

User Release Notes

for eRAD RIS
Version 2
Build 44.5

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1. Purpose

This document describes some of the new features and changes implemented in eRAD RIS as of the end of Sprint 44.5 and subsequent server releases. This version of eRAD RIS is referred to as Build 2.44.5

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

2. Intended Audience

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

3. Installing/Accessing the Application

The installation guide for the eRAD RIS client have been posted to the RadNet Wiki page at <http://mdbal01rdtweb/Wiki/>

Under the RIS menu click on the rRIS page. The credentials to access the page are:

Username: rRIS

Password: Summerside

Please note that Build 2.44.5 is considered a new release of the application. It does not require a reinstallation of eRAD RIS. If users choose to reinstall, this is accomplished by navigating to the eRAD RIS shared installation drive and running the CoreInstall.bat file (ex: I:\RISDeployment\CoreInstall.bat)

If you experience difficulties accessing the application please do not hesitate to contact Darcy Noye with the PEI RIS Development Team.

4. Existing Access Strings Required for New Feature in B2.44.5

Setting Placeholder	Setting	Default	Purpose / Controls Access to
Access string and User Group Permissions	Clinical.EditPatientFlags	None	Full access to this enables the user to assign patient flags
Access string and User Group Permissions	Clinical.EditPatientFlagsNotes	None	full access to this enables the user to add notes to patient flags
Access string and User Group Permissions	Config.LookupEditor.PatientFlag	None	Provides access to the lookup table PatientFlag

5. New Features and Enhancements

Ability to Add Patient Flags

A new lookup table titled “PatientFlag” has been added in Administration>Configure>General folder. This new table’s access is controlled by the access string “**Config.LookupEditor.PatientFlag**”

In this table an administrator can create a set of attributes that can be attached or tagged to a patient, e.g. “DontSchedule”, “WriteOffAcct”, etc. Based on configuration, these flags can also display a message when the patient is opened in various screens in RIS.

Display a message when the patient is opened in various screens in SAS.

Lookup Tables - PatientFlag * x

Patient Flag Code	Description	Display Order	Display Alert Flag	Last Updated	Active
Contains:	Contains:	Equals:	Contains:	Equals:	Contains:
Click here to add a new row					
Dangerous Flag Code	Dangerous Description	2	Y	07-27-2015 3:04 PM	Y
Do not schedule	Do not schedule this patient	1	Y	07-29-2015 3:06 PM	Y
Steals	Steals from other Patients	3	Y	07-27-2015 3:03 PM	Y

Figure 5.1 – PatientFlag lookup table

The patient flags can be displayed or edited from either the patient folder or from the patient general tab on various screens in RIS. The button on the patient general tab for launching the Patient Flags dialog will change in appearance depending on whether or not there are patient flags attached (it will appear more muted if there are no flags).

Lookup Tables - PatientFlag	Reception WL (1)	Register: SCHEDULEME, Don't #24865PE x
Patient	Patient Notes	Contacts / Demographics
MU	Order	Exams
Image Request (0)	Review	Contact Log
General Information		
Prefix	MRN *	24865PE




Figure 5.2 – Patient Flag button on patient tab that has flags attached

Lookup Tables - PatientFlag	Reception WL (1)	Register: SCHEDULEME, Don't #24865PE * x
Patient	Patient Notes	Contacts / Demographics
MU	Order	Exams
Image Request (0)	Review	Contact Log
General Information		
Prefix	MRN *	24865PE
First*	Sex *	Male




Figure 5.3 – Patient Flag button on patient tab that doesn't have flags attached

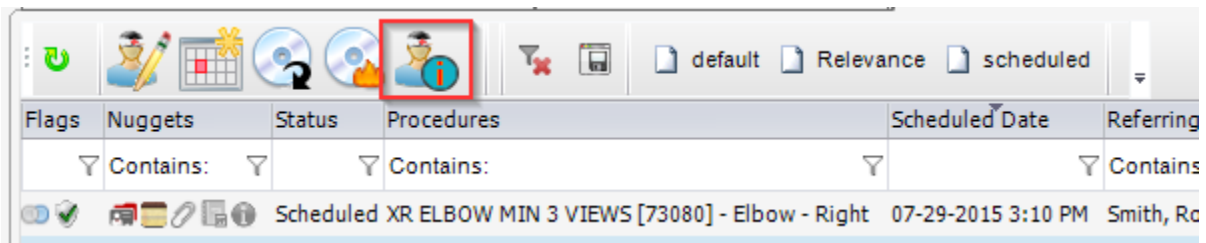


Figure 5.4 – Accessing/adding patient flags from Patient Folder WL

Patient Flags can be attached by checking a checkbox next to the description of the desired flag. To add a note, an authorized user can double click the Notes cell on the list of patient flags and begin editing.

