provided timely access to view online, download, and transmit to a third party their health information subject to the MIPS eligible clinician's discretion to withhold certain information.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

4. **Send Summary of Care** – For at least one transition of care or referral, the MIPS eligible clinician that transitions or refers their patient to another setting of care or health care clinician (1) creates a summary of care record using CEHRT; and (2) electronically exchanges the summary of care record.
5. **Accept Summary of Care** – For at least one transition of care or referral received or patient encounter in which the MIPS eligible clinician has never before encountered the patient, the MIPS eligible clinician receives or retrieves and incorporates into the patient's record an electronic summary of care document.

All of the base score requirements must be met in order to receive the 50% base score. However, for e-Prescribing there is an exception. e-Prescribing is only required to be reported if 100 or more prescriptions are written in the performance period.

To achieve an ACI performance score in addition to the base score, a MIPS eligible clinician must satisfy at least one additional ACI performance score measure during his or her performance period. This means that at least one performance score measure must have a numerator greater than 1 and clinicians must submit a numerator/denominator or Yes/No for each ACI performance score measure they report.

The percentage listed next to each 2017 ACI Transition Measure Set measure below indicates how much that measure can contribute to the ACI performance score, based on the measure rate (which is the numerator divided by the denominator). Performance score measures can be worth up to 90% of the total ACI score, giving clinicians the flexibility to focus on achieving the measures that are most meaningful to their practice. The higher a clinician's performance rate on these measures, the higher their ACI score will be.

The performance score **ACI Transition Measures** are:

1. **Provide Patient Access (up to 20%)** - For at least one unique patient seen by the provider, (1) the patient (or patient-authorized representative) is provided timely access to view online, download, and transmit his or her health information, and (2) the provider ensures the patient's health information is available for the patient (or patient authorized representative) to access using any application of his or her choice that is configured to meet the technical specifications of the Application Programming Interface (API) in the provider's CEHRT.
2. **View, Download or Transmit (VDT) (up to 10%)** - At least one patient seen by the MIPS eligible clinician during the performance period (or patient-authorized representative) views, downloads or transmits their health information to a third party during the performance period.
3. **Health Information Exchange (up to 20%)** - For at least one transition of care or referral, the provider who transitions or refers his or her patient to another setting of care or health care provider (1) creates a summary of care record using CEHRT; and (2) electronically exchanges the summary of care record.
4. **Secure Messaging (up to 10%)** - For at least one unique patient seen by the provider during the performance period, a secure message was sent using the electronic messaging function of the CEHRT to the patient (or patient-authorized representative), or in response to a secure message sent by the patient (or patient authorized representative).
5. **Medication Reconciliation (up to 10%)** - The MIPS eligible clinician performs medication reconciliation for at least one transition of care in which the patient is transitioned into the care of the MIPS eligible clinician.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

6. **Patient-Specific Education (up to 10%)** - The provider must use clinically relevant information from the CEHRT to identify patient-specific educational resources, and provide electronic access to those materials, to at least one unique patient seen by the provider.

The performance score **ACI Standard Measures** are:

1. **Provide Patient Access (up to 20%)** - For at least one unique patient seen by the provider, (1) the patient (or patient-authorized representative) is provided timely access to view online, download, and transmit his or her health information, and (2) the provider ensures the patient's health information is available for the patient (or patient authorized representative) to access using any application of his or her choice that is configured to meet the technical specifications of the Application Programming Interface (API) in the provider's CEHRT.
2. **View, Download or Transmit (VDT) (up to 10%)** - At least one patient seen by the MIPS eligible clinician during the performance period (or patient-authorized representative) views, downloads or transmits their health information to a third party during the performance period.
3. **Send Summary of Care (up to 20%)** - For at least one transition of care or referral, the MIPS eligible clinician that transitions or refers their patient to another setting of care or health care clinician (1) creates a summary of care record using CEHRT; and (2) electronically exchanges the summary of care record.
4. **Secure Messaging (up to 10%)** - For at least one unique patient seen by the provider during the performance period, a secure message was sent using the electronic messaging function of the CEHRT to the patient (or patient-authorized representative), or in response to a secure message sent by the patient (or patient authorized representative).
5. **Medication Reconciliation (up to 10%)** - The MIPS eligible clinician performs medication reconciliation for at least one transition of care in which the patient is transitioned into the care of the MIPS eligible clinician.
6. **Patient-Specific Education (up to 10%)** - The provider must use clinically relevant information from the CEHRT to identify patient-specific educational resources, and provide electronic access to those materials, to at least one unique patient seen by the provider.
7. **Accept Summary of Care (up to 10%)** - For at least one transition of care or referral received or patient encounter in which the MIPS eligible clinician has never before encountered the patient, the MIPS eligible clinician receives or retrieves and incorporates into the patient's record an electronic summary of care document.

To provide information regarding the ACI measure scores described above, two new management reports have been added to the RIS Meaningful Use core reports: **ACI Transition Measures** and **ACI Standard Measures**.

A new Y/N parameter called **Security Risk Analysis Completed** has been added to both reports. Answering Y to this parameter will satisfy the Security Risk Analysis base score.

Stage 1 and 2 Automated Measures are goal based where each measure has a goal percentage assigned. If the numerator divided by the denominator exceeds the goal, then that measure had passed; otherwise, it is considered a fail.

For 2017 Transition and Standard Measures, the Goal and Pass/Fail columns have been replaced with Base and Performance. The Base column will display a "Y" if the measure has been met. For ACI Transition Measures, base

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

score is set at 50 if Security Risk Analysis has been confirmed, numerator is at least 1 for Health Information Exchange and VDT (Timely Access), and numerator is at least 1 for eRx when denominator is at least 100.

For ACI Standard Measures, base score is set at 50 if Security Risk Analysis has been confirmed, numerator is at least 1 for Send Summary of Care, VDT (Timely Access) and Accept Summary of Care, and numerator is at least 1 for eRx when denominator is at least 100.

The Performance score will display the number of calculated performance points for the measure. For ACI Transition Measures, Performance score is the numerator divided by the denominator multiplied by 20 for VDT (Timely Access) and Health Information Exchange and the numerator divided by the denominator multiplied 10 for Medication Reconciliation, VDT (Patient Use), Secure Messaging, and Patient Education.

For ACI Standard Measures, Performance score is the numerator divided by the denominator multiplied by 20 for VDT (Timely Access) and Send Summary of Care and the numerator divided by the denominator multiplied 10 for Medication Reconciliation, VDT (Patient Use), Secure Messaging, Patient Education, and Accept Summary of Care.

The Total score is the Base score plus the Performance score. Failing to achieve the Base score or 50 points will result in a Total score of 0.

Unlike the Automated Measures Report, the ACI Transition Measures and ACI Standard Measures Report include both Site and Practice as multi-select parameters. Both the Practice and Site parameters have been enhanced to include the Tax Identification Number (TIN) to allow the user to run the report based on one or more TINs.

The Radiologist parameter has also been modified to support multi-select, allowing the report user to consolidate or roll-up the data to the TIN (site or practice) level.

The following section will outline how each measure is calculated from eRAD RIS data. These calculations are based on the specified signing radiologist, the schedule date range, the practice code, and the site code where the procedure was performed.

**Security Risk Analysis** – This is determined at the management report level via the Security Risk Analysis Completed Y/N parameter.

**Medication Reconciliation** – The denominator is made up of the total studies where the Referral Type has been specified on the Meaningful Use tab. The numerator is made up of the total studies where the Medical Reconciliation flag has been specified on the Meaningful Use tab and the Referral Type has been specified on the Meaningful Use tab.

**e-Prescribing (eRx)** – The denominator is the total number of completed prescriptions for the patient entered electronically via NewCrop. The numerator is the total number of completed prescriptions for the patient entered electronically via NewCrop and sent electronically via Surescripts to the selected pharmacy.

**Patient Education** – The denominator is the total distinct patient count for the report period. The numerator is the total number of times the Provided Education Resources or Prep Notes Reviewed flags have been specified for the visit.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

**Health Information Exchange** – The denominator is the total Transition of Care to Another Provider specified on the Meaningful Use tab. The numerator is the total Transition of Care to Another Provider where the Transition of Care Summary Provided and Transition of Care Confirmation Received have been selected on the Meaningful Use tab.

**VDT (Timely Access)** – The denominator is the total distinct patient count for the report period. The numerator is determined by the number of these patients (or someone with approved medical record access) that has an account on the patient portal.

**VDT (Patient Use)** – The denominator is the total distinct patient count for the report period. The numerator is determined by the number of these patients (or someone with approved medical record access) that has accessed the patient portal during the reporting period.

**Secure Messaging** – The denominator is the total distinct patient count for the report period. The numerator is calculated based on one of the following two conditions:

1. A secure message was sent to all patients (blast message) during the reporting period.
2. A secure message was sent to the specific patient during the reporting period.

**Send Summary of Care** – The denominator is the total Transition of Care to Another Provider specified on the Meaningful Use tab. The numerator is the total Transition of Care to Another Provider where the Transition of Care Summary Provided and Transition of Care Confirmation Received have been selected on the Meaningful Use tab.

**Accept Summary of Care** – The denominator is the total Summary of Care Record Available specified on the Meaningful Use tab. The numerator is the total Summary of Care Record Received where the Summary of Care Record Available has been selected on the Meaningful Use tab.

Please see examples of the **ACI Transition Measures** and **ACI Standard Measures** management reports below. Note that the filter criteria include the ability to select one or more radiologists and to indicate whether or not Security Risk Analysis has been completed. Also note that the Tax ID Number (TIN) is shown in the Site selection dropdown.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

From: 01-01-10 To: 12-31-17

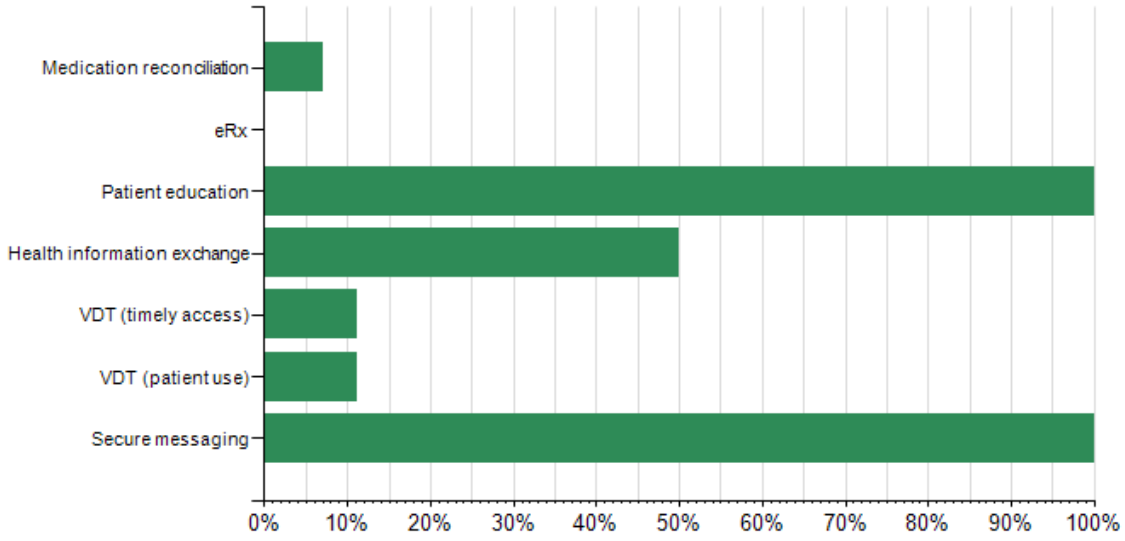
Practice(s): Advanced Radiology Site(s): ADV: Eldersburg (TIN 9841684

Radiologist: Aiken, Darcy (darcy), MacDoug Security Risk Analysis Completed: Y

1 of 1 100% Find | Next

## ACI Transition Measures

**Radiologist:** Aiken, Darcy (darcy),MacDougall, Spencer (spencer)
**Practice(s):** Advanced Radiology
**Site(s):** ADV: Eldersburg (TIN 984168481),ADV: Fisher (TIN 634613889),ADV: Lutherville (TIN 984989668)
**Reporting Period:** 01-01-2010 - 12-31-2017
**Description:** This report displays the percentage of patients where the mu requirement was recorded.




| Meaningful Use Measure | Numerator | Denominator | % | Base** | Performance* |
|---|---|---|---|---|---|
| Security risk analysis | | | | Y | |
| Medication reconciliation | 1 | 14 | 7.14% | N | 1 / 10 |
| eRx | 0 | 3 | 0.00% | N | 0 / 0 |
| Patient education | 9 | 9 | 100.00% | N | 10 / 10 |
| Health information exchange | 1 | 2 | 50.00% | Y | 10 / 20 |
| VDT (timely access) | 1 | 9 | 11.11% | Y | 2 / 20 |
| VDT (patient use) | 1 | 9 | 11.11% | N | 1 / 10 |
| Secure messaging | 9 | 9 | 100.00% | N | 10 / 10 |
| **Total Score: 84 / 130** | | | | **50** | **34 / 80** |

***Performance score** is the numerator divided by the denominator multiplied by 20 for VDT (Timely Access) and Health Information Exchange and the numerator divided by the denominator multiplied by 10 for Medication Reconciliation, VDT (Patient Use), Secure Messaging, and Patient Education.
****Base score** is set at 50 if Security Risk Analysis has been confirmed, numerator is at least 1 for Health Information Exchange and VDT (Timely Access), and numerator is at least 1 for eRx when denominator is at least 100.



Figure 1 – ACI Transition Measures Report showing Base, Performance, and Total Score

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

From: 01-01-10 To: 12-31-17

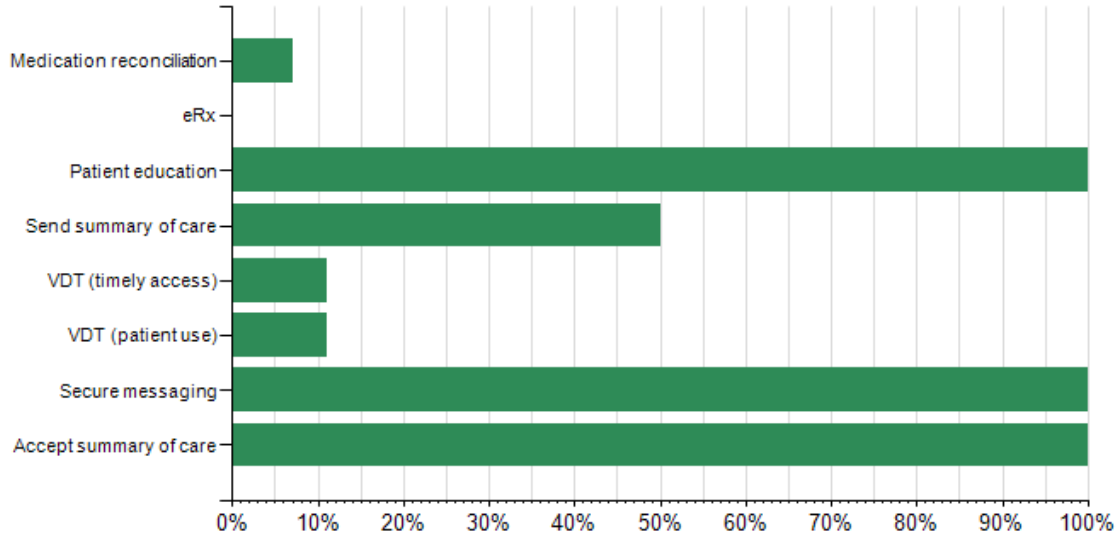
Practice(s): Advanced Radiology Site(s): ADV: Eldersburg (TIN 9841684

Radiologist: Aiken, Darcy (darcy), MacDoug Security Risk Analysis Completed: Y

1 of 1 100% Find | Next

## ACI Standard Measures

**Radiologist:** Aiken, Darcy (darcy),MacDougall, Spencer (spencer)
**Practice(s):** Advanced Radiology
**Site(s):** ADV: Eldersburg (TIN 984168481),ADV: Fisher (TIN 634613889),ADV: Lutherville (TIN 984989668)
**Reporting Period:** 01-01-2010 - 12-31-2017
**Description:** This report displays the percentage of patients where the mu requirement was recorded.




| Meaningful Use Measure | Numerator | Denominator | % | Base** | Performance* |
|---|---|---|---|---|---|
| Security risk analysis | | | | Y | |
| Medication reconciliation | 1 | 14 | 7.14% | N | 1 / 10 |
| eRx | 0 | 2 | 0.00% | N | 0 / 0 |
| Patient education | 9 | 9 | 100.00% | N | 10 / 10 |
| Send summary of care | 1 | 2 | 50.00% | Y | 10 / 20 |
| VDT (timely access) | 1 | 9 | 11.11% | Y | 2 / 20 |
| VDT (patient use) | 1 | 9 | 11.11% | N | 1 / 10 |
| Secure messaging | 9 | 9 | 100.00% | N | 10 / 10 |
| Accept summary of care | 1 | 1 | 100.00% | Y | 10 / 10 |
| **Total Score: 94 / 140** | | | | **50** | **44 / 90** |

***Performance score** is the numerator divided by the denominator multiplied by 20 for VDT (Timely Access) and Health Information Exchange and the numerator divided by the denominator multiplied by 10 for Medication Reconciliation, VDT (Patient Use), Secure Messaging, and Patient Education.
****Base score** is set at 50 if Security Risk Analysis has been confirmed, numerator is at least 1 for Health Information Exchange and VDT (Timely Access), and numerator is at least 1 for eRx when denominator is at least 100.

Confidential and Proprietary
Page 1 of 1

Date Run: 09-06-2017 4:32 PM
SpencerLaptp-HP\FormsGuestUser

Figure 2 – ACI Standard Measures Report showing Base, Performance, and Total Score

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## GENERAL WORK LISTS ENHANCEMENTS

### FEATURE #17805 – ADD A CUSTOM ICON FOR ALERTS TO DISPLAY ON WORKLISTS

This feature is described in the RIS Administration section.

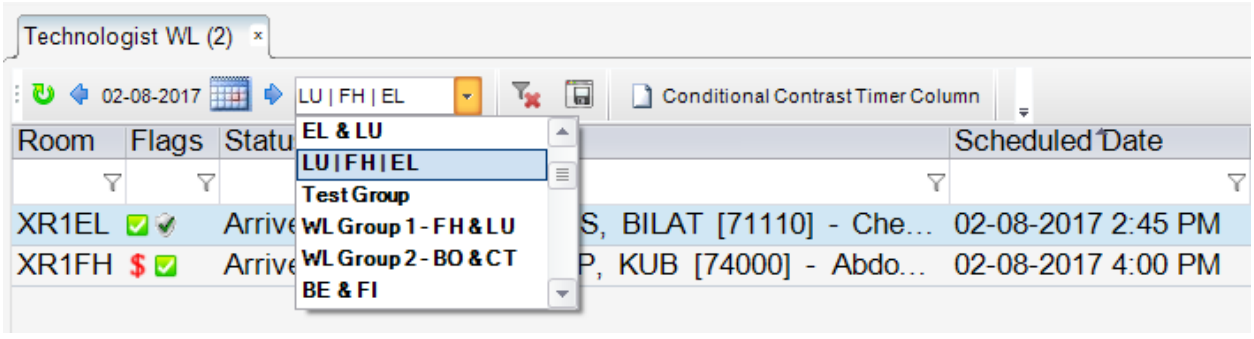
### FEATURE #16309 – USE SITE GROUP FILTER ON RECEPTION AND TECHNOLOGIST WORKLISTS

When the Site Group filter was added to a variety of worklists in eRAD RIS, the Reception and Technologist worklists were excluded from the new framework. This was due to the fact that the primary uses for these two worklists are focused on a single site where the user is currently working: the receptionist needs to see patients to register for the site where she or he is located; or the technologist needs to see exams to be performed at the site she or he is covering that day. However, these worklists can sometimes be used for other purposes which may make it desirable to use the Site Group filter on these worklists.

For example, the Reception WL is often used for things like "preprocessing" or reviewing upcoming appointments. A staff member may be designated to review upcoming appointments for a number of sites, such as a lead technologist reviewing all MRI exams scheduled in his or her region for the following day. There is a need to be able to display multiple sites on the worklists to allow for easy centralization of these types of tasks.

In addition, there are some instances where a single site is split up into two distinct RIS sites for tax ID purposes or other reasons. These sites would benefit from the ability to be grouped together on Reception and Technologist worklists, so that receptionists and technologists do not need to switch back and forth between worklists.

For these reasons, the Reception and Technologist worklists can now be filtered by Site Groups that have been configured with the Site Group Type of **Worklist Group**.



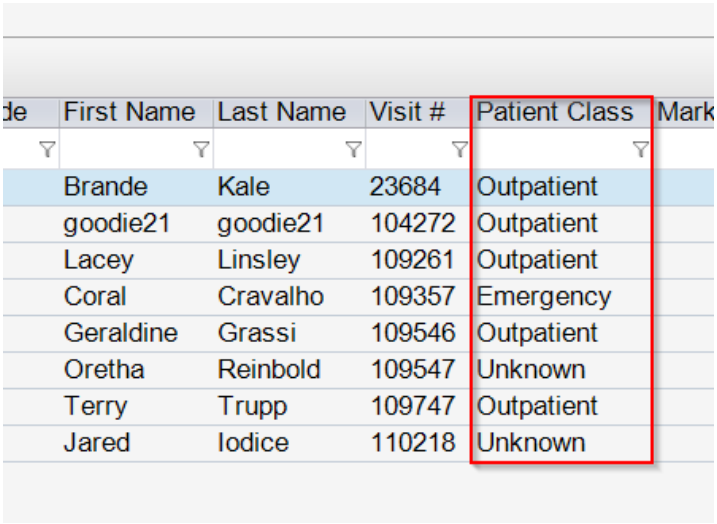

Configuration and use is identical to existing worklist Site Group filters.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #17246 – PATIENT CLASS COLUMN AVAILABLE ON ADDITIONAL WORKLISTS

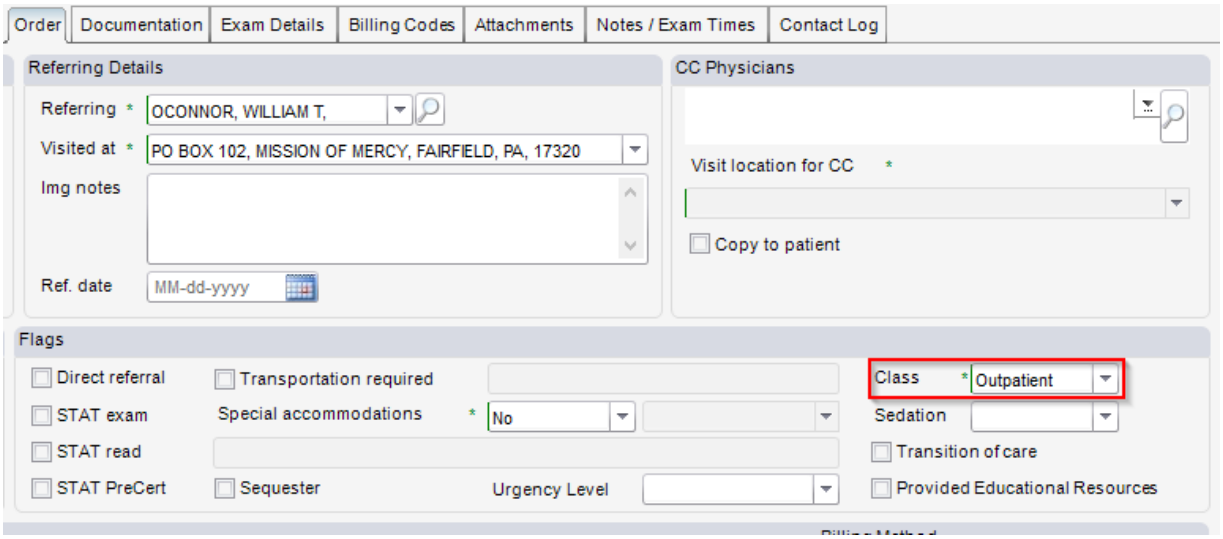
Customers have requested that the **Patient Class** column be added to additional worklists. The column has been added to the following worklists:

- Pending Dictation
- All Pending Dictation
- Pending Signature
- All Pending Signature
- Activity WL



| de | First Name | Last Name | Visit # | Patient Class | Mark |
|---|---|---|---|---|---|
| | Brande | Kale | 23684 | Outpatient | |
| | goodie21 | goodie21 | 104272 | Outpatient | |
| | Lacey | Linsley | 109261 | Outpatient | |
| | Coral | Cravalho | 109357 | Emergency | |
| | Geraldine | Grassi | 109546 | Outpatient | |
| | Oretha | Reinbold | 109547 | Unknown | |
| | Terry | Trupp | 109747 | Outpatient | |
| | Jared | Iodice | 110218 | Unknown | |

The column will be populated with the Class selected on the Order tab.




No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #17792 – "CATEGORY" COLUMN IS NOW AVAILABLE ON THE ALL CRITICAL RESULTS AND CRITICAL RESULTS WL

The Category column has been added to the Critical Results and All Critical Results worklists. Sorting on this column will be by Display Order, not alphabetical order. This will allow users to easily order their lists by the level of urgency.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## INTERFACING

### FEATURE #15508 – CONFIGURABLE DPI SETTING FOR ATTACHMENTS IMPORTED VIA INTERFACE

When an attachment is sent into eRAD RIS in PDF format over an external interface, the PDF is processed into images with a hard coded DPI of 120. It has been determined that this DPI is too low for some purposes, so the DPI setting is now configurable.

A new attribute called **DPI** has been added to the **c_scan_document** table on inbound messages. Any numerical value may be specified in this attribute to set the DPI. For quality purposes, an upper bound of 250 DPI and a lower bound of 100 DPI have been established. The default DPI setting is 120, if no value is specified. If a setting of less than the lower bound or more than the upper bound is entered, RIS will use the lower or upper bound respectively (i.e. it will use 100 or 250 DPI).

When sending in an external study update with a scanned document, specify the DPI attribute's value in the following location. This will work for both external interface web service study updates, as well as http inbound updates.

```
<ext1:ScanDocument>
 <ext1:c_scan_document dpi="80">
   <ext1:scan_document_key>-1</ext1:scan_document_key>
   <ext1:scan_type_code>Worksheet</ext1:scan_type_code>
   <ext1:pdf>BASE 64 of PDF file</ext1:pdf>
   <ext1:external_id>manual-test-interface</ext1:external_id>
   <ext1:reviewed_flag>N</ext1:reviewed_flag>
   <ext1:scanned_by_user_id>admintest</ext1:scanned_by_user_id>
 </ext1:c_scan_document>
 <ext1:c_scan_document_association>
   <ext1:scan_document_key>-1</ext1:scan_document_key>
   <ext1:patient_key>1</ext1:patient_key>
 </ext1:c_scan_document_association>

</ext1:ScanDocument>
```

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #6941 – OPTION TO DISABLE WEDGE FROM AUTO-RESOLVING PATIENTS WITH MATCHING DEMOGRAPHICS

There is an existing feature in the Wedge which attempts to match the patient from an external transaction to an existing patient in our system. If unable to identify an internal patient account based on MRN, the Wedge will attempt to find a match based on demographics data: first name, last name, date of birth, and, optionally, sex and/or home phone number.

In some cases, customers may wish to keep distinct accounts for the same patient coming from an external source, or they may not want to depend on the less definitive demographic matching.

It is now possible to disable the second tier, demographic matching process.

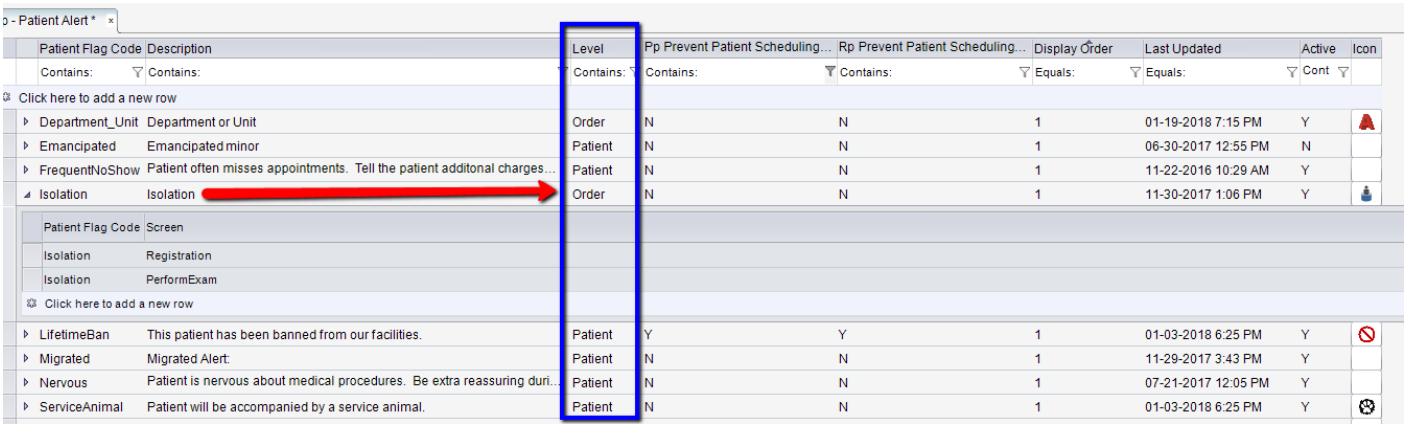
Please contact eRAD Support for more information about disabling this feature if desired.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE 17804 – NEW OPTION TO CHOOSE BETWEEN ORDER-LEVEL AND PATIENT-LEVEL ALERTS

Previously, it was possible to create Patient-level Alerts that would be applicable for all future activity for the patient's account. However, there are often occasions when setting an Alert at the Order level is more beneficial. This can be useful when there is some piece of information that a user should be warned about for a particular visit, but will not be relevant next time the patient returns. For example, the front desk may flag a patient as requiring isolation because of a positive PPD test, but this should not display when the patient returns in 6 months for a screening mammogram.

In the **Patient Alert** look-up table, there is now a new column labeled **Level** which determines if the Alert is Patient-level or Order-level.

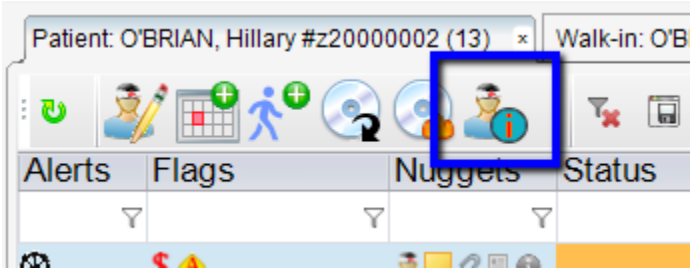



By default, Alerts will be stored at the Patient-level and will continue to be displayed any time the configured screens are opened for all future visits. However, if the Alert's Level is set as Order, the Alert will only be displayed when the configured screens are opened for the Order on which the Alert was activated.

After an Order-level Alert is configured in the Patient Alert look-up table, staff can turn on the Alert in the same way they did previously:

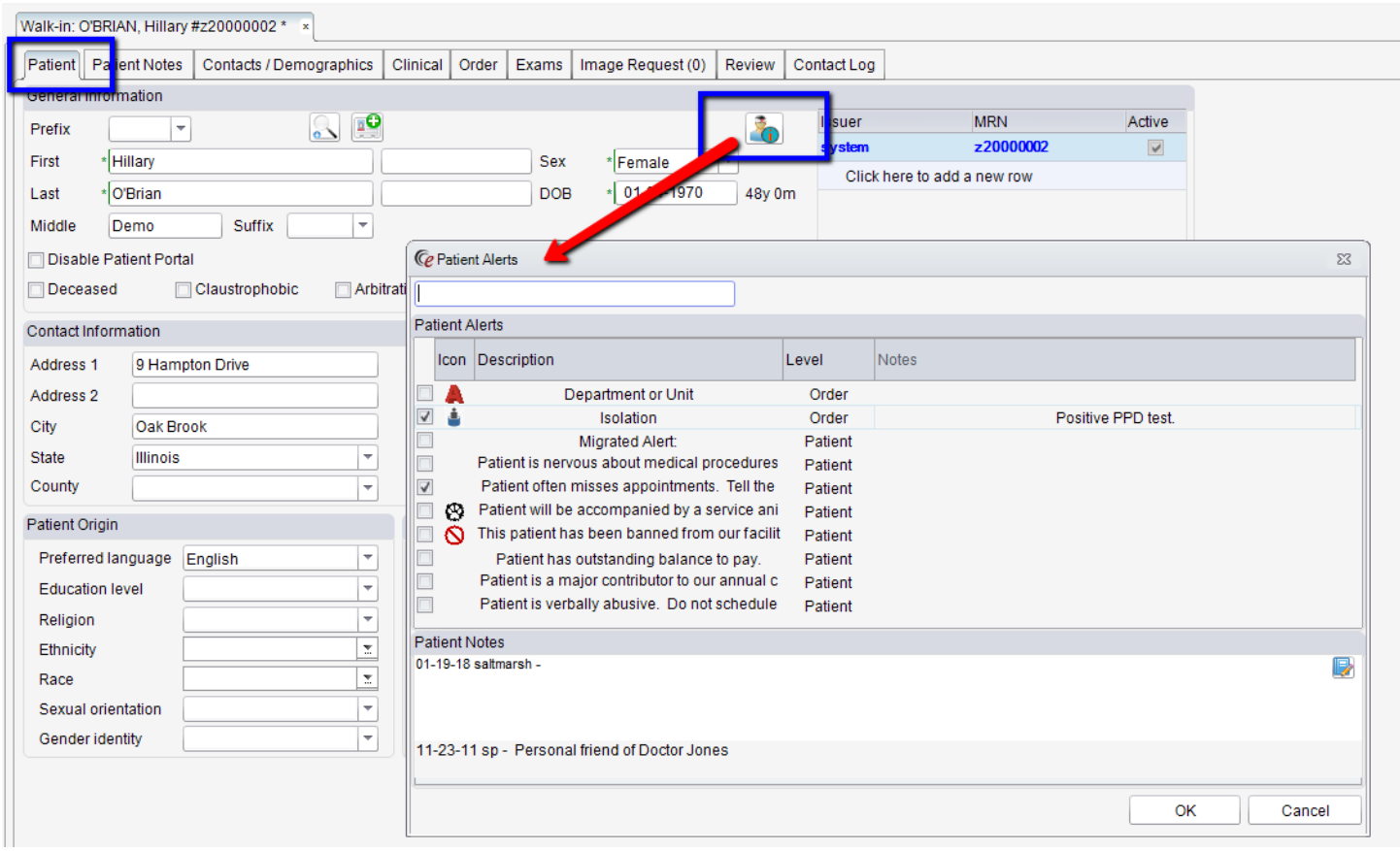
**Option 1**: Use the Patient Alert button in the Patient Folder.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.




There is one difference when adding Order-level Alerts with this button. Because it is an Order-level Alert, it will be applied to the Order for the row that is currently selected in the Patient Folder. It is not possible to multi-select from the Patient Folder when setting an Order-level Alert and the user will be informed if they attempt to do so. (It is still possible to multi-select if setting a Patient-level Alert.)

**Option 2**: Use the Patient Alert button on the Patient tab when an order-specific screen (e.g. Schedule Order or Perform Exam) is open.



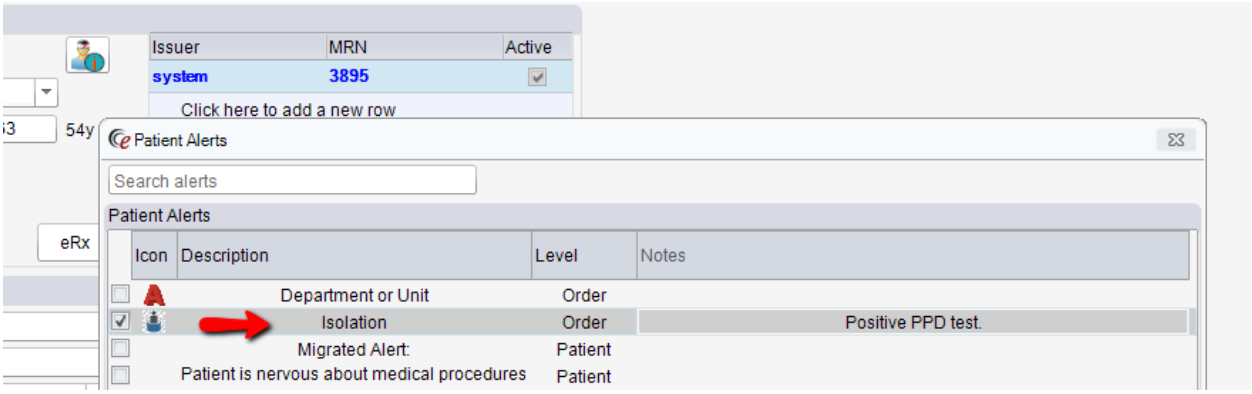

Order-level and Patient-level Alerts can be selected and specific notes can be added in the Notes column that will be displayed with the pop-up Alert. The user can easily see whether the Alert is Patient-level or Order-level by looking at the Level column in the window. It is possible to create two Alerts in the look-up table with different

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

Level settings if it is desirable to have either Order-level or Patient-level depending on the circumstance. The user can then select the Alert with the desired Level.

If the user is adding an Alert from a Patient-level screen that does not have any Orders in the context, such as Edit Patient, only Patient-level Alerts will be available. If the user is adding an Order-level Alert from a screen that includes multiple Orders for the patient (e.g. the user is scheduling an appointment with an Order A and Order B), the Alert will be applied to any Orders that are open on that screen.

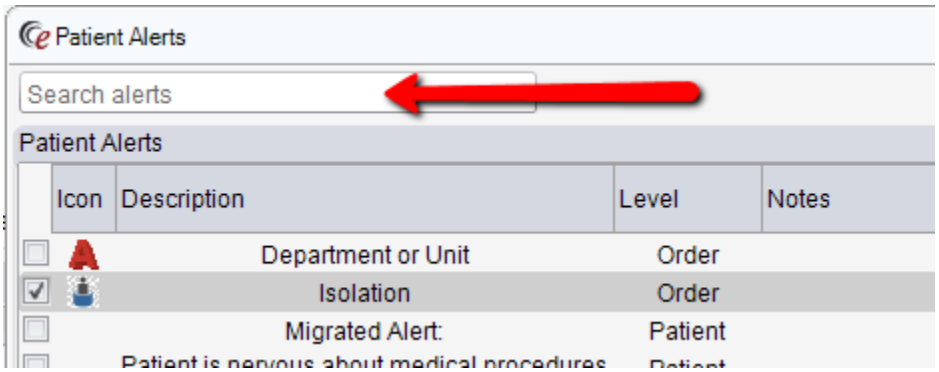
If a user opens a screen that includes multiple Orders that already have at least one Order-level Alert, the Alert window will mark the Alert's row in gray if it isn't applicable to all of the Orders that are open. For example, Scheduler A schedules an appointment for tomorrow and adds an Order-level Alert of Isolation. Scheduler B schedules a second appointment for the same patient for tomorrow and does not add the Isolation Alert. If the receptionist chooses to register these two separate Orders together, he or she will receive the Isolation Alert pop-up because one of the Orders has this Alert set. If the receptionist were to open the Alerts window, she or he would see that the row for the Alert is colored in gray to indicate that it is only applicable for some of the open Orders.




If the user wishes to apply the Alert to all of the open Orders, he or she can simply uncheck it and re-check it. Then the row will appear white to indicate that it is applied to all open Orders.

Note that a new filter box has been added when opening the Patient Alerts window to allow users to quickly find the Alert they'd like to add. Typing in this box will filter the Alert options to display only those that contain the word typed in the field.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.




See the feature below for some additional functionality related to Alerts.

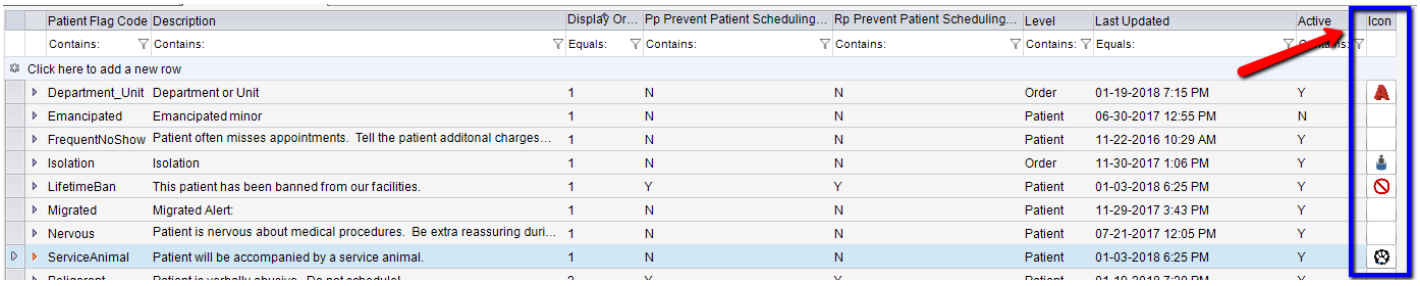
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #17805 – ADD A CUSTOM ICON FOR ALERTS TO DISPLAY ON WORKLISTS

It can be helpful to know about certain types of Patient Alerts when viewing a worklist, so that staff can easily identify that patients with particular situations or conditions are being seen at the center *before* they open a screen that would present the Alert pop-up message.

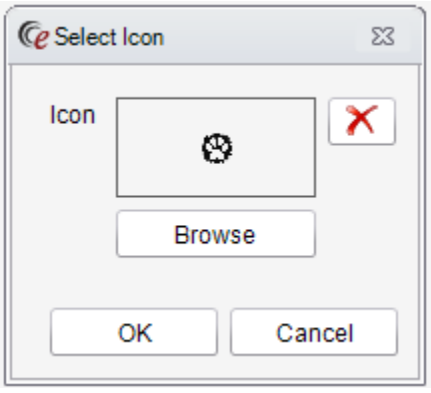
For example, many facilities enact a special workflow for patients requiring Isolation. It is helpful to know ahead of time when an isolation patient is scheduled so that staff can quickly identify the patient when they present at the front desk, in order to provide them with a mask and move them to an isolation area. A custom Alert icon on the worklist will help to identify any isolation patients on the Reception WL for that day, especially if conditional formatting is applied to change the font or row color.

To make this possible, the Patient Alert table now has an **Icon** column.



| Patient Flag Code | Description | Display Or... | Pp Prevent Patient Scheduling... | Rp Prevent Patient Scheduling... | Level | Last Updated | Active | Icon |
|---|---|---|---|---|---|---|---|---|
| Contains: | Contains: | Equals: | Contains: | Contains: | Contains: | Equals: | | |
| Click here to add a new row | | | | | | | | |
| Department_Unit | Department or Unit | 1 | N | N | Order | 01-19-2018 7:15 PM | Y | |
| Emancipated | Emancipated minor | 1 | N | N | Patient | 06-30-2017 12:55 PM | N | |
| FrequentNoShow | Patient often misses appointments. Tell the patient additonal charges... | 1 | N | N | Patient | 11-22-2016 10:29 AM | Y | |
| Isolation | Isolation | 1 | N | N | Order | 11-30-2017 1:06 PM | Y | |
| LifetimeBan | This patient has been banned from our facilities. | 1 | Y | Y | Patient | 01-03-2018 6:25 PM | Y | |
| Migrated | Migrated Alert: | 1 | N | N | Patient | 11-29-2017 3:43 PM | Y | |
| Nervous | Patient is nervous about medical procedures. Be extra reassuring duri... | 1 | N | N | Patient | 07-21-2017 12:05 PM | Y | |
| ServiceAnimal | Patient will be accompanied by a service animal. | 1 | N | N | Patient | 01-03-2018 6:25 PM | Y | |

Clicking the space under the Icon column will open up a window where an administrator can upload a desirable icon to represent the Alert in question.




Clicking Browse will allow the administrator to select an image file from their computer. File types of BMP, JPEG, PNG and GIF can be uploaded. For best results, the selected image should have a size of 16x16 with a transparent background. Many free icons can be found online by searching "16 x 16 icon" using a search engine. Other sizes

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

may also work—the editor will attempt to create a thumbnail and the administrator can evaluate whether the image can be interpreted at the display size.

A new column labeled **Alerts** has been added to all applicable worklists and will display any Alert icons that may be associated with the current patient or order. Hovering over the icon will display the description for the Alert.

It is possible to filter a worklist to display only items with specific Alerts by switching the Alerts column filter to Select Values and choosing any desired Alerts. This can then be saved as a Custom View, if desired. It is also possible to use conditional formatting to change font color or background color, etc.

Keep in mind that new Alert Icons will not appear on a worklist until the next refresh, so manually click the refresh button to see them immediately.

Alert icons are ***not*** required and administrators can decide which Alerts would benefit from a worklist icon.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #16516 – SUPPORT FOR SEQUESTERING RESULTS FOR CLINICAL TRIALS

Many radiology providers provide imaging studies for Clinical Trials. The images and diagnostic reports for these exams are typically for the sole purpose of providing information to the Clinical Trial team. It is usually inappropriate for the reports to be shared with the patient or their doctors (outside of the clinical trial). Any circumstances which would warrant the sharing of information outside of the Clinical Trial team are almost always handled by the clinical trial staff—not the radiology provider.

For this reason, eRAD RIS now has an option to suppress these exam results, and even the existence of the exam, from the CONNECT Portals and Continuity of Care Document (C-CDA). These exams can also be quickly identified in eRAD RIS by a new Flag icon and warnings are provided to any users who print/distribute reports or burn CDs.

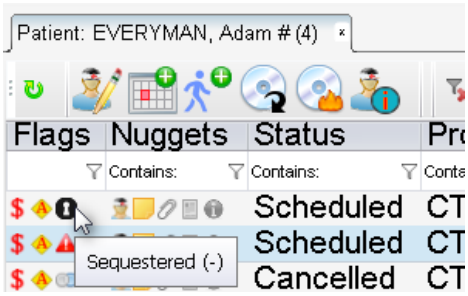
These Clinical Trial studies, and any other study that should be handled in a similar fashion, can be designated by checking a new "Sequester" checkbox on the Order tab.

Any studies that receive this Sequester checkmark will be segregated from the patient's normal exam information in the CONNECT Portals (Patient Portal, Provider Portal, Utilization Management Portal) and the Continuity of Care document (C-CDA), as well as receiving special handling in other ways.

By default, the Sequester checkbox will not be visible to users. Customers electing to use this workflow can grant access by adding the new access strings to User Group permissions. Full access to the access string **Flag.Sequester** will make the Sequester checkbox visible. Full access to the access string **Clinical.SetSequesterFlag** will allow users to designate an order as Sequestered.

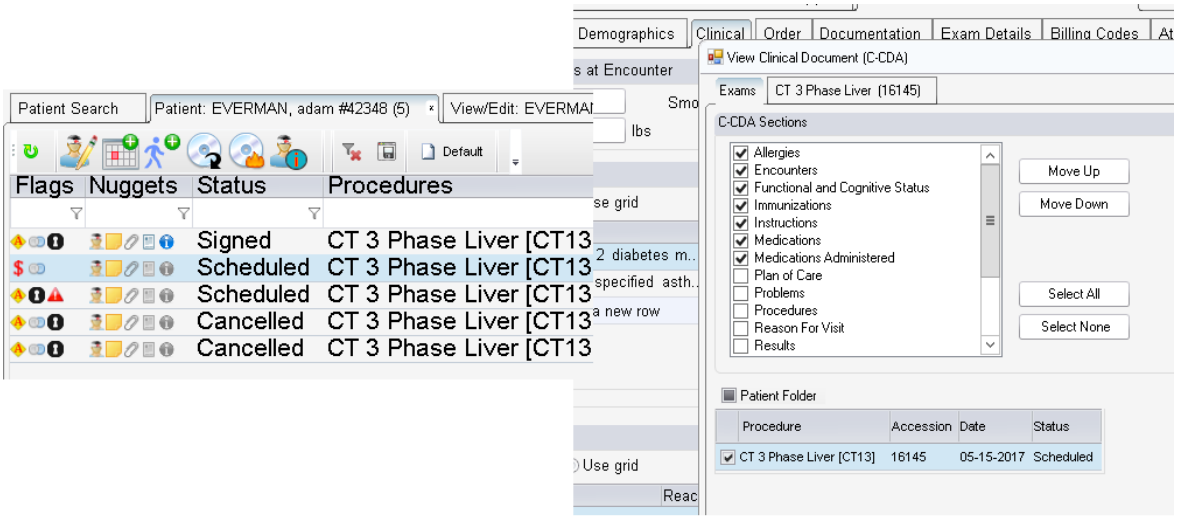
Sequestered studies will display a new Flag icon on worklists and the Patient Folder. The flag is a black "keyhole" image with a tooltip that indicates "Sequestered."

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.



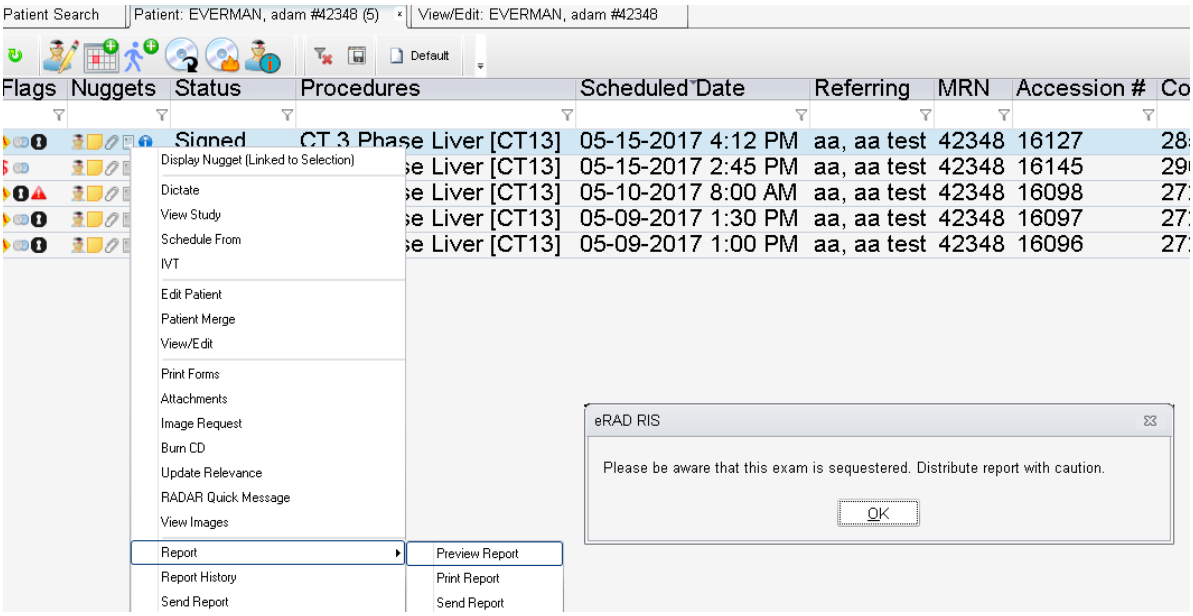

When an order is marked as Sequestered, all mention of any exams on the sequestered order will be suppressed in all CONNECT portals (Patient, Provider, UM). The exam will not be displayed in the patient's history/search results or any worklists. The portals will behave as if the exam does not exist.

When generating Continuity of Care (C-CDA) documents from the Portals *or* inside of the RIS, the Sequestered exams will not be displayed. For example, only one exam for the Patient Folder pictured below is ***not*** sequestered. This will be the only procedure displayed on the C-CDA.




Finally, when a user prints, previews, or distributes reports ***or*** burns a CD for a sequestered exam, eRAD RIS will display a warning message. For example:

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.



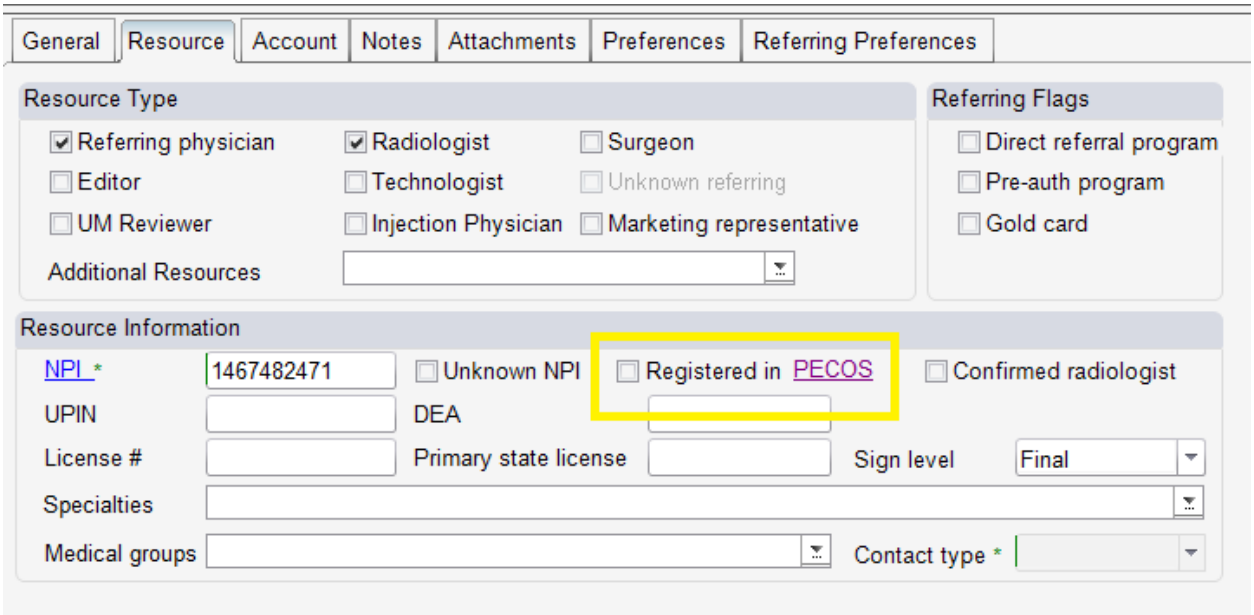

Users are able to continue the requested workflow, so that reports/CDs can be distributed when there is a valid reason to do so (distribution to a member of the Clinical Trial team or other valid reasons). However, the chance that the user might accidentally distribute the information inappropriately will be reduced by calling their attention to the fact that the exam is sequestered.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #11006 – PECOS HYPERLINK IN PERSONNEL EDITOR

For United States customers billing Medicare, referring physicians must be registered in Medicare's Provider Enrollment Chain and Ownership System (PECOS) to prevent claims from being denied. When adding physicians to the Personnel editor, there has historically been a checkbox to indicate that the physician is registered in PECOS. Customers have expressed a desire for a hyperlink to the PECOS website, similar to the hyperlink for the NPI field. This would make it easier to check the PECOS website to verify whether the referring physician is registered.

There is now a hyperlink for the PECOS website on the Resource tab of the Personnel editor:




Clicking the underlined word PECOS will open a small window with the PECOS website. The web address can be updated in the System Configuration table if needed.

| System Config Code | Value | Default | Description |
|---|---|---|---|
| Contains: pecos_ | Contains: | Contains: | Contains: |
| PECOS_URL | https://data.cms.gov/Medicare-Enrollm… | https://data.cms.gov/Medicare-Enrollme… | (value = string) URL to PECOS website including placeholder for {NPI} |

As with the hyperlink for NPI, the PECOS checkbox and hyperlink are disabled unless the Referring Physician or Radiologist Resource Type is selected. Once it is activated by selecting the applicable Resource Type, clicking the hyperlink will open a small browser with the search bar prepopulated with the information entered in the Personnel editor, including the name and NPI number. Focus will be set to the website's search bar, so the user can simply press enter to trigger the search.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

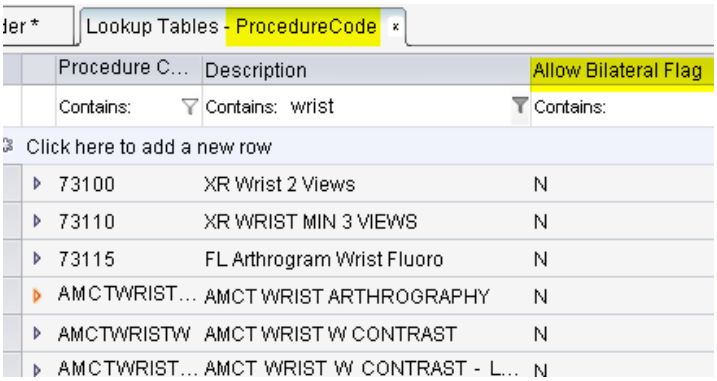
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #16774 – RESTRICT BILATERAL OPTION ON CERTAIN PROCEDURES

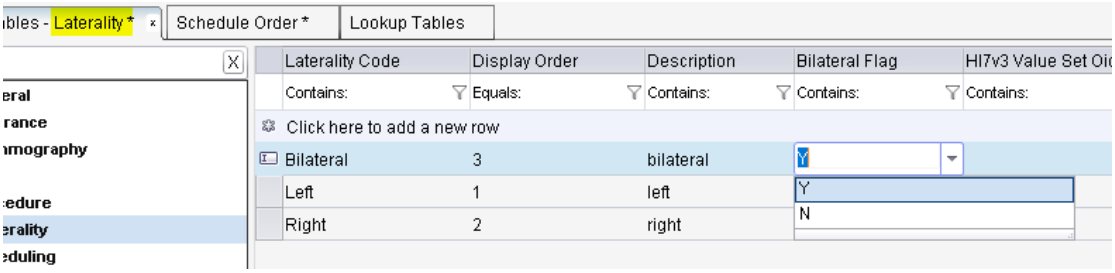
This feature is designed to address a common issue with imaging on paired body parts (often extremity imaging). Laterality must be chosen for these exams so that it is clear which side is to be imaged: right or left. The problem was that when laterality is chosen, all laterality options configured in the system were available, including bilateral. Many procedures require special handling to ensure appropriate billing for a bilateral exam. In these cases, there are often separate procedures created for unilateral and bilateral options, so that the appropriate billing codes and modifiers can be associated to the procedure codes. If a bilateral laterality is chosen (and subsequently performed) for one of these exams that was configured for unilateral billing, the appropriate billing is not applied and the customer does not get paid for the second side.

To solve this issue, eRAD RIS now allows a RIS Administrator to indicate whether a Procedure Code should allow a bilateral laterality.

A new column has been added to the Procedure Code look-up table: **Allow Bilateral Flag**. The default setting is Y (for Yes) which will allow bilateral to be selected. Any existing procedure codes will automatically be set as Y at the time of upgrade to maintain existing behavior.




Because customers may use various Laterality codes, RIS also needs to allow a RIS administrator to indicate which Laterality Codes are bilateral. A new column has been added to the Laterality look-up table for this purpose: **Bilateral Flag**. Customers should set this to Y for any bilateral lateralities.




No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

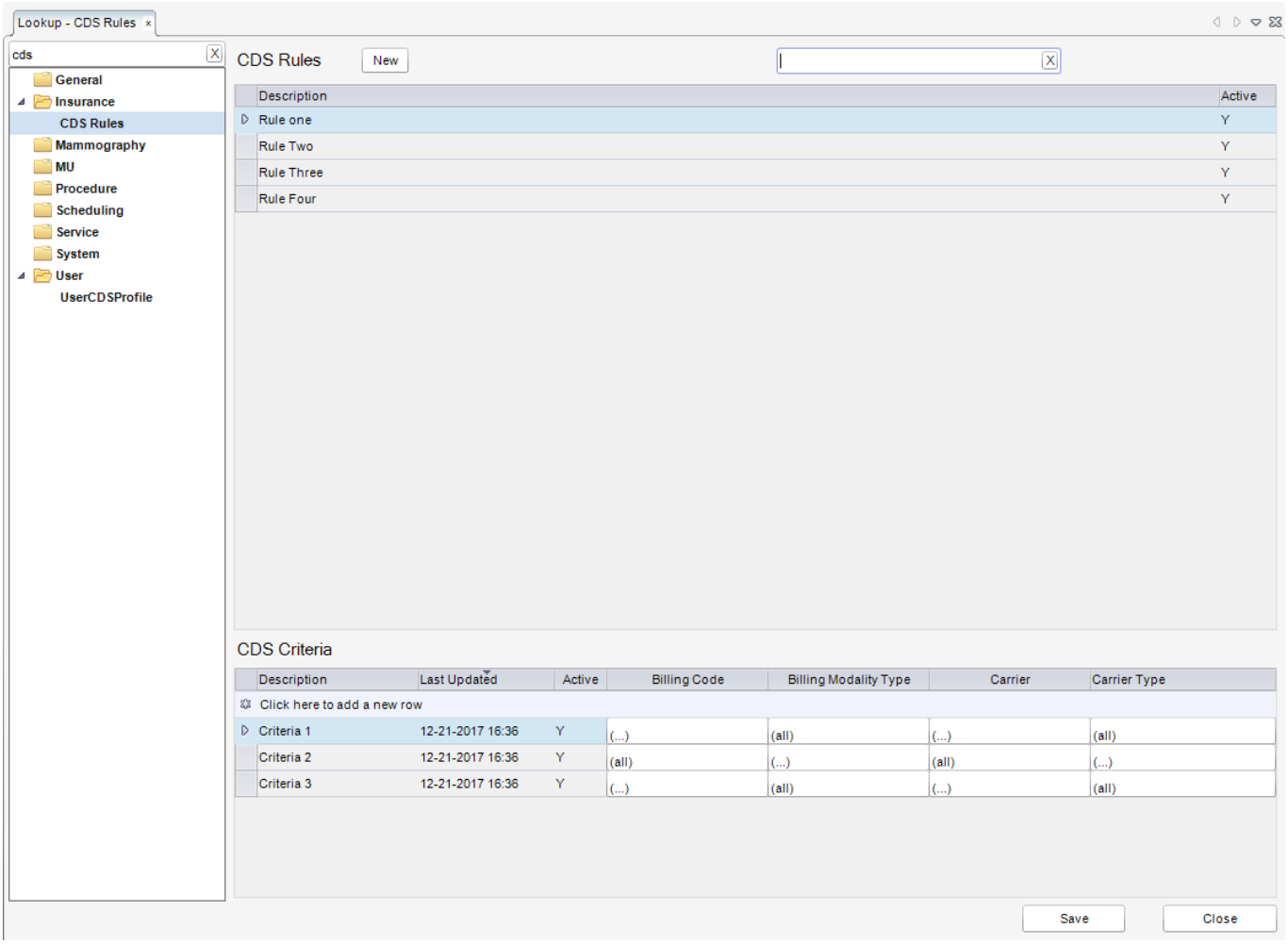
Then, the Procedure Code table can be reviewed for any procedures that should not allow bilateral laterality to be selected. The desired procedures should then be set to Allow Bilateral Flag = N to prevent users from selecting an inappropriate laterality.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #17133 – ABILITY TO CREATE RULES TO REQUIRE CLINICAL DECISION SUPPORT

As eRAD RIS moves forward with Clinical Decision Support capabilities, it was necessary to create a mechanism to indicate when Clinical Decision Support (CDS) is required. An administrator needs the ability to configure CDS Rules based on the following criteria: Billing Codes, Billing Modality Type, Carrier, Carrier Type.

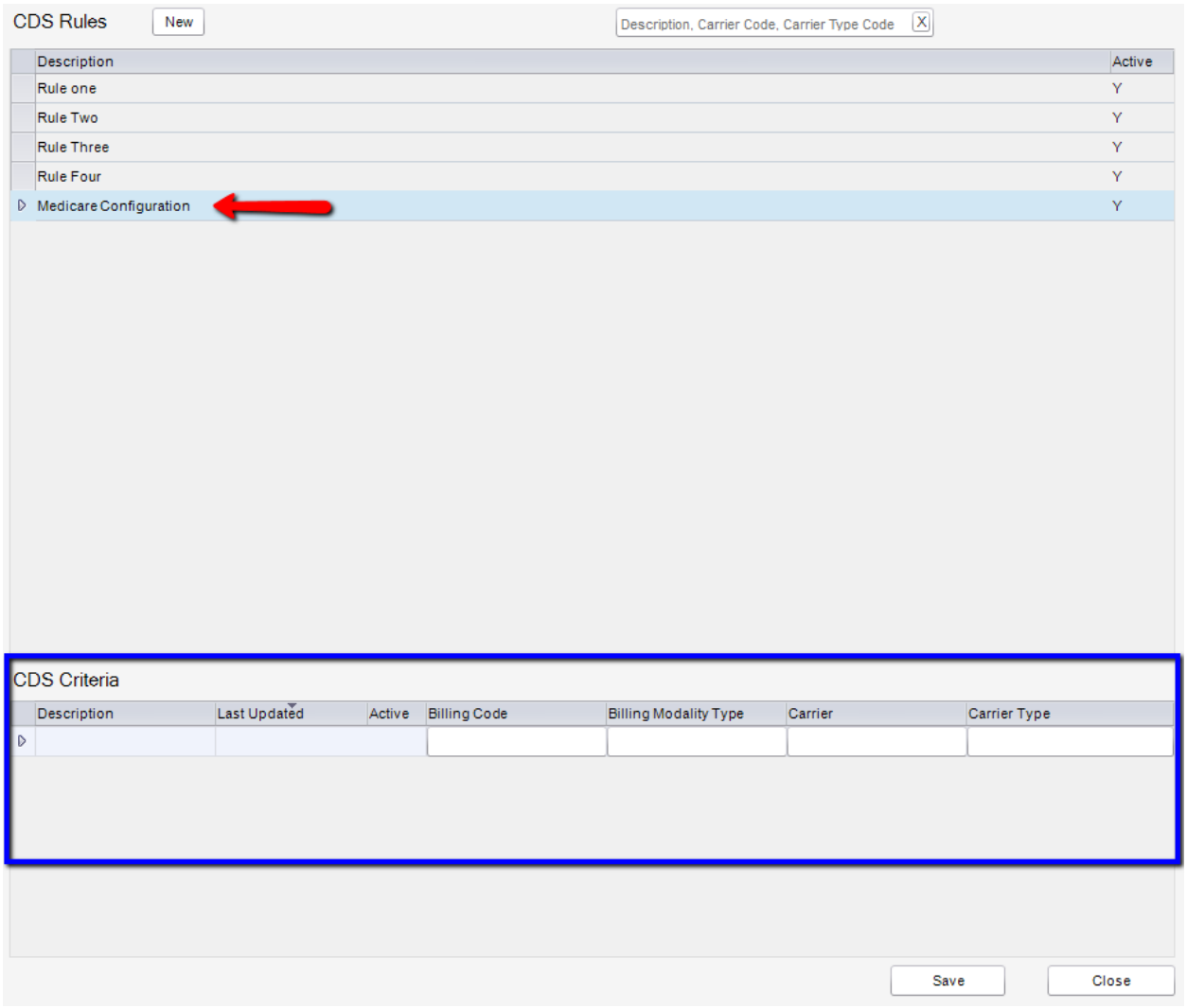
To do so, a new look-up editor, **CDS Rules**, has been added to the Configuration tables. The editor for CDS functions in the same fashion as the existing PreCert Groups editor.




Access to the CDS Rules editor is controlled by a new access string: **Config.LookupEditor.CDSRules** (default = NONE).

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

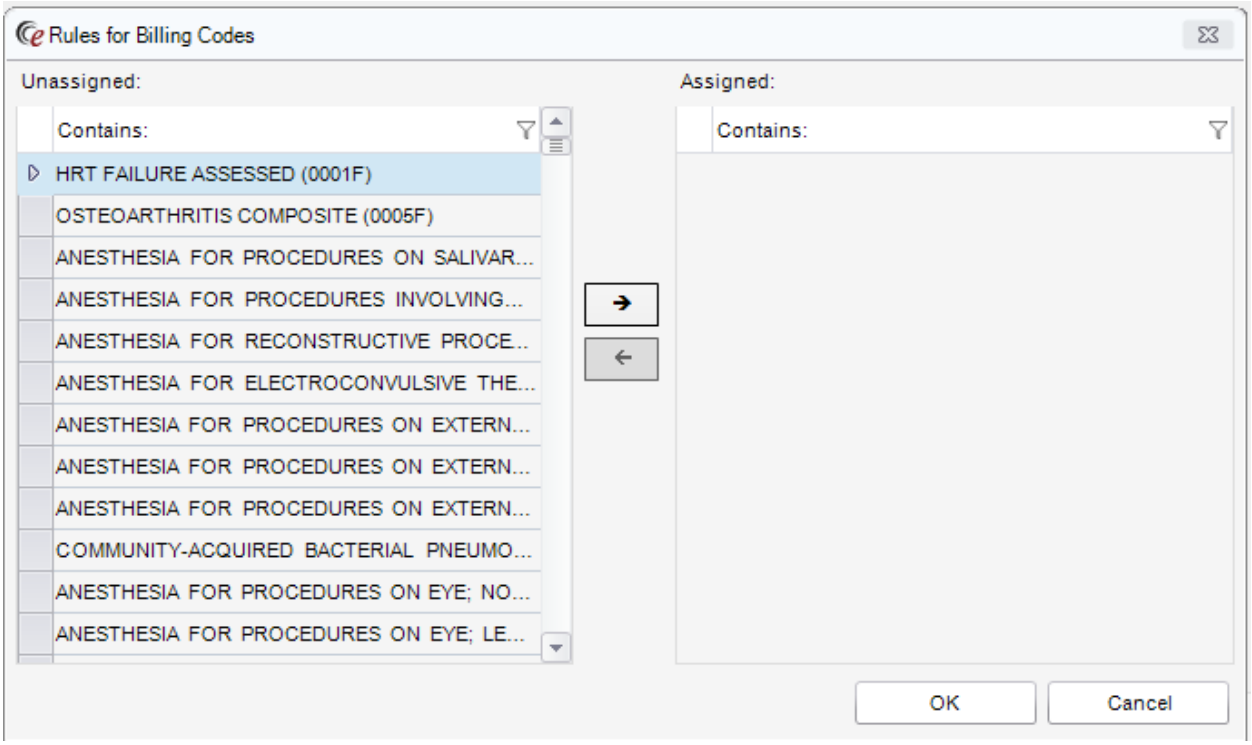
An administrator can create CDS rules by clicking the “New” button at the top left of the editor. First, enter a description for the rule, such as “Medicare Configuration” and click OK.




The rule will be added to the section at the top and the CDS Criteria section will be available to define the criteria for this rule to apply. A CDS criteria ruleset requires a description, a billing component (either Billing Code or Billing Modality Type but not both), and an insurance carrier component (either Carrier or Carrier Type but not both).

Each of the criteria has a button that launches a dialog that allows the administrator to choose one or more options:

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.




The button for launching the dialogs will either display “(all)” or will show “(…)” which signifies that this option has been configured with a subset of items. It is preferable leave all options as “Unassigned” if the intent is to match to **any** possible option.

The administrator is free to use a single CDS Rule with multiple criteria rulesets (i.e. rows at the bottom of the screen), or multiple CDS Rules, generally with one criteria ruleset each. With PreCert Groups, some administrators have elected to create many groups named after the Carriers or Carrier Types that they describe, while others have opted to have a single group and then create multiple rule sets (e.g. one per billing modality type).

## RULESET EVALUATION

For a rule to be considered a match, one or more ruleset row must match on all criteria. That is, the different criteria for a single row must match on the Billing Code/Billing Modality Type component and match on the Carrier/Carrier Type component.

If RIS or a Connect Portal need to determine whether CDS is required, the criteria will be evaluated and if any of the individual rows match, then CDS will be deemed to be required.

The Connect portal, or any other entity calling for the information of whether CDS is required, can pass a single Carrier and one or more Billing Codes. There is no support for querying on Carrier Types or Billing Modality types directly; these are inferred from the specified Carrier and Billing Codes.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

The filtering logic does not consider whether a carrier is the primary or secondary carrier. It is left up to the caller to determine if secondary carriers are relevant.

## VALIDATION OF CDS RULES

Validation is enforced on the CDS Rules to ensure that:

- a ruleset (i.e. a single row on the bottom portion of the editor) includes a billing component and a Carrier/Carrier Type component.
- a ruleset does not include Billing Codes AND Billing Modality Types *or* Carriers AND Carrier Types.
- each ruleset has a description.
- if there are multiple CDS rules (entries at the top portion of the editor), then a single Carrier does not appear in the assigned Carrier list of more than one rule.

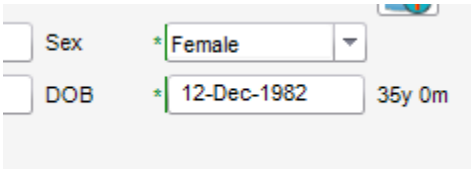
Before saving or allowing the user to switch from one CDS Rule to another (i.e. switching rows at the top portion of the editor), the current CDS rule is validated and any errors will be displayed to the user.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #17786 – SUPPORT THREE ALPHA-CHARACTER MONTH IN DATE FORMAT (DD-MMM-YYYY)

In some areas of the world, there can be inconsistency in whether dates are written as dd-mm-yyyy or mm-dd-yyyy. Because this can lead to data discrepancies, some customers require the ability to configure their system to use a date format of dd-MMM-yyyy, where MMM is the 3 letter alpha representation of the month (e.g. 12-AUG-1954 or 01-JUN-2017).

Previously, the Date Format configuration in eRAD RIS did not support alpha characters. This is now possible. All dates, including fields and worklist data, will display the date with the alpha-character month if configured to do so.




To use this date format, change the **DateFormat** System Configuration setting to any of the following options:

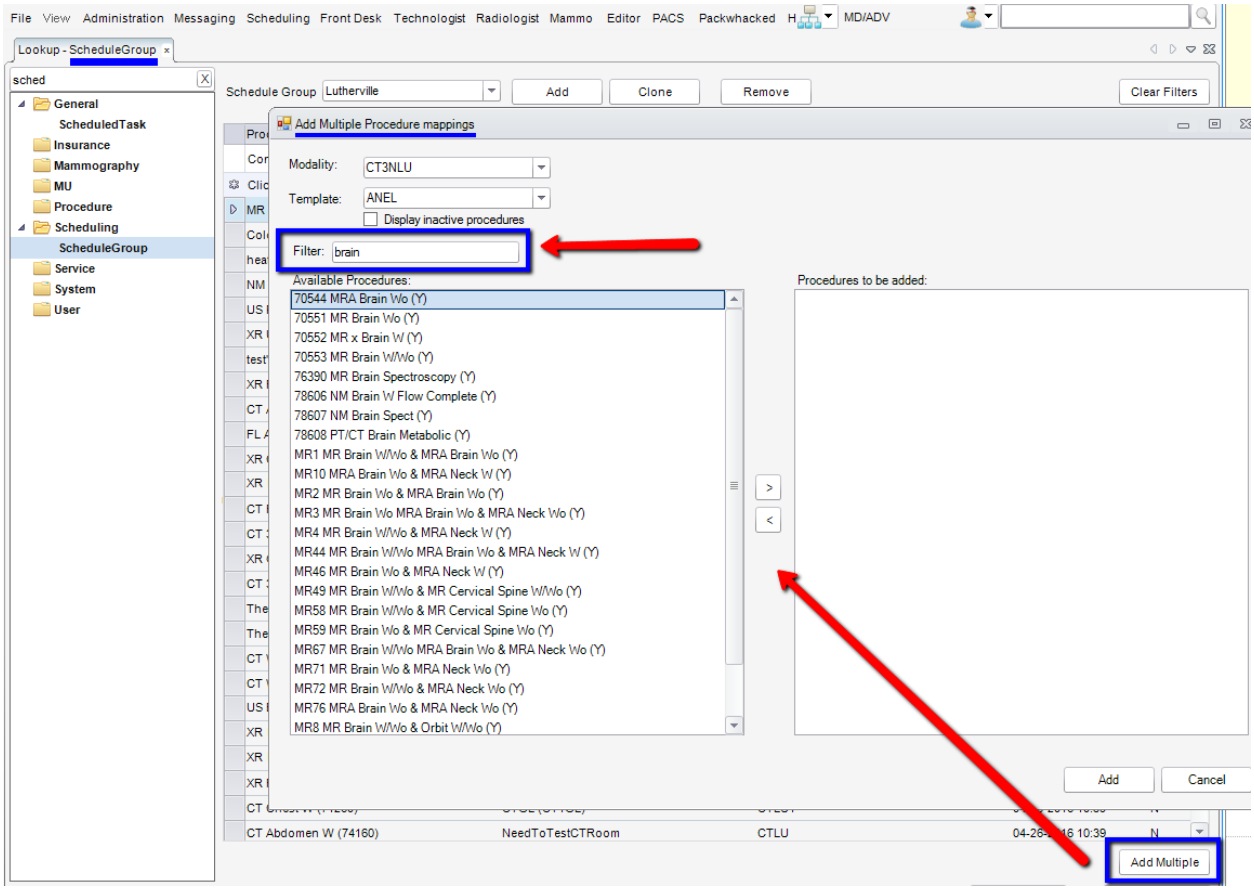
- dd-MMM-yyyy
- dd/MMM/yyyy
- ddMMMyyyy
- dd MMM yyyy

It is recommended that a log out take place after making a change to DateFormat.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #7006 – FILTERING NOW AVAILABLE WHEN ADDING MULTIPLE PROCEDURES TO THE SCHEDULE GROUP TABLE

When using the **Add Multiple** button in the Schedule Group look-up table, it is helpful to be able to filter the procedure list to easily find the procedures that need to be added. There is now a **Filter** field on the Add Multiple Procedure Mappings screen. Typing in this field will act as a "Contains" search and will narrow down the list of Available Procedures to those that contain the text in the Filter field.




No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

# VALIDATION RULES

## FEATURE #16594 – VALIDATION RULES FOR RADIOLOGIST AND EDITOR SCREENS

Because the Radiologist and Editor screens were designed differently from many other screens in RIS, they needed special handling for validation rules. These screens have been enhanced to use custom validation prior to saving, including "save, next" type workflow.

Like other screens in RIS, validation is tightly coupled to controls that allow the user to edit data. On the Scheduling screen for example, a validation rule could be tied to the patient's middle name and the user would have the ability to fix the data if validation failed. On the radiologist and editor type screens, there is a lot of data that is read only (e.g. Patient Name) and RIS will not validate them directly. These screens have been updated to validate the ***editable*** data (e.g. the report, BI-RADS, Recommendations, Findings, Assign To, etc.).

Although only the editable controls are being validated, conditions can still be attached to other data relating to the study, such as gender, patient age and laterality.

As with other screens, the save buttons set an "intended UI action" that can be used to ensure that a rule is only enforced when Dictating or Signing an exam, as opposed to validating prior to any study update. A validation rule currently allows a maximum of one intended UI action. If a rule is built referencing ReportSigned, it will need a twin rule that references Tentatively Signed, if that status is also desired.

When configuring validation rules, the field **interpretation_text** can be used to reference the contents of the report. Special handling was put in place to ensure that RIS processes the plain report text instead of the true interpretation text, which could include picklists that contain options that were not selected by the radiologist and therefore will not appear in the report (e.g. A picklist containing a list of BI-RADS, only one of which was selected, should not be considered during the validation process—only the selection that will be included in the final report should be used.).

Validation rules in a PowerScribe 360 reporting environment is not fully supported at this time. The report contents and actions taking place in the third-party environment cannot be evaluated by the validation framework. In an environment that has *some* users using PowerScribe 360, conditions may be required that indicate that the **interpretation_type_code** is not "PowerScribe360" (i.e. a condition that is a DomainValidator with a domain of "PowerScribe360" that ignores nulls and is set to Negated).

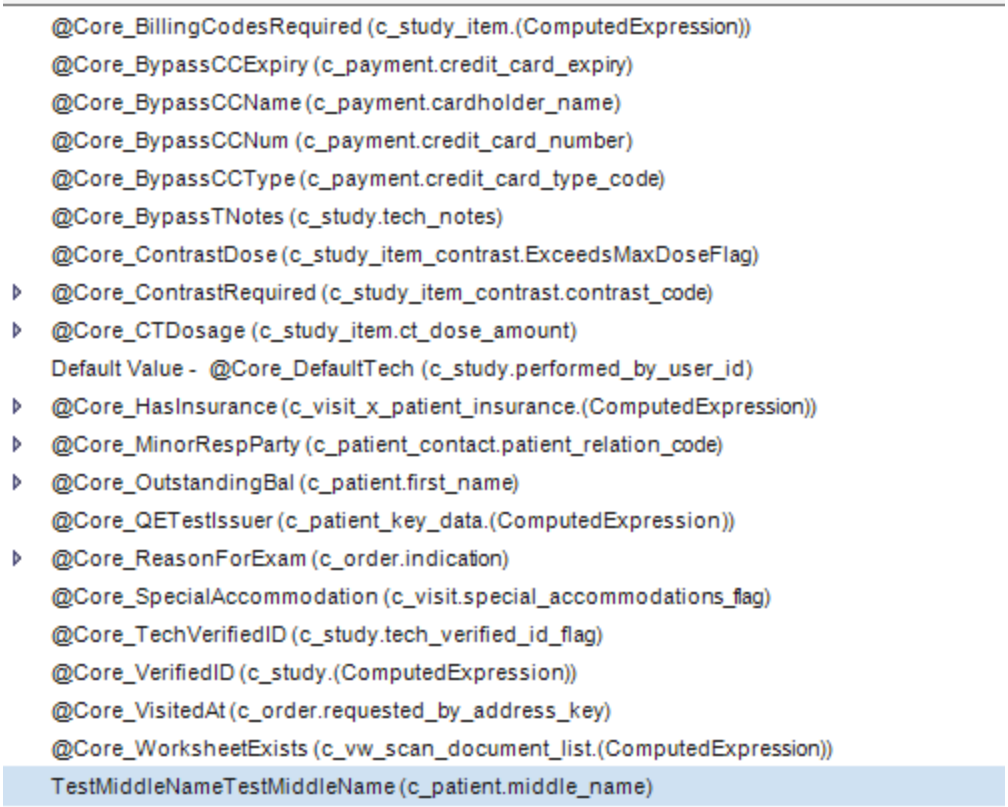
As with other validation rules, rules created for the reporting screens can be either prevent saving or simply provide a warning to the user.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #16341 – EASILY DIFFERENTIATE BETWEEN SYSTEM ADDED AND CUSTOMER ADDED VALIDATION RULES

Validation rules are sometimes included in some of the upgrade scripts, so that they are available after an upgrade should the customer wish to use them. In order to differentiate between validation rules that are added as part of the core RIS system and those that are custom for the individual customer, a naming convention has been established for validation rules that are automatically added during an upgrade.

Validation rules that are included in as part of a RIS upgrade will be prefixed with **@Core_**.




Validation rules that are prefixed with "@Core_" will be read only, with the exception of the message template and the active flag properties. This will allow the Core validation rules to be turned on or off for specific customers, as well as control the message to the user.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

| | |
|---|---|
| **Data Mapping** | |
| DataSetName | Study |
| DataTableName | c_study_item |
| FieldName | (ComputedExpression) |
| **General** | |
| **ActiveFlag** | **True** |
| AlertType | PreventSave |
| IgnoreNulls | True |
| **MessageTemplate** | **Billing codes are required** |
| Name | @Core_BillingCodesRequired |
| Negated | False |
| PracticeCode | |
| ValidatorType | RangeValidator |
| **Misc Parameters** | |
| DefaultValue | |
| DomainMembers | |
| RegexPattern | |
| **Range Parameters** | |
| LowerBound | 1 |
| LowerBoundUnit | None |
| UpperBound | 1000 |
| UpperBoundUnit | None |
| **Status Filters** | |
| IntendedUIAction | UI_PatientArrived |
| OnOrAfterStatus | |
| **Table Expressions** | |
| Expression | min(ActiveBillingCodeCount) |
| ExpressionFilter | active_flag = 'Y' |

An error message will be displayed if any manual rules are created with the @Core prefix.

A migration script was created to rename the existing system rules to “@Core_” rules.