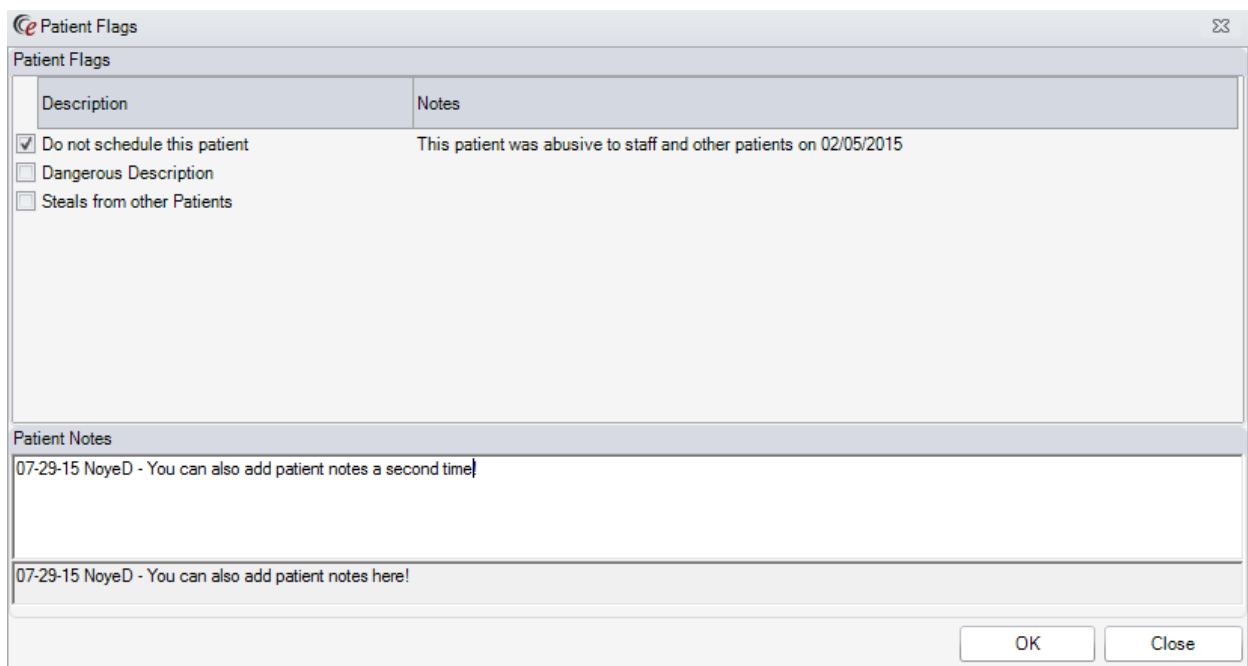


Figure 5.5 – Patient Flags window

When this patient is accessed in a data window (e.g. schedule order, view/edit, registration) the alert will display provided the Patient Flag Code in the PatientFlag lookup table has the column Display Alert Flag set to Y (see figure 5.1). The alert however will not appear in any reporting windows (e.g. dictate, sign reports, create/edit report)

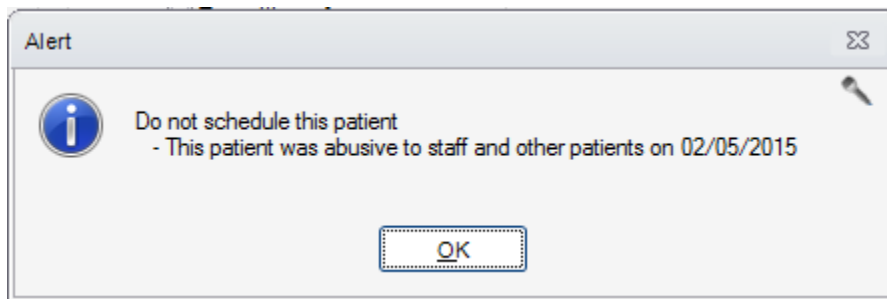


Figure 5.6 – Patient Flag alert

Access to add patient flags are controlled by the new access string of **“Clinical.EditPatientFlags”** which has a default value of None. Users with access will have the Patient Flag button available, will be able to open and add patient flag. The access level of ReadOnly would give the user the ability to see the Patient Flags button and open the Patient Flags window to view the available patient flags, but would not be able to assign.