The name property was modified to accept up to 50 characters instead of 20.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

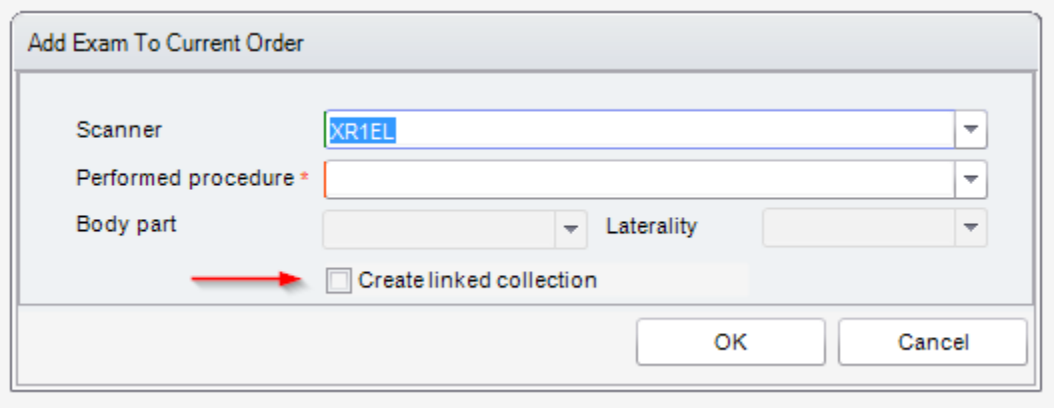
## TECHNOLOGIST

### FEATURE #17803 – ADD OPTION TO LINK REPORTS WHEN ADDING EXAMS VIA PERFORM EXAM SCREEN

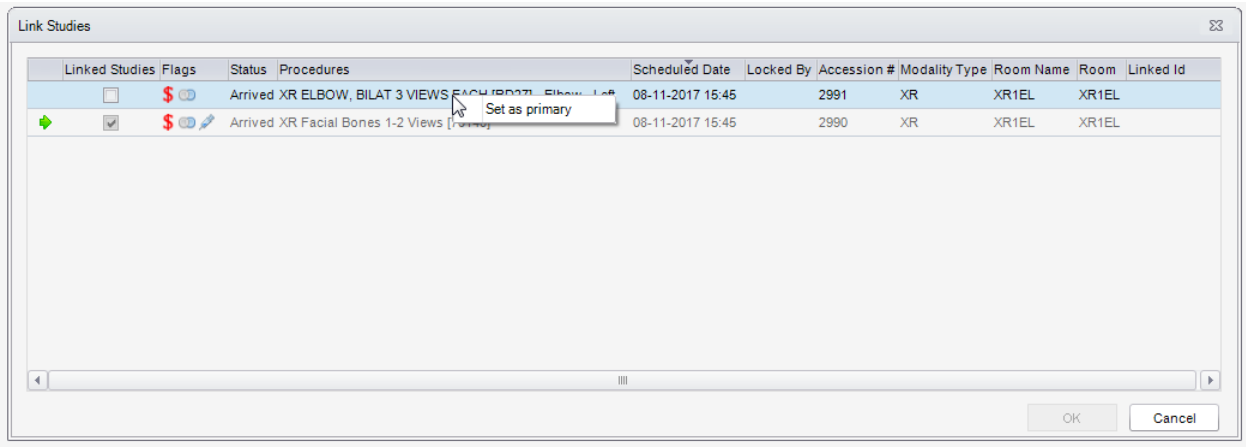
Previously, a feature was created that would allow a technologist to add a new procedure from the Perform Exam screen. If the original exam was part of a Linked Report, the technologist had an option to include the new exam as part of the linked set. However, there are occasions where the new exam might necessitate a NEW linked report scenario.

For example, a patient is scheduled for a Mammogram only, but the radiologist determines that a Breast Ultrasound is needed at the time of the Mammogram. If the customer uses linked reporting for Mammography and Breast Ultrasound, the two exams must be linked in order to report properly. Changes have been made to the feature to allow the technologist to create a new linked set.

If the originating exam was NOT part of a linked set, there will now be a checkbox for "Create Linked Collection."




If this is checked, the existing Linked Studies pop-up window will open once the Add Exam to Current Order window has been saved.




No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

The user will then be able to select any exams on the order to include in the linked set and can choose the primary study. By default, the original study will be primary, but the user can right click another study and "Set as Primary." The primary study will be indicated with a green arrow.

To take advantage of this feature, the user must belong to a User Group with FULL permission to the existing access string **Clinical.Tech.AllowAddExam**.

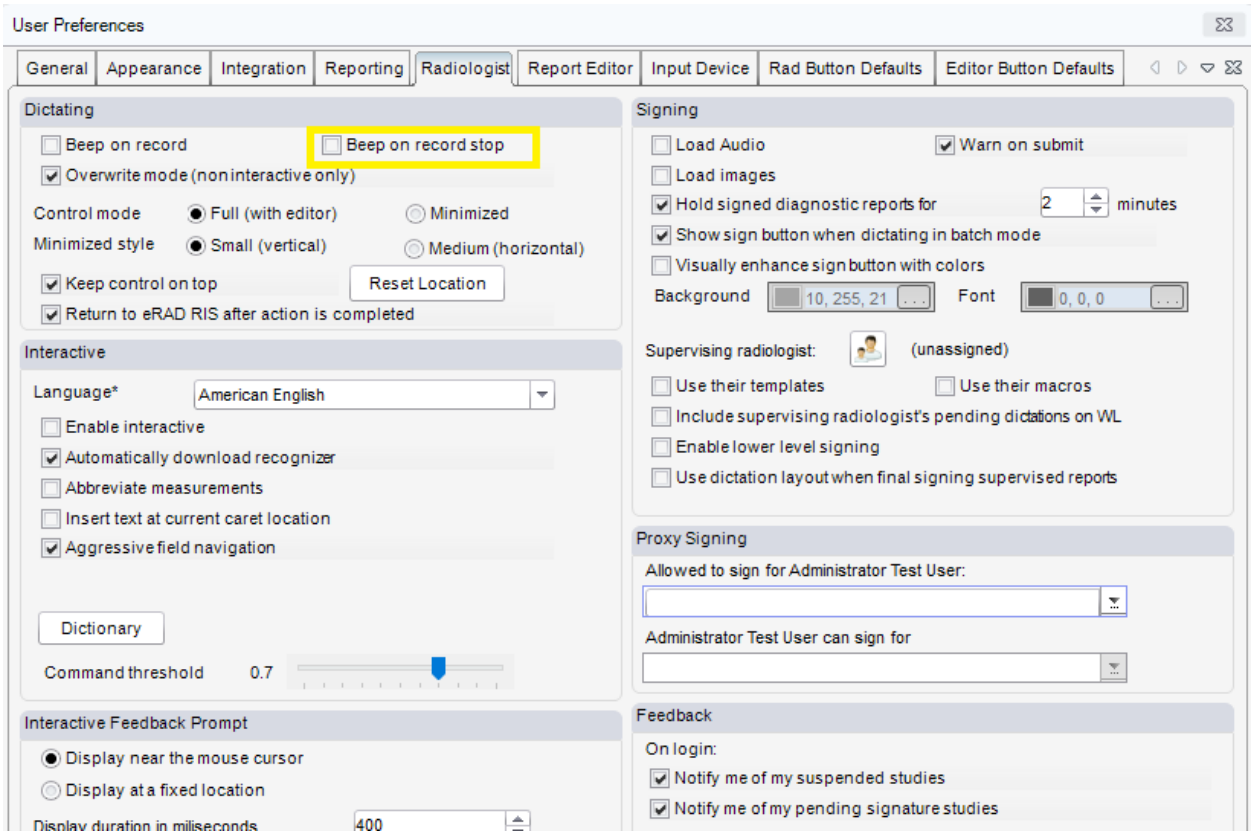
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## RADIOLOGIST

### FEATURE #3805 USER PREFERENCE FOR AUDIO SIGNAL WHEN M*MODAL RECORDING HAS STOPPED

When using M*Modal dictation, there is an existing user preference for **Beep on record** which will play a "beep" noise when dictation recording is initiated. Radiologists have indicated that it would also be helpful to hear an audio confirmation when the dictation recording has stopped.

There is now a new option on the User Preference screen's Radiologist tab for **Beep on record stop**.



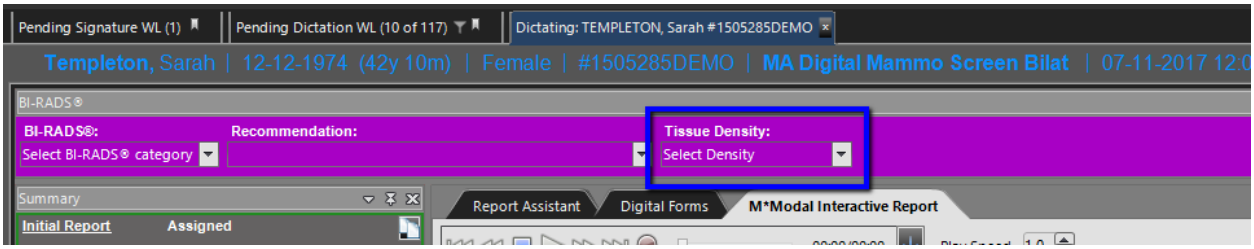

After enabling the beep on record stop checkbox, the radiologist will hear a beep noise after clicking anything that stops the recording. The beep sound for record **stop** is a lower frequency, so radiologists can tell the difference between the two beeps. When both beep preferences are enabled, it will be easier for radiologists to know when they have started or stopped recording their dictation. This will prevent accidental occasions where radiologists dictate without M*Modal capturing the dictation.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #17245 – OPTION TO DISABLE BREAST TISSUE DENSITY DEFAULT

When Mammo Tracking in eRAD RIS was first developed, there was a desire to default the breast tissue density from the patient's prior exam. Though a patient's tissue density may change over time, it is likely to be the same for exams done at short intervals. Even if the radiologist does need to update the density category, defaulting the density from the patient's prior exam is an easy way for the radiologist to see what the most recent tissue density was previously.

However, some customers would prefer to present the radiologist with a blank Tissue Density selection to force the radiologist to select the tissue density each time. This may be desired if there is a concern that the radiologist could neglect to update the tissue density because it is already filled in.




To accommodate this option, eRAD RIS now has a System Configuration setting labeled **DefaultPriorBreastDensity**. The setting will determine whether the patient's most recent breast tissue density is prepopulated when dictating a new breast study.

The default is TRUE, in order to maintain the existing behavior. To prevent the prior density from being populated, change the setting to FALSE.

Note: This setting does not change the behavior for Addendums. Addendums will continue to display the density that was entered for the original report (or most recent addendum).

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #17544 – CHAIR API INCLUDES SCHEDULED START DATE AND SORTS THE RESULTS BY SCHEDULED START DATE

For customers using Chair workflow, issues can occur when the work backlog becomes too large. To alleviate these issues, the Chair API has been enhanced to include the Scheduled Start Date and return the oldest exams first. This will allow the workflow engine to utilize this information to ensure that the oldest cases are assigned out first.

Additionally, a change has been made to the original Chair API design, which limited query results by chair and status to exams that were scheduled within the past 7 days. Because this is undesirable when there is a large backlog of studies to be read, an optional parameter, **IncludeAllDates**, was added to bypass the 7 day filter on Scheduled Start Date. This parameter will default to false if not specified and the original behavior will be maintained.

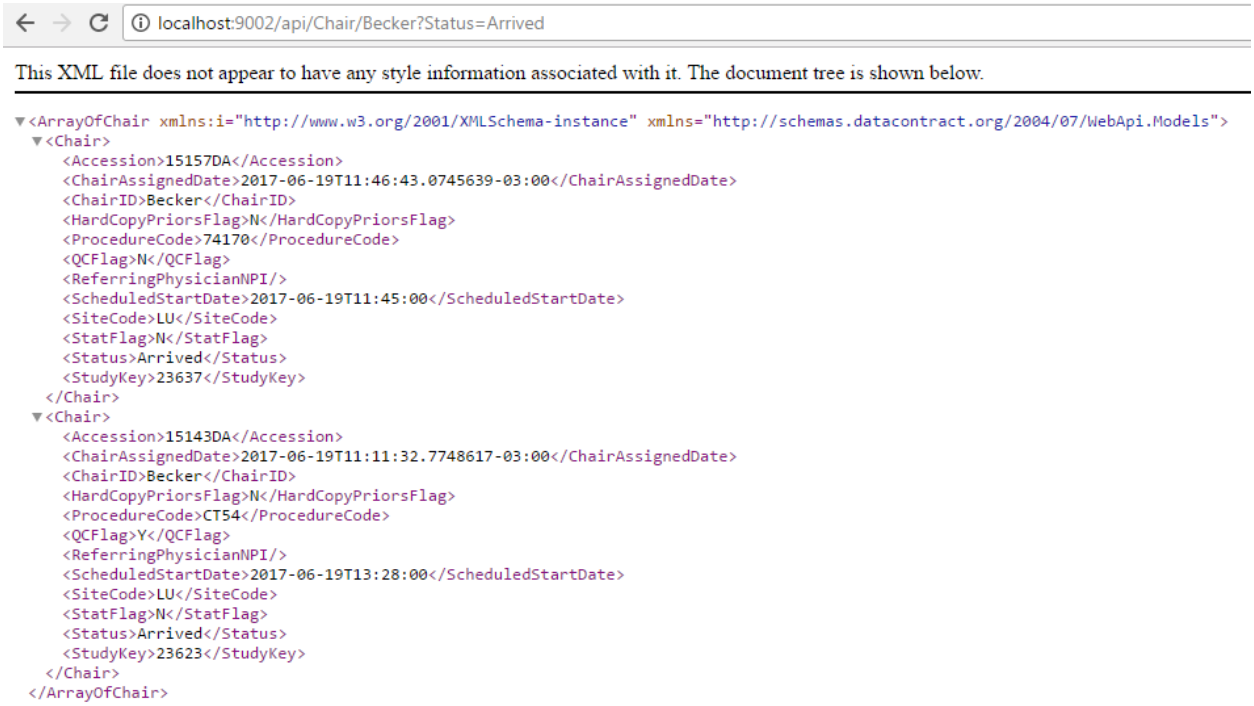



Figure 1 – Get Exam list by chair and status

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

Figure 2a – Get Exam list by chair and status with ReturnAllDates = true to **include** older studies

Figure 2b – Get Exam list by chair and status with ReturnAllDates = false to **exclude** older studies (compare to Figure 2a)

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

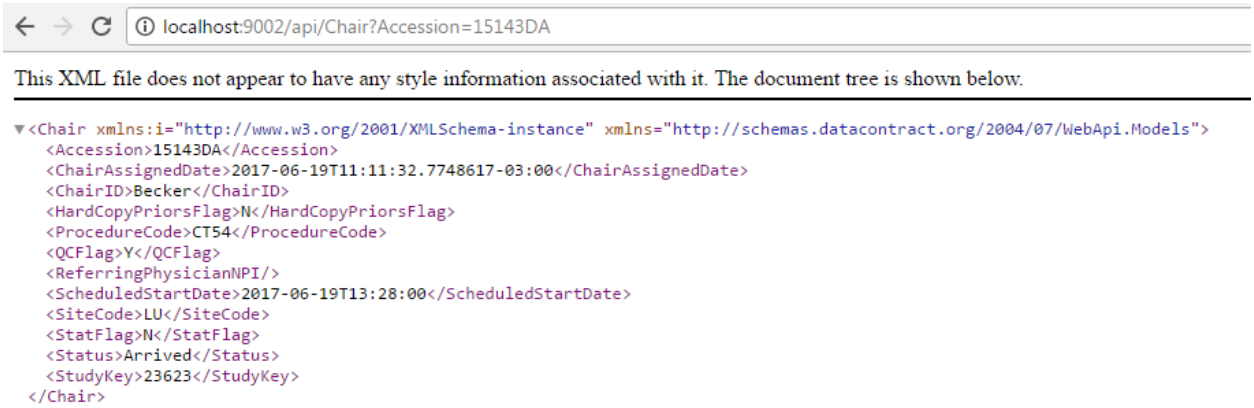


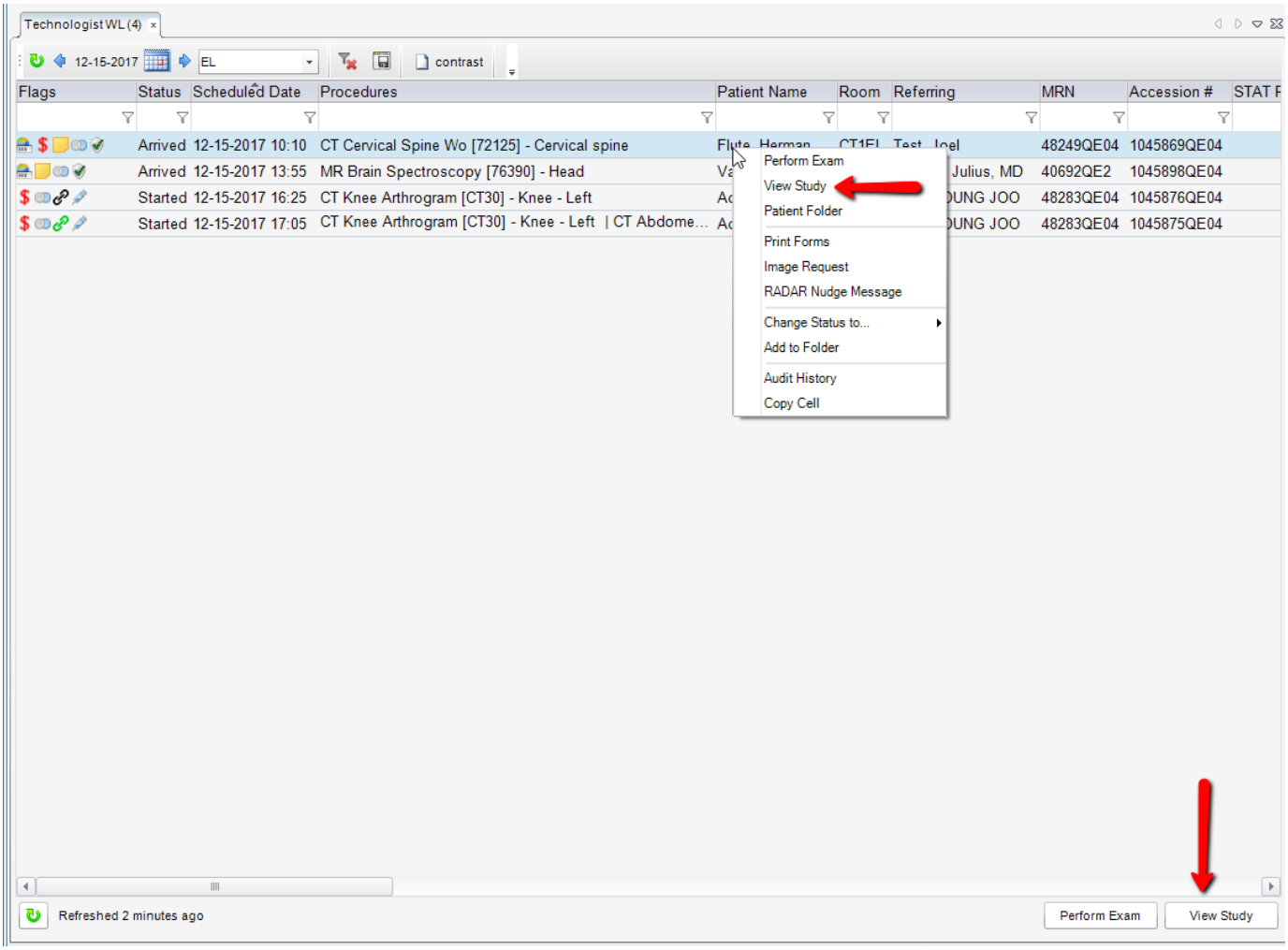

Figure 3 - Get Chair Data by Accession

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #16772 – VIEW STUDY OPTION FOR TECHNOLOGIST WORKLIST

Radiologists sometimes use the Technologist WL to view information about a study in progress. To provide all possible information about the patient's exam, including PACS images, attachments, Digital Forms, etc., the View Study option is best suited to their purpose. For this reason, the View Study button and right-click context menu have been added to the Technologist WL.

The button will be available in the lower right corner of the screen for exams in an Arrived or Started status. It is possible for both View Study and Perform Exam to be open simultaneously for the same patient.




No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #4766 – IN QA WORKFLOW, AUDIO AND TEXT POSTIONS WILL BE MAINTAINED WHEN REJECTING REPORT

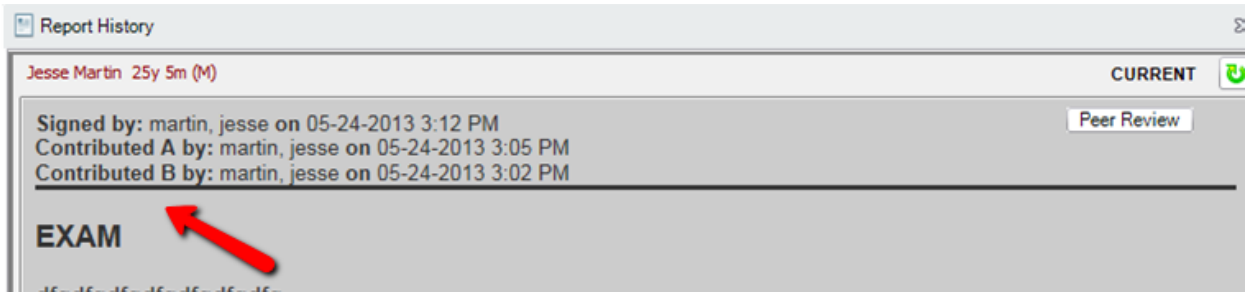
Previously, when a QA user rejected a report, the audio would return to the beginning of the recorded voice file. For convenience, RIS will now maintain both audio and text positions at the point the user rejected the report. This feature is applicable for both M*Modal and eRAD reporting modes. No configuration is required to activate this new behavior.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #16825 – SHOW "CONTRIBUTED BY" INFORMATION IN THE NUGGET REPORT VIEW

Customers using Contributing Radiologist workflow (sometimes known as “Fellow Workflow”) would benefit from the ability to see any contributing radiologists listed in the Nugget view of a report. This makes it easy to identify all radiologists who were involved with the report.

Contributing radiologist information is now listed below the signing radiologist, as seen below.




No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## PACS INTEGRATIONS

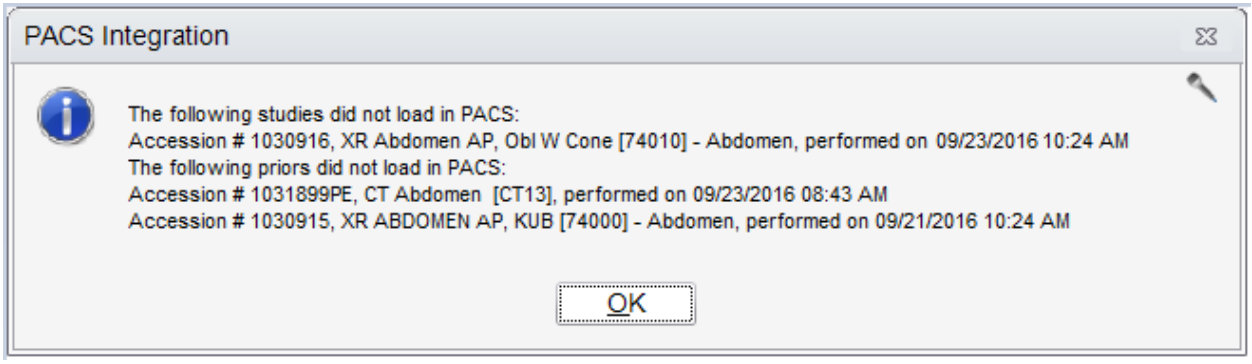
### FEATURE #16806 – MORE INFORMATIVE MESSAGE WHEN STUDIES CANNOT BE LOADED IN ERAD PACS

Previously, when a study could not be loaded in eRAD PACS, the message that would be displayed in eRAD RIS listed only the Accession number for the study that failed to load. Accession numbers aren't very meaningful to the radiologist, who had to compare the numbers with the Patient History panel to figure out which study matched with the accession number.

To improve this experience, the Failed Studies message now contains more details about any primary studies or relevant priors that fail to load. The message will include the following information:

- Accession #
- Procedure Code/Description
- Date of Service
- Time of Service

The following image depicts an example where the primary study *and* two priors could not be loaded in PACS.




No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #16804 - ERAD PACS - SORTING PRIORS IN REVERSE CHRONOLOGICAL ORDER

The loading of prior studies in the PACS should be done in reverse chronological order, regardless of the percentage of relevance. The most relevant priors will be calculated as before, but the sort order will now be in reverse chronological order for the priors that are selected for loading. This is applicable in two areas:

1) When performing the initial open, any priors will be sorted prior to sending the open call to PACS.
2) When appending another prior RIS either needs to tell PACS to insert it at a particular index, or the whole list (including the new prior) needs to be sent again.

Date is determined on the basis of Performed first. If Performed Date is not populated, then Scheduled Date will be utilized, which will always be populated.

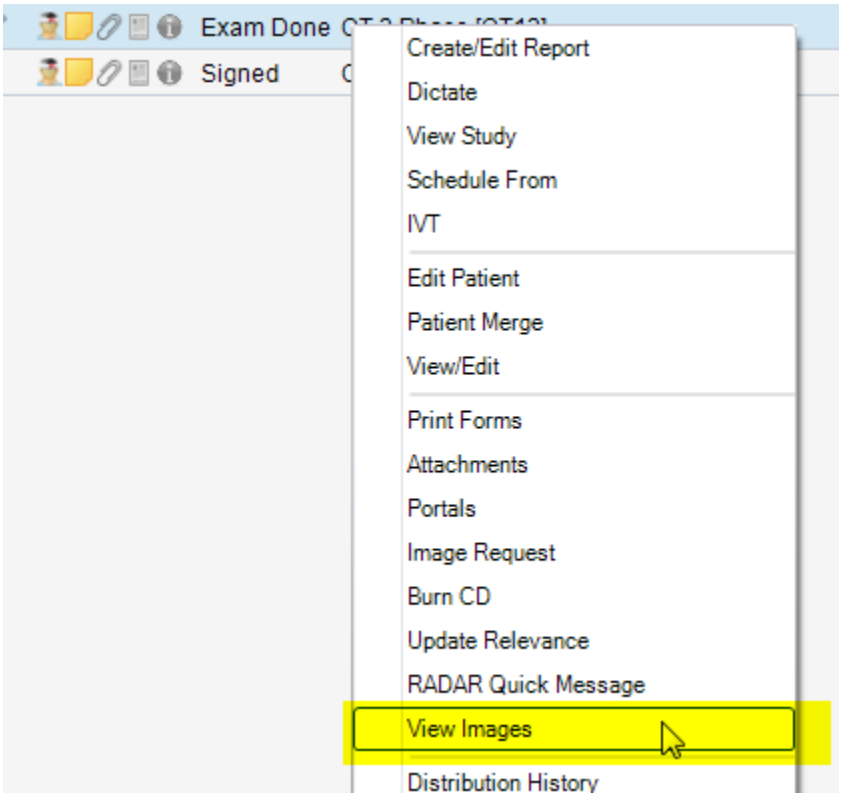
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #16805 AND 6102 – REMOVE PRIORS FROM PACS SESSION

It is now possible to remove selected studies from a PACS view session via a Remove call to the PACS or, for PACS integrations that do not support a Remove call, by issuing a Close command, followed by an updated Open command. This functionality is possible from the Patient Folder or from the Patient History control on the Reporting screens.

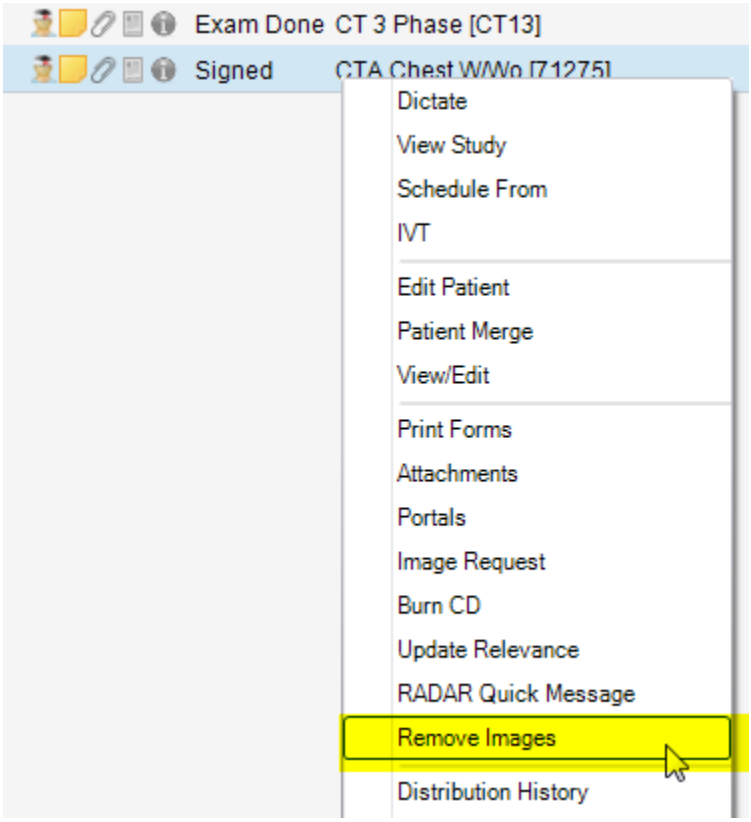
### Patient Folder

The Patient Folder previously had a **View Images** context menu item which would open a new view session with the selected study. Subsequent use of the menu item would append the selected study to the already opened view session, if the PACS integration supported it.




When right-clicking on a study that has already been added to the view session, the **View Images** menu item is now replaced with **Remove Images**. Selecting this item will remove the images for the selected study or studies from the view session.

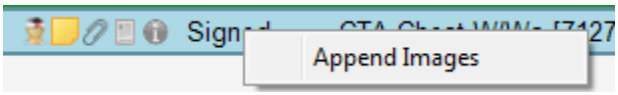
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.



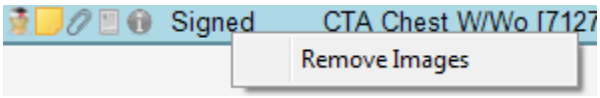

The first study that was selected prior to the first execution of **View Images** is considered the primary, or current study, and cannot be removed from the view session.

### Radiologist Patient History Control

The previous behavior in the Patient History control was that double-clicking on a row would load its images into the PACS view session if they were not already loaded. This still applies, but a context menu has also been added so that right-clicking a row displays an **Append Images** menu item. Clicking this option will result in the same behavior as a double-click of the row: loading images into the existing PACS view session for the selected study or studies.




Once the images for the study have been loaded into the view session, right-clicking the row will display a **Remove Images** menu item instead.




No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

If a mixture of studies that are loaded and studies that are *not* loaded in the PACS view session are multi-selected, neither option will be available.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #15636 - NON-ERAD PACS INTEGRATIONS CAN NOW SUPPORT APPEND ACTION VIA CLOSE/OPEN

There are several PACS integrations with PACS systems that do not support appending additional images, such as Infinitt and Sectra PACS. Previously, once images were opened for these integrations, it was not possible to select additional studies in RIS to add their images to the open PACS window.

Changes have been made to perform a new series of actions when a second study is selected from the Patient Folder or from the Patient History (mini-Patient Folder) panel in the Reporting screens. If the PACS integration does not support an "Append" call (i.e. add the images to the already open PACS session), RIS will tell PACS to close the first study's images and then re-open them along with the additional images requested.

Note: some additional work will be done to optimize this functionality for the GE Universal Viewer integration.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #16812 – 3RD PARTY SYSTEMS CAN QUERY RELEVANT PRIORS

In some RIS-PACS integrations, both RIS and PACS have their own mechanisms to determine which studies are relevant priors. This can lead to confusion when one system does not match the other. eRAD RIS now supports an interface where the PACS can query the RIS for these relevant priors, making for a more seamless and consistent integration.

A new web method has been created on the External Interface service called **GetRelevantPriors** which accepts one or more accession number. The web method returns the appropriate priors and their identifiers related to the accession numbers provided.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #11486 – MIM INTEGRATION

eRAD RIS now supports integration with MIM software (https://www.mimsoftware.com/). It is possible to open, close, or append patient images in MIM in conjunction with actions taken in eRAD RIS. Radiologists using MIM will find that this integration allows them to dictate these cases without the extra step of searching for the patient in MIM when opening a case for dictation.

MIM is now an option to configure as the "PACS" to use for any relevant procedure codes or modality types, using the pre-existing **Reporting Option** configuration table.

As with some existing PACS integrations, MIM does not provide a response back to eRAD RIS indicating that its request was successfully completed. Therefore, it is not possible for RIS to prevent images from becoming out of sync if the radiologist moves to another case while MIM is unable to action the request to close the previous images and open the new patient. As with other integrations of this type, radiologists will need to be aware of this risk and confirm that they are viewing the correct images.

If interested in using the MIM integration, please contact eRAD Support. Additional information about the Reporting Option configuration can be found in the Release Notes for eRAD RIS version 2016.7.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## MAMMOGRAPHY

### FEATURE #16781 – MAMMOGRAPY TAB NOW AVAILABLE FOR BI-RADS ENABLED PROCEDURES EVEN IF THEY ARE INACTIVE

Previously, the Mammography tab on View/Edit was only available if the procedure code was both Active ***and*** BI-RADS enabled. This could cause a problem when a customer restructures their Procedure Codes and deactivates a BI-RADS procedure that they no longer wish to use going forward. Pathology results could not be entered for the deactivated procedure codes unless they happened to be on the BI-RADS 0 or 4/5 WLs.

In order to record incidental cancer findings without needing to reactivate the procedure, a change has been made to the behavior of the Mammography tab. The tab will now be displayed for any BI-RADS enabled procedure, even if that procedure code is inactive.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #15357 – USE REAL-TIME INBOUND RADAR MESSAGING FOR APPOINTMENT REMINDER CONFIRMATION

Previously, RADAR Appointment Confirmation messaging relied upon Mirth channels for the outbound and inbound messaging interfaces. With this new feature, the need for inbound Mirth channels is eliminated by instead expanding the existing inbound RADAR messaging support (SignalR) to include Appointment Confirmation messages. The real-time nature of this feature will provide quicker feedback to appointment confirmation messages, reducing time delays that are inherent in the existing Mirth interfaces. Appointments will drop off of the Confirmation WL in a timely manner as patients reply to their Appointment Confirmation messages.

A single Wedge service using the RADAR plug-in that is currently in place for processing outbound Patient Portal email messaging and RADAR SecurePIC messaging can now replace all of the Mirth inbound channels configured for Appointment Confirmation messaging.

This feature will:

- Eliminate the use of Mirth channels for inbound Appointment Confirmation messaging.
- Eliminate the use of text files for returning confirmation responses back to eRAD RIS.
- Reduce the use of shared folders to exchange data between eRAD RIS and RADAR.
- Allow Confirmation responses to be sent in **real-time** to the Wedge service from RADAR Signal event broker (no polling delays).
- Update the Confirmation Status and Confirmed flag for a study when a patient confirms an appointment via phone, email, or text.

Once enabled, Appointment Reminders that are confirmed by the patient (via phone, SMS or email) will be marked as Confirmation_Status_Code = Confirmed and Confirmed_Flag = Y. As a result, the appointment will fall off of the Confirmation WL.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #8498 – REPORT DISTRIBUTION VIA RADAR EMAIL WILL REFLECT APPROPRIATE EMAIL DELIVERY STATUS IN RIS

It has previously been possible to distribute diagnostic reports via secure RADAR emails; however, the Document Distribution status would only reflect whether the report was successfully delivered to the RADAR server. In the case of an invalid email address or other problem, it is still possible that the report will not be successfully delivered to the recipient.

Now, eRAD RIS will more accurately reflect the Document Distribution status for email delivery. When the report has been delivered to the RADAR server, the Document Distribution status will now be "In Progress." It will remain in this status until RADAR indicates that the email was delivered successfully to the recipient. In this case, the status will update to Completed. If RADAR is unable to deliver the email, the status will update to Error. The Activity Log column will display additional details regarding the error, indicating that the secure email could not be delivered and listing the recipient name and email address.

In order to receive RADAR status updates on the email delivery, the value for new System Configuration setting, **InboundRADARMessageFilter,** discussed in the feature above, must contain "Report Delivery" as a valid inbound RADAR message type.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #17778 AND 17779 – SEND RADAR NUDGE MESSAGES TO ANY NUDGE ENABLED USER FROM A WIDE VARIETY OF WORKFLOWS

A RIS user may need to contact a co-worker, manager, or radiologist about a patient in a wide number of scenarios. A scheduler may have a question for the billing department. A manager may want an employee to correct a mistake. A technologist may need to let the radiologist know that the patient is prepped for their biopsy procedure.

Until now, RADAR Nudge instant messaging was primarily a tool for the radiologist when used with the eRAD RIS integration. This is because it was only possible to initiate a RADAR Nudge conversation about a patient from the radiologist's Reporting screen. To enhance the ability to use Nudge for internal RIS communication, it is now possible to launch a context-specific Nudge conversation from additional points in the RIS workflow. It is also now possible to look up any Nudge user in the system and add that user to the Nudge conversation.

To make RADAR Nudge available for the widest number of scenarios, the RADAR Nudge integration now allows users to initiate a Nudge from any of the following new places, via either a RADAR Nudge button or a context (right-click) menu option:

RIS Screens:

- Edit Patient
- IVT
- Schedule Order
- Walk-in
- Registration
- Confirmation
- View/Edit
- Edit Billing
- Perform Exam

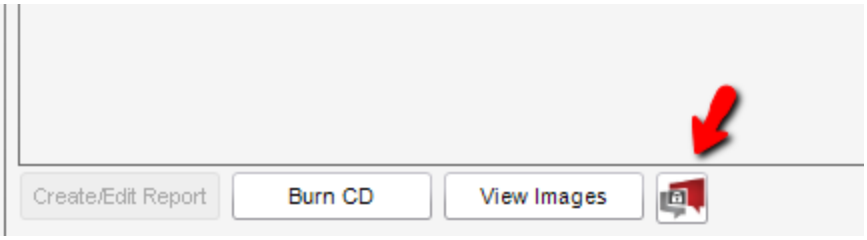
Worklists:

- Patient Folder
- Reception WL
- Technologist WL
- Orders to Schedule WL
- Confirmation WL
- Activity WL
- Billing Exception WL
- IVT WL
- Utilization Management WL
- Image Request WL
- All Critical Results
- (My) Critical Results

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

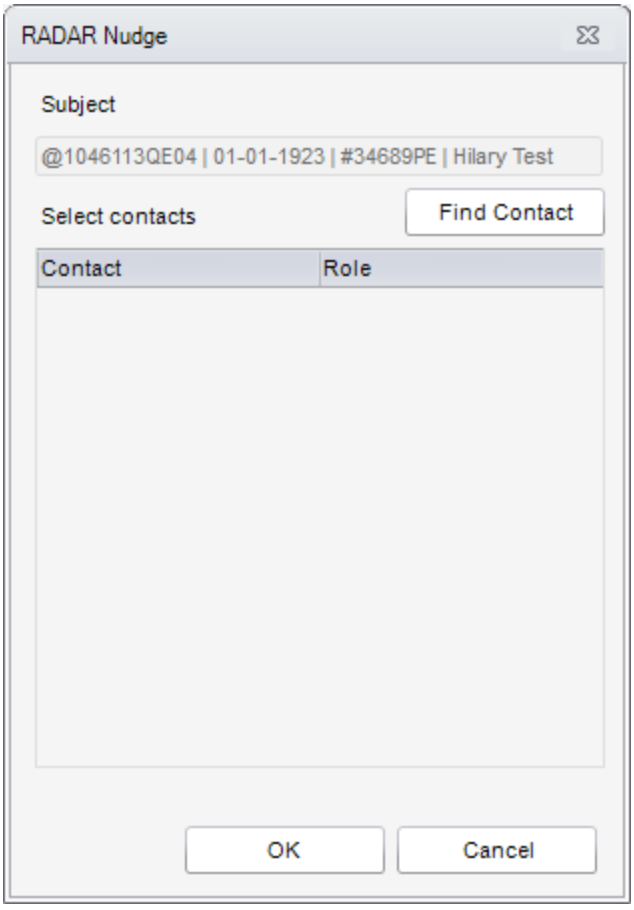
- All Problem WL
- All Peer Review Pending Action WL
- Finding Follow-up WL
- Mammo Follow-up Orders WL
- ACR Category 0 Follow-up WL
- ACR Category 4/5 Follow-up WL

For any of the screens listed above, the Nudge button will be available in the lower left corner of the screen.



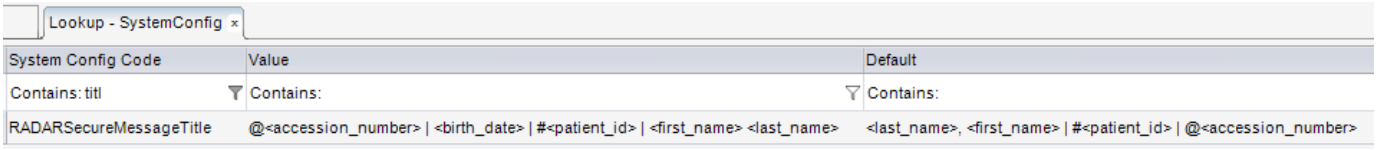

The button opens the Nudge dialog screen and allows the user to select one or more contacts to be part of a context-specific Nudge conversation.

Similarly, any of the worklists listed above will have a context menu option for **RADAR Nudge message**, which will open the same Nudge dialog screen.



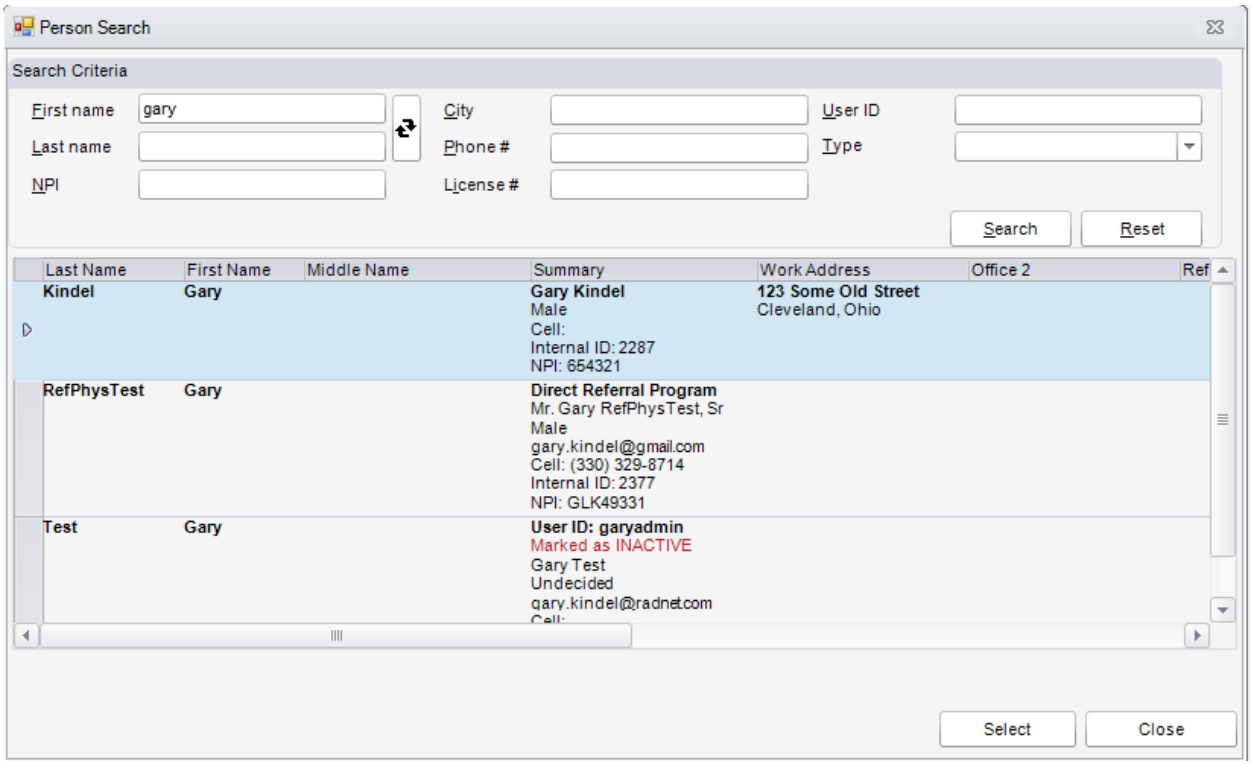

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

The “Subject” of the conversation will be filled in automatically based on the existing System Configuration setting: **RADARSecureMessageTitle**.



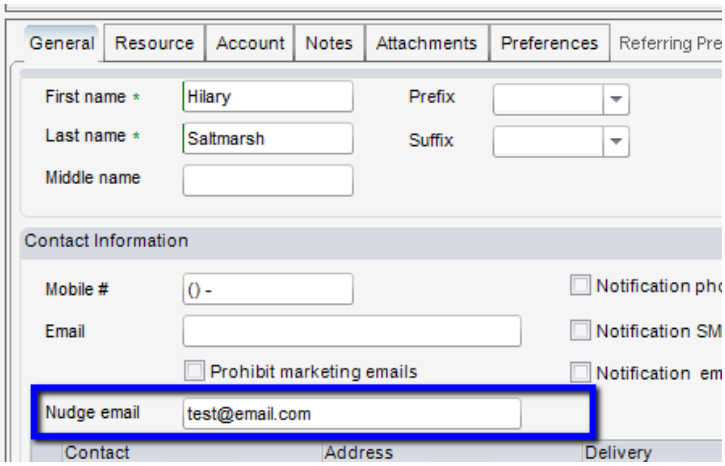

By default, the Subject will look like the following: Doe, Jane|#123456789|@987654. It is possible to change the order of these elements or add elements such as Date of Birth.

Click the **Find Contact** button to search for RADAR Nudge users to include in the conversation. The button will open a customized Person Search dialog that will allow a user to search for other Nudge users in the RIS Personnel records.

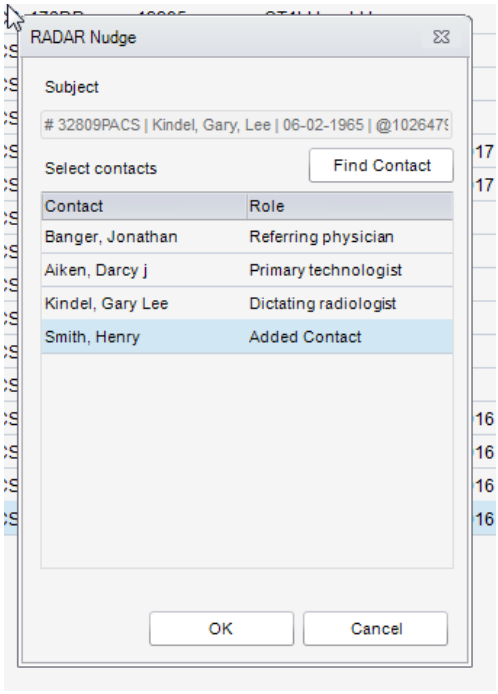



The Find Contact screen’s search options mirror the usual Internal Person search; however, the search will only include results where the Nudge Email field in the Personnel record has been populated with a valid Nudge email.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.




When a contact is selected in PersonSearch results, the contact is added to contact grid in the dialog. Depending on the status of the exam, Nudge users who are already associated to the exam may be listed in order to quickly select them.




In this case, the user's role in the patient's exam will be listed next to their name. It is possible to message any of these contacts, as well as find new contacts to include. Any contacts highlighted in blue will be part of the Nudge conversation upon clicking OK. To select multiple contacts, click the desired contacts while holding the CTRL key. Contacts added via the Find Contact button will be highlighted by default.

Upon clicking OK, the Nudge conversation will be opened and the user can begin messaging the selected contacts.

As before, to use the Nudge integration, the eRAD RIS user must have:

- An active RADAR Nudge account.

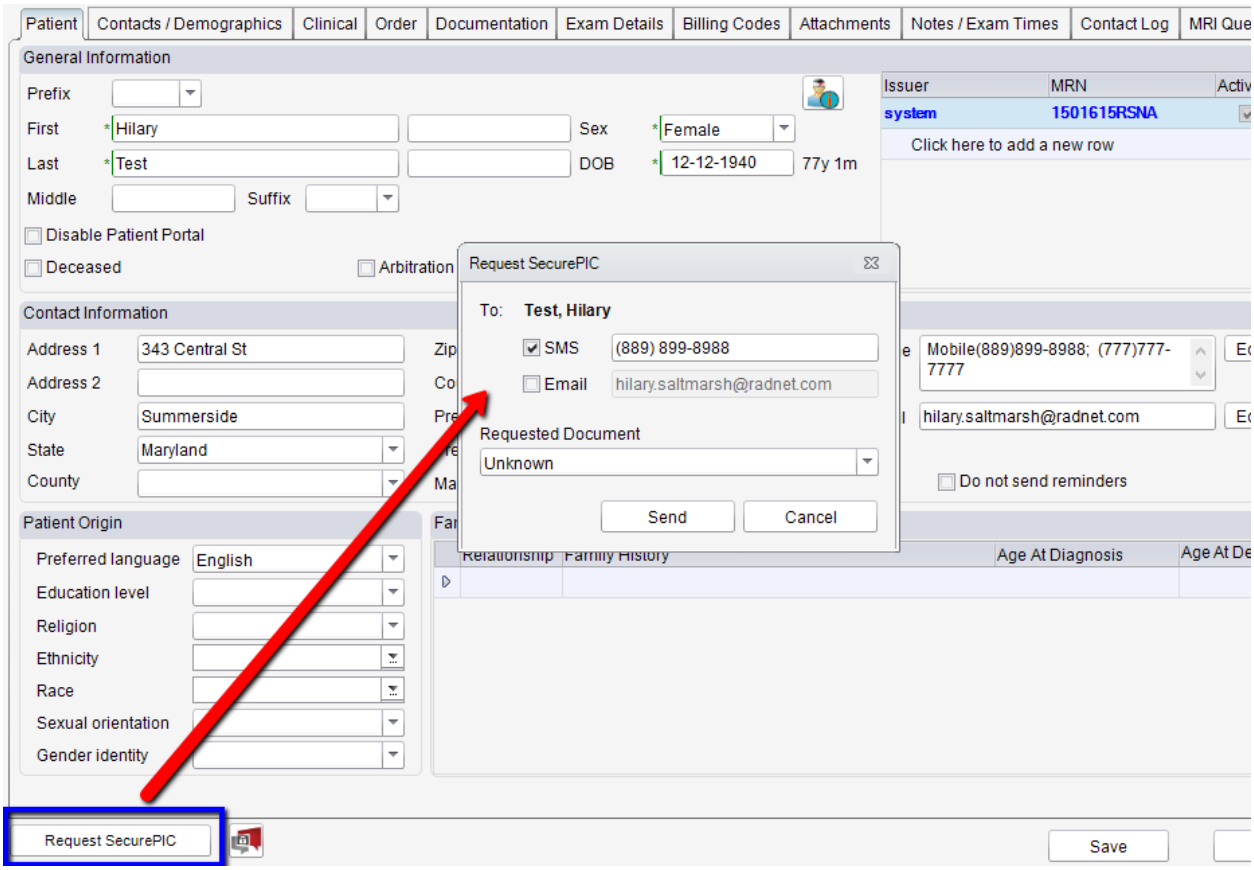
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

- A valid Nudge email address associated with the user's personnel profile.
- A user group that has access string **Clinical.RADARSecureMessage** = Full assigned.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #16567 – SEND SECUREPIC REQUESTS VIA EMAIL

It is now possible to send SecurePIC requests via email. After clicking the Request SecurePIC button, the Request SecurePIC screen will open. By default, SMS will be checked, so that the SecurePIC will be sent to the patient via text message. However, there is now an option to select email instead of, or in addition to, the SMS text message.




If email is selected, the patient will receive an email with a link to open SecurePIC, where they can attach a picture. Accepted file types are png, jpeg, gif, and bmp. If opening the email from a mobile device, the user can also choose to take a new picture with their device's camera, just as they can when receiving the SecurePIC via text message.

The remainder of the workflow will be the same as if the SecurePIC request had been sent via text message.

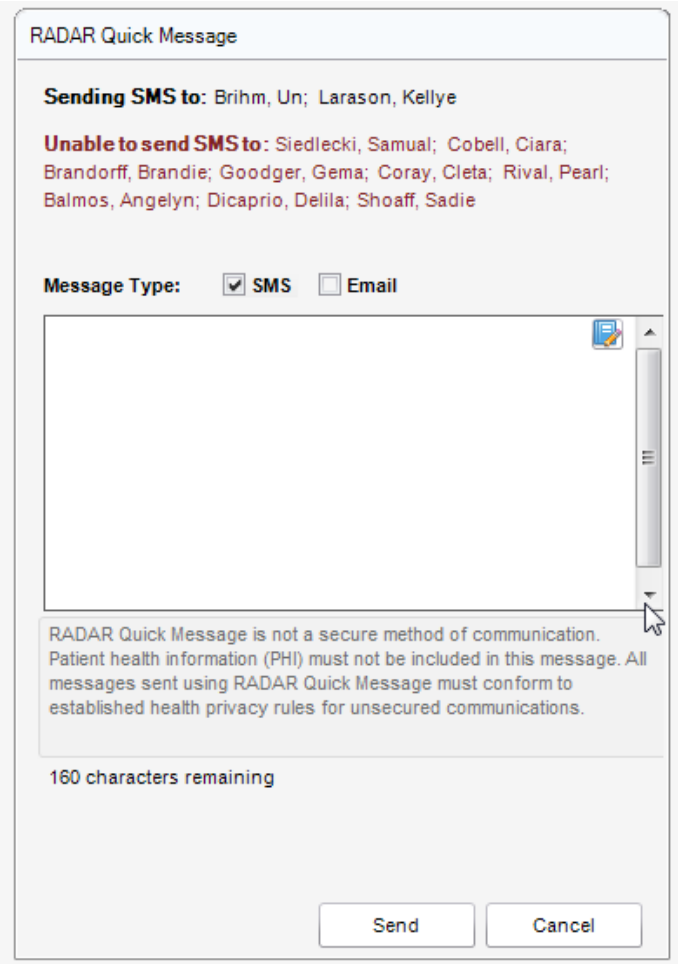
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #11249 – DISPLAY AVAILABLE CONTACT METHODS WHEN SENDING RADAR QUICK MESSAGE TO MULTIPLE PATIENTS

RADAR Quick Message is an easy way to quickly send a message to a patient, via SMS (text) message and/or email. It is possible to multi-select patients to send the desired message to each of the selected patients. Previously, sending RADAR Quick Messages to multiple patients could be confusing because it is not possible to view ahead of time whether the selected patients have mobile phone numbers and/or email addresses entered in RIS. Without any indication of the available contact methods, the user can't identify which patients will not receive the message until a pop-up is displayed after composing and sending the message.

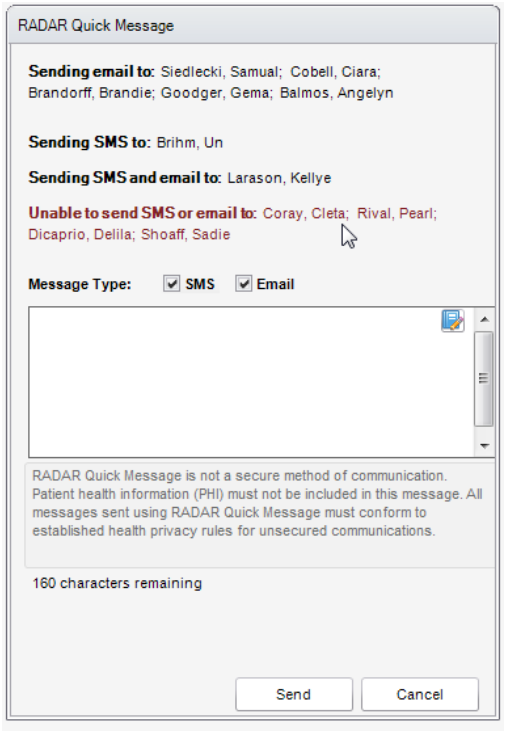
Instead of being notified ***after*** the fact when a message cannot be delivered due to a lack of mobile phone and/or email, it is better to advise the user before the message is sent, so that adjustments can be made to the method of contact if needed.

To accommodate this, the RADAR Quick Message window will now display a list of selected patients split into applicable categories. When a single Message Type is selected (email or SMS), there can be up to 2 sub-categories:

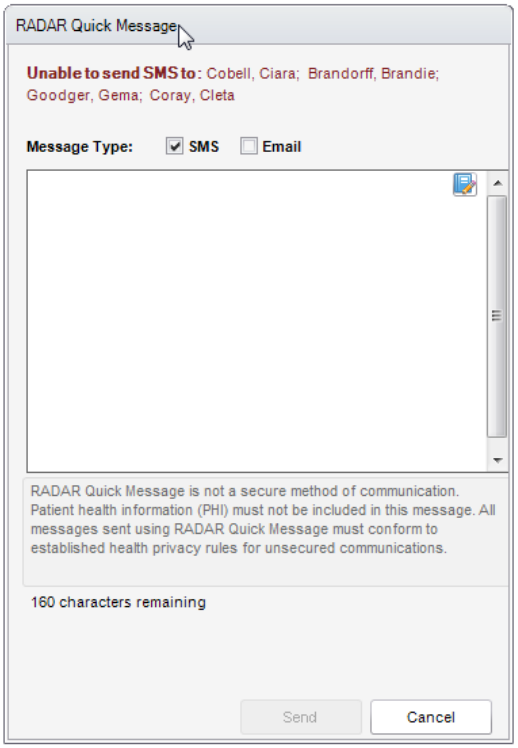



No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

When both email and SMS are selected, there can be up to 4 sub-categories, as displayed in the image below.




If none of the selected patients can be sent a message using the selected Message Type, the Send button will be disabled.



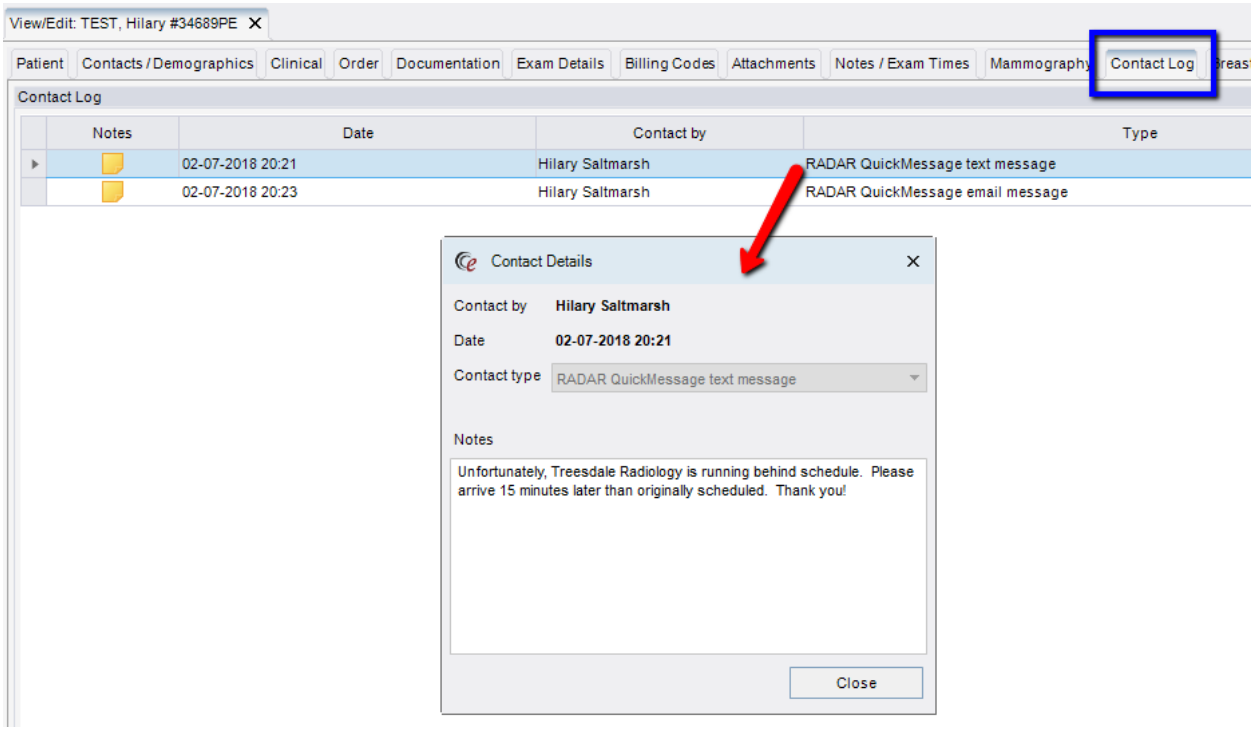

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #12482 – CONTACT LOG ENTRIES NOW GENERATED AUTOMATICALLY FOR RADAR QUICK MESSAGES

RADAR Quick Message is a tool that is often used to send a quick text or email message to a patient from eRAD RIS. For example, if a department is behind schedule, the receptionist may wish to notify the next three scheduled patients that they can arrive 15 minutes later due to the delay.

Previously, this type of contact had to be added to the patient's Contact Log manually, if the user wanted to maintain a record of the message outside of the Audit History.

eRAD RIS will now automatically add Quick Message information to the patient's Contact Log to provide easier access to all information regarding contact to patients regarding their appointment. The Contact Log entry will be added to the Contact Log for the Order from which the message was sent.




Upon opening the Contact Log entry, it is possible to view the following information:

**Contact By:** The name of the eRAD RIS user who sent the message.

**Date:** The date RADAR notifies eRAD RIS that the message was sent.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

**Contact Type:** Will be populated with the description of the Follow Up Type Code configured for RADAR QuickMessage email message or RADAR QuickMessage text message, respectively. By default, messages will be labeled as described in the table below.

**Notes:** The message body from the RADAR QuickMessage.

Two values have been added to the FollowUpType configuration table to support this feature:

| Follow Up Type Code | Description |
|---|---|
| QuickMessageEmail | RADAR QuickMessage email message |
| QuickMessageSMS | RADAR QuickMessage text message |

In addition, two System Configuration values have been added to identify that these Follow Up Types are to be used for creating automated Contact Log entries for RADAR Quick Messages.

| System Config Code | Value |
|---|---|
| QuickMessageEmailDefaultContactTypeCode | QuickMessageEmail |
| QuickMessageSMSDefaultContactTypeCode | QuickMessageSMS |

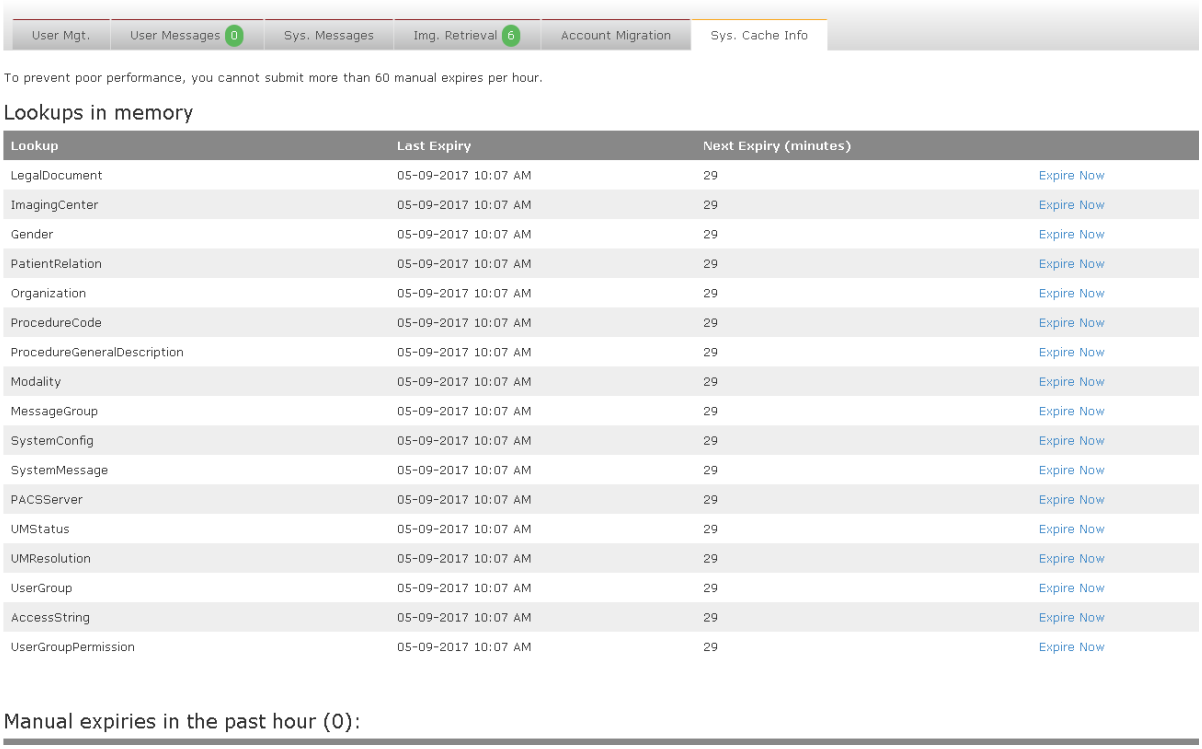
Unless any adjustments to these default settings are desired, no set up should be required to add this functionality to the system. If your system is already configured to use RADAR Quick Message and the user in question has the appropriate access to send RADAR Quick Messages, the Contact Log entries will be added automatically after the upgrade is complete.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## CONNECT PORTALS

### FEATURE #16933 – ACCESS SYSTEM/CACHEINFO FROM THE ADMIN PORTAL

Previously, to access the System/CacheInfo page, the user had to log in to the Admin Portal and then manually edit the Admin Portal's URL. This was cumbersome and required additional time. To improve efficiency, there is a new tab in the Admin Portal to display the System Cache Info.




There have been no changes to the contents or functionality of the page, but it is now easier to access.

A new access string controls whether the user has the ability to access the tab and manually expire system/cacheinfo. **Portal.admin.cacheinfo** must be set to FULL for the User Group(s) that should have access to this page.

If a user without this permission attempts to access the page by altering the URL, they will be informed that they do not have permission to access Cache Info.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #17033-17036 – MANAGE GET HELP REQUESTS EXCLUSIVELY IN THE ADMIN PORTAL

Previously, Get Help Requests were sent from the portal to an email distribution group, which could include unsecure email addresses. As Get Help Requests may contain patient information, all inbound Get Help Requests will now be managed and responded to within the Portal Admin Tool.

In support of this change, enhancements have been made to the notification email and the User Messages tab in the Admin Tool.

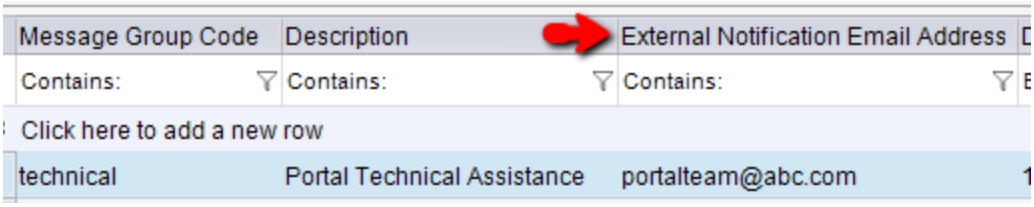
A Get Help Request will initiate a notification email to the email distribution group, but the email will not contain the content of the message. Instead, the email will direct recipients to access the request via the portal's Admin Tool. The User Messages tab in the Admin Portal will display all inbound messages from the Get Help Requests, as well as user messages.

Admin Portal users must be assigned the appropriate Message Groups in order to view the Get Help Requests in the Admin Portal. The applicable Message Groups are defined in the following System Configuration settings:

- **UMPHelpRequestMessageGroup**
- **RPHelpRequestMessageGroup**
- **PPHelpRequestMessageGroup**

The Message Group (or groups) defined in these System Configuration settings should be assigned in the Personnel table for any administrators who should be interacting with Get Help Requests.

If an External Notification Email Address has been defined for the Message Group, an enhanced notification email will be sent to the email address (which can be a distribution list with emails distributing to multiple users).




Below is an example of a notification email. The stars indicate areas that have been updated.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

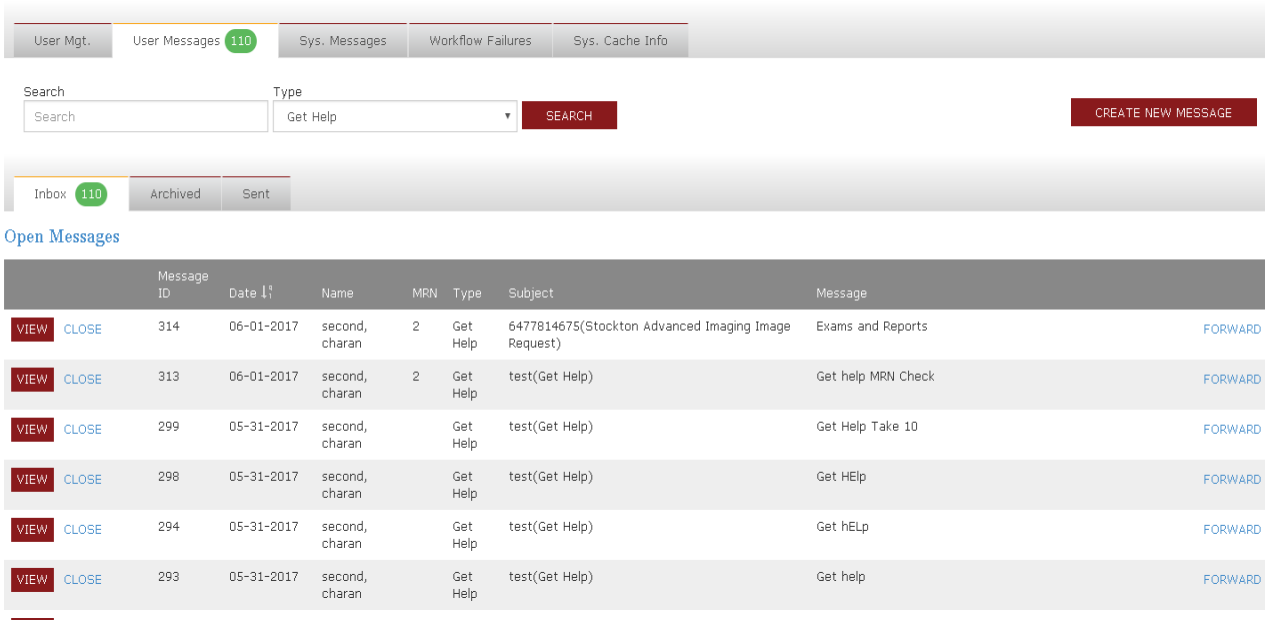
From: Rolling Oaks Radiology Patient Portal [ConnectPortal@MyRadarConnect.com]
Sent: Tuesday, April 18, 2017 12:02 PM
To: WebTeamCA
Subject: Patient Portal Get Help Request

- The email's Subject will indicate the portal from which the message was sent, as well as the type of message: Get Help Request or User Message.
- A link is provided to open the message from within the Admin Portal.
- A unique ID will be generated for the message and displayed in the email.
- The type of message will be displayed (e.g. Get Help Request or User Message).

Enhancements have also been made to the User Messages tab in the Admin Portal.

- Patient Portal Only: A new MRN column is available to display the patient's MRN if the Get Help Request was made by a user who had logged into the portal. This will be blank if the user made the request outside of a log-in.
- A new Type column is available in the Admin Portal for Patient, Provider, and Utilization Management portals. This column will identify whether the message is a Get Help Request or a User Message.
- There is also a filter for Type, which will allow the admin user to filter the messages to display Get Help, User Messages, or All messages.
- The unique Message ID is also displayed in a new column.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

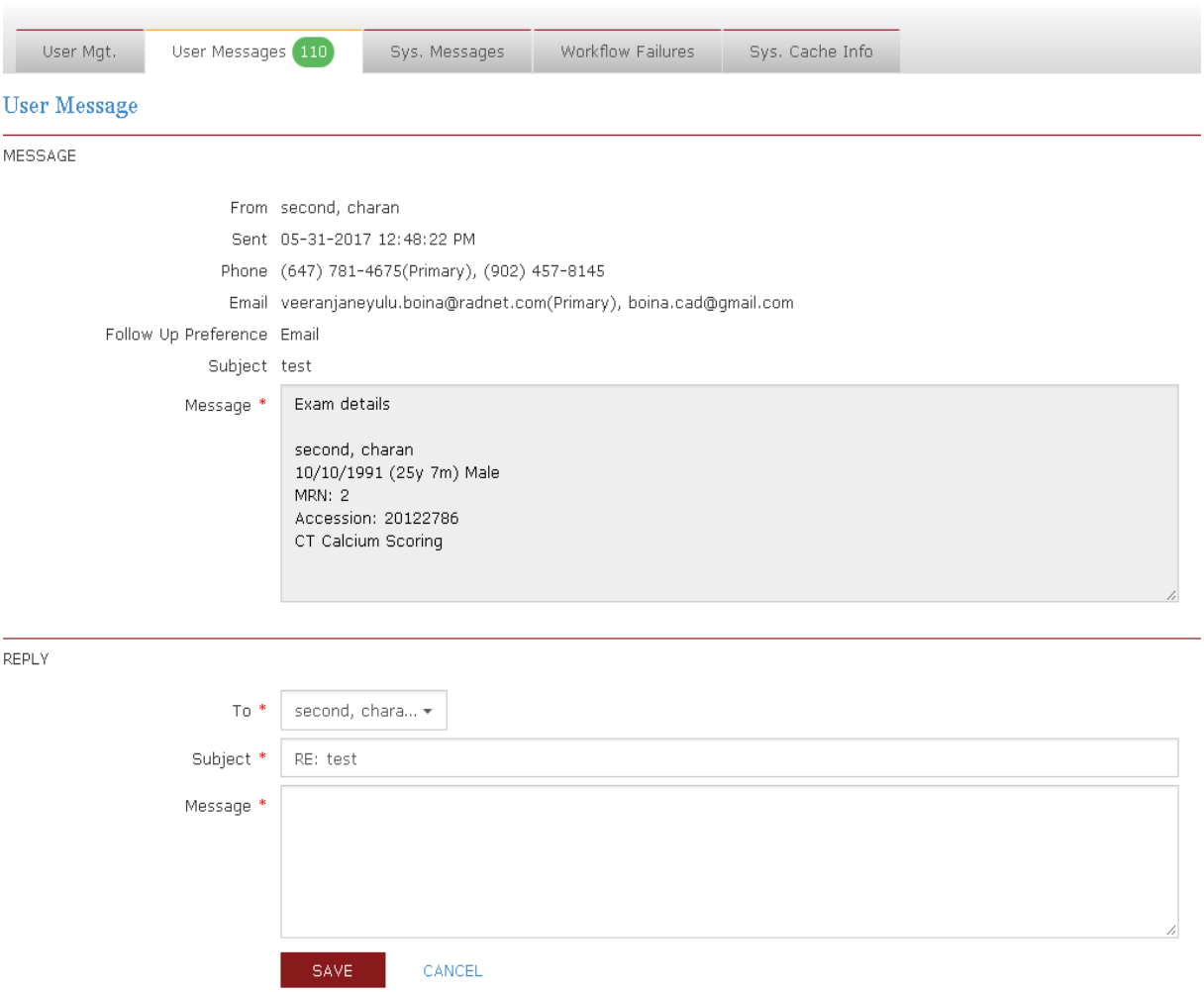



When clicking the View button to read the message, the resulting page has some additional enhancements to provide more detail to the administrator.

- The message's Type will be displayed.
- The patient's contact information, phone and email, will be displayed.
- User Messages will include the patient's Follow Up Preference (their preferred method of contact).
- A change has been made to the display of the user's message to make it easier to read.
- The Reply section is disabled for Get Help Requests, which should not be responded to via email or portal.

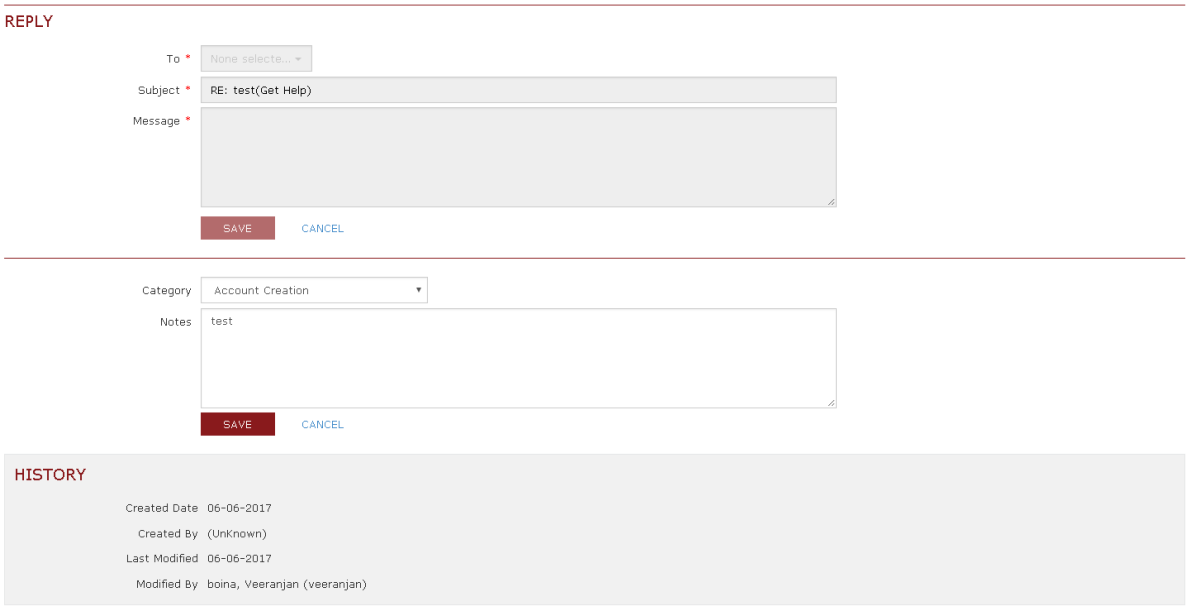
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

Example:

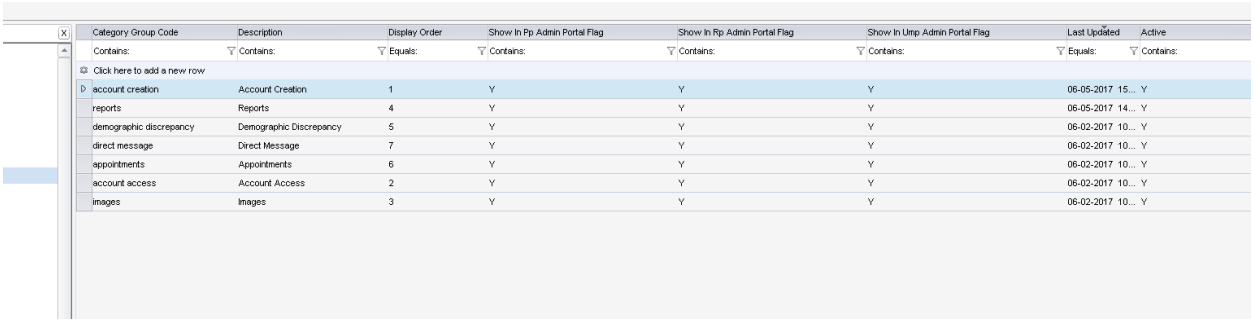



Additionally, a new section has been added after the Reply section. This section is designed for internal use. It allows the portal administrator to choose a category for the request and add internal notes regarding the message.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.




The options in the Category dropdown are defined in a new RIS look-up table called **Category Group**.



| Category Group Code | Description | Display Order | Show In Pp Admin Portal Flag | Show In Rp Admin Portal Flag | Show In Ump Admin Portal Flag | Last Updated | Active |
|---|---|---|---|---|---|---|---|
| Contains: | Contains: | Equals: | Contains: | Contains: | Contains: | Equals: | Contains: |
| Click here to add a new row | | | | | | | |
| account creation | Account Creation | 1 | Y | Y | Y | 06-05-2017 15... | Y |
| reports | Reports | 4 | Y | Y | Y | 06-05-2017 14... | Y |
| demographic discrepancy | Demographic Discrepancy | 5 | Y | Y | Y | 06-02-2017 10... | Y |
| direct message | Direct Message | 7 | Y | Y | Y | 06-02-2017 10... | Y |
| appointments | Appointments | 6 | Y | Y | Y | 06-02-2017 10... | Y |
| account access | Account Access | 2 | Y | Y | Y | 06-02-2017 10... | Y |
| images | Images | 3 | Y | Y | Y | 06-02-2017 10... | Y |

The Description will display in the dropdown for any Category Groups that are set to show for the portal in question, as defined in the look-up table.

The last new area on this screen is a History section for the message. The following information will be displayed:

**Created Date:** The date the message was sent.

**Created By:** The name of the sender, if known. Get Help Requests initiated from outside a log-in will be listed as unknown.

**Last Modified:** The last date the message was updated by an Admin Portal user.

**Modified By:** The name and User ID of the Admin Portal user who last updated the message.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #17154 – CONFIGURE WHICH PORTAL ERROR MESSAGES GENERATE AN EMAIL NOTIFICATION TO PORTAL ADMINISTRATORS

By default, all errors encountered in the portals generate an email notification to the notification email address configured for each portal. Sometimes, portal administrators do not wish to receive notification of certain types of error messages. This feature allows for box-level configuration of notification emails based on the HTTP status code for the error.

A new AppConfig setting has been added for all portals: **ErrorMessageEmailSettings**. By default, all error types will continue to generate notification emails. The following options can be configured:

- Value = All
  - All error status codes will trigger an email.
- Value = comma delimited list of status codes
  - Example: 400, 404, 405, 515
  - Only the status codes in the list will trigger an email.
  - A range can be used to include codes (e.g. 404, 500-515)
- Value = All, comma delimited list of status codes
  - When a comma delimited list begins with "All," the codes following All will be ***excluded*** from triggering an email.
  - Example: All, 400, 402, 500-510
  - The above example would mean: Generate notification emails for All error status codes [**except for**] status codes 400, 402, and 500 through 510.

To enable this feature, add an **ErrorMessageEmailSettings** key to the applicationsettings.config file and set the desired value based on the description above.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #17247 – AUTOMATICALLY DISABLE PORTAL ACCOUNTS DUE TO INACTIVITY

As a security measure, eRAD RIS now has the ability to configure a timeframe after which portal accounts will be automatically disabled due to account inactivity. Account inactivity is defined as not logging into the portal.

Two new System Configuration settings have been added to support this feature:

- **DaysBeforeInactiveAccount**: This setting defines the number of days a **Provider Portal** or **Utilization Management Portal** account can remain inactive before being automatically disabled.
- **PPDaysBeforeInactiveAccount**: This setting defines the number of days a **Patient Portal** account can remain inactive before being automatically disabled.

Setting these values to 0 or lower will disable the feature.

Two SQL jobs have been created, one for each of the new System Configuration values. These jobs run daily and deactivate accounts that have been inactive for more days than the System Configuration value allows.

Users attempting to log into an inactive account would receive a message stating that their portal account is inactive. They will be directed to contact the Web Team to re-activate the account.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #16217 – CONFIGURABLE PASSWORD STRENGTH REQUIREMENTS FOR CONNECT PORTALS

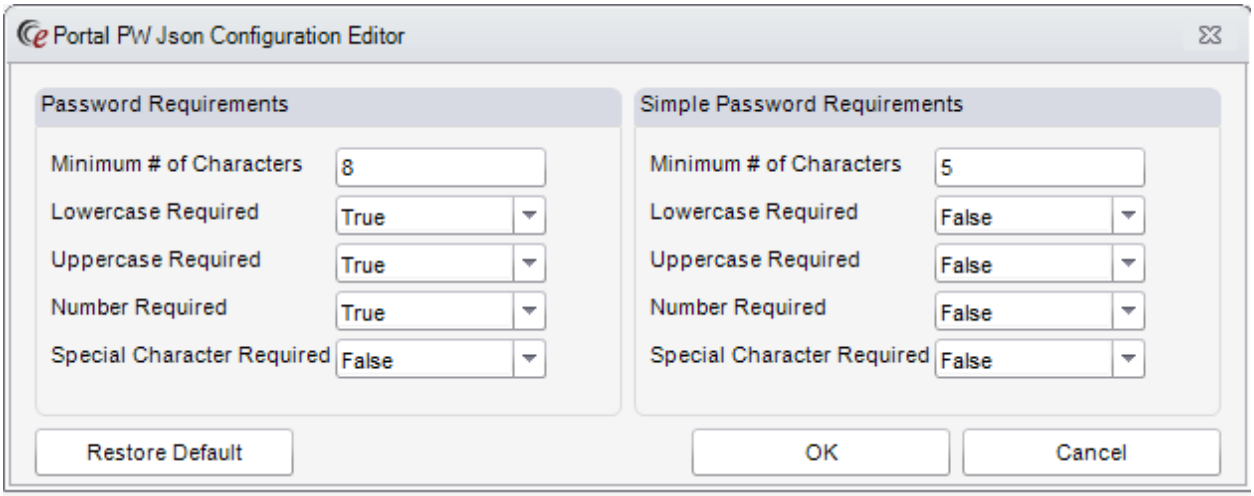
Previously, password requirements for the CONNECT Patient Portal, Provider Portal, and UM Portal were hard coded. It is now possible for customers to customize password requirements and force a password reset workflow for any existing users whose passwords do not meet the new password strength requirements.

A new Password Requirement editor is now available via the System Configuration table for the three Connect Portal options: Patient Portal (setting: **PPPasswordRequirements**), Provider Portal (**RPPasswordRequirements**), and Utilization Management (UM) Portal (**UMPPasswordRequirements**).

| System Config Code | Value | Default | Description |
|---|---|---|---|
| Contains: PasswordRequirements | Contains: | Contains: | Contains: |
| PPPasswordRequirements | [{"minChar":"8","wordLowercase":"Tru... | [{"minChar... | (value = string) JSON value to define default password requirements for patient portal user accounts. |
| RPPasswordRequirements | [{"minChar":"8","wordLowercase":"Tru... | [{"minChar... | (value = string) JSON value to define default password requirements for referring portal user accounts. |
| UMPPasswordRequirements | [{"minChar":"8","wordLowercase":"Tru... | [{"minChar... | (value = string) JSON value to define default password requirements for UM portal user accounts. |

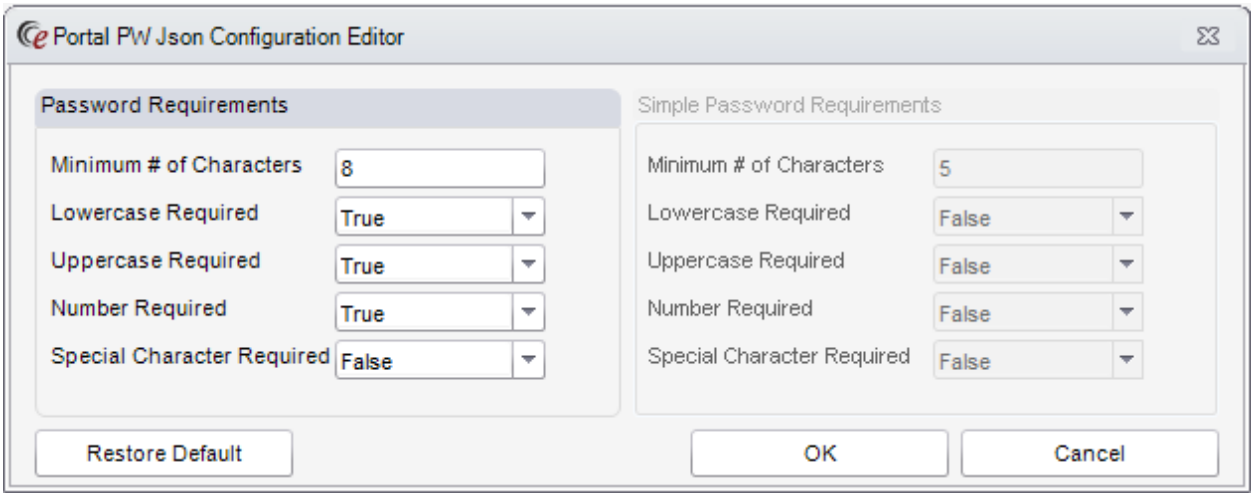
The settings in this custom editor define the password requirements for the relevant portal's users. If a user logs in and their password does not match these custom requirements, the user will be forced through the password reset workflow.

To adjust the password requirements, filter the System Configuration look-up table to find the Password Requirement setting for the relevant portal (see above for the names of each setting). Then click the current "Value" for that setting's row. The editor will open as shown in the following illustration:




The "Simple Password" option is only available in the Patient Portal, so the screen will display as follows for the Provider and UM Portals:

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.




The password requirements can be adjusted to force passwords to contain:

- A minimum number of characters.
- At least one lower case character.
- At least one upper case character.
- At least one number.
- At least one special character.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #17336 – REMOVE USER TYPE REFERRING PROVIDER FROM DROPDOWN WHEN CREATING NEW USER IN THE PORTAL

All new referring providers should be created inside of the RIS application by properly permissioned RIS administrators following standard imaging center guidelines. Therefore, it was requested that customers have the ability to exclude the Referring Provider role when creating a new user in the Admin Portal. This workflow is intended for creating portal accounts that are for staff, marketing, or help desk users, which do not require special RIS configuration settings that cannot (and should not) be managed from the Admin Portal.

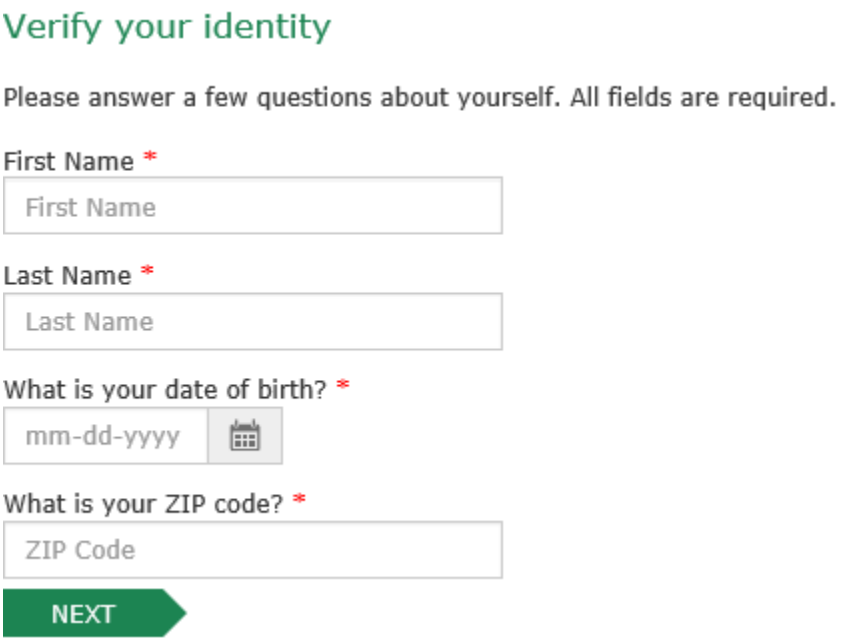
Because User Group names can vary between customers, applicationsettings.config will be used to configure the Role that should be removed from the dropdown in the Admin Portal. It is possible to remove any Role using this configuration, which is handled by eRAD Support. Please contact eRAD if you would like to use this feature.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #17723-17725 - BETTER HANDLING FOR ACCOUNT RECOVERY WHEN THE SAME EMAIL ADDRESS IS ASSIGNED FOR MULTIPLE ACCOUNTS

It is possible for multiple portal accounts to be created using the same email address. This is allows for a parent to use the same email address for their own and their child's portal accounts, for example. However, workflow issues could occur when the Account Recovery process was used for an email address associated to multiple accounts.

To address this, an evaluation will be done during Account Recovery to identify whether the email address is associated to more than one portal account. If so, the user will be prompted with additional questions to identify which portal account is to be recovered.




If multiple matches are still found, an additional filter will be applied, which will narrow down the results to only the Active account.

After identifying which portal account is to be recovered, the Account Recovery process will proceed as usual.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #17720-17722 – PORTAL DATE FORMATS SHOULD MATCH RIS SYSTEM CONFIGURATION SETTING

Previously, most of the portals' date formats were hard coded. It is important to allow customers to control the date format for the portal. Therefore, portal date formats are now controlled via System Configuration settings.

This feature refers to two existing System Configuration settings:

- **DateFormat** – Example: yyyy-MM-dd
  - This is referred to as **short date** in **server** configuration.
- **TimeFormat** – Example: HH:mm
  - This is referred to as **short time** in **server** configuration.

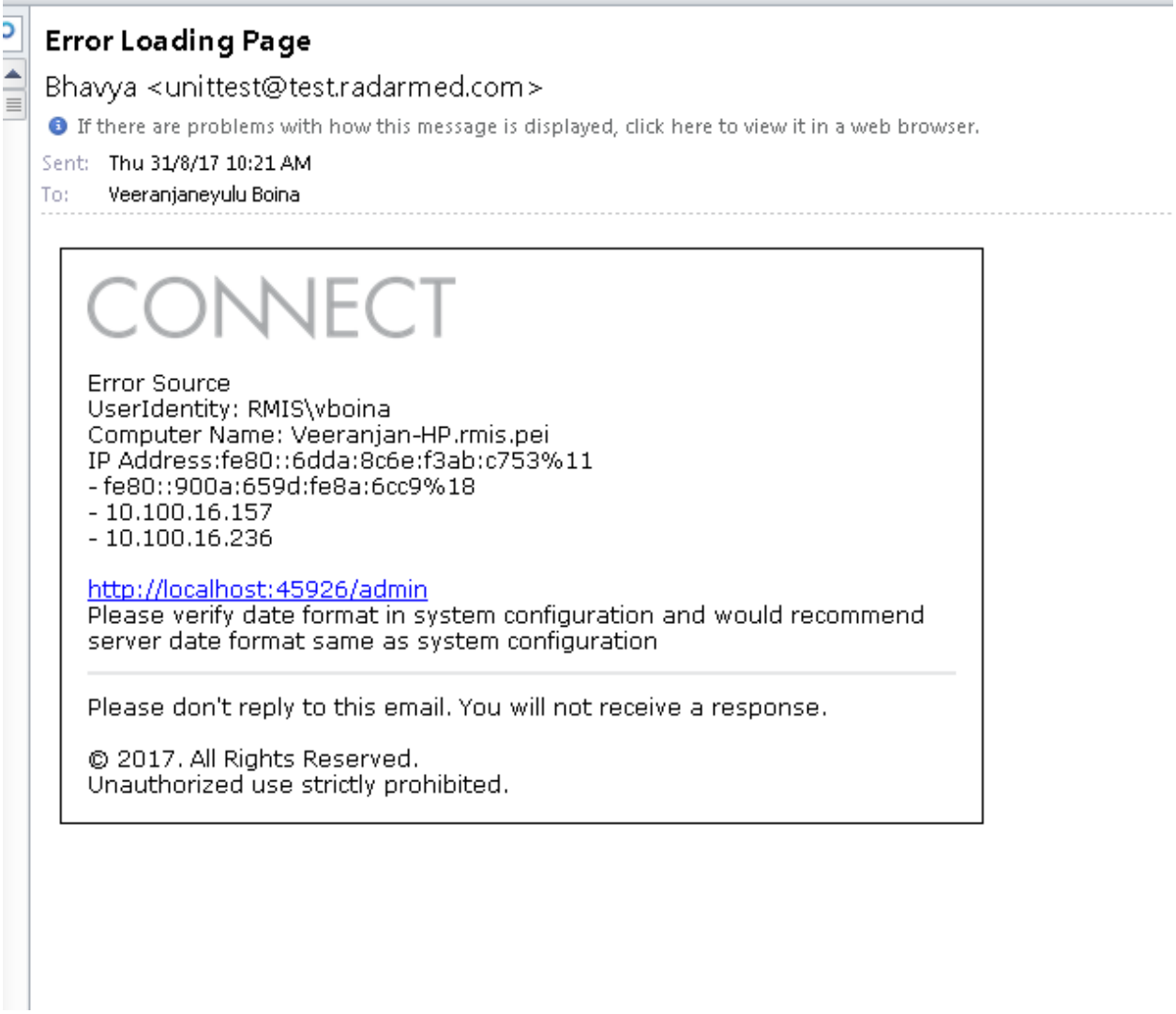
In addition, a new System Configuration setting has been added:

- **PortalLongDateFormat** – Example: dddd, MMMM dd, yyyy
  - This is referred to as **long date** in **server** configuration.

If any issues with the date format configuration exist, error notifications will be presented upon log in to the portal. The intent is for the problems to be caught by an administrator during the test phase, so that external portal users do not see any errors related to the configuration. In all cases, users will not be able to log into the portal or Admin Portal until the date issue is resolved. When logging into the Admin Portal, a more informative message will be displayed regarding the date/time configuration issue.

- If date formats are invalid in the System Configuration table, an error notification will be displayed when attempting to log into the portals.
  a. Example:
- If date formats in the System Configuration do not match server configuration, an error notification will be displayed when attempting to log into the portals, recommending that the server and System Configuration settings match.
  a. Example: Unable to login due to system configuration error. System configuration setting for "PortalLongDateFormat" must be valid and must match server date format.
- In addition, an email will be sent with information about the date format issue.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.



**Error Loading Page**

Bhavya <unittest@test.radarmed.com>

If there are problems with how this message is displayed, click here to view it in a web browser.

Sent: Thu 31/8/17 10:21 AM
To: Veeranjaneyulu Boina

CONNECT

Error Source
UserIdentity: RMIS\vboina
Computer Name: Veeranjan-HP.rmis.pei
IP Address:fe80::6dda:8c6e:f3ab:c753%11
- fe80::900a:659d:fe8a:6cc9%18
- 10.100.16.157
- 10.100.16.236

http://localhost:45926/admin
Please verify date format in system configuration and would recommend server date format same as system configuration

Please don't reply to this email. You will not receive a response.

© 2017. All Rights Reserved.
Unauthorized use strictly prohibited.

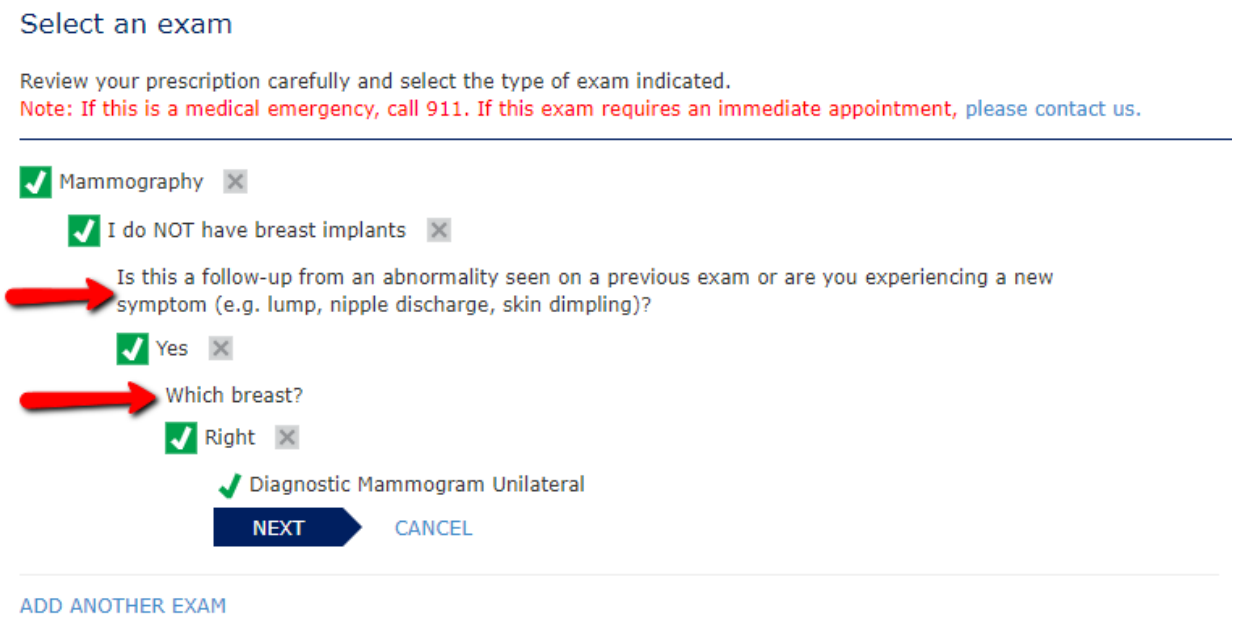
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #17570 – CONNECT PORTALS: DISPLAY AN INFORMATIONAL HEADER WITHIN THE PROCEDURE PICKER TO GUIDE USERS TO THE CORRECT CHOICE

Previously, administrators were sometimes forced to use overly complex options in the Procedure Picker because there was no way to display the implied question. For example, instead of displaying a question "Is this exam the result of a new symptom?" with Yes and No answer options, the information had to be supplied in each answer: "This exam IS the result of a new symptom" and "This exam is NOT the result of a new symptom."

With more complex scenarios, the question answers could become convoluted and confusing for patients and referring offices. To allow the procedure picker to more elegantly handle complex choices, it is now possible for the RIS administrator to choose to display a header in the procedure tree that is displayed in the portals. The header can be used to display a question or other informational text about the selection options listed below it.

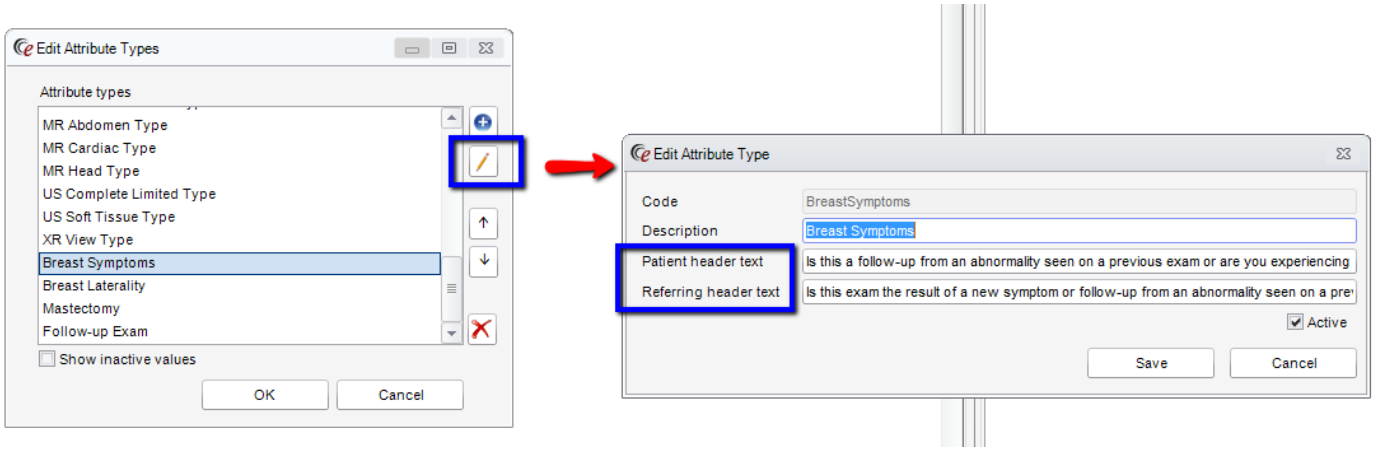
This feature applies to both the Connect Patient Portal and the Connect Provider Portal. The image below shows the use of headers in the Connect Patient Portal (see red arrows):




Two new fields have been added to the Procedure Picker Attribute Types:

- **Patient Header Text**: Header text to display in the Patient Portal.
- **Referring Header Text:** Header text to display in the Provider Portal.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.




The text entered in these fields will be displayed in the portals just above the value selections for that type.

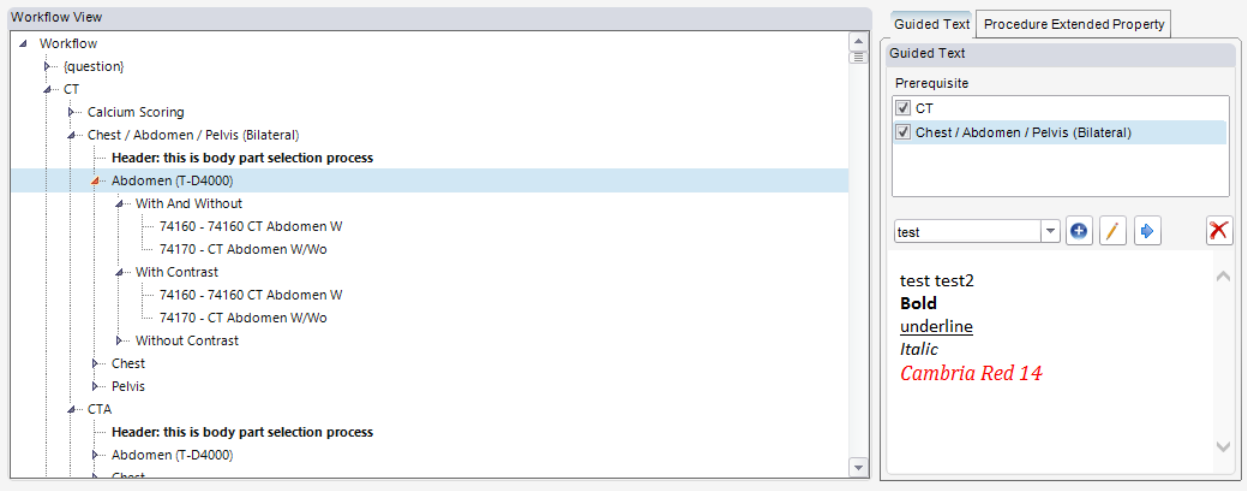
The Procedure Picker editor will show a preview of the decision tree, including headers, when viewed in Workflow View.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #17642-17644 – DISPLAY GUIDED TEXT DURING PORTAL SCHEDULING

In an effort to assist the patient or referring office in selecting the correct procedure during online scheduling, sometimes it is beneficial to show some explanatory text to guide the user to selecting the correct choice in the procedure picker tree.

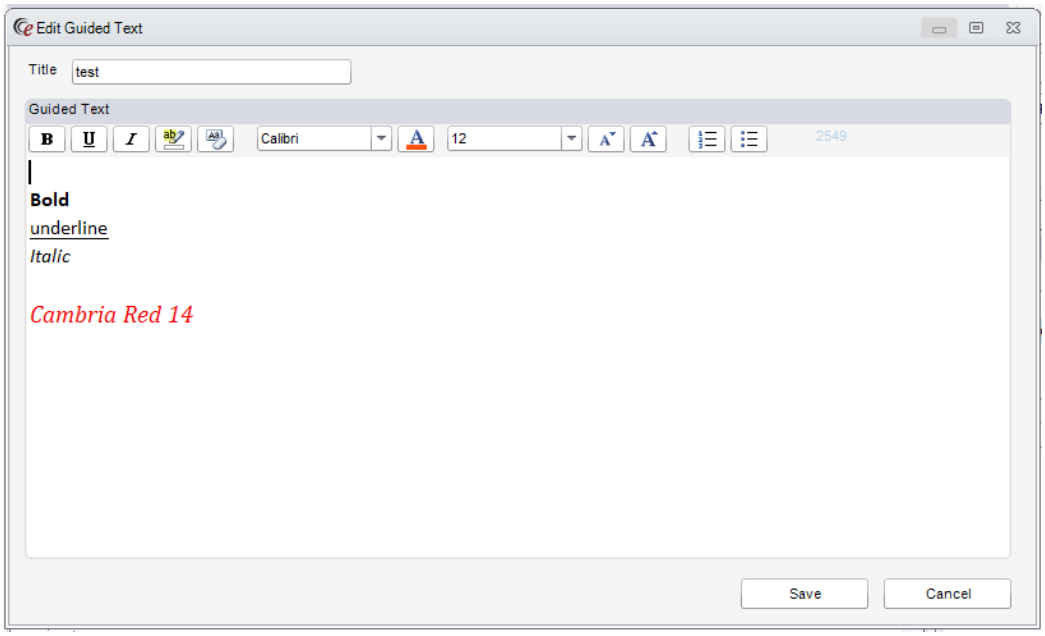
eRAD RIS now allows an administrator to configure this Guided Text via the Procedure Picker editor, based on the selected node in the tree.




The **Guided Text** tab, on the right side of the image above, has several sections. The **Prerequisite** section will define at which nodes the guided text will be displayed. The dropdown will define which guided text will be used, with a preview of that guided text in the box below. As shown in the example above, it is possible to use a variety of formatting options in the guided text.

The add/edit buttons will allow the administrator to create new guided text or edit the currently selected text:

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.




The guided text will only display for the active node. The boxed area in the image below shows an example of how guided text will appear in the procedure picker tree.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

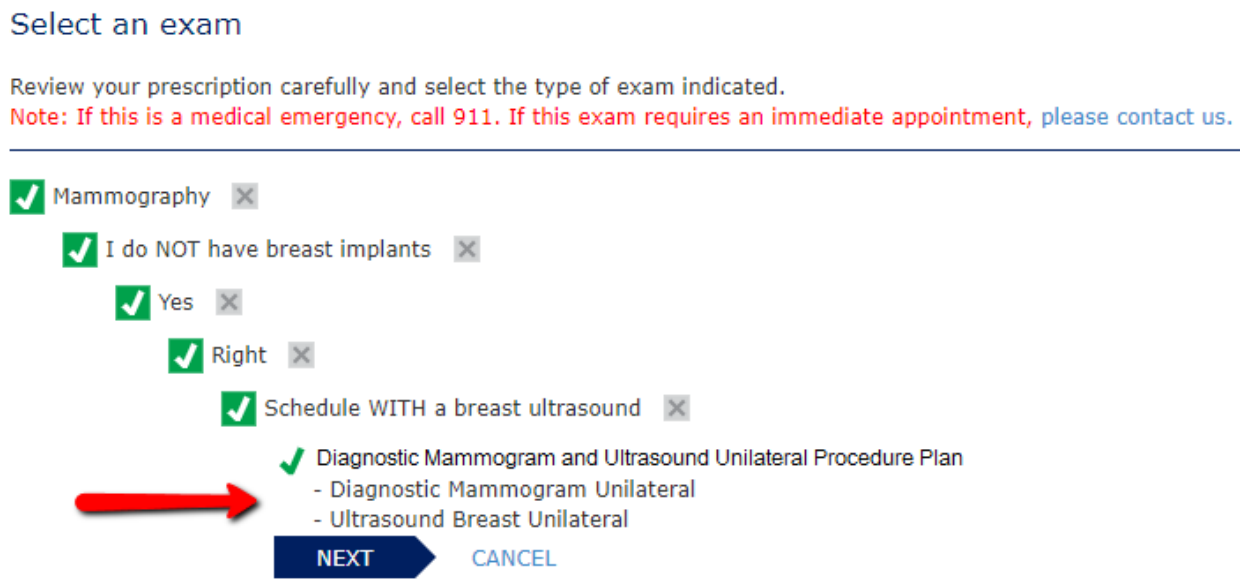
## FEATURE #17015,17016 – SCHEDULE PROCEDURE PLANS FROM THE PORTALS

Customers using Procedure Plans have requested the ability to use a Procedure Plan as the end result of the Procedure Picker tree for online scheduling in the Portals. This will simplify the scheduling process for the patient or referring, and will automatically link the exams for Linked Reporting, if the Procedure Plan is configured for this.

The Procedure Picker editor now supports the ability to assign a Procedure Plan as the final tree node. The administrator will check the box for "Include unassigned procedures" to display existing Procedure Plans to be mapped. The administrator can the select and map the Procedure Plan in the same fashion as a Procedure Code. As with Procedure Code mapping, right clicking the Procedure Plan will allow for the selection of an attribute.

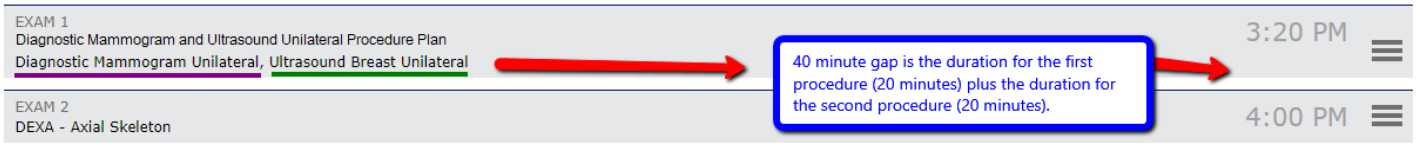
Displaying the Workflow View mode will show any section that is not fully mapped, just as with normal Procedure Codes.

When Procedure Plans are displayed in the Portals, the Procedure Plan description will be displayed, followed by the Portal Friendly Procedure Code description for each of the procedures included in the Procedure Plan.




From this point forward, the scheduling process will treat the Procedure Plan as if it were a single exam. When choosing a time slot, the portal will reflect the multiple procedures in the Procedure Plan as one exam, though in the RIS, the individual exams will be scheduled as usual. Inside the portal, procedures within a Procedure Plan will not display their individual start times.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.




In addition, if the user attempts to reschedule via the portal, all of the exams within the Procedure Plan must be rescheduled together. If any of the procedures have moved past a Scheduled status in the RIS, rescheduling via the portal will not be permitted and the user will be directed to place a phone call to reschedule.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

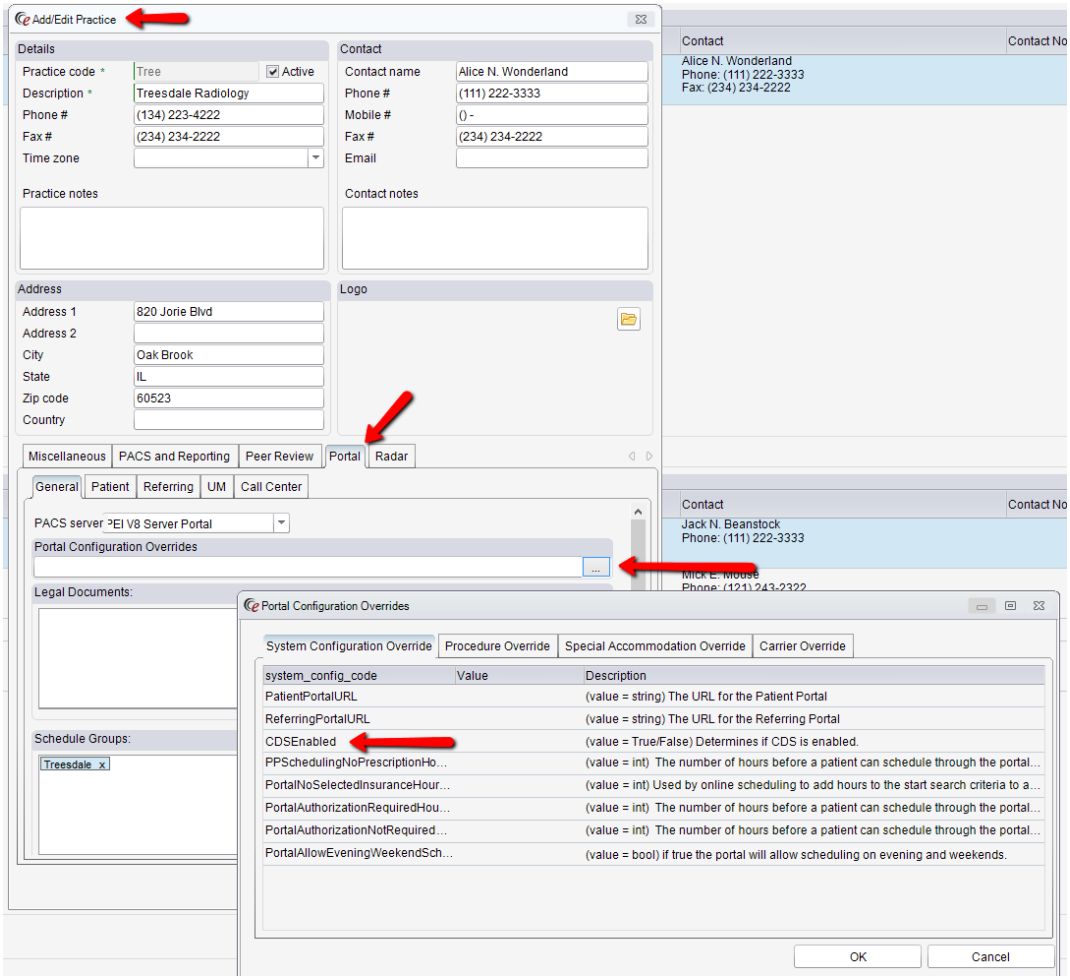
## FEATURE #17131 – UPDATED PORTAL SYSTEM CONFIGURATION SETTINGS TO ACCOMMODATE CLINICAL DECISION SUPPORT

As eRAD RIS moves forward with Clinical Decision Support for the portals, a few new System Configuration settings were added to allow for configuration of various CDS elements.

The following System Configuration settings have been added:

- **CDSEnabled**: Determines whether CDS will be enabled for the Provider Portal.
- **CareSelectURL**: URL that will determine the CareSelect environment to be used (Production or Test).
- **CareSelectToken**: Used to indicate how to access the CareSelect environment.

An override for **CDSEnabled** has also been added at the Practice level. This can be configured in the Add/Edit Practice window of the Organization table. On the Portal tab, open the Portal Configuration Overrides screen and find the **CDSEnabled** setting on the System Configuration Override tab.




No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE # 17053 – REORDER INSURANCE STEP IN THE CREATE ORDER WORKFLOW

To better support workflows that require insurance information, such as Clinical Decision Support, the insurance selection step in the online scheduling workflow has been reordered to appear before the selection of a Procedure. This will allow the Portals to trigger workflow variations that result from the selection of the insurance. The new screen order is reflected below:

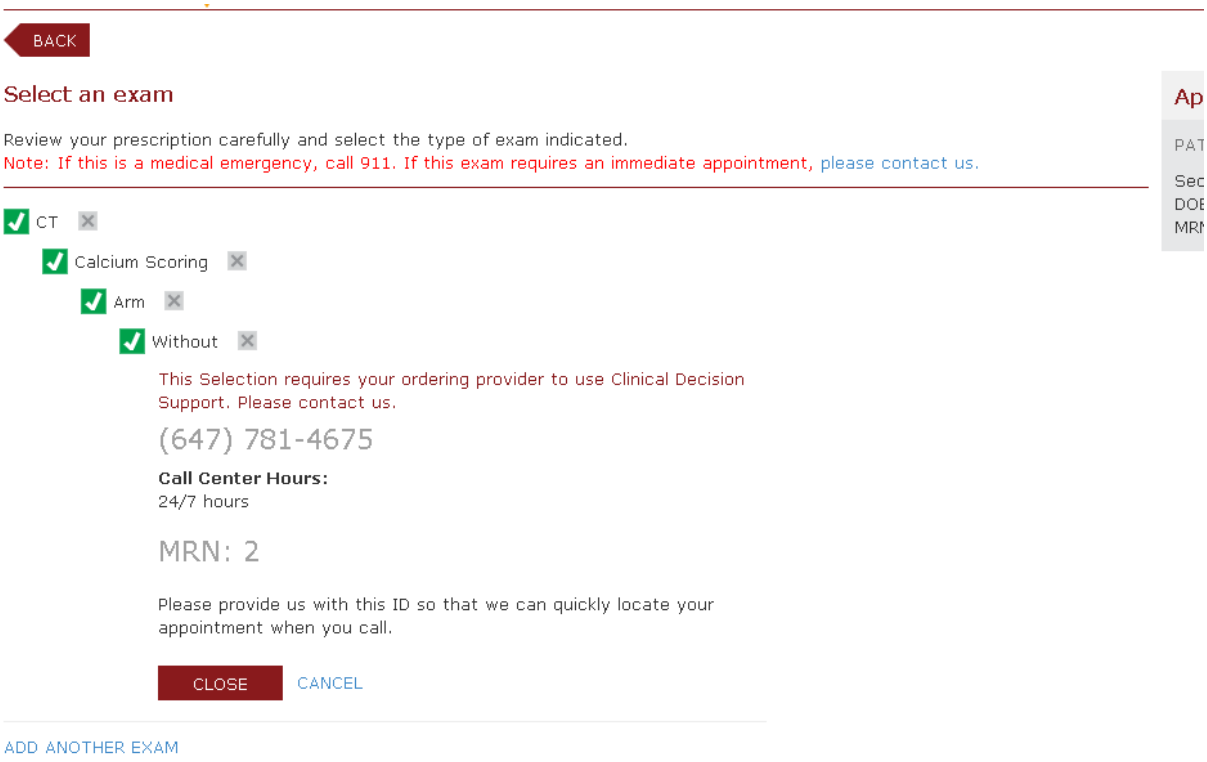
Because the Insurance step now takes place prior to the procedure selection, Utilization Management review requirements can no longer be confirmed and presented on the Insurance screen. For this reason, a new UM Review step will be inserted into the workflow after the Exam questions. This step will only appear if the combination of Primary Insurance and Procedure trigger the UM requirement.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #17126-17128, 17075-17076, 17134 - PRESENT CLINICAL DECISION SUPPORT MECHANISM IN DECISION TREE WHEN INSURANCE AND PROCEDURE REQUIRE CDS

For the beginning stages of Clinical Decision Support in the portals, online scheduling/ordering required a new step in the Procedure Picker tree when CDS is required.

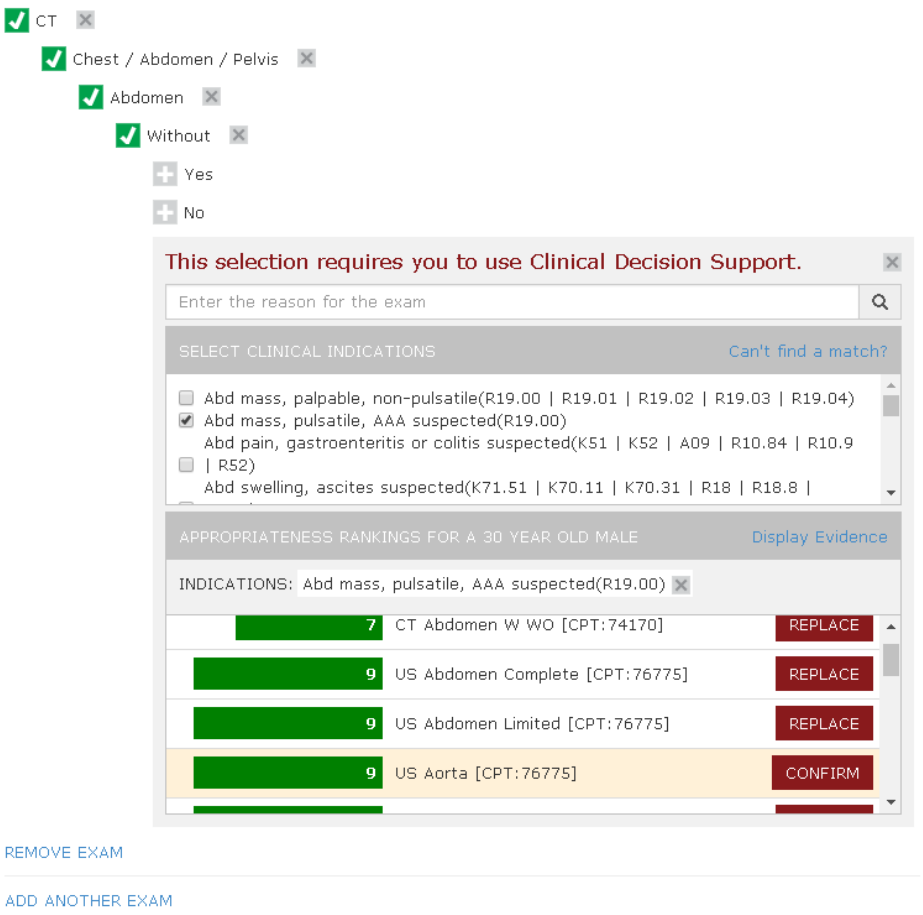
In the Patient Portal, that step simply prevents the patient from continuing with the online scheduling process and directs them to contact the Scheduling Department via phone, with an explanation that their ordering provider is required to use Clinical Decision Support.



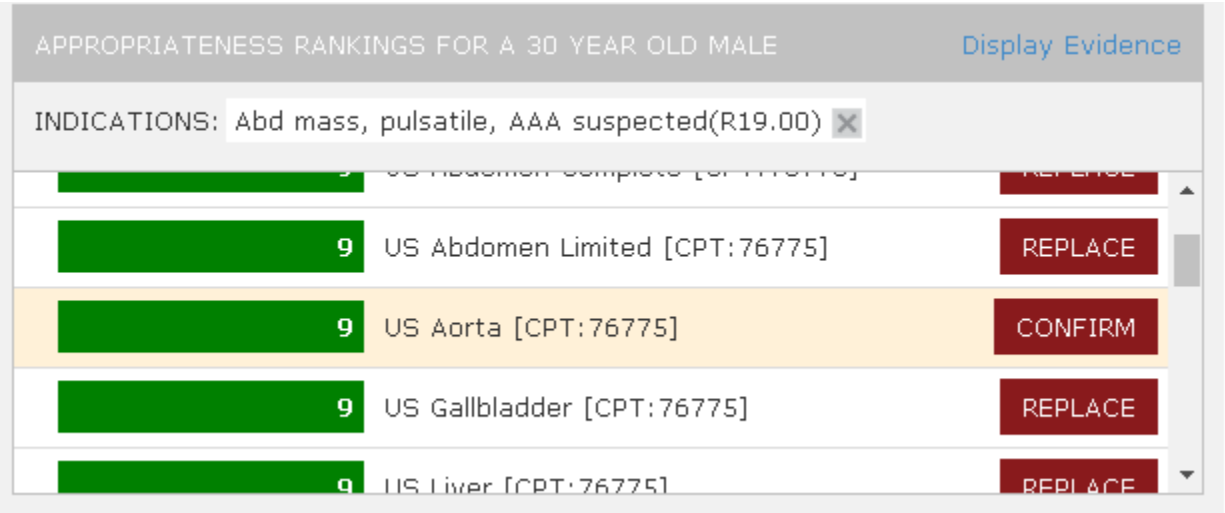

In the Provider Portal, the procedure picker tree will allow the provider to use the National Decision Support Company's CareSelect Clinical Decision Support mechanism to obtain CDS from within the Connect Provider Portal.

The provider will first be asked to select the appropriate Clinical Indications. Entering the reason for exam will filter the available clinical indications to show those that are relevant.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.



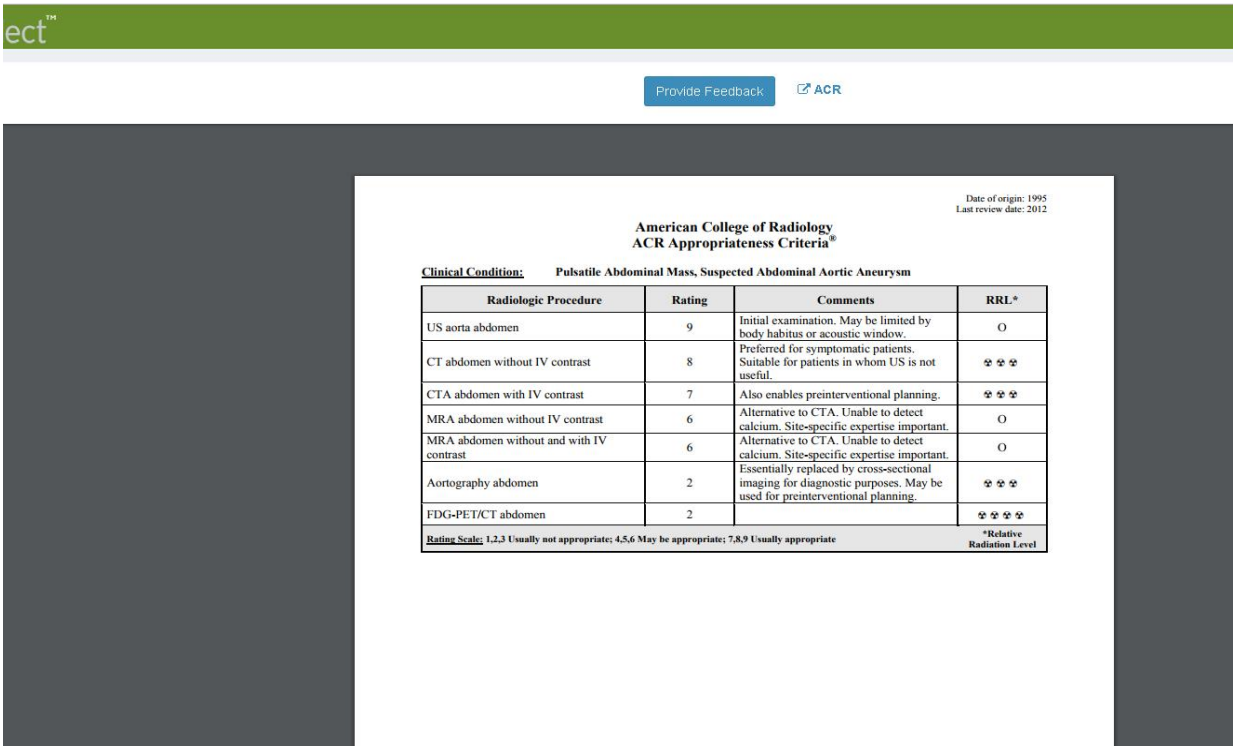

The portal will then display appropriateness rankings and scores for the selected procedure and alternative procedures.




If the provider cannot find a matching clinical indication, they can click the **Can't find a match?** link. They will then be directed to call the scheduling department for assistance.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

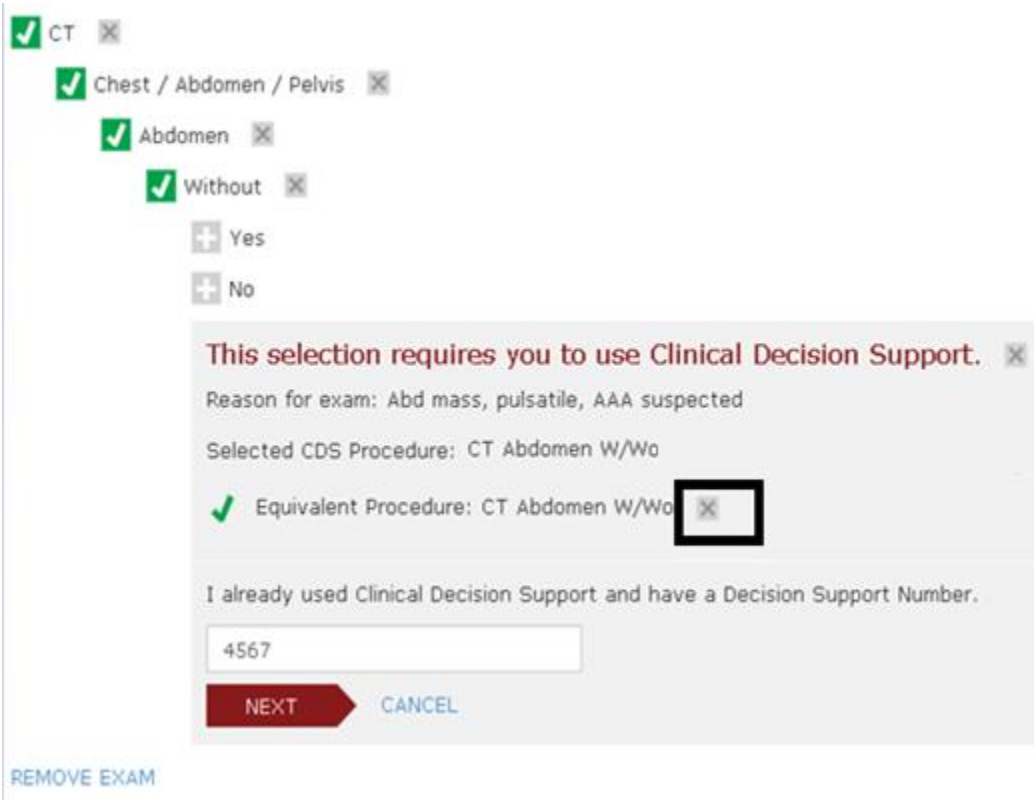
Clicking the **Display Evidence** link will provide a new tab with a PDF document from CareSelect, displaying additional information regarding their appropriateness scores and ranking.




The provider can click the **Replace** button to choose an alternative exam, or click the **Confirm** button to continue with the exam that was chosen in the procedure picker tree.

The procedure tree will display the selected procedure and CDS information, as shown below.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.




The **Equivalent Procedure** will display the portal friendly description of the eRAD RIS Procedure Code that is mapped to the CareSelect option selected.

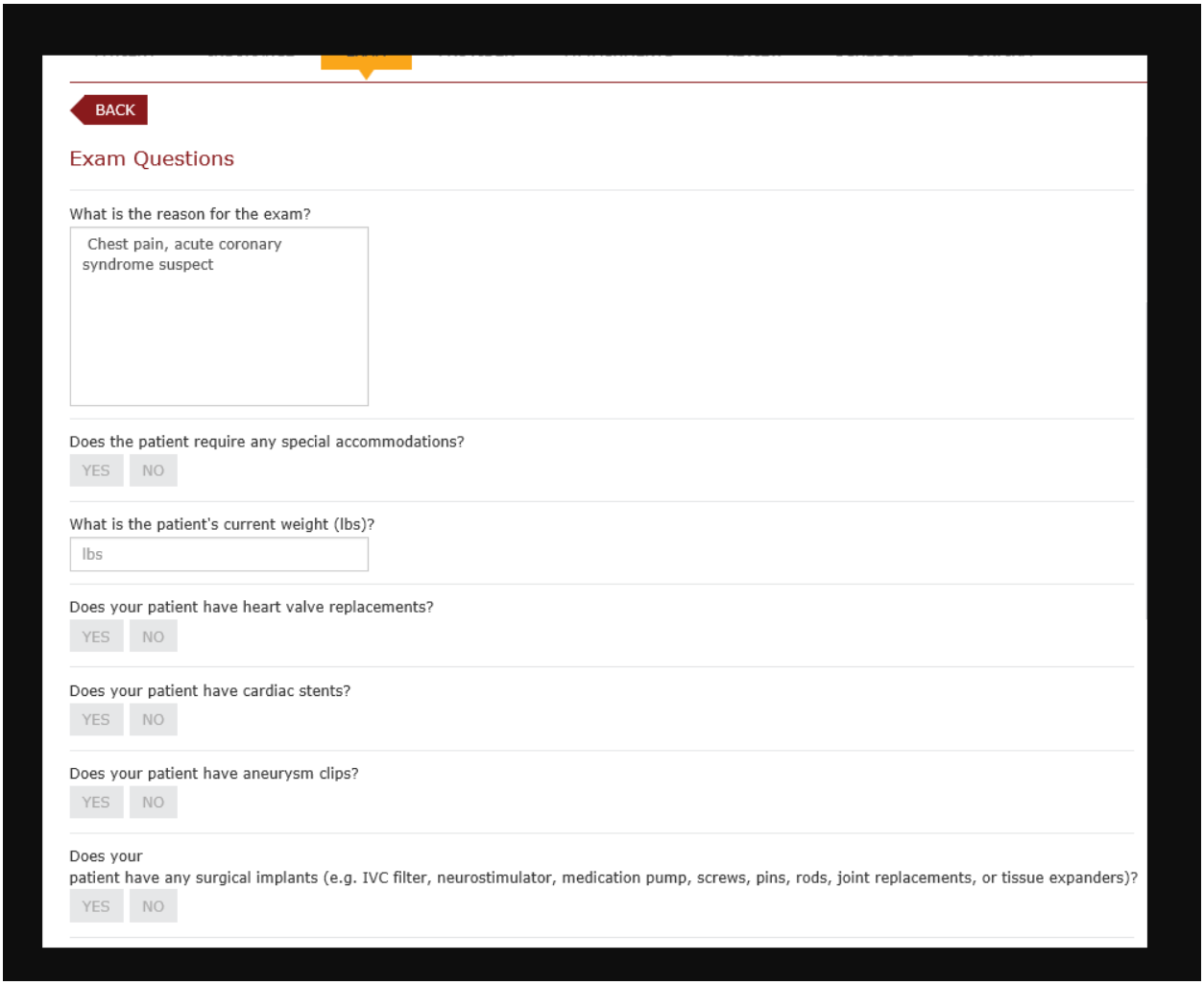
If the provider has already used a Clinical Decision Support mechanism and has a **Decision Support Number**, that can be entered.

If the provider has made a mistake and selected an incorrect option from the CareSelect window, the X next to the end of the Equivalent Procedure (emphasized with a black box in the above image) can be clicked to take the provider back to the procedure tree.

The **Decision Support Number**, manually entered or the number that is automatically generated when the provider uses CareSelect via the portal, will be saved in RIS, along with the appropriateness score for the selected procedure.

Clicking Next will take the provider to the **Exam Questions** step of the ordering workflow. The Reason for Exam question will automatically contain the clinical indication(s) selected during the CareSelect workflow. The provider can add additional information as well.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

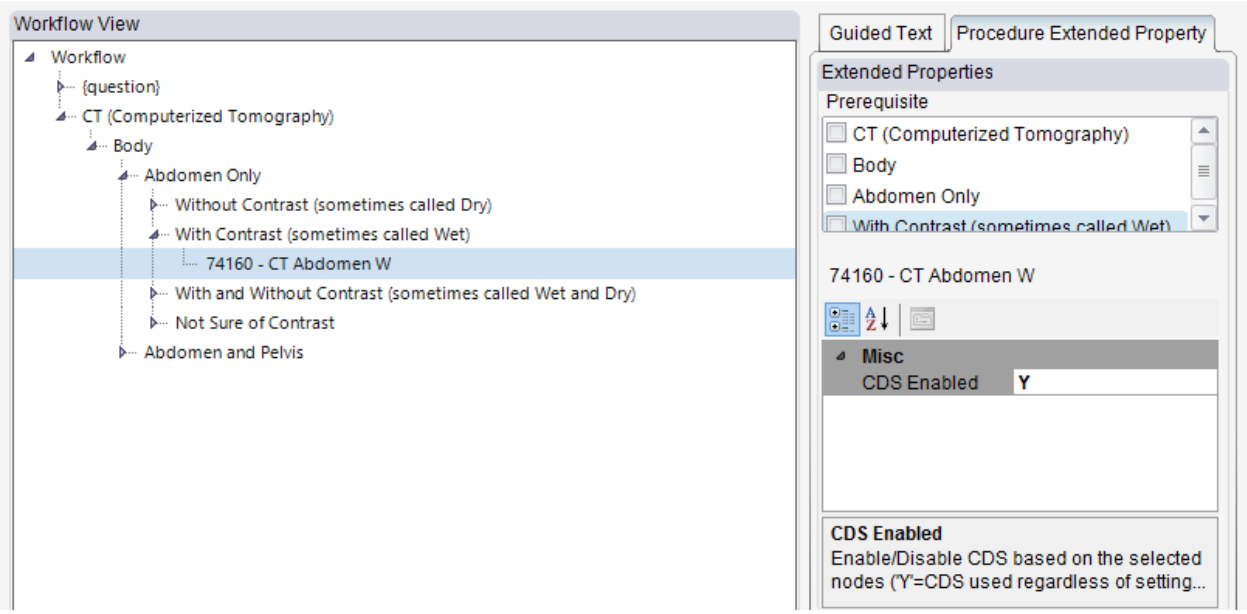



## DETERMINING WHETHER CDS IS REQUIRED

To indicate whether Clinical Decision Support is required based on the selected nodes in the procedure picker tree, a new setting is available in the Procedure Picker configuration table. A **CDS Enabled** option is available on the **Procedure Extended Property** tab, as shown below. There are 3 options for the setting's value:

- Blank – If the setting is left blank, other configuration will determine whether CDS is required based on Billing Code and Insurance Carrier, as defined in the CDS Rules table.
- Y – This setting will **require** CDS regardless of other configuration settings, such as the Billing Code and Insurance Carrier requirements defined in the CDS Rules table.
- N – This setting will **disable** CDS even if it is configured to be required based on the Billing Code and Insurance Carrier, as defined in the CDS Rules table.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.




No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

The following features are specific to the **Patient** Portal.

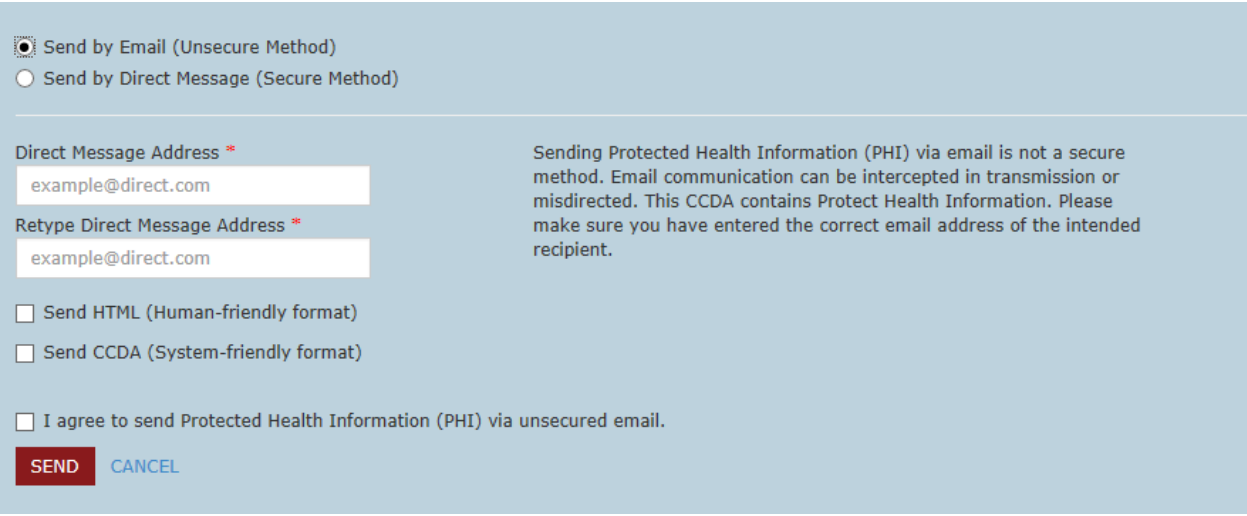
## FEATURE# 16680, 16685-16688 – SPECIFY A DATE RANGE WHEN VIEWING, DOWNLOADING, OR TRANSMITTING A C-CDA

The C-CDA tab in the Patient Portal now has the ability for the patient to choose a date range to be included on the C-CDA. The date range filter will only be available when viewing the most recent C-CDA in the portal.

After entering a date range, clicking Update will refresh the displayed C-CDA document to display data for the specified date range.

After changing the filter for the displayed C-CDA, the patient can then Download or Transmit the C-CDA with the same date range.

The C-CDA can now be transmitted via email, in addition to Direct Message. By default, the Direct Message option will be used, but the patient has the ability to choose to send to an unsecure email address. To do so, the patient must check a box acknowledging that they choose to send their Protected Health Information via unsecured email.




Sending the C-CDA will add an entry to the Activity Log, indicating the address to which it was sent.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #16981 – CEHRT – WEB CONTENT ACCESSIBILITY GUIDELINES

Web content accessibility guidelines are developed through the W3C process in cooperation with individuals and organizations around the world, with a goal of providing a single shared standard for web content accessibility that meets the needs of individuals, organizations, and governments internationally.

The eRAD RIS Patient Portal is required to be compliant with the web accessibility guidelines (WCAG) 2.0 Level A. An evaluation tool was used to identify areas that required alteration and the appropriate changes were made.

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## FEATURE #17050 – CHECK FOR UM BASED ON SELECTED INSURANCE AND EXAM

When an exam requires Utilization Management (UM), the patient is now prevented from scheduling via the portal. Instead, they are directed to contact the appropriate call center.

Based on the selected insurance carrier and the selected exam, an evaluation will occur to determine whether Utilization Management is required. If so, when the patient clicks the Next button in the Insurance step, a message will appear, explaining that the exam requires a review for medical necessity. The configured scheduling contact information will be displayed and the patient will be prevented from making an appointment.

The patient does have the ability to change the insurance, which could result in the selection of an insurance carrier or payment method that does not require Utilization Management, which would remove the restriction and allow the patient to continue to schedule.

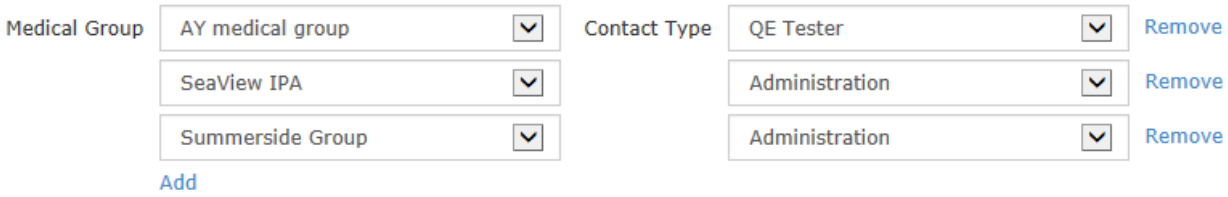
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

The following features are specific to the **Utilization Management** Portal.

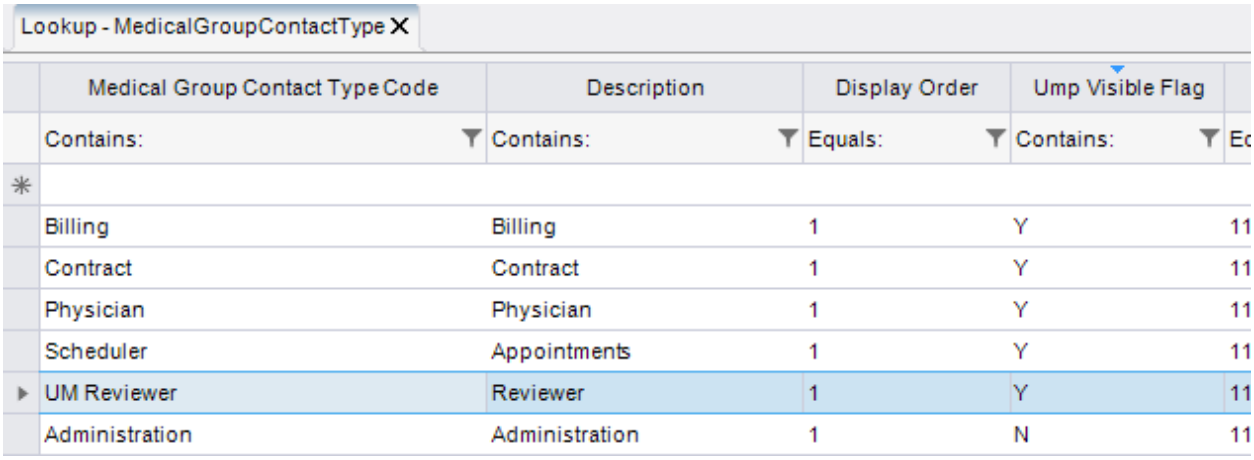
## FEATURE #16929 – ENHANCE USER MANAGEMENT IN THE UM CONNECT ADMIN TOOL, INCLUDING ABILITY TO ASSIGN A MEDICAL GROUP

Previously, UM Connect users had to be added/edited through the Personnel editor in RIS because the Admin Portal did not have the ability to map a user to one or more Medical Groups or assign a Contact Type. To make it possible to add UM Connect users via the Admin Portal, some new functionality has been added.

The User Details tab now has dropdowns to select one or more Medical Groups, as well as the user's Contact Type for that Medical Group.



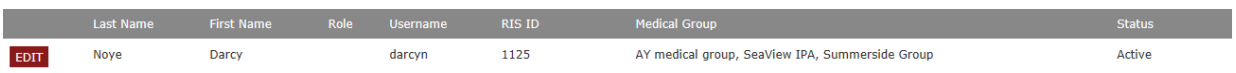

A new column has been added to the Medical Group Contact Type look-up table: **UMP Visible Flag**. If set to Y, the Contact Type will be available in the dropdown.




| Medical Group Contact Type Code | Description | Display Order | Ump Visible Flag | |
|---|---|---|---|---|
| Contains: | Contains: | Equals: | Contains: | Ec |
| Billing | Billing | 1 | Y | 11 |
| Contract | Contract | 1 | Y | 11 |
| Physician | Physician | 1 | Y | 11 |
| Scheduler | Appointments | 1 | Y | 11 |
| UM Reviewer | Reviewer | 1 | Y | 11 |
| Administration | Administration | 1 | N | 11 |

If the user was already assigned a Contact type via the RIS, then that Contact type will still display even if the **UMP Visible Flag** is set to N.

One additional update has been made to the User Management screen. The **Practice** column has now been replaced with a **Medical Group** column, which is the relevant information for the UM Connect Portal.



| | Last Name | First Name | Role | Username | RIS ID | Medical Group | Status |
|---|---|---|---|---|---|---|---|
| EDIT | Noye | Darcy | | darcyn | 1125 | AY medical group, SeaView IPA, Summerside Group | Active |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## RESOLVED DEFECTS

### RIS

Bugs and support issues resolved in build 3.2017.6.

| Bug # | Category | Subject |
|---|---|---|
| 3642 | | Resolved a bug seen when using "skip and continue" workflow where the skip order may not behave as expected when moving between studies that are Exam Done status and studies that are Signed pending addendum. |
| 17395 | | Created a new System Configuration setting, RadarDirectAPIURL, to define the API URL to use for Direct Messages. |
| 17490 | | When an exam is removed from a saved order (black X), the removed exam no longer displays in the Cancellation Reason screen. |
| 17857 | | When adding a new Attribute in Procedure Picker table, the Attribute window no longer closes after receiving an error message due to a blank field. |
| 17946 | | Resolved an issue where a required field message for Outside Reads did not list the field that was missing data. |
| 11265 | Access strings | Some missing access strings were added for various Alerts and Flags. |
| 17435 | Access strings | Renamed access string "Clinical.ExportDICOMImage" to "Clinical.BurnCD." |
| 17665 | Access strings | Additional missing access strings have been added as a clean-up effort. |
| 17345 | Admin-Clinical Data | Resolved an issue that could cause the Issuer of ID to be hidden after making changes to the current selection. |
| 16726 | Admin-Other | Selecting a 'named' color in Portal Worklist configuration editor no longer throws error when selecting worklist tab row. |
| 4299 | Admin-Other | Administration - M*Modal Document Model - Error no longer occurs on right click preview of expanded rows. |
| 17341 | Admin-Other | Browser Config look-up editor now allows administrator to remove a value from URL and leave it blank. |
| 17676 | All Workflows | When a second PrintToRIS job is started while the first document is still open, the second request is no longer ignored. |
| 16043 | Appointment book | Inactive Modality Types are no longer showing in Appointment Book filter. |
| 4781 | Appointment book | The refresh button in the Appointment Book now displays newly added modality restrictions, closures, business hours alterations, etc. |
| 17677 | Appointment book | Appointment Book no longer allows user to move (drag) an |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

| | | |
|---|---|---|
| | | appointment to an inactive room. |
| 18113 | Appointment book | No longer receive error after text is typed in a row on the Appointment Book and then the row is opened. |
| 16616 | Billing | Additional logging implemented to identify when Imagine and RIS become out of sync. |
| 18065 | CCDA | Resolved an issue related to an empty string for Gender when sending a C-CDA via Direct Message. No longer receiving error. |
| 16790 | CD Import | It is now possible to successfully import images from a CD without a DICOMDIR, with no additional action required from user. |
| 18817 | CD Import | Added missing DLLs to resolve a "JPEG Lossless" error that could occur under certain conditions. |
| 1923 | CEHRT | When printing a Clinical Summary, the Offered Clinical Summary checkbox is no longer automatically checked if the print job is cancelled. |
| 7619 | CEHRT | Direct Message data pane is now appropriately indicating unsaved changes exist when changes are made to the grids. |
| 9253 | CEHRT | Error no longer displayed when deleting a Lab Order when several exist. |
| 15009 | CEHRT | Made some style sheet changes to C-CDA to resolve errors found using Edge testing tool. |
| 16750 | CEHRT | Language look-up codes updated to match new 2015 Edition codes for CEHRT. |
| 16788 | CEHRT | SNOMED code column now available for Family Relation and Family History look-up tables. |
| 17377 | CEHRT | Updated C-CDA to only contain a single "Documentation of" section, resolving validation errors. |
| 17423 | CEHRT | Alert Configuration table can now be edited. |
| 12363 | CEHRT | Added System Configuration settings to hide CCR and C-CDA buttons for non-U.S. customers if desired.<br>MUShowCCRButton<br>MUShowCCDAButton |
| 17218 | CEHRT | Updated database installer to stop importing MU2 CMS codes. |
| 17849 | CEHRT | Resolved an issue which could prevent NewCrop from launching due to "Zip4" error. |
| 12142 | CEHRT | Resolved "invalid character" error with C-CDA preview. |
| 17536 | Citrix Bridge | Updated Citrix Bridge icon in Windows tray to match the new icon in Start menu. |
| 17045 | Clinical Tab | Resolved an issue which could prevent BMI from being displayed on Reschedule screen. |
| 17276 | Confirmation | Resolved an error which could occur when registering an appointment with one order and two exams when one exam is deleted then replaced. |
| 17305 | Digital Forms | Digital Form editor is again displaying grid lines on top of sections. |
| 16427 | Document Distribution | When editing multiple jobs on the Distribution WL, the "deliver to" field is no longer altered inappropriately. |
| 16970 | Document Distribution | Recipient and Address are now being set when retrying a |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

| | | |
|---|---|---|
| | | distribution job for UM Opinion Letter, which could previously cause an error and prevent distribution. |
| 17238 | Drawing Tool | Breast diagram is now localized for Hebrew. |
| 17408 | eRAD Editor | Resolved an issue in the Template/Macro editor for eRAD Reporting mode where the "Waiting" cursor (blue circle) would not disappear properly after saving. |
| 17955 | Flags | Allergy Flag is no longer displayed on the worklists if the allergy has been set to inactive. |
| 17713 | HL7 | When inbound orders from the Wedge did not contain a referring address, RIS was using the first address for the referring]g physician when creating the Verbal Order form. It is now using the first **active** address for the referring. |
| 17297 | ICD | ICD codes are now maintained when an order is rescheduled. |
| 17282 | Image request | It is now possible to add an Image Request prior to adding a Referring Physician. Previously, this was causing an object reference error. |
| 17788 | Image request | Resolved a Telerik.WinControls error that could occur when resetting the Image Request WL layout when filtering contained a conditionally formatted row. |
| 17798 | Image request | Image Request History management report will now include completed requests, as appropriate. |
| 17224 | Inbound Document | A progress bar has been added when RIS is extracting TIFF or PDF documents during Inbound Document workflow. This will reduce the appearance that RIS is freezing when a large, multi-page document is being extracted. |
| 17623 | Inbound Document | Resolved an issue that could cause the inbound documents to stay on the WL after the user associates them to an existing order. |
| 17465 | Inbound Document | Resolved a memory leak that could cause an Inbound Document page to show as blank in the document viewer after being classified. |
| 17636 | Inbound Document | Resolved an issue where configuring a ScanType with a Display Order of 0 could cause other documents to be stored at that ScanType's assigned level under certain conditions. |
| 17118 | Inbound Document | Inbound Document Service no longer interferes with Service shutdown. |
| 17521 | Inbound Document | When the Inbound Document WL receives a file type that is not supported, the user is now informed that the file type is invalid and cannot be displayed. |
| 18156 | Inbound Document | Corrupt or o byte PDF files on the Inbound Document WL would previously throw an error and could not easily be cleared from the worklist. Now these will display a blank page that can be discarded from the worklist. |
| 17039 | Interfaces | Made adjustment to a query used by RIS Wedge to be more efficient and avoid c_action_queue backups. |
| 16724 | IVT / Precert | Carrier editor's PreCert Rules context menu item will now include rules based on Carrier Type when the PreCert Rules editor is |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

| | | |
|---|---|---|
| | | opened. |
| 16412 | Localization | Added Hebrew localization on the technologist copy/paste dialog. |
| 17142 | Localization | Added Hebrew localization for some stray items in User Preferences. |
| 14795 | Localization | Replaced "\" with single quotes where applicable in localization files. |
| 13340 | Localization | Added Hebrew localization for 3 PACS user messages. |
| 17648 | Lookup Tables | Resolved an issue that could cause an "index out of range" error when filtering look-up tables with the letter "u." |
| 17758 | Lookup Tables | Modality look-up table is now showing the Site Code with the site description in parenthesis. |
| 18021 | Lookup Tables | Resolved "Missing operand after 'scode' operator" error which could occur when interacting with an order containing a Procedure Code with a single quote ('). |
| 13044 | Mammography | Resolved an issue where a Mammo Tracking Reminder was not removed when an Addendum changed the Recommendation to one that should not issue a Reminder. |
| 16703 | Mammography | Resolved an issue with Printer configuration rules not being properly enforced for some mammo letters on Distribution WL. |
| 2534 | Mammography | When using Mammo Follow-up worklists, resolved an issue where order level data changes on the Follow-up tab are not carried forward when the Schedule button is clicked before saving the changes. |
| 14645 | Mammography | Resolved an issue related to registering a Mammo Tracking Reminder. |
| 18060 | Mammography | Adjusted a stored procedure to update Mammo Reminder categories to make it more efficient and avoid hanging. |
| 17941 | Meaningful Use | Offered Clinical Summary checkbox is no longer incorrectly checked when form printed for another open study. |
| 16990 | Messaging | In order to appropriately forward external notification emails to configured portal administrator user groups, a "from" RIS user must be created and the user key added to the System Config setting: GenericIncomingMessagePersonKey. |
| 16017 | Mgt Reports | ReportDeploymentLog now differentiates reports using an alternate report server with an asterisk. |
| 17432 | Mgt Reports | Scheduler Activity management report was updated to improve efficiency. No longer causes excessive physical IO. |
| 15166 | Mgt Reports | Scheduled vs Performed management report was updated to improve efficiency. A new stored procedure is used to capture the procedure code that was scheduled at the time the technologist begins the exam, so that it can be compared to the procedure code that is ultimately chosen by the technologist. |
| 17487 | MRN | Duplicate Issuer/MRN in grid will appropriately display error when scheduling/creating order. |
| 18041 | PACS (eRAD) Int - RIS only | After viewing images from View/Edit window, images are now closing properly when the View/Edit window is closed |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

| | | |
|---|---|---|
| 17541 | PACS (eRAD) Integration | Cache time is now appropriately using the server time instead of UTC time. |
| 17553 | PACS (eRAD) Integration | Caching now appropriately starts at the top of the WL after using Skip and Continue and then closing/reopening WL. |
| 19291 | PACS (eRAD) Integration | Resolved an issue which would previously cause a "get_ViewSessionIDs" error. |
| 15694 | PACS (Non - eRAD) Integration | All internet explorer browsers opened via the Sectra PACS integration are appropriately closed when user closes RIS. |
| 16879 | PACS (Non - eRAD) Integration | Resolved "IsCitrixBridgeAlive" error that occurred when canceling UV PACS credential screen. |
| 16998 | PACS (Non - eRAD) Integration | Resolved a "cross-thread" error that could occur when opening a study in dictation screen. |
| 13610 | PACS (Non - eRAD) Integration | URL is now displayed on PACS log-in dialog. This was previously missing for non-eRAD PACS. |
| 14766 | PACS (Non - eRAD) Integration | Enable/Disable PACS options are no longer disabled when the PACS Viewer is not found to be running at the time of launch. Improved crash recovery when there are issues with RIS/PACS communication. |
| 17241 | Patient Management | Patient Merge now appropriately handles multiple MRN issuers. |
| 16488 | Patient Search | Context menu in Patient Search now lists New Appointment and New Walk-in for both internal and external results. |
| 17671 | Patient Search | Date of birth is no longer assuming a birth year of 20xx when searching for birth dates prior to 1930. |
| 17277 | Peer Review | Resolved a "Get node by index" error that could occur if the Portal datapane was visible during Next workflow. |
| 17526 | Person Management | Adding Alternate ID is now possible for Personnel with an NPI. |
| 15198 | Powerscribe Integration | AutoFeed option will properly reappear on in the status bar when switching reporting modes from a non-PowerScribe mode back to PS360. |
| 18610 | Powerscribe Integration | After disabling PowerScribe, PowerScribe will not automatically be re-enabled after one exam and will remain disabled until the user chooses to enable it. |
| 15138 | Problem Workflow | Resolved error that could occur when resolving a Problem if the System Config for LockDurationInMinutes was set to 0. |
| 15337 | RADAR | Resolved an issue that could show email as a RADAR Quick Message option for patients without an email address. |
| 17922 | RADAR Nudge | Resolved an error which could occur when using WPR workflow when user is RADAR enabled. |
| 9423 | Radiology Reporting | Resolved an issue where the QA Flag would not be removed when verifying reports if the Assign To panel was closed or hidden. |
| 10746 | Radiology Reporting | Resolved an issue where next workflow could skip Addendum Requested studies under certain conditions. |
| 16250 | Radiology Reporting | Resolved an issue where long dictations that fail to save could be deleted and the radiologist was not able to attempt to re-save. |
| 16319 | Radiology Reporting | Breast Drawing is now loaded on CTRM screen. |
| 16320 | Radiology Reporting | Breast Drawing is now loaded on Peer Review screen. |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

| | | |
|---|---|---|
| 16344 | Radiology Reporting | Implanted devices are now loaded on Utilization Management screen. |
| 16418 | Radiology Reporting | Using Skip and Continue after opening an Addendum from the View Study screen now appropriately opens the next study in the View Study screen, instead of starting an addendum. |
| 16471 | Radiology Reporting | Visit goal, condition and patient immunization are now loaded on Confirmation screen. |
| 17019 | Radiology Reporting | Editor is no longer double prompted when audio is not available. |
| 17068 | Radiology Reporting | Resolved an issue that could cause an error when checking "Show all versions" in Report History. |
| 17220 | Radiology Reporting | Resolved an issue where the Dictate screen could fail to load if choosing to dictate an addendum from the View Study screen, if the user had clicked Skip and Continue on the previous study. |
| 17010 | Radiology Reporting | Resolved an issue reloading the dictation control after an error occurs during save. |
| 17440 | Radiology Reporting | Editor is no longer receiving a null reference error caused by PatientHistoryControl.ResizeLastColumn. |
| 17486 | Radiology Reporting | CC physician is no longer listed on "Copy To" in diagnostic report if the CC physician has chosen to Disable Report Delivery. |
| 17562 | Radiology Reporting | All panels are now enabled when using Emergency Access in reporting screen. |
| 17660 | Radiology Reporting | No longer receive object reference error when submitting a report on accession when Dictate screen is also open. |
| 17738 | Radiology Reporting | When a technologist has added additional studies from the Perform Exam screen, the radiologist can now appropriately load the studies using Next workflow. |
| 18034 | Radiology Reporting | No longer receive an object reference error when clicking Microphone Calibration button after disabling speech mike. |
| 18036 | Radiology Reporting | Notification for Pending Signature is appropriately displaying when configured count is met. |
| 16588 | Reception | For linked studies, the Overbook reason for one study should automatically populate to all other linked studies. |
| 17441 | Registration | Resolved a lang file issue that caused an "Input string was not in a correct format" error during registration in Hebrew environments. |
| 16494 | Scanning | Resolved an issue that could cause the "Attached By" field in Attachments screen to change to a question mark after being viewed by another user. |
| 17290 | Scanning | Resolved an issue that could prevent scanned documents from saving if the Attachment Viewer is open when the user clicks a save button such as Checking In. |
| 17294 | Scanning | ScannerEventlog.txt is now saved to folder c:\users\<username>\Appdata\Roaming\rTwain\ on the Citrix server. |
| 17301 | Scanning | Resolved an issue that could prevent attachment levels from updating when categorizing scanned documents with quick keys in a non-English environment. |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

| | | |
|---|---|---|
| 17737 | Scanning | When using PrintToRIS tool on a multi-page PDF, all pages are now appropriately included. |
| 15632 | Scheduling | Height and Smoking Status are appropriately populated when scheduling from the ACR Category 0 Follow-up WL. |
| 17062 | Scheduling | Age label is appropriately displayed during Rescheduling. |
| 17110 | Scheduling | Resolved an error that could occur if scheduling 3 or more orders where Order A and C are both Procedure Plans and Order B is not. |
| 17191 | Scheduling | Resolved an issue that could cause an object reference error when adding an Unknown Referring. |
| 17414 | Scheduling | Disabled the ability to click the Schedule button multiple times while Print Forms dialog is loading, which could cause an error or multiple appointments to be created. |
| 16944 | Scheduling | When rescheduling an order, the Preferred Location now lists the Practice and Site from the previously scheduled study. |
| 17292 | Scheduling | Existing Order prompt now appropriately displays when using the "Schedule From" option. |
| 17581 | Scheduling | Resolved issue which could prevent rescheduling a cancelled order due to an "ExpirationMonthYear" error related to Insurance plan expiry date. |
| 16617 | Technologist | Resolved an issue that could prevent a provider's Preferred Radiologist from being assigned if the provider had a resource type of Surgeon or Marketing Representative. |
| 16628 | Technologist | Automatic including and copy/pasting of exams for linked collections now only occurs within the same modality type. |
| 17184 | Technologist | Appropriately enforcing laterality requirement when changing procedure after Started status. |
| 16850 | Technologist | Appropriately populating Body Part when adding a new procedure from Perform Exam screen. |
| 16595 | Technologist | Resolved a Validation Rule issue that could prevent UI Action type rules from firing on Perform Exam screen. |
| 17802 | Technologist | Now possible to select different room when adding an exam from the Perform Exam screen. |
| 16321 | Thick Client GUI | Patient's race is now populating appropriately on Finding Follow-up and Mammo Follow-up screens. |
| 16322 | Thick Client GUI | Family History is now populating appropriately on UM, Finding Follow-Up, and Mammo Follow-Up screens. |
| 16326 | Thick Client GUI | When patient's address is updated from Medical Record access, it is now updating appropriately to other screens. |
| 16327 | Thick Client GUI | Image requests created on the Schedule screen are loaded when viewing the Image Requests tab in Registration. |
| 16553 | Thick Client GUI | Prior patient notes are loading in the Edit Image Request screen. |
| 16859 | Thick Client GUI | RIS locking is disabled in Single Sign On mode. |
| 4647 | Thick Client GUI | After upgrade, Location Filter (Organization Picker) will maintain the last selection that was made by the user on the current workstation. |
| 17628 | Thick Client GUI | Implantable device rows are no longer temporarily hidden when |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

| | | |
|---|---|---|
| | | adding a new appointment. |
| 18594 | Thick Client GUI | Stale cache no longer causes delay in enforcing changes to User Groups. |
| 17338 | UI Look and feel | Added language localization for Add Unknown Referring in scheduling workflow. |
| 17701 | UI Look and feel | If a user enters invalid UTF16 characters into the Height or Weight fields, RIS will clear the invalid characters from the field. This change is made in response to an issue where RIS could crash after foreign language characters sporadically appear in those fields. Additional logging will take place if invalid UTF16 characters are detected in these fields. |
| 15843 | UI Look and feel | Date format in the Log Control will now match the System Configuration setting for date format. |
| 17578 | UI Look and feel | The audit functionality for configuration tables has been renamed: Audit Changes. |
| 18112 | UI Look and feel | Resolved an issue where font sizes could be so large that RIS would appear to be blank when in a region where decimals are written with commas instead of periods. |
| 17437 | User Preferences | Appropriate error is now displayed to the user if User Preference changes fail to save. |
| 17027 | Utilization Management | Updated terminology for ACR Select to reflect the new name: CareSelect. |
| 17145 | Utilization Management | Utilization Management "Internal Notes" are now visible on the UM tab for schedulers. |
| 17146 | Utilization Management | When recommending an additional procedure in Utilization Management, the authorization status is no longer read-only. |
| 17600 | Utilization Management | No longer receive object reference error when opening Clinical tab's additional info button from Utilization Review screen. |
| 16729 | Utilization Management | Minor changes were made to the UM Alert configuration screen (Medical Group table). |
| 17428 | Utilization Management | Search button is no longer enabled after switching options in "Search Options" section, if scheduling is prevented due to UM requirement. |
| 17604 | Utilization Management | Utilization Management Owners are now listed alphabetically in the dropdown. |
| 17651 | Utilization Management | When scheduling, if a procedure is removed via red or black X, the UM Required flag remains (as appropriate). |
| 18057 | Utilization Management | When modifying a UM order from the schedule screen, the Authorization Grid on the UM Tab is refreshing properly, resolving an issue with temporarily hidden procedure rows and an incorrect UM Clock. |
| 17318 | Validation Rules | Removed the "Please note:" prefix that was added to Validation Rule warnings. |
| 11560 | Walk-In | An object reference error no longer occurs when un-splitting orders (e.g. Order B back to Order A) during registration. |
| 17800 | Walk-In | Resolved a re-binding issue that could (rarely) cause a problem by |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

| | | |
|---|---|---|
| | | attempting to issue a System MRN for a patient who already has one. |
| 17028 | Worklists | Data is now populating correctly to columns in Signed By Date WL that were previously empty. |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## PATIENT PORTAL

Bugs and support issues resolved in build 3.2017.6.

| Bug # | Category | Subject |
|---|---|---|
| 17687 | | Text color changed to black for Get Help Request replies for better visualization. |
| 16835 | Pat Admin - User Mssgs | The letter Y is no longer displayed next to the User Message recipient's checkbox. |
| 17049 | Patient Appointments Page | Patients are now prevented from scheduling exams that are under utilization review. |
| 17024 | Patient Exam Detail Page | Exam Details Panel is now displaying the correct contact information. |
| 17816 | Patient Exam Detail Page | Resolved an issue that could cause an error when downloading C-CDA. |
| 16289 | Patient Logon | Changed language during workflow where provider invites patient to schedule, so that it is clear that an I-code is a verification code. |
| 17144 | Patient WF: Create Account | When most recent exam is "CDImport," patient account creation will ignore and use the provider for the next most recent exam for verification purposes. |
| 15638 | Patient WF: Make Appointment | Resolved an error which could occur if the patient entered a Work Comp claim number of more than 20 characters. |
| 19298 | Patient WF: Make Appointment | Resolved Object Reference error that could occur during online scheduling for patients with no prior appointments. |
| 17824 | | Patient verification question updated to appropriately ask for location of most recent exam, instead of next exam. |
| 18159 | Patient Portal | Resolved an issue which could cause a daily error notification to be emailed to portal administrators. |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## PROVIDER PORTAL

Bugs and support issues resolved in build 3.2017.6.

| Bug # | Category | Subject |
|---|---|---|
| 16794 | Prov Admin - System Messages | System Messages are now appropriately displayed according to the highest priority. |
| 16893 | Prov Admin - User Management | "Last Signed" timestamp now correctly displaying for End User License Agreement. |
| 16895 | Prov Admin - User Management | During account creation, when a PACS account is created, the account populates on the Referring Portal Admin Account screen. |
| 16903 | Prov Admin - User Management | Unable to create an account with a duplicate user name. |
| 17041 | Prov Admin - User Management | Provider Portal user's account settings for Authorized to Order search are no longer case sensitive. |
| 17042 | Prov Admin - User Management | Resolved save issue when creating Proxy users. |
| 17291 | Prov Admin - User Management | Column Filters for Search results in Admin Provider Portal and Patient Portal are now sorting appropriately. |
| 17336 | Prov Admin - User Management | |
| 16791 | Prov Admin - User Messages | When selecting the Sent tab in the Admin Portal, it now changes to the appropriate screen and changes back after clicking 'Inbox'. |
| 16939 | Prov Admin - User Mgmt: Edit | Close button now works properly on the RIS ID look-up window in Admin Portal. |
| 16892 | Provider Account Page | No longer receive validation warning when editing tabs if changes have already been discarded. |
| 17556 | Provider Account Page | When users change their default landing page, the correct default will now load. |
| 17485 | Provider General Display | Reports are now displayed properly in Internet Explorer (no longer opening in a small window). |
| 17809 | Provider Home Screen | Quick Launch image icon and Get Help link for report are no longer producing internal server errors. |
| 16897 | Provider Logon | No longer receive error in Legal helper when refreshing page after application pool restart. |
| 17161 | Provider Logon | External Get Help form appropriately requires reCaptcha again when users select "Send Another." |
| 16817 | Provider Search | Ordered exams are now displayed as "To Be Scheduled." |
| 16890 | Provider Search | It is now possible to search by UM Tracking number without specifying a last name. |
| 17005 | Provider WF Create Order | When a Proxy user submits an order for approval and the referring adds a UM required insurance, the UM flag is triggered and the portal will not allow scheduling. In RIS, the study has the UM required flag and appears on the UM WL. |
| 17836 | Provider WF Create | Order notes are now always displayed to the provider for Pending |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

| | | |
|---|---|---|
| | Order | Order workflow. |
| 18700 | | Electronic Order form is now appropriately created when appointments are made in the Provider Portal. |
| 18690 | Provider Portal | Resolved an error that could occur during password reset workflow. |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## UTILIZATION MANAGEMENT PORTAL

Bugs and support issues resolved in build 3.2017.6.

| Bug # | Category | Subject |
|---|---|---|
| 16712 | | Page title updated to remove provider specific language. |
| 16709 | Accounts Page | Removed password reset controls from Accounts page to be consistent with other portals. |
| 18053 | Accounts Page | Resolved an issue where the "Make Default tab checkbox could become unchecked during save. |
| 17259 | Admin Portal | System Message type "New" now displays in the correct color. |
| 18051 | Admin Portal | Resolved an issue where the requirement for the email address was not enforced in the Admin Portal when editing users. |
| 18052 | Admin Portal | Close button now functions properly when closing messages from User Messages grid in Admin Portal. |
| 17462 | Exam Detail Page | When scanned documents are archived to a location that RIS/the Portals cannot access, a user friendly message will inform the user that the documents are not available and, in the case of the UM portal, a Get Help link will be provided. |
| 16298 | Get Help Page (Outside & Inside) | Help Page and Messages page have been renamed to be consistent with other portals. |
| 16035 | Orders Page | Custom tab options now appropriately support filters that include multiple UM Statuses. |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## KNOWN LIMITATIONS

The following are new bugs found in build 3.2017.6. Bugs reported in previous versions are not captured as Known Limitations in this document.