The ability to add notes to the Patient Flag is controlled by the access string **“Clinical.EditPatientFlagsNotes”** which has a default of None. The Notes field allows the user to attach a note of up to 250 characters to the Patient Flag. The Notes will also be displayed in the alert along with the Patient Flag Code.

If a user has Read Only access and attempts to assign a patient flag they will be presented with message informing they don't have permission to assign

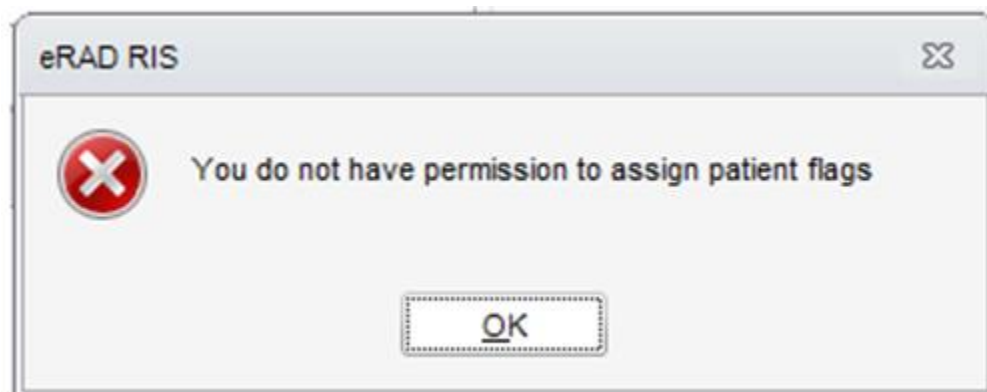


Figure 5.7 – Message presented to user that cannot assign patient flags

Alert on Referring Physician Selected for Order

A new alert has been created to present a pop-up message when a referring physician is selected on the Order Tab. The Personnel table has a new field under the Notes tab titled “Referring Alert Message”. This free form text box will accept up to 2000 characters. The check box Display Alert will determine if the alert pop-up message is presented to the user on the order tab when this Referrer is chosen.

The screenshot shows the 'Notes' tab in the eRAD RIS interface. It contains four text areas: 'Image preference notes', 'Specialty read notes', 'Referring protocol notes', and 'Utilization management notes'. Below these is the 'Referring Alert Message' field, which is highlighted with a red box. To the right of this field is a checked checkbox labeled 'Display Alert'.

Figure 5.8 – Referring Alert Message notes field and Display Alert check box

The alert that is presented to the user will display the Referrer’s name preceded by Alert in the title bar. A check box to acknowledge that the message has been read must be selected in order to enable the Ok button before the message window can be closed.

The screenshot shows a dialog box titled 'Waite, Andrew Alert'. It contains a large text area with placeholder text (Lorem ipsum). Below the text area is a checkbox labeled 'I acknowledge that I have read the above message.' and an 'Ok' button.

Figure 5.9 – Referring alert

Insurance Eligibility – Denied Based On DOS Should Be Conditional

Some insurance plans are renewed monthly. This can cause an issue if the study is scheduled in current month and the appointment is scheduled for the next month (or any future month).

If plan's start and end are the first and last day of the current month and the appointment is for a different month, then we will ignore the DOS check because this insurance gets renewed every month and therefore can only be checked for dates within the current month.

Insurance Eligibility – Fix Calculation of Remaining Deductible

When deductible is listed in the service section and no remaining is specified the remaining needs to be calculated.

Network	Additional Information	Deductible	Deductible Remaining	Maximum	Maximum Remaining	Deductible	Deductible Remaining
IN		\$ 700	\$ 650			\$ 1400	\$ 1350

700-650 == \$50 has been paid to the deductible

Diagnostic X-Ray						
Active Coverage						
Network	Coverage	Type	Value	Period	Authorization Required	
In	Individual	deductible	\$ 350	calendar_year	Yes	
		coinsurance	% 10	calendar_year	Yes	
		copayment	\$ 0	visit	Yes	
In	Family	deductible	\$ 350	calendar_year	Yes	

Remaining for xRay should be:
\$350 - \$50 == \$300

Figure 5.10 – Calculating the remaining deductible

The deductible of \$700 is listed as an In-network deductible, but for services other than radiology services. The problem is that because “deductible remaining” isn’t listed in the service type section, we pull that from the Plan section and get the \$650 value. A code change was made to more accurately determine the remaining deductible.

When deductible is listed in the service section and there is no “deductible remaining”, we will calculate the deductible remaining as follows:

Remaining Deductible = ServiceType.deductible – (Plan.Deductible – Plan.DeductibleRemaining)

Configurable Site Based Insurance Contract

Currently, when NPD does not have a contracted price we use the selfpay price, which is often way price is too high and is resulting in too many refunds.

Added the site field “default_npd_insurance_number ”, which is displayed in the site configuration screen as shown in the following:

The screenshot shows the 'Edit Site' window with the following details:

- Site Section:**
 - Site code *: EL
 - Description*: Eldersburg
 - Phone #: [Redacted]
 - Fax #: [Redacted]
 - Discproducer path: V:\
 - PACS Child Server: PEI Child PACS 2
 - ☒ Mammography Tracking Enabled
 - ☐ Disable BI-RADS Controls
 - Site notes: Some more site notes. Testing123 From Baltimore area- From 695- North take 795-North. Stay on 795 towards the Westminster Route 140-West split. Take exit to Route 91 and
 - Billing inquiries phone#(): -
 - Report template path: [Redacted]
 - Availability template: Eldersburg
 - ☐ Outside Read Location
 - ☐ Insurance required
 - ☒ MU Required
- Billing Section:**
 - NPD client ID: [Redacted]
 - NPD hospital group: [Redacted]
 - NPD site code: [Redacted]
 - Zotec client ID: [Redacted]
 - Zotec location ID: [Redacted]
 - Zotec server: [Redacted]
 - Zotec activation: mm-dd-yyyy [Calendar icon]
 - Eligible Customer ID: [Redacted]
 - NPD insurance number to use when the price is not available: 2905** (highlighted with a red box)
- Contact Section:** (partially visible)

Figure 5.11 – NPD price field on Site lookup

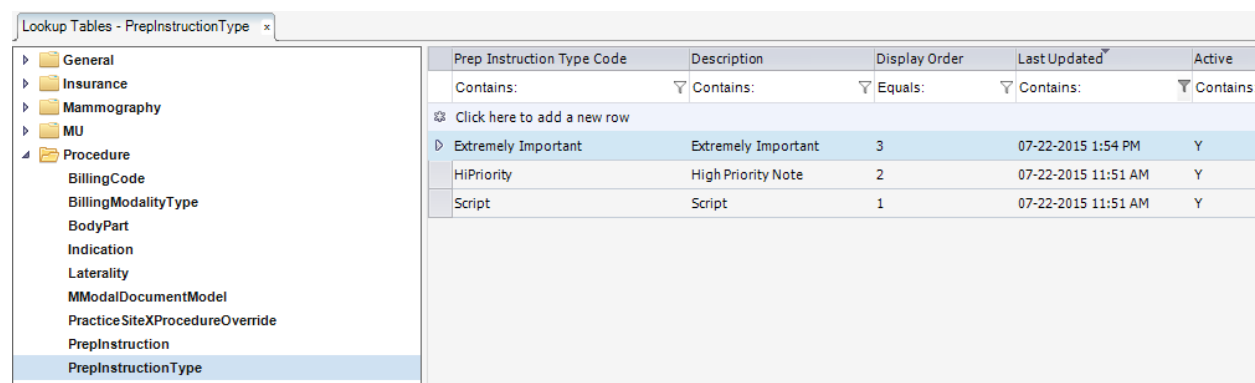
When contacting the NPD for contract pricing, we will first try to send the l_carrier.insurance_co_number, but if that field isn't specified, we will attempt to get the pricing from the NPD with the first 4 digits of the carrier_code. If those requests return an NPD result that does not have a price we will then retry the NPD call with this new alternate NPD insurance number. If the NPD insurance number to use when price is not available isn't specified, then we try using the self-pay number 100.