**eRAD RIS**

| # | Subject |
|---|---|
| 18699 | PACS integration – Occasional duplication of message box such as “Study not loaded in PACS”. |
| 19007 | Multiple time zones are not properly supported when searching for appointments. |
| 19008 | Multiple time zones are not properly supported when timestamping the notes style log controls. It uses the workstation local time. |
| 19071 | Patient search window - Patient Folder (Preview Mode) is not loading/displaying when the date format uses MMM (fully spelled out month). |
| 19081 | Visual ‘loop’ when adding a CC physician and clicking a tab quickly. The same CC physician is added repeatedly. |
| 18087 | When configured to copy “Same as Patient” in the Patient Relation look-up table, it is possible that information for a patient’s relative might not be updated visually in the RIS. Updates are saved in the database, but the patient’s information can still be displayed when viewing the RIS, despite the data being updated. Workaround: in the Patient Relation look-up, set the problematic field (e.g. last name) to N under the Same as Patient column. This will turn off the default (same as patient) information and allow the updated information to display. |
| 18090 | Title bar colors are not saving in Practice editor screen. |
| 18206 | Performing Radiologist column in the Radiologist worklists is not localized in Hebrew. |
| 18289 | Infinit PACS - When studies are opened from 2 Patient Folders, the second set does not close correctly. |
| 18417 | Image Request History management report can mis-report statistics if requesting and performing sites are different. |
| 18448 | Adding a Recommendation to the Findings table and not entering a 'display order' will cause an error. |
| 18507 | When a Rad attempts to open a study in the View Study window that was recently completed by a tech, an Object Reference error is produced. |
| 18530 | Clicking on “Workflow” in the Procedure Picker can cause an Object Reference error. |
| 18624 | Non-eRAD PACS integration - multi-selecting, then clicking View Images doesn't change the context menu item to Remove Images. Also on Infinitt PACS, only the first image is opened. |
| 18713 | Critical Results window – The Finding Follow-up window is in View menu but does not open if study is in exam done status. |
| 18721 | On a manually created Document Distribution job, the delivery method and details may not update if referring is changed. |
| 18806 | Cannot delete a newly added person from the Personnel management window. |
| 18877 | PACS Integration - When appending studies, if the study cannot be loaded, no message is produced. It should behave the same as on the initial load and tell the user what studies are not loaded. |
| 18947 | Register window – Removing, then re-adding a procedure without selecting a room, then opening |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

| | |
|---|---|
| | the attachment window will cause an Object Reference error. |
| 18951 | Scheduling a procedure plan that contains an inactive procedure will cause an Object Reference error. |
| 18960 | The Last Updated and Last Updated By User Id columns are not being updated when importing Digital Forms from the context menu import tool. |
| 18961 | Performing a walk-in on a new patient without a DOB will throw a DBNull Exception error when selecting the room. |
| 19020 | Patient quick search doesn't work with date format of dd/MMM/yyyy (alpha month abbreviation). |
| 19052 | MIM PACS - PACS window does not close when RIS is closed. |
| 19055 | MIM PACS - If you have several studies open in dictation window and you quickly close them, not all of the images are closed. |
| 19058 | Workflow can be stopped by using the Unknown Referring workflow, making the referring known and not setting any active addresses. The RIS will be unable to proceed with this study. |
| 19096 | When rescheduling an order from the Labwork Advised WL, the height and weight values are removed. |
| 19133 | IW PACS – From the mini-patient history only, after attempting to open more than one prior (which is not supported by IW), you cannot simply close and re-open another prior. |
| 19149 | Issuer column in MRN grid is not pre-populated with values if the New Patient feature is used. |
| 19180 | In the reschedule window, if the user selects a new medication but does not enter a start and stop date / status, an error is thrown. |
| 19241 | Relative date and time filters do not take into account date time offset. |
| 19242 | Validation rules do not fire on new patient (UI_PatientCreated) |
| 19292 | Validation of externalactionschema.xsd is missing name_prefix_code and name_suffix_code data |
| 19303 | eRAD PACS V8 - caching does not appear to be working, the 'User2' and 'User8' fields in PACS WL are not populating |
| 19324 | eRAD PACS v7.2 - when the 'config options' field is totally empty and 'studies to cache' is set to 0 , getting prompted for PACS credentials when you open the pending dictation WL |
| 19111 | Document distribution email jobs can stay in ‘InProgress’ status even though they did complete successfully. |
| 18569 | Creating a new Patient Alert in admin tools occasionally causes an error. |
| 18647 | Identify Patient throws an error if scan ID type is set to study level instead of patient level. |
| 18943 | Deleting the weight value in the registration window can throw an error. |
| 19331 | PACS V8 - Using the Remove Images option in mini Patient Folder will prompt to break lock. |
| 17678 | Polling for transcription jobs after purging job table soft-locks RIS. |
| 18144 | In Hebrew, when adding an Unknown Referring RIS throws an error. |

**Patient Portal**

| Bug # | Subject |
|---|---|
| 18174 | Patient Portal indicates a date format error, even though a valid format of "yyyy-MM-dd" is configured. |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

**Provider Portal**

| Bug # | Subject |
|---|---|
| 18724 | Message to referring is worded in a patient-centric format. Needs to be updated. |
| 19061 | Creating folders using Firefox as a browser can cause errors. |
| 19065 | From the Admin Portal, attempting to view a user message produces an error instead. |

**UM Portal**

| Bug # | Subject |
|---|---|
| 19038 | When adding a new user and selecting 'Add medical group' then immediately saving without selecting a group, other changes are not saved. |
| 19341 | When logging into the UM Admin Portal as a user without proper access strings, the error message indicates that the user name or password are incorrect, when in fact the user does not have proper permissions. |

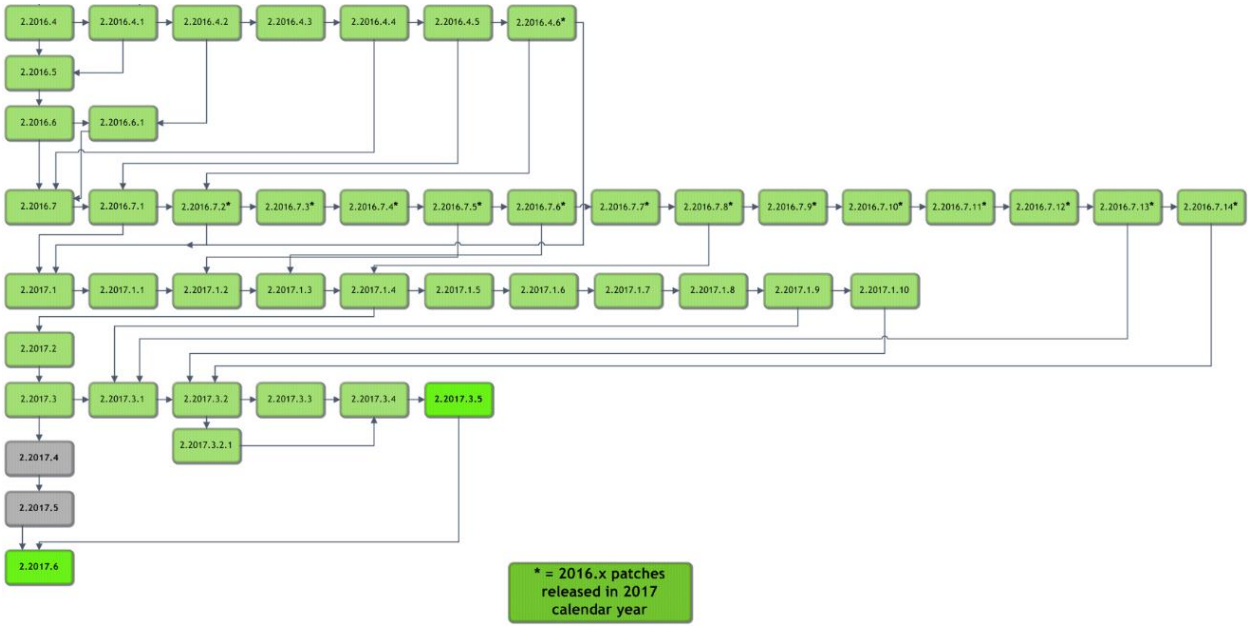
No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## RIS RELEASE VERSION NUMBERS

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Digital Forms | Patient Portal | UM Portal | Provider Portal | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| 2016.4 | - | 2.16.4.0 | 2.16.4.0 | 2.16.4.0 | 2.16.4.0.00301943 | 2.16.4.0 | 1.16.4.0.310284 | | | Full Version Release |
| 2016.4 | 1 | 2.16.4.1 | 2.16.4.0 | 2.16.4.1 | 2.16.4.0.00301943 | 2.16.4.0 | 1.16.4.0.310284 | | | GUI and Web Service updates |
| 2016.4 | 2 | 2.16.4.2 (3GB) | 2.16.4.0 | 2.16.4.1 | 2.16.4.0.00301943 | 2.16.4.0 | 1.16.4.2.460241 | | | GUI and Patient Portal updates |
| 2016.4 | 3 | 2.16.4.3 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | 1.16.4.3.489120 | | | GUI and Patient Portal updates |
| 2016.4 | 4 | 2.16.4.4 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | 1.16.4.3.489120 | | | GUI |
| 2016.4 | 5 | 2.16.4.5 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | | | | GUI |
| 2016.4 | 6 | 2.16.4.6 (3GB) | 2.16.4.0 | 2.16.4.3 | 2.16.4.3.00483474 | 2.16.4.0 | | | | GUI |
| 2016.5 | - | 2.16.5.0 (3GB) | 2.16.5.0 | 2.16.5.0 | 2.16.5.0.00349303 | 2.16.5.0 | 1.16.5.0.362009 | | | Full Version Release |
| 2016.6 | - | 2.16.6.0 (3GB) | 2.16.6.0 | 2.16.6.0 | 2.16.6.0.00411295 | 2.16.6.0 | 1.16.6.0.432471 | | | Full Version Release |
| 2016.6 | 1 | 2.16.6.1 (3GB) | 2.16.6.0 | 2.16.6.0 | 2.16.6.0.00411295 | 2.16.6.0 | 1.16.6.1.468583 | | | GUI and Patient Portal updated |
| 2016.7 | - | 2.16.7.0 (3GB) | 2.16.70 | 2.16.70 | 2.16.7.0.00490835 | 2.16.70 | 1.16.7.0.493031 | 2.16.7.0.493008 | | Full version release |
| 2016.7 | 1 | 2.16.7.1 (3GB) | 2.16.7.0 | 2.16.7.1 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 2 | 2.16.7.2 (3GB) | 2.16.7.0 | 2.16.7.2 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 3 | 2.16.7.3 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 4 | 2.16.7.4 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI |
| 2016.7 | 5 | 2.16.7.5 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI |
| 2016.7 | 6 | 2.16.7.6 (3GB) | 2.16.7.0 | 2.16.7.6 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 7 | 2.16.7.7 (3GB) | 2.16.7.0 | 2.16.7.7 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 8 | 2.16.7.8 (3GB) | 2.16.7.0 | 2.16.7.7 | 2.16.7.8.00683507 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and DB updates |
| 2016.7 | 9 | 2.16.7.9 (3GB) | 2.16.7.0 | 2.16.7.9 | 2.16.7.9.00715012 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI, Web Services, DB updates and UM Portal |
| 2016.7 | 10 | 2.16.7.10 (3GB) | 2.16.7.0 | 2.16.7.10 | 2.16.7.9.00715012 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI and Web Service updates |
| 2016.7 | 11 | 2.16.7.11 (3GB) | 2.16.7.0 | 2.16.7.11 | 2.16.7.11.00761267 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI, Web Service and DB updates |
| 2016.7 | 12 | 2.16.7.12 (3GB) | 2.16.7.0 | 2.16.7.11 | 2.16.7.11.00761267 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI |
| 2016.7 | 13 | 2.16.7.13 (3GB) | 2.16.7.0 | 2.16.7.13 | 2.16.7.13.00823274 | 2.16.7.0 | 2.16.7.13.805715 | 2.16.7.13.805717 | | GUI, Web Service, DB, Patient and UM Portal updates |
| 2016.7 | 14 | 2.16.7.14 (3GB) | 2.16.7.0 | 2.16.7.14 | 2.16.7.14.00888220 | 2.16.7.0 | 2.16.7.14.897644 | 2.16.7.14.897646 | | GUI, Web Service, DB, Patient and UM Portal updates |
| 2017.1 | - | 2.17.1.0 (3GB) | 2.17.1.0 | 2.17.1.0 | 2.17.1.0.00559886 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | Full Version Release |
| 2017.1 | 1 | 2.17.1.1 (3GB) | 2.17.1.0 | 2.17.1.1 | 2.17.1.1.00589952 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 2 | 2.17.1.2 (3GB) | 2.17.1.0 | 2.17.1.2 | 2.17.1.2.00621962 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 3 | 2.17.1.3 (3GB) | 2.17.1.0 | 2.17.1.3 | 2.17.1.3.00640480 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 4 | 2.17.1.4 (3GB) | 2.17.1.0 | 2.17.1.4 | 2.17.1.4.00692239 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI, Web Service, DB and Patient Portal updates |
| 2017.1 | 5 | 2.17.1.4 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.4.00692239 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | Web Service |
| 2017.1 | 6 | 2.17.1.6 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI and DB Updates |
| 2017.1 | 7 | 2.17.1.7 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI update |
| 2017.1 | 8 | 2.17.1.8 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI update |
| 2017.1 | 9 | 2.17.1.9 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI update |
| 2017.1 | 10 | 2.17.1.10 (3GB) | 2.17.1.0 | 2.17.1.10 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI and Web Service update |
| 2017.2 | - | 2.17.2.0(3GB) | 2.17.2.0 | 2.17.2.0 | 2.17.2.0.00695782 | 2.17.2.0 | 2.17.2.0.702238 | 2.17.2.0.702213 | 2.17.2.0.702226 | Full Version Release. First release of Provider Portal |
| 2017.3 | - | 2.17.3.0(3GB) | 2.17.3.0 | 2.17.3.0 | 2.17.3.0.00764112 | 2.17.3.0 | 2.17.3.0.321 | 2.17.3.0.321 | 2.17.3.0.321 | Full Version Release. Including Patient, Provider and UM Portals |
| 2017.3 | 1 | 2.17.3.1(3GB) | 2.17.3.0 | 2.17.3.1 | 2.17.3.1.00846328 | 2.17.3.1 | 2.17.3.1.853299 | 2.17.3.1.853301 | 2.17.3.1.856171 | GUI, Web Sevice, DB. Including Patient, Provider and UM Portals |
| 2017.3 | 2 | 2.17.3.2(3GB) | 2.17.3.0 | 2.17.3.2 | 2.17.3.2.00898348 | 2.17.3.2 | 2.17.3.2.913898 | 2.17.3.2.913899 | 2.17.3.1.856171 | GUI, Web Sevice, DB. Including Patient, Provider and UM Portals |
| 2017.3 | 2.1 | 2.17.3.2.1(3GB) | 2.17.3.0 | 2.17.3.2 | 2.17.3.2.00898348 | 2.17.3.2 | 2.17.3.2.913898 | 2.17.3.2.913899 | 2.17.3.1.856171 | GUI Only |
| 2017.3 | 3 | 2.17.3.3(3GB) | 2.17.3.0 | 2.17.3.3 | 2.17.3.3.00954008 | 2.17.3.2 | 2.17.3.3.962869 | 2.17.3.3.962870 | 2.17.3.3.962870 | GUI, Web Sevice, DB. Including Patient, Provider and UM Portals |
| 2017.3 | 4 | 2.17.3.4(3GB) | 2.17.3.0 | 2.17.3.4 | 2.17.3.4.00987562 | 2.17.3.2 | 2.17.3.3.962869 | 2.17.3.3.962870 | 2.17.3.3.962870 | GUI, Web Sevice and DB |
| 2017.3 | 5 | 2.17.3.5(3GB) | 2.17.3.0 | 2.17.3.5 | 2.17.3.5.01023250 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | GUI, Web Sevice, DB, Patient Portal, Referring Portal, UM Portal |
| **2017.6** | - | **3.17.6.0(3GB)** | **3.17.6.0** | **3.17.6.0** | **3.17.6.0.01037550** | **3.17.6.0** | **3.17.6.0.1037868** | **3.17.6.0.1037869** | **3.17.6.0.1037869** | **Full Version Release. Including Patient, Provider and UM Portals** |

No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

## CODE STREAM DIAGRAM




No part of this material may be published reproduced stored in a retrieval system or transmitted in any form or by any means without the prior written permission from eRAD.

# Server Update

For eRAD RIS

Version 3.0

Build 3.2017.6

Update 3.2017.6.1

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

# Table of Contents

Package Contents ..... 3

Intended Audience ..... 3

Who is affected ..... 3

Resolved Items ..... 4

Code Stream ..... 7

eRAD RIS Release Version Numbers ..... 8

Installing ..... 9

- Client/GUI ..... 9
- Web Service ..... 9
- Database Updates ..... 11

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## PACKAGE CONTENTS

## INTENDED AUDIENCE

The intended audience for this document is the RadNet Clinical Systems team and the eRAD Support/Service team.

It is appropriate to share the document with any customers applying the patch, in order to review new feature descriptions and resolved defects.

## WHO IS AFFECTED

Build 2017.6 installs. This server update must be applied to 2017.6.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

## RESOLVED ITEMS

# eRAD RIS

| Redmine # | Subject |
|---|---|
| 19617 | Validation rule with a UI_PatientCreated intended UI action will now appropriately fire from the New Patient screen. |
| 19665 | Changed the Issuer dropdown content in the MRN grid back to Issuer Description (instead of Issuer ID Code). |
| 19709 | Utilization Review - Opinion Letter is no longer prompting to save changes when no changes are made. No longer receive Foreign Key Constraint error on save. |
| 19556 | Resolved error in Exam Search that occurred after closing a different worklist that had context menu open. |
| 19783 | Order, Schedule and Patient Notes appropriately appear on separate lines when populated via interface. |

The following items, developed for future or previous RIS versions. These items have been added to this patch release to allow for upgrade to the 2017.6.X version

| Redmine # | Subject | Original Resolved Version |
|---|---|---|
| 19588 | Resolved error thrown on various worklists related to the caching toggle button. | 2.2017.3.7 |
| 19520 | Resolved an issue which could cause incorrect studies to cache when switching worklist views. | 2.2017.3.6 |
| 19521 | No longer submit a call to prefetch PACS studies when closing the Pending Dictation WL, which could cause a delay in closing the | 2.2017.3.6 |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

| | | |
|---|---|---|
| | worklist. | |
| 19512 | Made a change to avoid a "server not responding" timeout error for users with a high number of studies set to cache. | 2.2017.3.6 |
| 19513 | Additional index created to reduce deadlock risk when updating worklist flags. | 2.2017.3.6 |
| 19519 | No longer receive errors when saving EMR patients without an MRN issuer in the look-up table. | 2.2017.3.6 |
| 19523 | Made a change to the way worklist flags are updated to decrease risk of deadlock errors. | 2.2017.3.6 |
| 19720 | Resolved an issue in which adding multiple CC Physicians could result in additional physicians being associated with the first CC physician's report delivery address. | 2.2017.3.8 |
| 19721 | Resolved an issue that could cause the same CC Physician to be added multiple times in a loop under certain conditions. | 2.2017.3.8 |
| 19722 | Error no longer occurs when opening the Print Forms screen for procedures without a Body Part selected. | 2.2017.3.8 |
| 19724 | Changed the way in which Imagine payments are saved, reducing the risk of failing to save a record of the payment in RIS, which could result in staff inappropriately collecting a duplicate payment. If there is an issue that prevents a payment record from saving, the RIS user will receive a warning message containing the Imagine Reference # and will be instructed to contact an administrator. | 2.2017.3.8 |
| 19726 | Changed the method of searching the RIS database by UM Tracking Number, in order to prevent time out errors. | 2.2017.3.8 |
| 19727 | Resolved an issue that could cause validation rules to behave improperly when the rule and conditions for the rule referred to | 2.2017.3.8 |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

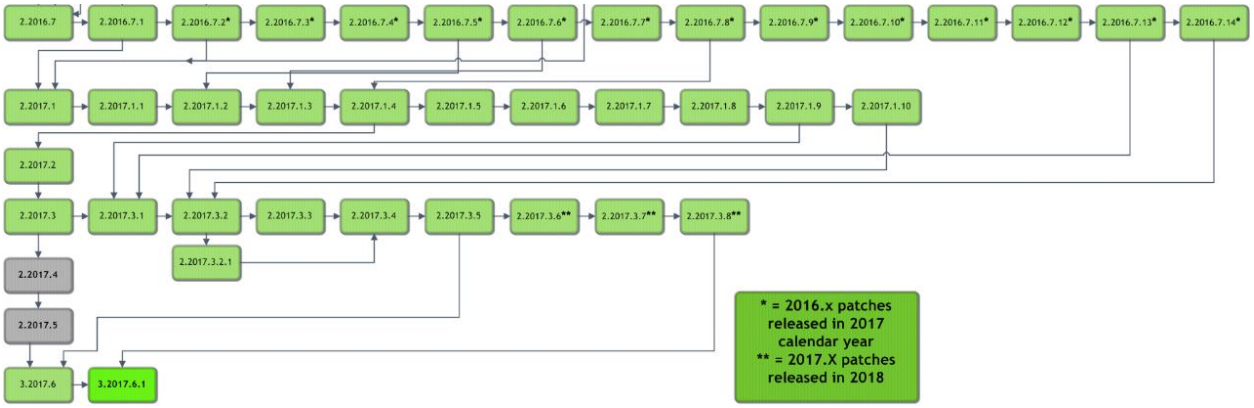
in any form or by any means without the prior written permission from eRAD. 

| | | |
|---|---|---|
| | information stored in different datasets. | |
| 19514 | Ensemble plugin is now able to handle self-referencing tables in outbound schema. | 2.2017.3.6 |
| 19516 | Changed index and release lock logic to resolve deadlock issues on c_locked_item. | 2.2017.3.6 |
| 19517 | Corrected an issue with External Verify workflow so that these exams fall to the correct worklist according to System Configuration setting. | 2.2017.3.6 |
| 19518 | Resolved an issue that could occur when a certain set of actions was performed during scheduling that could cause the save/close/schedule actions to become unresponsive for that tab. | 2.2017.3.6 |
| 19522 | Resolved an Imagine payment voiding issue that could occur when a study has moved to a new Practice between the time of collecting the payment and voiding it. The void will now always be issued with the same Imagine Data Set ID that was used when the payment was collected. | 2.2017.3.6 |
| 19587 | Added UM Status Code to filter criteria for Portal Tab configuration. | 2.2017.3.7 |
| 19723 | Procedure code General Description is now located in the correct place in messages sent from the Wedge. | 2.2017.3.8 |
| 19725 | Resolved an issue that caused the Save and Close buttons to disappear from the Add Mammo Biopsy screen when more than 4 rows of pathology codes were entered in the Pathology Codes field. | 2.2017.3.8 |
| 19728 | Reduced frequency of an Eligible API call (getCarrierDSByCode), which was previously called excessively and could impact system performance. | 2.2017.3.8 |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## CODE STREAM




## Legend:

**Light Green = Previously Released software**

**Gray = Internal version, non-release version**

**Bright Green = Current Release**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

## ERAD RIS RELEASE VERSION NUMBERS

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Digital Forms | Patient Portal | UM Portal | Provider Portal | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| 2016.7 | - | 2.16.7.0 (3GB) | 2.16.70 | 2.16.70 | 2.16.7.0.00490835 | 2.16.70 | 1.16.7.0.493031 | 2.16.7.0.493008 | | Full version release |
| 2016.7 | 1 | 2.16.7.1 (3GB) | 2.16.7.0 | 2.16.7.1 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 2 | 2.16.7.2 (3GB) | 2.16.7.0 | 2.16.7.2 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 3 | 2.16.7.3 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 4 | 2.16.7.4 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI |
| 2016.7 | 5 | 2.16.7.5 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI |
| 2016.7 | 6 | 2.16.7.6 (3GB) | 2.16.7.0 | 2.16.7.6 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 7 | 2.16.7.7 (3GB) | 2.16.7.0 | 2.16.7.7 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 8 | 2.16.7.8 (3GB) | 2.16.7.0 | 2.16.7.7 | 2.16.7.8.00683507 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and DB updates |
| 2016.7 | 9 | 2.16.7.9 (3GB) | 2.16.7.0 | 2.16.7.9 | 2.16.7.9.00715012 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI, Web Services, DB updates and UM Portal |
| 2016.7 | 10 | 2.16.7.10 (3GB) | 2.16.7.0 | 2.16.7.10 | 2.16.7.9.00715012 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI and Web Service updates |
| 2016.7 | 11 | 2.16.7.11 (3GB) | 2.16.7.0 | 2.16.7.11 | 2.16.7.11.00761267 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI, Web Service and DB updates |
| 2016.7 | 12 | 2.16.7.12 (3GB) | 2.16.7.0 | 2.16.7.11 | 2.16.7.11.00761267 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI |
| 2016.7 | 13 | 2.16.7.13 (3GB) | 2.16.7.0 | 2.16.7.13 | 2.16.7.13.00823274 | 2.16.7.0 | 2.16.7.13.805715 | 2.16.7.13.805717 | | GUI, Web Service, DB, Patient and UM Portal updates |
| 2016.7 | 14 | 2.16.7.14 (3GB) | 2.16.7.0 | 2.16.7.14 | 2.16.7.14.00888220 | 2.16.7.0 | 2.16.7.14.897644 | 2.16.7.14.897646 | | GUI, Web Service, DB, Patient and UM Portal updates |
| 2017.1 | - | 2.17.1.0 (3GB) | 2.17.1.0 | 2.17.1.0 | 2.17.1.0.00559886 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | Full Version Release |
| 2017.1 | 1 | 2.17.1.1 (3GB) | 2.17.1.0 | 2.17.1.1 | 2.17.1.1.00589952 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 2 | 2.17.1.2 (3GB) | 2.17.1.0 | 2.17.1.2 | 2.17.1.2.00621962 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 3 | 2.17.1.3 (3GB) | 2.17.1.0 | 2.17.1.3 | 2.17.1.3.00640480 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 4 | 2.17.1.4 (3GB) | 2.17.1.0 | 2.17.1.4 | 2.17.1.4.00692239 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI, Web Service, DB and Patient Portal updates |
| 2017.1 | 5 | 2.17.1.4 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.4.00692239 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | Web Service |
| 2017.1 | 6 | 2.17.1.6 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI and DB Updates |
| 2017.1 | 7 | 2.17.1.7 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI update |
| 2017.1 | 8 | 2.17.1.8 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI update |
| 2017.1 | 9 | 2.17.1.9 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI update |
| 2017.1 | 10 | 2.17.1.10 (3GB) | 2.17.1.0 | 2.17.1.10 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI and Web Service update |
| 2017.2 | - | 2.17.2.0(3GB) | 2.17.2.0 | 2.17.2.0 | 2.17.2.0.00695782 | 2.17.2.0 | 2.17.2.0.702238 | 2.17.2.0.702213 | 2.17.2.0.702226 | Full Version Release. First release of Provider Portal |
| 2017.3 | - | 2.17.3.0(3GB) | 2.17.3.0 | 2.17.3.0 | 2.17.3.0.00764112 | 2.17.3.0 | 2.17.3.0.321 | 2.17.3.0.321 | 2.17.3.0.321 | Full Version Release. Including Patient, Provider and UM Portals |
| 2017.3 | 1 | 2.17.3.1(3GB) | 2.17.3.0 | 2.17.3.1 | 2.17.3.1.00846328 | 2.17.3.1 | 2.17.3.1.853299 | 2.17.3.1.853301 | 2.17.3.1.856171 | GUI, Web Sevice, DB. Including Patient, Provider and UM Portals |
| 2017.3 | 2 | 2.17.3.2(3GB) | 2.17.3.0 | 2.17.3.2 | 2.17.3.2.00898348 | 2.17.3.2 | 2.17.3.2.913898 | 2.17.3.2.913899 | 2.17.3.1.856171 | GUI, Web Sevice, DB. Including Patient, Provider and UM Portals |
| 2017.3 | 2.1 | 2.17.3.2.1(3GB) | 2.17.3.0 | 2.17.3.2 | 2.17.3.2.00898348 | 2.17.3.2 | 2.17.3.2.913898 | 2.17.3.2.913899 | 2.17.3.1.856171 | GUI Only |
| 2017.3 | 3 | 2.17.3.3(3GB) | 2.17.3.0 | 2.17.3.3 | 2.17.3.3.00954008 | 2.17.3.2 | 2.17.3.3.962869 | 2.17.3.3.962870 | 2.17.3.3.962870 | GUI, Web Sevice, DB. Including Patient, Provider and UM Portals |
| 2017.3 | 4 | 2.17.3.4(3GB) | 2.17.3.0 | 2.17.3.4 | 2.17.3.4.00987562 | 2.17.3.2 | 2.17.3.3.962869 | 2.17.3.3.962870 | 2.17.3.3.962870 | GUI, Web Sevice and DB |
| 2017.3 | 5 | 2.17.3.5(3GB) | 2.17.3.0 | 2.17.3.5 | 2.17.3.5.01023250 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | GUI, Web Sevice, DB, Patient Portal, Referring Portal, UM Portal |
| 2017.3 | 6 | 2.17.3.6(3GB) | 2.17.3.0 | 2.17.3.6 | 2.17.3.6.01065114 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | GUI, Web Sevice, DB, |
| 2017.3 | 7 | 2.17.3.7(3GB) | 2.17.3.0 | 2.17.3.6 | 2.17.3.6.01065114 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | GUI |
| 2017.3 | 7 | 2.17.3.8(3GB) | 2.17.3.0 | 2.17.3.8 | 2.17.3.6.01065114 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | GUI and Web Service |
| 2017.6 | - | 3.17.6.0(3GB) | 3.17.6.0 | 3.17.6.0 | 3.17.6.0.01037550 | 3.17.6.0 | 3.17.6.0.1037868 | 3.17.6.0.1037869 | 3.17.6.0.1037869 | Full Version Release. Including Patient, Provider and UM Portals |
| **2017.6** | **1** | **3.17.6.1(3GB)** | **3.17.6.0** | **3.17.6.1** | **3.17.6.1.01094077** | **3.17.6.0** | **3.17.6.0.1037868** | **3.17.6.0.1037869** | **3.17.6.0.1037869** | **GUI, Web Service and DB updates** |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

# INSTALLING

## CLIENT/GUI

Copy and replace the current rRIS…zip file with the eRAD_rRIS_2017.6.1.zip file provided with this release.

Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

## WEB SERVICE

This updated is only required for the Wedge Web Services. The Core RIS Service and Document Distribution Service are not required to be updated.

1. The web service upgrade consists of replacing the files in the RIS Web Service directory with the files supplied in the rRISService folder with this build. Always create a backup of the files being replaced. This upgrade includes 141 files in the rRISService folder and 7 sub folders. Of those folders, 1 is a folder titled **"XSL"** that contains a sub folder and files within the subfolder. Another folder is titled **"deploy"** that contains the new .config files that will be deployed with the user of the file called "ServicesConfigWizard.exe" (see instructions below). Folders ar (Arabic), en_AU (Australian English), en-ZA (South Africa), he (Hebrew), pt_BR (Brazilian Portuguese), es-AR (Argentina Spanish) and ru-RU (Russian) and are localization folders. The WedgePlugins folder contains various plugin files for RADAR, MIRTH, Ensemble, etc…

**Services Configuration Wizard**

With the release of 42 to decrease the chance of losing configuration setting and missing new configuration options, we will no longer include the configuration files in the release in the main set of files, but they will now exist in a "deploy" folder, which will contain the three site configurable config files; applicationsettings, connectionstrings, and services as well as a copy of the rRISServices.exe configuration file. The contents of this folder should not be required to be touched.

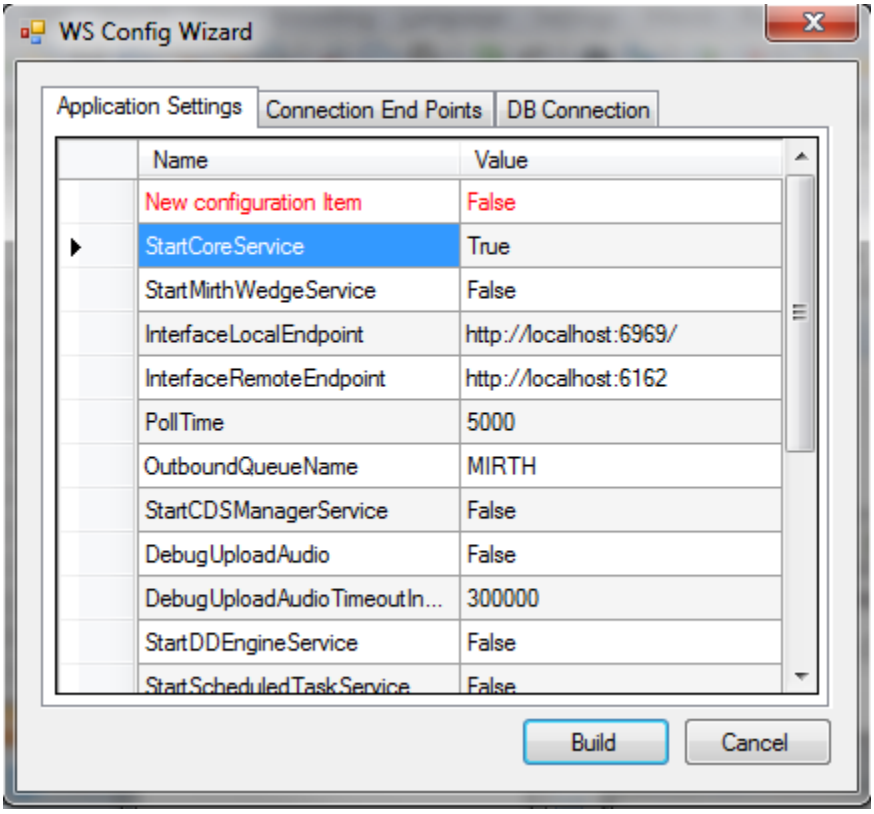
On the install of a new service, all files will be copied to the appropriate locations on the server (no configurations will be over written). If instructed or to confirm no new configurations have been added the user can run the new application "ServicesConfigWizard.exe"

This application will read the existing configuration file(s) (if files exist), and compare to the provided new configuration files then will display three tabs, for each configuration file:

**Application Settings:** all existing configuration value will be displayed, if there are any new configuration entries they will be displayed in red.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

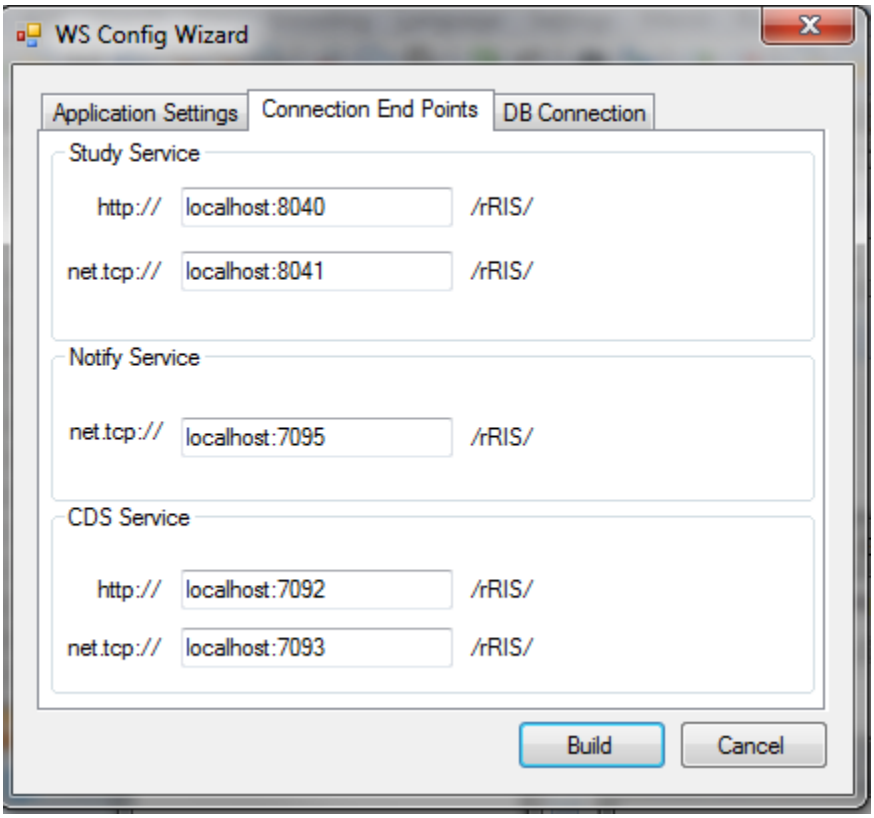
in any form or by any means without the prior written permission from eRAD. 




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

**Connection End Points:** will display the existing configuration, if the value is left blank then that entry will not be created, in the case of "Study Service" or "CDS Service" if both http and net.tcp were not provided then that endpoint will not be created at all.




## DATABASE UPDATES

Always run the upgrade scripts in a test environment of the actual database to make sure they run cleanly. If any errors occur please contact development.

*Note: There is a new upgrade process introduced with B43.1 called "RunUpgrade.bat". The batch file will open a command window. This process will prompt you for the database server name, database name and authentication credentials. There is no need to run the database upgrade scripts manually as was done in previous releases.*

1) From the upgrade folder, double click the "RunUpgrade.bat" command file.

2) Enter the server name, database name and authentication credentials to the database. You have 2 choices for authentication credentials.

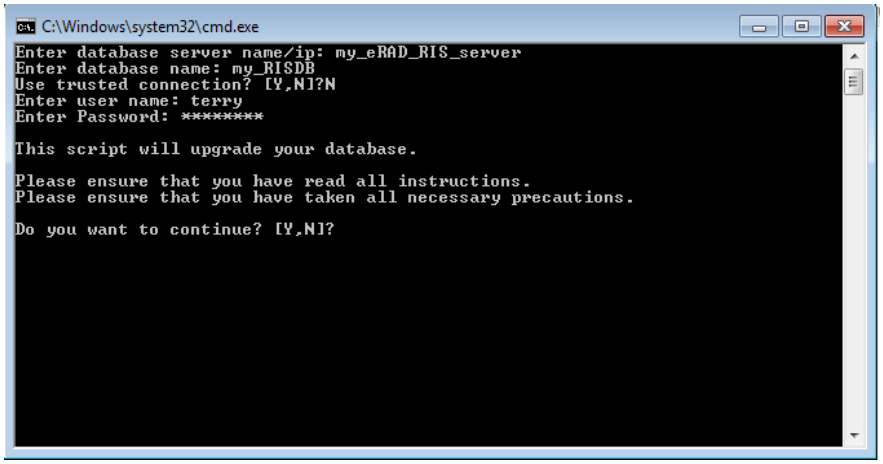
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

3) You can choose to use “Trusted connection”. Using this option will pass the identity of the currently logged on user. If this user has “db_owner” access to the eRAD RIS database then feel free to use this options.

4) If you decide not to use “Trusted connection” then you will be prompted for user id and password.

   Example:




5) After the upgrade program has finished you can find the upgrade logs in the “log” folder. The file name will be eRAD_RIS_db_upgrade_timestamp.log, where timestamp is a value representing the date and time the upgrade started. If you see any errors please contact the development team

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

# Server Update

For eRAD RIS

Version 3.0

Build 3.2017.6

Update 3.2017.6.2

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

# Table of Contents

Package Contents ....3

Intended Audience ....3

Who is affected....3

New Features....4

Feature #19746 – Auto-calculate Australian Stem checksum on Edit Address screen ....4

Feature #19745 – Referring practice name(s) are now visible in address list on the Personnel screen....5

Feature #19994 / 18698 – Ability to configure whether Plan Level deductible will be used in Amount to Collect calculation ....6

Resolved Items ....8

Code Stream ....11

eRAD RIS Release Version Numbers ....12

Installing ....13

Client/GUI....13

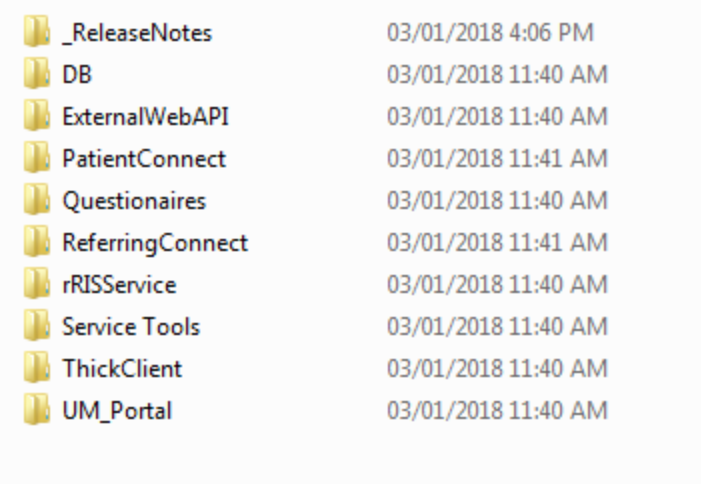
Web Service ....13

Database Updates ....15

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## PACKAGE CONTENTS




## INTENDED AUDIENCE

The intended audience for this document is the RadNet Clinical Systems team and the eRAD Support/Service team.

It is appropriate to share the document with any customers applying the patch, in order to review new feature descriptions and resolved defects.

## WHO IS AFFECTED

Build 2017.6 installs. This server update must be applied to 2017.6.1

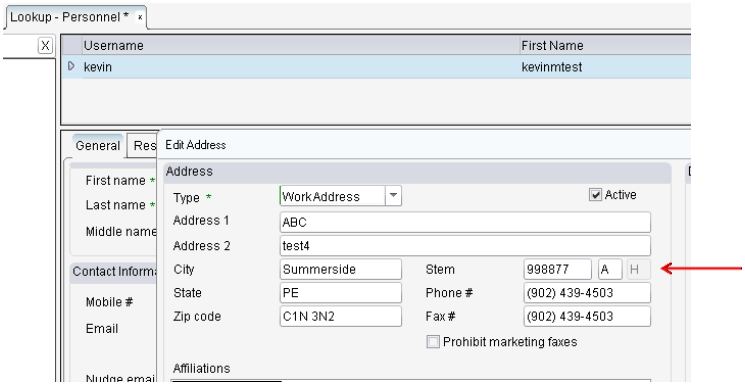
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

## NEW FEATURES

### FEATURE #19746 – AUTO-CALCULATE AUSTRALIAN STEM CHECKSUM ON EDIT ADDRESS SCREEN

In Australia, each referring provider has a Stem + Location code for each address from which they practice. A checksum is calculated from this code to allow a RIS administrator to verify that the code is accurate. To support this need, the Location Character field on the Edit Address screen in the Personnel editor has been replaced with a more robust *Stem* field, which contains an area for the stem, followed by an area to enter the Location code.




If an NPI number is entered for the referring physician, the NPI will be prepopulated to the Stem field, though this can be changed if needed. Once the user enters the location character, RIS will automatically calculate the checksum and display it in the third field, as shown above. The checksum cannot be edited.

The logic for the checksum is documented here: http://www.clearwater.com.au/code/provider

Because this workflow is probably not applicable for customers outside of Australia, there is an access string to control whether these fields are visible for the user. This is a pre-existing custom visibility access string, named *Custom.Visibility.Data.Personnel.l_person_address.location_character*.

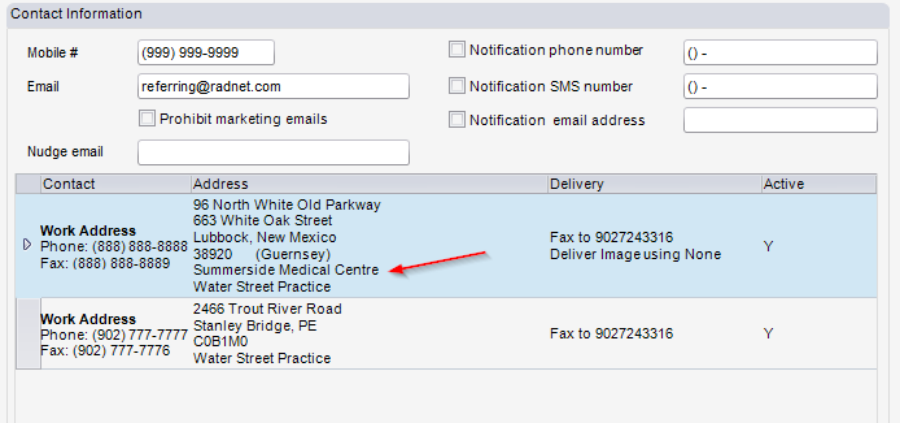
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## FEATURE #19745 – REFERRING PRACTICE NAME(S) ARE NOW VISIBLE IN ADDRESS LIST ON THE PERSONNEL SCREEN

The Personnel editor has a General tab that displays a list of addresses that are associated to a referring physician. Each address can be associated with one or more Referring Practices. In markets where Referring Practices are the primary means of distinguishing between offices, it is particularly helpful to include this information on the summary grid.

Referring Practices are now listed at the bottom of the Address cell for each row in the Personnel editor's addresses grid.




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## FEATURE #19994 / 18698 – ABILITY TO CONFIGURE WHETHER PLAN LEVEL DEDUCTIBLE WILL BE USED IN AMOUNT TO COLLECT CALCULATION

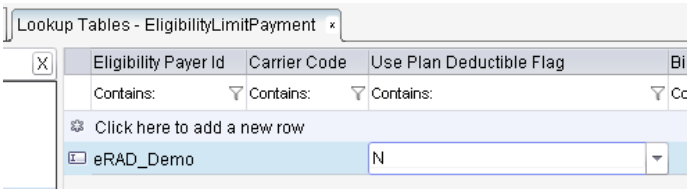
This feature was originally introduced in version 2017.3.10, as Feature #18698, and it is now added to the 2017.6 code stream.

When using automated Eligibility workflow, problems can sometimes arise due to differences in how payers return plan information related to the patient's financial responsibility. These differences often require administrators to use the ***Eligibility Limit Payment*** table to configure exceptions to accommodate for these differences. The Eligibility Limit Payment table has been enhanced to allow for configuration related to variation in how deductible amounts are returned.

Many payers will return deductible amounts in the general plan section of the coverage, Plan Maximums and Deductibles; then if there are specific deductible conditions for X-ray/MRI, these will be specified in the service type section. If the service type section does not contain a more specific deductible, the plan deductible applies.

However, there are other payers who are an exception to this rule. For these payers, the deductible does not apply if it is not specifically listed in the service type section. For these payers, eRAD RIS should ignore the Plan-level deductible.

A new column, ***Use Plan Deductible Flag***, has been added to the Eligibility Limit Payment table.

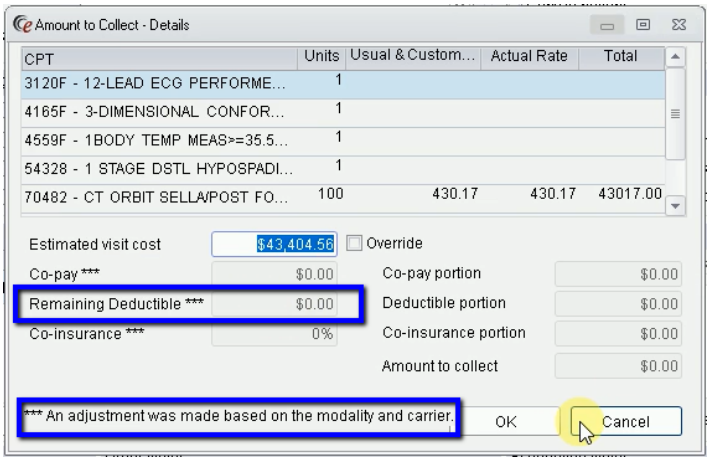



This setting is configurable by Payer ID or by Carrier Code. When Use Plan Deductible is set to Y (for Yes), the Plan-level deductible will be used for the Amount to Collect calculation, if no specific service type deductible is specified. For any payers that are exceptions to this standard approach, the column's value can be set to N (for No). With this configuration, if the payer does not list the deductible in the service type section, no deductible will be applied when calculating the payment.

The Amount to Collect – Details screen will list $0.00 for the Remaining Deductible. As with other Eligibility Limit Payment settings, a notation will indicate that the information in the return was adjusted.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## RESOLVED ITEMS

# eRAD RIS

| Redmine # | Subject |
|---|---|
| 19877 | When a patient has multiple exams and a scenario where the patient financial responsibility is different for the two exams (such as CT vs XR), the Amount to Collect will now display accurately when View/Edit is opened after the exam is performed, regardless of which study is opened. Previously, the amount could change depending on which study was used for the View/Edit (the less expensive modality would display a smaller Amount to Collect, for example). |
| 18569 | Resolved an object reference error that could occur when adding a Patient Alert with a custom worklist Icon. |
| 19892 | When checking for existing MRNs for Issuers with Mod10PrePad Identity Validation Type, the leading zeros will be added prior to the check, ensuring that a duplicate MRN cannot be created. |
| 19845 | Changed the color of the checkmark when acknowledging a Critical Result in dark theme to improve visibility. |
| 19804 | Resolved an object reference error that occurred when saving or deleting custom views in the Appointment Book. |
| 19946 | For patients with a suffix or prefix in their name, the legacy outbound container previously contained the Description only. The Suffix and Prefix **codes** are now also included, as some downstream applications require the code to match with their own data. |
| 19885 | Resolved an issue that caused a "Billing codes are required" warning when registering studies that were scheduled from an existing cancelled study, if a validation rule was configured to require Billing Codes. Billing Codes are no longer being deactivated at the time of cancellation/rescheduling. |
| 19879 | Adjusted the layout of the Organization screen to ensure that action buttons are always visible. |
| 19838 | Improved the performance of several queries that could cause deadlock errors during data |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

| | |
|---|---|
| | migration due to unnecessary table scans when using SQL Server 2014 or newer. |
| 19798 | Users will no longer see a temporary duplication of external EMR MRNs when scheduling a Walk In from the Existing Order prompt. |
| 19797 | Users will no longer see a duplicate external Issuer in the MRN grid when RIS prompts to choose a system MRN for unmatched EMR orders. |

## Provider Portal

| Redmine # | Subject |
|---|---|
| 19861 | Report Download button in Provider Portal is now correctly downloading the report. |

The following items were developed for future or previous RIS versions. These items have been added to this patch release to allow for upgrade to the 2017.6.X version

| Redmine # | Subject | Original Resolved Version |
|---|---|---|
| 19924 | All Carrier codes are once again expanded in outbound messages, which resolves issues experienced with PowerScribe and Billing. | 2.2017.3.9 |
| 19988 | When a patient has multiple exams and a scenario where the patient financial responsibility is different for the two exams (such as CT vs XR), the Amount to Collect will now display accurately when View/Edit is opened after the exam is performed, regardless of which study is opened. Previously, the amount could change depending on which study was used for the View/Edit (the less expensive modality would display a smaller Amount to Collect, for | 2.2017.3.10 |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

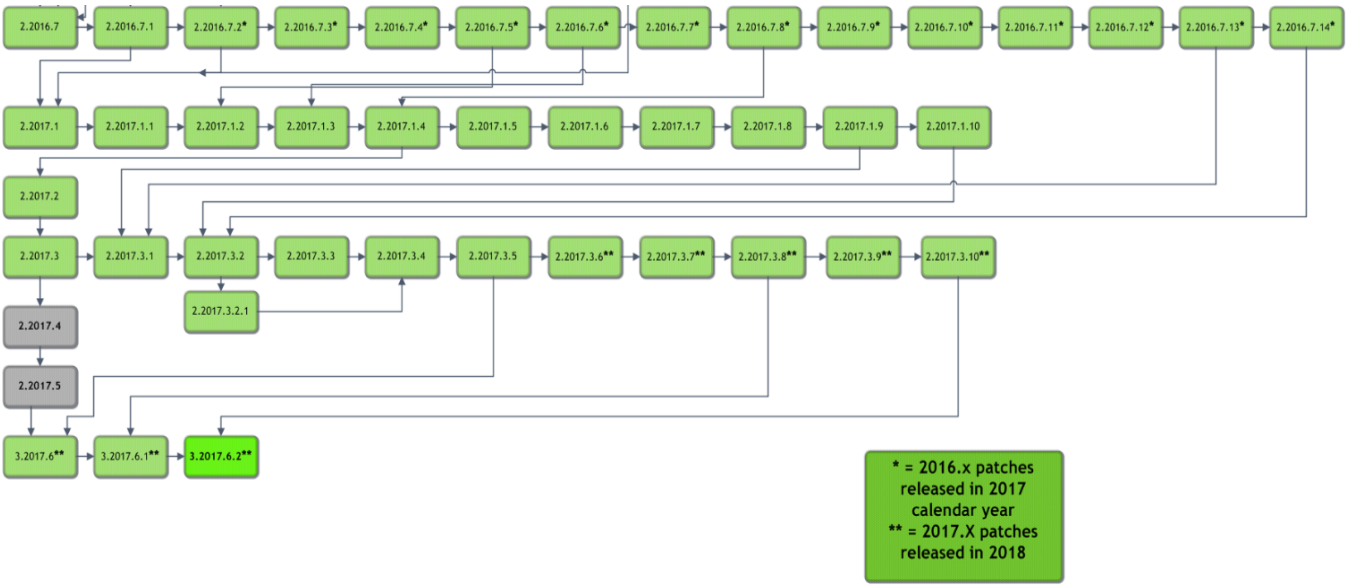
in any form or by any means without the prior written permission from eRAD. 

| | | |
|---|---|---|
| | example). | |
| 19990 | It is now possible to add new alternate MRNs for a patient who has multiple MRNs from the same Issuer. Previously, this caused an error and prevented new MRNs from being added. | 2.2017.3.10 |
| 19866 | 'Schedule From' is now correctly selecting the insurance used in the source order. | 3.2018.1 |
| 19846 | Open worklists are immediately updated with a save action in the reporting screens, even if the patient was not previously on the open worklist. This resolves an issue where a patient who was not previously present on an open worklist would not appear until the next refresh interval. | 3.2018.2 |
| 19992 | When a partial worklist refresh occurs to update a specific patient's information after a save, RIS is no longer requesting an unnecessary count of the items on the worklist, which reduces the number of database calls. | 2.2017.3.10 |
| 19986 | Resolved an issue that caused a "Billing codes are required" warning when registering studies that were scheduled from an existing cancelled study, if a validation rule was configured to require Billing Codes. Billing Codes are no longer being deactivated at the time of cancellation/rescheduling. | 2.2017.3.10 |
| 19831 | Updated ExternalActionContainer schema to reflect changes to the Procedure General Description nodes. | 3.2018.1 |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## CODE STREAM




## Legend:

Light Green = Previously Released software

Gray = Internal version, non-release version

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

## ERAD RIS RELEASE VERSION NUMBERS

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Digital Forms | Patient Portal | UM Portal | Provider Portal | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| 2016.7 | - | 2.16.7.0 (3GB) | 2.16.70 | 2.16.70 | 2.16.7.0.00490835 | 2.16.70 | 1.16.7.0.493031 | 2.16.7.0.493008 | | Full version release |
| 2016.7 | 1 | 2.16.7.1 (3GB) | 2.16.7.0 | 2.16.7.1 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 2 | 2.16.7.2 (3GB) | 2.16.7.0 | 2.16.7.2 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 3 | 2.16.7.3 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 4 | 2.16.7.4 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI |
| 2016.7 | 5 | 2.16.7.5 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI |
| 2016.7 | 6 | 2.16.7.6 (3GB) | 2.16.7.0 | 2.16.7.6 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 7 | 2.16.7.7 (3GB) | 2.16.7.0 | 2.16.7.7 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 8 | 2.16.7.8 (3GB) | 2.16.7.0 | 2.16.7.7 | 2.16.7.8.00683507 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and DB updates |
| 2016.7 | 9 | 2.16.7.9 (3GB) | 2.16.7.0 | 2.16.7.9 | 2.16.7.9.00715012 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI, Web Services, DB updates and UM Portal |
| 2016.7 | 10 | 2.16.7.10 (3GB) | 2.16.7.0 | 2.16.7.10 | 2.16.7.9.00715012 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI and Web Service updates |
| 2016.7 | 11 | 2.16.7.11 (3GB) | 2.16.7.0 | 2.16.7.11 | 2.16.7.11.00761267 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI, Web Service and DB updates |
| 2016.7 | 12 | 2.16.7.12 (3GB) | 2.16.7.0 | 2.16.7.11 | 2.16.7.11.00761267 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI |
| 2016.7 | 13 | 2.16.7.13 (3GB) | 2.16.7.0 | 2.16.7.13 | 2.16.7.13.00823274 | 2.16.7.0 | 2.16.7.13.805715 | 2.16.7.13.805717 | | GUI, Web Service, DB, Patient and UM Portal updates |
| 2016.7 | 14 | 2.16.7.14 (3GB) | 2.16.7.0 | 2.16.7.14 | 2.16.7.14.00888220 | 2.16.7.0 | 2.16.7.14.897644 | 2.16.7.14.897646 | | GUI, Web Service, DB, Patient and UM Portal updates |
| 2017.1 | - | 2.17.1.0 (3GB) | 2.17.1.0 | 2.17.1.0 | 2.17.1.0.00559886 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | Full Version Release |
| 2017.1 | 1 | 2.17.1.1 (3GB) | 2.17.1.0 | 2.17.1.1 | 2.17.1.1.00589952 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 2 | 2.17.1.2 (3GB) | 2.17.1.0 | 2.17.1.2 | 2.17.1.2.00621962 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 3 | 2.17.1.3 (3GB) | 2.17.1.0 | 2.17.1.3 | 2.17.1.3.00640480 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 4 | 2.17.1.4 (3GB) | 2.17.1.0 | 2.17.1.4 | 2.17.1.4.00692239 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI, Web Service, DB and Patient Portal updates |
| 2017.1 | 5 | 2.17.1.4 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.4.00692239 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | Web Service |
| 2017.1 | 6 | 2.17.1.6 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI and DB Updates |
| 2017.1 | 7 | 2.17.1.7 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI update |
| 2017.1 | 8 | 2.17.1.8 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI update |
| 2017.1 | 9 | 2.17.1.9 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI update |
| 2017.1 | 10 | 2.17.1.10 (3GB) | 2.17.1.0 | 2.17.1.10 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI and Web Service update |
| 2017.2 | - | 2.17.2.0(3GB) | 2.17.2.0 | 2.17.2.0 | 2.17.2.0.00695782 | 2.17.2.0 | 2.17.2.0.702238 | 2.17.2.0.702213 | 2.17.2.0.702226 | Full Version Release. First release of Provider Portal |
| 2017.3 | - | 2.17.3.0(3GB) | 2.17.3.0 | 2.17.3.0 | 2.17.3.0.00764112 | 2.17.3.0 | 2.17.3.0.321 | 2.17.3.0.321 | 2.17.3.0.321 | Full Version Release. Including Patient, Provider and UM Portals |
| 2017.3 | 1 | 2.17.3.1(3GB) | 2.17.3.0 | 2.17.3.1 | 2.17.3.1.00846328 | 2.17.3.1 | 2.17.3.1.853299 | 2.17.3.1.853301 | 2.17.3.1.856171 | GUI, Web Sevice, DB. Including Patient, Provider and UM Portals |
| 2017.3 | 2 | 2.17.3.2(3GB) | 2.17.3.0 | 2.17.3.2 | 2.17.3.2.00898348 | 2.17.3.2 | 2.17.3.2.913898 | 2.17.3.2.913899 | 2.17.3.1.856171 | GUI, Web Sevice, DB. Including Patient, Provider and UM Portals |
| 2017.3 | 2.1 | 2.17.3.2.1(3GB) | 2.17.3.0 | 2.17.3.2 | 2.17.3.2.00898348 | 2.17.3.2 | 2.17.3.2.913898 | 2.17.3.2.913899 | 2.17.3.1.856171 | GUI Only |
| 2017.3 | 3 | 2.17.3.3(3GB) | 2.17.3.0 | 2.17.3.3 | 2.17.3.3.00954008 | 2.17.3.2 | 2.17.3.3.962869 | 2.17.3.3.962870 | 2.17.3.3.962870 | GUI, Web Sevice, DB. Including Patient, Provider and UM Portals |
| 2017.3 | 4 | 2.17.3.4(3GB) | 2.17.3.0 | 2.17.3.4 | 2.17.3.4.00987562 | 2.17.3.2 | 2.17.3.3.962869 | 2.17.3.3.962870 | 2.17.3.3.962870 | GUI, Web Sevice and DB |
| 2017.3 | 5 | 2.17.3.5(3GB) | 2.17.3.0 | 2.17.3.5 | 2.17.3.5.01023250 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | GUI, Web Sevice, DB, Patient Portal, Referring Portal, UM Portal |
| 2017.3 | 6 | 2.17.3.6(3GB) | 2.17.3.0 | 2.17.3.6 | 2.17.3.6.01065114 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | GUI, Web Sevice, DB, |
| 2017.3 | 7 | 2.17.3.7(3GB) | 2.17.3.0 | 2.17.3.6 | 2.17.3.6.01065114 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | GUI |
| 2017.3 | 8 | 2.17.3.8(3GB) | 2.17.3.0 | 2.17.3.8 | 2.17.3.6.01065114 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | GUI and Web Service |
| 2017.3 | 9 | 2.17.3.8(3GB) | 2.17.3.0 | 2.17.3.9 | 2.17.3.6.01065114 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | Web Service |
| **2017.3** | **10** | **2.17.3.10(3GB)** | **2.17.3.0** | **2.17.3.10** | **2.17.3.10.01125764** | **2.17.3.2** | **2.17.3.5.1023087** | **2.17.3.5.1025862** | **2.17.3.5.1023087** | **GUI, Web Service and DB updates** |
| 2017.6 | - | 3.17.6.0(3GB) | 3.17.6.0 | 3.17.6.0 | 3.17.6.0.01037550 | 3.17.6.0 | 3.17.6.0.1037868 | 3.17.6.0.1037869 | 3.17.6.0.1037869 | Full Version Release. Including Patient, Provider and UM Portals |
| 2017.6 | 1 | 3.17.6.1(3GB) | 3.17.6.0 | 3.17.6.1 | 3.17.6.1.01094077 | 3.17.6.0 | 3.17.6.0.1037868 | 3.17.6.0.1037869 | 3.17.6.0.1037869 | GUI, Web Service and DB updates |
| **2017.6** | **2** | **3.17.6.2(3GB)** | **3.17.6.0** | **3.17.6.2** | **3.17.6.2.01130171** | **3.17.6.2** | **3.17.6.2.1138297** | **3.17.6.2.1138298** | **3.17.6.2.1138298** | **GUI, Web Service, DB, Patient, Provider and UM Portals and Digital Forms** |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

# INSTALLING

## CLIENT/GUI

Copy and replace the current rRIS…zip file with the eRAD_rRIS_2017.6.2.zip file provided with this release.

Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

## WEB SERVICE

This updated is only required for the Wedge Web Services. The Core RIS Service and Document Distribution Service are not required to be updated.

1. The web service upgrade consists of replacing the files in the RIS Web Service directory with the files supplied in the rRISService folder with this build. Always create a backup of the files being replaced. This upgrade includes 141 files in the rRISService folder and 7 sub folders. Of those folders, 1 is a folder titled **"XSL"** that contains a sub folder and files within the subfolder. Another folder is titled **"deploy"** that contains the new .config files that will be deployed with the user of the file called "ServicesConfigWizard.exe" (see instructions below). Folders ar (Arabic), en_AU (Australian English), en-ZA (South Africa), he (Hebrew), pt_BR (Brazilian Portuguese), es-AR (Argentina Spanish) and ru-RU (Russian) and are localization folders. The WedgePlugins folder contains various plugin files for RADAR, MIRTH, Ensemble, etc…

**Services Configuration Wizard**

With the release of 42 to decrease the chance of losing configuration setting and missing new configuration options, we will no longer include the configuration files in the release in the main set of files, but they will now exist in a "deploy" folder, which will contain the three site configurable config files; applicationsettings, connectionstrings, and services as well as a copy of the rRISServices.exe configuration file. The contents of this folder should not be required to be touched.

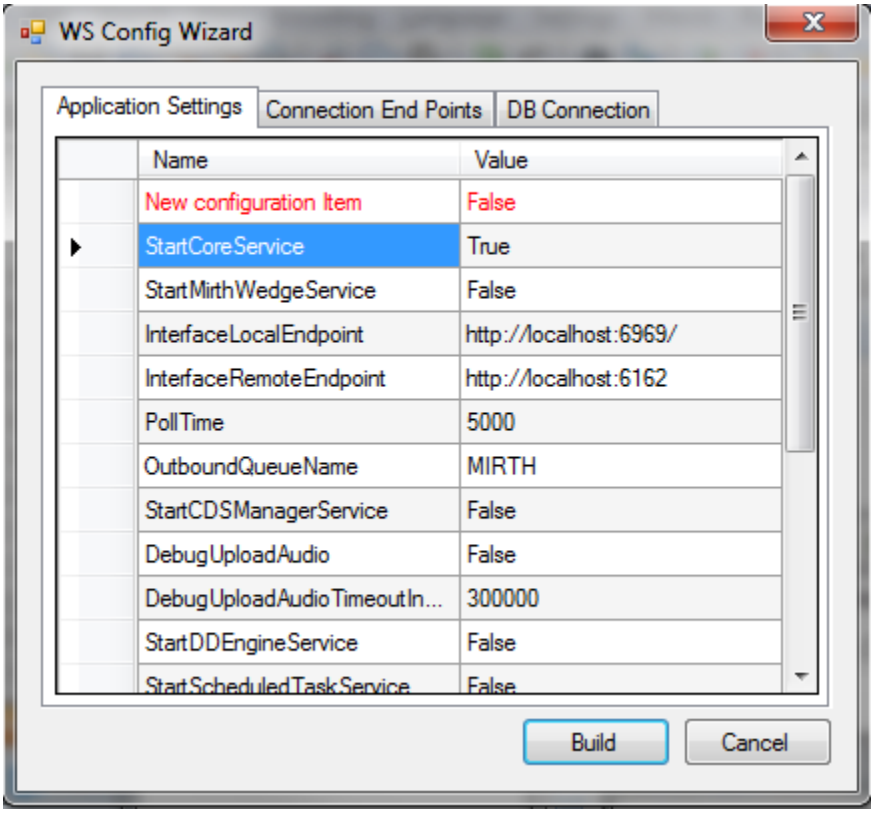
On the install of a new service, all files will be copied to the appropriate locations on the server (no configurations will be over written). If instructed or to confirm no new configurations have been added the user can run the new application "ServicesConfigWizard.exe"

This application will read the existing configuration file(s) (if files exist), and compare to the provided new configuration files then will display three tabs, for each configuration file:

**Application Settings:** all existing configuration value will be displayed, if there are any new configuration entries they will be displayed in red.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

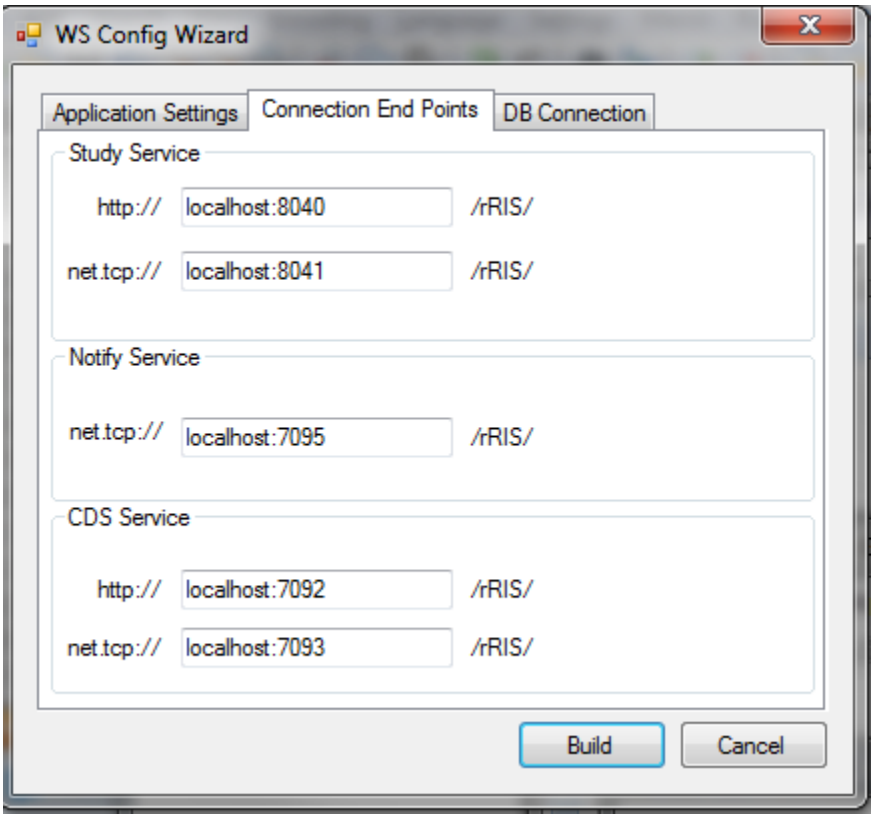
in any form or by any means without the prior written permission from eRAD. 




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

**Connection End Points:** will display the existing configuration, if the value is left blank then that entry will not be created, in the case of "Study Service" or "CDS Service" if both http and net.tcp were not provided then that endpoint will not be created at all.




## DATABASE UPDATES

Always run the upgrade scripts in a test environment of the actual database to make sure they run cleanly. If any errors occur please contact development.

*Note: There is a new upgrade process introduced with B43.1 called "RunUpgrade.bat". The batch file will open a command window. This process will prompt you for the database server name, database name and authentication credentials. There is no need to run the database upgrade scripts manually as was done in previous releases.*

1) From the upgrade folder, double click the "RunUpgrade.bat" command file.

2) Enter the server name, database name and authentication credentials to the database. You have 2 choices for authentication credentials.

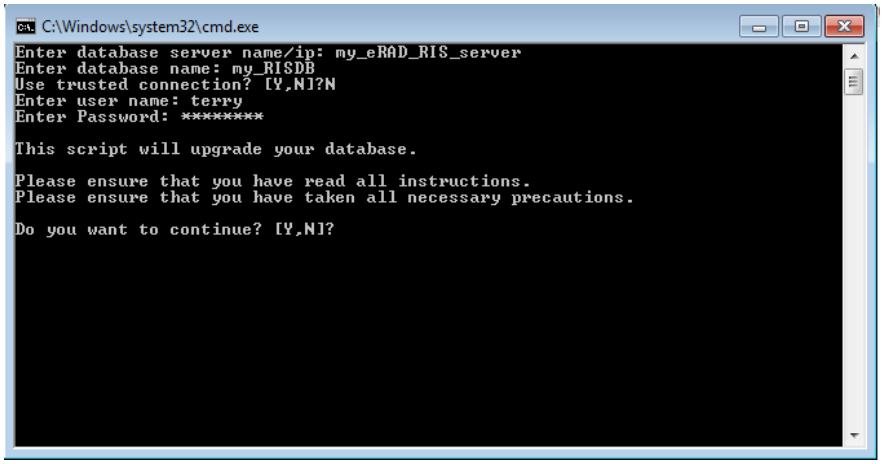
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

3) You can choose to use “Trusted connection”. Using this option will pass the identity of the currently logged on user. If this user has “db_owner” access to the eRAD RIS database then feel free to use this options.

4) If you decide not to use “Trusted connection” then you will be prompted for user id and password.

   Example:




5) After the upgrade program has finished you can find the upgrade logs in the “log” folder. The file name will be eRAD_RIS_db_upgrade_timestamp.log, where timestamp is a value representing the date and time the upgrade started. If you see any errors please contact the development team

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

# Server Update

For eRAD RIS

Version 3.0

Build 3.2017.6

Update 3.2017.6.3

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

# Table of Contents

Package Contents ..... 3

Intended Audience ..... 3

Who is affected ..... 3

New Features ..... 4

Features #20202, 20203, 20204 – Support workflow which requires Exam Done status to remain on Technologist Worklist ..... 4

Feature #19748 – Australian customers can now link radiologists to Sites and provide Stem + Location numbers ..... 6

Resolved Items ..... 7

Code Stream ..... 8

eRAD RIS Release Version Numbers ..... 9

Installing ..... 10

Client/GUI ..... 10

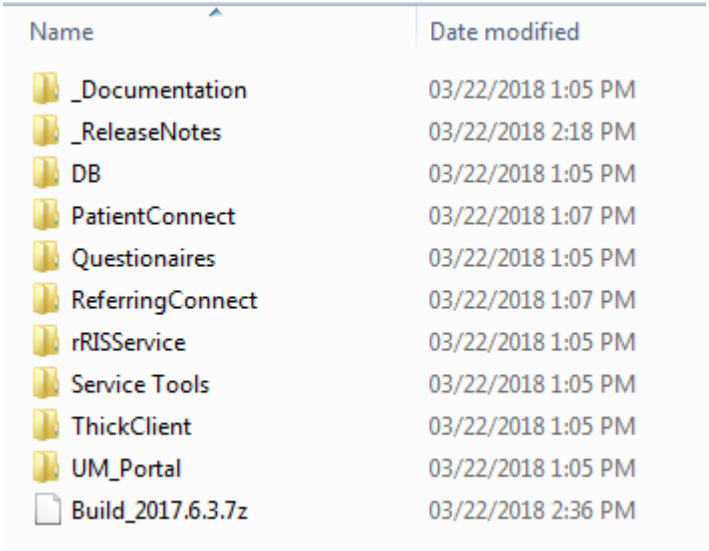
Web Service ..... 10

Database Updates ..... 12

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## PACKAGE CONTENTS




## INTENDED AUDIENCE

The intended audience for this document is the RadNet Clinical Systems team and the eRAD Support/Service team.

It is appropriate to share the document with any customers applying the patch, in order to review new feature descriptions and resolved defects.

## WHO IS AFFECTED

Build 2017.6 installs. This server update must be applied to 2017.6.2

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

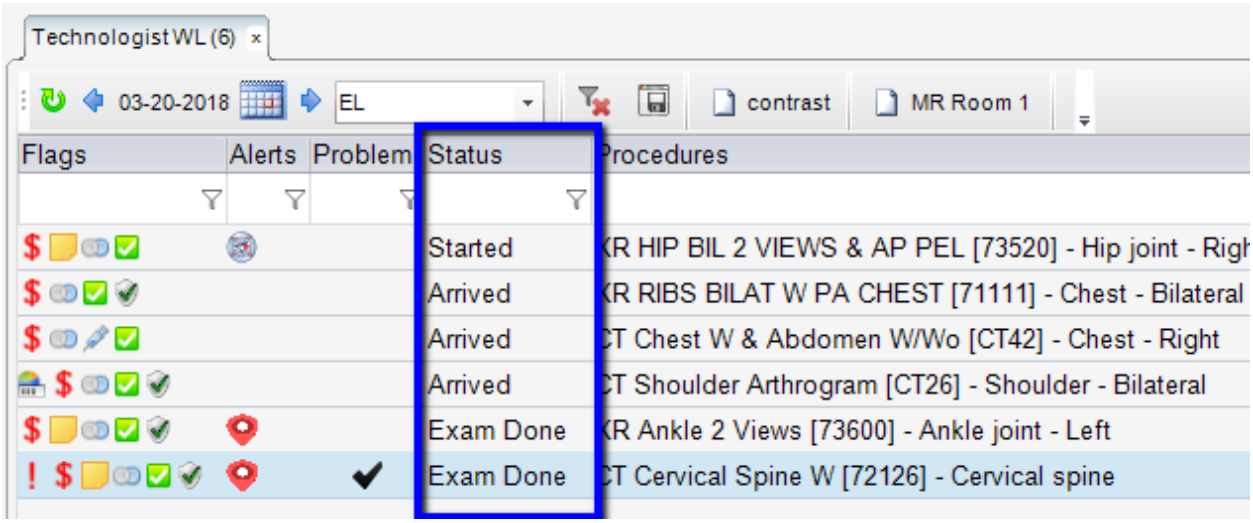
in any form or by any means without the prior written permission from eRAD.

## NEW FEATURES

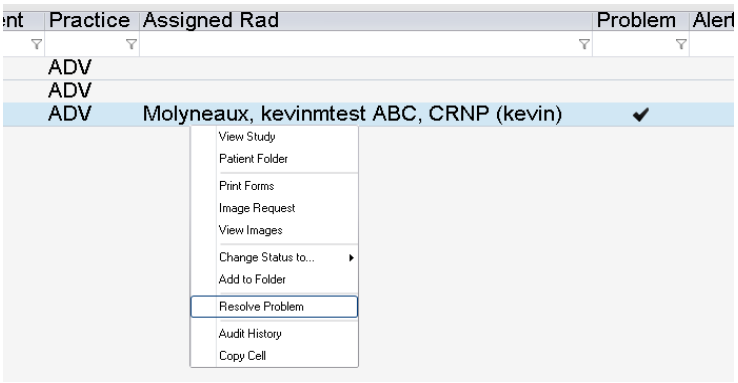
### FEATURES #20202, 20203, 20204 – SUPPORT WORKFLOW WHICH REQUIRES EXAM DONE STATUS TO REMAIN ON TECHNOLOGIST WORKLIST

In order to support some customer workflows that require the technologist to take action on a study that has already reached Exam Done status, a new System Configuration setting has been added to eRAD RIS, which will allow the Technologist WL to display exams that are in an Exam Done status.

The System Configuration setting is *ExamDoneOnTechWL* with a default of False. Setting this to true will cause Exam Done status to remain on the Technologist WL until the status progresses beyond Exam Done, or the study is cancelled/aborted. Please note that Exam Done (Tech Only) status will ***not*** be included on the worklist. The visible statuses include Checking In, Arrived, Started, and Exam Done.




In addition, the Assigned Radiologist column and the Resolve Problem context menu option have been added to the Technologist worklist.




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

Please note that studies in Exam Done status cannot be opened in the Perform Exam screen. However, the technologist can leave the tab open after completing if it is necessary to add additional information later in the workflow. It is also possible to roll back the status to Started (Change Status To context menu item), which will make the Perform Exam screen available again.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

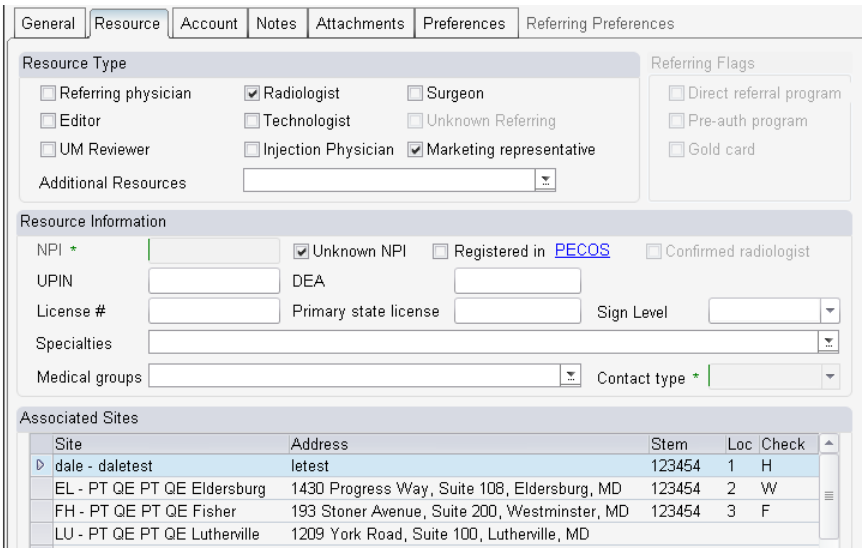
in any form or by any means without the prior written permission from eRAD. 

## FEATURE #19748 – AUSTRALIAN CUSTOMERS CAN NOW LINK RADIOLOGISTS TO SITES AND PROVIDE STEM + LOCATION NUMBERS

In Australia, radiologists have *Stem* and *Location* numbers, which are used in billing. The billing information is based on where the patient's study was performed. An exam interpreted by the same radiologist will have different billing information if it was performed at Site A versus Site B. The Stem and Location characters identify the combination of radiologist and site, as is customary in Australian billing workflow. Because this information must be accurate for billing, a Check Number is calculated to verify that the Stem and Location numbers are valid.

In order to provide this information for billing, a new System Configuration setting has been created: *ShowRadiologistSiteAssociations*. The default is False. When set to True, new information can be configured in the Personnel editor for Radiologist users.

If the Radiologist flag is set, a new grid is available on the Resource tab to display *Associated Sites*.




The grid will automatically be populated with all Sites (and their addresses) which are associated to the Practice(s) that are associated to the user on the Account tab.

Administrators are able to edit the Stem and Location character, which will then display a calculated Check Character, as per the Australian standard.

In the Australian language file, the NPI field in the Resource Information section will be labeled “Stem.” As a shortcut, if the user has a Stem number populated in this field, this number will be added to the Stem column for all Associated Sites by default. If fewer than 6 characters are entered, the Check Character will not be calculated until the Stem is updated to include 6 characters. If more than 6 characters are entered, only the first 6 will be added to the Associated Site’s Stem field.

This is a one-time shortcut. Once the rows for Associated Sites are created, changes to the main Stem field will not impact the Associated Site’s Stem settings.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## RESOLVED ITEMS

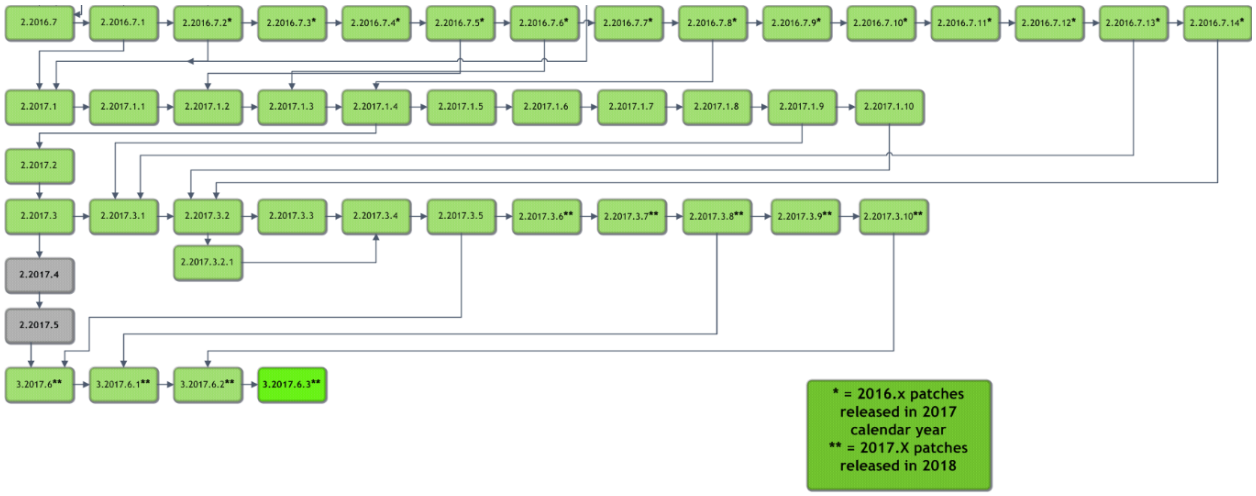
# eRAD RIS

| Redmine # | Subject |
|---|---|
| 20381 | Resolved a timeout error that could occur after switching from Insurance to Self-Pay using Eligibility workflow. |
| 20207 | Amount to Collect is now populating correctly for Self Pay orders scheduled via the Patient or Provider Portal. |
| 20355 | The Problem Flag is once more applied appropriately using PowerScribe workflow. This restores pre-2017.6 behavior. |
| 20199 | Resolved an issue with Core Validation Rules containing a computed expression. This restores pre-2017.6 behavior. |
| 20352 | All studies belonging to a Linked Reporting set appropriately trigger the Study Billed Action to allow for proper billing, resolving a previous issue. |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

## CODE STREAM




## Legend:

Light Green = Previously Released software

Gray = Internal version, non-release version

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

## ERAD RIS RELEASE VERSION NUMBERS

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Digital Forms | Patient Portal | UM Portal | Provider Portal | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| 2016.7 | - | 2.16.7.0 (3GB) | 2.16.70 | 2.16.70 | 2.16.7.0.00490835 | 2.16.70 | 1.16.7.0.493031 | 2.16.7.0.493008 | | Full version release |
| 2016.7 | 1 | 2.16.7.1 (3GB) | 2.16.7.0 | 2.16.7.1 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 2 | 2.16.7.2 (3GB) | 2.16.7.0 | 2.16.7.2 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 3 | 2.16.7.3 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 4 | 2.16.7.4 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI |
| 2016.7 | 5 | 2.16.7.5 (3GB) | 2.16.7.0 | 2.16.7.3 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI |
| 2016.7 | 6 | 2.16.7.6 (3GB) | 2.16.7.0 | 2.16.7.6 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 7 | 2.16.7.7 (3GB) | 2.16.7.0 | 2.16.7.7 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 2016.7 | 8 | 2.16.7.8 (3GB) | 2.16.7.0 | 2.16.7.7 | 2.16.7.8.00683507 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and DB updates |
| 2016.7 | 9 | 2.16.7.9 (3GB) | 2.16.7.0 | 2.16.7.9 | 2.16.7.9.00715012 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI, Web Services, DB updates and UM Portal |
| 2016.7 | 10 | 2.16.7.10 (3GB) | 2.16.7.0 | 2.16.7.10 | 2.16.7.9.00715012 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI and Web Service updates |
| 2016.7 | 11 | 2.16.7.11 (3GB) | 2.16.7.0 | 2.16.7.11 | 2.16.7.11.00761267 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI, Web Service and DB updates |
| 2016.7 | 12 | 2.16.7.12 (3GB) | 2.16.7.0 | 2.16.7.11 | 2.16.7.11.00761267 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI |
| 2016.7 | 13 | 2.16.7.13 (3GB) | 2.16.7.0 | 2.16.7.13 | 2.16.7.13.00823274 | 2.16.7.0 | 2.16.7.13.805715 | 2.16.7.13.805717 | | GUI, Web Service, DB, Patient and UM Portal updates |
| 2016.7 | 14 | 2.16.7.14 (3GB) | 2.16.7.0 | 2.16.7.14 | 2.16.7.14.00888220 | 2.16.7.0 | 2.16.7.14.897644 | 2.16.7.14.897646 | | GUI, Web Service, DB, Patient and UM Portal updates |
| 2017.1 | - | 2.17.1.0 (3GB) | 2.17.1.0 | 2.17.1.0 | 2.17.1.0.00559886 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | Full Version Release |
| 2017.1 | 1 | 2.17.1.1 (3GB) | 2.17.1.0 | 2.17.1.1 | 2.17.1.1.00589952 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 2 | 2.17.1.2 (3GB) | 2.17.1.0 | 2.17.1.2 | 2.17.1.2.00621962 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 3 | 2.17.1.3 (3GB) | 2.17.1.0 | 2.17.1.3 | 2.17.1.3.00640480 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 4 | 2.17.1.4 (3GB) | 2.17.1.0 | 2.17.1.4 | 2.17.1.4.00692239 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI, Web Service, DB and Patient Portal updates |
| 2017.1 | 5 | 2.17.1.4 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.4.00692239 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | Web Service |
| 2017.1 | 6 | 2.17.1.6 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI and DB Updates |
| 2017.1 | 7 | 2.17.1.7 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI update |
| 2017.1 | 8 | 2.17.1.8 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI update |
| 2017.1 | 9 | 2.17.1.9 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI update |
| 2017.1 | 10 | 2.17.1.10 (3GB) | 2.17.1.0 | 2.17.1.10 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI and Web Service update |
| 2017.2 | - | 2.17.2.0(3GB) | 2.17.2.0 | 2.17.2.0 | 2.17.2.0.00695782 | 2.17.2.0 | 2.17.2.0.702238 | 2.17.2.0.702213 | 2.17.2.0.702226 | Full Version Release. First release of Provider Portal |
| 2017.3 | - | 2.17.3.0(3GB) | 2.17.3.0 | 2.17.3.0 | 2.17.3.0.00764112 | 2.17.3.0 | 2.17.3.0.321 | 2.17.3.0.321 | 2.17.3.0.321 | Full Version Release. Including Patient, Provider and UM Portals |
| 2017.3 | 1 | 2.17.3.1(3GB) | 2.17.3.0 | 2.17.3.1 | 2.17.3.1.00846328 | 2.17.3.1 | 2.17.3.1.853299 | 2.17.3.1.853301 | 2.17.3.1.856171 | GUI, Web Sevice, DB. Including Patient, Provider and UM Portals |
| 2017.3 | 2 | 2.17.3.2(3GB) | 2.17.3.0 | 2.17.3.2 | 2.17.3.2.00898348 | 2.17.3.2 | 2.17.3.2.913898 | 2.17.3.2.913899 | 2.17.3.1.856171 | GUI, Web Sevice, DB. Including Patient, Provider and UM Portals |
| 2017.3 | 2.1 | 2.17.3.2.1(3GB) | 2.17.3.0 | 2.17.3.2 | 2.17.3.2.00898348 | 2.17.3.2 | 2.17.3.2.913898 | 2.17.3.2.913899 | 2.17.3.1.856171 | GUI Only |
| 2017.3 | 3 | 2.17.3.3(3GB) | 2.17.3.0 | 2.17.3.3 | 2.17.3.3.00954008 | 2.17.3.2 | 2.17.3.3.962869 | 2.17.3.3.962870 | 2.17.3.3.962870 | GUI, Web Sevice, DB. Including Patient, Provider and UM Portals |
| 2017.3 | 4 | 2.17.3.4(3GB) | 2.17.3.0 | 2.17.3.4 | 2.17.3.4.00987562 | 2.17.3.2 | 2.17.3.3.962869 | 2.17.3.3.962870 | 2.17.3.3.962870 | GUI, Web Sevice and DB |
| 2017.3 | 5 | 2.17.3.5(3GB) | 2.17.3.0 | 2.17.3.5 | 2.17.3.5.01023250 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | GUI, Web Sevice, DB, Patient Portal, Referring Portal, UM Portal |
| 2017.3 | 6 | 2.17.3.6(3GB) | 2.17.3.0 | 2.17.3.6 | 2.17.3.6.01065114 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | GUI, Web Sevice, DB, |
| 2017.3 | 7 | 2.17.3.7(3GB) | 2.17.3.0 | 2.17.3.6 | 2.17.3.6.01065114 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | GUI |
| 2017.3 | 8 | 2.17.3.8(3GB) | 2.17.3.0 | 2.17.3.8 | 2.17.3.6.01065114 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | GUI and Web Service |
| 2017.3 | 9 | 2.17.3.8(3GB) | 2.17.3.0 | 2.17.3.9 | 2.17.3.6.01065114 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | Web Service |
| 2017.3 | 10 | 2.17.3.10(3GB) | 2.17.3.0 | 2.17.3.10 | 2.17.3.10.01125764 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | GUI, Web Service and DB updates |
| 2017.6 | - | 3.17.6.0(3GB) | 3.17.6.0 | 3.17.6.0 | 3.17.6.0.01037550 | 3.17.6.0 | 3.17.6.0.1037868 | 3.17.6.0.1037869 | 3.17.6.0.1037869 | Full Version Release. Including Patient, Provider and UM Portals |
| 2017.6 | 1 | 3.17.6.1(3GB) | 3.17.6.0 | 3.17.6.1 | 3.17.6.1.01094077 | 3.17.6.0 | 3.17.6.0.1037868 | 3.17.6.0.1037869 | 3.17.6.0.1037869 | GUI, Web Service and DB updates |
| 2017.6 | 2 | 3.17.6.2(3GB) | 3.17.6.0 | 3.17.6.2 | 3.17.6.2.01130171 | 3.17.6.2 | 3.17.6.2.1138297 | 3.17.6.2.1138298 | 3.17.6.2.1138298 | GUI, Web Service, DB, Patient, Provider and UM Portals and Digital Forms |
| **2017.6** | **3** | **3.17.6.3(3GB)** | **3.17.6.0** | **3.17.6.3** | **3.17.6.3.01166033** | **3.17.6.3** | **3.17.6.3.1168622** | **3.17.6.3.1168622** | **3.17.6.3.1168623** | **GUI, Web Service, DB, Patient, Provider and UM Portals and Digital Forms** |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

# INSTALLING

## CLIENT/GUI

Copy and replace the current rRIS…zip file with the eRAD_rRIS_2017.6.3.zip file provided with this release.

Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

## WEB SERVICE

This updated is only required for the Wedge Web Services. The Core RIS Service and Document Distribution Service are not required to be updated.

1. The web service upgrade consists of replacing the files in the RIS Web Service directory with the files supplied in the rRISService folder with this build. Always create a backup of the files being replaced. This upgrade includes 141 files in the rRISService folder and 7 sub folders. Of those folders, 1 is a folder titled **"XSL"** that contains a sub folder and files within the subfolder. Another folder is titled **"deploy"** that contains the new .config files that will be deployed with the user of the file called "ServicesConfigWizard.exe" (see instructions below). Folders ar (Arabic), en_AU (Australian English), en-ZA (South Africa), he (Hebrew), pt_BR (Brazilian Portuguese), es-AR (Argentina Spanish) and ru-RU (Russian) and are localization folders. The WedgePlugins folder contains various plugin files for RADAR, MIRTH, Ensemble, etc…

**Services Configuration Wizard**

With the release of 42 to decrease the chance of losing configuration setting and missing new configuration options, we will no longer include the configuration files in the release in the main set of files, but they will now exist in a "deploy" folder, which will contain the three site configurable config files; applicationsettings, connectionstrings, and services as well as a copy of the rRISServices.exe configuration file. The contents of this folder should not be required to be touched.

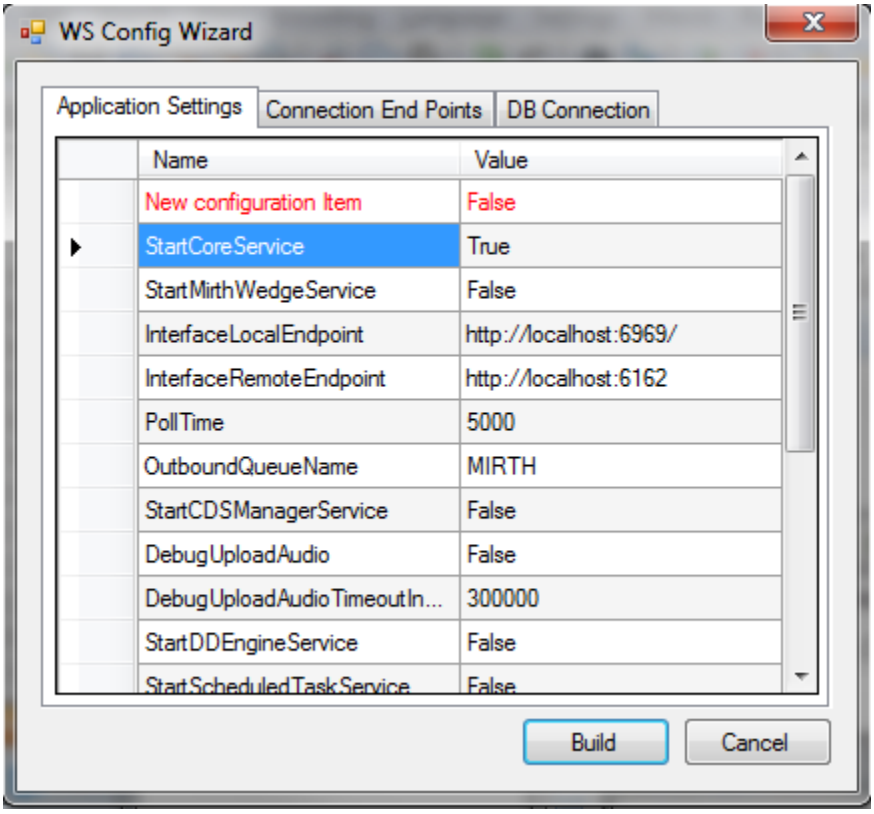
On the install of a new service, all files will be copied to the appropriate locations on the server (no configurations will be over written). If instructed or to confirm no new configurations have been added the user can run the new application "ServicesConfigWizard.exe"

This application will read the existing configuration file(s) (if files exist), and compare to the provided new configuration files then will display three tabs, for each configuration file:

**Application Settings:** all existing configuration value will be displayed, if there are any new configuration entries they will be displayed in red.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

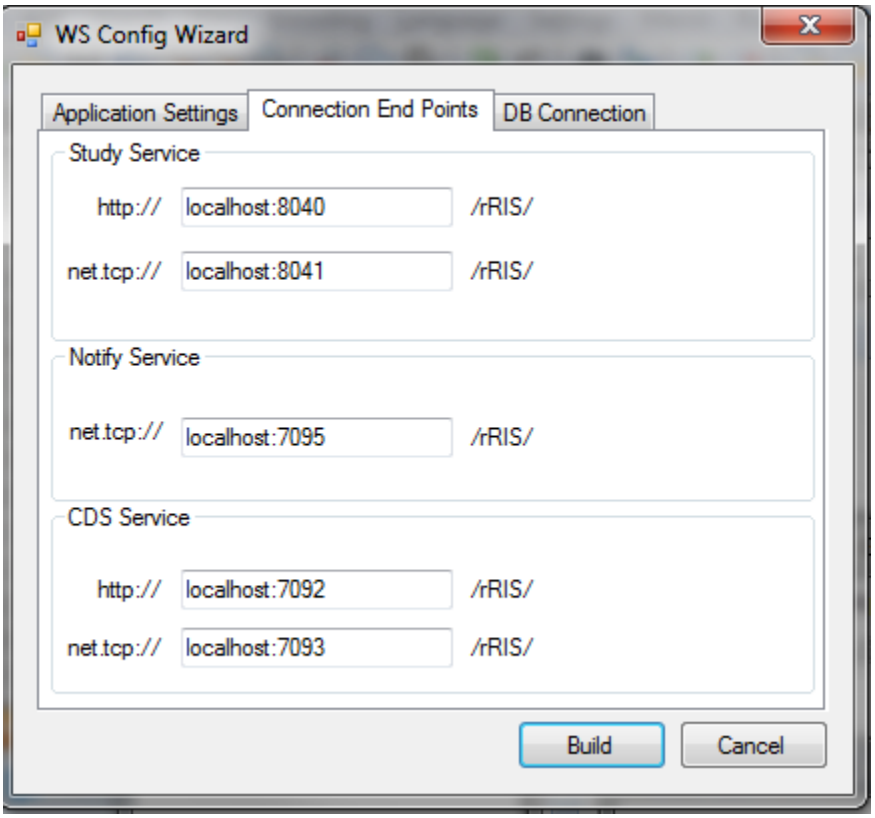
in any form or by any means without the prior written permission from eRAD. 




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

**Connection End Points:** will display the existing configuration, if the value is left blank then that entry will not be created, in the case of "Study Service" or "CDS Service" if both http and net.tcp were not provided then that endpoint will not be created at all.




## DATABASE UPDATES

Always run the upgrade scripts in a test environment of the actual database to make sure they run cleanly. If any errors occur please contact development.

*Note: There is a new upgrade process introduced with B43.1 called "RunUpgrade.bat". The batch file will open a command window. This process will prompt you for the database server name, database name and authentication credentials. There is no need to run the database upgrade scripts manually as was done in previous releases.*

1) From the upgrade folder, double click the "RunUpgrade.bat" command file.

2) Enter the server name, database name and authentication credentials to the database. You have 2 choices for authentication credentials.

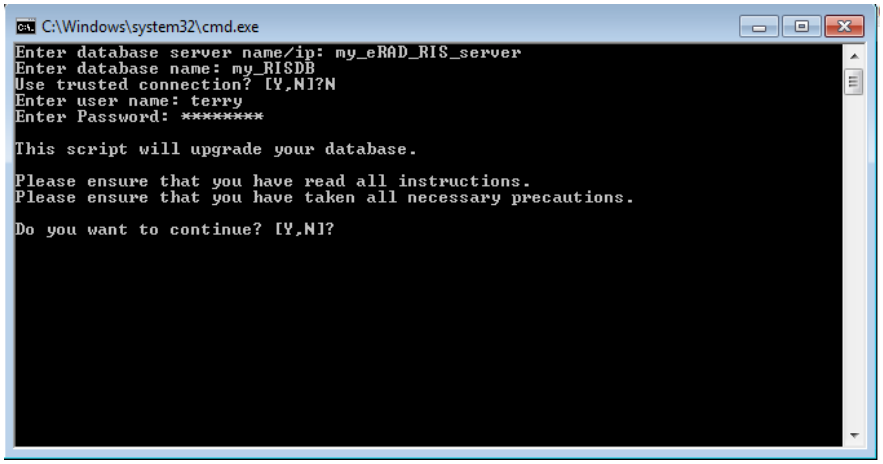
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

3) You can choose to use “Trusted connection”. Using this option will pass the identity of the currently logged on user. If this user has “db_owner” access to the eRAD RIS database then feel free to use this options.

4) If you decide not to use “Trusted connection” then you will be prompted for user id and password.

   Example:




5) After the upgrade program has finished you can find the upgrade logs in the “log” folder. The file name will be eRAD_RIS_db_upgrade_timestamp.log, where timestamp is a value representing the date and time the upgrade started. If you see any errors please contact the development team

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

# Server Update

For eRAD RIS

Version 3.0

Build 3.2017.6

Update 3.2017.6.4

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

# Table of Contents

Intended Audience ....3

Who is affected....3

New settings ....4

Access strings ....4

New Features....5

Feature # 20428/18537 - New access strings for Connect Provider Portal Admin Tool ....5

Feature # 20429/18942 – Provider Portal Admin Tool user search will only return applicable RIS users....7

Feature # 20400/19701 – Provider Portal: Restrict rescheduling or cancelling orders to appropriate users ....8

Feature # 20467/19978 - Configuration to allow for the separate deployment of a practice's Patient and Provider Portals....9

Feature # 20464/19996 - Approved UM Orders created through the Provider Portal are made available for the patient to schedule in the Patient Portal....10

Feature # 20444/18026 - UM Gold Card Workflow now supported in the Provider Portal ....11

Resolved Items ....13

Code Stream ....15

eRAD RIS Release Version Numbers ....16

Installing ....17

Client/GUI....17

Web Service ....17

Database Updates ....19

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## INTENDED AUDIENCE

The intended audience for this document is the RadNet Clinical Systems team and the eRAD Support/Service team.

It is appropriate to share the document with any customers applying the patch, in order to review new feature descriptions and resolved defects.

## WHO IS AFFECTED

Build 2017.6 installs. This server update must be applied to 2017.6.3

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

# NEW SETTINGS

## ACCESS STRINGS

| Setting | Default | Purpose |
|---|---|---|
| Portal.CCDA | None | Access to view C-CDAs. |
| Portal.Referring.Admin.AccountMigration | None | Access to the Account Migration tab. |
| Portal.Referring.Admin.ImgRetrieval | None | Access to the Image Retrieval tab. |
| Portal.Referring.Admin.SysMsgs | None | Access to the System Messages tab. |
| Portal.Referring.Admin.UserMgt | None | Access to the User Management tab. |
| Portal.Referring.Admin.UserMgt.ADD | None | Access to add a new account in the Provider Portal. |
| Portal.Referring.Admin.UserMgt.CreateNewUser | None | Access to create a new user in the Provider Portal. |
| Portal.Referring.Admin.UserMsgs | None | Access to the User Messages tab. |
| Portal.Referring.OutsidePractice | None | Access to search for all patients without requiring the user to check the box for “Search for patients outside my practice.” Internal use. |
| Portal.UMOpinionLetter | None | Access to view UM Opinion Letters. |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## NEW FEATURES

### FEATURE # 20428/18537 - NEW ACCESS STRINGS FOR CONNECT PROVIDER PORTAL ADMIN TOOL

The Admin Tool for the Connect Provider Portal allows users to perform a number of administrative tasks. Not all users need access to all of the functions that can be performed, so new access strings have been created so that users can be restricted from using functionality that is not pertinent to their role.

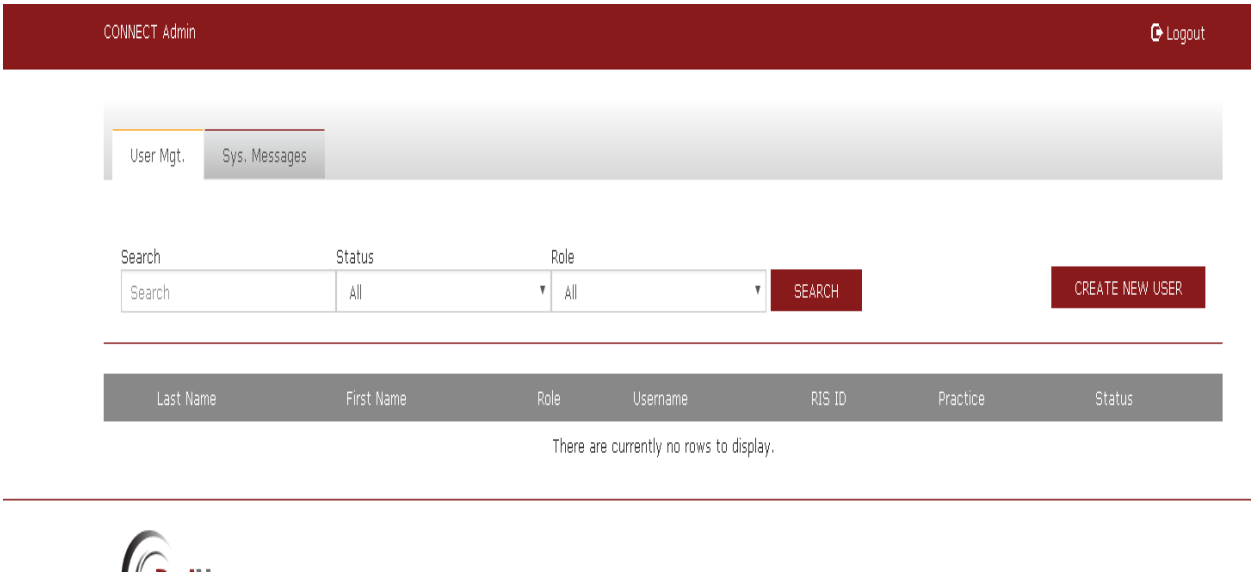
The base access string that allows users to log into the Admin Tool for the Provider Portal remains the same. The user must have Full access to ***Portal.Referring.Admin*** to log in.

The various functions are relegated to different tabs in the Admin Portal. The new access strings control access to those tabs. RIS Administrators automatically have full access to all Portal functionality.

The available access strings are:

- ***Portal.Referring.Admin.UserMgt*** – Access to the User Management tab.
- ***Portal.Referring.Admin.UserMsgs*** – Access to the User Messages tab.
- ***Portal.Referring.Admin.SysMsgs*** – Access to the System Messages tab.
- ***Portal.Referring.Admin.ImgRetrieval*** – Access to the Image Retrieval tab.
- ***Portal.Referring.Admin.AccountMigration*** – Access to the Account Migration tab.

A user with permission to access only User Management and System Messages will see the following upon logging into the Admin Portal:




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

In addition to the new access strings to control access to these tabs, there are some additional access strings that control more specific functions.

- ***Portal.Referring.Admin.UserMgt.CreateNewUser*** – Access to create new Provider Portal users.
- ***Portal.Referring.Admin.UserMgt.ADD*** – Access to use the ADD button to create a portal account for a RIS user who does not already have one.
- ***Portal.CCDA*** – Access to view C-CDAs.
- ***Portal.UMOpinionLetter*** – Access to view UM Opinion Letters.
- ***Portal.Referring.OutsidePractice*** – Access to search for all patients without requiring the user to check the box for "Search for patients outside my practice." This is intended for internal users only.

As with all access strings, for an individual user to receive the associated permission, they must belong to a User Group which has the pertinent access string assigned. For all of the new access strings, the Access Level must be set to Full to grant access. If a user has multiple User Groups, the highest level of access will be granted for each access string.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## FEATURE # 20429/18942 - ADMIN TOOL USER SEARCH WILL ONLY RETURN APPLICABLE RIS USERS

Please Note: A redesign of this feature is underway which will change the logic described below in an upcoming build.

When searching for users on the User Management tab, there are certain types of users that should be excluded. Internal RIS users, such as technologists, are unlikely to need portal accounts. Displaying these users in the search results can sometimes lead to a portal administrator inadvertently changing the settings or passwords of non-portal users, which can impact their ability to access the eRAD RIS application. In addition, returning results for inactive users is not helpful and makes it more difficult to find the desired user.

In order to eliminate undesired results, the search will now only display results under the following circumstances:

- Only active users will be displayed.
- If the user has one of the following Resource Types, they **will** be displayed in search results regardless of any other Resource Types they may have.
    - Referring Physician
    - Unknown Referring
    - UM Reviewer
    - Marketing Representative
- If the user does not have any of the above Resource Types, they will still be displayed in search results **unless** they have one of the following Resource Types:
    - Technologist
    - Editor
    - Radiologist
    - Surgeon
    - Injection Physician

These changes are applied to both the Provider Portal and the Utilization Management Portal.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

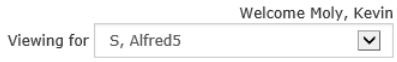
in any form or by any means without the prior written permission from eRAD. 

## FEATURE # 20400/19701 – PROVIDER PORTAL: RESTRICT RESCHEDULING OR CANCELLING ORDERS TO APPROPRIATE USERS

Changes have been made to the Provider Portal to restrict which Portal users can cancel or reschedule an appointment.

Staff Users:

If the current user created the order, they will be permitted to cancel or reschedule. If not, the system will evaluate whether the user is "viewing for" a provider that is the "Requested By" provider *or* a provider that is affiliated with the ordering provider.




If there is not a match, the staff user will not be allowed to reschedule or cancel. These buttons will not be available at the top of the page.

Referring Providers:

The referring provider can only cancel or reschedule if they are a match to the "Requested By" provider. In other words, referring providers can only action their own orders.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

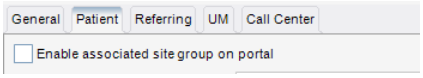
in any form or by any means without the prior written permission from eRAD. 

## FEATURE # 20467/19978 - CONFIGURATION TO ALLOW FOR THE SEPARATE DEPLOYMENT OF A PRACTICE'S PATIENT AND PROVIDER PORTALS

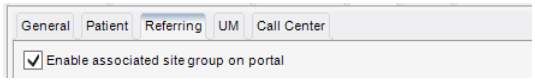
Separate deployment options have been created in the Practice editor so that the Patient Portal and the Provider Portal can be enabled separately.

In the Practice editor, there are now checkboxes to enable the associated Site Group on the tab for the Patient Portal and the tab for the Referring Portal.

Patient Portal:

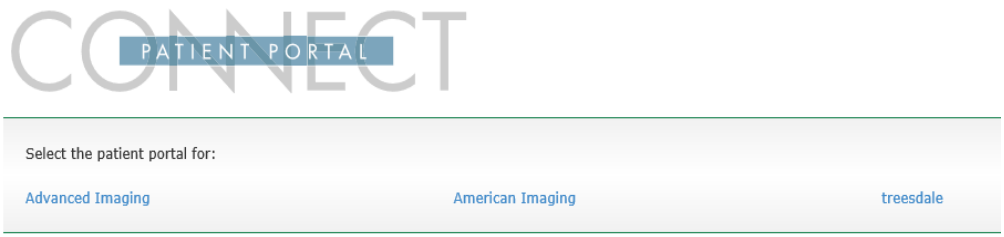



Provider Portal:

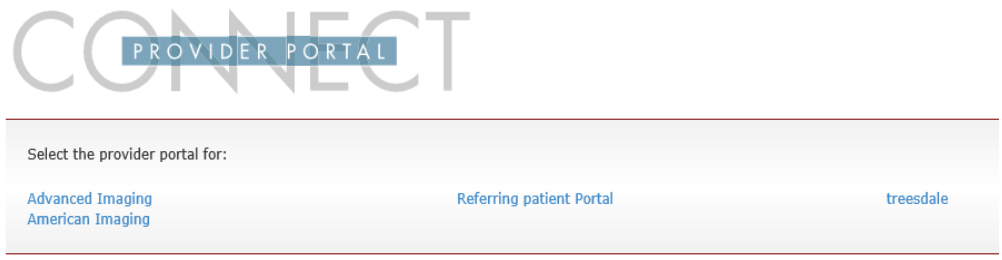



When the checkbox is checked, the practice's corresponding Site Group will be displayed on the Imaging Group page for the Patient or Provider Portal independently.

Patient Portal:




Provider Portal:



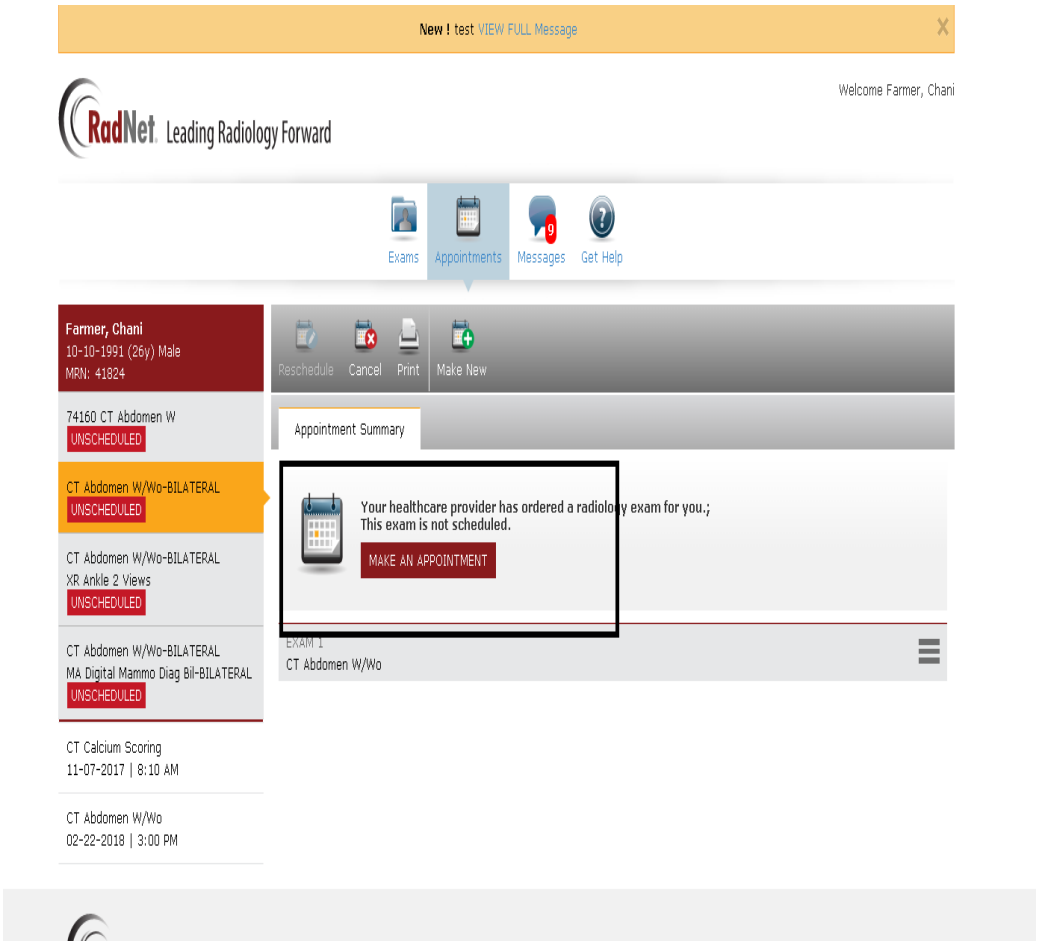

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

## FEATURE # 20464/19996 - APPROVED UM ORDERS CREATED THROUGH THE PROVIDER PORTAL ARE MADE AVAILABLE FOR THE PATIENT TO SCHEDULE IN THE PATIENT PORTAL

Sometimes orders created through the Provider Portal require Utilization Review before scheduling can occur. The Patient Portal will now make these orders available for the patient to schedule after Utilization Review is complete and the order is approved.

As long as the procedure(s) are configured in the Procedure Picker to allow for scheduling in the Patient Portal, the patient will see the "Make An Appointment" button in the Patient Portal and can move forward with scheduling the appointment.




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

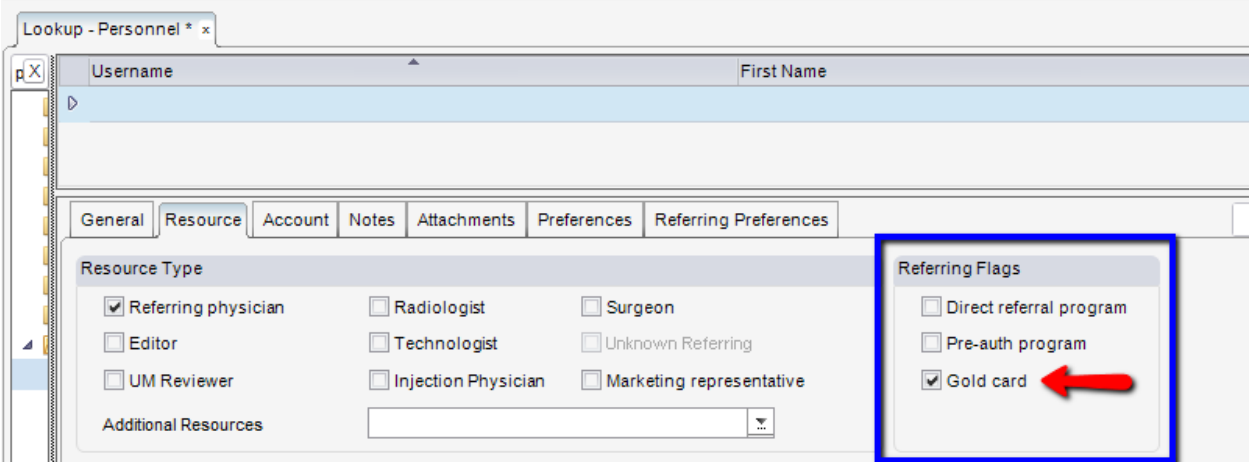
in any form or by any means without the prior written permission from eRAD. 

## FEATURE # 20444/18026 - UM GOLD CARD WORKFLOW NOW SUPPORTED IN THE PROVIDER PORTAL

Utilization Management in eRAD RIS supports ***Gold Card*** workflow, which allows orders from designated Gold Card providers to bypass utilization review. Enhancements have been made to the Connect Provider Portal to support the same workflow for Gold Card providers.

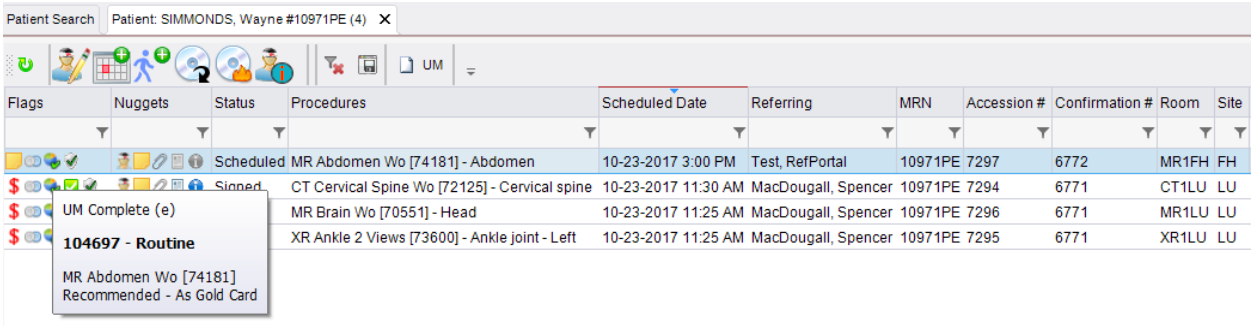
To determine whether an order should bypass UM workflow and proceed to scheduling, the Connect Portal will utilize the same workflow used in the RIS.

First, the system will check to see whether the provider is marked as Gold Card. This information is stored in the Personnel table under the Referring Flags section.




If the provider is configured for Gold Card, the system will check the existing ***UMGoldCardAutoApprove*** System Configuration value. If the value is False, the order will go through the normal Utilization Management workflow. If the value is True, the order will be automatically be marked as UM Complete.

The system will refer to the System Configuration values for ***UMDefaultGoldCardStatusCode*** and ***UMDefaultGoldCardResolutionCode*** to automatically set the UM Status and Resolution. For example, Recommended As Gold Card.




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

Most importantly, the provider will be able to continue scheduling the exam for the patient or the patient can be invited to schedule the appointment in the Patient Portal. For providers *without* Gold Card status, utilization review will need to be completed before scheduling.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## RESOLVED ITEMS

**Most items resolved in this hotfix were originally part of later builds and have been pulled into this patch for early release.**

| Redmine # for 2017.6.4 | Redmine # for 2018.1 and 2018.2 | Subject |
|---|---|---|
| 20531 | | Provider Portal - Browse file upload button now renders properly in Google Chrome on a Mac. |
| 20529 | | Provider Portal - More informative error message is provided to the user when their password reset is unsuccessful. |
| 20528 | 19835 | Resolved an issue that could cause Provider Portal account migration workflow to halt after answering security questions. |
| 20498 | | Billing codes are no longer missing when EMR orders are assigned a new procedure. |
| 20492 | | PreCert is now re-evaluated after a procedure change on Perform Exam screen. |
| 20445 | 18342 | UM Required screen is now presented after the provider has been selected when scheduling via the Provider Portal. |
| 20443 | 19700 | Corrected a typo on the Cancel Reschedule dialog button in the Provider Portal. |
| 20442 | 19697 | The Tutorials link has been removed from portal "404" error pages. |
| 20441 | 19696 | Added more appropriate message to the Orders Pending Approval banner for Staff users in the Provider Portal. |
| 20439 | 19932 | A change was made to prevent two PACS accounts from being created for new user accounts in Provider Portal due to requests timing out. |
| 20438 | 19699 | Removed hard coded message in the Provider Portal indicating that the imaging center will contact the patient for scheduling after utilization review. |
| 20437 | 19769 | In the Provider Portal, users will default to entering insurance or payment method information. If they do not wish to enter the information, the user will have to manually select the option to omit. |
| 20435 | 19708 | An indicator now informs the user that their search is being processed when searching for a patient in the Provider Portal when creating an order. |
| 20434 | 19698 | The “Need Help Making Appointment” button in the Provider Portal is now directing users to the correct page. |
| 20433 | 19703 | When a provider uses the Invite Patient to Schedule option in the Provider Portal, all links in the email sent to the patient now bring the patient to the same place in the workflow. |
| 20432 | 19702 | Provider Portal worklists now update more responsively after events such as creating, scheduling or approving an order. |
| 20431 | 19707 | Provider Portal - Resolved an issue with the Approve button being unavailable if the user moves backwards in the workflow, returning to the Review step, during order approval workflow. |
| 20430 | 19705 | During account creation in the Provider Portal, the URL embedded in the link of the verification email no longer directs users to the "Account Recovery" workflow. All email links now correctly point to the CreateAccount/Verify page. |
| 20427 | 19712 | All affiliated providers and patients now being shown accurately in the Provider Portal after correcting some issues where the portal referred to the user’s RIS practice instead of the Referring Practice. |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

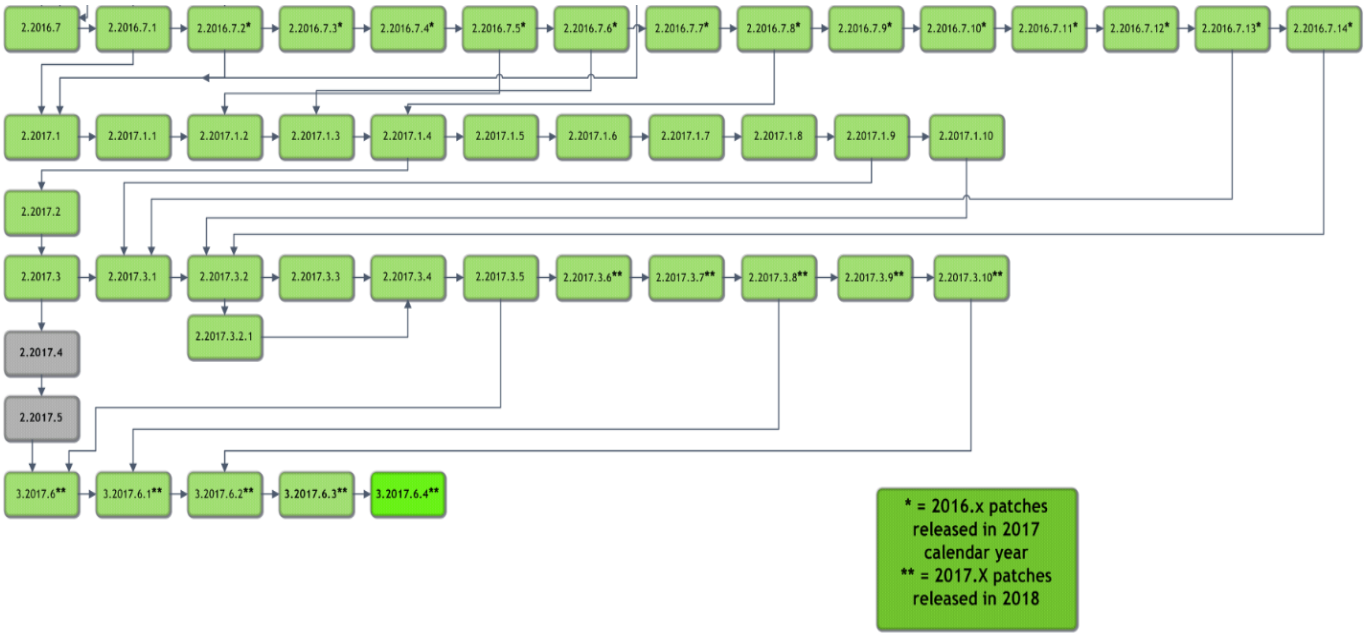
in any form or by any means without the prior written permission from eRAD. 

| | | |
|---|---|---|
| 20426 | 19768 | The Full Viewer is now the default image viewer for new user accounts in the Provider Portal. It is also possible for an administrator to adjust the setting via the Admin Tool. |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## CODE STREAM




**Legend:**

Light Green = Previously Released software

Gray = Internal version, non-release version

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

## ERAD RIS RELEASE VERSION NUMBERS

| Patch | UI Version | Core Version | WS Version | DB Version | Digital Forms | Patient Portal | UM Portal | Provider Portal | Notes |
|---|---|---|---|---|---|---|---|---|---|
| 6 | 2.16.7.6 (3GB) | 2.16.7.0 | 2.16.7.6 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 7 | 2.16.7.7 (3GB) | 2.16.7.0 | 2.16.7.7 | 2.16.7.0.00490835 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and Web Service updates |
| 8 | 2.16.7.8 (3GB) | 2.16.7.0 | 2.16.7.7 | 2.16.7.8.00683507 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.0.493008 | | GUI and DB updates |
| 9 | 2.16.7.9 (3GB) | 2.16.7.0 | 2.16.7.9 | 2.16.7.9.00715012 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI, Web Services, DB updates and UM Portal |
| 10 | 2.16.7.10 (3GB) | 2.16.7.0 | 2.16.7.10 | 2.16.7.9.00715012 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI and Web Service updates |
| 11 | 2.16.7.11 (3GB) | 2.16.7.0 | 2.16.7.11 | 2.16.7.11.00761267 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI, Web Service and DB updates |
| 12 | 2.16.7.12 (3GB) | 2.16.7.0 | 2.16.7.11 | 2.16.7.11.00761267 | 2.16.7.0 | 1.16.7.0.493031 | 2.16.7.9.723457 | | GUI |
| 13 | 2.16.7.13 (3GB) | 2.16.7.0 | 2.16.7.13 | 2.16.7.13.00823274 | 2.16.7.0 | 2.16.7.13.805715 | 2.16.7.13.805717 | | GUI, Web Service, DB, Patient and UM Portal updates |
| 14 | 2.16.7.14 (3GB) | 2.16.7.0 | 2.16.7.14 | 2.16.7.14.00888220 | 2.16.7.0 | 2.16.7.14.897644 | 2.16.7.14.897646 | | GUI, Web Service, DB, Patient and UM Portal updates |
| - | 2.17.1.0 (3GB) | 2.17.1.0 | 2.17.1.0 | 2.17.1.0.00559886 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | Full Version Release |
| 1 | 2.17.1.1 (3GB) | 2.17.1.0 | 2.17.1.1 | 2.17.1.1.00589952 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2 | 2.17.1.2 (3GB) | 2.17.1.0 | 2.17.1.2 | 2.17.1.2.00621962 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 3 | 2.17.1.3 (3GB) | 2.17.1.0 | 2.17.1.3 | 2.17.1.3.00640480 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 4 | 2.17.1.4 (3GB) | 2.17.1.0 | 2.17.1.4 | 2.17.1.4.00692239 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI, Web Service, DB and Patient Portal updates |
| 5 | 2.17.1.4 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.4.00692239 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | Web Service |
| 6 | 2.17.1.6 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI and DB Updates |
| 7 | 2.17.1.7 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI update |
| 8 | 2.17.1.8 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI update |
| 9 | 2.17.1.9 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI update |
| 10 | 2.17.1.10 (3GB) | 2.17.1.0 | 2.17.1.10 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI and Web Service update |
| - | 2.17.2.0(3GB) | 2.17.2.0 | 2.17.2.0 | 2.17.2.0.00695782 | 2.17.2.0 | 2.17.2.0.702238 | 2.17.2.0.702213 | 2.17.2.0.702226 | Full Version Release. First release of Provider Portal |
| - | 2.17.3.0(3GB) | 2.17.3.0 | 2.17.3.0 | 2.17.3.0.00764112 | 2.17.3.0 | 2.17.3.0.321 | 2.17.3.0.321 | 2.17.3.0.321 | Full Version Release. Including Patient, Provider and UM Portals |
| 1 | 2.17.3.1(3GB) | 2.17.3.0 | 2.17.3.1 | 2.17.3.1.00846328 | 2.17.3.1 | 2.17.3.1.853299 | 2.17.3.1.853301 | 2.17.3.1.856171 | GUI, Web Sevice, DB. Including Patient, Provider and UM Portals |
| 2 | 2.17.3.2(3GB) | 2.17.3.0 | 2.17.3.2 | 2.17.3.2.00898348 | 2.17.3.2 | 2.17.3.2.913898 | 2.17.3.2.913899 | 2.17.3.1.856171 | GUI, Web Sevice, DB. Including Patient, Provider and UM Portals |
| 2.1 | 2.17.3.2.1(3GB) | 2.17.3.0 | 2.17.3.2 | 2.17.3.2.00898348 | 2.17.3.2 | 2.17.3.2.913898 | 2.17.3.2.913899 | 2.17.3.1.856171 | GUI Only |
| 3 | 2.17.3.3(3GB) | 2.17.3.0 | 2.17.3.3 | 2.17.3.3.00954008 | 2.17.3.2 | 2.17.3.3.962869 | 2.17.3.3.962870 | 2.17.3.3.962870 | GUI, Web Sevice, DB. Including Patient, Provider and UM Portals |
| 4 | 2.17.3.4(3GB) | 2.17.3.0 | 2.17.3.4 | 2.17.3.4.00987562 | 2.17.3.2 | 2.17.3.3.962869 | 2.17.3.3.962870 | 2.17.3.3.962870 | GUI, Web Sevice and DB |
| 5 | 2.17.3.5(3GB) | 2.17.3.0 | 2.17.3.5 | 2.17.3.5.01023250 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | GUI, Web Sevice, DB, Patient Portal, Referring Portal, UM Portal |
| 6 | 2.17.3.6(3GB) | 2.17.3.0 | 2.17.3.6 | 2.17.3.6.01065114 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | GUI, Web Sevice, DB, |
| 7 | 2.17.3.7(3GB) | 2.17.3.0 | 2.17.3.6 | 2.17.3.6.01065114 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | GUI |
| 8 | 2.17.3.8(3GB) | 2.17.3.0 | 2.17.3.8 | 2.17.3.6.01065114 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | GUI and Web Service |
| 9 | 2.17.3.8(3GB) | 2.17.3.0 | 2.17.3.9 | 2.17.3.6.01065114 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | Web Service |
| 10 | 2.17.3.10(3GB) | 2.17.3.0 | 2.17.3.10 | 2.17.3.10.01125764 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | GUI, Web Service and DB updates |
| - | 3.17.6.0(3GB) | 3.17.6.0 | 3.17.6.0 | 3.17.6.0.01037550 | 3.17.6.0 | 3.17.6.0.1037868 | 3.17.6.0.1037869 | 3.17.6.0.1037869 | Full Version Release. Including Patient, Provider and UM Portals |
| 1 | 3.17.6.1(3GB) | 3.17.6.0 | 3.17.6.1 | 3.17.6.1.01094077 | 3.17.6.0 | 3.17.6.0.1037868 | 3.17.6.0.1037869 | 3.17.6.0.1037869 | GUI, Web Service and DB updates |
| 2 | 3.17.6.2(3GB) | 3.17.6.0 | 3.17.6.2 | 3.17.6.2.01130171 | 3.17.6.2 | 3.17.6.2.1138297 | 3.17.6.2.1138298 | 3.17.6.2.1138298 | GUI, Web Service, DB, Patient, Provider and UM Portals and Digital Forms |
| 3 | 3.17.6.3(3GB) | 3.17.6.0 | 3.17.6.3 | 3.17.6.3.01166033 | 3.17.6.3 | 3.17.6.3.1168622 | 3.17.6.3.1168622 | 3.17.6.3.1168623 | GUI, Web Service, DB, Patient, Provider and UM Portals and Digital Forms |
| **4** | **3.17.6.4(3GB)** | **3.17.6.0** | **3.17.6.4** | **3.17.6.4.01187509** | **3.17.6.4** | **3.17.6.4.1190295** | **3.17.6.4.1190295** | **3.17.6.4.1190295** | **GUI, Web Service, DB, Patient, Provider and UM Portals and Digital Forms** |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

# INSTALLING

## CLIENT/GUI

Copy and replace the current rRIS…zip file with the eRAD_rRIS_2017.6.4.zip file provided with this release.

Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

## WEB SERVICE

This updated is only required for the Wedge Web Services. The Core RIS Service and Document Distribution Service are not required to be updated.

1. The web service upgrade consists of replacing the files in the RIS Web Service directory with the files supplied in the rRISService folder with this build. Always create a backup of the files being replaced. This upgrade includes 141 files in the rRISService folder and 7 sub folders. Of those folders, 1 is a folder titled **"XSL"** that contains a sub folder and files within the subfolder. Another folder is titled **"deploy"** that contains the new .config files that will be deployed with the user of the file called "ServicesConfigWizard.exe" (see instructions below). Folders ar (Arabic), en_AU (Australian English), en-ZA (South Africa), he (Hebrew), pt_BR (Brazilian Portuguese), es-AR (Argentina Spanish) and ru-RU (Russian) and are localization folders. The WedgePlugins folder contains various plugin files for RADAR, MIRTH, Ensemble, etc…

**Services Configuration Wizard**

With the release of 42 to decrease the chance of losing configuration setting and missing new configuration options, we will no longer include the configuration files in the release in the main set of files, but they will now exist in a "deploy" folder, which will contain the three site configurable config files; applicationsettings, connectionstrings, and services as well as a copy of the rRISServices.exe configuration file. The contents of this folder should not be required to be touched.

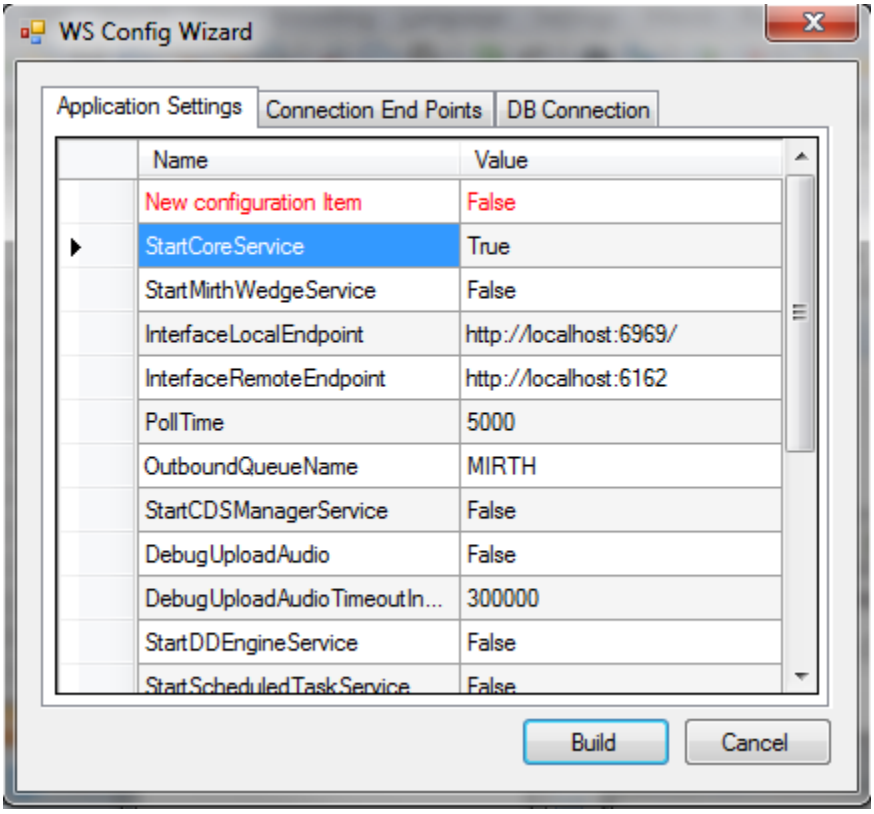
On the install of a new service, all files will be copied to the appropriate locations on the server (no configurations will be over written). If instructed or to confirm no new configurations have been added the user can run the new application "ServicesConfigWizard.exe"

This application will read the existing configuration file(s) (if files exist), and compare to the provided new configuration files then will display three tabs, for each configuration file:

**Application Settings:** all existing configuration value will be displayed, if there are any new configuration entries they will be displayed in red.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

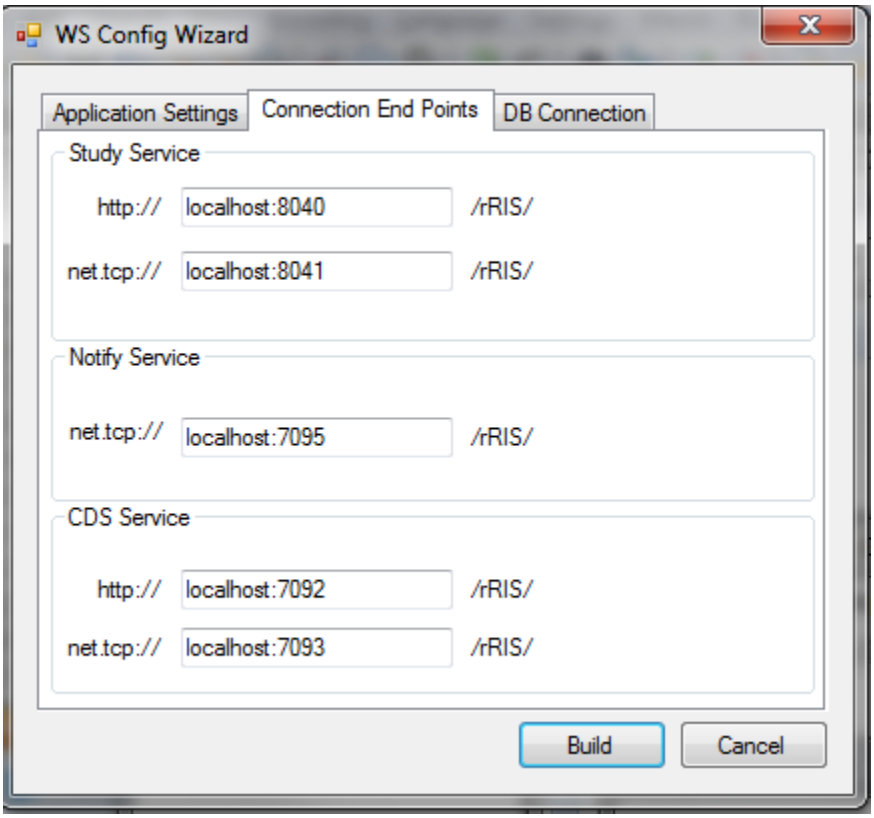
in any form or by any means without the prior written permission from eRAD. 




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

**Connection End Points:** will display the existing configuration, if the value is left blank then that entry will not be created, in the case of "Study Service" or "CDS Service" if both http and net.tcp were not provided then that endpoint will not be created at all.




## DATABASE UPDATES

Always run the upgrade scripts in a test environment of the actual database to make sure they run cleanly. If any errors occur please contact development.

*Note: There is a new upgrade process introduced with B43.1 called "RunUpgrade.bat". The batch file will open a command window. This process will prompt you for the database server name, database name and authentication credentials. There is no need to run the database upgrade scripts manually as was done in previous releases.*

1) From the upgrade folder, double click the "RunUpgrade.bat" command file.

2) Enter the server name, database name and authentication credentials to the database. You have 2 choices for authentication credentials.

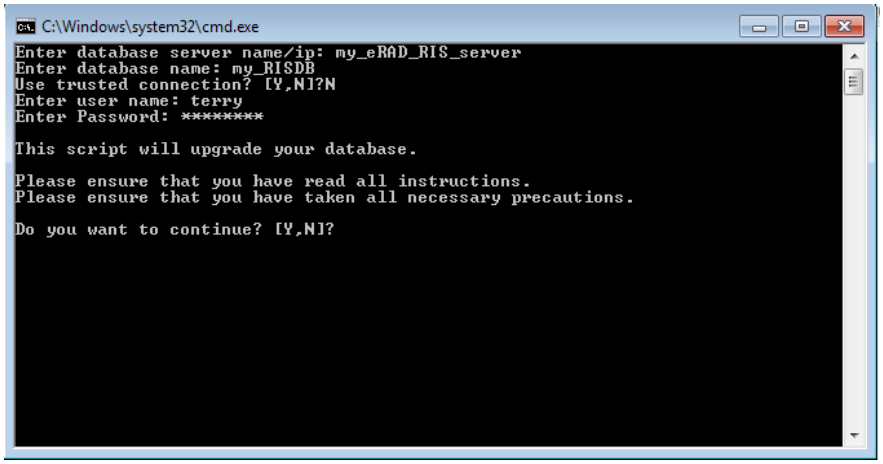
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

3) You can choose to use “Trusted connection”. Using this option will pass the identity of the currently logged on user. If this user has “db_owner” access to the eRAD RIS database then feel free to use this options.

4) If you decide not to use “Trusted connection” then you will be prompted for user id and password.

   Example:




5) After the upgrade program has finished you can find the upgrade logs in the “log” folder. The file name will be eRAD_RIS_db_upgrade_timestamp.log, where timestamp is a value representing the date and time the upgrade started. If you see any errors please contact the development team

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

# Server Update

For eRAD RIS

Version 3.0

Build 3.2017.6

Update 3.2017.6.5

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

# Table of Contents

Package Contents ..... 3

Intended Audience ..... 3

Who is affected ..... 3

Resolved Items ..... 4

Code Stream ..... 5

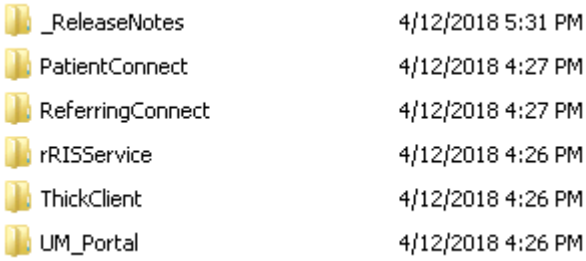
eRAD RIS Release Version Numbers ..... 6

Installing ..... 7

- Client/GUI ..... 7
- Web Service ..... 7

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## PACKAGE CONTENTS




## INTENDED AUDIENCE

The intended audience for this document is the RadNet Clinical Systems team and the eRAD Support/Service team.

It is appropriate to share the document with any customers applying the patch, in order to review new feature descriptions and resolved defects.

## WHO IS AFFECTED

Build 2017.6 installs. This server update must be applied to 2017.6.4

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

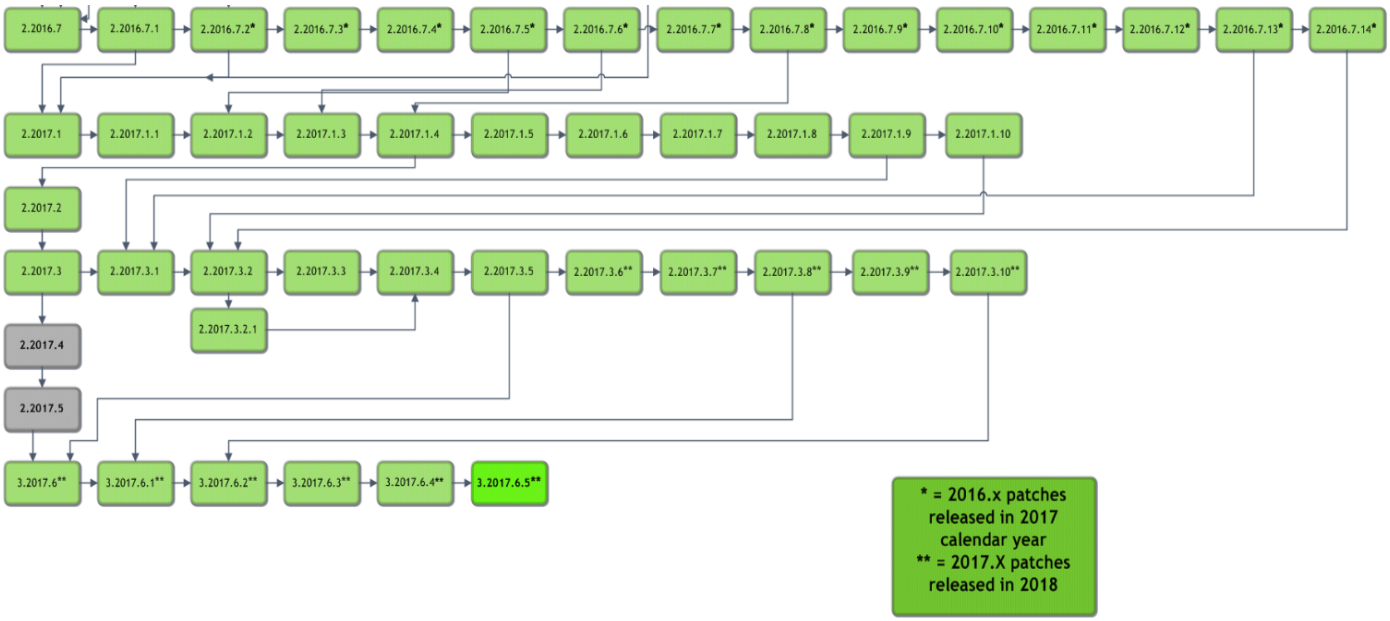
## RESOLVED ITEMS

| Redmine # | Subject |
|---|---|
| 20495 | Resolved an Object Reference error that occurred after splitting an Inbound Document and attaching pages to an existing order. |
| 20496 | It is now possible to choose laterality for an exam after splitting an appointment into two orders, which caused an error in some earlier builds. |
| 20646 | Resolved an issue in the Utilization Management Portal that previously caused a Null Exception error when accessing the Detail page for a study that was rescheduled from a Cancelled study. |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

## CODE STREAM




## Legend:

Light Green = Previously Released software

Gray = Internal version, non-release version

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

## ERAD RIS RELEASE VERSION NUMBERS

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Digital Forms | Patient Portal | UM Portal | Provider Portal | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| 2017.1 | - | 2.17.1.0 (3GB) | 2.17.1.0 | 2.17.1.0 | 2.17.1.0.00559886 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | Full Version Release |
| 2017.1 | 1 | 2.17.1.1 (3GB) | 2.17.1.0 | 2.17.1.1 | 2.17.1.1.00589952 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 2 | 2.17.1.2 (3GB) | 2.17.1.0 | 2.17.1.2 | 2.17.1.2.00621962 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 3 | 2.17.1.3 (3GB) | 2.17.1.0 | 2.17.1.3 | 2.17.1.3.00640480 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 4 | 2.17.1.4 (3GB) | 2.17.1.0 | 2.17.1.4 | 2.17.1.4.00692239 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI, Web Service, DB and Patient Portal updates |
| 2017.1 | 5 | 2.17.1.4 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.4.00692239 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | Web Service |
| 2017.1 | 6 | 2.17.1.6 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI and DB Updates |
| 2017.1 | 7 | 2.17.1.7 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI update |
| 2017.1 | 8 | 2.17.1.8 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI update |
| 2017.1 | 9 | 2.17.1.9 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI update |
| 2017.1 | 10 | 2.17.1.10 (3GB) | 2.17.1.0 | 2.17.1.10 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI and Web Service update |
| 2017.2 | - | 2.17.2.0(3GB) | 2.17.2.0 | 2.17.2.0 | 2.17.2.0.00695782 | 2.17.2.0 | 2.17.2.0.702238 | 2.17.2.0.702213 | 2.17.2.0.702226 | Full Version Release. First release of Provider Portal |
| 2017.3 | - | 2.17.3.0(3GB) | 2.17.3.0 | 2.17.3.0 | 2.17.3.0.00764112 | 2.17.3.0 | 2.17.3.0.321 | 2.17.3.0.321 | 2.17.3.0.321 | Full Version Release. Including Patient, Provider and UM Portals |
| 2017.3 | 1 | 2.17.3.1(3GB) | 2.17.3.0 | 2.17.3.1 | 2.17.3.1.00846328 | 2.17.3.1 | 2.17.3.1.853299 | 2.17.3.1.853301 | 2.17.3.1.856171 | GUI, Web Sevice, DB. Including Patient, Provider and UM Portals |
| 2017.3 | 2 | 2.17.3.2(3GB) | 2.17.3.0 | 2.17.3.2 | 2.17.3.2.00898348 | 2.17.3.2 | 2.17.3.2.913898 | 2.17.3.2.913899 | 2.17.3.1.856171 | GUI, Web Sevice, DB. Including Patient, Provider and UM Portals |
| 2017.3 | 2.1 | 2.17.3.2.1(3GB) | 2.17.3.0 | 2.17.3.2 | 2.17.3.2.00898348 | 2.17.3.2 | 2.17.3.2.913898 | 2.17.3.2.913899 | 2.17.3.1.856171 | GUI Only |
| 2017.3 | 3 | 2.17.3.3(3GB) | 2.17.3.0 | 2.17.3.3 | 2.17.3.3.00954008 | 2.17.3.2 | 2.17.3.3.962869 | 2.17.3.3.962870 | 2.17.3.3.962870 | GUI, Web Sevice, DB. Including Patient, Provider and UM Portals |
| 2017.3 | 4 | 2.17.3.4(3GB) | 2.17.3.0 | 2.17.3.4 | 2.17.3.4.00987562 | 2.17.3.2 | 2.17.3.3.962869 | 2.17.3.3.962870 | 2.17.3.3.962870 | GUI, Web Sevice and DB |
| 2017.3 | 5 | 2.17.3.5(3GB) | 2.17.3.0 | 2.17.3.5 | 2.17.3.5.01023250 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | GUI, Web Sevice, DB, Patient Portal, Referring Portal, UM Portal |
| 2017.3 | 6 | 2.17.3.6(3GB) | 2.17.3.0 | 2.17.3.6 | 2.17.3.6.01065114 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | GUI, Web Sevice, DB, |
| 2017.3 | 7 | 2.17.3.7(3GB) | 2.17.3.0 | 2.17.3.6 | 2.17.3.6.01065114 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | GUI |
| 2017.3 | 8 | 2.17.3.8(3GB) | 2.17.3.0 | 2.17.3.8 | 2.17.3.6.01065114 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | GUI and Web Service |
| 2017.3 | 9 | 2.17.3.8(3GB) | 2.17.3.0 | 2.17.3.9 | 2.17.3.6.01065114 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | Web Service |
| 2017.3 | 10 | 2.17.3.10(3GB) | 2.17.3.0 | 2.17.3.10 | 2.17.3.10.01125764 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | GUI, Web Service and DB updates |
| 2017.6 | - | 3.17.6.0(3GB) | 3.17.6.0 | 3.17.6.0 | 3.17.6.0.01037550 | 3.17.6.0 | 3.17.6.0.1037868 | 3.17.6.0.1037869 | 3.17.6.0.1037869 | Full Version Release. Including Patient, Provider and UM Portals |
| 2017.6 | 1 | 3.17.6.1(3GB) | 3.17.6.0 | 3.17.6.1 | 3.17.6.1.01094077 | 3.17.6.0 | 3.17.6.0.1037868 | 3.17.6.0.1037869 | 3.17.6.0.1037869 | GUI, Web Service and DB updates |
| 2017.6 | 2 | 3.17.6.2(3GB) | 3.17.6.0 | 3.17.6.2 | 3.17.6.2.01130171 | 3.17.6.2 | 3.17.6.2.1138297 | 3.17.6.2.1138298 | 3.17.6.2.1138298 | GUI, Web Service, DB, Patient, Provider and UM Portals and Digital Forms |
| 2017.6 | 3 | 3.17.6.3(3GB) | 3.17.6.0 | 3.17.6.3 | 3.17.6.3.01166033 | 3.17.6.3 | 3.17.6.3.1168622 | 3.17.6.3.1168622 | 3.17.6.3.1168623 | GUI, Web Service, DB, Patient, Provider and UM Portals and Digital Forms |
| 2017.6 | 4 | 3.17.6.4(3GB) | 3.17.6.0 | 3.17.6.4 | 3.17.6.4.01187509 | 3.17.6.4 | 3.17.6.4.1190295 | 3.17.6.4.1190295 | 3.17.6.4.1190295 | GUI, Web Service, DB, Patient, Provider and UM Portals and Digital Forms |
| **2017.6** | **5** | **3.17.6.5(3GB)** | **3.17.6.0** | **3.17.6.5** | **3.17.6.4.01187509** | **3.17.6.4** | **3.17.6.5.1199064** | **3.17.6.5.1199063** | **3.17.6.5.1199064** | **GUI, Web Service, Patient, Provider and UM Portals** |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

# INSTALLING

## CLIENT/GUI

Copy and replace the current rRIS…zip file with the eRAD_rRIS_2017.6.5.zip file provided with this release.

Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

## WEB SERVICE

This updated is only required for the Wedge Web Services. The Core RIS Service and Document Distribution Service are not required to be updated.

1. The web service upgrade consists of replacing the files in the RIS Web Service directory with the files supplied in the rRISService folder with this build. Always create a backup of the files being replaced. This upgrade includes 141 files in the rRISService folder and 7 sub folders. Of those folders, 1 is a folder titled **"XSL"** that contains a sub folder and files within the subfolder. Another folder is titled **"deploy"** that contains the new .config files that will be deployed with the user of the file called "ServicesConfigWizard.exe" (see instructions below). Folders ar (Arabic), en_AU (Australian English), en-ZA (South Africa), he (Hebrew), pt_BR (Brazilian Portuguese), es-AR (Argentina Spanish) and ru-RU (Russian) and are localization folders. The WedgePlugins folder contains various plugin files for RADAR, MIRTH, Ensemble, etc…

**Services Configuration Wizard**

With the release of 42 to decrease the chance of losing configuration setting and missing new configuration options, we will no longer include the configuration files in the release in the main set of files, but they will now exist in a "deploy" folder, which will contain the three site configurable config files; applicationsettings, connectionstrings, and services as well as a copy of the rRISServices.exe configuration file. The contents of this folder should not be required to be touched.

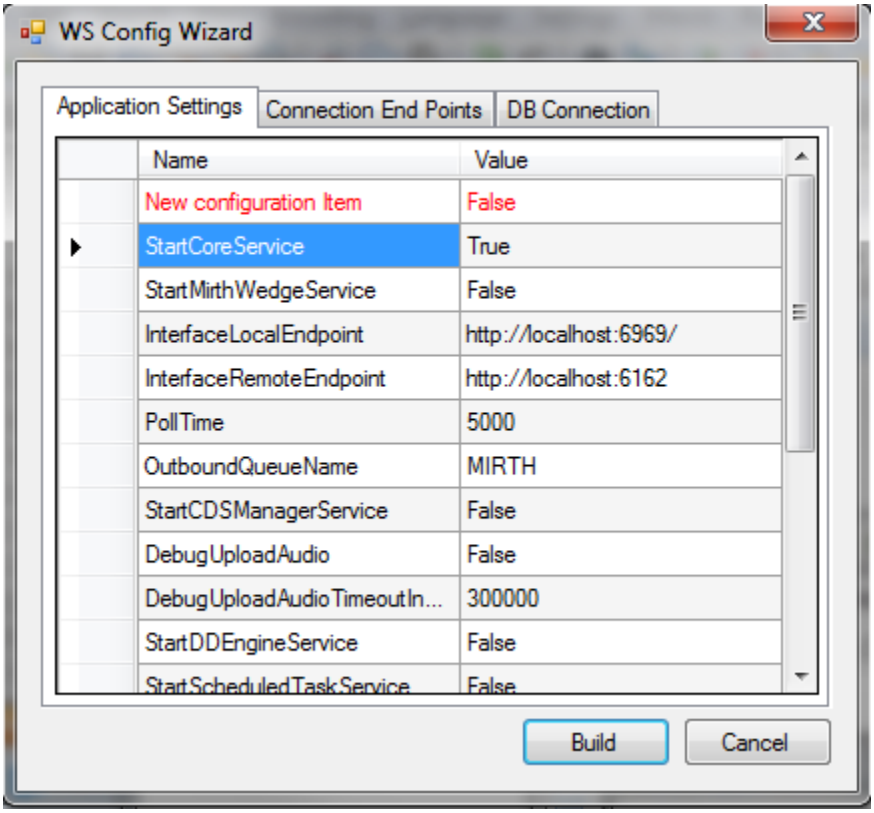
On the install of a new service, all files will be copied to the appropriate locations on the server (no configurations will be over written). If instructed or to confirm no new configurations have been added the user can run the new application "ServicesConfigWizard.exe"

This application will read the existing configuration file(s) (if files exist), and compare to the provided new configuration files then will display three tabs, for each configuration file:

**Application Settings:** all existing configuration value will be displayed, if there are any new configuration entries they will be displayed in red.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

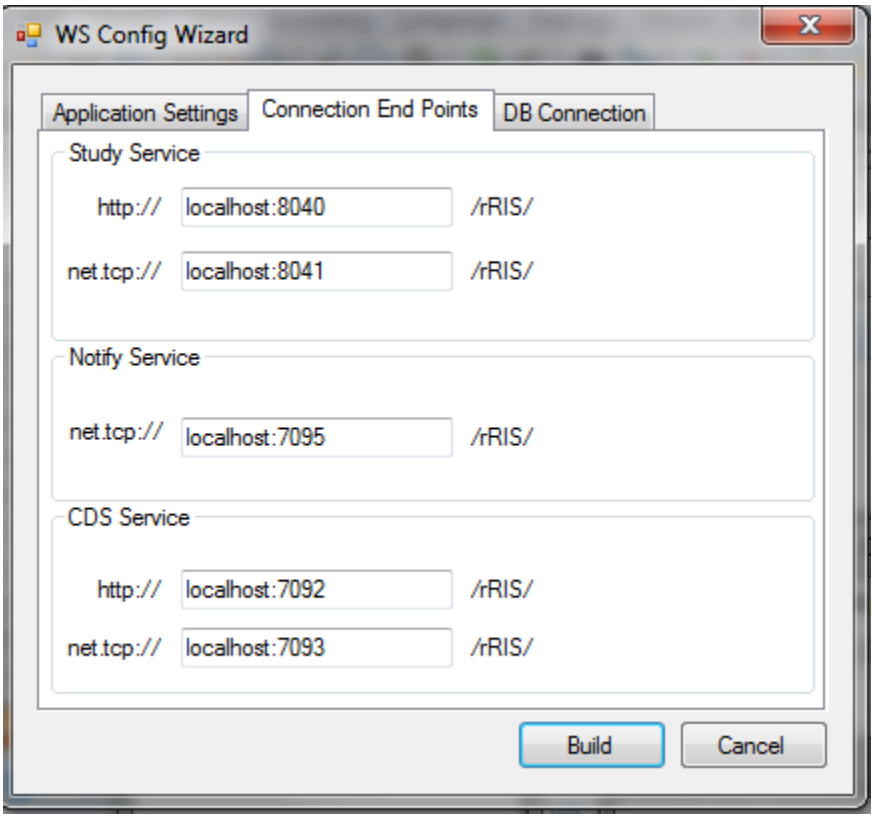
in any form or by any means without the prior written permission from eRAD. 




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

**Connection End Points:** will display the existing configuration, if the value is left blank then that entry will not be created, in the case of “Study Service” or “CDS Service” if both http and net.tcp were not provided then that endpoint will not be created at all.