Alternative Options for Prep Instructions

Although the current prep notes are suitable for some employees, we require the ability to have alternative sets of notes that can be displayed for other users (e.g. some call center users may require a script to be read to the patient verbatim). There should be a user preference that indicates whether an alternative set of notes should be displayed to a user, or if the core notes should be used instead.

Currently, a procedure can have a single prep note attached directly, but that prep note can be overridden at the modality level via the ScheduleGroups lookup table

To start, a new lookup table titled PrepInstructionType has been added. The PrepInstructionType lookup is located under the Procedure folder on the Administration>Configure menu and allows an administrator to define new prep instructions types (e.g. a script).



Prep Instruction Type Code	Description	Display Order	Last Updated	Active
Contains:	Contains:	Equals:	Contains:	Contains:
Click here to add a new row				
Extremely Important	Extremely Important	3	07-22-2015 1:54 PM	Y
HiPriority	High Priority Note	2	07-22-2015 11:51 AM	Y
Script	Script	1	07-22-2015 11:51 AM	Y

Figure 5.12 – PrepInstructionType lookup

After PrepInstructionTypes are defined, the RIS Administrator can use Administration -> Configuration -> PrepInstruction to define the notes to be displayed during scheduling/reception. Prep Instruction Types can be disabled with the Active column, which will prevent notes of that type from being displayed to the user.

The editor for PrepInstructions now shows an arrow that indicates that a prep instruction can be expanded. Once expanded the grid will show the alternative notes (if any) for that prep instruction and a line item that says “Click here to add a new row”. The RIS Administrator can then add as many types of alternative notes as desired.

Alternative notes attached to a prep note can be disabled individually using the Active column.

Prep Instruction Code	Description	Text	Display Order	Last Updated	Active
Contains:	Contains:	Contains:	Equals:	Contains:	Contains:
Click here to add a new row					
CT Abdomen	CT Abdomen with contr...	Please arrive 45 minutes prior to your appointment to receive oral contrast. Length of Exam: up to 90 minutes from time of arrival in Dept.	1	07-22-2015 2:45 PM	Y
Prep Instruction...	Prep Instruction Type Code	Text	Active		
CT Abdomen	Extremely Important	EXTREMELY IMPORTANT Please arrive 45 minutes prior to your appointment to receive oral contrast.	Y		
CT Abdomen	HiPriority (High Priority Note)	HIGH PRIORITY Please arrive 45 minutes prior to your appointment to receive oral contrast.	Y		
CT Abdomen	Script	SCRIPT Please arrive 45 minutes prior to your appointment to receive oral contrast.	Y		
Click here to add a new row					
CT Weight300	CT Weight 300	Weight limit 300 lbs. No solids 2 hrs prior	2	05-02-2011 1:53 PM	Y

Figure 5.13 – PrepInstruction table displaying how each can be expanded to show additional configuration

A new user preference “Prep Instructions Level” has been added under the General tab. The default option will be “Default”. The list of available values will be the active items from the PrepInstrucitonsType lookup.

Figure 5.14 – Prep Instruction Level user preference

If a user is configure with a custom prep instruction level (e.g. script) but no script exists for a given procedure, then the core prep instructions should be displayed instead.

MModal Version 7.93

We applied the new libraries provided from M*Modal in our application. This new version uses a new recognizer version (v6).

PLEASE TAKE NOTE

To utilize and gain the benefit from this newer recognizer (v6), **M*Modal must be notified so they can make backend changes to the user accounts.**

To get the latest v6 recognizer we will need to notify M*Modal of which users will be using the 7.93 deployment. Otherwise things will function as they did with the existing v5 recognizer.