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

# Server Update

For eRAD RIS

Version 3.0

Build 3.2017.6

Update 3.2017.6.6

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

# Table of Contents

Package Contents ..... 3

Intended Audience ..... 3

Who is affected ..... 3

New settings ..... 4

System configuration ..... 4

New Features ..... 5

Feature # 20929 - Disable live status updates for email report delivery jobs if system is not configured to receive status updates from RADAR ..... 5

Resolved Items ..... 6

Code Stream ..... 7

eRAD RIS Release Version Numbers ..... 8

Installing ..... 9

Client/GUI ..... 9

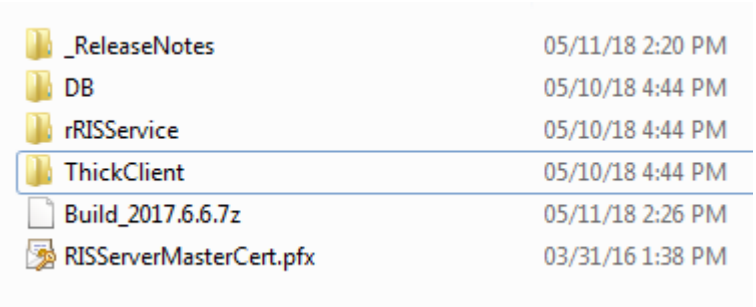
Web Service ..... 9

Database Updates ..... 11

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## PACKAGE CONTENTS




## INTENDED AUDIENCE

The intended audience for this document is the RadNet Clinical Systems team and the eRAD Support/Service team.

It is appropriate to share the document with any customers applying the patch, in order to review new feature descriptions and resolved defects.

## WHO IS AFFECTED

Build 2017.6 installs. This server update must be applied to 2017.6.5

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

## NEW SETTINGS

### SYSTEM CONFIGURATION

| Setting | Default | Purpose |
|---|---|---|
| EnableRADAREmailReportDeliveryJobStatusUpdates | True | (value = Y/N) Enables live RADAR email report delivery job status updates. |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

## NEW FEATURES

### FEATURE # 20929 - DISABLE LIVE STATUS UPDATES FOR EMAIL REPORT DELIVERY JOBS IF SYSTEM IS NOT CONFIGURED TO RECEIVE STATUS UPDATES FROM RADAR

In version 3.2017.6, a new feature was added that would allow for a more realistic distribution status for reports being delivered via email. Instead of immediately setting the status to Complete after delivering the message to RADAR, the status would be set to In Progress until RADAR notified RIS that the email had been delivered.

If a system is not configured to receive the live updates from RADAR, it will result in the report delivery getting stuck in an In Progress status. To rectify this, there is now a System Configuration setting to turn on the new feature. By default, emailed reports will go to Completed status as soon as they are delivered to RADAR. If the configuration setting is set to True, then the new feature will be enabled and the status will be In Progress until RADAR informs the RIS that the email was delivered to the recipient.

Configuration setting:

`EnableRADAREmailReportDeliveryJobStatusUpdates Default = False`

In addition, the following must be true to enable the interactive status update:

- EnableRADARInboundMessageProcessing = True
- InboundRADARMessageFilter must contain “REPORT DELIVERY”

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

## RESOLVED ITEMS

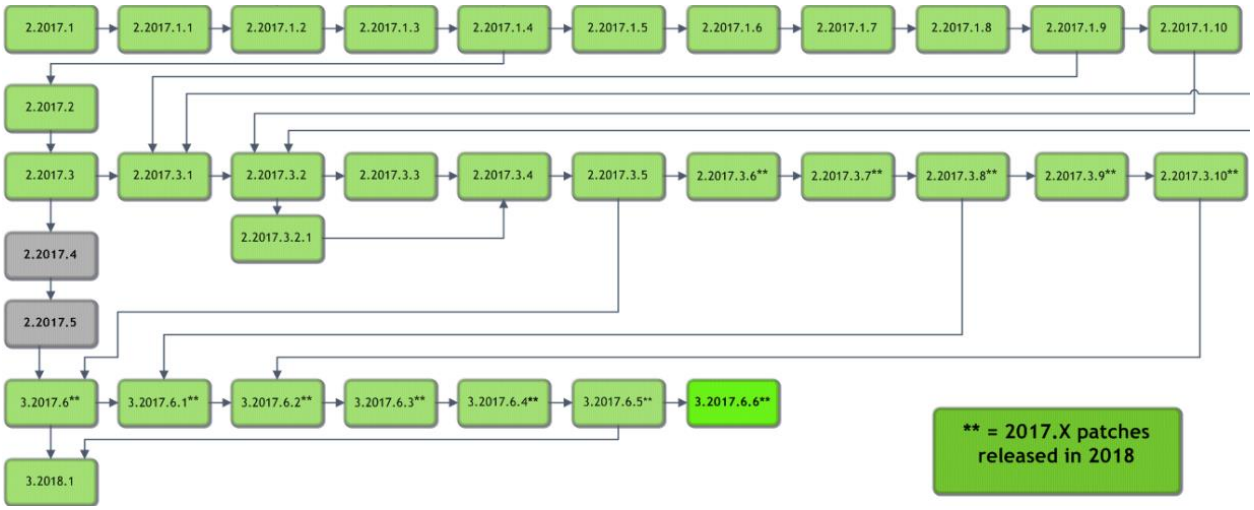
**Most items resolved in this hotfix were originally part of later builds and have been pulled into this patch for early release.**

| Redmine # for 2017.6.4 | Redmine # for 2018.1 | Subject |
|---|---|---|
| 20891 | 20826 | In 2017.6.4 and .5, if a contrast billing code was not already attached to a procedure code, adding contrast to the Contrast table was adding the contrast billing code as Inactive instead of Active. This has been corrected. |
| 20890 | 20849 | When loading priors via eRAD PACS integration, the configured number of most relevant priors is now selected first and *then* the most relevant studies are sorted in reverse chronological order and requested from PACS. In 2017.6, the date sort was happening prior to selecting the most relevant priors, which was resulting in less relevant but more recent studies being selected. |
| 20619 | | If a patient has a previous alternate MRN, the Issuer description is now displayed in the MRN grid even when the Issuer is no longer Active. |
| 20559 | | Resolved an object reference error that occurred when switching Practices/Sites on the Inbound Document worklist. |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

## CODE STREAM




## Legend:

Light Green = Previously Released software

Gray = Internal version, non-release version

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

## ERAD RIS RELEASE VERSION NUMBERS

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Digital Forms | Patient Portal | UM Portal | Provider Portal | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| 2017.1 | - | 2.17.1.0 (3GB) | 2.17.1.0 | 2.17.1.0 | 2.17.1.0.00559886 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | Full Version Release |
| 2017.1 | 1 | 2.17.1.1 (3GB) | 2.17.1.0 | 2.17.1.1 | 2.17.1.1.00589952 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 2 | 2.17.1.2 (3GB) | 2.17.1.0 | 2.17.1.2 | 2.17.1.2.00621962 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 3 | 2.17.1.3 (3GB) | 2.17.1.0 | 2.17.1.3 | 2.17.1.3.00640480 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 4 | 2.17.1.4 (3GB) | 2.17.1.0 | 2.17.1.4 | 2.17.1.4.00692239 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI, Web Service, DB and Patient Portal updates |
| 2017.1 | 5 | 2.17.1.4 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.4.00692239 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | Web Service |
| 2017.1 | 6 | 2.17.1.6 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI and DB Updates |
| 2017.1 | 7 | 2.17.1.7 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI update |
| 2017.1 | 8 | 2.17.1.8 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI update |
| 2017.1 | 9 | 2.17.1.9 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI update |
| 2017.1 | 10 | 2.17.1.10 (3GB) | 2.17.1.0 | 2.17.1.10 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI and Web Service update |
| 2017.2 | - | 2.17.2.0(3GB) | 2.17.2.0 | 2.17.2.0 | 2.17.2.0.00695782 | 2.17.2.0 | 2.17.2.0.702238 | 2.17.2.0.702213 | 2.17.2.0.702226 | Full Version Release. First release of Provider Portal |
| 2017.3 | - | 2.17.3.0(3GB) | 2.17.3.0 | 2.17.3.0 | 2.17.3.0.00764112 | 2.17.3.0 | 2.17.3.0.321 | 2.17.3.0.321 | 2.17.3.0.321 | Full Version Release. Including Patient, Provider and UM Portals |
| 2017.3 | 1 | 2.17.3.1(3GB) | 2.17.3.0 | 2.17.3.1 | 2.17.3.1.00846328 | 2.17.3.1 | 2.17.3.1.853299 | 2.17.3.1.853301 | 2.17.3.1.856171 | GUI, Web Sevice, DB. Including Patient, Provider and UM Portals |
| 2017.3 | 2 | 2.17.3.2(3GB) | 2.17.3.0 | 2.17.3.2 | 2.17.3.2.00898348 | 2.17.3.2 | 2.17.3.2.913898 | 2.17.3.2.913899 | 2.17.3.1.856171 | GUI, Web Sevice, DB. Including Patient, Provider and UM Portals |
| 2017.3 | 2.1 | 2.17.3.2.1(3GB) | 2.17.3.0 | 2.17.3.2 | 2.17.3.2.00898348 | 2.17.3.2 | 2.17.3.2.913898 | 2.17.3.2.913899 | 2.17.3.1.856171 | GUI Only |
| 2017.3 | 3 | 2.17.3.3(3GB) | 2.17.3.0 | 2.17.3.3 | 2.17.3.3.00954008 | 2.17.3.2 | 2.17.3.3.962869 | 2.17.3.3.962870 | 2.17.3.3.962870 | GUI, Web Sevice, DB. Including Patient, Provider and UM Portals |
| 2017.3 | 4 | 2.17.3.4(3GB) | 2.17.3.0 | 2.17.3.4 | 2.17.3.4.00987562 | 2.17.3.2 | 2.17.3.3.962869 | 2.17.3.3.962870 | 2.17.3.3.962870 | GUI, Web Sevice and DB |
| 2017.3 | 5 | 2.17.3.5(3GB) | 2.17.3.0 | 2.17.3.5 | 2.17.3.5.01023250 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | GUI, Web Sevice, DB, Patient Portal, Referring Portal, UM Portal |
| 2017.3 | 6 | 2.17.3.6(3GB) | 2.17.3.0 | 2.17.3.6 | 2.17.3.6.01065114 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | GUI, Web Sevice, DB, |
| 2017.3 | 7 | 2.17.3.7(3GB) | 2.17.3.0 | 2.17.3.6 | 2.17.3.6.01065114 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | GUI |
| 2017.3 | 8 | 2.17.3.8(3GB) | 2.17.3.0 | 2.17.3.8 | 2.17.3.6.01065114 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | GUI and Web Service |
| 2017.3 | 9 | 2.17.3.8(3GB) | 2.17.3.0 | 2.17.3.9 | 2.17.3.6.01065114 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | Web Service |
| 2017.3 | 10 | 2.17.3.10(3GB) | 2.17.3.0 | 2.17.3.10 | 2.17.3.10.01125764 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | GUI, Web Service and DB updates |
| 2017.6 | - | 3.17.6.0(3GB) | 3.17.6.0 | 3.17.6.0 | 3.17.6.0.01037550 | 3.17.6.0 | 3.17.6.0.1037868 | 3.17.6.0.1037869 | 3.17.6.0.1037869 | Full Version Release. Including Patient, Provider and UM Portals |
| 2017.6 | 1 | 3.17.6.1(3GB) | 3.17.6.0 | 3.17.6.1 | 3.17.6.1.01094077 | 3.17.6.0 | 3.17.6.0.1037868 | 3.17.6.0.1037869 | 3.17.6.0.1037869 | GUI, Web Service and DB updates |
| 2017.6 | 2 | 3.17.6.2(3GB) | 3.17.6.0 | 3.17.6.2 | 3.17.6.2.01130171 | 3.17.6.2 | 3.17.6.2.1138297 | 3.17.6.2.1138298 | 3.17.6.2.1138298 | GUI, Web Service, DB, Patient, Provider and UM Portals and Digital Forms |
| 2017.6 | 3 | 3.17.6.3(3GB) | 3.17.6.0 | 3.17.6.3 | 3.17.6.3.01166033 | 3.17.6.3 | 3.17.6.3.1168622 | 3.17.6.3.1168622 | 3.17.6.3.1168623 | GUI, Web Service, DB, Patient, Provider and UM Portals and Digital Forms |
| 2017.6 | 4 | 3.17.6.4(3GB) | 3.17.6.0 | 3.17.6.4 | 3.17.6.4.01187509 | 3.17.6.4 | 3.17.6.4.1190295 | 3.17.6.4.1190295 | 3.17.6.4.1190295 | GUI, Web Service, DB, Patient, Provider and UM Portals and Digital Forms |
| 2017.6 | 5 | 3.17.6.5(3GB) | 3.17.6.0 | 3.17.6.5 | 3.17.6.4.01187509 | 3.17.6.4 | 3.17.6.5.1199064 | 3.17.6.5.1199063 | 3.17.6.5.1199064 | GUI, Web Service, Patient, Provider and UM Portals |
| **2017.6** | **6** | **3.17.6.6(3GB)** | **3.17.6.0** | **3.17.6.6** | **3.17.6.6.01236363** | **3.17.6.4** | **3.17.6.5.1199064** | **3.17.6.5.1199063** | **3.17.6.5.1199064** | **GUI, Web Service and DB updates** |
| 2018.1 | - | 3.18.1.0(3GB) | 3.18.1.0 | 3.18.1.0 | 3.17.6.4.01187509 | 3.18.1.0 | 3.18.1.0.1229289 | 3.18.1.0.1229290 | 3.18.1.0.1229290 | Full version release |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

# INSTALLING

## CLIENT/GUI

Copy and replace the current rRIS…zip file with the eRAD_rRIS_2017.6.6.zip file provided with this release.

Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

## WEB SERVICE

This updated is only required for the Wedge Web Services. The Core RIS Service and Document Distribution Service are not required to be updated.

1. The web service upgrade consists of replacing the files in the RIS Web Service directory with the files supplied in the rRISService folder with this build. Always create a backup of the files being replaced. This upgrade includes 141 files in the rRISService folder and 7 sub folders. Of those folders, 1 is a folder titled **"XSL"** that contains a sub folder and files within the subfolder. Another folder is titled **"deploy"** that contains the new .config files that will be deployed with the user of the file called "ServicesConfigWizard.exe" (see instructions below). Folders ar (Arabic), en_AU (Australian English), en-ZA (South Africa), he (Hebrew), pt_BR (Brazilian Portuguese), es-AR (Argentina Spanish) and ru-RU (Russian) and are localization folders. The WedgePlugins folder contains various plugin files for RADAR, MIRTH, Ensemble, etc…

**Services Configuration Wizard**

With the release of 42 to decrease the chance of losing configuration setting and missing new configuration options, we will no longer include the configuration files in the release in the main set of files, but they will now exist in a "deploy" folder, which will contain the three site configurable config files; applicationsettings, connectionstrings, and services as well as a copy of the rRISServices.exe configuration file. The contents of this folder should not be required to be touched.

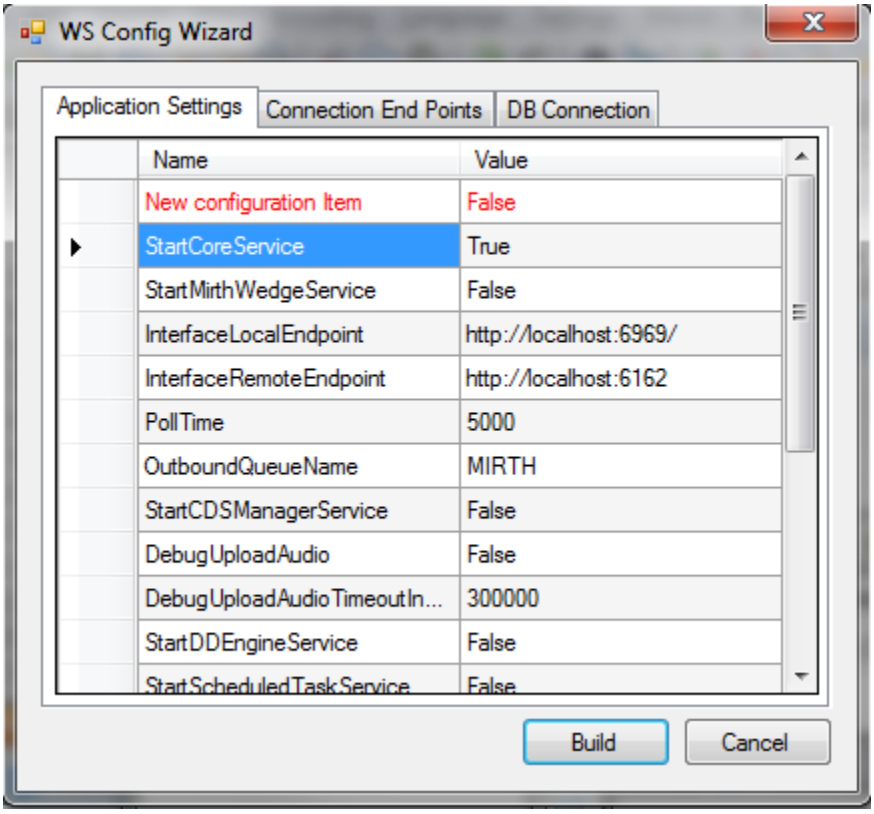
On the install of a new service, all files will be copied to the appropriate locations on the server (no configurations will be over written). If instructed or to confirm no new configurations have been added the user can run the new application "ServicesConfigWizard.exe"

This application will read the existing configuration file(s) (if files exist), and compare to the provided new configuration files then will display three tabs, for each configuration file:

**Application Settings:** all existing configuration value will be displayed, if there are any new configuration entries they will be displayed in red.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

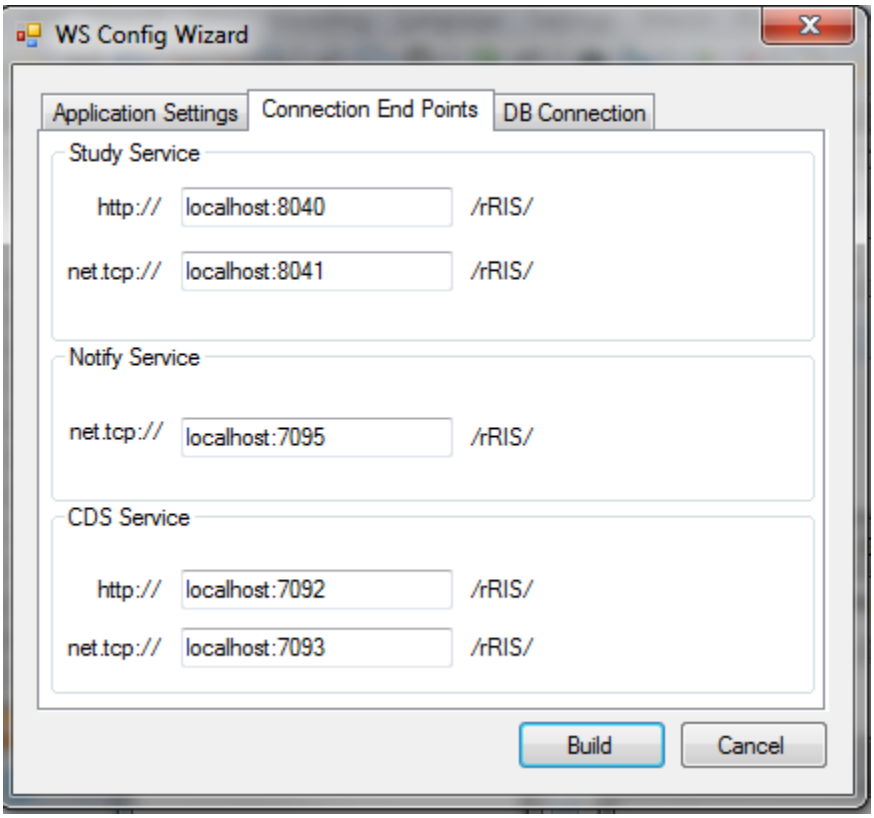
in any form or by any means without the prior written permission from eRAD. 




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

**Connection End Points:** will display the existing configuration, if the value is left blank then that entry will not be created, in the case of "Study Service" or "CDS Service" if both http and net.tcp were not provided then that endpoint will not be created at all.




## DATABASE UPDATES

Always run the upgrade scripts in a test environment of the actual database to make sure they run cleanly. If any errors occur please contact development.

*Note: There is a new upgrade process introduced with B43.1 called "RunUpgrade.bat". The batch file will open a command window. This process will prompt you for the database server name, database name and authentication credentials. There is no need to run the database upgrade scripts manually as was done in previous releases.*

1) From the upgrade folder, double click the "RunUpgrade.bat" command file.

2) Enter the server name, database name and authentication credentials to the database. You have 2 choices for authentication credentials.

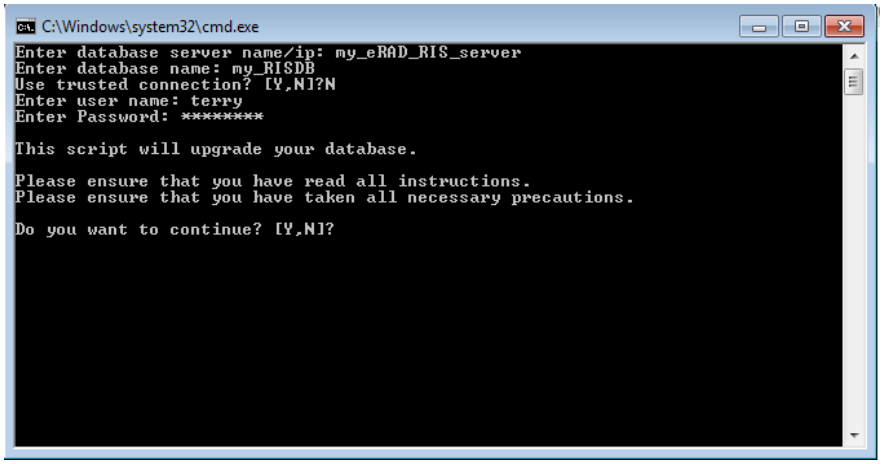
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

3) You can choose to use “Trusted connection”. Using this option will pass the identity of the currently logged on user. If this user has “db_owner” access to the eRAD RIS database then feel free to use this options.

4) If you decide not to use “Trusted connection” then you will be prompted for user id and password.

   Example:




5) After the upgrade program has finished you can find the upgrade logs in the “log” folder. The file name will be eRAD_RIS_db_upgrade_timestamp.log, where timestamp is a value representing the date and time the upgrade started. If you see any errors please contact the development team

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

# Server Update

For eRAD RIS

Version 3.0

Build 3.2017.6

Update 3.2017.6.7

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

# Table of Contents

Package Contents ....3

Intended Audience ....3

Who is affected....3

New Features....4

Feature # 19217 - Support GE PACS IW integration via Accession Number ....4

Feature # 19868 - View and edit ICD codes from the IVT screen....5

Resolved Items ....7

Code Stream ....9

eRAD RIS Release Version Numbers....10

Installing ....11

Client/GUI....11

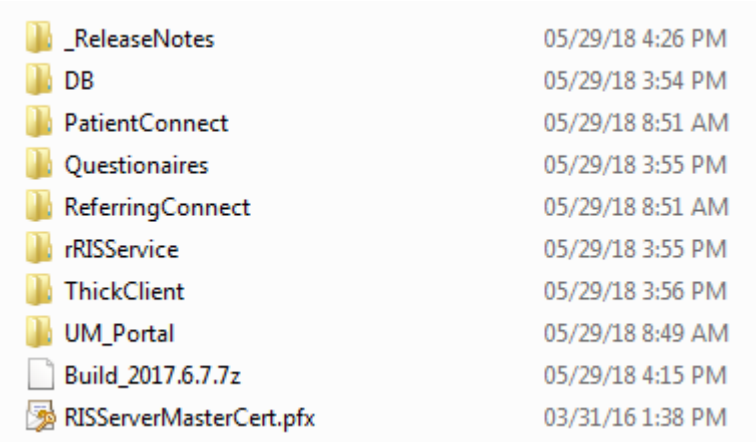
Web Service ....11

Database Updates....13

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## PACKAGE CONTENTS




## INTENDED AUDIENCE

The intended audience for this document is the RadNet Clinical Systems team and the eRAD Support/Service team.

It is appropriate to share the document with any customers applying the patch, in order to review new feature descriptions and resolved defects.

## WHO IS AFFECTED

Build 2017.6 installs. This server update must be applied to 2017.6.6.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

## NEW FEATURES

### FEATURE # 19217 - GE PACS IW INTEGRATION CAN NOW LOAD IMAGES USING ACCESSION NUMBER, IN ADDITION TO PREVIOUS METHOD OF NCD STUDY ID

Previously, the GE PACS IW integration passed the NCD Study ID to load images. Because this method of launching studies sometimes requires customers' PACS vendors to support a custom trigger, it is necessary to provide an alternative option for launching studies. Therefore, eRAD RIS can now support integration via Accession number.

By default, the existing NCD integration will be in place as before. To move to the new Accession number integration, a new property, ***UseAccessions***, must be configured in the PACS Server look-up table. The following should be entered in the Config Options column:

```
<config>
  <UseAccessions>True</UseAccessions>
</config>
```

If this new ***UseAccessions*** property is set to True using the above configuration, accession numbers will be utilized for PACS IW Show Study and Append Images calls. The method will be used for all PACS IW calls, including calls from the Dictation screen and View Images in the Patient Folder.

If the ***UseAccessions*** property is not configured, RIS will default to setting this property as False, which means that the previous method of launching studies using external ID/NCD will be utilized.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

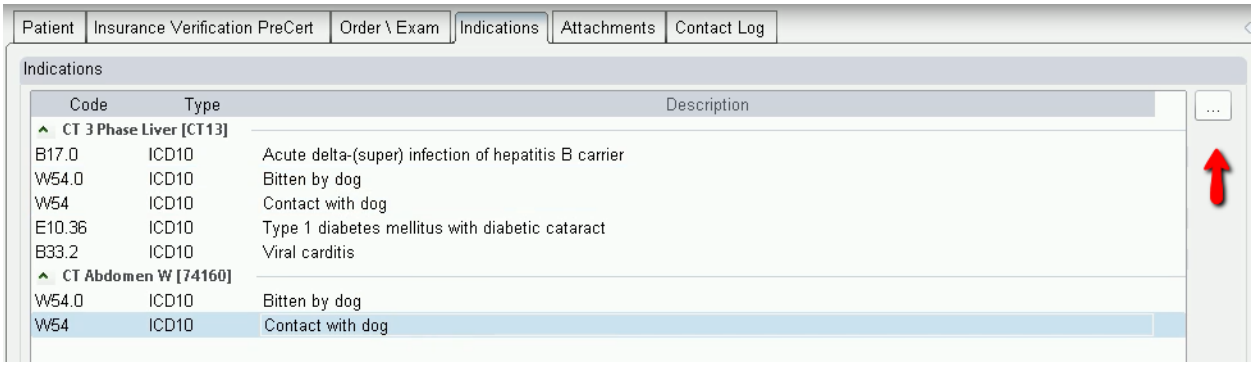
in any form or by any means without the prior written permission from eRAD.

## FEATURE # 19868 – VIEW/EDIT ICD CODES FROM THE IVT SCREEN

For South African workflow, it is critical to be able to view and edit indication codes from the IVT screen. eRAD RIS can now display an Indications tab on the IVT screen under certain conditions. This is likely a useful feature for many customers, not just South African installations.

Because ICDs are stored at the study level, items on the IVT worklist that are in Ordered status will not display the new Indications tab. The study must have been scheduled to enable access to the new tab.

The new Indications tab is available on the IVT screen as shown in the following image.

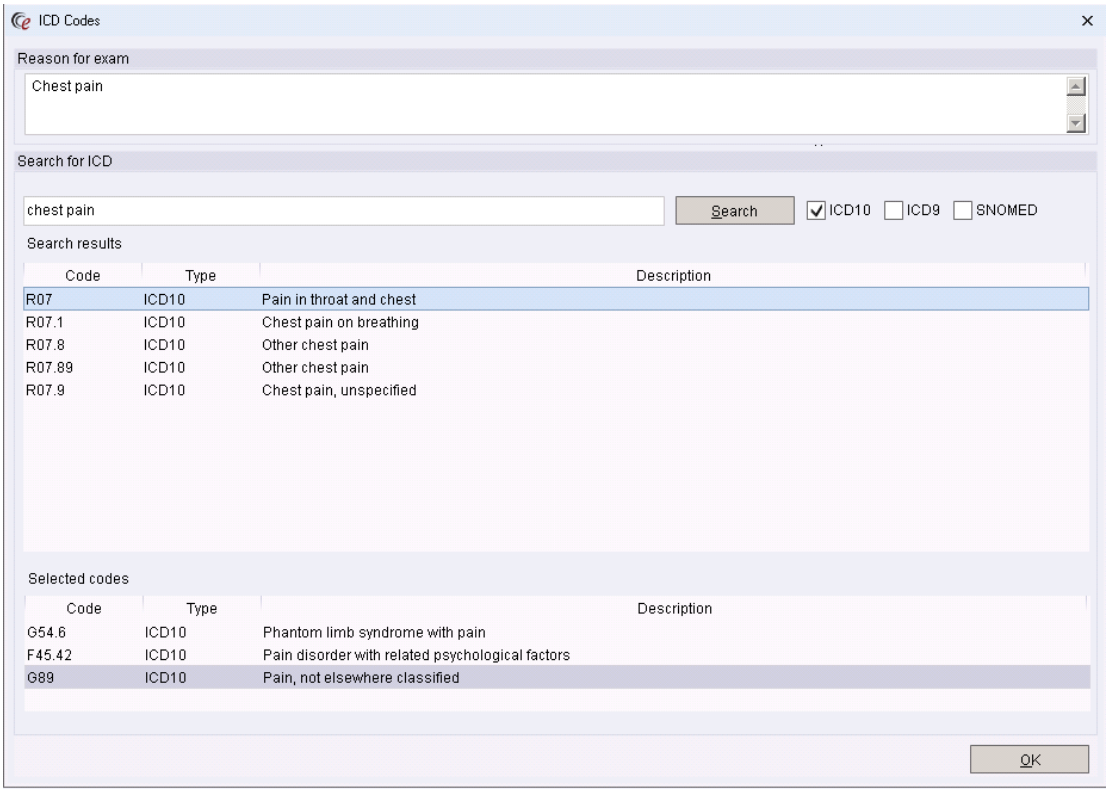



As demonstrated above, if there is more than one study on the order, multiple sections will be included for each study.

In addition to viewing indications that have already been associated, the IVT user can also edit or add entries. To do so, the user can click the "…" button (as is done today on the View/Edit screen) or double click the entry they wish to edit. It is also possible to choose Edit from the right-click context menu. Any of these options will open the existing ICD Codes pop-up window for the selected study (i.e. the study that the highlighted row belongs to).

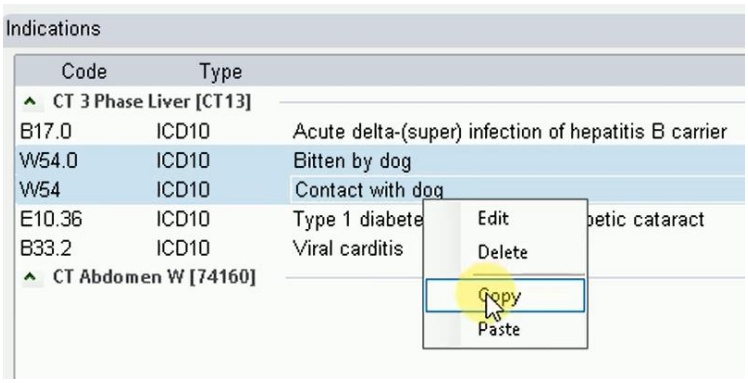
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 




From this screen, associated ICD codes can be removed and new ICDs can be searched and added.

It is also possible to delete ICDs from the main Indications tab. In addition, if there are common ICDs between multiple studies on the order, the user can multi-select ICDs from one study and copy them by choosing Copy from the right-click menu. Then right-clicking the second study will provide a Paste option so the common ICDs can easily be applied to the second study. (Keyboard shortcuts can also be utilized.)




When pasting ICDs to another study, any duplicate ICDs that already exist for the destination study will be ignored.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## RESOLVED ITEMS

| Redmine # for 2017.6.7 | Subject |
|---|---|
| 20807 | When the System Configuration setting RadMustProvideIcdCode is set to True, the requirement will not enforced until the study reaches Signed or Tentatively Signed status. This will address an issue in which staff working the Problem WL were forced to enter Diagnostic Indications when working a problem case. |
| 20776 | Standard RIS Users without Provider Portal access strings will not be able to access the Provider Portal. |
| 20999 | If a patient has scanned documents with a Scan Type that is now set as inactive, the description will still be displayed in the Attachments grid for the previously scanned documents. |
| 20745 | Resolved an issue where Patient Merges were improperly removing email address and security questions for patients with Patient Portal accounts. |
| 20555 | Previously, it was possible for Inbound Documents to be picked up before they are done being written to the file system, resulting in 0 byte files. To prevent this, a delay has been added and RIS will check to be sure that the file has not been modified in the past 2 seconds prior to processing the item. Files with 0 bytes are no longer processed. |
| 20399 | Resolved event registration issues that could cause an inadvertent change to an alternate MRN issuer. |
| 21013 | Resolved an issue in which the Finalized Date column was not populating in the UM Portal. |
| 20668 | On the Exam Details page in the UM Portal, the original appointment is no longer displayed in addition to the new appointment after an order has been rescheduled. |
| 20563 | Resolved an error that could occur when viewing the Appointments Page in the Patient Portal. |

The following fixes from 2018.2 were pulled into this patch for early release.

| Redmine # for 2017.6.7 | Redmine # for 2018.2 | Subject |
|---|---|---|
| 20628 | 19793 | Made changes to threads for PACS Caching process to include try/catch blocks to handle exceptions without causing core service crash. |
| 20627 | 19791 | Made a change to prevent situations where multiple primary insurers could be created, causing duplicate visit key values, which could lead to a core |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

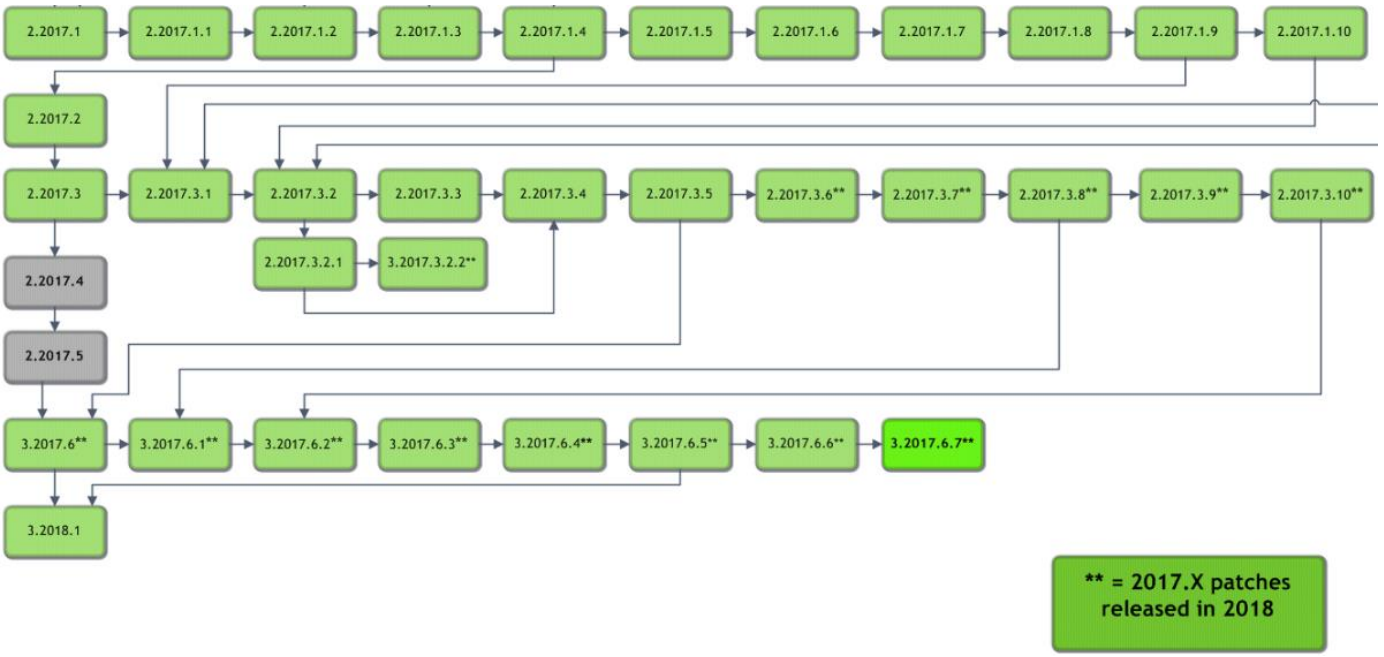
in any form or by any means without the prior written permission from eRAD.

| | | |
|---|---|---|
| | | service crash (related to above ticket). |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## CODE STREAM




**Legend:**

Light Green = Previously Released software

Gray = Internal version, non-release version

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## ERAD RIS RELEASE VERSION NUMBERS

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Digital Forms | Patient Portal | UM Portal | Provider Portal | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| 2017.1 | - | 2.17.1.0 (3GB) | 2.17.1.0 | 2.17.1.0 | 2.17.1.0.00559886 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | Full Version Release |
| 2017.1 | 1 | 2.17.1.1 (3GB) | 2.17.1.0 | 2.17.1.1 | 2.17.1.1.00589952 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 2 | 2.17.1.2 (3GB) | 2.17.1.0 | 2.17.1.2 | 2.17.1.2.00621962 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 3 | 2.17.1.3 (3GB) | 2.17.1.0 | 2.17.1.3 | 2.17.1.3.00640480 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 4 | 2.17.1.4 (3GB) | 2.17.1.0 | 2.17.1.4 | 2.17.1.4.00692239 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI, Web Service, DB and Patient Portal updates |
| 2017.1 | 5 | 2.17.1.4 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.4.00692239 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | Web Service |
| 2017.1 | 6 | 2.17.1.6 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI and DB Updates |
| 2017.1 | 7 | 2.17.1.7 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI update |
| 2017.1 | 8 | 2.17.1.8 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI update |
| 2017.1 | 9 | 2.17.1.9 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI update |
| 2017.1 | 10 | 2.17.1.10 (3GB) | 2.17.1.0 | 2.17.1.10 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI and Web Service update |
| 2017.2 | - | 2.17.2.0(3GB) | 2.17.2.0 | 2.17.2.0 | 2.17.2.0.00695782 | 2.17.2.0 | 2.17.2.0.702238 | 2.17.2.0.702213 | 2.17.2.0.702226 | Full Version Release. First release of Provider Portal |
| 2017.3 | - | 2.17.3.0(3GB) | 2.17.3.0 | 2.17.3.0 | 2.17.3.0.00764112 | 2.17.3.0 | 2.17.3.0.321 | 2.17.3.0.321 | 2.17.3.0.321 | Full Version Release. Including Patient, Provider and UM Portals |
| 2017.3 | 1 | 2.17.3.1(3GB) | 2.17.3.0 | 2.17.3.1 | 2.17.3.1.00846328 | 2.17.3.1 | 2.17.3.1.853299 | 2.17.3.1.853301 | 2.17.3.1.856171 | GUI, Web Sevice, DB. Including Patient, Provider and UM Portals |
| 2017.3 | 2 | 2.17.3.2(3GB) | 2.17.3.0 | 2.17.3.2 | 2.17.3.2.00898348 | 2.17.3.2 | 2.17.3.2.913898 | 2.17.3.2.913899 | 2.17.3.1.856171 | GUI, Web Sevice, DB. Including Patient, Provider and UM Portals |
| 2017.3 | 2.1 | 2.17.3.2.1(3GB) | 2.17.3.0 | 2.17.3.2 | 2.17.3.2.00898348 | 2.17.3.2 | 2.17.3.2.913898 | 2.17.3.2.913899 | 2.17.3.1.856171 | GUI Only |
| 2017.3 | 2.2 | 2.17.3.2.1(3GB) | 2.17.3.0 | 2.17.3.2.2 | 2.17.3.2.00898348 | 2.17.3.2 | 2.17.3.2.913898 | 2.17.3.2.913899 | 2.17.3.1.856171 | Web Services only |
| 2017.3 | 3 | 2.17.3.3(3GB) | 2.17.3.0 | 2.17.3.3 | 2.17.3.3.00954008 | 2.17.3.2 | 2.17.3.3.962869 | 2.17.3.3.962870 | 2.17.3.3.962870 | GUI, Web Sevice, DB. Including Patient, Provider and UM Portals |
| 2017.3 | 4 | 2.17.3.4(3GB) | 2.17.3.0 | 2.17.3.4 | 2.17.3.4.00987562 | 2.17.3.2 | 2.17.3.3.962869 | 2.17.3.3.962870 | 2.17.3.3.962870 | GUI, Web Sevice and DB |
| 2017.3 | 5 | 2.17.3.5(3GB) | 2.17.3.0 | 2.17.3.5 | 2.17.3.5.01023250 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | GUI, Web Sevice, DB, Patient Portal, Referring Portal, UM Portal |
| 2017.3 | 6 | 2.17.3.6(3GB) | 2.17.3.0 | 2.17.3.6 | 2.17.3.6.01065114 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | GUI, Web Sevice, DB, |
| 2017.3 | 7 | 2.17.3.7(3GB) | 2.17.3.0 | 2.17.3.6 | 2.17.3.6.01065114 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | GUI |
| 2017.3 | 8 | 2.17.3.8(3GB) | 2.17.3.0 | 2.17.3.8 | 2.17.3.6.01065114 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | GUI and Web Service |
| 2017.3 | 9 | 2.17.3.8(3GB) | 2.17.3.0 | 2.17.3.9 | 2.17.3.6.01065114 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | Web Service |
| 2017.3 | 10 | 2.17.3.10(3GB) | 2.17.3.0 | 2.17.3.10 | 2.17.3.10.01125764 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | GUI, Web Service and DB updates |
| 2017.6 | - | 3.17.6.0(3GB) | 3.17.6.0 | 3.17.6.0 | 3.17.6.0.01037550 | 3.17.6.0 | 3.17.6.0.1037868 | 3.17.6.0.1037869 | 3.17.6.0.1037869 | Full Version Release. Including Patient, Provider and UM Portals |
| 2017.6 | 1 | 3.17.6.1(3GB) | 3.17.6.0 | 3.17.6.1 | 3.17.6.1.01094077 | 3.17.6.0 | 3.17.6.0.1037868 | 3.17.6.0.1037869 | 3.17.6.0.1037869 | GUI, Web Service and DB updates |
| 2017.6 | 2 | 3.17.6.2(3GB) | 3.17.6.0 | 3.17.6.2 | 3.17.6.2.01130171 | 3.17.6.2 | 3.17.6.2.1138297 | 3.17.6.2.1138298 | 3.17.6.2.1138298 | GUI, Web Service, DB, Patient, Provider and UM Portals and Digital Forms |
| 2017.6 | 3 | 3.17.6.3(3GB) | 3.17.6.0 | 3.17.6.3 | 3.17.6.3.01166033 | 3.17.6.3 | 3.17.6.3.1168622 | 3.17.6.3.1168622 | 3.17.6.3.1168623 | GUI, Web Service, DB, Patient, Provider and UM Portals and Digital Forms |
| 2017.6 | 4 | 3.17.6.4(3GB) | 3.17.6.0 | 3.17.6.4 | 3.17.6.4.01187509 | 3.17.6.4 | 3.17.6.4.1190295 | 3.17.6.4.1190295 | 3.17.6.4.1190295 | GUI, Web Service, DB, Patient, Provider and UM Portals and Digital Forms |
| 2017.6 | 5 | 3.17.6.5(3GB) | 3.17.6.0 | 3.17.6.5 | 3.17.6.4.01187509 | 3.17.6.4 | 3.17.6.5.1199064 | 3.17.6.5.1199063 | 3.17.6.5.1199064 | GUI, Web Service, Patient, Provider and UM Portals |
| 2017.6 | 6 | 3.17.6.6(3GB) | 3.17.6.0 | 3.17.6.6 | 3.17.6.6.01236363 | 3.17.6.4 | 3.17.6.5.1199064 | 3.17.6.5.1199063 | 3.17.6.5.1199064 | GUI, Web Service and DB updates |
| **2017.6** | **7** | **3.17.6.7(3GB)** | **3.17.6.0** | **3.17.6.7** | **3.17.6.7.01257812** | **3.17.6.7** | **3.17.6.7.1266287** | **3.17.6.7.1266287** | **3.17.6.7.1266287** | **GUI, Web Service, DB, Digital Forms, Patient, Provider and UM portals** |
| 2018.1 | - | 3.18.1.0(3GB) | 3.18.1.0 | 3.18.1.0 | 3.17.6.4.01187509 | 3.18.1.0 | 3.18.1.0.1229289 | 3.18.1.0.1229290 | 3.18.1.0.1229290 | Full version release |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

# INSTALLING

## CLIENT/GUI

Copy and replace the current rRIS…zip file with the eRAD_rRIS_2017.6.7.zip file provided with this release.

Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

## WEB SERVICE

This updated is only required for the Wedge Web Services. The Core RIS Service and Document Distribution Service are not required to be updated.

1. The web service upgrade consists of replacing the files in the RIS Web Service directory with the files supplied in the rRISService folder with this build. Always create a backup of the files being replaced. This upgrade includes 141 files in the rRISService folder and 7 sub folders. Of those folders, 1 is a folder titled **"XSL"** that contains a sub folder and files within the subfolder. Another folder is titled **"deploy"** that contains the new .config files that will be deployed with the user of the file called "ServicesConfigWizard.exe" (see instructions below). Folders ar (Arabic), en_AU (Australian English), en-ZA (South Africa), he (Hebrew), pt_BR (Brazilian Portuguese), es-AR (Argentina Spanish) and ru-RU (Russian) and are localization folders. The WedgePlugins folder contains various plugin files for RADAR, MIRTH, Ensemble, etc…

**Services Configuration Wizard**

With the release of 42 to decrease the chance of losing configuration setting and missing new configuration options, we will no longer include the configuration files in the release in the main set of files, but they will now exist in a "deploy" folder, which will contain the three site configurable config files; applicationsettings, connectionstrings, and services as well as a copy of the rRISServices.exe configuration file. The contents of this folder should not be required to be touched.

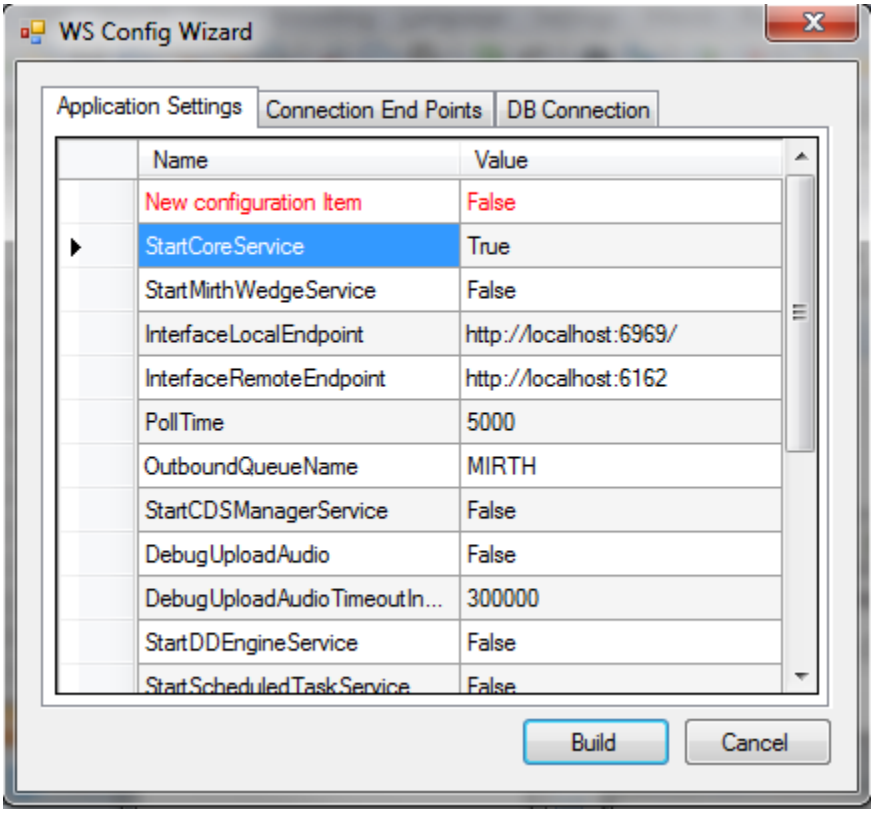
On the install of a new service, all files will be copied to the appropriate locations on the server (no configurations will be over written). If instructed or to confirm no new configurations have been added the user can run the new application "ServicesConfigWizard.exe"

This application will read the existing configuration file(s) (if files exist), and compare to the provided new configuration files then will display three tabs, for each configuration file:

**Application Settings:** all existing configuration value will be displayed, if there are any new configuration entries they will be displayed in red.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

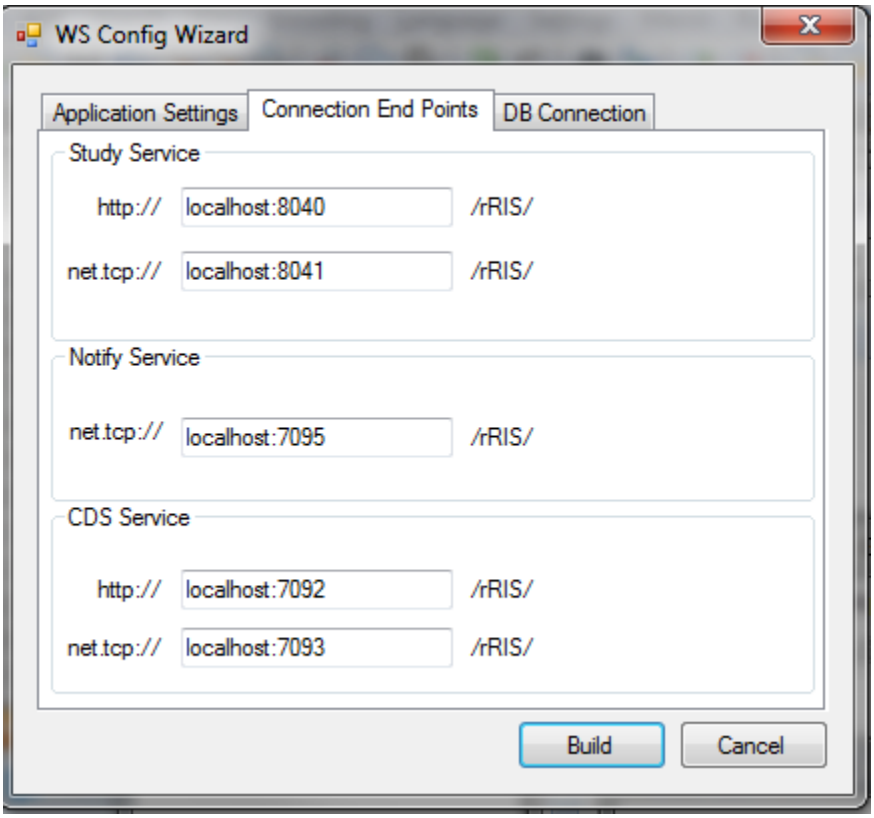
in any form or by any means without the prior written permission from eRAD. 




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

**Connection End Points:** will display the existing configuration, if the value is left blank then that entry will not be created, in the case of "Study Service" or "CDS Service" if both http and net.tcp were not provided then that endpoint will not be created at all.




## DATABASE UPDATES

Always run the upgrade scripts in a test environment of the actual database to make sure they run cleanly. If any errors occur please contact development.

*Note: There is a new upgrade process introduced with B43.1 called "RunUpgrade.bat". The batch file will open a command window. This process will prompt you for the database server name, database name and authentication credentials. There is no need to run the database upgrade scripts manually as was done in previous releases.*

1) From the upgrade folder, double click the "RunUpgrade.bat" command file.

2) Enter the server name, database name and authentication credentials to the database. You have 2 choices for authentication credentials.

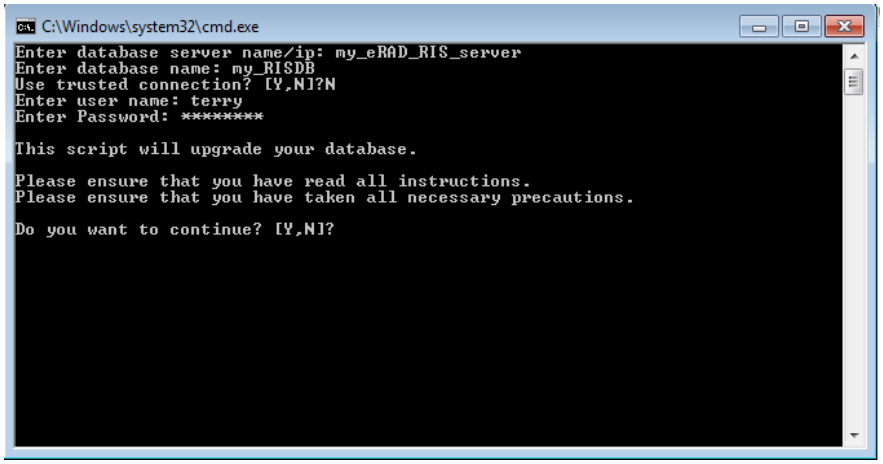
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

3) You can choose to use “Trusted connection”. Using this option will pass the identity of the currently logged on user. If this user has “db_owner” access to the eRAD RIS database then feel free to use this options.

4) If you decide not to use “Trusted connection” then you will be prompted for user id and password.

   Example:




5) After the upgrade program has finished you can find the upgrade logs in the “log” folder. The file name will be eRAD_RIS_db_upgrade_timestamp.log, where timestamp is a value representing the date and time the upgrade started. If you see any errors please contact the development team

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

# Server Update

For eRAD RIS

Version 3.0

Build 3.2017.6

Update 3.2017.6.8

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

# Table of Contents

Package Contents ....3

Intended Audience ....3

Who is affected....3

New settings ....4

System configuration ....4

New Features....5

Feature # 20930 – Option to automatically restart RADAR SignalR client ....5

Resolved Items ....6

Code Stream ....7

eRAD RIS Release Version Numbers ....8

Installing ....9

Client/GUI....9

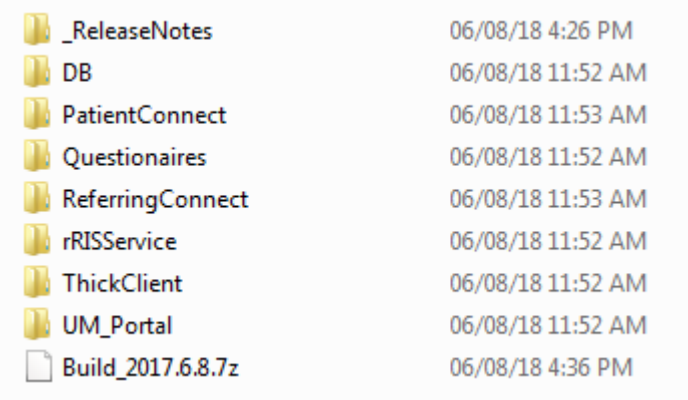
Web Service ....9

Database Updates ....11

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## PACKAGE CONTENTS




## INTENDED AUDIENCE

The intended audience for this document is the RadNet Clinical Systems team and the eRAD Support/Service team.

It is appropriate to share the document with any customers applying the patch, in order to review new feature descriptions and resolved defects.

## WHO IS AFFECTED

Build 2017.6 installs. This server update must be applied to 2017.6.7.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

# NEW SETTINGS

## SYSTEM CONFIGURATION

| Setting | Default | Purpose |
|---|---|---|
| RADARInboundChannelRestartInterval | -1 | (value = int) Controls how often (in minutes) the RADAR Inbound message channel will be restarted.<br>(Feature is turned off when value is less than 1.) |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

## NEW FEATURES

### FEATURE # 20930 – OPTION TO AUTOMATICALLY RESTART RADAR SIGNALR CLIENT

The RADAR SignalR client manages inbound messaging from the RADAR EventBroker service. Previously, if the RADAR Wedge plugin lost connection to the RADAR event broker, it would fail to reconnect resulting in the loss of inbound RADAR message notifications. This resulted in report delivery statuses for reports with an Email distribution method not being received and report delivery jobs stayed at 'In progress' on the Document Distribution WL, even though they had been successfully delivered. It also impacted other inbound RADAR messages, such as SecurePIC replies.

To prevent this from happening, it is now possible to restart the RADAR SignalR client from within the RADAR Wedge plugin. This feature will restore the inbound connection to RADAR without restarting the Wedge service.

A new System Configuration setting has been added:

***RADARInboundChannelRestartInterval***

- Controls how often (in minutes) the RADAR Inbound Message channel will be restarted.
- The feature will be turned off if the value for this setting is less than 1.
- Default = -1 (meaning the new feature will be off by default)
- Recommended setting: if RADAR inbound messaging is enabled, the recommended value is 120.

In the RADARWedgePlugin, if Inbound is enabled and the new configuration setting is set to a value of 1 or higher, a timer is created and started. Once the timer has elapsed, the RADAR SignalR Client is disconnected and recreated, then attempts to reconnect to the RADAR Event Broker. Console messaging has been added to display when the client disconnects and connects to the RADAR Event Broker.

Recommended Use: RADAR inbound notifications are available for 8 hours before expiring.
If ***RADARInboundChannelRestartInterval*** is set to 120 minutes, this will restart the RADAR SignalR Client periodically to ensure inbound notifications are being received without having to monitor report delivery on the Distribution WL or the Wedge service itself.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## RESOLVED ITEMS

| Redmine # for 2017.6.8 | Subject |
|---|---|
| 21228 | Linked Reporting: Rescheduling a "Report together" procedure plan no longer breaks the links. |
| 21217 | Linked Reporting: Changing the primary procedure in a procedure plan is now correctly breaking the link. |
| 21055 | Linked Reporting: Changing the primary procedure on a manually linked set of studies now correctly maintains the link. |
| 21214 | GE PACS IW integration via Accession Number: new configuration option is now properly applied even if there are multiple PACS IW entries. |
| 21083 | UM Connect Portal: Exception no longer occurring on Exam Detail page when opening an order with both active and inactive study items. |
| 21081 | UM Connect Portal Admin Tool: Resolved an issue in which sending a message to "all users" was incorrectly sending the message to all Provider Portal users, instead of UM Portal users. |
| 21065 | Resolved a performance issue that occurred when importing a study from CD when the study UID or patient ID were missing (null checks added). |
| 21040 | Imagine Pay Integration now has additional logging and exception handling. |
| 19803 | SecurePIC Requests can be properly initiated when the patient does not have an email address. |

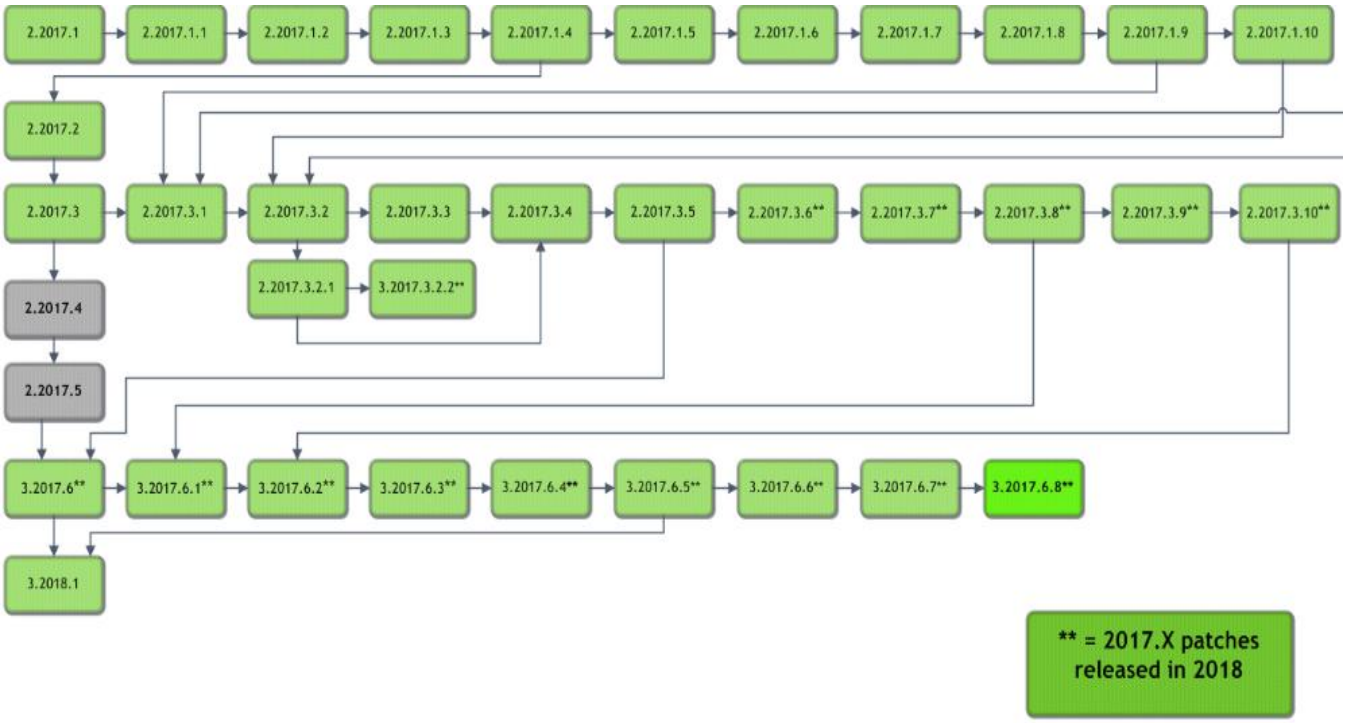
The following fixes from 2018.1 were pulled into this patch for early release.

| Redmine # for 2017.6.8 | Redmine # for 2018.1 | Subject |
|---|---|---|
| 21064 | 19810 | Eligibility: United HealthCare is now pulling the correct patient address. |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## CODE STREAM




**Legend:**

Light Green = Previously Released software

Gray = Internal version, non-release version

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

## ERAD RIS RELEASE VERSION NUMBERS

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Digital Forms | Patient Portal | UM Portal | Provider Portal | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| 2017.1 | - | 2.17.1.0 (3GB) | 2.17.1.0 | 2.17.1.0 | 2.17.1.0.00559886 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | Full Version Release |
| 2017.1 | 1 | 2.17.1.1 (3GB) | 2.17.1.0 | 2.17.1.1 | 2.17.1.1.00589952 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 2 | 2.17.1.2 (3GB) | 2.17.1.0 | 2.17.1.2 | 2.17.1.2.00621962 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 3 | 2.17.1.3 (3GB) | 2.17.1.0 | 2.17.1.3 | 2.17.1.3.00640480 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 4 | 2.17.1.4 (3GB) | 2.17.1.0 | 2.17.1.4 | 2.17.1.4.00692239 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI, Web Service, DB and Patient Portal updates |
| 2017.1 | 5 | 2.17.1.4 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.4.00692239 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | Web Service |
| 2017.1 | 6 | 2.17.1.6 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI and DB Updates |
| 2017.1 | 7 | 2.17.1.7 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI update |
| 2017.1 | 8 | 2.17.1.8 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI update |
| 2017.1 | 9 | 2.17.1.9 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI update |
| 2017.1 | 10 | 2.17.1.10 (3GB) | 2.17.1.0 | 2.17.1.10 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI and Web Service update |
| 2017.2 | - | 2.17.2.0(3GB) | 2.17.2.0 | 2.17.2.0 | 2.17.2.0.00695782 | 2.17.2.0 | 2.17.2.0.702238 | 2.17.2.0.702213 | 2.17.2.0.702226 | Full Version Release. First release of Provider Portal |
| 2017.3 | - | 2.17.3.0(3GB) | 2.17.3.0 | 2.17.3.0 | 2.17.3.0.00764112 | 2.17.3.0 | 2.17.3.0.321 | 2.17.3.0.321 | 2.17.3.0.321 | Full Version Release. Including Patient, Provider and UM Portals |
| 2017.3 | 1 | 2.17.3.1(3GB) | 2.17.3.0 | 2.17.3.1 | 2.17.3.1.00846328 | 2.17.3.1 | 2.17.3.1.853299 | 2.17.3.1.853301 | 2.17.3.1.856171 | GUI, Web Sevice, DB. Including Patient, Provider and UM Portals |
| 2017.3 | 2 | 2.17.3.2(3GB) | 2.17.3.0 | 2.17.3.2 | 2.17.3.2.00898348 | 2.17.3.2 | 2.17.3.2.913898 | 2.17.3.2.913899 | 2.17.3.1.856171 | GUI, Web Sevice, DB. Including Patient, Provider and UM Portals |
| 2017.3 | 2.1 | 2.17.3.2.1(3GB) | 2.17.3.0 | 2.17.3.2 | 2.17.3.2.00898348 | 2.17.3.2 | 2.17.3.2.913898 | 2.17.3.2.913899 | 2.17.3.1.856171 | GUI Only |
| 2017.3 | 2.2 | 2.17.3.2.1(3GB) | 2.17.3.0 | 2.17.3.2.2 | 2.17.3.2.00898348 | 2.17.3.2 | 2.17.3.2.913898 | 2.17.3.2.913899 | 2.17.3.1.856171 | Web Services only |
| 2017.3 | 3 | 2.17.3.3(3GB) | 2.17.3.0 | 2.17.3.3 | 2.17.3.3.00954008 | 2.17.3.2 | 2.17.3.3.962869 | 2.17.3.3.962870 | 2.17.3.3.962870 | GUI, Web Sevice, DB. Including Patient, Provider and UM Portals |
| 2017.3 | 4 | 2.17.3.4(3GB) | 2.17.3.0 | 2.17.3.4 | 2.17.3.4.00987562 | 2.17.3.2 | 2.17.3.3.962869 | 2.17.3.3.962870 | 2.17.3.3.962870 | GUI, Web Sevice and DB |
| 2017.3 | 5 | 2.17.3.5(3GB) | 2.17.3.0 | 2.17.3.5 | 2.17.3.5.01023250 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | GUI, Web Sevice, DB, Patient Portal, Referring Portal, UM Portal |
| 2017.3 | 6 | 2.17.3.6(3GB) | 2.17.3.0 | 2.17.3.6 | 2.17.3.6.01065114 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | GUI, Web Sevice, DB, |
| 2017.3 | 7 | 2.17.3.7(3GB) | 2.17.3.0 | 2.17.3.6 | 2.17.3.6.01065114 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | GUI |
| 2017.3 | 8 | 2.17.3.8(3GB) | 2.17.3.0 | 2.17.3.8 | 2.17.3.6.01065114 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | GUI and Web Service |
| 2017.3 | 9 | 2.17.3.8(3GB) | 2.17.3.0 | 2.17.3.9 | 2.17.3.6.01065114 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | Web Service |
| 2017.3 | 10 | 2.17.3.10(3GB) | 2.17.3.0 | 2.17.3.10 | 2.17.3.10.01125764 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | GUI, Web Service and DB updates |
| 2017.6 | - | 3.17.6.0(3GB) | 3.17.6.0 | 3.17.6.0 | 3.17.6.0.01037550 | 3.17.6.0 | 3.17.6.0.1037868 | 3.17.6.0.1037869 | 3.17.6.0.1037869 | Full Version Release. Including Patient, Provider and UM Portals |
| 2017.6 | 1 | 3.17.6.1(3GB) | 3.17.6.0 | 3.17.6.1 | 3.17.6.1.01094077 | 3.17.6.0 | 3.17.6.0.1037868 | 3.17.6.0.1037869 | 3.17.6.0.1037869 | GUI, Web Service and DB updates |
| 2017.6 | 2 | 3.17.6.2(3GB) | 3.17.6.0 | 3.17.6.2 | 3.17.6.2.01130171 | 3.17.6.2 | 3.17.6.2.1138297 | 3.17.6.2.1138298 | 3.17.6.2.1138298 | GUI, Web Service, DB, Patient, Provider and UM Portals and Digital Forms |
| 2017.6 | 3 | 3.17.6.3(3GB) | 3.17.6.0 | 3.17.6.3 | 3.17.6.3.01166033 | 3.17.6.3 | 3.17.6.3.1168622 | 3.17.6.3.1168622 | 3.17.6.3.1168623 | GUI, Web Service, DB, Patient, Provider and UM Portals and Digital Forms |
| 2017.6 | 4 | 3.17.6.4(3GB) | 3.17.6.0 | 3.17.6.4 | 3.17.6.4.01187509 | 3.17.6.4 | 3.17.6.4.1190295 | 3.17.6.4.1190295 | 3.17.6.4.1190295 | GUI, Web Service, DB, Patient, Provider and UM Portals and Digital Forms |
| 2017.6 | 5 | 3.17.6.5(3GB) | 3.17.6.0 | 3.17.6.5 | 3.17.6.4.01187509 | 3.17.6.4 | 3.17.6.5.1199064 | 3.17.6.5.1199063 | 3.17.6.5.1199064 | GUI, Web Service, Patient, Provider and UM Portals |
| 2017.6 | 6 | 3.17.6.6(3GB) | 3.17.6.0 | 3.17.6.6 | 3.17.6.6.01236363 | 3.17.6.4 | 3.17.6.5.1199064 | 3.17.6.5.1199063 | 3.17.6.5.1199064 | GUI, Web Service and DB updates |
| 2017.6 | 7 | 3.17.6.7(3GB) | 3.17.6.0 | 3.17.6.7 | 3.17.6.7.01257812 | 3.17.6.7 | 3.17.6.7.1266287 | 3.17.6.7.1266287 | 3.17.6.7.1266287 | GUI, Web Service, DB, Digital Forms, Patient, Provider and UM port |
| **2017.6** | **8** | **3.17.6.8(3GB)** | **3.17.6.0** | **3.17.6.8** | **3.17.6.8.01276873** | **3.17.6.8** | **3.17.6.8.1280869** | **3.17.6.8.1280870** | **3.17.6.8.1280869** | **GUI, Web Service, DB, Digital Forms, Patient, Provider and UM portals** |
| 2018.1 | - | 3.18.1.0(3GB) | 3.18.1.0 | 3.18.1.0 | 3.17.6.4.01187509 | 3.18.1.0 | 3.18.1.0.1229289 | 3.18.1.0.1229290 | 3.18.1.0.1229290 | Full version release |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

# INSTALLING

## CLIENT/GUI

Copy and replace the current rRIS…zip file with the eRAD_rRIS_2017.6.8.zip file provided with this release.

Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

## WEB SERVICE

This updated is only required for the Wedge Web Services. The Core RIS Service and Document Distribution Service are not required to be updated.

1. The web service upgrade consists of replacing the files in the RIS Web Service directory with the files supplied in the rRISService folder with this build. Always create a backup of the files being replaced. This upgrade includes 141 files in the rRISService folder and 7 sub folders. Of those folders, 1 is a folder titled **"XSL"** that contains a sub folder and files within the subfolder. Another folder is titled **"deploy"** that contains the new .config files that will be deployed with the user of the file called "ServicesConfigWizard.exe" (see instructions below). Folders ar (Arabic), en_AU (Australian English), en-ZA (South Africa), he (Hebrew), pt_BR (Brazilian Portuguese), es-AR (Argentina Spanish) and ru-RU (Russian) and are localization folders. The WedgePlugins folder contains various plugin files for RADAR, MIRTH, Ensemble, etc…

**Services Configuration Wizard**

With the release of 42 to decrease the chance of losing configuration setting and missing new configuration options, we will no longer include the configuration files in the release in the main set of files, but they will now exist in a "deploy" folder, which will contain the three site configurable config files; applicationsettings, connectionstrings, and services as well as a copy of the rRISServices.exe configuration file. The contents of this folder should not be required to be touched.

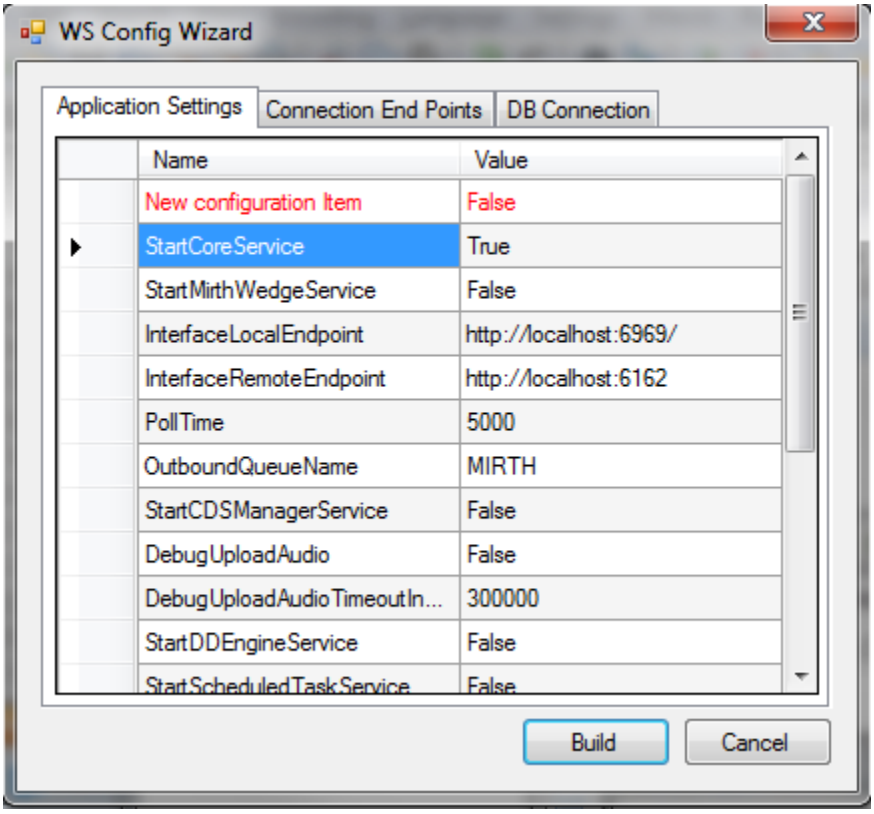
On the install of a new service, all files will be copied to the appropriate locations on the server (no configurations will be over written). If instructed or to confirm no new configurations have been added the user can run the new application "ServicesConfigWizard.exe"

This application will read the existing configuration file(s) (if files exist), and compare to the provided new configuration files then will display three tabs, for each configuration file:

**Application Settings:** all existing configuration value will be displayed, if there are any new configuration entries they will be displayed in red.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

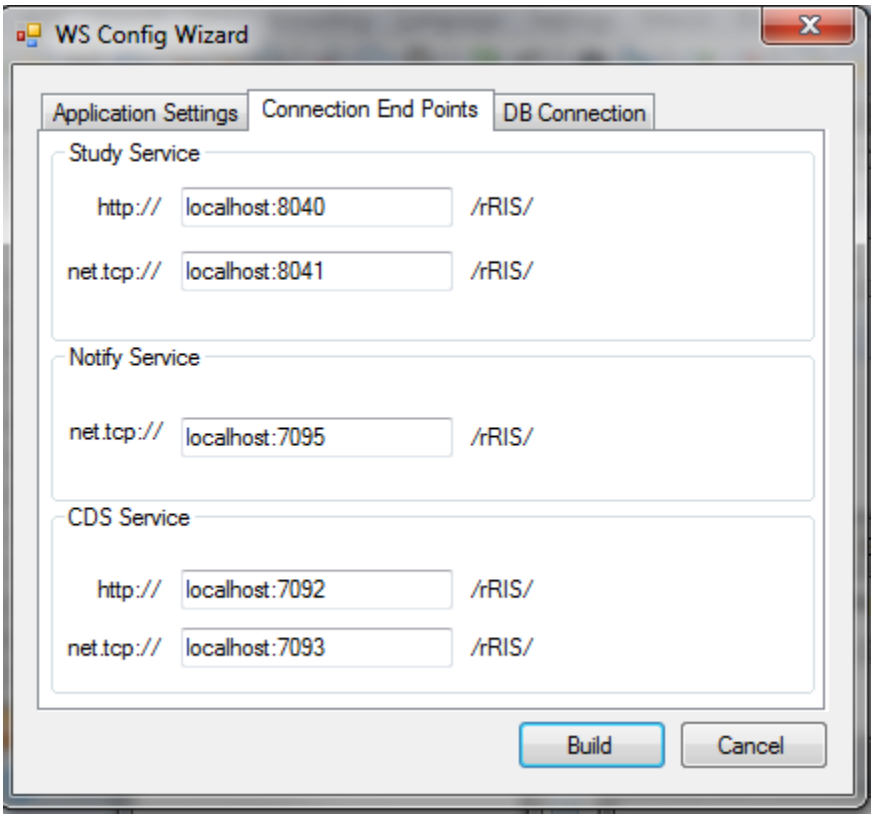
in any form or by any means without the prior written permission from eRAD. 




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

**Connection End Points:** will display the existing configuration, if the value is left blank then that entry will not be created, in the case of "Study Service" or "CDS Service" if both http and net.tcp were not provided then that endpoint will not be created at all.




## DATABASE UPDATES

Always run the upgrade scripts in a test environment of the actual database to make sure they run cleanly. If any errors occur please contact development.

*Note: There is a new upgrade process introduced with B43.1 called "RunUpgrade.bat". The batch file will open a command window. This process will prompt you for the database server name, database name and authentication credentials. There is no need to run the database upgrade scripts manually as was done in previous releases.*

1) From the upgrade folder, double click the "RunUpgrade.bat" command file.

2) Enter the server name, database name and authentication credentials to the database. You have 2 choices for authentication credentials.

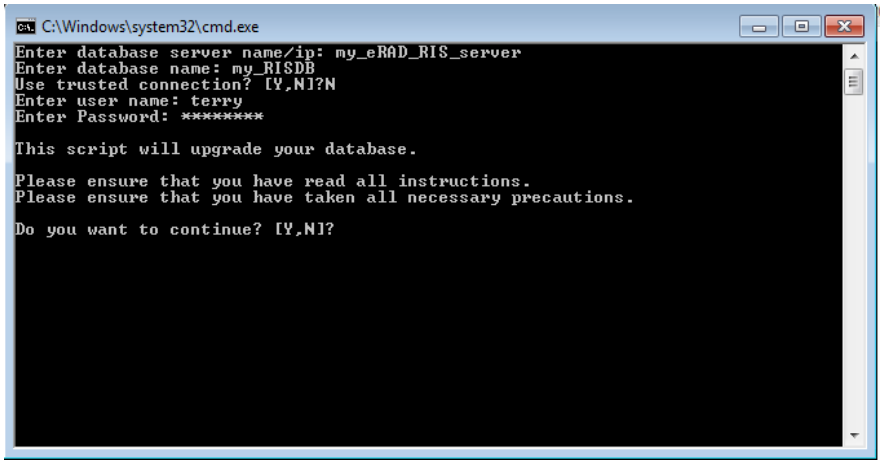
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

3) You can choose to use “Trusted connection”. Using this option will pass the identity of the currently logged on user. If this user has “db_owner” access to the eRAD RIS database then feel free to use this options.

4) If you decide not to use “Trusted connection” then you will be prompted for user id and password.

Example:




5) After the upgrade program has finished you can find the upgrade logs in the “log” folder. The file name will be eRAD_RIS_db_upgrade_timestamp.log, where timestamp is a value representing the date and time the upgrade started. If you see any errors please contact the development team

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

# Server Update

For eRAD RIS

Version 3.0

Build 3.2017.6

Update 3.2017.6.9

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

# Table of Contents

Package Contents ..... 3

Intended Audience ..... 3

Who is affected ..... 3

New settings ..... 4

ApplicationSetting.config for portals ..... 4

New Features ..... 6

Feature #21346 – Provider Portal Exam Search modifications to support international business needs ..... 6

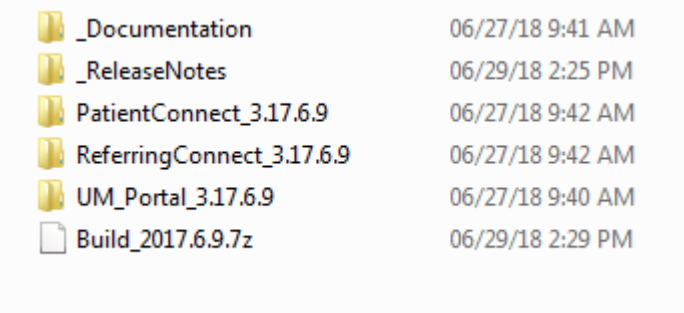
Code Stream ..... 7

eRAD RIS Release Version Numbers ..... 8

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

## PACKAGE CONTENTS




## INTENDED AUDIENCE

The intended audience for this document is the RadNet Clinical Systems team and the eRAD Support/Service team.

It is appropriate to share the document with any customers applying the patch, in order to review new feature descriptions and resolved defects.

## WHO IS AFFECTED

Build 2017.6 installs. This server update must be applied to 2017.6.8.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

# NEW SETTINGS

## APPLICATIONSETTING.CONFIG FOR PORTALS

The following settings are not included in the applicationsettings.config file, they must be added in.

**Patient Portal**

| Setting | Default | Purpose |
|---|---|---|
| DefaultDaySpanSearchRange | 365 | Used for any date range control in the portals. The date range has “From” and “To” dates. The "To" date is set to "Today" and the "From" date is set to{DefaultDaySpanSearchRange} days in the past. If this configuration value is not specified, or an invalid number is entered, the default value for this configuration will be 365 days. |

**Provider Portal**

| Setting | Default | Purpose |
|---|---|---|
| DefaultDaySpanSearchRange | 365 | Used for any date range control in the portals. The date range has “From” and “To” dates. The "To" date is set to "Today" and the "From" date is set to{DefaultDaySpanSearchRange} days in the past. If this configuration value is not specified, or an invalid number is entered, the default value for this configuration will be 365 days. |
| ExamSearchMaxNoRequirementsDayRange | 1 | Value will determine if the last name is required to perform a patient search. Default of 1 will allow a user to search a range of 1 day without a last name. A value of 7 would allow user to search 7 days prior to today’s date without providing a last name. Acceptable values are from 1-60. Anything greater than 60 will revert to 1. A value of -1 will always require the last name to perform a search. |

**Utilization Management Portal**

| Setting | Default | Purpose |
|---|---|---|
| DefaultDaySpanSearchRange | 365 | Used for any date range control in the portals. The date range has “From” and “To” dates. The "To" date is set to "Today" and the "From" date is set to{DefaultDaySpanSearchRange} days in the past. |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

| | | |
|---|---|---|
| | | If this configuration value is not specified, or an invalid number is entered, the default value for this configuration will be 365 days. If this configuration value is not specified, or an invalid number is entered the default value for this configuration will be 365 days. |
| OrderSearchMaxNoRequirementsDayRange | 1 | Value will determine if the last name is required to perform a patient search. Default of 1 will allow a user to search a range of 1 day without a last name. A value of 7 would allow user to search 7 days prior to today's date without providing a last name. Acceptable values are from 1-60. Anything greater than 60 will revert to 1. A value of -1 will always require the last name to perform a search, unless a UM Authorization number is provided. |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## NEW FEATURES

### FEATURE #21346 – PROVIDER PORTAL EXAM SEARCH MODIFICATIONS TO SUPPORT INTERNATIONAL BUSINESS NEEDS

To accommodate differences in the way the Provider Portal is used in some international installations, two changes have been made related to searching in the Provider Portal. The new configuration options can also be used to modify UM Portal behavior.

The default selected day range will now be determined by a new application setting configuration **DefaultDaySpanSearchRange** when a valid Integer is specified. The "To" date will be set to "Today" and the "From" date will be set to {**DefaultDaySpanSearchRange**} days in the past. This application configuration change applies to the day span control, as pictured below:

This new configuration value can be configured individually for all portals and will be used for any date range control unless the initial desired value is to be restricted to a specific date range. If this configuration value is not specified, or an invalid number is entered, the default value for this configuration will be 365 days.

In addition, two additional application configuration values have been created: **ExamSearchMaxNoRequirementsDayRange**, which pertains to the exam search in the Provider Portal, and **OrderSearchMaxNoRequirementsDayRange,** which pertains to the order search in the UM Portal. These settings were created to define a maximum period of time for which a portal user can search without specifying a last name. As usual, the UM Portal will not enforce the last name if the UM authorization number is entered, even if the maximum range is exceeded.

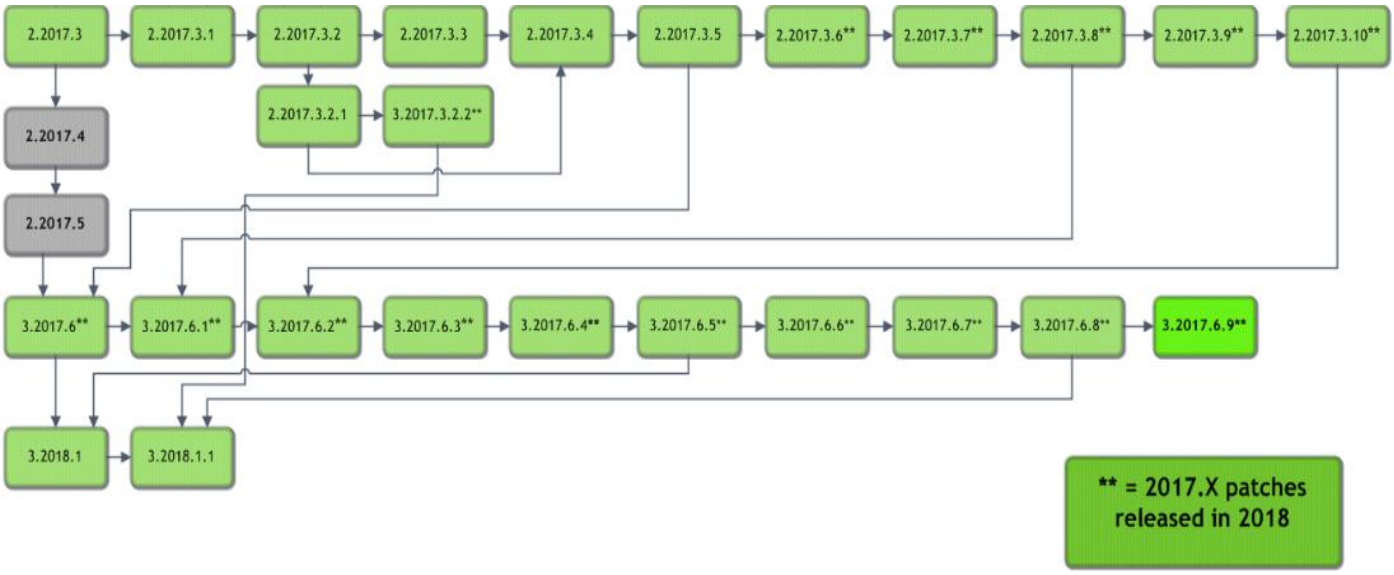
By default, the value for both of these settings will be 1, which is equivalent to the option of **Today & Yesterday**. In other words, with the default setting, it is possible to search for a list of exams/orders from the current day and the day before without restricting the search by patient name. It is not possible to configure this for any value higher than 60 days. If the specified value is greater than 60, it will revert back to 1. Setting this value to -1 (negative one) will revert to normal conditions where last name is always required.

In addition to the above changes, an issue experienced when converting a Datatable to a Model has been resolved. If the Model contains a property that doesn't contain a setter, it no longer throws a null exception for each property. While this issue became noticeable in an environment with a large WL dataset conversion, this conversion applies to all Datatable/Dataviews, so will result in improvements to all data screens.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## CODE STREAM




**Legend:**

Light Green = Previously Released software

Gray = Internal version, non-release version

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

## ERAD RIS RELEASE VERSION NUMBERS

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Digital Forms | Patient Portal | UM Portal | Provider Portal | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| 2017.3 | - | 2.17.3.0(3GB) | 2.17.3.0 | 2.17.3.0 | 2.17.3.0.00764112 | 2.17.3.0 | 2.17.3.0.321 | 2.17.3.0.321 | 2.17.3.0.321 | Full Version Release. Including Patient, Provider and UM Portals |
| 2017.3 | 1 | 2.17.3.1(3GB) | 2.17.3.0 | 2.17.3.1 | 2.17.3.1.00846328 | 2.17.3.1 | 2.17.3.1.853299 | 2.17.3.1.853301 | 2.17.3.1.856171 | GUI, Web Sevice, DB. Including Patient, Provider and UM Portals |
| 2017.3 | 2 | 2.17.3.2(3GB) | 2.17.3.0 | 2.17.3.2 | 2.17.3.2.00898348 | 2.17.3.2 | 2.17.3.2.913898 | 2.17.3.2.913899 | 2.17.3.1.856171 | GUI, Web Sevice, DB. Including Patient, Provider and UM Portals |
| 2017.3 | 2.1 | 2.17.3.2.1(3GB) | 2.17.3.0 | 2.17.3.2 | 2.17.3.2.00898348 | 2.17.3.2 | 2.17.3.2.913898 | 2.17.3.2.913899 | 2.17.3.1.856171 | GUI Only |
| 2017.3 | 2.2 | 2.17.3.2.1(3GB) | 2.17.3.0 | 2.17.3.2.2 | 2.17.3.2.00898348 | 2.17.3.2 | 2.17.3.2.913898 | 2.17.3.2.913899 | 2.17.3.1.856171 | Web Services only |
| 2017.3 | 3 | 2.17.3.3(3GB) | 2.17.3.0 | 2.17.3.3 | 2.17.3.3.00954008 | 2.17.3.2 | 2.17.3.3.962869 | 2.17.3.3.962870 | 2.17.3.3.962870 | GUI, Web Sevice, DB. Including Patient, Provider and UM Portals |
| 2017.3 | 4 | 2.17.3.4(3GB) | 2.17.3.0 | 2.17.3.4 | 2.17.3.4.00987562 | 2.17.3.2 | 2.17.3.3.962869 | 2.17.3.3.962870 | 2.17.3.3.962870 | GUI, Web Sevice and DB |
| 2017.3 | 5 | 2.17.3.5(3GB) | 2.17.3.0 | 2.17.3.5 | 2.17.3.5.01023250 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | GUI, Web Sevice, DB, Patient Portal, Referring Portal, UM Portal |
| 2017.3 | 6 | 2.17.3.6(3GB) | 2.17.3.0 | 2.17.3.6 | 2.17.3.6.01065114 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | GUI, Web Sevice, DB, |
| 2017.3 | 7 | 2.17.3.7(3GB) | 2.17.3.0 | 2.17.3.6 | 2.17.3.6.01065114 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | GUI |
| 2017.3 | 8 | 2.17.3.8(3GB) | 2.17.3.0 | 2.17.3.8 | 2.17.3.6.01065114 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | GUI and Web Service |
| 2017.3 | 9 | 2.17.3.8(3GB) | 2.17.3.0 | 2.17.3.9 | 2.17.3.6.01065114 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | Web Service |
| 2017.3 | 10 | 2.17.3.10(3GB) | 2.17.3.0 | 2.17.3.10 | 2.17.3.10.01125764 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | GUI, Web Service and DB updates |
| 2017.6 | - | 3.17.6.0(3GB) | 3.17.6.0 | 3.17.6.0 | 3.17.6.0.01037550 | 3.17.6.0 | 3.17.6.0.1037868 | 3.17.6.0.1037869 | 3.17.6.0.1037869 | Full Version Release. Including Patient, Provider and UM Portals |
| 2017.6 | 1 | 3.17.6.1(3GB) | 3.17.6.0 | 3.17.6.1 | 3.17.6.1.01094077 | 3.17.6.0 | 3.17.6.0.1037868 | 3.17.6.0.1037869 | 3.17.6.0.1037869 | GUI, Web Service and DB updates |
| 2017.6 | 2 | 3.17.6.2(3GB) | 3.17.6.0 | 3.17.6.2 | 3.17.6.2.01130171 | 3.17.6.2 | 3.17.6.2.1138297 | 3.17.6.2.1138298 | 3.17.6.2.1138298 | GUI, Web Service, DB, Patient, Provider and UM Portals and Digital Forms |
| 2017.6 | 3 | 3.17.6.3(3GB) | 3.17.6.0 | 3.17.6.3 | 3.17.6.3.01166033 | 3.17.6.3 | 3.17.6.3.1168622 | 3.17.6.3.1168622 | 3.17.6.3.1168623 | GUI, Web Service, DB, Patient, Provider and UM Portals and Digital Forms |
| 2017.6 | 4 | 3.17.6.4(3GB) | 3.17.6.0 | 3.17.6.4 | 3.17.6.4.01187509 | 3.17.6.4 | 3.17.6.4.1190295 | 3.17.6.4.1190295 | 3.17.6.4.1190295 | GUI, Web Service, DB, Patient, Provider and UM Portals and Digital Forms |
| 2017.6 | 5 | 3.17.6.5(3GB) | 3.17.6.0 | 3.17.6.5 | 3.17.6.4.01187509 | 3.17.6.4 | 3.17.6.5.1199064 | 3.17.6.5.1199063 | 3.17.6.5.1199064 | GUI, Web Service, Patient, Provider and UM Portals |
| 2017.6 | 6 | 3.17.6.6(3GB) | 3.17.6.0 | 3.17.6.6 | 3.17.6.6.01236363 | 3.17.6.4 | 3.17.6.5.1199064 | 3.17.6.5.1199063 | 3.17.6.5.1199064 | GUI, Web Service and DB updates |
| 2017.6 | 7 | 3.17.6.7(3GB) | 3.17.6.0 | 3.17.6.7 | 3.17.6.7.01257812 | 3.17.6.7 | 3.17.6.7.1266287 | 3.17.6.7.1266287 | 3.17.6.7.1266287 | GUI, Web Service, DB, Digital Forms, Patient, Provider and UM portals |
| 2017.6 | 8 | 3.17.6.8(3GB) | 3.17.6.0 | 3.17.6.8 | 3.17.6.8.01276873 | 3.17.6.8 | 3.17.6.8.1280869 | 3.17.6.8.1280870 | 3.17.6.8.1280869 | GUI, Web Service, DB, Digital Forms, Patient, Provider and UM portals |
| **2017.6** | **9** | **3.17.6.8(3GB)** | **3.17.6.0** | **3.17.6.8** | **3.17.6.8.01276873** | **3.17.6.8** | **3.17.6.9.1308097** | **3.17.6.9.1308098** | **3.17.6.9.1308098** | **Patient, Provider and UM portals** |
| 2018.1 | - | 3.18.1.0(3GB) | 3.18.1.0 | 3.18.1.0 | 3.18.1.0.01228009 | 3.18.1.0 | 3.18.1.0.1229289 | 3.18.1.0.1229290 | 3.18.1.0.1229290 | Full version release |
| 2018.1 | 1 | 3.18.1.1(3GB) | 3.18.1.0 | 3.18.1.1 | 3.18.1.1.01288419 | 3.18.1.1 | 3.18.1.1.1299765 | 3.18.1.1.1299766 | 3.18.1.1.1299765 | GUI, Web Service, DB, Digital Forms, Patient, Provider and UM portals |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

# Server Update

For eRAD RIS

Version 3.0

Build 3.2017.6

Update 3.2017.6.10

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

# Table of Contents

Package Contents ..... 3

Intended Audience ..... 3

Who is affected ..... 3

New settings ..... 4

ApplicationSetting.config ..... 4

Resolved items ..... 5

Code Stream ..... 7

eRAD RIS Release Version Numbers ..... 8

Installing ..... 9

Client/GUI ..... 9

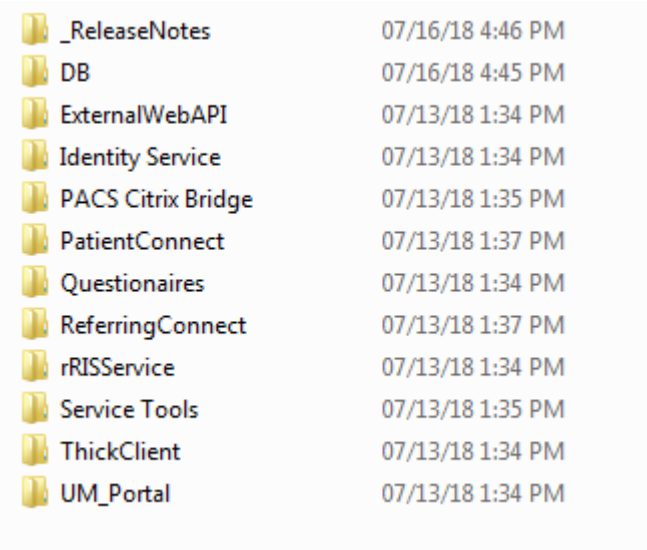
Web Service ..... 9

Database Updates ..... 11

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## PACKAGE CONTENTS




## INTENDED AUDIENCE

The intended audience for this document is the RadNet Clinical Systems team and the eRAD Support/Service team.

It is appropriate to share the document with any customers applying the patch, in order to review new feature descriptions and resolved defects.

## WHO IS AFFECTED

Build 2017.6 installs. This server update must be applied to 2017.6.9.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

## NEW SETTINGS

### APPLICATIONSETTING.CONFIG

| Setting | Default | Purpose |
|---|---|---|
| VerbosePrefetchLoggingEnabledUsers | Null (empty) | This setting enables additional information to be logged to the verbose log file for troubleshooting PACS caching.<br><br>Example of acceptable values:<br><br>• comma separated list of users: usera,userb<br>• an asterisk signifying that logging is enabled for all users: *<br>• an empty value to denote no extra logging for any user |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

## RESOLVED ITEMS

| Redmine # for 2017.6.8 | Subject |
|---|---|
| 21578 | The Amount to Collect recorded in the database is now appropriately matching the Amount to Collect displayed in RIS. This resolves an issue that was causing management report information to inaccurately reflect that additional money should have been collected from the patient at the time of service. Management reports should now appropriately reflect an accurate Amount to Collect. |
| 21561 | The Reason for Exam field in the Reporting screens now appropriately displays longer entries. |
| 21555 | Adjustments were made to appropriately display ImaginePay payment receipts after a change was made to ImaginePay that prevented eRAD from properly rendering the receipt. |
| 21541 | The eRAD PACS prefetch call is now using the protocol from the l_pacs_server table. |
| 21508 | If the Carrier type code is CAP, the Amount to Collect calculation will include only the co-pay once per day, regardless of Visit Cost. This will allow for the appropriate behavior for capitation studies which do not bring back a Visit Cost. Please note that if one of the billing codes is set to "Allow Amount to Collect with Valid Insurance Flag" equals N (No), the co-pay will not be collected. |
| 21478 | Resolved an issue where certain Order-level Alert icons were not displaying properly on worklists. In addition, administrators are now prevented from creating Alerts where the Code contains quotation marks or commas, which can cause display issues. |
| 21471 | Resolved an issue with eRAD PACS prefetch which could cause it to stop working after an exception was thrown in a particular user's prefetch thread on the web service. A new Application Configuration setting has been added to troubleshoot caching issues (see description above). |
| 21362 | If a message is sent from the Patient or Provider Portal with no text in the body of the message, it will no longer cause an error. |
| 21359 | Resolved an issue where the deductible line from the Availity service section was missing under certain conditions ("contract"). |
| 21354 | Pending Dictation WL: when switching to a custom view that has caching turned off, the worklist will still display the manually cached studies. |
| 21337 | RIS upgrade will no longer encounter issues if there is a stuck ris.exe process running. |
| 21269 | Resolved an issue where RIS would sometimes request the same lookup table data from the server multiple times in the same second. |
| 21239 | Resolved a "specified cast is not valid" error that was caused by a missing null check in the ReviewCopaysOverMultipleOrders method. |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

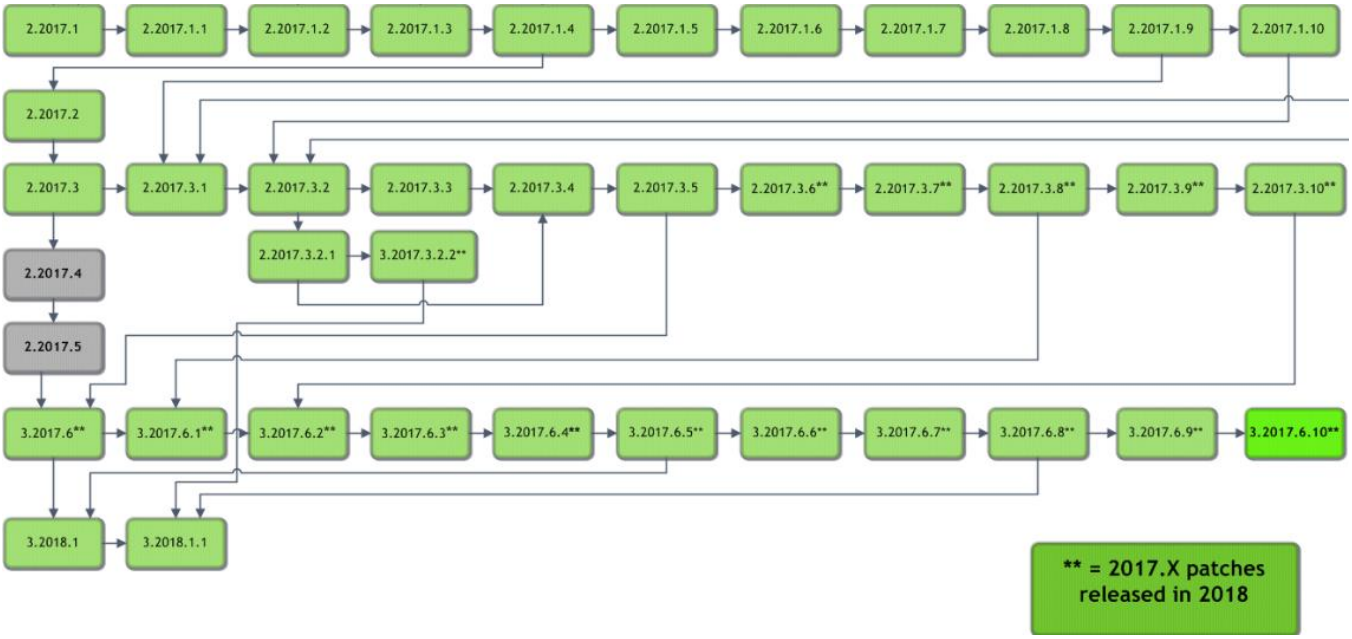
in any form or by any means without the prior written permission from eRAD.

| | |
|---|---|
| 21173 | Resolved an issue with inappropriate status updates that could occur when manually linking studies for linked reporting. The issue could occur when some studies on the same order were linked and others were not linked. Status updates that need to occur for the studies involved in the link are no longer inappropriately applied to the studies on the order that were not involved in the linked set. |
| 21168 | Old billing codes no longer stay active after procedure code change, resolving an issue that previously caused an error stating "Units cannot be less than 0." |
| 21106 | Appointment Book custom views can now be saved for modalities (rooms) that contain special characters (such as "/") in their Modality Code. |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## CODE STREAM




## Legend:

Light Green = Previously Released software

Gray = Internal version, non-release version

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## ERAD RIS RELEASE VERSION NUMBERS

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Digital Forms | Patient Portal | UM Portal | Provider Portal | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| 2017.1 | - | 2.17.1.0 (3GB) | 2.17.1.0 | 2.17.1.0 | 2.17.1.0.00559886 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | Full Version Release |
| 2017.1 | 1 | 2.17.1.1 (3GB) | 2.17.1.0 | 2.17.1.1 | 2.17.1.1.00589952 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 2 | 2.17.1.2 (3GB) | 2.17.1.0 | 2.17.1.2 | 2.17.1.2.00621962 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 3 | 2.17.1.3 (3GB) | 2.17.1.0 | 2.17.1.3 | 2.17.1.3.00640480 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 4 | 2.17.1.4 (3GB) | 2.17.1.0 | 2.17.1.4 | 2.17.1.4.00692239 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI, Web Service, DB and Patient Portal updates |
| 2017.1 | 5 | 2.17.1.4 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.4.00692239 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | Web Service |
| 2017.1 | 6 | 2.17.1.6 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI and DB Updates |
| 2017.1 | 7 | 2.17.1.7 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI update |
| 2017.1 | 8 | 2.17.1.8 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI update |
| 2017.1 | 9 | 2.17.1.9 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI update |
| 2017.1 | 10 | 2.17.1.10 (3GB) | 2.17.1.0 | 2.17.1.10 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI and Web Service update |
| 2017.2 | - | 2.17.2.0(3GB) | 2.17.2.0 | 2.17.2.0 | 2.17.2.0.00695782 | 2.17.2.0 | 2.17.2.0.702238 | 2.17.2.0.702213 | 2.17.2.0.702226 | Full Version Release. First release of Provider Portal |
| 2017.3 | - | 2.17.3.0(3GB) | 2.17.3.0 | 2.17.3.0 | 2.17.3.0.00764112 | 2.17.3.0 | 2.17.3.0.321 | 2.17.3.0.321 | 2.17.3.0.321 | Full Version Release. Including Patient, Provider and UM Portals |
| 2017.3 | 1 | 2.17.3.1(3GB) | 2.17.3.0 | 2.17.3.1 | 2.17.3.1.00846328 | 2.17.3.1 | 2.17.3.1.853299 | 2.17.3.1.853301 | 2.17.3.1.856171 | GUI, Web Sevice, DB. Including Patient, Provider and UM Portals |
| 2017.3 | 2 | 2.17.3.2(3GB) | 2.17.3.0 | 2.17.3.2 | 2.17.3.2.00898348 | 2.17.3.2 | 2.17.3.2.913898 | 2.17.3.2.913899 | 2.17.3.1.856171 | GUI, Web Sevice, DB. Including Patient, Provider and UM Portals |
| 2017.3 | 2.1 | 2.17.3.2.1(3GB) | 2.17.3.0 | 2.17.3.2 | 2.17.3.2.00898348 | 2.17.3.2 | 2.17.3.2.913898 | 2.17.3.2.913899 | 2.17.3.1.856171 | GUI Only |
| 2017.3 | 2.2 | 2.17.3.2.1(3GB) | 2.17.3.0 | 2.17.3.2.2 | 2.17.3.2.00898348 | 2.17.3.2 | 2.17.3.2.913898 | 2.17.3.2.913899 | 2.17.3.1.856171 | Web Services only |
| 2017.3 | 3 | 2.17.3.3(3GB) | 2.17.3.0 | 2.17.3.3 | 2.17.3.3.00954008 | 2.17.3.2 | 2.17.3.3.962869 | 2.17.3.3.962870 | 2.17.3.3.962870 | GUI, Web Sevice, DB. Including Patient, Provider and UM Portals |
| 2017.3 | 4 | 2.17.3.4(3GB) | 2.17.3.0 | 2.17.3.4 | 2.17.3.4.00987562 | 2.17.3.2 | 2.17.3.3.962869 | 2.17.3.3.962870 | 2.17.3.3.962870 | GUI, Web Sevice and DB |
| 2017.3 | 5 | 2.17.3.5(3GB) | 2.17.3.0 | 2.17.3.5 | 2.17.3.5.01023250 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | GUI, Web Sevice, DB, Patient Portal, Referring Portal, UM Portal |
| 2017.3 | 6 | 2.17.3.6(3GB) | 2.17.3.0 | 2.17.3.6 | 2.17.3.6.01065114 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | GUI, Web Sevice, DB, |
| 2017.3 | 7 | 2.17.3.7(3GB) | 2.17.3.0 | 2.17.3.6 | 2.17.3.6.01065114 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | GUI |
| 2017.3 | 8 | 2.17.3.8(3GB) | 2.17.3.0 | 2.17.3.8 | 2.17.3.6.01065114 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | GUI and Web Service |
| 2017.3 | 9 | 2.17.3.8(3GB) | 2.17.3.0 | 2.17.3.9 | 2.17.3.6.01065114 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | Web Service |
| 2017.3 | 10 | 2.17.3.10(3GB) | 2.17.3.0 | 2.17.3.10 | 2.17.3.10.01125764 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | GUI, Web Service and DB updates |
| 2017.6 | - | 3.17.6.0(3GB) | 3.17.6.0 | 3.17.6.0 | 3.17.6.0.01037550 | 3.17.6.0 | 3.17.6.0.1037868 | 3.17.6.0.1037869 | 3.17.6.0.1037869 | Full Version Release. Including Patient, Provider and UM Portals |
| 2017.6 | 1 | 3.17.6.1(3GB) | 3.17.6.0 | 3.17.6.1 | 3.17.6.1.01094077 | 3.17.6.0 | 3.17.6.0.1037868 | 3.17.6.0.1037869 | 3.17.6.0.1037869 | GUI, Web Service and DB updates |
| 2017.6 | 2 | 3.17.6.2(3GB) | 3.17.6.0 | 3.17.6.2 | 3.17.6.2.01130171 | 3.17.6.2 | 3.17.6.2.1138297 | 3.17.6.2.1138298 | 3.17.6.2.1138298 | GUI, Web Service, DB, Patient, Provider and UM Portals and Digital Forms |
| 2017.6 | 3 | 3.17.6.3(3GB) | 3.17.6.0 | 3.17.6.3 | 3.17.6.3.01166033 | 3.17.6.3 | 3.17.6.3.1168622 | 3.17.6.3.1168622 | 3.17.6.3.1168623 | GUI, Web Service, DB, Patient, Provider and UM Portals and Digital Forms |
| 2017.6 | 4 | 3.17.6.4(3GB) | 3.17.6.0 | 3.17.6.4 | 3.17.6.4.01187509 | 3.17.6.4 | 3.17.6.4.1190295 | 3.17.6.4.1190295 | 3.17.6.4.1190295 | GUI, Web Service, DB, Patient, Provider and UM Portals and Digital Forms |
| 2017.6 | 5 | 3.17.6.5(3GB) | 3.17.6.0 | 3.17.6.5 | 3.17.6.4.01187509 | 3.17.6.4 | 3.17.6.5.1199064 | 3.17.6.5.1199063 | 3.17.6.5.1199064 | GUI, Web Service, Patient, Provider and UM Portals |
| 2017.6 | 6 | 3.17.6.6(3GB) | 3.17.6.0 | 3.17.6.6 | 3.17.6.6.01236363 | 3.17.6.4 | 3.17.6.5.1199064 | 3.17.6.5.1199063 | 3.17.6.5.1199064 | GUI, Web Service and DB updates |
| 2017.6 | 7 | 3.17.6.7(3GB) | 3.17.6.0 | 3.17.6.7 | 3.17.6.7.01257812 | 3.17.6.7 | 3.17.6.7.1266287 | 3.17.6.7.1266287 | 3.17.6.7.1266287 | GUI, Web Service, DB, Digital Forms, Patient, Provider and UM portals |
| 2017.6 | 8 | 3.17.6.8(3GB) | 3.17.6.0 | 3.17.6.8 | 3.17.6.8.01276873 | 3.17.6.8 | 3.17.6.8.1280869 | 3.17.6.8.1280870 | 3.17.6.8.1280869 | GUI, Web Service, DB, Digital Forms, Patient, Provider and UM portals |
| 2017.6 | 9 | 3.17.6.8(3GB) | 3.17.6.0 | 3.17.6.8 | 3.17.6.8.01276873 | 3.17.6.8 | 3.17.6.9.1308097 | 3.17.6.9.1308098 | 3.17.6.9.1308098 | Patient, Provider and UM portals |
| **2017.6** | **10** | **3.17.6.10(3GB)** | **3.17.6.0** | **3.17.6.10** | **3.17.6.10.01335594** | **3.17.6.10** | **3.17.6.10.1331371** | **3.17.6.10.1331372** | **3.17.6.10.1331372** | **GUI, Wdb Service, DB, Digital Forms, Patient, Provider and UM portals** |
| 2018.1 | - | 3.18.1.0(3GB) | 3.18.1.0 | 3.18.1.0 | 3.18.1.0.01228009 | 3.18.1.0 | 3.18.1.0.1229289 | 3.18.1.0.1229290 | 3.18.1.0.1229290 | Full version release |
| 2018.1 | 1 | 3.18.1.1(3GB) | 3.18.1.0 | 3.18.1.1 | 3.18.1.1.01288419 | 3.18.1.1 | 3.18.1.1.1299765 | 3.18.1.1.1299766 | 3.18.1.1.1299765 | GUI, Web Service, DB, Digital Forms, Patient, Provider and UM portals |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

# INSTALLING

## CLIENT/GUI

Copy and replace the current rRIS…zip file with the eRAD_rRIS_2017.6.10.zip file provided with this release.

Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

## WEB SERVICE

This updated is only required for the Wedge Web Services. The Core RIS Service and Document Distribution Service are not required to be updated.

1. The web service upgrade consists of replacing the files in the RIS Web Service directory with the files supplied in the rRISService folder with this build. Always create a backup of the files being replaced. This upgrade includes 141 files in the rRISService folder and 7 sub folders. Of those folders, 1 is a folder titled **"XSL"** that contains a sub folder and files within the subfolder. Another folder is titled **"deploy"** that contains the new .config files that will be deployed with the user of the file called "ServicesConfigWizard.exe" (see instructions below). Folders ar (Arabic), en_AU (Australian English), en-ZA (South Africa), he (Hebrew), pt_BR (Brazilian Portuguese), es-AR (Argentina Spanish) and ru-RU (Russian) and are localization folders. The WedgePlugins folder contains various plugin files for RADAR, MIRTH, Ensemble, etc…

**Services Configuration Wizard**

With the release of 42 to decrease the chance of losing configuration setting and missing new configuration options, we will no longer include the configuration files in the release in the main set of files, but they will now exist in a "deploy" folder, which will contain the three site configurable config files; applicationsettings, connectionstrings, and services as well as a copy of the rRISServices.exe configuration file. The contents of this folder should not be required to be touched.

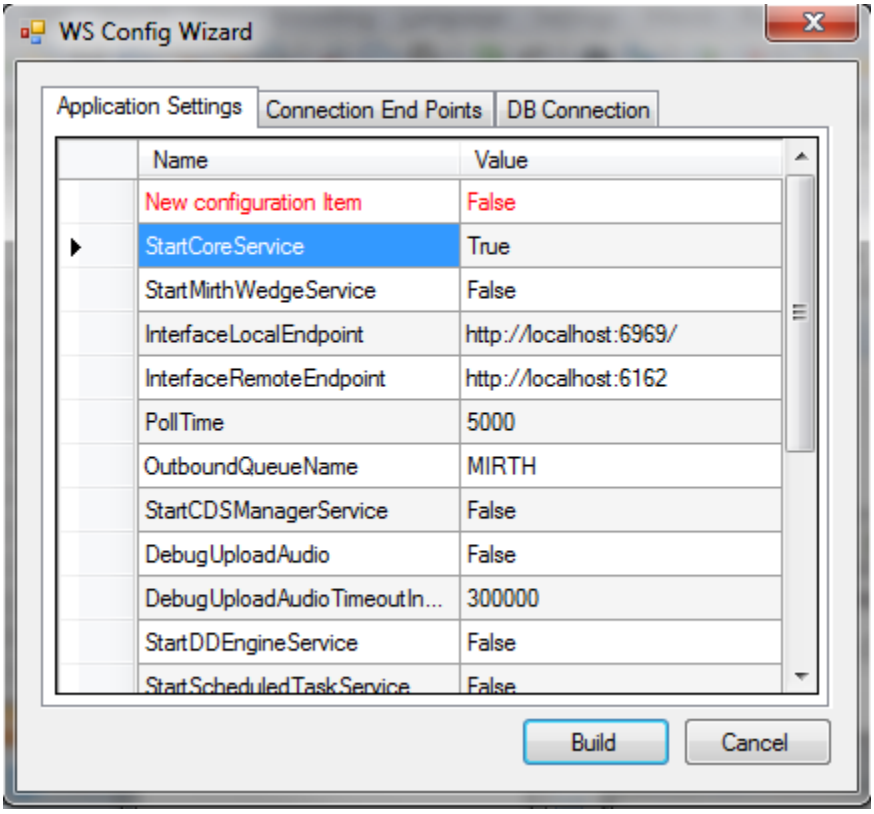
On the install of a new service, all files will be copied to the appropriate locations on the server (no configurations will be over written). If instructed or to confirm no new configurations have been added the user can run the new application "ServicesConfigWizard.exe"

This application will read the existing configuration file(s) (if files exist), and compare to the provided new configuration files then will display three tabs, for each configuration file:

**Application Settings:** all existing configuration value will be displayed, if there are any new configuration entries they will be displayed in red.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

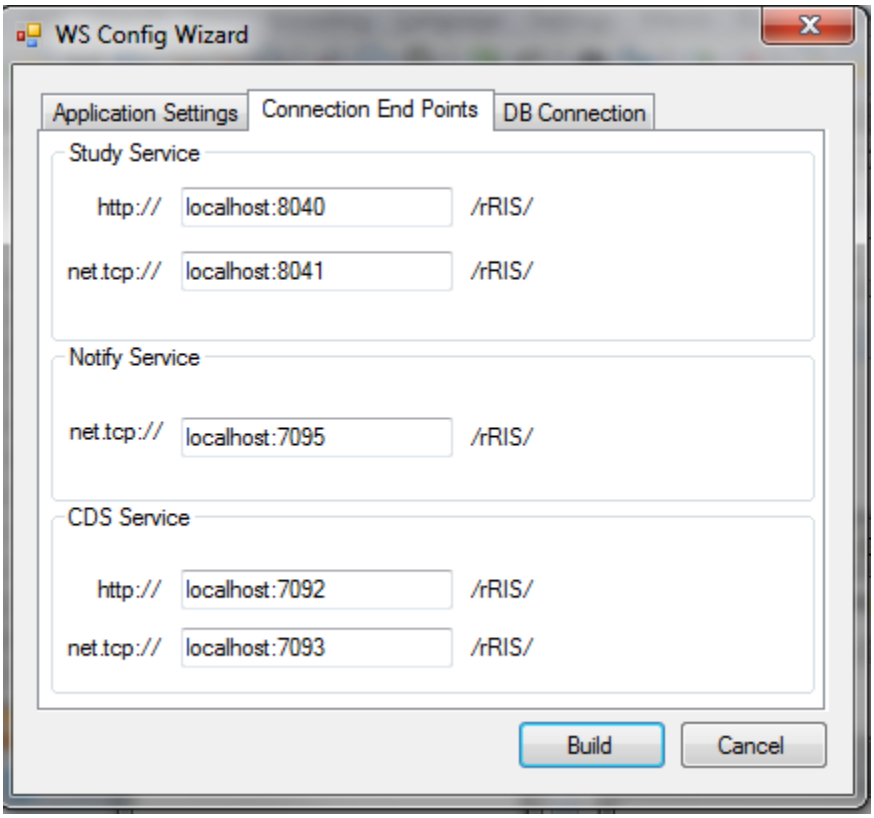
in any form or by any means without the prior written permission from eRAD. 




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

**Connection End Points:** will display the existing configuration, if the value is left blank then that entry will not be created, in the case of "Study Service" or "CDS Service" if both http and net.tcp were not provided then that endpoint will not be created at all.




## DATABASE UPDATES

Always run the upgrade scripts in a test environment of the actual database to make sure they run cleanly. If any errors occur please contact development.

*Note: There is a new upgrade process introduced with B43.1 called "RunUpgrade.bat". The batch file will open a command window. This process will prompt you for the database server name, database name and authentication credentials. There is no need to run the database upgrade scripts manually as was done in previous releases.*

1) From the upgrade folder, double click the "RunUpgrade.bat" command file.

2) Enter the server name, database name and authentication credentials to the database. You have 2 choices for authentication credentials.

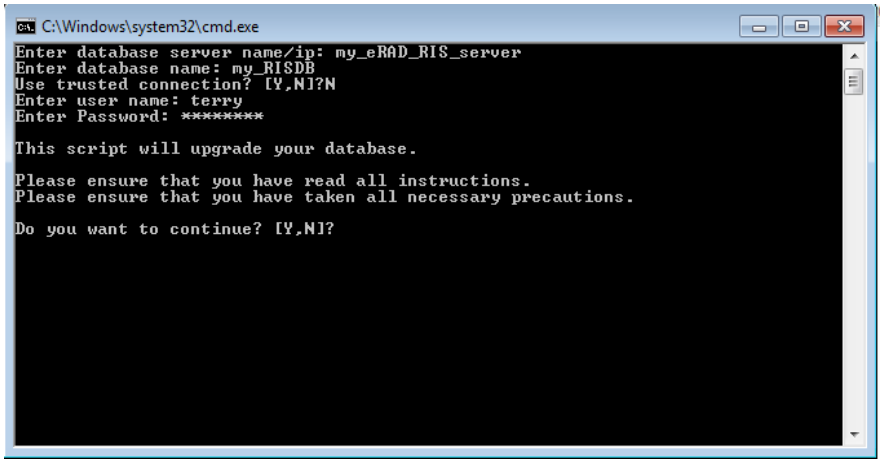
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

3) You can choose to use “Trusted connection”. Using this option will pass the identity of the currently logged on user. If this user has “db_owner” access to the eRAD RIS database then feel free to use this options.

4) If you decide not to use “Trusted connection” then you will be prompted for user id and password.

Example:




5) After the upgrade program has finished you can find the upgrade logs in the “log” folder. The file name will be eRAD_RIS_db_upgrade_timestamp.log, where timestamp is a value representing the date and time the upgrade started. If you see any errors please contact the development team

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

# Server Update

For eRAD RIS

Version 3.0

Build 3.2017.6

Update 3.2017.6.11.1

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

# Table of Contents

Package Contents ..... 3

Intended Audience ..... 3

Who is affected ..... 3

New Features ..... 4

Feature #22401 - Results of db function Z_get_medical_group need to be stored in a Wedge accessible db table ..... 4

Resolved items ..... 5

Code Stream ..... 6

eRAD RIS Release Version Numbers ..... 7

Installing ..... 8

Client/GUI ..... 8

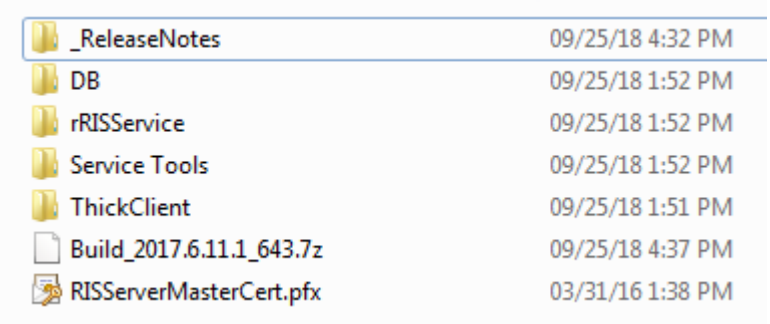
Web Service ..... 8

Database Updates ..... 10

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## PACKAGE CONTENTS




## INTENDED AUDIENCE

The intended audience for this document is the RadNet Clinical Systems team and the eRAD Support/Service team.

It is appropriate to share the document with any customers applying the patch, in order to review new feature descriptions and resolved defects.

## WHO IS AFFECTED

Build 2017.6 installs. This server update must be applied to 2017.6.11.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

## NEW FEATURES

### FEATURE #22401 - RESULTS OF DB FUNCTION Z_GET_MEDICAL_GROUP NEED TO BE STORED IN A WEDGE ACCESSIBLE DB TABLE

The billing file sent didn't include the medical_group_string. The results are created with the function z_medical_group, but there were not stored in the database, thus the data could not be sent.

We added the column medical_group_string to the table c_eligibility_response to store the data from the z_get_medical_group function. With it now stored in the database, the information can now be sent in outgoing message.

Example of data store in c_eligibility_response table:

Results | Messages

| | medical_group_string | eligibility_request_key | raw_result | exception_message | completed_date | eligible_api_id | coverage_status |
|---|---|---|---|---|---|---|---|
| 58 | ST. MARY's MEDICAL GROUP | 21014 | {"created_at":"2014-10-20T14:15:53-04:00","eligible_id":"eRAD_... | NULL | 2018-09-25 15:25:34.1908892 -03:00 | eRAD_DEMO | Active Coverage |

Example of XML in outgoing message:

```
    <medical_group_string>ST Mary's MEDICAL GROUP</medical_group_string>
</c_eligibility_response>
```

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## RESOLVED ITEMS

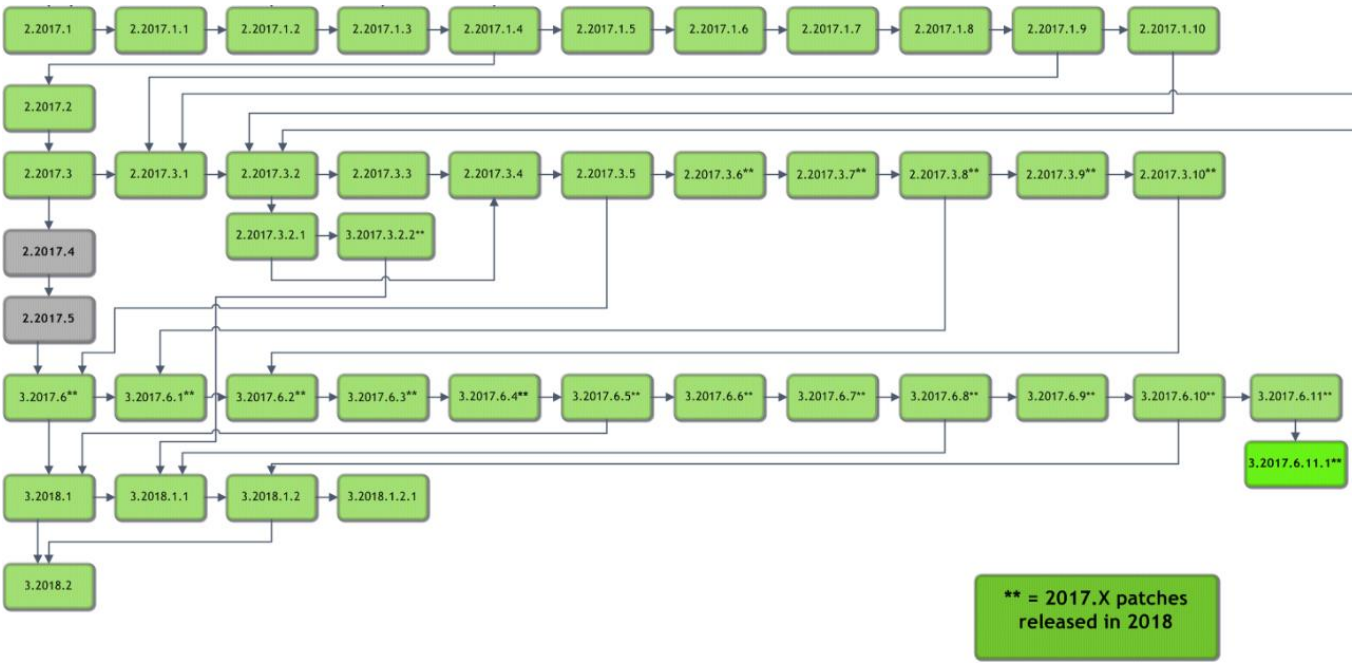
| Redmine # for 2017.6.11.1 | Subject |
|---|---|
| 22394 | Include specific REF N6 segment in 271 -> JSON conversion |

**Special note for implementation** – the above bug will also require manual intervention to update the function z_get_medical_group. Please see the Redmine #22394 for information

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

## CODE STREAM




**Legend:**

Light Green = Previously Released software

Gray = Internal version, non-release version

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

## ERAD RIS RELEASE VERSION NUMBERS

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Digital Forms | Patient Portal | UM Portal | Provider Portal | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| 2017.1 | - | 2.17.1.0 (3GB) | 2.17.1.0 | 2.17.1.0 | 2.17.1.0.00559886 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | Full Version Release |
| 2017.1 | 1 | 2.17.1.1 (3GB) | 2.17.1.0 | 2.17.1.1 | 2.17.1.1.00589952 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 2 | 2.17.1.2 (3GB) | 2.17.1.0 | 2.17.1.2 | 2.17.1.2.00621962 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 3 | 2.17.1.3 (3GB) | 2.17.1.0 | 2.17.1.3 | 2.17.1.3.00640480 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 4 | 2.17.1.4 (3GB) | 2.17.1.0 | 2.17.1.4 | 2.17.1.4.00692239 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI, Web Service, DB and Patient Portal updates |
| 2017.1 | 5 | 2.17.1.4 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.4.00692239 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | Web Service |
| 2017.1 | 6 | 2.17.1.6 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI and DB Updates |
| 2017.1 | 7 | 2.17.1.7 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI update |
| 2017.1 | 8 | 2.17.1.8 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI update |
| 2017.1 | 9 | 2.17.1.9 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI update |
| 2017.1 | 10 | 2.17.1.10 (3GB) | 2.17.1.0 | 2.17.1.10 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI and Web Service update |
| 2017.2 | - | 2.17.2.0(3GB) | 2.17.2.0 | 2.17.2.0 | 2.17.2.0.00695782 | 2.17.2.0 | 2.17.2.0.702238 | 2.17.2.0.702213 | 2.17.2.0.702226 | Full Version Release. First release of Provider Portal |
| 2017.3 | - | 2.17.3.0(3GB) | 2.17.3.0 | 2.17.3.0 | 2.17.3.0.00764112 | 2.17.3.0 | 2.17.3.0.321 | 2.17.3.0.321 | 2.17.3.0.321 | Full Version Release. Including Patient, Provider and UM Portals |
| 2017.3 | 1 | 2.17.3.1(3GB) | 2.17.3.0 | 2.17.3.1 | 2.17.3.1.00846328 | 2.17.3.1 | 2.17.3.1.853299 | 2.17.3.1.853301 | 2.17.3.1.856171 | GUI, Web Sevice, DB. Including Patient, Provider and UM Portals |
| 2017.3 | 2 | 2.17.3.2(3GB) | 2.17.3.0 | 2.17.3.2 | 2.17.3.2.00898348 | 2.17.3.2 | 2.17.3.2.913898 | 2.17.3.2.913899 | 2.17.3.1.856171 | GUI, Web Sevice, DB. Including Patient, Provider and UM Portals |
| 2017.3 | 2.1 | 2.17.3.2.1(3GB) | 2.17.3.0 | 2.17.3.2 | 2.17.3.2.00898348 | 2.17.3.2 | 2.17.3.2.913898 | 2.17.3.2.913899 | 2.17.3.1.856171 | GUI Only |
| 2017.3 | 2.2 | 2.17.3.2.1(3GB) | 2.17.3.0 | 2.17.3.2.2 | 2.17.3.2.00898348 | 2.17.3.2 | 2.17.3.2.913898 | 2.17.3.2.913899 | 2.17.3.1.856171 | Web Services only |
| 2017.3 | 3 | 2.17.3.3(3GB) | 2.17.3.0 | 2.17.3.3 | 2.17.3.3.00954008 | 2.17.3.2 | 2.17.3.3.962869 | 2.17.3.3.962870 | 2.17.3.3.962870 | GUI, Web Sevice, DB. Including Patient, Provider and UM Portals |
| 2017.3 | 4 | 2.17.3.4(3GB) | 2.17.3.0 | 2.17.3.4 | 2.17.3.4.00987562 | 2.17.3.2 | 2.17.3.3.962869 | 2.17.3.3.962870 | 2.17.3.3.962870 | GUI, Web Sevice and DB |
| 2017.3 | 5 | 2.17.3.5(3GB) | 2.17.3.0 | 2.17.3.5 | 2.17.3.5.01023250 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | GUI, Web Sevice, DB, Patient Portal, Referring Portal, UM Portal |
| 2017.3 | 6 | 2.17.3.6(3GB) | 2.17.3.0 | 2.17.3.6 | 2.17.3.6.01065114 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | GUI, Web Sevice, DB, |
| 2017.3 | 7 | 2.17.3.7(3GB) | 2.17.3.0 | 2.17.3.6 | 2.17.3.6.01065114 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | GUI |
| 2017.3 | 8 | 2.17.3.8(3GB) | 2.17.3.0 | 2.17.3.8 | 2.17.3.6.01065114 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | GUI and Web Service |
| 2017.3 | 9 | 2.17.3.8(3GB) | 2.17.3.0 | 2.17.3.9 | 2.17.3.6.01065114 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | Web Service |
| 2017.3 | 10 | 2.17.3.10(3GB) | 2.17.3.0 | 2.17.3.10 | 2.17.3.10.01125764 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | GUI, Web Service and DB updates |
| 2017.6 | - | 3.17.6.0(3GB) | 3.17.6.0 | 3.17.6.0 | 3.17.6.0.01037550 | 3.17.6.0 | 3.17.6.0.1037868 | 3.17.6.0.1037869 | 3.17.6.0.1037869 | Full Version Release. Including Patient, Provider and UM Portals |
| 2017.6 | 1 | 3.17.6.1(3GB) | 3.17.6.0 | 3.17.6.1 | 3.17.6.1.01094077 | 3.17.6.0 | 3.17.6.0.1037868 | 3.17.6.0.1037869 | 3.17.6.0.1037869 | GUI, Web Service and DB updates |
| 2017.6 | 2 | 3.17.6.2(3GB) | 3.17.6.0 | 3.17.6.2 | 3.17.6.2.01130171 | 3.17.6.2 | 3.17.6.2.1138297 | 3.17.6.2.1138298 | 3.17.6.2.1138298 | GUI, Web Service, DB, Patient, Provider and UM Portals and Digital Forms |
| 2017.6 | 3 | 3.17.6.3(3GB) | 3.17.6.0 | 3.17.6.3 | 3.17.6.3.01166033 | 3.17.6.3 | 3.17.6.3.1168622 | 3.17.6.3.1168622 | 3.17.6.3.1168623 | GUI, Web Service, DB, Patient, Provider and UM Portals and Digital Forms |
| 2017.6 | 4 | 3.17.6.4(3GB) | 3.17.6.0 | 3.17.6.4 | 3.17.6.4.01187509 | 3.17.6.4 | 3.17.6.4.1190295 | 3.17.6.4.1190295 | 3.17.6.4.1190295 | GUI, Web Service, DB, Patient, Provider and UM Portals and Digital Forms |
| 2017.6 | 5 | 3.17.6.5(3GB) | 3.17.6.0 | 3.17.6.5 | 3.17.6.4.01187509 | 3.17.6.4 | 3.17.6.5.1199064 | 3.17.6.5.1199063 | 3.17.6.5.1199064 | GUI, Web Service, Patient, Provider and UM Portals |
| 2017.6 | 6 | 3.17.6.6(3GB) | 3.17.6.0 | 3.17.6.6 | 3.17.6.6.01236363 | 3.17.6.4 | 3.17.6.5.1199064 | 3.17.6.5.1199063 | 3.17.6.5.1199064 | GUI, Web Service and DB updates |
| 2017.6 | 7 | 3.17.6.7(3GB) | 3.17.6.0 | 3.17.6.7 | 3.17.6.7.01257812 | 3.17.6.7 | 3.17.6.7.1266287 | 3.17.6.7.1266287 | 3.17.6.7.1266287 | GUI, Web Service, DB, Digital Forms, Patient, Provider and UM portals |
| 2017.6 | 8 | 3.17.6.8(3GB) | 3.17.6.0 | 3.17.6.8 | 3.17.6.8.01276873 | 3.17.6.8 | 3.17.6.8.1280869 | 3.17.6.8.1280870 | 3.17.6.8.1280869 | GUI, Web Service, DB, Digital Forms, Patient, Provider and UM portals |
| 2017.6 | 9 | 3.17.6.8(3GB) | 3.17.6.0 | 3.17.6.8 | 3.17.6.8.01276873 | 3.17.6.8 | 3.17.6.9.1308097 | 3.17.6.9.1308098 | 3.17.6.9.1308098 | Patient, Provider and UM portals |
| 2017.6 | 10 | 3.17.6.10(3GB) | 3.17.6.0 | 3.17.6.10 | 3.17.6.10.01335594 | 3.17.6.10 | 3.17.6.10.1331371 | 3.17.6.10.1331372 | 3.17.6.10.1331372 | GUI, Web Service, DB, Digital Forms, Patient, Provider and UM portals |
| 2017.6 | 11 | 3.17.6.11(3GB) | 3.17.6.0 | 3.17.6.10 | 3.17.6.11.01347408 | 3.17.6.10 | 3.17.6.10.1331371 | 3.17.6.10.1331372 | 3.17.6.10.1331372 | GUI and DB updates |
| **2017.6** | **11.1** | **3.17.6.11.1(3GB)** | **3.17.6.0** | **3.17.6.11.1** | **3.17.6.11.01437968** | **3.17.6.10** | **3.17.6.10.1331371** | **3.17.6.10.1331372** | **3.17.6.10.1331372** | **GUI, Web Service, DB,** |
| 2018.1 | - | 3.18.1.0(3GB) | 3.18.1.0 | 3.18.1.0 | 3.18.1.0.01228009 | 3.18.1.0 | 3.18.1.0.1229289 | 3.18.1.0.1229290 | 3.18.1.0.1229290 | Full version release |
| 2018.1 | 1 | 3.18.1.1(3GB) | 3.18.1.0 | 3.18.1.1 | 3.18.1.1.01288419 | 3.18.1.1 | 3.18.1.1.1299765 | 3.18.1.1.1299766 | 3.18.1.1.1299765 | GUI, Web Service, DB, Digital Forms, Patient, Provider and UM portals |
| 2018.1 | 2 | 3.18.1.2(3GB) | 3.18.1.0 | 3.18.1.2 | 3.18.1.2.01341771 | 3.18.1.2 | 3.18.1.2.1355946 | 3.18.1.2.1355947 | 3.18.1.2.1355947 | GUI, Web Service, DB, Digital Forms, Patient, Provider and UM portals |
| 2018.1 | 2.1 | 3.18.1.2.1(3GB) | 3.18.1.0 | 3.18.1.2.1 | 3.18.1.2.01341771 | 3.18.1.2 | 3.18.1.2.1355946 | 3.18.1.2.1355947 | 3.18.1.2.1355947 | GUI and Web Service |
| 2018.2 | - | 3.18.2(3GB) | 3.18.2.0 | 3.18.2.0 | 3.18.2.0.01412126 | 3.18.2.0 | 3.18.2.0.1416370 | 3.18.2.0.1416371 | 3.18.2.0.1416371 | Full Version Release. Including Patient, Provider and UM Portals |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

# INSTALLING

## CLIENT/GUI

Copy and replace the current rRIS…zip file with the eRAD_rRIS_2017.6.11.1.zip file provided with this release.

Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

## WEB SERVICE

This updated is only required for the Wedge Web Services. The Core RIS Service and Document Distribution Service are not required to be updated.

1. The web service upgrade consists of replacing the files in the RIS Web Service directory with the files supplied in the rRISService folder with this build. Always create a backup of the files being replaced. This upgrade includes 141 files in the rRISService folder and 7 sub folders. Of those folders, 1 is a folder titled **"XSL"** that contains a sub folder and files within the subfolder. Another folder is titled **"deploy"** that contains the new .config files that will be deployed with the user of the file called "ServicesConfigWizard.exe" (see instructions below). Folders ar (Arabic), en_AU (Australian English), en-ZA (South Africa), he (Hebrew), pt_BR (Brazilian Portuguese), es-AR (Argentina Spanish) and ru-RU (Russian) and are localization folders. The WedgePlugins folder contains various plugin files for RADAR, MIRTH, Ensemble, etc…

**Services Configuration Wizard**

With the release of 42 to decrease the chance of losing configuration setting and missing new configuration options, we will no longer include the configuration files in the release in the main set of files, but they will now exist in a "deploy" folder, which will contain the three site configurable config files; applicationsettings, connectionstrings, and services as well as a copy of the rRISServices.exe configuration file. The contents of this folder should not be required to be touched.

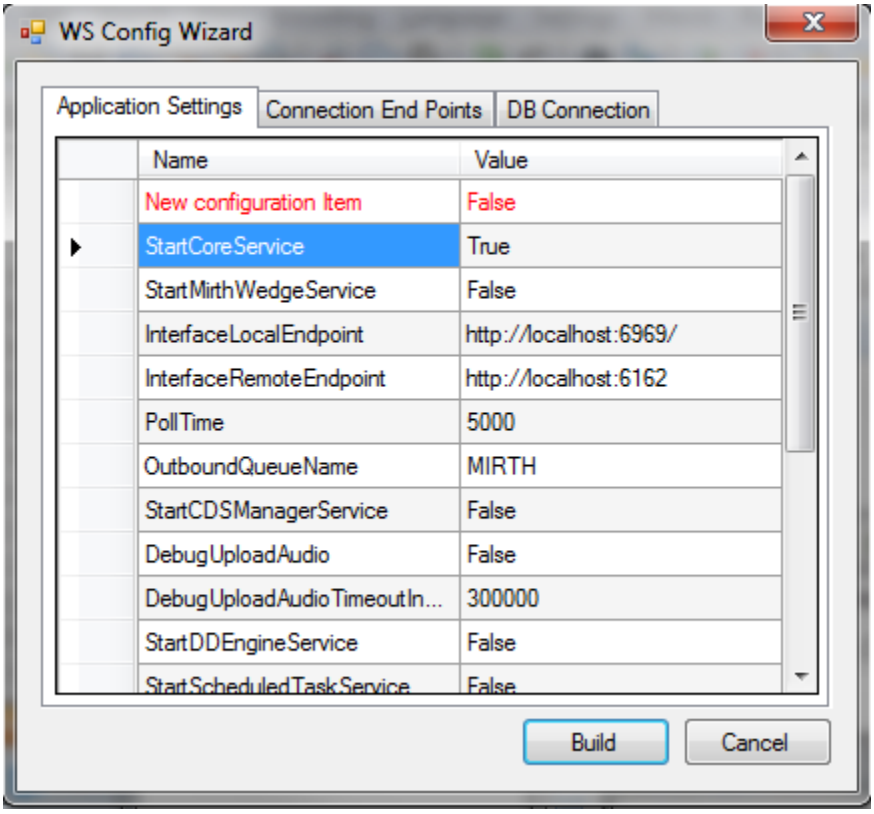
On the install of a new service, all files will be copied to the appropriate locations on the server (no configurations will be over written). If instructed or to confirm no new configurations have been added the user can run the new application "ServicesConfigWizard.exe"

This application will read the existing configuration file(s) (if files exist), and compare to the provided new configuration files then will display three tabs, for each configuration file:

**Application Settings:** all existing configuration value will be displayed, if there are any new configuration entries they will be displayed in red.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

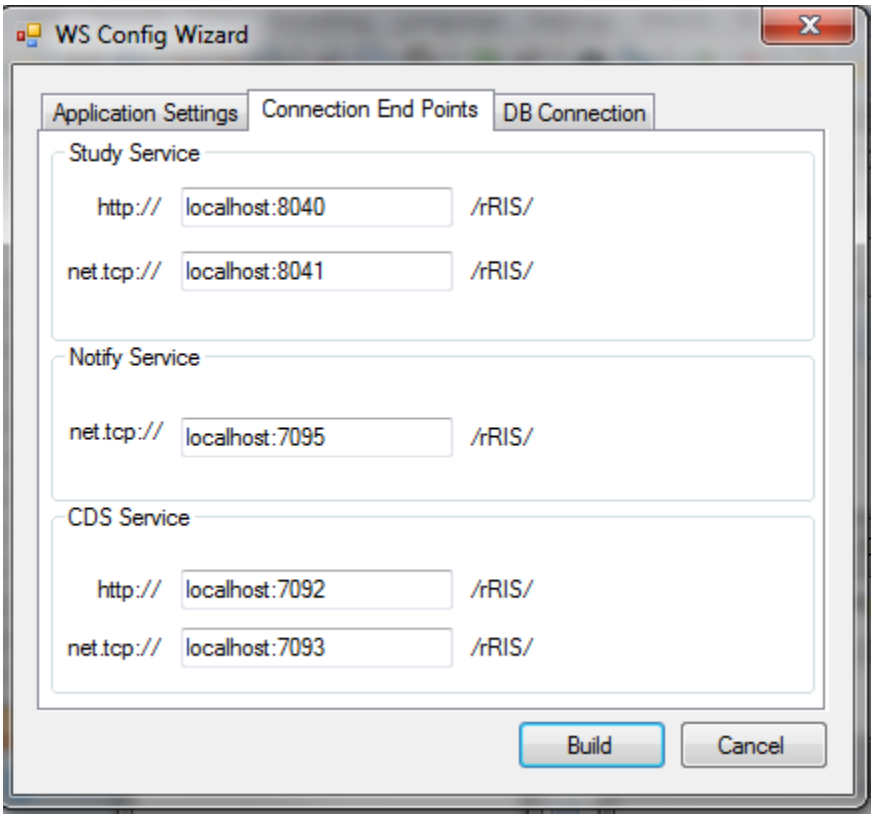
in any form or by any means without the prior written permission from eRAD. 




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

**Connection End Points:** will display the existing configuration, if the value is left blank then that entry will not be created, in the case of "Study Service" or "CDS Service" if both http and net.tcp were not provided then that endpoint will not be created at all.




## DATABASE UPDATES

Always run the upgrade scripts in a test environment of the actual database to make sure they run cleanly. If any errors occur please contact development.

*Note: There is a new upgrade process introduced with B43.1 called "RunUpgrade.bat". The batch file will open a command window. This process will prompt you for the database server name, database name and authentication credentials. There is no need to run the database upgrade scripts manually as was done in previous releases.*

1) From the upgrade folder, double click the "RunUpgrade.bat" command file.

2) Enter the server name, database name and authentication credentials to the database. You have 2 choices for authentication credentials.

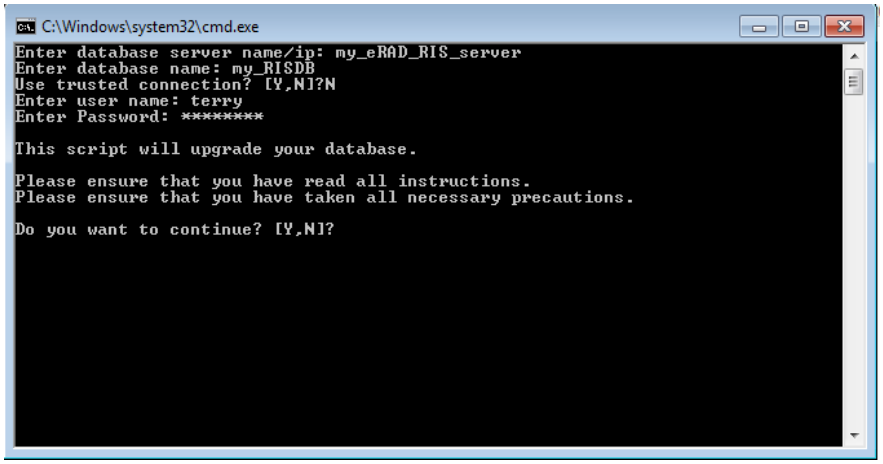
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

3) You can choose to use “Trusted connection”. Using this option will pass the identity of the currently logged on user. If this user has “db_owner” access to the eRAD RIS database then feel free to use this options.

4) If you decide not to use “Trusted connection” then you will be prompted for user id and password.

   Example:




5) After the upgrade program has finished you can find the upgrade logs in the “log” folder. The file name will be eRAD_RIS_db_upgrade_timestamp.log, where timestamp is a value representing the date and time the upgrade started. If you see any errors please contact the development team

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

# Server Update

For eRAD RIS

Version 3.0

Build 3.2017.6

Update 3.2017.6.11

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

# Table of Contents

Package Contents ..... 3

Intended Audience ..... 3

Who is affected ..... 3

Resolved Items ..... 4

Code Stream ..... 5

eRAD RIS Release Version Numbers ..... 6

Installing ..... 7

- Client/GUI ..... 7
- Database Updates ..... 7

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## PACKAGE CONTENTS

## INTENDED AUDIENCE

The intended audience for this document is the RadNet Clinical Systems team and the eRAD Support/Service team.

It is appropriate to share the document with any customers applying the patch, in order to review new feature descriptions and resolved defects.

## WHO IS AFFECTED

Build 2017.6 installs. This server update must be applied to 2017.6.10.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

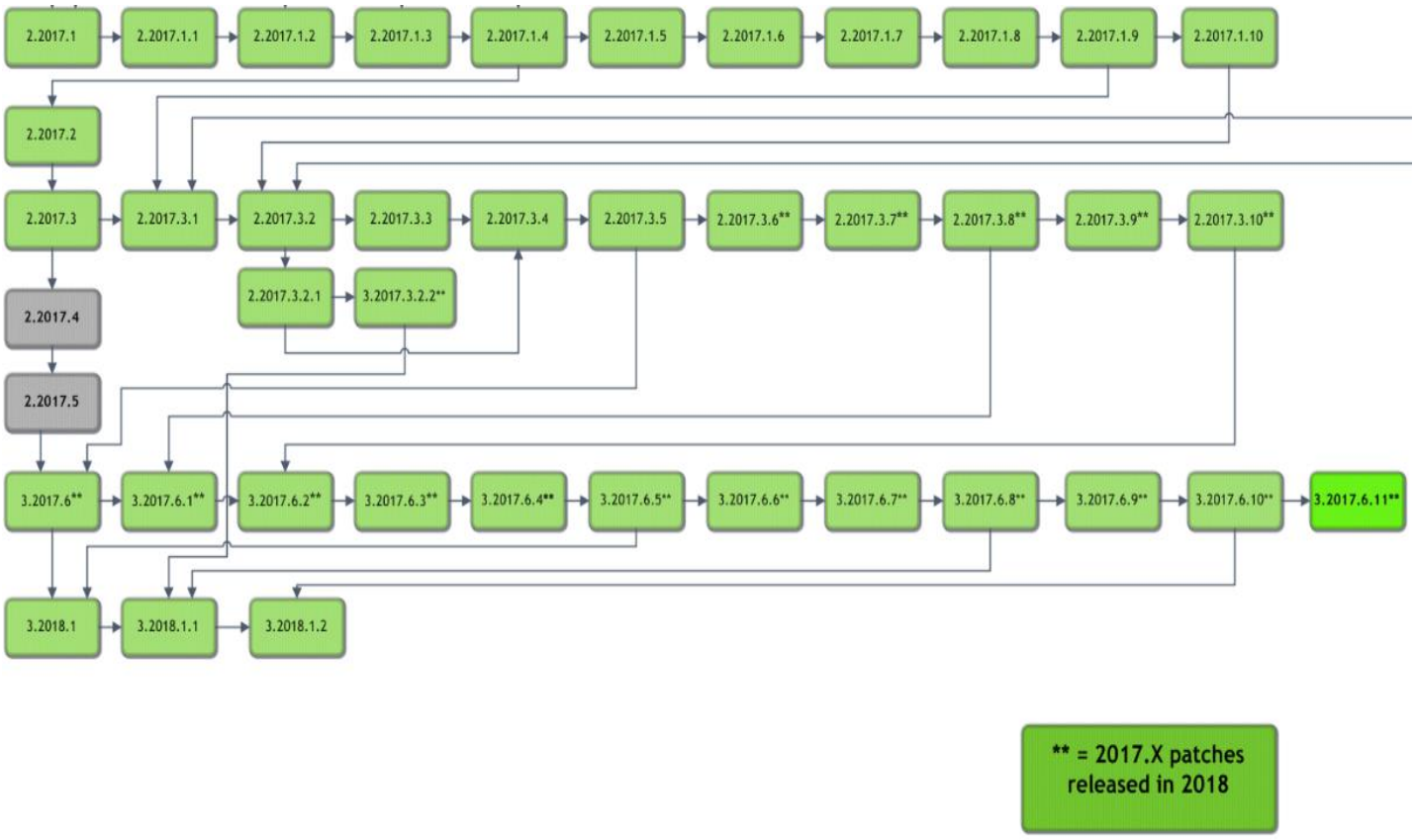
## RESOLVED ITEMS

| Redmine # for 2017.6.11 | Subject |
|---|---|
| 21718 | A correction has been made to the Amount to Collect calculation when a Billing Code is configured as "Allow Amount to Collect with Valid Insurance" equals N (No). If an order is a Self Pay, this setting is ignored and the appropriate Self Pay amount will return as normal. If an order is ***not*** a Self Pay and there are multiple Billing Codes, the Amount to Collect will only be $0 if **all** Billing Codes are set to "Allow Amount to Collect with Valid Insurance" equals N. Otherwise, any Billing Codes with that setting will be ignored for the Amount to Collect calculation and the amount will be determined based on the Billing Codes that are set to Y (Yes). This behavior follows the intention of this setting, which allows certain Billing Codes to be ignored when calculating the patient's financial responsibility for studies that are submitted to an insurance. The setting is not relevant for Self Pay studies. |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

## CODE STREAM




## Legend:

Light Green = Previously Released software

Gray = Internal version, non-release version

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

## ERAD RIS RELEASE VERSION NUMBERS

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Digital Forms | Patient Portal | UM Portal | Provider Portal | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| 2017.1 | - | 2.17.1.0 (3GB) | 2.17.1.0 | 2.17.1.0 | 2.17.1.0.00559886 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | Full Version Release |
| 2017.1 | 1 | 2.17.1.1 (3GB) | 2.17.1.0 | 2.17.1.1 | 2.17.1.1.00589952 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 2 | 2.17.1.2 (3GB) | 2.17.1.0 | 2.17.1.2 | 2.17.1.2.00621962 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 3 | 2.17.1.3 (3GB) | 2.17.1.0 | 2.17.1.3 | 2.17.1.3.00640480 | 2.17.1.0 | 2.17.1.0.572290 | 2.17.1.0.00000 | | GUI, Web Service and DB updates |
| 2017.1 | 4 | 2.17.1.4 (3GB) | 2.17.1.0 | 2.17.1.4 | 2.17.1.4.00692239 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI, Web Service, DB and Patient Portal updates |
| 2017.1 | 5 | 2.17.1.4 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.4.00692239 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | Web Service |
| 2017.1 | 6 | 2.17.1.6 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI and DB Updates |
| 2017.1 | 7 | 2.17.1.7 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI update |
| 2017.1 | 8 | 2.17.1.8 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI update |
| 2017.1 | 9 | 2.17.1.9 (3GB) | 2.17.1.0 | 2.17.1.5 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI update |
| 2017.1 | 10 | 2.17.1.10 (3GB) | 2.17.1.0 | 2.17.1.10 | 2.17.1.6.00745281 | 2.17.1.0 | 2.17.1.4.701924 | 2.17.1.0.00000 | | GUI and Web Service update |
| 2017.2 | - | 2.17.2.0(3GB) | 2.17.2.0 | 2.17.2.0 | 2.17.2.0.00695782 | 2.17.2.0 | 2.17.2.0.702238 | 2.17.2.0.702213 | 2.17.2.0.702226 | Full Version Release. First release of Provider Portal |
| 2017.3 | - | 2.17.3.0(3GB) | 2.17.3.0 | 2.17.3.0 | 2.17.3.0.00764112 | 2.17.3.0 | 2.17.3.0.321 | 2.17.3.0.321 | 2.17.3.0.321 | Full Version Release. Including Patient, Provider and UM Portals |
| 2017.3 | 1 | 2.17.3.1(3GB) | 2.17.3.0 | 2.17.3.1 | 2.17.3.1.00846328 | 2.17.3.1 | 2.17.3.1.853299 | 2.17.3.1.853301 | 2.17.3.1.856171 | GUI, Web Sevice, DB. Including Patient, Provider and UM Portals |
| 2017.3 | 2 | 2.17.3.2(3GB) | 2.17.3.0 | 2.17.3.2 | 2.17.3.2.00898348 | 2.17.3.2 | 2.17.3.2.913898 | 2.17.3.2.913899 | 2.17.3.1.856171 | GUI, Web Sevice, DB. Including Patient, Provider and UM Portals |
| 2017.3 | 2.1 | 2.17.3.2.1(3GB) | 2.17.3.0 | 2.17.3.2 | 2.17.3.2.00898348 | 2.17.3.2 | 2.17.3.2.913898 | 2.17.3.2.913899 | 2.17.3.1.856171 | GUI Only |
| 2017.3 | 2.2 | 2.17.3.2.1(3GB) | 2.17.3.0 | 2.17.3.2.2 | 2.17.3.2.00898348 | 2.17.3.2 | 2.17.3.2.913898 | 2.17.3.2.913899 | 2.17.3.1.856171 | Web Services only |
| 2017.3 | 3 | 2.17.3.3(3GB) | 2.17.3.0 | 2.17.3.3 | 2.17.3.3.00954008 | 2.17.3.2 | 2.17.3.3.962869 | 2.17.3.3.962870 | 2.17.3.3.962870 | GUI, Web Sevice, DB. Including Patient, Provider and UM Portals |
| 2017.3 | 4 | 2.17.3.4(3GB) | 2.17.3.0 | 2.17.3.4 | 2.17.3.4.00987562 | 2.17.3.2 | 2.17.3.3.962869 | 2.17.3.3.962870 | 2.17.3.3.962870 | GUI, Web Sevice and DB |
| 2017.3 | 5 | 2.17.3.5(3GB) | 2.17.3.0 | 2.17.3.5 | 2.17.3.5.01023250 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | GUI, Web Sevice, DB, Patient Portal, Referring Portal, UM Portal |
| 2017.3 | 6 | 2.17.3.6(3GB) | 2.17.3.0 | 2.17.3.6 | 2.17.3.6.01065114 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | GUI, Web Sevice, DB, |
| 2017.3 | 7 | 2.17.3.7(3GB) | 2.17.3.0 | 2.17.3.6 | 2.17.3.6.01065114 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | GUI |
| 2017.3 | 8 | 2.17.3.8(3GB) | 2.17.3.0 | 2.17.3.8 | 2.17.3.6.01065114 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | GUI and Web Service |
| 2017.3 | 9 | 2.17.3.8(3GB) | 2.17.3.0 | 2.17.3.9 | 2.17.3.6.01065114 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | Web Service |
| 2017.3 | 10 | 2.17.3.10(3GB) | 2.17.3.0 | 2.17.3.10 | 2.17.3.10.01125764 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | GUI, Web Service and DB updates |
| 2017.6 | - | 3.17.6.0(3GB) | 3.17.6.0 | 3.17.6.0 | 3.17.6.0.01037550 | 3.17.6.0 | 3.17.6.0.1037868 | 3.17.6.0.1037869 | 3.17.6.0.1037869 | Full Version Release. Including Patient, Provider and UM Portals |
| 2017.6 | 1 | 3.17.6.1(3GB) | 3.17.6.0 | 3.17.6.1 | 3.17.6.1.01094077 | 3.17.6.0 | 3.17.6.0.1037868 | 3.17.6.0.1037869 | 3.17.6.0.1037869 | GUI, Web Service and DB updates |
| 2017.6 | 2 | 3.17.6.2(3GB) | 3.17.6.0 | 3.17.6.2 | 3.17.6.2.01130171 | 3.17.6.2 | 3.17.6.2.1138297 | 3.17.6.2.1138298 | 3.17.6.2.1138298 | GUI, Web Service, DB, Patient, Provider and UM Portals and Digital Forms |
| 2017.6 | 3 | 3.17.6.3(3GB) | 3.17.6.0 | 3.17.6.3 | 3.17.6.3.01166033 | 3.17.6.3 | 3.17.6.3.1168622 | 3.17.6.3.1168622 | 3.17.6.3.1168623 | GUI, Web Service, DB, Patient, Provider and UM Portals and Digital Forms |
| 2017.6 | 4 | 3.17.6.4(3GB) | 3.17.6.0 | 3.17.6.4 | 3.17.6.4.01187509 | 3.17.6.4 | 3.17.6.4.1190295 | 3.17.6.4.1190295 | 3.17.6.4.1190295 | GUI, Web Service, DB, Patient, Provider and UM Portals and Digital Forms |
| 2017.6 | 5 | 3.17.6.5(3GB) | 3.17.6.0 | 3.17.6.5 | 3.17.6.4.01187509 | 3.17.6.4 | 3.17.6.5.1199064 | 3.17.6.5.1199063 | 3.17.6.5.1199064 | GUI, Web Service, Patient, Provider and UM Portals |
| 2017.6 | 6 | 3.17.6.6(3GB) | 3.17.6.0 | 3.17.6.6 | 3.17.6.6.01236363 | 3.17.6.4 | 3.17.6.5.1199064 | 3.17.6.5.1199063 | 3.17.6.5.1199064 | GUI, Web Service and DB updates |
| 2017.6 | 7 | 3.17.6.7(3GB) | 3.17.6.0 | 3.17.6.7 | 3.17.6.7.01257812 | 3.17.6.7 | 3.17.6.7.1266287 | 3.17.6.7.1266287 | 3.17.6.7.1266287 | GUI, Web Service, DB, Digital Forms, Patient, Provider and UM portals |
| 2017.6 | 8 | 3.17.6.8(3GB) | 3.17.6.0 | 3.17.6.8 | 3.17.6.8.01276873 | 3.17.6.8 | 3.17.6.8.1280869 | 3.17.6.8.1280870 | 3.17.6.8.1280869 | GUI, Web Service, DB, Digital Forms, Patient, Provider and UM portals |
| 2017.6 | 9 | 3.17.6.8(3GB) | 3.17.6.0 | 3.17.6.8 | 3.17.6.8.01276873 | 3.17.6.8 | 3.17.6.9.1308097 | 3.17.6.9.1308098 | 3.17.6.9.1308098 | Patient, Provider and UM portals |
| 2017.6 | 10 | 3.17.6.10(3GB) | 3.17.6.0 | 3.17.6.10 | 3.17.6.10.01335594 | 3.17.6.10 | 3.17.6.10.1331371 | 3.17.6.10.1331372 | 3.17.6.10.1331372 | GUI, Wdb Service, DB, Digital Forms, Patient, Provider and UM portals |
| **2017.6** | **11** | **3.17.6.11(3GB)** | **3.17.6.0** | **3.17.6.10** | **3.17.6.11.01347408** | **3.17.6.10** | **3.17.6.10.1331371** | **3.17.6.10.1331372** | **3.17.6.10.1331372** | **GUI and DB updates** |
| 2018.1 | - | 3.18.1.0(3GB) | 3.18.1.0 | 3.18.1.0 | 3.18.1.0.01228009 | 3.18.1.0 | 3.18.1.0.1229289 | 3.18.1.0.1229290 | 3.18.1.0.1229290 | Full version release |
| 2018.1 | 1 | 3.18.1.1(3GB) | 3.18.1.0 | 3.18.1.1 | 3.18.1.1.01288419 | 3.18.1.1 | 3.18.1.1.1299765 | 3.18.1.1.1299766 | 3.18.1.1.1299765 | GUI, Web Service, DB, Digital Forms, Patient, Provider and UM portals |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

# INSTALLING

## CLIENT/GUI

Copy and replace the current rRIS…zip file with the eRAD_rRIS_2017.6.11.zip file provided with this release.

Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

## DATABASE UPDATES

Always run the upgrade scripts in a test environment of the actual database to make sure they run cleanly. If any errors occur please contact development.

*Note: There is a new upgrade process introduced with B43.1 called "RunUpgrade.bat". The batch file will open a command window. This process will prompt you for the database server name, database name and authentication credentials. There is no need to run the database upgrade scripts manually as was done in previous releases.*

1) From the upgrade folder, double click the "RunUpgrade.bat" command file.

2) Enter the server name, database name and authentication credentials to the database. You have 2 choices for authentication credentials.

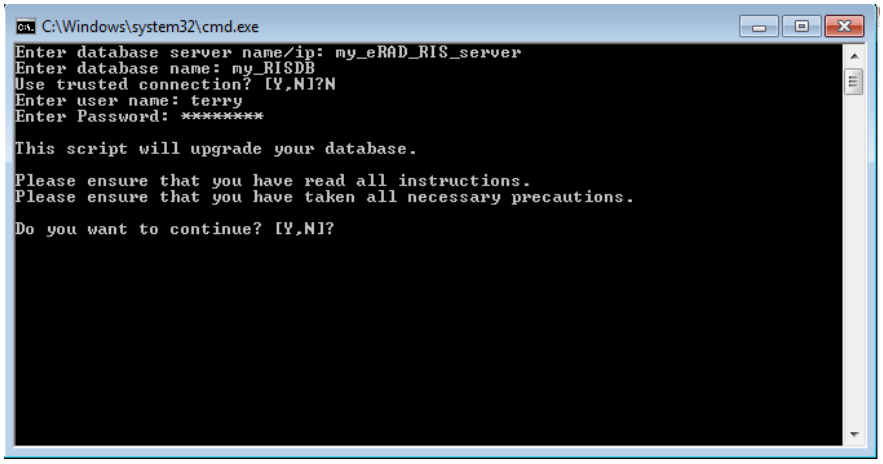
3) You can choose to use "Trusted connection". Using this option will pass the identity of the currently logged on user. If this user has "db_owner" access to the eRAD RIS database then feel free to use this options.

4) If you decide not to use "Trusted connection" then you will be prompted for user id and password.

   Example:

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 




After the upgrade program has finished you can find the upgrade logs in the "log" folder. The file name will be eRAD_RIS_db_upgrade_timestamp.log, where timestamp is a value representing the date and time the upgrade started. If you see any errors please contact the development team

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

# Server Update

For eRAD RIS

Version 3.0

Build 3.2017.6

Update 3.2017.6.12

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

# Table of Contents

Package Contents ..... 3

Intended Audience ..... 3

Who is affected ..... 3

New settings ..... 3

Access Strings ..... 4

System Configuration ..... 4

New Features ..... 5

Feature #22129 – Clearly display the primary study and provide a mechanism to show images from the linked studies in the provider and patient portals ..... 5

Feature #21191 - Support Syngo Plaza PACS integration ..... 5

Resolved items ..... 8

Code Stream ..... 10

eRAD RIS Release Version Numbers ..... 11

Installing ..... 12

Client/GUI ..... 12

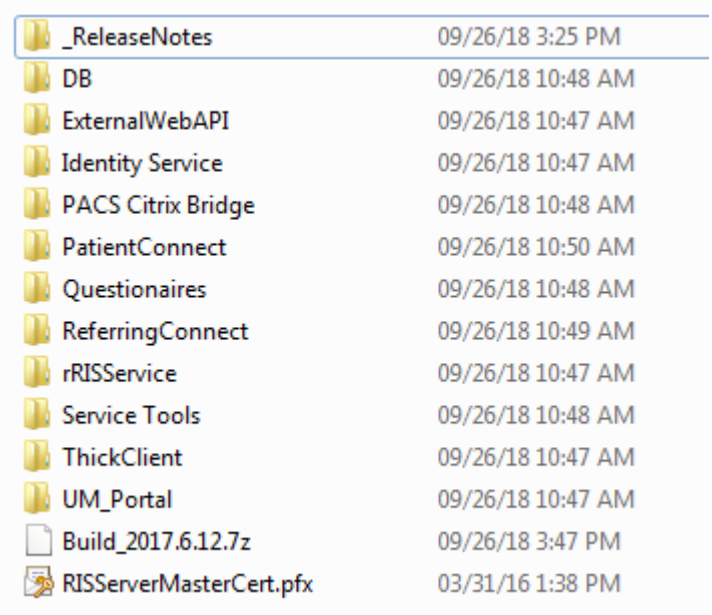
Web Service ..... 12

Database Updates ..... 14

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## PACKAGE CONTENTS




## INTENDED AUDIENCE

The intended audience for this document is the RadNet Clinical Systems team and the eRAD Support/Service team.

It is appropriate to share the document with any customers applying the patch, in order to review new feature descriptions and resolved defects.

## WHO IS AFFECTED

Build 2017.6 installs. This server update must be applied to 2017.6.11.1.