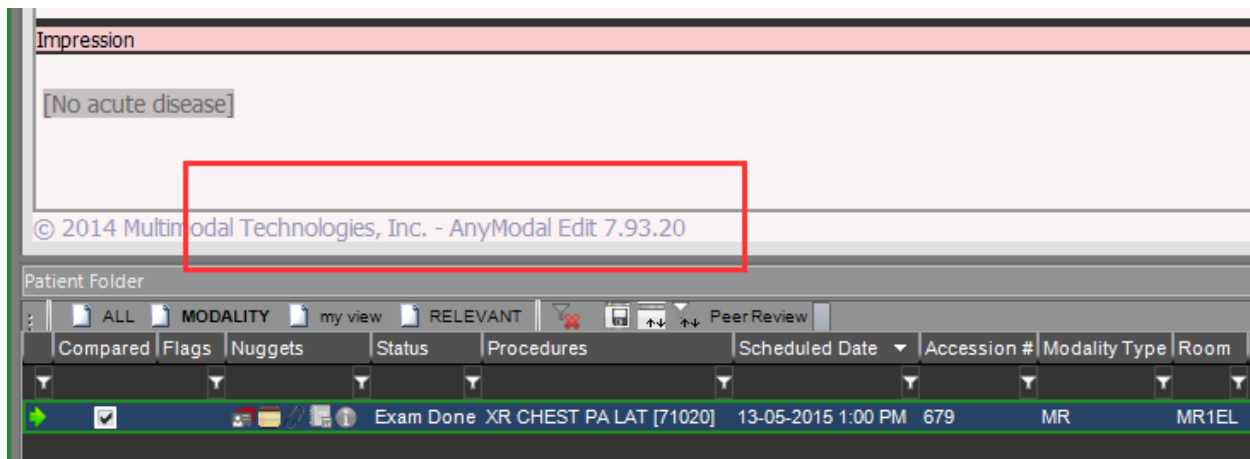
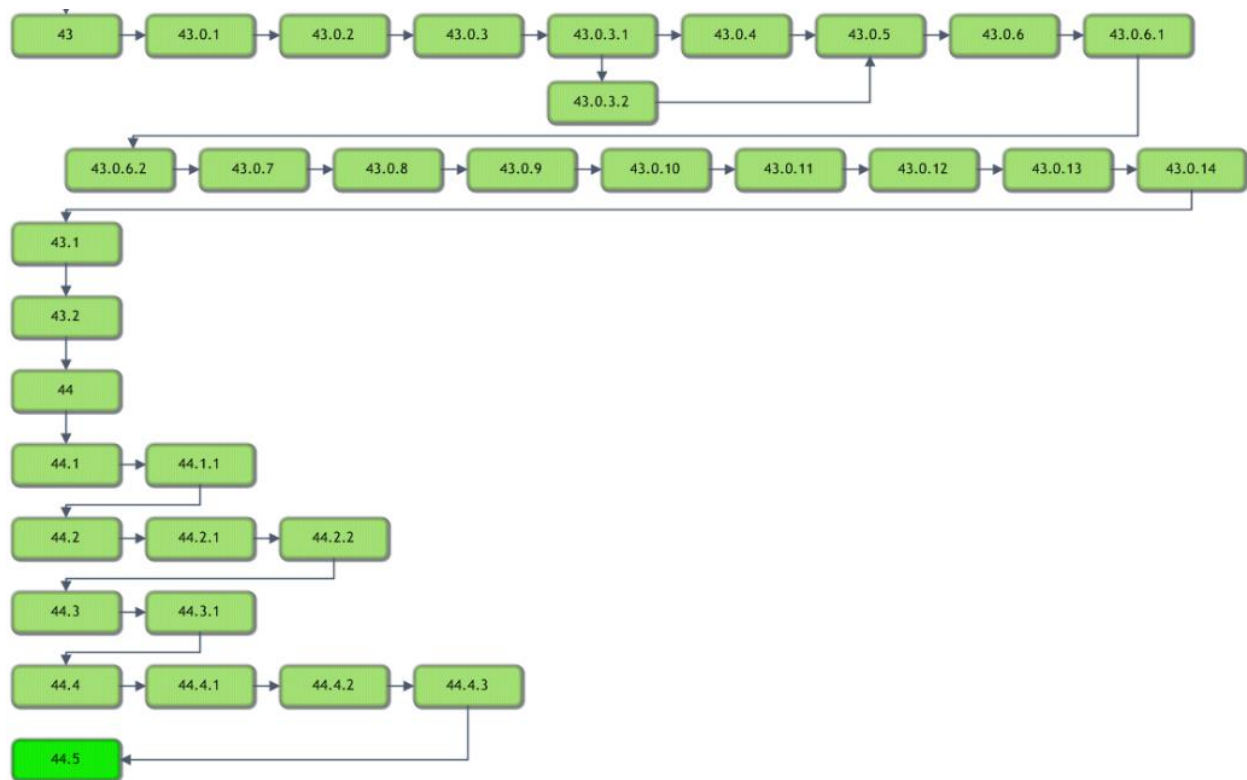