## NEW SETTINGS

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

## ACCESS STRINGS

**Note:** This version of eRAD RIS includes a customer-specific feature called the Arbitrator. These new access strings are referenced here for completeness, but are not applicable to any other customer at this time.

| Setting | Default | Purpose |
|---|---|---|
| Config.AIArbitrator | None | Access to the configuration screen for the AI Arbitration |
| Config.LookupEditor.ConfigFile | None | lookup table access for Configuration Files |

## SYSTEM CONFIGURATION

**Note:** This version of eRAD RIS includes a customer-specific feature called the Arbitrator. These new system configuration strings are referenced here for completeness, but are not applicable to any other customer at this time.

| Setting | Default | Purpose |
|---|---|---|
| AIServiceEndpoint | Null/Empty | (value = string) The URL used by the arbitrator program to call the AI Service. |
| RPPACSDownloadViewerURL | Null/Empty | (value = string) The full URL for downloading PACS Full Viewer |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

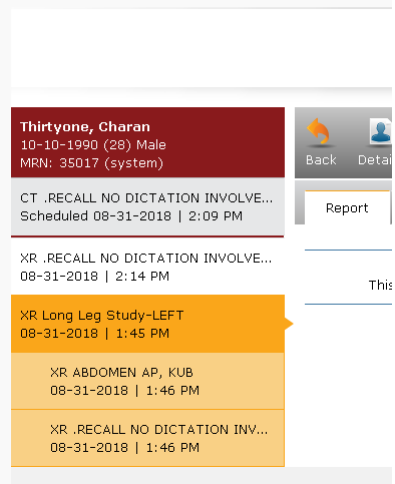
in any form or by any means without the prior written permission from eRAD.

## NEW FEATURES

### FEATURE #22129 – CLEARLY DISPLAY THE PRIMARY STUDY AND PROVIDE A MECHANISM TO SHOW IMAGES FROM THE LINKED STUDIES IN THE PROVIDER AND PATIENT PORTALS

The "Linked Studies" feature in eRAD RIS allows multiple studies from the same order be grouped and later read by the radiologist as a single diagnostic report. The ability to view the linked collection and report was supported by the RIS portals, but it was only possible to view the images from the primary study. In addition, the primary study was not always the first study in the list adding to confusion.

The Provider and Patient Portals now support the ability to view the images from all studies in the linked collection. To support this, the following changes were made to the patient folder screen: First, the primary study will always be shown as the first study in the order, and second the linked studies will be shown indented below the primary study. Selecting a secondary study will allow the images to be displayed for the secondary study.




### FEATURE #21191 - SUPPORT SYNGO PLAZA PACS INTEGRATION

eRAD RIS now supports a PACS integration with Siemens Syngo Plaza. This integration follows the standard PACS integration methodology of using a plug-in.

Configuration:

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

Configure the PACS lookup with the type of SYNGOPLAZA:

| | Description | Protocol | Url | Port | Display Order | Pacs Ae Title | Pacs Server Type Code |
|---|---|---|---|---|---|---|---|
| ▷ | Contains: syngo | Contains: | Contains: | Equals: | Equals: | Contains: | Contains: |
| ⚙ | Click here to add a new row | | | | | | |
| | SyngoPlaza PACS | http | pacs | 80 | 1 | | SYNGOPLAZA |

In the "Config" column of PACS lookup, configure the integration as appropriate. An example and description of each field is shown below:

```
<SyngoPlazaConfig>

  <UseRISCredentials>false</UseRISCredentials>

  <SingleSignOn>false</SingleSignOn>

  <OpenStudyUsing>ACCN</OpenStudyUsing><!-- PSUID, SSUID, PATID_ACCN, ACCN -->

  <PACSDomain>PACS</PACSDomain>

  <CloseAction>ApplicationDefault</CloseAction> <!--  ApplicationDefault,
SaveImagesWithoutPrompting, DiscardChanges, SaveImagesWithPrompt-->

  <LoadFlaggedImages>All</LoadFlaggedImages> <!-- All, Flag1, Flag2, Both -->

  <LoadPriorType></LoadPriorType> <!-- Related, Exact, All -->

  <LoadOnlyTopJ>false</LoadOnlyTopJ>

</SyngoPlazaConfig>

<!--
```

Configuration options:

**Single Sign On** – optional setting - If enabled the current windows credentials are passed to the integration. The user must have the Syngo Plaza role "syngo.plaza_single_signon".

**OpenStudyUsing** – Determines what parameter is used to launch the study. Options are: PSUID, SSUID, PATID_ACCN, ACCN

**PACSDomain** - If there are multiple domains in Syngo Plaza, the domain needs to be configured here so that it is passed to the integration.

**CloseAction** – Determines what action is taken when the study is closed in RIS.

**LoadFlaggedImages** – A Syngo Plaza set of options:

* All - (default) Load all images, independent of flagging.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

* Flag1 - load images that are flagged with "Flag1"

* Flag2 - load images that are flagged with "Flag2"

* Both - load images that are flagged with "Flag1" or "Flag2"

**LoadPriorType** – Determines the mechanism for loading priors. Options are:

* Unknown - Syngo Plaza will not automatically load priors. This value should be used if RIS is supplying the list of priors.

* Related - When this option is set, Syngo drives prior loading. Studies that are older than the current study will be loaded.

* Exact - When this option is set, Syngo drives prior loading. If both modality and organ match the current study and the date is prior to the current study, they are considered priors and will be loaded.

* All - When this option is set, Syngo drives prior loading. All studies that are available and have a study date-time older than the current study are loaded.

Note that the Syngo Plaza viewer itself provides additional settings for configuring related priors.

**LoadOnlyTop**

* False - (default) Images are loaded into the viewer

* True – Patient will be open in the Patient Jacket feature of Syngo Plaza. Images will not be loaded into the Viewer

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## RESOLVED ITEMS

| Redmine # for 2017.6.12 | Subject |
|---|---|
| 21325 | Resolved issue when removing a patient email address. |
| 21356 | Resolved an issue displaying delivery methods on the image request screen. |
| 21440 | Resolved issue when attempting to send an opinion letter via fax. |
| 21454 | Resolved eRAD PACS issue re-displaying priors in the Dictation window after switching from Sign or Create Edit window. |
| 21455 | Resolved eRAD PACS issue re-displaying priors in the sign window after switching to another window. |
| 21474 | Resolved issue loading the Provider Admin Tool - User Messages tab. |
| 21568 | Resolved issue saving a relative date/time filter. |
| 21570 | Enhanced User Management Search to support last names with spaces in the Connect Admin Portal. |
| 21581 | Resolved issue saving preferences in Referring Portal Admin. |
| 21592 | Resolved issue displaying the Environment Name in Title Bar for HTTPS installations. |
| 21594 | Resolved intermittent issue where order data could be duplicated |
| 21633 | Resolved issue when entering a decimal value for weight. |
| 21681 | Resolved issue printing Diagnostic Report from the Referring Portal. |
| 21684 | Enhanced Referring Portal login and data query performance when a single referring doctor is associated with all other referring doctors. |
| 21690 | Resolved issue where the Attachment (Paperclip) button on the Registration screen would reset Arbitration Signed and Verified ID on Patient tab, as well as the Direct referral checkbox on the Order tab. |
| 21732 | Resolved domain Account ID collision issue when creating Portal user Account ID. |
| 21738 | Resolved "object reference error" when matching external to internal patients |
| 21741 | Enhanced CountyToZipCodeAutoFill behavior to respect an alternate zipcode. |
| 21870 | Resolved the error "Could not determine the identifier to use to open PACS" |
| 21914 | No longer displaying inactive rooms in Appointment Book Dropdown. |
| 22124 | Resolved issue saving Insurance Zipcode and State when using the zip code auto-fill. |
| 22125 | Resolved time zone issue where the scheduled_start_date is offset when saving on the Register screen. |
| 22131 | Resolved account migration issue where data from Millinger Connect was not decrypting. |
| 22149 | Resolved installer issue when attempting to upgrade. |
| 22151 | Resolved login issue due to blank Injury Source field. |
| 22272 | Resolved issues opening the Schedule Order screen for EMR orders with blank procedure descriptions or inactive procedures. |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

| | |
|---|---|
| 22284 | Resolved issues with copay calculation when out of pocket maximum has been reached. |
| 22291 | The wedge interface service now supports retrieving the referring's address. |
| 22306 | Added support for eRAD PACS v8 viewer with HTTPS installations. |
| 22307 | Resolved eRAD PACS v8 password issue with HTTPS installations. |
| 22338 | Availity insurance check now returns REF N6 segment in 271 |
| 22380 | Resolved issue with UM portal account recovery. |
| 22387 | Resolved a database related performance issue when retrieving a user's study folders. |

**Special note for the implementation team**:

Bug #22338 listed above will also require manual intervention to update the function z_get_medical_group. Please see this items resolution section in Redmine more information. This bug was also resolved in 2017.6.11.1 as Redmine item #22394. If the system being upgraded was at 2017.6.11.1, the function z_get_medical_group may already have these changes.

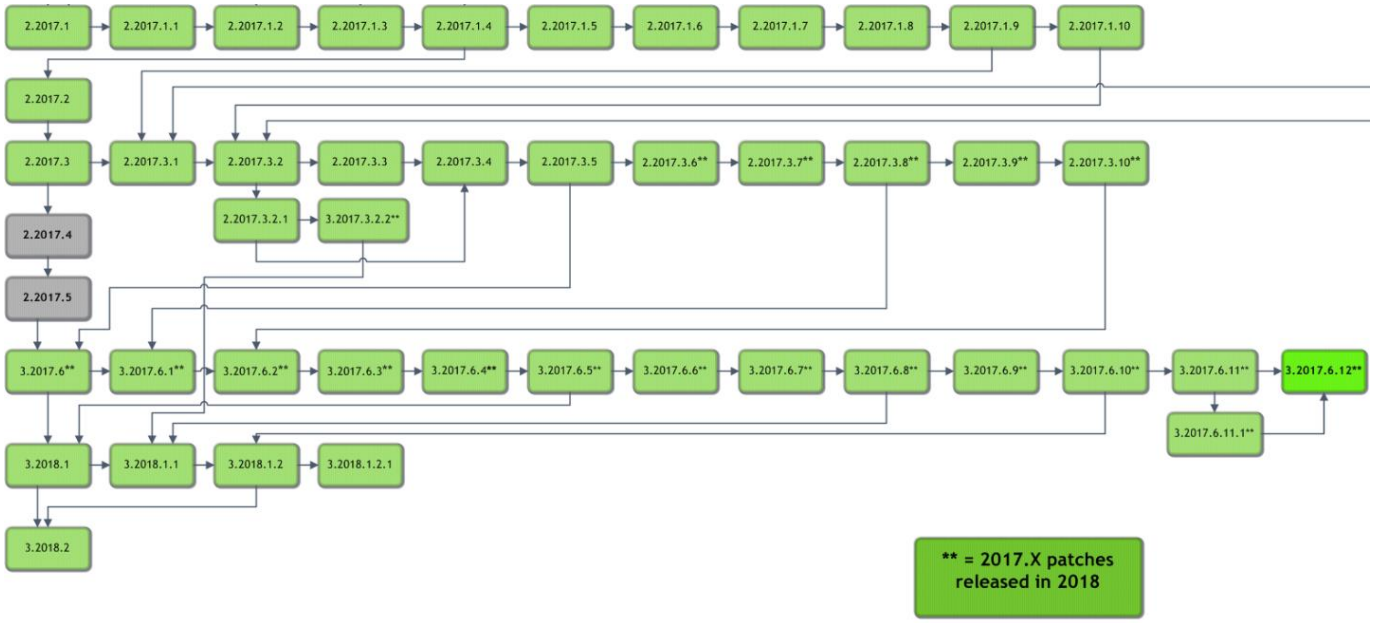
The following fixes from other versions and are included with this patch.

| Redmine # for 2018.3 | Redmine # for 2017.6.12 | Subject |
|---|---|---|
| 20533 | 21919 | Corrected issue with the wrong PACS server when clicking the "download full viewer" link in the Referring Portal |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## CODE STREAM




## Legend:

Light Green = Previously Released software

Gray = Internal version, non-release version

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

## ERAD RIS RELEASE VERSION NUMBERS

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Digital Forms | Patient Portal | UM Portal | Provider Portal | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| 2017.2 | - | 2.17.2.0(3GB) | 2.17.2.0 | 2.17.2.0 | 2.17.2.0.00695782 | 2.17.2.0 | 2.17.2.0.702238 | 2.17.2.0.702213 | 2.17.2.0.702226 | Full Version Release. First release of Provider Portal |
| 2017.3 | - | 2.17.3.0(3GB) | 2.17.3.0 | 2.17.3.0 | 2.17.3.0.00764112 | 2.17.3.0 | 2.17.3.0.321 | 2.17.3.0.321 | 2.17.3.0.321 | Full Version Release. Including Patient, Provider and UM Portals |
| 2017.3 | 1 | 2.17.3.1(3GB) | 2.17.3.0 | 2.17.3.1 | 2.17.3.1.00846328 | 2.17.3.1 | 2.17.3.1.853299 | 2.17.3.1.853301 | 2.17.3.1.856171 | GUI, Web Sevice, DB. Including Patient, Provider and UM Portals |
| 2017.3 | 2 | 2.17.3.2(3GB) | 2.17.3.0 | 2.17.3.2 | 2.17.3.2.00898348 | 2.17.3.2 | 2.17.3.2.913898 | 2.17.3.2.913899 | 2.17.3.1.856171 | GUI, Web Sevice, DB. Including Patient, Provider and UM Portals |
| 2017.3 | 2.1 | 2.17.3.2.1(3GB) | 2.17.3.0 | 2.17.3.2 | 2.17.3.2.00898348 | 2.17.3.2 | 2.17.3.2.913898 | 2.17.3.2.913899 | 2.17.3.1.856171 | GUI Only |
| 2017.3 | 2.2 | 2.17.3.2.1(3GB) | 2.17.3.0 | 2.17.3.2.2 | 2.17.3.2.00898348 | 2.17.3.2 | 2.17.3.2.913898 | 2.17.3.2.913899 | 2.17.3.1.856171 | Web Services only |
| 2017.3 | 3 | 2.17.3.3(3GB) | 2.17.3.0 | 2.17.3.3 | 2.17.3.3.00954008 | 2.17.3.2 | 2.17.3.3.962869 | 2.17.3.3.962870 | 2.17.3.3.962870 | GUI, Web Sevice, DB. Including Patient, Provider and UM Portals |
| 2017.3 | 4 | 2.17.3.4(3GB) | 2.17.3.0 | 2.17.3.4 | 2.17.3.4.00987562 | 2.17.3.2 | 2.17.3.3.962869 | 2.17.3.3.962870 | 2.17.3.3.962870 | GUI, Web Sevice and DB |
| 2017.3 | 5 | 2.17.3.5(3GB) | 2.17.3.0 | 2.17.3.5 | 2.17.3.5.01023250 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | GUI, Web Sevice, DB, Patient Portal, Referring Portal, UM Portal |
| 2017.3 | 6 | 2.17.3.6(3GB) | 2.17.3.0 | 2.17.3.6 | 2.17.3.6.01065114 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | GUI, Web Sevice, DB, |
| 2017.3 | 7 | 2.17.3.7(3GB) | 2.17.3.0 | 2.17.3.6 | 2.17.3.6.01065114 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | GUI |
| 2017.3 | 8 | 2.17.3.8(3GB) | 2.17.3.0 | 2.17.3.8 | 2.17.3.6.01065114 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | GUI and Web Service |
| 2017.3 | 9 | 2.17.3.8(3GB) | 2.17.3.0 | 2.17.3.9 | 2.17.3.6.01065114 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | Web Service |
| 2017.3 | 10 | 2.17.3.10(3GB) | 2.17.3.0 | 2.17.3.10 | 2.17.3.10.01125764 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | GUI, Web Service and DB updates |
| 2017.6 | - | 3.17.6.0(3GB) | 3.17.6.0 | 3.17.6.0 | 3.17.6.0.01037550 | 3.17.6.0 | 3.17.6.0.1037868 | 3.17.6.0.1037869 | 3.17.6.0.1037869 | Full Version Release. Including Patient, Provider and UM Portals |
| 2017.6 | 1 | 3.17.6.1(3GB) | 3.17.6.0 | 3.17.6.1 | 3.17.6.1.01094077 | 3.17.6.0 | 3.17.6.0.1037868 | 3.17.6.0.1037869 | 3.17.6.0.1037869 | GUI, Web Service and DB updates |
| 2017.6 | 2 | 3.17.6.2(3GB) | 3.17.6.0 | 3.17.6.2 | 3.17.6.2.01130171 | 3.17.6.2 | 3.17.6.2.1138297 | 3.17.6.2.1138298 | 3.17.6.2.1138298 | GUI, Web Service, DB, Patient, Provider and UM Portals and Digital Forms |
| 2017.6 | 3 | 3.17.6.3(3GB) | 3.17.6.0 | 3.17.6.3 | 3.17.6.3.01166033 | 3.17.6.3 | 3.17.6.3.1168622 | 3.17.6.3.1168622 | 3.17.6.3.1168623 | GUI, Web Service, DB, Patient, Provider and UM Portals and Digital Forms |
| 2017.6 | 4 | 3.17.6.4(3GB) | 3.17.6.0 | 3.17.6.4 | 3.17.6.4.01187509 | 3.17.6.4 | 3.17.6.4.1190295 | 3.17.6.4.1190295 | 3.17.6.4.1190295 | GUI, Web Service, DB, Patient, Provider and UM Portals and Digital Forms |
| 2017.6 | 5 | 3.17.6.5(3GB) | 3.17.6.0 | 3.17.6.5 | 3.17.6.4.01187509 | 3.17.6.4 | 3.17.6.5.1199064 | 3.17.6.5.1199063 | 3.17.6.5.1199064 | GUI, Web Service, Patient, Provider and UM Portals |
| 2017.6 | 6 | 3.17.6.6(3GB) | 3.17.6.0 | 3.17.6.6 | 3.17.6.6.01236363 | 3.17.6.4 | 3.17.6.5.1199064 | 3.17.6.5.1199063 | 3.17.6.5.1199064 | GUI, Web Service and DB updates |
| 2017.6 | 7 | 3.17.6.7(3GB) | 3.17.6.0 | 3.17.6.7 | 3.17.6.7.01257812 | 3.17.6.7 | 3.17.6.7.1266287 | 3.17.6.7.1266287 | 3.17.6.7.1266287 | GUI, Web Service, DB, Digital Forms, Patient, Provider and UM portals |
| 2017.6 | 8 | 3.17.6.8(3GB) | 3.17.6.0 | 3.17.6.8 | 3.17.6.8.01276873 | 3.17.6.8 | 3.17.6.8.1280869 | 3.17.6.8.1280870 | 3.17.6.8.1280869 | GUI, Web Service, DB, Digital Forms, Patient, Provider and UM portals |
| 2017.6 | 9 | 3.17.6.8(3GB) | 3.17.6.0 | 3.17.6.8 | 3.17.6.8.01276873 | 3.17.6.8 | 3.17.6.9.1308097 | 3.17.6.9.1308098 | 3.17.6.9.1308098 | Patient, Provider and UM portals |
| 2017.6 | 10 | 3.17.6.10(3GB) | 3.17.6.0 | 3.17.6.10 | 3.17.6.10.01335594 | 3.17.6.10 | 3.17.6.10.1331371 | 3.17.6.10.1331372 | 3.17.6.10.1331372 | GUI, Web Service, DB, Digital Forms, Patient, Provider and UM portals |
| 2017.6 | 11 | 3.17.6.11(3GB) | 3.17.6.0 | 3.17.6.10 | 3.17.6.11.01347408 | 3.17.6.10 | 3.17.6.10.1331371 | 3.17.6.10.1331372 | 3.17.6.10.1331372 | GUI and DB updates |
| 2017.6 | 11.1 | 3.17.6.11.1(3GB) | 3.17.6.0 | 3.17.6.11.1 | 3.17.6.11.01437968 | 3.17.6.10 | 3.17.6.10.1331371 | 3.17.6.10.1331372 | 3.17.6.10.1331372 | GUI, Web Service, DB, |
| **2017.6** | **12** | **3.17.6.12(3GB)** | **3.17.6.0** | **3.17.6.12** | **3.17.6.12.01439318** | **3.17.6.12** | **3.17.6.12.1439203** | **3.17.6.12.1439204** | **3.17.6.12.1439204** | **GUI, Web Service, DB, Digital Forms, Patient, Provider and UM portals** |
| 2018.1 | - | 3.18.1.0(3GB) | 3.18.1.0 | 3.18.1.0 | 3.18.1.0.01228009 | 3.18.1.0 | 3.18.1.0.1229289 | 3.18.1.0.1229290 | 3.18.1.0.1229290 | Full version release |
| 2018.1 | 1 | 3.18.1.1(3GB) | 3.18.1.0 | 3.18.1.1 | 3.18.1.1.01288419 | 3.18.1.1 | 3.18.1.1.1299765 | 3.18.1.1.1299766 | 3.18.1.1.1299765 | GUI, Web Service, DB, Digital Forms, Patient, Provider and UM portals |
| 2018.1 | 2 | 3.18.1.2(3GB) | 3.18.1.0 | 3.18.1.2 | 3.18.1.2.01341771 | 3.18.1.2 | 3.18.1.2.1355946 | 3.18.1.2.1355947 | 3.18.1.2.1355947 | GUI, Web Service, DB, Digital Forms, Patient, Provider and UM portals |
| 2018.1 | 2.1 | 3.18.1.2.1(3GB) | 3.18.1.0 | 3.18.1.2.1 | 3.18.1.2.01341771 | 3.18.1.2 | 3.18.1.2.1355946 | 3.18.1.2.1355947 | 3.18.1.2.1355947 | GUI and Web Service |
| 2018.2 | - | 3.18.2(3GB) | 3.18.2.0 | 3.18.2.0 | 3.18.2.0.01412126 | 3.18.2.0 | 3.18.2.0.1416370 | 3.18.2.0.1416371 | 3.18.2.0.1416371 | Full Version Release. Including Patient, Provider and UM Portals |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

# INSTALLING

## CLIENT/GUI

Copy and replace the current rRIS…zip file with the eRAD_rRIS_2017.6.12.zip file provided with this release.

Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

## WEB SERVICE

This updated is only required for the Wedge Web Services. The Core RIS Service and Document Distribution Service are not required to be updated.

1. The web service upgrade consists of replacing the files in the RIS Web Service directory with the files supplied in the rRISService folder with this build. Always create a backup of the files being replaced. This upgrade includes 141 files in the rRISService folder and 7 sub folders. Of those folders, 1 is a folder titled **"XSL"** that contains a sub folder and files within the subfolder. Another folder is titled **"deploy"** that contains the new .config files that will be deployed with the user of the file called "ServicesConfigWizard.exe" (see instructions below). Folders ar (Arabic), en_AU (Australian English), en-ZA (South Africa), he (Hebrew), pt_BR (Brazilian Portuguese), es-AR (Argentina Spanish) and ru-RU (Russian) and are localization folders. The WedgePlugins folder contains various plugin files for RADAR, MIRTH, Ensemble, etc…

**Services Configuration Wizard**

With the release of build 42 to decrease the chance of losing configuration setting and missing new configuration options, we will no longer include the configuration files in the release in the main set of files, but they will now exist in a "deploy" folder, which will contain the three site configurable config files; applicationsettings, connectionstrings, and services as well as a copy of the rRISServices.exe configuration file. The contents of this folder should not be required to be touched.

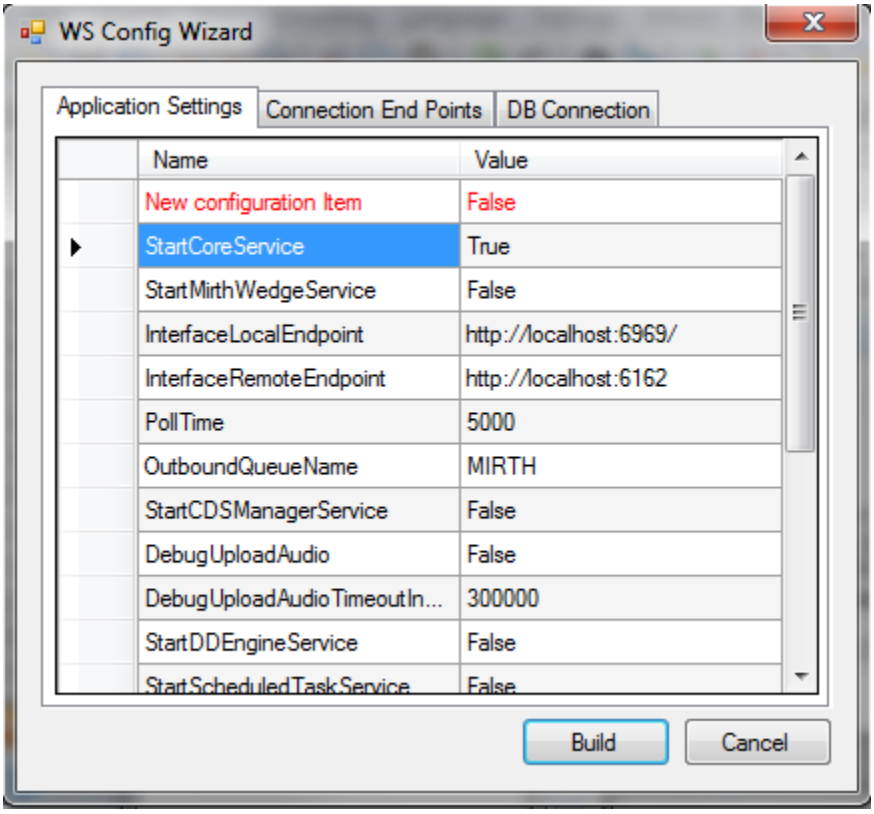
On the install of a new service, all files will be copied to the appropriate locations on the server (no configurations will be over written). If instructed or to confirm no new configurations have been added the user can run the new application "ServicesConfigWizard.exe"

This application will read the existing configuration file(s) (if files exist), and compare to the provided new configuration files then will display three tabs, for each configuration file:

**Application Settings:** all existing configuration value will be displayed, if there are any new configuration entries they will be displayed in red.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

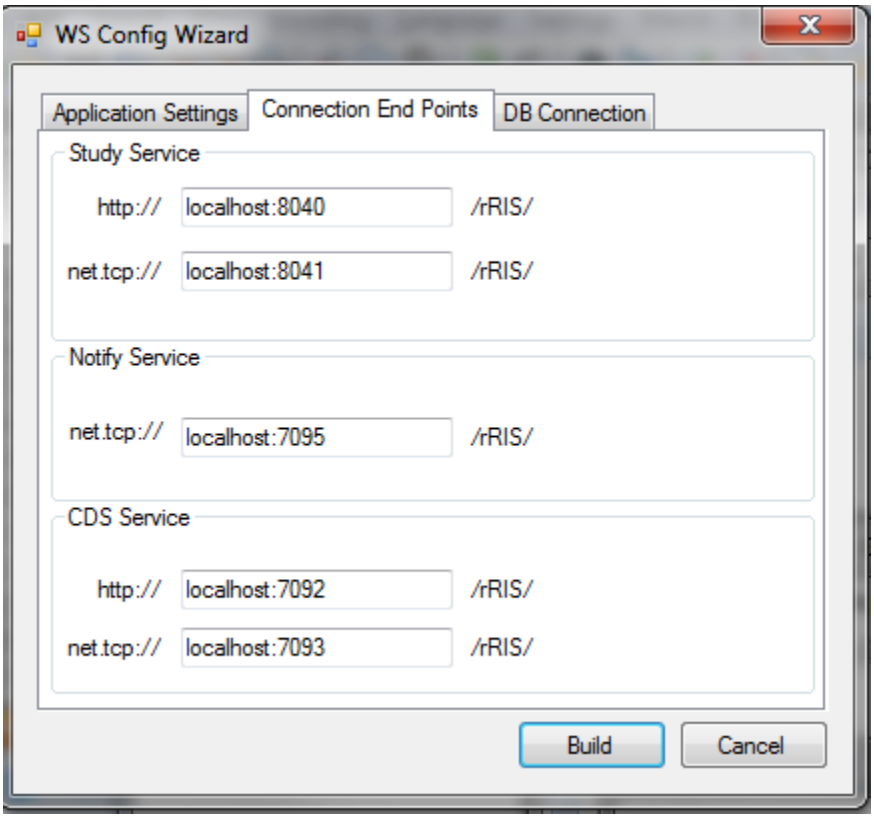
in any form or by any means without the prior written permission from eRAD. 




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

**Connection End Points:** will display the existing configuration, if the value is left blank then that entry will not be created, in the case of "Study Service" or "CDS Service" if both http and net.tcp were not provided then that endpoint will not be created at all.




## DATABASE UPDATES

Always run the upgrade scripts in a test environment of the actual database to make sure they run cleanly. If any errors occur please contact development.

*Note: There is a new upgrade process introduced with B43.1 called "RunUpgrade.bat". The batch file will open a command window. This process will prompt you for the database server name, database name and authentication credentials. There is no need to run the database upgrade scripts manually as was done in previous releases.*

1) From the upgrade folder, double click the "RunUpgrade.bat" command file.

2) Enter the server name, database name and authentication credentials to the database. You have 2 choices for authentication credentials.

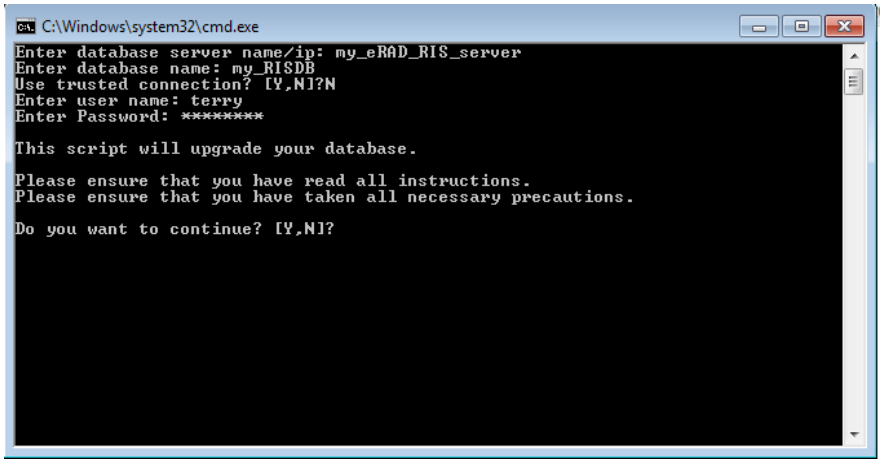
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

3) You can choose to use “Trusted connection”. Using this option will pass the identity of the currently logged on user. If this user has “db_owner” access to the eRAD RIS database then feel free to use this options.

4) If you decide not to use “Trusted connection” then you will be prompted for user id and password.

   Example:




5) After the upgrade program has finished you can find the upgrade logs in the “log” folder. The file name will be eRAD_RIS_db_upgrade_timestamp.log, where timestamp is a value representing the date and time the upgrade started. If you see any errors please contact the development team

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

# Server Update

For eRAD RIS

Version 3.0

Build 3.2017.6

Update 3.2017.6.13

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

# Table of Contents

Package Contents ..... 3

Intended Audience ..... 3

Who is affected ..... 3

Resolved items ..... 4

Code Stream ..... 5

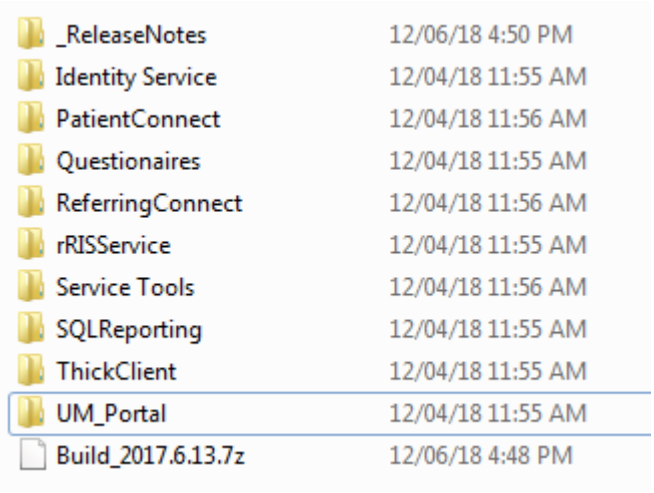
eRAD RIS Release Version Numbers ..... 6

Installing ..... 7

- Client/GUI ..... 7
- Web Service ..... 7

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## PACKAGE CONTENTS




## INTENDED AUDIENCE

The intended audience for this document is the RadNet Clinical Systems team and the eRAD Support/Service team.

It is appropriate to share the document with any customers applying the patch, in order to review new feature descriptions and resolved defects.

## WHO IS AFFECTED

Build 2017.6 installs. This server update must be applied to 2017.6.12.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

## RESOLVED ITEMS

| Redmine # for 2017.6.13 | Subject |
|---|---|
| 23386 | Resolved several display issues when printing diagnostic reports from the Provider Portal. To take full advantage of the changes, ensure that reports are configured with Interactive sizing turned off in the report builder. |
| 23294 | To resolve an issue with PACS IW integration using accession number, two changes have been made. The first change is pertinent for ALL PACS integrations.<br>1. When any Linked study is opened for dictation, RIS will evaluate the non-primary linked studies for PACS Correction, even if previously marked as PACS Corrected. If the images are found to be unavailable in PACS, RIS will not attempt to load them.<br>2. The PACS IW integration will not return the accession number if an external ID or performed study instance UID is not present. The RIS client asks each PACS integration what identifier it should use for a particular study. If none is returned, RIS will not attempt to load the study. A new config option for IW called 'CheckExternalIDsInAccessionMode' has been added to control this behavior. It is true by default and looks like the following when disabled:<br><config><br><UseAccessions>true</UseAccessions><br><CheckExternalIDsInAccessionMode>false</CheckExternalIDsInAccessionMode><br></config><br>This setting has no effect if UseAccessions is false or not specified. |
| 23357 | When PACS image byte array conversion fails, trace log entry will no longer fail. |

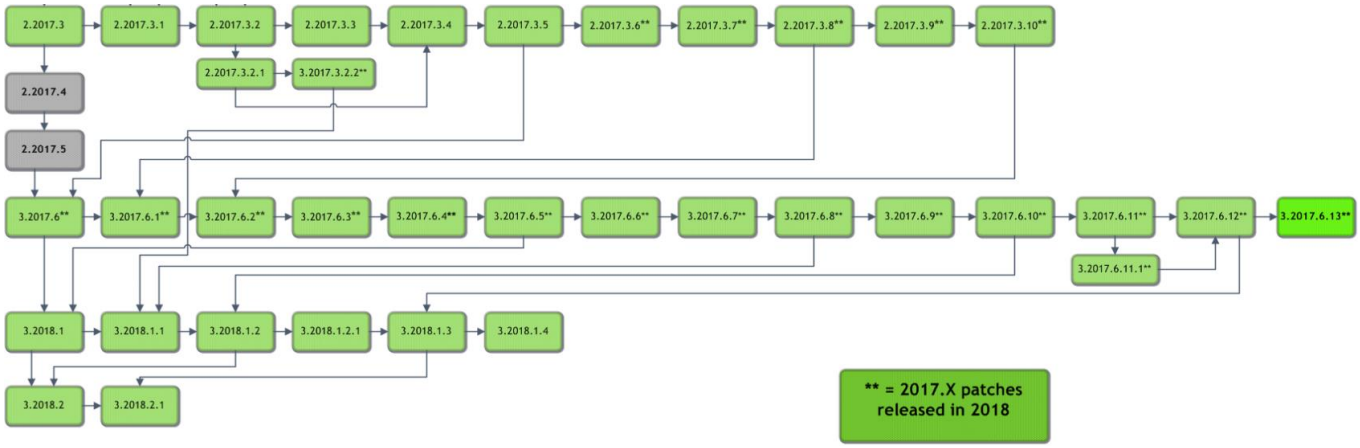
The following fixes from other versions and are included with this patch.

| Redmine # for 2018.1.6 | Redmine # for 2017.6.13 | Subject |
|---|---|---|
| 23093 | 233366 | Resolved issue with viewing images for linked exams in the Provider Portal. |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## CODE STREAM




## Legend:

**Light Green = Previously Released software**

**Gray = Internal version, non-release version**

**Bright Green = Current Release**

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## ERAD RIS RELEASE VERSION NUMBERS

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Digital Forms | Patient Portal | UM Portal | Provider Portal | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| 2017.3 | - | 2.17.3.0(3GB) | 2.17.3.0 | 2.17.3.0 | 2.17.3.0.00764112 | 2.17.3.0 | 2.17.3.0.321 | 2.17.3.0.321 | 2.17.3.0.321 | Full Version Release. Including Patient, Provider and UM Portals |
| 2017.3 | 1 | 2.17.3.1(3GB) | 2.17.3.0 | 2.17.3.1 | 2.17.3.1.00846328 | 2.17.3.1 | 2.17.3.1.853299 | 2.17.3.1.853301 | 2.17.3.1.856171 | GUI, Web Sevice, DB. Including Patient, Provider and UM Portals |
| 2017.3 | 2 | 2.17.3.2(3GB) | 2.17.3.0 | 2.17.3.2 | 2.17.3.2.00898348 | 2.17.3.2 | 2.17.3.2.913898 | 2.17.3.2.913899 | 2.17.3.1.856171 | GUI, Web Sevice, DB. Including Patient, Provider and UM Portals |
| 2017.3 | 2.1 | 2.17.3.2.1(3GB) | 2.17.3.0 | 2.17.3.2 | 2.17.3.2.00898348 | 2.17.3.2 | 2.17.3.2.913898 | 2.17.3.2.913899 | 2.17.3.1.856171 | GUI Only |
| 2017.3 | 2.2 | 2.17.3.2.1(3GB) | 2.17.3.0 | 2.17.3.2.2 | 2.17.3.2.00898348 | 2.17.3.2 | 2.17.3.2.913898 | 2.17.3.2.913899 | 2.17.3.1.856171 | Web Services only |
| 2017.3 | 3 | 2.17.3.3(3GB) | 2.17.3.0 | 2.17.3.3 | 2.17.3.3.00954008 | 2.17.3.2 | 2.17.3.3.962869 | 2.17.3.3.962870 | 2.17.3.3.962870 | GUI, Web Sevice, DB. Including Patient, Provider and UM Portals |
| 2017.3 | 4 | 2.17.3.4(3GB) | 2.17.3.0 | 2.17.3.4 | 2.17.3.4.00987562 | 2.17.3.2 | 2.17.3.3.962869 | 2.17.3.3.962870 | 2.17.3.3.962870 | GUI, Web Sevice and DB |
| 2017.3 | 5 | 2.17.3.5(3GB) | 2.17.3.0 | 2.17.3.5 | 2.17.3.5.01023250 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | GUI, Web Sevice, DB, Patient Portal, Referring Portal, UM Portal |
| 2017.3 | 6 | 2.17.3.6(3GB) | 2.17.3.0 | 2.17.3.6 | 2.17.3.6.01065114 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | GUI, Web Sevice, DB, |
| 2017.3 | 7 | 2.17.3.7(3GB) | 2.17.3.0 | 2.17.3.6 | 2.17.3.6.01065114 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | GUI |
| 2017.3 | 8 | 2.17.3.8(3GB) | 2.17.3.0 | 2.17.3.8 | 2.17.3.6.01065114 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | GUI and Web Service |
| 2017.3 | 9 | 2.17.3.8(3GB) | 2.17.3.0 | 2.17.3.9 | 2.17.3.6.01065114 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | Web Service |
| 2017.3 | 10 | 2.17.3.10(3GB) | 2.17.3.0 | 2.17.3.10 | 2.17.3.10.01125764 | 2.17.3.2 | 2.17.3.5.1023087 | 2.17.3.5.1025862 | 2.17.3.5.1023087 | GUI, Web Service and DB updates |
| 2017.6 | - | 3.17.6.0(3GB) | 3.17.6.0 | 3.17.6.0 | 3.17.6.0.01037550 | 3.17.6.0 | 3.17.6.0.1037868 | 3.17.6.0.1037869 | 3.17.6.0.1037869 | Full Version Release. Including Patient, Provider and UM Portals |
| 2017.6 | 1 | 3.17.6.1(3GB) | 3.17.6.0 | 3.17.6.1 | 3.17.6.1.01094077 | 3.17.6.0 | 3.17.6.0.1037868 | 3.17.6.0.1037869 | 3.17.6.0.1037869 | GUI, Web Service and DB updates |
| 2017.6 | 2 | 3.17.6.2(3GB) | 3.17.6.0 | 3.17.6.2 | 3.17.6.2.01130171 | 3.17.6.2 | 3.17.6.2.1138297 | 3.17.6.2.1138298 | 3.17.6.2.1138298 | GUI, Web Service, DB, Patient, Provider and UM Portals and Digital Forms |
| 2017.6 | 3 | 3.17.6.3(3GB) | 3.17.6.0 | 3.17.6.3 | 3.17.6.3.01166033 | 3.17.6.3 | 3.17.6.3.1168622 | 3.17.6.3.1168622 | 3.17.6.3.1168623 | GUI, Web Service, DB, Patient, Provider and UM Portals and Digital Forms |
| 2017.6 | 4 | 3.17.6.4(3GB) | 3.17.6.0 | 3.17.6.4 | 3.17.6.4.01187509 | 3.17.6.4 | 3.17.6.4.1190295 | 3.17.6.4.1190295 | 3.17.6.4.1190295 | GUI, Web Service, DB, Patient, Provider and UM Portals and Digital Forms |
| 2017.6 | 5 | 3.17.6.5(3GB) | 3.17.6.0 | 3.17.6.5 | 3.17.6.4.01187509 | 3.17.6.4 | 3.17.6.5.1199064 | 3.17.6.5.1199063 | 3.17.6.5.1199064 | GUI, Web Service, Patient, Provider and UM Portals |
| 2017.6 | 6 | 3.17.6.6(3GB) | 3.17.6.0 | 3.17.6.6 | 3.17.6.6.01236363 | 3.17.6.4 | 3.17.6.5.1199064 | 3.17.6.5.1199063 | 3.17.6.5.1199064 | GUI, Web Service and DB updates |
| 2017.6 | 7 | 3.17.6.7(3GB) | 3.17.6.0 | 3.17.6.7 | 3.17.6.7.01257812 | 3.17.6.7 | 3.17.6.7.1266287 | 3.17.6.7.1266287 | 3.17.6.7.1266287 | GUI, Web Service, DB, Digital Forms, Patient, Provider and UM portals |
| 2017.6 | 8 | 3.17.6.8(3GB) | 3.17.6.0 | 3.17.6.8 | 3.17.6.8.01276873 | 3.17.6.8 | 3.17.6.8.1280869 | 3.17.6.8.1280870 | 3.17.6.8.1280869 | GUI, Web Service, DB, Digital Forms, Patient, Provider and UM portals |
| 2017.6 | 9 | 3.17.6.8(3GB) | 3.17.6.0 | 3.17.6.8 | 3.17.6.8.01276873 | 3.17.6.8 | 3.17.6.9.1308097 | 3.17.6.9.1308098 | 3.17.6.9.1308098 | Patient, Provider and UM portals |
| 2017.6 | 10 | 3.17.6.10(3GB) | 3.17.6.0 | 3.17.6.10 | 3.17.6.10.01335594 | 3.17.6.10 | 3.17.6.10.1331371 | 3.17.6.10.1331372 | 3.17.6.10.1331372 | GUI, Web Service, DB, Digital Forms, Patient, Provider and UM portals |
| 2017.6 | 11 | 3.17.6.11(3GB) | 3.17.6.0 | 3.17.6.10 | 3.17.6.11.01347408 | 3.17.6.10 | 3.17.6.10.1331371 | 3.17.6.10.1331372 | 3.17.6.10.1331372 | GUI and DB updates |
| 2017.6 | 11.1 | 3.17.6.11.1(3GB) | 3.17.6.0 | 3.17.6.11.1 | 3.17.6.11.01437968 | 3.17.6.10 | 3.17.6.10.1331371 | 3.17.6.10.1331372 | 3.17.6.10.1331372 | GUI, Web Service, DB, |
| 2017.6 | 12 | 3.17.6.12(3GB) | 3.17.6.0 | 3.17.6.12 | 3.17.6.12.01439318 | 3.17.6.12 | 3.17.6.12.1439203 | 3.17.6.12.1439204 | 3.17.6.12.1439204 | GUI, Web Service, DB, Digital Forms, Patient, Provider and UM portals |
| **2017.6** | **13** | **3.17.6.13(3GB)** | **3.17.6.0** | **3.17.6.13** | **3.17.6.12.01439318** | **3.17.6.13** | **3.17.6.13.1538631** | **3.17.6.13.1538632** | **3.17.6.13.1538632** | **GUI, Web Service, Digital Forms, Patient, Provider and UM portals** |
| 2018.1 | - | 3.18.1.0(3GB) | 3.18.1.0 | 3.18.1.0 | 3.18.1.0.01228009 | 3.18.1.0 | 3.18.1.0.1229289 | 3.18.1.0.1229290 | 3.18.1.0.1229290 | Full version release |
| 2018.1 | 1 | 3.18.1.1(3GB) | 3.18.1.0 | 3.18.1.1 | 3.18.1.1.01288419 | 3.18.1.1 | 3.18.1.1.1299765 | 3.18.1.1.1299766 | 3.18.1.1.1299765 | GUI, Web Service, DB, Digital Forms, Patient, Provider and UM portals |
| 2018.1 | 2 | 3.18.1.2(3GB) | 3.18.1.0 | 3.18.1.2 | 3.18.1.2.01341771 | 3.18.1.2 | 3.18.1.2.1355946 | 3.18.1.2.1355947 | 3.18.1.2.1355947 | GUI, Web Service, DB, Digital Forms, Patient, Provider and UM portals |
| 2018.1 | 2.1 | 3.18.1.2.1(3GB) | 3.18.1.0 | 3.18.1.2.1 | 3.18.1.2.01341771 | 3.18.1.2 | 3.18.1.2.1355946 | 3.18.1.2.1355947 | 3.18.1.2.1355947 | GUI and Web Service |
| 2018.1 | 3 | 3.18.1.3(3GB) | 3.18.1.0 | 3.18.1.3 | 3.18.3.0.01471392 | 3.18.1.3 | 3.18.1.3.1466761 | 3.18.1.3.1466762 | 3.18.1.3.1466762 | GUI, Web Service, DB, Management Reports, Digital Forms, Patient, Provider and UM portals |
| 2018.1 | 4 | 3.18.1.4(3GB) | 3.18.1.0 | 3.18.1.4 | 3.18.1.4.01518863 | 3.18.1.4 | 3.18.1.4.1527377 | 3.18.1.4.1527379 | 3.18.1.4.1527378 | GUI, Web Service, DB, Digital Forms, Patient, Provider and UM portals |
| 2018.2 | - | 3.18.2(3GB) | 3.18.2.0 | 3.18.2.0 | 3.18.2.0.01412126 | 3.18.2.0 | 3.18.2.0.1416370 | 3.18.2.0.1416371 | 3.18.2.0.1416371 | Full Version Release. Including Patient, Provider and UM Portals |
| 2018.2 | 1 | 3.18.2.1(3GB) | 3.18.2.0 | 3.18.2.1 | 3.18.2.1.01490049 | 3.18.2.1 | 3.18.2.1.1509822 | 3.18.2.1.1509823 | 3.18.2.1.1509822 | GUI, Web Service, DB, Management Reports, Digital Forms, Patient, Provider and UM portals |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

# INSTALLING

## CLIENT/GUI

Copy and replace the current rRIS…zip file with the eRAD_rRIS_2017.6.13.zip file provided with this release.

Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

## WEB SERVICE

This updated is only required for the Wedge Web Services. The Core RIS Service and Document Distribution Service are not required to be updated.

1. The web service upgrade consists of replacing the files in the RIS Web Service directory with the files supplied in the rRISService folder with this build. Always create a backup of the files being replaced. This upgrade includes 141 files in the rRISService folder and 7 sub folders. Of those folders, 1 is a folder titled **"XSL"** that contains a sub folder and files within the subfolder. Another folder is titled **"deploy"** that contains the new .config files that will be deployed with the user of the file called "ServicesConfigWizard.exe" (see instructions below). Folders ar (Arabic), en_AU (Australian English), en-ZA (South Africa), he (Hebrew), pt_BR (Brazilian Portuguese), es-AR (Argentina Spanish) and ru-RU (Russian) and are localization folders. The WedgePlugins folder contains various plugin files for RADAR, MIRTH, Ensemble, etc…

**Services Configuration Wizard**

With the release of 42 to decrease the chance of losing configuration setting and missing new configuration options, we will no longer include the configuration files in the release in the main set of files, but they will now exist in a "deploy" folder, which will contain the three site configurable config files; applicationsettings, connectionstrings, and services as well as a copy of the rRISServices.exe configuration file. The contents of this folder should not be required to be touched.

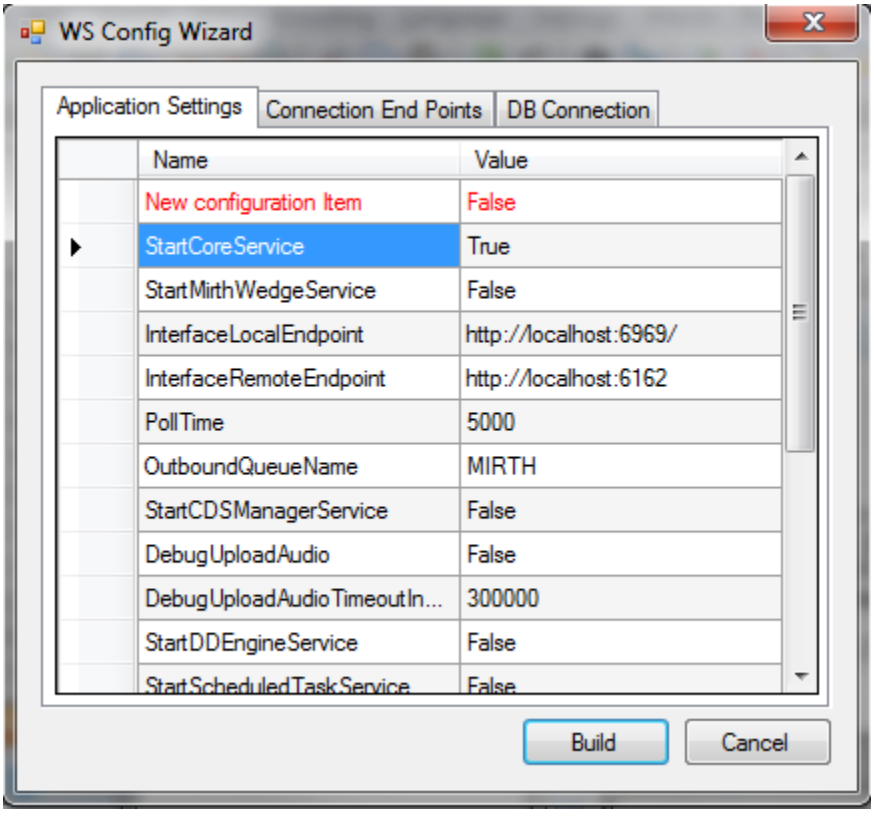
On the install of a new service, all files will be copied to the appropriate locations on the server (no configurations will be over written). If instructed or to confirm no new configurations have been added the user can run the new application "ServicesConfigWizard.exe"

This application will read the existing configuration file(s) (if files exist), and compare to the provided new configuration files then will display three tabs, for each configuration file:

**Application Settings:** all existing configuration value will be displayed, if there are any new configuration entries they will be displayed in red.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

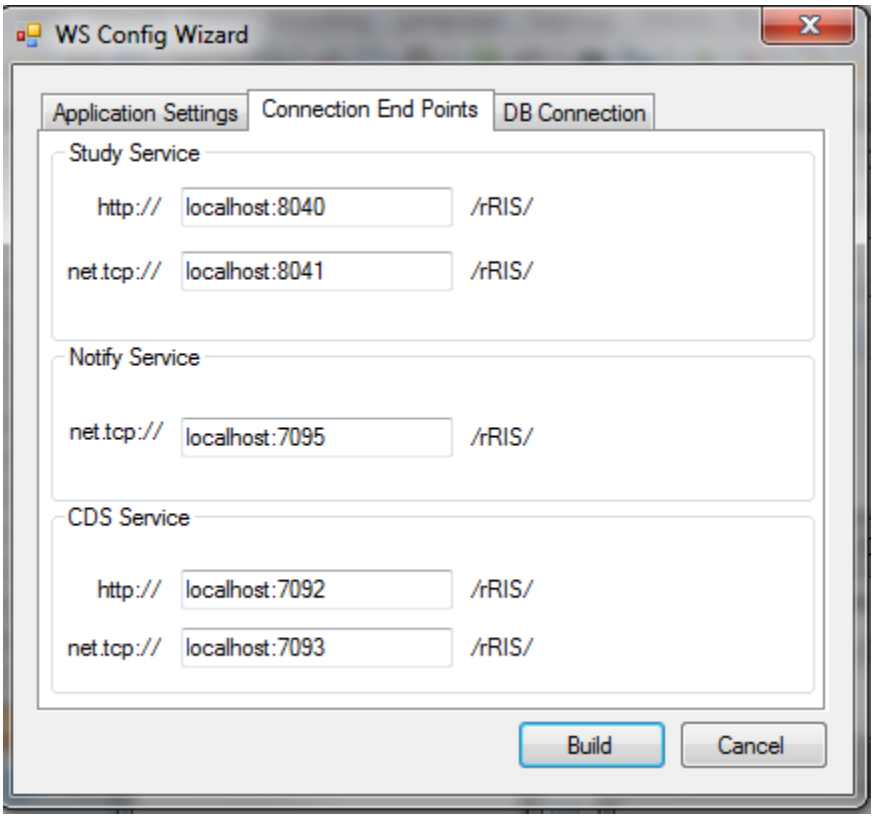
in any form or by any means without the prior written permission from eRAD. 




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

**Connection End Points:** will display the existing configuration, if the value is left blank then that entry will not be created, in the case of “Study Service” or “CDS Service” if both http and net.tcp were not provided then that endpoint will not be created at all.




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

# Server Update

For eRAD RIS

Version 3.0

Build 3.2017.6

Update 3.2017.6.14

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

# Table of Contents

Package Contents....3

Intended Audience....3

Who is affected....3

New Settings....4

System Configuration.... 4

New Features....5

Features #23675, 23719, 23720 - IMPROVEMENTS TO PRINTING REPORTS FROM PROVIDER, PATIENT AND UTILIZATION MANAGEMENT PORTALS.... 5

Code Stream....8

eRAD RIS Release Version Numbers....9

Installing....10

Client/GUI....10

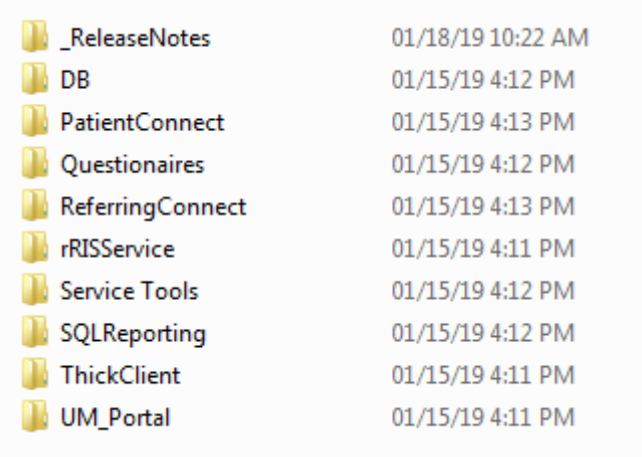
Web Service....10

Database Updates....12

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## PACKAGE CONTENTS




## INTENDED AUDIENCE

The intended audience for this document is the RadNet Clinical Systems team and the eRAD Support/Service team.

It is appropriate to share the document with any customers applying the patch, in order to review new feature descriptions and resolved defects.

## WHO IS AFFECTED

Build 2017.6 installs. This server update must be applied to 2017.6.12.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

# NEW SETTINGS

## SYSTEM CONFIGURATION

| Setting | Default | Purpose |
|---|---|---|
| PortalDiagnosticReportPDFPrint | False | (value = True/False) Determines if the portal print button will provide a PDF or HTML version of the diagnostic report. Set to False (default) to use the pre-existing HTML report format. Set to True to provide the report for printing in a PDF format. |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

## NEW FEATURES

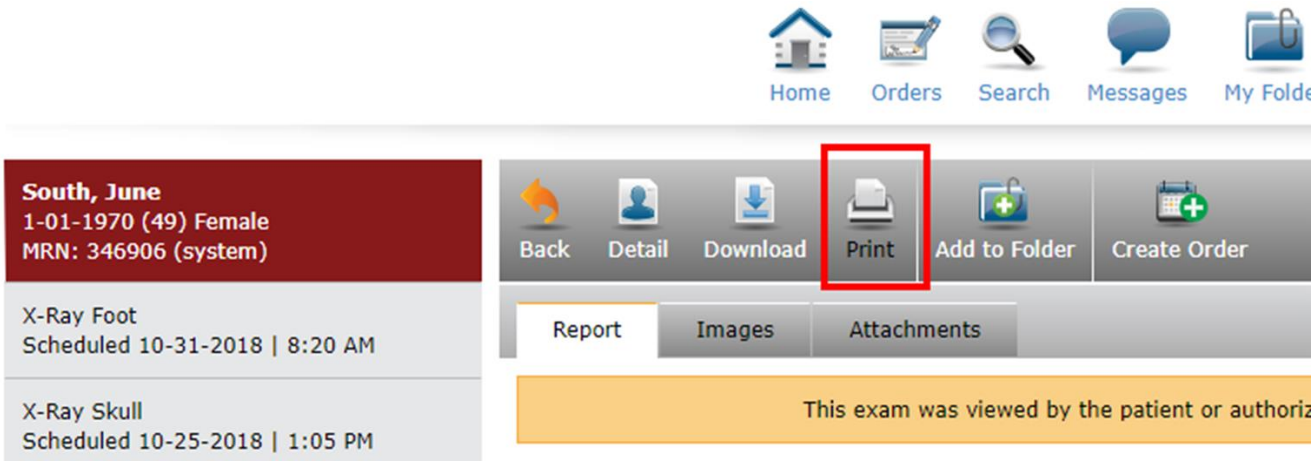
### FEATURES #23675, 23719, 23720 - IMPROVEMENTS TO PRINTING REPORTS FROM PROVIDER, PATIENT AND UTILIZATION MANAGEMENT PORTALS

Previously, the main option for printing reports from the eRAD Connect Portals was to print an HTML version of the report. There are some disadvantages to printing the report from HTML because it is not possible to control all of the formatting details. For example, HTML does not support headers and footers at the top and bottom of each printed page. Instead, it prints only one header on the first page and one footer at the end of the content on the last page. It was possible to print from PDF, which provides a report with the same formatting and pagination as a report printed directly from the RIS, but the process to do this was not intuitive or efficient, as the user had to click the Download button, fill in additional information, and then print the downloaded report.

This feature provides a configuration option to replace HTML printing with PDF printing, so that the user can receive a printed copy of the report from the portal in a format that maintains proper positioning of headers and footers on each page. The printed report will be very similar, if not identical, to the same report printed directly from the RIS.

A new System Configuration option has been added to select the desired behavior for the Print button: **PortalDiagnosticReportPDFPrint**. The default setting is False which will maintain the current HTML printing behavior. Setting this configuration to True will replace the HTML printing with the printing behavior described below.

When the user clicks the Print button (emphasized in the image below), the portal will launch a PDF of the report in an embedded web page.




From here, the user will be able to view the report exactly as it will be printed. They can select the Print icon to launch their operating system's normal print engine.

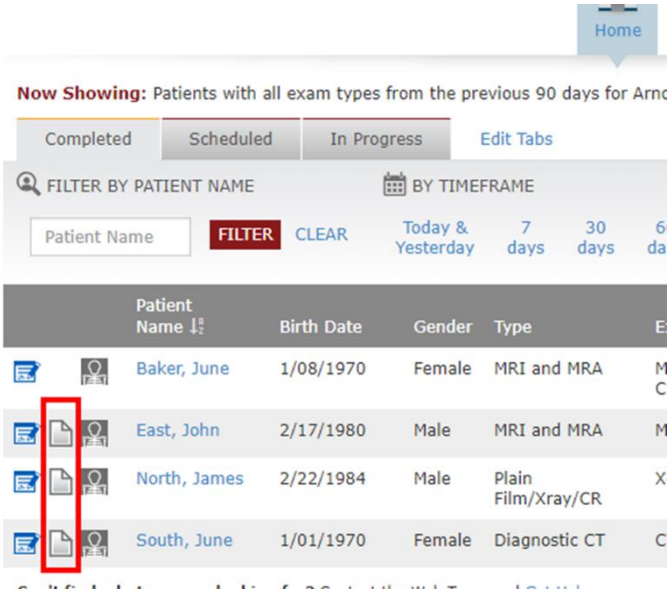
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

Unless the user wishes to alter the default settings in their system's print engine, this should result in a 3 click workflow:

1. Click One – Indicate to the portal that the report is to be printed, which will launch the embedded PDF.
2. Click Two – After viewing the preview, click Print to initiate the system print engine.
3. Click Three – Confirm the default system settings to initiate the print job.

In addition to these changes, the report icon on the main worklist and search results list in the Provider and Utilization Management Portals will be modified to immediately launch the report in the embedded PDF version of the report.




If the report is unavailable due to an unexpected error, such as the SSRS report server being unavailable, the user will be presented with a PDF version of the message from the existing System Configuration setting PortalReportUnavailableMessage.

If the user prints directly from one of the worklist icons instead of printing from the Patient Folder, notification messages will not be visible. However, the Report tab on the patient folder will continue to use the HTML engine to render the report. This ***will*** allow for the display of notifications and will provide an uninterrupted reading experience for users who wish to view the results from within the portal.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

It is possible that the user will right-click and select Print from the hidden browser context menu, which would result in an HTML-formatted report with only a single header and footer.

Some limitations of the print from PDF printing strategy are listed below. The existing HTML printing option is still the default and any customers who find these limitations to be undesirable can continue to use the HTML printing option by leaving the System Configuration set to False.

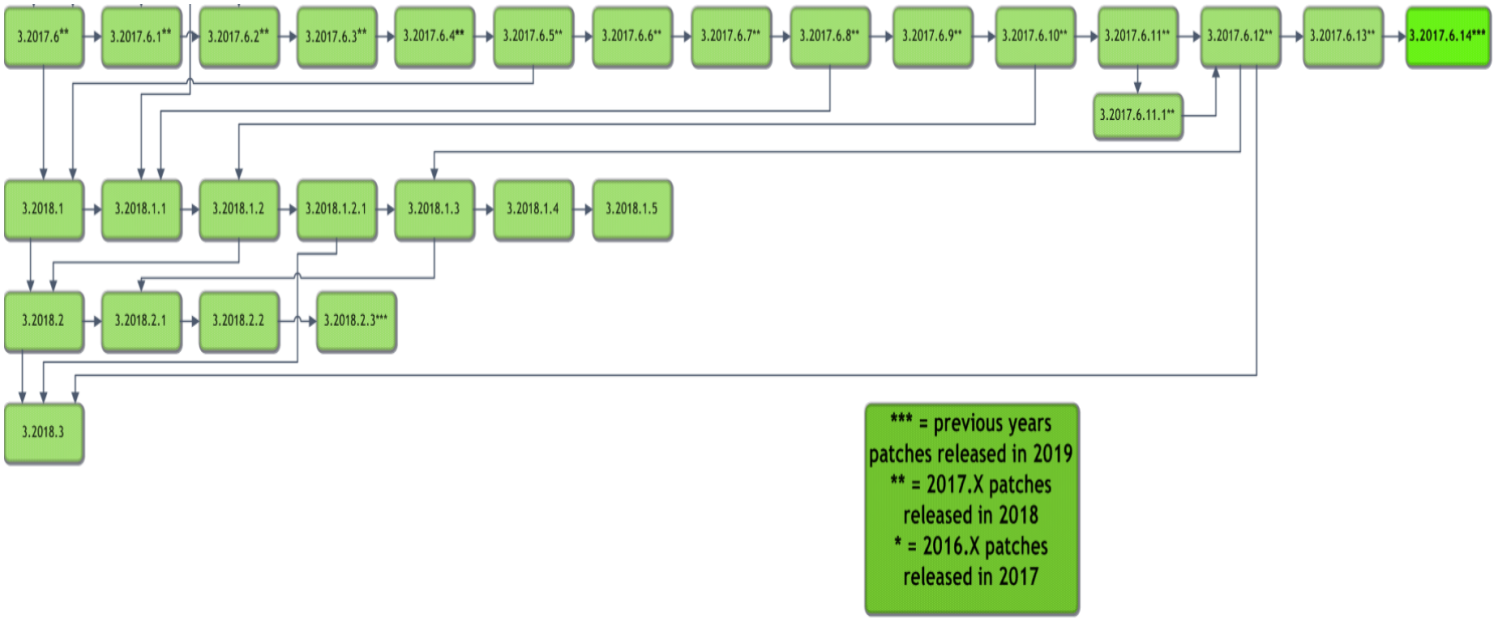
1. When viewing an embedded PDF in a web page, the page will generally be launched without prompting to download the file. However, this is a computer-based setting. If the user has selected this browser option, the portal cannot override this setting and the user would need to acknowledge the browser's prompt to continue.
2. Despite the fact that the document appears to be in a web page, it has in fact been downloaded to cache prior to opening. Therefore, the report (PHI) exists on the local PC after this action has been performed.

In general, the new print from PDF option produces a report that is more professionally formatted and matches the reports that are printed directly from the RIS.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

## CODE STREAM




**Legend:**

Light Green = Previously Released software

Gray = Internal version, non-release version

Bright Green = Current Release

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission from eRAD.

## ERAD RIS RELEASE VERSION NUMBERS

| Build | Patch | UI Version | Core Version | WS Version | DB Version | Digital Forms | Patient Portal | UM Portal | Provider Portal | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| 2017.6 | - | 3.17.6.0(3GB) | 3.17.6.0 | 3.17.6.0 | 3.17.6.0.01037550 | 3.17.6.0 | 3.17.6.0.1037868 | 3.17.6.0.1037869 | 3.17.6.0.1037869 | Full Version Release. Including Patient, Provider and UM Portals |
| 2017.6 | 1 | 3.17.6.1(3GB) | 3.17.6.0 | 3.17.6.1 | 3.17.6.1.01094077 | 3.17.6.0 | 3.17.6.0.1037868 | 3.17.6.0.1037869 | 3.17.6.0.1037869 | GUI, Web Service and DB updates |
| 2017.6 | 2 | 3.17.6.2(3GB) | 3.17.6.0 | 3.17.6.2 | 3.17.6.2.01130171 | 3.17.6.2 | 3.17.6.2.1138297 | 3.17.6.2.1138298 | 3.17.6.2.1138298 | GUI, Web Service, DB, Patient, Provider and UM Portals and Digital Forms |
| 2017.6 | 3 | 3.17.6.3(3GB) | 3.17.6.0 | 3.17.6.3 | 3.17.6.3.01166033 | 3.17.6.3 | 3.17.6.3.1168622 | 3.17.6.3.1168622 | 3.17.6.3.1168623 | GUI, Web Service, DB, Patient, Provider and UM Portals and Digital Forms |
| 2017.6 | 4 | 3.17.6.4(3GB) | 3.17.6.0 | 3.17.6.4 | 3.17.6.4.01187509 | 3.17.6.4 | 3.17.6.4.1190295 | 3.17.6.4.1190295 | 3.17.6.4.1190295 | GUI, Web Service, DB, Patient, Provider and UM Portals and Digital Forms |
| 2017.6 | 5 | 3.17.6.5(3GB) | 3.17.6.0 | 3.17.6.5 | 3.17.6.4.01187509 | 3.17.6.4 | 3.17.6.5.1199064 | 3.17.6.5.1199063 | 3.17.6.5.1199064 | GUI, Web Service, Patient, Provider and UM Portals |
| 2017.6 | 6 | 3.17.6.6(3GB) | 3.17.6.0 | 3.17.6.6 | 3.17.6.6.01236363 | 3.17.6.4 | 3.17.6.5.1199064 | 3.17.6.5.1199063 | 3.17.6.5.1199064 | GUI, Web Service and DB updates |
| 2017.6 | 7 | 3.17.6.7(3GB) | 3.17.6.0 | 3.17.6.7 | 3.17.6.7.01257812 | 3.17.6.7 | 3.17.6.7.1266287 | 3.17.6.7.1266287 | 3.17.6.7.1266287 | GUI, Web Service, DB, Digital Forms, Patient, Provider and UM portals |
| 2017.6 | 8 | 3.17.6.8(3GB) | 3.17.6.0 | 3.17.6.8 | 3.17.6.8.01276873 | 3.17.6.8 | 3.17.6.8.1280869 | 3.17.6.8.1280870 | 3.17.6.8.1280869 | GUI, Web Service, DB, Digital Forms, Patient, Provider and UM portals |
| 2017.6 | 9 | 3.17.6.8(3GB) | 3.17.6.0 | 3.17.6.8 | 3.17.6.8.01276873 | 3.17.6.8 | 3.17.6.9.1308097 | 3.17.6.9.1308098 | 3.17.6.9.1308098 | Patient, Provider and UM portals |
| 2017.6 | 10 | 3.17.6.10(3GB) | 3.17.6.0 | 3.17.6.10 | 3.17.6.10.01335594 | 3.17.6.10 | 3.17.6.10.1331371 | 3.17.6.10.1331372 | 3.17.6.10.1331372 | GUI, Web Service, DB, Digital Forms, Patient, Provider and UM portals |
| 2017.6 | 11 | 3.17.6.11(3GB) | 3.17.6.0 | 3.17.6.10 | 3.17.6.11.01347408 | 3.17.6.10 | 3.17.6.10.1331371 | 3.17.6.10.1331372 | 3.17.6.10.1331372 | GUI and DB updates |
| 2017.6 | 11.1 | 3.17.6.11.1(3GB) | 3.17.6.0 | 3.17.6.11.1 | 3.17.6.11.01437968 | 3.17.6.10 | 3.17.6.10.1331371 | 3.17.6.10.1331372 | 3.17.6.10.1331372 | GUI, Web Service, DB, |
| 2017.6 | 12 | 3.17.6.12(3GB) | 3.17.6.0 | 3.17.6.12 | 3.17.6.12.01439318 | 3.17.6.12 | 3.17.6.12.1439203 | 3.17.6.12.1439204 | 3.17.6.12.1439204 | GUI, Web Service, DB, Digital Forms, Patient, Provider and UM portals |
| 2017.6 | 13 | 3.17.6.13(3GB) | 3.17.6.0 | 3.17.6.13 | 3.17.6.12.01439318 | 3.17.6.13 | 3.17.6.13.1538631 | 3.17.6.13.1538632 | 3.17.6.13.1538632 | GUI, Web Service, Digital Forms, Patient, Provider and UM portals |
| **2017.6** | **14** | **3.17.6.14(3GB)** | **3.17.6.0** | **3.17.6.14** | **3.17.6.14.01597996** | **3.17.6.14** | **3.17.6.14.1599367** | **3.17.6.14.1599368** | **3.17.6.14.1599368** | **GUI, Web Service, DB, Digital Forms, Patient, Provider and UM portals** |
| 2018.1 | - | 3.18.1.0(3GB) | 3.18.1.0 | 3.18.1.0 | 3.18.1.0.01228009 | 3.18.1.0 | 3.18.1.0.1229289 | 3.18.1.0.1229290 | 3.18.1.0.1229290 | Full version release |
| 2018.1 | 1 | 3.18.1.1(3GB) | 3.18.1.0 | 3.18.1.1 | 3.18.1.1.01288419 | 3.18.1.1 | 3.18.1.1.1299765 | 3.18.1.1.1299766 | 3.18.1.1.1299765 | GUI, Web Service, DB, Digital Forms, Patient, Provider and UM portals |
| 2018.1 | 2 | 3.18.1.2(3GB) | 3.18.1.0 | 3.18.1.2 | 3.18.1.2.01341771 | 3.18.1.2 | 3.18.1.2.1355946 | 3.18.1.2.1355947 | 3.18.1.2.1355947 | GUI, Web Service, DB, Digital Forms, Patient, Provider and UM portals |
| 2018.1 | 2.1 | 3.18.1.2.1(3GB) | 3.18.1.0 | 3.18.1.2.1 | 3.18.1.2.01341771 | 3.18.1.2 | 3.18.1.2.1355946 | 3.18.1.2.1355947 | 3.18.1.2.1355947 | GUI and Web Service |
| 2018.1 | 3 | 3.18.1.3(3GB) | 3.18.1.0 | 3.18.1.3 | 3.18.3.0.01471392 | 3.18.1.3 | 3.18.1.3.1466761 | 3.18.1.3.1466762 | 3.18.1.3.1466762 | GUI, Web Service, DB, Management Reports, Digital Forms, Patient, Provider and UM portals |
| 2018.1 | 4 | 3.18.1.4(3GB) | 3.18.1.0 | 3.18.1.4 | 3.18.1.4.01518863 | 3.18.1.4 | 3.18.1.4.1527377 | 3.18.1.4.1527379 | 3.18.1.4.1527378 | GUI, Web Service, DB, Digital Forms, Patient, Provider and UM portals |
| 2018.1 | 5 | 3.18.1.5(3GB) | 3.18.1.0 | 3.18.1.5 | 3.18.1.5.01547447 | 3.18.1.5 | 3.18.1.5.1561651 | 3.18.1.5.1561652 | 3.18.1.5.1561653 | GUI, Web Service, DB, Digital Forms, Patient, Provider and UM portals |
| 2018.2 | - | 3.18.2(3GB) | 3.18.2.0 | 3.18.2.0 | 3.18.2.0.01412126 | 3.18.2.0 | 3.18.2.0.1416370 | 3.18.2.0.1416371 | 3.18.2.0.1416371 | Full Version Release. Including Patient, Provider and UM Portals |
| 2018.2 | 1 | 3.18.2.1(3GB) | 3.18.2.0 | 3.18.2.1 | 3.18.2.1.01490049 | 3.18.2.1 | 3.18.2.1.1509822 | 3.18.2.1.1509823 | 3.18.2.1.1509822 | GUI, Web Service, DB, Management Reports, Digital Forms, Patient, Provider and UM portals |
| 2018.2 | 2 | 3.18.2.2(3GB) | 3.18.2.0 | 3.18.2.2 | 3.18.2.2.01563299 | 3.18.2.2 | 3.18.2.2.1583286 | 3.18.2.2.1583287 | 3.18.2.2.1583286 | GUI, Web Service, DB, Digital Forms, Patient, Provider and UM portals |
| 2018.2 | 3 | 3.18.2.3 (3GB) | 3.18.2.0 | 3.18.2.3 | 3.18.2.2.01563299 | 3.18.2.3 | 3.18.2.3.1592002 | 3.18.2.3.1592003 | 3.18.2.3.1592003 | GUI, Web Service, Digital Forms, Patient, Provider and UM portals |
| 2018.3 | - | 3.18.3(3GB) | 3.18.3.0 | 3.18.3.0 | 3.18.3.0.01547822 | 3.18.3 | 3.18.3.0 | 3.18.3.0 | 3.18.3.0 | Full Version Release. Including Patient, Provider and UM Portals |

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

# INSTALLING

## CLIENT/GUI

Copy and replace the current rRIS…zip file with the eRAD_rRIS_2017.6.14.zip file provided with this release.

Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

## WEB SERVICE

This updated is only required for the Wedge Web Services. The Core RIS Service and Document Distribution Service are not required to be updated.

1. The web service upgrade consists of replacing the files in the RIS Web Service directory with the files supplied in the rRISService folder with this build. Always create a backup of the files being replaced. This upgrade includes 141 files in the rRISService folder and 7 sub folders. Of those folders, 1 is a folder titled **"XSL"** that contains a sub folder and files within the subfolder. Another folder is titled **"deploy"** that contains the new .config files that will be deployed with the user of the file called "ServicesConfigWizard.exe" (see instructions below). Folders ar (Arabic), en_AU (Australian English), en-ZA (South Africa), he (Hebrew), pt_BR (Brazilian Portuguese), es-AR (Argentina Spanish) and ru-RU (Russian) and are localization folders. The WedgePlugins folder contains various plugin files for RADAR, MIRTH, Ensemble, etc…

**Services Configuration Wizard**

With the release of 42 to decrease the chance of losing configuration setting and missing new configuration options, we will no longer include the configuration files in the release in the main set of files, but they will now exist in a "deploy" folder, which will contain the three site configurable config files; applicationsettings, connectionstrings, and services as well as a copy of the rRISServices.exe configuration file. The contents of this folder should not be required to be touched.

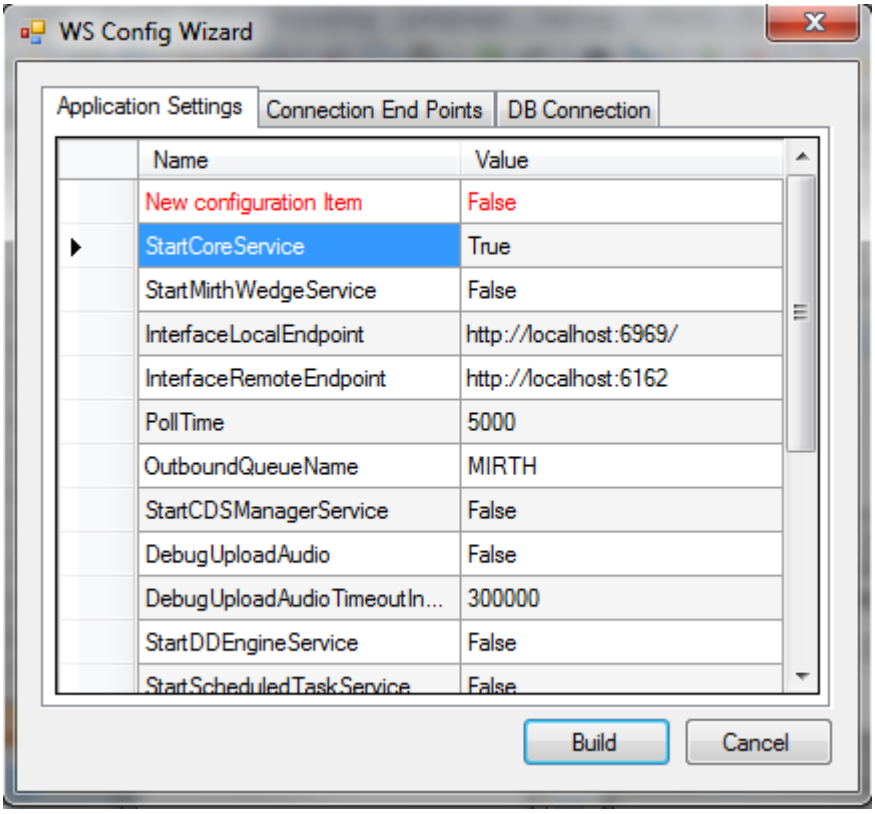
On the install of a new service, all files will be copied to the appropriate locations on the server (no configurations will be over written). If instructed or to confirm no new configurations have been added the user can run the new application "ServicesConfigWizard.exe"

This application will read the existing configuration file(s) (if files exist), and compare to the provided new configuration files then will display three tabs, for each configuration file:

**Application Settings:** all existing configuration value will be displayed, if there are any new configuration entries they will be displayed in red.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

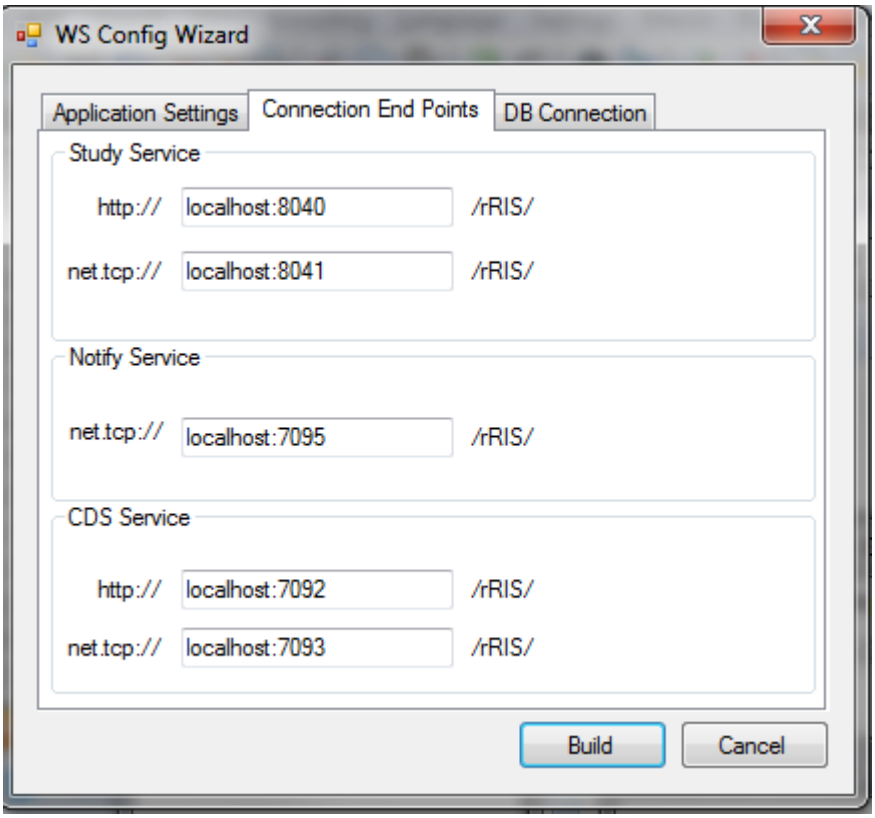
in any form or by any means without the prior written permission from eRAD. 




No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

**Connection End Points:** will display the existing configuration, if the value is left blank then that entry will not be created, in the case of "Study Service" or "CDS Service" if both http and net.tcp were not provided then that endpoint will not be created at all.




## DATABASE UPDATES

Always run the upgrade scripts in a test environment of the actual database to make sure they run cleanly. If any errors occur please contact development.

*Note: There is a new upgrade process introduced with B43.1 called "RunUpgrade.bat". The batch file will open a command window. This process will prompt you for the database server name, database name and authentication credentials. There is no need to run the database upgrade scripts manually as was done in previous releases.*

1) From the upgrade folder, double click the "RunUpgrade.bat" command file.

2) Enter the server name, database name and authentication credentials to the database. You have 2 choices for authentication credentials.

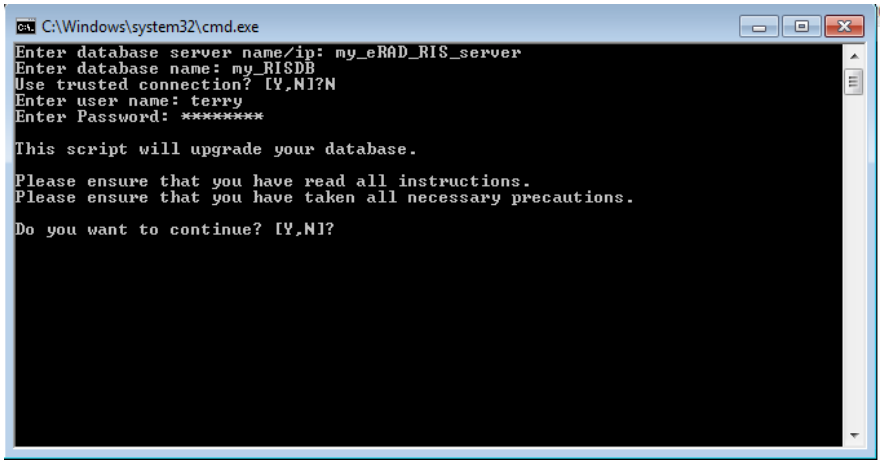
No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD. 

3) You can choose to use “Trusted connection”. Using this option will pass the identity of the currently logged on user. If this user has “db_owner” access to the eRAD RIS database then feel free to use this options.

4) If you decide not to use “Trusted connection” then you will be prompted for user id and password.

   Example:




5) After the upgrade program has finished you can find the upgrade logs in the “log” folder. The file name will be eRAD_RIS_db_upgrade_timestamp.log, where timestamp is a value representing the date and time the upgrade started. If you see any errors please contact the development team

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.