Figure 5.15 – Reporting window displaying version 7.93

6. Code Stream



Legend:

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

7. eRAD RIS Release Version Numbers

Build	Patch	UI Version	Core Version	WS Version	DB Version	Notes
43	-	2.43.0.0.23715(3GB)	2.43.0.0.23171	2.43.0.0.23715	2.43.0.0.23743	Full Version Release
43	1	2.43.0.1.23798(3GB)	2.43.0.0.23171	2.43.0.1.23798	2.43.0.1.23770	Gui.zip, Web Service, DB updates
43	2	2.43.0.2.24017(3GB)	2.43.0.0.23171	2.43.0.2.24017	2.43.0.2.24023	Gui.zip, Web Service, DB updates and Management Report Deployment
43	3	2.43.0.3.24298(3GB)	2.43.0.0.23171	2.43.0.3.24298	2.43.0.3.24283	Gui.zip, Web Service, DB updates and Management Report Deployment
43	3.1	2.43.0.3.24450(3GB)	2.43.0.0.23171	2.43.0.3.24298	2.43.0.3.24421	Gui.zip, and DB updates
43	3.2	2.43.0.3.24450(3GB)	2.43.0.0.23171	2.43.0.3.24298	2.43.0.3.24421a	DB updates
43	4	2.43.0.4.24447(3GB)	2.43.0.0.23171	2.43.0.4.24447	2.43.0.4.24442	Gui.zip, Web Service, DB updates and Management Report Deployment
43	5	2.43.0.4.24632(3GB)	2.43.0.0.23171	2.43.0.4.24632	2.43.0.4.24560	Gui.zip, Web Service and DB updates
43	6	2.43.0.4.24(3GB)	2.43.0.0.23171	2.43.0.4.24	2.43.0.4.24	Gui.zip, Web Service and DB updates
43	6.1	2.43.0.6.24937(3GB)	2.43.0.0.23171	2.43.0.6.24937	2.43.0.6.24914	Gui.zip, Web Service
43	6.2	2.43.0.6.24970(3GB)	2.43.0.0.23171	2.43.0.6.24970	2.43.0.6.24914	Gui.zip, Web Service
43	7	2.43.0.7.25258(3GB)	2.43.0.0.23171	2.43.0.7.25258	2.43.0.7.25226	Gui.zip, Web Service, DB updates and Management Report Deployment
43	8	2.43.0.8.25440(3GB)	2.43.0.0.23171	2.43.0.8.25440	2.43.0.8.25425	Gui.zip, Web Service, DB updates and Management Report Deployment
43	9	2.43.0.9.25477(3GB)	2.43.0.0.23171	2.43.0.9.25477	2.43.0.8.25425	Gui.zip and Web Service
43	10	2.43.0.9.25477(3GB)	2.43.0.0.23171	2.43.0.10.25477	2.43.0.8.25425	Web Service
43	11	2.43.0.11.25512(3GB)	2.43.0.0.23171	2.43.0.11.25512	2.43.0.8.25425	Gui.zip and Web Service
43	12	2.43.0.12.25554(3GB)	2.43.0.0.23171	2.43.0.12.25554	2.43.0.12.25536	Gui.zip Web Service and DB Updates
43	13	2.43.0.12.25610(3GB)	2.43.0.0.23171	2.43.0.12.25610	2.43.0.12.25536	Gui.zip and Web Service
43	14	2.43.0.14.25644(3GB)	2.43.0.0.23171	2.43.0.13.25610	2.43.0.12.25536	Gui.zip
43.1	-	2.43.1.0.25850(3GB)	2.43.0.0.23171	2.43.1.0.25850	2.43.1.0.25771	Gui.zip Web Service and DB Updates
43.2	-	2.43.2.0.26864(3GB)	2.43.0.0.23171	2.43.2.0.26864	2.43.1.0.25771	Gui.zip and Web Service
44	-	2.44.0.0.26570(3GB)	2.44.0.0.26405	2.44.0.0.26570	2.44.0.0.26475	Full Version Release
44.1	-	2.44.0.0.26984(3GB)	2.44.0.0.26405	2.44.0.0.26984	2.44.0.0.26906	Gui.zip, Web Service, and DB
44.1	1	2.44.1.1.27093(3GB)	2.44.0.0.26405	2.44.1.0.26984	2.44.1.0.26906	Gui.zip
44.2	-	2.44.2.0.27410(3GB)	2.44.0.0.26405	2.44.2.0.27410	2.44.2.0.27365	Gui.zip, Web Service, and DB
44.2	1	2.44.2.1.27959(3GB)	2.44.0.0.26405	2.44.2.1.27959	2.44.2.1.27909	Gui.zip, Web Service, and DB
44.2	2	2.44.2.1.27959(3GB)	2.44.0.0.26405	2.44.2.2.28094	2.44.2.1.27909	Web Service
44.3	-	2.44.3.0.28292	2.44.0.0.26405	2.44.3.0.28277	2.44.3.0.28138	Gui.zip, Web Service, and DB
44.3	1	2.44.3.1.28535(3GB)	2.44.0.0.26405	2.44.3.1.28535	2.44.3.0.28138	Gui.zip and Web Service
44.4	-	2.44.4.0.28762(3GB)	2.44.0.0.26405	2.44.4.0.28762	2.44.4.0.28676	Gui.zip, Web Server, DB, Management Report Deployment
44.4	1	2.44.4.1.28953(3GB)	2.44.0.0.26405	2.44.4.1.28953	2.44.4.0.28676	Gui.zip and Web Service
44.4	2	2.44.4.2.29327(3GB)	2.44.0.0.26405	2.44.4.2.29327	2.44.4.0.28676	Gui.zip and Web Service
44.4	3	2.44.4.2.29722(3GB)	2.44.0.0.26405	2.44.4.2.29327	2.44.4.0.28676	Gui.zip and Web Service
44.5	-	2.44.5.0.30022(3GB)	2.44.0.0.26405	2.44.5.0.30022	2.44.5.0.29976	Gui.zip, Web Server, DB

8. Resolved Defects

Bugs Suggested Features and Support Issues resolved in build 2.44.5. The extract is taken from Redmine bug tracking system and only displays defects resolved in 2.44.5.

Bug #	Priority	Subject	Category	Found Version
10728	High	Length of parameter to l_person.FillByPersonKeys was reduced from 10240 to 1024	Interfaces	2.44.4.1
10890	High	update a person record to be a surgeon does not get expected behaviour	Person Management	2.44.1
10883	High	error when opening print forms dialog on an order	Forms	2.44.2
10799	Normal	Marketing Report \ Monthly Variance Raw Data	Mgt Reports	2.44
10678	Urgent	RIS hangs if minimized with Image Request WL open	Image request	2.43.1
10663	Normal	Patient Key / Insurance error when scheduling a new patient with insurance and multiple orders	Insurance Managment	44.1
10598	Normal	Wedge selects first address for referring physician if none is specified, ignoring active flag	Interfaces	2.44.0
10584	High	patient portal icode should be created by RIS during check in AND arrived events	Connect Portal 4.x	2.44.1
10550	Normal	CD Import issue with DICOM file containing null patient name and null accession number	CD Import\Export	44.1
10400	Urgent	Error created when inactive study items exist	Scheduling	43.1
10347	Urgent	Confirmation WL does not show weekly closed rooms	Confirmation	44.3
9670	Normal	Insurance Eligibility - We should not deny service on the last day of their plan	Insurance Eligibility	44.2
7270	Normal	Note column in personnel causing errors	Admin-Clinical Data	2.43

9. Known Limitations

The following are Bugs Suggested Features and Support Issues found in build 2.44.5. Bugs reported in previous versions are not captured as Known Limitation in this document.

#	Status	Priority	Subject
11197	New	Normal	Missing access string for new lookup table PrepInstructionType
11187	New	Normal	Patients that have the same Patient Flag set cannot be merged
11182	New	Low	Removing Patient Flag and it's corresponding notes only removes the notes
11157	New	Normal	Import CD - Study row shouldn't be created if the Study UID already exists in PACS
11151	New	Low	Clearing Patient Flag notes adds empty string which causes alerts to display extra line with hyphen
11143	New	Normal	EMR order X show share insurance details when visit key is the same
11130	New	Normal	Referring Physician alerts get reshown on Checking In
11093	New	Normal	CC Physician - visit location is not populating the first time you select a physican.
11091	QE Rejected	Low	Patient Flags special access strings should apply to flag and note